*Final Report*

# SOUTH BAY CITIES RAILROAD STUDY

## BNSF Harbor Subdivision

**Southern California Association of Governments**
**in association with**
**South Bay Cities Council of Governments**

SOUTHERN CALIFORNIA ASSOCIATION of GOVERNMENTS


**Prepared by**
**Wilbur Smith Associates**
**in association with**
**Schiermeyer Consulting Services**
**Cheryl Downey**

**February 28, 2002**

ENGINEERS PLANNERS ECONOMISTS
Wilbur Smith Associates

# South Bay Cities Railroad Study
## BNSF Harbor Subdivision

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Prepared for:

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## PROJECT OVERVIEW

The opening of the Alameda Corridor in April 2002 will change the operations on the Harbor Subdivision in a significant way. At present, the 27.6-mile route provides access for the Burlington Northern Santa Fe Railway (BNSF) to the Ports of Los Angeles and Long Beach from its downtown Los Angeles railhead. The subdivision line, which winds west toward El Segundo and then south toward Wilmington, hosts 20 one-way trains per day at present. When the Alameda Corridor opens, traffic on the subdivision will drop by two thirds or more through the South Bay cities. Only local traffic, originating and terminating on the line, will remain.

At the same time, this year's decline in rail traffic on the subdivision provides an opportunity: South Bay city and regional transportation planners can begin an analysis of the grade crossing improvements that will be needed and the potential alternative uses of the right of way.

Accordingly, the purpose of this study has been to identify:

- The rail volume that will remain on the Harbor Subdivision and how it will be handled;
- The impact of this rail volume on future traffic levels at grade crossings in the study area stretching 18.5 miles from Inglewood to Wilmington;
- The need for future grade crossing improvements, given the decline in rail volume;
- Potential safety improvements at key grade crossings, and their cost; and
- Alternative uses for the Harbor Subdivision.

## HOW THE STUDY WAS DONE

To accomplish these objectives, the study team performed three essential tasks. First, the team determined existing rail traffic and vehicular delay conditions in the study area. Second, the team calculated future delay conditions in order to understand how tomorrow will be different from today. Finally, the team assessed grade crossing improvement needs and alternative uses of the right of way, given the future freight rail volume remaining on the line.

This study required continuing contact with stakeholders. South Bay cities provided the study team with their key issues of concern and their plans for grade crossing improvements, and offered comment on working papers. BNSF provided its operating plans for the line following the opening of the Alameda Corridor. The right of way owner, the Los Angeles County Metropolitan Transportation Authority, provided its opinion on potential uses and how these relate to current planning efforts involving the Harbor Subdivision.

The study team utilized this input in developing its analysis, findings, and recommendations. Key findings include the following:

- The entire length of Harbor Subdivision will remain an active freight rail corridor, though volume will be reduced.
- While only local traffic will remain on the line, this traffic will grow, albeit at a relatively low rate.
- Vehicular delays at study area crossings will decline dramatically with the diversion of port-related traffic to the Alameda Corridor.
- There are only two grade separation projects planned in the study area. These will proceed regardless of the decline in rail traffic.
- At-grade crossings in the study area have the highest levels of protection, and have relatively low accident rates as a result.
- Additional safety improvements can be implemented without great cost.
- There are a number of potential alternative uses – including such diverse concepts as high speed rail, light rail, commuter rail, and pedestrian and bicycle paths.

## RECOMMENDATIONS

The findings dictated the following recommendations:

- As the entire rail line will remain active, all existing grade crossing protections will have to be maintained. Some segments of the line will see only occasional trains. Even so, none of the protections should be withdrawn.
- While the crossings have the highest level of protection available, additional traffic safety improvement (e.g., improved signage and stripping) can be implemented with minor costs.
- Alternative uses should be explored in terms of their feasibility. However, these uses must provide for the local freight rail service that will continue on the subdivision.

## NEXT STEPS

The next step for this project is distribution of the Final Report to stakeholders – adjacent cities, the Southern California Association of Governments, the Los Angeles County Metropolitan Transportation Authority, and the Burlington Northern Santa Fe Railway, among others – who will have an interest in the alternative uses of the Harbor Subdivision. It is hoped that this document might provide the impetus for a discussion of possible alternatives. Ultimately, it will be up to the South Bay cities themselves to decide on alternative uses that work for them, all the while incorporating the freight operations that will continue.

# Chapter 1
# INTRODUCTION

## 1.1 PURPOSE OF THE STUDY

The South Bay Cities Railroad Study is intended to assess the changes that will occur along the Burlington Northern Santa Fe Railway (BNSF) Harbor Subdivision line following the opening of the Alameda Corridor in 2002. The Harbor Subdivision extends from central Los Angeles to just east of Watson Yard in Wilmington, and currently is the BNSF route to the ports of Los Angeles and Long Beach. All BNSF port-related rail traffic will shift to the Alameda railroad corridor, as well as the through traffic of Union Pacific Railroad (UP) lines further to the east. The Alameda Corridor itself is a 20-mile grade separated route centered along Alameda Street, extending from downtown Los Angeles BNSF and UP rail heads to the Ports of Los Angeles and Long Beach.

As the majority of traffic on the Harbor Subdivision is port related, rail traffic over the line will be significantly reduced when the Alameda Corridor opens. The shift of port-related traffic will affect the need for improvement or separation of grade crossings, and will have implications both for land uses along the right of way, and for alternative uses of the right of way.

For the purposes of this study, representatives of various jurisdictions along the right of way served as the study's Technical Advisory Committee (TAC). These representatives are all participants in the Infrastructure Working Group of the South Bay Cities Council of Governments (SBCCOG). The TAC decided to include in the study area the segment of the Harbor Subdivision line between milepost 8 and milepost 26.5 on the outskirts of Watson Yard[1]. This segment includes the cities of Los Angeles, Inglewood, El Segundo, Hawthorne, Redondo Beach, Lawndale, Torrance, and Carson. The study area having been defined, the study's consultant team focused on understanding the current rail operations in the area, and how these will change once the Alameda corridor is opened in the spring of 2002. With this understanding, the team began its analysis of grade crossing improvements and safety enhancements that would be appropriate given the reduction of train volume on the line. The team also considered alternative uses for the portions of the right of way in the study area.

This chapter first discusses the process followed during the course of this project. Second, the agencies contacted for input and comment are noted. Third, the legal framework for future freight operations on the line is presented, along with funding sources for railroad-highway grade crossing improvements. Subsequent chapters detail existing conditions (Chapter 2), future conditions and alternative uses of the right of way (Chapter 3), and finally findings and recommendations (Chapter 4).

[1] Milepost 26.5 is just outside the Watson Yard. The milepost number for the yard itself is 26.6. The Harbor Subdivision extends to milepost 27.6 at West Thenard and a crossing of the Union Pacific Railroad, and to milepost 28 at Anaheim Street and a connection with the Pacific Harbor Line, the terminal and switching carrier serving the San Pedro Bay ports. However, the line beyond the 26.5 is not in the study area.

## 1.2 STUDY PROCESS

The process involved in completing this draft study involved three meetings with the TAC, field visits to grade crossings along the length of the Harbor Subdivision, follow-up with study stakeholders, and a hi-rail trip on the line through the study area.

***TAC Meetings:*** Three meetings were held with representatives from the SBCCOG Infrastructure Working Group and the consultant team. The Infrastructure Working Group representatives were from cities along or nearby the Harbor Subdivision, as well as from the County of Los Angeles and Los Angeles World Airports. The meetings were held June 27 and September 26, 2001, in El Segundo. At the first meeting, the participants defined the 16-mile study area as between Crenshaw Boulevard in Inglewood and Watson Yard in Wilmington, as this is the area of primary concern to the South Bay Cities. At the request of the consultants, the participants also cited specific concerns and agreed to provide the basic information on land use, traffic volumes at crossings, and planned grade crossing improvements.

At the second meeting, the consultant team presented findings on current and future conditions along the Harbor Subdivision, inclusive of railroad operations, vehicular traffic operations, at-grade crossing safety and land use. Also, participants discussed alternative uses of the right of way, and made numerous suggestions on items to include in the study report. The consultant team distributed working papers on existing and future conditions to the Infrastructure Working Group participants prior to the meeting, and group participants offered comments on these work products.

The third meeting, held December 20, was to refine the project's draft report. Names of the TAC members and other stakeholders who attended the meetings appear in Appendix A.

***Field Visits:*** In June and again in September, the consultant team visited all public and private intersections in the study area in order to understand first hand any traffic delay and safety issues pertaining to these crossings. The team also inspected the right of way outside of the study area, from Crenshaw Boulevard to Malabar Yard (at milepost 1.5), in order to understand its suitability for alternative uses in connection with the right of way inside the study area.

***BNSF Hi-Rail Trip Vehicle***

***Follow-up with Study Stakeholders:*** Apart from the TAC meetings, the study team contacted some study stakeholders for previously requested information, or for comment on alternative uses. To obtain additional information, the team telephoned and/or e-mailed representatives of the Cities of Lawndale, Inglewood, Torrance, and El Segundo, and the Los Angeles County Department of

Public Works. The team also contacted the Lawndale, Redondo Beach, and Torrance representatives for comment on the potential pedestrian/bicycle paths along the right of way.

***Hi-rail Trip:*** In June, BNSF hosted the consultant team on a trip in a utility van equipped with retractable steel guiding wheels on the Harbor Subdivision through the study area. While BNSF was under no obligation to provide this trip, the trip was invaluable in facilitating an understanding of the rail operations on the line, safety issues at various crossings, and even potential alternative uses of the right of way.

## 1.3 AGENCIES CONSULTED

Throughout the course of this study, the consultant team contacted numerous agencies for input relevant to the current and future operation of the Harbor Subdivision. These agencies included:

- Members of the South Bay Cities Council of Governments through which the Harbor Subdivision runs. These included representatives of the cities of Los Angeles, Inglewood, El Segundo, Hawthorne, Redondo Beach, Lawndale, Torrance, and Carson, Los Angeles World Airports, and the County of Los Angeles. The members provided detail on traffic counts, land use, and planned grade crossing improvements, and comment on intermediate work products.
- The Los Angeles County Metropolitan Transportation Authority (LACMTA), which owns the Harbor Subdivision. LACMTA provided insights on potential alternative uses of the right of way, as well as the text of the 1992 LACTC/ATSF Harbor Subdivision purchase/sale agreement.
- The Rail Crossing Engineering Division of the California Public Utilities Commission (CPUC), which provided train/vehicle accident data for Harbor Subdivision crossings and information regarding the procedures required for modifying railroad crossing protection devices and railroad abandonment. In California, the CPUC retains oversight for safety at public and private highway-railroad grade crossings.
- The Federal Railroad Administration (FRA), which was the source for highway-rail grade crossing descriptions as well as reports on train accidents on the subdivision. The FRA retains oversight for safety of railroad operations outside of grade crossings.
- The Alameda Corridor Transportation Authority (ACTA), which provided the text of the Alameda Corridor Use and Operating Agreement.
- North San Diego County Transportation District, which provided an update on its Oceanside-Escondido Diesel Multiple Unit (DMU) project, which served as the basis for an alternative use concept for the Harbor Subdivision.

As previously noted, BNSF provided the consultant team with a hi-rail trip of the line through the 18.5-mile study area. BNSF also provided extensive information on current and projected train operations and maintenance practices. The study team provided the railroad the study's work products for its review and comment.

## 1.4 LEGAL FRAMEWORK

### 1.4.1 Shared Use Agreement for the Harbor Subdivision

Until 1992, the Atchison, Topeka and Santa Fe Railway (ATSF) owned the Harbor Subdivision. The subdivision linked with the ATSF main line at Redondo Junction (subdivision milepost 0.0), which provides access to the national freight rail system. Just as now, the subdivision was ATSF's route to the Ports of Los Angeles and Long Beach, and served large petrochemical shippers in the South Bay area.

In 1992, the ATSF sold the Harbor Subdivision to the Los Angeles County Transportation Commission (LACTC). According to the terms of the "Shared Use Agreement"[2], the ATSF retained a freight rail service easement to serve shippers on the line and access the San Pedro Bay area ports. The purchase was intended to permit the implementation of passenger and/or commuter rail services on the line. However these services never materialized.

The responsibility for maintaining the line was to remain with ATSF until such time as port-related traffic could be shifted to a "consolidated port route," which has become known as the Alameda Corridor. After the shift, the responsibility was to fall to the LACTC. (As a practical matter, the railroad maintains the portion of the right of way required exclusively for freight rail operations. Should there be segments used for both freight and transit operations, the agency would maintain them.)

The ATSF agreed to shift all its port-related or "overhead" traffic to the corridor. If the shift did not occur, LACTC could demand that ATSF buy back the line, and ATSF would be obligated to comply. The relevant excerpt from the agreement, the "Put Option", appears in Appendix B.

In 1995, the ATSF was purchased by the Burlington Northern Railroad, and the combined company became known as the Burlington Northern Santa Fe Railway. Also, in 1993, the LACTC merged with the Southern California Regional Transit District (SCRTD) to become the present day Los Angeles County Metropolitan Transportation Authority (LACMTA). BNSF and LACMTA are now the responsible parties to the 1992 agreement signed by their predecessor entities. No passenger service has yet been initiated, though introduction of such service was implied in the agreement. Therefore, as a practical matter, BNSF will continue to maintain the Harbor Subdivision after the opening of the Alameda Corridor, as it will be the sole user of the line.

### 1.4.2 Alameda Corridor Use and Operating Agreement

Per the terms of this 1998 agreement[3], BNSF and the Union Pacific Railroad (UP) were given the right to use the Alameda Corridor for all through train movements between the San Pedro Bay ports and downtown Los Angeles. Should blockage of the corridor occur, rail traffic would

[2] Shared Use Agreement (Harbor Subdivision and Mission Tower Segment), dated October 30, 1992, between ATSF and the LACTC. This document was obtained by the LACTC's successor, the Los Angeles County Metropolitan Transportation Authority. An excerpt of the agreement pertaining to the "buy back" provision is included for reference in Appendix B.

[3] Alameda Corridor Use and Operating Agreement, dated October 12, 1998, by and among The City of Long Beach, the City of Los Angeles, the Alameda Corridor Transportation Authority, BNSF and UP. An excerpt of the agreement pertaining to the use of the Harbor Subdivision through mid 2003 is included for reference in Appendix B.

detour to other routes that could include the UP San Pedro Branch, the traditional UP port route to the east, and even the Harbor Subdivision. However, the agreement specified that the Harbor Subdivision will be available as a detour route only through June 29, 2003. That is to say, it will not be a long-term detour route. Relevant excerpts from this agreement appear in Appendix B.

Per the 1992 ATSF/LACTC agreement, BNSF has a perpetual easement for serving shippers located along the Harbor Subdivision. At the same time, BNSF is not prevented from using the Harbor Subdivision for regular port-related shipments by either the 1992 agreement or the 1998 ACTA agreement after June 2003. If it were to do so, however, there would be substantial costs. Firstly, the LACMTA could demand that the railroad buy the line back. Secondly, BNSF would still be required to pay ACTA a charge of $15 per loaded TEU[4] and $4 per empty TEU for port-related shipments on or off the Alameda Corridor. BNSF, accordingly, has every incentive to use the Alameda Corridor in order to avoid these costs.

As far as diversion routes, there are two. These are the UP's Wilmington and San Pedro Branches. Should the corridor be closed down, these two routes could handle the flows. BNSF does have trackage right over the UP lines in case of an Alameda Corridor blockage. Only in the case of a major emergency, therefore, is it imaginable the BNSF would make regular use of the Harbor Subdivision for anything other than local traffic originating and terminating on the line.

### 1.4.3 Funding Sources

Sources of funds that may be available to local jurisdictions such as cities and counties, for railroad-highway grade improvements include federal and state agencies, and the railroad industry. The following is a brief description of these potential funding sources.

#### Federal Sources

Section 130 of Title 23 of the United States Code (23 U.S.C. 130), commonly referred to as the Section 130 program, provides federal funds to improve existing highway-rail grade crossings. The purpose of the Section 130 program is to reduce the number, severity and potential for hazards to vehicles, bicycles and pedestrians at crossings. Fifty percent of the Section 130 funds are apportioned to the states according to the ratio of the number of public crossings in each state to the total number of public crossings in the nation. The remainder is apportioned on the basis of population, area, and road mileage of each State compared to the total in the nation.

In California, the Section 130 Program is a cooperative effort between the Federal Highway Administration (FHWA), the California Department of Transportation (Caltrans), the California Public Utilities Commission (CPUC), railroad companies and local agencies. Caltrans in cooperation with the CPUC was delegated the authority by FHWA to manage this program.

Federal Section 130 funds may be used for, but are not limited to, the following type of crossing improvement projects.

[4] TEU means "20-foot equivalent unit". TEU is a standard way of measuring sea-containers. A conventional 40-foot long sea-container is equal to two TEUs. The fee for such a container moving through the Alameda Corridor would be $30.

- Crossing elimination by new grade separations, relocation of highways, relocation of railroads, and crossing closure[5] without other construction.
- Reconstruction of existing grade separation.
- Crossing improvement by:
  - installation of standard signs and pavement markings;
  - installation or replacement of active warning devices, including track circuit improvements and interconnection with highway intersection traffic signals;
  - crossing illumination;
  - crossing surface improvements; and
  - general site improvements

The CPUC recommends the types of improvements that are needed to eliminate vehicular and pedestrian hazards. Moreover, in order to qualify for Section 130 Program funds, the railroad/highway at-grade crossings must be included on the list of public crossings recommended for improvement by the CPUC.

For projects completed with Section 130 funds, the federal share of the improvement costs are 90 percent. States, local governments and other involved parties may participate in the remaining 10 percent share of the costs. In the case of local crossings (as opposed to State highway crossings), the commitment to pay the 10 percent is established through the execution of a Program Supplement Agreement to the Master Agreement between the state and the local agency with jurisdiction for the highway/railroad grade crossing.

State law cannot require railroads to share in the cost of work at railroad-highway grade crossings improvement projects that use federal aid. On the other hand, railroads are, under certain conditions, required to contribute to federally funded closures of grade crossings. As specified by Title 23 U.S.C. 130(b) and 49 Code of Federal Regulations (CFR) 1.48:

- The railroad share of projects that involve the closing of grade crossings at which active warning devices are in place or have been ordered installed by the CPUC shall be five percent (5%). A railroad may be willing to contribute a greater share if certain concessions are made, e.g., closure of one or more crossings. Also, other parties may voluntarily assume the railroad's share. The shared costs are to include costs for preliminary engineering, right of way, and construction as described below.
  - Where a crossing is eliminated by grade separation, the structure and approaches required to transition to a theoretical highway profile that would have been constructed if there were no railroad present, for the number of lanes on the existing highway and in accordance with Caltrans' current design standards.
  - Where another facility, such as a highway or waterway requiring a bridge structure, is located within the limits of a grade separation project, the estimated cost of a theoretical structure and approaches as described above to eliminate the railroad-

[5] See discussion about the difference between closure and abandonment in the following section of this chapter (Section 1.4.4)

highway grade crossing without considering the presence of the waterway or other highway.

- Where a grade crossing is eliminated by railroad or highway relocation, the actual cost of the relocation project, or the estimated cost of a structure and approaches under specified conditions.

- There shall be no required railroad share of the costs for grade crossing improvements that involve the elimination of grade crossings at which active warning devices are not in place nor have been ordered installed by the CPUC.

At least one-half of the Section 130 Program funds must be used for the installation of protective devices at railway-highway crossings, which the FHWA has defined to include crossbucks, warning signs, pavement markings, flashing light signals, automatic gates, crossing surfaces and illumination. The remaining funds may be used for any type of eligible improvement.

Section 130 funding is not available for removal of abandoned railroad tracks on previously abandoned railroads. On the other hand, if a railroad crossing is on the CPUC recommended list of projects and the railroad chooses to abandon the crossing rather than improve it, the cost for track removal and other abandonment costs at the crossing will be eligible under this program.

Another federal program that provides funds for railroad-highway grade crossings is the Highway Bridge Replacement and Rehabilitation Program. All highway bridges on public roads, regardless of existing ownership or maintenance responsibility, could be eligible under this program. The federal share in this program is 80 percent. To be eligible for these funds, the highway bridge over the railroad must be included in the state's bridge inventory and be placed onto the state's prioritized implementation schedule.

In addition to the specific programs mentioned above, other regular federal-aid highway funds might be used for improvements at crossings. The federal share is the normal pro-rata share for the federal-aid highway funds involved, e.g., 75 percent for primary funds. However, under the provisions of the law, certain categories of funds may be increased up to 100 percent of the cost of preliminary engineering and construction. In this case, right-of-way costs remain at 75 percent.

Other requirements pertaining to the use of federal funds are as follows:

- Federal funds are not eligible when costs are incurred solely for the benefit of the railroad.

- For grade separations, federal funds may be used in the cost to provide space for more tracks than are in place when the railroad establishes, to the satisfaction of the CPUC, Caltrans and FHWA, that it has a definite demand and plans for installation of the additional tracks within a reasonable amount of time. Specifically, the railroad companies must file an application with the CPUC for authority to add any such tracks at a crossing and the level of funding participation, based on an approved application, will require CPUC, Caltrans and FHWA concurrence.

- The federal share of the cost of a grade separation project shall be based on the cost to provide horizontal and/or vertical clearances used by the railroad in its normal practice, subject to limitations as agreed to periodically by FHWA, Caltrans and the CPUC.

There are a number of federally funded railroad relocation and demonstration projects. These projects are site specific and are dependent upon annual authorization and appropriation by Congress.

#### State Funding

The State of California has established a State Grade Crossing Improvement Program for funding of railroad-highway grade crossing improvements. Funding is available through the Clean Air and Transportation Improvement Act of 1990 and is obtained through local agency applications with the California Transportation Commission (CTC). Through this program, the state participates in the funding of railroad-highway grade crossing improvement projects with matching shares for projects financed under the Federal-aid highway program. In addition, Caltrans sometimes finances the entire crossing project, if the crossing is on a State highway.

Caltrans provides for the maintenance of the highway approach and for traffic control devices not located on the railroad right-of-way at State highway crossings. Typically, these include advance warning signs and pavement markings. The state contributes with 100 percent for the maintenance of new street crossings requested by public agencies, and with 50 percent for the maintenance of existing crossings upgraded with either federal or state funds.

#### Railroad Funding

Except in certain instances, railroads cannot be required to contribute to the costs of most improvement projects that are financed with federal funds. However, railroads often volunteer to participate if they receive some benefit from the project. For example, if a project includes closure of one or more crossings, the railroad may benefit from reduced maintenance costs. Railroads also may assist in low-cost improvements such as changes in railroad operations, track improvements, right of way clearance, and others. It should be noted, however, that the maintenance costs incurred by railroads are increased significantly with the installation of additional traffic control devices.

### 1.4.4 Abandoned Crossings

Abandonment of a highway-railroad grade crossing occurs when railroad traffic is removed from conflict with at-grade vehicular traffic through the cessation of all railroad operation, or removal of tracks from the crossing. As opposed to abandonment, closure of a highway-railroad crossing occurs when vehicular traffic is removed from conflict with the railroad through the construction of physical barriers that prevent such conflicts or the removal of the roadway. Because of safety and operational problems that may occur at abandoned crossings, the desirable action is to remove all traffic control devices related to the crossing, and to remove or pave over the tracks as soon as a rail line has been identified as officially abandoned.

The difficulty is in establishing that a railroad line has been abandoned. For instance, a railroad may discontinue service over a line or a track, with the possibility that another railroad may later purchase or lease the line to resume operations. Such lines are called inactive lines. Another

type of inactive rail line is one whose service is seasonal (during a particular time of the year) or sporadic (only a few times a year) tied to the specific requirements of the customers served by the railroad. A third type of inactive rail line is that where infrequent rail service may occur for maintenance or other rail related purposes. If lines are inactive (but not abandoned) highway-rail crossing protection devices should not be removed. Appendix C describes the necessary procedures for abandonment of a rail line.

From the comments received from BNSF regarding the railroad's operating plans for the line, it is clear that the Harbor Subdivision is not a candidate for abandonment. At the same time, it is likely that portions of the line will, for all practical purposes, become inactive, with the transfer of port-related traffic to the Alameda Corridor.

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# Chapter 2
# EXISTING CONDITIONS

## 2.1 RAILROAD CORRIDOR DESCRIPTION

The Harbor Subdivision extends approximately 27.6 miles from Redondo Junction in Central Los Angeles to a terminal railroad serving the San Pedro Bay ports. From north to south, the Harbor Subdivision line departs from the BNSF main line at Redondo Junction near downtown Los Angeles. It runs first west and then south 14.8 miles to El Segundo. It continues south, through residential, commercial and industrial areas for 11.7 miles before reaching Watson Yard in Wilmington. Access to the San Pedro Bay ports is another 1.1 miles to the east at a connection with the Pacific Harbor Line, the terminal railroad serving the Ports of Los Angeles and Long Beach, at West Thenard. The line is unsignalized. Trains progress along the track under authority granted by the BNSF dispatcher over radio. The subdivision from Redondo Junction to Watson Yard is shown as Figure 2.1.

### 2.1.1. Train Speeds

The Harbor Subdivision is mostly a single-track alignment with one siding about 5,000 feet long approximately midway on the line at milepost 13.6 and two sidings (3,400 and 4,200 feet long), one either side of the right of way at milepost 23.3. Yard trackage in Alcoa Yard at milepost 20.1 serves as siding track. Train speeds are limited throughout the length of the line as shown in Table 2-1.

**Table 2-1**
**Maximum Train Speed along the Harbor Subdivision Line**

| Location | Maximum Speed |
|---|---|
| Milepost 0.0 to 1.6 | 12 mph |
| Milepost 1.6 to 2.5 | 15 mph |
| Milepost 2.5 | 10 mph |
| Milepost 2.5 to14.5 | 20 mph |
| Milepost 14.5 | 10 mph |
| Milepost 14.5-26.5 | 20 mph |
| Milepost 26.5-27.6 | 20 mph |

*Source: BNSF Operating Timetable 2/25/01*

There are 174 railroad crossings in the *full 26.5-mile Harbor Subdivision line*, of which 26 are either overpasses or under passes. Of the 148 at-grade railroad crossings, five are private; that is, crossings that are not open to general public use. There is an average of approximately 5.5 at-grade railroad crossings per mile.

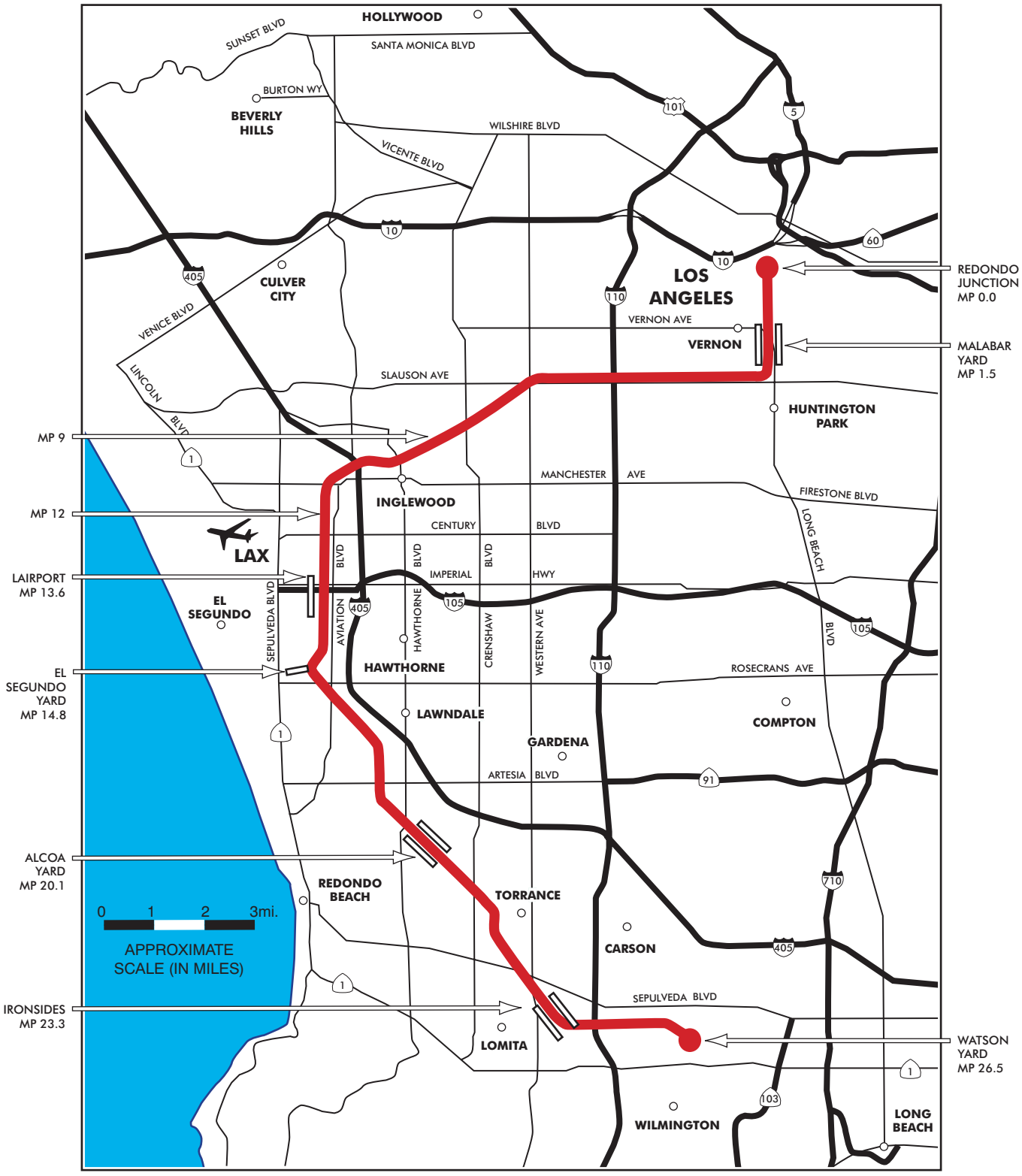


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Figure 2-1
**HARBOR SUBDIVISION**
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## 2.1.2 At-grade Crossings

The railroad corridor *study area* of the Harbor Subdivision line encompasses 18.5 miles, from milepost 8.00 east of Crenshaw Boulevard in Los Angeles to milepost 26.50 at the outskirts of Watson Yard. The study area contains 50 at-grade railroad crossings (about three crossings per mile on average), two of which are pedestrian-only crossings. Three of the 48 at-grade highway-railroad crossings are private vehicular crossings. The locations of the at-grade crossings are shown in Figure 2-2, while their description is summarized in Table 2-2. Appendix D contains a summary description of each of the crossings in the Harbor Subdivision line taken from the FRA and CPUC databases. Pedestrian-only and private at-grade crossing types are noted in Table 2-2. All others are motor vehicle public highway-rail crossings.

**Table 2-2**
**At-grade Railroad Crossings Characteristics in the Study Area**

| No. | Milepost | Cross-street Name | City | Crossing Type |
|---|---|---|---|---|
| 1 | 8.03 | CRENSHAW BLVD | LOS ANGELES | |
| 2 | 8.14 | VICTORIA AVE | LOS ANGELES | |
| 3 | 8.23 | BRYNHURST AVE | LOS ANGELES | |
| 4 | 8.32 | WEST BLVD | LOS ANGELES | |
| 5 | 8.60 | REDONDO BLVD | INGLEWOOD | |
| 6 | 9.13 | CENTINELA AVE | INGLEWOOD | |
| 7 | 9.59 | LA BREA AVE | INGLEWOOD | |
| 8 | 9.82 | IVY AVE | INGLEWOOD | |
| 9 | 9.94 | EUCALYPTUS AVE | INGLEWOOD | |
| 10 | 10.21 | NORTH CEDAR AVE | INGLEWOOD | |
| 11 | 10.36 | OAK ST | INGLEWOOD | |
| 12 | 10.52 | HYDE PARK BLVD | INGLEWOOD | |
| 13 | 10.63 | LA CIENEGA BLVD (I-405 EXIT) | INGLEWOOD | |
| 14 | 10.82 | HINDRY AVE | INGLEWOOD | |
| 15 | 11.11 | MANCHESTER BLVD | INGLEWOOD | |
| 16 | 11.63 | ARBOR VITAE ST | INGLEWOOD | |
| 17 | 12.36 | 104TH ST | LOS ANGELES | |
| 18 | 12.92 | 111TH ST | LOS ANGELES | |
| 19 | 13.13 | IMPERIAL HWY | LOS ANGELES | |
| 20 | 13.37 | 118 TH ST | EL SEGUNDO | |
| 21 | 13.62 | 120TH ST | EL SEGUNDO | |
| 22 | 13.89 | 124TH ST | EL SEGUNDO | Private Crossing |
| 23 | 14.69 | DOUGLAS ST | EL SEGUNDO | |
| 24 | 14.79 | CHAPMAN WY | EL SEGUNDO | Private Crossing |
| 25 | 15.08 | DOUGLAS/ROSECRANS STATION | EL SEGUNDO | Pedestrian-only Crossing |
| 26 | 16.10 | MARINE AVE | HAWTHORNE/REDONDO BEACH | |
| 27 | 16.74 | INGLEWOOD AVE | REDONDO BEACH/LAWNDALE | |
| 28 | 16.87 | MANHATTAN BEACH BLVD | LAWNDALE | |
| 29 | 16.94 | 159TH ST | LAWNDALE | |
| 30 | 17.01 | 160TH ST | LAWNDALE | |
| 31 | 17.08 | 161ST ST | LAWNDALE | |
| 32 | 17.14 | 162ND ST | LAWNDALE | |
| 33 | 17.62 | 170TH ST | LAWNDALE | |
| 34 | 18.38 | 182ND ST | TORRANCE/REDONDO BEACH | |
| 35 | 21.24 | TORRANCE BLVD | TORRANCE | |
| 36 | 21.36 | EL DORADO ST | TORRANCE | Pedestrian-only Crossing |

**Table 2-2**
**At-grade Railroad Crossings Characteristics in the Study Area**

| No. | Milepost | Cross-street Name | City | Crossing Type |
|---|---|---|---|---|
| 37 | 21.48 | SONOMA ST | TORRANCE | |
| 38 | 21.60 | CARSON ST | TORRANCE | |
| 39 | 22.10 | WASHINGTON AVE | TORRANCE | |
| 40 | 22.24 | ARLINGTON AVE | TORRANCE | |
| 41 | 22.49 | CABRILLO AVE | TORRANCE | |
| 42 | 22.57 | BORDER AVE | TORRANCE | |
| 43 | 22.78 | SEPULVEDA BLVD | TORRANCE | |
| 44 | 23.03 | WESTERN AVE | TORRANCE/CITY OF LOS ANGELES | |
| 45 | 24.79 | S FIGUEROA ST | CARSON | |
| 46 | 24.92 | N.A. | CARSON | Private Crossing |
| 47 | 25.94 | AVALON BLVD | CARSON | |
| 48 | 26.04 | BROAD AVE | LOS ANGELES | |
| 49 | 26.11 | LAKME AVE | LOS ANGELES | |
| 50 | 26.36 | WILMINGTON AVE | CARSON | |

*Source: California PUC, BNSF Railroad, Wilbur Smith Associates*

### 2.1.3 Right of Way Widths

The width of the right of way varies through the length of the study area from a low of about 40 feet to a high of about 140 feet. For the most part, widths narrow from near Chapman Way in El Segundo northward. The widths between at-grade crossings appear in Table 2-3 in page 2-6.

***William Green Park – City of Lawndale (M.P. 17.5)***


364940\rail corridor-2/27/02

APPROXIMATE SCALE
1" = 2.5 miles

Wilbur Smith Associates
ENGINEERS
PLANNERS
ECONOMISTS

Figure 2-2
AT-GRADE CROSSINGS OF THE HARBOR SUBDIVISION IN THE STUDY AREA

**Table 2-3**
**Right of Way Widths in the Study Area by Segment**

| From Milepost | From Cross-street Name | To Milepost | To Cross-street Name | Approximate ROW Width (feet) |
|---|---|---|---|---|
| 8.03 | CRENSHAW BLVD | 8.14 | VICTORIA AVE | 100 |
| 8.14 | VICTORIA AVE | 8.23 | BRYNHURST AVE | 55 |
| 8.23 | BRYNHURST AVE | 8.32 | WEST BLVD | 55 |
| 8.32 | WEST BLVD | 8.60 | REDONDO BLVD | 55 |
| 8.60 | REDONDO BLVD | 9.13 | CENTINELA AVE | 55 |
| 9.13 | CENTINELA AVE | 9.59 | LA BREA AVE | 55 |
| 9.59 | LA BREA AVE | 9.82 | IVY AVE | 55 |
| 9.82 | IVY AVE | 9.94 | EUCALYPTUS AVE | 40-55 |
| 9.94 | EUCALYPTUS AVE | 10.36 | OAK ST | 40-65 |
| 10.36 | OAK ST | 10.52 | HYDE PARK BLVD | 60 |
| 10.52 | HYDE PARK BLVD | 10.63 | LA CIENEGA BLVD (I-405 EXIT) | 60 |
| 10.63 | LA CIENEGA BLVD (I-405 EXIT) | 10.82 | HINDRY AVE | 55 |
| 10.82 | HINDRY AVE | 11.11 | MANCHESTER BLVD | 55 |
| 11.11 | MANCHESTER BLVD | 11.63 | ARBOR VITAE ST | 35-65 |
| 11.63 | ARBOR VITAE ST | 12.36 | 104TH ST | 55-60 |
| 12.36 | 104TH ST | 12.92 | 111TH ST | 55-60 |
| 12.92 | 111TH ST | 13.13 | IMPERIAL HWY | 55 |
| 13.13 | IMPERIAL HWY | 13.37 | 118TH ST | 45-60 |
| 13.37 | 118TH ST | 13.62 | 120TH ST | 60-70 |
| 13.62 | 120TH ST | 13.89 | 124TH ST | 60 |
| 13.89 | 124TH ST | 14.69 | DOUGLAS ST | 60 |
| 14.69 | DOUGLAS ST | 14.79 | CHAPMAN WAY | 60 |
| 14.79 | CHAPMAN WAY | 15.08 | DOUGLAS/ROSECRANS STATION | 60-100 |
| 15.08 | DOUGLAS/ROSECRANS STATION | 16.10 | MARINE AVE | 100-140 |
| 16.10 | MARINE AVE | 16.74 | INGLEWOOD AVE | 80-100 |
| 16.74 | INGLEWOOD AVE | 16.87 | MANHATTAN BEACH BLVD | 100 |
| 16.87 | MANHATTAN BEACH BLVD | 16.94 | 159TH ST | 80 |
| 16.94 | 159TH ST | 17.01 | 160TH ST | 100 |
| 17.01 | 160TH ST | 17.08 | 161ST ST | 100 |
| 17.08 | 161ST ST | 17.14 | 162NDST | 100 |
| 17.14 | 162ND ST | 17.62 | 170TH ST | 100 |
| 17.62 | 170TH ST | 18.32 | 182nd ST | 70-140 |
| 18.32 | 182ND ST | 21.24 | TORRANCE BLVD | 60-120 |
| 21.24 | TORRANCE BLVD | 21.36 | EL DORADO ST | 60 |
| 21.36 | EL DORADO ST | 21.48 | SONOMA ST | 60 |
| 21.48 | SONOMA ST | 21.60 | CARSON ST | 60 |
| 21.60 | CARSON ST | 22.10 | WASHINGTON AVE | 50-100 |
| 22.10 | WASHINGTON AVE | 22.24 | ARLINGTON AVE | 60 |
| 22.24 | ARLINGTON AVE | 22.49 | CABRILLO AVE | 60 |
| 22.49 | CABRILLO AVE | 22.57 | BORDER AVE | 60 |
| 22.57 | BORDER AVE | 22.78 | SEPULVEDA BLVD | 50-60 |
| 22.78 | SEPULVEDA BLVD | 23.03 | WESTERN AVE | 100 |
| 23.03 | WESTERN AVE | 24.79 | SOUTH FIGUEROA ST | 100-130 |
| 24.79 | SOUTH FIGUEROA ST | 24.92 | N.A. | 100-110 |
| 24.92 | N.A. | 25.94 | AVALON BLVD | 110 |
| 25.94 | AVALON BLVD | 26.04 | BROAD AVE | 110 |
| 26.04 | BROAD AVE | 26.11 | LAKME AVE | 100 |
| 26.11 | LAKME AVE | 26.36 | WILMINGTON AVE | 100 |
| 26.36 | WILMINGTON AVE | 26.50 | LOMITA BLVD (in Watson Yard) | 100 |

Note: Right-of-way widths are approximate. Width of viaduct over Century appears less than 20 feet. Other viaducts have similar widths

*Source: Los Angeles County Tax Assessor maps*

### 2.1.4 Utility Easements in Corridor

According to the subdivision's owner, the Los Angeles County Metropolitan Transportation Authority (LACMTA), there are perhaps hundreds of terminable lease and license agreements along the right of way. Most license agreements are for transverse (perpendicular) crossings, but many are for longitudinal use of the right of way. These include crude oil pipelines, natural gas pipelines, aviation fuel pipelines, and fiber optic lines, among others. For the most part, these license agreements can be terminated. The exceptions are BNSF's permanent easements for freight rail services and for fiber optics. These were part of 1992 agreement for the purchase of the Harbor Subdivision by the former Los Angeles County Transportation Commission (LACTC) from the former ATSF Railway. The relevant provisions are included in Appendix B.

### 2.1.5 Track Classification Standards

A review of Federal Railroad Administration (FRA) reports of recent-year train accidents along the Harbor Subdivision indicates that the track is maintained to Class 2 standards. The FRA, an agency within the United States Department of Transportation, has oversight for the safety of railroad operations.

The FRA has established standard track classifications and related standards of maintenance reflecting differences in classification. The basic difference between classifications is that higher classifications permit higher train operating speeds, but require higher standards of maintenance and inspection to warrant the higher speeds. Most railroads maintain their track to a particular classification based on the relative importance of the line and the maintenance budget that they determine is appropriate for the nature of the rail traffic moved over the line. Secondary tracks used principally for switching will be maintained to low classifications, while main line tracks carrying high volumes of time-sensitive freight will be maintained to high classifications.

**Table 2-4**
**FRA Track Classifications**

| Class Type | Maximum Freight Speed (mph) | Maximum Passenger Speed (mph) |
|---|---|---|
| Excepted Track | 10 | Not Permitted |
| Class 1 Track | 10 | 15 |
| Class 2 Track | 25 | 30 |
| Class 3 Track | 40 | 60 |
| Class 4 Track | 60 | 80 |
| Class 5 Track | 80 | 90 |

Note: Classes 6 through 9 apply to higher speed operation and are not shown here
*Source: FRA*

Adherence to track maintenance standards is enforced by periodic unannounced inspections of the track by qualified FRA inspectors, often working in conjunction with state regulatory agencies. Where inspectors find track that does not meet the standards, slow orders are imposed requiring operation at speeds commensurate with actual conditions until repairs are completed to restore the track to its intended class. Track inspections may be by visual inspection of track

conditions on the ground, and by operation of track geometry cars containing electronic measuring and recording instruments.

The most critical standards that apply to track classifications include:

- Gage measures differences in the distance between the rails. Higher classifications have less tolerance for variations in track gage.
- Alignment measures horizontal variations within a specified distance along the track. Higher classifications have less tolerance for variations in alignment.
- Curve elevation (or super elevation) measures the height of the outside rail of a curve in relation to the inside rail. Maximum speeds are specified based on a combination of elevation and the sharpness of the curve.
- Surface measures the vertical variations within a specified distance along the track. Higher classifications have less tolerance for variations.
- Track structure measures the condition of ballast, crossties, track assembly fittings, and the physical condition of the rails. For each characteristic, higher standards of construction and maintenance apply to the higher track classifications.

The FRA regulations specify how often railroads are required to make their own inspections of track, with the higher classifications requiring more frequent inspections. Special inspections are required following any event that might cause damage to the track structure to ensure safety of train operations. Railroads are required to maintain records demonstrating compliance with the inspection requirements, and documenting maintenance activities necessary to support each track classification. Given the current freight volume on the Harbor Subdivision and the line's Class 2 status, the line requires two inspections per week (per 49 CFR 213.233 Track Inspections).

## 2.2 CORRIDOR DEMOGRAPHICS

### 2.2.1 Land Use

For the most part, the Harbor Subdivision extends through developed communities with well-established land use patterns that have developed with frequent rail traffic in place on the Harbor Subdivision. Figure 2-3 illustrates the general categories of land use within about one mile of each grade crossing. Table 2-5 shows similar information and identifies each grade crossing within the study area.

**Table 2-5**
**Types of Land Uses Near Highway-Railroad At-Grade Crossings**

| No. | Milepost | City | Cross-street Name | Existing/Gen. Plan Land Uses | | | | | | Significant Uses and Features |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Low Density Residential | Med. Density Residential | Office and Commercial | Light Industry | Heavy Industry | Public | |
| 1 | 8.03 | LOS ANGELES | CRENSHAW BLVD | √ | √ | √ | √ | | | |
| 2 | 8.14 | LOS ANGELES | VICTORIA AVE | √ | √ | √ | √ | | | |
| 3 | 8.23 | LOS ANGELES | BRYNHURST AVE | √ | √ | √ | √ | | | |
| 4 | 8.32 | LOS ANGELES | WEST BLVD | √ | √ | √ | √ | | | |
| 5 | 8.60 | INGLEWOOD | REDONDO BLVD | √ | √ | √ | √ | | √ | Centinela Park |
| 6 | 9.13 | INGLEWOOD | CENTINELA AVE | √ | √ | √ | √ | | √ | Centinela Park, Freeman Hospital |
| 7 | 9.59 | INGLEWOOD | LA BREA AVE | | √ | √ | √ | | √ | Crozier Jr. High, Inglewood High |
| 8 | 9.82 | INGLEWOOD | IVY AVE | | √ | √ | √ | | √ | Crozier Jr. High, Inglewood High |
| 9 | 9.94 | INGLEWOOD | EUCALYPTUS AVE | | √ | √ | √ | | √ | National Guard Armory |
| 10 | 10.21 | INGLEWOOD | NORTH CEDAR AVE | | √ | √ | √ | | | |
| 11 | 10.36 | INGLEWOOD | OAK ST | √ | √ | √ | √ | | | |
| 12 | 10.52 | INGLEWOOD | HYDE PARK BLVD | √ | √ | √ | √ | √ | √ | |
| 13 | 10.63 | INGLEWOOD | LA CIENEGA BLVD | √ | √ | √ | √ | √ | √ | I-405 exit |
| 14 | 10.82 | INGLEWOOD | HINDRY AVE | √ | √ | √ | √ | √ | √ | |
| 15 | 11.11 | INGLEWOOD | MANCHESTER BLVD | | √ | √ | √ | √ | √ | |
| 16 | 11.63 | INGLEWOOD | ARBOR VITAE ST | | √ | | √ | √ | √ | LAX, Univ. of West LA |
| 17 | 12.36 | LOS ANGELES | 104TH ST | | √ | | | √ | | LAX |
| 18 | 12.92 | LOS ANGELES | 111TH ST | | √ | | | √ | | LAX |
| 19 | 13.13 | LOS ANGELES | IMPERIAL HWY | | √ | √ | | √ | | LAX, Freeway Access, Green Line Station |
| 20 | 13.37 | EL SEGUNDO | 118 TH ST | √ | | √ | | | | |
| 21 | 13.62 | EL SEGUNDO | 120TH ST | √ | | √ | | | | |
| 22 | 13.89 | EL SEGUNDO | 124TH ST | √ | | √ | | | | |
| 23 | 14.69 | EL SEGUNDO | DOUGLAS ST | | | √ | √ | | | |
| 24 | 14.79 | EL SEGUNDO | CHAPMAN WAY | | | √ | √ | | | Green Line Station |
| 25 | 15.08 | EL SEGUNDO | DOUGLAS/ROSECRANS STATION | √ | | √ | √ | | | |
| 26 | 16.10 | HAWTHORNE | MARINE AVE | | √ | √ | √ | | | Green Line Station |
| 27 | 16.74 | REDONDO B. | INGLEWOOD AVE | √ | √ | √ | √ | | | Freeway Access |
| 28 | 16.87 | LAWNDALE | MANHATTAN BLVD | √ | | √ | √ | | | |
| 29 | 16.94 | LAWNDALE | 159TH ST | √ | | √ | | | | |
| 30 | 17.01 | LAWNDALE | 160TH ST | √ | | √ | | | | |
| 31 | 17.08 | LAWNDALE | 161ST ST | √ | | √ | | | | |
| 32 | 17.14 | LAWNDALE | 162nd ST | √ | | √ | | | | |
| 33 | 17.62 | LAWNDALE | 170TH ST | √ | √ | √ | | | √ | Green Park |
| 34 | 18.38 | TORRANCE | 182nd ST | √ | √ | √ | √ | | √ | El Nido Park |
| 35 | 21.24 | TORRANCE | TORRANCE BLVD | √ | √ | √ | √ | | | |
| 36 | 21.36 | TORRANCE | EL DORADO ST | √ | √ | √ | √ | | | |
| 37 | 21.48 | TORRANCE | SONOMA ST | √ | √ | √ | √ | | | |
| 38 | 21.60 | TORRANCE | CARSON ST | √ | √ | √ | √ | | √ | Torrance High, Nativity |

**Table 2-5**
**Types of Land Uses Near Highway-Railroad At-Grade Crossings**

| No. | Milepost | City | Cross-street Name | Existing/Gen. Plan Land Uses | | | | | | Significant Uses and Features |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Low Density Residential | Med. Density Residential | Office and Commercial | Light Industry | Heavy Industry | Public | |
| | | | | | | | | | | School, Fire Dept. Access |
| 39 | 22.10 | TORRANCE | WASHINGTON AVE | √ | √ | √ | | | √ | Torrance High, Wilson Park |
| 40 | 22.24 | TORRANCE | ARLINGTON AVE | √ | √ | √ | | | √ | Wilson Park, Torrance High, Torrance Park, Torrance Elementary |
| 41 | 22.49 | TORRANCE | CABRILLO AVE | √ | √ | √ | | | √ | Torrance Park, Torrance High, Torrance Elementary, National Guard Armory |
| 42 | 22.57 | TORRANCE | BORDER AVE | √ | √ | √ | | | | Torrance Park, National Guard Armory |
| 43 | 22.78 | TORRANCE | SEPULVEDA BLVD | √ | √ | √ | √ | | | |
| 44 | 23.03 | TORRANCE | WESTERN AVE | √ | √ | √ | √ | | | |
| 45 | 24.79 | CARSON | S FIGUEROA ST | √ | | √ | | √ | | |
| 46 | 24.92 | CARSON | N.A. | √ | | √ | | | | |
| 47 | 25.94 | CARSON | AVALON BLVD | √ | | √ | | | | |
| 48 | 26.04 | LOS ANGELES | BROAD AVE | √ | | √ | | | | |
| 49 | 26.11 | LOS ANGELES | LAKME AVE | √ | | √ | | | | |
| 50 | 26.36 | CARSON | WILMINGTON AVE | √ | √ | | √ | √ | | |

*Source: Local Jurisdictions, Wilbur Smith Associates*

Once the rail line turns south, it follows a somewhat parallel course to the I-405 freeway. At the north end of the study area, from Crenshaw Blvd west to Manchester Blvd, the predominant land use is low and medium density residential. Commercial uses line several of the major streets, and the Inglewood commercial district is south of the rail line centered at Manchester and Hawthorne Boulevards. There is a small amount of industrial use close to the railroad.

Industrial and commercial uses predominate in the vicinity of the Los Angeles airport (LAX), with some residential use east of the rail line and Aviation Boulevard. South of the airport, from Imperial Highway to El Segundo Boulevard, the rail line passes through mixed-use commercial areas and then veers through industrial sections of the City of El Segundo, down to Rosecrans Avenue. The west side of Aviation Boulevard through this section of the corridor is predominately residential.

From Rosecrans Avenue to 190$^{th}$ Street, the adjacent land exhibits a mixture of residential, commercial, and industrial use, again with a significant amount of commercial use along the major streets.

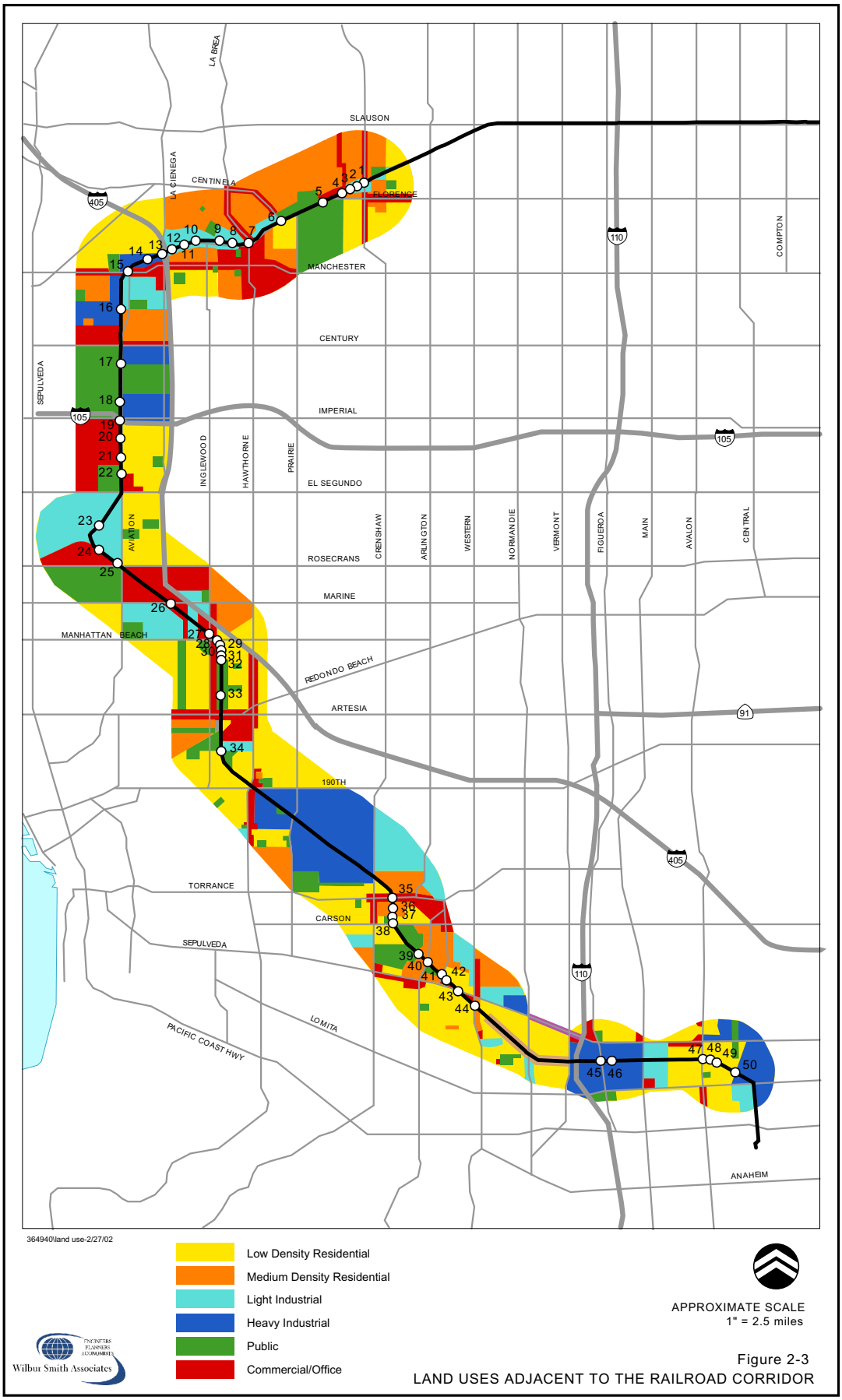


Figure 2-3
LAND USES ADJACENT TO THE RAILROAD CORRIDOR

SOUTH BAY CITIES RAILROAD STUDY

From 190th Street to Crenshaw Boulevard, land use is predominantly heavy industrial, including the Exxon-Mobil oil refinery. From Crenshaw Boulevard to Carson Street land use consists of mostly low density residential.

From Carson Street south to beyond Sepulveda Boulevard, land use again exhibits a mixed pattern of residential, industrial, and commercial use. The rail line passes by several schools including Torrance High school just south of Carson Street. Fire Station No. 1 (Main) on Carson Street is one-quarter mile west of the line. Carson Street and Sepulveda Boulevard are major Fire Department access routes.

After crossing Western Avenue the line continues south through mixed residential, commercial and industrial areas. The line passes nearby high schools and grade schools just north of Lomita. The Bay Harbor Hospital is located on nearby Lomita Boulevard.

At the southernmost portion of the line, industrial use predominates near Figueroa Street, with another area of residential uses centered near Avalon Boulevard. There is also a moderate presence of commercial use on Vermont Avenue and Figueroa Street.

### 2.2.2 Population

This section summarizes the current population demographics of the South Bay cities region and compares them to those of 1990. The statistics for 1990 and 2000 population levels come from U.S. Census counts[1].

As shown in Table 2-6, the South Bay Cities were home to approximately 730,000 people in the year 2000, an increase from about 685,100 in 1990, which represents growth of approximately 6.5 percent, or about 0.6 percent per year. Growth rates for individual cities from 1990 to 2000 ranged from 1.5 percent to 17.9 percent. In 2000, Torrance was the most populated South Bay city with about 138,000 people. Inglewood (112,600), Carson (89,700), and Hawthorne (84,100) were the next three most populated cities. Rolling Hills (2,050) and Rolling Hills Estates (7,680) were the least populated.

[1] U.S. Census population data for 1990 and 2000 does not include unincorporated County population.

**Table 2-6**
**South Bay Cities Population Growth**
**1990-2000**

| City | 1990 | 2000 | Annual Growth Rate |
|---|---|---|---|
| Carson | 84,000 | 89,700 | 0.7% |
| El Segundo | 15,200 | 16,000 | 0.5% |
| Gardena | 49,800 | 57,700 | 1.5% |
| Hawthorne | 71,300 | 84,100 | 1.7% |
| Hermosa Beach | 18,200 | 18,600 | 0.2% |
| Inglewood | 109,600 | 112,600 | 0.3% |
| Lawndale | 27,300 | 31,700 | 1.5% |
| Lomita | 19,400 | 20,000 | 0.3% |
| Manhattan Beach | 32,100 | 33,900 | 0.5% |
| Palos Verdes Estates | 13,500 | 13,300 | -0.1% |
| Rancho Palos Verdes | 41,700 | 41,100 | -0.1% |
| Redondo Beach | 60,200 | 63,300 | 0.5% |
| Rolling Hills | 1,870 | 2,050 | 0.9% |
| Rolling Hills Estates | 7,790 | 7,680 | -0.1% |
| Torrance | 133,100 | 137,900 | 0.4% |
| **TOTAL** | **685,060** | **729,630** | **0.6%** |

*Source: U.S. Census Bureau*

It should be noted that some cities, such as Hermosa Beach and Gardena, are not immediately adjacent to the Harbor Subdivision line. They have been included because they are considered as regional generators that contribute to vehicular traffic across the railroad corridor.

### 2.2.3 Employment

Statistics for employment growth in the 1990-2000 period were taken from SCAG's 2001 Regional Transportation Plan. At the time of this report, there were not actual Year 2000 employment statistics available from SCAG.

As shown in Table 2-7 on the next page, according to employment estimates obtained from SCAG, there were approximately 436,400 jobs in the South Bay Cities in the year 2000. Torrance was home to about 109,300 jobs, nearly double the total from any other South Bay City. The cities of Carson and El Segundo were the next largest employment centers, each providing well over 50,000 jobs and exhibiting some of the highest employment growth rates in the South Bay cities between 1997 and 2000.

**Table 2-7**
**South Bay Cities Employment Growth**
**1997-2000**

| City | 1997 | 2000 | Annual Growth Rate |
|---|---|---|---|
| Carson | 55,200 | 57,300 | 1.3% |
| El Segundo | 52,700 | 55,900 | 2.0% |
| Gardena | 35,000 | 34,700 | -0.3% |
| Hawthorne | 34,000 | 33,900 | -0.2% |
| Hermosa Beach | 8,700 | 8,790 | 0.3% |
| Inglewood | 50,000 | 50,400 | 0.2% |
| Lawndale | 7,330 | 7,410 | 0.3% |
| Lomita | 7,800 | 7,890 | 0.4% |
| Manhattan Beach | 13,800 | 13,900 | 0.3% |
| Palos Verdes Estates | 1,300 | 1,300 | 0.3% |
| Rancho Palos Verdes | 4,300 | 4,300 | 0.3% |
| Redondo Beach | 24,300 | 24,500 | 0.3% |
| Rolling Hills | 270 | 270 | 0.5% |
| Rolling Hills Estates | 4,620 | 4,670 | 0.3% |
| Torrance | 105,500 | 109,300 | 1.2% |
| Unincorporated County | 21,100 | 21,900 | 1.4% |
| **TOTAL** | **425,920** | **436,430** | **0.8%** |

*Source: Southern California Association of Governments*

## 2.3 RAILROAD OPERATIONS

The former Atchison, Topeka and Santa Fe Railway (now BNSF) sold the Harbor Subdivision to the Los Angeles Country Metropolitan Transportation Authority in 1992, but retained the rights to run freight trains and service the line's shippers. The railroad's intention, of course, was to transfer its port-related through traffic to the Alameda Corridor when construction of the $2 billion project was completed. This transfer is anticipated to happen in April 2002.

In the recent past, traffic on the line has been increasing. BNSF quantifies train activity in terms of millions of gross ton-miles per mile (MGTM/M) over specific segments of track. As can be seen in the Table 2-8, traffic on the line has increased in both directions over the 1993-1997 period. The increases in traffic have been driven by increases in international containerized traffic to and from the San Pedro Bay ports. Carload business at the ports has also been increasing[2], and some of this traffic is traveling the Harbor Subdivision as well.

[2] Per conversation with Andrew Fox, president, Pacific Harbor Line, the switching and terminal railroad serving the Ports of Los Angeles and Long Beach.

**Table 2-8**
**Harbor Subdivision Line - BNSF Traffic in Millions of Gross Ton-miles per Mile from Redondo Junction to Watson Yard**
**1993 vs. 1997**

| Segment | 1993 | 1997 |
|---|---|---|
| Redondo Junction to El Segundo – eastbound | 4.0 | 6.3 |
| Redondo Junction to El Segundo – westbound | 3.7 | 5.9 |
| El Segundo to Watson – eastbound | 4.6 | 7.1 |
| El Segundo to Watson – westbound | 4.5 | 6.6 |

*Source: BNSF Railroad*

Reflective of current conditions, a volume of 13.7 MGTM/M (a combined total of both eastbound and westbound traffic for 1997) on the line is a moderate level of activity, equating to about 20 trains a day on average, which is summarized in Figure 2-4.

### 2.3.1 Shippers

***Port-Related Shippers:*** Of the 20 trains a day on the Harbor Subdivision, the majority consists of double-stack trains, manifest trains and slab trains going to or from the Ports of Los Angeles and Long Beach. Double-stack trains carry sea containers set one on top of another in articulated five-unit cars. Manifest trains are trains with conventional carload traffic: tank cars, boxcars, flat cars, hopper cars, gondolas, etc. Slab trains carry steel slabs that are bound for a steel rolling mill in Fontana in the San Bernardino Valley.

***Major Local Shippers:*** Major local shippers are defined as being located along the line and having a rail traffic volume consisting of multiple carloads daily. Four companies fit this description. These are cited in the Table 2-9 below.

**Table 2-9**
**Major Shippers on the Harbor Subdivision Line**

| Shipper | Commodity | Location and Milepost |
|---|---|---|
| Chevron Corp. | Chemicals | El Segundo, milepost 14.8 |
| Exxon-Mobil | Chemicals | Alcoa (Torrance), milepost 20.1 |
| Dow/Union Carbide | Chemicals | Alcoa (Torrance), milepost 20.1 |
| Armin Plastics | Chemicals | Alcoa (Torrance), milepost 20.1 |

*Source: BNSF Railroad*

There are other shippers along the route that have smaller volumes and less frequent shipments. In addition, there are various businesses that have access to the line and sidings, but do not currently utilize rail services. BNSF is not aggressively pursuing this business now, but these shippers could begin shipping again at any time. Were they to do so, however, additional traffic likely would be minor. Once a year, a circus train parks a mile north of El Segundo at Lairport, milepost 13.6. There are no active shippers between mileposts 9 and 12.

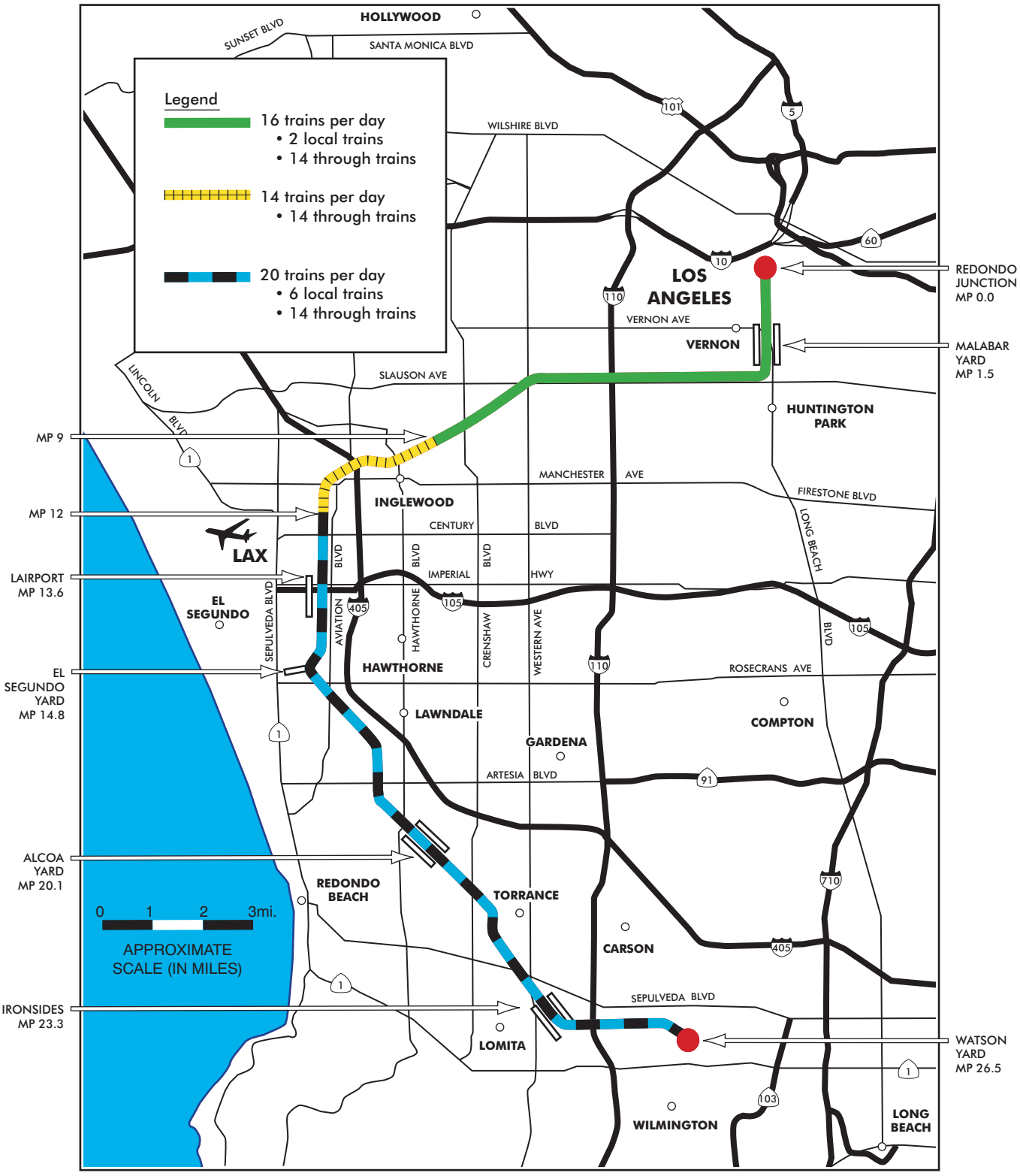


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Figure 2-4
**TOTAL TRAINS PER DAY - HARBOR SUBDIVISION**
364940\Base/1-30-02

### 2.3.2 Trains and Hours of Operation

Double-stack trains dominate both port-related traffic and total traffic on the line. These trains are concentrated around the time of arrival of container ships from Asia. These mostly arrive at the end of each week. As a result, traffic on the line is heaviest Friday through Monday. There are three locals operating on the line regularly south of LAX. The first local goes north from Watson Yard at 7 a.m., and switches cars at Chevron in El Segundo. It then travels south to Exxon-Mobil at Alcoa where it switches cars during the afternoon, before returning to Watson Yard. The second local departs north from Watson at 9 a.m. to Alcoa. The third departs north from Watson Yard at 3 p.m. to Alcoa. All trains operate 12-hour shifts.

As there are no active shippers between milepost 9 and 12, the area between Inglewood and the east side of LAX, there is no local service. Only port-related through trains operate here. Local trains east of milepost 9 to Malabar Yard in Vernon (outside of the study area) are infrequent, due to the lack of local traffic. For this study, one round trip (two local trains) per day is assumed operating from BNSF's Hobart Yard near downtown Los Angeles to Malabar Yard and milepost 9. BNSF defined the volume of trains between specific mileposts. For example, the railroad specified that there was no local traffic picked up or delivered between milepost 9 and 12. The consultant team, however, observed no potential for local traffic between milepost 8.1 and milepost 14.8, except for the annual circus train.

### 2.3.3 Train Length and Speed

The two factors that dictate how long streets are blocked by train traffic are train length and speed. The majority of the port-related traffic consists of double-stack trains. These are regularly as long as 7,500 feet, and sometimes longer. Local train length naturally varies according to shipper demand. That being said, there are currently about 9,000 local carloads a year generated on the line between Watson and El Segundo. The study assumes a conservative high-side average of 700-foot-long local trains. All trains have a maximum speed restriction of 20 mph. Field observations indicate that the actual speeds are typically half to one third of the maximum allowed.

### 2.3.4 Line Maintenance

BNSF currently maintains the line to a level commensurate with the train volume including both local carload traffic and port-related traffic. According to FRA records, the tracks are maintained to at least Class 2 standards, which permit a maximum speed for freight trains of 25 mph (see Section 2.1.5).

The largest maintenance expense on the line is at the at-grade crossings. This expense is a function of the type and configuration of the warning devices and the amount of vehicular traffic, not train traffic. The maintenance of traffic control and protection devices and roadway surface at the crossings, within the railroad right of way, is the responsibility of BNSF.

### 2.3.5 Yards, Sidings, Leased Tracks, Storage, and Switching Activity

- *Yards* are where cars are shifted from one train to another for furtherance to destinations out of the area or for distribution to local shippers. There are two yards in the study area. These are Alcoa Yard (M.P. 20.1) and Watson Yard (M.P. 26.5).
- *Sidings* parallel the main line. These allow trains to pass each other. They are also sometimes used for temporary storage. Sidings are located at Lairport and at Ironsides. There is one siding (about 5,000 feet) at Lairport (M.P.13.6), to the west of the main line. There are two sidings (3,400 and 4,200 feet) at Ironsides (M.P. 23.3), one on either side of the main line. Yard tracks at Alcoa also serve as sidings.
- *Leased tracks* are where cars can be staged for daily pickups and deliveries, or stored for days and sometimes for months. The tracks are leased to shippers for their use. These exist at El Segundo (M.P. 14.8), which are leased to Chevron. There also are tracks at Alcoa leased to Dow/Union Carbide and Exxon-Mobil.
- *Storage* refers to the temporary idling of cars on sidings or storage tracks. Cars are stored for periods as short as a few days and as long as several months. On the Harbor Subdivision, storage occurs on leased tracks at El Segundo and Alcoa, and at Ironsides sidings.
- *Switching activity* is concentrated at El Segundo and Alcoa, where there are daily pick-ups and deliveries of cars. Traffic impacts at El Segundo would primarily be to a private crossing at Chapman Way and Douglas Street, as trains pick-up and deliver cars at the Chevron facility. There are no impacts at Alcoa, given that there are no nearby crossings. Switching activity at Ironsides can delay traffic at various nearby crossings in southeastern Torrance, including Sepulveda Boulevard and Western Avenue. BNSF reported that it adheres to a 10-minute rule (CPUC General Order No. 135 appears in Appendix E), whereby its trains will not block a crossing for more than 10 minutes.

***Siding 2– City of Torrance (M.P. 23.3)***

***Alcoa Yard – City of Torrance (M.P. 20.1)***

- *Industry track* includes "spurs" and "leads", i.e., track that shippers use to load, unload, and store rail cars. Active and unused industry track exists in various places such as west of 67th Street in Inglewood, between 118th and 120th Streets south of Imperial Highway, north of the Inglewood Avenue crossing in Redondo Beach, and south of Carson Street in Torrance.

## 2.4 VEHICULAR TRAFFIC OPERATIONS

### 2.4.1 Vehicular Traffic Volumes

The Harbor Subdivision line intersects with major highway facilities along its 26.5-mile alignment between Redondo Junction and Watson Yard. Although all freeways and most of the major arterial roadways have been grade separated along the alignment, there are still major transportation facilities where highway-railroad at-grade crossings exist.

The nine roadways with estimated average daily traffic volumes over 30,000 vehicles per day include: Sepulveda Boulevard (52,800), Carson Street (35,000) and Western Avenue (30,400) in the City of Torrance, Inglewood Avenue (47,800) in Redondo Beach/Lawndale, Imperial Highway (37,000) in Los Angeles, and La Brea Avenue (32,000), La Cienega Boulevard (32,000), Manchester Avenue (32,000), and Centinela Avenue (31,000) in the City of Inglewood. A summary of daily traffic volumes at all study area crossings is shown in Table 2-10.

**Table 2-10**
**Average Daily Traffic (ADT) Volumes at Railroad Crossings in the Study Area**

| No. | Milepost | Cross-street Name | ADT (veh/day) | Data Source |
|---|---|---|---|---|
| 1 | 8.03 | CRENSHAW BLVD | 23,500 | FRA |
| 2 | 8.14 | VICTORIA AVE | 750 | FRA |
| 3 | 8.23 | BRYNHURST AVE | 700 | FRA |
| 4 | 8.32 | WEST BLVD | 5,300 | FRA |
| 5 | 8.60 | REDONDO BLVD | 7,500 | Inglewood |
| 6 | 9.13 | CENTINELA AVE | 31,000 | Inglewood |
| 7 | 9.59 | LA BREA AVE | 32,000 | Inglewood |
| 8 | 9.82 | IVY AVE | 2,500 | FRA |
| 9 | 9.94 | EUCALYPTUS AVE | 12,500 | Inglewood |
| 10 | 10.21 | NORTH CEDAR AVE | 800 | FRA |
| 11 | 10.36 | OAK ST | 3,200 | FRA |
| 12 | 10.52 | HYDE PARK BLVD | 4,000 | FRA |
| 13 | 10.63 | LA CIENEGA BLVD (I-405 EXIT) | 32,000 | Inglewood |
| 14 | 10.82 | HINDRY ST | 4,500 | FRA |
| 15 | 11.11 | MANCHESTER BLVD | 32,000 | Inglewood |
| 16 | 11.63 | ARBOR VITAE ST | 18,000 | Inglewood |
| 17 | 12.36 | 104TH ST | 5,500 | FRA |
| 18 | 12.92 | 111TH ST | 6,300 | City of L.A. |
| 19 | 13.13 | IMPERIAL HWY | 37,000 | FRA |
| 20 | 13.37 | 118TH ST | 800 | FRA |
| 21 | 13.62 | 120TH ST | 1,800 | FRA |

**Table 2-10**
**Average Daily Traffic (ADT) Volumes at Railroad Crossings in the Study Area**

| No. | Milepost | Cross-street Name | ADT (veh/day) | Data Source |
|---|---|---|---|---|
| 22 | 13.89 | 124TH ST | Private crossing | |
| 23 | 14.69 | DOUGLAS ST | 9,200 | El Segundo |
| 24 | 14.79 | CHAPMAN WY | Private crossing | |
| 25 | 15.08 | DOUGLAS/ROSECRANS STATION | Pedestrian crossing | |
| 26 | 16.10 | MARINE AVE | 24,800 | Hawthorne |
| 27 | 16.74 | INGLEWOOD AVE | 47,800 | L.A. County |
| 28 | 16.87 | MANHATTAN BEACH BLVD | 25,300 | L.A. County |
| 29 | 16.94 | 159TH ST | 600 | FRA |
| 30 | 17.01 | 160TH ST | 600 | FRA |
| 31 | 17.08 | 161ST ST | 700 | FRA |
| 32 | 17.14 | 162ND ST | 2,100 | FRA |
| 33 | 17.62 | 170TH ST | 2,500 | FRA |
| 34 | 18.38 | 182ND ST | 10,700 | Torrance |
| 35 | 21.24 | TORRANCE BLVD | 27,800 | Torrance |
| 36 | 21.36 | EL DORADO ST | Pedestrian crossing | |
| 37 | 21.48 | SONOMA ST | 1,200 | Torrance |
| 38 | 21.60 | CARSON ST | 35,000 | Torrance |
| 39 | 22.10 | WASHINGTON AVE | 3,800 | Torrance |
| 40 | 22.24 | ARLINGTON AVE | 8,100 | Torrance |
| 41 | 22.49 | CABRILLO AVE | 10,700 | Torrance |
| 42 | 22.57 | BORDER AVE | 900 | Torrance |
| 43 | 22.78 | SEPULVEDA BLVD | 52,800 | Torrance |
| 44 | 23.03 | WESTERN AVE | 30,400 | Torrance |
| 45 | 24.79 | S. FIGUEROA ST | 11,000 | FRA |
| 46 | 24.92 | N.A. | Private crossing | |
| 47 | 25.94 | AVALON BLVD | 18,000 | FRA |
| 48 | 26.04 | BROAD AVE | 1,100 | FRA |
| 49 | 26.11 | LAKME AVE | 1,500 | FRA |
| 50 | 26.36 | WILMINGTON AVE | 18,000 | FRA |

*Source: FRA, Local Jurisdictions*

## 2.4.2 Crossing Delays

This section evaluates the delays experienced by motor vehicles at the railroad crossings as a result of the presence of a train. The results are summarized in Table 2-11. Appendix F includes a detailed explanation of the methodology used to estimate those delays and the subsequent queuing at the railroad crossings[3]. The relatively high vehicular traffic volumes combined with the relatively slow train operations (usually 20 mph maximum, about 7 mph to 10 mph typically) in the study area combine to produce severe traffic congestion at several locations.

[3] The analysis methodology used to evaluate vehicular traffic delays and queuing at the study area crossings has been taken from the National Cooperative Highway Research Program (NCHRP) Report 288, *Evaluating Grade-Separated Rail and Highway Crossing Alternatives*, published by the Transportation Research Board, National Research Council, Washington D.C., in 1987. See Appendix A, Section IV, pages 34 through 36. Additional methodology information was obtained from the Transportation Research Record (TRR) 1754, Paper No. 01-3051, *Methodology for Evaluating Highway-Railway Grade Separations*, Washington D.C., 2001, pp. 77-80. A summary of the methodology as it has been applied to this study can be found in Appendix F of this report.

**Table 2-11**
**Estimated Delays and Queuing at Railroad Crossings in the Study Area**

| No. | Milepost | Cross-street Name | Average delay (seconds per vehicle) | Estimated LOS at the Crossing | Average queue length (feet) |
|---|---|---|---|---|---|
| 1 | 8.03 | CRENSHAW BLVD | 41.4 | ***E*** | 420 |
| 2 | 8.14 | VICTORIA AVE | 0.0 | A | 0 |
| 3 | 8.23 | BRYNHURST AVE | 0.0 | A | 0 |
| 4 | 8.32 | WEST BLVD | 40.8 | ***E*** | 180 |
| 5 | 8.60 | REDONDO BLVD | 24.0 | C | 75 |
| 6 | 9.13 | CENTINELA AVE | 27.9 | D | 260 |
| 7 | 9.59 | LA BREA AVE | 29.3 | D | 280 |
| 8 | 9.82 | IVY AVE | 28.8 | D | 60 |
| 9 | 9.94 | EUCALYPTUS AVE | 37.4 | D | 255 |
| 10 | 10.21 | NORTH CEDAR AVE | 0.0 | A | 0 |
| 11 | 10.36 | OAK ST | 22.5 | C | 60 |
| 12 | 10.52 | HYDE PARK BLVD | 27.0 | D | 90 |
| 13 | 10.63 | LA CIENEGA BLVD (I-405 EXIT) | 29.3 | D | 360 |
| 14 | 10.82 | HINDRY ST | 32.0 | D | 120 |
| 15 | 11.11 | MANCHESTER BLVD | 24.8 | C | 205 |
| 16 | 11.63 | ARBOR VITAE ST | 32.0 | D | 245 |
| 17 | 12.36 | 104TH ST | 39.3 | D | 175 |
| 18 | 12.92 | 111TH ST | 45.7 | ***E*** | 235 |
| 19 | 13.13 | IMPERIAL HWY | 30.2 | D | 290 |
| 20 | 13.37 | 118TH ST | 0.0 | A | 0 |
| 21 | 13.62 | 120TH ST | 20.0 | C | 15 |
| 22 | 13.89 | 124TH ST | NA | NA | NA |
| 23 | 14.69 | DOUGLAS ST | 97.8 | ***F*** | 390 |
| 24 | 14.79 | CHAPMAN WY | NA | NA | NA |
| 25 | 15.08 | DOUGLAS/ROSECRANS STATION | NA | NA | NA |
| 26 | 16.10 | MARINE AVE | 46.5 | E | 490 |
| 27 | 16.74 | INGLEWOOD AVE | 53.5 | E | 880 |
| 28 | 16.87 | MANHATTAN BEACH BLVD | 35.6 | D | 310 |
| 29 | 16.94 | 159TH ST | 0.0 | A | 0 |
| 30 | 17.01 | 160TH ST | 0.0 | A | 0 |
| 31 | 17.08 | 161ST ST | 0.0 | A | 0 |
| 32 | 17.14 | 162ND ST | 17.1 | C | 30 |
| 33 | 17.62 | 170TH ST | 28.8 | D | 60 |
| 34 | 18.38 | 182ND ST | 67.3 | ***F*** | 590 |
| 35 | 21.24 | TORRANCE BLVD | 49.2 | ***E*** | 590 |
| 36 | 21.36 | EL DORADO ST | NA | NA | NA |
| 37 | 21.48 | SONOMA ST | 30.0 | D | 30 |
| 38 | 21.60 | CARSON ST | 43.2 | ***E*** | 515 |
| 39 | 22.10 | WASHINGTON AVE | 37.9 | D | 115 |
| 40 | 22.24 | ARLINGTON AVE | 53.3 | ***E*** | 350 |
| 41 | 22.49 | CABRILLO AVE | 67.3 | ***F*** | 590 |
| 42 | 22.57 | BORDER AVE | 0.0 | A | 0 |
| 43 | 22.78 | SEPULVEDA BLVD | 36.8 | D | 500 |
| 44 | 23.03 | WESTERN AVE | 53.3 | ***E*** | 695 |
| 45 | 24.79 | S. FIGUEROA ST | 29.5 | D | 140 |
| 46 | 24.92 | N.A. | NA | NA | NA |
| 47 | 25.94 | AVALON BLVD | 30.0 | D | 185 |
| 48 | 26.04 | BROAD AVE | 32.7 | D | 30 |
| 49 | 26.11 | LAKME AVE | 24.0 | C | 30 |
| 50 | 26.36 | WILMINGTON AVE | 38.0 | D | 290 |

*Source: Wilbur Smith Associates; see footnote no. 3*

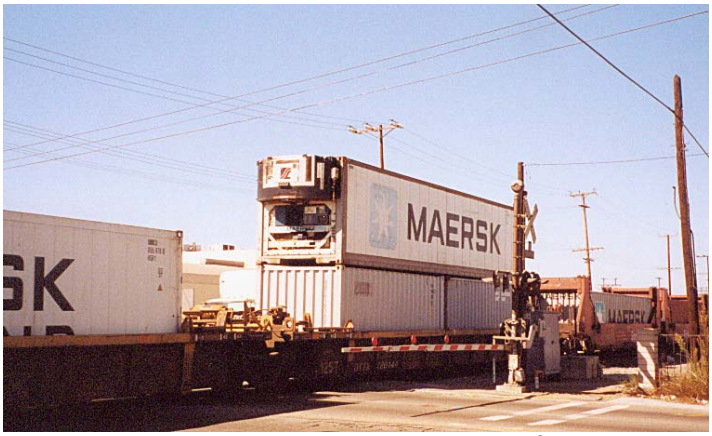
The Douglas Street crossing experiences some of the greatest delays because the maximum train speed does not exceed 10 mph, the slowest in the corridor due to the nearby crossing of the BNSF track with the UP railroad. The slow train speed results in an average delay of over one minute per vehicle, more than any other crossing.

For crossings with high volumes of daily traffic, Level of Service (LOS) is an important indicator of delay caused by trains. LOS indicates how the traffic on the main street affects the area by causing delays for the crossing side streets. LOS is measured through grades of A through F, with A meaning there is little or no delay and F meaning there are extremely long delays where there are insufficient gaps in the major traffic stream to allow side street traffic to cross safely. Currently there are ten crossings where individual vehicles experience an average delay per vehicle of 40 seconds or longer (LOS E or F). The ten crossings where vehicles are delayed the longest, in seconds per vehicle are Douglas Street (97.8), 182nd Avenue (67.3), Cabrillo Avenue (67.3) Arlington Avenue (53.3), Western Avenue (53.3), Torrance Boulevard (49.2), Marine Avenue (46.5), 111th Street (45.7), Crenshaw Boulevard (41.4) and West Boulevard (40.8).

The longest queues in the corridor occur at the crossings for Inglewood Avenue (about 880 feet per lane), Western Avenue (700 feet), Cabrillo Avenue (590 feet) and Sepulveda Boulevard (500 feet). It should also be noted that the southbound queuing at La Cienega (I-405 off-ramp) extends in some instances onto the freeway.

### 2.4.3 Nearby Intersection Delays

As described in the previous section, closure of major arterial crossings due to trains can cause delays of up to five or six minutes on streets such as Inglewood Avenue, Manhattan Beach Boulevard, Sepulveda Boulevard, and Western Avenue. Delays on these major arterials cause delays at nearby intersections as well when queue lengths grow. The LOS declines at the intersections feeding or adjacent to the major arterials where the queue lengths have grown due to crossing closures. In addition, the angle at which the railroad line traverses the mostly north-south orthogonal grid roadway system further exacerbates traffic congestion in the area.




***Through Freight Train at Arbor Vitae – City of Inglewood (M.P. 11.6)***

For example, the railroad crossings at Inglewood Avenue (north-south) and at Manhattan Beach Boulevard (east-west), which are located about 500 feet apart, are activated simultaneously. As a result, all traffic in the area comes to a standstill when a train is present, for durations of up to five or six minutes. A similar condition occurs at the two railroad crossings of Sepulveda Boulevard (east-west) and Western Avenue (north-south) in the City of Torrance. In the case of the City of Torrance, freight trains virtually stop all east-west vehicular traffic traveling across

all major arterial roadways such as Torrance Boulevard, Carson Street and Sepulveda Boulevard. The exceptions are 190th Street, Hawthorne Boulevard, and Crenshaw Boulevard, which are grade separated in Torrance.

## 2.5 SAFETY

This section discusses the different elements that provide safety and protection along the Harbor Subdivision.

### 2.5.1 Definitions

The FRA and the CPUC require that each calendar year railroads in California provide them with accident and incident reports under the requirements of 49 CFR Part 225 of the Code of Federal Regulations (FRA) and General Order 22-B (CPUC). The FRA has oversight for safety on rail lines, and the CPUC has oversight for safety at California at-grade crossings.

For FRA and CPUC reporting purposes, an accident or incident is defined as one of the following:

- An impact between railroad on-track equipment and an automobile, bus, truck, motorcycle, bicycle, farm vehicle, or pedestrian at a highway-rail grade crossing;
- Any collision, derailment, fire, explosion, act of God, or other event involving operation of railroad on-track equipment that results in more than the current monetary threshold for the reporting year ($6,600 in 1999) in damages to railroad on-track equipment, signals, track, track structures and roadbed;
- Any event arising from the operation of a railroad which results in:
  - Death to any person
  - Injury to any person that requires medical treatment
  - Injury to a railroad employee that results in:
    a) A day away from work,
    b) Restricted work activity or job transfer, or
    c) Loss of consciousness; or
  - Occupational illness

Accidents and incidents are typically grouped under two major categories, (i) railroad accidents that include collisions, derailments, fires, explosions, natural disasters and other events involving the operation of standing or moving on-track equipment, and (ii) accidents and incidents occurring at railroad-highway grade crossings.

### 2.5.2 Railroad Protection Devices

Railroad protection devices are those traffic control elements (signs, signals, markings or other elements) that regulate, guide or warn of the potential presence of a train at a railroad-highway grade crossing. These devices can be grouped under two categories, depending on their specific characteristics:

- *Passive* – Those devices that indicate the presence of a crossing but which do not change aspect upon approach or presence of a train. They typically consist of signs and markings located at or in advance of the crossing.
- *Active* – Those devices activated by the approach or presence of a train, such as flashing light signals, automatic gates and similar devices, as well as manually operated devices and crossing watchmen, all of which display to motorists positive warning of the approach or presence of a train.

Appendix G presents the standard railroad protection devices required by the CPUC for the protection of crossings at grade roads, highways and streets with railroads in California.

As indicated above, the 18.5-mile study area within the Harbor Subdivision line includes 50 at-grade crossings. Virtually all of the crossings are protected by means of train-activated mechanisms such as flashing lights and automatic gates. Only two crossings are protected exclusively by passive control devices (cross bucks and/or signs), i.e., a private crossing at Chapman Way (milepost 14.8) and a pedestrian crossing at El Dorado Street in the City of Torrance. Table 2-12 summarizes the types of warning control devices at each crossing. Figure 2-5 indicates the number of accidents between 1975 and 2000 and their locations.

### 2.5.3 At-grade Crossing Accidents/Incidents

According to FRA accident and incident data for the Harbor Subdivision line in the study area, there have been 39 reportable accidents at the 50 at-grade crossings from 1975 until July 2001, averaging approximately 1.5 accidents per year or 0.08 per route-mile per year. Table 2-13 summarizes the number of accidents for the study area for particular periods, while Figure 2-5 and Table 2-14 identify their location and type of warning device.

The analysis of Tables 2-13 and 2-14 does not identify a particular trend or issue regarding railroad safety in the corridor. The calculated accident rate of about 0.03 accidents per public at-grade crossing per year is relatively low and similar to the State's average (approximately 0.02). It should also be noted that the two highest accident locations, Imperial Highway and La Brea Avenue, also are among those with the highest volumes of vehicular traffic. The combination of existing vehicular traffic volumes, rail traffic and low accident rates defines these crossings as low hazard locations and, as a result, are ranked low in the State's grade separation program priority list.

**Table 2-12**
**Types of Warning Devices at At-grade Railroad Crossings in the Study Area**

| No. | Milepost | Cross-street Name | Warning Device | Data Source |
|---|---|---|---|---|
| 1 | 8.03 | CRENSHAW BLVD | 4(9) | CPUC |
| 2 | 8.14 | VICTORIA AVE | 1(8) 2(9) | CPUC |
| 3 | 8.23 | BRYNHURST AVE | 2(9) | CPUC |
| 4 | 8.32 | WEST BLVD | 3(9) | CPUC |
| 5 | 8.60 | REDONDO BLVD | 2(9) | CPUC |
| 6 | 9.13 | CENTINELA AVE | 4(9) | CPUC |
| 7 | 9.59 | LA BREA AVE | 4(9) | CPUC |
| 8 | 9.82 | IVY AVE | 2(9) | CPUC |
| 9 | 9.94 | EUCALYPTUS AVE | 2(9) | CPUC |
| 10 | 10.21 | NORTH CEDAR AVE | 2(9) | CPUC |
| 11 | 10.36 | OAK ST | 2(9A) | CPUC |
| 12 | 10.52 | HYDE PARK BLVD | 2(9) | CPUC |
| 13 | 10.63 | LA CIENEGA BLVD (I-405 EXIT) | 4(9) | CPUC |
| 14 | 10.82 | HINDRY AVE | 2(9) | CPUC |
| 15 | 11.11 | MANCHESTER BLVD | 4(9) | CPUC |
| 16 | 11.63 | ARBOR VITAE ST | 2(9) | CPUC |
| 17 | 12.36 | 104TH ST | 2(9) | CPUC |
| 18 | 12.92 | 111TH ST | 2(9) | CPUC |
| 19 | 13.13 | IMPERIAL HWY | 1(9) 3(9A) | CPUC |
| 20 | 13.37 | 118TH ST | 2(9) | CPUC |
| 21 | 13.62 | 120TH ST | 2(9) | CPUC |
| 22 | 13.89 | 124TH ST | 2(9) | CPUC |
| 23 | 14.69 | DOUGLAS ST | 2(8) 2(9) | CPUC |
| 24 | 14.79 | CHAPMAN WAY | 2(1-R) | BNSF/WSA |
| 25 | 15.08 | DOUGLAS/ROSECRANS STATION | 2(8) | BNSF/WSA |
| 26 | 16.10 | MARINE AVE | 2(9) 2(9A) | CPUC |
| 27 | 16.74 | INGLEWOOD AVE | 2(9A) | CPUC |
| 28 | 16.87 | MANHATTAN BEACH BLVD | 4(9) | CPUC |
| 29 | 16.94 | 159TH ST | 2(9) | CPUC |
| 30 | 17.01 | 160TH ST | 2(9) | CPUC |
| 31 | 17.08 | 161ST ST | 2(9) | CPUC |
| 32 | 17.14 | 162ND ST | 2(9) | CPUC |
| 33 | 17.62 | 170TH ST | 2(9) | CPUC |
| 34 | 18.38 | 182ND ST | 2(9) | CPUC |
| 35 | 21.24 | TORRANCE BLVD | 1(8) 1(9) 2(9A) | CPUC |
| 36 | 21.36 | EL DORADO ST | 2(1-D) | WSA |
| 37 | 21.48 | SONOMA ST | 2(9) | CPUC |
| 38 | 21.60 | CARSON ST | 2(8) 2(9) | CPUC |
| 39 | 22.10 | WASHINGTON AVE | 2(9) | CPUC |
| 40 | 22.24 | ARLINGTON AVE | 2(8) 2(9) | CPUC |
| 41 | 22.49 | CABRILLO AVE | 2(9) | CPUC |
| 42 | 22.57 | BORDER AVE | 2(9) | CPUC |
| 43 | 22.78 | SEPULVEDA BLVD | 1(8) 4(9) | CPUC |
| 44 | 23.03 | WESTERN AVE | 4(9) | CPUC |
| 45 | 24.79 | S FIGUEROA ST | 4(9) | CPUC |
| 46 | 24.92 | N.A. | 2(8) | WSA |
| 47 | 25.94 | AVALON BLVD | 4(9) | CPUC |
| 48 | 26.04 | BROAD AVE | 2(9) | CPUC |
| 49 | 26.11 | LAKME AVE | 2(9) | CPUC |
| 50 | 26.36 | WILMINGTON AVE | 2(9) | CPUC |

Notes: (1-D) – Pedestrian and bicycle railroad grade crossing sign mounted on a post
(1-R) – Cross buck sign mounted on a post
(8) – Highway crossing signal assembly, flashing light type
(9) – Highway crossing signal assembly, automatic gate type
(9A) – Highway crossing signal assembly, automatic gate type with cantilever arm

*Source: California PUC, BNSF railroad, Wilbur Smith Associates*


364940\accidents-2/27/02

APPROXIMATE SCALE
1" = 2.5 miles

Wilbur Smith Associates
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SOURCE: Federal Railroad Administration

Figure 2-5
NUMBER OF ACCIDENTS/INCIDENTS: 1975-2000

SOUTH BAY CITIES RAILROAD STUDY

**Table 2-13**
**Annual Number of Accidents at At-grade Railroad Crossings on the Harbor Subdivision Line**

| Period | No. of Accidents |
|---|---|
| 1975-1979 | 9 |
| 1980-1984 | 5 |
| 1985-1989 | 7 |
| 1990-1994 | 7 |
| 1995-1999 | 6 |
| 2000-2001* | 5 |
| Total | 39 |

Note: * until July 2001

*Source: FRA*

**Table 2-14**
**Number of Accidents at At-grade Railroad Crossings in the Study Area 1975-2001***

| No. | Milepost | Cross-street Name | Warning Device | No. of Accidents |
|---|---|---|---|---|
| 1 | 8.03 | CRENSHAW BLVD | 4(9) | 1 |
| 6 | 9.13 | CENTINELA AVE | 4(9) | 1 |
| 7 | 9.59 | LA BREA AVE | 4(9) | 5 |
| 9 | 9.94 | EUCALYPTUS AVE | 2(9) | 3 |
| 12 | 10.52 | HYDE PARK BLVD | 2(9) | 2 |
| 13 | 10.63 | LA CIENEGA BLVD (I-405 EXIT) | 4(9) | 2 |
| 15 | 11.11 | MANCHESTER BLVD | 4(9) | 1 |
| 16 | 11.63 | ARBOR VITAE ST | 2(9) | 2 |
| 19 | 13.13 | IMPERIAL HWY | 1(9) 3(9A) | 7 |
| 22 | 13.89 | 124TH ST | 2(9) | 1 |
| 23 | 14.69 | DOUGLAS ST | 2(8) 2(9) | 1 |
| 26 | 16.10 | MARINE AVE | 2(9) 2(9A) | 1 |
| 28 | 16.87 | MANHATTAN BEACH BLVD | 4(9) | 1 |
| 34 | 18.38 | 182ND ST | 2(9) | 2 |
| 38 | 21.6 | CARSON ST | 2(8) 2(9) | 1 |
| 40 | 22.24 | ARLINGTON AVE | 2(8) 2(9) | 1 |
| 44 | 23.03 | WESTERN AVE | 4(9) | 2 |
| 45 | 24.79 | S FIGUEROA ST | 4(9) | 1 |
| 49 | 26.11 | LAKME AVE | 2(9) | 1 |
| 50 | 26.36 | WILMINGTON AVE | 2(9) | 3 |

Notes:
* until July 2001
(8) – Highway crossing signal assembly, flashing light type
(9) – Highway crossing signal assembly, automatic gate type
(9A) – Highway crossing signal assembly, automatic gate type with cantilever arm

*Source: FRA, California PUC*

### 2.5.4 Railroad Accidents/Incidents

This section summarizes the accident/incident data reported annually by railroads to the CPUC and the FRA for the Harbor Subdivision line since 1975. As indicated in Section 2.5.1, the train accidents summarized in this section are subject to threshold reporting requirements set by the FRA. The reports themselves are not always comprehensive due to inconsistencies in the quality of information provided by the reporting party. For example, exact locations of accidents may not be known because the milepost number may not have been included in the report. Appendix H contains the 39 FRA highway-rail accidents/incident reports for the study area for the last 26 years. All entries in Appendix H are on the Harbor Subdivision line but not necessarily in the study area. Any accidents that did not occur in the study area were included only because they could not be eliminated with confidence, and because the study's preference was to err on the side of caution.

According to the FRA files, there have been 44 reported train-only accidents on the Harbor Subdivision line from 1975 until July 2001, averaging approximately two accidents a year. Twenty-one accidents were caused by either human error or train handling. Eleven accidents were due to worn out or defective equipment. Seven accidents were reported due to switching problems. Three accidents were due to faulty track alignments. Two accidents were due to damage to the rail or switch. These railroad incidents are summarized in Appendix H Table 1.

Both accidents involving vandalism occurred in the last three years. One accident occurred at or near the El Segundo Station in May 1998. Vandalism was reported to have caused damage to the switch and resulted in the derailment of three cars. The second reported accident occurred at or near the Los Angeles Station in August 1999. The track was determined to have been damaged by vandalism and resulted in the derailment of five cars.

There were only two reported non-crossing related injuries reported in the Project corridor to the FRA 1975 – July 2001, both suffered by railroad employees.

### 2.5.5 Nearby Accidents

Although some of the cities in the area provided traffic collision information in the vicinity of the railroad crossings, it was not possible to determine from the data the impacts that the presence of a train at the crossing may have had in the accident, if any. The aim of the analysis would have been to identify railroad accidents that:

- Occur adjacent to the Harbor Subdivision crossings; and
- May be associated with queues at railway crossings caused by passing trains; or
- May be caused by motorists seeking to avoid the queues.

Research showed that accidents away from the crossing are not reported in terms of relation to train crossings. Thus, the close proximity of crossings to the accident intersections makes it difficult to determine accidents caused by normal street traffic disruption or due to train operations.

# Chapter 3
# FUTURE CONDITIONS

## 3.1 FUTURE CORRIDOR DEMOGRAPHICS

As of April 2002, most of the train traffic on the Harbor Subdivision will emigrate to the Alameda Corridor. This traffic is port-related traffic – mostly containerized traffic traveling in trains often longer than a mile. Only modest traffic, originating and terminating on the line, will remain. Also, the trains themselves will be comparatively short – typically several hundred feet in length. These changes have implications for land use, as well as rail operations and vehicular delays at crossings through the study area, as well as for alternative uses of the right of way.

This section captures demographics through the study area. It discusses what the implications on land uses in the study area will likely be due to the reduction in rail traffic. It also discusses how the area's population and employment growth will bear on future crossing delays.

### 3.1.1 Land Use

Land uses along the subdivision have developed with frequent rail traffic already occurring. While land use will change over time, the extent of the changes will be minor. There may be modest increases in residential densities. Also, shifts in occupancy of commercial structures among office, retail, and service commercial uses are to be expected. A review of land use plans for the communities along the rail line suggests that no major changes from existing patterns should be expected.

The primary impact of the reduction in rail traffic will be to modestly increase the desirability of locating in areas near the rail line. Over time, communities along the line might anticipate sustained or increased residential values, and some increase in commercial attractiveness. These impacts probably are not measurable, and causative factors unrelated to the amount of rail traffic will continue to be more important. Also, a relatively unattractive railroad right of way can be a negative influence on perceptions of both residential and commercial attractiveness, regardless of the volume of train service. This impact might be countered by a program of tree or shrub planting along the right of way in those areas where width and railroad operating conditions are favorable.

### 3.1.2 Population

SCAG projections of the South Bay cities' total population shown in Table 3-1 indicate growth from 2000 to 2005 of about 0.8 percent per year. The greatest individual city growth rate between 2000 and 2005 is 1.4 percent per year for Carson, adding nearly 7,000 residents. Inglewood will add about 5,500 residents during the same time period. Manhattan Beach and Torrance exhibit the lowest growth rates of the study area at 0.3 percent between 2000 and 2005. Between 2005 and 2010, population growth rates are projected to slow in every city with Lawndale and Palos Verdes Estates exhibiting the highest growth rates projected at 0.3 percent. After 2005, the regional growth will slow to a rate of 0.1 percent per year up to 2015. More detailed population information is shown in Appendix I.

**Table 3-1**
**South Bay Cities Population Growth Forecasts**
**2005-2015**

| City | 2005 | Annual Growth | 2010 | Annual Growth | 2015 | Annual Growth |
|---|---|---|---|---|---|---|
| Carson | 100,900 | 1.4% | 101,700 | 0.1% | 102,400 | 0.1% |
| El Segundo | 17,400 | 0.8% | 17,600 | 0.2% | 17,700 | 0.1% |
| Gardena | 63,600 | 1.2% | 64,300 | 0.2% | 64,900 | 0.2% |
| Hawthorne | 81,900 | 0.6% | 82,000 | 0.0% | 82,000 | 0.0% |
| Hermosa Beach | 19,600 | 0.4% | 19,600 | 0.0% | 19,600 | 0.0% |
| Inglewood | 126,600 | 0.9% | 127,300 | 0.1% | 127,900 | 0.1% |
| Lawndale | 33,400 | 1.3% | 33,900 | 0.3% | 34,300 | 0.3% |
| Lomita | 22,500 | 1.3% | 22,700 | 0.2% | 22,900 | 0.2% |
| Manhattan Beach | 35,400 | 0.3% | 35,400 | 0.0% | 35,500 | 0.0% |
| Palos Verdes Estates | 15,000 | 0.7% | 15,300 | 0.3% | 15,600 | 0.3% |
| Rancho Palos Verdes | 46,200 | 0.8% | 46,500 | 0.1% | 46,800 | 0.1% |
| Redondo Beach | 68,700 | 0.7% | 68,800 | 0.0% | 68,900 | 0.0% |
| Rolling Hills | 2,100 | 0.8% | 2,100 | 0.1% | 2,100 | 0.1% |
| Rolling Hills Estates | 8,900 | 0.8% | 8,900 | 0.1% | 9,000 | 0.1% |
| Torrance | 145,600 | 0.3% | 145,600 | 0.0% | 145,700 | 0.0% |
| Unincorporated County | 118,600 | 0.6% | 118,600 | 0.0% | 118,600 | 0.0% |
| **Total South Bay Cities** | **906,400** | **0.8%** | **910,300** | **0.1%** | **913,900** | **0.1%** |

*Source: SCAG 2001 RTP*

### 3.1.3 Employment

SCAG projections of the South Bay cities' total employment shown in Table 3-2 indicate growth at 0.8 percent annually from 2000 to 2005. El Segundo is projected to add almost 6,000 jobs between 2000 and 2005, the highest of all growth rates at 2 percent. A decline in jobs of -0.3 and -0.2 percent each year between 2000 and 2005 was projected for the cities of Gardena and Hawthorne respectively. By 2010, Gardena and Hawthorne employment will grow again but at only 0.2 percent or less a year.

Total employment in the South Bay cities is expected to grow at a rate of 0.9 percent a year between 2005 and 2010. From 2010 to 2015 the yearly employment growth rate slows slightly to 0.5 percent per year. Generating 12,900 new jobs, El Segundo exhibits the highest rate of employment growth of all the cities in the study area. Employment there will rise from 55,900 in 2000 to 68,800 in 2015.

**Table 3-2**
**South Bay Cities Employment Growth Forecasts**
**2005-2015**

| City | 2005 | Annual Growth | 2010 | Annual Growth | 2015 | Annual Growth |
|---|---|---|---|---|---|---|
| Carson | 61,100 | 1.3% | 64,300 | 1.0% | 66,200 | 0.6% |
| El Segundo | 61,800 | 2.0% | 66,200 | 1.4% | 68,800 | 0.8% |
| Gardena | 34,200 | -0.3% | 34,600 | 0.2% | 34,800 | 0.1% |
| Hawthorne | 33,600 | -0.2% | 34,000 | 0.2% | 34,200 | 0.1% |
| Hermosa Beach | 8,900 | 0.3% | 9,200 | 0.5% | 9,300 | 0.3% |
| Inglewood | 51,000 | 0.2% | 52,400 | 0.6% | 53,300 | 0.3% |
| Lawndale | 7,500 | 0.3% | 7,800 | 0.6% | 7,900 | 0.4% |
| Lomita | 8,000 | 0.4% | 8,200 | 0.5% | 8,400 | 0.3% |
| Manhattan Beach | 14,100 | 0.3% | 14,500 | 0.6% | 14,700 | 0.3% |
| Palos Verdes Estates | 1,300 | 0.3% | 1,300 | 0.5% | 1,400 | 0.4% |
| Rancho Palos Verdes | 4,400 | 0.3% | 4,500 | 0.6% | 4,600 | 0.3% |
| Redondo Beach | 24,900 | 0.3% | 25,600 | 0.5% | 26,000 | 0.3% |
| Rolling Hills | 300 | 0.5% | 300 | 0.4% | 300 | 0.3% |
| Rolling Hills Estates | 4,700 | 0.3% | 4,900 | 0.5% | 4,900 | 0.3% |
| Torrance | 115,900 | 1.2% | 122,800 | 1.2% | 126,900 | 0.7% |
| Unincorporated County | 23,500 | 1.4% | 25,100 | 1.4% | 26,100 | 0.8% |
| **Total South Bay Cities** | 455,200 | 0.8% | 475,700 | 0.9% | 487,800 | 0.5% |

*Source: SCAG 2001 RTP*

## 3.2 FUTURE FREIGHT RAIL OPERATIONS

The opening of the Alameda Corridor in 2002 will have a major impact on rail traffic currently moving on the BNSF's Harbor Subdivision. Specifically, BNSF through traffic moving between the Ports of Los Angeles and Long Beach and the railroad's downtown Los Angeles railhead will shift to the Alameda Corridor, which runs east of the BNSF on a route parallel to and about midway between the Harbor Freeway and the Long Beach Freeway. These trains include the double-stack, manifest and slab trains discussed in the previous chapter. What will remain on the Harbor Subdivision will be local traffic. This activity will be concentrated in El Segundo and Alcoa Yard.

Rail operations for the foreseeable future are described below and are also summarized in Figure 3-1. The narrative that follows below describes future subdivision operations as railroad officials envision them.

### 3.2.1 Shippers

The major local shippers identified in Chapter 2 will be the same. These are located between El Segundo and Watson Yard, and will be served by locals originating in Watson Yard. While any inactive shippers may become active again, it is difficult to predict the future volumes, except to say that such volumes would be minor. Railroad officials reported that they are not aware of any

new shippers forecasted to use the line. Circus train operations at Lairport (Milepost 13.6) will remain as they are today.

Shippers on the subdivision between Redondo Junction (Milepost 0.0) and milepost 9 in Inglewood will be served by locals originating downtown in Hobart Yard. Most of the traffic on this portion of the Harbor Subdivision will be outside the study area, going between Malabar Yard and Hobart Yard. Once the Alameda Corridor opens, rail traffic between milepost 9 and Malabar Yard will be light and infrequent.

There are not likely to be any active shippers between mileposts 9 and 12. As a result, BNSF anticipates no regular service in this segment.

### 3.2.2 Trains and Hours of Operations

- *Through trains* will cease following the opening of the Alameda Corridor in 2002, consistent with the prevailing agreements cited in Chapter 1. During the course of this study, BNSF indicated that there are no planned through movements on the Harbor Subdivision, including the shuttling of locomotives between Redondo Junction (Milepost 0.0) near downtown and Watson Yard (Milepost 26.5). The line will not be available even as a detour route, assuming a blocked Alameda Corridor, after June 2003.
- *Local train operations* should continue unchanged between El Segundo (Milepost 14.8) and Watson Yard after Alameda Corridor opens. As stated, BNSF has no plans to operate trains between milepost 12 north of El Segundo and milepost 9 in Inglewood. As a practical matter, there should be no regular volume north of El Segundo (Milepost 14.8), other than the annual circus train stored at Lairport. Nor should there be any volume to speak of west of Malabar Yard (Milepost 1.5). Nevertheless, BNSF indicated that *occasionally* it could operate between milepost 12 and Malabar Yard[1]. Future local train volumes appear in Figure 3-1. It should be expected that weekend volume might be somewhat less than that on weekdays.

### 3.2.3 Train Length and Speed

Local train length should grow slowly over time due to increasing traffic. BNSF network planners estimate that carload traffic (as compared to intermodal container traffic) will grow at 1 to 2 percent per year, which is the historical average. The current 20-mph speed restriction will not change.

### 3.2.4 Line Maintenance

Once the port-related traffic shifts to the Alameda Corridor, the line will require less ongoing maintenance to retain its present condition. BNSF indicated that it does not foresee any major change in its maintenance practices following the shift in through traffic. Accordingly, the study assumes the line will be maintained to its current Class 2 standards. With the decrease in

[1] According to Inglewood city officials, the BNSF had at one time indicated that it would abandon the use of the Harbor Subdivision through Inglewood. However, repeated comments from the railroad made with reference to this study indicated that BNSF intends to operate and maintain the line through Inglewood, even if only for occasional trains.

volume, the line will require inspections once a week versus twice a week now. This is a level appropriate for the volume and type of traffic remaining on the line.

As a result of daily local trains going between El Segundo and Watson Yard, the annual circus train to Lairport, occasional other trains between Malabar Yard and milepost 12, and regular local service from downtown to Malabar Yard, the entire length of the subdivision will have to be maintained. BNSF expressed this conclusion.

### 3.2.5 Yards, Sidings, Lease Track, Storage and Switching Activity

None of these facilities and activities will change as a result of the shift in through traffic to the Alameda Corridor. The facilities will remain necessary to serve local customers after the corridor's opening. Switching activity pertains to local shippers, and therefore will not change with the shift of port-related traffic from the line.

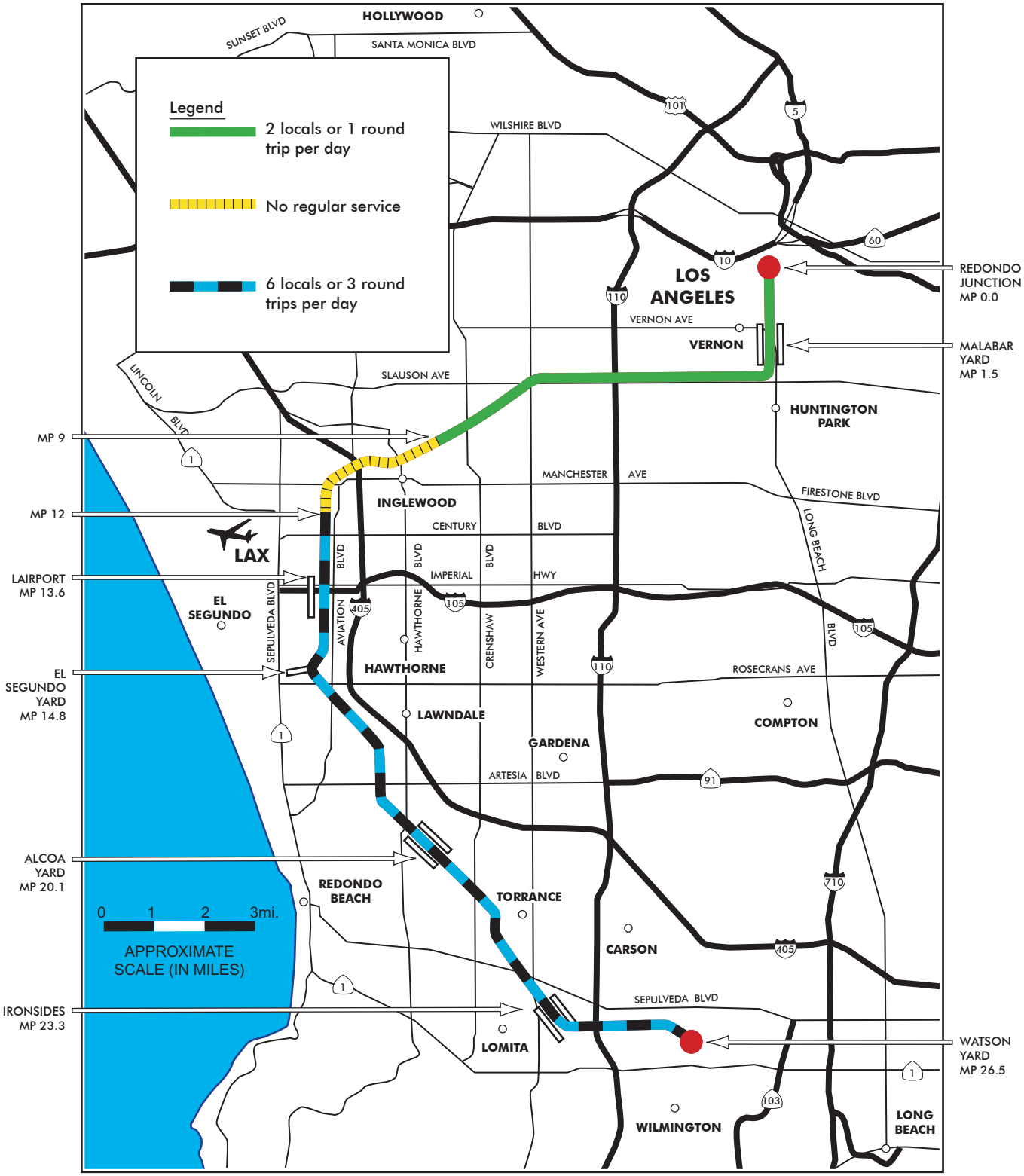
### 3.2.6 Alameda Corridor Capacity

In the event of blockages on the Alameda Corridor or overflow traffic, the Harbor Subdivision may see trains carrying port-related traffic detoured onto the line. However, the line will not be available for detours past mid 2003, per the 1998 Alameda Corridor Use and Operating Agreement. From that point forward, the detour routes will be the UP's Wilmington and San Pedro Branches. These two routes will have to handle diversions of UP and BNSF port-related train traffic to and from Los Angeles. While there may be capacity constraints on these routes, these will last until the corridor blockages or overflow conditions can be resolved. Only in case of an emergency is it imaginable that the Harbor Subdivision will be employed for port-related train traffic beyond June 2003.

### 3.2.7 Air Quality and Noise

There obviously will be a reduction in noise levels, particularly near grade crossings, as fewer trains will be sounding crossing warnings, and grade crossing bells will be operating less often. The reduced number of trains will mean less operating noise – diesel locomotive noise and wheel noise. To the extent that fewer trains mean less delay and queuing at-grade crossings, there may be a slight reduction in vehicular traffic noise since more cars and trucks will be able to pass through the area with greater ease.

The reduction in train operations will contribute slightly to a reduction in air pollution in the Los Angeles basin, since the Alameda Corridor will provide a shorter route with a more steady train speed. The reduction in vehicular idling time at grade crossings as a result of reduced numbers of trains also will lessen air pollution, but the scale of the reduction will be minor. Delays at traffic lights or due to traffic conditions unrelated to the rail line and the total volume of traffic on highways and local streets are the prime contributors to air pollution. These will be unchanged by the reduced rail traffic.




ENGINEERS
PLANNERS
ECONOMISTS
Wilbur Smith Associates

Figure 3-1
**LOCAL TRAINS PER DAY - HARBOR SUBDIVISION**
364940\Base/1-30-02

## 3.3 FUTURE VEHICULAR TRAFFIC OPERATIONS

### 3.3.1 Planned Railroad Grade Separation Projects

Two cities have plans for railroad separation projects in the study area. The cities indicated that the two projects would proceed, irrespective of any change in rail operations on the Harbor Subdivision.

- The ***City of El Segundo*** has a plan to connect Douglas Street, which is divided now by the Harbor Subdivision right of way, with an undercrossing. The connection would permit travel between Rosecrans Avenue on the south and El Segundo Boulevard on the north. The project is fully funded with a combination of local, state, and federal funds. It is under design and expected to be under construction within 12 to 18 months.
- The ***City of Torrance*** has a plan to connect the east and west portions of Del Amo Boulevard, which is divided by the Harbor Subdivision, with an overcrossing. The project would connect two sections of a major thoroughfare while avoiding the potentially severe delays associated with BNSF switching at the Exxon-Mobil Refinery. The overcrossing will fly over a set of six tracks at Alcoa Yard, where switching activity occurs daily. The grade separation and street connection project will cost about $18 million, and is fully funded with a combination of state, LACMTA and local funds. It is undergoing environmental clearance, and should be completed within a year.

### 3.3.2 Vehicle Traffic Volumes

Table 3-3 summarizes the average daily traffic (ADT) expected for the years 2005 and 2015 at the railroad crossings in the study area. The ADT has been calculated using the current daily vehicular volumes identified in Chapter 2 of this report, and applying a 1 percent annual growth rate in vehicular traffic. This growth rate is based on the growth in population and employment expected to occur in the South Bay Cities region (0.8%), as discussed in Section 3.1.1 and 3.1.2 of this document.

### 3.3.3 Crossing Delays

This section evaluates the future delays estimated for motor vehicles at the railroad crossings in the years 2005 and 2015 as a result of the presence of a train. The results are summarized in Table 3-4. Appendix F includes a detailed explanation of the methodology used to estimate those delays.

As Table 3-4 indicates, the elimination of through train traffic along the Harbor Subdivision results in all crossings operating at a LOS A, even with the expected increase in the number of vehicles traveling across the crossing, and shown in Table 3-3.

**Table 3-3**
**Estimated Average Daily Traffic (ADT) Volumes**
**Years 2005 and 2015**

| No. | Milepost | Cross-street Name | ADT (vehicles per day) | |
|---|---|---|---|---|
| | | | 2005 | 2015 |
| 1 | 8.03 | CRENSHAW BLVD | 24,700 | 27,300 |
| 2 | 8.14 | VICTORIA AVE | 800 | 900 |
| 3 | 8.23 | BRYNHURST AVE | 700 | 800 |
| 4 | 8.32 | WEST BLVD | 5,600 | 6,200 |
| 5 | 8.60 | REDONDO BLVD | 7,900 | 8,700 |
| 7 | 9.13 | CENTINELA AVE | 32,600 | 36,000 |
| 8 | 9.59 | LA BREA AVE | 33,600 | 37,100 |
| 9 | 9.82 | IVY AVE | 2,600 | 2,900 |
| 10 | 9.94 | EUCALYPTUS AVE | 13,100 | 14,500 |
| 12 | 10.21 | NORTH CEDAR AVE | 800 | 900 |
| 13 | 10.36 | OAK ST | 3,400 | 3,800 |
| 12 | 10.52 | HYDE PARK BLVD | 4,200 | 4,600 |
| 13 | 10.63 | LA CIENEGA BLVD (I-405 EXIT) | 33,600 | 37,100 |
| 14 | 10.82 | HINDRY | 4,700 | 5,200 |
| 15 | 11.11 | MANCHESTER BLVD | 33,600 | 37,100 |
| 16 | 11.63 | ARBOR VITAE ST | 18,900 | 20,900 |
| 17 | 12.36 | 104TH ST | 5,800 | 6,400 |
| 18 | 12.92 | 111TH ST | 6,600 | 7,300 |
| 19 | 13.13 | IMPERIAL HWY | 38,900 | 43,000 |
| 20 | 13.37 | 118 TH ST | 800 | 900 |
| 21 | 13.62 | 120TH ST | 1,900 | 2,100 |
| 22 | 13.89 | 124TH ST | Private Crossing | |
| 23 | 14.69 | DOUGLAS ST | 9,700 | 10,700 |
| 24 | 14.79 | CHAPMAN WY | Private Crossing | |
| 25 | 15.08 | DOUGLAS/ROSECRANS STATION | Pedestrian Crossing | |
| 26 | 16.10 | MARINE AVE | 26,100 | 28,800 |
| 27 | 16.74 | INGLEWOOD AVE | 50,200 | 55,500 |
| 28 | 16.87 | MANHATTAN BEACH BLVD | 26,600 | 29,400 |
| 29 | 16.94 | 159TH ST | 600 | 700 |
| 30 | 17.01 | 160TH ST | 600 | 700 |
| 31 | 17.08 | 161ST ST | 700 | 800 |
| 32 | 17.14 | 162ND ST | 2,200 | 2,400 |
| 33 | 17.62 | 170TH ST | 2,600 | 2,900 |
| 34 | 18.38 | 182ND ST | 11,200 | 12,400 |
| 35 | 21.24 | TORRANCE BLVD | 29,200 | 32,300 |
| 36 | 21.36 | EL DORADO ST | Pedestrian Crossing | |
| 37 | 21.48 | SONOMA ST | 1,300 | 1,400 |
| 38 | 21.60 | CARSON ST | 36,800 | 40,700 |
| 39 | 22.10 | WASHINGTON AVE | 4,000 | 4,400 |
| 40 | 22.24 | ARLINGTON AVE | 8,500 | 9,400 |
| 41 | 22.49 | CABRILLO AVE | 11,200 | 12,400 |
| 42 | 22.57 | BORDER AVE | 900 | 1,000 |
| 43 | 22.78 | SEPULVEDA BLVD | 55,500 | 61,300 |
| 44 | 23.03 | WESTERN AVE | 32,000 | 35,300 |
| 45 | 24.79 | S FIGUEROA ST | 11,600 | 12,800 |
| 46 | 24.92 | N.A. | Private Crossing | |
| 47 | 25.94 | AVALON BLVD | 18,900 | 20,900 |
| 48 | 26.04 | BROAD AVE | 1,200 | 1,300 |
| 49 | 26.11 | LAKME AVE | 1,600 | 1,800 |
| 50 | 26.36 | WILMINGTON AVE | 18,900 | 20,900 |

*Source: Wilbur Smith Associates*

**Table 3-4**
**Estimated Delays at Railroad Crossings in the Study Area**
**Years 2005 and 2015**

| No. | Milepost | Cross-street Name | Year 2005 | | Year 2015 | |
|---|---|---|---|---|---|---|
| | | | Avg. delay (sec./veh.) | LOS at Crossing | Avg. delay (sec./veh.) | LOS at Crossing |
| 1 | 8.03 | CRENSHAW BLVD | 0.0 | A | 0.0 | A |
| 2 | 8.14 | VICTORIA AVE | 0.0 | A | 0.0 | A |
| 3 | 8.23 | BRYNHURST AVE | 0.0 | A | 0.0 | A |
| 4 | 8.32 | WEST BLVD | 0.0 | A | 0.0 | A |
| 5 | 8.60 | REDONDO BLVD | 0.0 | A | 0.0 | A |
| 6 | 9.13 | CENTINELA AVE | 0.0 | A | 0.0 | A |
| 7 | 9.59 | LA BREA AVE | 0.0 | A | 0.0 | A |
| 8 | 9.82 | IVY AVE | 0.0 | A | 0.0 | A |
| 9 | 9.94 | EUCALYPTUS AVE | 0.0 | A | 0.0 | A |
| 10 | 10.21 | NORTH CEDAR AVE | 0.0 | A | 0.0 | A |
| 11 | 10.36 | OAK ST | 0.0 | A | 0.0 | A |
| 12 | 10.52 | HYDE PARK BLVD | 0.0 | A | 0.0 | A |
| 13 | 10.63 | LA CIENEGA BLVD (I-405 EXIT) | 0.0 | A | 0.0 | A |
| 14 | 10.82 | HINDRY ST | 0.0 | A | 0.0 | A |
| 15 | 11.11 | MANCHESTER BLVD | 0.0 | A | 0.0 | A |
| 16 | 11.63 | ARBOR VITAE ST | 0.0 | A | 0.0 | A |
| 17 | 12.36 | $104^{TH}$ ST | 0.2 | A | 0.2 | A |
| 18 | 12.92 | $111^{TH}$ ST | 0.2 | A | 0.2 | A |
| 19 | 13.13 | IMPERIAL HWY | 0.1 | A | 0.1 | A |
| 20 | 13.37 | $118^{TH}$ ST | 0.1 | A | 0.1 | A |
| 21 | 13.62 | $120^{TH}$ ST | 0.1 | A | 0.1 | A |
| 22 | 13.89 | $124^{TH}$ ST | NA | NA | NA | NA |
| 23 | 14.69 | DOUGLAS ST | 0.3 | A | 0.3 | A |
| 24 | 14.79 | CHAPMAN WY | NA | NA | NA | NA |
| 25 | 15.08 | DOUGLAS/ROSECRANS STATION | NA | NA | NA | NA |
| 26 | 16.10 | MARINE AVE | 0.2 | A | 0.2 | A |
| 27 | 16.74 | INGLEWOOD AVE | 0.2 | A | 0.2 | A |
| 28 | 16.87 | MANHATTAN BEACH BLVD | 0.1 | A | 0.1 | A |
| 29 | 16.94 | $159^{TH}$ ST | 0.1 | A | 0.1 | A |
| 30 | 17.01 | $160^{TH}$ ST | 0.1 | A | 0.1 | A |
| 31 | 17.08 | $161^{ST}$ ST | 0.1 | A | 0.1 | A |
| 32 | 17.14 | $162^{ND}$ ST | 0.1 | A | 0.1 | A |
| 33 | 17.62 | $170^{TH}$ ST | 0.1 | A | 0.1 | A |
| 34 | 18.38 | $182^{ND}$ ST | 0.3 | A | 0.3 | A |
| 35 | 21.24 | TORRANCE BLVD | 0.2 | A | 0.2 | A |
| 36 | 21.36 | EL DORADO ST | NA | NA | NA | NA |
| 37 | 21.48 | SONOMA ST | 0.1 | A | 0.1 | A |
| 38 | 21.60 | CARSON ST | 0.2 | A | 0.2 | A |
| 39 | 22.10 | WASHINGTON AVE | 0.1 | A | 0.1 | A |
| 40 | 22.24 | ARLINGTON AVE | 0.2 | A | 0.2 | A |
| 41 | 22.49 | CABRILLO AVE | 0.3 | A | 0.3 | A |
| 42 | 22.57 | BORDER AVE | 0.1 | A | 0.1 | A |
| 43 | 22.78 | SEPULVEDA BLVD | 0.2 | A | 0.2 | A |
| 44 | 23.03 | WESTERN AVE | 0.2 | A | 0.2 | A |
| 45 | 24.79 | S. FIGUEROA ST | 0.1 | A | 0.1 | A |
| 46 | 24.92 | N.A. | NA | NA | NA | NA |
| 47 | 25.94 | AVALON BLVD | 0.1 | A | 0.1 | A |
| 48 | 26.04 | BROAD AVE | 0.1 | A | 0.1 | A |
| 49 | 26.11 | LAKME AVE | 0.1 | A | 0.1 | A |
| 50 | 26.36 | WILMINGTON AVE | 0.2 | A | 0.2 | A |

*Source: Wilbur Smith Associates*

### 3.3.4 Nearby Intersection Delays

Nearby intersection delays due to crossing delays can be expected to be virtually eliminated in the future with the expected changes in railroad operations on the Harbor Subdivision line. As shown in Table 3-4, the estimates for crossing delays 2005 and 2015 show substantial improvements in delay times per vehicle and the levels of service. As a result, nearby intersection delays due to crossing delays should decrease substantially.

## 3.4 SAFETY

### 3.4.1 Changes to At-grade Crossing Warning Devices

The railroad warning devices currently installed at the at-grade crossings carry out their function appropriately for the level of exposure faced by those crossing the track. On the other hand, even though a substantial decrease in rail traffic is expected in the near future, it is not recommended that the current level of railroad warning and safety be modified in the corridor. Virtually all of the at-grade crossings are equipped with a signal assembly that includes flashing lights and automatic gates. This is the highest level of protection available for an at-grade crossing. The current level of active railroad warning devices would become necessary if any sort of passenger rail service were implemented on the line.

The WSA consulting team has contacted staff from the Rail Crossing Engineering Division of the CPUC regarding the potential elimination of railroad warning devices at those crossings between milepost 9.0 and milepost 12.0, where no train traffic is expected in the future after the opening of the Alameda Corridor. The CPUC staff has indicated that the existing railroad warning devices can only be eliminated if that particular segment is to be abandoned by the railroad[2] and the tracks are removed or, at a minimum, cut at both ends of the crossing. Furthermore, if train service were to be reinstated after the existing warning devices are removed, new devices would have to be installed prior to issuance of an operating permit by the FRA and the CPUC. These new devices would have to comply with the requirements issued by the CPUC at that time, which, in some instances, might be more restrictive than today's.

***La Brea Avenue (MP 9.59) – Vehicles stopped on tracks***

Nevertheless, the consulting team has identified some minor operational issues at key at-grade crossings. If these operational issues persist after rail traffic is substantially reduced in 2002, they can be addressed by means of traffic engineering elements. These locations include:

[2] See Section 1.2.4 for a detailed discussion of railroad abandonment and the necessary requirements for its implementation, which requires a petition from the railroad operator in front of the Surface Transportation Board and the CPUC.

**La Brea Avenue (MP 9.59)**

*Issue:* Southbound vehicles stopping on the tracks.
*Potential solutions:* Additional signage and installation of a pre-signal (a signal on the north side of the tracks preventing cars stopping across tracks) and improved striping.
*Approximate cost:* $5,000 to $50,000

**La Cienega Boulevard (MP 10.63)**

*Issue:* Freeway off-ramp, high rate of speed; some southbound vehicles observed stopping on tracks.
*Potential solutions:* Additional signage, improved striping.
*Approximate cost:* $5,000 to $10,000

**Imperial Highway (MP 13.13)**

*Issue:* Very wide intersection and crossing with three train tracks. Queuing over the tracks observed for the eastbound Imperial to southbound Aviation movement.
*Potential solutions:* Improved striping, additional signage.
*Approximate cost:* $5,000 to $10,000

**Marine Avenue (MP 16.10)**

*Issue:* Eastbound and westbound traffic back-up blocks nearby streets and driveways.
Potential solutions: Additional striping and signage.
*Approximate cost:* $5,000 to $10,000

**Inglewood Avenue (MP 16.74)**

*Issue:* Southbound traffic back-up due to Manhattan Beach Boulevard traffic lights and left turn into private driveway across railroad tracks.
*Potential solutions:* Adjust traffic signal timing, build raised median, prohibit left turn into private driveway.
*Approximate cost:* $10,000 to $50,000

**Manhattan Beach Boulevard (MP 16.87)**

*Issue:* Close proximity to Inglewood Avenue. Traffic back-ups shut down Manhattan Beach Boulevard and Inglewood Avenue.
*Potential solutions:* No traffic engineering solution has been identified; it is expected that the future reduction in the number of trains would greatly reduce the problem.
*Approximate cost:* N.A.

**Torrance Boulevard (MP 21.24)**

*Issue:* Westbound traffic backs-up into railroad crossing due to traffic signal at Crenshaw Boulevard and to uneven distribution of traffic among westbound lanes
*Potential solution:* Adjust signal timing slightly at Crenshaw Boulevard.
*Approximate cost:* $0

***Torrance Boulevard (MP 21.24) – Westbound traffic backs-up into railroad crossing.***

**Carson Street (MP 21.60)**

*Issue:* Vehicles traveling eastbound on Carson Street tend to run over and stop beyond the stop line.
*Potential solution:* Improve striping.
*Approximate cost:* $5,000


***Carson Street (MP 21.60) – Vehicles stopped on tracks***

**Sepulveda Boulevard (MP 22.78)**

*Issue:* Back-up of vehicular traffic from the railroad crossing to the east and west of the crossing along Sepulveda Boulevard; observed eastbound traffic back-up from Western Avenue to the railroad crossing and beyond.
*Potential solutions:* Signal timing adjustments at Western Avenue, additional signage.
*Approximate cost:* $5,000

**Western Avenue (MP 23.03)**

*Issue:* The two Ironsides sidings (one on either side of the main line) located southeast of the railroad crossing; switching operations affect both the Western Avenue crossing and the Sepulveda Boulevard crossing to the northwest.
*Potential solutions:* revise warning time and gate down operations related to train switching maneuvers and adjust if necessary.
*Approximate cost:* $0

It should be noted that the potential solutions identified above are only preliminary suggestions. They should be further evaluated and developed by the local traffic engineers and the railroad operations staff prior to their adoption or implementation.

### 3.4.2 Crossing and Railroad Accidents

The expected decline in future rail traffic on the Harbor Subdivision line suggests that the probability of vehicular and train accidents will decline substantially as well.

## 3.5 OTHER RAILROAD AND TRANSIT ALTERNATIVES

It now appears certain that, despite the major shift of through freight traffic from this route to the new Alameda Corridor in mid-2002, a modest level of freight service will remain along most segments of the Harbor Subdivision. This continuing service means that very little of the right of way will actually be left without any freight service at all. The implication is that alternative uses must be consistent with and/or account for continuing freight rail service on the line. Furthermore, the value of a continuous right of way cannot be disregarded lightly. Whether for utilities, future pedestrian and bikeway trails, or even new passenger service, the Harbor Subdivision is a uniquely valuable resource that should under all circumstances be preserved.

One of the highest potential alternative uses for this line is for rail passenger service. Six such alternatives are presented below. All alternatives will require substantial public investment, but at the same time, they appear to offer local and regional transportation benefits.

### 3.5.1 Green Line Extension to Los Angeles International Airport

The Metro Green Line runs from a terminus at Marine Avenue northward toward LAX and then eastward along the Glenn Anderson (I-105) Freeway to Norwalk. The station closest to LAX is the Aviation/I-105 Station (above Aviation Boulevard), where shuttle services provide a connection to the airport. At one time there was a discussion of a Green Line spur that would terminate near LAX. This proposed spur was eliminated during the final stages of negotiation with the Federal Aviation Administration (FAA). The beginnings of the LAX spur can still be seen at the west end of the elevated station at Aviation Boulevard.

There now appear to be renewed efforts to bring light rail closer to the airport as a result of planning efforts to improve operations at LAX[3]. One extension concept would have the Green Line descend from its elevated platform above Aviation to run parallel to the Harbor Subdivision. It would continue via a new right of way to a connection with the proposed airport People Mover.

The Harbor Subdivision alignment along Aviation Boulevard and just east of the southern set of runways is one of those sections of the route not expected to have any regular freight service. In that regard, it is an excellent candidate for the extension of Metro Green Line service into the airport. However, FAA issues still remain.

In constructing this line extension, attention must be paid to ways of ensuring that the overhead catenary system (by which electrical power comes to the light rail vehicle propulsion motors) is at a much lower height than airport "localizers". (Localizers are the vertical poles with navigational lights used to direct pilots during landings.) This, according to the LACMTA, had been the FAA's key issue. The solution may be in depressing the light rail line relative to the Harbor Subdivision.

A Green Line extension to LAX would provide a new transit alternative for South Bay residents, who could board the service at five stations in the South Bay for trips to the airport. The stations are Marine/Redondo Beach, Douglas/Rosecrans, El Segundo/Nash, Mariposa/Nash, and Aviation/I-105. The link would provide a regional benefit in that residents along the I-105 Corridor, who either seek to use or work at LAX, would have an improved transit option.

There also appears to be interest in extending the Metro Green Line from its eastern terminus at the I-605/I-105 Station to the nearby Metrolink commuter station at Norwalk. A shuttle service runs between the Green Line and Metrolink stations in Norwalk now. Establishment of this link in conjunction with a Green Line extension to LAX would provide another regional benefit, i.e., an improved transit alternative between points served by Metrolink in Riverside and Orange Counties to LAX, as well as other stations along the Green Line.

[3] SCAG's RTP shows this project as between the Green Line's Mariposa/Nash Station in El Segundo and Century and Sepulveda Boulevards at LAX. It is described as a light rail system, with completion in 2010. Also, the extension is included in the LACMTA's 20-year plan, designated as a project to be funded outside of the agency.

### 3.5.2 High Speed Rail to LAX

During the past two years, the Southern California Association of Governments (SCAG) has been examining a proposed high-speed, magnetic levitation rail service (Maglev) between LAX, downtown Los Angeles and the Inland Empire. One of the proposed alignments between the downtown area and LAX utilizes the Harbor Subdivision right of way for much of the distance.

The Maglev project has not received a full funding agreement with the federal government, and it is not clear if the project as structured will proceed. Nevertheless, one of the valuable findings from the preparatory work done on that application was the rather substantial ridership forecast for travel in the corridor between the airport and downtown.

In a report prepared for SCAG, the Maglev consultant team found that an all-day service operating on 20-minute headways between LAX and Union Station in downtown Los Angeles would have 7,772 daily passenger boardings. If operated just during the peak commuting period, it would carry 3,452 daily passengers[4].

Separately, the California High Speed Rail Authority (HSRA) is investigating a high speed rail connection between Los Angeles Union Station (LAUS) and LAX. The agency's consultants have investigated three routes: the Harbor Subdivision, an I-10/I-405 route, and an I-110/I-105 route. The agency eliminated the two freeway routes, with the Harbor Subdivision being retained for further study[5].

The Maglev or other high speed rail service would have to include a fully grade-separated right of way for trains reaching speeds of 100 mph along portions of the route between downtown and the airport. Whatever the service, a high speed rail access using the Harbor Subdivision for at least part of its route from downtown LA would be expensive. No doubt, the major challenge to this alternative will be finding an adequate funding source.

The benefits that a high speed rail service between LAX and downtown could provide South Bay residents are three. These are a speedy transit link to downtown Los Angeles, transit access to the Metrolink commuter rail system and Amtrak services at LAUS, and access to a future statewide high speed rail system, should that system ever be built.

### 3.5.3 Conventional Rail Passenger Service to LAX

While a Maglev system is clearly capable of far greater speed (and far less travel time) than a conventional train – particularly over great distances – the difference between Maglev and conventional rail in the 16-mile corridor between LAX and downtown would be modest. Thus, the ridership forecast prepared for the proposed Maglev service is illustrative of what could be achieved by a conventional rail service using the Harbor Subdivision as well as the UP and track belonging to the Southern California Regional Rail Authority, the sponsor of the Metrolink service.

[4] Table 6-8 – Station to Station Daily Passenger Boardings for MAGLEV Alternative 2mhc, page 6-28 of *Preliminary Ridership and Revenue Forecasts, June 2000.*

[5] Per correspondence with HSRA consultants retained to study a high speed rail route to LAX.

Of the six current Metrolink regional commuter lines, only one carries more than the estimated 7,772 riders forecast for the Maglev line. The average ridership on each Metrolink route is 5,666 (34,000 average daily trips divided by 6 routes). On a comparative basis, it appears that a conventional commuter rail link between LAUS downtown and LAX using a portion of the Harbor Subdivision merits study. Enabling this option is the projected decline in freight traffic on the subdivision.

Like the high speed rail alternatives, a commuter rail service could also eventually be fully grade-separated. However, it could also operate initially over upgraded conventional railroad tracks and become grade-separated through incremental construction over time. Metrolink provides a good example of what a typical commuter train looks like: double-decker cars pulled/pushed by a locomotive.

From west to east, the route could begin at a connection with the LAX People Mover and employ new track to reach the Harbor Subdivision right of way. Thence the route would be through Inglewood and parallel to Slauson Avenue. It would then diverge from the Harbor Subdivision and connect to the UP Wilmington Branch at Long Beach Avenue. At this location the Metro Blue Line is on an overhead structure, and it appeared from the consultant team's site visit that there is sufficient room between the support columns of this structure to construct a moderate speed connection between the Harbor Subdivision and UP tracks. It also appeared that an older light industrial structure would have to be acquired to make this track connection possible.

Once on the UP right of way, the route would include Vernon Avenue Station and a connection with the Blue Line. The commuter route would follow the UP alignment as it approaches the new Alameda Corridor alignment. It would swing to the north of the Alameda Corridor and connect with existing Metrolink track on the west bank of the Los Angeles River adjacent to the Amtrak Locomotive Servicing facility at Redondo Junction. From there, it would proceed into Union Station. A possible operator would be LACMTA. Alternatively, the Southern California Regional Rail Authority (Metrolink) could run the service. Metrolink already offers a comparatively short intra-county downtown-to-airport service, i.e., its Burbank Airport round trip.

The challenges to implementing such a system include:

- Upgrading the route with new track, signals, and grade crossing protection sufficient to handle a commuter rail operation.
- Grade separation at La Cienega, at its crossing of the Harbor Subdivision on the west side of the I-405 freeway, to prevent delays to vehicular traffic.
- Rights from UP to use the Wilmington Branch. UP may be amenable, as freight volume on the line will decline consequent to the opening of the Alameda Corridor.
- Competition with other regional projects for scarce public transit investment dollars.

Benefits for South Bay residents from such a commuter rail route would be the same as those provided by a high speed rail route: speedy access to downtown LA and to regional and state transportation systems centered there. For example, a South Bay resident could board a train departing the airport station and interchange at LAUS to Metrolink for Lancaster, San

Bernardino, or Riverside, or could interchange to various Amtrak trains. If Metrolink were the operator, a through service between LAX and current Metrolink destinations could be established. This alternative will have benefits for the region in terms of providing direct transit access to LAX.

### 3.5.4 New Light Rail or Bus Rapid Transit to LAX

LACMTA is currently studying a proposed Crenshaw Corridor Project[6]. One concept would establish a light rail or bus rapid transit (BRT) fixed guideway system from Wilshire Boulevard on Crenshaw Boulevard to the Harbor Subdivision. The route would use the subdivision's right of way to the vicinity of the airport and new track to access the airport itself (People Mover connection), where there would be a connection with the northerly extension of the Green Line. However, no definitive routing concept has been selected. A report on the corridor is due in February 2002.

This corridor study is in its preliminary stages and many questions need to be answered. Among these is whether the service would utilize light rail technology or employ a BRT concept. Conceivably, a light rail service could utilize the existing track on the subdivision west of Crenshaw at M.P. 8. This should pose no particular problem, since BNSF anticipates only occasional use of the line between M.P. 9 and the airport, and, as a practical matter, very few trains will operate beyond Malabar Yard at M.P. 1.5. Indeed, freight trains and light rail vehicles use the same tracks south of San Diego to Tijuana, although the services are time-separated, with freight trains running only between late night and pre-dawn hours. Because of safety concerns, FRA regulations prohibit the shared use of track by light rail vehicles and freight or conventional passenger trains, except by time separation.

A BRT concept would require a fixed guideway separate from the existing trackage in the subdivision. However, a separate fixed guideway appears to pose a challenge, because most of the right of way west of Crenshaw to the airport is less than 60 feet. Such widths would be too narrow to accommodate both tracks and a BRT fixed guideway.

The Crenshaw Corridor concept could be linked with the Exposition Corridor Project[7], which is proposed as either a light rail or BRT (or a hybrid of both), providing transit service between downtown LA and Santa Monica. Assuming both the Exposition and Crenshaw Corridor Projects will be light rail, a new light rail link between West Los Angeles and LAX, as well as between downtown and LAX, may come into being.

Benefits for South Bay residents from this alternative would result from a connection at LAX between Crenshaw Corridor light rail trains and the Green Line extended north from the Aviation/I-105 Station. Given this infrastructure, South Bay residents could board a Green Line train at any of five stations south of LAX, and, with a connection to the new light rail service at the airport, travel on to Wilshire Boulevard, Santa Monica, or even downtown Los Angeles.

[6] The RTP shows this project as between Wilshire Boulevard/Rossmore Avenue and Crenshaw Boulevard and the Green Line. It is described as a fixed guideway/busway, with a completion schedule ending in 2025.

[7] The RTP cites the Exposition Corridor as a Baseline Transit Corridor project between downtown LA and Santa Monica. It is described as a light rail/busway hybrid, with completion in 2010. Separately, SCAG related that the Exposition Corridor project would more than likely be a light rail project.

### 3.5.5 Rail Shuttle Service from South Bay Points

The concepts outlined above address the use of the Harbor Subdivision from LAX to either downtown Los Angeles or West Los Angeles destinations. However, this study's charge was also to consider transit service on other parts of the Harbor Subdivision. The subdivision extends 14.5 miles south of LAX, and local freight service will remain on the majority of this segment.

At least as early as 1992, the former LACTC envisioned commuter service to and from downtown on the subdivision. For this reason, provision for two passenger trains daily in each direction was included in its agreement with the former ATSF. However, through commuter rail service to downtown Los Angeles from Carson on the Harbor Subdivision is too round about. While a rail connection from the South Bay to downtown Los Angeles may remain desirable, the Harbor Subdivision does not appear to provide an acceptable alignment. Another railroad alignment, the Torrance Branch, controlled by the UP, offers superior opportunity for commuter service between Torrance and downtown, because it is more direct.

An alternative to the type of service once envisioned for the line is a "South Bay Shuttle", operating between LAX's People Mover connection and Torrance. This concept would be worth considering, especially if the Metro Green Line were not extended northward to LAX. The chief purpose of the shuttle would be serving to LAX itself. However, it also would link several work, shopping, and recreational areas in the South Bay area. Coincidentally, if an LAUS-oriented commuter service were established at the airport, the shuttle would provide South Bay residents with access to many points within Southern California by rail.

A model for this type of service is developing to the south in Oceanside. The North San Diego County Transit District (NCTD) is planning a shuttle service on its line between Escondido and Oceanside, where passengers could connect with The Coaster commuter rail service to San Diego, as well as with Metrolink trains. (Oceanside is the southern most terminus for Metrolink.) NCTD related that this Escondido line would utilize Diesel Multiple Unit (DMU) train sets. These are a self-propelled technology currently deployed in Europe and in Ottawa, Ontario, Canada.

A DMU is either a two or three-car train set. It is less expensive to operate in comparatively less dense, shorter distance corridors than is a conventional locomotive-hauled commuter train set, such as both The Coaster and Metrolink use. To date, DMUs have not been built to comply with FRA manufacturing safety standards permitting their use on track shared concurrently with freight trains. Indeed, existing DMU models have been termed "FRA non-compliant", and as such cannot be operated on track shared concurrently with freight trains. Indeed, NCTD's DMUs will operate on a time-separated basis. The agency will allow freight trains onto the Escondido line only at night, when the DMUs have ceased their operations.

Given the Harbor Subdivision's daily local freight train volumes, a time-separated operation may not be possible. If not, "FRA compliant" DMUs would be an answer. A prototype of an FRA compliant vehicle is under construction in Colorado at Colorado Rail Car. ADtranz, a division of Canadian carbuilder Bombardier, has designed a compliant DMU, but has not completed production models. The prototype is seen below.


**FRA compliant DMU designed by Bombardier for Long Island Railroad and Oregon Department of Transportation**

FRA compliant DMUs could operate between airport and points south of the airport on existing track and without time separation. That is, no time separation with freight services would be required, since the rolling stock's construction would be robust enough to satisfy FRA safety concerns. The shuttle would need passing sidings in addition to those that exist. Sufficient width to accommodate new sidings appears to exist along most of the right of way.

From north to south, stations that a DMU-based South Bay Shuttle service might include are:

- LAX, with connection with a People Mover for furtherance to individual terminals, and potentially to either the Crenshaw Corridor light rail, high speed rail, or commuter rail.
- Marine Avenue and a connection with the Green Line.
- Artesia Boulevard, providing access to the South Bay Galleria Shopping Center.
- Hawthorne Boulevard, serving the Torrance Promenade Shopping Center.
- Torrance Boulevard or Carson Street; the latter would provide access to Torrance High School and nearby Charles M. Wilson Park.
- Normandie Avenue, providing access for Lomita.

The actual selection of station locations will be up to the cities served. This selection process will depend on various factors including the existence of available land for stations and parking, the potential for transit integration, and the housing and commercial densities that could generate desired ridership levels.

The shuttle service could operate at different frequencies, depending on the time of day. Typically, commuter services have frequencies that are multiples of 30 minutes, in order to facilitate transfers to connecting buses that traditionally operate on "30-minute pulses". Trains are more frequent during the peak commute hours. A useful paradigm might be 30-minute frequencies during the peak periods, slipping to hourly frequencies for off-peak periods.

The shuttle service would require a maintenance facility, where the trains could be inspected in accordance with federal regulations, cleaned, fueled, and repaired. A maintenance facility would require several acres. Potential sites include Alcoa Yard, Ironsides, and to the east of Figueroa where adjacent land uses are zoned heavy industrial.

### 3.5.6 Extension of Metro Green Line to Torrance

Alternatively, the possibility exists of a Green Line extension to Torrance. This could be done in one of two ways. One would be to follow the route envisioned for the line in 1990. The other would be to utilize the Harbor Subdivision.

#### Revisiting an Earlier Concept

In 1990, a route refinement study suggested the extension of the Green Line beyond its current terminus at Marine Avenue to Hawthorne Boulevard in Lawndale, and then south on Hawthorne to the Torrance Promenade Shopping Center, Del Amo Fashion Mall, and Lomita Boulevard. The route terminated at the Torrance Memorial Hospital. However, the extension, which would have been elevated from Marine to the medical center, never occurred due to a lack of support from South Bay communities, according the LACMTA.

Eleven years have passed, and it may be worthwhile revisiting a southward extension of the Green Line. During the intervening period, both the Metro Green and Blue Lines have begun operations and gained ridership. Light rail has proved itself a viable transit alternative in Southern California since its inception. (The Blue Line opened in 1990, and the Green Line opened in 1995.) It may well be that light rail's success elsewhere will enable its ultimate acceptance in the South Bay. That being said, the challenges are that land use changes during the intervening period would preclude the original plan for terminating on Lomita Boulevard, the LACMTA noted. Further, LACMTA reported that it has no intention at the present time of studying a southward extension. Lastly, this alternative would face severe competition for scarce public funds for transit projects.

If the aforesaid route refinement were implemented, it would use the Harbor Subdivision from Marine Avenue at least as far as Manhattan Beach Boulevard on its way to Hawthorne Boulevard. The benefits for South Bay residents of such an extension would be a new transit alternative linking work and shopping centers in the South Bay, and a new transit access route to LAX, assuming a simultaneous expansion of the Green Line northward to the airport.

#### Continuing South on the Harbor Subdivision

Another concept for the Green Line would be to follow the Harbor Subdivision right of way to Torrance. Assuming a simultaneous expansion of the line to LAX, this alternative would serve the same markets as the previously described South Bay Shuttle. In some respects, it would be superior.

For example, no new vehicle type or maintenance facility would be required. It would use existing Green Line rolling stock, maintained at the existing maintenance facilities. It would operate on shorter frequencies (every 7.5 to 12 minutes) than a DMU shuttle, offering riders greater convenience. It also would provide for a seamless transit alternative linking directly to existing Green Line destinations; with a shuttle, a transfer at Marine Avenue would be required.

With an eastern connection of the Green Line to Metrolink at Norwalk, South Bay residents would gain access to many points in Southern California by commuter rail.

The Green Line extension south of Marine would have to be grade separated or elevated, due to service's frequent headways (how quickly trains come). Both the frequencies and the FRA non-compliant nature of the light rail rolling stock would preclude use of existing track, which will continue to have freight service during Green Line service hours. Through sections of the right of way where there are no crossings, the Green Line could run along side the freight tracks. However, BNSF's main line would have to be shifted to one side in order to make room for a Green Line double track. This would be a more cost-effective solution than elevation.

### 3.5.7 Service to Long Beach

A shuttle service might be extended from Normandie Avenue to Long Beach. The challenges here are very significant. Below are some of the requirements for using a rail right of way to Long Beach for the shuttle service. First, operating agreements would need to be negotiated with:

- BNSF for the use of its track between Watson Yard and West Thenard.
- Ports of Los Angeles and Long Beach which own the tracks between West Thenard to the Los Angeles River.
- Pacific Harbor Line, the port freight railroad, which operates trains on these tracks.

Second, a new crossing over the Los Angeles River would need construction. Third, a route and a terminus in Long Beach must be identified. An obvious and desirable terminus would be a connection with the Metro Blue Line. Choosing a non-rail right of way is also problematic as there is no obvious right of way.

### 3.5.8 Summary of Alternative Rail Uses of the Right of Way

The Harbor Subdivision will be retained for future freight rail use through the study area, as well as to downtown Los Angeles. Freight service will be heavier between El Segundo and Watson Yard. Yet, as BNSF indicated, the track will have to be maintained north and east of El Segundo, in order to allow for occasional freight trains.

That the track, and therefore its underlying right of way, will remain in place bodes well for future alternative rail uses. These include various options having a terminus at LAX: high speed rail, commuter rail, new light rail represented by the proposed Crenshaw Corridor fixed guideway concept, extensions of the Green Line north from Aviation, and a DMU shuttle service through South Bay area. In conjunction with the Green Line extension northward from Aviation, the Green Line might also be extended southward along the right of way.

At least some of these options may have gained currency in the aftermath of the September 11 terrorist attacks in New York and Washington, D.C. Since that time, vehicular access to LAX terminals has been restricted due to security concerns. Should current conditions continue, expanded transit to LAX would offer residents of the South Bay and the region in general new and improved ways to access the airport for both work and travel purposes. Also, traffic

congestion in the South Bay is increasing, and more transit resources for travel through the region are worth considering.

Some of the alternatives cited above are already under study, i.e., the Crenshaw Corridor and Maglev. All of the other alternatives appear *feasible*, albeit with varying degrees of difficulty. Among the alternatives, there are trade-offs. For example, extension of the Green Line along the Harbor Subdivision north to the airport and south to Torrance would be more convenient for riders than the South Bay Shuttle. However, it would be more expensive in terms of operating costs due to more trains, and capital costs due to the elevated structures, electrification, and the greater number of train sets required to support more frequent headways.

In order to evaluate which of the alternatives should be pursued, the LACMTA, the cities along the right of way, and other interested stakeholders (e.g., Caltrans, SCAG, and the Los Angeles County Department of Public Works) might form a task force. An approach which the task force might use in its analysis is a matrix in which the various alternatives might be scored against specific criteria. These criteria could include such items as potential ridership, noise and air quality impacts, land use impacts, capital and operating costs, and traffic impacts.

## 3.6 OTHER ALTERNATIVE USES OF THE RIGHT OF WAY

Portions of the Harbor Subdivision right of way could be developed for still other alternative uses, either in conjunction with continued rail operations or in the event of abandonment of rail service along the right of way. Some of these alternatives are discussed below.

### 3.6.1 Widen Adjacent Streets

Where the rail line parallels local streets, the right of way could provide a resource for street widening in selected locations. The widening could involve provision of exclusive turn lanes at intersections, or might include widening the complete length of the street using a strip of the adjoining right of way. Street widening where rail service remains would be less viable than if rail service were abandoned, because the clearance requirements for train service would not leave as much usable area as would complete abandonment of service. Several streets where this alternative may have application include Florence Avenue through Inglewood, and Aviation Boulevard near LAX.

Regarding the latter, the Los Angeles County Department of Public Works (LACDPW) is investigating the potential of acquiring from the LACMTA a 12-foot-wide segment of the Harbor Subdivision right of way east of the track and west Aviation Boulevard between 118$^{th}$ Street and 124$^{th}$ Street. The acquisition would be for the widening of Aviation within two or three years. LACDPW envisions widening Aviation between Rosecrans Avenue on the south and Imperial Highway on the north. The agency related that BNSF indicated that the purchase would not negatively affect its operations on the line, and appeared amenable to proposed acquisition.

### 3.6.2 Linear Parkway or Trail

Abandoned or lightly used rights of way have been developed for parkway or trail use in many communities. Where freight service remains, there are issues of safety to be resolved in placing a parkway or trail adjacent to the tracks, but often these can be resolved with suitable fencing or screening. Where rail service is completely discontinued, a 50 to 100-foot-wide right of way affords ample room for a walkway, bike or hiking path, and landscaping. Such uses are particularly effective when the right of way provides a direct pathway through a street pattern that has few through streets, or where the parkway connects with schools and major recreational facilities. The benefits of potential parkway or trail use can be very localized, sometimes measurable in terms of a few blocks rather than a long segment of the right of way.

At least two portions of the Harbor Subdivision appear to offer the potential for a pedestrian or bicycle path on the right of way. Both are south of LAX. These are Manhattan Beach Boulevard (Milepost 16.9) in Lawndale to Hawthorne Boulevard near 190th Street (Milepost 19) in Redondo Beach, and Carson Street (Milepost 21.6) to Arlington Avenue (Milepost 22.2) in Torrance. Both potentials are discussed below.

- *Manhattan Beach Boulevard to Hawthorne Boulevard* – Through the length of this 3-mile segment there are six at-grade crossings; four are within a quarter mile of Manhattan Beach Boulevard. The multiple crossings are a safety concern. On the other hand, a pedestrian or bike trail along this segment could provide linkages to major pedestrian and bicycle traffic generators. These include nearby Ross Elementary School and Green Elementary School in Lawndale; South Bay Galleria Shopping Mall, Adams Middle School, Washington and Franklin Elementary Schools, Pacific Crest Cemetery, and El Nido Park in Redondo Beach; and Columbia Park, a quarter mile east of the right of way in Torrance.
- *Carson Street to Arlington Avenue* – This segment has only one at-grade crossing at Washington Avenue. A pedestrian or bike trail along this segment could provide linkages to and among: Torrance High School, Charles H. Wilson Park, and adjacent Shery High School and Torrance Elementary School, and Torrance Park.

There are other opportunities, but these are not as obvious as the two described above. One potential might be a pedestrian/bicycle path extension south of Arlington Avenue to Western Avenue. However, this would require multiple grade crossings, which would raise safety concerns. The crossings are at Arlington Avenue, Cabrillo Avenue, Border Avenue, and Sepulveda Boulevard. A trail might also run between Western and Vermont Avenues. This is a medium density residential area, with houses adjacent to the right of way. As there are no at-grade crossings to contend with, a trail here would provide for neighborhood or local recreational use such as jogging or hiking.

To mitigate safety concerns due to multiple at-grade street crossings, such linear parkway uses as bicycle and pedestrian trails will require stripping and signage at crossings where these safety protections do not exist.

There appear to be no conflicts with current planning for establishing pedestrian or bike paths in the Harbor Subdivision, given its status now as a transportation corridor. Right of way widths

between Manhattan Beach Boulevard and Hawthorne Boulevard and between Carson Street and Arlington Avenue are greater than 50 feet – a minimum distance allowing space for pedestrian and bike trails.

### 3.6.3 Expand Adjoining Uses

Former rail rights of way often have little potential for redevelopment as new "stand alone" uses because of their limited width, but can offer opportunities to adjacent uses to expand. When no longer needed for rail or transit functions, rights of way can be sold to adjoining uses to expand buildings, enlarge parking facilities, or even to allow landscape buffering from parallel streets with high traffic volumes.

Potential for expanding adjoining uses, however, is limited, as the right of way will be preserved for freight rail operations. Still, adjoining uses can expand into portions of the right of way not required for rail operations. Areas with the most potential are along portions of the subdivision where the right of way is widest. South of Normandie Avenue, the right of way is or exceeds 100 feet. From Normandie to Vermont Avenue, land use is residential, and provides no real opportunities for expanded adjoining uses. However, from Vermont to Main Street, land use is heavy industrial, and poses a better opportunity for expanding adjoining uses. There are no active sidings or storage track in this vicinity, which could preclude such uses.

There appears to be no conflicts with current planning in Carson for the expanding adjoining uses where practicable between Vermont Avenue and Main Street, as this area is currently zoned heavy industrial.

### 3.6.4 Utility Corridors

Railroad rights of way, with or without freight service, have potential to provide space for utility services, such as pipelines, communication lines, public utilities, and similar resources. As noted elsewhere in this study, the Harbor Subdivision already hosts numerous utility easements.

The potential to use the Harbor Subdivision for future utility corridor purposes is good, as the entire length of the subdivision will be retained for freight use. However, communities along the line may have little need for new utility corridors, as the basic electricity, water, and communication infrastructure already exists in the well established communities along the line. The communities should review their long-term replacement requirements to determine if the right of way offers real opportunities for reconstruction, replacement or expansion of utility facilities now located elsewhere.

There appear to be no conflicts with current planning for additional utility easements in the right of way, as it hosts several easements now.

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# Chapter 4
# FINDINGS AND RECOMMENDATIONS

## 4.1 FINDINGS

### 4.1.1 Corridor Demographics

The study concludes that changes in land use, population, and employment along the Harbor Subdivision in the 18.5-mile study area will be relatively minor.

- *Land use* – There may be modest increases in residential densities, and shifts in occupancy of commercial structures among office, retail, and service commercial uses. However there should be no major changes from existing patterns.
- *Population* – According to SCAG projections, the total population of the South Bay cities area should increase by 1 percent or less per year to year 2025.
- *Employment* – Employment will have a similar growth rate, i.e., less than 1 percent per year during the same period.

All three demographic elements are factors affecting the potential for delays at crossings. For example, major changes in land use that would spur population and employment will cause more people to cross railroad tracks; and without commensurate crossing improvements, greater delays to vehicular traffic would result. However, such an eventuality is remote, since future land use, population, and employment will not be markedly different from today.

### 4.1.2 Future Rail Operations

Conversations with the BNSF revealed the following:

- *The line will remain an active rail corridor* – Freight rail operations will continue on the Harbor Subdivision, though the train volume will decline. Operations will be limited to local service, since through train movements of port-related traffic will shift to the Alameda Corridor. Future train volume will be less than one third of today through most of the study area. Also, average train length will be shorter, since long port-related intermodal trains will shift to the Alameda Corridor. Although no regular train traffic may occur between mileposts 9 and 12, it is expected that this segment may be used sporadically for occasional trains.
- *Local traffic will grow* – Local traffic will have a modest growth of 1 to 2 percent per year. Switching activity related to the local traffic certainly will not decrease.
- *No more through traffic expected* – It is highly unlikely that through traffic will return to the subdivision. BNSF indicated to the consultant team that it has no intention of using the line for through traffic. Also, the railroad has agreed with the Alameda Corridor Transportation Authority that the line will not be available for any detour movements.
- *Current maintenance practices will continue* – Rail operations in the study area will be concentrated between El Segundo and Watson Yard. However, BNSF may run occasional trains between downtown Los Angeles and milepost 12, near LAX and north

of El Segundo. As a result, the entire length of the subdivision, from Redondo Junction to a connection with the port terminal railroad south of Watson Yard at West Thenard, will be maintained. BNSF anticipates no changes in maintenance practices on the subdivision. Accordingly, the railroad can be expected to maintain the line to FRA Class 2 standards, which will permit the same train speeds as today.

### 4.1.3 Vehicular Operations

- *Delays will be greatly diminished* – Because of the diversions of port-related train traffic away from the study area, overall delay conditions for vehicular traffic at grade crossings will improve. Switching activity, which is related to local train traffic, will remain, as will the consequent impacts at nearby grade crossings. The modest growth of local traffic in the study area will have a negligible impact on switching activity, since no new trains will be required to handle the increase. As a result, vehicular delays due to switching activity will not increase to any noticeable extent after the initial major decline in rail traffic.
- *Two grade separations planned* – El Segundo and Torrance each have a grade separation project planned at Douglas Street and Del Amo Boulevard, respectively. Both projects will link streets that do not now cross the Harbor Subdivision. The Torrance project may slightly reduce delays to traffic on Torrance Boulevard by providing an alternative grade-separated crossing. The cities indicated that they intend to pursue the separation projects, independent of the decline in rail volume.

### 4.1.4 Safety

- *Highest levels of protection at crossings* – Virtually all of the at-grade crossings are equipped with a signal assembly that includes flashing lights and automatic gates. This is the highest level of protection available for an at-grade crossing.
- *Relatively low accident rate at crossings* – The calculated accident rate of 0.03 accidents per public at-grade crossings per year is relatively low and similar to the State's average (approximately 0.02). The rate can be expected to drop with the decline in rail volume.
- *Crossing protection can be improved* – The study team identified improvements specific to nine crossings. The cost of these improvements is comparatively minor.

### 4.1.5 Alternative Uses

- *Alternative uses envisioned for the right of way* – LACMTA is investigating the potential use of the Harbor Subdivision for the Crenshaw Corridor transit project. SCAG and the California High Speed Rail Authority are looking at the line for possible Maglev or other high speed rail operations between downtown Los Angeles and LAX. Planning for the extension of the Metro Green Line northward to LAX along the subdivision may soon resume.
- *Alternative use must incorporate freight rail operations* – Since freight rail operations will continue through the length of the Harbor Subdivision, freight operations will influence alternative uses. For example, a South Bay Shuttle using DMU rolling stock

will either have to deploy FRA compatible equipment, or operate on a time separated basis vis a vis freight operations.

## 4.2 RECOMMENDATIONS

### 4.2.1 Maintain Existing Protection at Crossings

Clearly, the high level of protection afforded the grade crossings along the Harbor Subdivision is a key factor contributing to the comparatively low accident rate of 0.03 accidents per public grade crossing per year. Because all segments of the line will continue to handle either daily or occasional rail traffic, CPUC has specified that the existing crossing protections not be removed unless the railroad is declared abandoned.

### 4.2.2 Traffic Improvements Should Be Implemented

This study has identified additional protections that could be implemented at nine crossings. For the most part, these improvements would be relatively easy and inexpensive to implement. As these improvements would enhance safety at the crossings at no great cost to the cities, the study recommends that they be put in place, after discussion and approval by the local traffic engineers and railroad operators.

### 4.2.3 Alternative Uses Should Be Explored

This study has identified numerous alternative uses. These include:

- Green Line extension to LAX
- High speed rail to LAX
- Conventional rail to LAX
- New light rail or Bus Rapid Transit to LAX
- DMU shuttle service from LAX to South Bay points and even Long Beach
- Extension of the Green Line to Torrance
- Pedestrian or bicycle paths

All of these options should be explored where appropriate, given that freight operations will continue. For example, an FRA compliant DMU operating as a South Bay Shuttle, or a conventional commuter rail option between downtown and LAX, would be relatively easy to accomplish. Northward extension of the Metro Green Line has been considered important since the inception of the line, and pedestrian/bike trails in at least two segments of the right of way are possible where widths are sufficient.

The study recommends that South Bay cities, along with other stakeholders, consider the list of alternative uses that make sense, given that freight rail operations will continue on the line.

## 4.3 NEXT STEPS

The next step for the project is distribution of the Final Report to stakeholders – adjacent cities, the Southern California Association of Governments, the Los Angeles County Metropolitan Transportation Authority, and the Burlington Northern Santa Fe Railway, among others – who will have an interest in the alternative uses of the Harbor Subdivision. It is hoped that this document might provide the impetus for a discussion of possible alternatives. Ultimately, it will be up to the South Bay cities themselves to decide on alternative uses that work for them, all the while incorporating the freight operations that will continue.

# APPENDICES

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# Appendix A
# TECHNICAL ADVISORY COMMITTEE ATTENDEES

Technical Advisory Committee members and other attendees (excluding consulting team members) at the June, September, and December study sessions were:

- Jacki Bacharach, South Bay Cities Council of Governments
- William Barnett, City of Inglewood
- James Chon, Los Angeles County Department of Public Works
- Ed Chow, Los Angeles City Department of Transportation
- Susan Collette, Los Angeles World Airports
- Bellur Devaraj, City of El Segundo
- LaDonna DiCamillo, Burlington Northern Santa Fe Railway
- Andrew Fox, Pacific Harbor Line, the San Pedro Bay port railroad
- Tim Hampton, City of Lawndale
- Alan Havens, Southern California Association of Governments
- Charles Herbertson, City of Hawthorne
- Gordon Kam, Los Angeles City Department of Transportation
- Brad Lindahl, City of Redondo Beach
- John Mate, City of Redondo Beach
- Carl Morgan, Los Angeles World Airports
- Woody Natsuhara, City of Gardena
- Jeff Pool, City of Los Angeles
- Dick Perkins, City of Torrance
- Andres Santamaria, City of El Segundo
- Taimour Tanavoli, Los Angeles City Department of Transportation
- Pat Tomcheck, Los Angeles World Airports
- Christian Valtierra, Los Angeles County Metropolitan Transportation Authority

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# Appendix B
# LEGAL AGREEMENT EXCERPTS

Appearing in this appendix are six key excerpts from two separate agreements. The first excerpt is the freight service easement, appearing on page 17 in the 1992 agreement between the former Los Angeles County Transportation Commission (now LACMTA) and the former Atchison, Topeka and Santa Fe Railway (now BNSF).

Second is a provision for the operation of passenger trains by the agency, on page 29.

Third is the provision specifying maintenance responsibilities, on page 38.

Fourth is the Fiber Optics easement provision, on page 78.

Fifth is the "Put Option," on page 85. This provision specifies that the railroad may have to buy back the Harbor Subdivision, if the railroad's port-related traffic is not diverted to the Alameda Corridor.

The sixth key excerpt specifies that the Harbor Subdivision will not be available for through traffic from the end of June 2003. It is from the Alameda Corridor Joint Use Operating Agreement, signed by BNSF, the Alameda Corridor Transportation Authority and the Cities of Los Angeles and Long Beach. Please see page 16.

**Marked to Show ^ Changes from ^ Draft dated ^ October 20, 1992**

SHARED USE AGREEMENT
(Harbor Subdivision and Mission Tower Segment)

Dated as of ^ **October 30**, 1992

between

The Atchison, Topeka and Santa Fe Railway Company

as "Santa Fe"

and

Los Angeles County Transportation Commission

as the "Agency"

1.68 Tracks. "Tracks" shall mean all tracks, (including, without limitation, passing tracks and sidings), turnouts, crossovers, interlocking devices and plants, and track improvements and support structures that are located now or in the future on the Property.

1.69 Train. "Train" shall mean one or more locomotive units and cars, if any, attached thereto.

1.70 Train-Mile. "Train-Mile" shall mean the movement of a Train, whether or not revenue generating, over a one mile distance on the Tracks.

ARTICLE 2: SANTA FE'S RESERVED RAIL FREIGHT SERVICE EASEMENT

2.1 Scope of Rail Freight Service Easement.

(a) Santa Fe and any other Santa Fe Party shall have the right to operate Rail Freight Service (but no other service or use) in the exercise of the rights reserved by Santa Fe in the Reserved Rail Freight Service Easement.

(b) Employees of any Santa Fe Party shall have such access to the Property in connection with Rail Freight Service, and freight shippers and freight receivers of any Santa Fe Party shall have such access to the Property as is reasonably necessary in connection with the loading, unloading and inspection of such shippers' or receivers' goods in accordance with the Reserved Rail Freight Service Easement and this Agreement; provided however, except to the extent expressly provided in this Agreement, this right of access shall not be

(c) If the Agency discovers that any storage of freight cars creates a hazard affecting Agency Rail Service, Santa Fe and the Agency agree to work together to reduce or eliminate such hazard in a manner acceptable to both parties.

3.10 Operation of Trains by the Agency. The Agency may operate no more than two Trains on the Harbor Subdivision in each direction daily until the Agency constructs the capital improvements to the Harbor Subdivision that would be required to continue to permit Santa Fe to operate Rail Freight Service at the same level of operation which exists as of July 1, 1992. The determination as to when sufficient capital improvements have been made to permit such continued level of operation shall be made by mutual agreement of Santa Fe and the Agency prior to the time the Agency commences any additional Agency Rail Service. If the parties are unable to agree on whether such improvements have been constructed, such issue shall be submitted to arbitration pursuant to Article 12 hereof.

## ARTICLE 4: DISPATCHING AND SCHEDULING

4.1 Dispatching Responsibilities.

(a) From and after Closing, Santa Fe shall continue to provide dispatching service for all Train movements over the Harbor Subdivision until the Harbor Shift Date and until Agency Rail Service commences on the Harbor Subdivision. The Agency shall indemnify Santa Fe against any liability resulting from Santa Fe's interim dispatching with respect to Agency Trains

(b) Bills for such dispatching costs may be submitted no more than once a month for payment as provided in Article 7, and shall contain a statement as to the calculation of such bill (including the number of Train-Miles dispatched) in such detail as the party receiving such bill may request.

## ARTICLE 5: MAINTENANCE AND REPAIR

5.1 Maintenance Responsibilities.

(a) Until the Harbor Shift Date, Santa Fe shall have exclusive control over the maintenance and repair of, and shall continue to maintain and repair, the Harbor Subdivision and the Tracks and other improvements thereon.

(b) The Agency (and the Operator) shall have exclusive control over the maintenance and repair of, and shall maintain and repair, the Mission Tower Segment after the Closing of the sale of the Mission Tower Segment, and the Harbor Subdivision after the Harbor Shift Date and the Tracks (including Freight Tracks), Freight Rail Facilities and other improvements thereon.

5.2 Maintenance Standards. The Tracks shall be maintained ^ to a safe condition consistent with industry practice and in such condition as to allow (i) continued rail operations at the train speeds shown in the Timetable other than during periods of shut down for maintenance and repairs and (ii), if and to the extent that Tracks are hereafter improved as agreed upon by Santa Fe and the Agency, continued operation of the types

DECIDED BY NEUTRAL ARBITRATION AS PROVIDED BY CALIFORNIA LAW AND YOU ARE GIVING UP ANY RIGHTS YOU MIGHT POSSESS TO HAVE THE DISPUTE LITIGATED IN A COURT OR JURY TRIAL. BY INITIALING IN THE SPACE BELOW, YOU ARE GIVING UP YOUR JUDICIAL RIGHTS TO DISCOVERY AND APPEAL, UNLESS THOSE RIGHTS ARE SPECIFICALLY INCLUDED IN THE "ARBITRATION OF DISPUTES" PROVISION. IF YOU REFUSE TO SUBMIT TO ARBITRATION AFTER AGREEING TO THIS PROVISION, YOU MAY BE COMPELLED TO ARBITRATE UNDER THE AUTHORITY OF THE CALIFORNIA CODE OF CIVIL PROCEDURE. YOUR AGREEMENT TO THIS ARBITRATION PROVISION IS VOLUNTARY.

WE HAVE READ AND UNDERSTAND THE FOREGOING AND AGREE TO SUBMIT DISPUTES ARISING OUT OF THE MATTERS INCLUDED IN THE 'ARBITRATION OF DISPUTES' PROVISION TO NEUTRAL ARBITRATION.

_____ _____

Santa Fe Agency

ARTICLE 13: FIBER OPTICS PROVISIONS

The Grant Deed reserves unto Santa Fe and its permitted successors and assignees, a permanent easement relating to Santa Fe's rights and obligations under certain fiber optics agreements, upon the terms and conditions set forth in the Grant Deed.

approval of their respective board of directors, board of commissioners or other appropriate executive body, and this Agreement has been executed by such persons subject to obtaining such approvals.

## ARTICLE 18: PUT OPTION

18.1 Put Option. If, on or prior to the Put Expiration Date, the Harbor Shift Date has not occurred, the Agency shall have the option to demand in writing that Santa Fe purchase the Harbor Subdivision from the Agency in consideration for payment to the Agency of the Put Price, and Santa Fe shall have the obligation to purchase the Harbor Subdivision, subject to the following conditions:

(a) The Agency shall make such demand through written notice to Santa Fe not earlier than six months prior to the Put Expiration Date, and not later than the Put Expiration Date. Such demand must be conditioned upon the Harbor Shift Date not having occurred on or before the Put Expiration Date. If the Agency makes such demand, Santa Fe, within six months following the date of such demand, shall pay the Put Price in cash to the Agency, and the Agency at that time shall convey to Santa Fe the Harbor Subdivision, together with all improvements thereon, but except any Retained Property.

(b) The Agency may designate and withhold from sale as Retained Property any portion of the Harbor Subdivision, subject to the conditions provided in Section 1.53.

# ALAMEDA CORRIDOR

# USE AND OPERATING AGREEMENT

by and among

**THE CITY OF LONG BEACH,**
acting by and through its Board of Harbor Commissioners,

**THE CITY OF LOS ANGELES,**
acting by and through its Board of Harbor Commissioners,

**THE ALAMEDA CORRIDOR TRANSPORTATION AUTHORITY,**
a California joint powers authority,

**THE BURLINGTON NORTHERN AND SANTA FE RAILWAY COMPANY,**
a Delaware corporation,

and

**UNION PACIFIC RAILROAD COMPANY,**
a Delaware corporation

dated as of

October 12, 1998

the Railroads) shall have any obligation whatsoever to construct all or any portion of the Project, or any liability for the failure to construct all or any portion of the Project. Notwithstanding the foregoing, Owner and ACTA hereby agree that, if the Project is constructed, the Project will be constructed at the cost of entities other than the Railroads (except as may otherwise be provided in this Agreement or any other agreement to which one or more of the Railroads is a party) and in accordance with the UP C&M Agreement and, with respect to any portion of the Project constructed on property owned by BNSF, in accordance with the BNSF C&M Agreement. ACTA shall deliver to Owner and the Railroads, as soon as practicable under the circumstances (but no later than 150 days prior to the date on which ACTA estimates that Substantial Completion shall occur), written notice ("**Notice of Estimated Completion**") setting forth the date on which ACTA estimates that Substantial Completion shall occur ("**Estimated Completion Date**").

**2.2 Agreement to Use.**

**(a)** UP and BNSF agree that, upon Substantial Completion, and provided that the STB (and any other federal agency with jurisdiction) has given any necessary approvals or consents, each Railroad shall use and, subject to the provisions of this Agreement, shall have the right to use, the Rail Corridor for all Through Train movements. No Railroad may use the Rail Corridor between 25th Street and West Thenard for train movements prior to Substantial Completion. UP and BNSF, with reasonable cooperation from Owner, each shall be responsible for filing, within 30 days after the date of this Agreement, an application or request for any approvals or consents from the STB (and any other federal agency with jurisdiction) that may be necessary for such Railroad to operate over the entire length of the Rail Corridor, and shall cooperate diligently and reasonably with each other in connection with obtaining such approvals or consents. In addition, UP and BNSF each shall cooperate reasonably with Owner and ACTA in obtaining any other approvals or consents that may be necessary for the Project.

**(b)** Subject to the payment of fees pursuant to Article VII, the Railroads shall have the right to use the Rail Corridor for the movement of Local Trains, provided, however, (i) such Local Trains shall have the priority set forth in Section 3.2 and shall otherwise comply with the provisions of this Agreement, (ii) although Local Trains may operate on the Rail Corridor, there shall be no switching of rail cars on the Rail Corridor, nor shall there be any freight rail service to any local industry customers directly from the Rail Corridor, except as expressly permitted in Section 3.1(a)(iii) of the UP C&M Agreement and except for switching activities at the Permitted Switching Locations (subject to the terms and conditions set forth below), and (iii) in no event shall more than 20% of the cargo transported by all Railroads on the Rail Corridor in any year move to or from facilities which are not included within the meaning of "port facilities" under Section 142(a)(2) of the Internal Revenue Code of 1986, as amended (with such percentage to be determined on the basis of gross ton miles transported on the Rail Corridor). Each Railroad shall submit to ACTA (with a copy to the Operating Committee), within 30 days after the end of each month (commencing with the second full calendar month after joint rail operations commence on the Rail Corridor) a written statement setting forth the number of gross ton miles transported on the Rail Corridor that did not move to or from "port facilities" during such month. If ACTA or the Operating Committee (or any agency of the federal government) determines that the 20% limitation set forth in the immediately preceding sentence has been or may be reached in any year, ACTA or the

Operating Committee may direct that some or all of the railcars or containers carrying cargo to a location that is not a "port facility" (as such term is used in the preceding sentence) may be rerouted over other rail lines selected by and available to the Railroad operating such railcars (*e.g.*, in the case of UP, over the Drill Track). Notwithstanding the prohibition on switching of rail cars on the Rail Corridor set forth above, the Railroads may conduct switching activities at the Permitted Switching Locations on the following terms and conditions: (1) the switching of rail cars may be conducted from only one mainline track of the Rail Corridor at any one time and switching activities shall be conducted at the Permitted Switching Locations only during non-peak hours of Rail Corridor operations, (2) Through Train movements on the Rail Corridor shall be given dispatch priority over switching movements, and (3) except for repaying the Railroads the cost of any Additional Capital Improvements (as set forth in Section 8.6), funds in the Reserve Account may not be used for the purpose of causing such switching activities no longer to occur on the Rail Corridor until such time as Owner has received all payments to which Owner is entitled under Paragraphs (5), (6) and (7) of Section 7.3(b).

**(c)** Neither POLA, POLB nor ACTA will require the Railroads to operate Through Trains powered by electric locomotives on the Rail Corridor unless the Railroads voluntarily agree thereto, provided, however, if electrification of the Rail Corridor is otherwise required, such requirement shall not be a basis on which any party may terminate this Agreement, but if legally permissible, a Railroad may satisfy the requirement to use electric powered locomotives by using locomotives powered by an alternative energy source acceptable to the appropriate government entities.

**(d)** To the extent that some or all of the projects listed on Exhibit A-1 have not been completed by Substantial Completion ACTA shall use its best efforts to complete all such projects no later than six months after Substantial Completion. If it appears that any such projects may remain uncompleted at such six-month date, then the Operating Committee may take such action as it deems appropriate to expedite completion of such projects (and the parties agree that any actions taken to expedite the completion of the projects described as items 1.B through 1.D of Section A-1 shall be included as Net Project Costs). ACTA shall provide regular status reports to the Operating Committee on any such projects that it appears may not be completed by Substantial Completion.

**2.3 Drill Track.** The Drill Track may be used only by UP, for the purpose of operating Local Trains (except as otherwise provided in this Agreement). UP's use of the Drill Track shall be exclusive (subject to Section 2.4) and shall be governed by the Drill Track Operating Agreement.

**2.4 Detours.**

**(a)** In the event of a complete blockage of the mainline Tracks on the Rail Corridor which will cause a Significant Delay, each Railroad shall provide to the other Railroads detour routes over any of its available rail routes (including over the Drill Track and the UP San Pedro Branch), adequate and sufficient to provide access to and from the Ports, on the terms of any detour agreement between or among the Railroads which then may be in effect with respect to such detour route or, if no such agreement is in effect, then on the terms of the Standard Form for Detour Agreement adopted by the Association of American Railroads ("**Standard Detour**

**Agreement**") (provided that, with respect to such detours over the UP San Pedro Branch, access shall be provided to each of the Railroads on an equal and nondiscriminatory basis). The parties hereto acknowledge that BNSF's Harbor Subdivision route is available as a detour route only through June 29, 2003.

**(b)** The provisions of Section 2.4(a) shall not be applicable to delays or blockages occurring as a result of planned construction or maintenance of the Rail Corridor, except that:

(i) On the conditions that: (x) the Joint Use Construction Projects have been completed and any connections thereto which are required by this Agreement or the UP C&M Agreement have been constructed, (y) Owner or ACTA has double tracked UP's Wilmington Branch between Slauson Avenue and 60th Street, and (z) the connection Track described in clause (d) of the definition of "Rail Corridor" has been completed (the foregoing conditions, however, shall apply only if the detour is over UP's Wilmington Branch), if, during construction of the trenched portion of the Rail Corridor, BNSF's crossing of its Harbor Subdivision and the Rail Corridor in the vicinity of Slauson Avenue must be disconnected, and the construction of a shoo-fly or other alternative temporary facilities is not feasible or is impractical, either on the Rail Corridor or on adjacent property, then, upon at least 30 days' prior written notice from Owner or ACTA, UP shall provide to BNSF, and BNSF shall use, subject to Owner's or ACTA's reimbursement of BNSF's increased operating costs and service penalties payable by BNSF as a result of such detour, rail freight service operating rights over either the UP San Pedro Branch or UP's Wilmington Branch on the terms of a detour agreement then in effect between BNSF and UP with respect to such branch or, if no such agreement is in effect, then on the terms of the Standard Detour Agreement, until such time as such crossing of the Harbor Subdivision may be reconnected, which Owner and ACTA commit shall not be longer than 90 days, provided that UP shall not be obligated to construct any connections that may be necessary to allow for such detour.

(ii) On the conditions that: (x) the Joint Use Construction Projects have been completed and (y) any connections thereto which are required by this Agreement or the UP C&M Agreement have been constructed, and subject to the payment to UP of the applicable amounts set forth on Exhibit F hereto as the sole charge for such use (responsibility for the payment of such amounts, as between Owner and ACTA, on the one hand, and BNSF, on the other, shall be governed by the ATSF Purchase Agreement), if construction of the trenched portion of the Rail Corridor has been commenced but such construction will not have reached Substantial Completion on or before the "**Put Expiration Date**" (currently June 30, 2003, and as the same may be extended) under the Shared Use Agreement (Harbor Subdivision and Mission Tower Segment) between ATSF and The Los Angeles County Metropolitan Transportation Authority, then UP agrees that if Owner or ACTA so request, effective on the day before the Put Expiration Date, and upon at least 30 days' prior written notice from Owner or ACTA, UP shall provide to BNSF rail freight service operating rights over UP's Wilmington Branch, on the terms of a detour agreement then in effect between BNSF and UP with respect to

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# Appendix C
# RAIL LINE ABANDONMENT

The first step in addressing the safety and operational problems that may occur at highway-rail crossings on abandoned rail lines is to obtain information from the Surface Transportation Board (STB), the federal agency charged with oversight of railroads outside of safety matters, and the California Public Utilities Commission (CPUC), the agency charged with grade crossing safety. Under the ICC Termination Act of 1995 (which created the STB), a railroad may abandon a line only with STB's permission. In addition, the railroad needs to notify the CPUC of its intentions to abandon the line.

Once a rail line has been identified as abandoned or as a planned abandonment, the crossings on that line should be identified. This can be determined from the CPUC inventory of crossings or obtained directly from the National Rail-Highway Crossing Inventory maintained by the Federal Railroad Administration (FRA), the federal agency charged with oversight of safety on railroads. A field inspection of these crossings should be made to determine if all crossings on that line, both public and private, are listed in the inventory, and to verify the type of traffic control devices located at each crossing.

If rail service has been discontinued, pending resolution of the abandonment application and thus formal abandonment, immediate measures should be taken to inform the public. For example, "Exempt" signs can be placed at the crossings to notify drivers of special vehicles that a stop at the crossing is not necessary. Gate arms should be removed and flashing signal heads should be hooded, turned or removed. However, if these actions are taken, the traffic control devices must be restored to their original condition prior to operating any trains over the crossing. The railroad might flag the train over the crossing until such action can be taken.

If it appears that rail service has been permanently discontinued and resolution of official abandonment appears certain, the track might be paved over and all traffic control devices removed. This action should be taken immediately following official abandonment, if no possibility exists for resumption of rail service.

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# Appendix D
# RAILROAD CROSSING INVENTORY

This appendix summarizes the railroad crossing inventory data for the Harbor Subdivision line gathered by the consultant team as part of the South Bay Cities Railroad Study. Table 1 summarizes the information gathered for all of the 180 crossing in the entire line, including above, below and at-grade crossings, both existing and eliminated. Table 2 summarizes similar information for the 50 existing at-grade crossings within the study area (Milepost 8 to milepost 26.5) and includes both public and private crossings.

A one-page detailed inventory for each of the 47 public at-grade crossings within the study area is included at the end of this Appendix. The data reflect the most recent (December 2001) information currently available at the U.S. Department of Transportation.

**TABLE 1**
**HARBOR SUBDIVISION LINE**
**Railroad Crossing Inventory Summary**

| Number | MainlineMile Post | Study Xing | CPUC Xing No. | FRA Xing No. | Type | County | City | Street (CPUC) | Street (FRA) | Street (BNSF) | Jurisdiction | Avg. Daily Vehicles (FRA) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.09 | | 002H - 0.10-B | 027900U | Underpass | LOS ANGELES | LOS ANGELES | WASHINGTON ST | | WASHINGTON BLVD | City | |
| 2 | 0.17 | | N.A. | N.A. | | LOS ANGELES | LOS ANGELES | | | 24TH ST | N.A. | |
| 3 | 0.25 | | 002H - 0.25 | 027905D | | LOS ANGELES | LOS ANGELES | 25TH ST | 25TH ST | 25TH ST | City | 550 |
| 4 | 0.33 | | 002H - 0.30 | 027906K | | LOS ANGELES | VERNON | 26TH ST | 26TH ST. | 26TH ST | City | 7,600 |
| 5 | | | 002H - 0.35-C | 027902H | | LOS ANGELES | LOS ANGELES | HARRIET ST | HARRIETT ST | | City | 500 |
| 6 | 0.43 | | 002H - 0.40 | 027907S | | LOS ANGELES | VERNON | 27TH ST | 27TH STREET | 27TH ST | City | 2,400 |
| 7 | 0.50 | | 002H - 0.50 | 027908Y | | LOS ANGELES | VERNON | 28TH ST | 28TH ST | 28TH ST | City | 2,900 |
| 8 | | | 002H - 0.53-C | TBD | | LOS ANGELES | LOS ANGELES | MINERVA ST & 26TH ST | #N/A | | City | #N/A |
| 9 | | | 002H - 0.64-C | 027904W | | LOS ANGELES | LOS ANGELES | MINERVA & 24TH ST | 24TH ST. | | City | 500 |
| 10 | | | 002H - 0.68-C | TBD | | LOS ANGELES | LOS ANGELES | MINERVA ST NEAR 23RD ST | #N/A | | City | #N/A |
| 11 | 0.70 | | 002H - 0.70 | 027914C | | LOS ANGELES | VERNON | 37TH ST | 37TH ST. | 37TH ST | City | 8,200 |
| 12 | 0.71 | | 002H - 0.71 | 027915J | | LOS ANGELES | VERNON | 38TH ST | 38TH ST. | 38TH ST | City | 6,200 |
| 13 | | | 002H - 0.77-C | 027911G | | LOS ANGELES | VERNON | 30TH ST | #N/A | | City | #N/A |
| 14 | | | 002H - 0.79-C | 027909F | | LOS ANGELES | VERNON | 30TH ST | 30TH STREET | | City | 700 |
| 15 | 0.97 | | 002H - 0.90 | 027918E | | LOS ANGELES | VERNON | VERNON AV | VERNON AVE. | VERNON AVE | City | 6,762 |
| 16 | | | 002H - 0.90-C | 027912N | | LOS ANGELES | VERNON | SANTA FE | SANTA FE AVE. | | City | 28,900 |
| 17 | 1.04 | | 002H - 1.00 | 027919L | | LOS ANGELES | VERNON | PACIFIC BLVD | PACIFIC BLVD. | PACIFIC BLVD | City | 16,200 |
| 18 | | | 002H - 1.26-C | 027926W | | LOS ANGELES | VERNON | CHAMBERS ST | CHAMBERS ST. | | City | 300 |
| 19 | 1.38 | | 002H - 1.30 | 027933G | | LOS ANGELES | VERNON | 49TH ST | 49TH STREET | 49TH ST | City | 1,500 |
| 20 | | | 002H - 1.35-C | 027920F | | LOS ANGELES | VERNON | PACIFIC BLVD | PACIFIC BLVD. | | City | 18,000 |
| 21 | | | 002H - 1.40-C | 027921M | | LOS ANGELES | VERNON | 46TH ST | 46TH ST. | | City | 609 |
| 22 | | | 002H - 1.41-C | 027927D | | LOS ANGELES | VERNON | 49TH ST | 49TH ST. | | City | 1,900 |
| 23 | | | 002H - 1.48-C | 027924H | | LOS ANGELES | VERNON | LEONA S BL | LEONIS BLVD | | City | 11,730 |
| 24 | | | 002H - 1.49-C | 027930L | | LOS ANGELES | VERNON | SANTA FE AV | SANTA FE AVE. | | City | 25,150 |
| 25 | 1.57 | | 002H - 1.50 | 027937J | | LOS ANGELES | VERNON | FRUITLAND RD | FRUITLAND AVE | FRUITLAND AVE | City | 5,500 |
| 26 | | | 002H - 1.57-C | 027934N | | LOS ANGELES | VERNON | SANTA FE AV | SANTA FE AVE. | | City | 19,900 |
| 27 | 1.61 | | 002H - 1.60 | 027938R | | LOS ANGELES | VERNON | 52ND ST | 52ND STREET | 52ND ST | City | 400 |
| 28 | 1.65 | | 002H - 1.65 | 027939X | | LOS ANGELES | HUNTINGTON PARK | 53RD ST | 53RD SANTA FE AV | 53RD ST | County | 1,220 |
| 29 | 1.70 | | 002H - 1.70 | 027940S | | LOS ANGELES | HUNTINGTON PARK | 54TH ST | 54TH ST SANTA FE | | County | 550 |
| 30 | 1.80 | | 002H - 1.80 | 027941Y | | LOS ANGELES | HUNTINGTON PARK | 55TH ST | 55TH ST SANTA FE | 55TH ST | County | 3,375 |
| 31 | 1.85 | | 002H - 1.85 | 027942F | | LOS ANGELES | HUNTINGTON PARK | 56TH ST | 56TH ST SANTA FE | 56TH ST | County | 650 |
| 32 | 1.94 | | 002H - 1.90 | 027943M | | LOS ANGELES | HUNTINGTON PARK | 57TH ST | 57TH ST SANTA FE | 57TH ST | County | 900 |
| 33 | 1.99 | | 002H - 1.99-D | 027944U | | LOS ANGELES | HUNTINGTON PARK | ALLEY BET 57TH & 58TH ST | ALLEY | | County | 50 |
| 34 | 2.02 | | 002H - 2.00 | 027945B | | LOS ANGELES | HUNTINGTON PARK | 58TH ST | 58TH ST SANTA FE | 58TH ST | County | 840 |
| 35 | 2.05 | | 002H - 2.10 | 027946H | | LOS ANGELES | HUNTINGTON PARK | SANTA FE AV | SANTA FE SLAUSON | SANTA FE AVE | County | 17,000 |
| 36 | 2.30 | | 002H - 2.30 | 027947P | | LOS ANGELES | HUNTINGTON PARK | 2ND ST | 2ND STREET | 2ND ST | City | 1,500 |
| 37 | | | 002H - 2.39-C | 027948W | | LOS ANGELES | HUNTINGTON PARK | SLAUSON AV & REGENT | REGENT & SLAUSON | | City | 25,000 |
| 38 | 2.48 | | 002H - 2.50 | 027950X | | LOS ANGELES | HUNTINGTON PARK | ALAMEDA ST | ALAMEDA STREET | ALAMEDA ST | City | 22,600 |
| 39 | 2.68 | | 002H - 2.70 | 027951E | | LOS ANGELES | LOS ANGELES | HOLMES AV | HOLMES AV ALAMEDA | HOLMES AVE | County | 7,200 |
| 40 | 2.83 | | 002H - 2.83 | 027952L | | LOS ANGELES | LOS ANGELES | LONG BEACH AV - WEST | LONG BEACH W | LONG BEACH AVE | County | 1,500 |
| 41 | | | 002H - 2.95-C | 027953T | | LOS ANGELES | LOS ANGELES | SLAUSON AV | SLAUSON LNG BEACH | | County | 33,700 |
| 42 | 3.06 | | 002H - 3.10 | 027954A | | LOS ANGELES | LOS ANGELES | COMPTON AV | COMPTON SLAUSON | COMPTON AVE | County | 13,000 |
| 43 | 3.51 | | 002H - 3.30 | 027955G | | LOS ANGELES | LOS ANGELES | HOOPER AV | HOOPER SLAUSON | HOOPER ST | County | 10,000 |
| 44 | | | 002H - 3.37-C | 027956N | | LOS ANGELES | LOS ANGELES | NAOMI AV | NAOMI AVENUE | | City | 50 |
| 45 | 3.56 | | 002H - 3.50 | 027957V | | LOS ANGELES | LOS ANGELES | CENTRAL AV | CENTRAL AVENUE | CENTRAL AVE | City | 16,500 |
| 46 | 3.64 | | N.A. | N.A. | Private Crossing | LOS ANGELES | LOS ANGELES | N.A. - PRIVATE CROSSING | | Private crossing | Private | |
| 47 | | | 002H - 3.71-C | 027958C | | LOS ANGELES | LOS ANGELES | SLAUSON AV | SLAUSON AVENUE | | City | 25,000 |
| 48 | 3.81 | | 002H - 3.80 | 027960D | | LOS ANGELES | LOS ANGELES | MCKINLEY AV | MCKINLEY AVENUE | MCKINLEY AVE | City | 4,100 |
| 49 | 3.90 | | 002H - 3.90 | 027961K | | LOS ANGELES | LOS ANGELES | PALOMA AV | PALOMA AVE. | PALOMA BLVD | City | 600 |
| 50 | 4.06 | | 002H - 4.10 | 027963Y | | LOS ANGELES | LOS ANGELES | AVALON BL | AVALON BLVD. | AVALON BLVD | City | 15,000 |
| 51 | 4.18 | | 002H - 4.20 | 027964F | | LOS ANGELES | LOS ANGELES | TOWNE AV | TOWNE AVENUE | TOWNE AVE | City | 1,800 |
| 52 | 4.31 | | 002H - 4.30 | 027965M | | LOS ANGELES | LOS ANGELES | SAN PEDRO | SAN PEDRO STREET | SAN PEDRO ST | City | 14,000 |
| 53 | | | 002H - 4.40-C | 027966U | | LOS ANGELES | LOS ANGELES | SLAUSON AV | #N/A | | City | #N/A |
| 54 | 4.56 | | 002H - 4.60 | 027968H | | LOS ANGELES | LOS ANGELES | SO MAIN ST | MAIN STREET | MAIN ST | City | 13,000 |
| 55 | 4.81 | | 002H - 4.80 | 027969P | | LOS ANGELES | LOS ANGELES | SO BROADWAY | BROADWAY | BROADWAY | City | 21,000 |
| 56 | 4.89 | | 002H - 4.90-A | 027971R | Overpass | LOS ANGELES | LOS ANGELES | HARBOR FWY (I-110) | | HARBOR FWY (I-110) | State | |
| 57 | 5.06 | | 002H - 5.10 | 027972X | | LOS ANGELES | LOS ANGELES | FIGUEROA ST | FIGUEROA STREET | FIGUEROA AVE | City | 24,000 |
| 58 | 5.32 | | 002H - 5.30 | 027973E | | LOS ANGELES | LOS ANGELES | HOOVER ST | HOOVER STREET | HOOVER AVE | City | 13,000 |
| 59 | 5.57 | | 002H - 5.60 | 027974L | | LOS ANGELES | LOS ANGELES | VERMONT AV | VERMONT AVENUE | VERMONT AVE | City | 18,000 |
| 60 | 5.82 | | 002H - 5.80 | 027975T | | LOS ANGELES | LOS ANGELES | BUDLONG AV | BUDLONG AVENUE | BUDLONG AVE | City | 4,000 |
| 61 | 6.07 | | 002H - 6.10 | 027977G | | LOS ANGELES | LOS ANGELES | NORMANDIE AV | NORMANDIE AVE. | NORMANDIE AVE | City | 19,000 |
| 62 | 6.31 | | 002H - 6.30 | 027978N | | LOS ANGELES | LOS ANGELES | DENKER AV | DENKER AVENUE | DANKER AVE | City | 6,000 |
| 63 | 6.42 | | 002H - 6.40 | 027979V | | LOS ANGELES | LOS ANGELES | SLAUSON AV | SLAUSON AVENUE | SLAUSON AVE | City | 24,000 |
| 64 | 6.66 | | 002H - 6.60 | 027981W | | LOS ANGELES | LOS ANGELES | WESTERN AV | WESTERN AVENUE | WESTERN AVE | City | 22,000 |
| 65 | | | 002H - 6.83-C | 027982D | | LOS ANGELES | LOS ANGELES | 60TH ST | 60TH STREET | | City | 1,300 |
| 66 | | | 002H - 6.88-C | 027985Y | | LOS ANGELES | LOS ANGELES | 60TH ST | 60TH STREET | | City | 1,300 |
| 67 | | | 002H - 6.96-C | 027984S | | LOS ANGELES | LOS ANGELES | 62ND ST | 62ND STREET | | City | 300 |
| 68 | | | 002H - 7.01-C | 027986F | | LOS ANGELES | LOS ANGELES | 62ND ST | 62ND STREET | | City | 300 |

**TABLE 1**
**HARBOR SUBDIVISION LINE**
**Railroad Crossing Inventory Summary**

| Number | MainlineMile Post | Study Xing | CPUC Xing No. | FRA Xing No. | Type | County | City | Street (CPUC) | Street (FRA) | Street (BNSF) | Jurisdiction | Avg. Daily Vehicles (FRA) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 69 | 7.11 | | 002H - 7.10 | 027987M | | LOS ANGELES | LOS ANGELES | VAN NESS AV | VAN NESS AVENUE | VAN NESS AVE | City | 10,800 |
| 70 | 7.42 | | 002H - 7.40 | 027988U | | LOS ANGELES | LOS ANGELES | 4TH AV | 4TH AVENUE | 4TH AVE | City | 2,400 |
| 71 | 7.75 | | 002H - 7.70 | 027989B | | LOS ANGELES | LOS ANGELES | 8TH AV | 8TH AVENUE | 8TH AVE | City | 17,000 |
| 72 | 7.94 | | 002H - 7.90 | 027990V | | LOS ANGELES | LOS ANGELES | 11TH AV | 11TH AVENUE | 11TH AVE | City | 1,200 |
| 73 | 7.97 | | 002H - 7.95 | 027991C | | LOS ANGELES | LOS ANGELES | 67TH ST | 67TH STREET | 67TH ST | City | 2,700 |
| 74 | 8.03 | YES | 002H - 8.00 | 027992J | | LOS ANGELES | LOS ANGELES | CRENSHAW BL | CRENSHAW BLVD. | CRENSHAW BLVD | City | 23,500 |
| 75 | 8.14 | YES | 002H - 8.10 | 027993R | | LOS ANGELES | LOS ANGELES | VICTORIA AV | VICTORIA AVENUE | VICTORIA AVE | City | 750 |
| 76 | 8.23 | YES | 002H - 8.20 | 027994X | | LOS ANGELES | LOS ANGELES | BRYNHURST AV | BRYNHURST AVE. | BRYNHURST AVE | City | 700 |
| 77 | 8.32 | YES | 002H - 8.30 | 027995E | | LOS ANGELES | LOS ANGELES | WEST BL | WEST BLVD. | WEST BLVD | City | 5,300 |
| 78 | 8.60 | YES | 002H - 8.60 | 027996L | | LOS ANGELES | INGLEWOOD | REDONDO BL | REDONDO BLVD | REDONDO BLVD | City | 800 |
| 79 | 8.70 | | 002H - 8.70-D | 027997T | ELIMINATED | LOS ANGELES | INGLEWOOD | REDONDO BL | #N/A | | City | |
| 80 | 8.80 | | 002H - 8.80-D | 027998A | ELIMINATED | LOS ANGELES | INGLEWOOD | REDONDO BL | #N/A | | City | |
| 81 | 8.89 | | N.A. | N.A. | ELIMINATED | LOS ANGELES | INGLEWOOD | | | Ped xing (Centinelia Park) | N.A. | |
| 82 | 9.13 | YES | 002H - 9.10 | 028001N | | LOS ANGELES | INGLEWOOD | CENTINELA AV | CENTINALA AVENUE | CENTINELIA AVE | City | 29,000 |
| 83 | 9.59 | YES | 002H - 9.60 | 028002V | | LOS ANGELES | INGLEWOOD | LA BREA ST | LA BREA AVENUE | LA BREA AVE | City | 36,000 |
| 84 | 9.82 | YES | 002H - 9.90 | 028003C | | LOS ANGELES | INGLEWOOD | IVY AV | IVY AVENUE | IVY AVE | City | 2,500 |
| 85 | 9.94 | YES | 002H - 10.00 | 028004J | | LOS ANGELES | INGLEWOOD | EUCALYPTUS AV | EUCALYPTUS AVE. | EUCALYPTUS AVE | City | 12,000 |
| 86 | 10.18 | | N.A. | N.A. | ELIMINATED | LOS ANGELES | INGLEWOOD | | | Private crossing | Private | |
| 87 | 10.21 | YES | 002H - 10.20 | 028007E | | LOS ANGELES | INGLEWOOD | NORTH CEDAR AV | CEDAR AVENUE | CEDAR AVE | City | 800 |
| 88 | 10.36 | YES | 002H - 10.30 | 028142X | | LOS ANGELES | INGLEWOOD | OAK ST | OAK ST | OAK ST | City | 3,200 |
| 89 | 10.52 | YES | 002H - 10.50 | 028008L | | LOS ANGELES | INGLEWOOD | HYDE PARK BL | HYDE PARK BLVD | HYDE PARK BLVD | City | 4,000 |
| 90 | 10.58 | | 002H - 10.58-B | 028009T | Underpass | LOS ANGELES | INGLEWOOD | SAN DIEGO FWY (I-405) | | SAN DIEGO FWY (I-405) | State | |
| 91 | 10.63 | YES | 002H - 10.62 | 028010M | | LOS ANGELES | INGLEWOOD | LA CIENEGA BL | LA CIENEGA BLVD | LA CIENEGA BLVD | City | 34,000 |
| 92 | 10.82 | YES | 002H - 10.90 | 028011U | | LOS ANGELES | INGLEWOOD | HINDRY | HINDRY AVENUE | HINDRY AVE | City | 4,500 |
| 93 | 11.11 | YES | 002H - 11.10 | 028012B | | LOS ANGELES | INGLEWOOD | MANCHESTER AV (I-105 EXIT) | MANCHESTER AVENUE | MANCHESTER AVE | State | 37,000 |
| 94 | 11.63 | YES | 002H - 11.60 | 028018S | | LOS ANGELES | INGLEWOOD | ARBOR VITAE ST | ARBOR VITAE STREET | ARBOR VITAE ST | City | 22,700 |
| 95 | 12.24 | | 002H - 12.10-B | 028019Y | Underpass | LOS ANGELES | LOS ANGELES | CENTURY BL | | CENTURY BLVD | City | |
| 96 | 12.36 | YES | 002H - 12.36 | 028020T | | LOS ANGELES | LOS ANGELES | 104TH ST | 104TH STREET | 104TH ST | City | 5,500 |
| 97 | | | 002H - 12.70-C | TBD | | LOS ANGELES | LOS ANGELES | AVIATION BL | #N/A | | City | #N/A |
| 98 | 12.92 | YES | 002H - 12.90 | 028025C | | LOS ANGELES | LOS ANGELES | 111TH ST | #N/A | 111TH ST | City | #N/A |
| 99 | | | 002H - 12.90-C | 028021A | | LOS ANGELES | LOS ANGELES | 104TH ST | #N/A | | City | #N/A |
| 100 | | | 002H - 13.00-C | 028023N | | LOS ANGELES | LOS ANGELES | 102ND ST | #N/A | | City | #N/A |
| 101 | 13.13 | YES | 002H - 13.10 | 028027R | | LOS ANGELES | LOS ANGELES | IMPERIAL HWY | IMPERIAL HWY. | IMPERIAL HWY | City | 37,000 |
| 102 | | | 002H - 13.12-AC | TBD | Overpass | LOS ANGELES | LOS ANGELES | AIRPORT VIADUCT | | | State | |
| 103 | | | 002H - 13.12-ACT | N.A. | Overpass | LOS ANGELES | EL SEGUNDO | MTA GREEN LINE | | | State | |
| 104 | 13.13 | | 002H - 13.16-AT | N.A. | Overpass | LOS ANGELES | EL SEGUNDO | MTA GREEN LINE | | | State | |
| 105 | 13.13 | | 002H - 13.19-AT | N.A. | Overpass | LOS ANGELES | EL SEGUNDO | MTA GREEN LINE | | | State | |
| 106 | | | 002H - 13.20-C | 028028X | | LOS ANGELES | EL SEGUNDO | LAPHAM ST | LAPHAM STREET | | City | 500 |
| 107 | | | 002H - 13.33-ACT | TBD | Overpass | LOS ANGELES | EL SEGUNDO | MTA GREEN LINE | | | City | |
| 108 | 13.37 | YES | 002H - 13.40 | 028047C | | LOS ANGELES | EL SEGUNDO | 118 TH ST | 118TH STREET | 118 TH ST | City | 800 |
| 109 | | | 002H - 13.40-C | 028030Y | | LOS ANGELES | EL SEGUNDO | DOUGLAS ST | #N/A | | City | #N/A |
| 110 | | | 002H - 13.51-ACT | TBD | Overpass | LOS ANGELES | EL SEGUNDO | MTA GREEN LINE | | | City | |
| 111 | 13.62 | YES | 002H - 13.60 | 028048J | | LOS ANGELES | EL SEGUNDO | 120TH ST | 120TH STREET | 120TH ST | City | 1,800 |
| 112 | | | 002H - 13.70-C | 028036P | | LOS ANGELES | EL SEGUNDO | NASH ST | #N/A | | City | #N/A |
| 113 | | | 002H - 13.82-C | 028037W | | LOS ANGELES | EL SEGUNDO | MAPLE AV | #N/A | | City | #N/A |
| 114 | 13.89 | YES | 002H - 13.90 | 028049R | Private Crossing | LOS ANGELES | EL SEGUNDO | 124TH ST | #N/A | Private crossing (124th St) | Private | |
| 115 | | | 002H - 13.98-C | 028039K | | LOS ANGELES | EL SEGUNDO | MAPLE AV | #N/A | | City | #N/A |
| 116 | | | 002H - 14.08-C | 028040E | | LOS ANGELES | EL SEGUNDO | MAPLE AV | #N/A | | City | #N/A |
| 117 | 14.13 | | 002H - 14.10-B | 028051S | Underpass | LOS ANGELES | EL SEGUNDO | EL SEGUNDO BL | | EL SEGUNDO BL | City | |
| 118 | | | 002H - 14.16-C | 028041L | | LOS ANGELES | EL SEGUNDO | MAPLE AV | #N/A | | City | #N/A |
| 119 | | | 002H - 14.21-C | 028042T | | LOS ANGELES | EL SEGUNDO | WALNUT AV | #N/A | | City | #N/A |
| 120 | 14.52 | | N.A. | N.A. | UPRR Crossing | LOS ANGELES | EL SEGUNDO | | | | R.R. | |
| 121 | 14.69 | YES | 002H - 14.70 | 028052Y | | LOS ANGELES | EL SEGUNDO | DOUGLAS ST | DOUGLAS ST | DOUGLAS ST | City | 15,700 |
| 122 | 14.79 | YES | N.A. | N.A. | Private Crossing | LOS ANGELES | EL SEGUNDO | CHAPMAN WY | | Private xing (Chapman Way) | Private | |
| 123 | 15.08 | YES | N.A. | N.A. | Pedestrian xing | LOS ANGELES | EL SEGUNDO | DOUGLAS/ROSECRANS STA. | | Pedestrian xing | Private | |
| 124 | 15.41 | | 002H - 15.50-B | 028054M | Underpass | LOS ANGELES | HAWTHORNE | AVIATION/ROSECRANS BL | | ROSECRANS BLVD | County | |
| 125 | | | 002H - 16.00-AC | 028055U | Overpass | LOS ANGELES | HAWTHORNE | LAWNDALE (I-405) | | | State | |
| 126 | 16.10 | YES | 002H - 16.10 | 028060R | | LOS ANGELES | HAWTHORNE | MARINE AV | COMPTON-MARINE AV | COMPTON BLVD | City | 30,000 |
| 127 | 16.74 | YES | 002H - 16.70 | 028062E | | LOS ANGELES | REDONDO BEACH | INGLEWOOD AV | INGLEWOOD AVE | INGLEWOOD AVE | City | 25,000 |
| 128 | 16.87 | YES | 002H - 16.80 | 028064T | | LOS ANGELES | LAWNDALE | MANHATTAN BEACH BL | MANHATAN BEACH BL | MANHATTAN BEACH BLVD | City | 19,000 |
| 129 | 16.94 | YES | 002H - 16.90 | 028065A | | LOS ANGELES | LAWNDALE | 159TH ST | 159TH STREET | 159TH ST | City | 600 |
| 130 | 17.01 | YES | 002H - 17.00 | 028066G | | LOS ANGELES | LAWNDALE | 160TH ST | 160TH STREET | 160TH ST | City | 600 |
| 131 | 17.08 | YES | 002H - 17.05 | 028067N | | LOS ANGELES | LAWNDALE | 161ST ST | 161ST STREET | 161ST ST | City | 700 |
| 132 | 17.14 | YES | 002H - 17.10 | 028068V | | LOS ANGELES | LAWNDALE | 162ND ST | 162ND STREET | 162ND ST | City | 2,100 |
| 133 | 17.62 | YES | 002H - 17.60 | 028069C | | LOS ANGELES | LAWNDALE | 170TH ST | 170TH STREET | 170TH ST | County | 2,500 |
| 134 | 17.88 | | 002H - 17.90-B | 028070W | Underpass | LOS ANGELES | LAWNDALE | ARTESIA BL (SR 91) | | ARTESIA BLVD (SR 91) | State | |
| 135 | 18.08 | | 002H - 18.10-B | 028071D | Underpass | LOS ANGELES | REDONDO BEACH | GRANT AV | | GRANT AVE | City | |
| 136 | 18.38 | YES | 002H - 18.40 | 028072K | | LOS ANGELES | TORRANCE | 182ND ST | 182ND STREET | 182ND ST | City | 11,700 |

**TABLE 1**
**HARBOR SUBDIVISION LINE**
**Railroad Crossing Inventory Summary**

| Number | MainlineMile Post | Study Xing | CPUC Xing No. | FRA Xing No. | Type | County | City | Street (CPUC) | Street (FRA) | Street (BNSF) | Jurisdiction | Avg. Daily Vehicles (FRA) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 137 | 18.98 | | 002H - 19.00-B | 028073S | Underpass | LOS ANGELES | TORRANCE | HAWTHORNE (I-107) | | HAWTHORNE BLVD (I-107) | State | |
| 138 | 19.03 | | 002H - 19.10-B | 028143E | Underpass | LOS ANGELES | TORRANCE | 190TH ST | | 190TH ST | County | |
| 139 | 19.61 | | 002H - 19.50-A | TBD | Overpass | LOS ANGELES | TORRANCE | PRAIRIE-MADRONA AV | | PRAIRIE AVE | City | |
| 140 | | | 002H - 20.70-C | 028084E | | LOS ANGELES | TORRANCE | CRENSHAW BL | CRENSHAW BLVD. | | City | 42,600 |
| 141 | | | 002H - 20.80-C | 028088G | | LOS ANGELES | TORRANCE | ALASKA AV | ALASKA AVENUE | | City | 1,000 |
| 142 | 20.94 | | 002H - 20.90-B | 028095S | Underpass | LOS ANGELES | TORRANCE | CRENSHAW BL | #N/A | CRENSHAW BLVD | City | |
| 143 | | | 002H - 21.00-C | 028089N | | LOS ANGELES | TORRANCE | ALASKA AV | ALASKA AVENUE | | City | 1,000 |
| 144 | 21.24 | YES | 002H - 21.20 | 028096Y | | LOS ANGELES | TORRANCE | TORRANCE BL | TORRANCE BLVD. | TORRANCE BLVD | City | 33,800 |
| 145 | | | 002H - 21.20-C | 028090H | | LOS ANGELES | TORRANCE | HAWAII AV | HAWAII AVENUE | | City | 400 |
| 146 | | | 002H - 21.30-C | 028085L | | LOS ANGELES | TORRANCE | VAN NESS AV | VAN NESS AVE. | | City | 17,400 |
| 147 | | | 002H - 21.32-C | 028091P | | LOS ANGELES | TORRANCE | MAPLE AV | #N/A | | City | #N/A |
| 148 | 21.36 | YES | 002H - 21.40-D | 028097F | Pedestrian xing | LOS ANGELES | TORRANCE | EL DORADO ST | #N/A | EL DORADO | City | |
| 149 | 21.48 | YES | 002H - 21.50 | 028098M | | LOS ANGELES | TORRANCE | SONOMA ST | SONOMA STREET | SONOMA ST | City | 1,200 |
| 150 | 21.60 | YES | 002H - 21.60 | 028099U | | LOS ANGELES | TORRANCE | CARSON ST | CARSON STREET | CARSON ST | City | 37,600 |
| 151 | | | 002H - 21.70-C | 028086T | | LOS ANGELES | TORRANCE | WESTERN AV | WESTERN AVENUE | | City | 32,800 |
| 152 | 22.10 | YES | 002H - 22.10 | 028101T | | LOS ANGELES | TORRANCE | WASHINGTON AV | WASHINGTON ST | WASHINGTON BLVD | City | 3,800 |
| 153 | 22.24 | YES | 002H - 22.20 | 028103G | | LOS ANGELES | TORRANCE | ARLINGTON AV | ARLINGTON AVE | ARLINGTON AVE | City | 14,600 |
| 154 | 22.49 | YES | 002H - 22.50 | 028104N | | LOS ANGELES | TORRANCE | CABRILLO AV | CABRILLO AVENUE | CABRILLO AVE | City | 7,500 |
| 155 | 22.57 | YES | 002H - 22.60 | 028105V | | LOS ANGELES | TORRANCE | BORDER AV | BORDER AVENUE | BORDER AVE | City | 900 |
| 156 | 22.78 | YES | 002H - 22.80 | 028106C | | LOS ANGELES | TORRANCE | SEPULVEDA BL | SEPULVEDA BLVD. | SEPULVEDA BLVD | City | 53,700 |
| 157 | | | 002H - 22.96-C | TBD | | LOS ANGELES | TORRANCE | TOLEDO ST | #N/A | | City | #N/A |
| 158 | 23.03 | YES | 002H - 23.00 | 028107J | | LOS ANGELES | TORRANCE | WESTERN AV | WESTERN AVENUE | WESTERN AVE | City | 23,600 |
| 159 | 23.60 | | 002H - 23.60-AD | TBD | Overpass | LOS ANGELES | LOS ANGELES | BATEY AV | | | City | |
| 160 | 23.88 | | 002H - 23.90-B | 028108R | Underpass | LOS ANGELES | LOMITA | NORMANDIE AV | | NORMANDIE AVE | County | |
| 161 | 24.42 | | 002H - 24.40-A | 028109X | Overpass | LOS ANGELES | LOMITA | VERMONT AV | | VERMONT AVE | County | |
| 162 | 24.52 | | 002H - 24.50-A | 028110S | Overpass | LOS ANGELES | LOMITA | HARBOR FWY (I-110) | | HARBOR FWY (I-110) | State | |
| 163 | 24.79 | YES | 002H - 24.80 | 028113M | | LOS ANGELES | CARSON | S FIGUEROA ST | FIGUEROA STREET | FIGUEROA ST | City | 11,000 |
| 164 | 24.92 | YES | N.A. | N.A. | Private Crossing | LOS ANGELES | CARSON | | | Private crossing | Private | |
| 165 | 24.97 | | N.A. | N.A. | ELIMINATED | LOS ANGELES | CARSON | | | Private crossing | Private | |
| 166 | 25.27 | | 002H - 25.30-B | 028116H | Underpass | LOS ANGELES | CARSON | MAIN ST | | MAIN ST | County | |
| 167 | 25.94 | YES | 002H - 25.90 | 028118W | | LOS ANGELES | CARSON | AVALON BL | AVALON BLVD | AVALON BLVD | City | 18,000 |
| 168 | 26.04 | YES | 002H - 26.00 | 028119D | | LOS ANGELES | LOS ANGELES | BROAD AV | BROAD STREET | BROAD ST | City | 1,100 |
| 169 | 26.11 | YES | 002H - 26.10 | 028124A | | LOS ANGELES | LOS ANGELES | LAKME ST | LAKME STREET | LAKME ST | City | 1,500 |
| 170 | 26.36 | YES | 002H - 26.30 | 028125G | | LOS ANGELES | CARSON | WILMINGTON AV | WILMINGTON AVE | WILMINGTON AVE | City | 18,000 |
| 171 | | | 002H - 26.50-C | TBD | | LOS ANGELES | CARSON | SEPULVEDA BL | #N/A | | City | #N/A |
| 172 | 26.60 | | 002H - 26.60 | 028126N | | LOS ANGELES | CARSON | LOMITA BL | LOMITA BLVD | | City | 1,000 |
| 173 | | | 002H - 26.80-C | 028131K | | LOS ANGELES | CARSON | LOMITA BL | LOMITA BLVD. | | City | 1,300 |
| 174 | 27.18 | | N.A. | N.A. | Private Crossing | | | | | Private crossing | Private | |
| 175 | 27.20 | | 002H - 27.20-A | 028127V | Overpass | LOS ANGELES | LOS ANGELES | PACIFIC COAST HWY (SR 1) | #N/A | | State | #N/A |
| 176 | 27.40 | | 002H - 27.40 | 028128C | | LOS ANGELES | LOS ANGELES | L ST | L STREET | | City | 3,800 |
| 177 | 27.50 | | 002H - 27.50 | 028129J | | LOS ANGELES | LOS ANGELES | DENNI ST | DENNI STREET | | City | 530 |
| 178 | 27.60 | | 002H - 27.60 | 028130D | | LOS ANGELES | LOS ANGELES | GRANT ST | GRANT STREET | | City | 500 |
| 179 | | | 002H - 27.63-BC | 028134F | Underpass | LOS ANGELES | LOS ANGELES | ALAMEDA ST | | | City | |
| 180 | | | 002H - 27.90-C | 028135M | | LOS ANGELES | LOS ANGELES | PAC COAST HWY (SR 1) | PACIFIC COAST HWY | | State | 20,000 |

Sources: CPUC, FRA, BNSF

**TABLE 1**
**HARBOR SUBDIVISION LINE**
**Railroad Crossing Inventory Summary**

| Number | MainlineMile Post | Study Xing | CPUC Xing No. | Daily Trains (FRA) | Main Line | No. of Tracks (CPUC) | | | | No. of Tracks (FRA) | Max. Train Speed Mainline | Warning Device (CPUC) | Warning Device (FRA) | FRA Inventory Updated | Warning Device (BNSF) | Accident Count (FRA) | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Main | Br. | Other | Total | | | | | | | Total: 107 | |
| 1 | 0.09 | | 002H - 0.10-B | | Yes | 0 | 1 | 1 | 2 | | 12 mph | | | | | | Not an at grade xing |
| 2 | 0.17 | | N.A. | | Yes | 0 | 1 | 1 | 2 | | 12 mph | | | | Gates | | Xing from BNSF list; not in CPUC list |
| 3 | 0.25 | | 002H - 0.25 | 9 | Yes | 0 | 1 | 2 | 3 | 1 | 12 mph | 2(9) | Gates | 00-11-07 | Gates | | |
| 4 | 0.33 | | 002H - 0.30 | 7 | Yes | 0 | 1 | 0 | 1 | 3 | 12 mph | 1(9) 1(9A) | Flashing lights | 99-07-16 | Gates | | |
| 5 | | | 002H - 0.35-C | 19 | No | 0 | 0 | 1 | 1 | 1 | | 2(9) | Gates | 99-09-27 | | | |
| 6 | 0.43 | | 002H - 0.40 | 9 | Yes | 0 | 1 | 2 | 3 | 1 | 12 mph | 2(1R) | Cross bucks | 00-11-07 | Gates | | |
| 7 | 0.50 | | 002H - 0.50 | 9 | Yes | 0 | 1 | 1 | 2 | 1 | 12 mph | 2(9) | Gates | 00-11-07 | Gates | | |
| 8 | | | 002H - 0.53-C | #N/A | No | 0 | 0 | 1 | 1 | #N/A | | | #N/A | #N/A | | | |
| 9 | | | 002H - 0.64-C | 0 | No | 0 | 0 | 2 | 2 | 2 | | 1(1/1A) | Stop signs | 99-09-27 | | | |
| 10 | | | 002H - 0.68-C | #N/A | No | 0 | 0 | 1 | 1 | #N/A | | 1(1/1A) | #N/A | #N/A | | | |
| 11 | 0.70 | | 002H - 0.70 | 9 | Yes | 0 | 1 | 2 | 3 | 2 | 12 mph | 2(9) | Gates | 00-11-07 | Gates | | |
| 12 | 0.71 | | 002H - 0.71 | 9 | Yes | 0 | 1 | 0 | 1 | 2 | 12 mph | 2(9) | Gates | 00-11-07 | Gates | | |
| 13 | | | 002H - 0.77-C | #N/A | No | 0 | 0 | 1 | 1 | #N/A | | 2(1/1A) | #N/A | #N/A | | | |
| 14 | | | 002H - 0.79-C | 0 | No | 0 | 0 | 1 | 1 | 1 | | | Cross bucks | 99-09-27 | | | |
| 15 | 0.97 | | 002H - 0.90 | 9 | Yes | 0 | 1 | 0 | 1 | 1 | 12 mph | 2(9) | Gates | 00-11-07 | Gates | | |
| 16 | | | 002H - 0.90-C | 1 | No | 0 | 0 | 1 | 1 | 1 | | 2(1R) | Cross bucks | 99-09-27 | | | |
| 17 | 1.04 | | 002H - 1.00 | 9 | Yes | 0 | 1 | 0 | 1 | 1 | 12 mph | 4(9) | Gates | 00-11-07 | Gates | | |
| 18 | | | 002H - 1.26-C | 2 | No | 0 | 0 | 1 | 1 | 1 | | 1(1/1A) | Cross bucks | 99-09-27 | | | |
| 19 | 1.38 | | 002H - 1.30 | 9 | Yes | 0 | 1 | 8 | 9 | 10 | 12 mph | 2(1/1A) 1(3) | HWTS, WW ,Bells | 00-11-07 | F. lights (poss. gate) | | |
| 20 | | | 002H - 1.35-C | 3 | No | 0 | 0 | 1 | 1 | 1 | | 2(8A) | Flashing lights | 99-09-27 | | | |
| 21 | | | 002H - 1.40-C | 3 | No | 0 | 0 | 1 | 1 | 1 | | 1(1/1A) | Cross bucks | 99-09-27 | | | |
| 22 | | | 002H - 1.41-C | 2 | No | 0 | 0 | 2 | 2 | 2 | | 2(1/1A) | Cross bucks | 99-09-27 | | | |
| 23 | | | 002H - 1.48-C | 3 | No | 0 | 0 | 1 | 1 | 1 | | 2(1/1A) | Cross bucks | 99-09-27 | | | |
| 24 | | | 002H - 1.49-C | 4 | No | 0 | 0 | 1 | 1 | 1 | | 2(1/1A) | Cross bucks | 99-09-27 | | | |
| 25 | 1.57 | | 002H - 1.50 | 2 | Yes | 0 | 1 | 1 | 2 | 2 | 12 mph | 2(9) | Gates | 99-09-27 | Gates | | |
| 26 | | | 002H - 1.57-C | 3 | No | 0 | 0 | 1 | 1 | 1 | | 2(1/1A) | Cross bucks | 99-09-27 | | | |
| 27 | 1.61 | | 002H - 1.60 | 9 | Yes | 0 | 1 | 1 | 2 | 2 | 12 mph | 2(9) | Flashing lights | 00-11-07 | Gates | | |
| 28 | 1.65 | | 002H - 1.65 | 9 | Yes | 0 | 1 | 1 | 2 | 2 | 15 mph | 2(9) | Gates | 00-11-07 | Gates | | |
| 29 | 1.70 | | 002H - 1.70 | 9 | Yes | 0 | 1 | 1 | 2 | 2 | 15 mph | 2(9) | Gates | 00-11-07 | | | |
| 30 | 1.80 | | 002H - 1.80 | 9 | Yes | 0 | 1 | 1 | 2 | 1 | 15 mph | 2(9) | Gates | 00-11-07 | Gates | | |
| 31 | 1.85 | | 002H - 1.85 | 9 | Yes | 0 | 1 | 2 | 3 | 1 | 15 mph | 2(9) | Gates | 00-11-07 | Gates | | |
| 32 | 1.94 | | 002H - 1.90 | 9 | Yes | 0 | 1 | 2 | 3 | 1 | 15 mph | 2(9) | Gates | 00-11-07 | Gates | | |
| 33 | 1.99 | | 002H - 1.99-D | 9 | Yes | 0 | 1 | 0 | 1 | 1 | 15 mph | 1(1/1A) 1(8) | Flashing lights | 00-11-07 | | | |
| 34 | 2.02 | | 002H - 2.00 | 9 | Yes | 0 | 1 | 0 | 1 | 1 | 15 mph | 2(9) | Gates | 00-11-07 | Gates | | |
| 35 | 2.05 | | 002H - 2.10 | 9 | Yes | 0 | 1 | 0 | 1 | 1 | 15 mph | 2(9) | Gates | 00-11-07 | Gates | | |
| 36 | 2.30 | | 002H - 2.30 | 9 | Yes | 0 | 1 | 0 | 1 | 1 | 15 mph | 2(8) | Flashing lights | 00-11-07 | Flashing lights | | |
| 37 | | | 002H - 2.39-C | 3 | No | 0 | 0 | 1 | 1 | 1 | | 1(1/1A) | Cross bucks | 99-09-27 | | | |
| 38 | 2.48 | | 002H - 2.50 | 9 | Yes | 0 | 1 | 0 | 1 | 1 | 10 mph | 1(8) 4(9) | Gates | 00-11-07 | Gates | | Xing over Alameda RR Corridor |
| 39 | 2.68 | | 002H - 2.70 | 9 | Yes | 0 | 1 | 1 | 2 | 3 | 20 mph | 4(9) | Gates | 00-11-07 | Gates | 2 | |
| 40 | 2.83 | | 002H - 2.83 | 9 | Yes | 0 | 1 | 0 | 1 | 1 | 20 mph | 1(8) 1(9) | Gates | 00-11-07 | Gates | 1 | |
| 41 | | | 002H - 2.95-C | 0 | No | 0 | 0 | 1 | 1 | 1 | | 1(1/1A) | Cross bucks | 99-09-27 | | | |
| 42 | 3.06 | | 002H - 3.10 | 9 | Yes | 0 | 1 | 0 | 1 | 1 | 20 mph | 2(9) | Gates | 00-11-07 | Gates | 1 | |
| 43 | 3.51 | | 002H - 3.30 | 9 | Yes | 0 | 1 | 1 | 2 | 1 | 20 mph | 2(9) | Gates | 00-11-07 | Gates | 4 | |
| 44 | | | 002H - 3.37-C | 0 | No | 0 | 0 | 1 | 1 | 1 | | 1(1/1A) | Cross bucks | 99-09-27 | | | |
| 45 | 3.56 | | 002H - 3.50 | 9 | Yes | 0 | 1 | 0 | 1 | 1 | 20 mph | 2(9) | Flashing lights | 00-11-07 | Gates | 3 | |
| 46 | 3.64 | | N.A. | | Yes | 0 | 1 | 0 | 1 | | 20 mph | | | | F. lights (poss. gate) | | Xing from BNSF list; not in CPUC list |
| 47 | | | 002H - 3.71-C | 3 | No | 0 | 0 | 1 | 1 | 1 | | 2(8A) | Flashing lights | 99-09-27 | | 2 | |
| 48 | 3.81 | | 002H - 3.80 | 9 | Yes | 0 | 1 | 1 | 2 | 1 | 20 mph | 2(9) | Flashing lights | 00-11-07 | Gates | 1 | |
| 49 | 3.90 | | 002H - 3.90 | 9 | Yes | 0 | 1 | 3 | 4 | 1 | 20 mph | 2(9) | Gates | 00-11-07 | Gates | | |
| 50 | 4.06 | | 002H - 4.10 | 9 | Yes | 0 | 1 | 0 | 1 | 1 | 20 mph | 2(9) | Gates | 00-11-07 | Gates | 4 | |
| 51 | 4.18 | | 002H - 4.20 | 9 | Yes | 0 | 1 | 1 | 2 | 1 | 20 mph | 2(9) | Gates | 00-11-07 | Gates | | |
| 52 | 4.31 | | 002H - 4.30 | 9 | Yes | 0 | 1 | 1 | 2 | 1 | 20 mph | 2(9) | Gates | 00-11-07 | Gates | 2 | |
| 53 | | | 002H - 4.40-C | #N/A | No | 0 | 0 | 1 | 1 | #N/A | | 1(1/1A) 1(3) | #N/A | #N/A | | | |
| 54 | 4.56 | | 002H - 4.60 | 9 | Yes | 0 | 1 | 0 | 1 | 1 | 20 mph | 2(9) | Flashing lights | 00-11-07 | Gates | 3 | |
| 55 | 4.81 | | 002H - 4.80 | 9 | Yes | 0 | 1 | 0 | 1 | 1 | 20 mph | 2(9) | Gates | 00-11-07 | Gates | | |
| 56 | 4.89 | | 002H - 4.90-A | | Yes | 0 | 1 | 0 | 1 | | 20 mph | | | | | | Not an at grade xing |
| 57 | 5.06 | | 002H - 5.10 | 9 | Yes | 0 | 1 | 0 | 1 | 1 | 20 mph | 2(9) | Gates | 00-11-07 | Gates | 3 | |
| 58 | 5.32 | | 002H - 5.30 | 9 | Yes | 0 | 1 | 0 | 1 | 1 | 20 mph | 2(9) | Gates | 00-11-07 | Gates | 6 | |
| 59 | 5.57 | | 002H - 5.60 | 9 | Yes | 0 | 1 | 0 | 1 | 1 | 20 mph | 2(9) | Gates | 00-11-07 | Gates | 2 | |
| 60 | 5.82 | | 002H - 5.80 | 9 | Yes | 0 | 1 | 1 | 2 | 1 | 20 mph | 2(9) | Gates | 00-11-07 | Gates | | |
| 61 | 6.07 | | 002H - 6.10 | 9 | Yes | 0 | 1 | 1 | 2 | 1 | 20 mph | 2(9) | Gates | 00-11-07 | Gates | 3 | |
| 62 | 6.31 | | 002H - 6.30 | 9 | Yes | 0 | 1 | 1 | 2 | 1 | 20 mph | 2(9) | Flashing lights | 00-11-07 | Gates | | |
| 63 | 6.42 | | 002H - 6.40 | 9 | Yes | 0 | 1 | 0 | 1 | 1 | 20 mph | 1(8) 2(9) | Flashing lights | 00-11-07 | Gates | 7 | |
| 64 | 6.66 | | 002H - 6.60 | 9 | Yes | 0 | 1 | 0 | 1 | 1 | 20 mph | 2(9) | Gates | 00-11-07 | Gates | | |
| 65 | | | 002H - 6.83-C | 0 | No | 0 | 0 | 1 | 1 | 1 | | 1(1/1A) | Cross bucks | 99-09-27 | | | |
| 66 | | | 002H - 6.88-C | 3 | No | 0 | 0 | 1 | 1 | 1 | | 2(1/1A) | Cross bucks | 99-09-27 | | | |
| 67 | | | 002H - 6.96-C | 0 | No | 0 | 0 | 1 | 1 | 1 | | 1(1/1A) | Cross bucks | 99-09-27 | | | |
| 68 | | | 002H - 7.01-C | 3 | No | 0 | 0 | 1 | 1 | 1 | | 2(1/1A) | Cross bucks | 99-09-27 | | | |

**TABLE 1**
**HARBOR SUBDIVISION LINE**
**Railroad Crossing Inventory Summary**

| Number | MainlineMile Post | Study Xing | CPUC Xing No. | Daily Trains (FRA) | Main Line | No. of Tracks (CPUC) | | | | No. of Tracks (FRA) | Max. Train Speed Mainline | Warning Device (CPUC) | Warning Device (FRA) | FRA Inventory Updated | Warning Device (BNSF) | Accident Count (FRA) | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Main | Br. | Other | Total | | | | | | | Total: 107 | |
| 69 | 7.11 | | 002H - 7.10 | 9 | Yes | 0 | 1 | 0 | 1 | 1 | 20 mph | 2(9) | Gates | 00-11-07 | Gates | 1 | |
| 70 | 7.42 | | 002H - 7.40 | 9 | Yes | 0 | 1 | 1 | 2 | 2 | 20 mph | 2(9) | Gates | 00-11-07 | Gates | | |
| 71 | 7.75 | | 002H - 7.70 | 9 | Yes | 0 | 1 | 0 | 1 | 1 | 20 mph | 2(9) | Flashing lights | 00-11-07 | Gates | 1 | |
| 72 | 7.94 | | 002H - 7.90 | 9 | Yes | 0 | 1 | 0 | 1 | 1 | 20 mph | 2(9) | Gates | 00-11-07 | Gates | | |
| 73 | 7.97 | | 002H - 7.95 | 9 | Yes | 0 | 1 | 1 | 2 | 2 | 20 mph | 2(8) 2(9) | Flashing lights | 00-11-07 | Gates | | |
| 74 | 8.03 | YES | 002H - 8.00 | 9 | Yes | 0 | 1 | 1 | 2 | 2 | 20 mph | 4(9) | Gates | 00-11-07 | Gates | 1 | |
| 75 | 8.14 | YES | 002H - 8.10 | 9 | Yes | 0 | 1 | 0 | 1 | 1 | 20 mph | 1(8) 2(9) | Gates | 00-11-07 | Gates | | |
| 76 | 8.23 | YES | 002H - 8.20 | 9 | Yes | 0 | 1 | 0 | 1 | 1 | 20 mph | 2(9) | Gates | 00-11-07 | Gates | | |
| 77 | 8.32 | YES | 002H - 8.30 | 9 | Yes | 0 | 1 | 0 | 1 | 1 | 20 mph | 3(9) | Flashing lights | 00-11-07 | Gates | | |
| 78 | 8.60 | YES | 002H - 8.60 | 9 | Yes | 0 | 1 | 0 | 1 | 1 | 20 mph | 2(9) | Flashing lights | 00-11-07 | Gates | | |
| 79 | 8.70 | | 002H - 8.70-D | | Yes | 0 | 1 | 0 | 1 | | 20 mph | 1(1/1A) | | | | | |
| 80 | 8.80 | | 002H - 8.80-D | | Yes | 0 | 1 | 0 | 1 | | 20 mph | 1(1/1A) | | | | | |
| 81 | 8.89 | | N.A. | | Yes | 0 | 1 | 0 | 1 | | 20 mph | | | | | | Xing from BNSF list; not in CPUC list |
| 82 | 9.13 | YES | 002H - 9.10 | 9 | Yes | 0 | 1 | 0 | 1 | 1 | 20 mph | 4(9) | Gates | 00-11-07 | Gates | 1 | |
| 83 | 9.59 | YES | 002H - 9.60 | 9 | Yes | 0 | 1 | 0 | 1 | 1 | 20 mph | 4(9) | Flashing lights | 00-11-07 | Gates | 5 | |
| 84 | 9.82 | YES | 002H - 9.90 | 9 | Yes | 0 | 1 | 0 | 1 | 1 | 20 mph | 2(9) | Gates | 00-11-07 | Gates | | |
| 85 | 9.94 | YES | 002H - 10.00 | 9 | Yes | 0 | 1 | 1 | 2 | 1 | 20 mph | 2(9) | Gates | 00-11-07 | Gates | 3 | |
| 86 | 10.18 | | N.A. | | Yes | 0 | 1 | 1 | 2 | | 20 mph | | | | | | Xing from BNSF list; not in CPUC list |
| 87 | 10.21 | YES | 002H - 10.20 | 9 | Yes | 0 | 1 | 1 | 2 | 2 | 20 mph | 2(9) | Gates | 00-11-07 | Gates | | |
| 88 | 10.36 | YES | 002H - 10.30 | 9 | Yes | 0 | 1 | 0 | 1 | 1 | 20 mph | 2(9A) | Gates | 00-11-07 | Gates | | |
| 89 | 10.52 | YES | 002H - 10.50 | 9 | Yes | 0 | 1 | 1 | 2 | 1 | 20 mph | 2(9) | Flashing lights | 00-11-07 | Gates | 2 | |
| 90 | 10.58 | | 002H - 10.58-B | | Yes | 0 | 1 | 0 | 1 | | 20 mph | | | | | | Not an at grade xing |
| 91 | 10.63 | YES | 002H - 10.62 | 9 | Yes | 0 | 1 | 1 | 2 | 1 | 20 mph | 4(9) | Gates | 00-11-07 | Gates | 2 | |
| 92 | 10.82 | YES | 002H - 10.90 | 9 | Yes | 0 | 1 | 0 | 1 | 1 | 20 mph | 2(9) | Gates | 00-11-07 | Gates | | |
| 93 | 11.11 | YES | 002H - 11.10 | 9 | Yes | 0 | 1 | 1 | 2 | 1 | 20 mph | 4(9) | Gates | 00-11-07 | Gates | 1 | |
| 94 | 11.63 | YES | 002H - 11.60 | 9 | Yes | 0 | 1 | 0 | 1 | 1 | 20 mph | 2(9) | Flashing lights | 00-11-07 | Gates | 2 | |
| 95 | 12.24 | | 002H - 12.10-B | | Yes | 0 | 1 | 0 | 1 | | 20 mph | | | | | | Not an at grade xing |
| 96 | 12.36 | YES | 002H - 12.36 | 9 | Yes | 0 | 1 | 0 | 1 | 1 | 20 mph | 2(9) | Flashing lights | 00-11-07 | Gates | | |
| 97 | | | 002H - 12.70-C | #N/A | No | 0 | 0 | 1 | 1 | #N/A | | 2(8A) | #N/A | #N/A | | | |
| 98 | 12.92 | YES | 002H - 12.90 | #N/A | Yes | 0 | 1 | 1 | 2 | #N/A | 20 mph | 2(9) | #N/A | #N/A | Gates | | |
| 99 | | | 002H - 12.90-C | #N/A | No | 0 | 0 | 2 | 2 | #N/A | | 2(1/1A) | #N/A | #N/A | | | |
| 100 | | | 002H - 13.00-C | #N/A | No | 0 | 0 | 2 | 2 | #N/A | | 2(1/1A) | #N/A | #N/A | | | |
| 101 | 13.13 | YES | 002H - 13.10 | 9 | Yes | 0 | 1 | 2 | 3 | 3 | 20 mph | 1(9) 3(9A) | Gates | 00-11-07 | Gates | 7 | |
| 102 | | | 002H - 13.12-AC | | Yes | 0 | 1 | 0 | 1 | | 20 mph | | | | | | Not an at grade xing |
| 103 | | | 002H - 13.12-ACT | | No | 0 | 0 | 0 | 0 | | | | | | | | Not an at grade xing |
| 104 | 13.13 | | 002H - 13.16-AT | | No | 0 | 0 | 0 | 0 | | | | | | | | Not an at grade xing |
| 105 | 13.13 | | 002H - 13.19-AT | | No | 0 | 0 | 0 | 0 | | | | | | | | Not an at grade xing |
| 106 | | | 002H - 13.20-C | 0 | No | 0 | 0 | 1 | 1 | 1 | | 2(1/1A) | Cross bucks | 99-09-27 | | | |
| 107 | | | 002H - 13.33-ACT | | No | 0 | 0 | 0 | 0 | | | | | | | | Not an at grade xing |
| 108 | 13.37 | YES | 002H - 13.40 | 9 | Yes | 0 | 1 | 1 | 2 | 2 | 20 mph | 2(9) | Gates | 00-11-07 | Gates | | |
| 109 | | | 002H - 13.40-C | #N/A | No | 0 | 0 | 2 | 2 | #N/A | | 2(8A) | #N/A | #N/A | | 3 | |
| 110 | | | 002H - 13.51-ACT | | No | 0 | 0 | 0 | 0 | | | | | | | | Not an at grade xing |
| 111 | 13.62 | YES | 002H - 13.60 | 9 | Yes | 0 | 1 | 2 | 3 | 3 | 20 mph | 2(9) | Gates | 00-11-07 | Gates | | |
| 112 | | | 002H - 13.70-C | #N/A | No | 0 | 0 | 1 | 1 | #N/A | | 2(1R) | #N/A | #N/A | | 1 | |
| 113 | | | 002H - 13.82-C | #N/A | No | 0 | 0 | 1 | 1 | #N/A | | 2(1R) | #N/A | #N/A | | 1 | |
| 114 | 13.89 | YES | 002H - 13.90 | | Yes | 0 | 1 | 0 | 1 | | 20 mph | 2(9) | #N/A | #N/A | Gates | 1 | |
| 115 | | | 002H - 13.98-C | #N/A | No | 0 | 0 | 1 | 1 | #N/A | | 2(1R) | #N/A | #N/A | | | |
| 116 | | | 002H - 14.08-C | #N/A | No | 0 | 0 | 1 | 1 | #N/A | | 2(1R) | #N/A | #N/A | | | |
| 117 | 14.13 | | 002H - 14.10-B | | Yes | 0 | 1 | 0 | 1 | | 20 mph | | | | | 3 | Not an at grade xing |
| 118 | | | 002H - 14.16-C | #N/A | No | 0 | 0 | 1 | 1 | #N/A | | 2(1R) | #N/A | #N/A | | | |
| 119 | | | 002H - 14.21-C | #N/A | No | 0 | 0 | 3 | 3 | #N/A | | 2(1R) | #N/A | #N/A | | | |
| 120 | 14.52 | | N.A. | | Yes | 0 | 1 | 0 | 1 | | 10 mph | | | | | | UPRR RR xing; not in CPUC list |
| 121 | 14.69 | YES | 002H - 14.70 | 9 | Yes | 0 | 1 | 0 | 1 | 1 | 20 mph | 2(8) 2(9) | Flashing lights | 00-11-07 | Gates | 1 | |
| 122 | 14.79 | YES | N.A. | | Yes | 0 | 1 | 0 | 1 | | 20 mph | | | | Cross bucks | | Private xing according to BNSF |
| 123 | 15.08 | YES | N.A. | | Yes | 0 | 1 | 0 | 1 | | 20 mph | | | | Flashing lights | | Xing from BNSF list; not in CPUC list |
| 124 | 15.41 | | 002H - 15.50-B | | Yes | 0 | 1 | 0 | 1 | | 20 mph | | | | | | Not an at grade xing |
| 125 | | | 002H - 16.00-AC | | No | 0 | 0 | 1 | 1 | | | | | | | 1 | Not an at grade xing |
| 126 | 16.10 | YES | 002H - 16.10 | 10 | Yes | 0 | 1 | 1 | 2 | 2 | 20 mph | 2(9) 2(9A) | Gates | 00-11-07 | Gates | 1 | Shared by Hawthorne and Redondo |
| 127 | 16.74 | YES | 002H - 16.70 | 10 | Yes | 0 | 1 | 0 | 1 | 1 | 20 mph | 2(9A) | Flashing lights | 00-11-07 | Gates | | Shared by Redondo & Lawndale |
| 128 | 16.87 | YES | 002H - 16.80 | 10 | Yes | 0 | 1 | 0 | 1 | 1 | 20 mph | 4(9) | Gates | 00-11-07 | Gates | 1 | |
| 129 | 16.94 | YES | 002H - 16.90 | 10 | Yes | 0 | 1 | 0 | 1 | 1 | 20 mph | 2(9) | Flashing lights | 00-11-07 | Gates | | |
| 130 | 17.01 | YES | 002H - 17.00 | 10 | Yes | 0 | 1 | 0 | 1 | 1 | 20 mph | 2(9) | Flashing lights | 00-11-07 | Gates | | |
| 131 | 17.08 | YES | 002H - 17.05 | 10 | Yes | 0 | 1 | 0 | 1 | 1 | 20 mph | 2(9) | Flashing lights | 99-09-27 | Gates | | |
| 132 | 17.14 | YES | 002H - 17.10 | 10 | Yes | 0 | 1 | 0 | 1 | 1 | 20 mph | 2(9) | Gates | 00-11-07 | Gates | | |
| 133 | 17.62 | YES | 002H - 17.60 | 10 | Yes | 0 | 1 | 0 | 1 | 1 | 20 mph | 2(9) | Flashing lights | 00-11-07 | Gates | | |
| 134 | 17.88 | | 002H - 17.90-B | | Yes | 0 | 1 | 0 | 1 | | 20 mph | | | | | | Not an at grade xing |
| 135 | 18.08 | | 002H - 18.10-B | | Yes | 0 | 1 | 0 | 1 | | 20 mph | | | | | | Not an at grade xing |
| 136 | 18.38 | YES | 002H - 18.40 | 10 | Yes | 0 | 1 | 0 | 1 | 1 | 20 mph | 2(9) | Gates | 00-11-07 | Gates | 2 | Shared by Torrance and Redondo |

Sources: CPUC, FRA, BNSF

**TABLE 1**
**HARBOR SUBDIVISION LINE**
**Railroad Crossing Inventory Summary**

| Number | MainlineMile Post | Study Xing | CPUC Xing No. | Daily Trains (FRA) | Main Line | No. of Tracks (CPUC) | | | | No. of Tracks (FRA) | Max. Train Speed Mainline | Warning Device (CPUC) | Warning Device (FRA) | FRA Inventory Updated | Warning Device (BNSF) | Accident Count (FRA) | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Main | Br. | Other | Total | | | | | | | Total: 107 | |
| 137 | 18.98 | | 002H - 19.00-B | | Yes | 0 | 1 | 0 | 1 | | 20 mph | | | | | | Not an at grade xing |
| 138 | 19.03 | | 002H - 19.10-B | | Yes | 0 | 1 | 0 | 1 | | 20 mph | | | | | | Not an at grade xing |
| 139 | 19.61 | | 002H - 19.50-A | | Yes | 0 | 1 | 0 | 1 | | 20 mph | | | | | | Not an at grade xing |
| 140 | | | 002H - 20.70-C | 2 | No | 0 | 0 | 1 | 1 | 1 | | 4(8) | Flashing lights | 99-09-27 | | 3 | |
| 141 | | | 002H - 20.80-C | 2 | No | 0 | 0 | 1 | 1 | 2 | | | Cross bucks | 99-09-27 | | | |
| 142 | 20.94 | | 002H - 20.90-B | | Yes | 0 | 1 | 0 | 1 | | 20 mph | | | | Gates | 1 | Not an at grade xing |
| 143 | | | 002H - 21.00-C | 2 | No | 0 | 0 | 1 | 1 | 2 | | | Cross bucks | 99-09-27 | | 2 | |
| 144 | 21.24 | YES | 002H - 21.20 | 10 | Yes | 0 | 1 | 0 | 1 | 1 | 20 mph | 1(8) 1(9) 2(9A) | Flashing lights | 00-11-07 | Gates | | |
| 145 | | | 002H - 21.20-C | 2 | No | 0 | 0 | 1 | 1 | 1 | | | Cross bucks | 99-09-27 | | | |
| 146 | | | 002H - 21.30-C | 2 | No | 0 | 0 | 1 | 1 | 1 | | 2(8) | Flashing lights | 99-09-27 | | 1 | |
| 147 | | | 002H - 21.32-C | #N/A | No | 0 | 0 | 1 | 1 | #N/A | | 1(8) 2(9) | #N/A | #N/A | | | |
| 148 | 21.36 | YES | 002H - 21.40-D | | Yes | 0 | 1 | 0 | 1 | | 20 mph | 2(2) | | #N/A | Cross bucks | | Pedestrian crossing only |
| 149 | 21.48 | YES | 002H - 21.50 | 10 | Yes | 0 | 1 | 0 | 1 | 1 | 20 mph | 2(9) | Gates | 00-11-07 | Gates | | |
| 150 | 21.60 | YES | 002H - 21.60 | 10 | Yes | 0 | 1 | 0 | 1 | 1 | 20 mph | 2(8) 2(9) | Gates | 00-11-07 | Gates | 1 | |
| 151 | | | 002H - 21.70-C | 2 | No | 0 | 0 | 1 | 1 | 1 | | 4(9) | Flashing lights | 99-09-27 | | | |
| 152 | 22.10 | YES | 002H - 22.10 | 10 | Yes | 0 | 1 | 2 | 3 | 1 | 20 mph | 2(9) | Gates | 00-11-07 | Gates | | |
| 153 | 22.24 | YES | 002H - 22.20 | 10 | Yes | 0 | 1 | 1 | 2 | 1 | 20 mph | 2(8) 2(9) | Flashing lights | 00-11-07 | Gates | 1 | |
| 154 | 22.49 | YES | 002H - 22.50 | 10 | Yes | 0 | 1 | 0 | 1 | 1 | 20 mph | 2(9) | Flashing lights | 00-11-07 | Gates | | |
| 155 | 22.57 | YES | 002H - 22.60 | 10 | Yes | 0 | 1 | 0 | 1 | 1 | 20 mph | 2(9) | Gates | 00-11-07 | Gates | | |
| 156 | 22.78 | YES | 002H - 22.80 | 10 | Yes | 0 | 1 | 0 | 1 | 1 | 20 mph | 1(8) 4(9) | Gates | 00-11-07 | Gates | | |
| 157 | | | 002H - 22.96-C | #N/A | No | 0 | 0 | 1 | 1 | #N/A | | | #N/A | #N/A | | | |
| 158 | 23.03 | YES | 002H - 23.00 | 10 | Yes | 0 | 1 | 0 | 1 | 2 | 20 mph | 4(9) | Gates | 00-11-07 | Gates | 2 | |
| 159 | 23.60 | | 002H - 23.60-AD | | Yes | 0 | 1 | 0 | 1 | | 20 mph | | | | | | Not an at grade xing |
| 160 | 23.88 | | 002H - 23.90-B | | Yes | 0 | 1 | 0 | 1 | | 20 mph | | | | | | Not an at grade xing |
| 161 | 24.42 | | 002H - 24.40-A | | Yes | 0 | 1 | 0 | 1 | | 20 mph | | | | | | Not an at grade xing |
| 162 | 24.52 | | 002H - 24.50-A | | Yes | 0 | 1 | 0 | 1 | | 20 mph | | | | | | Not an at grade xing |
| 163 | 24.79 | YES | 002H - 24.80 | 10 | Yes | 0 | 1 | 0 | 1 | 1 | 20 mph | 4(9) | Gates | 00-11-07 | Gates | 1 | |
| 164 | 24.92 | YES | N.A. | | Yes | 0 | 1 | 0 | 1 | | 20 mph | | | | Flashing lights | | Xing from BNSF list; not in CPUC list |
| 165 | 24.97 | | N.A. | | Yes | 0 | 1 | 0 | 1 | | 20 mph | | | | Flashing lights | | Xing from BNSF list; not in CPUC list |
| 166 | 25.27 | | 002H - 25.30-B | | Yes | 0 | 1 | 0 | 1 | | 20 mph | | | | | | Not an at grade xing |
| 167 | 25.94 | YES | 002H - 25.90 | 10 | Yes | 0 | 1 | 0 | 1 | 1 | 20 mph | 4(9) | Gates | 00-11-07 | Gates | | |
| 168 | 26.04 | YES | 002H - 26.00 | 10 | Yes | 0 | 1 | 0 | 1 | 1 | 20 mph | 2(9) | Flashing lights | 00-11-07 | Gates | | |
| 169 | 26.11 | YES | 002H - 26.10 | 10 | Yes | 0 | 1 | 1 | 2 | 2 | 20 mph | 2(9) | Flashing lights | 00-11-07 | Gates | 1 | |
| 170 | 26.36 | YES | 002H - 26.30 | 10 | Yes | 0 | 1 | 1 | 2 | 2 | 20 mph | 2(9) | Gates | 00-11-07 | Gates | 3 | |
| 171 | | | 002H - 26.50-C | #N/A | No | 0 | 0 | 1 | 1 | #N/A | | 2(1R) | #N/A | #N/A | | | |
| 172 | 26.60 | | 002H - 26.60 | 5 | Yes | 0 | 1 | 0 | 1 | 1 | 20 mph | 2(9) | Gates | 00-11-07 | | 1 | |
| 173 | | | 002H - 26.80-C | 24 | No | 0 | 0 | 1 | 1 | 1 | | 1(8) 2(9) | Gates | 99-09-27 | | 1 | |
| 174 | 27.18 | | N.A. | | Yes | 0 | 1 | 0 | 1 | | 20 mph | | | | Cross bucks | | Xing from BNSF list; not in CPUC list |
| 175 | 27.20 | | 002H - 27.20-A | #N/A | Yes | 0 | 1 | 13 | 14 | | 20 mph | | | | | 1 | Not an at grade xing |
| 176 | 27.40 | | 002H - 27.40 | 5 | Yes | 0 | 2 | 0 | 2 | 1 | 20 mph | 2(9) | Gates | 00-11-07 | | 1 | |
| 177 | 27.50 | | 002H - 27.50 | 5 | Yes | 0 | 1 | 0 | 1 | 1 | 20 mph | 2(9) | Gates | 00-11-07 | | | |
| 178 | 27.60 | | 002H - 27.60 | 5 | Yes | 0 | 1 | 0 | 1 | 1 | 20 mph | 2(9) | Gates | 00-11-07 | | | |
| 179 | | | 002H - 27.63-BC | | No | 0 | 0 | 1 | 1 | | | | | | | | Not an at grade xing |
| 180 | | | 002H - 27.90-C | 7 | No | 0 | 0 | 0 | 0 | 1 | | 1(9) 2(9A) | Flashing lights | 00-08-09 | | 2 | |

**TABLE 2**
**HARBOR SUBDIVISION LINE**
**Railroad Crossing Inventory Summary**
**for the Study Area (Milepost 8.00 to 26.5)**

| Number | Mainline Mile Post | CPUC Xing No. | FRA Xing No. | Type | City | Street (CPUC) | Street (BNSF) | Jurisdiction | Avg. Daily Vehicles (FRA) | Avg. Daily Vehicles (WSA) | Avg. Daily Vehicles Source | Traffic Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 8.03 | 002H - 8.00 | 027992J | | LOS ANGELES | CRENSHAW BL | CRENSHAW BLVD | City | 23,500 | | | |
| 2 | 8.14 | 002H - 8.10 | 027993R | | LOS ANGELES | VICTORIA AV | VICTORIA AVE | City | 750 | | | |
| 3 | 8.23 | 002H - 8.20 | 027994X | | LOS ANGELES | BRYNHURST AV | BRYNHURST AVE | City | 700 | | | |
| 4 | 8.32 | 002H - 8.30 | 027995E | | LOS ANGELES | WEST BL | WEST BLVD | City | 5,300 | | | |
| 5 | 8.60 | 002H - 8.60 | 027996L | | INGLEWOOD | REDONDO BL | REDONDO BLVD | City | 800 | 7,500 | Inglewood Planning | |
| 6 | 9.13 | 002H - 9.10 | 028001N | | INGLEWOOD | CENTINELA AV | CENTINELIA AVE | City | 29,000 | 31,000 | Inglewood Planning | |
| 7 | 9.59 | 002H - 9.60 | 028002V | | INGLEWOOD | LA BREA ST | LA BREA AVE | City | 36,000 | 32,000 | Inglewood Planning | |
| 8 | 9.82 | 002H - 9.90 | 028003C | | INGLEWOOD | IVY AV | IVY AVE | City | 2,500 | | | |
| 9 | 9.94 | 002H - 10.00 | 028004J | | INGLEWOOD | EUCALYPTUS AV | EUCALYPTUS AVE | City | 12,000 | 12,500 | Inglewood Planning | |
| 10 | 10.21 | 002H - 10.20 | 028007E | | INGLEWOOD | NORTH CEDAR AV | CEDAR AVE | City | 800 | | | |
| 11 | 10.36 | 002H - 10.30 | 028142X | | INGLEWOOD | OAK ST | OAK ST | City | 3,200 | | | |
| 12 | 10.52 | 002H - 10.50 | 028008L | | INGLEWOOD | HYDE PARK BL | HYDE PARK BLVD | City | 4,000 | | | |
| 13 | 10.63 | 002H - 10.62 | 028010M | | INGLEWOOD | LA CIENEGA BL | LA CIENEGA BLVD | City | 34,000 | 32,000 | Inglewood Planning | |
| 14 | 10.82 | 002H - 10.90 | 028011U | | INGLEWOOD | HINDRY | HINDRY AVE | City | 4,500 | | | |
| 15 | 11.11 | 002H - 11.10 | 028012B | | INGLEWOOD | MANCHESTER AV (I-105 EXIT) | MANCHESTER AVE | State | 37,000 | 32,000 | Inglewood Planning | |
| 16 | 11.63 | 002H - 11.60 | 028018S | | INGLEWOOD | ARBOR VITAE ST | ARBOR VITAE ST | City | 22,700 | 18,000 | Inglewood Planning | |
| 17 | 12.36 | 002H - 12.36 | 028020T | | LOS ANGELES | 104TH ST | 104TH ST | City | 5,500 | | | |
| 18 | 12.92 | 002H - 12.90 | 028025C | | LOS ANGELES | 111TH ST | 111TH ST | City | #N/A | | | |
| 19 | 13.13 | 002H - 13.10 | 028027R | | LOS ANGELES | IMPERIAL HWY | IMPERIAL HWY | City | 37,000 | | | |
| 20 | 13.37 | 002H - 13.40 | 028047C | | EL SEGUNDO | 118 TH ST | 118 TH ST | City | 800 | | | |
| 21 | 13.62 | 002H - 13.60 | 028048J | | EL SEGUNDO | 120TH ST | 120TH ST | City | 1,800 | | | |
| 22 | 13.89 | 002H - 13.90 | 028049R | Private Crossing | EL SEGUNDO | 124TH ST | Private crossing (124th St) | Private | #N/A | | | |
| 23 | 14.69 | 002H - 14.70 | 028052Y | | EL SEGUNDO | DOUGLAS ST | DOUGLAS ST | City | 15,700 | 9,200 | El Segundo P.W. | |
| 24 | 14.79 | N.A. | N.A. | Private Crossing | EL SEGUNDO | CHAPMAN WY | Private xing (Chapman Way) | Private | #N/A | | | |
| 25 | 15.08 | N.A. | N.A. | Pedestrian xing | EL SEGUNDO | DOUGLAS/ROSECRANS STA. | Pedestrian xing | Private | #N/A | | | |
| 26 | 16.10 | 002H - 16.10 | 028060R | | HAWTHORNE | MARINE AV | COMPTON BLVD | City | 30,000 | 24,750 | Hawthorne | |
| 27 | 16.74 | 002H - 16.70 | 028062E | | REDONDO BEACH | INGLEWOOD AV | INGLEWOOD AVE | City | 25,000 | 47,784 | ..A. Co. P.W.(Lawndale | N/O Manhattan Bch. Bl. |
| 28 | 16.87 | 002H - 16.80 | 028064T | | LAWNDALE | MANHATTAN BEACH BL | MANHATTAN BEACH BLVD | City | 19,000 | 25,306 | ..A. Co. P.W.(Lawndale | E/O Inglewood Bl. |
| 29 | 16.94 | 002H - 16.90 | 028065A | | LAWNDALE | 159TH ST | 159TH ST | City | 600 | | | |
| 30 | 17.01 | 002H - 17.00 | 028066G | | LAWNDALE | 160TH ST | 160TH ST | City | 600 | | | |
| 31 | 17.08 | 002H - 17.05 | 028067N | | LAWNDALE | 161ST ST | 161ST ST | City | 700 | | | |
| 32 | 17.14 | 002H - 17.10 | 028068V | | LAWNDALE | 162ND ST | 162ND ST | City | 2,100 | | | |
| 33 | 17.62 | 002H - 17.60 | 028069C | | LAWNDALE | 170TH ST | 170TH ST | County | 2,500 | | | |
| 34 | 18.38 | 002H - 18.40 | 028072K | | TORRANCE | 182ND ST | 182ND ST | City | 11,700 | 10,680 | Torrance | Traffic Flow Map - 1999 |
| 35 | 21.24 | 002H - 21.20 | 028096Y | | TORRANCE | TORRANCE BL | TORRANCE BLVD | City | 33,800 | 27,790 | Torrance | Traffic Flow Map - 1999 |
| 36 | 21.36 | 002H - 21.40-D | 028097F | Pedestrian xing | TORRANCE | EL DORADO ST | EL DORADO | City | #N/A | | Torrance | Carson/Torrance |
| 37 | 21.48 | 002H - 21.50 | 028098M | | TORRANCE | SONOMA ST | SONOMA ST | City | 1,200 | | Torrance | Carson/Torrance |
| 38 | 21.60 | 002H - 21.60 | 028099U | | TORRANCE | CARSON ST | CARSON ST | City | 37,600 | 35,030 | Torrance | Traffic Flow Map - 1999 |
| 39 | 22.10 | 002H - 22.10 | 028101T | | TORRANCE | WASHINGTON AV | WASHINGTON BLVD | City | 3,800 | | Torrance | Sepulveda/Carson |
| 40 | 22.24 | 002H - 22.20 | 028103G | | TORRANCE | ARLINGTON AV | ARLINGTON AVE | City | 14,600 | 8,110 | Torrance | Traffic Flow Map - 1999 |
| 41 | 22.49 | 002H - 22.50 | 028104N | | TORRANCE | CABRILLO AV | CABRILLO AVE | City | 7,500 | 10,700 | Torrance | Traffic Flow Map - 1999 |
| 42 | 22.57 | 002H - 22.60 | 028105V | | TORRANCE | BORDER AV | BORDER AVE | City | 900 | | Torrance | Cabrillo/Western |
| 43 | 22.78 | 002H - 22.80 | 028106C | | TORRANCE | SEPULVEDA BL | SEPULVEDA BLVD | City | 53,700 | 52,770 | Torrance | Traffic Flow Map - 1999 |
| 44 | 23.03 | 002H - 23.00 | 028107J | | TORRANCE | WESTERN AV | WESTERN AVE | City | 23,600 | 30,390 | Torrance | Traffic Flow Map - 1999 |
| 45 | 24.79 | 002H - 24.80 | 028113M | | CARSON | S FIGUEROA ST | FIGUEROA ST | City | 11,000 | | | |
| 46 | 24.92 | N.A. | N.A. | Private Crossing | CARSON | N.A. | Private crossing | Private | #N/A | | | |
| 47 | 25.94 | 002H - 25.90 | 028118W | | CARSON | AVALON BL | AVALON BLVD | City | 18,000 | | | |
| 48 | 26.04 | 002H - 26.00 | 028119D | | LOS ANGELES | BROAD AV | BROAD ST | City | 1,100 | | | |
| 49 | 26.11 | 002H - 26.10 | 028124A | | LOS ANGELES | LAKME ST | LAKME ST | City | 1,500 | | | |
| 50 | 26.36 | 002H - 26.30 | 028125G | | CARSON | WILMINGTON AV | WILMINGTON AVE | City | 18,000 | | | |

**TABLE 2**
**HARBOR SUBDIVISION LINE**
**Railroad Crossing Inventory Summary**
**for the Study Area (Milepost 8.00 to 26.5)**

| Number | Mainline Mile Post | CPUC Xing No. | FRA Xing No. | Type | Daily Trains (FRA) | No. of Tracks (CPUC) | | | | No. of Tracks (FRA) | Max. Train Speed Mainline | Warning Device (CPUC) | Warning Device (BNSF) | Accident Count (FRA) | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Main | Br. | Other | Total | | | | | Total: 39 | |
| 1 | 8.03 | 002H - 8.00 | 027992J | | 9 | 1 | 1 | | 2 | 2 | 20 mph | 4(9) | Gates | 1 | |
| 2 | 8.14 | 002H - 8.10 | 027993R | | 9 | 1 | | | 1 | 1 | 20 mph | 1(8) 2(9) | Gates | 0 | |
| 3 | 8.23 | 002H - 8.20 | 027994X | | 9 | 1 | | | 1 | 1 | 20 mph | 2(9) | Gates | 0 | |
| 4 | 8.32 | 002H - 8.30 | 027995E | | 9 | 1 | | | 1 | 1 | 20 mph | 3(9) | Gates | 0 | |
| 5 | 8.60 | 002H - 8.60 | 027996L | | 9 | 1 | | | 1 | 1 | 20 mph | 2(9) | Gates | 0 | |
| 6 | 9.13 | 002H - 9.10 | 028001N | | 9 | 1 | | | 1 | 1 | 20 mph | 4(9) | Gates | 1 | |
| 7 | 9.59 | 002H - 9.60 | 028002V | | 9 | 1 | | | 1 | 1 | 20 mph | 4(9) | Gates | 5 | |
| 8 | 9.82 | 002H - 9.90 | 028003C | | 9 | 1 | | | 1 | 1 | 20 mph | 2(9) | Gates | 0 | |
| 9 | 9.94 | 002H - 10.00 | 028004J | | 9 | 1 | 1 | | 2 | 1 | 20 mph | 2(9) | Gates | 3 | |
| 10 | 10.21 | 002H - 10.20 | 028007E | | 9 | 1 | 1 | | 2 | 2 | 20 mph | 2(9) | Gates | 0 | |
| 11 | 10.36 | 002H - 10.30 | 028142X | | 9 | 1 | | | 1 | 1 | 20 mph | 2(9A) | Gates | 0 | |
| 12 | 10.52 | 002H - 10.50 | 028008L | | 9 | 1 | 1 | | 2 | 1 | 20 mph | 2(9) | Gates | 2 | |
| 13 | 10.63 | 002H - 10.62 | 028010M | | 9 | 1 | 1 | | 2 | 1 | 20 mph | 4(9) | Gates | 2 | |
| 14 | 10.82 | 002H - 10.90 | 028011U | | 9 | 1 | | | 1 | 1 | 20 mph | 2(9) | Gates | 0 | |
| 15 | 11.11 | 002H - 11.10 | 028012B | | 9 | 1 | 1 | | 2 | 1 | 20 mph | 4(9) | Gates | 1 | |
| 16 | 11.63 | 002H - 11.60 | 028018S | | 9 | 1 | | | 1 | 1 | 20 mph | 2(9) | Gates | 2 | |
| 17 | 12.36 | 002H - 12.36 | 028020T | | 9 | 1 | | | 1 | 1 | 20 mph | 2(9) | Gates | 0 | |
| 18 | 12.92 | 002H - 12.90 | 028025C | | #N/A | 1 | 1 | | 2 | #N/A | 20 mph | 2(9) | Gates | 0 | |
| 19 | 13.13 | 002H - 13.10 | 028027R | | 9 | 1 | 2 | | 3 | 3 | 20 mph | 1(9) 3(9A) | Gates | 7 | |
| 20 | 13.37 | 002H - 13.40 | 028047C | | 9 | 1 | 1 | | 2 | 2 | 20 mph | 2(9) | Gates | 0 | |
| 21 | 13.62 | 002H - 13.60 | 028048J | | 9 | 1 | 2 | | 3 | 3 | 20 mph | 2(9) | Gates | 0 | |
| 22 | 13.89 | 002H - 13.90 | 028049R | Private Crossing | #N/A | 1 | | | 1 | | 20 mph | 2(9) | Gates | 1 | |
| 23 | 14.69 | 002H - 14.70 | 028052Y | | 9 | 1 | | | 1 | 1 | 20 mph | 2(8) 2(9) | Gates | 1 | |
| 24 | 14.79 | N.A. | N.A. | Private Crossing | #N/A | 1 | | | 1 | | 20 mph | N.A. | Cross bucks | 0 | Private xing according to BNSF |
| 25 | 15.08 | N.A. | N.A. | Pedestrian xing | #N/A | 1 | | | 1 | | 20 mph | N.A. | Flashing lights | 0 | Xing from BNSF list; not in CPUC list |
| 26 | 16.10 | 002H - 16.10 | 028060R | | 10 | 1 | 1 | | 2 | 2 | 20 mph | 2(9) 2(9A) | Gates | 1 | Shared by Hawthorne and Redondo |
| 27 | 16.74 | 002H - 16.70 | 028062E | | 10 | 1 | | | 1 | 1 | 20 mph | 2(9A) | Gates | 0 | Shared by Redondo & Lawndale |
| 28 | 16.87 | 002H - 16.80 | 028064T | | 10 | 1 | | | 1 | 1 | 20 mph | 4(9) | Gates | 1 | |
| 29 | 16.94 | 002H - 16.90 | 028065A | | 10 | 1 | | | 1 | 1 | 20 mph | 2(9) | Gates | 0 | |
| 30 | 17.01 | 002H - 17.00 | 028066G | | 10 | 1 | | | 1 | 1 | 20 mph | 2(9) | Gates | 0 | |
| 31 | 17.08 | 002H - 17.05 | 028067N | | 10 | 1 | | | 1 | 1 | 20 mph | 2(9) | Gates | 0 | |
| 32 | 17.14 | 002H - 17.10 | 028068V | | 10 | 1 | | | 1 | 1 | 20 mph | 2(9) | Gates | 0 | |
| 33 | 17.62 | 002H - 17.60 | 028069C | | 10 | 1 | | | 1 | 1 | 20 mph | 2(9) | Gates | 0 | |
| 34 | 18.38 | 002H - 18.40 | 028072K | | 10 | 1 | | | 1 | 1 | 20 mph | 2(9) | Gates | 2 | Shared by Torrance and Redondo |
| 35 | 21.24 | 002H - 21.20 | 028096Y | | 10 | 1 | | | 1 | 1 | 20 mph | 1(8) 1(9) 2(9A) | Gates | 0 | |
| 36 | 21.36 | 002H - 21.40-D | 028097F | Pedestrian xing | #N/A | 1 | | | 1 | | 20 mph | 2(2) | Cross bucks | 0 | Pedestrian crossing only |
| 37 | 21.48 | 002H - 21.50 | 028098M | | 10 | 1 | | | 1 | 1 | 20 mph | 2(9) | Gates | 0 | |
| 38 | 21.60 | 002H - 21.60 | 028099U | | 10 | 1 | | | 1 | 1 | 20 mph | 2(8) 2(9) | Gates | 1 | |
| 39 | 22.10 | 002H - 22.10 | 028101T | | 10 | 1 | 2 | | 3 | 1 | 20 mph | 2(9) | Gates | 0 | |
| 40 | 22.24 | 002H - 22.20 | 028103G | | 10 | 1 | 1 | | 2 | 1 | 20 mph | 2(8) 2(9) | Gates | 1 | |
| 41 | 22.49 | 002H - 22.50 | 028104N | | 10 | 1 | | | 1 | 1 | 20 mph | 2(9) | Gates | 0 | |
| 42 | 22.57 | 002H - 22.60 | 028105V | | 10 | 1 | | | 1 | 1 | 20 mph | 2(9) | Gates | 0 | |
| 43 | 22.78 | 002H - 22.80 | 028106C | | 10 | 1 | | | 1 | 1 | 20 mph | 1(8) 4(9) | Gates | 0 | |
| 44 | 23.03 | 002H - 23.00 | 028107J | | 10 | 1 | | | 1 | 2 | 20 mph | 4(9) | Gates | 2 | |
| 45 | 24.79 | 002H - 24.80 | 028113M | | 10 | 1 | | | 1 | 1 | 20 mph | 4(9) | Gates | 1 | |
| 46 | 24.92 | N.A. | N.A. | Private Crossing | #N/A | 1 | | | 1 | | 20 mph | N.A. | Flashing lights | 0 | Xing from BNSF list; not in CPUC list |
| 47 | 25.94 | 002H - 25.90 | 028118W | | 10 | 1 | | | 1 | 1 | 20 mph | 4(9) | Gates | 0 | |
| 48 | 26.04 | 002H - 26.00 | 028119D | | 10 | 1 | | | 1 | 1 | 20 mph | 2(9) | Gates | 0 | |
| 49 | 26.11 | 002H - 26.10 | 028124A | | 10 | 1 | 1 | | 2 | 2 | 20 mph | 2(9) | Gates | 1 | |
| 50 | 26.36 | 002H - 26.30 | 028125G | | 10 | 1 | 1 | | 2 | 2 | 20 mph | 2(9) | Gates | 3 | |

# U.S. DOT - AAR CROSSING INVENTORY INFORMATION
# AS OF 12/11/01

Crossing #: ***027992J*** Status: ***Changed Crossing*** Effective Begin-Date of Record: ***11/07/00***

Railroad: ***Burlington Northern Santa Fe Corporation*** ***Current Record***

Initiating Agency ***Railroad***

## Part I Location and Classification of Crossing

| | | | |
|---|---|---|---|
| Division: | ***LOS ANGELES TE*** | Subdivision: | ***HARBOR*** |
| State: | ***CA*** | Nearest City: | ***LOS ANGELES*** |
| County: | ***LOS ANGELES*** | County Map Ref. No.: | ***13-V-32*** |
| Highway Type & No.: | | FRA RR Network Lic: | ***NINWX*** |
| Street or Road Name: | ***CRENSHAW BLVD.*** | RailRoad I.D. No.: | ***7604*** |
| Branch or Line Name: | ***REDO J-L BEACH*** | Railroad Milepost: | ***0008.03*** |
| Nearest RR Timetable Stn: | ***HYDE PARK*** | | |
| Crossing Type and Protection: | ***Public At Grade*** | | |

## Part II Detailed Information

Typical Number of Daily Train Movements: ***5*** Day Thru ***0*** Day Switching ***0*** Night Switching ***4*** Night Thru

Speed of Train at Crossing: Maximum Time Table Speed ***15*** Typical Speed Range Over Crossing From ***1*** to ***15*** mph

Type and Number of Tracks ***1*** Main ***1*** Other

Does Another RR Operate a Separate Track at Crossing? ***No***

Does Another RR Operate Over Your Track at Crossing? ***No***

### Type of Warning Device(s) at Crossing

Signs:

| | | |
|---|---|---|
| ***0*** Reflectorized Crossbucks | ***0*** Non-Reflectorized Crossbucks | ***0*** Standard Highway Stop Sign(s) |
| ***0*** Other Stop Sign(s) | ***0*** Other Signs: | ***0*** Other Signs: |

Train Activated Devices:

| | | |
|---|---|---|
| ***4*** R/W Reflectorized Gates | ***0*** Other Colored Gates | ***4*** Mast Mounted FL |
| ***0*** Cantilevered FL (Over) | ***0*** Cantilevered FL (Not over) | ***0*** Other Flashing Lights |
| ***0*** Highway Traffic Signals | ***0*** Wigwags | ***2*** Bells |

Special Warning Device Not Train Activated: ***- None -***

Is Commercial Power Available? ***Yes***

Does Crossing Signal Provide Speed Selection for Trains? ***No***

Method of Signalling for Train Operation: Is Track Equipped With Signals? ***No***

## Part III: Physical Data

| | |
|---|---|
| Type of Development: | ***Industrial*** |
| Smallest Crossing Angle: | ***60 to 90 Degrees*** |
| Number of Traffic Lanes Crossing Railroad | ***4*** |
| Are Truck Pullout Lanes Present? | ***No*** |
| Is Highway Paved? | ***Yes*** |
| Pavement Markings | ***Stop Lines and RR Xing Symbols*** |
| Are RR Advance Warning Signs Present? | ***Yes*** |
| Crossing Surface: | ***Asphalt*** |
| Does Track Run Down a Street? | ***No*** |
| Nearby Intersecting Highway? | ***Less than 75 feet*** |

## Part IV: Highway Department

| | |
|---|---|
| Highway System: | ***Other FA Highway - Not NHS*** |
| Is Crossing on State Highway System? | ***No*** |
| Functional Classification of Road Over Crossing: | ***Urban Other Principal Arterial*** |
| Estimated AADT: | ***023500*** |
| Estimated Percent Trucks: | ***22*** |

# U.S. DOT - AAR CROSSING INVENTORY INFORMATION
# AS OF 12/11/01

Crossing #: ***027993R*** Status: ***Changed Crossing*** Effective Begin-Date of Record: ***11/07/00***

Railroad: ***Burlington Northern Santa Fe Corporation*** ***Current Record***

Initiating Agency ***Railroad***

## Part I Location and Classification of Crossing

| | | | |
|---|---|---|---|
| Division: | ***LOS ANGELES TE*** | Subdivision: | ***HARBOR*** |
| State: | ***CA*** | Nearest City: | ***LOS ANGELES*** |
| County: | ***LOS ANGELES*** | County Map Ref. No.: | ***13-V-32*** |
| Highway Type & No.: | | FRA RR Network Lic: | ***NINWX*** |
| Street or Road Name: | ***VICTORIA AVENUE*** | RailRoad I.D. No.: | ***7604*** |
| Branch or Line Name: | ***REDO J-L BEACH*** | Railroad Milepost: | ***0008.14*** |
| Nearest RR Timetable Stn: | ***HYDE PARK*** | | |
| Crossing Type and Protection: | ***Public At Grade*** | | |

## Part II Detailed Information

Typical Number of Daily Train Movements: ***5*** Day Thru ***0*** Day Switching ***0*** Night Switching ***4*** Night Thru

Speed of Train at Crossing: Maximum Time Table Speed ***15*** Typical Speed Range Over Crossing From ***1*** to ***15*** mph

Type and Number of Tracks ***1*** Main ***0*** Other

Does Another RR Operate a Separate Track at Crossing? ***No***

Does Another RR Operate Over Your Track at Crossing? ***No***

### Type of Warning Device(s) at Crossing

Signs:

| | | |
|---|---|---|
| ***0*** Reflectorized Crossbucks | ***0*** Non-Reflectorized Crossbucks | ***0*** Standard Highway Stop Sign(s) |
| ***0*** Other Stop Sign(s) | ***0*** Other Signs: | ***0*** Other Signs: |

Train Activated Devices:

| | | |
|---|---|---|
| ***1*** R/W Reflectorized Gates | ***0*** Other Colored Gates | ***2*** Mast Mounted FL |
| ***0*** Cantilevered FL (Over) | ***0*** Cantilevered FL (Not over) | ***0*** Other Flashing Lights |
| ***0*** Highway Traffic Signals | ***0*** Wigwags | ***2*** Bells |

Special Warning Device Not Train Activated: ***- None -***

Is Commercial Power Available? ***Yes***

Does Crossing Signal Provide Speed Selection for Trains? ***No***

Method of Signalling for Train Operation: Is Track Equipped With Signals? ***No***

## Part III: Physical Data

| | |
|---|---|
| Type of Development: | ***Industrial*** |
| Smallest Crossing Angle: | ***60 to 90 Degrees*** |
| Number of Traffic Lanes Crossing Railroad | ***2*** |
| Are Truck Pullout Lanes Present? | ***No*** |
| Is Highway Paved? | ***Yes*** |
| Pavement Markings | ***Stop Lines and RR Xing Symbols*** |
| Are RR Advance Warning Signs Present? | ***Yes*** |
| Crossing Surface: | ***Asphalt*** |
| Does Track Run Down a Street? | ***No*** |
| Nearby Intersecting Highway? | ***75 to 150 feet*** |

## Part IV: Highway Department

| | |
|---|---|
| Highway System: | ***Non-Federal-aid*** |
| Is Crossing on State Highway System? | ***No*** |
| Functional Classification of Road Over Crossing: | ***Urban Local*** |
| Estimated AADT: | ***000750*** |
| Estimated Percent Trucks: | ***35*** |

# U.S. DOT - AAR CROSSING INVENTORY INFORMATION
# AS OF 12/11/01

Crossing #: ***027994X*** Status: ***Changed Crossing*** Effective Begin-Date of Record: ***11/07/00***

Railroad: ***Burlington Northern Santa Fe Corporation*** ***Current Record***

Initiating Agency ***Railroad***

## Part I Location and Classification of Crossing

| | | | |
|---|---|---|---|
| Division: | ***LOS ANGELES TE*** | Subdivision: | ***HARBOR*** |
| State: | ***CA*** | Nearest City: | ***LOS ANGELES*** |
| County: | ***LOS ANGELES*** | County Map Ref. No.: | ***13-V-32*** |
| Highway Type & No.: | | FRA RR Network Lic: | ***NINWX*** |
| Street or Road Name: | ***BRYNHURST AVE.*** | RailRoad I.D. No.: | ***7604*** |
| Branch or Line Name: | ***REDO J-L BEACH*** | Railroad Milepost: | ***0008.23*** |
| Nearest RR Timetable Stn: | ***HYDE PARK*** | | |
| Crossing Type and Protection: | ***Public At Grade*** | | |

## Part II Detailed Information

Typical Number of Daily Train Movements: ***5*** Day Thru ***0*** Day Switching ***0*** Night Switching ***4*** Night Thru

Speed of Train at Crossing: Maximum Time Table Speed ***15*** Typical Speed Range Over Crossing From ***1*** to ***15*** mph

Type and Number of Tracks ***1*** Main ***0*** Other

Does Another RR Operate a Separate Track at Crossing? ***No***

Does Another RR Operate Over Your Track at Crossing? ***No***

### Type of Warning Device(s) at Crossing

Signs:

| | | |
|---|---|---|
| ***0*** Reflectorized Crossbucks | ***0*** Non-Reflectorized Crossbucks | ***0*** Standard Highway Stop Sign(s) |
| ***0*** Other Stop Sign(s) | ***0*** Other Signs: | ***0*** Other Signs: |

Train Activated Devices:

| | | |
|---|---|---|
| ***1*** R/W Reflectorized Gates | ***0*** Other Colored Gates | ***2*** Mast Mounted FL |
| ***0*** Cantilevered FL (Over) | ***0*** Cantilevered FL (Not over) | ***0*** Other Flashing Lights |
| ***0*** Highway Traffic Signals | ***0*** Wigwags | ***2*** Bells |

Special Warning Device Not Train Activated: ***- None -***

Is Commercial Power Available? ***Yes***

Does Crossing Signal Provide Speed Selection for Trains? ***No***

Method of Signalling for Train Operation: Is Track Equipped With Signals? ***No***

## Part III: Physical Data

| | |
|---|---|
| Type of Development: | ***Industrial*** |
| Smallest Crossing Angle: | ***60 to 90 Degrees*** |
| Number of Traffic Lanes Crossing Railroad | ***2*** |
| Are Truck Pullout Lanes Present? | ***No*** |
| Is Highway Paved? | ***Yes*** |
| Pavement Markings | ***Stop Lines and RR Xing Symbols*** |
| Are RR Advance Warning Signs Present? | ***Yes*** |
| Crossing Surface: | ***Asphalt*** |
| Does Track Run Down a Street? | ***No*** |
| Nearby Intersecting Highway? | ***75 to 150 feet*** |

## Part IV: Highway Department

| | |
|---|---|
| Highway System: | ***Non-Federal-aid*** |
| Is Crossing on State Highway System? | ***No*** |
| Functional Classification of Road Over Crossing: | ***Urban Local*** |
| Estimated AADT: | ***000700*** |
| Estimated Percent Trucks: | ***40*** |

# U.S. DOT - AAR CROSSING INVENTORY INFORMATION
# AS OF 12/11/01

Crossing #: ***027995E*** Status: ***Changed Crossing*** Effective Begin-Date of Record: ***11/07/00***

Railroad: ***Burlington Northern Santa Fe Corporation*** ***Current Record***

Initiating Agency ***Railroad***

## Part I Location and Classification of Crossing

| | | | |
|---|---|---|---|
| Division: | ***LOS ANGELES TE*** | Subdivision: | ***HARBOR*** |
| State: | ***CA*** | Nearest City: | ***LOS ANGELES*** |
| County: | ***LOS ANGELES*** | County Map Ref. No.: | ***13-V-32*** |
| Highway Type & No.: | | FRA RR Network Lic: | ***NINWX*** |
| Street or Road Name: | ***WEST BLVD.*** | RailRoad I.D. No.: | ***7604*** |
| Branch or Line Name: | ***REDO J-L BEACH*** | Railroad Milepost: | ***0008.32*** |
| Nearest RR Timetable Stn: | ***HYDE PARK*** | | |
| Crossing Type and Protection: | ***Public At Grade*** | | |

## Part II Detailed Information

Typical Number of Daily Train Movements: ***5*** Day Thru ***0*** Day Switching ***0*** Night Switching ***4*** Night Thru

Speed of Train at Crossing: Maximum Time Table Speed ***15*** Typical Speed Range Over Crossing From ***1*** to ***15*** mph

Type and Number of Tracks ***1*** Main ***0*** Other

Does Another RR Operate a Separate Track at Crossing? ***No***

Does Another RR Operate Over Your Track at Crossing? ***No***

### Type of Warning Device(s) at Crossing

Signs:

| | | |
|---|---|---|
| ***0*** Reflectorized Crossbucks | ***0*** Non-Reflectorized Crossbucks | ***0*** Standard Highway Stop Sign(s) |
| ***0*** Other Stop Sign(s) | ***0*** Other Signs: | ***0*** Other Signs: |

Train Activated Devices:

| | | |
|---|---|---|
| ***0*** R/W Reflectorized Gates | ***0*** Other Colored Gates | ***3*** Mast Mounted FL |
| ***0*** Cantilevered FL (Over) | ***0*** Cantilevered FL (Not over) | ***0*** Other Flashing Lights |
| ***0*** Highway Traffic Signals | ***0*** Wigwags | ***3*** Bells |

Special Warning Device Not Train Activated: ***- None -***

Is Commercial Power Available? ***Yes***

Does Crossing Signal Provide Speed Selection for Trains? ***No***

Method of Signalling for Train Operation: Is Track Equipped With Signals? ***No***

## Part III: Physical Data

| | |
|---|---|
| Type of Development: | ***Industrial*** |
| Smallest Crossing Angle: | ***60 to 90 Degrees*** |
| Number of Traffic Lanes Crossing Railroad | ***2*** |
| Are Truck Pullout Lanes Present? | ***No*** |
| Is Highway Paved? | ***Yes*** |
| Pavement Markings | ***Stop Lines and RR Xing Symbols*** |
| Are RR Advance Warning Signs Present? | ***Yes*** |
| Crossing Surface: | ***Asphalt*** |
| Does Track Run Down a Street? | ***No*** |
| Nearby Intersecting Highway? | ***Less than 75 feet*** |

## Part IV: Highway Department

| | |
|---|---|
| Highway System: | ***Other FA Highway - Not NHS*** |
| Is Crossing on State Highway System? | ***No*** |
| Functional Classification of Road Over Crossing: | ***Urban Minor Arterial*** |
| Estimated AADT: | ***005300*** |
| Estimated Percent Trucks: | ***28*** |

# U.S. DOT - AAR CROSSING INVENTORY INFORMATION
# AS OF 12/11/01

Crossing #: ***027996L*** Status: ***Changed Crossing*** Effective Begin-Date of Record: ***11/07/00***

Railroad: ***Burlington Northern Santa Fe Corporation*** ***Current Record***

Initiating Agency ***Railroad***

## Part I Location and Classification of Crossing

| | | | |
|---|---|---|---|
| Division: | ***LOS ANGELES TE*** | Subdivision: | ***HARBOR*** |
| State: | ***CA*** | Nearest City: | ***INGLEWOOD*** |
| County: | ***LOS ANGELES*** | County Map Ref. No.: | ***13-V-32*** |
| Highway Type & No.: | | FRA RR Network Lic: | ***NINWX*** |
| Street or Road Name: | ***REDONDO BLVD*** | RailRoad I.D. No.: | ***7604*** |
| Branch or Line Name: | ***REDO J-L BEACH*** | Railroad Milepost: | ***0008.60*** |
| Nearest RR Timetable Stn: | ***HYDE PARK*** | | |
| Crossing Type and Protection: | ***Public At Grade*** | | |

## Part II Detailed Information

Typical Number of Daily Train Movements: ***5*** Day Thru ***0*** Day Switching ***0*** Night Switching ***4*** Night Thru

Speed of Train at Crossing: Maximum Time Table Speed ***15*** Typical Speed Range Over Crossing From ***1*** to ***15*** mph

Type and Number of Tracks ***1*** Main ***0*** Other

Does Another RR Operate a Separate Track at Crossing? ***No***

Does Another RR Operate Over Your Track at Crossing? ***No***

### Type of Warning Device(s) at Crossing

Signs:

| | | |
|---|---|---|
| ***0*** Reflectorized Crossbucks | ***1*** Non-Reflectorized Crossbucks | ***0*** Standard Highway Stop Sign(s) |
| ***0*** Other Stop Sign(s) | ***0*** Other Signs: | ***0*** Other Signs: |

Train Activated Devices:

| | | |
|---|---|---|
| ***0*** R/W Reflectorized Gates | ***0*** Other Colored Gates | ***2*** Mast Mounted FL |
| ***0*** Cantilevered FL (Over) | ***0*** Cantilevered FL (Not over) | ***0*** Other Flashing Lights |
| ***0*** Highway Traffic Signals | ***0*** Wigwags | ***2*** Bells |

Special Warning Device Not Train Activated: ***- None -***

Is Commercial Power Available? ***Yes***

Does Crossing Signal Provide Speed Selection for Trains? ***No***

Method of Signalling for Train Operation: Is Track Equipped With Signals? ***No***

## Part III: Physical Data

| | |
|---|---|
| Type of Development: | ***Institutional*** |
| Smallest Crossing Angle: | ***0 to 29 Degrees*** |
| Number of Traffic Lanes Crossing Railroad | ***4*** |
| Are Truck Pullout Lanes Present? | ***No*** |
| Is Highway Paved? | ***Yes*** |
| Pavement Markings | ***Stop Lines and RR Xing Symbols*** |
| Are RR Advance Warning Signs Present? | ***Yes*** |
| Crossing Surface: | ***Sectional Treated Timber*** |
| Does Track Run Down a Street? | ***No*** |
| Nearby Intersecting Highway? | ***Less than 75 feet*** |

## Part IV: Highway Department

| | |
|---|---|
| Highway System: | ***Non-Federal-aid*** |
| Is Crossing on State Highway System? | ***No*** |
| Functional Classification of Road Over Crossing: | ***Urban Local*** |
| Estimated AADT: | ***000800*** |
| Estimated Percent Trucks: | ***25*** |

# U.S. DOT - AAR CROSSING INVENTORY INFORMATION
# AS OF 12/11/01

Crossing #: ***028001N*** Status: ***Changed Crossing*** Effective Begin-Date of Record: ***11/07/00***

Railroad: ***Burlington Northern Santa Fe Corporation*** ***Current Record***

Initiating Agency ***Railroad***

## Part I Location and Classification of Crossing

| | | | |
|---|---|---|---|
| Division: | ***LOS ANGELES TE*** | Subdivision: | ***HARBOR*** |
| State: | ***CA*** | Nearest City: | ***INGLEWOOD*** |
| County: | ***LOS ANGELES*** | County Map Ref. No.: | ***13-V-32*** |
| Highway Type & No.: | | FRA RR Network Lic: | ***NINWX*** |
| Street or Road Name: | ***CENTINALA AVENUE*** | RailRoad I.D. No.: | ***7604*** |
| Branch or Line Name: | ***REDO J-L BEACH*** | Railroad Milepost: | ***0009.13*** |
| Nearest RR Timetable Stn: | ***INGLEWOOD*** | | |
| Crossing Type and Protection: | ***Public At Grade*** | | |

## Part II Detailed Information

Typical Number of Daily Train Movements: ***5*** Day Thru ***0*** Day Switching ***0*** Night Switching ***4*** Night Thru

Speed of Train at Crossing: Maximum Time Table Speed ***15*** Typical Speed Range Over Crossing From ***1*** to ***15*** mph

Type and Number of Tracks ***1*** Main ***0*** Other

Does Another RR Operate a Separate Track at Crossing? ***No***

Does Another RR Operate Over Your Track at Crossing? ***No***

### Type of Warning Device(s) at Crossing

Signs:

| | | |
|---|---|---|
| ***0*** Reflectorized Crossbucks | ***0*** Non-Reflectorized Crossbucks | ***0*** Standard Highway Stop Sign(s) |
| ***0*** Other Stop Sign(s) | ***0*** Other Signs: | ***0*** Other Signs: |

Train Activated Devices:

| | | |
|---|---|---|
| ***4*** R/W Reflectorized Gates | ***0*** Other Colored Gates | ***4*** Mast Mounted FL |
| ***0*** Cantilevered FL (Over) | ***0*** Cantilevered FL (Not over) | ***0*** Other Flashing Lights |
| ***0*** Highway Traffic Signals | ***0*** Wigwags | ***2*** Bells |

Special Warning Device Not Train Activated: ***- None -***

Is Commercial Power Available? ***Yes***

Does Crossing Signal Provide Speed Selection for Trains? ***No***

Method of Signalling for Train Operation: Is Track Equipped With Signals? ***No***

## Part III: Physical Data

| | |
|---|---|
| Type of Development: | ***Industrial*** |
| Smallest Crossing Angle: | ***60 to 90 Degrees*** |
| Number of Traffic Lanes Crossing Railroad | ***4*** |
| Are Truck Pullout Lanes Present? | ***No*** |
| Is Highway Paved? | ***Yes*** |
| Pavement Markings | ***Stop Lines and RR Xing Symbols*** |
| Are RR Advance Warning Signs Present? | ***Yes*** |
| Crossing Surface: | ***Rubber*** |
| Does Track Run Down a Street? | ***No*** |
| Nearby Intersecting Highway? | ***Less than 75 feet*** |

## Part IV: Highway Department

| | |
|---|---|
| Highway System: | ***Other FA Highway - Not NHS*** |
| Is Crossing on State Highway System? | ***No*** |
| Functional Classification of Road Over Crossing: | ***Urban Other Principal Arterial*** |
| Estimated AADT: | ***029000*** |
| Estimated Percent Trucks: | ***20*** |

# U.S. DOT - AAR CROSSING INVENTORY INFORMATION
# AS OF 12/11/01

Crossing #: ***028002V*** Status: ***Changed Crossing*** Effective Begin-Date of Record: ***11/07/00***

Railroad: ***Burlington Northern Santa Fe Corporation*** ***Current Record***

Initiating Agency ***Railroad***

## Part I Location and Classification of Crossing

| | | | |
|---|---|---|---|
| Division: | ***LOS ANGELES TE*** | Subdivision: | ***HARBOR*** |
| State: | ***CA*** | Nearest City: | ***INGLEWOOD*** |
| County: | ***LOS ANGELES*** | County Map Ref. No.: | ***13-V-32*** |
| Highway Type & No.: | | FRA RR Network Lic: | ***NINWX*** |
| Street or Road Name: | ***LA BREA AVENUE*** | RailRoad I.D. No.: | ***7604*** |
| Branch or Line Name: | ***REDO J-L BEACH*** | Railroad Milepost: | ***0009.59*** |
| Nearest RR Timetable Stn: | ***INGLEWOOD*** | | |
| Crossing Type and Protection: | ***Public At Grade*** | | |

## Part II Detailed Information

Typical Number of Daily Train Movements: ***5*** Day Thru ***0*** Day Switching ***0*** Night Switching ***4*** Night Thru

Speed of Train at Crossing: Maximum Time Table Speed ***15*** Typical Speed Range Over Crossing From ***1*** to ***15*** mph

Type and Number of Tracks ***1*** Main ***0*** Other

Does Another RR Operate a Separate Track at Crossing? ***No***

Does Another RR Operate Over Your Track at Crossing? ***No***

### Type of Warning Device(s) at Crossing

Signs:

| | | |
|---|---|---|
| ***0*** Reflectorized Crossbucks | ***0*** Non-Reflectorized Crossbucks | ***0*** Standard Highway Stop Sign(s) |
| ***0*** Other Stop Sign(s) | ***0*** Other Signs: | ***0*** Other Signs: |

Train Activated Devices:

| | | |
|---|---|---|
| ***0*** R/W Reflectorized Gates | ***0*** Other Colored Gates | ***4*** Mast Mounted FL |
| ***0*** Cantilevered FL (Over) | ***0*** Cantilevered FL (Not over) | ***0*** Other Flashing Lights |
| ***0*** Highway Traffic Signals | ***0*** Wigwags | ***2*** Bells |

Special Warning Device Not Train Activated: ***- None -***

Is Commercial Power Available? ***Yes***

Does Crossing Signal Provide Speed Selection for Trains? ***No***

Method of Signalling for Train Operation: Is Track Equipped With Signals? ***No***

## Part III: Physical Data

| | |
|---|---|
| Type of Development: | ***Industrial*** |
| Smallest Crossing Angle: | ***60 to 90 Degrees*** |
| Number of Traffic Lanes Crossing Railroad | ***6*** |
| Are Truck Pullout Lanes Present? | ***No*** |
| Is Highway Paved? | ***Yes*** |
| Pavement Markings | ***Stop Lines and RR Xing Symbols*** |
| Are RR Advance Warning Signs Present? | ***Yes*** |
| Crossing Surface: | ***Sectional Treated Timber*** |
| Does Track Run Down a Street? | ***No*** |
| Nearby Intersecting Highway? | ***Less than 75 feet*** |

## Part IV: Highway Department

| | |
|---|---|
| Highway System: | ***Other FA Highway - Not NHS*** |
| Is Crossing on State Highway System? | ***No*** |
| Functional Classification of Road Over Crossing: | ***Urban Other Principal Arterial*** |
| Estimated AADT: | ***036000*** |
| Estimated Percent Trucks: | ***22*** |

# U.S. DOT - AAR CROSSING INVENTORY INFORMATION
# AS OF 12/11/01

Crossing #: ***028003C*** Status: ***Changed Crossing*** Effective Begin-Date of Record: ***11/07/00***

Railroad: ***Burlington Northern Santa Fe Corporation*** ***Current Record***

Initiating Agency ***Railroad***

## Part I Location and Classification of Crossing

| | | | |
|---|---|---|---|
| Division: | ***LOS ANGELES TE*** | Subdivision: | ***HARBOR*** |
| State: | ***CA*** | Nearest City: | ***INGLEWOOD*** |
| County: | ***LOS ANGELES*** | County Map Ref. No.: | ***13-V-32*** |
| Highway Type & No.: | | FRA RR Network Lic: | ***NINWX*** |
| Street or Road Name: | ***IVY AVENUE*** | RailRoad I.D. No.: | ***7604*** |
| Branch or Line Name: | ***REDO J-L BEACH*** | Railroad Milepost: | ***0009.82*** |
| Nearest RR Timetable Stn: | ***INGLEWOOD*** | | |
| Crossing Type and Protection: | ***Public At Grade*** | | |

## Part II Detailed Information

Typical Number of Daily Train Movements: ***5*** Day Thru ***0*** Day Switching ***0*** Night Switching ***4*** Night Thru

Speed of Train at Crossing: Maximum Time Table Speed ***15*** Typical Speed Range Over Crossing From ***1*** to ***15*** mph

Type and Number of Tracks ***1*** Main ***0*** Other

Does Another RR Operate a Separate Track at Crossing? ***No***

Does Another RR Operate Over Your Track at Crossing? ***No***

### Type of Warning Device(s) at Crossing

Signs:

| | | |
|---|---|---|
| ***0*** Reflectorized Crossbucks | ***0*** Non-Reflectorized Crossbucks | ***0*** Standard Highway Stop Sign(s) |
| ***0*** Other Stop Sign(s) | ***0*** Other Signs: | ***0*** Other Signs: |

Train Activated Devices:

| | | |
|---|---|---|
| ***2*** R/W Reflectorized Gates | ***0*** Other Colored Gates | ***4*** Mast Mounted FL |
| ***0*** Cantilevered FL (Over) | ***0*** Cantilevered FL (Not over) | ***0*** Other Flashing Lights |
| ***0*** Highway Traffic Signals | ***0*** Wigwags | ***2*** Bells |

Special Warning Device Not Train Activated: ***- None -***

Is Commercial Power Available? ***Yes***

Does Crossing Signal Provide Speed Selection for Trains? ***No***

Method of Signalling for Train Operation: Is Track Equipped With Signals? ***No***

## Part III: Physical Data

| | |
|---|---|
| Type of Development: | ***Industrial*** |
| Smallest Crossing Angle: | ***0 to 29 Degrees*** |
| Number of Traffic Lanes Crossing Railroad | ***2*** |
| Are Truck Pullout Lanes Present? | ***No*** |
| Is Highway Paved? | ***Yes*** |
| Pavement Markings | ***Stop Lines and RR Xing Symbols*** |
| Are RR Advance Warning Signs Present? | ***Yes*** |
| Crossing Surface: | ***Sectional Treated Timber*** |
| Does Track Run Down a Street? | ***No*** |
| Nearby Intersecting Highway? | ***Less than 75 feet*** |

## Part IV: Highway Department

| | |
|---|---|
| Highway System: | ***Non-Federal-aid*** |
| Is Crossing on State Highway System? | ***No*** |
| Functional Classification of Road Over Crossing: | ***Urban Local*** |
| Estimated AADT: | ***002500*** |
| Estimated Percent Trucks: | ***28*** |

# U.S. DOT - AAR CROSSING INVENTORY INFORMATION
# AS OF 12/11/01

Crossing #: ***028004J*** Status: ***Changed Crossing*** Effective Begin-Date of Record: ***11/07/00***

Railroad: ***Burlington Northern Santa Fe Corporation*** ***Current Record***

Initiating Agency ***Railroad***

## Part I Location and Classification of Crossing

| | | | |
|---|---|---|---|
| Division: | ***LOS ANGELES TE*** | Subdivision: | ***HARBOR*** |
| State: | ***CA*** | Nearest City: | ***INGLEWOOD*** |
| County: | ***LOS ANGELES*** | County Map Ref. No.: | ***13-V-32*** |
| Highway Type & No.: | | FRA RR Network Lic: | ***NINWX*** |
| Street or Road Name: | ***EUCALYPTUS AVE.*** | RailRoad I.D. No.: | ***7604*** |
| Branch or Line Name: | ***REDO J-L BEACH*** | Railroad Milepost: | ***0009.94*** |
| Nearest RR Timetable Stn: | ***INGLEWOOD*** | | |
| Crossing Type and Protection: | ***Public At Grade*** | | |

## Part II Detailed Information

Typical Number of Daily Train Movements: ***5*** Day Thru ***0*** Day Switching ***0*** Night Switching ***4*** Night Thru

Speed of Train at Crossing: Maximum Time Table Speed ***15*** Typical Speed Range Over Crossing From ***1*** to ***15*** mph

Type and Number of Tracks ***1*** Main ***0*** Other

Does Another RR Operate a Separate Track at Crossing? ***No***

Does Another RR Operate Over Your Track at Crossing? ***No***

### Type of Warning Device(s) at Crossing

Signs:

| | | |
|---|---|---|
| ***0*** Reflectorized Crossbucks | ***0*** Non-Reflectorized Crossbucks | ***0*** Standard Highway Stop Sign(s) |
| ***0*** Other Stop Sign(s) | ***0*** Other Signs: | ***0*** Other Signs: |

Train Activated Devices:

| | | |
|---|---|---|
| ***2*** R/W Reflectorized Gates | ***0*** Other Colored Gates | ***2*** Mast Mounted FL |
| ***0*** Cantilevered FL (Over) | ***0*** Cantilevered FL (Not over) | ***0*** Other Flashing Lights |
| ***0*** Highway Traffic Signals | ***0*** Wigwags | ***2*** Bells |

Special Warning Device Not Train Activated: ***- None -***

Is Commercial Power Available? ***Yes***

Does Crossing Signal Provide Speed Selection for Trains? ***No***

Method of Signalling for Train Operation: Is Track Equipped With Signals? ***No***

## Part III: Physical Data

| | |
|---|---|
| Type of Development: | ***Industrial*** |
| Smallest Crossing Angle: | ***60 to 90 Degrees*** |
| Number of Traffic Lanes Crossing Railroad | ***3*** |
| Are Truck Pullout Lanes Present? | ***No*** |
| Is Highway Paved? | ***Yes*** |
| Pavement Markings | ***Stop Lines and RR Xing Symbols*** |
| Are RR Advance Warning Signs Present? | ***Yes*** |
| Crossing Surface: | ***Full Wood Plank*** |
| Does Track Run Down a Street? | ***No*** |
| Nearby Intersecting Highway? | ***75 to 150 feet*** |

## Part IV: Highway Department

| | |
|---|---|
| Highway System: | ***Other FA Highway - Not NHS*** |
| Is Crossing on State Highway System? | ***No*** |
| Functional Classification of Road Over Crossing: | ***Urban Collector*** |
| Estimated AADT: | ***012000*** |
| Estimated Percent Trucks: | ***20*** |

# U.S. DOT - AAR CROSSING INVENTORY INFORMATION
# AS OF 12/11/01

Crossing #: ***028007E*** Status: ***Changed Crossing*** Effective Begin-Date of Record: ***11/07/00***

Railroad: ***Burlington Northern Santa Fe Corporation*** ***Current Record***

Initiating Agency ***Railroad***

## Part I Location and Classification of Crossing

| | | | |
|---|---|---|---|
| Division: | ***LOS ANGELES TE*** | Subdivision: | ***HARBOR*** |
| State: | ***CA*** | Nearest City: | ***INGLEWOOD*** |
| County: | ***LOS ANGELES*** | County Map Ref. No.: | ***13-V-32*** |
| Highway Type & No.: | | FRA RR Network Lic: | ***NINWX*** |
| Street or Road Name: | ***CEDAR AVENUE*** | RailRoad I.D. No.: | ***7604*** |
| Branch or Line Name: | ***REDO J-L BEACH*** | Railroad Milepost: | ***0010.21*** |
| Nearest RR Timetable Stn: | ***INGLEWOOD*** | | |
| Crossing Type and Protection: | ***Public At Grade*** | | |

## Part II Detailed Information

Typical Number of Daily Train Movements: ***5*** Day Thru ***0*** Day Switching ***0*** Night Switching ***4*** Night Thru

Speed of Train at Crossing: Maximum Time Table Speed ***20*** Typical Speed Range Over Crossing From ***1*** to ***20*** mph

Type and Number of Tracks ***1*** Main ***1*** Other

Does Another RR Operate a Separate Track at Crossing? ***No***

Does Another RR Operate Over Your Track at Crossing? ***No***

### Type of Warning Device(s) at Crossing

Signs:

| | | |
|---|---|---|
| ***0*** Reflectorized Crossbucks | ***0*** Non-Reflectorized Crossbucks | ***0*** Standard Highway Stop Sign(s) |
| ***0*** Other Stop Sign(s) | ***0*** Other Signs: | ***0*** Other Signs: |

Train Activated Devices:

| | | |
|---|---|---|
| ***2*** R/W Reflectorized Gates | ***0*** Other Colored Gates | ***2*** Mast Mounted FL |
| ***0*** Cantilevered FL (Over) | ***0*** Cantilevered FL (Not over) | ***0*** Other Flashing Lights |
| ***0*** Highway Traffic Signals | ***0*** Wigwags | ***2*** Bells |

Special Warning Device Not Train Activated: ***- None -***

Is Commercial Power Available? ***Yes***

Does Crossing Signal Provide Speed Selection for Trains? ***No***

Method of Signalling for Train Operation: Is Track Equipped With Signals? ***No***

## Part III: Physical Data

| | |
|---|---|
| Type of Development: | ***Industrial*** |
| Smallest Crossing Angle: | ***60 to 90 Degrees*** |
| Number of Traffic Lanes Crossing Railroad | ***2*** |
| Are Truck Pullout Lanes Present? | ***No*** |
| Is Highway Paved? | ***Yes*** |
| Pavement Markings | ***No Markings*** |
| Are RR Advance Warning Signs Present? | ***No*** |
| Crossing Surface: | ***Asphalt*** |
| Does Track Run Down a Street? | ***No*** |
| Nearby Intersecting Highway? | ***Less than 75 feet*** |

## Part IV: Highway Department

| | |
|---|---|
| Highway System: | ***Non-Federal-aid*** |
| Is Crossing on State Highway System? | ***No*** |
| Functional Classification of Road Over Crossing: | ***Urban Local*** |
| Estimated AADT: | ***000800*** |
| Estimated Percent Trucks: | ***60*** |

# U.S. DOT - AAR CROSSING INVENTORY INFORMATION
# AS OF 12/11/01

Crossing #: ***028142X*** Status: ***Changed Crossing*** Effective Begin-Date of Record: ***11/07/00***

Railroad: ***Burlington Northern Santa Fe Corporation*** ***Current Record***

Initiating Agency ***Railroad***

## Part I Location and Classification of Crossing

| | | | |
|---|---|---|---|
| Division: | ***LOS ANGELES TE*** | Subdivision: | ***HARBOR*** |
| State: | ***CA*** | Nearest City: | ***INGLEWOOD*** |
| County: | ***LOS ANGELES*** | County Map Ref. No.: | |
| Highway Type & No.: | | FRA RR Network Lic: | ***NINWX*** |
| Street or Road Name: | ***OAK ST*** | RailRoad I.D. No.: | ***7604*** |
| Branch or Line Name: | ***REDO J-L BEACH*** | Railroad Milepost: | ***0010.36*** |
| Nearest RR Timetable Stn: | ***INGLEWOOD*** | | |
| Crossing Type and Protection: | ***Public At Grade*** | | |

## Part II Detailed Information

Typical Number of Daily Train Movements: ***5*** Day Thru ***0*** Day Switching ***0*** Night Switching ***4*** Night Thru

Speed of Train at Crossing: Maximum Time Table Speed ***20*** Typical Speed Range Over Crossing From ***1*** to ***20*** mph

Type and Number of Tracks ***1*** Main ***0*** Other

Does Another RR Operate a Separate Track at Crossing? ***No***

Does Another RR Operate Over Your Track at Crossing? ***No***

### Type of Warning Device(s) at Crossing

Signs:

| | | |
|---|---|---|
| ***0*** Reflectorized Crossbucks | ***0*** Non-Reflectorized Crossbucks | ***1*** Standard Highway Stop Sign(s) |
| ***0*** Other Stop Sign(s) | ***0*** Other Signs: | ***0*** Other Signs: |

Train Activated Devices:

| | | |
|---|---|---|
| ***2*** R/W Reflectorized Gates | ***0*** Other Colored Gates | ***2*** Mast Mounted FL |
| ***2*** Cantilevered FL (Over) | ***0*** Cantilevered FL (Not over) | ***0*** Other Flashing Lights |
| ***0*** Highway Traffic Signals | ***0*** Wigwags | ***2*** Bells |

Special Warning Device Not Train Activated: ***- None -***

Is Commercial Power Available? ***Yes***

Does Crossing Signal Provide Speed Selection for Trains? ***No***

Method of Signalling for Train Operation: Is Track Equipped With Signals? ***No***

## Part III: Physical Data

| | |
|---|---|
| Type of Development: | ***Commercial*** |
| Smallest Crossing Angle: | ***60 to 90 Degrees*** |
| Number of Traffic Lanes Crossing Railroad | ***2*** |
| Are Truck Pullout Lanes Present? | ***No*** |
| Is Highway Paved? | ***Yes*** |
| Pavement Markings | ***Stop Lines and RR Xing Symbols*** |
| Are RR Advance Warning Signs Present? | ***Yes*** |
| Crossing Surface: | ***Full Wood Plank*** |
| Does Track Run Down a Street? | ***No*** |
| Nearby Intersecting Highway? | ***Less than 75 feet*** |

## Part IV: Highway Department

| | |
|---|---|
| Highway System: | ***Non-Federal-aid*** |
| Is Crossing on State Highway System? | ***No*** |
| Functional Classification of Road Over Crossing: | ***Urban Local*** |
| Estimated AADT: | ***003200*** |
| Estimated Percent Trucks: | ***10*** |

# U.S. DOT - AAR CROSSING INVENTORY INFORMATION
# AS OF 12/11/01

Crossing #: ***028008L*** Status: ***Changed Crossing*** Effective Begin-Date of Record: ***11/07/00***

Railroad: ***Burlington Northern Santa Fe Corporation*** ***Current Record***

Initiating Agency ***Railroad***

## Part I Location and Classification of Crossing

| | | | |
|---|---|---|---|
| Division: | ***LOS ANGELES TE*** | Subdivision: | ***HARBOR*** |
| State: | ***CA*** | Nearest City: | ***INGLEWOOD*** |
| County: | ***LOS ANGELES*** | County Map Ref. No.: | ***13-V-32*** |
| Highway Type & No.: | | FRA RR Network Lic: | ***NINWX*** |
| Street or Road Name: | ***HYDE PARK BLVD*** | RailRoad I.D. No.: | ***7604*** |
| Branch or Line Name: | ***REDO J-L BEACH*** | Railroad Milepost: | ***0010.52*** |
| Nearest RR Timetable Stn: | ***INGLEWOOD*** | | |
| Crossing Type and Protection: | ***Public At Grade*** | | |

## Part II Detailed Information

Typical Number of Daily Train Movements: ***5*** Day Thru ***0*** Day Switching ***0*** Night Switching ***4*** Night Thru

Speed of Train at Crossing: Maximum Time Table Speed ***20*** Typical Speed Range Over Crossing From ***1*** to ***20*** mph

Type and Number of Tracks ***1*** Main ***0*** Other

Does Another RR Operate a Separate Track at Crossing? ***No***

Does Another RR Operate Over Your Track at Crossing? ***No***

### Type of Warning Device(s) at Crossing

Signs:

| | | |
|---|---|---|
| ***0*** Reflectorized Crossbucks | ***0*** Non-Reflectorized Crossbucks | ***1*** Standard Highway Stop Sign(s) |
| ***0*** Other Stop Sign(s) | ***0*** Other Signs: | ***0*** Other Signs: |

Train Activated Devices:

| | | |
|---|---|---|
| ***0*** R/W Reflectorized Gates | ***0*** Other Colored Gates | ***2*** Mast Mounted FL |
| ***0*** Cantilevered FL (Over) | ***0*** Cantilevered FL (Not over) | ***0*** Other Flashing Lights |
| ***0*** Highway Traffic Signals | ***0*** Wigwags | ***0*** Bells |

Special Warning Device Not Train Activated: ***- None -***

Is Commercial Power Available? ***Yes***

Does Crossing Signal Provide Speed Selection for Trains? ***No***

Method of Signalling for Train Operation: Is Track Equipped With Signals? ***No***

## Part III: Physical Data

| | |
|---|---|
| Type of Development: | ***Industrial*** |
| Smallest Crossing Angle: | ***60 to 90 Degrees*** |
| Number of Traffic Lanes Crossing Railroad | ***2*** |
| Are Truck Pullout Lanes Present? | ***No*** |
| Is Highway Paved? | ***Yes*** |
| Pavement Markings | ***RR Xing Symbols*** |
| Are RR Advance Warning Signs Present? | ***Yes*** |
| Crossing Surface: | ***Asphalt*** |
| Does Track Run Down a Street? | ***No*** |
| Nearby Intersecting Highway? | ***Less than 75 feet*** |

## Part IV: Highway Department

| | |
|---|---|
| Highway System: | ***Non-Federal-aid*** |
| Is Crossing on State Highway System? | ***No*** |
| Functional Classification of Road Over Crossing: | ***Urban Local*** |
| Estimated AADT: | ***004000*** |
| Estimated Percent Trucks: | ***30*** |

# U.S. DOT - AAR CROSSING INVENTORY INFORMATION
# AS OF 12/11/01

Crossing #: ***028010M*** Status: ***Changed Crossing*** Effective Begin-Date of Record: ***11/07/00***

Railroad: ***Burlington Northern Santa Fe Corporation*** ***Current Record***

Initiating Agency ***Railroad***

## Part I Location and Classification of Crossing

| | | | |
|---|---|---|---|
| Division: | ***LOS ANGELES TE*** | Subdivision: | ***HARBOR*** |
| State: | ***CA*** | Nearest City: | ***INGLEWOOD*** |
| County: | ***LOS ANGELES*** | County Map Ref. No.: | ***13-V-32*** |
| Highway Type & No.: | | FRA RR Network Lic: | ***NINWX*** |
| Street or Road Name: | ***LA CIENEGA BLVD*** | RailRoad I.D. No.: | ***7604*** |
| Branch or Line Name: | ***REDO J-L BEACH*** | Railroad Milepost: | ***0010.63*** |
| Nearest RR Timetable Stn: | ***INGLEWOOD*** | | |
| Crossing Type and Protection: | ***Public At Grade*** | | |

## Part II Detailed Information

Typical Number of Daily Train Movements: ***5*** Day Thru ***0*** Day Switching ***0*** Night Switching ***4*** Night Thru

Speed of Train at Crossing: Maximum Time Table Speed ***20*** Typical Speed Range Over Crossing From ***1*** to ***20*** mph

Type and Number of Tracks ***1*** Main ***0*** Other

Does Another RR Operate a Separate Track at Crossing? ***No***

Does Another RR Operate Over Your Track at Crossing? ***No***

### Type of Warning Device(s) at Crossing

Signs:

| | | |
|---|---|---|
| ***0*** Reflectorized Crossbucks | ***0*** Non-Reflectorized Crossbucks | ***0*** Standard Highway Stop Sign(s) |
| ***0*** Other Stop Sign(s) | ***0*** Other Signs: | ***0*** Other Signs: |

Train Activated Devices:

| | | |
|---|---|---|
| ***4*** R/W Reflectorized Gates | ***0*** Other Colored Gates | ***4*** Mast Mounted FL |
| ***0*** Cantilevered FL (Over) | ***0*** Cantilevered FL (Not over) | ***0*** Other Flashing Lights |
| ***0*** Highway Traffic Signals | ***0*** Wigwags | ***3*** Bells |

Special Warning Device Not Train Activated: ***- None -***

Is Commercial Power Available? ***Yes***

Does Crossing Signal Provide Speed Selection for Trains? ***No***

Method of Signalling for Train Operation: Is Track Equipped With Signals? ***No***

## Part III: Physical Data

| | |
|---|---|
| Type of Development: | ***Industrial*** |
| Smallest Crossing Angle: | ***60 to 90 Degrees*** |
| Number of Traffic Lanes Crossing Railroad | ***6*** |
| Are Truck Pullout Lanes Present? | ***No*** |
| Is Highway Paved? | ***Yes*** |
| Pavement Markings | ***Stop Lines and RR Xing Symbols*** |
| Are RR Advance Warning Signs Present? | ***Yes*** |
| Crossing Surface: | ***Rubber*** |
| Does Track Run Down a Street? | ***No*** |
| Nearby Intersecting Highway? | ***Less than 75 feet*** |

## Part IV: Highway Department

| | |
|---|---|
| Highway System: | ***Other FA Highway - Not NHS*** |
| Is Crossing on State Highway System? | ***No*** |
| Functional Classification of Road Over Crossing: | ***Urban Other Principal Arterial*** |
| Estimated AADT: | ***034000*** |
| Estimated Percent Trucks: | ***20*** |

# U.S. DOT - AAR CROSSING INVENTORY INFORMATION
# AS OF 12/11/01

Crossing #: ***028011U*** Status: ***Changed Crossing*** Effective Begin-Date of Record: ***11/07/00***

Railroad: ***Burlington Northern Santa Fe Corporation*** ***Current Record***

Initiating Agency ***Railroad***

## Part I Location and Classification of Crossing

| | | | |
|---|---|---|---|
| Division: | ***LOS ANGELES TE*** | Subdivision: | ***HARBOR*** |
| State: | ***CA*** | Nearest City: | ***INGLEWOOD*** |
| County: | ***LOS ANGELES*** | County Map Ref. No.: | ***13-V-32*** |
| Highway Type & No.: | | FRA RR Network Lic: | ***NINWX*** |
| Street or Road Name: | ***HINDRY AVENUE*** | RailRoad I.D. No.: | ***7604*** |
| Branch or Line Name: | ***REDO J-L BEACH*** | Railroad Milepost: | ***0010.82*** |
| Nearest RR Timetable Stn: | ***INGLEWOOD*** | | |
| Crossing Type and Protection: | ***Public At Grade*** | | |

## Part II Detailed Information

Typical Number of Daily Train Movements: ***5*** Day Thru ***0*** Day Switching ***0*** Night Switching ***4*** Night Thru

Speed of Train at Crossing: Maximum Time Table Speed ***20*** Typical Speed Range Over Crossing From ***1*** to ***20*** mph

Type and Number of Tracks ***1*** Main ***0*** Other

Does Another RR Operate a Separate Track at Crossing? ***No***

Does Another RR Operate Over Your Track at Crossing? ***No***

### Type of Warning Device(s) at Crossing

Signs:

| | | |
|---|---|---|
| ***0*** Reflectorized Crossbucks | ***0*** Non-Reflectorized Crossbucks | ***0*** Standard Highway Stop Sign(s) |
| ***0*** Other Stop Sign(s) | ***0*** Other Signs: | ***0*** Other Signs: |

Train Activated Devices:

| | | |
|---|---|---|
| ***2*** R/W Reflectorized Gates | ***0*** Other Colored Gates | ***2*** Mast Mounted FL |
| ***0*** Cantilevered FL (Over) | ***0*** Cantilevered FL (Not over) | ***0*** Other Flashing Lights |
| ***0*** Highway Traffic Signals | ***0*** Wigwags | ***2*** Bells |

Special Warning Device Not Train Activated: ***- None -***

Is Commercial Power Available? ***Yes***

Does Crossing Signal Provide Speed Selection for Trains? ***No***

Method of Signalling for Train Operation: Is Track Equipped With Signals? ***No***

## Part III: Physical Data

| | |
|---|---|
| Type of Development: | ***Industrial*** |
| Smallest Crossing Angle: | ***30 to 59 Degrees*** |
| Number of Traffic Lanes Crossing Railroad | ***2*** |
| Are Truck Pullout Lanes Present? | ***No*** |
| Is Highway Paved? | ***Yes*** |
| Pavement Markings | ***Stop Lines and RR Xing Symbols*** |
| Are RR Advance Warning Signs Present? | ***No*** |
| Crossing Surface: | ***Sectional Treated Timber*** |
| Does Track Run Down a Street? | ***No*** |
| Nearby Intersecting Highway? | ***Less than 75 feet*** |

## Part IV: Highway Department

| | |
|---|---|
| Highway System: | ***Non-Federal-aid*** |
| Is Crossing on State Highway System? | ***No*** |
| Functional Classification of Road Over Crossing: | ***Urban Collector*** |
| Estimated AADT: | ***004500*** |
| Estimated Percent Trucks: | ***30*** |

# U.S. DOT - AAR CROSSING INVENTORY INFORMATION
# AS OF 12/11/01

Crossing #: ***028012B*** Status: ***Changed Crossing*** Effective Begin-Date of Record: ***11/07/00***

Railroad: ***Burlington Northern Santa Fe Corporation*** ***Current Record***

Initiating Agency ***Railroad***

## Part I Location and Classification of Crossing

| | | | |
|---|---|---|---|
| Division: | ***LOS ANGELES TE*** | Subdivision: | ***HARBOR*** |
| State: | ***CA*** | Nearest City: | ***INGLEWOOD*** |
| County: | ***LOS ANGELES*** | County Map Ref. No.: | ***13-V-32*** |
| Highway Type & No.: | ***S.R.42*** | FRA RR Network Lic: | ***NINWX*** |
| Street or Road Name: | ***MANCHESTER AVENUE*** | RailRoad I.D. No.: | ***7604*** |
| Branch or Line Name: | ***REDO J-L BEACH*** | Railroad Milepost: | ***0011.11*** |
| Nearest RR Timetable Stn: | ***INGLEWOOD*** | | |
| Crossing Type and Protection: | ***Public At Grade*** | | |

## Part II Detailed Information

Typical Number of Daily Train Movements: ***5*** Day Thru ***0*** Day Switching ***0*** Night Switching ***4*** Night Thru

Speed of Train at Crossing: Maximum Time Table Speed ***20*** Typical Speed Range Over Crossing From ***1*** to ***20*** mph

Type and Number of Tracks ***1*** Main ***0*** Other

Does Another RR Operate a Separate Track at Crossing? ***No***

Does Another RR Operate Over Your Track at Crossing? ***No***

### Type of Warning Device(s) at Crossing

Signs:

| | | |
|---|---|---|
| ***0*** Reflectorized Crossbucks | ***0*** Non-Reflectorized Crossbucks | ***0*** Standard Highway Stop Sign(s) |
| ***0*** Other Stop Sign(s) | ***0*** Other Signs: | ***0*** Other Signs: |

Train Activated Devices:

| | | |
|---|---|---|
| ***4*** R/W Reflectorized Gates | ***0*** Other Colored Gates | ***4*** Mast Mounted FL |
| ***0*** Cantilevered FL (Over) | ***0*** Cantilevered FL (Not over) | ***0*** Other Flashing Lights |
| ***0*** Highway Traffic Signals | ***0*** Wigwags | ***2*** Bells |

Special Warning Device Not Train Activated: ***- None -***

Is Commercial Power Available? ***Yes***

Does Crossing Signal Provide Speed Selection for Trains? ***No***

Method of Signalling for Train Operation: Is Track Equipped With Signals? ***No***

## Part III: Physical Data

| | |
|---|---|
| Type of Development: | ***Industrial*** |
| Smallest Crossing Angle: | ***60 to 90 Degrees*** |
| Number of Traffic Lanes Crossing Railroad | ***7*** |
| Are Truck Pullout Lanes Present? | ***No*** |
| Is Highway Paved? | ***Yes*** |
| Pavement Markings | ***Stop Lines and RR Xing Symbols*** |
| Are RR Advance Warning Signs Present? | ***Yes*** |
| Crossing Surface: | ***Sectional Treated Timber*** |
| Does Track Run Down a Street? | ***No*** |
| Nearby Intersecting Highway? | ***Less than 75 feet*** |

## Part IV: Highway Department

| | |
|---|---|
| Highway System: | ***Other FA Highway - Not NHS*** |
| Is Crossing on State Highway System? | ***Yes*** |
| Functional Classification of Road Over Crossing: | ***Urban Other Principal Arterial*** |
| Estimated AADT: | ***037000*** |
| Estimated Percent Trucks: | ***22*** |

# U.S. DOT - AAR CROSSING INVENTORY INFORMATION
# AS OF 12/11/01

Crossing #: ***028018S*** Status: ***Changed Crossing*** Effective Begin-Date of Record: ***11/07/00***

Railroad: ***Burlington Northern Santa Fe Corporation*** ***Current Record***

Initiating Agency ***Railroad***

## Part I Location and Classification of Crossing

| | | | |
|---|---|---|---|
| Division: | ***LOS ANGELES TE*** | Subdivision: | ***HARBOR*** |
| State: | ***CA*** | Nearest City: | ***INGLEWOOD*** |
| County: | ***LOS ANGELES*** | County Map Ref. No.: | ***13-V-32*** |
| Highway Type & No.: | | FRA RR Network Lic: | ***NINWX*** |
| Street or Road Name: | ***ARBORVITAE STREET*** | RailRoad I.D. No.: | ***7604*** |
| Branch or Line Name: | ***REDO J-L BEACH*** | Railroad Milepost: | ***0011.63*** |
| Nearest RR Timetable Stn: | ***INGLEWOOD*** | | |
| Crossing Type and Protection: | ***Public At Grade*** | | |

## Part II Detailed Information

Typical Number of Daily Train Movements: ***5*** Day Thru ***0*** Day Switching ***0*** Night Switching ***4*** Night Thru

Speed of Train at Crossing: Maximum Time Table Speed ***20*** Typical Speed Range Over Crossing From ***1*** to ***20*** mph

Type and Number of Tracks ***1*** Main ***0*** Other

Does Another RR Operate a Separate Track at Crossing? ***No***

Does Another RR Operate Over Your Track at Crossing? ***No***

### Type of Warning Device(s) at Crossing

Signs:

| | | |
|---|---|---|
| ***0*** Reflectorized Crossbucks | ***0*** Non-Reflectorized Crossbucks | ***0*** Standard Highway Stop Sign(s) |
| ***0*** Other Stop Sign(s) | ***0*** Other Signs: | ***0*** Other Signs: |

Train Activated Devices:

| | | |
|---|---|---|
| ***0*** R/W Reflectorized Gates | ***0*** Other Colored Gates | ***2*** Mast Mounted FL |
| ***0*** Cantilevered FL (Over) | ***0*** Cantilevered FL (Not over) | ***0*** Other Flashing Lights |
| ***0*** Highway Traffic Signals | ***0*** Wigwags | ***2*** Bells |

Special Warning Device Not Train Activated: ***- None -***

Is Commercial Power Available? ***Yes***

Does Crossing Signal Provide Speed Selection for Trains? ***No***

Method of Signalling for Train Operation: Is Track Equipped With Signals? ***No***

## Part III: Physical Data

| | |
|---|---|
| Type of Development: | ***Industrial*** |
| Smallest Crossing Angle: | ***60 to 90 Degrees*** |
| Number of Traffic Lanes Crossing Railroad | ***4*** |
| Are Truck Pullout Lanes Present? | ***No*** |
| Is Highway Paved? | ***Yes*** |
| Pavement Markings | ***Stop Lines and RR Xing Symbols*** |
| Are RR Advance Warning Signs Present? | ***Yes*** |
| Crossing Surface: | ***Asphalt*** |
| Does Track Run Down a Street? | ***No*** |
| Nearby Intersecting Highway? | ***75 to 150 feet*** |

## Part IV: Highway Department

| | |
|---|---|
| Highway System: | ***Other National Highway System*** |
| Is Crossing on State Highway System? | ***No*** |
| Functional Classification of Road Over Crossing: | ***Urban Minor Arterial*** |
| Estimated AADT: | ***022700*** |
| Estimated Percent Trucks: | ***21*** |

# U.S. DOT - AAR CROSSING INVENTORY INFORMATION
# AS OF 12/11/01

Crossing #: ***028020T*** Status: ***Changed Crossing*** Effective Begin-Date of Record: ***11/07/00***

Railroad: ***Burlington Northern Santa Fe Corporation*** ***Current Record***

Initiating Agency ***Railroad***

## Part I Location and Classification of Crossing

| | | | |
|---|---|---|---|
| Division: | ***LOS ANGELES TE*** | Subdivision: | ***HARBOR*** |
| State: | ***CA*** | Nearest City: | ***LOS ANGELES*** |
| County: | ***LOS ANGELES*** | County Map Ref. No.: | ***13-V-32*** |
| Highway Type & No.: | | FRA RR Network Lic: | ***NINWX*** |
| Street or Road Name: | ***104TH STREET*** | RailRoad I.D. No.: | ***7604*** |
| Branch or Line Name: | ***REDO J-L BEACH*** | Railroad Milepost: | ***0012.36*** |
| Nearest RR Timetable Stn: | ***LAIRPORT*** | | |
| Crossing Type and Protection: | ***Public At Grade*** | | |

## Part II Detailed Information

Typical Number of Daily Train Movements: ***5*** Day Thru ***0*** Day Switching ***0*** Night Switching ***4*** Night Thru

Speed of Train at Crossing: Maximum Time Table Speed ***20*** Typical Speed Range Over Crossing From ***1*** to ***20*** mph

Type and Number of Tracks ***1*** Main ***0*** Other

Does Another RR Operate a Separate Track at Crossing? ***No***

Does Another RR Operate Over Your Track at Crossing? ***No***

### Type of Warning Device(s) at Crossing

Signs:

| | | |
|---|---|---|
| ***0*** Reflectorized Crossbucks | ***0*** Non-Reflectorized Crossbucks | ***0*** Standard Highway Stop Sign(s) |
| ***0*** Other Stop Sign(s) | ***0*** Other Signs: | ***0*** Other Signs: |

Train Activated Devices:

| | | |
|---|---|---|
| ***0*** R/W Reflectorized Gates | ***0*** Other Colored Gates | ***2*** Mast Mounted FL |
| ***0*** Cantilevered FL (Over) | ***0*** Cantilevered FL (Not over) | ***0*** Other Flashing Lights |
| ***0*** Highway Traffic Signals | ***0*** Wigwags | ***2*** Bells |

Special Warning Device Not Train Activated: ***- None -***

Is Commercial Power Available? ***Yes***

Does Crossing Signal Provide Speed Selection for Trains? ***No***

Method of Signalling for Train Operation: Is Track Equipped With Signals? ***No***

## Part III: Physical Data

| | |
|---|---|
| Type of Development: | ***Industrial*** |
| Smallest Crossing Angle: | ***60 to 90 Degrees*** |
| Number of Traffic Lanes Crossing Railroad | ***2*** |
| Are Truck Pullout Lanes Present? | ***No*** |
| Is Highway Paved? | ***Yes*** |
| Pavement Markings | ***No Markings*** |
| Are RR Advance Warning Signs Present? | ***No*** |
| Crossing Surface: | ***Asphalt*** |
| Does Track Run Down a Street? | ***No*** |
| Nearby Intersecting Highway? | ***Less than 75 feet*** |

## Part IV: Highway Department

| | |
|---|---|
| Highway System: | ***Non-Federal-aid*** |
| Is Crossing on State Highway System? | ***No*** |
| Functional Classification of Road Over Crossing: | ***Urban Collector*** |
| Estimated AADT: | ***005500*** |
| Estimated Percent Trucks: | ***26*** |

# U.S. DOT - AAR CROSSING INVENTORY INFORMATION
# AS OF 12/11/01

Crossing #: ***028025C*** Status: ***Changed Crossing*** Effective Begin-Date of Record: ***11/07/00***

Railroad: ***Burlington Northern Santa Fe Corporation*** ***Current Record***

Initiating Agency ***Railroad***

## Part I Location and Classification of Crossing

| | | | |
|---|---|---|---|
| Division: | ***LOS ANGELES TE*** | Subdivision: | ***HARBOR*** |
| State: | ***CA*** | Nearest City: | ***LOS ANGELES*** |
| County: | ***LOS ANGELES*** | County Map Ref. No.: | ***13-V-32*** |
| Highway Type & No.: | | FRA RR Network Lic: | ***NINWX*** |
| Street or Road Name: | ***111TH STREET*** | RailRoad I.D. No.: | ***7604*** |
| Branch or Line Name: | ***REDO J-L BEACH*** | Railroad Milepost: | ***0012.92*** |
| Nearest RR Timetable Stn: | ***LAIRPORT*** | | |
| Crossing Type and Protection: | ***Private At Grade,Industrial,Signals,2 FL.LTS.GATES*** | | |

## Part II Detailed Information

Typical Number of Daily Train Movements: ***0*** Day Thru ***0*** Day Switching ***0*** Night Switching ***0*** Night Thru

Speed of Train at Crossing: Maximum Time Table Speed ***0*** Typical Speed Range Over Crossing From ***0*** to ***0*** mph

Type and Number of Tracks ***0*** Main ***0*** Other

Does Another RR Operate a Separate Track at Crossing? ***No***

Does Another RR Operate Over Your Track at Crossing? ***No***

### Type of Warning Device(s) at Crossing

Signs:

| | | |
|---|---|---|
| ***0*** Reflectorized Crossbucks | ***0*** Non-Reflectorized Crossbucks | ***0*** Standard Highway Stop Sign(s) |
| ***0*** Other Stop Sign(s) | ***0*** Other Signs: | ***0*** Other Signs: |

Train Activated Devices:

| | | |
|---|---|---|
| ***0*** R/W Reflectorized Gates | ***0*** Other Colored Gates | ***0*** Mast Mounted FL |
| ***0*** Cantilevered FL (Over) | ***0*** Cantilevered FL (Not over) | ***0*** Other Flashing Lights |
| ***0*** Highway Traffic Signals | ***0*** Wigwags | ***0*** Bells |

Special Warning Device Not Train Activated: ***- None -***

Is Commercial Power Available?

Does Crossing Signal Provide Speed Selection for Trains?

Method of Signalling for Train Operation: Is Track Equipped With Signals? ***No***

## Part III: Physical Data

Type of Development:

Smallest Crossing Angle:

Number of Traffic Lanes Crossing Railroad

Are Truck Pullout Lanes Present? ***No***

Is Highway Paved? ***No***

Pavement Markings

Are RR Advance Warning Signs Present? ***No***

Crossing Surface:

Does Track Run Down a Street? ***No***

Nearby Intersecting Highway? ***Unknown***

## Part IV: Highway Department

Highway System:

Is Crossing on State Highway System? ***No***

Functional Classification of Road Over Crossing:

Estimated AADT:

Estimated Percent Trucks:

# U.S. DOT - AAR CROSSING INVENTORY INFORMATION
# AS OF 12/11/01

Crossing #: ***028027R*** Status: ***Changed Crossing*** Effective Begin-Date of Record: ***11/07/00***

Railroad: ***Burlington Northern Santa Fe Corporation*** ***Current Record***

Initiating Agency ***Railroad***

## Part I Location and Classification of Crossing

| | | | |
|---|---|---|---|
| Division: | ***LOS ANGELES TE*** | Subdivision: | ***HARBOR*** |
| State: | ***CA*** | Nearest City: | ***LOS ANGELES*** |
| County: | ***LOS ANGELES*** | County Map Ref. No.: | ***13-V-32*** |
| Highway Type & No.: | | FRA RR Network Lic: | ***NINWX*** |
| Street or Road Name: | ***IMPERIAL HWY.*** | RailRoad I.D. No.: | ***7604*** |
| Branch or Line Name: | ***REDO J-L BEACH*** | Railroad Milepost: | ***0013.13*** |
| Nearest RR Timetable Stn: | ***LAIRPORT*** | | |
| Crossing Type and Protection: | ***Public At Grade*** | | |

## Part II Detailed Information

Typical Number of Daily Train Movements: ***5*** Day Thru ***0*** Day Switching ***0*** Night Switching ***4*** Night Thru

Speed of Train at Crossing: Maximum Time Table Speed ***20*** Typical Speed Range Over Crossing From ***1*** to ***20*** mph

Type and Number of Tracks ***1*** Main ***2*** Other

Does Another RR Operate a Separate Track at Crossing? ***No***

Does Another RR Operate Over Your Track at Crossing? ***No***

### Type of Warning Device(s) at Crossing

Signs:

| | | |
|---|---|---|
| ***0*** Reflectorized Crossbucks | ***4*** Non-Reflectorized Crossbucks | ***0*** Standard Highway Stop Sign(s) |
| ***0*** Other Stop Sign(s) | ***0*** Other Signs: | ***0*** Other Signs: |

Train Activated Devices:

| | | |
|---|---|---|
| ***1*** R/W Reflectorized Gates | ***0*** Other Colored Gates | ***4*** Mast Mounted FL |
| ***3*** Cantilevered FL (Over) | ***3*** Cantilevered FL (Not over) | ***2*** Other Flashing Lights |
| ***1*** Highway Traffic Signals | ***0*** Wigwags | ***2*** Bells |

Special Warning Device Not Train Activated: ***- None -***

Is Commercial Power Available? ***Yes***

Does Crossing Signal Provide Speed Selection for Trains? ***No***

Method of Signalling for Train Operation: Is Track Equipped With Signals? ***No***

## Part III: Physical Data

| | |
|---|---|
| Type of Development: | ***Industrial*** |
| Smallest Crossing Angle: | ***60 to 90 Degrees*** |
| Number of Traffic Lanes Crossing Railroad | ***7*** |
| Are Truck Pullout Lanes Present? | ***No*** |
| Is Highway Paved? | ***Yes*** |
| Pavement Markings | ***Stop Lines and RR Xing Symbols*** |
| Are RR Advance Warning Signs Present? | ***Yes*** |
| Crossing Surface: | ***Sectional Treated Timber*** |
| Does Track Run Down a Street? | ***No*** |
| Nearby Intersecting Highway? | ***Less than 75 feet*** |

## Part IV: Highway Department

| | |
|---|---|
| Highway System: | ***Other FA Highway - Not NHS*** |
| Is Crossing on State Highway System? | ***No*** |
| Functional Classification of Road Over Crossing: | ***Urban Other Principal Arterial*** |
| Estimated AADT: | ***037000*** |
| Estimated Percent Trucks: | ***18*** |

# U.S. DOT - AAR CROSSING INVENTORY INFORMATION
# AS OF 12/11/01

Crossing #: ***028047C*** Status: ***Changed Crossing*** Effective Begin-Date of Record: ***11/07/00***

Railroad: ***Burlington Northern Santa Fe Corporation*** ***Current Record***

Initiating Agency ***Railroad***

## Part I Location and Classification of Crossing

| | | | |
|---|---|---|---|
| Division: | ***LOS ANGELES TE*** | Subdivision: | ***HARBOR*** |
| State: | ***CA*** | Nearest City: | ***EL SEGUNDO*** |
| County: | ***LOS ANGELES*** | County Map Ref. No.: | ***13-V-32*** |
| Highway Type & No.: | | FRA RR Network Lic: | ***NINWX*** |
| Street or Road Name: | ***118TH STREET*** | RailRoad I.D. No.: | ***7604*** |
| Branch or Line Name: | ***REDO J-L BEACH*** | Railroad Milepost: | ***0013.37*** |
| Nearest RR Timetable Stn: | ***LAIRPORT*** | | |
| Crossing Type and Protection: | ***Public At Grade*** | | |

## Part II Detailed Information

Typical Number of Daily Train Movements: ***5*** Day Thru ***0*** Day Switching ***0*** Night Switching ***4*** Night Thru

Speed of Train at Crossing: Maximum Time Table Speed ***20*** Typical Speed Range Over Crossing From ***1*** to ***20*** mph

Type and Number of Tracks ***1*** Main ***1*** Other

Does Another RR Operate a Separate Track at Crossing? ***No***

Does Another RR Operate Over Your Track at Crossing? ***No***

### Type of Warning Device(s) at Crossing

Signs:

| | | |
|---|---|---|
| ***0*** Reflectorized Crossbucks | ***0*** Non-Reflectorized Crossbucks | ***0*** Standard Highway Stop Sign(s) |
| ***0*** Other Stop Sign(s) | ***0*** Other Signs: | ***0*** Other Signs: |

Train Activated Devices:

| | | |
|---|---|---|
| ***2*** R/W Reflectorized Gates | ***0*** Other Colored Gates | ***2*** Mast Mounted FL |
| ***0*** Cantilevered FL (Over) | ***0*** Cantilevered FL (Not over) | ***1*** Other Flashing Lights |
| ***0*** Highway Traffic Signals | ***0*** Wigwags | ***2*** Bells |

Special Warning Device Not Train Activated: ***- None -***

Is Commercial Power Available? ***Yes***

Does Crossing Signal Provide Speed Selection for Trains? ***No***

Method of Signalling for Train Operation: Is Track Equipped With Signals? ***No***

## Part III: Physical Data

| | |
|---|---|
| Type of Development: | ***Industrial*** |
| Smallest Crossing Angle: | ***0 to 29 Degrees*** |
| Number of Traffic Lanes Crossing Railroad | ***4*** |
| Are Truck Pullout Lanes Present? | ***No*** |
| Is Highway Paved? | ***Yes*** |
| Pavement Markings | ***Stop Lines and RR Xing Symbols*** |
| Are RR Advance Warning Signs Present? | ***Yes*** |
| Crossing Surface: | ***Asphalt*** |
| Does Track Run Down a Street? | ***No*** |
| Nearby Intersecting Highway? | ***Less than 75 feet*** |

## Part IV: Highway Department

| | |
|---|---|
| Highway System: | ***Non-Federal-aid*** |
| Is Crossing on State Highway System? | ***No*** |
| Functional Classification of Road Over Crossing: | ***Urban Local*** |
| Estimated AADT: | ***000800*** |
| Estimated Percent Trucks: | ***30*** |

# U.S. DOT - AAR CROSSING INVENTORY INFORMATION
# AS OF 12/11/01

Crossing #: ***028048J*** Status: ***Changed Crossing*** Effective Begin-Date of Record: ***11/07/00***

Railroad: ***Burlington Northern Santa Fe Corporation*** ***Current Record***

Initiating Agency ***Railroad***

## Part I Location and Classification of Crossing

| | | | |
|---|---|---|---|
| Division: | ***LOS ANGELES TE*** | Subdivision: | ***HARBOR*** |
| State: | ***CA*** | Nearest City: | ***EL SEGUNDO*** |
| County: | ***LOS ANGELES*** | County Map Ref. No.: | ***13-V-32*** |
| Highway Type & No.: | | FRA RR Network Lic: | ***NINWX*** |
| Street or Road Name: | ***120TH STREET*** | RailRoad I.D. No.: | ***7604*** |
| Branch or Line Name: | ***REDO J-L BEACH*** | Railroad Milepost: | ***0013.62*** |
| Nearest RR Timetable Stn: | ***LAIRPORT*** | | |
| Crossing Type and Protection: | ***Public At Grade*** | | |

## Part II Detailed Information

Typical Number of Daily Train Movements: ***5*** Day Thru ***0*** Day Switching ***0*** Night Switching ***4*** Night Thru

Speed of Train at Crossing: Maximum Time Table Speed ***20*** Typical Speed Range Over Crossing From ***1*** to ***20*** mph

Type and Number of Tracks ***1*** Main ***2*** Other

Does Another RR Operate a Separate Track at Crossing? ***No***

Does Another RR Operate Over Your Track at Crossing? ***No***

### Type of Warning Device(s) at Crossing

Signs:

| | | |
|---|---|---|
| ***0*** Reflectorized Crossbucks | ***0*** Non-Reflectorized Crossbucks | ***0*** Standard Highway Stop Sign(s) |
| ***0*** Other Stop Sign(s) | ***2*** Other Signs: ***STP SWING*** | ***0*** Other Signs: |

Train Activated Devices:

| | | |
|---|---|---|
| ***2*** R/W Reflectorized Gates | ***0*** Other Colored Gates | ***2*** Mast Mounted FL |
| ***0*** Cantilevered FL (Over) | ***0*** Cantilevered FL (Not over) | ***0*** Other Flashing Lights |
| ***0*** Highway Traffic Signals | ***0*** Wigwags | ***2*** Bells |

Special Warning Device Not Train Activated: ***- None -***

Is Commercial Power Available? ***Yes***

Does Crossing Signal Provide Speed Selection for Trains? ***No***

Method of Signalling for Train Operation: Is Track Equipped With Signals? ***No***

## Part III: Physical Data

| | |
|---|---|
| Type of Development: | ***Institutional*** |
| Smallest Crossing Angle: | ***0 to 29 Degrees*** |
| Number of Traffic Lanes Crossing Railroad | ***4*** |
| Are Truck Pullout Lanes Present? | ***No*** |
| Is Highway Paved? | ***Yes*** |
| Pavement Markings | ***Stop Lines and RR Xing Symbols*** |
| Are RR Advance Warning Signs Present? | ***Yes*** |
| Crossing Surface: | ***Asphalt*** |
| Does Track Run Down a Street? | ***No*** |
| Nearby Intersecting Highway? | ***Less than 75 feet*** |

## Part IV: Highway Department

| | |
|---|---|
| Highway System: | ***Other National Highway System*** |
| Is Crossing on State Highway System? | ***No*** |
| Functional Classification of Road Over Crossing: | ***Urban Minor Arterial*** |
| Estimated AADT: | ***001800*** |
| Estimated Percent Trucks: | ***28*** |

# U.S. DOT - AAR CROSSING INVENTORY INFORMATION
# AS OF 12/11/01

Crossing #: ***028049R*** Status: ***Changed Crossing*** Effective Begin-Date of Record: ***05/02/78***

Railroad: ***Atchison, Topeka & Santa Fe Railway Company*** End-Date of Record: ***10/02/91***

Initiating Agency ***Railroad***

## Part I Location and Classification of Crossing

| | | | |
|---|---|---|---|
| Division: | ***LA TERMINAL*** | Subdivision: | ***HARBORDISTRICT*** |
| State: | ***CA*** | Nearest City: | ***EL SEGUNDO*** |
| County: | ***LOS ANGELES*** | County Map Ref. No.: | ***13-V-32*** |
| Highway Type & No.: | | FRA RR Network Lic: | ***NINWX*** |
| Street or Road Name: | ***124TH ST USOFA*** | RailRoad I.D. No.: | ***C-121720*** |
| Branch or Line Name: | ***HARBOR BRANCH*** | Railroad Milepost: | ***0013.89*** |
| Nearest RR Timetable Stn: | ***LAIRPORT*** | | |
| Crossing Type and Protection: | ***Private At Grade,Industrial,Signs,PRIVATE*** | | |

## Part II Detailed Information

Typical Number of Daily Train Movements: ***3*** Day Thru ***8*** Day Switching ***3*** Night Switching ***3*** Night Thru

Speed of Train at Crossing: Maximum Time Table Speed ***15*** Typical Speed Range Over Crossing From ***5*** to ***15*** mph

Type and Number of Tracks ***1*** Main ***0*** Other

Does Another RR Operate a Separate Track at Crossing? ***No***

Does Another RR Operate Over Your Track at Crossing? ***No***

### Type of Warning Device(s) at Crossing

Signs:

| | | |
|---|---|---|
| ***0*** Reflectorized Crossbucks | ***0*** Non-Reflectorized Crossbucks | ***0*** Standard Highway Stop Sign(s) |
| ***0*** Other Stop Sign(s) | ***0*** Other Signs: | ***0*** Other Signs: |

Train Activated Devices:

| | | |
|---|---|---|
| ***0*** R/W Reflectorized Gates | ***0*** Other Colored Gates | ***2*** Mast Mounted FL |
| ***0*** Cantilevered FL (Over) | ***0*** Cantilevered FL (Not over) | ***0*** Other Flashing Lights |
| ***0*** Highway Traffic Signals | ***0*** Wigwags | ***2*** Bells |

Special Warning Device Not Train Activated: ***- None -***

Is Commercial Power Available? ***Yes***

Does Crossing Signal Provide Speed Selection for Trains? ***No***

Method of Signalling for Train Operation: Is Track Equipped With Signals? ***No***

## Part III: Physical Data

| | |
|---|---|
| Type of Development: | ***Industrial*** |
| Smallest Crossing Angle: | ***60 to 90 Degrees*** |
| Number of Traffic Lanes Crossing Railroad | ***4*** |
| Are Truck Pullout Lanes Present? | ***No*** |
| Is Highway Paved? | ***Yes*** |
| Pavement Markings | ***Stop Lines and RR Xing Symbols*** |
| Are RR Advance Warning Signs Present? | ***Yes*** |
| Crossing Surface: | ***Asphalt*** |
| Does Track Run Down a Street? | ***No*** |
| Nearby Intersecting Highway? | ***Less than 75 feet*** |

## Part IV: Highway Department

| | |
|---|---|
| Highway System: | ***Non-Federal-aid*** |
| Is Crossing on State Highway System? | ***No*** |
| Functional Classification of Road Over Crossing: | ***Urban Local*** |
| Estimated AADT: | ***002500*** |
| Estimated Percent Trucks: | ***29*** |

# U.S. DOT - AAR CROSSING INVENTORY INFORMATION
# AS OF 12/11/01

Crossing #: ***028030Y*** Status: ***Changed Crossing*** Effective Begin-Date of Record: ***11/12/82***

Railroad: ***Atchison, Topeka & Santa Fe Railway Company*** End-Date of Record: ***10/02/91***

Initiating Agency ***State***

## Part I Location and Classification of Crossing

| | | | |
|---|---|---|---|
| Division: | ***LA TERMINAL*** | Subdivision: | ***HARBOR*** |
| State: | ***CA*** | Nearest City: | ***EL SEGUNDO*** |
| County: | ***LOS ANGELES*** | County Map Ref. No.: | ***13-V-32*** |
| Highway Type & No.: | | FRA RR Network Lic: | ***NINWX*** |
| Street or Road Name: | ***DOUGLAS STREET*** | RailRoad I.D. No.: | ***2H-13.4-C*** |
| Branch or Line Name: | ***INDUSTRY LEAD*** | Railroad Milepost: | ***0013.36*** |
| Nearest RR Timetable Stn: | ***LAIRPORT*** | | |
| Crossing Type and Protection: | ***Public At Grade*** | | |

## Part II Detailed Information

Typical Number of Daily Train Movements: ***0*** Day Thru ***0*** Day Switching ***0*** Night Switching ***0*** Night Thru

Speed of Train at Crossing: Maximum Time Table Speed ***7*** Typical Speed Range Over Crossing From ***3*** to ***7*** mph

Type and Number of Tracks ***0*** Main ***2*** Other

Does Another RR Operate a Separate Track at Crossing? ***No***

Does Another RR Operate Over Your Track at Crossing? ***No***

### Type of Warning Device(s) at Crossing

Signs:

| | | |
|---|---|---|
| ***0*** Reflectorized Crossbucks | ***0*** Non-Reflectorized Crossbucks | ***0*** Standard Highway Stop Sign(s) |
| ***0*** Other Stop Sign(s) | ***0*** Other Signs: | ***0*** Other Signs: |

Train Activated Devices:

| | | |
|---|---|---|
| ***0*** R/W Reflectorized Gates | ***0*** Other Colored Gates | ***2*** Mast Mounted FL |
| ***2*** Cantilevered FL (Over) | ***0*** Cantilevered FL (Not over) | ***0*** Other Flashing Lights |
| ***0*** Highway Traffic Signals | ***0*** Wigwags | ***2*** Bells |

Special Warning Device Not Train Activated: ***- None -***

Is Commercial Power Available? ***Yes***

Does Crossing Signal Provide Speed Selection for Trains? ***No***

Method of Signalling for Train Operation: Is Track Equipped With Signals? ***No***

## Part III: Physical Data

| | |
|---|---|
| Type of Development: | ***Industrial*** |
| Smallest Crossing Angle: | ***60 to 90 Degrees*** |
| Number of Traffic Lanes Crossing Railroad | ***4*** |
| Are Truck Pullout Lanes Present? | ***No*** |
| Is Highway Paved? | ***Yes*** |
| Pavement Markings | ***Stop Lines and RR Xing Symbols*** |
| Are RR Advance Warning Signs Present? | ***Yes*** |
| Crossing Surface: | ***Sectional Treated Timber*** |
| Does Track Run Down a Street? | ***No*** |
| Nearby Intersecting Highway? | ***75 to 150 feet*** |

## Part IV: Highway Department

| | |
|---|---|
| Highway System: | ***Other FA Highway - Not NHS*** |
| Is Crossing on State Highway System? | ***No*** |
| Functional Classification of Road Over Crossing: | ***Urban Minor Arterial*** |
| Estimated AADT: | ***006000*** |
| Estimated Percent Trucks: | ***25*** |

# U.S. DOT - AAR CROSSING INVENTORY INFORMATION
# AS OF 12/11/01

Crossing #: ***028060R*** Status: ***Changed Crossing*** Effective Begin-Date of Record: ***11/07/00***

Railroad: ***Burlington Northern Santa Fe Corporation*** ***Current Record***

Initiating Agency ***Railroad***

## Part I Location and Classification of Crossing

| | | | |
|---|---|---|---|
| Division: | ***LOS ANGELES TE*** | Subdivision: | ***HARBOR*** |
| State: | ***CA*** | Nearest City: | ***REDONDO BEACH*** |
| County: | ***LOS ANGELES*** | County Map Ref. No.: | ***13-V-42*** |
| Highway Type & No.: | | FRA RR Network Lic: | ***SP157*** |
| Street or Road Name: | ***COMPTON-MARINE AV*** | RailRoad I.D. No.: | ***7604*** |
| Branch or Line Name: | ***REDO J-L BEACH*** | Railroad Milepost: | ***0016.14*** |
| Nearest RR Timetable Stn: | ***LAWNDALE*** | | |
| Crossing Type and Protection: | ***Public At Grade*** | | |

## Part II Detailed Information

Typical Number of Daily Train Movements: ***5*** Day Thru ***0*** Day Switching ***0*** Night Switching ***5*** Night Thru

Speed of Train at Crossing: Maximum Time Table Speed ***20*** Typical Speed Range Over Crossing From ***1*** to ***20*** mph

Type and Number of Tracks ***1*** Main ***1*** Other

Does Another RR Operate a Separate Track at Crossing? ***Yes: LACT***

Does Another RR Operate Over Your Track at Crossing? ***No***

### Type of Warning Device(s) at Crossing

Signs:

| | | |
|---|---|---|
| ***3*** Reflectorized Crossbucks | ***0*** Non-Reflectorized Crossbucks | ***0*** Standard Highway Stop Sign(s) |
| ***0*** Other Stop Sign(s) | ***3*** Other Signs: ***2 TRACK*** | ***0*** Other Signs: |

Train Activated Devices:

| | | |
|---|---|---|
| ***4*** R/W Reflectorized Gates | ***0*** Other Colored Gates | ***2*** Mast Mounted FL |
| ***2*** Cantilevered FL (Over) | ***0*** Cantilevered FL (Not over) | ***0*** Other Flashing Lights |
| ***0*** Highway Traffic Signals | ***0*** Wigwags | ***2*** Bells |

Special Warning Device Not Train Activated: ***- None -***

Is Commercial Power Available? ***Yes***

Does Crossing Signal Provide Speed Selection for Trains? ***Yes***

Method of Signalling for Train Operation: Is Track Equipped With Signals? ***No***

## Part III: Physical Data

| | |
|---|---|
| Type of Development: | ***Industrial*** |
| Smallest Crossing Angle: | ***0 to 29 Degrees*** |
| Number of Traffic Lanes Crossing Railroad | ***4*** |
| Are Truck Pullout Lanes Present? | ***No*** |
| Is Highway Paved? | ***Yes*** |
| Pavement Markings | ***Stop Lines and RR Xing Symbols*** |
| Are RR Advance Warning Signs Present? | ***Yes*** |
| Crossing Surface: | ***Asphalt*** |
| Does Track Run Down a Street? | ***No*** |
| Nearby Intersecting Highway? | ***75 to 150 feet*** |

## Part IV: Highway Department

| | |
|---|---|
| Highway System: | ***Non-Federal-aid*** |
| Is Crossing on State Highway System? | ***No*** |
| Functional Classification of Road Over Crossing: | ***Urban Minor Arterial*** |
| Estimated AADT: | ***030000*** |
| Estimated Percent Trucks: | ***24*** |

# U.S. DOT - AAR CROSSING INVENTORY INFORMATION
# AS OF 12/11/01

Crossing #: ***028062E*** Status: ***Changed Crossing*** Effective Begin-Date of Record: ***11/07/00***

Railroad: ***Burlington Northern Santa Fe Corporation*** ***Current Record***

Initiating Agency ***Railroad***

## Part I Location and Classification of Crossing

| | | | |
|---|---|---|---|
| Division: | ***LOS ANGELES TE*** | Subdivision: | ***HARBOR*** |
| State: | ***CA*** | Nearest City: | ***LAWNDALE*** |
| County: | ***LOS ANGELES*** | County Map Ref. No.: | ***13-V-42*** |
| Highway Type & No.: | | FRA RR Network Lic: | ***SP157*** |
| Street or Road Name: | ***INGLEWOOD AVE*** | RailRoad I.D. No.: | ***7604*** |
| Branch or Line Name: | ***REDO J-L BEACH*** | Railroad Milepost: | ***0016.74*** |
| Nearest RR Timetable Stn: | ***LAWNDALE*** | | |
| Crossing Type and Protection: | ***Public At Grade*** | | |

## Part II Detailed Information

Typical Number of Daily Train Movements: ***5*** Day Thru ***0*** Day Switching ***0*** Night Switching ***5*** Night Thru

Speed of Train at Crossing: Maximum Time Table Speed ***20*** Typical Speed Range Over Crossing From ***1*** to ***20*** mph

Type and Number of Tracks ***1*** Main ***0*** Other

Does Another RR Operate a Separate Track at Crossing? ***No***

Does Another RR Operate Over Your Track at Crossing? ***No***

### Type of Warning Device(s) at Crossing

Signs:

| | | |
|---|---|---|
| ***0*** Reflectorized Crossbucks | ***0*** Non-Reflectorized Crossbucks | ***0*** Standard Highway Stop Sign(s) |
| ***0*** Other Stop Sign(s) | ***0*** Other Signs: | ***0*** Other Signs: |

Train Activated Devices:

| | | |
|---|---|---|
| ***0*** R/W Reflectorized Gates | ***0*** Other Colored Gates | ***2*** Mast Mounted FL |
| ***0*** Cantilevered FL (Over) | ***0*** Cantilevered FL (Not over) | ***0*** Other Flashing Lights |
| ***0*** Highway Traffic Signals | ***0*** Wigwags | ***2*** Bells |

Special Warning Device Not Train Activated: ***- None -***

Is Commercial Power Available? ***Yes***

Does Crossing Signal Provide Speed Selection for Trains? ***No***

Method of Signalling for Train Operation: Is Track Equipped With Signals? ***No***

## Part III: Physical Data

| | |
|---|---|
| Type of Development: | ***Industrial*** |
| Smallest Crossing Angle: | ***60 to 90 Degrees*** |
| Number of Traffic Lanes Crossing Railroad | ***5*** |
| Are Truck Pullout Lanes Present? | ***No*** |
| Is Highway Paved? | ***Yes*** |
| Pavement Markings | ***Stop Lines and RR Xing Symbols*** |
| Are RR Advance Warning Signs Present? | ***Yes*** |
| Crossing Surface: | ***Asphalt*** |
| Does Track Run Down a Street? | ***No*** |
| Nearby Intersecting Highway? | ***75 to 150 feet*** |

## Part IV: Highway Department

| | |
|---|---|
| Highway System: | ***Non-Federal-aid*** |
| Is Crossing on State Highway System? | ***No*** |
| Functional Classification of Road Over Crossing: | ***Urban Other Principal Arterial*** |
| Estimated AADT: | ***025000*** |
| Estimated Percent Trucks: | ***22*** |

# U.S. DOT - AAR CROSSING INVENTORY INFORMATION
# AS OF 12/11/01

Crossing #: ***028064T*** Status: ***Changed Crossing*** Effective Begin-Date of Record: ***11/07/00***

Railroad: ***Burlington Northern Santa Fe Corporation*** ***Current Record***

Initiating Agency ***Railroad***

## Part I Location and Classification of Crossing

| | | | |
|---|---|---|---|
| Division: | ***LOS ANGELES TE*** | Subdivision: | ***HARBOR*** |
| State: | ***CA*** | Nearest City: | ***LAWNDALE*** |
| County: | ***LOS ANGELES*** | County Map Ref. No.: | ***13-V-42*** |
| Highway Type & No.: | | FRA RR Network Lic: | ***SP157*** |
| Street or Road Name: | ***MANHATAN BEACH BL*** | RailRoad I.D. No.: | ***7604*** |
| Branch or Line Name: | ***REDO J-L BEACH*** | Railroad Milepost: | ***0016.87*** |
| Nearest RR Timetable Stn: | ***LAWNDALE*** | | |
| Crossing Type and Protection: | ***Public At Grade*** | | |

## Part II Detailed Information

Typical Number of Daily Train Movements: ***5*** Day Thru ***0*** Day Switching ***0*** Night Switching ***5*** Night Thru

Speed of Train at Crossing: Maximum Time Table Speed ***20*** Typical Speed Range Over Crossing From ***1*** to ***20*** mph

Type and Number of Tracks ***1*** Main ***0*** Other

Does Another RR Operate a Separate Track at Crossing? ***No***

Does Another RR Operate Over Your Track at Crossing? ***No***

### Type of Warning Device(s) at Crossing

Signs:

| | | |
|---|---|---|
| ***0*** Reflectorized Crossbucks | ***0*** Non-Reflectorized Crossbucks | ***0*** Standard Highway Stop Sign(s) |
| ***0*** Other Stop Sign(s) | ***0*** Other Signs: | ***0*** Other Signs: |

Train Activated Devices:

| | | |
|---|---|---|
| ***4*** R/W Reflectorized Gates | ***0*** Other Colored Gates | ***4*** Mast Mounted FL |
| ***0*** Cantilevered FL (Over) | ***0*** Cantilevered FL (Not over) | ***0*** Other Flashing Lights |
| ***0*** Highway Traffic Signals | ***0*** Wigwags | ***2*** Bells |

Special Warning Device Not Train Activated: ***- None -***

Is Commercial Power Available? ***Yes***

Does Crossing Signal Provide Speed Selection for Trains? ***No***

Method of Signalling for Train Operation: Is Track Equipped With Signals? ***No***

## Part III: Physical Data

| | |
|---|---|
| Type of Development: | ***Industrial*** |
| Smallest Crossing Angle: | ***30 to 59 Degrees*** |
| Number of Traffic Lanes Crossing Railroad | ***5*** |
| Are Truck Pullout Lanes Present? | ***No*** |
| Is Highway Paved? | ***Yes*** |
| Pavement Markings | ***Stop Lines and RR Xing Symbols*** |
| Are RR Advance Warning Signs Present? | ***Yes*** |
| Crossing Surface: | ***Sectional Treated Timber*** |
| Does Track Run Down a Street? | ***No*** |
| Nearby Intersecting Highway? | ***75 to 150 feet*** |

## Part IV: Highway Department

| | |
|---|---|
| Highway System: | ***Other FA Highway - Not NHS*** |
| Is Crossing on State Highway System? | ***No*** |
| Functional Classification of Road Over Crossing: | ***Urban Other Principal Arterial*** |
| Estimated AADT: | ***019000*** |
| Estimated Percent Trucks: | ***22*** |

# U.S. DOT - AAR CROSSING INVENTORY INFORMATION
# AS OF 12/11/01

Crossing #: ***028065A*** Status: ***Changed Crossing*** Effective Begin-Date of Record: ***11/07/00***

Railroad: ***Burlington Northern Santa Fe Corporation*** ***Current Record***

Initiating Agency ***Railroad***

## Part I Location and Classification of Crossing

| | | | |
|---|---|---|---|
| Division: | ***LOS ANGELES TE*** | Subdivision: | ***HARBOR*** |
| State: | ***CA*** | Nearest City: | ***LAWNDALE*** |
| County: | ***LOS ANGELES*** | County Map Ref. No.: | ***13-V-42*** |
| Highway Type & No.: | | FRA RR Network Lic: | ***SP157*** |
| Street or Road Name: | ***159TH STREET*** | RailRoad I.D. No.: | ***7604*** |
| Branch or Line Name: | ***REDO J-L BEACH*** | Railroad Milepost: | ***0016.94*** |
| Nearest RR Timetable Stn: | ***LAWNDALE*** | | |
| Crossing Type and Protection: | ***Public At Grade*** | | |

## Part II Detailed Information

Typical Number of Daily Train Movements: ***5*** Day Thru ***0*** Day Switching ***0*** Night Switching ***5*** Night Thru

Speed of Train at Crossing: Maximum Time Table Speed ***20*** Typical Speed Range Over Crossing From ***1*** to ***20*** mph

Type and Number of Tracks ***1*** Main ***0*** Other

Does Another RR Operate a Separate Track at Crossing? ***No***

Does Another RR Operate Over Your Track at Crossing? ***No***

### Type of Warning Device(s) at Crossing

Signs:

| | | |
|---|---|---|
| ***0*** Reflectorized Crossbucks | ***0*** Non-Reflectorized Crossbucks | ***0*** Standard Highway Stop Sign(s) |
| ***0*** Other Stop Sign(s) | ***0*** Other Signs: | ***0*** Other Signs: |

Train Activated Devices:

| | | |
|---|---|---|
| ***0*** R/W Reflectorized Gates | ***0*** Other Colored Gates | ***2*** Mast Mounted FL |
| ***0*** Cantilevered FL (Over) | ***0*** Cantilevered FL (Not over) | ***0*** Other Flashing Lights |
| ***0*** Highway Traffic Signals | ***0*** Wigwags | ***2*** Bells |

Special Warning Device Not Train Activated: ***- None -***

Is Commercial Power Available? ***Yes***

Does Crossing Signal Provide Speed Selection for Trains? ***No***

Method of Signalling for Train Operation: Is Track Equipped With Signals? ***No***

## Part III: Physical Data

| | |
|---|---|
| Type of Development: | ***Industrial*** |
| Smallest Crossing Angle: | ***60 to 90 Degrees*** |
| Number of Traffic Lanes Crossing Railroad | ***2*** |
| Are Truck Pullout Lanes Present? | ***No*** |
| Is Highway Paved? | ***Yes*** |
| Pavement Markings | ***No Markings*** |
| Are RR Advance Warning Signs Present? | ***No*** |
| Crossing Surface: | ***Asphalt*** |
| Does Track Run Down a Street? | ***No*** |
| Nearby Intersecting Highway? | ***75 to 150 feet*** |

## Part IV: Highway Department

| | |
|---|---|
| Highway System: | ***Non-Federal-aid*** |
| Is Crossing on State Highway System? | ***No*** |
| Functional Classification of Road Over Crossing: | ***Urban Local*** |
| Estimated AADT: | ***000600*** |
| Estimated Percent Trucks: | ***40*** |

# U.S. DOT - AAR CROSSING INVENTORY INFORMATION
# AS OF 12/11/01

Crossing #: ***028066G*** Status: ***Changed Crossing*** Effective Begin-Date of Record: ***11/07/00***

Railroad: ***Burlington Northern Santa Fe Corporation*** ***Current Record***

Initiating Agency ***Railroad***

## Part I Location and Classification of Crossing

| | | | |
|---|---|---|---|
| Division: | ***LOS ANGELES TE*** | Subdivision: | ***HARBOR*** |
| State: | ***CA*** | Nearest City: | ***LAWNDALE*** |
| County: | ***LOS ANGELES*** | County Map Ref. No.: | ***13-V-42*** |
| Highway Type & No.: | | FRA RR Network Lic: | ***SP157*** |
| Street or Road Name: | ***160TH STREET*** | RailRoad I.D. No.: | ***7604*** |
| Branch or Line Name: | ***REDO J-L BEACH*** | Railroad Milepost: | ***0017.01*** |
| Nearest RR Timetable Stn: | ***LAWNDALE*** | | |
| Crossing Type and Protection: | ***Public At Grade*** | | |

## Part II Detailed Information

Typical Number of Daily Train Movements: ***5*** Day Thru ***0*** Day Switching ***0*** Night Switching ***5*** Night Thru

Speed of Train at Crossing: Maximum Time Table Speed ***20*** Typical Speed Range Over Crossing From ***1*** to ***20*** mph

Type and Number of Tracks ***1*** Main ***0*** Other

Does Another RR Operate a Separate Track at Crossing? ***No***

Does Another RR Operate Over Your Track at Crossing? ***No***

### Type of Warning Device(s) at Crossing

Signs:

| | | |
|---|---|---|
| ***0*** Reflectorized Crossbucks | ***0*** Non-Reflectorized Crossbucks | ***0*** Standard Highway Stop Sign(s) |
| ***0*** Other Stop Sign(s) | ***0*** Other Signs: | ***0*** Other Signs: |

Train Activated Devices:

| | | |
|---|---|---|
| ***0*** R/W Reflectorized Gates | ***0*** Other Colored Gates | ***2*** Mast Mounted FL |
| ***0*** Cantilevered FL (Over) | ***0*** Cantilevered FL (Not over) | ***0*** Other Flashing Lights |
| ***0*** Highway Traffic Signals | ***0*** Wigwags | ***2*** Bells |

Special Warning Device Not Train Activated: ***- None -***

Is Commercial Power Available? ***Yes***

Does Crossing Signal Provide Speed Selection for Trains? ***No***

Method of Signalling for Train Operation: Is Track Equipped With Signals? ***No***

## Part III: Physical Data

| | |
|---|---|
| Type of Development: | ***Industrial*** |
| Smallest Crossing Angle: | ***60 to 90 Degrees*** |
| Number of Traffic Lanes Crossing Railroad | ***2*** |
| Are Truck Pullout Lanes Present? | ***No*** |
| Is Highway Paved? | ***Yes*** |
| Pavement Markings | ***No Markings*** |
| Are RR Advance Warning Signs Present? | ***Yes*** |
| Crossing Surface: | ***Asphalt*** |
| Does Track Run Down a Street? | ***No*** |
| Nearby Intersecting Highway? | ***75 to 150 feet*** |

## Part IV: Highway Department

| | |
|---|---|
| Highway System: | ***Non-Federal-aid*** |
| Is Crossing on State Highway System? | ***No*** |
| Functional Classification of Road Over Crossing: | ***Urban Local*** |
| Estimated AADT: | ***000600*** |
| Estimated Percent Trucks: | ***40*** |

# U.S. DOT - AAR CROSSING INVENTORY INFORMATION
# AS OF 12/11/01

Crossing #: ***028067N*** Status: ***New Crossing*** Effective Begin-Date of Record: ***01/01/70***

Railroad: ***Atchison, Topeka & Santa Fe Railway Company*** End-Date of Record: ***10/02/91***

Initiating Agency ***Original***

## Part I Location and Classification of Crossing

| | | | |
|---|---|---|---|
| Division: | ***LA TERMINAL*** | Subdivision: | ***HARBORDISTRICT*** |
| State: | ***CA*** | Nearest City: | ***LAWNDALE*** |
| County: | ***LOS ANGELES*** | County Map Ref. No.: | ***13-V-42*** |
| Highway Type & No.: | | FRA RR Network Lic: | ***SP157*** |
| Street or Road Name: | ***161ST STREET*** | RailRoad I.D. No.: | ***2H-17.05*** |
| Branch or Line Name: | ***HARBOR BRANCH*** | Railroad Milepost: | ***0017.08*** |
| Nearest RR Timetable Stn: | ***LAWNDALE*** | | |
| Crossing Type and Protection: | ***Public At Grade*** | | |

## Part II Detailed Information

Typical Number of Daily Train Movements: ***3*** Day Thru ***8*** Day Switching ***3*** Night Switching ***3*** Night Thru

Speed of Train at Crossing: Maximum Time Table Speed ***15*** Typical Speed Range Over Crossing From ***5*** to ***15*** mph

Type and Number of Tracks ***0*** Main ***1*** Other

Does Another RR Operate a Separate Track at Crossing? ***No***

Does Another RR Operate Over Your Track at Crossing? ***No***

### Type of Warning Device(s) at Crossing

Signs:

| | | |
|---|---|---|
| ***0*** Reflectorized Crossbucks | ***0*** Non-Reflectorized Crossbucks | ***0*** Standard Highway Stop Sign(s) |
| ***0*** Other Stop Sign(s) | ***0*** Other Signs: | ***0*** Other Signs: |

Train Activated Devices:

| | | |
|---|---|---|
| ***0*** R/W Reflectorized Gates | ***2*** Other Colored Gates | ***2*** Mast Mounted FL |
| ***0*** Cantilevered FL (Over) | ***0*** Cantilevered FL (Not over) | ***0*** Other Flashing Lights |
| ***0*** Highway Traffic Signals | ***0*** Wigwags | ***2*** Bells |

Special Warning Device Not Train Activated: ***- None -***

Is Commercial Power Available? ***Yes***

Does Crossing Signal Provide Speed Selection for Trains? ***No***

Method of Signalling for Train Operation: Is Track Equipped With Signals? ***No***

## Part III: Physical Data

| | |
|---|---|
| Type of Development: | ***Industrial*** |
| Smallest Crossing Angle: | ***60 to 90 Degrees*** |
| Number of Traffic Lanes Crossing Railroad | ***2*** |
| Are Truck Pullout Lanes Present? | ***No*** |
| Is Highway Paved? | ***Yes*** |
| Pavement Markings | ***No Markings*** |
| Are RR Advance Warning Signs Present? | ***Yes*** |
| Crossing Surface: | ***Asphalt*** |
| Does Track Run Down a Street? | ***No*** |
| Nearby Intersecting Highway? | ***75 to 150 feet*** |

## Part IV: Highway Department

| | |
|---|---|
| Highway System: | ***Non-Federal-aid*** |
| Is Crossing on State Highway System? | ***No*** |
| Functional Classification of Road Over Crossing: | ***Urban Local*** |
| Estimated AADT: | ***000700*** |
| Estimated Percent Trucks: | ***40*** |

# U.S. DOT - AAR CROSSING INVENTORY INFORMATION
# AS OF 12/11/01

Crossing #: ***028068V*** Status: ***Changed Crossing*** Effective Begin-Date of Record: ***11/07/00***

Railroad: ***Burlington Northern Santa Fe Corporation*** ***Current Record***

Initiating Agency ***Railroad***

## Part I Location and Classification of Crossing

| | | | |
|---|---|---|---|
| Division: | ***LOS ANGELES TE*** | Subdivision: | ***HARBOR*** |
| State: | ***CA*** | Nearest City: | ***LAWNDALE*** |
| County: | ***LOS ANGELES*** | County Map Ref. No.: | ***13-V-42*** |
| Highway Type & No.: | | FRA RR Network Lic: | ***SP157*** |
| Street or Road Name: | ***162ND STREET*** | RailRoad I.D. No.: | ***7604*** |
| Branch or Line Name: | ***REDO J-L BEACH*** | Railroad Milepost: | ***0017.14*** |
| Nearest RR Timetable Stn: | ***LAWNDALE*** | | |
| Crossing Type and Protection: | ***Public At Grade*** | | |

## Part II Detailed Information

Typical Number of Daily Train Movements: ***5*** Day Thru ***0*** Day Switching ***0*** Night Switching ***5*** Night Thru

Speed of Train at Crossing: Maximum Time Table Speed ***20*** Typical Speed Range Over Crossing From ***1*** to ***20*** mph

Type and Number of Tracks ***1*** Main ***0*** Other

Does Another RR Operate a Separate Track at Crossing? ***No***

Does Another RR Operate Over Your Track at Crossing? ***No***

### Type of Warning Device(s) at Crossing

Signs:

| | | |
|---|---|---|
| ***0*** Reflectorized Crossbucks | ***0*** Non-Reflectorized Crossbucks | ***0*** Standard Highway Stop Sign(s) |
| ***0*** Other Stop Sign(s) | ***0*** Other Signs: | ***0*** Other Signs: |

Train Activated Devices:

| | | |
|---|---|---|
| ***1*** R/W Reflectorized Gates | ***0*** Other Colored Gates | ***0*** Mast Mounted FL |
| ***0*** Cantilevered FL (Over) | ***0*** Cantilevered FL (Not over) | ***0*** Other Flashing Lights |
| ***0*** Highway Traffic Signals | ***0*** Wigwags | ***0*** Bells |

Special Warning Device Not Train Activated: ***- None -***

Is Commercial Power Available? ***Yes***

Does Crossing Signal Provide Speed Selection for Trains? ***No***

Method of Signalling for Train Operation: Is Track Equipped With Signals? ***No***

## Part III: Physical Data

| | |
|---|---|
| Type of Development: | ***Commercial*** |
| Smallest Crossing Angle: | ***60 to 90 Degrees*** |
| Number of Traffic Lanes Crossing Railroad | ***2*** |
| Are Truck Pullout Lanes Present? | ***No*** |
| Is Highway Paved? | ***Yes*** |
| Pavement Markings | ***No Markings*** |
| Are RR Advance Warning Signs Present? | ***Yes*** |
| Crossing Surface: | ***Asphalt*** |
| Does Track Run Down a Street? | ***No*** |
| Nearby Intersecting Highway? | ***75 to 150 feet*** |

## Part IV: Highway Department

| | |
|---|---|
| Highway System: | ***Non-Federal-aid*** |
| Is Crossing on State Highway System? | ***No*** |
| Functional Classification of Road Over Crossing: | ***Urban Collector*** |
| Estimated AADT: | ***002100*** |
| Estimated Percent Trucks: | ***30*** |

# U.S. DOT - AAR CROSSING INVENTORY INFORMATION
# AS OF 12/11/01

Crossing #: ***028069C*** Status: ***Changed Crossing*** Effective Begin-Date of Record: ***11/07/00***

Railroad: ***Burlington Northern Santa Fe Corporation*** ***Current Record***

Initiating Agency ***Railroad***

## Part I Location and Classification of Crossing

| | | | |
|---|---|---|---|
| Division: | ***LOS ANGELES TE*** | Subdivision: | ***HARBOR*** |
| State: | ***CA*** | Nearest City: | ***LAWNDALE*** |
| County: | ***LOS ANGELES*** | County Map Ref. No.: | |
| Highway Type & No.: | | FRA RR Network Lic: | ***SP157*** |
| Street or Road Name: | ***170TH STREET*** | RailRoad I.D. No.: | ***7604*** |
| Branch or Line Name: | ***REDO J-L BEACH*** | Railroad Milepost: | ***0017.62*** |
| Nearest RR Timetable Stn: | ***LAWNDALE*** | | |
| Crossing Type and Protection: | ***Public At Grade*** | | |

## Part II Detailed Information

Typical Number of Daily Train Movements: ***5*** Day Thru ***0*** Day Switching ***0*** Night Switching ***5*** Night Thru

Speed of Train at Crossing: Maximum Time Table Speed ***20*** Typical Speed Range Over Crossing From ***1*** to ***20*** mph

Type and Number of Tracks ***1*** Main ***0*** Other

Does Another RR Operate a Separate Track at Crossing? ***No***

Does Another RR Operate Over Your Track at Crossing? ***No***

### Type of Warning Device(s) at Crossing

Signs:

| | | |
|---|---|---|
| ***0*** Reflectorized Crossbucks | ***0*** Non-Reflectorized Crossbucks | ***0*** Standard Highway Stop Sign(s) |
| ***0*** Other Stop Sign(s) | ***0*** Other Signs: | ***0*** Other Signs: |

Train Activated Devices:

| | | |
|---|---|---|
| ***0*** R/W Reflectorized Gates | ***0*** Other Colored Gates | ***2*** Mast Mounted FL |
| ***0*** Cantilevered FL (Over) | ***0*** Cantilevered FL (Not over) | ***0*** Other Flashing Lights |
| ***0*** Highway Traffic Signals | ***0*** Wigwags | ***2*** Bells |

Special Warning Device Not Train Activated: ***- None -***

Is Commercial Power Available? ***Yes***

Does Crossing Signal Provide Speed Selection for Trains? ***No***

Method of Signalling for Train Operation: Is Track Equipped With Signals? ***No***

## Part III: Physical Data

| | |
|---|---|
| Type of Development: | ***Commercial*** |
| Smallest Crossing Angle: | ***60 to 90 Degrees*** |
| Number of Traffic Lanes Crossing Railroad | ***2*** |
| Are Truck Pullout Lanes Present? | ***No*** |
| Is Highway Paved? | ***Yes*** |
| Pavement Markings | ***Stop Lines and RR Xing Symbols*** |
| Are RR Advance Warning Signs Present? | ***Yes*** |
| Crossing Surface: | ***Asphalt*** |
| Does Track Run Down a Street? | ***No*** |
| Nearby Intersecting Highway? | ***75 to 150 feet*** |

## Part IV: Highway Department

| | |
|---|---|
| Highway System: | ***Non-Federal-aid*** |
| Is Crossing on State Highway System? | ***No*** |
| Functional Classification of Road Over Crossing: | ***Urban Minor Arterial*** |
| Estimated AADT: | ***002500*** |
| Estimated Percent Trucks: | ***31*** |

# U.S. DOT - AAR CROSSING INVENTORY INFORMATION
# AS OF 12/11/01

Crossing #: ***028072K*** Status: ***Changed Crossing*** Effective Begin-Date of Record: ***11/07/00***

Railroad: ***Burlington Northern Santa Fe Corporation*** ***Current Record***

Initiating Agency ***Railroad***

## Part I Location and Classification of Crossing

| | | | |
|---|---|---|---|
| Division: | ***LOS ANGELES TE*** | Subdivision: | ***HARBOR*** |
| State: | ***CA*** | Nearest City: | ***REDONDO BEACH*** |
| County: | ***LOS ANGELES*** | County Map Ref. No.: | ***13-V-42*** |
| Highway Type & No.: | | FRA RR Network Lic: | ***NINWX*** |
| Street or Road Name: | ***182ND STREET*** | RailRoad I.D. No.: | ***7604*** |
| Branch or Line Name: | ***REDO J-L BEACH*** | Railroad Milepost: | ***0018.38*** |
| Nearest RR Timetable Stn: | ***ALCOA*** | | |
| Crossing Type and Protection: | ***Public At Grade*** | | |

## Part II Detailed Information

Typical Number of Daily Train Movements: ***5*** Day Thru ***0*** Day Switching ***0*** Night Switching ***5*** Night Thru

Speed of Train at Crossing: Maximum Time Table Speed ***20*** Typical Speed Range Over Crossing From ***1*** to ***20*** mph

Type and Number of Tracks ***1*** Main ***0*** Other

Does Another RR Operate a Separate Track at Crossing? ***No***

Does Another RR Operate Over Your Track at Crossing? ***No***

### Type of Warning Device(s) at Crossing

Signs:

| | | |
|---|---|---|
| ***0*** Reflectorized Crossbucks | ***0*** Non-Reflectorized Crossbucks | ***0*** Standard Highway Stop Sign(s) |
| ***0*** Other Stop Sign(s) | ***0*** Other Signs: | ***0*** Other Signs: |

Train Activated Devices:

| | | |
|---|---|---|
| ***2*** R/W Reflectorized Gates | ***0*** Other Colored Gates | ***2*** Mast Mounted FL |
| ***0*** Cantilevered FL (Over) | ***0*** Cantilevered FL (Not over) | ***0*** Other Flashing Lights |
| ***0*** Highway Traffic Signals | ***0*** Wigwags | ***2*** Bells |

Special Warning Device Not Train Activated: ***- None -***

Is Commercial Power Available? ***Yes***

Does Crossing Signal Provide Speed Selection for Trains? ***No***

Method of Signalling for Train Operation: Is Track Equipped With Signals? ***No***

## Part III: Physical Data

| | |
|---|---|
| Type of Development: | ***Industrial*** |
| Smallest Crossing Angle: | ***60 to 90 Degrees*** |
| Number of Traffic Lanes Crossing Railroad | ***2*** |
| Are Truck Pullout Lanes Present? | ***No*** |
| Is Highway Paved? | ***Yes*** |
| Pavement Markings | ***Stop Lines and RR Xing Symbols*** |
| Are RR Advance Warning Signs Present? | ***Yes*** |
| Crossing Surface: | ***Asphalt*** |
| Does Track Run Down a Street? | ***No*** |
| Nearby Intersecting Highway? | ***75 to 150 feet*** |

## Part IV: Highway Department

| | |
|---|---|
| Highway System: | ***Non-Federal-aid*** |
| Is Crossing on State Highway System? | ***No*** |
| Functional Classification of Road Over Crossing: | ***Urban Minor Arterial*** |
| Estimated AADT: | ***011700*** |
| Estimated Percent Trucks: | ***01*** |

# U.S. DOT - AAR CROSSING INVENTORY INFORMATION
# AS OF 12/11/01

Crossing #: ***028096Y*** Status: ***Changed Crossing*** Effective Begin-Date of Record: ***11/07/00***

Railroad: ***Burlington Northern Santa Fe Corporation*** ***Current Record***

Initiating Agency ***Railroad***

## Part I Location and Classification of Crossing

| | | | |
|---|---|---|---|
| Division: | ***LOS ANGELES TE*** | Subdivision: | ***HARBOR*** |
| State: | ***CA*** | Nearest City: | ***TORRANCE*** |
| County: | ***LOS ANGELES*** | County Map Ref. No.: | ***13-V-42*** |
| Highway Type & No.: | | FRA RR Network Lic: | ***NINWX*** |
| Street or Road Name: | ***TORRANCE BLVD.*** | RailRoad I.D. No.: | ***7604*** |
| Branch or Line Name: | ***REDO J-L BEACH*** | Railroad Milepost: | ***0021.24*** |
| Nearest RR Timetable Stn: | ***ALCOA*** | | |
| Crossing Type and Protection: | ***Public At Grade*** | | |

## Part II Detailed Information

Typical Number of Daily Train Movements: ***5*** Day Thru ***0*** Day Switching ***0*** Night Switching ***5*** Night Thru

Speed of Train at Crossing: Maximum Time Table Speed ***20*** Typical Speed Range Over Crossing From ***1*** to ***20*** mph

Type and Number of Tracks ***1*** Main ***0*** Other

Does Another RR Operate a Separate Track at Crossing? ***No***

Does Another RR Operate Over Your Track at Crossing? ***No***

### Type of Warning Device(s) at Crossing

Signs:

| | | |
|---|---|---|
| ***0*** Reflectorized Crossbucks | ***0*** Non-Reflectorized Crossbucks | ***0*** Standard Highway Stop Sign(s) |
| ***0*** Other Stop Sign(s) | ***0*** Other Signs: | ***0*** Other Signs: |

Train Activated Devices:

| | | |
|---|---|---|
| ***0*** R/W Reflectorized Gates | ***0*** Other Colored Gates | ***2*** Mast Mounted FL |
| ***2*** Cantilevered FL (Over) | ***0*** Cantilevered FL (Not over) | ***0*** Other Flashing Lights |
| ***0*** Highway Traffic Signals | ***0*** Wigwags | ***2*** Bells |

Special Warning Device Not Train Activated: ***- None -***

Is Commercial Power Available? ***Yes***

Does Crossing Signal Provide Speed Selection for Trains? ***No***

Method of Signalling for Train Operation: Is Track Equipped With Signals? ***No***

## Part III: Physical Data

| | |
|---|---|
| Type of Development: | ***Industrial*** |
| Smallest Crossing Angle: | ***60 to 90 Degrees*** |
| Number of Traffic Lanes Crossing Railroad | ***4*** |
| Are Truck Pullout Lanes Present? | ***No*** |
| Is Highway Paved? | ***Yes*** |
| Pavement Markings | ***Stop Lines and RR Xing Symbols*** |
| Are RR Advance Warning Signs Present? | ***Yes*** |
| Crossing Surface: | ***Asphalt*** |
| Does Track Run Down a Street? | ***No*** |
| Nearby Intersecting Highway? | ***Less than 75 feet*** |

## Part IV: Highway Department

| | |
|---|---|
| Highway System: | ***Other FA Highway - Not NHS*** |
| Is Crossing on State Highway System? | ***No*** |
| Functional Classification of Road Over Crossing: | ***Urban Other Principal Arterial*** |
| Estimated AADT: | ***033800*** |
| Estimated Percent Trucks: | ***24*** |

# U.S. DOT - AAR CROSSING INVENTORY INFORMATION
# AS OF 12/11/01

Crossing #: ***028097F*** Status: ***New Crossing*** Effective Begin-Date of Record: ***01/01/70***

Railroad: ***Atchison, Topeka & Santa Fe Railway Company*** End-Date of Record: ***10/02/91***

Initiating Agency ***Original***

## Part I Location and Classification of Crossing

| | | | |
|---|---|---|---|
| Division: | ***LA TERMINAL*** | Subdivision: | ***HARBOR DIST*** |
| State: | ***CA*** | Nearest City: | ***TORRANCE*** |
| County: | ***LOS ANGELES*** | County Map Ref. No.: | ***13-V-42*** |
| Highway Type & No.: | | FRA RR Network Lic: | ***SP157*** |
| Street or Road Name: | ***ELDORADO STREET*** | RailRoad I.D. No.: | ***2H-21.4-D*** |
| Branch or Line Name: | ***HARBOR BRANCH*** | Railroad Milepost: | ***0021.13*** |
| Nearest RR Timetable Stn: | ***TORRANCE*** | | |
| Crossing Type and Protection: | ***Pedestrian At Grade*** | | |

## Part II Detailed Information

Typical Number of Daily Train Movements: ***0*** Day Thru ***0*** Day Switching ***0*** Night Switching ***0*** Night Thru

Speed of Train at Crossing: Maximum Time Table Speed ***0*** Typical Speed Range Over Crossing From ***0*** to ***0*** mph

Type and Number of Tracks ***0*** Main ***0*** Other

Does Another RR Operate a Separate Track at Crossing? ***No***

Does Another RR Operate Over Your Track at Crossing? ***No***

### Type of Warning Device(s) at Crossing

Signs:

| | | |
|---|---|---|
| ***0*** Reflectorized Crossbucks | ***0*** Non-Reflectorized Crossbucks | ***0*** Standard Highway Stop Sign(s) |
| ***0*** Other Stop Sign(s) | ***0*** Other Signs: | ***0*** Other Signs: |

Train Activated Devices:

| | | |
|---|---|---|
| ***0*** R/W Reflectorized Gates | ***0*** Other Colored Gates | ***0*** Mast Mounted FL |
| ***0*** Cantilevered FL (Over) | ***0*** Cantilevered FL (Not over) | ***0*** Other Flashing Lights |
| ***0*** Highway Traffic Signals | ***0*** Wigwags | ***0*** Bells |

Special Warning Device Not Train Activated: ***- None -***

Is Commercial Power Available?

Does Crossing Signal Provide Speed Selection for Trains?

Method of Signalling for Train Operation: Is Track Equipped With Signals? ***No***

## Part III: Physical Data

Type of Development:

Smallest Crossing Angle:

Number of Traffic Lanes Crossing Railroad

Are Truck Pullout Lanes Present? ***No***

Is Highway Paved? ***No***

Pavement Markings

Are RR Advance Warning Signs Present? ***No***

Crossing Surface:

Does Track Run Down a Street? ***No***

Nearby Intersecting Highway? ***Unknown***

## Part IV: Highway Department

Highway System:

Is Crossing on State Highway System? ***No***

Functional Classification of Road Over Crossing:

Estimated AADT:

Estimated Percent Trucks:

# U.S. DOT - AAR CROSSING INVENTORY INFORMATION
# AS OF 12/11/01

Crossing #: ***028098M*** Status: ***Changed Crossing*** Effective Begin-Date of Record: ***11/07/00***

Railroad: ***Burlington Northern Santa Fe Corporation*** ***Current Record***

Initiating Agency ***Railroad***

## Part I Location and Classification of Crossing

| | | | |
|---|---|---|---|
| Division: | ***LOS ANGELES TE*** | Subdivision: | ***HARBOR*** |
| State: | ***CA*** | Nearest City: | ***TORRANCE*** |
| County: | ***LOS ANGELES*** | County Map Ref. No.: | ***13-V-52*** |
| Highway Type & No.: | | FRA RR Network Lic: | ***SP157*** |
| Street or Road Name: | ***SONOMA STREET*** | RailRoad I.D. No.: | ***7604*** |
| Branch or Line Name: | ***REDO J-L BEACH*** | Railroad Milepost: | ***0021.48*** |
| Nearest RR Timetable Stn: | ***TORRANCE*** | | |
| Crossing Type and Protection: | ***Public At Grade*** | | |

## Part II Detailed Information

Typical Number of Daily Train Movements: ***5*** Day Thru ***0*** Day Switching ***0*** Night Switching ***5*** Night Thru

Speed of Train at Crossing: Maximum Time Table Speed ***20*** Typical Speed Range Over Crossing From ***1*** to ***20*** mph

Type and Number of Tracks ***1*** Main ***0*** Other

Does Another RR Operate a Separate Track at Crossing? ***No***

Does Another RR Operate Over Your Track at Crossing? ***No***

### Type of Warning Device(s) at Crossing

Signs:

| | | |
|---|---|---|
| ***0*** Reflectorized Crossbucks | ***0*** Non-Reflectorized Crossbucks | ***2*** Standard Highway Stop Sign(s) |
| ***0*** Other Stop Sign(s) | ***0*** Other Signs: | ***0*** Other Signs: |

Train Activated Devices:

| | | |
|---|---|---|
| ***2*** R/W Reflectorized Gates | ***0*** Other Colored Gates | ***2*** Mast Mounted FL |
| ***0*** Cantilevered FL (Over) | ***0*** Cantilevered FL (Not over) | ***0*** Other Flashing Lights |
| ***0*** Highway Traffic Signals | ***0*** Wigwags | ***2*** Bells |

Special Warning Device Not Train Activated: ***- None -***

Is Commercial Power Available? ***Yes***

Does Crossing Signal Provide Speed Selection for Trains? ***No***

Method of Signalling for Train Operation: Is Track Equipped With Signals? ***No***

## Part III: Physical Data

| | |
|---|---|
| Type of Development: | ***Institutional*** |
| Smallest Crossing Angle: | ***0 to 29 Degrees*** |
| Number of Traffic Lanes Crossing Railroad | ***2*** |
| Are Truck Pullout Lanes Present? | ***No*** |
| Is Highway Paved? | ***Yes*** |
| Pavement Markings | ***Stop Lines and RR Xing Symbols*** |
| Are RR Advance Warning Signs Present? | ***Yes*** |
| Crossing Surface: | ***Asphalt*** |
| Does Track Run Down a Street? | ***No*** |
| Nearby Intersecting Highway? | ***Less than 75 feet*** |

## Part IV: Highway Department

| | |
|---|---|
| Highway System: | ***Non-Federal-aid*** |
| Is Crossing on State Highway System? | ***No*** |
| Functional Classification of Road Over Crossing: | ***Urban Local*** |
| Estimated AADT: | ***001200*** |
| Estimated Percent Trucks: | ***30*** |

# U.S. DOT - AAR CROSSING INVENTORY INFORMATION
# AS OF 12/11/01

Crossing #: ***028099U*** Status: ***Changed Crossing*** Effective Begin-Date of Record: ***11/07/00***

Railroad: ***Burlington Northern Santa Fe Corporation*** ***Current Record***

Initiating Agency ***Railroad***

## Part I Location and Classification of Crossing

| | | | |
|---|---|---|---|
| Division: | ***LOS ANGELES TE*** | Subdivision: | ***HARBOR*** |
| State: | ***CA*** | Nearest City: | ***TORRANCE*** |
| County: | ***LOS ANGELES*** | County Map Ref. No.: | ***13-V-52*** |
| Highway Type & No.: | | FRA RR Network Lic: | ***SP157*** |
| Street or Road Name: | ***CARSON STREET*** | RailRoad I.D. No.: | ***7604*** |
| Branch or Line Name: | ***REDO J-L BEACH*** | Railroad Milepost: | ***0021.60*** |
| Nearest RR Timetable Stn: | ***TORRANCE*** | | |
| Crossing Type and Protection: | ***Public At Grade*** | | |

## Part II Detailed Information

Typical Number of Daily Train Movements: ***5*** Day Thru ***0*** Day Switching ***0*** Night Switching ***5*** Night Thru

Speed of Train at Crossing: Maximum Time Table Speed ***20*** Typical Speed Range Over Crossing From ***1*** to ***20*** mph

Type and Number of Tracks ***1*** Main ***0*** Other

Does Another RR Operate a Separate Track at Crossing? ***No***

Does Another RR Operate Over Your Track at Crossing? ***No***

### Type of Warning Device(s) at Crossing

Signs:

| | | |
|---|---|---|
| ***0*** Reflectorized Crossbucks | ***0*** Non-Reflectorized Crossbucks | ***0*** Standard Highway Stop Sign(s) |
| ***0*** Other Stop Sign(s) | ***0*** Other Signs: | ***0*** Other Signs: |

Train Activated Devices:

| | | |
|---|---|---|
| ***1*** R/W Reflectorized Gates | ***0*** Other Colored Gates | ***4*** Mast Mounted FL |
| ***0*** Cantilevered FL (Over) | ***0*** Cantilevered FL (Not over) | ***0*** Other Flashing Lights |
| ***0*** Highway Traffic Signals | ***0*** Wigwags | ***2*** Bells |

Special Warning Device Not Train Activated: ***- None -***

Is Commercial Power Available? ***Yes***

Does Crossing Signal Provide Speed Selection for Trains? ***No***

Method of Signalling for Train Operation: Is Track Equipped With Signals? ***No***

## Part III: Physical Data

| | |
|---|---|
| Type of Development: | ***Residential*** |
| Smallest Crossing Angle: | ***60 to 90 Degrees*** |
| Number of Traffic Lanes Crossing Railroad | ***5*** |
| Are Truck Pullout Lanes Present? | ***No*** |
| Is Highway Paved? | ***Yes*** |
| Pavement Markings | ***Stop Lines and RR Xing Symbols*** |
| Are RR Advance Warning Signs Present? | ***Yes*** |
| Crossing Surface: | ***Sectional Treated Timber*** |
| Does Track Run Down a Street? | ***No*** |
| Nearby Intersecting Highway? | ***Less than 75 feet*** |

## Part IV: Highway Department

| | |
|---|---|
| Highway System: | ***Other FA Highway - Not NHS*** |
| Is Crossing on State Highway System? | ***No*** |
| Functional Classification of Road Over Crossing: | ***Urban Other Principal Arterial*** |
| Estimated AADT: | ***037600*** |
| Estimated Percent Trucks: | ***28*** |

# U.S. DOT - AAR CROSSING INVENTORY INFORMATION
# AS OF 12/11/01

Crossing #: ***028101T*** Status: ***Changed Crossing*** Effective Begin-Date of Record: ***11/07/00***

Railroad: ***Burlington Northern Santa Fe Corporation*** ***Current Record***

Initiating Agency ***Railroad***

## Part I Location and Classification of Crossing

| | | | |
|---|---|---|---|
| Division: | ***LOS ANGELES TE*** | Subdivision: | ***HARBOR*** |
| State: | ***CA*** | Nearest City: | ***TORRANCE*** |
| County: | ***LOS ANGELES*** | County Map Ref. No.: | ***13-V-52*** |
| Highway Type & No.: | | FRA RR Network Lic: | ***SP157*** |
| Street or Road Name: | ***WASHINGTON ST*** | RailRoad I.D. No.: | ***7604*** |
| Branch or Line Name: | ***REDO J-L BEACH*** | Railroad Milepost: | ***0022.10*** |
| Nearest RR Timetable Stn: | ***TORRANCE*** | | |
| Crossing Type and Protection: | ***Public At Grade*** | | |

## Part II Detailed Information

Typical Number of Daily Train Movements: ***5*** Day Thru ***0*** Day Switching ***0*** Night Switching ***5*** Night Thru

Speed of Train at Crossing: Maximum Time Table Speed ***20*** Typical Speed Range Over Crossing From ***1*** to ***20*** mph

Type and Number of Tracks ***1*** Main ***0*** Other

Does Another RR Operate a Separate Track at Crossing? ***No***

Does Another RR Operate Over Your Track at Crossing? ***No***

### Type of Warning Device(s) at Crossing

Signs:

| | | |
|---|---|---|
| ***0*** Reflectorized Crossbucks | ***0*** Non-Reflectorized Crossbucks | ***2*** Standard Highway Stop Sign(s) |
| ***0*** Other Stop Sign(s) | ***0*** Other Signs: | ***0*** Other Signs: |

Train Activated Devices:

| | | |
|---|---|---|
| ***2*** R/W Reflectorized Gates | ***0*** Other Colored Gates | ***2*** Mast Mounted FL |
| ***0*** Cantilevered FL (Over) | ***0*** Cantilevered FL (Not over) | ***0*** Other Flashing Lights |
| ***0*** Highway Traffic Signals | ***0*** Wigwags | ***2*** Bells |

Special Warning Device Not Train Activated: ***- None -***

Is Commercial Power Available? ***Yes***

Does Crossing Signal Provide Speed Selection for Trains? ***No***

Method of Signalling for Train Operation: Is Track Equipped With Signals? ***No***

## Part III: Physical Data

| | |
|---|---|
| Type of Development: | ***Institutional*** |
| Smallest Crossing Angle: | ***0 to 29 Degrees*** |
| Number of Traffic Lanes Crossing Railroad | ***2*** |
| Are Truck Pullout Lanes Present? | ***No*** |
| Is Highway Paved? | ***Yes*** |
| Pavement Markings | ***Stop Lines and RR Xing Symbols*** |
| Are RR Advance Warning Signs Present? | ***Yes*** |
| Crossing Surface: | ***Asphalt*** |
| Does Track Run Down a Street? | ***No*** |
| Nearby Intersecting Highway? | ***75 to 150 feet*** |

## Part IV: Highway Department

| | |
|---|---|
| Highway System: | ***Non-Federal-aid*** |
| Is Crossing on State Highway System? | ***No*** |
| Functional Classification of Road Over Crossing: | ***Urban Minor Arterial*** |
| Estimated AADT: | ***003800*** |
| Estimated Percent Trucks: | ***35*** |

# U.S. DOT - AAR CROSSING INVENTORY INFORMATION
# AS OF 11/1/01

Crossing #: **028103G** Status: **Changed Crossing** Effective Begin-Date of Record: **11/07/00**

Railroad: **Burlington Northern Santa Fe Corporation** **Current Record**

Initiating Agency **Railroad**

## Part I Location and Classification of Crossing

| | | | |
|---|---|---|---|
| Division: | **LOS ANGELES TE** | Subdivision: | **HARBOR** |
| State: | **CA** | Nearest City: | **TORRANCE** |
| County: | **LOS ANGELES** | County Map Ref. No.: | **13-V-52** |
| Highway Type & No.: | | FRA RR Network Lic: | **SP157** |
| Street or Road Name: | **ARLINGTON AVE** | RailRoad I.D. No.: | **7604** |
| Branch or Line Name: | **REDO J-L BEACH** | Railroad Milepost: | **0022.24** |
| Nearest RR Timetable Stn: | **TORRANCE** | | |
| Crossing Type and Protection: | **Public At Grade** | | |

## Part II Detailed Information

Typical Number of Daily Train Movements: **5** Day Thru **0** Day Switching **0** Night Switching **5** Night Thru

Speed of Train at Crossing: Maximum Time Table Speed **20** Typical Speed Range Over Crossing From **1** to **20** mph

Type and Number of Tracks **1** Main **0** Other

Does Another RR Operate a Separate Track at Crossing? **No**

Does Another RR Operate Over Your Track at Crossing? **No**

### Type of Warning Device(s) at Crossing

Signs:

| | | |
|---|---|---|
| **0** Reflectorized Crossbucks | **0** Non-Reflectorized Crossbucks | **0** Standard Highway Stop Sign(s) |
| **0** Other Stop Sign(s) | **0** Other Signs: | **0** Other Signs: |

Train Activated Devices:

| | | |
|---|---|---|
| **0** R/W Reflectorized Gates | **0** Other Colored Gates | **4** Mast Mounted FL |
| **0** Cantilevered FL (Over) | **0** Cantilevered FL (Not over) | **0** Other Flashing Lights |
| **0** Highway Traffic Signals | **0** Wigwags | **2** Bells |

Special Warning Device Not Train Activated: **- None -**

Is Commercial Power Available? **Yes**

Does Crossing Signal Provide Speed Selection for Trains? **No**

Method of Signalling for Train Operation: Is Track Equipped With Signals? **No**

## Part III: Physical Data

| | |
|---|---|
| Type of Development: | **Institutional** |
| Smallest Crossing Angle: | **60 to 90 Degrees** |
| Number of Traffic Lanes Crossing Railroad | **2** |
| Are Truck Pullout Lanes Present? | **No** |
| Is Highway Paved? | **Yes** |
| Pavement Markings | **Stop Lines and RR Xing Symbols** |
| Are RR Advance Warning Signs Present? | **Yes** |
| Crossing Surface: | **Sectional Treated Timber** |
| Does Track Run Down a Street? | **No** |
| Nearby Intersecting Highway? | **75 to 150 feet** |

## Part IV: Highway Department

| | |
|---|---|
| Highway System: | **Other FA Highway - Not NHS** |
| Is Crossing on State Highway System? | **No** |
| Functional Classification of Road Over Crossing: | **Urban Minor Arterial** |
| Estimated AADT: | **014600** |
| Estimated Percent Trucks: | **28** |

# U.S. DOT - AAR CROSSING INVENTORY INFORMATION
# AS OF 12/11/01

Crossing #: ***028104N*** Status: ***Changed Crossing*** Effective Begin-Date of Record: ***11/07/00***

Railroad: ***Burlington Northern Santa Fe Corporation*** ***Current Record***

Initiating Agency ***Railroad***

## Part I Location and Classification of Crossing

| | | | |
|---|---|---|---|
| Division: | ***LOS ANGELES TE*** | Subdivision: | ***HARBOR*** |
| State: | ***CA*** | Nearest City: | ***TORRANCE*** |
| County: | ***LOS ANGELES*** | County Map Ref. No.: | ***13-V-52*** |
| Highway Type & No.: | | FRA RR Network Lic: | ***SP157*** |
| Street or Road Name: | ***CABRILLO AVENUE*** | RailRoad I.D. No.: | ***7604*** |
| Branch or Line Name: | ***REDO J-L BEACH*** | Railroad Milepost: | ***0022.49*** |
| Nearest RR Timetable Stn: | ***TORRANCE*** | | |
| Crossing Type and Protection: | ***Public At Grade*** | | |

## Part II Detailed Information

Typical Number of Daily Train Movements: ***5*** Day Thru ***0*** Day Switching ***0*** Night Switching ***5*** Night Thru

Speed of Train at Crossing: Maximum Time Table Speed ***20*** Typical Speed Range Over Crossing From ***1*** to ***20*** mph

Type and Number of Tracks ***1*** Main ***0*** Other

Does Another RR Operate a Separate Track at Crossing? ***No***

Does Another RR Operate Over Your Track at Crossing? ***No***

### Type of Warning Device(s) at Crossing

Signs:

| | | |
|---|---|---|
| ***0*** Reflectorized Crossbucks | ***0*** Non-Reflectorized Crossbucks | ***0*** Standard Highway Stop Sign(s) |
| ***0*** Other Stop Sign(s) | ***0*** Other Signs: | ***0*** Other Signs: |

Train Activated Devices:

| | | |
|---|---|---|
| ***0*** R/W Reflectorized Gates | ***0*** Other Colored Gates | ***2*** Mast Mounted FL |
| ***0*** Cantilevered FL (Over) | ***0*** Cantilevered FL (Not over) | ***0*** Other Flashing Lights |
| ***0*** Highway Traffic Signals | ***0*** Wigwags | ***2*** Bells |

Special Warning Device Not Train Activated: ***- None -***

Is Commercial Power Available? ***Yes***

Does Crossing Signal Provide Speed Selection for Trains? ***No***

Method of Signalling for Train Operation: Is Track Equipped With Signals? ***No***

## Part III: Physical Data

| | |
|---|---|
| Type of Development: | ***Commercial*** |
| Smallest Crossing Angle: | ***60 to 90 Degrees*** |
| Number of Traffic Lanes Crossing Railroad | ***2*** |
| Are Truck Pullout Lanes Present? | ***No*** |
| Is Highway Paved? | ***Yes*** |
| Pavement Markings | ***Stop Lines and RR Xing Symbols*** |
| Are RR Advance Warning Signs Present? | ***Yes*** |
| Crossing Surface: | ***Asphalt*** |
| Does Track Run Down a Street? | ***No*** |
| Nearby Intersecting Highway? | ***75 to 150 feet*** |

## Part IV: Highway Department

| | |
|---|---|
| Highway System: | ***Non-Federal-aid*** |
| Is Crossing on State Highway System? | ***No*** |
| Functional Classification of Road Over Crossing: | ***Urban Minor Arterial*** |
| Estimated AADT: | ***007500*** |
| Estimated Percent Trucks: | ***24*** |

# U.S. DOT - AAR CROSSING INVENTORY INFORMATION
# AS OF 12/11/01

Crossing #: ***028105V*** Status: ***Changed Crossing*** Effective Begin-Date of Record: ***11/07/00***

Railroad: ***Burlington Northern Santa Fe Corporation*** ***Current Record***

Initiating Agency ***Railroad***

## Part I Location and Classification of Crossing

| | | | |
|---|---|---|---|
| Division: | ***LOS ANGELES TE*** | Subdivision: | ***HARBOR*** |
| State: | ***CA*** | Nearest City: | ***TORRANCE*** |
| County: | ***LOS ANGELES*** | County Map Ref. No.: | ***13V52*** |
| Highway Type & No.: | | FRA RR Network Lic: | ***SP157*** |
| Street or Road Name: | ***BORDER AVENUE*** | RailRoad I.D. No.: | ***7604*** |
| Branch or Line Name: | ***REDO J-L BEACH*** | Railroad Milepost: | ***0022.57*** |
| Nearest RR Timetable Stn: | ***TORRANCE*** | | |
| Crossing Type and Protection: | ***Public At Grade*** | | |

## Part II Detailed Information

Typical Number of Daily Train Movements: ***5*** Day Thru ***0*** Day Switching ***0*** Night Switching ***5*** Night Thru

Speed of Train at Crossing: Maximum Time Table Speed ***20*** Typical Speed Range Over Crossing From ***1*** to ***20*** mph

Type and Number of Tracks ***1*** Main ***0*** Other

Does Another RR Operate a Separate Track at Crossing? ***No***

Does Another RR Operate Over Your Track at Crossing? ***No***

### Type of Warning Device(s) at Crossing

Signs:

| | | |
|---|---|---|
| ***0*** Reflectorized Crossbucks | ***0*** Non-Reflectorized Crossbucks | ***0*** Standard Highway Stop Sign(s) |
| ***0*** Other Stop Sign(s) | ***0*** Other Signs: | ***0*** Other Signs: |

Train Activated Devices:

| | | |
|---|---|---|
| ***2*** R/W Reflectorized Gates | ***0*** Other Colored Gates | ***2*** Mast Mounted FL |
| ***0*** Cantilevered FL (Over) | ***0*** Cantilevered FL (Not over) | ***0*** Other Flashing Lights |
| ***0*** Highway Traffic Signals | ***0*** Wigwags | ***2*** Bells |

Special Warning Device Not Train Activated: ***- None -***

Is Commercial Power Available? ***Yes***

Does Crossing Signal Provide Speed Selection for Trains? ***No***

Method of Signalling for Train Operation: Is Track Equipped With Signals? ***No***

## Part III: Physical Data

| | |
|---|---|
| Type of Development: | ***Industrial*** |
| Smallest Crossing Angle: | ***60 to 90 Degrees*** |
| Number of Traffic Lanes Crossing Railroad | ***2*** |
| Are Truck Pullout Lanes Present? | ***No*** |
| Is Highway Paved? | ***Yes*** |
| Pavement Markings | ***Stop Lines and RR Xing Symbols*** |
| Are RR Advance Warning Signs Present? | ***Yes*** |
| Crossing Surface: | ***Sectional Treated Timber*** |
| Does Track Run Down a Street? | ***No*** |
| Nearby Intersecting Highway? | ***75 to 150 feet*** |

## Part IV: Highway Department

| | |
|---|---|
| Highway System: | ***Non-Federal-aid*** |
| Is Crossing on State Highway System? | ***No*** |
| Functional Classification of Road Over Crossing: | ***Urban Local*** |
| Estimated AADT: | ***000900*** |
| Estimated Percent Trucks: | ***35*** |

# U.S. DOT - AAR CROSSING INVENTORY INFORMATION
# AS OF 12/11/01

Crossing #: ***028106C*** Status: ***Changed Crossing*** Effective Begin-Date of Record: ***11/07/00***

Railroad: ***Burlington Northern Santa Fe Corporation*** ***Current Record***

Initiating Agency ***Railroad***

## Part I Location and Classification of Crossing

| | | | |
|---|---|---|---|
| Division: | ***LOS ANGELES TE*** | Subdivision: | ***HARBOR*** |
| State: | ***CA*** | Nearest City: | ***TORRANCE*** |
| County: | ***LOS ANGELES*** | County Map Ref. No.: | ***13-V-52*** |
| Highway Type & No.: | | FRA RR Network Lic: | ***SP157*** |
| Street or Road Name: | ***SEPULVEDA BLVD.*** | RailRoad I.D. No.: | ***7604*** |
| Branch or Line Name: | ***REDO J-L BEACH*** | Railroad Milepost: | ***0022.78*** |
| Nearest RR Timetable Stn: | ***TORRANCE*** | | |
| Crossing Type and Protection: | ***Public At Grade*** | | |

## Part II Detailed Information

Typical Number of Daily Train Movements: ***5*** Day Thru ***0*** Day Switching ***0*** Night Switching ***5*** Night Thru

Speed of Train at Crossing: Maximum Time Table Speed ***20*** Typical Speed Range Over Crossing From ***1*** to ***20*** mph

Type and Number of Tracks ***1*** Main ***0*** Other

Does Another RR Operate a Separate Track at Crossing? ***No***

Does Another RR Operate Over Your Track at Crossing? ***No***

### Type of Warning Device(s) at Crossing

Signs:

| | | |
|---|---|---|
| ***0*** Reflectorized Crossbucks | ***0*** Non-Reflectorized Crossbucks | ***0*** Standard Highway Stop Sign(s) |
| ***0*** Other Stop Sign(s) | ***0*** Other Signs: | ***0*** Other Signs: |

Train Activated Devices:

| | | |
|---|---|---|
| ***2*** R/W Reflectorized Gates | ***0*** Other Colored Gates | ***5*** Mast Mounted FL |
| ***0*** Cantilevered FL (Over) | ***0*** Cantilevered FL (Not over) | ***0*** Other Flashing Lights |
| ***0*** Highway Traffic Signals | ***0*** Wigwags | ***3*** Bells |

Special Warning Device Not Train Activated: ***- None -***

Is Commercial Power Available? ***Yes***

Does Crossing Signal Provide Speed Selection for Trains? ***No***

Method of Signalling for Train Operation: Is Track Equipped With Signals? ***No***

## Part III: Physical Data

| | |
|---|---|
| Type of Development: | ***Commercial*** |
| Smallest Crossing Angle: | ***0 to 29 Degrees*** |
| Number of Traffic Lanes Crossing Railroad | ***7*** |
| Are Truck Pullout Lanes Present? | ***No*** |
| Is Highway Paved? | ***Yes*** |
| Pavement Markings | ***Stop Lines and RR Xing Symbols*** |
| Are RR Advance Warning Signs Present? | ***Yes*** |
| Crossing Surface: | ***Sectional Treated Timber*** |
| Does Track Run Down a Street? | ***No*** |
| Nearby Intersecting Highway? | ***Less than 75 feet*** |

## Part IV: Highway Department

| | |
|---|---|
| Highway System: | ***Other FA Highway - Not NHS*** |
| Is Crossing on State Highway System? | ***No*** |
| Functional Classification of Road Over Crossing: | ***Urban Other Principal Arterial*** |
| Estimated AADT: | ***053700*** |
| Estimated Percent Trucks: | ***21*** |

# U.S. DOT - AAR CROSSING INVENTORY INFORMATION
# AS OF 12/11/01

Crossing #: ***028107J*** Status: ***Changed Crossing*** Effective Begin-Date of Record: ***11/07/00***

Railroad: ***Burlington Northern Santa Fe Corporation*** ***Current Record***

Initiating Agency ***Railroad***

## Part I Location and Classification of Crossing

| | | | |
|---|---|---|---|
| Division: | ***LOS ANGELES TE*** | Subdivision: | ***HARBOR*** |
| State: | ***CA*** | Nearest City: | ***TORRANCE*** |
| County: | ***LOS ANGELES*** | County Map Ref. No.: | ***13-V-52*** |
| Highway Type & No.: | | FRA RR Network Lic: | ***NINWX*** |
| Street or Road Name: | ***WESTERN AVENUE*** | RailRoad I.D. No.: | ***7604*** |
| Branch or Line Name: | ***REDO J-L BEACH*** | Railroad Milepost: | ***0023.03*** |
| Nearest RR Timetable Stn: | ***IRONSIDES*** | | |
| Crossing Type and Protection: | ***Public At Grade*** | | |

## Part II Detailed Information

Typical Number of Daily Train Movements: ***5*** Day Thru ***0*** Day Switching ***0*** Night Switching ***5*** Night Thru

Speed of Train at Crossing: Maximum Time Table Speed ***20*** Typical Speed Range Over Crossing From ***1*** to ***20*** mph

Type and Number of Tracks ***1*** Main ***1*** Other

Does Another RR Operate a Separate Track at Crossing? ***No***

Does Another RR Operate Over Your Track at Crossing? ***No***

### Type of Warning Device(s) at Crossing

Signs:

| | | |
|---|---|---|
| ***0*** Reflectorized Crossbucks | ***0*** Non-Reflectorized Crossbucks | ***0*** Standard Highway Stop Sign(s) |
| ***0*** Other Stop Sign(s) | ***0*** Other Signs: | ***0*** Other Signs: |

Train Activated Devices:

| | | |
|---|---|---|
| ***4*** R/W Reflectorized Gates | ***0*** Other Colored Gates | ***4*** Mast Mounted FL |
| ***0*** Cantilevered FL (Over) | ***0*** Cantilevered FL (Not over) | ***0*** Other Flashing Lights |
| ***0*** Highway Traffic Signals | ***0*** Wigwags | ***4*** Bells |

Special Warning Device Not Train Activated: ***- None -***

Is Commercial Power Available? ***Yes***

Does Crossing Signal Provide Speed Selection for Trains? ***No***

Method of Signalling for Train Operation: Is Track Equipped With Signals? ***No***

## Part III: Physical Data

| | |
|---|---|
| Type of Development: | ***Residential*** |
| Smallest Crossing Angle: | ***30 to 59 Degrees*** |
| Number of Traffic Lanes Crossing Railroad | ***4*** |
| Are Truck Pullout Lanes Present? | ***No*** |
| Is Highway Paved? | ***Yes*** |
| Pavement Markings | ***Stop Lines and RR Xing Symbols*** |
| Are RR Advance Warning Signs Present? | ***Yes*** |
| Crossing Surface: | ***Sectional Treated Timber*** |
| Does Track Run Down a Street? | ***No*** |
| Nearby Intersecting Highway? | ***75 to 150 feet*** |

## Part IV: Highway Department

| | |
|---|---|
| Highway System: | ***Other FA Highway - Not NHS*** |
| Is Crossing on State Highway System? | ***No*** |
| Functional Classification of Road Over Crossing: | ***Urban Other Principal Arterial*** |
| Estimated AADT: | ***023600*** |
| Estimated Percent Trucks: | ***21*** |

# U.S. DOT - AAR CROSSING INVENTORY INFORMATION
# AS OF 12/11/01

Crossing #: ***028113M*** Status: ***Changed Crossing*** Effective Begin-Date of Record: ***11/07/00***

Railroad: ***Burlington Northern Santa Fe Corporation*** ***Current Record***

Initiating Agency ***Railroad***

## Part I Location and Classification of Crossing

| | | | |
|---|---|---|---|
| Division: | ***LOS ANGELES TE*** | Subdivision: | ***HARBOR*** |
| State: | ***CA*** | Nearest City: | ***CARSON*** |
| County: | ***LOS ANGELES*** | County Map Ref. No.: | ***13-V-53*** |
| Highway Type & No.: | | FRA RR Network Lic: | ***NINWX*** |
| Street or Road Name: | ***FIGUEROA STREET*** | RailRoad I.D. No.: | ***7604*** |
| Branch or Line Name: | ***REDO J-L BEACH*** | Railroad Milepost: | ***0024.79*** |
| Nearest RR Timetable Stn: | ***IRONSIDES*** | | |
| Crossing Type and Protection: | ***Public At Grade*** | | |

## Part II Detailed Information

Typical Number of Daily Train Movements: ***5*** Day Thru ***0*** Day Switching ***0*** Night Switching ***5*** Night Thru

Speed of Train at Crossing: Maximum Time Table Speed ***20*** Typical Speed Range Over Crossing From ***1*** to ***20*** mph

Type and Number of Tracks ***1*** Main ***0*** Other

Does Another RR Operate a Separate Track at Crossing? ***No***

Does Another RR Operate Over Your Track at Crossing? ***No***

### Type of Warning Device(s) at Crossing

Signs:

| | | |
|---|---|---|
| ***0*** Reflectorized Crossbucks | ***0*** Non-Reflectorized Crossbucks | ***0*** Standard Highway Stop Sign(s) |
| ***0*** Other Stop Sign(s) | ***0*** Other Signs: | ***0*** Other Signs: |

Train Activated Devices:

| | | |
|---|---|---|
| ***4*** R/W Reflectorized Gates | ***0*** Other Colored Gates | ***4*** Mast Mounted FL |
| ***0*** Cantilevered FL (Over) | ***0*** Cantilevered FL (Not over) | ***0*** Other Flashing Lights |
| ***0*** Highway Traffic Signals | ***0*** Wigwags | ***2*** Bells |

Special Warning Device Not Train Activated: ***- None -***

Is Commercial Power Available? ***Yes***

Does Crossing Signal Provide Speed Selection for Trains? ***No***

Method of Signalling for Train Operation: Is Track Equipped With Signals? ***No***

## Part III: Physical Data

| | |
|---|---|
| Type of Development: | ***Industrial*** |
| Smallest Crossing Angle: | ***60 to 90 Degrees*** |
| Number of Traffic Lanes Crossing Railroad | ***4*** |
| Are Truck Pullout Lanes Present? | ***Yes*** |
| Is Highway Paved? | ***Yes*** |
| Pavement Markings | ***Stop Lines and RR Xing Symbols*** |
| Are RR Advance Warning Signs Present? | ***Yes*** |
| Crossing Surface: | ***Sectional Treated Timber*** |
| Does Track Run Down a Street? | ***No*** |
| Nearby Intersecting Highway? | ***75 to 150 feet*** |

## Part IV: Highway Department

| | |
|---|---|
| Highway System: | ***Other FA Highway - Not NHS*** |
| Is Crossing on State Highway System? | ***No*** |
| Functional Classification of Road Over Crossing: | ***Urban Other Principal Arterial*** |
| Estimated AADT: | ***011000*** |
| Estimated Percent Trucks: | ***10*** |

# U.S. DOT - AAR CROSSING INVENTORY INFORMATION
# AS OF 12/11/01

Crossing #: ***028118W*** Status: ***Changed Crossing*** Effective Begin-Date of Record: ***11/07/00***

Railroad: ***Burlington Northern Santa Fe Corporation*** ***Current Record***

Initiating Agency ***Railroad***

## Part I Location and Classification of Crossing

| | | | |
|---|---|---|---|
| Division: | ***LOS ANGELES TE*** | Subdivision: | ***HARBOR*** |
| State: | ***CA*** | Nearest City: | ***CARSON*** |
| County: | ***LOS ANGELES*** | County Map Ref. No.: | ***13-V-53*** |
| Highway Type & No.: | | FRA RR Network Lic: | ***SP157*** |
| Street or Road Name: | ***AVALON BLVD*** | RailRoad I.D. No.: | ***7604*** |
| Branch or Line Name: | ***REDO J-L BEACH*** | Railroad Milepost: | ***0025.94*** |
| Nearest RR Timetable Stn: | ***WATSON*** | | |
| Crossing Type and Protection: | ***Public At Grade*** | | |

## Part II Detailed Information

Typical Number of Daily Train Movements: ***5*** Day Thru ***0*** Day Switching ***0*** Night Switching ***5*** Night Thru

Speed of Train at Crossing: Maximum Time Table Speed ***20*** Typical Speed Range Over Crossing From ***1*** to ***20*** mph

Type and Number of Tracks ***1*** Main ***0*** Other

Does Another RR Operate a Separate Track at Crossing? ***No***

Does Another RR Operate Over Your Track at Crossing? ***No***

### Type of Warning Device(s) at Crossing

Signs:

| | | |
|---|---|---|
| ***0*** Reflectorized Crossbucks | ***0*** Non-Reflectorized Crossbucks | ***0*** Standard Highway Stop Sign(s) |
| ***0*** Other Stop Sign(s) | ***1*** Other Signs: ***YELLOW X*** | ***0*** Other Signs: |

Train Activated Devices:

| | | |
|---|---|---|
| ***4*** R/W Reflectorized Gates | ***0*** Other Colored Gates | ***4*** Mast Mounted FL |
| ***0*** Cantilevered FL (Over) | ***0*** Cantilevered FL (Not over) | ***0*** Other Flashing Lights |
| ***0*** Highway Traffic Signals | ***0*** Wigwags | ***2*** Bells |

Special Warning Device Not Train Activated: ***- None -***

Is Commercial Power Available? ***Yes***

Does Crossing Signal Provide Speed Selection for Trains? ***No***

Method of Signalling for Train Operation: Is Track Equipped With Signals? ***No***

## Part III: Physical Data

| | |
|---|---|
| Type of Development: | ***Commercial*** |
| Smallest Crossing Angle: | ***60 to 90 Degrees*** |
| Number of Traffic Lanes Crossing Railroad | ***5*** |
| Are Truck Pullout Lanes Present? | ***No*** |
| Is Highway Paved? | ***Yes*** |
| Pavement Markings | ***Stop Lines and RR Xing Symbols*** |
| Are RR Advance Warning Signs Present? | ***Yes*** |
| Crossing Surface: | ***Sectional Treated Timber*** |
| Does Track Run Down a Street? | ***No*** |
| Nearby Intersecting Highway? | ***Less than 75 feet*** |

## Part IV: Highway Department

| | |
|---|---|
| Highway System: | ***Other FA Highway - Not NHS*** |
| Is Crossing on State Highway System? | ***No*** |
| Functional Classification of Road Over Crossing: | ***Urban Other Principal Arterial*** |
| Estimated AADT: | ***018000*** |
| Estimated Percent Trucks: | ***07*** |

# U.S. DOT - AAR CROSSING INVENTORY INFORMATION
# AS OF 12/11/01

Crossing #: ***028119D*** Status: ***Changed Crossing*** Effective Begin-Date of Record: ***11/07/00***

Railroad: ***Burlington Northern Santa Fe Corporation*** ***Current Record***

Initiating Agency ***Railroad***

## Part I Location and Classification of Crossing

| | | | |
|---|---|---|---|
| Division: | ***LOS ANGELES TE*** | Subdivision: | ***HARBOR*** |
| State: | ***CA*** | Nearest City: | ***LOS ANGELES*** |
| County: | ***LOS ANGELES*** | County Map Ref. No.: | ***13-V-53*** |
| Highway Type & No.: | | FRA RR Network Lic: | ***SP157*** |
| Street or Road Name: | ***BROAD STREET*** | RailRoad I.D. No.: | ***7604*** |
| Branch or Line Name: | ***REDO J-L BEACH*** | Railroad Milepost: | ***0026.04*** |
| Nearest RR Timetable Stn: | ***WATSON*** | | |
| Crossing Type and Protection: | ***Public At Grade*** | | |

## Part II Detailed Information

Typical Number of Daily Train Movements: ***5*** Day Thru ***0*** Day Switching ***0*** Night Switching ***5*** Night Thru

Speed of Train at Crossing: Maximum Time Table Speed ***20*** Typical Speed Range Over Crossing From ***1*** to ***20*** mph

Type and Number of Tracks ***1*** Main ***0*** Other

Does Another RR Operate a Separate Track at Crossing? ***No***

Does Another RR Operate Over Your Track at Crossing? ***No***

### Type of Warning Device(s) at Crossing

Signs:

| | | |
|---|---|---|
| ***0*** Reflectorized Crossbucks | ***0*** Non-Reflectorized Crossbucks | ***0*** Standard Highway Stop Sign(s) |
| ***0*** Other Stop Sign(s) | ***0*** Other Signs: | ***0*** Other Signs: |

Train Activated Devices:

| | | |
|---|---|---|
| ***0*** R/W Reflectorized Gates | ***0*** Other Colored Gates | ***2*** Mast Mounted FL |
| ***0*** Cantilevered FL (Over) | ***0*** Cantilevered FL (Not over) | ***0*** Other Flashing Lights |
| ***0*** Highway Traffic Signals | ***0*** Wigwags | ***2*** Bells |

Special Warning Device Not Train Activated: ***- None -***

Is Commercial Power Available? ***Yes***

Does Crossing Signal Provide Speed Selection for Trains? ***No***

Method of Signalling for Train Operation: Is Track Equipped With Signals? ***No***

## Part III: Physical Data

| | |
|---|---|
| Type of Development: | ***Residential*** |
| Smallest Crossing Angle: | ***60 to 90 Degrees*** |
| Number of Traffic Lanes Crossing Railroad | ***2*** |
| Are Truck Pullout Lanes Present? | ***No*** |
| Is Highway Paved? | ***Yes*** |
| Pavement Markings | ***Stop Lines and RR Xing Symbols*** |
| Are RR Advance Warning Signs Present? | ***Yes*** |
| Crossing Surface: | ***Sectional Treated Timber*** |
| Does Track Run Down a Street? | ***No*** |
| Nearby Intersecting Highway? | ***75 to 150 feet*** |

## Part IV: Highway Department

| | |
|---|---|
| Highway System: | ***Non-Federal-aid*** |
| Is Crossing on State Highway System? | ***No*** |
| Functional Classification of Road Over Crossing: | ***Urban Local*** |
| Estimated AADT: | ***001100*** |
| Estimated Percent Trucks: | ***30*** |

# U.S. DOT - AAR CROSSING INVENTORY INFORMATION
# AS OF 12/11/01

Crossing #: ***028124A*** Status: ***Changed Crossing*** Effective Begin-Date of Record: ***11/07/00***

Railroad: ***Burlington Northern Santa Fe Corporation*** ***Current Record***

Initiating Agency ***Railroad***

## Part I Location and Classification of Crossing

| | | | |
|---|---|---|---|
| Division: | ***LOS ANGELES TE*** | Subdivision: | ***HARBOR*** |
| State: | ***CA*** | Nearest City: | ***LOS ANGELES*** |
| County: | ***LOS ANGELES*** | County Map Ref. No.: | ***13-V-53*** |
| Highway Type & No.: | | FRA RR Network Lic: | ***SP157*** |
| Street or Road Name: | ***LAKME STREET*** | RailRoad I.D. No.: | ***7604*** |
| Branch or Line Name: | ***REDO J-L BEACH*** | Railroad Milepost: | ***0026.11*** |
| Nearest RR Timetable Stn: | ***WATSON*** | | |
| Crossing Type and Protection: | ***Public At Grade*** | | |

## Part II Detailed Information

Typical Number of Daily Train Movements: ***5*** Day Thru ***0*** Day Switching ***0*** Night Switching ***5*** Night Thru

Speed of Train at Crossing: Maximum Time Table Speed ***20*** Typical Speed Range Over Crossing From ***1*** to ***20*** mph

Type and Number of Tracks ***1*** Main ***1*** Other

Does Another RR Operate a Separate Track at Crossing? ***No***

Does Another RR Operate Over Your Track at Crossing? ***No***

### Type of Warning Device(s) at Crossing

Signs:

| | | |
|---|---|---|
| ***0*** Reflectorized Crossbucks | ***0*** Non-Reflectorized Crossbucks | ***0*** Standard Highway Stop Sign(s) |
| ***0*** Other Stop Sign(s) | ***0*** Other Signs: | ***0*** Other Signs: |

Train Activated Devices:

| | | |
|---|---|---|
| ***0*** R/W Reflectorized Gates | ***0*** Other Colored Gates | ***2*** Mast Mounted FL |
| ***0*** Cantilevered FL (Over) | ***0*** Cantilevered FL (Not over) | ***0*** Other Flashing Lights |
| ***0*** Highway Traffic Signals | ***0*** Wigwags | ***2*** Bells |

Special Warning Device Not Train Activated: ***- None -***

Is Commercial Power Available? ***Yes***

Does Crossing Signal Provide Speed Selection for Trains? ***No***

Method of Signalling for Train Operation: Is Track Equipped With Signals? ***No***

## Part III: Physical Data

| | |
|---|---|
| Type of Development: | ***Residential*** |
| Smallest Crossing Angle: | ***60 to 90 Degrees*** |
| Number of Traffic Lanes Crossing Railroad | ***2*** |
| Are Truck Pullout Lanes Present? | ***No*** |
| Is Highway Paved? | ***Yes*** |
| Pavement Markings | ***Stop Lines and RR Xing Symbols*** |
| Are RR Advance Warning Signs Present? | ***Yes*** |
| Crossing Surface: | ***Sectional Treated Timber*** |
| Does Track Run Down a Street? | ***No*** |
| Nearby Intersecting Highway? | ***75 to 150 feet*** |

## Part IV: Highway Department

| | |
|---|---|
| Highway System: | ***Non-Federal-aid*** |
| Is Crossing on State Highway System? | ***No*** |
| Functional Classification of Road Over Crossing: | ***Urban Local*** |
| Estimated AADT: | ***001500*** |
| Estimated Percent Trucks: | ***30*** |

# U.S. DOT - AAR CROSSING INVENTORY INFORMATION
# AS OF 12/11/01

Crossing #: ***028125G*** Status: ***Changed Crossing*** Effective Begin-Date of Record: ***11/07/00***

Railroad: ***Burlington Northern Santa Fe Corporation*** ***Current Record***

Initiating Agency ***Railroad***

## Part I Location and Classification of Crossing

| | | | |
|---|---|---|---|
| Division: | ***LOS ANGELES TE*** | Subdivision: | ***HARBOR*** |
| State: | ***CA*** | Nearest City: | ***CARSON*** |
| County: | ***LOS ANGELES*** | County Map Ref. No.: | ***13-V-53*** |
| Highway Type & No.: | | FRA RR Network Lic: | ***SP157*** |
| Street or Road Name: | ***WILMINGTON AVE*** | RailRoad I.D. No.: | ***7604*** |
| Branch or Line Name: | ***REDO J-L BEACH*** | Railroad Milepost: | ***0026.36*** |
| Nearest RR Timetable Stn: | ***WATSON*** | | |
| Crossing Type and Protection: | ***Public At Grade*** | | |

## Part II Detailed Information

Typical Number of Daily Train Movements: ***5*** Day Thru ***0*** Day Switching ***0*** Night Switching ***5*** Night Thru

Speed of Train at Crossing: Maximum Time Table Speed ***20*** Typical Speed Range Over Crossing From ***1*** to ***20*** mph

Type and Number of Tracks ***1*** Main ***1*** Other

Does Another RR Operate a Separate Track at Crossing? ***No***

Does Another RR Operate Over Your Track at Crossing? ***No***

### Type of Warning Device(s) at Crossing

Signs:

| | | |
|---|---|---|
| ***0*** Reflectorized Crossbucks | ***0*** Non-Reflectorized Crossbucks | ***0*** Standard Highway Stop Sign(s) |
| ***0*** Other Stop Sign(s) | ***0*** Other Signs: | ***0*** Other Signs: |

Train Activated Devices:

| | | |
|---|---|---|
| ***1*** R/W Reflectorized Gates | ***0*** Other Colored Gates | ***2*** Mast Mounted FL |
| ***0*** Cantilevered FL (Over) | ***0*** Cantilevered FL (Not over) | ***0*** Other Flashing Lights |
| ***0*** Highway Traffic Signals | ***0*** Wigwags | ***2*** Bells |

Special Warning Device Not Train Activated: ***- None -***

Is Commercial Power Available? ***Yes***

Does Crossing Signal Provide Speed Selection for Trains? ***No***

Method of Signalling for Train Operation: Is Track Equipped With Signals? ***No***

## Part III: Physical Data

| | |
|---|---|
| Type of Development: | ***Industrial*** |
| Smallest Crossing Angle: | ***60 to 90 Degrees*** |
| Number of Traffic Lanes Crossing Railroad | ***2*** |
| Are Truck Pullout Lanes Present? | ***No*** |
| Is Highway Paved? | ***Yes*** |
| Pavement Markings | ***No Markings*** |
| Are RR Advance Warning Signs Present? | ***Yes*** |
| Crossing Surface: | ***Sectional Treated Timber*** |
| Does Track Run Down a Street? | ***No*** |
| Nearby Intersecting Highway? | ***75 to 150 feet*** |

## Part IV: Highway Department

| | |
|---|---|
| Highway System: | ***Non-Federal-aid*** |
| Is Crossing on State Highway System? | ***No*** |
| Functional Classification of Road Over Crossing: | ***Urban Other Principal Arterial*** |
| Estimated AADT: | ***018000*** |
| Estimated Percent Trucks: | ***10*** |

# Appendix E
# CALIFORNIA P.U.C. GENERAL ORDER NO. 135

The following is a General Order from the California Public Utilities Commission (CPUC) specifying that a train cannot block a public grade crossing for more than 10 minutes. This is commonly referred to as the "ten-minute rule."

**GENERAL ORDER NO. 135**

# Public Utilities Commission of the State of California

## REGULATIONS GOVERNING THE OCCUPANCY OF PUBLIC GRADE CROSSINGS BY RAILROADS

**Adopted September 11, 1974. Effective November 1, 1974.**
**Decision No. 83446 in Case No. 8949.**

IT IS ORDERED by the Public Utilities Commission of the State of California that each railroad corporation operating in the state of California shall observe the following regulations in conducting operations on and across public grade crossings:

1. TRAIN MOVEMENTS—Except as provided in Paragraph 5, a public grade crossing which is blocked by a stopped train, other than a passenger train, must be opened within 10 minutes, unless no vehicle or pedestrian is waiting at the crossing. Such a cleared crossing must be left open until it is known that the train is ready to depart. When recoupling such a train at the crossing, movement must be made promptly, consistent with safety.
2. SWITCHING MOVEMENTS—Switching over public grade crossings should be avoided whenever reasonably possible. If not reasonably possible, such crossings must be cleared frequently to allow a vehicle or pedestrian to pass and must not be occupied continuously for longer than 10 minutes unless no vehicle or pedestrian is waiting at the crossing.
3. GRADE CROSSING PROTECTION CIRCUITS—Cars or locomotives must not be left standing nor switches left open within the controlling circuits of automatic gate protection devices unless time-out features are provided to allow the gate arms to rise.
4. There are no time restrictions for crossing occupancy for a moving train continuing in the same direction.
5. These time limit provisions shall not apply to any blocking resulting from compliance with State and Federal laws and regulations, terrain and physical conditions, adverse weather conditions, conditions rendering the roadbed or track structure unsafe, mechanical failures, train accidents, or other occurrences over which the railroad has no control, except that such crossing shall be cleared with reasonable dispatch.
6. In the event of any uncontrolled blockage involving more than one grade crossing and a peace officer is on the scene, primary consideration shall be given to the clearing of that crossing which, in the peace officer's judgment, will result in the minimum delay to vehicular traffic.
7. A crew member of a train blocking a public crossing shall immediately take all reasonable steps, consistent with the safe

operation of such train, to clear the crossing upon receiving information from a peace officer, member of any fire department, as defined in Section 2801 of the Vehicle Code, or operator of an emergency vehicle, as defined in Section 165 of the Vehicle Code, that emergency circumstances require the clearing of the crossing.

8. Any agreement between a railroad and a public agency in effect on the effective date hereof or, in accordance with Attachment A, subsequently approved by this Commission permitting certain crossings to be blocked for a time period other than specified herein shall prevail.
9. Any railroad or public agency [1] may, by formal application to this Commission, request a variance from the regulations prescribed herein or have different regulations provided in connection with operations over a specific crossing where local conditions so require. The contents of the application shall be in accord with Rule 15 of the Commission's Rules of Practice and Procedure. The application shall detail any previous steps that may have been taken in an attempt to reach an agreement on the proposed variance and shall list any public agencies within the geographic area or any railroads that might be affected by the variance. A copy of the application shall be mailed to all such public agencies and railroads and a certificate of service regarding such mailings shall accompany the application filed with the Commission.
10. The district attorney of the proper county or the city attorney designated to prosecute misdemeanors in his stead shall prosecute noncompliance with this General Order by means of a misdemeanor complaint issued against the railroad corporation in accordance with Chapter 11, Part 1, Division 1 of the Public Utilities Code.

This order shall become effective November 1, 1974.

Approved and dated at San Francisco, California, this 11th day of September, 1974.

PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

By WILLIAM R. JOHNSON
*Secretary*

[1] Public Agency—The term "public agency" as used herein shall include the State, a county, an incorporated city or town, or any authorized agencies thereof.

## Attachment A

**(Agreement re Variance)**

The following procedures shall be followed when Commission approval is sought for an agreement between a railroad and a public agency regarding any proposed variance from this General Order that is reached subsequent to the effective date of the general order.

A letter jointly signed by the parties to the agreement shall be filed with the Commission. Said letter shall state all information pertinent to the proposed variance agreed upon by the parties, including a traffic count for the crossing for which the variance is sought. In addition to the signing parties, the letter shall specify any other railroads or any other public agencies within the geographic area that might be affected by the variance, including the California Highway Patrol, the sheriff, and police and fire departments. A copy of the letter shall be mailed to all such public agencies and railroads and a certificate of service regarding such mailings shall accompany the letter filed with the Commission. Any affected public agency or railroad may file with the Commission an objection to the proposed variance no later than 20 days after the date on which the variance-request letter was mailed to the Commission.

Any variance granted shall be by a resolution adopted by the Commission after the Commission has determined that such variance would be in the public interest. The Commission will notify all parties and specified public agencies and railroads of whatever action it may take regarding the proposed variance, and will forward a copy of the resolution, if granted, to the parties. If not granted the parties may file a formal application seeking to obtain such variance.

# Appendix F
# VEHICULAR DELAY AND L.O.S. ANALYSIS

Appearing in this appendix is a table in two parts displaying vehicular delays and a Level of Service (LOS) analysis for the years 2000, 2005, and 2015. The table lists all the crossings in the study area with vehicular information such as number of lanes, average daily traffic volumes, the number of trains that go through the crossing, the length of time of crossing closures and the resulting vehicle delays and LOS at each crossing.

Also appearing is summary of the assumptions and methodologies employed in the analysis of vehicular delays and the LOS analysis.

**HARBOR SUBDIVISION LINE**
**At-grade railroad crossings in the study area**
**Vehicular traffic, Delays, Queuing and LOS**

| Xing No. | | Mile Post Number | Cross Street Name | No. of Traffic Lanes | Average daily traffic | | | Max. Train Speed (mph) | Estimated average number of trains per day | | | | | | Average gate down time per train (min.) | | Probability of delays per day | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 2000 | 2005 | 2015 | | 2000 | | 2005 | | 2015 | | | | 2000 | 2005 | 2015 |
| | | | | | | | | | Local | Through | Local | Through | Local | Through | Local | Through | | | |
| 1 | 027992J | 8.03 | CRENSHAW BLVD | 4 | 23,500 | 24,700 | 27,300 | 20 | 2 | 14 | 2 | 0 | 2 | 0 | 2.1 | 13.7 | 13.6% | 0.3% | 0.3% |
| 2 | 027993R | 8.14 | VICTORIA AVE | 2 | 750 | 800 | 900 | 20 | 2 | 14 | 2 | 0 | 2 | 0 | 2.1 | 13.7 | 13.6% | 0.3% | 0.3% |
| 3 | 027994X | 8.23 | BRYNHURST AVE | 2 | 700 | 700 | 800 | 20 | 2 | 14 | 2 | 0 | 2 | 0 | 2.1 | 13.7 | 13.6% | 0.3% | 0.3% |
| 4 | 027995E | 8.32 | WEST BLVD | 2 | 5,300 | 5,600 | 6,200 | 20 | 2 | 14 | 2 | 0 | 2 | 0 | 2.1 | 13.7 | 13.6% | 0.3% | 0.3% |
| 5 | 027996L | 8.60 | REDONDO BLVD | 4 | 7,500 | 7,900 | 8,700 | 20 | 2 | 14 | 2 | 0 | 2 | 0 | 2.1 | 13.7 | 13.6% | 0.3% | 0.3% |
| 6 | 028001N | 9.13 | CENTINELIA AVE | 6 | 31,000 | 32,600 | 36,000 | 20 | 0 | 14 | 0 | 0 | 0 | 0 | 2.1 | 13.7 | 13.4% | 0.0% | 0.0% |
| 7 | 028002V | 9.59 | LA BREA AVE | 6 | 32,000 | 33,600 | 37,100 | 20 | 0 | 14 | 0 | 0 | 0 | 0 | 2.1 | 13.7 | 13.4% | 0.0% | 0.0% |
| 8 | 028003C | 9.82 | IVY AVE | 2 | 2,500 | 2,600 | 2,900 | 20 | 0 | 14 | 0 | 0 | 0 | 0 | 2.1 | 13.7 | 13.3% | 0.0% | 0.0% |
| 9 | 028004J | 9.94 | EUCALYPTUS AVE | 3 | 12,500 | 13,100 | 14,500 | 20 | 0 | 14 | 0 | 0 | 0 | 0 | 2.1 | 13.7 | 13.3% | 0.0% | 0.0% |
| 10 | 028007E | 10.21 | CEDAR AVE | 2 | 800 | 800 | 900 | 20 | 0 | 14 | 0 | 0 | 0 | 0 | 2.1 | 13.7 | 13.3% | 0.0% | 0.0% |
| 11 | 028142X | 10.36 | OAK ST | 2 | 3,200 | 3,400 | 3,800 | 20 | 0 | 14 | 0 | 0 | 0 | 0 | 2.1 | 13.7 | 13.3% | 0.0% | 0.0% |
| 12 | 028008L | 10.52 | HYDE PARK BLVD | 2 | 4,000 | 4,200 | 4,600 | 20 | 0 | 14 | 0 | 0 | 0 | 0 | 2.1 | 13.7 | 13.3% | 0.0% | 0.0% |
| 13 | 028010M | 10.63 | LA CIENEGA BLVD | 6 | 32,000 | 33,600 | 37,100 | 20 | 0 | 14 | 0 | 0 | 0 | 0 | 2.1 | 13.7 | 13.4% | 0.0% | 0.0% |
| 14 | 028011U | 10.82 | HINDRY AVE | 2 | 4,500 | 4,700 | 5,200 | 20 | 0 | 14 | 0 | 0 | 0 | 0 | 2.1 | 13.7 | 13.3% | 0.0% | 0.0% |
| 15 | 028012B | 11.11 | MANCHESTER AVE | 7 | 32,000 | 33,600 | 37,100 | 20 | 0 | 14 | 0 | 0 | 0 | 0 | 2.2 | 13.8 | 13.4% | 0.0% | 0.0% |
| 16 | 028018S | 11.63 | ARBOR VITAE ST | 4 | 18,000 | 18,900 | 20,900 | 20 | 0 | 14 | 0 | 0 | 0 | 0 | 2.1 | 13.7 | 13.3% | 0.0% | 0.0% |
| 17 | 028020T | 12.36 | 104TH ST | 2 | 5,500 | 5,800 | 6,400 | 20 | 6 | 14 | 6 | 0 | 6 | 0 | 2.1 | 13.7 | 14.1% | 0.9% | 0.9% |
| 18 | 028025C | 12.92 | 111TH ST | 2 | 6,300 | 6,600 | 7,300 | 20 | 6 | 14 | 6 | 0 | 6 | 0 | 2.1 | 13.7 | 14.1% | 0.9% | 0.9% |
| 19 | 028027R | 13.13 | IMPERIAL HWY | 7 | 37,000 | 38,900 | 43,000 | 20 | 6 | 14 | 6 | 0 | 6 | 0 | 2.2 | 13.8 | 14.3% | 0.9% | 0.9% |
| 20 | 028047C | 13.37 | 118 TH ST | 4 | 800 | 800 | 900 | 20 | 6 | 14 | 6 | 0 | 6 | 0 | 2.1 | 13.7 | 14.2% | 0.9% | 0.9% |
| 21 | 028048J | 13.62 | 120TH ST | 4 | 1,800 | 1,900 | 2,100 | 20 | 6 | 14 | 6 | 0 | 6 | 0 | 2.1 | 13.7 | 14.2% | 0.9% | 0.9% |
| 22 | 028049R | 13.89 | Private crossing (124th St) | 4 | NA | NA | NA | 20 | 6 | 14 | 6 | 0 | 6 | 0 | 2.1 | 13.7 | NA | NA | NA |
| 23 | 028030Y | 14.69 | DOUGLAS ST | 4 | 9,200 | 9,700 | 10,700 | 10 | 6 | 14 | 6 | 0 | 6 | 0 | 3.4 | 26.6 | 27.2% | 1.4% | 1.4% |
| 24 | NA | 14.79 | Private Crossing (Chapman Wy) | NA | NA | NA | NA | 20 | 6 | 14 | 6 | 0 | 6 | 0 | NA | NA | NA | NA | NA |
| 25 | NA | 15.08 | Private crossing (Green line sta.) | NA | NA | NA | NA | 20 | 6 | 14 | 6 | 0 | 6 | 0 | NA | NA | NA | NA | NA |
| 26 | 028060R | 16.14 | COMPTON/MARINE | 4 | 24,800 | 26,100 | 28,800 | 20 | 6 | 14 | 6 | 0 | 6 | 0 | 2.1 | 13.7 | 14.2% | 0.9% | 0.9% |
| 27 | 028062E | 16.74 | INGLEWOOD AVE | 5 | 47,800 | 50,200 | 55,500 | 20 | 6 | 14 | 6 | 0 | 6 | 0 | 2.1 | 13.7 | 14.2% | 0.9% | 0.9% |
| 28 | 028064T | 16.87 | MANHATTAN BEACH BLVD | 5 | 25,300 | 26,600 | 29,400 | 20 | 6 | 14 | 6 | 0 | 6 | 0 | 2.1 | 13.7 | 14.2% | 0.9% | 0.9% |
| 29 | 028065A | 16.94 | 159TH ST | 2 | 600 | 600 | 700 | 20 | 6 | 14 | 6 | 0 | 6 | 0 | 2.1 | 13.7 | 14.1% | 0.9% | 0.9% |
| 30 | 028066G | 17.01 | 160TH ST | 2 | 600 | 600 | 700 | 20 | 6 | 14 | 6 | 0 | 6 | 0 | 2.1 | 13.7 | 14.1% | 0.9% | 0.9% |
| 31 | 028067N | 17.08 | 161ST ST | 2 | 700 | 700 | 800 | 20 | 6 | 14 | 6 | 0 | 6 | 0 | 2.1 | 13.7 | 14.1% | 0.9% | 0.9% |
| 32 | 028068V | 17.14 | 162ND ST | 2 | 2,100 | 2,200 | 2,400 | 20 | 6 | 14 | 6 | 0 | 6 | 0 | 2.1 | 13.7 | 14.1% | 0.9% | 0.9% |
| 33 | 028069C | 17.62 | 170TH ST | 2 | 2,500 | 2,600 | 2,900 | 20 | 6 | 14 | 6 | 0 | 6 | 0 | 2.1 | 13.7 | 14.1% | 0.9% | 0.9% |
| 34 | 028072K | 18.38 | 182ND ST | 2 | 10,700 | 11,200 | 12,400 | 20 | 6 | 14 | 6 | 0 | 6 | 0 | 2.1 | 13.7 | 14.1% | 0.9% | 0.9% |
| 35 | 028096Y | 21.24 | TORRANCE BLVD | 4 | 27,800 | 29,200 | 32,300 | 20 | 6 | 14 | 6 | 0 | 6 | 0 | 2.1 | 13.7 | 14.2% | 0.9% | 0.9% |
| 36 | 028097F | 21.36 | Pedestrian Crossing (El Dorado) | NA | NA | NA | NA | 20 | 6 | 14 | 6 | 0 | 6 | 0 | NA | NA | NA | NA | NA |
| 37 | 028098M | 21.48 | SONOMA ST | 2 | 1,200 | 1,300 | 1,400 | 20 | 6 | 14 | 6 | 0 | 6 | 0 | 2.1 | 13.7 | 14.1% | 0.9% | 0.9% |
| 38 | 028099U | 21.60 | CARSON ST | 5 | 35,000 | 36,800 | 40,700 | 20 | 6 | 14 | 6 | 0 | 6 | 0 | 2.1 | 13.7 | 14.2% | 0.9% | 0.9% |
| 39 | 028101T | 22.10 | WASHINGTON BLVD | 2 | 3,800 | 4,000 | 4,400 | 20 | 6 | 14 | 6 | 0 | 6 | 0 | 2.1 | 13.7 | 14.1% | 0.9% | 0.9% |
| 40 | 028103G | 22.24 | ARLINGTON AVE | 2 | 8,100 | 8,500 | 9,400 | 20 | 6 | 14 | 6 | 0 | 6 | 0 | 2.1 | 13.7 | 14.1% | 0.9% | 0.9% |
| 41 | 028104N | 22.49 | CABRILLO AVE | 2 | 10,700 | 11,200 | 12,400 | 20 | 6 | 14 | 6 | 0 | 6 | 0 | 2.1 | 13.7 | 14.1% | 0.9% | 0.9% |
| 42 | 028105V | 22.57 | BORDER AVE | 2 | 900 | 900 | 1,000 | 20 | 6 | 14 | 6 | 0 | 6 | 0 | 2.1 | 13.7 | 14.1% | 0.9% | 0.9% |
| 43 | 028106C | 22.78 | SEPULVEDA BLVD | 7 | 52,800 | 55,500 | 61,300 | 20 | 6 | 14 | 6 | 0 | 6 | 0 | 2.2 | 13.8 | 14.3% | 0.9% | 0.9% |
| 44 | 028107J | 23.03 | WESTERN AVE | 4 | 30,400 | 32,000 | 35,300 | 20 | 6 | 14 | 6 | 0 | 6 | 0 | 2.1 | 13.7 | 14.2% | 0.9% | 0.9% |
| 45 | 028113M | 24.79 | FIGUEROA ST | 4 | 11,000 | 11,600 | 12,800 | 20 | 6 | 14 | 6 | 0 | 6 | 0 | 2.1 | 13.7 | 14.2% | 0.9% | 0.9% |
| 46 | NA | 24.92 | Private crossing | NA | NA | NA | NA | 20 | 6 | 14 | 6 | 0 | 6 | 0 | NA | NA | NA | NA | NA |
| 47 | 028118W | 25.94 | AVALON BLVD | 5 | 18,000 | 18,900 | 20,900 | 20 | 6 | 14 | 6 | 0 | 6 | 0 | 2.1 | 13.7 | 14.2% | 0.9% | 0.9% |
| 48 | 028119D | 26.04 | BROAD ST | 2 | 1,100 | 1,200 | 1,300 | 20 | 6 | 14 | 6 | 0 | 6 | 0 | 2.1 | 13.7 | 14.1% | 0.9% | 0.9% |
| 49 | 028124A | 26.11 | LAKME ST | 2 | 1,500 | 1,600 | 1,800 | 20 | 6 | 14 | 6 | 0 | 6 | 0 | 2.1 | 13.7 | 14.1% | 0.9% | 0.9% |
| 50 | 028125G | 26.36 | WILMINGTON AVE | 4 | 18,000 | 18,900 | 20,900 | 20 | 6 | 14 | 6 | 0 | 6 | 0 | 2.1 | 13.7 | 14.2% | 0.9% | 0.9% |

**HARBOR SUBDIVISION LINE**
**At-grade railroad crossings in the study area**
**Vehicular traffic, Delays, Queuing and LOS**

| | Xing No. | Mile Post Number | Cross Street Name | Average no. of vehicles delayed per day | | | Average delay per day (veh-hours) | | | Average delay for each vehicle delayed (min./veh.) | | | Average delay per vehicle (sec./veh.) | | | Estimated Level of Service at the Crossing | | | Average vehicles per hour per lane in the primary direction | | | Avg. queue length per lane (feet) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 2000 | 2005 | 2015 | 2000 | 2005 | 2015 | 2000 | 2005 | 2015 | 2000 | 2005 | 2015 | 2000 | 2005 | 2015 | 2000 | 2005 | 2015 | 2000 | 2005 | 2015 |
| 1 | 027992J | 8.03 | CRENSHAW BLVD | 3,200 | 70 | 80 | 270 | 0.1 | 0.2 | 5.1 | 0.1 | 0.1 | 41.4 | 0.0 | 0.0 | E | A | A | 1,040 | 1,090 | 1,200 | 420 | 0 | 0 |
| 2 | 027993R | 8.14 | VICTORIA AVE | 100 | 0 | 0 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | A | A | A | 60 | 70 | 80 | 0 | 0 | 0 |
| 3 | 027994X | 8.23 | BRYNHURST AVE | 90 | 0 | 0 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | A | A | A | 60 | 60 | 70 | 0 | 0 | 0 |
| 4 | 027995E | 8.32 | WEST BLVD | 720 | 20 | 20 | 60 | 0.0 | 0.0 | 5.0 | 0.1 | 0.1 | 40.8 | 0.0 | 0.0 | E | A | A | 450 | 470 | 520 | 180 | 0 | 0 |
| 5 | 027996L | 8.60 | REDONDO BLVD | 1,020 | 20 | 30 | 50 | 0.0 | 0.0 | 2.9 | 0.1 | 0.1 | 24.0 | 0.0 | 0.0 | C | A | A | 330 | 350 | 380 | 75 | 0 | 0 |
| 6 | 028001N | 9.13 | CENTINELIA AVE | 4,140 | 0 | 0 | 240 | 0.0 | 0.0 | 3.5 | 0.0 | 0.0 | 27.9 | 0.0 | 0.0 | D | A | A | 960 | 1,000 | 1,110 | 260 | 0 | 0 |
| 7 | 028002V | 9.59 | LA BREA AVE | 4,280 | 0 | 0 | 260 | 0.0 | 0.0 | 3.6 | 0.0 | 0.0 | 29.3 | 0.0 | 0.0 | D | A | A | 990 | 1,040 | 1,140 | 280 | 0 | 0 |
| 8 | 028003C | 9.82 | IVY AVE | 330 | 0 | 0 | 20 | 0.0 | 0.0 | 3.6 | 0.0 | 0.0 | 28.8 | 0.0 | 0.0 | D | A | A | 210 | 220 | 240 | 60 | 0 | 0 |
| 9 | 028004J | 9.94 | EUCALYPTUS AVE | 1,660 | 0 | 0 | 130 | 0.0 | 0.0 | 4.7 | 0.0 | 0.0 | 37.4 | 0.0 | 0.0 | D | A | A | 700 | 730 | 810 | 255 | 0 | 0 |
| 10 | 028007E | 10.21 | CEDAR AVE | 110 | 0 | 0 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | A | A | A | 70 | 70 | 80 | 0 | 0 | 0 |
| 11 | 028142X | 10.36 | OAK ST | 420 | 0 | 0 | 20 | 0.0 | 0.0 | 2.9 | 0.0 | 0.0 | 22.5 | 0.0 | 0.0 | C | A | A | 270 | 290 | 320 | 60 | 0 | 0 |
| 12 | 028008L | 10.52 | HYDE PARK BLVD | 530 | 0 | 0 | 30 | 0.0 | 0.0 | 3.4 | 0.0 | 0.0 | 27.0 | 0.0 | 0.0 | D | A | A | 340 | 350 | 390 | 90 | 0 | 0 |
| 13 | 028010M | 10.63 | LA CIENEGA BLVD | 4,280 | 0 | 0 | 260 | 0.0 | 0.0 | 3.6 | 0.0 | 0.0 | 29.3 | 0.0 | 0.0 | D | A | A | 1,270 | 1,330 | 1,470 | 360 | 0 | 0 |
| 14 | 028011U | 10.82 | HINDRY AVE | 600 | 0 | 0 | 40 | 0.0 | 0.0 | 4.0 | 0.0 | 0.0 | 32.0 | 0.0 | 0.0 | D | A | A | 380 | 390 | 440 | 120 | 0 | 0 |
| 15 | 028012B | 11.11 | MANCHESTER AVE | 4,280 | 0 | 0 | 220 | 0.0 | 0.0 | 3.1 | 0.0 | 0.0 | 24.8 | 0.0 | 0.0 | C | A | A | 850 | 890 | 980 | 205 | 0 | 0 |
| 16 | 028018S | 11.63 | ARBOR VITAE ST | 2,400 | 0 | 0 | 160 | 0.0 | 0.0 | 4.0 | 0.0 | 0.0 | 32.0 | 0.0 | 0.0 | D | A | A | 790 | 830 | 920 | 245 | 0 | 0 |
| 17 | 028020T | 12.36 | 104TH ST | 780 | 50 | 60 | 60 | 0.3 | 0.4 | 4.6 | 0.3 | 0.4 | 39.3 | 0.2 | 0.2 | D | A | A | 460 | 490 | 540 | 175 | 0 | 0 |
| 18 | 028025C | 12.92 | 111TH ST | 890 | 60 | 60 | 80 | 0.4 | 0.4 | 5.4 | 0.4 | 0.4 | 45.7 | 0.2 | 0.2 | E | A | A | 530 | 550 | 610 | 235 | 0 | 0 |
| 19 | 028027R | 13.13 | IMPERIAL HWY | 5,280 | 350 | 390 | 310 | 1.3 | 1.6 | 3.5 | 0.2 | 0.2 | 30.2 | 0.1 | 0.1 | D | A | A | 980 | 1,030 | 1,140 | 290 | 0 | 0 |
| 20 | 028047C | 13.37 | 118 TH ST | 110 | 10 | 10 | 0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.1 | 0.1 | A | A | A | 40 | 40 | 40 | 0 | 0 | 0 |
| 21 | 028048J | 13.62 | 120TH ST | 260 | 20 | 20 | 10 | 0.0 | 0.0 | 2.3 | 0.1 | 0.1 | 20.0 | 0.1 | 0.1 | C | A | A | 80 | 80 | 90 | 15 | 0 | 0 |
| 22 | 028049R | 13.89 | Private crossing (124th St) | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 23 | 028030Y | 14.69 | DOUGLAS ST | 2,510 | 140 | 150 | 250 | 0.7 | 0.8 | 6.0 | 0.3 | 0.3 | 97.8 | 0.3 | 0.3 | F | A | A | 410 | 430 | 470 | 390 | 0 | 0 |
| 24 | NA | 14.79 | Private Crossing (Chapman Wy) | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 25 | NA | 15.08 | Private crossing (Green line sta.) | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 26 | 028060R | 16.14 | COMPTON/MARINE | 3,520 | 230 | 250 | 320 | 1.3 | 1.5 | 5.5 | 0.3 | 0.4 | 46.5 | 0.2 | 0.2 | E | A | A | 1,090 | 1,150 | 1,270 | 490 | 0 | 0 |
| 27 | 028062E | 16.74 | INGLEWOOD AVE | 6,800 | 450 | 490 | 710 | 3.1 | 3.6 | 6.3 | 0.4 | 0.4 | 53.5 | 0.2 | 0.2 | E | A | A | 1,690 | 1,770 | 1,960 | 880 | 5 | 5 |
| 28 | 028064T | 16.87 | MANHATTAN BEACH BLVD | 3,600 | 240 | 260 | 250 | 1.1 | 1.2 | 4.2 | 0.3 | 0.3 | 35.6 | 0.1 | 0.1 | D | A | A | 890 | 940 | 1,040 | 310 | 0 | 0 |
| 29 | 028065A | 16.94 | 159TH ST | 80 | 10 | 10 | 0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.1 | 0.1 | A | A | A | 50 | 50 | 60 | 0 | 0 | 0 |
| 30 | 028066G | 17.01 | 160TH ST | 80 | 10 | 10 | 0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.1 | 0.1 | A | A | A | 50 | 50 | 60 | 0 | 0 | 0 |
| 31 | 028067N | 17.08 | 161ST ST | 100 | 10 | 10 | 0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.1 | 0.1 | A | A | A | 60 | 60 | 70 | 0 | 0 | 0 |
| 32 | 028068V | 17.14 | 162ND ST | 300 | 20 | 20 | 10 | 0.1 | 0.1 | 2.0 | 0.2 | 0.2 | 17.1 | 0.1 | 0.1 | C | A | A | 180 | 180 | 200 | 30 | 0 | 0 |
| 33 | 028069C | 17.62 | 170TH ST | 350 | 20 | 20 | 20 | 0.1 | 0.1 | 3.4 | 0.2 | 0.2 | 28.8 | 0.1 | 0.1 | D | A | A | 210 | 220 | 240 | 60 | 0 | 0 |
| 34 | 028072K | 18.38 | 182ND ST | 1,510 | 100 | 110 | 200 | 0.9 | 1.0 | 7.9 | 0.5 | 0.6 | 67.3 | 0.3 | 0.3 | F | A | A | 900 | 940 | 1,040 | 590 | 0 | 5 |
| 35 | 028096Y | 21.24 | TORRANCE BLVD | 3,950 | 260 | 280 | 380 | 1.6 | 1.9 | 5.8 | 0.4 | 0.4 | 49.2 | 0.2 | 0.2 | E | A | A | 1,230 | 1,290 | 1,420 | 590 | 5 | 5 |
| 36 | 028097F | 21.36 | Pedestrian Crossing (El Dorado) | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 37 | 028098M | 21.48 | SONOMA ST | 170 | 10 | 10 | 10 | 0.0 | 0.0 | 3.5 | 0.1 | 0.1 | 30.0 | 0.1 | 0.1 | D | A | A | 100 | 110 | 120 | 30 | 0 | 0 |
| 38 | 028099U | 21.60 | CARSON ST | 4,980 | 330 | 360 | 420 | 1.8 | 2.1 | 5.1 | 0.3 | 0.3 | 43.2 | 0.2 | 0.2 | E | A | A | 1,230 | 1,300 | 1,440 | 515 | 0 | 5 |
| 39 | 028101T | 22.10 | WASHINGTON BLVD | 540 | 30 | 40 | 40 | 0.1 | 0.2 | 4.4 | 0.2 | 0.3 | 37.9 | 0.1 | 0.1 | D | A | A | 320 | 340 | 370 | 115 | 0 | 0 |
| 40 | 028103G | 22.24 | ARLINGTON AVE | 1,150 | 70 | 80 | 120 | 0.5 | 0.6 | 6.3 | 0.4 | 0.4 | 53.3 | 0.2 | 0.2 | E | A | A | 680 | 710 | 790 | 350 | 0 | 0 |
| 41 | 028104N | 22.49 | CABRILLO AVE | 1,510 | 100 | 110 | 200 | 0.9 | 1.0 | 7.9 | 0.5 | 0.6 | 67.3 | 0.3 | 0.3 | F | A | A | 900 | 940 | 1,040 | 590 | 0 | 5 |
| 42 | 028105V | 22.57 | BORDER AVE | 130 | 10 | 10 | 0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.1 | 0.1 | A | A | A | 80 | 80 | 80 | 0 | 0 | 0 |
| 43 | 028106C | 22.78 | SEPULVEDA BLVD | 7,540 | 500 | 550 | 540 | 2.3 | 2.7 | 4.3 | 0.3 | 0.3 | 36.8 | 0.2 | 0.2 | D | A | A | 1,400 | 1,470 | 1,620 | 500 | 0 | 5 |
| 44 | 028107J | 23.03 | WESTERN AVE | 4,320 | 280 | 310 | 450 | 1.9 | 2.2 | 6.3 | 0.4 | 0.4 | 53.3 | 0.2 | 0.2 | E | A | A | 1,340 | 1,410 | 1,560 | 695 | 5 | 5 |
| 45 | 028113M | 24.79 | FIGUEROA ST | 1,560 | 100 | 110 | 90 | 0.4 | 0.4 | 3.5 | 0.2 | 0.2 | 29.5 | 0.1 | 0.1 | D | A | A | 490 | 510 | 560 | 140 | 0 | 0 |
| 46 | NA | 24.92 | Private crossing | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 47 | 028118W | 25.94 | AVALON BLVD | 2,560 | 170 | 190 | 150 | 0.6 | 0.7 | 3.5 | 0.2 | 0.2 | 30.0 | 0.1 | 0.1 | D | A | A | 640 | 670 | 740 | 185 | 0 | 0 |
| 48 | 028119D | 26.04 | BROAD ST | 160 | 10 | 10 | 10 | 0.0 | 0.0 | 3.8 | 0.1 | 0.1 | 32.7 | 0.1 | 0.1 | D | A | A | 90 | 100 | 110 | 30 | 0 | 0 |
| 49 | 028124A | 26.11 | LAKME ST | 210 | 10 | 20 | 10 | 0.0 | 0.1 | 2.9 | 0.1 | 0.2 | 24.0 | 0.1 | 0.1 | C | A | A | 130 | 130 | 150 | 30 | 0 | 0 |
| 50 | 028125G | 26.36 | WILMINGTON AVE | 2,560 | 170 | 180 | 190 | 0.8 | 0.9 | 4.5 | 0.3 | 0.3 | 38.0 | 0.2 | 0.2 | D | A | A | 790 | 830 | 920 | 290 | 0 | 0 |

## ASSUMPTIONS

**ADT Growth Projections**
Average annual growth rate from 2000: 1.0% per year

**Estimated train length**
Local: 700 feet
Through: 7,500 feet

**Gate down time (per train)**
t= [50 + [(3600 * (L+12*n)) / (5280* Smax/3)]/60

where:
- t = amount of time per train the crossing is closed (min.)
- L = train length (feet)
- n = number of highway lanes
- Smax = maximum train speed at the crossing (mph)

**Probability of delay per day**
P = T / m

where:
- P = probabiliy of delay per day
- T = total amount of time the crossing is closed during the day (min.)
- m = 1,440 minutes in a day

**Vehicles delayed per day**
N = P * V

where:
- N = number of vehicles delayed per day
- P = probability of delay per day
- V = ADT

**Duration of daily delay**
D = [(T/2 + 0.167) * N + (N/n)^2] /3600

where:
- D = total delay per day (vehicle-hours)
- N = number of vehicles delayed per day
- n = number of highway lanes
- (N/n)^2 = total delay from queue dissipation
- T = total amount of time the crossing is closed during the day (min.)
  (T/2 is the average delay per vehicle delayed by the train operation)
- 0.167 delay (in minute, eq. 10 seconds) attributable to deceleration and acceleration and delay experienced while waiting for traffic to flow freely aftre the train has passed

**Average delay for each vehicle delayed**
A = 60 * D / N

where:
- A = average daily delay for each vehicle delayed (min./veh.)
- D = total delay per day (vehicle-hours)
- N = number of vehicles delayed per day

**Average delay for all vehicles**
a = 3600 * D / V

where:
- a = average daily delay per vehicle (sec./veh.)
- D = total delay per day (vehicle-hours)
- V = ADT

**Level of service**

| Stopped delay per vehicle (sec) | Level of service |
|---|---|
| 0.0 | A |
| 5.0 | B |
| 15.0 | C |
| 25.0 | D |
| 40.0 | E |
| 60.0 | F |

**Average queue length per lane**
Lq = (C * P * A * Vh) / 60

where:
- Lq = length of queue (feet)
- C = average car length: 35 feet
- P = probabiliy of delay per day
- A = average daily delay for each vehicle delayed (min./veh.)
- Vh = number of vehicles per hour per lane in the primary direction

Vh = (0.12 * V * 0.7) / n * f

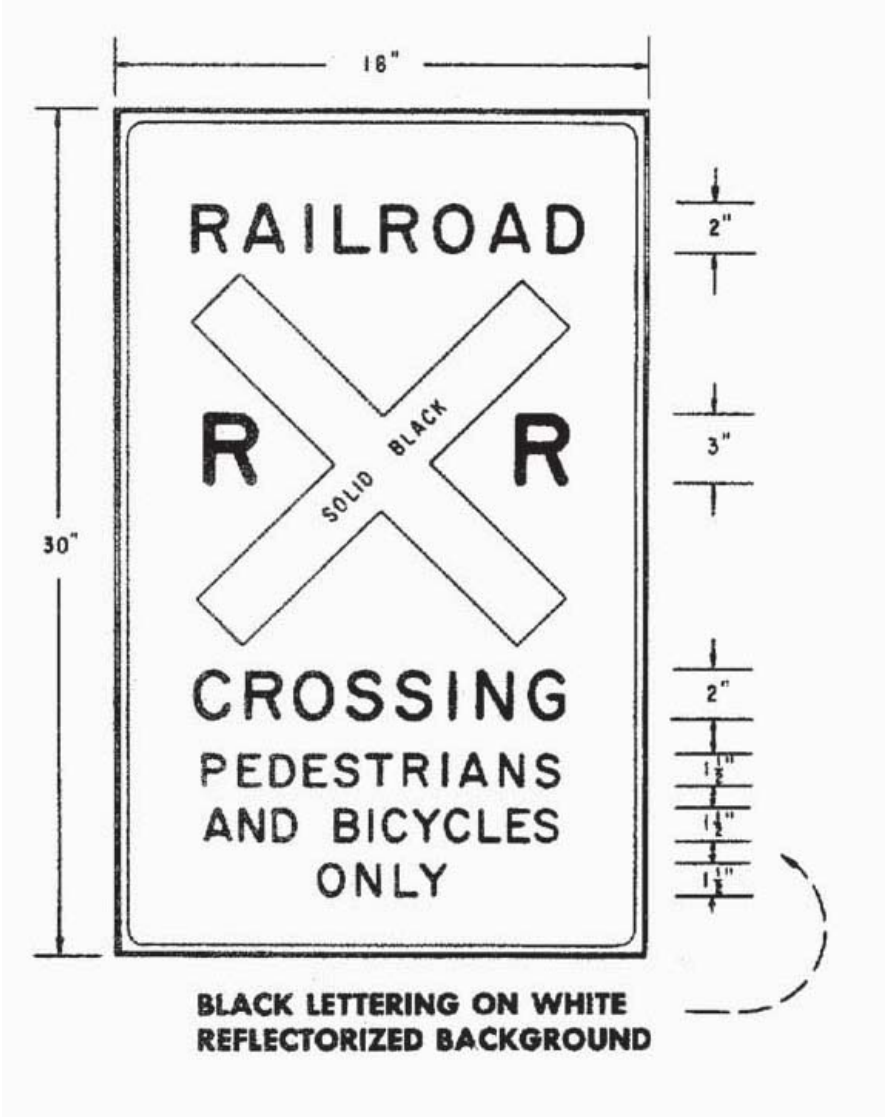
where:
- 0.12 peak hour factor (12%)
- V = ADT
- 0.7 directional split for primary direction (70%/30%)
- n = number of highway lanes for the primary direction
- f = lane use adjustment factor

*Source: HCM 2000, Table 10-23, p. 10-26*

| No. of lanes in lane group | Traffic in most heavily traveled lane | Lane utilization adjustment factor (f) |
|---|---|---|
| 1 | 100.0% | 1.000 |
| 2 | 52.5% | 0.952 |
| 3 | 36.7% | 0.908 |
| 4 | 30.0% | 0.833 |

# Appendix G
# CALIFORNIA P.U.C. STANDARD AT-GRADE RAILROAD CROSSING WARNING SIGNS AND SIGNALS

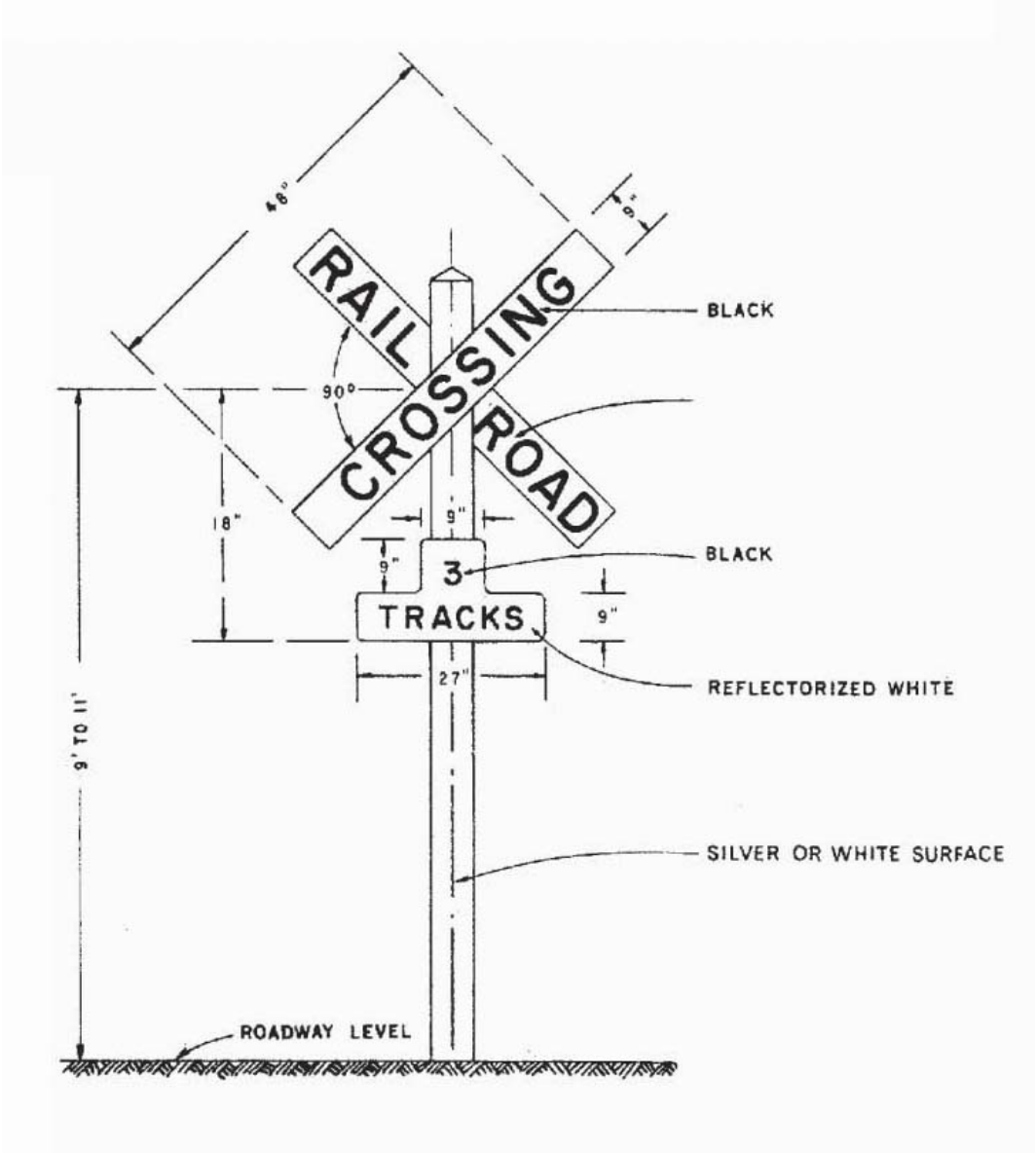
Appendix F presents the standard railroad protection devices required by the California Public Utility Commission (CPUC) for the protection of crossings at grade roads, highways and streets with railroads in California.




## STANDARD NO. 1-D
## PEDESTRIAN AND BICYCLE
## RAILROAD GRADE CROSSING SIGN

The word "and bicycles" is optional and may be omitted where appropriate

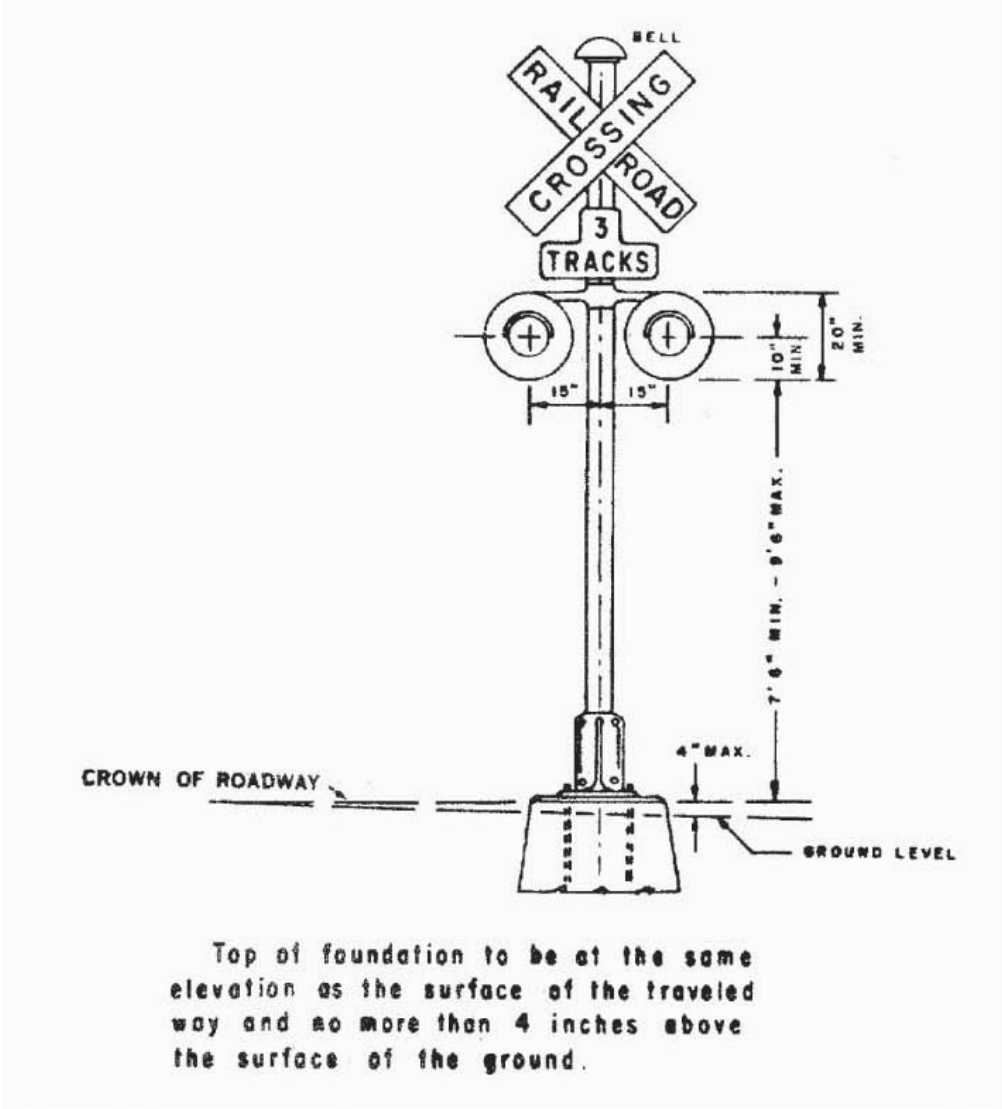
*Source: Public Utilities Commission of the State of California, General Order No. 75-C, Adopted February 14, 1973; Effective February 14, 1973; Modified February 2, 1983*




## STANDARD NO. 1-R

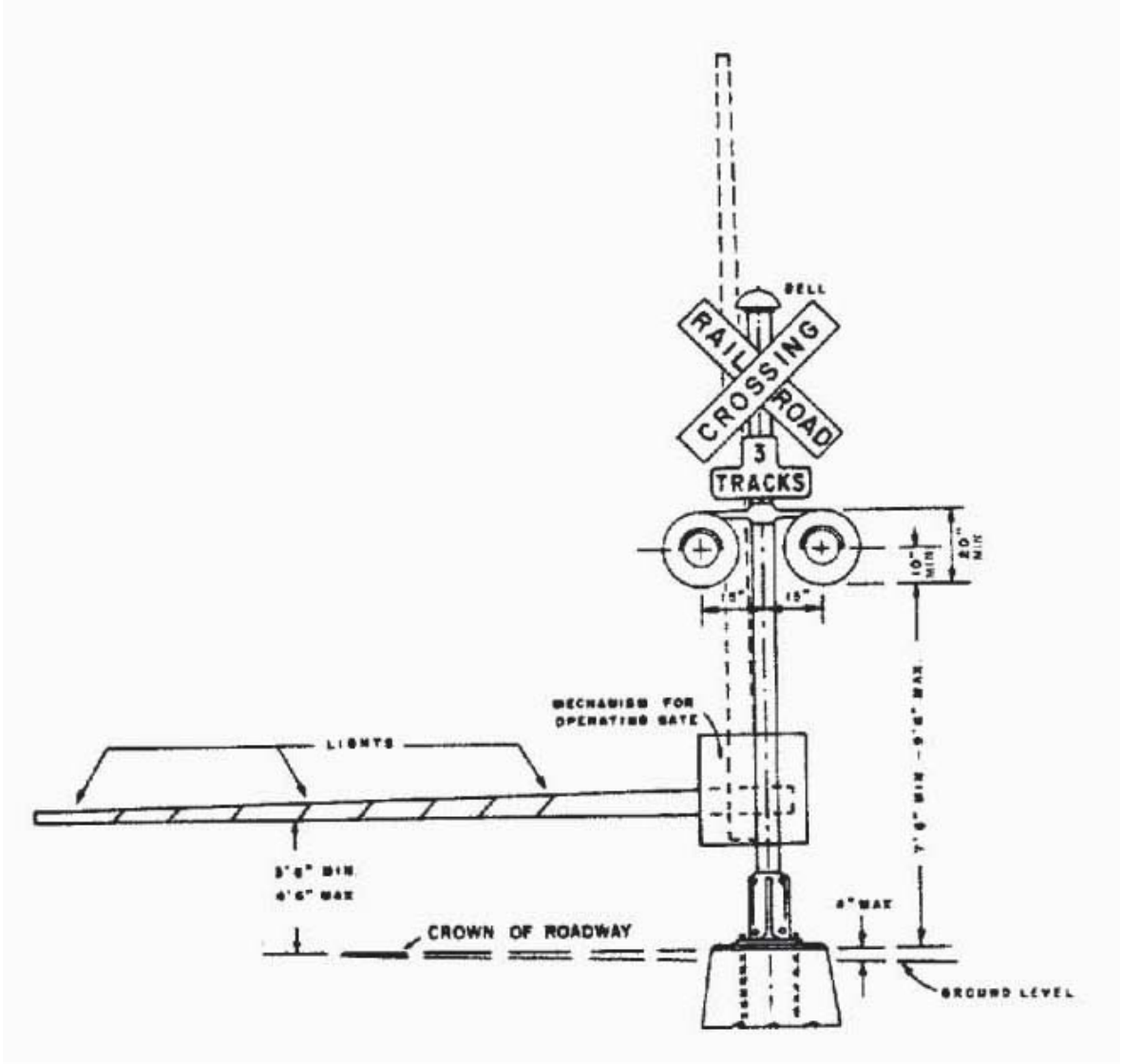
The crossing sign shall be reflectorized white background with the words "RAILROAD CROSSING" in black letters. If there are two or more tracks, including sidings, the number of tracks shall be indicated on an auxiliary sign as shown above.

*Source: Public Utilities Commission of the State of California, General Order No. 75-C, Adopted February 14, 1973; Effective February 14, 1973; Modified February 2, 1983*



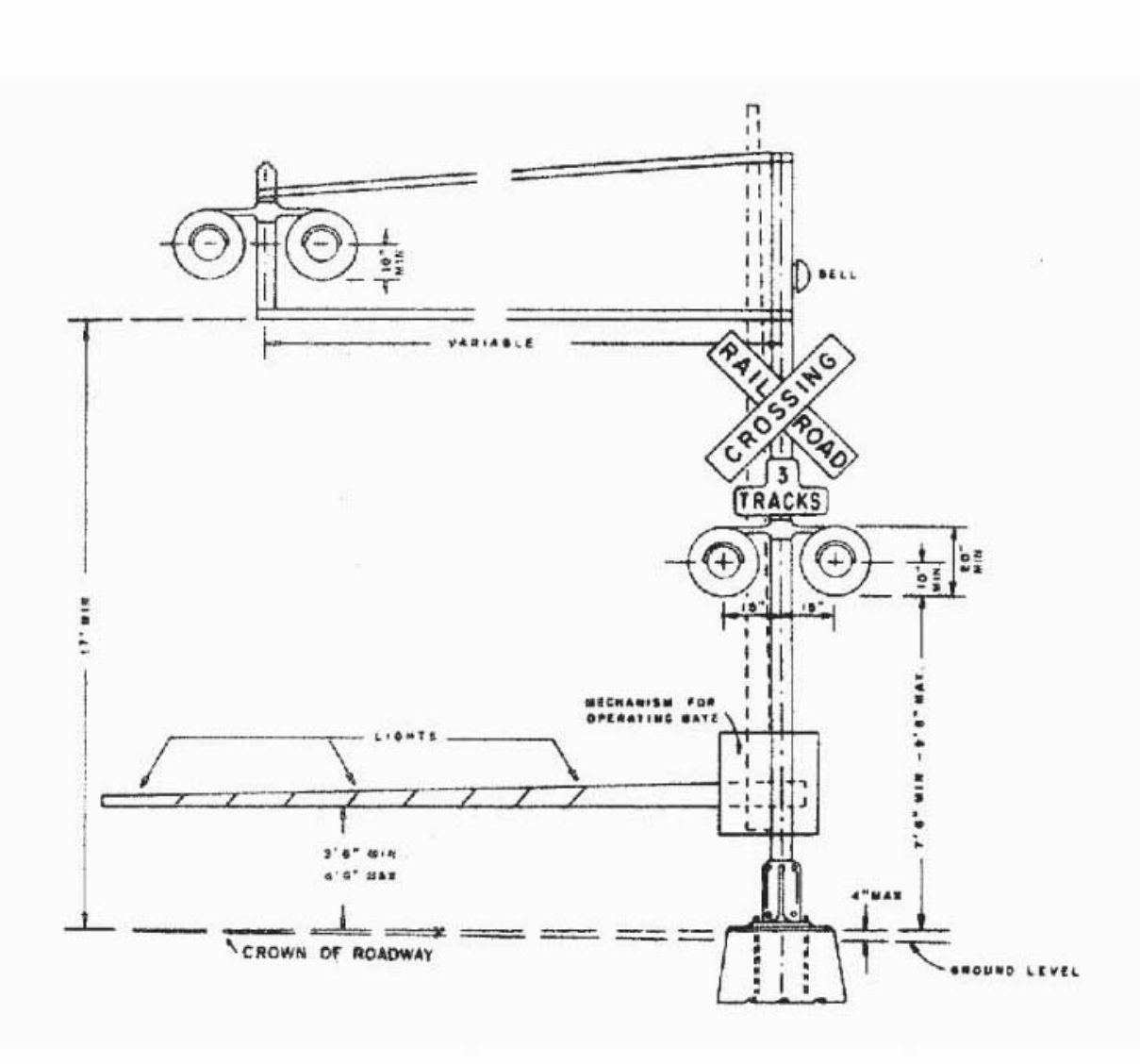

# STANDARD NO. 8
# HIGHWAY CROSSING SIGNAL ASSEMBLY
# FLASHING LIGHT TYPE

*Source: Public Utilities Commission of the State of California, General Order No. 75-C, Adopted February 14, 1973; Effective February 14, 1973; Modified February 2, 1983*




# STANDARD NO. 9
# HIGHWAY CROSSING SIGNAL ASSEMBLY
# AUTOMATIC GATE TYPE

*Source: Public Utilities Commission of the State of California, General Order No. 75-C, Adopted February 14, 1973; Effective February 14, 1973; Modified February 2, 1983*




# STANDARD NO. 9-A
# HIGHWAY CROSSING SIGNAL ASSEMBLY
# AUTOMATIC GATE TYPE WITH CANTILEVER ARM

*Source: Public Utilities Commission of the State of California, General Order No. 75-C, Adopted February 14, 1973; Effective February 14, 1973; Modified February 2, 1983*

# Appendix H
# F.R.A. ACCIDENT/INCIDENT SUMMARIES

Appearing in this appendix is a summary accident/incident report issued by the FRA for each one of the 39 vehicle-train accidents/incidents that have occurred within the study area of the Harbor Subdivision line between January 1975 and July 2001, as reported annually by the railroads to the FRA.

In addition, Table 1 at the end of the Appendix summarizes the train accident/incident data for the same period and location. As indicated in Section 2.5.1, the train accidents summarized in this section are subject to threshold reporting requirements set by the FRA. The reports themselves are not always comprehensive due to inconsistencies in the quality of information provided by the reporting party. For example, exact locations of accidents may not be known because the milepost number was not included in the accident report. Data not reported to the FRA is labeled in the table as "NR." All entries in Table 1 are on the Harbor Subdivision line but not necessarily in the study area. Any accidents that did not occur in the study area were included only because they could not be eliminated with confidence. The study's preference was to err on the side of caution.

**DEPARTMENT OF TRANSPORTATION**
FEDERAL RAILROAD ADMINISTRATION (FRA)

# HIGHWAY-RAIL GRADE CROSSING ACCIDENT/INCIDENT REPORT

OMB Approval No. 2130-0500

| Name Of | Alphabetic Code | RR Accident/Incident No. |
|---|---|---|
| 1. Reporting Railroad | 1a. BNSF | 1b. SC0298200 |
| 2. Other Railroad Involved in Train Accident/Incident | 2a. | 2b. SC0298200 |
| 3. Railroad Responsible for Track Maintenance | 3a. BNSF | 3b. SC0298200 |

| 4. U.S. DOT-AAR Grade Crossing ID No. | 5. Date of Accident/Incident | 6. Time of Accident/Incident |
|---|---|---|
| 027992J | 02/08/98 | 10:40 PM |

| 7. Nearest Railroad Station | 8. Division | 9. County | 10. State Abbr. | Code |
|---|---|---|---|---|
| HYDE PARK | SOUTHERN CALIFORNIA | LOS ANGELES | CA | 06 |

11. City *(if in a city)*

12. Highway Name or No. CRENSHAW BLVD ☑ Public ☐ Private

## Highway User Involved

13. Type — A. Auto, B. Truck, C. Truck-trailer, D. Pick-up truck, E. Van, F. Bus, G. School Bus, H. Motorcycle, J. Other Motor Vehicle, K. Pedestrian, M. Other *(specify)* — Code: A

14. Vehicle Speed *(est. mph at impact)*: 0

15. Direction *(geographical)* — 1. North 2. South 3. East 4. West — Code: 4

16. Position — 1. Stalled on crossing, 2. Stopped on Crossing, 3. Moving over crossing, 4. Trapped — Code: 2

20a. Was the highway user and/or rail equipment involved in the impact transporting hazardous materials? — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code: 4

## Rail Equipment Involved

17. Equipment — 1. Train *(units pulling)*, 2. Train *(units pushing)*, 3. Train *(standing)*, 4. Car(s) *(moving)*, 5. Car(s) *(standing)*, 6. Light loco(s) *(moving)*, 7. Light loco(s) *(standing)*, 8. Other *(specify)* — Code: 1

18. Position of Car Unit in Train: 1

19. Circumstance — 1. Rail equipment struck highway user, 2. Rail equipment struck by highway user — Code: 1

20b. Was there a hazardous materials release by — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code: 4

20c. State the name and quantity of the hazardous materials released, if any

21. Temperature *(specify if minus)*: 52 °F

22. Visibility *(single entry)* — 1. Dawn 2. Day 3. Dusk 4. Dark — Code: 4

23. Weather *(single entry)* — 1. Clear 2. Cloudy 3. Rain 4. Fog 5. Sleet 6. Snow — Code: 3

24. Type of Equipment Consist *(single entry)* — 1. Freight train, 2. Passenger train, 3. Commuter train, 4. Work train, 5. Single car, 6. Cut of cars, 7. Yard/Switching, 8. Light loco(s), 9. Other *(specify)* — Code: 1

25. Track Type Used by Rail Equipment Involved — 1. Main 2. Yard 3. Siding 4. Industry — Code: 1

26. Track Number or Name: MAIN

27. FRA Track Class (1-6,X): 2

28. Number of Locomotive Units: 4

29. Number of Cars: 86

30. Consist Speed *(Recorded if available)* — R. Recorded, E. Estimated: 11 mph — Code: E

31. Time Table Direction — 1. North 2. South 3. East 4. West — Code: 4

32. Type of Crossing Warning — 1. Gates, 2. Cantilever FLS, 3. Standard FLS, 4. Wig wags, 5. Hwy. traffic signals, 6. Audible, 7. Crossbucks, 8. Stop signs, 9. Watchman, 10. Flagged by crew, 11. Other *(specify)*, 12. None — Code(s): 01, 06

33. Signaled Crossing Warning: 20 sec warn min

34. Whistle Ban — 1. Yes 2. No 3. Unknown — Code: 2

35. Location of Warning — 1. Both Sides, 2. Side of Vehicle Approach, 3. Opposite Side of Vehicle Approach — Code: 1

36. Crossing Warning Interconnected with Highway Signals — 1. Yes 2. No 3. Unknown — Code: 3

37. Crossing Illuminated by Street Lights or Special Lights — 1. Yes 2. No 3. Unknown — Code: 3

38. Driver's Age

39. Driver's Gender — 1. Male, 2. Female — Code:

40. Driver Drove Behind or in Front of Train and Struck or was Struck by Second Train — 1. Yes 2. No 3. Unknown — Code: 2

41. Driver — 1. Drove around or thru the gate, 2. Stopped and then proceeded, 3. Did not stop, 4. Stopped on crossing, 5. Other *(specify)* — Code: 4

42. Driver Passed Standing Highway Vehicle — 1. Yes 2. No 3. Unknown — Code: 3

43. View of Track Obscured by *(primary obstruction)* — 1. Permanent Structure, 2. Standing railroad equipment, 3. Passing Train, 4. Topography, 5. Vegetation, 6. Highway Vehicles, 7. Other *(specify)*, 8. Not Obstructed — Code: 8

| Casualties to: | Killed | Injured |
|---|---|---|
| 46. Highway-Rail Crossing Users | 0 | 0 |
| 49. Railroad Employees | 0 | 0 |
| 52. Passengers on Train | 0 | 0 |

44. Driver was — 1. Killed 2. Injured 3. Uninjured — Code: 3

45. Was Driver in the Vehicle? — 1. Yes 2. No — Code: 2

47. Highway Vehicle Property Damage *(est. dollar damage)*: $500

48. Total Number of Highway-Rail Crossing Users *(include driver)*: 1

50. Total Number of People on Train *(include passengers and crew)*: 3

51. Is a Rail Equipment Accident / Incident Report Being Filed — 1. Yes 2. No — Code: 2

53a. Special Study Block

53b. Special Study Block

54. Narrative Description

| 55. Typed Name and Title | 56. Signature | 57. Date |
|---|---|---|
| | | |

FORM FRA F 6180.57

* NOTE THAT ALL CASUALTIES MUST BE REPORTED ON FORM FRA F 6180.55A

**DEPARTMENT OF TRANSPORTATION**
FEDERAL RAILROAD ADMINISTRATION (FRA)

# HIGHWAY-RAIL GRADE CROSSING ACCIDENT/INCIDENT REPORT

OMB Approval No. 2130-0500

| Name Of | Alphabetic Code | RR Accident/Incident No. |
|---|---|---|
| 1. Reporting Railroad | 1a. ATSF | 1b. 311086202 |
| 2. Other Railroad Involved in Train Accident/Incident | 2a. | 2b. |
| 3. Railroad Responsible for Track Maintenance | 3a. ATSF | 3b. 311086202 |

| 4. U.S. DOT-AAR Grade Crossing ID No. | 5. Date of Accident/Incident | 6. Time of Accident/Incident |
|---|---|---|
| 028001N | 10/07/86 | 7:30 AM |

| 7. Nearest Railroad Station | 8. Division | 9. County | 10. State Abbr. | Code |
|---|---|---|---|---|
| INGLEWOOD | | LOS ANGELES | CA | 06 |

11. City *(if in a city)*: INGLEWOOD
12. Highway Name or No.: CENTENELLA — ☑ Public ☐ Private

## Highway User Involved

13. Type — A. Auto, B. Truck, C. Truck-trailer, D. Pick-up truck, E. Van, F. Bus, G. School Bus, H. Motorcycle, J. Other Motor Vehicle, K. Pedestrian, M. Other *(specify)* — Code: **A**

14. Vehicle Speed *(est. mph at impact)*: **0**

15. Direction *(geographical)* — 1. North 2. South 3. East 4. West — Code: **1**

16. Position — 1. Stalled on crossing, 2. Stopped on Crossing, 3. Moving over crossing, 4. Trapped — Code: **2**

20a. Was the highway user and/or rail equipment involved in the impact transporting hazardous materials? — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code: **2**

## Rail Equipment Involved

17. Equipment — 1. Train *(units pulling)*, 2. Train *(units pushing)*, 3. Train *(standing)*, 4. Car(s) *(moving)*, 5. Car(s) *(standing)*, 6. Light loco(s) *(moving)*, 7. Light loco(s) *(standing)*, 8. Other *(specify)* — Code: **1**

18. Position of Car Unit in Train: **1**

19. Circumstance — 1. Rail equipment struck highway user, 2. Rail equipment struck by highway user — Code: **1**

20b. Was there a hazardous materials release by — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code:

20c. State the name and quantity of the hazardous materials released, if any

21. Temperature *(specify if minus)*: **70 °F**

22. Visibility *(single entry)* — 1. Dawn 2. Day 3. Dusk 4. Dark — Code: **2**

23. Weather *(single entry)* — 1. Clear 2. Cloudy 3. Rain 4. Fog 5. Sleet 6. Snow — Code: **1**

24. Type of Equipment Consist *(single entry)* — 1. Freight train, 2. Passenger train, 3. Commuter train, 4. Work train, 5. Single car, 6. Cut of cars, 7. Yard/Switching, 8. Light loco(s), 9. Other *(specify)* — Code: **1**

25. Track Type Used by Rail Equipment Involved — 1. Main 2. Yard 3. Siding 4. Industry — Code: **1**

26. Track Number or Name: **MAIN**

27. FRA Track Class (1-6,X): **2**

28. Number of Locomotive Units: **4**

29. Number of Cars: **60**

30. Consist Speed *(Recorded if available)* — R. Recorded, E. Estimated: **14** mph — Code: **E**

31. Time Table Direction — 1. North 2. South 3. East 4. West — Code: **4**

32. Type of Crossing Warning — 1. Gates, 2. Cantilever FLS, 3. Standard FLS, 4. Wig wags, 5. Hwy. traffic signals, 6. Audible, 7. Crossbucks, 8. Stop signs, 9. Watchman, 10. Flagged by crew, 11. Other *(specify)*, 12. None

Code(s): **01** **03** **05** **07**

33. Signaled Crossing Warning: **20 sec warn min**

34. Whistle Ban — 1. Yes 2. No 3. Unknown — Code:

35. Location of Warning — 1. Both Sides, 2. Side of Vehicle Approach, 3. Opposite Side of Vehicle Approach — Code: **1**

36. Crossing Warning Interconnected with Highway Signals — 1. Yes 2. No 3. Unknown — Code: **1**

37. Crossing Illuminated by Street Lights or Special Lights — 1. Yes 2. No 3. Unknown — Code: **1**

38. Driver's Age:

39. Driver's Gender — 1. Male, 2. Female — Code:

40. Driver Drove Behind or in Front of Train and Struck or was Struck by Second Train — 1. Yes 2. No 3. Unknown — Code: **2**

41. Driver — 1. Drove around or thru the gate, 2. Stopped and then proceeded, 3. Did not stop, 4. Stopped on crossing, 5. Other *(specify)* — Code: **1**

42. Driver Passed Standing Highway Vehicle — 1. Yes 2. No 3. Unknown — Code: **2**

43. View of Track Obscured by *(primary obstruction)* — 1. Permanent Structure, 2. Standing railroad equipment, 3. Passing Train, 4. Topography, 5. Vegetation, 6. Highway Vehicles, 7. Other *(specify)*, 8. Not Obstructed — Code: **8**

| Casualties to: | Killed | Injured |
|---|---|---|
| 46. Highway-Rail Crossing Users | 0 | 0 |
| 49. Railroad Employees | 0 | 0 |
| 52. Passengers on Train | 0 | 0 |

44. Driver was — 1. Killed 2. Injured 3. Uninjured — Code: **3**

45. Was Driver in the Vehicle? — 1. Yes 2. No — Code: **2**

47. Highway Vehicle Property Damage *(est. dollar damage)*: **$300**

48. Total Number of Highway-Rail Crossing Users *(include driver)*: **1**

50. Total Number of People on Train *(include passengers and crew)*:

51. Is a Rail Equipment Accident / Incident Report Being Filed — 1. Yes 2. No — Code: **2**

53a. Special Study Block

53b. Special Study Block

54. Narrative Description

| 55. Typed Name and Title | 56. Signature | 57. Date |
|---|---|---|
| | | |

FORM FRA F 6180.57

* NOTE THAT ALL CASUALTIES MUST BE REPORTED ON FORM FRA F 6180.55A

**DEPARTMENT OF TRANSPORTATION**
FEDERAL RAILROAD ADMINISTRATION (FRA)

# HIGHWAY-RAIL GRADE CROSSING ACCIDENT/INCIDENT REPORT

OMB Approval No. 2130-0500

| Name Of | Alphabetic Code | RR Accident/Incident No. |
|---|---|---|
| 1. Reporting Railroad | 1a. BNSF | 1b. LA1200200 |
| 2. Other Railroad Involved in Train Accident/Incident | 2a. | 2b. LA1200200 |
| 3. Railroad Responsible for Track Maintenance | 3a. BNSF | 3b. LA1200200 |

| 4. U.S. DOT-AAR Grade Crossing ID No. | 5. Date of Accident/Incident | 6. Time of Accident/Incident |
|---|---|---|
| 028002V | 12/17/00 | 11:18 AM |

| 7. Nearest Railroad Station | 8. Division | 9. County | 10. State Abbr. | Code |
|---|---|---|---|---|
| LOS ANGELES | LOS ANGELES TERM | LOS ANGELES | CA | 06 |

| 11. City *(if in a city)* | 12. Highway Name or No. | |
|---|---|---|
| INGLEWOOD | LA BREA AVENUE | ☑ Public ☐ Private |

## Highway User Involved

13. Type — A. Auto, B. Truck, C. Truck-trailer, D. Pick-up truck, E. Van, F. Bus, G. School Bus, H. Motorcycle, J. Other Motor Vehicle, K. Pedestrian, M. Other *(specify)* — Code: **A**

14. Vehicle Speed *(est. mph at impact)*: **0**

15. Direction *(geographical)* — 1. North 2. South 3. East 4. West — Code: **4**

16. Position — 1. Stalled on crossing, 2. Stopped on Crossing, 3. Moving over crossing, 4. Trapped — Code: **2**

20a. Was the highway user and/or rail equipment involved in the impact transporting hazardous materials? — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code: **4**

## Rail Equipment Involved

17. Equipment — 1. Train *(units pulling)*, 2. Train *(units pushing)*, 3. Train *(standing)*, 4. Car(s) *(moving)*, 5. Car(s) *(standing)*, 6. Light loco(s) *(moving)*, 7. Light loco(s) *(standing)*, 8. Other *(specify)* — Code: **1**

18. Position of Car Unit in Train: **1**

19. Circumstance — 1. Rail equipment struck highway user, 2. Rail equipment struck by highway user — Code: **1**

20b. Was there a hazardous materials release by — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code: **4**

20c. State the name and quantity of the hazardous materials released, if any

21. Temperature *(specify if minus)*: **80 °F**

22. Visibility *(single entry)* — 1. Dawn 2. Day 3. Dusk 4. Dark — Code: **2**

23. Weather *(single entry)* — 1. Clear 2. Cloudy 3. Rain 4. Fog 5. Sleet 6. Snow — Code: **1**

24. Type of Equipment Consist *(single entry)* — 1. Freight train, 2. Passenger train, 3. Commuter train, 4. Work train, 5. Single car, 6. Cut of cars, 7. Yard/Switching, 8. Light loco(s), 9. Other *(specify)* — Code: **1**

25. Track Type Used by Rail Equipment Involved — 1. Main 2. Yard 3. Siding 4. Industry — Code: **1**

26. Track Number or Name: **MAIN**

27. FRA Track Class (1-6,X): **1**

28. Number of Locomotive Units: **3**

29. Number of Cars: **25**

30. Consist Speed *(Recorded if available)* — R. Recorded, E. Estimated: **10** mph — Code: **E**

31. Time Table Direction — 1. North 2. South 3. East 4. West — Code: **4**

32. Type of Crossing Warning — 1. Gates, 2. Cantilever FLS, 3. Standard FLS, 4. Wig wags, 5. Hwy. traffic signals, 6. Audible, 7. Crossbucks, 8. Stop signs, 9. Watchman, 10. Flagged by crew, 11. Other *(specify)*, 12. None — Code(s): **03**, **06**

33. Signaled Crossing Warning: **20 sec warn min**

34. Whistle Ban — 1. Yes 2. No 3. Unknown — Code: **2**

35. Location of Warning — 1. Both Sides, 2. Side of Vehicle Approach, 3. Opposite Side of Vehicle Approach — Code: **1**

36. Crossing Warning Interconnected with Highway Signals — 1. Yes 2. No 3. Unknown — Code: **1**

37. Crossing Illuminated by Street Lights or Special Lights — 1. Yes 2. No 3. Unknown — Code: **1**

38. Driver's Age: **85**

39. Driver's Gender — 1. Male, 2. Female — Code: **2**

40. Driver Drove Behind or in Front of Train and Struck or was Struck by Second Train — 1. Yes 2. No 3. Unknown — Code: **2**

41. Driver — 1. Drove around or thru the gate, 2. Stopped and then proceeded, 3. Did not stop, 4. Stopped on crossing, 5. Other *(specify)* — Code: **4**

42. Driver Passed Standing Highway Vehicle — 1. Yes 2. No 3. Unknown — Code: **2**

43. View of Track Obscured by *(primary obstruction)* — 1. Permanent Structure, 2. Standing railroad equipment, 3. Passing Train, 4. Topography, 5. Vegetation, 6. Highway Vehicles, 7. Other *(specify)*, 8. Not Obstructed — Code: **8**

| Casualties to: | Killed | Injured |
|---|---|---|
| 46. Highway-Rail Crossing Users | 0 | 0 |
| 49. Railroad Employees | 0 | 0 |
| 52. Passengers on Train | 0 | 0 |

44. Driver was — 1. Killed 2. Injured 3. Uninjured — Code: **3**

45. Was Driver in the Vehicle? — 1. Yes 2. No — Code: **1**

47. Highway Vehicle Property Damage *(est. dollar damage)*: **$1,000**

48. Total Number of Highway-Rail Crossing Users *(include driver)*: **1**

50. Total Number of People on Train *(include passengers and crew)*: **3**

51. Is a Rail Equipment Accident / Incident Report Being Filed — 1. Yes 2. No — Code: **2**

53a. Special Study Block

53b. Special Study Block

54. Narrative Description

| 55. Typed Name and Title | 56. Signature | 57. Date |
|---|---|---|
| | | |

FORM FRA F 6180.57

* NOTE THAT ALL CASUALTIES MUST BE REPORTED ON FORM FRA F 6180.55A

**DEPARTMENT OF TRANSPORTATION**
FEDERAL RAILROAD ADMINISTRATION (FRA)

# HIGHWAY-RAIL GRADE CROSSING ACCIDENT/INCIDENT REPORT

OMB Approval No. 2130-0500

| Name Of | Alphabetic Code | RR Accident/Incident No. |
|---|---|---|
| 1. Reporting Railroad | 1a. ATSF | 1b. 36035400 |
| 2. Other Railroad Involved in Train Accident/Incident | 2a. | 2b. |
| 3. Railroad Responsible for Track Maintenance | 3a. | 3b. |

| 4. U.S. DOT-AAR Grade Crossing ID No. | 5. Date of Accident/Incident | 6. Time of Accident/Incident |
|---|---|---|
| 028002V | 03/01/75 | 6:41 PM |

| 7. Nearest Railroad Station | 8. Division | 9. County | 10. State Abbr. | Code |
|---|---|---|---|---|
| INGLEWOOD | | LOS ANGELES | CA | 06 |

11. City *(if in a city)* INGLEWOOD — 12. Highway Name or No. — ☑ Public ☐ Private

## Highway User Involved

13. Type — A. Auto B. Truck C. Truck-trailer D. Pick-up truck E. Van F. Bus G. School Bus H. Motorcycle J. Other Motor Vehicle K. Pedestrian M. Other *(specify)* — Code: **K**

14. Vehicle Speed *(est. mph at impact)*

15. Direction *(geographical)* — 1. North 2. South 3. East 4. West — Code:

16. Position — 1. Stalled on crossing 2. Stopped on Crossing 3. Moving over crossing 4. Trapped — Code: **3**

20a. Was the highway user and/or rail equipment involved in the impact transporting hazardous materials? — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code: **4**

## Rail Equipment Involved

17. Equipment — 1. Train *(units pulling)* 2. Train *(units pushing)* 3. Train *(standing)* 4. Car(s) *(moving)* 5. Car(s) *(standing)* 6. Light loco(s) *(moving)* 7. Light loco(s) *(standing)* 8. Other *(specify)* — Code: **1**

18. Position of Car Unit in Train: **1**

19. Circumstance — 1. Rail equipment struck highway user 2. Rail equipment struck by highway user — Code: **1**

20b. Was there a hazardous materials release by — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code:

20c. State the name and quantity of the hazardous materials released, if any

| 21. Temperature *(specify if minus)* | 22. Visibility *(single entry)* | Code | 23. Weather *(single entry)* | Code |
|---|---|---|---|---|
| 50 °F | 1. Dawn 2. Day 3. Dusk 4. Dark | 4 | 1. Clear 2. Cloudy 3. Rain 4. Fog 5. Sleet 6. Snow | 1 |

| 24. Type of Equipment Consist *(single entry)* | Code | 25. Track Type Used by Rail Equipment Involved | Code | 26. Track Number or Name |
|---|---|---|---|---|
| 1. Freight train 2. Passenger train 3. Commuter train 4. Work train 5. Single car 6. Cut of cars 7. Yard/Switching 8. Light loco(s) 9. Other *(specify)* | 1 | 1. Main 2. Yard 3. Siding 4. Industry | 1 | HARBOR DIST |

| 27. FRA Track Class (1-6,X) | 28. Number of Locomotive Units | 29. Number of Cars | 30. Consist Speed *(Recorded if available)* | Code | 31. Time Table Direction | Code |
|---|---|---|---|---|---|---|
| 2 | 4 | 75 | R. Recorded E. Estimated 15 mph | E | 1. North 2. South 3. East 4. West | 3 |

| 32. Type of Crossing Warning | 33. Signaled Crossing Warning | 34. Whistle Ban | Code |
|---|---|---|---|
| 1. Gates 2. Cantilever FLS 3. Standard FLS 4. Wig wags 5. Hwy. traffic signals 6. Audible 7. Crossbucks 8. Stop signs 9. Watchman 10. Flagged by crew 11. Other *(specify)* 12. None | 20 sec warn min | 1. Yes 2. No 3. Unknown | |
| Code(s): 01 | | | |

| 35. Location of Warning | Code | 36. Crossing Warning Interconnected with Highway Signals | Code | 37. Crossing Illuminated by Street Lights or Special Lights | Code |
|---|---|---|---|---|---|
| 1. Both Sides 2. Side of Vehicle Approach 3. Opposite Side of Vehicle Approach | 1 | 1. Yes 2. No 3. Unknown | 3 | 1. Yes 2. No 3. Unknown | 3 |

| 38. Driver's Age | 39. Driver's Gender | Code | 40. Driver Drove Behind or in Front of Train and Struck or was Struck by Second Train | Code | 41. Driver | Code |
|---|---|---|---|---|---|---|
| | 1. Male 2. Female | | 1. Yes 2. No 3. Unknown | 2 | 1. Drove around or thru the gate 2. Stopped and then proceeded 3. Did not stop 4. Stopped on crossing 5. Other *(specify)* | 4 |

| 42. Driver Passed Standing Highway Vehicle | Code | 43. View of Track Obscured by *(primary obstruction)* | Code |
|---|---|---|---|
| 1. Yes 2. No 3. Unknown | 3 | 1. Permanent Structure 2. Standing railroad equipment 3. Passing Train 4. Topography 5. Vegetation 6. Highway Vehicles 7. Other *(specify)* 8. Not Obstructed | 8 |

| Casualties to: | Killed | Injured | 44. Driver was — 1. Killed 2. Injured 3. Uninjured — Code | 45. Was Driver in the Vehicle? — Code |
|---|---|---|---|---|
| | | | 2 | 1. Yes 2. No |
| 46. Highway-Rail Crossing Users | 0 | 0 | 47. Highway Vehicle Property Damage *(est. dollar damage)* $0 | 48. Total Number of Highway-Rail Crossing Users *(include driver)* 1 |
| 49. Railroad Employees | 0 | 0 | 50. Total Number of People on Train *(include passengers and crew)* | 51. Is a Rail Equipment Accident / Incident Report Being Filed — Code |
| 52. Passengers on Train | 0 | 1 | | 1. Yes 2. No — 2 |

53a. Special Study Block — 53b. Special Study Block

54. Narrative Description

| 55. Typed Name and Title | 56. Signature | 57. Date |
|---|---|---|
| | | |

FORM FRA F 6180.57

* NOTE THAT ALL CASUALTIES MUST BE REPORTED ON FORM FRA F 6180.55A

**DEPARTMENT OF TRANSPORTATION**
FEDERAL RAILROAD ADMINISTRATION (FRA)

# HIGHWAY-RAIL GRADE CROSSING ACCIDENT/INCIDENT REPORT

OMB Approval No. 2130-0500

| Name Of | Alphabetic Code | RR Accident/Incident No. |
|---|---|---|
| 1. Reporting Railroad | 1a. **ATSF** | 1b. **33018203** |
| 2. Other Railroad Involved in Train Accident/Incident | 2a. | 2b. |
| 3. Railroad Responsible for Track Maintenance | 3a. **ATSF** | 3b. **33018203** |

| 4. U.S. DOT-AAR Grade Crossing ID No. | 5. Date of Accident/Incident | 6. Time of Accident/Incident |
|---|---|---|
| **028002V** | **01/10/78** | **9:10 AM** |

| 7. Nearest Railroad Station | 8. Division | 9. County | 10. State Abbr. | Code |
|---|---|---|---|---|
| **INGLEWOOD** | | **LOS ANGELES** | **CA** | **06** |

11. City *(if in a city)* **INGLEWOOD** | 12. Highway Name or No. **LA BREA AVENUE** | ☑ Public ☐ Private

## Highway User Involved

13. Type — A. Auto, B. Truck, C. Truck-trailer, D. Pick-up truck, E. Van, F. Bus, G. School Bus, H. Motorcycle, J. Other Motor Vehicle, K. Pedestrian, M. Other *(specify)* — Code: **B**

14. Vehicle Speed *(est. mph at impact)*: **3**

15. Direction *(geographical)* — 1. North 2. South 3. East 4. West — Code: **2**

16. Position — 1. Stalled on crossing, 2. Stopped on Crossing, 3. Moving over crossing, 4. Trapped — Code: **3**

20a. Was the highway user and/or rail equipment involved in the impact transporting hazardous materials? — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code: **4**

## Rail Equipment Involved

17. Equipment — 1. Train *(units pulling)*, 2. Train *(units pushing)*, 3. Train *(standing)*, 4. Car(s) *(moving)*, 5. Car(s) *(standing)*, 6. Light loco(s) *(moving)*, 7. Light loco(s) *(standing)*, 8. Other *(specify)* — Code: **1**

18. Position of Car Unit in Train: **3**

19. Circumstance — 1. Rail equipment struck highway user, 2. Rail equipment struck by highway user — Code: **2**

20b. Was there a hazardous materials release by — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code:

20c. State the name and quantity of the hazardous materials released, if any

21. Temperature *(specify if minus)*: **60 °F**

22. Visibility *(single entry)* — 1. Dawn 2. Day 3. Dusk 4. Dark — Code: **2**

23. Weather *(single entry)* — 1. Clear 2. Cloudy 3. Rain 4. Fog 5. Sleet 6. Snow — Code: **2**

24. Type of Equipment Consist *(single entry)* — 1. Freight train, 2. Passenger train, 3. Commuter train, 4. Work train, 5. Single car, 6. Cut of cars, 7. Yard/Switching, 8. Light loco(s), 9. Other *(specify)* — Code: **1**

25. Track Type Used by Rail Equipment Involved — 1. Main 2. Yard 3. Siding 4. Industry — Code: **1**

26. Track Number or Name: **HARBOR MAIN**

| 27. FRA Track Class (1-6,X) | 28. Number of Locomotive Units | 29. Number of Cars | 30. Consist Speed *(Recorded if available)* | Code | 31. Time Table Direction | Code |
|---|---|---|---|---|---|---|
| **2** | **2** | **30** | R. Recorded; E. Estimated **15** mph | **E** | 1. North 2. South 3. East 4. West | **3** |

32. Type of Crossing Warning — 1. Gates, 2. Cantilever FLS, 3. Standard FLS, 4. Wig wags, 5. Hwy. traffic signals, 6. Audible, 7. Crossbucks, 8. Stop signs, 9. Watchman, 10. Flagged by crew, 11. Other *(specify)*, 12. None — Code(s): **01**

33. Signaled Crossing Warning: **20 sec warn min**

34. Whistle Ban — 1. Yes 2. No 3. Unknown — Code:

35. Location of Warning — 1. Both Sides, 2. Side of Vehicle Approach, 3. Opposite Side of Vehicle Approach — Code: **1**

36. Crossing Warning Interconnected with Highway Signals — 1. Yes 2. No 3. Unknown — Code: **2**

37. Crossing Illuminated by Street Lights or Special Lights — 1. Yes 2. No 3. Unknown — Code: **2**

38. Driver's Age:

39. Driver's Gender — 1. Male, 2. Female — Code:

40. Driver Drove Behind or in Front of Train and Struck or was Struck by Second Train — 1. Yes 2. No 3. Unknown — Code: **2**

41. Driver — 1. Drove around or thru the gate, 2. Stopped and then proceeded, 3. Did not stop, 4. Stopped on crossing, 5. Other *(specify)* — Code: **4**

42. Driver Passed Standing Highway Vehicle — 1. Yes 2. No 3. Unknown — Code: **2**

43. View of Track Obscured by *(primary obstruction)* — 1. Permanent Structure, 2. Standing railroad equipment, 3. Passing Train, 4. Topography, 5. Vegetation, 6. Highway Vehicles, 7. Other *(specify)*, 8. Not Obstructed — Code: **8**

| Casualties to: | Killed | Injured |
|---|---|---|
| 46. Highway-Rail Crossing Users | **0** | **0** |
| 49. Railroad Employees | **0** | **0** |
| 52. Passengers on Train | **0** | **0** |

44. Driver was — 1. Killed 2. Injured 3. Uninjured — Code: **3**

45. Was Driver in the Vehicle? — 1. Yes 2. No — Code: **1**

47. Highway Vehicle Property Damage *(est. dollar damage)*: **$300**

48. Total Number of Highway-Rail Crossing Users *(include driver)*: **1**

50. Total Number of People on Train *(include passengers and crew)*:

51. Is a Rail Equipment Accident / Incident Report Being Filed — 1. Yes 2. No — Code: **2**

53a. Special Study Block | 53b. Special Study Block

54. Narrative Description

| 55. Typed Name and Title | 56. Signature | 57. Date |
|---|---|---|
| | | |

FORM FRA F 6180.57

* NOTE THAT ALL CASUALTIES MUST BE REPORTED ON FORM FRA F 6180.55A

**DEPARTMENT OF TRANSPORTATION**
FEDERAL RAILROAD ADMINISTRATION (FRA)

# HIGHWAY-RAIL GRADE CROSSING ACCIDENT/INCIDENT REPORT

OMB Approval No. 2130-0500

| Name Of | Alphabetic Code | RR Accident/Incident No. |
|---|---|---|
| 1. Reporting Railroad | 1a. **BNSF** | 1b. **SC0297200** |
| 2. Other Railroad Involved in Train Accident/Incident | 2a. | 2b. **SC0297200** |
| 3. Railroad Responsible for Track Maintenance | 3a. **BNSF** | 3b. **SC0297200** |

| 4. U.S. DOT-AAR Grade Crossing ID No. | 5. Date of Accident/Incident | 6. Time of Accident/Incident |
|---|---|---|
| **028002V** | **02/14/97** | **7:40 PM** |

| 7. Nearest Railroad Station | 8. Division | 9. County | 10. State Abbr. | Code |
|---|---|---|---|---|
| **INGLEWOOD** | **SOUTH CALIFORNIA** | **LOS ANGELES** | **CA** | **06** |

11. City *(if in a city)*

12. Highway Name or No. **LA BREA AVENUE** ☑ Public ☐ Private

## Highway User Involved

13. Type — A. Auto, B. Truck, C. Truck-trailer, D. Pick-up truck, E. Van, F. Bus, G. School Bus, H. Motorcycle, J. Other Motor Vehicle, K. Pedestrian, M. Other *(specify)* — Code: **A**

14. Vehicle Speed *(est. mph at impact)*: **5**

15. Direction *(geographical)* — 1. North 2. South 3. East 4. West — Code: **3**

16. Position — 1. Stalled on crossing, 2. Stopped on Crossing, 3. Moving over crossing, 4. Trapped — Code: **3**

20a. Was the highway user and/or rail equipment involved in the impact transporting hazardous materials? — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code: **4**

## Rail Equipment Involved

17. Equipment — 1. Train *(units pulling)*, 2. Train *(units pushing)*, 3. Train *(standing)*, 4. Car(s) *(moving)*, 5. Car(s) *(standing)*, 6. Light loco(s) *(moving)*, 7. Light loco(s) *(standing)*, 8. Other *(specify)* — Code: **1**

18. Position of Car Unit in Train: **1**

19. Circumstance — 1. Rail equipment struck highway user, 2. Rail equipment struck by highway user — Code: **1**

20b. Was there a hazardous materials release by — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code:

20c. State the name and quantity of the hazardous materials released, if any: **0**

21. Temperature *(specify if minus)*: **65 °F**

22. Visibility *(single entry)* — 1. Dawn 2. Day 3. Dusk 4. Dark — Code: **4**

23. Weather *(single entry)* — 1. Clear 2. Cloudy 3. Rain 4. Fog 5. Sleet 6. Snow — Code: **2**

24. Type of Equipment Consist *(single entry)* — 1. Freight train, 2. Passenger train, 3. Commuter train, 4. Work train, 5. Single car, 6. Cut of cars, 7. Yard/Switching, 8. Light loco(s), 9. Other *(specify)* — Code: **1**

25. Track Type Used by Rail Equipment Involved — 1. Main 2. Yard 3. Siding 4. Industry — Code: **1**

26. Track Number or Name: **MAIN**

27. FRA Track Class (1-6,X):

28. Number of Locomotive Units: **4**

29. Number of Cars: **49**

30. Consist Speed *(Recorded if available)* — R. Recorded, E. Estimated: **20** mph — Code: **E**

31. Time Table Direction — 1. North 2. South 3. East 4. West — Code: **4**

32. Type of Crossing Warning — 1. Gates, 2. Cantilever FLS, 3. Standard FLS, 4. Wig wags, 5. Hwy. traffic signals, 6. Audible, 7. Crossbucks, 8. Stop signs, 9. Watchman, 10. Flagged by crew, 11. Other *(specify)*, 12. None — Code(s): **01** **02**

33. Signaled Crossing Warning: **20 sec warn min**

34. Whistle Ban — 1. Yes 2. No 3. Unknown — Code: **3**

35. Location of Warning — 1. Both Sides, 2. Side of Vehicle Approach, 3. Opposite Side of Vehicle Approach — Code: **1**

36. Crossing Warning Interconnected with Highway Signals — 1. Yes 2. No 3. Unknown — Code: **3**

37. Crossing Illuminated by Street Lights or Special Lights — 1. Yes 2. No 3. Unknown — Code: **3**

38. Driver's Age:

39. Driver's Gender — 1. Male, 2. Female — Code:

40. Driver Drove Behind or in Front of Train and Struck or was Struck by Second Train — 1. Yes 2. No 3. Unknown — Code: **2**

41. Driver — 1. Drove around or thru the gate, 2. Stopped and then proceeded, 3. Did not stop, 4. Stopped on crossing, 5. Other *(specify)* — Code: **3**

42. Driver Passed Standing Highway Vehicle — 1. Yes 2. No 3. Unknown — Code: **2**

43. View of Track Obscured by *(primary obstruction)* — 1. Permanent Structure, 2. Standing railroad equipment, 3. Passing Train, 4. Topography, 5. Vegetation, 6. Highway Vehicles, 7. Other *(specify)*, 8. Not Obstructed — Code: **8**

| Casualties to: | Killed | Injured |
|---|---|---|
| 46. Highway-Rail Crossing Users | **0** | **0** |
| 49. Railroad Employees | **0** | **0** |
| 52. Passengers on Train | **0** | **0** |

44. Driver was — 1. Killed 2. Injured 3. Uninjured — Code: **3**

45. Was Driver in the Vehicle? — 1. Yes 2. No — Code: **2**

47. Highway Vehicle Property Damage *(est. dollar damage)*: **$1,000**

48. Total Number of Highway-Rail Crossing Users *(include driver)*: **2**

50. Total Number of People on Train *(include passengers and crew)*: **3**

51. Is a Rail Equipment Accident / Incident Report Being Filed — 1. Yes 2. No — Code: **2**

53a. Special Study Block

53b. Special Study Block

54. Narrative Description

| 55. Typed Name and Title | 56. Signature | 57. Date |
|---|---|---|
| | | |

FORM FRA F 6180.57

* NOTE THAT ALL CASUALTIES MUST BE REPORTED ON FORM FRA F 6180.55A

**DEPARTMENT OF TRANSPORTATION**
FEDERAL RAILROAD ADMINISTRATION (FRA)

# HIGHWAY-RAIL GRADE CROSSING ACCIDENT/INCIDENT REPORT

OMB Approval No. 2130-0500

| Name Of | Alphabetic Code | RR Accident/Incident No. |
|---|---|---|
| 1. Reporting Railroad | 1a. BNSF | 1b. SC0398200 |
| 2. Other Railroad Involved in Train Accident/Incident | 2a. | 2b. SC0398200 |
| 3. Railroad Responsible for Track Maintenance | 3a. BNSF | 3b. SC0398200 |

| 4. U.S. DOT-AAR Grade Crossing ID No. | 5. Date of Accident/Incident | 6. Time of Accident/Incident |
|---|---|---|
| 028002V | 03/06/98 | 1:10 PM |

| 7. Nearest Railroad Station | 8. Division | 9. County | 10. State Abbr. | Code |
|---|---|---|---|---|
| INGLEWOOD | SOUTHERN CALIFORNIA | LOS ANGELES | CA | 06 |

11. City *(if in a city)*

12. Highway Name or No. LA BREA STREET ☑ Public ☐ Private

## Highway User Involved

13. Type — A. Auto, B. Truck, C. Truck-trailer, D. Pick-up truck, E. Van, F. Bus, G. School Bus, H. Motorcycle, J. Other Motor Vehicle, K. Pedestrian, M. Other *(specify)* — Code: A

14. Vehicle Speed *(est. mph at impact)*: 0

15. Direction *(geographical)* — 1. North 2. South 3. East 4. West — Code: 2

16. Position — 1. Stalled on crossing, 2. Stopped on Crossing, 3. Moving over crossing, 4. Trapped — Code: 2

20a. Was the highway user and/or rail equipment involved in the impact transporting hazardous materials? — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code: 4

## Rail Equipment Involved

17. Equipment — 1. Train *(units pulling)*, 2. Train *(units pushing)*, 3. Train *(standing)*, 4. Car(s) *(moving)*, 5. Car(s) *(standing)*, 6. Light loco(s) *(moving)*, 7. Light loco(s) *(standing)*, 8. Other *(specify)* — Code: 1

18. Position of Car Unit in Train: 1

19. Circumstance — 1. Rail equipment struck highway user, 2. Rail equipment struck by highway user — Code: 1

20b. Was there a hazardous materials release by — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code: 4

20c. State the name and quantity of the hazardous materials released, if any

21. Temperature *(specify if minus)*: 70 °F

22. Visibility *(single entry)* — 1. Dawn 2. Day 3. Dusk 4. Dark — Code: 2

23. Weather *(single entry)* — 1. Clear 2. Cloudy 3. Rain 4. Fog 5. Sleet 6. Snow — Code: 2

24. Type of Equipment Consist *(single entry)* — 1. Freight train, 2. Passenger train, 3. Commuter train, 4. Work train, 5. Single car, 6. Cut of cars, 7. Yard/Switching, 8. Light loco(s), 9. Other *(specify)* — Code: 4

25. Track Type Used by Rail Equipment Involved — 1. Main 2. Yard 3. Siding 4. Industry — Code: 1

26. Track Number or Name: MAIN

| 27. FRA Track Class (1-6,X) | 28. Number of Locomotive Units | 29. Number of Cars | 30. Consist Speed *(Recorded if available)* | Code | 31. Time Table Direction | Code |
|---|---|---|---|---|---|---|
| 2 | 2 | 27 | R. Recorded / E. Estimated 5 mph | E | 1. North 2. South 3. East 4. West | 4 |

32. Type of Crossing Warning — 1. Gates, 2. Cantilever FLS, 3. Standard FLS, 4. Wig wags, 5. Hwy. traffic signals, 6. Audible, 7. Crossbucks, 8. Stop signs, 9. Watchman, 10. Flagged by crew, 11. Other *(specify)*, 12. None

Code(s): 01, 03

33. Signaled Crossing Warning: Allgd. warn > 60 sec

34. Whistle Ban — 1. Yes 2. No 3. Unknown — Code: 3

| 35. Location of Warning — 1. Both Sides, 2. Side of Vehicle Approach, 3. Opposite Side of Vehicle Approach | Code | 36. Crossing Warning Interconnected with Highway Signals — 1. Yes 2. No 3. Unknown | Code | 37. Crossing Illuminated by Street Lights or Special Lights — 1. Yes 2. No 3. Unknown | Code |
|---|---|---|---|---|---|
| | 1 | | 3 | | 3 |

| 38. Driver's Age | 39. Driver's Gender — 1. Male, 2. Female | Code | 40. Driver Drove Behind or in Front of Train and Struck or was Struck by Second Train — 1. Yes 2. No 3. Unknown | Code | 41. Driver — 1. Drove around or thru the gate, 2. Stopped and then proceeded, 3. Did not stop, 4. Stopped on crossing, 5. Other *(specify)* | Code |
|---|---|---|---|---|---|---|
| | 2 | | 2 | | | 4 |

42. Driver Passed Standing Highway Vehicle — 1. Yes 2. No 3. Unknown — Code: 2

43. View of Track Obscured by *(primary obstruction)* — 1. Permanent Structure, 2. Standing railroad equipment, 3. Passing Train, 4. Topography, 5. Vegetation, 6. Highway Vehicles, 7. Other *(specify)*, 8. Not Obstructed — Code: 8

| Casualties to: | Killed | Injured |
|---|---|---|
| 46. Highway-Rail Crossing Users | 0 | 0 |
| 49. Railroad Employees | 0 | 0 |
| 52. Passengers on Train | 0 | 0 |

44. Driver was — 1. Killed 2. Injured 3. Uninjured — Code: 3

45. Was Driver in the Vehicle? — 1. Yes 2. No — Code: 1

47. Highway Vehicle Property Damage *(est. dollar damage)*: $1,000

48. Total Number of Highway-Rail Crossing Users *(include driver)*: 1

50. Total Number of People on Train *(include passengers and crew)*: 3

51. Is a Rail Equipment Accident / Incident Report Being Filed — 1. Yes 2. No — Code: 2

53a. Special Study Block

53b. Special Study Block

54. Narrative Description

| 55. Typed Name and Title | 56. Signature | 57. Date |
|---|---|---|
| | | |

FORM FRA F 6180.57

* NOTE THAT ALL CASUALTIES MUST BE REPORTED ON FORM FRA F 6180.55A

**DEPARTMENT OF TRANSPORTATION**
FEDERAL RAILROAD ADMINISTRATION (FRA)

# HIGHWAY-RAIL GRADE CROSSING ACCIDENT/INCIDENT REPORT

OMB Approval No. 2130-0500

| Name Of | Alphabetic Code | RR Accident/Incident No. |
|---|---|---|
| 1. Reporting Railroad | 1a. ATSF | 1b. 42115403 |
| 2. Other Railroad Involved in Train Accident/Incident | 2a. | 2b. |
| 3. Railroad Responsible for Track Maintenance | 3a. ATSF | 3b. 42115403 |

| 4. U.S. DOT-AAR Grade Crossing ID No. | 5. Date of Accident/Incident | 6. Time of Accident/Incident |
|---|---|---|
| 028004J | 11/06/75 | 2:55 PM |

| 7. Nearest Railroad Station | 8. Division | 9. County | 10. State Abbr. | Code |
|---|---|---|---|---|
| INGLEWOOD | | LOS ANGELES | CA | 06 |

| 11. City *(if in a city)* | 12. Highway Name or No. | |
|---|---|---|
| INGLEWOOD | EUCALYPTUS AVENUE | ☑ Public ☐ Private |

## Highway User Involved

13. Type — A. Auto, B. Truck, C. Truck-trailer, D. Pick-up truck, E. Van, F. Bus, G. School Bus, H. Motorcycle, J. Other Motor Vehicle, K. Pedestrian, M. Other *(specify)* — Code: **A**

14. Vehicle Speed *(est. mph at impact)*

15. Direction *(geographical)* — 1. North 2. South 3. East 4. West — Code: **1**

16. Position — 1. Stalled on crossing, 2. Stopped on Crossing, 3. Moving over crossing, 4. Trapped — Code: **2**

20a. Was the highway user and/or rail equipment involved in the impact transporting hazardous materials? — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code: **4**

## Rail Equipment Involved

17. Equipment — 1. Train *(units pulling)*, 2. Train *(units pushing)*, 3. Train *(standing)*, 4. Car(s) *(moving)*, 5. Car(s) *(standing)*, 6. Light loco(s) *(moving)*, 7. Light loco(s) *(standing)*, 8. Other *(specify)* — Code: **6**

18. Position of Car Unit in Train: **1**

19. Circumstance — 1. Rail equipment struck highway user, 2. Rail equipment struck by highway user — Code: **1**

20b. Was there a hazardous materials release by — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code:

20c. State the name and quantity of the hazardous materials released, if any

| 21. Temperature *(specify if minus)* | 22. Visibility *(single entry)* | 23. Weather *(single entry)* |
|---|---|---|
| 70 °F | 1. Dawn 2. Day 3. Dusk 4. Dark — Code: **2** | 1. Clear 2. Cloudy 3. Rain 4. Fog 5. Sleet 6. Snow — Code: **1** |

| 24. Type of Equipment Consist *(single entry)* | 25. Track Type Used by Rail Equipment Involved | 26. Track Number or Name |
|---|---|---|
| 1. Freight train 2. Passenger train 3. Commuter train 4. Work train 5. Single car 6. Cut of cars 7. Yard/Switching 8. Light loco(s) 9. Other *(specify)* — Code: **8** | 1. Main 2. Yard 3. Siding 4. Industry — Code: **1** | HARBOR DIST |

| 27. FRA Track Class (1-6,X) | 28. Number of Locomotive Units | 29. Number of Cars | 30. Consist Speed *(Recorded if available)* | Code | 31. Time Table Direction | Code |
|---|---|---|---|---|---|---|
| 2 | 1 | 0 | R. Recorded E. Estimated 2 mph | E | 1. North 2. South 3. East 4. West | 3 |

| 32. Type of Crossing Warning | 33. Signaled Crossing Warning | 34. Whistle Ban | Code |
|---|---|---|---|
| 1. Gates 2. Cantilever FLS 3. Standard FLS 4. Wig wags 5. Hwy. traffic signals 6. Audible 7. Crossbucks 8. Stop signs 9. Watchman 10. Flagged by crew 11. Other *(specify)* 12. None | 20 sec warn min | 1. Yes 2. No 3. Unknown | |
| Code(s): 01 03 | | | |

| 35. Location of Warning | Code | 36. Crossing Warning Interconnected with Highway Signals | Code | 37. Crossing Illuminated by Street Lights or Special Lights | Code |
|---|---|---|---|---|---|
| 1. Both Sides 2. Side of Vehicle Approach 3. Opposite Side of Vehicle Approach | 1 | 1. Yes 2. No 3. Unknown | 3 | 1. Yes 2. No 3. Unknown | 3 |

| 38. Driver's Age | 39. Driver's Gender | 40. Driver Drove Behind or in Front of Train and Struck or was Struck by Second Train | Code | 41. Driver | Code |
|---|---|---|---|---|---|
| | 1. Male 2. Female | 1. Yes 2. No 3. Unknown | 2 | 1. Drove around or thru the gate 2. Stopped and then proceeded 3. Did not stop 4. Stopped on crossing 5. Other *(specify)* | 1 |

| 42. Driver Passed Standing Highway Vehicle | Code | 43. View of Track Obscured by *(primary obstruction)* | Code |
|---|---|---|---|
| 1. Yes 2. No 3. Unknown | 3 | 1. Permanent Structure 2. Standing railroad equipment 3. Passing Train 4. Topography 5. Vegetation 6. Highway Vehicles 7. Other *(specify)* 8. Not Obstructed | 8 |

| Casualties to: | Killed | Injured |
|---|---|---|
| 46. Highway-Rail Crossing Users | 0 | 0 |
| 49. Railroad Employees | 0 | 0 |
| 52. Passengers on Train | 0 | 0 |

| 44. Driver was | Code | 45. Was Driver in the Vehicle? | Code |
|---|---|---|---|
| 1. Killed 2. Injured 3. Uninjured | 3 | 1. Yes 2. No | 1 |

| 47. Highway Vehicle Property Damage *(est. dollar damage)* | 48. Total Number of Highway-Rail Crossing Users *(include driver)* |
|---|---|
| $0 | 2 |

| 50. Total Number of People on Train *(include passengers and crew)* | 51. Is a Rail Equipment Accident / Incident Report Being Filed | Code |
|---|---|---|
| | 1. Yes 2. No | 2 |

53a. Special Study Block

53b. Special Study Block

54. Narrative Description

| 55. Typed Name and Title | 56. Signature | 57. Date |
|---|---|---|
| | | |

FORM FRA F 6180.57

* NOTE THAT ALL CASUALTIES MUST BE REPORTED ON FORM FRA F 6180.55A

**DEPARTMENT OF TRANSPORTATION**
FEDERAL RAILROAD ADMINISTRATION (FRA)

# HIGHWAY-RAIL GRADE CROSSING ACCIDENT/INCIDENT REPORT

OMB Approval No. 2130-0500

| Name Of | Alphabetic Code | RR Accident/Incident No. |
|---|---|---|
| 1. Reporting Railroad | 1a. ATSF | 1b. 311287204 |
| 2. Other Railroad Involved in Train Accident/Incident | 2a. | 2b. 311287204 |
| 3. Railroad Responsible for Track Maintenance | 3a. ATSF | 3b. 311287204 |

| 4. U.S. DOT-AAR Grade Crossing ID No. | 5. Date of Accident/Incident | 6. Time of Accident/Incident |
|---|---|---|
| 028004J | 12/30/87 | 1:17 AM |

| 7. Nearest Railroad Station | 8. Division | 9. County | 10. State Abbr. | Code |
|---|---|---|---|---|
| INGLEWOOD | | LOS ANGELES | CA | 06 |

| 11. City *(if in a city)* | 12. Highway Name or No. | |
|---|---|---|
| INGLEWOOD | EUCALYPTUS ST | ☑ Public ☐ Private |

## Highway User Involved

13. Type — A. Auto, B. Truck, C. Truck-trailer, D. Pick-up truck, E. Van, F. Bus, G. School Bus, H. Motorcycle, J. Other Motor Vehicle, K. Pedestrian, M. Other *(specify)* — Code: **A**

14. Vehicle Speed *(est. mph at impact)*: **5**

15. Direction *(geographical)* — 1. North 2. South 3. East 4. West — Code: **2**

16. Position — 1. Stalled on crossing, 2. Stopped on Crossing, 3. Moving over crossing, 4. Trapped — Code: **3**

20a. Was the highway user and/or rail equipment involved in the impact transporting hazardous materials? — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code: **4**

## Rail Equipment Involved

17. Equipment — 1. Train *(units pulling)*, 2. Train *(units pushing)*, 3. Train *(standing)*, 4. Car(s) *(moving)*, 5. Car(s) *(standing)*, 6. Light loco(s) *(moving)*, 7. Light loco(s) *(standing)*, 8. Other *(specify)* — Code: **1**

18. Position of Car Unit in Train: **1**

19. Circumstance — 1. Rail equipment struck highway user, 2. Rail equipment struck by highway user — Code: **1**

20b. Was there a hazardous materials release by — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code:

20c. State the name and quantity of the hazardous materials released, if any

| 21. Temperature *(specify if minus)* | 22. Visibility *(single entry)* | 23. Weather *(single entry)* |
|---|---|---|
| 45 °F | 1. Dawn 2. Day 3. Dusk 4. Dark — Code: **4** | 1. Clear 2. Cloudy 3. Rain 4. Fog 5. Sleet 6. Snow — Code: **1** |

| 24. Type of Equipment Consist *(single entry)* | 25. Track Type Used by Rail Equipment Involved | 26. Track Number or Name |
|---|---|---|
| 1. Freight train 2. Passenger train 3. Commuter train 4. Work train 5. Single car 6. Cut of cars 7. Yard/Switching 8. Light loco(s) 9. Other *(specify)* — Code: **1** | 1. Main 2. Yard 3. Siding 4. Industry — Code: **1** | MAIN |

| 27. FRA Track Class (1-6,X) | 28. Number of Locomotive Units | 29. Number of Cars | 30. Consist Speed *(Recorded if available)* | Code | 31. Time Table Direction | Code |
|---|---|---|---|---|---|---|
| 1 | 4 | 55 | R. Recorded<br>E. Estimated 15 mph | E | 1. North 2. South 3. East 4. West | 3 |

| 32. Type of Crossing Warning | 33. Signaled Crossing Warning | 34. Whistle Ban | Code |
|---|---|---|---|
| 1. Gates 2. Cantilever FLS 3. Standard FLS 4. Wig wags 5. Hwy. traffic signals 6. Audible 7. Crossbucks 8. Stop signs 9. Watchman 10. Flagged by crew 11. Other *(specify)* 12. None | 20 sec warn min | 1. Yes 2. No 3. Unknown | |
| Code(s): 01, 03, 06, 07 | | | |

| 35. Location of Warning | Code | 36. Crossing Warning Interconnected with Highway Signals | Code | 37. Crossing Illuminated by Street Lights or Special Lights | Code |
|---|---|---|---|---|---|
| 1. Both Sides 2. Side of Vehicle Approach 3. Opposite Side of Vehicle Approach | 2 | 1. Yes 2. No 3. Unknown | 3 | 1. Yes 2. No 3. Unknown | 3 |

| 38. Driver's Age | 39. Driver's Gender | 40. Driver Drove Behind or in Front of Train and Struck or was Struck by Second Train | Code | 41. Driver | Code |
|---|---|---|---|---|---|
| | 1. Male 2. Female | 1. Yes 2. No 3. Unknown | 2 | 1. Drove around or thru the gate 2. Stopped and then proceeded 3. Did not stop 4. Stopped on crossing 5. Other *(specify)* | 1 |

| 42. Driver Passed Standing Highway Vehicle | Code | 43. View of Track Obscured by *(primary obstruction)* | Code |
|---|---|---|---|
| 1. Yes 2. No 3. Unknown | 2 | 1. Permanent Structure 2. Standing railroad equipment 3. Passing Train 4. Topography 5. Vegetation 6. Highway Vehicles 7. Other *(specify)* 8. Not Obstructed | 8 |

| Casualties to: | Killed | Injured |
|---|---|---|
| 46. Highway-Rail Crossing Users | 0 | 1 |
| 49. Railroad Employees | 0 | 0 |
| 52. Passengers on Train | 0 | 0 |

| 44. Driver was | Code | 45. Was Driver in the Vehicle? | Code |
|---|---|---|---|
| 1. Killed 2. Injured 3. Uninjured | 2 | 1. Yes 2. No | 1 |

| 47. Highway Vehicle Property Damage *(est. dollar damage)* | 48. Total Number of Highway-Rail Crossing Users *(include driver)* |
|---|---|
| $1,200 | 1 |

| 50. Total Number of People on Train *(include passengers and crew)* | 51. Is a Rail Equipment Accident / Incident Report Being Filed | Code |
|---|---|---|
| | 1. Yes 2. No | 2 |

53a. Special Study Block

53b. Special Study Block

54. Narrative Description

| 55. Typed Name and Title | 56. Signature | 57. Date |
|---|---|---|
| | | |

FORM FRA F 6180.57

* NOTE THAT ALL CASUALTIES MUST BE REPORTED ON FORM FRA F 6180.55A

**DEPARTMENT OF TRANSPORTATION**
FEDERAL RAILROAD ADMINISTRATION (FRA)

# HIGHWAY-RAIL GRADE CROSSING ACCIDENT/INCIDENT REPORT

OMB Approval No. 2130-0500

| Name Of | Alphabetic Code | RR Accident/Incident No. |
|---|---|---|
| 1. Reporting Railroad | 1a. ATSF | 1b. 031292202 |
| 2. Other Railroad Involved in Train Accident/Incident | 2a. | 2b. 031292202 |
| 3. Railroad Responsible for Track Maintenance | 3a. ATSF | 3b. 031292202 |

| 4. U.S. DOT-AAR Grade Crossing ID No. | 5. Date of Accident/Incident | 6. Time of Accident/Incident |
|---|---|---|
| 028004J | 12/17/92 | 8:30 PM |

| 7. Nearest Railroad Station | 8. Division | 9. County | 10. State Abbr. | Code |
|---|---|---|---|---|
| INGLEWOOD | | LOS ANGELES | CA | 06 |

| 11. City *(if in a city)* | 12. Highway Name or No. | |
|---|---|---|
| INGLEWOOD | EUCALYPTUS AVE | ☑ Public ☐ Private |

## Highway User Involved

13. Type — A. Auto; B. Truck; C. Truck-trailer; D. Pick-up truck; E. Van; F. Bus; G. School Bus; H. Motorcycle; J. Other Motor Vehicle; K. Pedestrian; M. Other *(specify)* — Code: **A**

14. Vehicle Speed *(est. mph at impact)*: **0**

15. Direction *(geographical)* — 1. North 2. South 3. East 4. West — Code: **1**

16. Position — 1. Stalled on crossing 2. Stopped on Crossing 3. Moving over crossing 4. Trapped — Code: **1**

20a. Was the highway user and/or rail equipment involved in the impact transporting hazardous materials? — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code: **4**

## Rail Equipment Involved

17. Equipment — 1. Train *(units pulling)* 2. Train *(units pushing)* 3. Train *(standing)* 4. Car(s) *(moving)* 5. Car(s) *(standing)* 6. Light loco(s) *(moving)* 7. Light loco(s) *(standing)* 8. Other *(specify)* — Code: **1**

18. Position of Car Unit in Train: **1**

19. Circumstance — 1. Rail equipment struck highway user 2. Rail equipment struck by highway user — Code: **1**

20b. Was there a hazardous materials release by — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code:

20c. State the name and quantity of the hazardous materials released, if any

| 21. Temperature *(specify if minus)* | 22. Visibility *(single entry)* — 1. Dawn 2. Day 3. Dusk 4. Dark — Code | 23. Weather *(single entry)* — 1. Clear 2. Cloudy 3. Rain 4. Fog 5. Sleet 6. Snow — Code |
|---|---|---|
| 50 °F | 4 | 1 |

| 24. Type of Equipment Consist *(single entry)* — 1. Freight train 2. Passenger train 3. Commuter train 4. Work train 5. Single car 6. Cut of cars 7. Yard/Switching 8. Light loco(s) 9. Other *(specify)* — Code | 25. Track Type Used by Rail Equipment Involved — 1. Main 2. Yard 3. Siding 4. Industry — Code | 26. Track Number or Name |
|---|---|---|
| 1 | 1 | MAIN LINE |

| 27. FRA Track Class (1-6,X) | 28. Number of Locomotive Units | 29. Number of Cars | 30. Consist Speed *(Recorded if available)* — R. Recorded E. Estimated — Code | 31. Time Table Direction — 1. North 2. South 3. East 4. West — Code |
|---|---|---|---|---|
| 2 | 3 | 24 | 10 mph E | 4 |

| 32. Type of Crossing Warning — 1. Gates 2. Cantilever FLS 3. Standard FLS 4. Wig wags 5. Hwy. traffic signals 6. Audible 7. Crossbucks 8. Stop signs 9. Watchman 10. Flagged by crew 11. Other *(specify)* 12. None | 33. Signaled Crossing Warning | 34. Whistle Ban — 1. Yes 2. No 3. Unknown — Code |
|---|---|---|
| Code(s): 01 | 20 sec warn min | |

| 35. Location of Warning — 1. Both Sides 2. Side of Vehicle Approach 3. Opposite Side of Vehicle Approach — Code | 36. Crossing Warning Interconnected with Highway Signals — 1. Yes 2. No 3. Unknown — Code | 37. Crossing Illuminated by Street Lights or Special Lights — 1. Yes 2. No 3. Unknown — Code |
|---|---|---|
| 1 | 3 | 3 |

| 38. Driver's Age | 39. Driver's Gender — 1. Male 2. Female — Code | 40. Driver Drove Behind or in Front of Train and Struck or was Struck by Second Train — 1. Yes 2. No 3. Unknown — Code | 41. Driver — 1. Drove around or thru the gate 2. Stopped and then proceeded 3. Did not stop 4. Stopped on crossing 5. Other *(specify)* — Code |
|---|---|---|---|
| | | 2 | 4 |

| 42. Driver Passed Standing Highway Vehicle — 1. Yes 2. No 3. Unknown — Code | 43. View of Track Obscured by *(primary obstruction)* — 1. Permanent Structure 2. Standing railroad equipment 3. Passing Train 4. Topography 5. Vegetation 6. Highway Vehicles 7. Other *(specify)* 8. Not Obstructed — Code |
|---|---|
| 2 | 8 |

| Casualties to: | Killed | Injured | 44. Driver was — 1. Killed 2. Injured 3. Uninjured — Code | 45. Was Driver in the Vehicle? — 1. Yes 2. No — Code |
|---|---|---|---|---|
| | | | 3 | 2 |
| 46. Highway-Rail Crossing Users | 0 | 0 | 47. Highway Vehicle Property Damage *(est. dollar damage)* | $15,000 |
| | | | | 48. Total Number of Highway-Rail Crossing Users *(include driver)* 0 |
| 49. Railroad Employees | 0 | 0 | 50. Total Number of People on Train *(include passengers and crew)* | 51. Is a Rail Equipment Accident / Incident Report Being Filed — 1. Yes 2. No — Code |
| 52. Passengers on Train | 0 | 0 | | 2 |

53a. Special Study Block

53b. Special Study Block

54. Narrative Description

| 55. Typed Name and Title | 56. Signature | 57. Date |
|---|---|---|
| | | |

FORM FRA F 6180.57

* NOTE THAT ALL CASUALTIES MUST BE REPORTED ON FORM FRA F 6180.55A

**DEPARTMENT OF TRANSPORTATION**
FEDERAL RAILROAD ADMINISTRATION (FRA)

# HIGHWAY-RAIL GRADE CROSSING ACCIDENT/INCIDENT REPORT

OMB Approval No. 2130-0500

| Name Of | Alphabetic Code | RR Accident/Incident No. |
|---|---|---|
| 1. Reporting Railroad | 1a. ATSF | 1b. 360190201 |
| 2. Other Railroad Involved in Train Accident/Incident | 2a. | 2b. 360190201 |
| 3. Railroad Responsible for Track Maintenance | 3a. ATSF | 3b. 360190201 |

| 4. U.S. DOT-AAR Grade Crossing ID No. | 5. Date of Accident/Incident | 6. Time of Accident/Incident |
|---|---|---|
| 028008L | 01/04/90 | 2:50 AM |

| 7. Nearest Railroad Station | 8. Division | 9. County | 10. State Abbr. | Code |
|---|---|---|---|---|
| HYDE PARK | | LOS ANGELES | CA | 06 |

11. City *(if in a city)*: INGLEWOOD
12. Highway Name or No.: HYDE PARK BLVD — ☑ Public ☐ Private

## Highway User Involved

13. Type — A. Auto, B. Truck, C. Truck-trailer, D. Pick-up truck, E. Van, F. Bus, G. School Bus, H. Motorcycle, J. Other Motor Vehicle, K. Pedestrian, M. Other *(specify)* — Code: **A**

14. Vehicle Speed *(est. mph at impact)*:

15. Direction *(geographical)* — 1. North 2. South 3. East 4. West — Code: **1**

16. Position — 1. Stalled on crossing, 2. Stopped on Crossing, 3. Moving over crossing, 4. Trapped — Code: **3**

20a. Was the highway user and/or rail equipment involved in the impact transporting hazardous materials? — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code: **4**

## Rail Equipment Involved

17. Equipment — 1. Train *(units pulling)*, 2. Train *(units pushing)*, 3. Train *(standing)*, 4. Car(s) *(moving)*, 5. Car(s) *(standing)*, 6. Light loco(s) *(moving)*, 7. Light loco(s) *(standing)*, 8. Other *(specify)* — Code: **1**

18. Position of Car Unit in Train: **1**

19. Circumstance — 1. Rail equipment struck highway user, 2. Rail equipment struck by highway user — Code: **1**

20b. Was there a hazardous materials release by — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code:

20c. State the name and quantity of the hazardous materials released, if any

21. Temperature *(specify if minus)*: **55 °F**

22. Visibility *(single entry)* — 1. Dawn 2. Day 3. Dusk 4. Dark — Code: **4**

23. Weather *(single entry)* — 1. Clear 2. Cloudy 3. Rain 4. Fog 5. Sleet 6. Snow — Code: **1**

24. Type of Equipment Consist *(single entry)* — 1. Freight train, 2. Passenger train, 3. Commuter train, 4. Work train, 5. Single car, 6. Cut of cars, 7. Yard/Switching, 8. Light loco(s), 9. Other *(specify)* — Code: **1**

25. Track Type Used by Rail Equipment Involved — 1. Main 2. Yard 3. Siding 4. Industry — Code: **1**

26. Track Number or Name: **MAIN**

27. FRA Track Class (1-6,X): **2**

28. Number of Locomotive Units: **5**

29. Number of Cars: **72**

30. Consist Speed *(Recorded if available)* — R. Recorded, E. Estimated: **20** mph — Code: **E**

31. Time Table Direction — 1. North 2. South 3. East 4. West — Code: **3**

32. Type of Crossing Warning — 1. Gates, 2. Cantilever FLS, 3. Standard FLS, 4. Wig wags, 5. Hwy. traffic signals, 6. Audible, 7. Crossbucks, 8. Stop signs, 9. Watchman, 10. Flagged by crew, 11. Other *(specify)*, 12. None — Code(s): **01** **03** **06** **07**

33. Signaled Crossing Warning: **20 sec warn min**

34. Whistle Ban — 1. Yes 2. No 3. Unknown — Code:

35. Location of Warning — 1. Both Sides, 2. Side of Vehicle Approach, 3. Opposite Side of Vehicle Approach — Code: **2**

36. Crossing Warning Interconnected with Highway Signals — 1. Yes 2. No 3. Unknown — Code: **2**

37. Crossing Illuminated by Street Lights or Special Lights — 1. Yes 2. No 3. Unknown — Code: **3**

38. Driver's Age:

39. Driver's Gender — 1. Male, 2. Female — Code:

40. Driver Drove Behind or in Front of Train and Struck or was Struck by Second Train — 1. Yes 2. No 3. Unknown — Code: **2**

41. Driver — 1. Drove around or thru the gate, 2. Stopped and then proceeded, 3. Did not stop, 4. Stopped on crossing, 5. Other *(specify)* — Code: **1**

42. Driver Passed Standing Highway Vehicle — 1. Yes 2. No 3. Unknown — Code: **2**

43. View of Track Obscured by *(primary obstruction)* — 1. Permanent Structure, 2. Standing railroad equipment, 3. Passing Train, 4. Topography, 5. Vegetation, 6. Highway Vehicles, 7. Other *(specify)*, 8. Not Obstructed — Code: **8**

| Casualties to: | Killed | Injured |
|---|---|---|
| 46. Highway-Rail Crossing Users | 0 | 0 |
| 49. Railroad Employees | 0 | 0 |
| 52. Passengers on Train | 0 | 0 |

44. Driver was — 1. Killed 2. Injured 3. Uninjured — Code: **3**

45. Was Driver in the Vehicle? — 1. Yes 2. No — Code: **2**

47. Highway Vehicle Property Damage *(est. dollar damage)*: **$0**

48. Total Number of Highway-Rail Crossing Users *(include driver)*: **1**

50. Total Number of People on Train *(include passengers and crew)*:

51. Is a Rail Equipment Accident / Incident Report Being Filed — 1. Yes 2. No — Code: **2**

53a. Special Study Block

53b. Special Study Block

54. Narrative Description

| 55. Typed Name and Title | 56. Signature | 57. Date |
|---|---|---|
| | | |

FORM FRA F 6180.57

* NOTE THAT ALL CASUALTIES MUST BE REPORTED ON FORM FRA F 6180.55A

**DEPARTMENT OF TRANSPORTATION**
FEDERAL RAILROAD ADMINISTRATION (FRA)

# HIGHWAY-RAIL GRADE CROSSING ACCIDENT/INCIDENT REPORT

OMB Approval No. 2130-0500

| Name Of | Alphabetic Code | RR Accident/Incident No. |
|---|---|---|
| 1. Reporting Railroad | 1a. ATSF | 1b. 150295201 |
| 2. Other Railroad Involved in Train Accident/Incident | 2a. | 2b. 150295201 |
| 3. Railroad Responsible for Track Maintenance | 3a. ATSF | 3b. 150295201 |

| 4. U.S. DOT-AAR Grade Crossing ID No. | 5. Date of Accident/Incident | 6. Time of Accident/Incident |
|---|---|---|
| 028008L | 02/12/95 | 11:0 AM |

| 7. Nearest Railroad Station | 8. Division | 9. County | 10. State Abbr. | Code |
|---|---|---|---|---|
| INGLEWOOD | | LOS ANGELES | CA | 06 |

11. City *(if in a city)*: INGLEWOOD
12. Highway Name or No.: HYDE PARK BLVD. ☑ Public ☐ Private

## Highway User Involved

13. Type — A. Auto, B. Truck, C. Truck-trailer, D. Pick-up truck, E. Van, F. Bus, G. School Bus, H. Motorcycle, J. Other Motor Vehicle, K. Pedestrian, M. Other *(specify)* — Code: **A**

14. Vehicle Speed *(est. mph at impact)*: **20**

15. Direction *(geographical)* — 1. North 2. South 3. East 4. West — Code: **2**

16. Position — 1. Stalled on crossing, 2. Stopped on Crossing, 3. Moving over crossing, 4. Trapped — Code: **3**

20a. Was the highway user and/or rail equipment involved in the impact transporting hazardous materials? — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code: **2**

## Rail Equipment Involved

17. Equipment — 1. Train *(units pulling)*, 2. Train *(units pushing)*, 3. Train *(standing)*, 4. Car(s) *(moving)*, 5. Car(s) *(standing)*, 6. Light loco(s) *(moving)*, 7. Light loco(s) *(standing)*, 8. Other *(specify)* — Code: **1**

18. Position of Car Unit in Train: **1**

19. Circumstance — 1. Rail equipment struck highway user, 2. Rail equipment struck by highway user — Code: **1**

20b. Was there a hazardous materials release by — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code:

20c. State the name and quantity of the hazardous materials released, if any

| 21. Temperature *(specify if minus)* | 22. Visibility *(single entry)* — 1. Dawn 2. Day 3. Dusk 4. Dark — Code | 23. Weather *(single entry)* — 1. Clear 2. Cloudy 3. Rain 4. Fog 5. Sleet 6. Snow — Code |
|---|---|---|
| 62 °F | 2 | 2 |

| 24. Type of Equipment Consist *(single entry)* — 1. Freight train, 2. Passenger train, 3. Commuter train, 4. Work train, 5. Single car, 6. Cut of cars, 7. Yard/Switching, 8. Light loco(s), 9. Other *(specify)* — Code | 25. Track Type Used by Rail Equipment Involved — 1. Main 2. Yard 3. Siding 4. Industry — Code | 26. Track Number or Name |
|---|---|---|
| 1 | 1 | SINGLE MAIN TRACK |

| 27. FRA Track Class (1-6,X) | 28. Number of Locomotive Units | 29. Number of Cars | 30. Consist Speed *(Recorded if available)* — R. Recorded, E. Estimated — Code | 31. Time Table Direction — 1. North 2. South 3. East 4. West — Code |
|---|---|---|---|---|
| 2 | 4 | 80 | 15 mph, E | 3 |

| 32. Type of Crossing Warning — 1. Gates, 2. Cantilever FLS, 3. Standard FLS, 4. Wig wags, 5. Hwy. traffic signals, 6. Audible, 7. Crossbucks, 8. Stop signs, 9. Watchman, 10. Flagged by crew, 11. Other *(specify)*, 12. None — Code(s) | 33. Signaled Crossing Warning | 34. Whistle Ban — 1. Yes 2. No 3. Unknown — Code |
|---|---|---|
| 01 | 20 sec warn min | |

| 35. Location of Warning — 1. Both Sides, 2. Side of Vehicle Approach, 3. Opposite Side of Vehicle Approach — Code | 36. Crossing Warning Interconnected with Highway Signals — 1. Yes 2. No 3. Unknown — Code | 37. Crossing Illuminated by Street Lights or Special Lights — 1. Yes 2. No 3. Unknown — Code |
|---|---|---|
| 1 | 2 | 3 |

| 38. Driver's Age | 39. Driver's Gender — 1. Male, 2. Female — Code | 40. Driver Drove Behind or in Front of Train and Struck or was Struck by Second Train — 1. Yes 2. No 3. Unknown — Code | 41. Driver — 1. Drove around or thru the gate, 2. Stopped and then proceeded, 3. Did not stop, 4. Stopped on crossing, 5. Other *(specify)* — Code |
|---|---|---|---|
| | | 2 | 1 |

| 42. Driver Passed Standing Highway Vehicle — 1. Yes 2. No 3. Unknown — Code | 43. View of Track Obscured by *(primary obstruction)* — 1. Permanent Structure, 2. Standing railroad equipment, 3. Passing Train, 4. Topography, 5. Vegetation, 6. Highway Vehicles, 7. Other *(specify)*, 8. Not Obstructed — Code |
|---|---|
| 2 | 8 |

| Casualties to: | Killed | Injured | 44. Driver was — 1. Killed 2. Injured 3. Uninjured — Code | 45. Was Driver in the Vehicle? — 1. Yes 2. No — Code |
|---|---|---|---|---|
| | | | 3 | 1 |
| 46. Highway-Rail Crossing Users | 0 | 0 | 47. Highway Vehicle Property Damage *(est. dollar damage)*: $5,000 | 48. Total Number of Highway-Rail Crossing Users *(include driver)*: 1 |
| 49. Railroad Employees | 0 | 0 | 50. Total Number of People on Train *(include passengers and crew)* | 51. Is a Rail Equipment Accident / Incident Report Being Filed — 1. Yes 2. No — Code: 2 |
| 52. Passengers on Train | 0 | 0 | | |

53a. Special Study Block

53b. Special Study Block

54. Narrative Description

| 55. Typed Name and Title | 56. Signature | 57. Date |
|---|---|---|
| | | |

FORM FRA F 6180.57

* NOTE THAT ALL CASUALTIES MUST BE REPORTED ON FORM FRA F 6180.55A

**DEPARTMENT OF TRANSPORTATION**
FEDERAL RAILROAD ADMINISTRATION (FRA)

# HIGHWAY-RAIL GRADE CROSSING ACCIDENT/INCIDENT REPORT

OMB Approval No. 2130-0500

| Name Of | Alphabetic Code | RR Accident/Incident No. |
|---|---|---|
| 1. Reporting Railroad | 1a. BNSF | 1b. LA0101200 |
| 2. Other Railroad Involved in Train Accident/Incident | 2a. | 2b. LA0101200 |
| 3. Railroad Responsible for Track Maintenance | 3a. BNSF | 3b. LA0101200 |

| 4. U.S. DOT-AAR Grade Crossing ID No. | 5. Date of Accident/Incident | 6. Time of Accident/Incident |
|---|---|---|
| 028010M | 01/08/01 | 4:0 PM |

| 7. Nearest Railroad Station | 8. Division | 9. County | 10. State Abbr. | Code |
|---|---|---|---|---|
| INGLEWOOD | LOS ANGELES TERM | LOS ANGELES | CA | 06 |

| 11. City *(if in a city)* | 12. Highway Name or No. | |
|---|---|---|
| INGLEWOOD | LA CIENAGA STREET | ☑ Public ☐ Private |

## Highway User Involved

13. Type — A. Auto, B. Truck, C. Truck-trailer, D. Pick-up truck, E. Van, F. Bus, G. School Bus, H. Motorcycle, J. Other Motor Vehicle, K. Pedestrian, M. Other *(specify)* — Code: **A**

14. Vehicle Speed *(est. mph at impact)*: **0**

15. Direction *(geographical)* — 1. North 2. South 3. East 4. West — Code: **4**

16. Position — 1. Stalled on crossing, 2. Stopped on Crossing, 3. Moving over crossing, 4. Trapped — Code: **2**

20a. Was the highway user and/or rail equipment involved in the impact transporting hazardous materials? — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code: **4**

## Rail Equipment Involved

17. Equipment — 1. Train *(units pulling)*, 2. Train *(units pushing)*, 3. Train *(standing)*, 4. Car(s) *(moving)*, 5. Car(s) *(standing)*, 6. Light loco(s) *(moving)*, 7. Light loco(s) *(standing)*, 8. Other *(specify)* — Code: **1**

18. Position of Car Unit in Train: **1**

19. Circumstance — 1. Rail equipment struck highway user, 2. Rail equipment struck by highway user — Code: **1**

20b. Was there a hazardous materials release by — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code: **4**

20c. State the name and quantity of the hazardous materials released, if any

21. Temperature *(specify if minus)*: **70 °F**

22. Visibility *(single entry)* — 1. Dawn 2. Day 3. Dusk 4. Dark — Code: **2**

23. Weather *(single entry)* — 1. Clear 2. Cloudy 3. Rain 4. Fog 5. Sleet 6. Snow — Code: **3**

24. Type of Equipment Consist *(single entry)* — 1. Freight train, 2. Passenger train, 3. Commuter train, 4. Work train, 5. Single car, 6. Cut of cars, 7. Yard/Switching, 8. Light loco(s), 9. Other *(specify)* — Code: **1**

25. Track Type Used by Rail Equipment Involved — 1. Main 2. Yard 3. Siding 4. Industry — Code: **1**

26. Track Number or Name: **MAIN LINE**

27. FRA Track Class (1-6,X): **2**

28. Number of Locomotive Units: **2**

29. Number of Cars: **65**

30. Consist Speed *(Recorded if available)* — R. Recorded, E. Estimated: **15** mph — Code: **E**

31. Time Table Direction — 1. North 2. South 3. East 4. West — Code: **4**

32. Type of Crossing Warning — 1. Gates, 2. Cantilever FLS, 3. Standard FLS, 4. Wig wags, 5. Hwy. traffic signals, 6. Audible, 7. Crossbucks, 8. Stop signs, 9. Watchman, 10. Flagged by crew, 11. Other *(specify)*, 12. None — Code(s): **01** **03**

33. Signaled Crossing Warning: **20 sec warn min**

34. Whistle Ban — 1. Yes 2. No 3. Unknown — Code: **2**

35. Location of Warning — 1. Both Sides, 2. Side of Vehicle Approach, 3. Opposite Side of Vehicle Approach — Code: **1**

36. Crossing Warning Interconnected with Highway Signals — 1. Yes 2. No 3. Unknown — Code: **3**

37. Crossing Illuminated by Street Lights or Special Lights — 1. Yes 2. No 3. Unknown — Code: **1**

38. Driver's Age

39. Driver's Gender — 1. Male, 2. Female — Code:

40. Driver Drove Behind or in Front of Train and Struck or was Struck by Second Train — 1. Yes 2. No 3. Unknown — Code: **2**

41. Driver — 1. Drove around or thru the gate, 2. Stopped and then proceeded, 3. Did not stop, 4. Stopped on crossing, 5. Other *(specify)* — Code: **4**

42. Driver Passed Standing Highway Vehicle — 1. Yes 2. No 3. Unknown — Code: **2**

43. View of Track Obscured by *(primary obstruction)* — 1. Permanent Structure, 2. Standing railroad equipment, 3. Passing Train, 4. Topography, 5. Vegetation, 6. Highway Vehicles, 7. Other *(specify)*, 8. Not Obstructed — Code: **8**

| Casualties to: | Killed | Injured |
|---|---|---|
| 46. Highway-Rail Crossing Users | 0 | 0 |
| 49. Railroad Employees | 0 | 0 |
| 52. Passengers on Train | 0 | 0 |

44. Driver was — 1. Killed 2. Injured 3. Uninjured — Code: **3**

45. Was Driver in the Vehicle? — 1. Yes 2. No — Code: **2**

47. Highway Vehicle Property Damage *(est. dollar damage)*: **$1,000**

48. Total Number of Highway-Rail Crossing Users *(include driver)*: **1**

50. Total Number of People on Train *(include passengers and crew)*: **3**

51. Is a Rail Equipment Accident / Incident Report Being Filed — 1. Yes 2. No — Code: **2**

53a. Special Study Block

53b. Special Study Block

54. Narrative Description

**AGE/GENDER OF DRIVER UNKNOWN.**

| 55. Typed Name and Title | 56. Signature | 57. Date |
|---|---|---|
| | | |

FORM FRA F 6180.57

* NOTE THAT ALL CASUALTIES MUST BE REPORTED ON FORM FRA F 6180.55A

**DEPARTMENT OF TRANSPORTATION**
FEDERAL RAILROAD ADMINISTRATION (FRA)

# HIGHWAY-RAIL GRADE CROSSING ACCIDENT/INCIDENT REPORT

OMB Approval No. 2130-0500

| Name Of | Alphabetic Code | RR Accident/Incident No. |
|---|---|---|
| 1. Reporting Railroad | 1a. **ATSF** | 1b. **330184201** |
| 2. Other Railroad Involved in Train Accident/Incident | 2a. | 2b. |
| 3. Railroad Responsible for Track Maintenance | 3a. **ATSF** | 3b. **330184201** |

| 4. U.S. DOT-AAR Grade Crossing ID No. | 5. Date of Accident/Incident | 6. Time of Accident/Incident |
|---|---|---|
| **028010M** | **01/13/84** | **11:45 PM** |

| 7. Nearest Railroad Station | 8. Division | 9. County | 10. State Abbr. | Code |
|---|---|---|---|---|
| **HOBART** | | **LOS ANGELES** | **CA** | **06** |

11. City *(if in a city)* **INGLEWOOD** — 12. Highway Name or No. **LA CIENEGA BLVD** — ☑ Public ☐ Private

## Highway User Involved

13. Type — A. Auto, B. Truck, C. Truck-trailer, D. Pick-up truck, E. Van, F. Bus, G. School Bus, H. Motorcycle, J. Other Motor Vehicle, K. Pedestrian, M. Other *(specify)* — Code: **A**

14. Vehicle Speed *(est. mph at impact)*: **0**

15. Direction *(geographical)* — 1. North 2. South 3. East 4. West — Code: **3**

16. Position — 1. Stalled on crossing, 2. Stopped on Crossing, 3. Moving over crossing, 4. Trapped — Code: **1**

20a. Was the highway user and/or rail equipment involved in the impact transporting hazardous materials? — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code: **4**

## Rail Equipment Involved

17. Equipment — 1. Train *(units pulling)*, 2. Train *(units pushing)*, 3. Train *(standing)*, 4. Car(s) *(moving)*, 5. Car(s) *(standing)*, 6. Light loco(s) *(moving)*, 7. Light loco(s) *(standing)*, 8. Other *(specify)* — Code: **1**

18. Position of Car Unit in Train: **1**

19. Circumstance — 1. Rail equipment struck highway user, 2. Rail equipment struck by highway user — Code: **1**

20b. Was there a hazardous materials release by — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code:

20c. State the name and quantity of the hazardous materials released, if any

21. Temperature *(specify if minus)*: **61 °F**

22. Visibility *(single entry)* — 1. Dawn 2. Day 3. Dusk 4. Dark — Code: **4**

23. Weather *(single entry)* — 1. Clear 2. Cloudy 3. Rain 4. Fog 5. Sleet 6. Snow — Code: **1**

24. Type of Equipment Consist *(single entry)* — 1. Freight train, 2. Passenger train, 3. Commuter train, 4. Work train, 5. Single car, 6. Cut of cars, 7. Yard/Switching, 8. Light loco(s), 9. Other *(specify)* — Code: **1**

25. Track Type Used by Rail Equipment Involved — 1. Main 2. Yard 3. Siding 4. Industry — Code: **1**

26. Track Number or Name: **MAINLINE**

27. FRA Track Class (1-6,X): **1**

28. Number of Locomotive Units: **4**

29. Number of Cars: **123**

30. Consist Speed *(Recorded if available)* — R. Recorded, E. Estimated: **15** mph — Code: **E**

31. Time Table Direction — 1. North 2. South 3. East 4. West — Code: **3**

32. Type of Crossing Warning — 1. Gates, 2. Cantilever FLS, 3. Standard FLS, 4. Wig wags, 5. Hwy. traffic signals, 6. Audible, 7. Crossbucks, 8. Stop signs, 9. Watchman, 10. Flagged by crew, 11. Other *(specify)*, 12. None — Code(s): **04** **07**

33. Signaled Crossing Warning: **20 sec warn min**

34. Whistle Ban — 1. Yes 2. No 3. Unknown — Code:

35. Location of Warning — 1. Both Sides, 2. Side of Vehicle Approach, 3. Opposite Side of Vehicle Approach — Code: **1**

36. Crossing Warning Interconnected with Highway Signals — 1. Yes 2. No 3. Unknown — Code: **1**

37. Crossing Illuminated by Street Lights or Special Lights — 1. Yes 2. No 3. Unknown — Code: **3**

38. Driver's Age:

39. Driver's Gender — 1. Male, 2. Female — Code:

40. Driver Drove Behind or in Front of Train and Struck or was Struck by Second Train — 1. Yes 2. No 3. Unknown — Code: **2**

41. Driver — 1. Drove around or thru the gate, 2. Stopped and then proceeded, 3. Did not stop, 4. Stopped on crossing, 5. Other *(specify)* — Code: **4**

42. Driver Passed Standing Highway Vehicle — 1. Yes 2. No 3. Unknown — Code: **2**

43. View of Track Obscured by *(primary obstruction)* — 1. Permanent Structure, 2. Standing railroad equipment, 3. Passing Train, 4. Topography, 5. Vegetation, 6. Highway Vehicles, 7. Other *(specify)*, 8. Not Obstructed — Code: **8**

| Casualties to: | Killed | Injured |
|---|---|---|
| 46. Highway-Rail Crossing Users | **0** | **0** |
| 49. Railroad Employees | **0** | **0** |
| 52. Passengers on Train | **0** | **0** |

44. Driver was — 1. Killed 2. Injured 3. Uninjured — Code: **3**

45. Was Driver in the Vehicle? — 1. Yes 2. No — Code: **2**

47. Highway Vehicle Property Damage *(est. dollar damage)*: **$150**

48. Total Number of Highway-Rail Crossing Users *(include driver)*: **0**

50. Total Number of People on Train *(include passengers and crew)*:

51. Is a Rail Equipment Accident / Incident Report Being Filed — 1. Yes 2. No — Code: **2**

53a. Special Study Block

53b. Special Study Block

54. Narrative Description

| 55. Typed Name and Title | 56. Signature | 57. Date |
|---|---|---|
| | | |

FORM FRA F 6180.57

* NOTE THAT ALL CASUALTIES MUST BE REPORTED ON FORM FRA F 6180.55A

**DEPARTMENT OF TRANSPORTATION**
FEDERAL RAILROAD ADMINISTRATION (FRA)

# HIGHWAY-RAIL GRADE CROSSING ACCIDENT/INCIDENT REPORT

OMB Approval No. 2130-0500

| Name Of | Alphabetic Code | RR Accident/Incident No. |
|---|---|---|
| 1. Reporting Railroad | 1a. ATSF | 1b. 330181201 |
| 2. Other Railroad Involved in Train Accident/Incident | 2a. | 2b. |
| 3. Railroad Responsible for Track Maintenance | 3a. ATSF | 3b. 330181201 |

| 4. U.S. DOT-AAR Grade Crossing ID No. | 5. Date of Accident/Incident | 6. Time of Accident/Incident |
|---|---|---|
| 028012B | 01/06/81 | 10:15 PM |

| 7. Nearest Railroad Station | 8. Division | 9. County | 10. State Abbr. | Code |
|---|---|---|---|---|
| INGLEWOOD | | LOS ANGELES | CA | 06 |

11. City *(if in a city)*: INGLEWOOD
12. Highway Name or No.: MANCHESTER & FLORENC — ☑ Public ☐ Private

## Highway User Involved

13. Type — Code: B
A. Auto B. Truck C. Truck-trailer D. Pick-up truck E. Van F. Bus G. School Bus H. Motorcycle J. Other Motor Vehicle K. Pedestrian M. Other *(specify)*

14. Vehicle Speed *(est. mph at impact)*: 8

15. Direction *(geographical)* — Code: 4
1. North 2. South 3. East 4. West

16. Position — Code: 3
1. Stalled on crossing 2. Stopped on Crossing 3. Moving over crossing 4. Trapped

20a. Was the highway user and/or rail equipment involved in the impact transporting hazardous materials? — Code: 2
1. Highway User 2. Rail Equipment 3. Both 4. Neither

## Rail Equipment Involved

17. Equipment — Code: 1
1. Train *(units pulling)* 2. Train *(units pushing)* 3. Train *(standing)* 4. Car(s) *(moving)* 5. Car(s) *(standing)* 6. Light loco(s) *(moving)* 7. Light loco(s) *(standing)* 8. Other *(specify)*

18. Position of Car Unit in Train: 1

19. Circumstance — Code: 1
1. Rail equipment struck highway user 2. Rail equipment struck by highway user

20b. Was there a hazardous materials release by — Code:
1. Highway User 2. Rail Equipment 3. Both 4. Neither

20c. State the name and quantity of the hazardous materials released, if any

21. Temperature *(specify if minus)*: 45 °F

22. Visibility *(single entry)* — Code: 4
1. Dawn 2. Day 3. Dusk 4. Dark

23. Weather *(single entry)* — Code: 1
1. Clear 2. Cloudy 3. Rain 4. Fog 5. Sleet 6. Snow

24. Type of Equipment Consist *(single entry)* — Code: 1
1. Freight train 2. Passenger train 3. Commuter train 4. Work train 5. Single car 6. Cut of cars 7. Yard/Switching 8. Light loco(s) 9. Other *(specify)*

25. Track Type Used by Rail Equipment Involved — Code: 1
1. Main 2. Yard 3. Siding 4. Industry

26. Track Number or Name: HARBOR DISTRICT

27. FRA Track Class (1-6,X): 2

28. Number of Locomotive Units: 7

29. Number of Cars: 71

30. Consist Speed *(Recorded if available)* — Code: E
R. Recorded
E. Estimated: 18 mph

31. Time Table Direction — Code: 4
1. North 2. South 3. East 4. West

32. Type of Crossing Warning — Code(s): 01 03 05
1. Gates 2. Cantilever FLS 3. Standard FLS 4. Wig wags 5. Hwy. traffic signals 6. Audible 7. Crossbucks 8. Stop signs 9. Watchman 10. Flagged by crew 11. Other *(specify)* 12. None

33. Signaled Crossing Warning: 20 sec warn min

34. Whistle Ban — Code:
1. Yes 2. No 3. Unknown

35. Location of Warning — Code: 2
1. Both Sides 2. Side of Vehicle Approach 3. Opposite Side of Vehicle Approach

36. Crossing Warning Interconnected with Highway Signals — Code: 1
1. Yes 2. No 3. Unknown

37. Crossing Illuminated by Street Lights or Special Lights — Code: 1
1. Yes 2. No 3. Unknown

38. Driver's Age:

39. Driver's Gender — Code:
1. Male 2. Female

40. Driver Drove Behind or in Front of Train and Struck or was Struck by Second Train — Code: 2
1. Yes 2. No 3. Unknown

41. Driver — Code: 4
1. Drove around or thru the gate 2. Stopped and then proceeded 3. Did not stop 4. Stopped on crossing 5. Other *(specify)*

42. Driver Passed Standing Highway Vehicle — Code: 2
1. Yes 2. No 3. Unknown

43. View of Track Obscured by *(primary obstruction)* — Code: 8
1. Permanent Structure 2. Standing railroad equipment 3. Passing Train 4. Topography 5. Vegetation 6. Highway Vehicles 7. Other *(specify)* 8. Not Obstructed

| Casualties to: | Killed | Injured |
|---|---|---|
| 46. Highway-Rail Crossing Users | 0 | 0 |
| 49. Railroad Employees | 0 | 0 |
| 52. Passengers on Train | 0 | 0 |

44. Driver was — Code: 3
1. Killed 2. Injured 3. Uninjured

45. Was Driver in the Vehicle? — Code: 1
1. Yes 2. No

47. Highway Vehicle Property Damage *(est. dollar damage)*: $25,000

48. Total Number of Highway-Rail Crossing Users *(include driver)*: 1

50. Total Number of People on Train *(include passengers and crew)*:

51. Is a Rail Equipment Accident / Incident Report Being Filed — Code: 2
1. Yes 2. No

53a. Special Study Block

53b. Special Study Block

54. Narrative Description

| 55. Typed Name and Title | 56. Signature | 57. Date |
|---|---|---|
| | | |

FORM FRA F 6180.57

* NOTE THAT ALL CASUALTIES MUST BE REPORTED ON FORM FRA F 6180.55A

**DEPARTMENT OF TRANSPORTATION**
FEDERAL RAILROAD ADMINISTRATION (FRA)

# HIGHWAY-RAIL GRADE CROSSING ACCIDENT/INCIDENT REPORT

OMB Approval No. 2130-0500

| Name Of | Alphabetic Code | RR Accident/Incident No. |
|---|---|---|
| 1. Reporting Railroad | 1a. ATSF | 1b. 331282202 |
| 2. Other Railroad Involved in Train Accident/Incident | 2a. | 2b. |
| 3. Railroad Responsible for Track Maintenance | 3a. ATSF | 3b. 331282202 |

| 4. U.S. DOT-AAR Grade Crossing ID No. | 5. Date of Accident/Incident | 6. Time of Accident/Incident |
|---|---|---|
| 028018S | 12/06/82 | 7:50 PM |

| 7. Nearest Railroad Station | 8. Division | 9. County | 10. State Abbr. | Code |
|---|---|---|---|---|
| HOBART | | LOS ANGELES | CA | 06 |

11. City *(if in a city)*: INGLEWOOD
12. Highway Name or No.: ARBOR VITAE — ☑ Public ☐ Private

## Highway User Involved

13. Type — A. Auto, B. Truck, C. Truck-trailer, D. Pick-up truck, E. Van, F. Bus, G. School Bus, H. Motorcycle, J. Other Motor Vehicle, K. Pedestrian, M. Other *(specify)* — Code: **A**

14. Vehicle Speed *(est. mph at impact)*: **0**

15. Direction *(geographical)* — 1. North 2. South 3. East 4. West — Code: **3**

16. Position — 1. Stalled on crossing, 2. Stopped on Crossing, 3. Moving over crossing, 4. Trapped — Code: **2**

20a. Was the highway user and/or rail equipment involved in the impact transporting hazardous materials? — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code: **4**

## Rail Equipment Involved

17. Equipment — 1. Train *(units pulling)*, 2. Train *(units pushing)*, 3. Train *(standing)*, 4. Car(s) *(moving)*, 5. Car(s) *(standing)*, 6. Light loco(s) *(moving)*, 7. Light loco(s) *(standing)*, 8. Other *(specify)* — Code: **2**

18. Position of Car Unit in Train: **1**

19. Circumstance — 1. Rail equipment struck highway user, 2. Rail equipment struck by highway user — Code: **1**

20b. Was there a hazardous materials release by — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code:

20c. State the name and quantity of the hazardous materials released, if any

| 21. Temperature *(specify if minus)* | 22. Visibility *(single entry)* | 23. Weather *(single entry)* |
|---|---|---|
| 60 °F | 1. Dawn 2. Day 3. Dusk 4. Dark — Code: **4** | 1. Clear 2. Cloudy 3. Rain 4. Fog 5. Sleet 6. Snow — Code: **1** |

24. Type of Equipment Consist *(single entry)* — 1. Freight train, 2. Passenger train, 3. Commuter train, 4. Work train, 5. Single car, 6. Cut of cars, 7. Yard/Switching, 8. Light loco(s), 9. Other *(specify)* — Code: **1**

25. Track Type Used by Rail Equipment Involved — 1. Main 2. Yard 3. Siding 4. Industry — Code: **1**

26. Track Number or Name: **MAIN LINE**

| 27. FRA Track Class (1-6,X) | 28. Number of Locomotive Units | 29. Number of Cars | 30. Consist Speed *(Recorded if available)* | Code | 31. Time Table Direction | Code |
|---|---|---|---|---|---|---|
| 2 | 7 | 50 | R. Recorded / E. Estimated **20** mph | E | 1. North 2. South 3. East 4. West | 3 |

32. Type of Crossing Warning — 1. Gates, 2. Cantilever FLS, 3. Standard FLS, 4. Wig wags, 5. Hwy. traffic signals, 6. Audible, 7. Crossbucks, 8. Stop signs, 9. Watchman, 10. Flagged by crew, 11. Other *(specify)*, 12. None — Code(s): **01** **03** **06**

33. Signaled Crossing Warning: **20 sec warn min**

34. Whistle Ban — 1. Yes 2. No 3. Unknown — Code:

| 35. Location of Warning — 1. Both Sides, 2. Side of Vehicle Approach, 3. Opposite Side of Vehicle Approach | Code | 36. Crossing Warning Interconnected with Highway Signals — 1. Yes 2. No 3. Unknown | Code | 37. Crossing Illuminated by Street Lights or Special Lights — 1. Yes 2. No 3. Unknown | Code |
|---|---|---|---|---|---|
| | 1 | | 2 | | 1 |

| 38. Driver's Age | 39. Driver's Gender — 1. Male, 2. Female | Code | 40. Driver Drove Behind or in Front of Train and Struck or was Struck by Second Train — 1. Yes 2. No 3. Unknown | Code | 41. Driver — 1. Drove around or thru the gate, 2. Stopped and then proceeded, 3. Did not stop, 4. Stopped on crossing, 5. Other *(specify)* | Code |
|---|---|---|---|---|---|---|
| | | | | 2 | | 4 |

42. Driver Passed Standing Highway Vehicle — 1. Yes 2. No 3. Unknown — Code: **2**

43. View of Track Obscured by *(primary obstruction)* — 1. Permanent Structure, 2. Standing railroad equipment, 3. Passing Train, 4. Topography, 5. Vegetation, 6. Highway Vehicles, 7. Other *(specify)*, 8. Not Obstructed — Code: **8**

| Casualties to: | Killed | Injured |
|---|---|---|
| 46. Highway-Rail Crossing Users | 0 | 0 |
| 49. Railroad Employees | 0 | 0 |
| 52. Passengers on Train | 0 | 0 |

44. Driver was — 1. Killed 2. Injured 3. Uninjured — Code: **3**

45. Was Driver in the Vehicle? — 1. Yes 2. No — Code: **2**

47. Highway Vehicle Property Damage *(est. dollar damage)*: **$200**

48. Total Number of Highway-Rail Crossing Users *(include driver)*: **0**

50. Total Number of People on Train *(include passengers and crew)*:

51. Is a Rail Equipment Accident / Incident Report Being Filed — 1. Yes 2. No — Code: **2**

53a. Special Study Block

53b. Special Study Block

54. Narrative Description

| 55. Typed Name and Title | 56. Signature | 57. Date |
|---|---|---|
| | | |

FORM FRA F 6180.57

* NOTE THAT ALL CASUALTIES MUST BE REPORTED ON FORM FRA F 6180.55A

**DEPARTMENT OF TRANSPORTATION**
FEDERAL RAILROAD ADMINISTRATION (FRA)

# HIGHWAY-RAIL GRADE CROSSING ACCIDENT/INCIDENT REPORT

OMB Approval No. 2130-0500

| Name Of | Alphabetic Code | RR Accident/Incident No. |
|---|---|---|
| 1. Reporting Railroad | 1a. ATSF | 1b. 150794200 |
| 2. Other Railroad Involved in Train Accident/Incident | 2a. | 2b. 150794200 |
| 3. Railroad Responsible for Track Maintenance | 3a. ATSF | 3b. 150794200 |

| 4. U.S. DOT-AAR Grade Crossing ID No. | 5. Date of Accident/Incident | 6. Time of Accident/Incident |
|---|---|---|
| 028018S | 07/17/94 | 9:30 AM |

| 7. Nearest Railroad Station | 8. Division | 9. County | 10. State Abbr. | Code |
|---|---|---|---|---|
| INGLEWOOD | | LOS ANGELES | CA | 06 |

11. City *(if in a city)*: INGLEWOOD
12. Highway Name or No.: ARBOR VITAE ST — ☑ Public ☐ Private

## Highway User Involved

13. Type — A. Auto, B. Truck, C. Truck-trailer, D. Pick-up truck, E. Van, F. Bus, G. School Bus, H. Motorcycle, J. Other Motor Vehicle, K. Pedestrian, M. Other *(specify)* — Code: **A**

14. Vehicle Speed *(est. mph at impact)*: **40**

15. Direction *(geographical)* — 1. North 2. South 3. East 4. West — Code: **3**

16. Position — 1. Stalled on crossing, 2. Stopped on Crossing, 3. Moving over crossing, 4. Trapped — Code: **3**

20a. Was the highway user and/or rail equipment involved in the impact transporting hazardous materials? — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code: **4**

## Rail Equipment Involved

17. Equipment — 1. Train *(units pulling)*, 2. Train *(units pushing)*, 3. Train *(standing)*, 4. Car(s) *(moving)*, 5. Car(s) *(standing)*, 6. Light loco(s) *(moving)*, 7. Light loco(s) *(standing)*, 8. Other *(specify)* — Code: **1**

18. Position of Car Unit in Train: **1**

19. Circumstance — 1. Rail equipment struck highway user, 2. Rail equipment struck by highway user — Code: **1**

20b. Was there a hazardous materials release by — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code:

20c. State the name and quantity of the hazardous materials released, if any

21. Temperature *(specify if minus)*: **70 °F**

22. Visibility *(single entry)* — 1. Dawn 2. Day 3. Dusk 4. Dark — Code: **2**

23. Weather *(single entry)* — 1. Clear 2. Cloudy 3. Rain 4. Fog 5. Sleet 6. Snow — Code: **1**

24. Type of Equipment Consist *(single entry)* — 1. Freight train, 2. Passenger train, 3. Commuter train, 4. Work train, 5. Single car, 6. Cut of cars, 7. Yard/Switching, 8. Light loco(s), 9. Other *(specify)* — Code: **1**

25. Track Type Used by Rail Equipment Involved — 1. Main 2. Yard 3. Siding 4. Industry — Code: **1**

26. Track Number or Name: **MAIN LINE**

27. FRA Track Class (1-6,X): **3**

28. Number of Locomotive Units: **5**

29. Number of Cars: **110**

30. Consist Speed *(Recorded if available)* — R. Recorded, E. Estimated: **15** mph — Code: **E**

31. Time Table Direction — 1. North 2. South 3. East 4. West — Code: **4**

32. Type of Crossing Warning — 1. Gates, 2. Cantilever FLS, 3. Standard FLS, 4. Wig wags, 5. Hwy. traffic signals, 6. Audible, 7. Crossbucks, 8. Stop signs, 9. Watchman, 10. Flagged by crew, 11. Other *(specify)*, 12. None — Code(s): **01**

33. Signaled Crossing Warning: **20 sec warn min**

34. Whistle Ban — 1. Yes 2. No 3. Unknown — Code:

35. Location of Warning — 1. Both Sides, 2. Side of Vehicle Approach, 3. Opposite Side of Vehicle Approach — Code: **1**

36. Crossing Warning Interconnected with Highway Signals — 1. Yes 2. No 3. Unknown — Code: **2**

37. Crossing Illuminated by Street Lights or Special Lights — 1. Yes 2. No 3. Unknown — Code: **2**

38. Driver's Age:

39. Driver's Gender — 1. Male, 2. Female — Code:

40. Driver Drove Behind or in Front of Train and Struck or was Struck by Second Train — 1. Yes 2. No 3. Unknown — Code: **2**

41. Driver — 1. Drove around or thru the gate, 2. Stopped and then proceeded, 3. Did not stop, 4. Stopped on crossing, 5. Other *(specify)* — Code: **1**

42. Driver Passed Standing Highway Vehicle — 1. Yes 2. No 3. Unknown — Code: **2**

43. View of Track Obscured by *(primary obstruction)* — 1. Permanent Structure, 2. Standing railroad equipment, 3. Passing Train, 4. Topography, 5. Vegetation, 6. Highway Vehicles, 7. Other *(specify)*, 8. Not Obstructed — Code: **8**

| Casualties to: | Killed | Injured |
|---|---|---|
| 46. Highway-Rail Crossing Users | 0 | 0 |
| 49. Railroad Employees | 0 | 0 |
| 52. Passengers on Train | 0 | 0 |

44. Driver was — 1. Killed 2. Injured 3. Uninjured — Code: **3**

45. Was Driver in the Vehicle? — 1. Yes 2. No — Code: **1**

47. Highway Vehicle Property Damage *(est. dollar damage)*: **$5,000**

48. Total Number of Highway-Rail Crossing Users *(include driver)*: **1**

50. Total Number of People on Train *(include passengers and crew)*:

51. Is a Rail Equipment Accident / Incident Report Being Filed — 1. Yes 2. No — Code: **2**

53a. Special Study Block

53b. Special Study Block

54. Narrative Description

| 55. Typed Name and Title | 56. Signature | 57. Date |
|---|---|---|
| | | |

FORM FRA F 6180.57

* NOTE THAT ALL CASUALTIES MUST BE REPORTED ON FORM FRA F 6180.55A

**DEPARTMENT OF TRANSPORTATION**
FEDERAL RAILROAD ADMINISTRATION (FRA)

# HIGHWAY-RAIL GRADE CROSSING ACCIDENT/INCIDENT REPORT

OMB Approval No. 2130-0500

| Name Of | Alphabetic Code | RR Accident/Incident No. |
|---|---|---|
| 1. Reporting Railroad | 1a. **ATSF** | 1b. **42116408** |
| 2. Other Railroad Involved in Train Accident/Incident | 2a. | 2b. |
| 3. Railroad Responsible for Track Maintenance | 3a. **ATSF** | 3b. **42116408** |

| 4. U.S. DOT-AAR Grade Crossing ID No. | 5. Date of Accident/Incident | 6. Time of Accident/Incident |
|---|---|---|
| **028027R** | **11/16/76** | **3:50 PM** |

| 7. Nearest Railroad Station | 8. Division | 9. County | 10. State Abbr. | Code |
|---|---|---|---|---|
| **LOS ANGELES** | | **LOS ANGELES** | **CA** | **06** |

| 11. City *(if in a city)* | 12. Highway Name or No. | |
|---|---|---|
| **INGLEWOOD** | **IMPERIAL HIGHWAY** | ☑ Public ☐ Private |

## Highway User Involved

13. Type — A. Auto; B. Truck; C. Truck-trailer; D. Pick-up truck; E. Van; F. Bus; G. School Bus; H. Motorcycle; J. Other Motor Vehicle; K. Pedestrian; M. Other *(specify)* — Code: **F**

14. Vehicle Speed *(est. mph at impact)*: **2**

15. Direction *(geographical)* — 1. North 2. South 3. East 4. West — Code: **3**

16. Position — 1. Stalled on crossing 2. Stopped on Crossing 3. Moving over crossing 4. Trapped — Code: **3**

20a. Was the highway user and/or rail equipment involved in the impact transporting hazardous materials? — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code: **4**

## Rail Equipment Involved

17. Equipment — 1. Train *(units pulling)* 2. Train *(units pushing)* 3. Train *(standing)* 4. Car(s) *(moving)* 5. Car(s) *(standing)* 6. Light loco(s) *(moving)* 7. Light loco(s) *(standing)* 8. Other *(specify)* — Code: **1**

18. Position of Car Unit in Train: **1**

19. Circumstance — 1. Rail equipment struck highway user 2. Rail equipment struck by highway user — Code: **1**

20b. Was there a hazardous materials release by — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code:

20c. State the name and quantity of the hazardous materials released, if any

| 21. Temperature *(specify if minus)* | 22. Visibility *(single entry)* — 1. Dawn 2. Day 3. Dusk 4. Dark — Code | 23. Weather *(single entry)* — 1. Clear 2. Cloudy 3. Rain 4. Fog 5. Sleet 6. Snow — Code |
|---|---|---|
| **78 °F** | **2** | **1** |

| 24. Type of Equipment Consist *(single entry)* — 1. Freight train 2. Passenger train 3. Commuter train 4. Work train 5. Single car 6. Cut of cars 7. Yard/Switching 8. Light loco(s) 9. Other *(specify)* — Code | 25. Track Type Used by Rail Equipment Involved — 1. Main 2. Yard 3. Siding 4. Industry — Code | 26. Track Number or Name |
|---|---|---|
| **1** | **1** | **MAIN** |

| 27. FRA Track Class (1-6,X) | 28. Number of Locomotive Units | 29. Number of Cars | 30. Consist Speed *(Recorded if available)* — R. Recorded E. Estimated — mph — Code | 31. Time Table Direction — 1. North 2. South 3. East 4. West — Code |
|---|---|---|---|---|
| **2** | **3** | **39** | **10** mph **E** | **3** |

32. Type of Crossing Warning — 1. Gates 2. Cantilever FLS 3. Standard FLS 4. Wig wags 5. Hwy. traffic signals 6. Audible 7. Crossbucks 8. Stop signs 9. Watchman 10. Flagged by crew 11. Other *(specify)* 12. None

Code(s): **04** **05** **06**

33. Signaled Crossing Warning: **20 sec warn min**

34. Whistle Ban — 1. Yes 2. No 3. Unknown — Code:

| 35. Location of Warning — 1. Both Sides 2. Side of Vehicle Approach 3. Opposite Side of Vehicle Approach — Code | 36. Crossing Warning Interconnected with Highway Signals — 1. Yes 2. No 3. Unknown — Code | 37. Crossing Illuminated by Street Lights or Special Lights — 1. Yes 2. No 3. Unknown — Code |
|---|---|---|
| **2** | **1** | **3** |

| 38. Driver's Age | 39. Driver's Gender — 1. Male 2. Female — Code | 40. Driver Drove Behind or in Front of Train and Struck or was Struck by Second Train — 1. Yes 2. No 3. Unknown — Code | 41. Driver — 1. Drove around or thru the gate 2. Stopped and then proceeded 3. Did not stop 4. Stopped on crossing 5. Other *(specify)* — Code |
|---|---|---|---|
| | | **2** | **2** |

| 42. Driver Passed Standing Highway Vehicle — 1. Yes 2. No 3. Unknown — Code | 43. View of Track Obscured by *(primary obstruction)* — 1. Permanent Structure 2. Standing railroad equipment 3. Passing Train 4. Topography 5. Vegetation 6. Highway Vehicles 7. Other *(specify)* 8. Not Obstructed — Code |
|---|---|
| **2** | **8** |

| Casualties to: | Killed | Injured | 44. Driver was — 1. Killed 2. Injured 3. Uninjured — Code | 45. Was Driver in the Vehicle? — 1. Yes 2. No — Code |
|---|---|---|---|---|
| | | | **3** | **1** |
| 46. Highway-Rail Crossing Users | **0** | **4** | 47. Highway Vehicle Property Damage *(est. dollar damage)*: **$0** | 48. Total Number of Highway-Rail Crossing Users *(include driver)*: **0** |
| 49. Railroad Employees | **0** | **0** | 50. Total Number of People on Train *(include passengers and crew)* | 51. Is a Rail Equipment Accident / Incident Report Being Filed — 1. Yes 2. No — Code: **2** |
| 52. Passengers on Train | **0** | **0** | | |

53a. Special Study Block

53b. Special Study Block

54. Narrative Description

| 55. Typed Name and Title | 56. Signature | 57. Date |
|---|---|---|
| | | |

FORM FRA F 6180.57

* NOTE THAT ALL CASUALTIES MUST BE REPORTED ON FORM FRA F 6180.55A

**DEPARTMENT OF TRANSPORTATION**
FEDERAL RAILROAD ADMINISTRATION (FRA)

# HIGHWAY-RAIL GRADE CROSSING ACCIDENT/INCIDENT REPORT

OMB Approval No. 2130-0500

| Name Of | Alphabetic Code | RR Accident/Incident No. |
|---|---|---|
| 1. Reporting Railroad | 1a. ATSF | 1b. 331283201 |
| 2. Other Railroad Involved in Train Accident/Incident | 2a. | 2b. |
| 3. Railroad Responsible for Track Maintenance | 3a. ATSF | 3b. 331283201 |

| 4. U.S. DOT-AAR Grade Crossing ID No. | 5. Date of Accident/Incident | 6. Time of Accident/Incident |
|---|---|---|
| 028027R | 12/12/83 | 6:45 PM |

| 7. Nearest Railroad Station | 8. Division | 9. County | 10. State Abbr. | Code |
|---|---|---|---|---|
| HOBART | | LOS ANGELES | CA | 06 |

11. City *(if in a city)*: LOS ANGELES
12. Highway Name or No.: IMPERIAL HWY — ☑ Public ☐ Private

## Highway User Involved

13. Type — A. Auto, B. Truck, C. Truck-trailer, D. Pick-up truck, E. Van, F. Bus, G. School Bus, H. Motorcycle, J. Other Motor Vehicle, K. Pedestrian, M. Other *(specify)* — Code: **A**

14. Vehicle Speed *(est. mph at impact)*: **20**

15. Direction *(geographical)* — 1. North 2. South 3. East 4. West — Code: **1**

16. Position — 1. Stalled on crossing, 2. Stopped on Crossing, 3. Moving over crossing, 4. Trapped — Code: **3**

20a. Was the highway user and/or rail equipment involved in the impact transporting hazardous materials? — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code: **4**

## Rail Equipment Involved

17. Equipment — 1. Train *(units pulling)*, 2. Train *(units pushing)*, 3. Train *(standing)*, 4. Car(s) *(moving)*, 5. Car(s) *(standing)*, 6. Light loco(s) *(moving)*, 7. Light loco(s) *(standing)*, 8. Other *(specify)* — Code: **2**

18. Position of Car Unit in Train: **1**

19. Circumstance — 1. Rail equipment struck highway user, 2. Rail equipment struck by highway user — Code: **1**

20b. Was there a hazardous materials release by — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code:

20c. State the name and quantity of the hazardous materials released, if any

21. Temperature *(specify if minus)*: **63 °F**

22. Visibility *(single entry)* — 1. Dawn 2. Day 3. Dusk 4. Dark — Code: **4**

23. Weather *(single entry)* — 1. Clear 2. Cloudy 3. Rain 4. Fog 5. Sleet 6. Snow — Code: **1**

24. Type of Equipment Consist *(single entry)* — 1. Freight train, 2. Passenger train, 3. Commuter train, 4. Work train, 5. Single car, 6. Cut of cars, 7. Yard/Switching, 8. Light loco(s), 9. Other *(specify)* — Code: **7**

25. Track Type Used by Rail Equipment Involved — 1. Main 2. Yard 3. Siding 4. Industry — Code: **1**

26. Track Number or Name: **MAIN LINE**

27. FRA Track Class (1-6,X): **1**

28. Number of Locomotive Units: **2**

29. Number of Cars: **1**

30. Consist Speed *(Recorded if available)* — R. Recorded, E. Estimated: **3** mph — Code: **E**

31. Time Table Direction — 1. North 2. South 3. East 4. West — Code: **2**

32. Type of Crossing Warning — 1. Gates, 2. Cantilever FLS, 3. Standard FLS, 4. Wig wags, 5. Hwy. traffic signals, 6. Audible, 7. Crossbucks, 8. Stop signs, 9. Watchman, 10. Flagged by crew, 11. Other *(specify)*, 12. None — Code(s): **11**

33. Signaled Crossing Warning

34. Whistle Ban — 1. Yes 2. No 3. Unknown — Code:

35. Location of Warning — 1. Both Sides, 2. Side of Vehicle Approach, 3. Opposite Side of Vehicle Approach — Code:

36. Crossing Warning Interconnected with Highway Signals — 1. Yes 2. No 3. Unknown — Code:

37. Crossing Illuminated by Street Lights or Special Lights — 1. Yes 2. No 3. Unknown — Code:

38. Driver's Age

39. Driver's Gender — 1. Male, 2. Female — Code:

40. Driver Drove Behind or in Front of Train and Struck or was Struck by Second Train — 1. Yes 2. No 3. Unknown — Code: **2**

41. Driver — 1. Drove around or thru the gate, 2. Stopped and then proceeded, 3. Did not stop, 4. Stopped on crossing, 5. Other *(specify)* — Code: **4**

42. Driver Passed Standing Highway Vehicle — 1. Yes 2. No 3. Unknown — Code: **3**

43. View of Track Obscured by *(primary obstruction)* — 1. Permanent Structure, 2. Standing railroad equipment, 3. Passing Train, 4. Topography, 5. Vegetation, 6. Highway Vehicles, 7. Other *(specify)*, 8. Not Obstructed — Code: **8**

| Casualties to: | Killed | Injured |
|---|---|---|
| 46. Highway-Rail Crossing Users | 0 | 0 |
| 49. Railroad Employees | 0 | 0 |
| 52. Passengers on Train | 0 | 0 |

44. Driver was — 1. Killed 2. Injured 3. Uninjured — Code: **3**

45. Was Driver in the Vehicle? — 1. Yes 2. No — Code: **1**

47. Highway Vehicle Property Damage *(est. dollar damage)*: **$3,500**

48. Total Number of Highway-Rail Crossing Users *(include driver)*: **1**

50. Total Number of People on Train *(include passengers and crew)*

51. Is a Rail Equipment Accident / Incident Report Being Filed — 1. Yes 2. No — Code: **2**

53a. Special Study Block

53b. Special Study Block

54. Narrative Description

| 55. Typed Name and Title | 56. Signature | 57. Date |
|---|---|---|
| | | |

FORM FRA F 6180.57

* NOTE THAT ALL CASUALTIES MUST BE REPORTED ON FORM FRA F 6180.55A

**DEPARTMENT OF TRANSPORTATION**
FEDERAL RAILROAD ADMINISTRATION (FRA)

# HIGHWAY-RAIL GRADE CROSSING ACCIDENT/INCIDENT REPORT

OMB Approval No. 2130-0500

| Name Of | Alphabetic Code | RR Accident/Incident No. |
|---|---|---|
| 1. Reporting Railroad | 1a. ATSF | 1b. 330485201 |
| 2. Other Railroad Involved in Train Accident/Incident | 2a. | 2b. |
| 3. Railroad Responsible for Track Maintenance | 3a. ATSF | 3b. 330485201 |

| 4. U.S. DOT-AAR Grade Crossing ID No. | 5. Date of Accident/Incident | 6. Time of Accident/Incident |
|---|---|---|
| 028027R | 04/11/85 | 7:40 PM |

| 7. Nearest Railroad Station | 8. Division | 9. County | 10. State Abbr. | Code |
|---|---|---|---|---|
| HOBART | | LOS ANGELES | CA | 06 |

11. City *(if in a city)*: EL SEGUNDO
12. Highway Name or No.: IMPERIAL HWY — ☑ Public ☐ Private

## Highway User Involved

13. Type — A. Auto, B. Truck, C. Truck-trailer, D. Pick-up truck, E. Van, F. Bus, G. School Bus, H. Motorcycle, J. Other Motor Vehicle, K. Pedestrian, M. Other *(specify)* — Code: **A**

14. Vehicle Speed *(est. mph at impact)*: **10**

15. Direction *(geographical)* — 1. North 2. South 3. East 4. West — Code: **3**

16. Position — 1. Stalled on crossing, 2. Stopped on Crossing, 3. Moving over crossing, 4. Trapped — Code: **3**

20a. Was the highway user and/or rail equipment involved in the impact transporting hazardous materials? — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code: **4**

## Rail Equipment Involved

17. Equipment — 1. Train *(units pulling)*, 2. Train *(units pushing)*, 3. Train *(standing)*, 4. Car(s) *(moving)*, 5. Car(s) *(standing)*, 6. Light loco(s) *(moving)*, 7. Light loco(s) *(standing)*, 8. Other *(specify)* — Code: **1**

18. Position of Car Unit in Train: **1**

19. Circumstance — 1. Rail equipment struck highway user, 2. Rail equipment struck by highway user — Code: **1**

20b. Was there a hazardous materials release by — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code:

20c. State the name and quantity of the hazardous materials released, if any

21. Temperature *(specify if minus)*: **65 °F**

22. Visibility *(single entry)* — 1. Dawn 2. Day 3. Dusk 4. Dark — Code: **3**

23. Weather *(single entry)* — 1. Clear 2. Cloudy 3. Rain 4. Fog 5. Sleet 6. Snow — Code: **1**

24. Type of Equipment Consist *(single entry)* — 1. Freight train, 2. Passenger train, 3. Commuter train, 4. Work train, 5. Single car, 6. Cut of cars, 7. Yard/Switching, 8. Light loco(s), 9. Other *(specify)* — Code: **1**

25. Track Type Used by Rail Equipment Involved — 1. Main 2. Yard 3. Siding 4. Industry — Code: **1**

26. Track Number or Name: **MAIN**

27. FRA Track Class (1-6,X): **1**

28. Number of Locomotive Units: **2**

29. Number of Cars: **1**

30. Consist Speed *(Recorded if available)* — R. Recorded, E. Estimated: **3** mph — Code: **E**

31. Time Table Direction — 1. North 2. South 3. East 4. West — Code: **3**

32. Type of Crossing Warning — 1. Gates, 2. Cantilever FLS, 3. Standard FLS, 4. Wig wags, 5. Hwy. traffic signals, 6. Audible, 7. Crossbucks, 8. Stop signs, 9. Watchman, 10. Flagged by crew, 11. Other *(specify)*, 12. None — Code(s): **02**

33. Signaled Crossing Warning: **20 sec warn min**

34. Whistle Ban — 1. Yes 2. No 3. Unknown — Code:

35. Location of Warning — 1. Both Sides, 2. Side of Vehicle Approach, 3. Opposite Side of Vehicle Approach — Code: **1**

36. Crossing Warning Interconnected with Highway Signals — 1. Yes 2. No 3. Unknown — Code: **1**

37. Crossing Illuminated by Street Lights or Special Lights — 1. Yes 2. No 3. Unknown — Code: **3**

38. Driver's Age:

39. Driver's Gender — 1. Male, 2. Female — Code:

40. Driver Drove Behind or in Front of Train and Struck or was Struck by Second Train — 1. Yes 2. No 3. Unknown — Code: **2**

41. Driver — 1. Drove around or thru the gate, 2. Stopped and then proceeded, 3. Did not stop, 4. Stopped on crossing, 5. Other *(specify)* — Code: **3**

42. Driver Passed Standing Highway Vehicle — 1. Yes 2. No 3. Unknown — Code: **2**

43. View of Track Obscured by *(primary obstruction)* — 1. Permanent Structure, 2. Standing railroad equipment, 3. Passing Train, 4. Topography, 5. Vegetation, 6. Highway Vehicles, 7. Other *(specify)*, 8. Not Obstructed — Code: **8**

| Casualties to: | Killed | Injured |
|---|---|---|
| 46. Highway-Rail Crossing Users | 0 | 0 |
| 49. Railroad Employees | 0 | 0 |
| 52. Passengers on Train | 0 | 0 |

44. Driver was — 1. Killed 2. Injured 3. Uninjured — Code: **3**

45. Was Driver in the Vehicle? — 1. Yes 2. No — Code: **1**

47. Highway Vehicle Property Damage *(est. dollar damage)*: **$50**

48. Total Number of Highway-Rail Crossing Users *(include driver)*: **2**

50. Total Number of People on Train *(include passengers and crew)*:

51. Is a Rail Equipment Accident / Incident Report Being Filed — 1. Yes 2. No — Code: **2**

53a. Special Study Block

53b. Special Study Block

54. Narrative Description

| 55. Typed Name and Title | 56. Signature | 57. Date |
|---|---|---|
| | | |

FORM FRA F 6180.57

* NOTE THAT ALL CASUALTIES MUST BE REPORTED ON FORM FRA F 6180.55A

**DEPARTMENT OF TRANSPORTATION**
FEDERAL RAILROAD ADMINISTRATION (FRA)

# HIGHWAY-RAIL GRADE CROSSING ACCIDENT/INCIDENT REPORT

OMB Approval No. 2130-0500

| Name Of | Alphabetic Code | RR Accident/Incident No. |
|---|---|---|
| 1. Reporting Railroad | 1a. ATSF | 1b. 310487201 |
| 2. Other Railroad Involved in Train Accident/Incident | 2a. | 2b. 310487201 |
| 3. Railroad Responsible for Track Maintenance | 3a. ATSF | 3b. 310487201 |

| 4. U.S. DOT-AAR Grade Crossing ID No. | 5. Date of Accident/Incident | 6. Time of Accident/Incident |
|---|---|---|
| 028027R | 04/01/87 | 9:38 PM |

| 7. Nearest Railroad Station | 8. Division | 9. County | 10. State Abbr. | Code |
|---|---|---|---|---|
| LAIRPORT | | LOS ANGELES | CA | 06 |

11. City *(if in a city)*: LOS ANGELES
12. Highway Name or No.: IMPERIAL HWY
☑ Public ☐ Private

## Highway User Involved

13. Type — A. Auto, B. Truck, C. Truck-trailer, D. Pick-up truck, E. Van, F. Bus, G. School Bus, H. Motorcycle, J. Other Motor Vehicle, K. Pedestrian, M. Other *(specify)* — Code: **A**

14. Vehicle Speed *(est. mph at impact)*: **15**

15. Direction *(geographical)* — 1. North 2. South 3. East 4. West — Code: **4**

16. Position — 1. Stalled on crossing, 2. Stopped on Crossing, 3. Moving over crossing, 4. Trapped — Code: **3**

20a. Was the highway user and/or rail equipment involved in the impact transporting hazardous materials? — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code: **4**

## Rail Equipment Involved

17. Equipment — 1. Train *(units pulling)*, 2. Train *(units pushing)*, 3. Train *(standing)*, 4. Car(s) *(moving)*, 5. Car(s) *(standing)*, 6. Light loco(s) *(moving)*, 7. Light loco(s) *(standing)*, 8. Other *(specify)* — Code: **1**

18. Position of Car Unit in Train: **1**

19. Circumstance — 1. Rail equipment struck highway user, 2. Rail equipment struck by highway user — Code: **1**

20b. Was there a hazardous materials release by — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code:

20c. State the name and quantity of the hazardous materials released, if any

21. Temperature *(specify if minus)*: **70 °F**

22. Visibility *(single entry)* — 1. Dawn 2. Day 3. Dusk 4. Dark — Code: **4**

23. Weather *(single entry)* — 1. Clear 2. Cloudy 3. Rain 4. Fog 5. Sleet 6. Snow — Code: **1**

24. Type of Equipment Consist *(single entry)* — 1. Freight train, 2. Passenger train, 3. Commuter train, 4. Work train, 5. Single car, 6. Cut of cars, 7. Yard/Switching, 8. Light loco(s), 9. Other *(specify)* — Code: **1**

25. Track Type Used by Rail Equipment Involved — 1. Main 2. Yard 3. Siding 4. Industry — Code: **4**

26. Track Number or Name: **INDUSTRY**

27. FRA Track Class (1-6,X): **1**

28. Number of Locomotive Units: **2**

29. Number of Cars: **0**

30. Consist Speed *(Recorded if available)* — R. Recorded, E. Estimated: **4** mph — Code: **E**

31. Time Table Direction — 1. North 2. South 3. East 4. West — Code: **3**

32. Type of Crossing Warning — 1. Gates, 2. Cantilever FLS, 3. Standard FLS, 4. Wig wags, 5. Hwy. traffic signals, 6. Audible, 7. Crossbucks, 8. Stop signs, 9. Watchman, 10. Flagged by crew, 11. Other *(specify)*, 12. None — Code(s): **02**

33. Signaled Crossing Warning: **20 sec warn min**

34. Whistle Ban — 1. Yes 2. No 3. Unknown — Code:

35. Location of Warning — 1. Both Sides, 2. Side of Vehicle Approach, 3. Opposite Side of Vehicle Approach — Code: **1**

36. Crossing Warning Interconnected with Highway Signals — 1. Yes 2. No 3. Unknown — Code: **1**

37. Crossing Illuminated by Street Lights or Special Lights — 1. Yes 2. No 3. Unknown — Code: **1**

38. Driver's Age:

39. Driver's Gender — 1. Male, 2. Female — Code:

40. Driver Drove Behind or in Front of Train and Struck or was Struck by Second Train — 1. Yes 2. No 3. Unknown — Code: **2**

41. Driver — 1. Drove around or thru the gate, 2. Stopped and then proceeded, 3. Did not stop, 4. Stopped on crossing, 5. Other *(specify)* — Code: **4**

42. Driver Passed Standing Highway Vehicle — 1. Yes 2. No 3. Unknown — Code: **2**

43. View of Track Obscured by *(primary obstruction)* — 1. Permanent Structure, 2. Standing railroad equipment, 3. Passing Train, 4. Topography, 5. Vegetation, 6. Highway Vehicles, 7. Other *(specify)*, 8. Not Obstructed — Code: **8**

| Casualties to: | Killed | Injured |
|---|---|---|
| 46. Highway-Rail Crossing Users | 0 | 0 |
| 49. Railroad Employees | 0 | 0 |
| 52. Passengers on Train | 0 | 0 |

44. Driver was — 1. Killed 2. Injured 3. Uninjured — Code: **3**

45. Was Driver in the Vehicle? — 1. Yes 2. No — Code: **1**

47. Highway Vehicle Property Damage *(est. dollar damage)*: **$2,000**

48. Total Number of Highway-Rail Crossing Users *(include driver)*: **1**

50. Total Number of People on Train *(include passengers and crew)*:

51. Is a Rail Equipment Accident / Incident Report Being Filed — 1. Yes 2. No — Code: **2**

53a. Special Study Block

53b. Special Study Block

54. Narrative Description

| 55. Typed Name and Title | 56. Signature | 57. Date |
|---|---|---|
| | | |

FORM FRA F 6180.57

* NOTE THAT ALL CASUALTIES MUST BE REPORTED ON FORM FRA F 6180.55A

**DEPARTMENT OF TRANSPORTATION**
FEDERAL RAILROAD ADMINISTRATION (FRA)

# HIGHWAY-RAIL GRADE CROSSING ACCIDENT/INCIDENT REPORT

OMB Approval No. 2130-0500

| Name Of | Alphabetic Code | RR Accident/Incident No. |
|---|---|---|
| 1. Reporting Railroad | 1a. ATSF | 1b. 360689205 |
| 2. Other Railroad Involved in Train Accident/Incident | 2a. | 2b. 360689205 |
| 3. Railroad Responsible for Track Maintenance | 3a. ATSF | 3b. 360689205 |

| 4. U.S. DOT-AAR Grade Crossing ID No. | 5. Date of Accident/Incident | 6. Time of Accident/Incident |
|---|---|---|
| 028027R | 06/24/89 | 7:0 PM |

| 7. Nearest Railroad Station | 8. Division | 9. County | 10. State Abbr. | Code |
|---|---|---|---|---|
| LAIPORT | | LOS ANGELES | CA | 06 |

11. City *(if in a city)* LOS ANGELES — 12. Highway Name or No. IMPERIAL HIGHWAY — ☑ Public ☐ Private

## Highway User Involved

13. Type — A. Auto, B. Truck, C. Truck-trailer, D. Pick-up truck, E. Van, F. Bus, G. School Bus, H. Motorcycle, J. Other Motor Vehicle, K. Pedestrian, M. Other *(specify)* — Code: **B**

14. Vehicle Speed *(est. mph at impact)*

15. Direction *(geographical)* — 1. North 2. South 3. East 4. West — Code: **1**

16. Position — 1. Stalled on crossing, 2. Stopped on Crossing, 3. Moving over crossing, 4. Trapped — Code: **3**

20a. Was the highway user and/or rail equipment involved in the impact transporting hazardous materials? — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code: **2**

## Rail Equipment Involved

17. Equipment — 1. Train *(units pulling)*, 2. Train *(units pushing)*, 3. Train *(standing)*, 4. Car(s) *(moving)*, 5. Car(s) *(standing)*, 6. Light loco(s) *(moving)*, 7. Light loco(s) *(standing)*, 8. Other *(specify)* — Code: **1**

18. Position of Car Unit in Train: **1**

19. Circumstance — 1. Rail equipment struck highway user, 2. Rail equipment struck by highway user — Code: **2**

20b. Was there a hazardous materials release by — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code:

20c. State the name and quantity of the hazardous materials released, if any

21. Temperature *(specify if minus)*: **75 °F**

22. Visibility *(single entry)* — 1. Dawn 2. Day 3. Dusk 4. Dark — Code: **2**

23. Weather *(single entry)* — 1. Clear 2. Cloudy 3. Rain 4. Fog 5. Sleet 6. Snow — Code: **1**

24. Type of Equipment Consist *(single entry)* — 1. Freight train, 2. Passenger train, 3. Commuter train, 4. Work train, 5. Single car, 6. Cut of cars, 7. Yard/Switching, 8. Light loco(s), 9. Other *(specify)* — Code: **1**

25. Track Type Used by Rail Equipment Involved — 1. Main 2. Yard 3. Siding 4. Industry — Code: **1**

26. Track Number or Name: **MAIN**

| 27. FRA Track Class (1-6,X) | 28. Number of Locomotive Units | 29. Number of Cars | 30. Consist Speed *(Recorded if available)* | Code | 31. Time Table Direction | Code |
|---|---|---|---|---|---|---|
| 2 | 5 | 113 | R. Recorded<br>E. Estimated 15 mph | E | 1. North 2. South 3. East 4. West | 4 |

32. Type of Crossing Warning — 1. Gates, 2. Cantilever FLS, 3. Standard FLS, 4. Wig wags, 5. Hwy. traffic signals, 6. Audible, 7. Crossbucks, 8. Stop signs, 9. Watchman, 10. Flagged by crew, 11. Other *(specify)*, 12. None

Code(s): **02** **03** **06** **07**

33. Signaled Crossing Warning: **20 sec warn min**

34. Whistle Ban — 1. Yes 2. No 3. Unknown — Code:

35. Location of Warning — 1. Both Sides, 2. Side of Vehicle Approach, 3. Opposite Side of Vehicle Approach — Code: **1**

36. Crossing Warning Interconnected with Highway Signals — 1. Yes 2. No 3. Unknown — Code: **1**

37. Crossing Illuminated by Street Lights or Special Lights — 1. Yes 2. No 3. Unknown — Code: **3**

38. Driver's Age

39. Driver's Gender — 1. Male, 2. Female — Code:

40. Driver Drove Behind or in Front of Train and Struck or was Struck by Second Train — 1. Yes 2. No 3. Unknown — Code: **2**

41. Driver — 1. Drove around or thru the gate, 2. Stopped and then proceeded, 3. Did not stop, 4. Stopped on crossing, 5. Other *(specify)* — Code: **3**

42. Driver Passed Standing Highway Vehicle — 1. Yes 2. No 3. Unknown — Code: **2**

43. View of Track Obscured by *(primary obstruction)* — 1. Permanent Structure, 2. Standing railroad equipment, 3. Passing Train, 4. Topography, 5. Vegetation, 6. Highway Vehicles, 7. Other *(specify)*, 8. Not Obstructed — Code: **8**

| Casualties to: | Killed | Injured |
|---|---|---|
| 46. Highway-Rail Crossing Users | 0 | 0 |
| 49. Railroad Employees | 0 | 0 |
| 52. Passengers on Train | 0 | 0 |

44. Driver was — 1. Killed 2. Injured 3. Uninjured — Code: **3**

45. Was Driver in the Vehicle? — 1. Yes 2. No — Code: **1**

47. Highway Vehicle Property Damage *(est. dollar damage)*: **$0**

48. Total Number of Highway-Rail Crossing Users *(include driver)*: **2**

50. Total Number of People on Train *(include passengers and crew)*

51. Is a Rail Equipment Accident / Incident Report Being Filed — 1. Yes 2. No — Code: **2**

53a. Special Study Block

53b. Special Study Block

54. Narrative Description

| 55. Typed Name and Title | 56. Signature | 57. Date |
|---|---|---|
| | | |

FORM FRA F 6180.57

* NOTE THAT ALL CASUALTIES MUST BE REPORTED ON FORM FRA F 6180.55A

**DEPARTMENT OF TRANSPORTATION**
FEDERAL RAILROAD ADMINISTRATION (FRA)

# HIGHWAY-RAIL GRADE CROSSING ACCIDENT/INCIDENT REPORT

OMB Approval No. 2130-0500

| Name Of | Alphabetic Code | RR Accident/Incident No. |
|---|---|---|
| 1. Reporting Railroad | 1a. ATSF | 1b. 031090204 |
| 2. Other Railroad Involved in Train Accident/Incident | 2a. | 2b. 031090204 |
| 3. Railroad Responsible for Track Maintenance | 3a. ATSF | 3b. 031090204 |

| 4. U.S. DOT-AAR Grade Crossing ID No. | 5. Date of Accident/Incident | 6. Time of Accident/Incident |
|---|---|---|
| 028027R | 10/20/90 | 5:15 AM |

| 7. Nearest Railroad Station | 8. Division | 9. County | 10. State Abbr. | Code |
|---|---|---|---|---|
| LAIRPORT | | LOS ANGELES | CA | 06 |

11. City *(if in a city)*: LOS ANGELED
12. Highway Name or No.: IMPERIAL HIWAY — ☑ Public ☐ Private

## Highway User Involved

13. Type — A. Auto, B. Truck, C. Truck-trailer, D. Pick-up truck, E. Van, F. Bus, G. School Bus, H. Motorcycle, J. Other Motor Vehicle, K. Pedestrian, M. Other *(specify)* — Code: **A**

14. Vehicle Speed *(est. mph at impact)*: **5**

15. Direction *(geographical)* — 1. North 2. South 3. East 4. West — Code: **4**

16. Position — 1. Stalled on crossing, 2. Stopped on Crossing, 3. Moving over crossing, 4. Trapped — Code: **3**

20a. Was the highway user and/or rail equipment involved in the impact transporting hazardous materials? — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code: **4**

## Rail Equipment Involved

17. Equipment — 1. Train *(units pulling)*, 2. Train *(units pushing)*, 3. Train *(standing)*, 4. Car(s) *(moving)*, 5. Car(s) *(standing)*, 6. Light loco(s) *(moving)*, 7. Light loco(s) *(standing)*, 8. Other *(specify)* — Code: **1**

18. Position of Car Unit in Train: **1**

19. Circumstance — 1. Rail equipment struck highway user, 2. Rail equipment struck by highway user — Code: **1**

20b. Was there a hazardous materials release by — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code:

20c. State the name and quantity of the hazardous materials released, if any

21. Temperature *(specify if minus)*: **68 °F**

22. Visibility *(single entry)* — 1. Dawn 2. Day 3. Dusk 4. Dark — Code: **4**

23. Weather *(single entry)* — 1. Clear 2. Cloudy 3. Rain 4. Fog 5. Sleet 6. Snow — Code: **1**

24. Type of Equipment Consist *(single entry)* — 1. Freight train, 2. Passenger train, 3. Commuter train, 4. Work train, 5. Single car, 6. Cut of cars, 7. Yard/Switching, 8. Light loco(s), 9. Other *(specify)* — Code: **1**

25. Track Type Used by Rail Equipment Involved — 1. Main 2. Yard 3. Siding 4. Industry — Code: **1**

26. Track Number or Name: **MAIN**

27. FRA Track Class (1-6,X): **1**

28. Number of Locomotive Units: **4**

29. Number of Cars: **39**

30. Consist Speed *(Recorded if available)* — R. Recorded, E. Estimated: **14** mph — Code: **E**

31. Time Table Direction — 1. North 2. South 3. East 4. West — Code: **3**

32. Type of Crossing Warning — 1. Gates, 2. Cantilever FLS, 3. Standard FLS, 4. Wig wags, 5. Hwy. traffic signals, 6. Audible, 7. Crossbucks, 8. Stop signs, 9. Watchman, 10. Flagged by crew, 11. Other *(specify)*, 12. None — Code(s): **02** **03** **05** **07**

33. Signaled Crossing Warning: **20 sec warn min**

34. Whistle Ban — 1. Yes 2. No 3. Unknown — Code:

35. Location of Warning — 1. Both Sides, 2. Side of Vehicle Approach, 3. Opposite Side of Vehicle Approach — Code: **1**

36. Crossing Warning Interconnected with Highway Signals — 1. Yes 2. No 3. Unknown — Code: **1**

37. Crossing Illuminated by Street Lights or Special Lights — 1. Yes 2. No 3. Unknown — Code: **1**

38. Driver's Age:

39. Driver's Gender — 1. Male, 2. Female — Code:

40. Driver Drove Behind or in Front of Train and Struck or was Struck by Second Train — 1. Yes 2. No 3. Unknown — Code: **2**

41. Driver — 1. Drove around or thru the gate, 2. Stopped and then proceeded, 3. Did not stop, 4. Stopped on crossing, 5. Other *(specify)* — Code: **3**

42. Driver Passed Standing Highway Vehicle — 1. Yes 2. No 3. Unknown — Code: **2**

43. View of Track Obscured by *(primary obstruction)* — 1. Permanent Structure, 2. Standing railroad equipment, 3. Passing Train, 4. Topography, 5. Vegetation, 6. Highway Vehicles, 7. Other *(specify)*, 8. Not Obstructed — Code: **8**

| Casualties to: | Killed | Injured |
|---|---|---|
| 46. Highway-Rail Crossing Users | 0 | 0 |
| 49. Railroad Employees | 0 | 0 |
| 52. Passengers on Train | 0 | 0 |

44. Driver was — 1. Killed 2. Injured 3. Uninjured — Code: **3**

45. Was Driver in the Vehicle? — 1. Yes 2. No — Code: **1**

47. Highway Vehicle Property Damage *(est. dollar damage)*: **$0**

48. Total Number of Highway-Rail Crossing Users *(include driver)*: **1**

50. Total Number of People on Train *(include passengers and crew)*:

51. Is a Rail Equipment Accident / Incident Report Being Filed — 1. Yes 2. No — Code: **2**

53a. Special Study Block

53b. Special Study Block

54. Narrative Description

| 55. Typed Name and Title | 56. Signature | 57. Date |
|---|---|---|
| | | |

FORM FRA F 6180.57

* NOTE THAT ALL CASUALTIES MUST BE REPORTED ON FORM FRA F 6180.55A

**DEPARTMENT OF TRANSPORTATION**
FEDERAL RAILROAD ADMINISTRATION (FRA)

# HIGHWAY-RAIL GRADE CROSSING ACCIDENT/INCIDENT REPORT

OMB Approval No. 2130-0500

| Name Of | Alphabetic Code | RR Accident/Incident No. |
|---|---|---|
| 1. Reporting Railroad | 1a. ATSF | 1b. 150494200 |
| 2. Other Railroad Involved in Train Accident/Incident | 2a. | 2b. 150494200 |
| 3. Railroad Responsible for Track Maintenance | 3a. ATSF | 3b. 150494200 |

| 4. U.S. DOT-AAR Grade Crossing ID No. | 5. Date of Accident/Incident | 6. Time of Accident/Incident |
|---|---|---|
| 028027R | 04/30/94 | 2:15 AM |

| 7. Nearest Railroad Station | 8. Division | 9. County | 10. State Abbr. | Code |
|---|---|---|---|---|
| EL SEGUNDO | | LOS ANGELES | CA | 06 |

11. City *(if in a city)*: EL SEGUNDO
12. Highway Name or No.: IMPERIAL HIGHWAY — ☑ Public ☐ Private

## Highway User Involved

13. Type — A. Auto, B. Truck, C. Truck-trailer, D. Pick-up truck, E. Van, F. Bus, G. School Bus, H. Motorcycle, J. Other Motor Vehicle, K. Pedestrian, M. Other *(specify)* — Code: **A**

14. Vehicle Speed *(est. mph at impact)*: **10**

15. Direction *(geographical)* — 1. North 2. South 3. East 4. West — Code: **2**

16. Position — 1. Stalled on crossing, 2. Stopped on Crossing, 3. Moving over crossing, 4. Trapped — Code: **3**

20a. Was the highway user and/or rail equipment involved in the impact transporting hazardous materials? — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code: **2**

## Rail Equipment Involved

17. Equipment — 1. Train *(units pulling)*, 2. Train *(units pushing)*, 3. Train *(standing)*, 4. Car(s) *(moving)*, 5. Car(s) *(standing)*, 6. Light loco(s) *(moving)*, 7. Light loco(s) *(standing)*, 8. Other *(specify)* — Code: **1**

18. Position of Car Unit in Train: **86**

19. Circumstance — 1. Rail equipment struck highway user, 2. Rail equipment struck by highway user — Code: **2**

20b. Was there a hazardous materials release by — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code:

20c. State the name and quantity of the hazardous materials released, if any

21. Temperature *(specify if minus)*: **56 °F**

22. Visibility *(single entry)* — 1. Dawn 2. Day 3. Dusk 4. Dark — Code: **4**

23. Weather *(single entry)* — 1. Clear 2. Cloudy 3. Rain 4. Fog 5. Sleet 6. Snow — Code: **2**

24. Type of Equipment Consist *(single entry)* — 1. Freight train, 2. Passenger train, 3. Commuter train, 4. Work train, 5. Single car, 6. Cut of cars, 7. Yard/Switching, 8. Light loco(s), 9. Other *(specify)* — Code: **1**

25. Track Type Used by Rail Equipment Involved — 1. Main 2. Yard 3. Siding 4. Industry — Code: **1**

26. Track Number or Name: **MAIN LINE**

27. FRA Track Class (1-6,X): **3**

28. Number of Locomotive Units: **3**

29. Number of Cars: **96**

30. Consist Speed *(Recorded if available)* — R. Recorded, E. Estimated: **20** mph — Code: **E**

31. Time Table Direction — 1. North 2. South 3. East 4. West — Code: **3**

32. Type of Crossing Warning — 1. Gates, 2. Cantilever FLS, 3. Standard FLS, 4. Wig wags, 5. Hwy. traffic signals, 6. Audible, 7. Crossbucks, 8. Stop signs, 9. Watchman, 10. Flagged by crew, 11. Other *(specify)*, 12. None — Code(s): **01**

33. Signaled Crossing Warning: **20 sec warn min**

34. Whistle Ban — 1. Yes 2. No 3. Unknown — Code:

35. Location of Warning — 1. Both Sides, 2. Side of Vehicle Approach, 3. Opposite Side of Vehicle Approach — Code: **1**

36. Crossing Warning Interconnected with Highway Signals — 1. Yes 2. No 3. Unknown — Code: **1**

37. Crossing Illuminated by Street Lights or Special Lights — 1. Yes 2. No 3. Unknown — Code: **3**

38. Driver's Age:

39. Driver's Gender — 1. Male, 2. Female — Code:

40. Driver Drove Behind or in Front of Train and Struck or was Struck by Second Train — 1. Yes 2. No 3. Unknown — Code: **2**

41. Driver — 1. Drove around or thru the gate, 2. Stopped and then proceeded, 3. Did not stop, 4. Stopped on crossing, 5. Other *(specify)* — Code: **1**

42. Driver Passed Standing Highway Vehicle — 1. Yes 2. No 3. Unknown — Code: **2**

43. View of Track Obscured by *(primary obstruction)* — 1. Permanent Structure, 2. Standing railroad equipment, 3. Passing Train, 4. Topography, 5. Vegetation, 6. Highway Vehicles, 7. Other *(specify)*, 8. Not Obstructed — Code: **8**

| Casualties to: | Killed | Injured |
|---|---|---|
| 46. Highway-Rail Crossing Users | 0 | 0 |
| 49. Railroad Employees | 0 | 0 |
| 52. Passengers on Train | 0 | 0 |

44. Driver was — 1. Killed 2. Injured 3. Uninjured — Code: **3**

45. Was Driver in the Vehicle? — 1. Yes 2. No — Code: **1**

47. Highway Vehicle Property Damage *(est. dollar damage)*: **$2,000**

48. Total Number of Highway-Rail Crossing Users *(include driver)*: **1**

50. Total Number of People on Train *(include passengers and crew)*:

51. Is a Rail Equipment Accident / Incident Report Being Filed — 1. Yes 2. No — Code: **2**

53a. Special Study Block

53b. Special Study Block

54. Narrative Description

| 55. Typed Name and Title | 56. Signature | 57. Date |
|---|---|---|
| | | |

FORM FRA F 6180.57

* NOTE THAT ALL CASUALTIES MUST BE REPORTED ON FORM FRA F 6180.55A

**DEPARTMENT OF TRANSPORTATION**
FEDERAL RAILROAD ADMINISTRATION (FRA)

# HIGHWAY-RAIL GRADE CROSSING ACCIDENT/INCIDENT REPORT

OMB Approval No. 2130-0500

| Name Of | Alphabetic Code | RR Accident/Incident No. |
|---|---|---|
| 1. Reporting Railroad | 1a. ATSF | 1b. 33017201 |
| 2. Other Railroad Involved in Train Accident/Incident | 2a. | 2b. |
| 3. Railroad Responsible for Track Maintenance | 3a. ATSF | 3b. 33017201 |

| 4. U.S. DOT-AAR Grade Crossing ID No. | 5. Date of Accident/Incident | 6. Time of Accident/Incident |
|---|---|---|
| 028049R | 01/03/77 | 4:50 PM |

| 7. Nearest Railroad Station | 8. Division | 9. County | 10. State Abbr. | Code |
|---|---|---|---|---|
| LAIRPORT | | LOS ANGELES | CA | 06 |

| 11. City *(if in a city)* | 12. Highway Name or No. | |
|---|---|---|
| EL SEGUNDO | 124TH STREET & AVIAT | ☑ Public ☐ Private |

## Highway User Involved

13. Type — A. Auto, B. Truck, C. Truck-trailer, D. Pick-up truck, E. Van, F. Bus, G. School Bus, H. Motorcycle, J. Other Motor Vehicle, K. Pedestrian, M. Other *(specify)* — Code: **A**

14. Vehicle Speed *(est. mph at impact)*

15. Direction *(geographical)* — 1. North 2. South 3. East 4. West — Code: **4**

16. Position — 1. Stalled on crossing, 2. Stopped on Crossing, 3. Moving over crossing, 4. Trapped — Code: **1**

20a. Was the highway user and/or rail equipment involved in the impact transporting hazardous materials? — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code: **4**

## Rail Equipment Involved

17. Equipment — 1. Train *(units pulling)*, 2. Train *(units pushing)*, 3. Train *(standing)*, 4. Car(s) *(moving)*, 5. Car(s) *(standing)*, 6. Light loco(s) *(moving)*, 7. Light loco(s) *(standing)*, 8. Other *(specify)* — Code: **1**

18. Position of Car Unit in Train: **1**

19. Circumstance — 1. Rail equipment struck highway user, 2. Rail equipment struck by highway user — Code: **1**

20b. Was there a hazardous materials release by — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code:

20c. State the name and quantity of the hazardous materials released, if any

21. Temperature *(specify if minus)*: **60 °F**

22. Visibility *(single entry)* — 1. Dawn 2. Day 3. Dusk 4. Dark — Code: **2**

23. Weather *(single entry)* — 1. Clear 2. Cloudy 3. Rain 4. Fog 5. Sleet 6. Snow — Code: **1**

24. Type of Equipment Consist *(single entry)* — 1. Freight train, 2. Passenger train, 3. Commuter train, 4. Work train, 5. Single car, 6. Cut of cars, 7. Yard/Switching, 8. Light loco(s), 9. Other *(specify)* — Code: **1**

25. Track Type Used by Rail Equipment Involved — 1. Main 2. Yard 3. Siding 4. Industry — Code: **1**

26. Track Number or Name: **2H 13.9**

27. FRA Track Class (1-6,X): **1**

28. Number of Locomotive Units: **5**

29. Number of Cars: **39**

30. Consist Speed *(Recorded if available)* — R. Recorded, E. Estimated: **12** mph — Code: **E**

31. Time Table Direction — 1. North 2. South 3. East 4. West — Code: **4**

32. Type of Crossing Warning — 1. Gates, 2. Cantilever FLS, 3. Standard FLS, 4. Wig wags, 5. Hwy. traffic signals, 6. Audible, 7. Crossbucks, 8. Stop signs, 9. Watchman, 10. Flagged by crew, 11. Other *(specify)*, 12. None — Code(s): **03** **05** **06**

33. Signaled Crossing Warning: **20 sec warn min**

34. Whistle Ban — 1. Yes 2. No 3. Unknown — Code:

35. Location of Warning — 1. Both Sides, 2. Side of Vehicle Approach, 3. Opposite Side of Vehicle Approach — Code: **1**

36. Crossing Warning Interconnected with Highway Signals — 1. Yes 2. No 3. Unknown — Code: **1**

37. Crossing Illuminated by Street Lights or Special Lights — 1. Yes 2. No 3. Unknown — Code: **3**

38. Driver's Age

39. Driver's Gender — 1. Male, 2. Female — Code:

40. Driver Drove Behind or in Front of Train and Struck or was Struck by Second Train — 1. Yes 2. No 3. Unknown — Code: **2**

41. Driver — 1. Drove around or thru the gate, 2. Stopped and then proceeded, 3. Did not stop, 4. Stopped on crossing, 5. Other *(specify)* — Code: **4**

42. Driver Passed Standing Highway Vehicle — 1. Yes 2. No 3. Unknown — Code: **2**

43. View of Track Obscured by *(primary obstruction)* — 1. Permanent Structure, 2. Standing railroad equipment, 3. Passing Train, 4. Topography, 5. Vegetation, 6. Highway Vehicles, 7. Other *(specify)*, 8. Not Obstructed — Code: **8**

| Casualties to: | Killed | Injured |
|---|---|---|
| 46. Highway-Rail Crossing Users | 0 | 0 |
| 49. Railroad Employees | 0 | 0 |
| 52. Passengers on Train | 0 | 0 |

44. Driver was — 1. Killed 2. Injured 3. Uninjured — Code: **3**

45. Was Driver in the Vehicle? — 1. Yes 2. No — Code: **1**

47. Highway Vehicle Property Damage *(est. dollar damage)*: **$0**

48. Total Number of Highway-Rail Crossing Users *(include driver)*: **1**

50. Total Number of People on Train *(include passengers and crew)*:

51. Is a Rail Equipment Accident / Incident Report Being Filed — 1. Yes 2. No — Code: **2**

53a. Special Study Block

53b. Special Study Block

54. Narrative Description

| 55. Typed Name and Title | 56. Signature | 57. Date |
|---|---|---|
| | | |

FORM FRA F 6180.57

* NOTE THAT ALL CASUALTIES MUST BE REPORTED ON FORM FRA F 6180.55A

**DEPARTMENT OF TRANSPORTATION**
FEDERAL RAILROAD ADMINISTRATION (FRA)

# HIGHWAY-RAIL GRADE CROSSING ACCIDENT/INCIDENT REPORT

OMB Approval No. 2130-0500

| Name Of | Alphabetic Code | RR Accident/Incident No. |
|---|---|---|
| 1. Reporting Railroad | 1a. **ATSF** | 1b. **33017202** |
| 2. Other Railroad Involved in Train Accident/Incident | 2a. | 2b. |
| 3. Railroad Responsible for Track Maintenance | 3a. **ATSF** | 3b. **33017202** |

| 4. U.S. DOT-AAR Grade Crossing ID No. | 5. Date of Accident/Incident | 6. Time of Accident/Incident |
|---|---|---|
| **028052Y** | **01/10/77** | **5:30 PM** |

| 7. Nearest Railroad Station | 8. Division | 9. County | 10. State Abbr. | Code |
|---|---|---|---|---|
| **LOS ANGELES** | | **LOS ANGELES** | **CA** | **06** |

11. City *(if in a city)* **EL SEGUNDO** | 12. Highway Name or No. **DOUGLAS STREET** | ☑ Public ☐ Private

## Highway User Involved

13. Type — A. Auto, B. Truck, C. Truck-trailer, D. Pick-up truck, E. Van, F. Bus, G. School Bus, H. Motorcycle, J. Other Motor Vehicle, K. Pedestrian, M. Other *(specify)* — Code: **A**

14. Vehicle Speed *(est. mph at impact)*: **0**

15. Direction *(geographical)* — 1. North 2. South 3. East 4. West — Code: **4**

16. Position — 1. Stalled on crossing, 2. Stopped on Crossing, 3. Moving over crossing, 4. Trapped — Code: **2**

20a. Was the highway user and/or rail equipment involved in the impact transporting hazardous materials? — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code: **4**

## Rail Equipment Involved

17. Equipment — 1. Train *(units pulling)*, 2. Train *(units pushing)*, 3. Train *(standing)*, 4. Car(s) *(moving)*, 5. Car(s) *(standing)*, 6. Light loco(s) *(moving)*, 7. Light loco(s) *(standing)*, 8. Other *(specify)* — Code: **2**

18. Position of Car Unit in Train: **1**

19. Circumstance — 1. Rail equipment struck highway user, 2. Rail equipment struck by highway user — Code: **1**

20b. Was there a hazardous materials release by — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code:

20c. State the name and quantity of the hazardous materials released, if any

21. Temperature *(specify if minus)*: **62 °F**

22. Visibility *(single entry)* — 1. Dawn 2. Day 3. Dusk 4. Dark — Code: **4**

23. Weather *(single entry)* — 1. Clear 2. Cloudy 3. Rain 4. Fog 5. Sleet 6. Snow — Code: **1**

24. Type of Equipment Consist *(single entry)* — 1. Freight train, 2. Passenger train, 3. Commuter train, 4. Work train, 5. Single car, 6. Cut of cars, 7. Yard/Switching, 8. Light loco(s), 9. Other *(specify)* — Code: **7**

25. Track Type Used by Rail Equipment Involved — 1. Main 2. Yard 3. Siding 4. Industry — Code: **1**

26. Track Number or Name: **HARBOR MAIN**

| 27. FRA Track Class (1-6,X) | 28. Number of Locomotive Units | 29. Number of Cars | 30. Consist Speed *(Recorded if available)* R. Recorded E. Estimated | Code | 31. Time Table Direction 1. North 2. South 3. East 4. West | Code |
|---|---|---|---|---|---|---|
| **1** | **1** | **8** | **10** mph | **E** | | **4** |

32. Type of Crossing Warning — 1. Gates, 2. Cantilever FLS, 3. Standard FLS, 4. Wig wags, 5. Hwy. traffic signals, 6. Audible, 7. Crossbucks, 8. Stop signs, 9. Watchman, 10. Flagged by crew, 11. Other *(specify)*, 12. None — Code(s): **01** **03** **06**

33. Signaled Crossing Warning: **20 sec warn min**

34. Whistle Ban — 1. Yes 2. No 3. Unknown — Code:

| 35. Location of Warning 1. Both Sides, 2. Side of Vehicle Approach, 3. Opposite Side of Vehicle Approach | Code | 36. Crossing Warning Interconnected with Highway Signals 1. Yes 2. No 3. Unknown | Code | 37. Crossing Illuminated by Street Lights or Special Lights 1. Yes 2. No 3. Unknown | Code |
|---|---|---|---|---|---|
| | **1** | | **3** | | **3** |

| 38. Driver's Age | 39. Driver's Gender 1. Male 2. Female | Code | 40. Driver Drove Behind or in Front of Train and Struck or was Struck by Second Train 1. Yes 2. No 3. Unknown | Code | 41. Driver 1. Drove around or thru the gate, 2. Stopped and then proceeded, 3. Did not stop, 4. Stopped on crossing, 5. Other *(specify)* | Code |
|---|---|---|---|---|---|---|
| | | | | **2** | | **4** |

| 42. Driver Passed Standing Highway Vehicle 1. Yes 2. No 3. Unknown | Code | 43. View of Track Obscured by *(primary obstruction)* 1. Permanent Structure, 2. Standing railroad equipment, 3. Passing Train, 4. Topography, 5. Vegetation, 6. Highway Vehicles, 7. Other *(specify)*, 8. Not Obstructed | Code |
|---|---|---|---|
| | **2** | | **8** |

| Casualties to: | Killed | Injured | 44. Driver was 1. Killed 2. Injured 3. Uninjured — Code | 45. Was Driver in the Vehicle? 1. Yes 2. No — Code |
|---|---|---|---|---|
| | | | **3** | **1** |
| 46. Highway-Rail Crossing Users | **0** | **0** | 47. Highway Vehicle Property Damage *(est. dollar damage)*: **$0** | 48. Total Number of Highway-Rail Crossing Users *(include driver)*: **1** |
| 49. Railroad Employees | **0** | **0** | 50. Total Number of People on Train *(include passengers and crew)* | 51. Is a Rail Equipment Accident / Incident Report Being Filed 1. Yes 2. No — Code: **2** |
| 52. Passengers on Train | **0** | **0** | | |

53a. Special Study Block | 53b. Special Study Block

54. Narrative Description

| 55. Typed Name and Title | 56. Signature | 57. Date |
|---|---|---|
| | | |

FORM FRA F 6180.57

* NOTE THAT ALL CASUALTIES MUST BE REPORTED ON FORM FRA F 6180.55A

**DEPARTMENT OF TRANSPORTATION**
FEDERAL RAILROAD ADMINISTRATION (FRA)

# HIGHWAY-RAIL GRADE CROSSING ACCIDENT/INCIDENT REPORT

OMB Approval No. 2130-0500

| Name Of | Alphabetic Code | RR Accident/Incident No. |
|---|---|---|
| 1. Reporting Railroad | 1a. ATSF | 1b. 36045400 |
| 2. Other Railroad Involved in Train Accident/Incident | 2a. | 2b. |
| 3. Railroad Responsible for Track Maintenance | 3a. ATSF | 3b. 36045400 |

| 4. U.S. DOT-AAR Grade Crossing ID No. | 5. Date of Accident/Incident | 6. Time of Accident/Incident |
|---|---|---|
| 028060R | 04/01/75 | 6:30 PM |

| 7. Nearest Railroad Station | 8. Division | 9. County | 10. State Abbr. | Code |
|---|---|---|---|---|
| LAWNDALE | | LOS ANGELES | CA | 06 |

| 11. City *(if in a city)* | 12. Highway Name or No. | |
|---|---|---|
| EL SEGUNDO | COMPTON AVENUE | ☑ Public ☐ Private |

## Highway User Involved

13. Type — A. Auto, B. Truck, C. Truck-trailer, D. Pick-up truck, E. Van, F. Bus, G. School Bus, H. Motorcycle, J. Other Motor Vehicle, K. Pedestrian, M. Other *(specify)* — Code: **A**

14. Vehicle Speed *(est. mph at impact)*: **40**

15. Direction *(geographical)* — 1. North 2. South 3. East 4. West — Code: **1**

16. Position — 1. Stalled on crossing, 2. Stopped on Crossing, 3. Moving over crossing, 4. Trapped — Code: **3**

20a. Was the highway user and/or rail equipment involved in the impact transporting hazardous materials? — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code: **4**

## Rail Equipment Involved

17. Equipment — 1. Train *(units pulling)*, 2. Train *(units pushing)*, 3. Train *(standing)*, 4. Car(s) *(moving)*, 5. Car(s) *(standing)*, 6. Light loco(s) *(moving)*, 7. Light loco(s) *(standing)*, 8. Other *(specify)* — Code: **1**

18. Position of Car Unit in Train: **1**

19. Circumstance — 1. Rail equipment struck highway user, 2. Rail equipment struck by highway user — Code: **2**

20b. Was there a hazardous materials release by — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code:

20c. State the name and quantity of the hazardous materials released, if any

| 21. Temperature *(specify if minus)* | 22. Visibility *(single entry)* | 23. Weather *(single entry)* |
|---|---|---|
| 55 °F | 1. Dawn 2. Day 3. Dusk 4. Dark — Code: **3** | 1. Clear 2. Cloudy 3. Rain 4. Fog 5. Sleet 6. Snow — Code: **1** |

| 24. Type of Equipment Consist *(single entry)* | 25. Track Type Used by Rail Equipment Involved | 26. Track Number or Name |
|---|---|---|
| 1. Freight train 2. Passenger train 3. Commuter train 4. Work train 5. Single car 6. Cut of cars 7. Yard/Switching 8. Light loco(s) 9. Other *(specify)* — Code: **7** | 1. Main 2. Yard 3. Siding 4. Industry — Code: **1** | HARBOR DIST |

| 27. FRA Track Class (1-6,X) | 28. Number of Locomotive Units | 29. Number of Cars | 30. Consist Speed *(Recorded if available)* | Code | 31. Time Table Direction | Code |
|---|---|---|---|---|---|---|
| 2 | 1 | 0 | R. Recorded E. Estimated 2 mph | E | 1. North 2. South 3. East 4. West | 3 |

| 32. Type of Crossing Warning | 33. Signaled Crossing Warning | 34. Whistle Ban | Code |
|---|---|---|---|
| 1. Gates 2. Cantilever FLS 3. Standard FLS 4. Wig wags 5. Hwy. traffic signals 6. Audible 7. Crossbucks 8. Stop signs 9. Watchman 10. Flagged by crew 11. Other *(specify)* 12. None | 20 sec warn min | 1. Yes 2. No 3. Unknown | |
| Code(s): 01 03 06 | | | |

| 35. Location of Warning | Code | 36. Crossing Warning Interconnected with Highway Signals | Code | 37. Crossing Illuminated by Street Lights or Special Lights | Code |
|---|---|---|---|---|---|
| 1. Both Sides 2. Side of Vehicle Approach 3. Opposite Side of Vehicle Approach | 1 | 1. Yes 2. No 3. Unknown | 3 | 1. Yes 2. No 3. Unknown | 3 |

| 38. Driver's Age | 39. Driver's Gender (1. Male 2. Female) | Code | 40. Driver Drove Behind or in Front of Train and Struck or was Struck by Second Train (1. Yes 2. No 3. Unknown) | Code | 41. Driver | Code |
|---|---|---|---|---|---|---|
| | | | | 2 | 1. Drove around or thru the gate 2. Stopped and then proceeded 3. Did not stop 4. Stopped on crossing 5. Other *(specify)* | 3 |

| 42. Driver Passed Standing Highway Vehicle (1. Yes 2. No 3. Unknown) | Code | 43. View of Track Obscured by *(primary obstruction)* | Code |
|---|---|---|---|
| | 3 | 1. Permanent Structure 2. Standing railroad equipment 3. Passing Train 4. Topography 5. Vegetation 6. Highway Vehicles 7. Other *(specify)* 8. Not Obstructed | 8 |

| Casualties to: | Killed | Injured |
|---|---|---|
| 46. Highway-Rail Crossing Users | 0 | 0 |
| 49. Railroad Employees | 0 | 0 |
| 52. Passengers on Train | 0 | 0 |

| 44. Driver was (1. Killed 2. Injured 3. Uninjured) | Code | 45. Was Driver in the Vehicle? (1. Yes 2. No) | Code |
|---|---|---|---|
| | 3 | | 1 |

| 47. Highway Vehicle Property Damage *(est. dollar damage)* | 48. Total Number of Highway-Rail Crossing Users *(include driver)* |
|---|---|
| $250 | 1 |

| 50. Total Number of People on Train *(include passengers and crew)* | 51. Is a Rail Equipment Accident / Incident Report Being Filed (1. Yes 2. No) | Code |
|---|---|---|
| | | 2 |

53a. Special Study Block

53b. Special Study Block

54. Narrative Description

| 55. Typed Name and Title | 56. Signature | 57. Date |
|---|---|---|
| | | |

FORM FRA F 6180.57

* NOTE THAT ALL CASUALTIES MUST BE REPORTED ON FORM FRA F 6180.55A

**DEPARTMENT OF TRANSPORTATION**
FEDERAL RAILROAD ADMINISTRATION (FRA)

# HIGHWAY-RAIL GRADE CROSSING ACCIDENT/INCIDENT REPORT

OMB Approval No. 2130-0500

| Name Of | Alphabetic Code | RR Accident/Incident No. |
|---|---|---|
| 1. Reporting Railroad | 1a. ATSF | 1b. 361288206 |
| 2. Other Railroad Involved in Train Accident/Incident | 2a. | 2b. 361288206 |
| 3. Railroad Responsible for Track Maintenance | 3a. ATSF | 3b. 361288206 |

| 4. U.S. DOT-AAR Grade Crossing ID No. | 5. Date of Accident/Incident | 6. Time of Accident/Incident |
|---|---|---|
| 028064T | 12/09/88 | 2:40 AM |

| 7. Nearest Railroad Station | 8. Division | 9. County | 10. State Abbr. | Code |
|---|---|---|---|---|
| LAWNDALE | | LOS ANGELES | CA | 06 |

11. City *(if in a city)*: LAWNDALE
12. Highway Name or No.: MANHATTON BEACH BLVD — ☑ Public ☐ Private

## Highway User Involved

13. Type — A. Auto, B. Truck, C. Truck-trailer, D. Pick-up truck, E. Van, F. Bus, G. School Bus, H. Motorcycle, J. Other Motor Vehicle, K. Pedestrian, M. Other *(specify)* — Code: **A**

14. Vehicle Speed *(est. mph at impact)*: **0**

15. Direction *(geographical)* — 1. North 2. South 3. East 4. West — Code: **2**

16. Position — 1. Stalled on crossing, 2. Stopped on Crossing, 3. Moving over crossing, 4. Trapped — Code: **2**

20a. Was the highway user and/or rail equipment involved in the impact transporting hazardous materials? — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code:

## Rail Equipment Involved

17. Equipment — 1. Train *(units pulling)*, 2. Train *(units pushing)*, 3. Train *(standing)*, 4. Car(s) *(moving)*, 5. Car(s) *(standing)*, 6. Light loco(s) *(moving)*, 7. Light loco(s) *(standing)*, 8. Other *(specify)* — Code: **1**

18. Position of Car Unit in Train: **1**

19. Circumstance — 1. Rail equipment struck highway user, 2. Rail equipment struck by highway user — Code: **1**

20b. Was there a hazardous materials release by — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code:

20c. State the name and quantity of the hazardous materials released, if any

21. Temperature *(specify if minus)*: **55 °F**

22. Visibility *(single entry)* — 1. Dawn 2. Day 3. Dusk 4. Dark — Code: **4**

23. Weather *(single entry)* — 1. Clear 2. Cloudy 3. Rain 4. Fog 5. Sleet 6. Snow — Code: **1**

24. Type of Equipment Consist *(single entry)* — 1. Freight train, 2. Passenger train, 3. Commuter train, 4. Work train, 5. Single car, 6. Cut of cars, 7. Yard/Switching, 8. Light loco(s), 9. Other *(specify)* — Code: **1**

25. Track Type Used by Rail Equipment Involved — 1. Main 2. Yard 3. Siding 4. Industry — Code: **1**

26. Track Number or Name: **MAIN**

27. FRA Track Class (1-6,X): **1**

28. Number of Locomotive Units: **4**

29. Number of Cars: **85**

30. Consist Speed *(Recorded if available)* — R. Recorded, E. Estimated: **20** mph — Code: **E**

31. Time Table Direction — 1. North 2. South 3. East 4. West — Code: **3**

32. Type of Crossing Warning — 1. Gates, 2. Cantilever FLS, 3. Standard FLS, 4. Wig wags, 5. Hwy. traffic signals, 6. Audible, 7. Crossbucks, 8. Stop signs, 9. Watchman, 10. Flagged by crew, 11. Other *(specify)*, 12. None — Code(s): **01** **03** **06**

33. Signaled Crossing Warning: **20 sec warn min**

34. Whistle Ban — 1. Yes 2. No 3. Unknown — Code:

35. Location of Warning — 1. Both Sides, 2. Side of Vehicle Approach, 3. Opposite Side of Vehicle Approach — Code: **1**

36. Crossing Warning Interconnected with Highway Signals — 1. Yes 2. No 3. Unknown — Code: **3**

37. Crossing Illuminated by Street Lights or Special Lights — 1. Yes 2. No 3. Unknown — Code: **3**

38. Driver's Age:

39. Driver's Gender — 1. Male, 2. Female — Code:

40. Driver Drove Behind or in Front of Train and Struck or was Struck by Second Train — 1. Yes 2. No 3. Unknown — Code: **2**

41. Driver — 1. Drove around or thru the gate, 2. Stopped and then proceeded, 3. Did not stop, 4. Stopped on crossing, 5. Other *(specify)* — Code: **4**

42. Driver Passed Standing Highway Vehicle — 1. Yes 2. No 3. Unknown — Code: **2**

43. View of Track Obscured by *(primary obstruction)* — 1. Permanent Structure, 2. Standing railroad equipment, 3. Passing Train, 4. Topography, 5. Vegetation, 6. Highway Vehicles, 7. Other *(specify)*, 8. Not Obstructed — Code: **8**

| Casualties to: | Killed | Injured |
|---|---|---|
| 46. Highway-Rail Crossing Users | 0 | 0 |
| 49. Railroad Employees | 0 | 0 |
| 52. Passengers on Train | 0 | 0 |

44. Driver was — 1. Killed 2. Injured 3. Uninjured — Code: **3**

45. Was Driver in the Vehicle? — 1. Yes 2. No — Code: **2**

47. Highway Vehicle Property Damage *(est. dollar damage)*: **$0**

48. Total Number of Highway-Rail Crossing Users *(include driver)*: **0**

50. Total Number of People on Train *(include passengers and crew)*:

51. Is a Rail Equipment Accident / Incident Report Being Filed — 1. Yes 2. No — Code: **2**

53a. Special Study Block

53b. Special Study Block

54. Narrative Description

| 55. Typed Name and Title | 56. Signature | 57. Date |
|---|---|---|
| | | |

FORM FRA F 6180.57

* NOTE THAT ALL CASUALTIES MUST BE REPORTED ON FORM FRA F 6180.55A

**DEPARTMENT OF TRANSPORTATION**
FEDERAL RAILROAD ADMINISTRATION (FRA)

# HIGHWAY-RAIL GRADE CROSSING ACCIDENT/INCIDENT REPORT

OMB Approval No. 2130-0500

| Name Of | Alphabetic Code | RR Accident/Incident No. |
|---|---|---|
| 1. Reporting Railroad | 1a. BNSF | 1b. SC0200200 |
| 2. Other Railroad Involved in Train Accident/Incident | 2a. | 2b. SC0200200 |
| 3. Railroad Responsible for Track Maintenance | 3a. BNSF | 3b. SC0200200 |

| 4. U.S. DOT-AAR Grade Crossing ID No. | 5. Date of Accident/Incident | 6. Time of Accident/Incident |
|---|---|---|
| 028072K | 02/09/00 | 2:50 PM |

| 7. Nearest Railroad Station | 8. Division | 9. County | 10. State Abbr. | Code |
|---|---|---|---|---|
| REDONDO | SOUTHERN CALIF | LOS ANGELES | CA | 06 |

| 11. City *(if in a city)* | 12. Highway Name or No. | |
|---|---|---|
| REDONDO BEACH | 182ND STREET | ☑ Public ☐ Private |

## Highway User Involved

13. Type — Code: A
A. Auto B. Truck C. Truck-trailer D. Pick-up truck E. Van F. Bus G. School Bus H. Motorcycle J. Other Motor Vehicle K. Pedestrian M. Other *(specify)*

14. Vehicle Speed *(est. mph at impact)*: 30

15. Direction *(geographical)* — Code: 4
1. North 2. South 3. East 4. West

16. Position — Code: 3
1. Stalled on crossing 2. Stopped on Crossing 3. Moving over crossing 4. Trapped

20a. Was the highway user and/or rail equipment involved in the impact transporting hazardous materials? — Code: 4
1. Highway User 2. Rail Equipment 3. Both 4. Neither

## Rail Equipment Involved

17. Equipment — Code: 1
1. Train *(units pulling)* 2. Train *(units pushing)* 3. Train *(standing)* 4. Car(s) *(moving)* 5. Car(s) *(standing)* 6. Light loco(s) *(moving)* 7. Light loco(s) *(standing)* 8. Other *(specify)*

18. Position of Car Unit in Train: 1

19. Circumstance — Code: 2
1. Rail equipment struck highway user 2. Rail equipment struck by highway user

20b. Was there a hazardous materials release by — Code: 4
1. Highway User 2. Rail Equipment 3. Both 4. Neither

20c. State the name and quantity of the hazardous materials released, if any

21. Temperature *(specify if minus)*: 50 °F

22. Visibility *(single entry)* — Code: 2
1. Dawn 2. Day 3. Dusk 4. Dark

23. Weather *(single entry)* — Code: 1
1. Clear 2. Cloudy 3. Rain 4. Fog 5. Sleet 6. Snow

24. Type of Equipment Consist *(single entry)* — Code: 1
1. Freight train 2. Passenger train 3. Commuter train 4. Work train 5. Single car 6. Cut of cars 7. Yard/Switching 8. Light loco(s) 9. Other *(specify)*

25. Track Type Used by Rail Equipment Involved — Code: 1
1. Main 2. Yard 3. Siding 4. Industry

26. Track Number or Name: MAIN LINE

27. FRA Track Class (1-6,X): 2

28. Number of Locomotive Units: 5

29. Number of Cars: 84

30. Consist Speed *(Recorded if available)* — Code: E
R. Recorded
E. Estimated: 20 mph

31. Time Table Direction — Code: 4
1. North 2. South 3. East 4. West

32. Type of Crossing Warning — Code(s): 01, 03
1. Gates 2. Cantilever FLS 3. Standard FLS 4. Wig wags 5. Hwy. traffic signals 6. Audible 7. Crossbucks 8. Stop signs 9. Watchman 10. Flagged by crew 11. Other *(specify)* 12. None

33. Signaled Crossing Warning: 20 sec warn min

34. Whistle Ban — Code: 3
1. Yes 2. No 3. Unknown

35. Location of Warning — Code: 1
1. Both Sides 2. Side of Vehicle Approach 3. Opposite Side of Vehicle Approach

36. Crossing Warning Interconnected with Highway Signals — Code: 3
1. Yes 2. No 3. Unknown

37. Crossing Illuminated by Street Lights or Special Lights — Code: 3
1. Yes 2. No 3. Unknown

38. Driver's Age: 30

39. Driver's Gender — Code: 2
1. Male 2. Female

40. Driver Drove Behind or in Front of Train and Struck or was Struck by Second Train — Code: 3
1. Yes 2. No 3. Unknown

41. Driver — Code: 3
1. Drove around or thru the gate 2. Stopped and then proceeded 3. Did not stop 4. Stopped on crossing 5. Other *(specify)*

42. Driver Passed Standing Highway Vehicle — Code: 2
1. Yes 2. No 3. Unknown

43. View of Track Obscured by *(primary obstruction)* — Code: 8
1. Permanent Structure 2. Standing railroad equipment 3. Passing Train 4. Topography 5. Vegetation 6. Highway Vehicles 7. Other *(specify)* 8. Not Obstructed

| Casualties to: | Killed | Injured |
|---|---|---|
| 46. Highway-Rail Crossing Users | 0 | 0 |
| 49. Railroad Employees | 0 | 0 |
| 52. Passengers on Train | 0 | 0 |

44. Driver was — Code: 3
1. Killed 2. Injured 3. Uninjured

45. Was Driver in the Vehicle? — Code: 1
1. Yes 2. No

47. Highway Vehicle Property Damage *(est. dollar damage)*: $100

48. Total Number of Highway-Rail Crossing Users *(include driver)*: 1

50. Total Number of People on Train *(include passengers and crew)*: 2

51. Is a Rail Equipment Accident / Incident Report Being Filed — Code: 2
1. Yes 2. No

53a. Special Study Block

53b. Special Study Block

54. Narrative Description

| 55. Typed Name and Title | 56. Signature | 57. Date |
|---|---|---|
| | | |

FORM FRA F 6180.57

* NOTE THAT ALL CASUALTIES MUST BE REPORTED ON FORM FRA F 6180.55A

**DEPARTMENT OF TRANSPORTATION**
FEDERAL RAILROAD ADMINISTRATION (FRA)

# HIGHWAY-RAIL GRADE CROSSING ACCIDENT/INCIDENT REPORT

OMB Approval No. 2130-0500

| Name Of | Alphabetic Code | RR Accident/Incident No. |
|---|---|---|
| 1. Reporting Railroad | 1a. ATSF | 1b. 150495200 |
| 2. Other Railroad Involved in Train Accident/Incident | 2a. | 2b. 150495200 |
| 3. Railroad Responsible for Track Maintenance | 3a. ATSF | 3b. 150495200 |

| 4. U.S. DOT-AAR Grade Crossing ID No. | 5. Date of Accident/Incident | 6. Time of Accident/Incident |
|---|---|---|
| 028072K | 04/18/95 | 2:15 PM |

| 7. Nearest Railroad Station | 8. Division | 9. County | 10. State Abbr. | Code |
|---|---|---|---|---|
| ALCOA | | LOS ANGELES | CA | 06 |

| 11. City *(if in a city)* | 12. Highway Name or No. | |
|---|---|---|
| REDONDO BEACH | 182ND STREET | ☑ Public ☐ Private |

## Highway User Involved

13. Type — Code: **A**
A. Auto B. Truck C. Truck-trailer D. Pick-up truck E. Van F. Bus G. School Bus H. Motorcycle J. Other Motor Vehicle K. Pedestrian M. Other *(specify)*

14. Vehicle Speed *(est. mph at impact)*: **10**

15. Direction *(geographical)* — Code: **3**
1. North 2. South 3. East 4. West

16. Position — Code: **3**
1. Stalled on crossing 2. Stopped on Crossing 3. Moving over crossing 4. Trapped

20a. Was the highway user and/or rail equipment involved in the impact transporting hazardous materials? — Code: **4**
1. Highway User 2. Rail Equipment 3. Both 4. Neither

## Rail Equipment Involved

17. Equipment — Code: **1**
1. Train *(units pulling)* 2. Train *(units pushing)* 3. Train *(standing)* 4. Car(s) *(moving)* 5. Car(s) *(standing)* 6. Light loco(s) *(moving)* 7. Light loco(s) *(standing)* 8. Other *(specify)*

18. Position of Car Unit in Train: **1**

19. Circumstance — Code: **1**
1. Rail equipment struck highway user 2. Rail equipment struck by highway user

20b. Was there a hazardous materials release by — Code:
1. Highway User 2. Rail Equipment 3. Both 4. Neither

20c. State the name and quantity of the hazardous materials released, if any

21. Temperature *(specify if minus)*: **53 °F**

22. Visibility *(single entry)* — Code: **2**
1. Dawn 2. Day 3. Dusk 4. Dark

23. Weather *(single entry)* — Code: **2**
1. Clear 2. Cloudy 3. Rain 4. Fog 5. Sleet 6. Snow

24. Type of Equipment Consist *(single entry)* — Code: **1**
1. Freight train 2. Passenger train 3. Commuter train 4. Work train 5. Single car 6. Cut of cars 7. Yard/Switching 8. Light loco(s) 9. Other *(specify)*

25. Track Type Used by Rail Equipment Involved — Code: **1**
1. Main 2. Yard 3. Siding 4. Industry

26. Track Number or Name: **SINGLE MAIN TRACK**

| 27. FRA Track Class (1-6,X) | 28. Number of Locomotive Units | 29. Number of Cars | 30. Consist Speed *(Recorded if available)* | Code | 31. Time Table Direction | Code |
|---|---|---|---|---|---|---|
| 2 | 3 | 1 | R. Recorded<br>E. Estimated 15 mph | E | 1. North 2. South 3. East 4. West | 3 |

32. Type of Crossing Warning — Code(s): **01**
1. Gates 2. Cantilever FLS 3. Standard FLS 4. Wig wags 5. Hwy. traffic signals 6. Audible 7. Crossbucks 8. Stop signs 9. Watchman 10. Flagged by crew 11. Other *(specify)* 12. None

33. Signaled Crossing Warning: **20 sec warn min**

34. Whistle Ban — Code:
1. Yes 2. No 3. Unknown

35. Location of Warning — Code: **1**
1. Both Sides 2. Side of Vehicle Approach 3. Opposite Side of Vehicle Approach

36. Crossing Warning Interconnected with Highway Signals — Code: **2**
1. Yes 2. No 3. Unknown

37. Crossing Illuminated by Street Lights or Special Lights — Code: **2**
1. Yes 2. No 3. Unknown

38. Driver's Age:

39. Driver's Gender — Code:
1. Male 2. Female

40. Driver Drove Behind or in Front of Train and Struck or was Struck by Second Train — Code: **2**
1. Yes 2. No 3. Unknown

41. Driver — Code: **1**
1. Drove around or thru the gate 2. Stopped and then proceeded 3. Did not stop 4. Stopped on crossing 5. Other *(specify)*

42. Driver Passed Standing Highway Vehicle — Code: **2**
1. Yes 2. No 3. Unknown

43. View of Track Obscured by *(primary obstruction)* — Code: **8**
1. Permanent Structure 2. Standing railroad equipment 3. Passing Train 4. Topography 5. Vegetation 6. Highway Vehicles 7. Other *(specify)* 8. Not Obstructed

| Casualties to: | Killed | Injured |
|---|---|---|
| 46. Highway-Rail Crossing Users | 0 | 1 |
| 49. Railroad Employees | 0 | 0 |
| 52. Passengers on Train | 0 | 0 |

44. Driver was — Code: **2**
1. Killed 2. Injured 3. Uninjured

45. Was Driver in the Vehicle? — Code: **1**
1. Yes 2. No

47. Highway Vehicle Property Damage *(est. dollar damage)*: **$3,000**

48. Total Number of Highway-Rail Crossing Users *(include driver)*: **1**

50. Total Number of People on Train *(include passengers and crew)*:

51. Is a Rail Equipment Accident / Incident Report Being Filed — Code: **2**
1. Yes 2. No

53a. Special Study Block

53b. Special Study Block

54. Narrative Description

| 55. Typed Name and Title | 56. Signature | 57. Date |
|---|---|---|
| | | |

FORM FRA F 6180.57

* NOTE THAT ALL CASUALTIES MUST BE REPORTED ON FORM FRA F 6180.55A

**DEPARTMENT OF TRANSPORTATION**
FEDERAL RAILROAD ADMINISTRATION (FRA)

# HIGHWAY-RAIL GRADE CROSSING ACCIDENT/INCIDENT REPORT

OMB Approval No. 2130-0500

| Name Of | Alphabetic Code | RR Accident/Incident No. |
|---|---|---|
| 1. Reporting Railroad | 1a. ATSF | 1b. 311087208 |
| 2. Other Railroad Involved in Train Accident/Incident | 2a. | 2b. 311087208 |
| 3. Railroad Responsible for Track Maintenance | 3a. ATSF | 3b. 311087208 |

| 4. U.S. DOT-AAR Grade Crossing ID No. | 5. Date of Accident/Incident | 6. Time of Accident/Incident |
|---|---|---|
| 028099U | 10/30/87 | 7:30 PM |

| 7. Nearest Railroad Station | 8. Division | 9. County | 10. State Abbr. | Code |
|---|---|---|---|---|
| TORRANCE | | LOS ANGELES | CA | 06 |

11. City *(if in a city)*: TORRANCE
12. Highway Name or No.: CARSON ST — ☑ Public ☐ Private

## Highway User Involved

13. Type — A. Auto, B. Truck, C. Truck-trailer, D. Pick-up truck, E. Van, F. Bus, G. School Bus, H. Motorcycle, J. Other Motor Vehicle, K. Pedestrian, M. Other *(specify)* — Code: **B**

14. Vehicle Speed *(est. mph at impact)*: **0**

15. Direction *(geographical)* — 1. North 2. South 3. East 4. West — Code:

16. Position — 1. Stalled on crossing, 2. Stopped on Crossing, 3. Moving over crossing, 4. Trapped — Code: **2**

20a. Was the highway user and/or rail equipment involved in the impact transporting hazardous materials? — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code: **4**

## Rail Equipment Involved

17. Equipment — 1. Train *(units pulling)*, 2. Train *(units pushing)*, 3. Train *(standing)*, 4. Car(s) *(moving)*, 5. Car(s) *(standing)*, 6. Light loco(s) *(moving)*, 7. Light loco(s) *(standing)*, 8. Other *(specify)* — Code: **1**

18. Position of Car Unit in Train: **1**

19. Circumstance — 1. Rail equipment struck highway user, 2. Rail equipment struck by highway user — Code: **1**

20b. Was there a hazardous materials release by — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code:

20c. State the name and quantity of the hazardous materials released, if any

| 21. Temperature *(specify if minus)* | 22. Visibility *(single entry)* — 1. Dawn 2. Day 3. Dusk 4. Dark — Code | 23. Weather *(single entry)* — 1. Clear 2. Cloudy 3. Rain 4. Fog 5. Sleet 6. Snow — Code |
|---|---|---|
| 55 °F | 2 | 2 |

| 24. Type of Equipment Consist *(single entry)* — 1. Freight train, 2. Passenger train, 3. Commuter train, 4. Work train, 5. Single car, 6. Cut of cars, 7. Yard/Switching, 8. Light loco(s), 9. Other *(specify)* — Code | 25. Track Type Used by Rail Equipment Involved — 1. Main 2. Yard 3. Siding 4. Industry — Code | 26. Track Number or Name |
|---|---|---|
| 1 | 1 | MAIN |

| 27. FRA Track Class (1-6,X) | 28. Number of Locomotive Units | 29. Number of Cars | 30. Consist Speed *(Recorded if available)* — R. Recorded, E. Estimated — Code | 31. Time Table Direction — 1. North 2. South 3. East 4. West — Code |
|---|---|---|---|---|
| 2 | 2 | 36 | 3 mph E | 3 |

32. Type of Crossing Warning — 1. Gates, 2. Cantilever FLS, 3. Standard FLS, 4. Wig wags, 5. Hwy. traffic signals, 6. Audible, 7. Crossbucks, 8. Stop signs, 9. Watchman, 10. Flagged by crew, 11. Other *(specify)*, 12. None

| Code(s) | | | | | | | |
|---|---|---|---|---|---|---|---|
| | 01 | 03 | 05 | 07 | | | |

33. Signaled Crossing Warning: **20 sec warn min**

34. Whistle Ban — 1. Yes 2. No 3. Unknown — Code:

| 35. Location of Warning — 1. Both Sides, 2. Side of Vehicle Approach, 3. Opposite Side of Vehicle Approach — Code | 36. Crossing Warning Interconnected with Highway Signals — 1. Yes 2. No 3. Unknown — Code | 37. Crossing Illuminated by Street Lights or Special Lights — 1. Yes 2. No 3. Unknown — Code |
|---|---|---|
| 1 | 1 | 1 |

| 38. Driver's Age | 39. Driver's Gender — 1. Male, 2. Female — Code | 40. Driver Drove Behind or in Front of Train and Struck or was Struck by Second Train — 1. Yes 2. No 3. Unknown — Code | 41. Driver — 1. Drove around or thru the gate, 2. Stopped and then proceeded, 3. Did not stop, 4. Stopped on crossing, 5. Other *(specify)* — Code |
|---|---|---|---|
| | | 2 | 4 |

| 42. Driver Passed Standing Highway Vehicle — 1. Yes 2. No 3. Unknown — Code | 43. View of Track Obscured by *(primary obstruction)* — 1. Permanent Structure, 2. Standing railroad equipment, 3. Passing Train, 4. Topography, 5. Vegetation, 6. Highway Vehicles, 7. Other *(specify)*, 8. Not Obstructed — Code |
|---|---|
| 2 | 8 |

| Casualties to: | Killed | Injured | 44. Driver was — 1. Killed 2. Injured 3. Uninjured — Code | 45. Was Driver in the Vehicle? — 1. Yes 2. No — Code |
|---|---|---|---|---|
| | | | 3 | 1 |
| 46. Highway-Rail Crossing Users | 0 | 0 | 47. Highway Vehicle Property Damage *(est. dollar damage)* | $500 |
| | | | | 48. Total Number of Highway-Rail Crossing Users *(include driver)* — 1 |
| 49. Railroad Employees | 0 | 0 | 50. Total Number of People on Train *(include passengers and crew)* | 51. Is a Rail Equipment Accident / Incident Report Being Filed — 1. Yes 2. No — Code: 2 |
| 52. Passengers on Train | 0 | 0 | | |

53a. Special Study Block

53b. Special Study Block

54. Narrative Description

| 55. Typed Name and Title | 56. Signature | 57. Date |
|---|---|---|
| | | |

FORM FRA F 6180.57

* NOTE THAT ALL CASUALTIES MUST BE REPORTED ON FORM FRA F 6180.55A

**DEPARTMENT OF TRANSPORTATION**
FEDERAL RAILROAD ADMINISTRATION (FRA)

# HIGHWAY-RAIL GRADE CROSSING ACCIDENT/INCIDENT REPORT

OMB Approval No. 2130-0500

| Name Of | Alphabetic Code | RR Accident/Incident No. |
|---|---|---|
| 1. Reporting Railroad | 1a. ATSF | 1b. 33108201 |
| 2. Other Railroad Involved in Train Accident/Incident | 2a. | 2b. |
| 3. Railroad Responsible for Track Maintenance | 3a. ATSF | 3b. 33108201 |

| 4. U.S. DOT-AAR Grade Crossing ID No. | 5. Date of Accident/Incident | 6. Time of Accident/Incident |
|---|---|---|
| 028103G | 10/17/78 | 6:0 AM |

| 7. Nearest Railroad Station | 8. Division | 9. County | 10. State Abbr. | Code |
|---|---|---|---|---|
| WATSON | | LOS ANGELES | CA | 06 |

11. City *(if in a city)* TORRANCE | 12. Highway Name or No. ARLINGTON STREET | ☑ Public ☐ Private

## Highway User Involved

13. Type — A. Auto, B. Truck, C. Truck-trailer, D. Pick-up truck, E. Van, F. Bus, G. School Bus, H. Motorcycle, J. Other Motor Vehicle, K. Pedestrian, M. Other *(specify)* — Code: **A**

14. Vehicle Speed *(est. mph at impact)*: **20**

15. Direction *(geographical)* — 1. North 2. South 3. East 4. West — Code: **2**

16. Position — 1. Stalled on crossing, 2. Stopped on Crossing, 3. Moving over crossing, 4. Trapped — Code: **3**

20a. Was the highway user and/or rail equipment involved in the impact transporting hazardous materials? — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code: **4**

## Rail Equipment Involved

17. Equipment — 1. Train *(units pulling)*, 2. Train *(units pushing)*, 3. Train *(standing)*, 4. Car(s) *(moving)*, 5. Car(s) *(standing)*, 6. Light loco(s) *(moving)*, 7. Light loco(s) *(standing)*, 8. Other *(specify)* — Code: **1**

18. Position of Car Unit in Train: **1**

19. Circumstance — 1. Rail equipment struck highway user, 2. Rail equipment struck by highway user — Code: **1**

20b. Was there a hazardous materials release by — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code:

20c. State the name and quantity of the hazardous materials released, if any

| 21. Temperature *(specify if minus)* | 22. Visibility *(single entry)* — 1. Dawn 2. Day 3. Dusk 4. Dark — Code | 23. Weather *(single entry)* — 1. Clear 2. Cloudy 3. Rain 4. Fog 5. Sleet 6. Snow — Code |
|---|---|---|
| 60 °F | 1 | 1 |

| 24. Type of Equipment Consist *(single entry)* — 1. Freight train, 2. Passenger train, 3. Commuter train, 4. Work train, 5. Single car, 6. Cut of cars, 7. Yard/Switching, 8. Light loco(s), 9. Other *(specify)* — Code | 25. Track Type Used by Rail Equipment Involved — 1. Main 2. Yard 3. Siding 4. Industry — Code | 26. Track Number or Name |
|---|---|---|
| 1 | 1 | HARBOR MAIN |

| 27. FRA Track Class (1-6,X) | 28. Number of Locomotive Units | 29. Number of Cars | 30. Consist Speed *(Recorded if available)* — R. Recorded, E. Estimated — Code | 31. Time Table Direction — 1. North 2. South 3. East 4. West — Code |
|---|---|---|---|---|
| 2 | 2 | 9 | 10 mph — R | 4 |

32. Type of Crossing Warning — 1. Gates, 2. Cantilever FLS, 3. Standard FLS, 4. Wig wags, 5. Hwy. traffic signals, 6. Audible, 7. Crossbucks, 8. Stop signs, 9. Watchman, 10. Flagged by crew, 11. Other *(specify)*, 12. None

Code(s): 01, 06

33. Signaled Crossing Warning

34. Whistle Ban — 1. Yes 2. No 3. Unknown — Code

| 35. Location of Warning — 1. Both Sides, 2. Side of Vehicle Approach, 3. Opposite Side of Vehicle Approach — Code | 36. Crossing Warning Interconnected with Highway Signals — 1. Yes 2. No 3. Unknown — Code | 37. Crossing Illuminated by Street Lights or Special Lights — 1. Yes 2. No 3. Unknown — Code |
|---|---|---|
| 1 | 3 | 2 |

| 38. Driver's Age | 39. Driver's Gender — 1. Male, 2. Female — Code | 40. Driver Drove Behind or in Front of Train and Struck or was Struck by Second Train — 1. Yes 2. No 3. Unknown — Code | 41. Driver — 1. Drove around or thru the gate, 2. Stopped and then proceeded, 3. Did not stop, 4. Stopped on crossing, 5. Other *(specify)* — Code |
|---|---|---|---|
| | | 2 | 1 |

| 42. Driver Passed Standing Highway Vehicle — 1. Yes 2. No 3. Unknown — Code | 43. View of Track Obscured by *(primary obstruction)* — 1. Permanent Structure, 2. Standing railroad equipment, 3. Passing Train, 4. Topography, 5. Vegetation, 6. Highway Vehicles, 7. Other *(specify)*, 8. Not Obstructed — Code |
|---|---|
| 3 | 8 |

| Casualties to: | Killed | Injured |
|---|---|---|
| 46. Highway-Rail Crossing Users | 0 | 1 |
| 49. Railroad Employees | 0 | 0 |
| 52. Passengers on Train | 0 | 0 |

| 44. Driver was — 1. Killed 2. Injured 3. Uninjured — Code | 45. Was Driver in the Vehicle? — 1. Yes 2. No — Code |
|---|---|
| 3 | 1 |

| 47. Highway Vehicle Property Damage *(est. dollar damage)* | 48. Total Number of Highway-Rail Crossing Users *(include driver)* |
|---|---|
| $1,000 | 2 |

| 50. Total Number of People on Train *(include passengers and crew)* | 51. Is a Rail Equipment Accident / Incident Report Being Filed — 1. Yes 2. No — Code |
|---|---|
| | 2 |

53a. Special Study Block | 53b. Special Study Block

54. Narrative Description

| 55. Typed Name and Title | 56. Signature | 57. Date |
|---|---|---|
| | | |

FORM FRA F 6180.57

* NOTE THAT ALL CASUALTIES MUST BE REPORTED ON FORM FRA F 6180.55A

**DEPARTMENT OF TRANSPORTATION**
FEDERAL RAILROAD ADMINISTRATION (FRA)

# HIGHWAY-RAIL GRADE CROSSING ACCIDENT/INCIDENT REPORT

OMB Approval No. 2130-0500

| Name Of | Alphabetic Code | RR Accident/Incident No. |
|---|---|---|
| 1. Reporting Railroad | 1a. ATSF | 1b. 36025411 |
| 2. Other Railroad Involved in Train Accident/Incident | 2a. | 2b. |
| 3. Railroad Responsible for Track Maintenance | 3a. | 3b. |

| 4. U.S. DOT-AAR Grade Crossing ID No. | 5. Date of Accident/Incident | 6. Time of Accident/Incident |
|---|---|---|
| 028107J | 02/19/75 | 9:20 AM |

| 7. Nearest Railroad Station | 8. Division | 9. County | 10. State Abbr. | Code |
|---|---|---|---|---|
| IRONSIDES | | LOS ANGELES | CA | 06 |

11. City *(if in a city)*: TORRANCE — 12. Highway Name or No. — ☑ Public ☐ Private

## Highway User Involved

13. Type — A. Auto, B. Truck, C. Truck-trailer, D. Pick-up truck, E. Van, F. Bus, G. School Bus, H. Motorcycle, J. Other Motor Vehicle, K. Pedestrian, M. Other *(specify)* — Code: **A**

14. Vehicle Speed *(est. mph at impact)*: **10**

15. Direction *(geographical)* — 1. North 2. South 3. East 4. West — Code: **3**

16. Position — 1. Stalled on crossing, 2. Stopped on Crossing, 3. Moving over crossing, 4. Trapped — Code: **1**

20a. Was the highway user and/or rail equipment involved in the impact transporting hazardous materials? — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code: **4**

## Rail Equipment Involved

17. Equipment — 1. Train *(units pulling)*, 2. Train *(units pushing)*, 3. Train *(standing)*, 4. Car(s) *(moving)*, 5. Car(s) *(standing)*, 6. Light loco(s) *(moving)*, 7. Light loco(s) *(standing)*, 8. Other *(specify)* — Code: **1**

18. Position of Car Unit in Train: **1**

19. Circumstance — 1. Rail equipment struck highway user, 2. Rail equipment struck by highway user — Code: **1**

20b. Was there a hazardous materials release by — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code:

20c. State the name and quantity of the hazardous materials released, if any

21. Temperature *(specify if minus)*: **60 °F**

22. Visibility *(single entry)* — 1. Dawn 2. Day 3. Dusk 4. Dark — Code: **2**

23. Weather *(single entry)* — 1. Clear 2. Cloudy 3. Rain 4. Fog 5. Sleet 6. Snow — Code: **1**

24. Type of Equipment Consist *(single entry)* — 1. Freight train, 2. Passenger train, 3. Commuter train, 4. Work train, 5. Single car, 6. Cut of cars, 7. Yard/Switching, 8. Light loco(s), 9. Other *(specify)* — Code: **1**

25. Track Type Used by Rail Equipment Involved — 1. Main 2. Yard 3. Siding 4. Industry — Code: **1**

26. Track Number or Name: **HARBOR DIST MAIN**

27. FRA Track Class (1-6,X): **2**

28. Number of Locomotive Units: **1**

29. Number of Cars: **22**

30. Consist Speed *(Recorded if available)* — R. Recorded, E. Estimated: **10** mph — Code:

31. Time Table Direction — 1. North 2. South 3. East 4. West — Code: **3**

32. Type of Crossing Warning — 1. Gates, 2. Cantilever FLS, 3. Standard FLS, 4. Wig wags, 5. Hwy. traffic signals, 6. Audible, 7. Crossbucks, 8. Stop signs, 9. Watchman, 10. Flagged by crew, 11. Other *(specify)*, 12. None — Code(s): **03**

33. Signaled Crossing Warning: **20 sec warn min**

34. Whistle Ban — 1. Yes 2. No 3. Unknown — Code:

35. Location of Warning — 1. Both Sides, 2. Side of Vehicle Approach, 3. Opposite Side of Vehicle Approach — Code: **1**

36. Crossing Warning Interconnected with Highway Signals — 1. Yes 2. No 3. Unknown — Code: **3**

37. Crossing Illuminated by Street Lights or Special Lights — 1. Yes 2. No 3. Unknown — Code: **3**

38. Driver's Age:

39. Driver's Gender — 1. Male, 2. Female — Code:

40. Driver Drove Behind or in Front of Train and Struck or was Struck by Second Train — 1. Yes 2. No 3. Unknown — Code: **2**

41. Driver — 1. Drove around or thru the gate, 2. Stopped and then proceeded, 3. Did not stop, 4. Stopped on crossing, 5. Other *(specify)* — Code: **5**

42. Driver Passed Standing Highway Vehicle — 1. Yes 2. No 3. Unknown — Code: **3**

43. View of Track Obscured by *(primary obstruction)* — 1. Permanent Structure, 2. Standing railroad equipment, 3. Passing Train, 4. Topography, 5. Vegetation, 6. Highway Vehicles, 7. Other *(specify)*, 8. Not Obstructed — Code: **8**

| Casualties to: | Killed | Injured |
|---|---|---|
| 46. Highway-Rail Crossing Users | 0 | 0 |
| 49. Railroad Employees | 0 | 0 |
| 52. Passengers on Train | 0 | 0 |

44. Driver was — 1. Killed 2. Injured 3. Uninjured — Code: **3**

45. Was Driver in the Vehicle? — 1. Yes 2. No — Code: **1**

47. Highway Vehicle Property Damage *(est. dollar damage)*: **$500**

48. Total Number of Highway-Rail Crossing Users *(include driver)*: **1**

50. Total Number of People on Train *(include passengers and crew)*:

51. Is a Rail Equipment Accident / Incident Report Being Filed — 1. Yes 2. No — Code: **2**

53a. Special Study Block — 53b. Special Study Block

54. Narrative Description

| 55. Typed Name and Title | 56. Signature | 57. Date |
|---|---|---|
| | | |

FORM FRA F 6180.57

* NOTE THAT ALL CASUALTIES MUST BE REPORTED ON FORM FRA F 6180.55A

**DEPARTMENT OF TRANSPORTATION**
FEDERAL RAILROAD ADMINISTRATION (FRA)

# HIGHWAY-RAIL GRADE CROSSING ACCIDENT/INCIDENT REPORT

OMB Approval No. 2130-0500

| Name Of | Alphabetic Code | RR Accident/Incident No. |
|---|---|---|
| 1. Reporting Railroad | 1a. **BNSF** | 1b. **SC1097200** |
| 2. Other Railroad Involved in Train Accident/Incident | 2a. | 2b. **SC1097200** |
| 3. Railroad Responsible for Track Maintenance | 3a. **BNSF** | 3b. **SC1097200** |

| 4. U.S. DOT-AAR Grade Crossing ID No. | 5. Date of Accident/Incident | 6. Time of Accident/Incident |
|---|---|---|
| **028107J** | **10/09/97** | **1:55 PM** |

| 7. Nearest Railroad Station | 8. Division | 9. County | 10. State Abbr. | Code |
|---|---|---|---|---|
| **TORRANCE** | **SOUTHERN CALIFORNIA** | **LOS ANGELES** | **CA** | **06** |

11. City *(if in a city)*

12. Highway Name or No. **WESTERN AVE.** ☑ Public ☐ Private

## Highway User Involved

13. Type — A. Auto, B. Truck, C. Truck-trailer, D. Pick-up truck, E. Van, F. Bus, G. School Bus, H. Motorcycle, J. Other Motor Vehicle, K. Pedestrian, M. Other *(specify)* — Code: **K**

14. Vehicle Speed *(est. mph at impact)*: **0**

15. Direction *(geographical)* — 1. North 2. South 3. East 4. West — Code: **1**

16. Position — 1. Stalled on crossing, 2. Stopped on Crossing, 3. Moving over crossing, 4. Trapped — Code: **2**

20a. Was the highway user and/or rail equipment involved in the impact transporting hazardous materials? — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code: **2**

## Rail Equipment Involved

17. Equipment — 1. Train *(units pulling)*, 2. Train *(units pushing)*, 3. Train *(standing)*, 4. Car(s) *(moving)*, 5. Car(s) *(standing)*, 6. Light loco(s) *(moving)*, 7. Light loco(s) *(standing)*, 8. Other *(specify)* — Code: **1**

18. Position of Car Unit in Train: **1**

19. Circumstance — 1. Rail equipment struck highway user, 2. Rail equipment struck by highway user — Code: **1**

20b. Was there a hazardous materials release by — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code: **4**

20c. State the name and quantity of the hazardous materials released, if any: **0**

21. Temperature *(specify if minus)*: **79 °F**

22. Visibility *(single entry)* — 1. Dawn 2. Day 3. Dusk 4. Dark — Code: **2**

23. Weather *(single entry)* — 1. Clear 2. Cloudy 3. Rain 4. Fog 5. Sleet 6. Snow — Code: **1**

24. Type of Equipment Consist *(single entry)* — 1. Freight train, 2. Passenger train, 3. Commuter train, 4. Work train, 5. Single car, 6. Cut of cars, 7. Yard/Switching, 8. Light loco(s), 9. Other *(specify)* — Code: **1**

25. Track Type Used by Rail Equipment Involved — 1. Main 2. Yard 3. Siding 4. Industry — Code: **1**

26. Track Number or Name: **MAIN**

27. FRA Track Class (1-6,X): **1**

28. Number of Locomotive Units: **3**

29. Number of Cars: **37**

30. Consist Speed *(Recorded if available)* — R. Recorded, E. Estimated: **15** mph — Code: **E**

31. Time Table Direction — 1. North 2. South 3. East 4. West — Code: **4**

32. Type of Crossing Warning — 1. Gates, 2. Cantilever FLS, 3. Standard FLS, 4. Wig wags, 5. Hwy. traffic signals, 6. Audible, 7. Crossbucks, 8. Stop signs, 9. Watchman, 10. Flagged by crew, 11. Other *(specify)*, 12. None — Code(s): **01**

33. Signaled Crossing Warning: **20 sec warn min**

34. Whistle Ban — 1. Yes 2. No 3. Unknown — Code: **3**

35. Location of Warning — 1. Both Sides, 2. Side of Vehicle Approach, 3. Opposite Side of Vehicle Approach — Code: **1**

36. Crossing Warning Interconnected with Highway Signals — 1. Yes 2. No 3. Unknown — Code: **3**

37. Crossing Illuminated by Street Lights or Special Lights — 1. Yes 2. No 3. Unknown — Code: **3**

38. Driver's Age: **39**

39. Driver's Gender — 1. Male, 2. Female — Code:

40. Driver Drove Behind or in Front of Train and Struck or was Struck by Second Train — 1. Yes 2. No 3. Unknown — Code:

41. Driver — 1. Drove around or thru the gate, 2. Stopped and then proceeded, 3. Did not stop, 4. Stopped on crossing, 5. Other *(specify)* — Code:

42. Driver Passed Standing Highway Vehicle — 1. Yes 2. No 3. Unknown — Code:

43. View of Track Obscured by *(primary obstruction)* — 1. Permanent Structure, 2. Standing railroad equipment, 3. Passing Train, 4. Topography, 5. Vegetation, 6. Highway Vehicles, 7. Other *(specify)*, 8. Not Obstructed — Code: **8**

| Casualties to: | Killed | Injured |
|---|---|---|
| 46. Highway-Rail Crossing Users | **0** | **1** |
| 49. Railroad Employees | **0** | **0** |
| 52. Passengers on Train | **0** | **0** |

44. Driver was — 1. Killed 2. Injured 3. Uninjured — Code:

45. Was Driver in the Vehicle? — 1. Yes 2. No — Code:

47. Highway Vehicle Property Damage *(est. dollar damage)*: **$0**

48. Total Number of Highway-Rail Crossing Users *(include driver)*: **0**

50. Total Number of People on Train *(include passengers and crew)*: **3**

51. Is a Rail Equipment Accident / Incident Report Being Filed — 1. Yes 2. No — Code: **2**

53a. Special Study Block

53b. Special Study Block

54. Narrative Description

| 55. Typed Name and Title | 56. Signature | 57. Date |
|---|---|---|
| | | |

FORM FRA F 6180.57

* NOTE THAT ALL CASUALTIES MUST BE REPORTED ON FORM FRA F 6180.55A

**DEPARTMENT OF TRANSPORTATION**
FEDERAL RAILROAD ADMINISTRATION (FRA)

# HIGHWAY-RAIL GRADE CROSSING ACCIDENT/INCIDENT REPORT

OMB Approval No. 2130-0500

| Name Of | Alphabetic Code | RR Accident/Incident No. |
|---|---|---|
| 1. Reporting Railroad | 1a. **BNSF** | 1b. **SC0600200** |
| 2. Other Railroad Involved in Train Accident/Incident | 2a. | 2b. **SC0600200** |
| 3. Railroad Responsible for Track Maintenance | 3a. **BNSF** | 3b. **SC0600200** |

| 4. U.S. DOT-AAR Grade Crossing ID No. | 5. Date of Accident/Incident | 6. Time of Accident/Incident |
|---|---|---|
| **028113M** | **06/26/00** | **9:50 PM** |

| 7. Nearest Railroad Station | 8. Division | 9. County | 10. State Abbr. | Code |
|---|---|---|---|---|
| **WATSON** | **SOUTHERN CALIF** | **LOS ANGELES** | **CA** | **06** |

11. City *(if in a city)* **CARSON** — 12. Highway Name or No. **FIGUEROA STREET** — ☑ Public ☐ Private

## Highway User Involved

13. Type — A. Auto B. Truck C. Truck-trailer D. Pick-up truck E. Van F. Bus G. School Bus H. Motorcycle J. Other Motor Vehicle K. Pedestrian M. Other *(specify)* — Code: **A**

14. Vehicle Speed *(est. mph at impact)*: **15**

15. Direction *(geographical)* — 1. North 2. South 3. East 4. West — Code: **1**

16. Position — 1. Stalled on crossing 2. Stopped on Crossing 3. Moving over crossing 4. Trapped — Code: **3**

20a. Was the highway user and/or rail equipment involved in the impact transporting hazardous materials? — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code: **2**

## Rail Equipment Involved

17. Equipment — 1. Train *(units pulling)* 2. Train *(units pushing)* 3. Train *(standing)* 4. Car(s) *(moving)* 5. Car(s) *(standing)* 6. Light loco(s) *(moving)* 7. Light loco(s) *(standing)* 8. Other *(specify)* — Code: **3**

18. Position of Car Unit in Train: **15**

19. Circumstance — 1. Rail equipment struck highway user 2. Rail equipment struck by highway user — Code: **2**

20b. Was there a hazardous materials release by — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code: **4**

20c. State the name and quantity of the hazardous materials released, if any

| 21. Temperature *(specify if minus)* | 22. Visibility *(single entry)* | Code | 23. Weather *(single entry)* | Code |
|---|---|---|---|---|
| **65 °F** | 1. Dawn 2. Day 3. Dusk 4. Dark | **4** | 1. Clear 2. Cloudy 3. Rain 4. Fog 5. Sleet 6. Snow | **1** |

| 24. Type of Equipment Consist *(single entry)* | Code | 25. Track Type Used by Rail Equipment Involved | Code | 26. Track Number or Name |
|---|---|---|---|---|
| 1. Freight train 2. Passenger train 3. Commuter train 4. Work train 5. Single car 6. Cut of cars 7. Yard/Switching 8. Light loco(s) 9. Other *(specify)* | **1** | 1. Main 2. Yard 3. Siding 4. Industry | **1** | **MAIN** |

| 27. FRA Track Class (1-6,X) | 28. Number of Locomotive Units | 29. Number of Cars | 30. Consist Speed *(Recorded if available)* R. Recorded E. Estimated mph | Code | 31. Time Table Direction 1. North 2. South 3. East 4. West | Code |
|---|---|---|---|---|---|---|
| **2** | **1** | **18** | | **E** | | **4** |

32. Type of Crossing Warning — 1. Gates 2. Cantilever FLS 3. Standard FLS 4. Wig wags 5. Hwy. traffic signals 6. Audible 7. Crossbucks 8. Stop signs 9. Watchman 10. Flagged by crew 11. Other *(specify)* 12. None — Code(s): **01**

33. Signaled Crossing Warning: **20 sec warn min**

34. Whistle Ban — 1. Yes 2. No 3. Unknown — Code: **2**

| 35. Location of Warning 1. Both Sides 2. Side of Vehicle Approach 3. Opposite Side of Vehicle Approach | Code | 36. Crossing Warning Interconnected with Highway Signals 1. Yes 2. No 3. Unknown | Code | 37. Crossing Illuminated by Street Lights or Special Lights 1. Yes 2. No 3. Unknown | Code |
|---|---|---|---|---|---|
| | **1** | | **1** | | **2** |

| 38. Driver's Age | 39. Driver's Gender 1. Male 2. Female | Code | 40. Driver Drove Behind or in Front of Train and Struck or was Struck by Second Train 1. Yes 2. No 3. Unknown | Code | 41. Driver 1. Drove around or thru the gate 2. Stopped and then proceeded 3. Did not stop 4. Stopped on crossing 5. Other *(specify)* | Code |
|---|---|---|---|---|---|---|
| | | **1** | | **2** | | **3** |

| 42. Driver Passed Standing Highway Vehicle 1. Yes 2. No 3. Unknown | Code | 43. View of Track Obscured by *(primary obstruction)* 1. Permanent Structure 2. Standing railroad equipment 3. Passing Train 4. Topography 5. Vegetation 6. Highway Vehicles 7. Other *(specify)* 8. Not Obstructed | Code |
|---|---|---|---|
| | **2** | | **8** |

| Casualties to: | Killed | Injured | 44. Driver was 1. Killed 2. Injured 3. Uninjured | Code | 45. Was Driver in the Vehicle? 1. Yes 2. No | Code |
|---|---|---|---|---|---|---|
| | | | | **1** | | **1** |
| 46. Highway-Rail Crossing Users | **1** | **0** | 47. Highway Vehicle Property Damage *(est. dollar damage)* | **$2,000** | 48. Total Number of Highway-Rail Crossing Users *(include driver)* | **1** |
| 49. Railroad Employees | **0** | **0** | 50. Total Number of People on Train *(include passengers and crew)* | **3** | 51. Is a Rail Equipment Accident / Incident Report Being Filed 1. Yes 2. No | **2** |
| 52. Passengers on Train | **0** | **0** | | | | |

53a. Special Study Block — 53b. Special Study Block

54. Narrative Description

**AGE OF DRIVER UNKNOWN.**

| 55. Typed Name and Title | 56. Signature | 57. Date |
|---|---|---|
| | | |

FORM FRA F 6180.57

* NOTE THAT ALL CASUALTIES MUST BE REPORTED ON FORM FRA F 6180.55A

**DEPARTMENT OF TRANSPORTATION**
FEDERAL RAILROAD ADMINISTRATION (FRA)

# HIGHWAY-RAIL GRADE CROSSING ACCIDENT/INCIDENT REPORT

OMB Approval No. 2130-0500

| Name Of | Alphabetic Code | RR Accident/Incident No. |
|---|---|---|
| 1. Reporting Railroad | 1a. ATSF | 1b. 151294200 |
| 2. Other Railroad Involved in Train Accident/Incident | 2a. | 2b. 151294200 |
| 3. Railroad Responsible for Track Maintenance | 3a. ATSF | 3b. 151294200 |

| 4. U.S. DOT-AAR Grade Crossing ID No. | 5. Date of Accident/Incident | 6. Time of Accident/Incident |
|---|---|---|
| 028124A | 12/23/94 | 1:45 PM |

| 7. Nearest Railroad Station | 8. Division | 9. County | 10. State Abbr. | Code |
|---|---|---|---|---|
| WATSON | | LOS ANGELES | CA | 06 |

11. City *(if in a city)*: LOS ANGELES
12. Highway Name or No.: LAKME AVENUE — ☑ Public ☐ Private

## Highway User Involved

13. Type — A. Auto, B. Truck, C. Truck-trailer, D. Pick-up truck, E. Van, F. Bus, G. School Bus, H. Motorcycle, J. Other Motor Vehicle, K. Pedestrian, M. Other *(specify)* — Code: **K**

14. Vehicle Speed *(est. mph at impact)*:

15. Direction *(geographical)* — 1. North 2. South 3. East 4. West — Code:

16. Position — 1. Stalled on crossing, 2. Stopped on Crossing, 3. Moving over crossing, 4. Trapped — Code: **3**

20a. Was the highway user and/or rail equipment involved in the impact transporting hazardous materials? — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code: **2**

## Rail Equipment Involved

17. Equipment — 1. Train *(units pulling)*, 2. Train *(units pushing)*, 3. Train *(standing)*, 4. Car(s) *(moving)*, 5. Car(s) *(standing)*, 6. Light loco(s) *(moving)*, 7. Light loco(s) *(standing)*, 8. Other *(specify)* — Code: **1**

18. Position of Car Unit in Train: **1**

19. Circumstance — 1. Rail equipment struck highway user, 2. Rail equipment struck by highway user — Code: **1**

20b. Was there a hazardous materials release by — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code:

20c. State the name and quantity of the hazardous materials released, if any

21. Temperature *(specify if minus)*: **57 °F**

22. Visibility *(single entry)* — 1. Dawn 2. Day 3. Dusk 4. Dark — Code: **2**

23. Weather *(single entry)* — 1. Clear 2. Cloudy 3. Rain 4. Fog 5. Sleet 6. Snow — Code: **1**

24. Type of Equipment Consist *(single entry)* — 1. Freight train, 2. Passenger train, 3. Commuter train, 4. Work train, 5. Single car, 6. Cut of cars, 7. Yard/Switching, 8. Light loco(s), 9. Other *(specify)* — Code: **1**

25. Track Type Used by Rail Equipment Involved — 1. Main 2. Yard 3. Siding 4. Industry — Code: **1**

26. Track Number or Name: **SINGLE MAIN TRACK**

27. FRA Track Class (1-6,X): **3**

28. Number of Locomotive Units: **3**

29. Number of Cars: **58**

30. Consist Speed *(Recorded if available)* — R. Recorded, E. Estimated: **30** mph — Code: **E**

31. Time Table Direction — 1. North 2. South 3. East 4. West — Code: **4**

32. Type of Crossing Warning — 1. Gates, 2. Cantilever FLS, 3. Standard FLS, 4. Wig wags, 5. Hwy. traffic signals, 6. Audible, 7. Crossbucks, 8. Stop signs, 9. Watchman, 10. Flagged by crew, 11. Other *(specify)*, 12. None — Code(s): **01**

33. Signaled Crossing Warning: **20 sec warn min**

34. Whistle Ban — 1. Yes 2. No 3. Unknown — Code:

35. Location of Warning — 1. Both Sides, 2. Side of Vehicle Approach, 3. Opposite Side of Vehicle Approach — Code: **1**

36. Crossing Warning Interconnected with Highway Signals — 1. Yes 2. No 3. Unknown — Code: **2**

37. Crossing Illuminated by Street Lights or Special Lights — 1. Yes 2. No 3. Unknown — Code: **3**

38. Driver's Age:

39. Driver's Gender — 1. Male, 2. Female — Code:

40. Driver Drove Behind or in Front of Train and Struck or was Struck by Second Train — 1. Yes 2. No 3. Unknown — Code:

41. Driver — 1. Drove around or thru the gate, 2. Stopped and then proceeded, 3. Did not stop, 4. Stopped on crossing, 5. Other *(specify)* — Code:

42. Driver Passed Standing Highway Vehicle — 1. Yes 2. No 3. Unknown — Code:

43. View of Track Obscured by *(primary obstruction)* — 1. Permanent Structure, 2. Standing railroad equipment, 3. Passing Train, 4. Topography, 5. Vegetation, 6. Highway Vehicles, 7. Other *(specify)*, 8. Not Obstructed — Code: **8**

| Casualties to: | Killed | Injured |
|---|---|---|
| 46. Highway-Rail Crossing Users | 1 | 0 |
| 49. Railroad Employees | 0 | 0 |
| 52. Passengers on Train | 0 | 0 |

44. Driver was — 1. Killed 2. Injured 3. Uninjured — Code:

45. Was Driver in the Vehicle? — 1. Yes 2. No — Code:

47. Highway Vehicle Property Damage *(est. dollar damage)*: **$0**

48. Total Number of Highway-Rail Crossing Users *(include driver)*: **0**

50. Total Number of People on Train *(include passengers and crew)*:

51. Is a Rail Equipment Accident / Incident Report Being Filed — 1. Yes 2. No — Code: **2**

53a. Special Study Block

53b. Special Study Block

54. Narrative Description

| 55. Typed Name and Title | 56. Signature | 57. Date |
|---|---|---|
| | | |

FORM FRA F 6180.57

* NOTE THAT ALL CASUALTIES MUST BE REPORTED ON FORM FRA F 6180.55A

**DEPARTMENT OF TRANSPORTATION**
FEDERAL RAILROAD ADMINISTRATION (FRA)

# HIGHWAY-RAIL GRADE CROSSING ACCIDENT/INCIDENT REPORT

OMB Approval No. 2130-0500

| Name Of | Alphabetic Code | RR Accident/Incident No. |
|---|---|---|
| 1. Reporting Railroad | 1a. BNSF | 1b. LA0301201 |
| 2. Other Railroad Involved in Train Accident/Incident | 2a. | 2b. LA0301201 |
| 3. Railroad Responsible for Track Maintenance | 3a. BNSF | 3b. LA0301201 |

| 4. U.S. DOT-AAR Grade Crossing ID No. | 5. Date of Accident/Incident | 6. Time of Accident/Incident |
|---|---|---|
| 028125G | 03/24/01 | 12:45 AM |

| 7. Nearest Railroad Station | 8. Division | 9. County | 10. State Abbr. | Code |
|---|---|---|---|---|
| WATSON | LOS ANGELES TERM | LOS ANGELES | CA | 06 |

| 11. City *(if in a city)* | 12. Highway Name or No. | |
|---|---|---|
| CARSON | WILMINGTON AVENUE | ☑ Public ☐ Private |

## Highway User Involved

13. Type — A. Auto, B. Truck, C. Truck-trailer, D. Pick-up truck, E. Van, F. Bus, G. School Bus, H. Motorcycle, J. Other Motor Vehicle, K. Pedestrian, M. Other *(specify)* — Code: **B**

14. Vehicle Speed *(est. mph at impact)*: **15**

15. Direction *(geographical)* — 1. North 2. South 3. East 4. West — Code: **1**

16. Position — 1. Stalled on crossing, 2. Stopped on Crossing, 3. Moving over crossing, 4. Trapped — Code: **3**

20a. Was the highway user and/or rail equipment involved in the impact transporting hazardous materials? — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code: **4**

## Rail Equipment Involved

17. Equipment — 1. Train *(units pulling)*, 2. Train *(units pushing)*, 3. Train *(standing)*, 4. Car(s) *(moving)*, 5. Car(s) *(standing)*, 6. Light loco(s) *(moving)*, 7. Light loco(s) *(standing)*, 8. Other *(specify)* — Code: **1**

18. Position of Car Unit in Train: **1**

19. Circumstance — 1. Rail equipment struck highway user, 2. Rail equipment struck by highway user — Code: **1**

20b. Was there a hazardous materials release by — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code: **4**

20c. State the name and quantity of the hazardous materials released, if any

21. Temperature *(specify if minus)*: **45 °F**

22. Visibility *(single entry)* — 1. Dawn 2. Day 3. Dusk 4. Dark — Code: **4**

23. Weather *(single entry)* — 1. Clear 2. Cloudy 3. Rain 4. Fog 5. Sleet 6. Snow — Code: **1**

24. Type of Equipment Consist *(single entry)* — 1. Freight train, 2. Passenger train, 3. Commuter train, 4. Work train, 5. Single car, 6. Cut of cars, 7. Yard/Switching, 8. Light loco(s), 9. Other *(specify)* — Code: **1**

25. Track Type Used by Rail Equipment Involved — 1. Main 2. Yard 3. Siding 4. Industry — Code: **1**

26. Track Number or Name: **MAIN LINE**

27. FRA Track Class (1-6,X): **2**

28. Number of Locomotive Units: **3**

29. Number of Cars: **3**

30. Consist Speed *(Recorded if available)* — R. Recorded, E. Estimated: **10** mph — Code: **E**

31. Time Table Direction — 1. North 2. South 3. East 4. West — Code: **3**

32. Type of Crossing Warning — 1. Gates, 2. Cantilever FLS, 3. Standard FLS, 4. Wig wags, 5. Hwy. traffic signals, 6. Audible, 7. Crossbucks, 8. Stop signs, 9. Watchman, 10. Flagged by crew, 11. Other *(specify)*, 12. None — Code(s): **01** **03**

33. Signaled Crossing Warning: **20 sec warn min**

34. Whistle Ban — 1. Yes 2. No 3. Unknown — Code: **2**

35. Location of Warning — 1. Both Sides, 2. Side of Vehicle Approach, 3. Opposite Side of Vehicle Approach — Code: **1**

36. Crossing Warning Interconnected with Highway Signals — 1. Yes 2. No 3. Unknown — Code: **3**

37. Crossing Illuminated by Street Lights or Special Lights — 1. Yes 2. No 3. Unknown — Code: **1**

38. Driver's Age

39. Driver's Gender — 1. Male, 2. Female — Code: **1**

40. Driver Drove Behind or in Front of Train and Struck or was Struck by Second Train — 1. Yes 2. No 3. Unknown — Code: **2**

41. Driver — 1. Drove around or thru the gate, 2. Stopped and then proceeded, 3. Did not stop, 4. Stopped on crossing, 5. Other *(specify)* — Code: **1**

42. Driver Passed Standing Highway Vehicle — 1. Yes 2. No 3. Unknown — Code: **1**

43. View of Track Obscured by *(primary obstruction)* — 1. Permanent Structure, 2. Standing railroad equipment, 3. Passing Train, 4. Topography, 5. Vegetation, 6. Highway Vehicles, 7. Other *(specify)*, 8. Not Obstructed — Code: **8**

| Casualties to: | Killed | Injured |
|---|---|---|
| 46. Highway-Rail Crossing Users | 0 | 0 |
| 49. Railroad Employees | 0 | 1 |
| 52. Passengers on Train | 0 | 0 |

44. Driver was — 1. Killed 2. Injured 3. Uninjured — Code: **3**

45. Was Driver in the Vehicle? — 1. Yes 2. No — Code: **1**

47. Highway Vehicle Property Damage *(est. dollar damage)*: **$1,000**

48. Total Number of Highway-Rail Crossing Users *(include driver)*: **2**

50. Total Number of People on Train *(include passengers and crew)*: **3**

51. Is a Rail Equipment Accident / Incident Report Being Filed — 1. Yes 2. No — Code: **2**

53a. Special Study Block

53b. Special Study Block

54. Narrative Description

**AGE OF DRIVER UNKNOWN**

| 55. Typed Name and Title | 56. Signature | 57. Date |
|---|---|---|
| | | |

FORM FRA F 6180.57

* NOTE THAT ALL CASUALTIES MUST BE REPORTED ON FORM FRA F 6180.55A

**DEPARTMENT OF TRANSPORTATION**
FEDERAL RAILROAD ADMINISTRATION (FRA)

# HIGHWAY-RAIL GRADE CROSSING ACCIDENT/INCIDENT REPORT

OMB Approval No. 2130-0500

| Name Of | Alphabetic Code | RR Accident/Incident No. |
|---|---|---|
| 1. Reporting Railroad | 1a. ATSF | 1b. 330780201 |
| 2. Other Railroad Involved in Train Accident/Incident | 2a. | 2b. |
| 3. Railroad Responsible for Track Maintenance | 3a. ATSF | 3b. 330780201 |

| 4. U.S. DOT-AAR Grade Crossing ID No. | 5. Date of Accident/Incident | 6. Time of Accident/Incident |
|---|---|---|
| 028125G | 07/21/80 | 6:15 PM |

| 7. Nearest Railroad Station | 8. Division | 9. County | 10. State Abbr. | Code |
|---|---|---|---|---|
| WILMINGTON | | LOS ANGELES | CA | 06 |

11. City *(if in a city)*: CARSON
12. Highway Name or No.: WILMINGTON AVE — ☑ Public ☐ Private

## Highway User Involved

13. Type — A. Auto, B. Truck, C. Truck-trailer, D. Pick-up truck, E. Van, F. Bus, G. School Bus, H. Motorcycle, J. Other Motor Vehicle, K. Pedestrian, M. Other *(specify)* — Code: **A**

14. Vehicle Speed *(est. mph at impact)*: **0**

15. Direction *(geographical)* — 1. North 2. South 3. East 4. West — Code: **1**

16. Position — 1. Stalled on crossing, 2. Stopped on Crossing, 3. Moving over crossing, 4. Trapped — Code: **1**

20a. Was the highway user and/or rail equipment involved in the impact transporting hazardous materials? — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code: **4**

## Rail Equipment Involved

17. Equipment — 1. Train *(units pulling)*, 2. Train *(units pushing)*, 3. Train *(standing)*, 4. Car(s) *(moving)*, 5. Car(s) *(standing)*, 6. Light loco(s) *(moving)*, 7. Light loco(s) *(standing)*, 8. Other *(specify)* — Code: **2**

18. Position of Car Unit in Train: **1**

19. Circumstance — 1. Rail equipment struck highway user, 2. Rail equipment struck by highway user — Code: **1**

20b. Was there a hazardous materials release by — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code:

20c. State the name and quantity of the hazardous materials released, if any

21. Temperature *(specify if minus)*: **78 °F**

22. Visibility *(single entry)* — 1. Dawn 2. Day 3. Dusk 4. Dark — Code: **2**

23. Weather *(single entry)* — 1. Clear 2. Cloudy 3. Rain 4. Fog 5. Sleet 6. Snow — Code: **1**

24. Type of Equipment Consist *(single entry)* — 1. Freight train, 2. Passenger train, 3. Commuter train, 4. Work train, 5. Single car, 6. Cut of cars, 7. Yard/Switching, 8. Light loco(s), 9. Other *(specify)* — Code: **7**

25. Track Type Used by Rail Equipment Involved — 1. Main 2. Yard 3. Siding 4. Industry — Code: **1**

26. Track Number or Name: **HARBOR DIST MAIN**

27. FRA Track Class (1-6,X): **2**

28. Number of Locomotive Units: **2**

29. Number of Cars: **5**

30. Consist Speed *(Recorded if available)* — R. Recorded, E. Estimated: **10** mph — Code: **E**

31. Time Table Direction — 1. North 2. South 3. East 4. West — Code: **4**

32. Type of Crossing Warning — 1. Gates, 2. Cantilever FLS, 3. Standard FLS, 4. Wig wags, 5. Hwy. traffic signals, 6. Audible, 7. Crossbucks, 8. Stop signs, 9. Watchman, 10. Flagged by crew, 11. Other *(specify)*, 12. None — Code(s): **01** **03** **06**

33. Signaled Crossing Warning: **20 sec warn min**

34. Whistle Ban — 1. Yes 2. No 3. Unknown — Code:

35. Location of Warning — 1. Both Sides, 2. Side of Vehicle Approach, 3. Opposite Side of Vehicle Approach — Code: **1**

36. Crossing Warning Interconnected with Highway Signals — 1. Yes 2. No 3. Unknown — Code: **2**

37. Crossing Illuminated by Street Lights or Special Lights — 1. Yes 2. No 3. Unknown — Code: **2**

38. Driver's Age:

39. Driver's Gender — 1. Male, 2. Female — Code:

40. Driver Drove Behind or in Front of Train and Struck or was Struck by Second Train — 1. Yes 2. No 3. Unknown — Code: **2**

41. Driver — 1. Drove around or thru the gate, 2. Stopped and then proceeded, 3. Did not stop, 4. Stopped on crossing, 5. Other *(specify)* — Code: **1**

42. Driver Passed Standing Highway Vehicle — 1. Yes 2. No 3. Unknown — Code: **2**

43. View of Track Obscured by *(primary obstruction)* — 1. Permanent Structure, 2. Standing railroad equipment, 3. Passing Train, 4. Topography, 5. Vegetation, 6. Highway Vehicles, 7. Other *(specify)*, 8. Not Obstructed — Code: **8**

| Casualties to: | Killed | Injured |
|---|---|---|
| 46. Highway-Rail Crossing Users | 0 | 0 |
| 49. Railroad Employees | 0 | 0 |
| 52. Passengers on Train | 0 | 0 |

44. Driver was — 1. Killed 2. Injured 3. Uninjured — Code: **3**

45. Was Driver in the Vehicle? — 1. Yes 2. No — Code: **1**

47. Highway Vehicle Property Damage *(est. dollar damage)*: **$500**

48. Total Number of Highway-Rail Crossing Users *(include driver)*: **1**

50. Total Number of People on Train *(include passengers and crew)*:

51. Is a Rail Equipment Accident / Incident Report Being Filed — 1. Yes 2. No — Code: **2**

53a. Special Study Block

53b. Special Study Block

54. Narrative Description

| 55. Typed Name and Title | 56. Signature | 57. Date |
|---|---|---|
| | | |

FORM FRA F 6180.57

* NOTE THAT ALL CASUALTIES MUST BE REPORTED ON FORM FRA F 6180.55A

**DEPARTMENT OF TRANSPORTATION**
FEDERAL RAILROAD ADMINISTRATION (FRA)

# HIGHWAY-RAIL GRADE CROSSING ACCIDENT/INCIDENT REPORT

OMB Approval No. 2130-0500

| Name Of | Alphabetic Code | RR Accident/Incident No. |
|---|---|---|
| 1. Reporting Railroad | 1a. ATSF | 1b. 150893201 |
| 2. Other Railroad Involved in Train Accident/Incident | 2a. | 2b. 150893201 |
| 3. Railroad Responsible for Track Maintenance | 3a. ATSF | 3b. 150893201 |

| 4. U.S. DOT-AAR Grade Crossing ID No. | 5. Date of Accident/Incident | 6. Time of Accident/Incident |
|---|---|---|
| 028125G | 08/26/93 | 12:20 AM |

| 7. Nearest Railroad Station | 8. Division | 9. County | 10. State Abbr. | Code |
|---|---|---|---|---|
| WATSON | | LOS ANGELES | CA | 06 |

11. City *(if in a city)*: LOS ANGELES
12. Highway Name or No.: WILMINGTON AVE — ☑ Public ☐ Private

## Highway User Involved

13. Type — A. Auto, B. Truck, C. Truck-trailer, D. Pick-up truck, E. Van, F. Bus, G. School Bus, H. Motorcycle, J. Other Motor Vehicle, K. Pedestrian, M. Other *(specify)* — Code: **A**

14. Vehicle Speed *(est. mph at impact)*: **30**

15. Direction *(geographical)* — 1. North 2. South 3. East 4. West — Code: **1**

16. Position — 1. Stalled on crossing, 2. Stopped on Crossing, 3. Moving over crossing, 4. Trapped — Code: **3**

20a. Was the highway user and/or rail equipment involved in the impact transporting hazardous materials? — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code: **2**

## Rail Equipment Involved

17. Equipment — 1. Train *(units pulling)*, 2. Train *(units pushing)*, 3. Train *(standing)*, 4. Car(s) *(moving)*, 5. Car(s) *(standing)*, 6. Light loco(s) *(moving)*, 7. Light loco(s) *(standing)*, 8. Other *(specify)* — Code: **3**

18. Position of Car Unit in Train: **61**

19. Circumstance — 1. Rail equipment struck highway user, 2. Rail equipment struck by highway user — Code: **2**

20b. Was there a hazardous materials release by — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code:

20c. State the name and quantity of the hazardous materials released, if any

21. Temperature *(specify if minus)*: **65 °F**

22. Visibility *(single entry)* — 1. Dawn 2. Day 3. Dusk 4. Dark — Code: **4**

23. Weather *(single entry)* — 1. Clear 2. Cloudy 3. Rain 4. Fog 5. Sleet 6. Snow — Code: **1**

24. Type of Equipment Consist *(single entry)* — 1. Freight train, 2. Passenger train, 3. Commuter train, 4. Work train, 5. Single car, 6. Cut of cars, 7. Yard/Switching, 8. Light loco(s), 9. Other *(specify)* — Code: **1**

25. Track Type Used by Rail Equipment Involved — 1. Main 2. Yard 3. Siding 4. Industry — Code: **1**

26. Track Number or Name: **MAIN LINE**

| 27. FRA Track Class (1-6,X) | 28. Number of Locomotive Units | 29. Number of Cars | 30. Consist Speed *(Recorded if available)* R. Recorded E. Estimated | Code | 31. Time Table Direction 1. North 2. South 3. East 4. West | Code |
|---|---|---|---|---|---|---|
| 3 | 8 | 77 | 0 mph | R | | |

32. Type of Crossing Warning — 1. Gates, 2. Cantilever FLS, 3. Standard FLS, 4. Wig wags, 5. Hwy. traffic signals, 6. Audible, 7. Crossbucks, 8. Stop signs, 9. Watchman, 10. Flagged by crew, 11. Other *(specify)*, 12. None — Code(s): **01**

33. Signaled Crossing Warning: **20 sec warn min**

34. Whistle Ban — 1. Yes 2. No 3. Unknown — Code:

35. Location of Warning — 1. Both Sides, 2. Side of Vehicle Approach, 3. Opposite Side of Vehicle Approach — Code: **1**

36. Crossing Warning Interconnected with Highway Signals — 1. Yes 2. No 3. Unknown — Code: **3**

37. Crossing Illuminated by Street Lights or Special Lights — 1. Yes 2. No 3. Unknown — Code: **3**

38. Driver's Age:

39. Driver's Gender — 1. Male, 2. Female — Code:

40. Driver Drove Behind or in Front of Train and Struck or was Struck by Second Train — 1. Yes 2. No 3. Unknown — Code: **2**

41. Driver — 1. Drove around or thru the gate, 2. Stopped and then proceeded, 3. Did not stop, 4. Stopped on crossing, 5. Other *(specify)* — Code: **4**

42. Driver Passed Standing Highway Vehicle — 1. Yes 2. No 3. Unknown — Code: **2**

43. View of Track Obscured by *(primary obstruction)* — 1. Permanent Structure, 2. Standing railroad equipment, 3. Passing Train, 4. Topography, 5. Vegetation, 6. Highway Vehicles, 7. Other *(specify)*, 8. Not Obstructed — Code: **8**

| Casualties to: | Killed | Injured |
|---|---|---|
| 46. Highway-Rail Crossing Users | 1 | 0 |
| 49. Railroad Employees | 0 | 0 |
| 52. Passengers on Train | 0 | 0 |

44. Driver was — 1. Killed 2. Injured 3. Uninjured — Code: **1**

45. Was Driver in the Vehicle? — 1. Yes 2. No — Code: **1**

47. Highway Vehicle Property Damage *(est. dollar damage)*: **$5,000**

48. Total Number of Highway-Rail Crossing Users *(include driver)*: **1**

50. Total Number of People on Train *(include passengers and crew)*:

51. Is a Rail Equipment Accident / Incident Report Being Filed — 1. Yes 2. No — Code: **2**

53a. Special Study Block

53b. Special Study Block

54. Narrative Description

| 55. Typed Name and Title | 56. Signature | 57. Date |
|---|---|---|
| | | |

FORM FRA F 6180.57

* NOTE THAT ALL CASUALTIES MUST BE REPORTED ON FORM FRA F 6180.55A

**Table 1**
**Railroad Train Accidents**
**1975 – 2001**

| Year | Month | Day | Station/City | Mile | Cause | Injury |
|---|---|---|---|---|---|---|
| 1975 | 04 | 12 | Torrance | 21.5 | Human Error | |
| 1976 | 10 | 23 | Los Angeles | NR | Human Error | |
| | 10 | 04 | Los Angeles | NR | Handling | |
| 1977 | 11 | 09 | Los Angeles | NR | Human Error | |
| 1978 | 11 | 12 | Los Angeles | NR | Worn Rail | |
| | 11 | 13 | Los Angeles | NR | Handling | |
| | 02 | 10 | Watson Yard | 26.6 | Handling | |
| 1979 | 07 | 05 | Los Angeles | NR | Worn Wheel | |
| | 02 | 02 | Watson Yard | 26.6 | Worn Rail | |
| | 06 | 14 | Los Angeles | NR | Human Error | 1 |
| 1980 | 06 | 24 | Alcoa Yard | 20.1 | Equip. Defect | |
| 1981 | | | | | | |
| 1982 | 01 | 30 | Los Angeles | NR | Human Error | |
| | 01 | 10 | Los Angeles | NR | Human Error | |
| | 01 | 14 | Los Angeles | NR | Human Error | |
| 1983 | | | | | | |
| 1984 | 03 | 06 | Watson Yard | 24.3 | Handling | |
| | 09 | 05 | Alcoa Yard | 20.1 | Rail Defect | |
| 1985 | | | | | | |
| 1986 | | | | | | |
| 1987 | | | | | | |
| 1988 | 07 | 17 | Alcoa Yard | 20.2 | Equip. Defect | |
| 1989 | | | | | | |
| 1990 | | | | | | |
| 1991 | 06 | 09 | El Segundo | 14.9 | Wheel Defect | |
| 1992 | 01 | 15 | Watson Yard | 26.6 | Human Error | |
| 1993 | | | | | | |
| 1994 | 03 | 30 | Watson Yard | 26.6 | Worn Wheel | |
| | 08 | 28 | Watson Yard | 26.6 | Handling | |
| | 04 | 22 | Lawndale | 16.8 | Handling | |
| 1995 | | | | | | |
| 1996 | | | | | | |
| 1997 | 02 | 14 | Watson Yard | 26.6 | Switching | |
| | 10 | 13 | Los Angeles | NR | Wheel Defect | |
| | 01 | 24 | Alcoa Yard | 20.1 | Handling | |
| 1998 | 10 | 11 | Los Angeles | NR | Switching | |
| | 05 | 21 | El Segundo | NR | Vandalism/Track | |

**Table 1**
**Railroad Train Accidents**
**1975 – 2001**

| Year | Month | Day | Station/City | Mile | Cause | Injury |
|---|---|---|---|---|---|---|
| 1999 | 07 | 30 | Los Angeles | NR | Switching | |
| | 01 | 05 | Los Angeles | NR | Switching | |
| | 04 | 25 | El Segundo | 14.7 | Track Alignment | |
| | 11 | 22 | Los Angeles | NR | Switching | |
| | 11 | 27 | Los Angeles | NR | Handling | |
| | 11 | 30 | Alcoa Yard | 21.3 | Worn Switch | |
| | 06 | 16 | Torrance | NR | Handling | |
| | 08 | 07 | Los Angeles | NR | Handling | |
| | 08 | 21 | Los Angeles | NR | Vandalism/Track | |
| | 10 | 08 | Los Angeles | NR | Switching | |
| 2000 | 03 | 15 | Los Angeles | NR | Switching | |
| | 03 | 17 | Torrance | NR | Track Alignment | |
| | 03 | 18 | Los Angeles | NR | Equip. Defect | |
| | 01 | 20 | Los Angeles | NR | Human Error | 1 |
| | 12 | 29 | Los Angeles | NR | Track Alignment | |
| | 08 | 02 | Los Angeles | NR | Handling | |
| | 04 | 04 | Alcoa Yard | 19.6 | Handling | |
| 2001 | | | | | | |

*Source: FRA*

* NR = Not reported to FRA

# Appendix I
# POPULATION AND EMPLOYMENT

Appearing in this appendix are two tables with demographic projections. Table 1 shows the population growth projections for the South Bay cities from 1997 to 2025. The column to the right of each year from 2000 is the percentage of annual growth within each interval. The numbers for the year 2000 are different from the U.S. Census Bureau numbers included elsewhere in the report. The U.S. Census population figures are actual counts, whereas the SCAG data are projections. Although the SCAG 2000 populations may differ slightly from the U.S. Census Bureau 2000 populations, the growth rates projected by SCAG are a good guide for understanding growth in the region.

Table 2 presents employment growth projections for the South Bay cities from 1997 to 2025. The growth percentage in the column to the right of each year, is the percentage of annual growth for each year within each interval.

**Table 1**
**South Bay Cities Population Forecasts**

| City | 1997 | 2000 | Annual Growth | 2005 | Annual Growth | 2010 | Annual Growth | 2015 | Annual Growth | 2020 | Annual Growth | 2025 | Annual Growth |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Carson | 89,998 | 93,942 | 1.4% | 100,902 | 1.4% | 101,656 | 0.1% | 102,403 | 0.1% | 103,413 | 0.2% | 104,456 | 0.2% |
| El Segundo | 16,323 | 16,736 | 0.8% | 17,448 | 0.8% | 17,583 | 0.2% | 17,715 | 0.1% | 17,895 | 0.2% | 18,081 | 0.2% |
| Gardena | 57,644 | 59,804 | 1.2% | 63,586 | 1.2% | 64,256 | 0.2% | 64,916 | 0.2% | 65,815 | 0.3% | 66,735 | 0.3% |
| Hawthorne | 78,040 | 79,482 | 0.6% | 81,944 | 0.6% | 81,968 | 0.0% | 81,993 | 0.0% | 82,024 | 0.0% | 82,060 | 0.0% |
| Hermosa Beach | 18,990 | 19,205 | 0.4% | 19,568 | 0.4% | 19,609 | 0.0% | 19,648 | 0.0% | 19,700 | 0.1% | 19,755 | 0.1% |
| Inglewood | 117,781 | 121,020 | 0.9% | 126,618 | 0.9% | 127,284 | 0.1% | 127,925 | 0.1% | 128,756 | 0.1% | 129,559 | 0.1% |
| Lawndale | 30,014 | 31,235 | 1.3% | 33,381 | 1.3% | 33,855 | 0.3% | 34,324 | 0.3% | 34,959 | 0.4% | 35,614 | 0.4% |
| Lomita | 20,382 | 21,163 | 1.3% | 22,531 | 1.3% | 22,737 | 0.2% | 22,939 | 0.2% | 23,217 | 0.2% | 23,500 | 0.2% |
| Manhattan Beach | 34,680 | 34,951 | 0.3% | 35,408 | 0.3% | 35,433 | 0.0% | 35,456 | 0.0% | 35,489 | 0.0% | 35,523 | 0.0% |
| Palos Verdes Estates | 14,226 | 14,528 | 0.7% | 15,046 | 0.7% | 15,304 | 0.3% | 15,557 | 0.3% | 15,900 | 0.4% | 16,258 | 0.4% |
| Rancho Palos Verdes | 43,363 | 44,403 | 0.8% | 46,191 | 0.8% | 46,510 | 0.1% | 46,804 | 0.1% | 47,201 | 0.2% | 47,614 | 0.2% |
| Redondo Beach | 65,158 | 66,453 | 0.7% | 68,668 | 0.7% | 68,792 | 0.0% | 68,914 | 0.0% | 69,080 | 0.0% | 69,252 | 0.0% |
| Rolling Hills | 2,006 | 2,052 | 0.8% | 2,130 | 0.8% | 2,136 | 0.1% | 2,142 | 0.1% | 2,151 | 0.1% | 2,159 | 0.1% |
| Rolling Hills Estates | 8,341 | 8,541 | 0.8% | 8,884 | 0.8% | 8,937 | 0.1% | 8,993 | 0.1% | 9,066 | 0.2% | 9,142 | 0.2% |
| Torrance | 142,425 | 143,611 | 0.3% | 145,609 | 0.3% | 145,629 | 0.0% | 145,653 | 0.0% | 145,682 | 0.0% | 145,712 | 0.0% |
| Unincorporated County | 113,462 | 115,352 | 0.6% | 118,571 | 0.6% | 118,595 | 0.0% | 118,622 | 0.0% | 118,657 | 0.0% | 118,698 | 0.0% |
| **Total South Bay Cities** | **852,833** | **872,475** | **0.8%** | **906,485** | **0.8%** | **910,284** | **0.1%** | **914,004** | **0.1%** | **919,005** | **0.1%** | **924,118** | **0.1%** |

*Source: Southern California Association of Governments, RTP*

## Table 2

## South Bay Cities Employment Forecasts

| City | 1997 | 2000 | Annual Growth | 2005 | Annual Growth | 2010 | Annual Growth | 2015 | Annual Growth | 2020 | Annual Growth | 2025 | Annual Growth |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Carson | 55,176 | 57,340 | 1.3% | 61,136 | 1.3% | 64,313 | 1.0% | 66,191 | 0.6% | 67,908 | 0.5% | 69,732 | 0.5% |
| El Segundo | 52,679 | 55,930 | 2.0% | 61,801 | 2.0% | 66,214 | 1.4% | 68,821 | 0.8% | 71,206 | 0.7% | 73,740 | 0.7% |
| Gardena | 34,961 | 34,665 | -0.3% | 34,177 | -0.3% | 34,554 | 0.2% | 34,777 | 0.1% | 34,979 | 0.1% | 35,196 | 0.1% |
| Hawthorne | 34,034 | 33,853 | -0.2% | 33,554 | -0.2% | 33,963 | 0.2% | 34,203 | 0.1% | 34,425 | 0.1% | 34,658 | 0.1% |
| Hermosa Beach | 8,699 | 8,787 | 0.3% | 8,935 | 0.3% | 9,175 | 0.5% | 9,314 | 0.3% | 9,444 | 0.3% | 9,579 | 0.3% |
| Inglewood | 50,029 | 50,397 | 0.2% | 51,017 | 0.2% | 52,441 | 0.6% | 53,282 | 0.3% | 54,052 | 0.3% | 54,871 | 0.3% |
| Lawndale | 7,333 | 7,405 | 0.3% | 7,527 | 0.3% | 7,757 | 0.6% | 7,894 | 0.4% | 8,018 | 0.3% | 8,149 | 0.3% |
| Lomita | 7,801 | 7,891 | 0.4% | 8,042 | 0.4% | 8,243 | 0.5% | 8,364 | 0.3% | 8,475 | 0.3% | 8,590 | 0.3% |
| Manhattan Beach | 13,783 | 13,895 | 0.3% | 14,083 | 0.3% | 14,486 | 0.6% | 14,724 | 0.3% | 14,942 | 0.3% | 15,176 | 0.3% |
| Palos Verdes Estates | 1,274 | 1,284 | 0.3% | 1,301 | 0.3% | 1,337 | 0.5% | 1,361 | 0.4% | 1,380 | 0.3% | 1,402 | 0.3% |
| Rancho Palos Verdes | 4,265 | 4,303 | 0.3% | 4,368 | 0.3% | 4,491 | 0.6% | 4,560 | 0.3% | 4,626 | 0.3% | 4,695 | 0.3% |
| Redondo Beach | 24,321 | 24,539 | 0.3% | 24,906 | 0.3% | 25,598 | 0.5% | 26,011 | 0.3% | 26,385 | 0.3% | 26,783 | 0.3% |
| Rolling Hills | 270 | 274 | 0.5% | 282 | 0.5% | 287 | 0.4% | 292 | 0.3% | 296 | 0.3% | 298 | 0.1% |
| Rolling Hills Estates | 4,623 | 4,668 | 0.3% | 4,744 | 0.3% | 4,871 | 0.5% | 4,949 | 0.3% | 5,017 | 0.3% | 5,090 | 0.3% |
| Torrance | 105,488 | 109,295 | 1.2% | 115,948 | 1.2% | 122,837 | 1.2% | 126,911 | 0.7% | 130,638 | 0.6% | 134,596 | 0.6% |
| Unincorporated County | 21,064 | 21,946 | 1.4% | 23,499 | 1.4% | 25,149 | 1.4% | 26,122 | 0.8% | 27,016 | 0.7% | 27,962 | 0.7% |
| **Total South Bay Cities** | **425,800** | **436,472** | **0.8%** | **455,320** | **0.8%** | **475,716** | **0.9%** | **487,776** | **0.5%** | **498,807** | **0.4%** | **510,517** | **0.5%** |

*Source: Southern California Association of Governments, RTP*