

**South Bay  
Goods Movement Study  
Appendix**

**Appendix Contents**

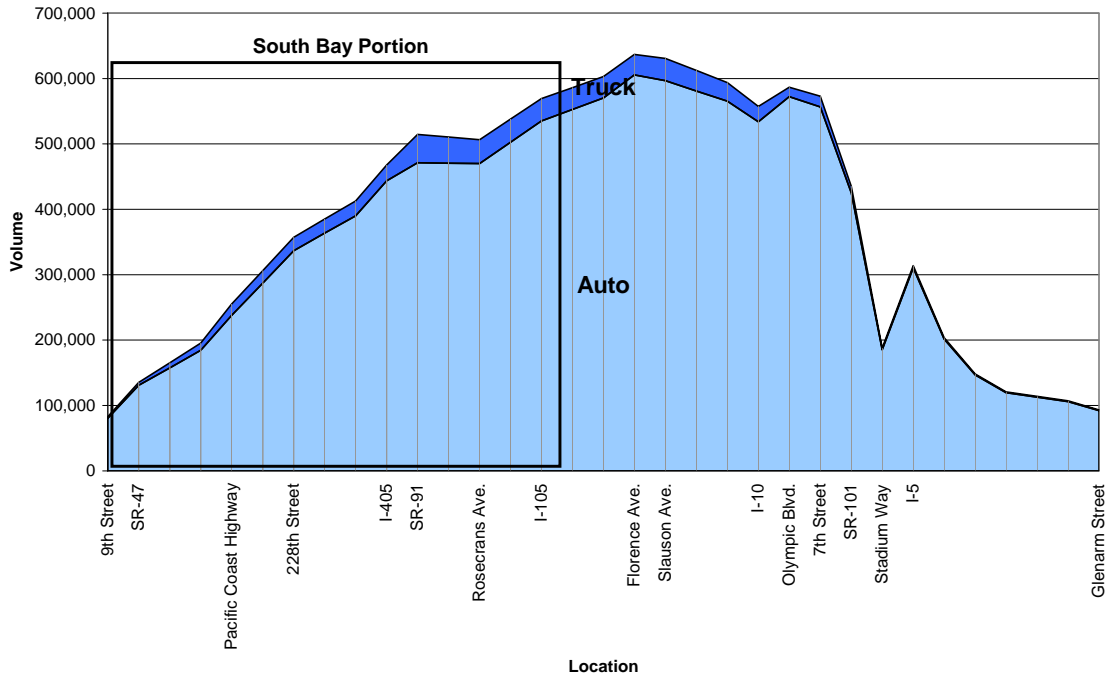
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**Appendix A: Freeway Volume Figures**

For associated text, please refer to Section 2.1.1

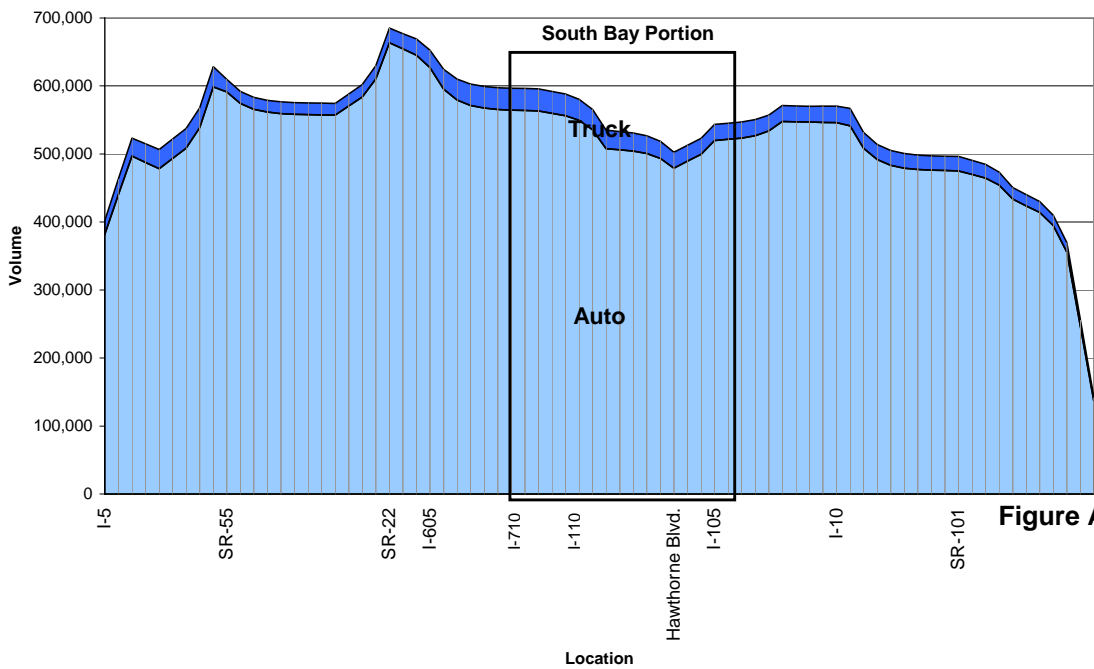
**Figure A-1**

**I-110 Annual Average Daily Traffic (2005)**



**Figure A-2**

**I-405 Annual Average Daily Traffic (2005)**



**Figure A-3**

I-710 Annual Average Daily Traffic (2005)

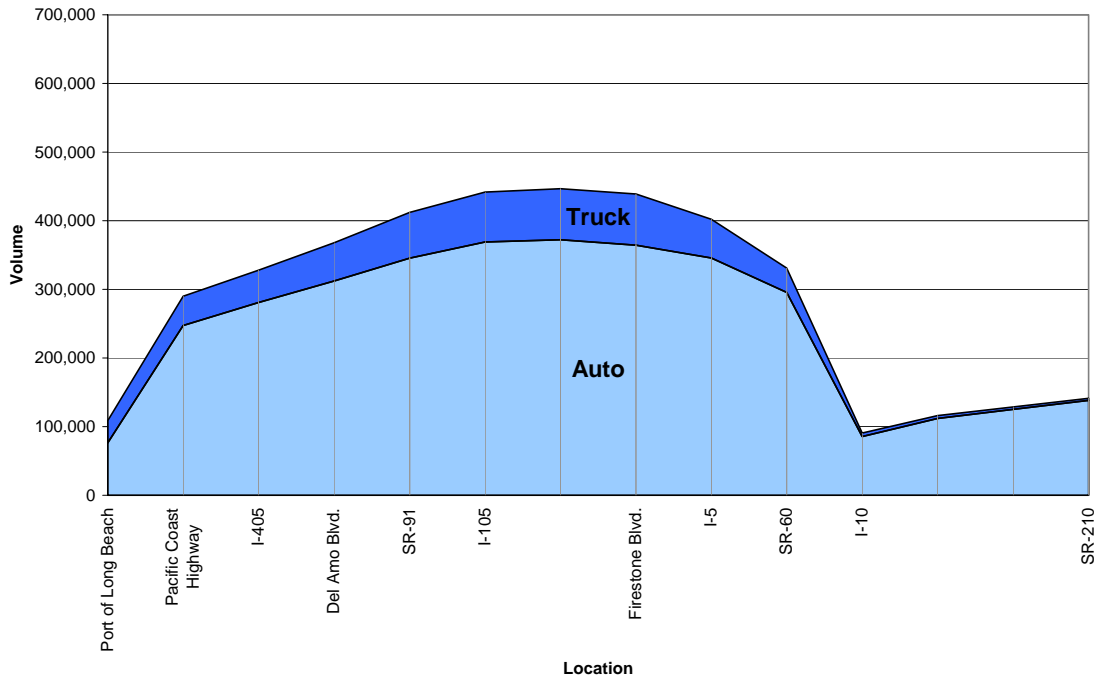


Figure A-4

I-105 Annual Average Daily Traffic (2005)

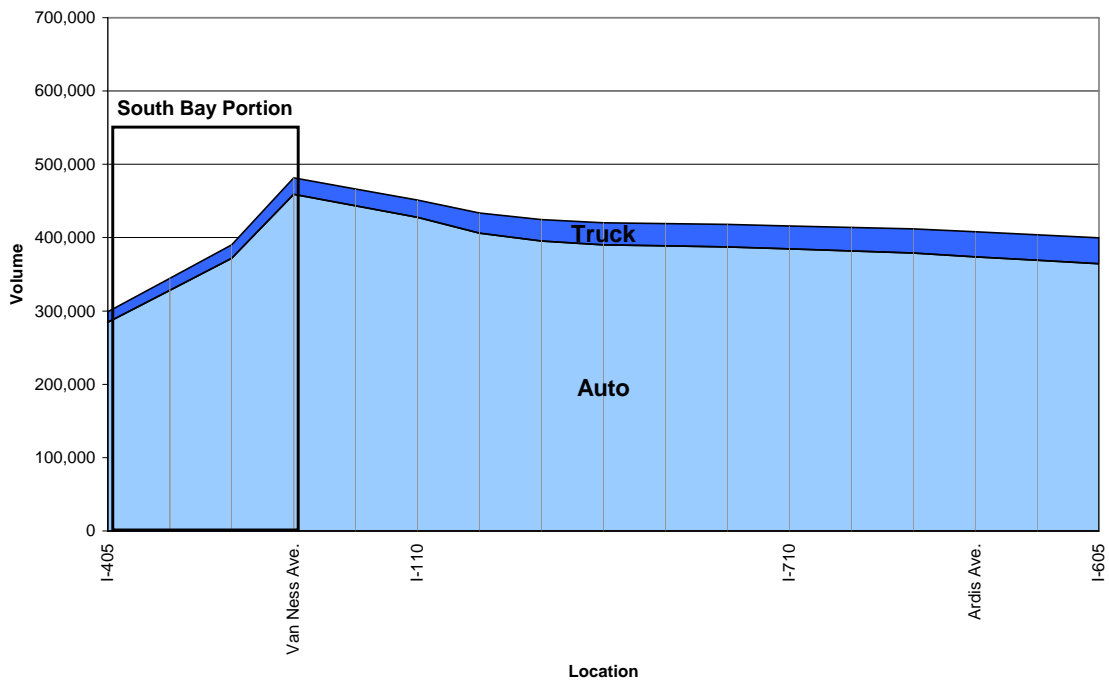


Figure A-5

SR-91 Annual Average Daily Traffic (2005)

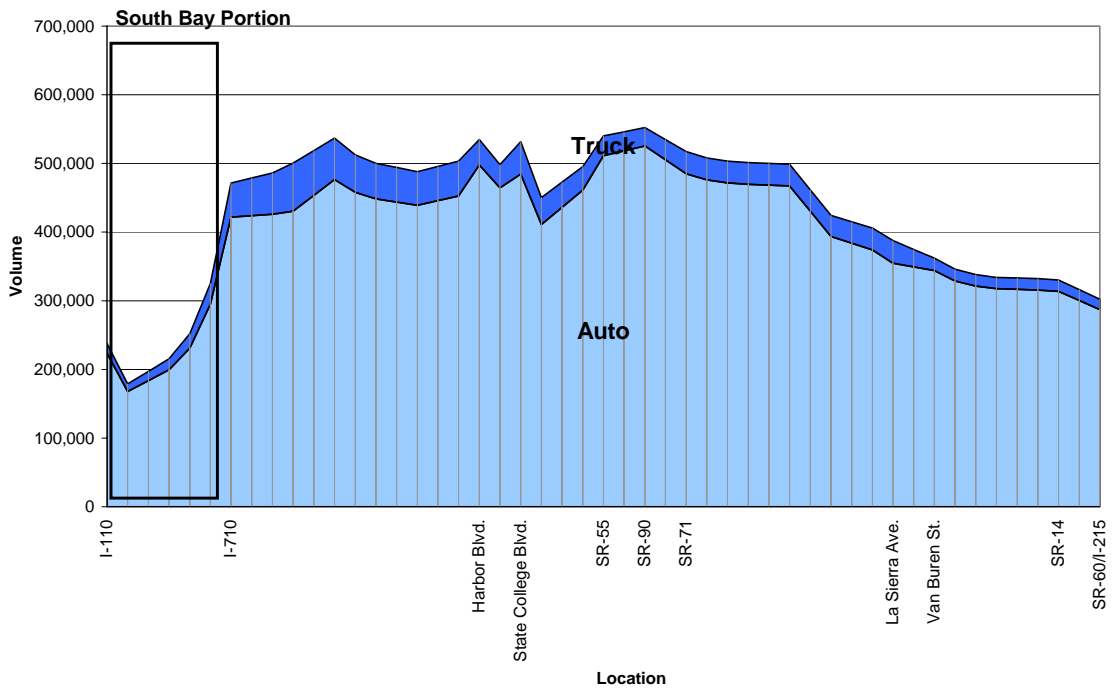
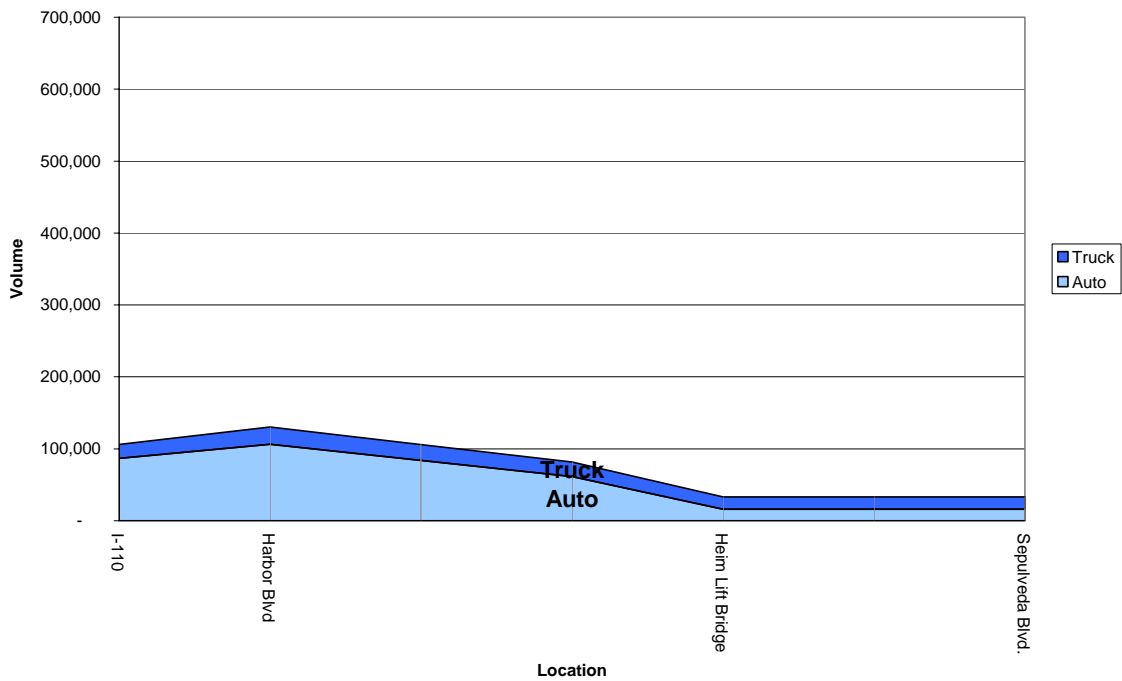


Figure A-6

SR-47 / SR-103 Average Daily Traffic (2005)



**Appendix B: Port Cargo Facilities****Port of Los Angeles On-Site Cargo Facilities**

The POLA comprises 4,200 acres of land and has eight container terminals (1,686 acres) and four dockside intermodal rail yards. In addition, the port has eight liquid bulk terminals, one automobile terminal, three break bulk terminals, and three dry bulk terminals.

*Automobile Terminal*

Wallenius Wilhelmsen Logistics operates a vehicle processing and logistics service on 85 acres at berths 195-199. There is a storage capacity of 8000 vehicles, and a rail yard for loading and unloading auto racks. Customers include Nissan, Infiniti, and Nissan Diesel.

*Breakbulk Terminals*

Handling nearly three million tons of breakbulk cargo per year with three dedicated breakbulk facilities, POLA is a major West Coast steel port. Berths 49 to 53 and its 24 acres are used for breakbulk and steel. There is on-dock rail access. Berths 54 and 55 and its 12 acres are used for the import of meats. Chilean fruit, kiwis, and apples. Berths 174 to 181 and its 40 acres are used for steel. The property includes three cranes with 40-ton capacity, covered on-dock warehouses, and specialized on-dock rail service for steel.

*Container Terminals*

POLA has eight major container terminals and four dockside intermodal rail yards with direct access to the Alameda Corridor. In total there are 30 berths and 1,686 acres of container terminals at POLA.

*Dry Bulk Terminals*

Four berths and 154 acres of the POLA is dedicated to dry bulk. The only privately held facility at POLA, the Borax Terminal, transfers cargo to vessels at a rate up to 1,000 metric tons per hour. The two other dry bulk operators handle all grades of ferrous and non-ferrous scrap metals and petroleum coke.

*Liquid Bulk Terminals*

POLA has eight liquid bulk facilities on 114 acres that handle various types of commodities for both import and export. Handling facilities include tankers, barges, bulk carriers, and storage tanks with adjacent rail access.

*Warehousing and Distribution*

POLA has 13 acres of on-site warehouse facilities at four berths. These berths are adjacent to rail facilities.

**Port of Long Beach On-Site Cargo Facilities**

POLB comprises 3,230 acres of land with seven container terminals and five dockside intermodal rail terminals. The port also has seven dry bulk terminals, seven liquid bulk terminals, ten break-bulk terminals, and one automobile terminal.

*Automobile Terminal*

Toyota operates an automobile terminal at Pier B, berths 82 and 83. It is a total of 151 acres.

*Breakbulk Terminals*

Ten breakbulk terminals are located on over sixty acres of Piers D and F. Commodities include general break bulk and steel.

*Container Terminals*

POLB has seven container terminals on a total of 1,284 acres with five on-dock intermodal rail terminals.

*Dry Bulk Terminals*

POLB has seven dry bulk terminals on over 130 acres of Piers B, D, G, F, and T. Commodities include scrap metal, lumber, gypsum, cement, salt, sulfur, and petroleum coke.

*Liquid Bulk Terminals*

POLB has seven liquid bulk facilities on over fifty acres of Piers B, D, F, and S. Commodities include gasoline, gasoline blending stocks, diesel, naphtha jet fuel, crude oil, bunker fuel and other petroleum products.

**Appendix C: California Vehicle Code Sections Pertaining to Trucks**

For associated text, refer to Section 2.1.5

The California Vehicle Code (CVC) is the state level legislation that regulates trucks and the types of truck restrictions that can be implemented by local jurisdictions. The vehicle code does not regulate truck parking, which is left to the local jurisdictions to legislate and enforce. Excerpts from relevant sections of the vehicle code are listed below, and other State, Federal and local ordinances and regulations are described later in this chapter.

*CVC Section 22406*

“No person may drive any of the following vehicles on a highway at a speed in excess of 55 miles per hour: (a) A motortruck or truck tractor having three or more axles or any motortruck or truck tractor drawing any other vehicle...”

*CVC Section 21655*

(b) “Any ... vehicle subject to the provisions of Section 22406 shall be driven in the lane or lanes designated ... whenever signs have been erected... . ..., when a specific lane or lanes have not been so designated, ... those vehicles shall be driven in the right-hand lane for traffic or as close as practicable to the right edge or curb. If, however, a specific lane or lanes have not been designated on a divided highway having four or more clearly marked lanes for traffic in one direction, ... those vehicles may also be driven in the lane to the immediate left of that right-hand lane, ... When overtaking and passing another vehicle proceeding in the same direction, the driver shall use either the designated lane, the lane to the immediate left of the right-hand lane, or the right-hand lane for traffic ... This subdivision does not apply to a driver who is preparing for a left- or right-hand turn or who is entering into or exiting from a highway or to a driver who must ... drive in a lane other than the right-hand lane to continue on his or her intended route.”

*CVC Section 21654*

(a) “..., any vehicle proceeding upon a highway at a speed less than the normal speed of traffic moving in the same direction ... shall be driven in the right-hand lane for traffic or as close as practicable to the right-hand edge or curb, except when overtaking and passing another vehicle proceeding in the same direction or when preparing for a left turn at an intersection or into a private road or driveway.”

*CVC Section 35700*

(a) “The legislative body of any county or city may by ordinance permit the operation and moving of vehicles and loads upon highways under their respective jurisdictions of a maximum gross weight in excess of the maximum gross weight of vehicles and loads specified in this code.” (b) This section does not apply to state highways”.

*CVC Section 35701*

(a) “Any city, or county for a residence district, may, by ordinance, prohibit the use of a street by any commercial vehicle or by any vehicle exceeding a maximum gross weight limit, except with respect to any vehicle which is subject to Sections 1031 to 1036, inclusive, of the Public Utilities Code, and except with respect to vehicles used for the collection and transportation of garbage, rubbish, or refuse ...” (b) The ordinance shall not be effective until appropriate signs are erected indicating either the



streets affected by the ordinance or the streets not affected, as the local authority determines will best serve to give notice of the ordinance. (c) No ordinance adopted pursuant to this section after November 10, 1969, shall apply to any state highway which is included in the National System of Interstate and Defense Highways, except an ordinance that has been approved by a two-thirds vote of the California Transportation Commission”.

*CVC Section 35703*

“No ordinance adopted pursuant to Section 35701 shall prohibit any commercial vehicles coming from an unrestricted street having ingress and egress by direct route to and from a restricted street when necessary for the purpose of making pickups or deliveries of goods, wares, and merchandise from or to any building or structure located on the restricted street or for the purpose of delivering materials to be used in the actual and bona fide repair, alteration, remodeling, or construction of any building or structure upon the restricted street for which a building permit has previously been obtained”.

*CVC Section 35707*

“Boards of supervisors in their respective counties may by ordinance reduce the permissible weights upon improved highways only which by reason of deterioration will be destroyed unless the weight limits are reduced, but no such reduction shall extend for a period of more than 90 days unless actual repair of the highway is begun within that time and thereafter continuously carried on to completion”.

*CVC Section 35712*

(a) “Any county may, by ordinance, prohibit the use of any highway located in an unincorporated residential or subdivision area by any commercial vehicle exceeding a gross weight of 14,000 pounds. (b) Any county of the third class, as defined by Section 28024 of the Government Code, or of the ninth class, as defined by Section 28030 of the Government Code, may, by ordinance, prohibit the use of any highway located in an unincorporated residential or subdivision area by any commercial vehicle exceeding a gross weight of 5,000 pounds”.

In summary, the Vehicle Code provisions provide for the following:

- Trucks are restricted to a 55 mile per hour speed limit
- Trucks are restricted to the two rightmost lanes unless otherwise designated
- Cities and counties may restrict the movement of vehicles over a maximum gross weight limit in residential districts, provided that appropriate signs are erected.
- Cities and Counties may not prohibit trucks from operating on any street when necessary for the purpose of making pickups or deliveries of goods.
- Counties may not restrict trucks on improved County highways unless to prohibit deterioration of such street (unless in a residential district).

**Appendix D: Federal and State Truck Routes**

For associated text, refer to Section 2.1.6

In 1982, the federal government passed the Surface Transportation Assistance Act (STAA). This act required states to allow larger trucks on the "National Network," (NN) which is comprised of the Interstate system plus the non-Interstate Federal-aid Primary System. In 1983 and 1986 the California legislature passed bills that designated a "California Legal" truck that had different dimensions than the trucks allowed on the National Network, these trucks may use the designated California Legal network.

STAA trucks are limited to the National Network, Terminal Access routes, and Service Access routes (STAA Network). "California Legal" trucks can use the STAA Network and California Legal routes. The route classifications in California are as follows:

National Network (Federal): The National Network (NN) is primarily comprised of the National System of Interstate and Defense Highways, for example I-110, I-405, and I-105. STAA trucks are allowed on the NN.

Terminal Access (State, Local): Terminal Access (TA) routes are portions of State routes, or local roads, that can accommodate STAA trucks. TA routes allow STAA trucks to (1) travel between NN routes, (2) reach a truck's operating facility, or (3) reach a facility where freight originates, terminates, or is handled in the transportation process.

Service Access (State, Local): STAA trucks may exit the National Network to access those highways that provide reasonable access to terminals and facilities for purposes limited to fuel, food, lodging, and repair, when that access is consistent with safe operation. The facility must be within one road mile of an exit from the National Network and that exit must be identified by signage.

California Legal (State): California Legal routes are state routes that allow California Legal-size trucks. STAA trucks are not allowed on these routes because of limiting geometrics, such as sharp curves and/or lack of turn-around space.

California Legal - Advisory (State): California law allows regulatory prohibition of a 38-foot kingpin to rear axle (KPRI) or greater where posted in black-on-white. However, many California Legal routes cannot safely accommodate California Legal-size trucks with a KPRI less than 38 feet, due to limiting geometrics such as sharp turns and roadway width. Although California Legal trucks may travel on these segments, the driver is still legally responsible for unsafe offtracking, such as crossing the centerline or driving on shoulders, curbs and sidewalks.

Special Restrictions (Federal, State, Local): Some route segments have special restrictions on certain trucks or loads, such as gross weight, number of axles, or hauling of flammable materials or explosives. For vehicles complying with the restrictions (for example, vehicles not carrying explosives), the route classification, in most cases, reverts back to that of the adjacent route segments.

## Appendix E: Detailed Intra-Subregional Rail System Description

### Pacific Harbor Line

Pacific Harbor Line (PHL) operates roughly 59 miles of track spread over an 18-mile network serving the ports and nearby facilities. While PHL's best known function is serving the numerous on-dock intermodal terminals the line also handles roughly 40,000 carloads of conventional freight for industrial customers and non-container marine terminals.



**The PHL Network**

PHL is an operating unit of Anacostia & Pacific, which owns and operates several shortline railroads. PHL connects with UP and BNSF's Harbor Subdivision at West Thenard, and with UP at Manuel Yard. West Thenard is also PHL's connection to the Alameda Corridor. It is primarily a switching railroad and its operations are restricted to 15–25 mph. As of early 2007, PHL had about 145 employees and 23 locomotives. PHL serves all of the nine on-dock rail transfer facilities at Los Angeles and Long Beach:

#### Los Angeles

- Pier 400 (Maersk)
- Global Gateway South (APL)
- TICTF (NYK Evergreen)
- WBCT (Yang Min, China Shipping)

#### Long Beach

- Pier J (Pacific Container Terminal)
- Pier G 9BCT)
- Cal United
- MSC
- Hanji

PHL provides switching services for these facilities and dispatches (controls) BNSF and UP trains providing line haul service. In addition to operating its own trains, PHL controls the operation of BNSF and UP intermodal trains over the PHL trackage to and from on-dock terminals.

PHL's less-known carload operations are a critical factor in minimizing truck trips and truck impacts in the South Bay Cities subregion. The boxcars, flat cars, tank cars, hoppers, and other conventional railcars moved to and from industrial customers

typically each carry 50 to 100 tons of freight, the equivalent of two to four truckloads. PHL’s 40,000 annual carloads thus take the place of 80,000–160,000 annual round trips by heavy duty trucks on regional highways and surface streets.

PHL non-port customers include:

- Amerigas
- California Cartage
- Certainteed Roofing
- Conoco Phillips
- Del Monte
- Fremont Forest Products
- Hugo Neu (Scrap metal)
- Log Angeles Grain
- Lexus
- Nissan
- Pacific Coast Recycling
- Potential Industries
- Shell
- U.S. Borax
- Westway Terminals

PHL maintains its locomotive fleet on-site at shops in Wilmington. The current fleet of diesel locomotives is being gradually replaced with 16 EPA Tier 2-compliant locomotives being jointly funded by PHL, SCAQMD, and the seaports. PHL is also testing hybrid and generator set locomotives for low-emission switching service. PHL has joined all of the major North American railroad systems as a member of EPS’s Smart Way program to benchmark and improve environmental performance.

**UP South Bay Freight Operations**

The Union Pacific Railroad has three rail lines in the study area used to handle local freight traffic: the El Segundo Industrial Lead, the Torrance Industrial Lead, and the Wilmington Subdivision. However, the Alameda Corridor is used to move local freight to and from industry tracks located near the southern end of the Wilmington Subdivision.

**Table 14  
UP South Bay Freight Lines**

Line Name	Start	End	Length (miles)
Wilmington Subdivision	West Redondo	Alameda	11.7
El Segundo Industrial Lead	Watts	El Segundo	10.8
Torrance Industrial Lead	South L.A.	Torrance	9.9
Alameda Corridor	East Redondo	West Thenard	16.1



**UP Branch Lines in the Study Area**

The easternmost line on the map, outside of the study area, is the San Pedro Branch, an alternative route to the Alameda Corridor. It is owned by the Port of Long Beach and leased to UP for operations. It is used by UP for local traffic as well as an alternate route should there be a problem on the Corridor.

Trains serving the local shippers on the study area rail lines originate at the UP 4<sup>th</sup> Street Yard, located in central Los Angeles between Olympic Blvd and 1<sup>st</sup> Street on the east side of the Los Angeles River. Traffic for the study area is brought to the 4<sup>th</sup> Street Yard on trains that originate in West Colton. These trains handle non-unit train carload freight to and from the Los Angeles basin. They operate seven days per week with 30 to 50 cars per train.

**Wilmington Subdivision**

The Wilmington Subdivision starts at West Redondo Junction (E 24<sup>th</sup> Street between Long Beach Avenue & South Alameda Street) and ends at Alameda Junction (south of East Victoria Street and South Alameda Street), a distance of 11.7 miles. The El Segundo Industrial Lead diverges from the Wilmington Subdivision at approximately East 103 Street and Grandee Avenue. The right of way for the Wilmington Subdivision is shared with the Metro Blue Line from West Redondo Junction to and beyond the junction with the Alameda Corridor. The trackage south of Watts is not used for freight operation, except to stage empty double stack intermodal cars on the sidings at Carson mile post 7.3 and Nadeau mile post 2.0 for delivery to either the ICTF or on-dock intermodal terminals. Any carload freight for points south of Watts is

handled on the Alameda Corridor to Delores Yard for delivery by local trains out of that yard.

**El Segundo Industrial Lead**

The El Segundo Industrial lead originates at Watts, mile post 5.7 on the Wilmington Subdivision, and ends at the Chevron Manhattan Beach Refinery.



**UP El Segundo Industrial Lead**

The three largest customers on this line are Interplastic Corporation, Vought Aircraft Industries, and Chevron. There is also a team track<sup>1</sup> used to transfer lumber from railcars to truck for local delivery. While there are other receivers on the line, they have very infrequent freight and the three customers identified along with the team track account for the vast majority of traffic on the line.

The El Segundo Industrial branches off the Wilmington Subdivision Mainline at 108th Street. This line is 10.8 miles long and is served by one local train per day, Tuesday through Saturday, from the UP 4<sup>th</sup> Street Yard.



<sup>1</sup> A team track is a spur line accessible to trucks and used for periodic rail-truck transfer.

***UP El Segundo Local at Van Ness Ave***

The local train crews go on duty at 8:00 a.m. and work until the freight is delivered, with planned return to the yard by 4:00 p.m. A typical train consists of 20 cars with mostly loads inbound and empties outbound. The train sets out loads and picks up empties as it makes the round trip. Annual carload volume on the line is approximately 10,000 total loads and empties. The east end of the El Segundo Industrial Lead runs through residential areas.



***El Segundo Industrial Lead at 109th Street***

Interplastic Corporation at 126<sup>th</sup> St and Van Ness produces Silmar brand polyester coating resins and related industrial products. These resins are used in production of fiberglass reinforced plastics (FRP) and cast polymers across a variety of industries and products – including furniture, machinery, and surfboards.



***Interplastic Corporation at 126<sup>th</sup> St and S Van Ness***

Vought Aircraft Industries is an unusual rail customer. Rather than handling bulk commodities Vought builds high-tech fuselage sections for the Boeing 747. The fuselage sections are shipped in specialized railcars to the Boeing assembly plant outside Seattle, where they are joined into a complete fuselage.

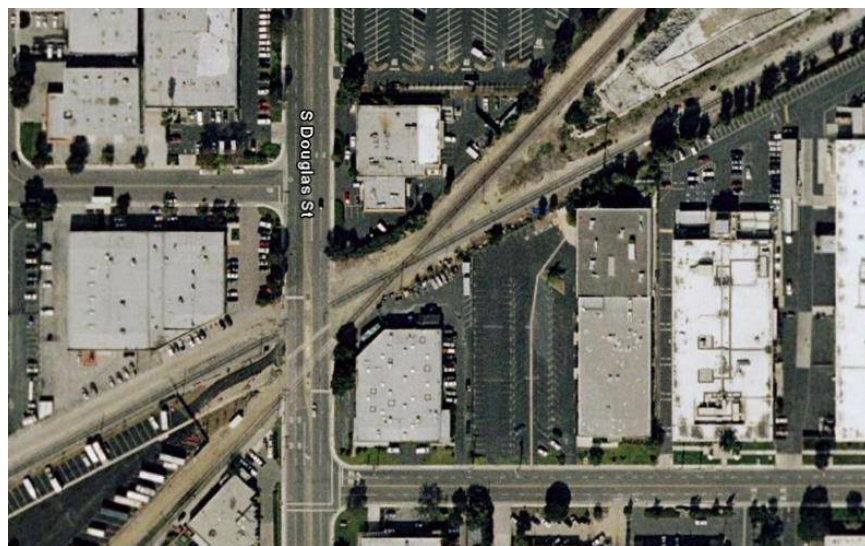


***Specialized Railcars staged at Vought Aircraft***

Each 154-foot 747 fuselage is shipped in 21 panels contained in six railcars, and assembled at Boeing outside of Seattle. Vought also builds portions of the Boeing 767 fuselage and components for the C-41 military transport at the Hawthorne plant.

**El Segundo Industrial Lead Line**

The BNSF mainline and the UP El Segundo industrial lead line cross just east of Douglas Street at Utah Avenue.





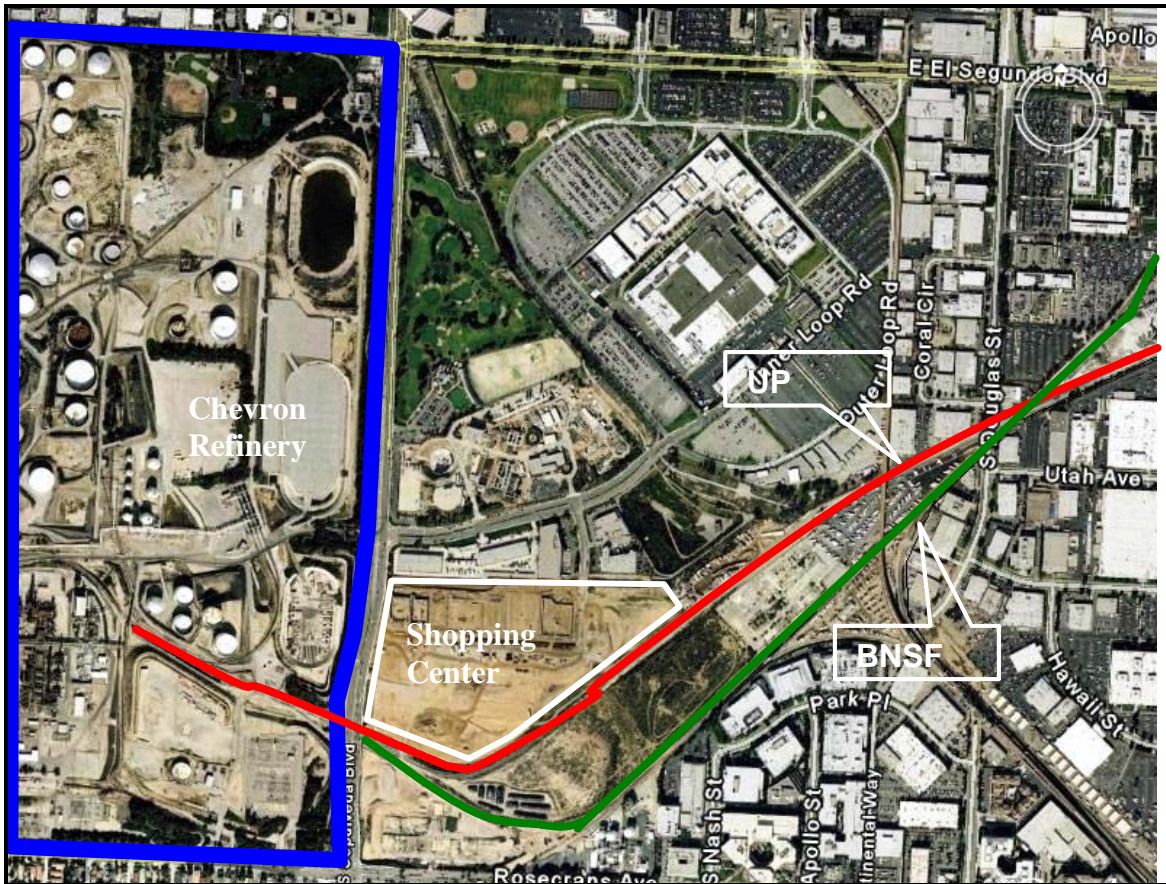
***UP & BNSF crossing Douglas St. north of Utah******BNSF & UP at Douglas Street***

The El Segundo Industrial Lead also serves a team track west of Douglas St used to unload lumber.

***El Segundo Local with Lumber for Team Track***

The Chevron Manhattan Beach Refinery is served by both UP and BNSF for line haul and operates its own switch engine within the refinery. Chevron, located at the very end of the line, ships and receives four to six tank cars per day in each direction. This refinery receives crude petroleum by vessel and pipeline, and ships refined products. Among other products, this refinery provides roughly 20 percent of California's gasoline supply. The refinery also receives additives and other product components that it does not manufacture. Ethanol for blending into gasoline is a major source of traffic growth on this line.

This rail service is a key factor in controlling the number of tank trucks moving on local streets and regional highways with hazardous chemicals: each tank car is equivalent to three to four tank trucks.



*Chevron Refinery*

Leading into the junction, the two railroad's lines parallel one another for approximately 0.75 miles from where they cross at Douglas Street. BNSF joins with the UP line to enter the refinery just east of Sepulveda Boulevard and a single line crosses Sepulveda Boulevard at grade into the refinery approximately 300 yards north of Rosecrans Avenue. The trackage is owned by UP and open to BNSF service.

North of the track and east of Sepulveda a new retail shopping center, Plaza El Segundo, is under construction. Given the location of the two lines and the retail activity in the area, the potential for congestion and rail/highway conflicts will increase. This highway-rail crossing was cited by the City of El Segundo as an at-grade freight rail crossings that creates significant motorist delay in the survey of South Bay Cities conducted as part of this study (see Section 3).

This location warrants further study for a potential grade-separated crossing. However, because grade separations need a significant amount of lead distance for an overpass or underpass, the proximities of rail loading/unloading facilities, the intersection of

Rosecrans Avenue with Sepulveda Boulevard, and access points to the new shopping center limit the design configuration options.

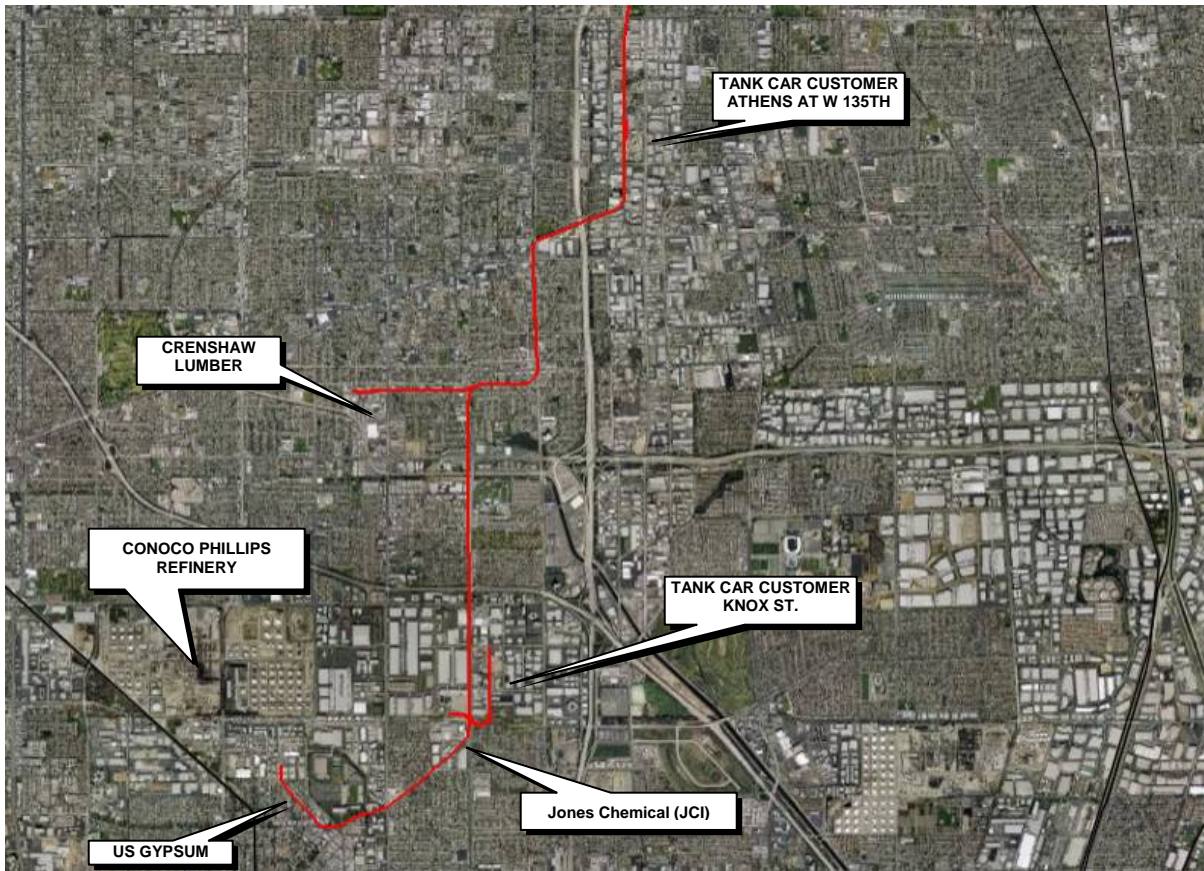
There is also an opportunity for consolidation of these tracks east of Douglas Street.



*Tank Cars for Chevron on the El Segundo Local*

**Torrance Industrial Lead**

The Torrance Industrial Lead is a 9.9 mile north–south rail line diverging from the El Segundo Industrial Lead at mile post 493 at the UP South Los Angeles station.



***Torrance Industrial Lead***

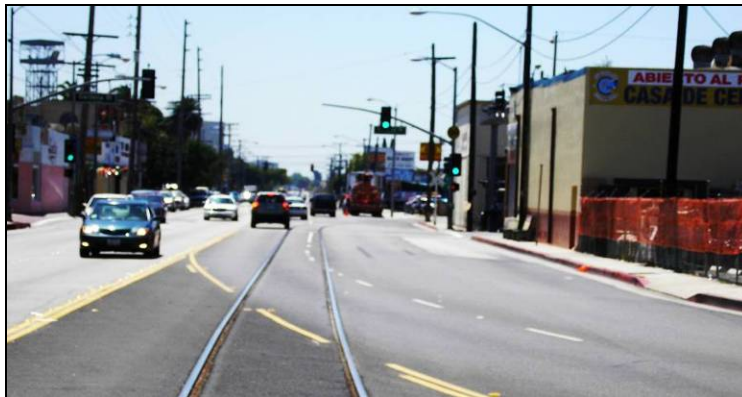
The station is two miles west from the point where the El Segundo Industrial Lead branches off from the Wilmington Subdivision. There is one local train per day Monday through Friday working the Torrance Industrial Lead. The local train originates at UP's 4<sup>th</sup> Street Yard, as does the El Segundo local, but the Torrance crew starts work at 5:00 a.m. rather than 8:00 a.m. The local on a typical day has 16 to 18 loaded cars when it leaves 4<sup>th</sup> St. Yard, most of the outbound cars from the line are empties. Annual carload volume on the line is slightly less than that of the El Segundo Industrial at approximately 9,000 loaded and empty cars.

The Torrance Industrial Lead originates in a tunnel under I-105 at South Broadway; and the Torrance and El Segundo Leads diverge beyond the freeway.



***El Segundo & Torrance Industrial Leads at South Broadway looking west***

Conoco Phillips is the largest customer on the lead, receiving ten tank cars of ethanol each day for blending into gasoline for local delivery. Jones Chemical and Crenshaw Lumber each receive three to four railcars per day. Jones Chemical receives chemicals to produce industrial bleach and bisulfite products for water and wastewater treatment. The Torrance Industrial Lead operates in the median of Vermont Avenue between approximately 152nd Street and Gardena Boulevard, where it runs in the street to 165th Street.



***Looking south on Vermont Ave at 164<sup>th</sup> St***

Between Vermont Avenue and Normandie Avenue the Torrance Industrial continues street running on 166<sup>th</sup> St. There is one business lead off the Industrial Lead prior to Normandie Avenue, Crenshaw Lumber which is west of Western Ave and south of 166<sup>th</sup> St. Crenshaw Lumber receives railcar shipments of lumber for warehousing and eventual local distribution. Farther south, the Torrance Industrial Lead runs parallel to Normandie Avenue.



***Torrance Industrial Lead at 204<sup>th</sup> Street paralleling Normandie Avenue***

The rail line that crosses Normandie at 204<sup>th</sup> Street is a business track serving a tank car customer located at Knox Street.

Jones Chemical (JCI) is west of the line at 1401 Del Amo Boulevard in Torrance. JCI produces water treatment chemicals and receives inbound materials in tank cars. Most product is shipped out in tank trailers, but JCI can ship outbound chemical in rail cars as well.



***Jones Chemical Tank Trailer Shipments***

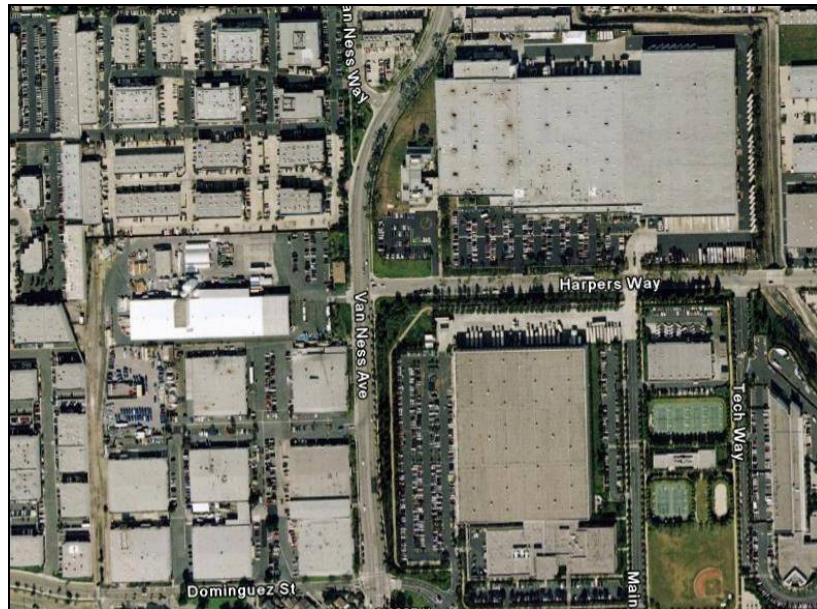
The Torrance Industrial Lead operates in the median of Torrance Blvd between 208<sup>th</sup> Street and Van Ness Avenue where it crosses Torrance Blvd paralleling Sartori Avenue to the end of the Lead at U. S. Gypsum. The U.S. Gypsum plant produces drywall joint compound and related building products.



*Torrance Industrial in median of Torrance Blvd at Van Ness Ave*



*Torrance Industrial Lead near the end of the line west of Van Ness Ave at 208<sup>th</sup> St*



*U. S. Gypsum on both sides of Van Ness Ave rail line at end of line*

**BNSF Local Freight Operations**

BNSF has one line in the South Bay Study area, the Harbor Subdivision Main Line (Harbor Line), with several industry lead tracks. The route was clearly chosen to serve the El Segundo refinery, the seaports, and industrial customers in between.

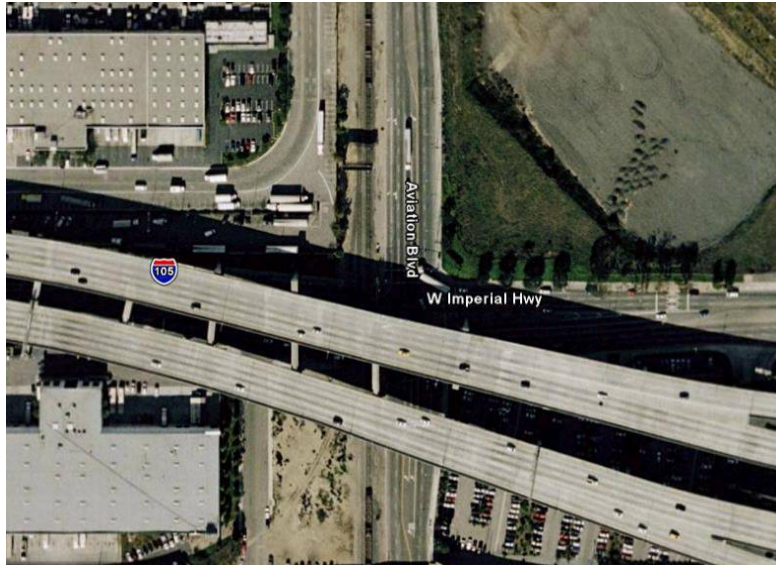


**BNSF Harbor Subdivision**



The Harbor Line starts in Los Angeles in the vicinity of Washington Boulevard and the Los Angeles River at Harbor Junction running generally south toward the port area for 27.6 miles and ending at West Thenard on the Alameda Corridor.

From the origin the line heads south to approximately 56<sup>th</sup> St, then runs west paralleling Slauson Ave to approximately Western Ave where it turns southwest adjacent to Florence Ave. At Aviation Blvd the line turns south and runs parallel to the road on the eastern edge of LAX, crossing Imperial Highway, at grade, to El Segundo Boulevard. The grade crossing at Imperial Highway and Aviation Boulevard has been identified by communities as a source of delay or congestion.



***BNSF Grade Crossing at Imperial & Aviation***



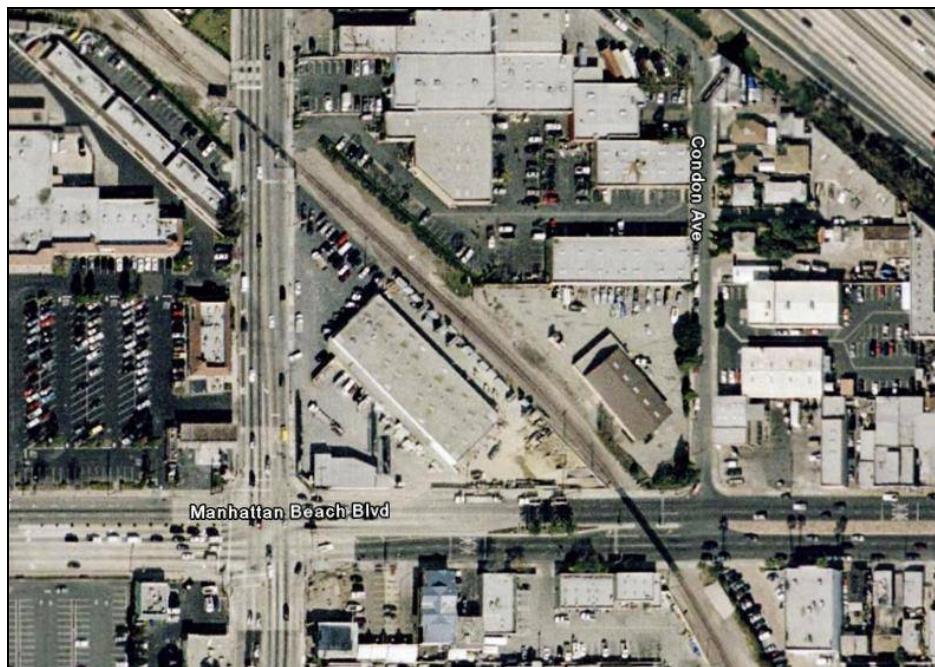
***BNSF Crossing on Imperial Highway***

After crossing El Segundo Boulevard, the Harbor Line heads southwest crossing the UP El Segundo Industrial Lead at approximately Douglas Street where the BNSF industry

lead to the Chevron Refinery branches of the main. The Douglas/Utah grade crossing has also been identified as causing significant motorist delay.

The BNSF Harbor Subdivision joins again with the UP El Segundo line just east of Sepulveda Blvd before the UP line enters the refinery. See the description of the UP local rail services for a description of this location.

The Harbor Line turns southeast at the point where the industry lead to Chevron joins with the main line crossing Rosecrans Avenue at Aviation Boulevard. The line continues southeast parallel to I-405 to Manhattan Beach Boulevard where it turns south paralleling Condon Avenue one block east of Inglewood Avenue to approximately 182<sup>nd</sup> Street. BNSF crosses both Inglewood and Manhattan Beach Boulevard on a diagonal, making it possible for a train to block both streets at once.



***BNSF Inglewood and Manhattan Beach Grade Crossings***



***Harbor Line Crossing Inglewood north of Manhattan Beach Blvd***

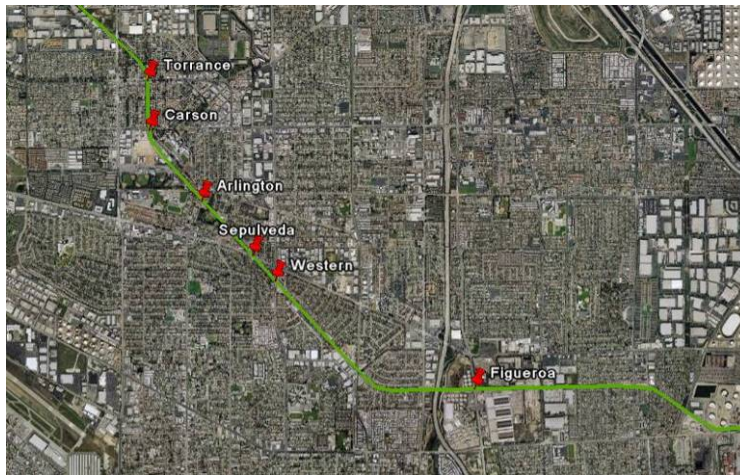
The line turns southeast crossing Hawthorne Boulevard at 190<sup>th</sup> Street. Both road crossings are at grade as the line enters the Honeywell/ExxonMobil/Union Carbide/Dow Chemical industrial complex south of 190<sup>th</sup> Street between Hawthorne Boulevard and Western Avenue. Much of the lien follows right-of-way through residential neighborhoods.



***BNSF Harbor Line at 167 St east of Inglewood Ave***

The line continues southeast crossing Sepulveda Boulevard, Western Avenue, and Normandie Avenue before turning east paralleling Sepulveda Boulevard to Watson Yard and east to West Thenard Junction on the Alameda Corridor.

South of the industrial district, the BNSF line through Torrance and Carson has six grade crossings cited as causing significant vehicle delays or other problems. These grade crossings typically involve multiple traffic lanes and several are approached at oblique angles that may obscure sightlines.



***BNSF Southern Section Grade Crossings Cited for Delays***



***BNSF Grade Crossing Torrance East of Crenshaw***



***Harbor Line Crossing at Torrance Blvd***



***BNSF Grade Crossing Carson East of Crenshaw***



***BNSF Grade Crossing Arlington in Torrance***



***BNSF Grade Crossing Sepulveda West of Western***



***Harbor Line Crossing at Sepulveda Blvd***



***BNSF Grade Crossing Western South of Sepulveda***



***BNSF Grade Crossing Figueroa in Carson***

The maximum train speed on the line is 20 mph with several permanent speed restrictions.

As noted earlier, the Harbor Subdivision formerly carried all Santa Fe traffic to and from the ports of Los Angeles and Long Beach, where it was interchanged with the former Harbor Belt Line, now PNL. After the opening of the Alameda Corridor, all the port container traffic and some other types of traffic as well shifted to the Alameda Corridor and off the Harbor Subdivision. The Harbor Subdivision is therefore now used exclusively for non-container traffic in conventional railroad freight cars.

BNSF has two trains serving the rail customers on the Harbor Sub Main Line. One starts at 6:30 AM the other starts at 2:30 PM, both originate at Watson Yard and work north, and both serve the industrial complex in Torrance.

The morning train also serves rail customers north of the complex. This morning train serves the Chevron Refinery and Learned Lumber in El Segundo on Douglas Street. This is the furthest north of any active rail customers on the Harbor Line.

The only train activity north of this point is for staging empty double stack cars for the ports. There are three locations on the Harbor Line of adequate length (approximately 5,000 ft or more) where double stack trains can be staged without interfering with operations. The furthest north is adjacent to LAX between Arbor Vitae Street and Imperial Highway (7,500 ft). The next south location is between 190<sup>th</sup> Street and Crenshaw Boulevard (9,200 ft) and the closet to the ports between Western Avenue and Normandie Avenue (4,200 ft). If BNSF had an alternative location to efficiently stage empty double stack trains for the ports they would not have to operate beyond the line into Learned Lumber and Chevron thus eliminating the grade crossing issue at Imperial Highway.

Railcars to and from the customers on the Harbor Line as well as cars to and from PHL are handled to and from Watson Yard on a daily train from Barstow on the Alameda Corridor. In addition to that train and the intermodal trains from on-dock terminals there are three to four tank trains of ethanol per week with 96 to 115 tank cars per train that are delivered to the recently opened tank car transfer facility at the north end on Watson Yard.



***Ethanol Tank Train Transfer Facility at Watson Yard***



**Appendix F: Travel Demand Forecasting Model Development**

The travel demand forecasting (TDF) model used for the South Bay Cities Council of Governments (SBCCG) Goods Movement Study is a hybrid model based on SCAG regional model and the Ports of Long Beach (POLB) and Los Angeles (POLA) Transportation Study model. The Port model was developed in 2001 and was approved by Ports of Long Beach and Los Angeles for Port area Transportation Planning Studies and environmental studies

For the purpose of this study, the SCAG model used for the 2004 Region Transportation Plan (RTP) was updated by adding the Ports truck trips to the regional trip tables. The 2000 and 2030 Port truck trips for the four (AM, Mid-day, PM and night time) periods were developed using the Ports TDF model. The port truck trips tables were then aggregated back to the SCAG zones system where the Ports of Long Beach and Los Angeles are represented as three zones. The port trip tables were kept separate from the SCAG heavy duty truck (HDT) trips in order to differentiate the port truck trips from other truck trips in the model. Special model features include the following:

*Grades and Passenger Car Equivalentents* - An important feature of the SCAG model, which was explicitly accounted for and coded to the network, are locations of steep uphill and downhill grades. Grades are coded in the network as they are in the field, to an accuracy of one percent.

*Implementation of Truck Passenger Car Equivalencies (PCEs)* - The presence of vehicles other than passenger cars in the traffic stream affects traffic flow in two ways: (1) these vehicles, which are much larger than passenger cars, occupy more roadway space (and capacity) than individual passenger cars, (2) the operational capabilities of these vehicles, including acceleration, deceleration and maintenance of speed, are generally inferior to passenger cars and result in formation of large gaps in the traffic stream that reduce the highway capacity. On long, sustained grades, and segments with impaired capacities, where trucks operate considerably slower, formation of these large gaps can have a profound impact on the traffic stream.

The model uses an equilibrium traffic assignment method, which uses a PCE table for converting port and other regional trucks to equivalent passenger cars. They include a sliding scale of PCE factors that takes into account the grade, the length of grade and the percent truck traffic.

*Port Truck Trip Tables* - The port model zone trip tables were developed based on a detailed port area zone system and specialized trip generation rates for autos and trucks in the Ports. Special trip generation rates for autos were developed for the Port studies and applied to the most current 2030 Port forecasts. Port cargo throughout is measured in terms of "twenty foot equivalent units" (TEU). Truck trip generation for container terminals was developed using the "Quicktrip" model as explained later in this section.

The Quicktrip model is a spreadsheet approach to truck trip generation analysis that was developed as a collaborative effort between the staff of both Ports and a team of consultants. The model builds upon a gate trip generation

model that was previously developed, with considerable refinements. It includes detailed input variables such as mode split (rail versus truck moves), time of day factoring, weekend moves, empty return factors and other characteristics that affect the numbers of trucks through the gates. The end product is a forecast of truck trip generation, by type of truck trip, for each hour of the day, by direction. The on-dock rail mode split will vary terminal by terminal base on each terminal's rail capacity. For the POLB the average on-dock rail mode share is 24% for the POLA it is 29%

The Port area peak hour auto, bobtail, chassis and container trip tables were generated based on the forecast 2030 twenty-foot equivalent units (TEU) using the Quicktrip model. The total estimated TEU throughput for 2030 for both ports is approximately 44.7 million TEU. For the peak month, this equates to 4.1 million TEU. As a comparison, the total ports TEU throughput was determined to be 11.8 million in 2003. Truck trips are classified into bobtail, chassis and container truck trips, representing the major types of truck trips in the ports.

### **MODEL NETWORK OF STREETS AND FREEWAYS**

The model network used in the SCAG Regional Model is used for the base-case 2030 projections. That network includes the extension of the I-710 to the I-210 and separate truck lanes from the I-710 on Rte 60 to provide connections easterly to the I-15. It also includes other "smaller" truck-related network features.

In summary, the following lists the key specifications/elements for the TDF traffic model:

- Model produces years 2000 and 2030 daily forecast traffic volumes.
- Model contains specialized trip tables for the Ports area, which replaced the SCAG model Port trips in the port area.
- Model includes the 2004 RTP auto and heavy-duty truck (HDT) trip tables
- Model initially uses SCAG network which includes truck lanes on I-710 to SR 60 and then on SR 60 easterly to connections to the SR 57 and I-15

Changes to the model network which were used in the evaluations in this work are described in the following section.

### **SPECIFIC MODEL RUNS FOR THE SOUTH BAY GOODS MOVEMENT STUDY**

With the addition of the Port truck trip refinements to the SCAG Regional model, MMA conducted a 2030 model run with a focus on truck traffic patterns. To develop the Port truck trips, it was assumed that about 60% of the Port truck traffic travels during the day and 20% in each of the evening, and Hoot (late night) periods. The changes in each of the different mode runs relate to changes to the roadway/ freeway network.

For the purpose of this study, the study area was defined by the coastline on the South and West, the Inglewood city limits on the North, and the Inglewood, Hawthorne, Gardena, Carson, Rancho Dominguez (unincorporated), and Los Angeles (Wilmington) city limits on the East. This window area provides the ability to define future volumes as they relate to trucks and all vehicles for the I-110 and I-405 freeways and the connecting freeways. Model Runs were conducted for the following scenarios:

- **2000 Base Year Model** – SCAG 2000 Base Year model was validated for the study area. The key validation was incorporation of the time delays for representing the ramp metering at the I-105/I-605 and I-105/I-710 interchanges.
- **2030 Baseline RTP** – the SCAG 2030 Plan highway network (which includes truck lanes on I-710 and SR-60 freeways) was updated as follows:
  1. Incorporating the I-710 Locally Preferred Alternative design.
  2. Elimination of the connection of the I-710 to I-210.
  3. As part of the 2000 base year model validation, additional time delays were added in the model to reflect the ramp metering at I-105.

### DATA LIMITATIONS

Regional travel demand models are powerful tools that allow one to analyze future conditions and help aid decisions about investments based on future travel demand. However, like all models, the limitations of the travel demand model used for this study are present.

These specific limitations to the outputs of the transportation model should be taken into account when analyzing the data:

- Trips are assigned to highest capacity roadways, which may undercount volumes that would take lower capacity roadways that serve large trip generators
- Inability to directly compare the change in volume on a roadway link in different scenarios if that link has been changed. When a roadway improvement is coded into the transportation network, new nodes are assigned to the roadway. Examples of this are the 105 ramps at Crenshaw Blvd. and the I-405 ramps at Del Amo Blvd.

**Appendix G: City Staff Survey Sample**

December 5, 2006

To: South Bay Cities City Managers, city planners, and city engineers

RE: South Bay Goods Movement Survey – 2006

The South Bay Cities Council of Governments (SBCCOG) is sponsoring a goods movement study for the South Bay Cities, and requests your assistance in completing this survey—an update of the 1999 South Bay Cities Trucking Study survey.

Your city participated in the prior survey effort and provided the SBCCOG with a filled out survey. At this time, we want to revisit and update the responses, since there has been growth in goods movement, port activity, LAX usage, and general industrial/distribution activities in the South Bay. A shortened version of the survey (questions pertaining to community impacts) is also being sent to your city council members so that their perceptions and concerns can be included.

Please circulate this survey to the appropriate persons in your jurisdiction. This file can be edited directly and returned by e-mail or printed out, edited, and returned by mail or fax.

Call *Sean Daly* (562-432-8484 x27) at *Meyer, Mohaddes Associates* (the project consultant) or *Kim Fuentes* (626-357-4445) at *SBCCOG* with any questions regarding the update of the survey or the study effort. *Your assistance with this survey will help SBCCOG develop plans to address goods movement issues and allow South Bay Cities to better compete for goods movement funding.*

**Please return these materials by January 19, 2007.**

*Post:* South Bay Goods Movement Study  
Meyer, Mohaddes Associates/Iteris  
400 Oceangate, Suite 480  
Long Beach, CA 90802-4307

*Fax:* (562) 432-8485

*E-mail:* sdaly@iteris.com

Sincerely,



SOUTH BAY TRUCKING / GOODS MOVEMENT  
STUDY QUESTIONNAIRE

**Bolded** items were filled out by city representatives for the 1999 survey; questions indicated in *italics* are new/revised questions.

JURISDICTION: **Los Angeles**

Names, titles and phone numbers of all persons who helped complete the 1999 Survey:

Name Title Phone

- 1) What types of trucking-related facilities are present in your jurisdiction? Do they create problems and if so, what kind?

**TRUCK TRAFFIC GENERATORS**

Facility Type	Present in your jurisdiction? (Yes/No)	Creates Problems? (Yes/No)	Describe Nature of Problem	<i>Address or Location of Facility</i>
Truck Terminals				
Truck Sales/Repair				
Warehousing/Distribution				
Light Manufacturing				
Heavy Manufacturing				
Food Processing				
Agriculture				
Sand & Gravel				
Parcel Carriers (e.g., Fedex, UPS)				
Postal Service Centers				
Mail Order Businesses				
Moving and Storage				
Rail Intermodal or Piggyback Terminals				

Facility Type	Present in your jurisdiction? (Yes/No)	Creates Problems? (Yes/No)	Describe Nature of Problem	Address or Location of Facility
Recycling or Scrap Operations				
Garbage Dumps or Transfers				
Utility Service Yard				
Corporation or Highway Maintenance Yards				
Major Active Construction Sites				
Nurseries				
Grain/Feed Storage/Sales				
Retail/Big Box Stores				
Other:				
Other:				

2) Rank trucking-related impacts in your jurisdiction  
 (1 = no problem, 3 = moderate problem, 5 = severe problem)

Truck-Related Impact	Severity Rank (1 = no problem, 3 = moderate problem, 5 = severe problem)	
	1999 Rank	2006 Rank
Congestion Due to Trucks		
Neighborhood Intrusion of Trucks		
Truck Parking		
Truck Traffic Safety		
Street Deterioration Due to Trucks		
Hazardous Materials		
Truck Noise		
Truck Air Pollution		
Other:		

- 2.a) Is your city experiencing problems on arterial streets due to truck movements?  
If so, please define the problems and/or attach a map.
- 2.b) Are there intersections experiencing problems related to excessive truck traffic or truck movements?  
If yes, please define the problems:
- 2.c) Are there other trucking-related problems in your jurisdiction? (e.g. cut-through truck traffic in residential areas, on-street loading problems, off-street access, etc.  
If so, please describe:
- 3) Does your jurisdiction have a designated truck route system?  
If yes, please attach a map of system.
- 4) Does your jurisdiction have truck-related ordinances and/or other regulations?  
If yes, please attach a copy.
- 5) Are trucks prohibited on specific streets?  
If yes, please list streets and/or attach map. Define restrictions - by hour, tonnage, # axles, etc.
- 6) Truck traffic counts will be taken for this study. Please recommend streets and specific locations in your jurisdiction which would be appropriate for truck counts. Please list locations and/or attach map.
- 7) Are there at-grade freight rail crossings which create significant motorist delay?  
If yes, please list the problem locations and/or attach map.
- 8) Do any freight rail lines cause significant noise or air quality problems?  
If yes, please note where the problems occur and/or attach map.
- 9) Are there any specific goods movement-related issues you would like studied as part of this project? Please list.
- 10) Are there any residential or business groups in your city who have been actively addressing problems relating to truck or goods movement issues?
- 11) If you would like us to contact any of these people/groups who might provide additional information regarding truck movements or issues, please list those contacts.
- 12) Has your jurisdiction noticed a difference in trucking patterns due to the implementation of the Pier PASS off-peak hours program at the Port of Los Angeles and Port of Long Beach?
- 13) Please attach copies of any other related data you have that will help identify problems and issues in your jurisdiction (e.g., traffic studies, truck traffic counts, General Plan elements.)

**Appendix H: Focus Group Summary****MEMORANDUM**

**TO:** Jacki Bacharach  
**FROM:** Sean Daly  
**CC:** Gary Hamrick, Meyer, Mohaddes Associates  
**DATE:** April 30, 2007  
**SUBJECT:** Issues covered in the South Bay Goods Movement Focus Group  
**J/P NUMBER:** J06-9002

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A Focus Group for the South Bay Goods Movement Study was convened on April 17, 2007 with the following attendees:

- o Roland Talton, Inglewood/Airport Area Chamber of Commerce
- o Jennifer Johnson, Watson Land Company
- o Patty Senecal, Transport Express, International Warehouse Logistics Association
- o Sean Daly, Iteris, Inc.

The issues covered in the focus group were as follows:

**Inglewood Issues**

A concern of the Inglewood/Airport Area Chamber of Commerce is the general condition and maintenance of streets that serve the most truck traffic in the City of Inglewood: Century Blvd. and Imperial Highway, followed by Manchester Blvd. and Florence Ave. Many of these truck trips travel between LAX and warehouses in Inglewood. Roadway repairs are slow, if they come at all. The State is in agreement with the City of Inglewood to maintain Century Blvd. but the repairs to this street do not necessarily occur faster than to other streets in the City.

**General Geometric Issues**

Left-turn lane timings are too short; signals should be timed to allow time for long vehicles to turn and prevent autos from following the left-turning trucks after the light has changed out of frustration. Adjustments can be different according to the time of day and length of vehicle in the turn lane. In general, road sensors should be configured to accommodate large vehicles.

**Dynamics of South Bay Goods Movement**

South Bay has two sets of freight users, those serving the airport and seaport, and they have different needs.

**Warehousing Trends**

Large-scale, mega-industrial warehouse development is going on in Ontario/Chino. Both construction and land are cheaper, but employee access and distance from ports is a major issue. It continues to be very desirable to be near the ports for warehousing and distribution. As on-site LAX warehousing is built-out, many are moving south of the airport, off-site to Inglewood, Hawthorne, Torrance, and Carson.



**Rail Trends**

Rail spurs to industrial areas not used for South Bay goods, only bulk users. The major freight trends favor a movement to intermodal.

**Areas of Congestion**

The group talked about general congestion issues while pointing out the following areas in specific:

- I-405 between Avalon and Del Amo Blvd. (both congestion and access issues)
- Northbound off ramps at Wilmington (programmed)

J. Johnson said that Watson Land Company was hearing complaints by residents that trucks were using Central Avenue in Carson, but Watson could not determine the cause—it was not one of their tenants.

**Truck Parking**

Truck parking a big issue in South Bay, no public truck parking facility to turn engine off.

**Coordination with Other Subregions**

Coordinate with Gateway Cities ITS efforts for goods movement.

**Truck Fees for Infrastructure Improvements**

Some truckers are in favor of fees for truck exclusive facilities if they are part of an interconnected system: not just moving the bottleneck to another location.

**Truck Signage and Wayfinding**

Better signage and lighting is needed, especially around ports. Many truckers complain about finding addresses.

**Follow-up**

Ms. Johnson from the Watson Land Group is willing to set up a meeting with two or three of their tenants in the near future. In addition, Lupe Valdez, the Director of Public Policy and Community Affairs for the Union Pacific is interested in future discussions.

**Appendix I: Truck Traffic Counts**

As part of this study, traffic counts of autos and trucks were taken at fifteen locations in the South Bay on Thursday, April 12 for the midday and PM peak periods. The truck count locations were based on outreach to the South Bay Cities through surveys and meetings. City staff requested specific locations to be counted.

As the data shows, within the South Bay the midday peak period has more truck activity, both in absolute terms and as a percentage of total traffic, than the PM peak period. However, this is not true for all locations counted. Alameda Street in Carson and El Segundo Boulevard in Hawthorne had higher truck volumes in the PM peak hour, indicated that truck patterns vary depending on location, most likely due to varied operating practices of different industry segments.

City	Location	Midday Peak 1PM - 3PM			PM Peak 4PM - 6PM		
		Truck	Total Vehicles	Percent	Truck	Total Vehicles	Percent
Carson	Alameda Street n/o Carson Street	623	1,905	32.7%	774	3,457	22.4%
Carson	Wilmington n/o Carson Street	550	2,717	20.2%	385	3,620	10.6%
Carson	Figueroa n/o 223rd Street	125	2,432	5.1%	83	2,846	2.9%
Carson	Avalon s/o University Drive	148	3,971	3.7%	96	5,589	1.7%
El Segundo	El Segundo Boulevard w/o Aviation	147	2,911	5.0%	89	3,917	2.3%
El Segundo	Sepulveda s/o Imperial Highway	347	8,436	4.1%	177	11,290	1.6%
Gardena	Rosecrans w/o Normandie	339	4,649	7.3%	232	5,903	3.9%
Gardena	Artesia Boulevard w/o Normandie	310	5,455	5.7%	213	7,249	2.9%
Hawthorne	El Segundo Blvd w/o Crenshaw Blvd	281	3,691	7.6%	416	5,121	8.1%
Los Angeles County	Sepulveda Boulevard w/o Vermont Ave.	230	5,806	4.0%	103	6,773	1.5%
Manhattan Beach	Sepulveda n/o Manhattan Beach Blvd.	137	6,735	2.0%	63	8,294	0.8%
Redondo Beach	Artesia Boulevard w/o Inglewood Avenue	145	4,477	3.2%	123	4,936	2.5%
Redondo Beach	Inglewood Ave. n/o Manhattan Beach Blvd.	180	6,595	2.7%	105	7,392	1.4%
Torrance	190th e/o Crenshaw Boulevard	173	4,377	4.0%	113	5,830	1.9%
Torrance	Torrance Boulevard w/o Hawthorne Blvd.	121	5,892	2.1%	63	6,164	1.0%
Average		257	4,670	5.5%	202	5,892	3.4%

# WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969 E-mail: info@wiltecusa.com

## MID-BLOCK AXLE CLASSIFICATION COUNT SUMMARY

CLIENT: MEYER, MOHADDRESS ASSOCIATES  
 PROJECT: SOUTH BAY GOODS MOVEMENT TRUCK COUNT - 2007  
 LOCATION: SEPULVEDA SOUTH OF IMPERIAL HIGHWAY  
 CITY: EL SEGUNDO  
 DATE: THURSDAY APRIL 12, 2007  
 PERIODS: 1:00 PM -3:00 PM AND 4:00 PM - 6:00 PM

Truck	Total	Percentage	
100-200	205	4021	5.1%
200-300	142	4415	3.2%
400-500	89	5214	1.7%
500-600	88	6076	1.4%

MD COUNT RESULTS													
PERIOD	NORTHBOUND				SOUTHBOUND				BOTH DIRECTIONS TOTALS				
15 MIN COUNTS	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	
100-115	397	23	9	429	399	32	9	440	796	55	18	869	
115-130	454	14	2	470	412	24	2	438	866	38	4	908	
130-145	626	19	3	648	443	8	5	456	1069	27	8	1104	
145-200	566	17	4	587	519	16	18	553	1085	33	22	1140	
200-215	552	17	3	572	406	9	7	422	958	26	10	994	
215-230	696	25	2	723	401	12	8	421	1097	37	10	1144	
230-245	600	10	2	612	503	10	6	519	1103	20	8	1131	
245-300	600	12	3	615	515	13	3	531	1115	25	6	1146	
HOUR TOTALS													
100-200	2043	73	18	2134	1773	80	34	1887	3816	153	52	4021	
115-215	2198	67	12	2277	1780	57	32	1869	3978	124	44	4146	
130-230	2440	78	12	2530	1769	45	38	1852	4209	123	50	4382	
145-245	2414	69	11	2494	1829	47	39	1915	4243	116	50	4409	
200-300	2448	64	10	2522	1825	44	24	1893	4273	108	34	4415	

PM COUNT RESULTS													
PERIOD	NORTHBOUND				SOUTHBOUND				BOTH DIRECTIONS TOTALS				
15 MIN COUNTS	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	
400-415	600	21	2	623	535	4	1	540	1135	25	3	1163	
415-430	644	0	2	646	553	10	6	569	1197	10	8	1215	
430-445	706	6	4	716	691	6	5	702	1397	12	9	1418	
445-500	723	14	2	739	673	3	3	679	1396	17	5	1418	
500-515	872	13	1	886	713	8	3	724	1585	21	4	1610	
515-530	826	0	2	828	662	7	4	673	1488	7	6	1501	
530-545	728	29	0	757	727	6	3	736	1455	35	3	1493	
545-600	791	6	1	798	669	4	1	674	1460	10	2	1472	
HOUR TOTALS													
400-500	2673	41	10	2724	2452	23	15	2490	5125	64	25	5214	
415-515	2945	33	9	2987	2630	27	17	2674	5575	60	26	5661	
430-530	3127	33	9	3169	2739	24	15	2778	5866	57	24	5947	
445-545	3149	56	5	3210	2775	24	13	2812	5924	80	18	6022	
500-600	3217	48	4	3269	2771	25	11	2807	5988	73	15	6076	

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## MID-BLOCK AXLE CLASSIFICATION COUNT SUMMARY

CLIENT: MEYER, MOHADDRESS ASSOCIATES  
 PROJECT: SOUTH BAY GOODS MOVEMENT TRUCK COUNT - 2007  
 LOCATION: EL SEGUNDO BOULEVARD WEST OF AVIATION  
 CITY: EL SEGUNDO  
 DATE: THURSDAY APRIL 12, 2007  
 PERIODS: 1:00 PM -3:00 PM AND 4:00 PM - 6:00 PM

Truck	Total	Percentage	
100-200	67	1415	4.7%
200-300	80	1496	5.3%
400-500	45	1814	2.5%
500-600	44	2103	2.1%

MD COUNT RESULTS														
PERIOD	WESTBOUND				EASTBOUND				BOTH DIRECTIONS TOTALS					
	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL		
15 MIN COUNTS														
100-115	102	4	4	110	110	4	2	116	212	8	6	226		
115-130	138	1	0	139	193	0	0	193	331	1	0	332		
130-145	177	6	1	184	241	9	2	252	418	15	3	436		
145-200	183	8	7	198	204	9	10	223	387	17	17	421		
200-215	156	5	2	163	203	6	2	211	359	11	4	374		
215-230	165	6	2	173	191	8	6	205	356	14	8	378		
230-245	193	5	2	200	191	12	3	206	384	17	5	406		
245-300	169	8	2	179	148	9	2	159	317	17	4	338		
HOUR TOTALS														
100-200	600	19	12	631	748	22	14	784	1348	41	26	1415		
115-215	654	20	10	684	841	24	14	879	1495	44	24	1563		
130-230	681	25	12	718	839	32	20	891	1520	57	32	1609		
145-245	697	24	13	734	789	35	21	845	1486	59	34	1579		
200-300	683	24	8	715	733	35	13	781	1416	59	21	1496		

PM COUNT RESULTS														
PERIOD	WESTBOUND				EASTBOUND				BOTH DIRECTIONS TOTALS					
	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL		
15 MIN COUNTS														
400-415	218	4	2	224	206	2	4	212	424	6	6	436		
415-430	227	4	2	233	185	6	2	193	412	10	4	426		
430-445	239	3	1	243	219	0	3	222	458	3	4	465		
445-500	264	3	5	272	211	4	0	215	475	7	5	487		
500-515	297	7	1	305	265	3	0	268	562	10	1	573		
515-530	322	8	1	331	239	2	2	243	561	10	3	574		
530-545	283	2	3	288	204	1	1	206	487	3	4	494		
545-600	276	5	3	284	173	4	1	178	449	9	4	462		
HOUR TOTALS														
400-500	948	14	10	972	821	12	9	842	1769	26	19	1814		
415-515	1027	17	9	1053	880	13	5	898	1907	30	14	1951		
430-530	1122	21	8	1151	934	9	5	948	2056	30	13	2099		
445-545	1166	20	10	1196	919	10	3	932	2085	30	13	2128		
500-600	1178	22	8	1208	881	10	4	895	2059	32	12	2103		

# WILTEC

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## MID-BLOCK AXLE CLASSIFICATION COUNT SUMMARY

CLIENT: MEYER, MOHADDRESS ASSOCIATES  
 PROJECT: SOUTH BAY GOODS MOVEMENT TRUCK COUNT - 2007  
 LOCATION: SEPULVEDA NORTH OF MANHATTAN BEACH BOULEVARD  
 CITY: MANHATTAN BEACH  
 DATE: THURSDAY APRIL 12, 2007  
 PERIODS: 1:00 PM -3:00 PM AND 4:00 PM - 6:00 PM

Truck	Total	Percentage	
100-200	76	3533	2.2%
200-300	61	3202	1.9%
400-500	25	3978	0.6%
500-600	38	4316	0.9%

MD COUNT RESULTS													
PERIOD	NORTHBOUND				SOUTHBOUND				BOTH DIRECTIONS TOTALS				
	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	
15 MIN COUNTS													
100-115	489	13	0	502	379	7	2	388	868	20	2	890	
115-130	493	5	0	498	484	13	0	497	977	18	0	995	
130-145	453	6	0	459	394	7	0	401	847	13	0	860	
145-200	399	18	0	417	366	5	0	371	765	23	0	788	
200-215	454	4	1	459	386	5	2	393	840	9	3	852	
215-230	395	8	0	403	336	7	1	344	731	15	1	747	
230-245	398	6	1	405	420	8	1	429	818	14	2	834	
245-300	334	5	0	339	418	12	0	430	752	17	0	769	
HOURLY TOTALS													
100-200	1834	42	0	1876	1623	32	2	1657	3457	74	2	3533	
115-215	1799	33	1	1833	1630	30	2	1662	3429	63	3	3495	
130-230	1701	36	1	1738	1482	24	3	1509	3183	60	4	3247	
145-245	1646	36	2	1684	1508	25	4	1537	3154	61	6	3221	
200-300	1581	23	2	1606	1560	32	4	1596	3141	55	6	3202	

PM COUNT RESULTS													
PERIOD	NORTHBOUND				SOUTHBOUND				BOTH DIRECTIONS TOTALS				
	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	
15 MIN COUNTS													
400-415	366	0	0	366	560	3	2	565	926	3	2	931	
415-430	390	2	0	392	664	3	1	668	1054	5	1	1060	
430-445	379	1	1	381	670	6	0	676	1049	7	1	1057	
445-500	326	3	0	329	598	2	1	601	924	5	1	930	
500-515	384	2	0	386	710	5	4	719	1094	7	4	1105	
515-530	360	2	0	362	621	3	0	624	981	5	0	986	
530-545	362	1	0	363	757	14	1	772	1119	15	1	1135	
545-600	368	1	0	369	716	5	0	721	1084	6	0	1090	
HOURLY TOTALS													
400-500	1461	6	1	1468	2492	14	4	2510	3953	20	5	3978	
415-515	1479	8	1	1488	2642	16	6	2664	4121	24	7	4152	
430-530	1449	8	1	1458	2599	16	5	2620	4048	24	6	4078	
445-545	1432	8	0	1440	2686	24	6	2716	4118	32	6	4156	
500-600	1474	6	0	1480	2804	27	5	2836	4278	33	5	4316	

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## MID-BLOCK AXLE CLASSIFICATION COUNT SUMMARY

CLIENT:	MEYER, MOHADDRESS ASSOCIATES	Truck	Total	Percentage
PROJECT:	SOUTH BAY GOODS MOVEMENT TRUCK COUNT - 2007	100-200	105 3469	3.0%
LOCATION:	INGLEWOOD AVENUE NORTH OF MANHATTAN BEACH BOULEVARD	200-300	75 3126	2.4%
CITY:	REDONDO BEACH	400-500	71 3609	2.0%
DATE:	THURSDAY APRIL 12, 2007	500-600	34 3783	0.9%
PERIODS:	1:00 PM -3:00 PM AND 4:00 PM - 6:00 PM			

MD COUNT RESULTS													
PERIOD	NORTHBOUND				SOUTHBOUND				BOTH DIRECTIONS TOTALS				
	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	
15 MIN COUNTS													
100-115	359	2	3	364	464	12	2	478	823	14	5	842	
115-130	417	14	2	433	438	15	2	455	855	29	4	888	
130-145	360	14	1	375	429	11	1	441	789	25	2	816	
145-200	398	5	2	405	499	15	4	518	897	20	6	923	
200-215	373	8	1	382	374	23	2	399	747	31	3	781	
215-230	380	10	1	391	435	6	1	442	815	16	2	833	
230-245	325	3	3	331	472	5	1	478	797	8	4	809	
245-300	317	1	3	321	375	7	0	382	692	8	3	703	
HOURLY TOTALS													
100-200	1534	35	8	1577	1830	53	9	1892	3364	88	17	3469	
115-215	1548	41	6	1595	1740	64	9	1813	3288	105	15	3408	
130-230	1511	37	5	1553	1737	55	8	1800	3248	92	13	3353	
145-245	1476	26	7	1509	1780	49	8	1837	3256	75	15	3346	
200-300	1395	22	8	1425	1656	41	4	1701	3051	63	12	3126	

PM COUNT RESULTS													
PERIOD	NORTHBOUND				SOUTHBOUND				BOTH DIRECTIONS TOTALS				
	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	
15 MIN COUNTS													
400-415	386	8	0	394	512	11	2	525	898	19	2	919	
415-430	382	8	0	390	498	10	1	509	880	18	1	899	
430-445	424	2	0	426	445	15	1	461	869	17	1	887	
445-500	377	2	0	379	514	9	2	525	891	11	2	904	
500-515	408	0	0	408	596	5	1	602	1004	5	1	1010	
515-530	403	1	1	405	555	3	1	559	958	4	2	964	
530-545	367	1	4	372	475	4	2	481	842	5	6	853	
545-600	382	1	0	383	563	8	2	573	945	9	2	956	
HOURLY TOTALS													
400-500	1569	20	0	1589	1969	45	6	2020	3538	65	6	3609	
415-515	1591	12	0	1603	2053	39	5	2097	3644	51	5	3700	
430-530	1612	5	1	1618	2110	32	5	2147	3722	37	6	3765	
445-545	1555	4	5	1564	2140	21	6	2167	3695	25	11	3731	
500-600	1560	3	5	1568	2189	20	6	2215	3749	23	11	3783	

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## MID-BLOCK AXLE CLASSIFICATION COUNT SUMMARY

CLIENT: MEYER, MOHADDRESS ASSOCIATES  
 PROJECT: SOUTH BAY GOODS MOVEMENT TRUCK COUNT - 2007  
 LOCATION: ARTESIA BOULEVARD WEST OF INGLEWOOD AVENUE  
 CITY: REDONDO BEACH  
 DATE: THURSDAY APRIL 12, 2007  
 PERIODS: 1:00 PM -3:00 PM AND 4:00 PM - 6:00 PM

Truck	Total	Percentage
100-200	95	2116 4.5%
200-300	50	2361 2.1%
400-500	79	2465 3.2%
500-600	44	2471 1.8%

MD COUNT RESULTS													
PERIOD	WESTBOUND				EASTBOUND				BOTH DIRECTIONS TOTALS				
	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	
15 MIN COUNTS													
100-115	283	4	2	289	220	19	5	244	503	23	7	533	
115-130	253	7	0	260	240	11	1	252	493	18	1	512	
130-145	289	9	0	298	243	13	0	256	532	22	0	554	
145-200	267	6	1	274	226	14	3	243	493	20	4	517	
200-215	261	3	0	264	355	8	0	363	616	11	0	627	
215-230	259	3	0	262	302	9	0	311	561	12	0	573	
230-245	298	5	0	303	280	5	0	285	578	10	0	588	
245-300	287	7	0	294	269	9	1	279	556	16	1	573	
HOURLY TOTALS													
100-200	1092	26	3	1121	929	57	9	995	2021	83	12	2116	
115-215	1070	25	1	1096	1064	46	4	1114	2134	71	5	2210	
130-230	1076	21	1	1098	1126	44	3	1173	2202	65	4	2271	
145-245	1085	17	1	1103	1163	36	3	1202	2248	53	4	2305	
200-300	1105	18	0	1123	1206	31	1	1238	2311	49	1	2361	

PM COUNT RESULTS													
PERIOD	WESTBOUND				EASTBOUND				BOTH DIRECTIONS TOTALS				
	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	
15 MIN COUNTS													
400-415	269	7	1	277	329	18	1	348	598	25	2	625	
415-430	288	4	0	292	264	16	0	280	552	20	0	572	
430-445	306	9	0	315	296	7	0	303	602	16	0	618	
445-500	325	2	2	329	309	11	1	321	634	13	3	650	
500-515	360	3	0	363	310	13	0	323	670	16	0	686	
515-530	319	2	0	321	279	3	0	282	598	5	0	603	
530-545	312	0	0	312	294	11	1	306	606	11	1	618	
545-600	319	3	1	323	234	6	1	241	553	9	2	564	
HOURLY TOTALS													
400-500	1188	22	3	1213	1198	52	2	1252	2386	74	5	2465	
415-515	1279	18	2	1299	1179	47	1	1227	2458	65	3	2526	
430-530	1310	16	2	1328	1194	34	1	1229	2504	50	3	2557	
445-545	1316	7	2	1325	1192	38	2	1232	2508	45	4	2557	
500-600	1310	8	1	1319	1117	33	2	1152	2427	41	3	2471	

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## MID-BLOCK AXLE CLASSIFICATION COUNT SUMMARY

CLIENT: MEYER, MOHADDRESS ASSOCIATES  
 PROJECT: SOUTH BAY GOODS MOVEMENT TRUCK COUNT - 2007  
 LOCATION: EL SEGUNDO BLVD WEST OF CRENSHAW BLVD  
 CITY: HAWTHORNE  
 DATE: THURSDAY APRIL 12, 2007  
 PERIODS: 1:00 PM -3:00 PM AND 4:00 PM - 6:00 PM

Truck	Total	Percentage	
100-200	150	1865	8.0%
200-300	131	1826	7.2%
400-500	209	2538	8.2%
500-600	207	2583	8.0%

MD COUNT RESULTS													
PERIOD	WESTBOUND				EASTBOUND				BOTH DIRECTIONS TOTALS				
	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	
15 MIN COUNTS													
100-115	254	8	5	267	172	38	11	221	426	46	16	488	
115-130	221	9	6	236	241	17	3	261	462	26	9	497	
130-145	187	9	1	197	214	6	4	224	401	15	5	421	
145-200	181	13	5	199	245	8	7	260	426	21	12	459	
200-215	233	17	4	254	209	5	6	220	442	22	10	474	
215-230	179	9	4	192	210	12	6	228	389	21	10	420	
230-245	221	15	7	243	245	7	9	261	466	22	16	504	
245-300	185	9	5	199	213	13	3	229	398	22	8	428	
HOURLY TOTALS													
100-200	843	39	17	899	872	69	25	966	1715	108	42	1865	
115-215	822	48	16	886	909	36	20	965	1731	84	36	1851	
130-230	780	48	14	842	878	31	23	932	1658	79	37	1774	
145-245	814	54	20	888	909	32	28	969	1723	86	48	1857	
200-300	818	50	20	888	877	37	24	938	1695	87	44	1826	

PM COUNT RESULTS													
PERIOD	WESTBOUND				EASTBOUND				BOTH DIRECTIONS TOTALS				
	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	
15 MIN COUNTS													
400-415	219	21	8	248	294	9	5	308	513	30	13	556	
415-430	186	23	7	216	328	12	2	342	514	35	9	558	
430-445	267	31	9	307	414	12	7	433	681	43	16	740	
445-500	264	42	16	322	357	4	1	362	621	46	17	684	
500-515	208	27	6	241	405	11	5	421	613	38	11	662	
515-530	277	32	6	315	348	8	3	359	625	40	9	674	
530-545	199	38	8	245	431	7	5	443	630	45	13	688	
545-600	186	28	7	221	322	15	1	338	508	43	8	559	
HOURLY TOTALS													
400-500	936	117	40	1093	1393	37	15	1445	2329	154	55	2538	
415-515	925	123	38	1086	1504	39	15	1558	2429	162	53	2644	
430-530	1016	132	37	1185	1524	35	16	1575	2540	167	53	2760	
445-545	948	139	36	1123	1541	30	14	1585	2489	169	50	2708	
500-600	870	125	27	1022	1506	41	14	1561	2376	166	41	2583	



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## MID-BLOCK AXLE CLASSIFICATION COUNT SUMMARY

CLIENT: MEYER, MOHADDRESS ASSOCIATES  
 PROJECT: SOUTH BAY GOODS MOVEMENT TRUCK COUNT - 2007  
 LOCATION: ROSECRANS WEST NORMANDIE  
 CITY: GARDENA  
 DATE: THURSDAY APRIL 12, 2007  
 PERIODS: 1:00 PM -3:00 PM AND 4:00 PM - 6:00 PM

Truck	Total	Percentage	
100-200	160	2147	7.5%
200-300	179	2502	7.2%
400-500	127	2684	4.7%
500-600	105	3219	3.3%

MD COUNT RESULTS													
PERIOD	WESTBOUND				EASTBOUND				BOTH DIRECTIONS TOTALS				
	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	
15 MIN COUNTS													
100-115	222	10	7	239	222	14	9	245	444	24	16	484	
115-130	212	10	14	236	214	11	5	230	426	21	19	466	
130-145	248	9	9	266	265	13	9	287	513	22	18	553	
145-200	313	17	7	337	291	10	6	307	604	27	13	644	
200-215	273	7	14	294	317	16	10	343	590	23	24	637	
215-230	239	12	13	264	257	15	5	277	496	27	18	541	
230-245	365	7	9	381	297	13	5	315	662	20	14	696	
245-300	299	9	20	328	276	19	5	300	575	28	25	628	
HOURLY TOTALS													
100-200	995	46	37	1078	992	48	29	1069	1987	94	66	2147	
115-215	1046	43	44	1133	1087	50	30	1167	2133	93	74	2300	
130-230	1073	45	43	1161	1130	54	30	1214	2203	99	73	2375	
145-245	1190	43	43	1276	1162	54	26	1242	2352	97	69	2518	
200-300	1176	35	56	1267	1147	63	25	1235	2323	98	81	2502	

PM COUNT RESULTS													
PERIOD	WESTBOUND				EASTBOUND				BOTH DIRECTIONS TOTALS				
	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	
15 MIN COUNTS													
400-415	318	4	10	332	310	10	5	325	628	14	15	657	
415-430	323	11	9	343	342	20	5	367	665	31	14	710	
430-445	354	6	9	369	305	13	7	325	659	19	16	694	
445-500	287	1	7	295	318	8	2	328	605	9	9	623	
500-515	376	8	13	397	410	4	2	416	786	12	15	813	
515-530	324	5	7	336	435	4	5	444	759	9	12	780	
530-545	404	12	16	432	465	9	2	476	869	21	18	908	
545-600	364	3	4	371	336	9	2	347	700	12	6	718	
HOURLY TOTALS													
400-500	1282	22	35	1339	1275	51	19	1345	2557	73	54	2684	
415-515	1340	26	38	1404	1375	45	16	1436	2715	71	54	2840	
430-530	1341	20	36	1397	1468	29	16	1513	2809	49	52	2910	
445-545	1391	26	43	1460	1628	25	11	1664	3019	51	54	3124	
500-600	1468	28	40	1536	1646	26	11	1683	3114	54	51	3219	

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## MID-BLOCK AXLE CLASSIFICATION COUNT SUMMARY

CLIENT: MEYER, MOHADDRESS ASSOCIATES  
 PROJECT: SOUTH BAY GOODS MOVEMENT TRUCK COUNT - 2007  
 LOCATION: ARTESIA BOULEVARD WEST OF NORMANDIE  
 CITY: GARDENA  
 DATE: THURSDAY APRIL 12, 2007  
 PERIODS: 1:00 PM -3:00 PM AND 4:00 PM - 6:00 PM

Truck	Total	Percentage	
100-200	164	2655	6.2%
200-300	146	2800	5.2%
400-500	115	3319	3.5%
500-600	98	3930	2.5%

MD COUNT RESULTS													
PERIOD	WESTBOUND				EASTBOUND				BOTH DIRECTIONS TOTALS				
	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	
15 MIN COUNTS													
100-115	254	10	2	266	320	22	5	347	574	32	7	613	
115-130	318	4	0	322	330	9	8	347	648	13	8	669	
130-145	260	14	2	276	301	36	6	343	561	50	8	619	
145-200	370	9	1	380	338	27	9	374	708	36	10	754	
200-215	338	8	3	349	333	24	6	363	671	32	9	712	
215-230	290	4	1	295	318	22	5	345	608	26	6	640	
230-245	311	4	2	317	358	15	5	378	669	19	7	695	
245-300	355	8	2	365	351	29	8	388	706	37	10	753	
HOURLY TOTALS													
100-200	1202	37	5	1244	1289	94	28	1411	2491	131	33	2655	
115-215	1286	35	6	1327	1302	96	29	1427	2588	131	35	2754	
130-230	1258	35	7	1300	1290	109	26	1425	2548	144	33	2725	
145-245	1309	25	7	1341	1347	88	25	1460	2656	113	32	2801	
200-300	1294	24	8	1326	1360	90	24	1474	2654	114	32	2800	

PM COUNT RESULTS													
PERIOD	WESTBOUND				EASTBOUND				BOTH DIRECTIONS TOTALS				
	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	
15 MIN COUNTS													
400-415	360	6	4	370	385	18	6	409	745	24	10	779	
415-430	430	8	1	439	349	13	8	370	779	21	9	809	
430-445	351	6	1	358	423	11	4	438	774	17	5	796	
445-500	404	7	1	412	502	13	8	523	906	20	9	935	
500-515	449	3	1	453	516	12	9	537	965	15	10	990	
515-530	445	5	2	452	536	11	3	550	981	16	5	1002	
530-545	485	13	1	499	530	9	4	543	1015	22	5	1042	
545-600	436	8	3	447	435	10	4	449	871	18	7	896	
HOURLY TOTALS													
400-500	1545	27	7	1579	1659	55	26	1740	3204	82	33	3319	
415-515	1634	24	4	1662	1790	49	29	1868	3424	73	33	3530	
430-530	1649	21	5	1675	1977	47	24	2048	3626	68	29	3723	
445-545	1783	28	5	1816	2084	45	24	2153	3867	73	29	3969	
500-600	1815	29	7	1851	2017	42	20	2079	3832	71	27	3930	

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## MID-BLOCK AXLE CLASSIFICATION COUNT SUMMARY

CLIENT: MEYER, MOHADDRESS ASSOCIATES  
 PROJECT: SOUTH BAY GOODS MOVEMENT TRUCK COUNT - 2007  
 LOCATION: 190TH EAST OF CRENSHAW BOULEVARD  
 CITY: TORRANCE  
 DATE: THURSDAY APRIL 12, 2007  
 PERIODS: 1:00 PM -3:00 PM AND 4:00 PM - 6:00 PM

Truck	Total	Percentage
100-200	81	2162 3.7%
200-300	92	2215 4.2%
400-500	60	2825 2.1%
500-600	53	3005 1.8%

MD COUNT RESULTS													
PERIOD	WESTBOUND				EASTBOUND				BOTH DIRECTIONS TOTALS				
	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	
15 MIN COUNTS													
100-115	225	4	6	235	329	10	3	342	554	14	9	577	
115-130	199	1	2	202	312	9	3	324	511	10	5	526	
130-145	236	4	7	247	270	10	2	282	506	14	9	529	
145-200	234	3	7	244	276	7	3	286	510	10	10	530	
200-215	220	6	10	236	271	5	7	283	491	11	17	519	
215-230	193	4	6	203	319	8	5	332	512	12	11	535	
230-245	268	6	4	278	311	8	7	326	579	14	11	604	
245-300	236	0	3	239	305	8	5	318	541	8	8	557	
HOURLY TOTALS													
100-200	894	12	22	928	1187	36	11	1234	2081	48	33	2162	
115-215	889	14	26	929	1129	31	15	1175	2018	45	41	2104	
130-230	883	17	30	930	1136	30	17	1183	2019	47	47	2113	
145-245	915	19	27	961	1177	28	22	1227	2092	47	49	2188	
200-300	917	16	23	956	1206	29	24	1259	2123	45	47	2215	

PM COUNT RESULTS													
PERIOD	WESTBOUND				EASTBOUND				BOTH DIRECTIONS TOTALS				
	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	
15 MIN COUNTS													
400-415	289	2	4	295	373	6	3	382	662	8	7	677	
415-430	320	3	0	323	420	4	4	428	740	7	4	751	
430-445	246	2	1	249	413	6	5	424	659	8	6	673	
445-500	315	6	7	328	389	4	3	396	704	10	10	724	
500-515	386	4	4	394	390	4	0	394	776	8	4	788	
515-530	411	5	4	420	342	3	2	347	753	8	6	767	
530-545	339	1	3	343	422	4	5	431	761	5	8	774	
545-600	329	2	3	334	333	3	6	342	662	5	9	676	
HOURLY TOTALS													
400-500	1170	13	12	1195	1595	20	15	1630	2765	33	27	2825	
415-515	1267	15	12	1294	1612	18	12	1642	2879	33	24	2936	
430-530	1358	17	16	1391	1534	17	10	1561	2892	34	26	2952	
445-545	1451	16	18	1485	1543	15	10	1568	2994	31	28	3053	
500-600	1465	12	14	1491	1487	14	13	1514	2952	26	27	3005	

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## MID-BLOCK AXLE CLASSIFICATION COUNT SUMMARY

CLIENT:	MEYER, MOHADDRESS ASSOCIATES	Truck	Total	Percentage
PROJECT:	SOUTH BAY GOODS MOVEMENT TRUCK COUNT - 2007	100-200	55 3131	1.8%
LOCATION:	TORRANCE BOULEVARD WEST OF HAWTHORNE BOULEVARD	200-300	66 2761	2.4%
CITY:	TORRANCE	400-500	40 2927	1.4%
DATE:	THURSDAY APRIL 12, 2007	500-600	23 3237	0.7%
PERIODS:	1:00 PM -3:00 PM AND 4:00 PM - 6:00 PM			

MD COUNT RESULTS													
PERIOD	WESTBOUND				EASTBOUND				BOTH DIRECTIONS TOTALS				
	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	
15 MIN COUNTS													
100-115	315	3	0	318	389	4	0	393	704	7	0	711	
115-130	370	5	0	375	403	12	0	415	773	17	0	790	
130-145	385	8	1	394	407	6	0	413	792	14	1	807	
145-200	375	7	0	382	432	7	2	441	807	14	2	823	
200-215	300	8	0	308	335	11	1	347	635	19	1	655	
215-230	337	7	0	344	348	6	1	355	685	13	1	699	
230-245	328	4	1	333	372	12	0	384	700	16	1	717	
245-300	320	5	0	325	355	10	0	365	675	15	0	690	
HOURLY TOTALS													
100-200	1445	23	1	1469	1631	29	2	1662	3076	52	3	3131	
115-215	1430	28	1	1459	1577	36	3	1616	3007	64	4	3075	
130-230	1397	30	1	1428	1522	30	4	1556	2919	60	5	2984	
145-245	1340	26	1	1367	1487	36	4	1527	2827	62	5	2894	
200-300	1285	24	1	1310	1410	39	2	1451	2695	63	3	2761	

PM COUNT RESULTS													
PERIOD	WESTBOUND				EASTBOUND				BOTH DIRECTIONS TOTALS				
	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	
15 MIN COUNTS													
400-415	348	1	1	350	308	10	0	318	656	11	1	668	
415-430	379	3	0	382	384	6	1	391	763	9	1	773	
430-445	368	5	0	373	373	4	0	377	741	9	0	750	
445-500	365	0	2	367	362	6	1	369	727	6	3	736	
500-515	435	4	0	439	411	6	0	417	846	10	0	856	
515-530	440	2	0	442	361	3	0	364	801	5	0	806	
530-545	223	1	0	224	381	2	0	383	604	3	0	607	
545-600	654	1	0	655	309	3	1	313	963	4	1	968	
HOURLY TOTALS													
400-500	1460	9	3	1472	1427	26	2	1455	2887	35	5	2927	
415-515	1547	12	2	1561	1530	22	2	1554	3077	34	4	3115	
430-530	1608	11	2	1621	1507	19	1	1527	3115	30	3	3148	
445-545	1463	7	2	1472	1515	17	1	1533	2978	24	3	3005	
500-600	1752	8	0	1760	1462	14	1	1477	3214	22	1	3237	

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## MID-BLOCK AXLE CLASSIFICATION COUNT SUMMARY

CLIENT: MEYER, MOHADDRESS ASSOCIATES  
 PROJECT: SOUTH BAY GOODS MOVEMENT TRUCK COUNT - 2007  
 LOCATION: SEPULVEDA BOULEVARD WEST OF VERMONT AVENUE  
 CITY: WEST CARSON  
 DATE: THURSDAY APRIL 12, 2007  
 PERIODS: 1:00 PM -3:00 PM AND 4:00 PM - 6:00 PM

Truck	Total	Percentage
100-200	131	3076 4.3%
200-300	99	2730 3.6%
400-500	66	3322 2.0%
500-600	37	3451 1.1%

MD COUNT RESULTS													
PERIOD	WESTBOUND				EASTBOUND				BOTH DIRECTIONS TOTALS				
	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	
15 MIN COUNTS													
100-115	342	13	1	356	346	10	7	363	688	23	8	719	
115-130	365	1	0	366	303	1	3	307	668	2	3	673	
130-145	420	12	5	437	384	6	9	399	804	18	14	836	
145-200	421	22	1	444	364	33	7	404	785	55	8	848	
200-215	352	12	3	367	290	6	6	302	642	18	9	669	
215-230	307	5	3	315	363	9	3	375	670	14	6	690	
230-245	352	10	3	365	390	15	9	414	742	25	12	779	
245-300	274	5	1	280	303	6	3	312	577	11	4	592	
HOURLY TOTALS													
100-200	1548	48	7	1603	1397	50	26	1473	2945	98	33	3076	
115-215	1558	47	9	1614	1341	46	25	1412	2899	93	34	3026	
130-230	1500	51	12	1563	1401	54	25	1480	2901	105	37	3043	
145-245	1432	49	10	1491	1407	63	25	1495	2839	112	35	2986	
200-300	1285	32	10	1327	1346	36	21	1403	2631	68	31	2730	

PM COUNT RESULTS													
PERIOD	WESTBOUND				EASTBOUND				BOTH DIRECTIONS TOTALS				
	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	
15 MIN COUNTS													
400-415	397	8	3	408	436	8	3	447	833	16	6	855	
415-430	348	7	0	355	420	5	5	430	768	12	5	785	
430-445	395	8	2	405	476	3	5	484	871	11	7	889	
445-500	373	2	0	375	411	2	5	418	784	4	5	793	
500-515	430	3	1	434	498	5	2	505	928	8	3	939	
515-530	464	2	2	468	440	0	4	444	904	2	6	912	
530-545	380	2	1	383	451	2	3	456	831	4	4	839	
545-600	367	5	1	373	384	4	0	388	751	9	1	761	
HOURLY TOTALS													
400-500	1513	25	5	1543	1743	18	18	1779	3256	43	23	3322	
415-515	1546	20	3	1569	1805	15	17	1837	3351	35	20	3406	
430-530	1662	15	5	1682	1825	10	16	1851	3487	25	21	3533	
445-545	1647	9	4	1660	1800	9	14	1823	3447	18	18	3483	
500-600	1641	12	5	1658	1773	11	9	1793	3414	23	14	3451	

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## MID-BLOCK AXLE CLASSIFICATION COUNT SUMMARY

CLIENT: MEYER, MOHADDRESS ASSOCIATES  
 PROJECT: SOUTH BAY GOODS MOVEMENT TRUCK COUNT - 2007  
 LOCATION: FIGUEROA NORTH OF 223RD STREET  
 CITY: CARSON  
 DATE: THURSDAY APRIL 12, 2007  
 PERIODS: 1:00 PM -3:00 PM AND 4:00 PM - 6:00 PM

Truck	Total	Percentage	
100-200	59	976	6.0%
200-300	66	1456	4.5%
400-500	52	1324	3.9%
500-600	31	1522	2.0%

MD COUNT RESULTS													
PERIOD	NORTHBOUND				SOUTHBOUND				BOTH DIRECTIONS TOTALS				
	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	
15 MIN COUNTS													
100-115	132	2	1	135	78	3	0	81	210	5	1	216	
115-130	132	5	1	138	89	4	0	93	221	9	1	231	
130-145	165	10	3	178	70	10	2	82	235	20	5	260	
145-200	149	8	2	159	102	8	0	110	251	16	2	269	
200-215	193	4	2	199	133	1	1	135	326	5	3	334	
215-230	227	9	1	237	108	13	1	122	335	22	2	359	
230-245	217	3	4	224	144	4	0	148	361	7	4	372	
245-300	193	11	3	207	175	8	1	184	368	19	4	391	
HOURLY TOTALS													
100-200	578	25	7	610	339	25	2	366	917	50	9	976	
115-215	639	27	8	674	394	23	3	420	1033	50	11	1094	
130-230	734	31	8	773	413	32	4	449	1147	63	12	1222	
145-245	786	24	9	819	487	26	2	515	1273	50	11	1334	
200-300	830	27	10	867	560	26	3	589	1390	53	13	1456	

PM COUNT RESULTS													
PERIOD	NORTHBOUND				SOUTHBOUND				BOTH DIRECTIONS TOTALS				
	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	
15 MIN COUNTS													
400-415	173	8	3	184	112	2	1	115	285	10	4	299	
415-430	222	6	0	228	116	5	1	122	338	11	1	350	
430-445	189	9	0	198	143	4	0	147	332	13	0	345	
445-500	193	8	1	202	124	2	2	128	317	10	3	330	
500-515	236	2	1	239	158	3	1	162	394	5	2	401	
515-530	202	2	2	206	156	1	0	157	358	3	2	363	
530-545	220	7	0	227	152	1	0	153	372	8	0	380	
545-600	195	5	3	203	172	3	0	175	367	8	3	378	
HOURLY TOTALS													
400-500	777	31	4	812	495	13	4	512	1272	44	8	1324	
415-515	840	25	2	867	541	14	4	559	1381	39	6	1426	
430-530	820	21	4	845	581	10	3	594	1401	31	7	1439	
445-545	851	19	4	874	590	7	3	600	1441	26	7	1474	
500-600	853	16	6	875	638	8	1	647	1491	24	7	1522	

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## MID-BLOCK AXLE CLASSIFICATION COUNT SUMMARY

CLIENT: MEYER, MOHADDRESS ASSOCIATES  
 PROJECT: SOUTH BAY GOODS MOVEMENT TRUCK COUNT - 2007  
 LOCATION: AVALON SOUTH OF UNIVERSITY DRIVE  
 CITY: CARSON  
 DATE: THURSDAY APRIL 12, 2007  
 PERIODS: 1:00 PM -3:00 PM AND 4:00 PM - 6:00 PM

Truck	Total	Percentage	
100-200	64	1929	3.3%
200-300	84	2042	4.1%
400-500	53	2621	2.0%
500-600	43	2968	1.4%

MD COUNT RESULTS													
PERIOD	NORTHBOUND				SOUTHBOUND				BOTH DIRECTIONS TOTALS				
	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	
15 MIN COUNTS													
100-115	240	4	2	246	229	3	1	233	469	7	3	479	
115-130	263	10	2	275	258	6	0	264	521	16	2	539	
130-145	189	4	3	196	216	4	3	223	405	8	6	419	
145-200	211	9	2	222	259	9	2	270	470	18	4	492	
200-215	224	6	2	232	238	5	3	246	462	11	5	478	
215-230	272	8	1	281	231	6	2	239	503	14	3	520	
230-245	203	3	6	212	273	7	2	282	476	10	8	494	
245-300	223	16	4	243	294	10	3	307	517	26	7	550	
HOURLY TOTALS													
100-200	903	27	9	939	962	22	6	990	1865	49	15	1929	
115-215	887	29	9	925	971	24	8	1003	1858	53	17	1928	
130-230	896	27	8	931	944	24	10	978	1840	51	18	1909	
145-245	910	26	11	947	1001	27	9	1037	1911	53	20	1984	
200-300	922	33	13	968	1036	28	10	1074	1958	61	23	2042	

PM COUNT RESULTS													
PERIOD	NORTHBOUND				SOUTHBOUND				BOTH DIRECTIONS TOTALS				
	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	
15 MIN COUNTS													
400-415	293	7	1	301	396	6	3	405	689	13	4	706	
415-430	240	2	2	244	325	9	1	335	565	11	3	579	
430-445	307	4	0	311	379	5	1	385	686	9	1	696	
445-500	313	1	0	314	315	9	2	326	628	10	2	640	
500-515	321	3	1	325	341	5	1	347	662	8	2	672	
515-530	325	3	2	330	416	3	2	421	741	6	4	751	
530-545	294	1	2	297	452	5	4	461	746	6	6	758	
545-600	321	2	3	326	455	4	2	461	776	6	5	787	
HOURLY TOTALS													
400-500	1153	14	3	1170	1415	29	7	1451	2568	43	10	2621	
415-515	1181	10	3	1194	1360	28	5	1393	2541	38	8	2587	
430-530	1266	11	3	1280	1451	22	6	1479	2717	33	9	2759	
445-545	1253	8	5	1266	1524	22	9	1555	2777	30	14	2821	
500-600	1261	9	8	1278	1664	17	9	1690	2925	26	17	2968	

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## MID-BLOCK AXLE CLASSIFICATION COUNT SUMMARY

CLIENT: MEYER, MOHADDRESS ASSOCIATES  
 PROJECT: SOUTH BAY GOODS MOVEMENT TRUCK COUNT - 2007  
 LOCATION: WILMINGTON NORTH OF CARSON STREET  
 CITY: CARSON  
 DATE: THURSDAY APRIL 12, 2007  
 PERIODS: 1:00 PM -3:00 PM AND 4:00 PM - 6:00 PM

Truck	Total	Percentage
100-200	272	1237 22.0%
200-300	278	1480 18.8%
400-500	202	1795 11.3%
500-600	183	1825 10.0%

MD COUNT RESULTS													
PERIOD	NORTHBOUND				SOUTHBOUND				BOTH DIRECTIONS TOTALS				
	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	
15 MIN COUNTS													
100-115	113	23	16	152	142	8	20	170	255	31	36	322	
115-130	116	29	14	159	106	11	31	148	222	40	45	307	
130-145	95	27	11	133	145	4	18	167	240	31	29	300	
145-200	124	20	5	149	124	14	21	159	248	34	26	308	
200-215	151	28	12	191	138	9	21	168	289	37	33	359	
215-230	109	25	11	145	144	8	16	168	253	33	27	313	
230-245	137	28	17	182	196	9	16	221	333	37	33	403	
245-300	122	33	8	163	205	13	24	242	327	46	32	405	
HOURLY TOTALS													
100-200	448	99	46	593	517	37	90	644	965	136	136	1237	
115-215	486	104	42	632	513	38	91	642	999	142	133	1274	
130-230	479	100	39	618	551	35	76	662	1030	135	115	1280	
145-245	521	101	45	667	602	40	74	716	1123	141	119	1383	
200-300	519	114	48	681	683	39	77	799	1202	153	125	1480	

PM COUNT RESULTS													
PERIOD	NORTHBOUND				SOUTHBOUND				BOTH DIRECTIONS TOTALS				
	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	
15 MIN COUNTS													
400-415	116	25	12	153	277	9	17	303	393	34	29	456	
415-430	124	22	9	155	257	4	18	279	381	26	27	434	
430-445	153	11	4	168	252	9	5	266	405	20	9	434	
445-500	139	24	12	175	275	7	14	296	414	31	26	471	
500-515	125	16	11	152	324	1	14	339	449	17	25	491	
515-530	126	17	3	146	292	12	15	319	418	29	18	465	
530-545	143	16	4	163	238	4	22	264	381	20	26	427	
545-600	157	27	5	189	237	5	11	253	394	32	16	442	
HOURLY TOTALS													
400-500	532	82	37	651	1061	29	54	1144	1593	111	91	1795	
415-515	541	73	36	650	1108	21	51	1180	1649	94	87	1830	
430-530	543	68	30	641	1143	29	48	1220	1686	97	78	1861	
445-545	533	73	30	636	1129	24	65	1218	1662	97	95	1854	
500-600	551	76	23	650	1091	22	62	1175	1642	98	85	1825	



# WILTEC

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## MID-BLOCK AXLE CLASSIFICATION COUNT SUMMARY

CLIENT: MEYER, MOHADDRESS ASSOCIATES  
 PROJECT: SOUTH BAY GOODS MOVEMENT TRUCK COUNT - 2007  
 LOCATION: ALAMEDA STREET NORTH OF CARSON STREET  
 CITY: CARSON  
 DATE: THURSDAY APRIL 12, 2007  
 PERIODS: 1:00 PM -3:00 PM AND 4:00 PM - 6:00 PM

Truck	Total	Percentage	
100-200	285	849	33.6%
200-300	338	1056	32.0%
400-500	411	1837	22.4%
500-600	363	1620	22.4%

MD COUNT RESULTS													
PERIOD	NORTHBOUND				SOUTHBOUND				BOTH DIRECTIONS TOTALS				
	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	
15 MIN COUNTS													
100-115	71	5	12	88	53	7	13	73	124	12	25	161	
115-130	78	5	29	112	58	14	14	86	136	19	43	198	
130-145	68	8	48	124	78	12	26	116	146	20	74	240	
145-200	83	9	43	135	75	12	28	115	158	21	71	250	
200-215	99	9	28	136	80	11	14	105	179	20	42	241	
215-230	88	14	49	151	99	15	24	138	187	29	73	289	
230-245	68	5	35	108	119	10	22	151	187	15	57	259	
245-300	76	9	62	147	89	14	17	120	165	23	79	267	
HOURLY TOTALS													
100-200	300	27	132	459	264	45	81	390	564	72	213	849	
115-215	328	31	148	507	291	49	82	422	619	80	230	929	
130-230	338	40	168	546	332	50	92	474	670	90	260	1020	
145-245	338	37	155	530	373	48	88	509	711	85	243	1039	
200-300	331	37	174	542	387	50	77	514	718	87	251	1056	

PM COUNT RESULTS													
PERIOD	NORTHBOUND				SOUTHBOUND				BOTH DIRECTIONS TOTALS				
	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	AUTOS AND OTHER	LIGHT DUTY TRUCKS	HEAVY DUTY TRUCKS	ALL VEHICLES TOTAL	
15 MIN COUNTS													
400-415	123	4	48	175	226	21	16	263	349	25	64	438	
415-430	155	6	52	213	189	21	1	211	344	27	53	424	
430-445	130	3	57	190	214	20	17	251	344	23	74	441	
445-500	148	6	72	226	241	26	41	308	389	32	113	534	
500-515	122	10	82	214	173	14	7	194	295	24	89	408	
515-530	177	14	58	249	171	8	26	205	348	22	84	454	
530-545	127	10	44	181	195	7	8	210	322	17	52	391	
545-600	166	4	42	212	126	10	19	155	292	14	61	367	
HOURLY TOTALS													
400-500	556	19	229	804	870	88	75	1033	1426	107	304	1837	
415-515	555	25	263	843	817	81	66	964	1372	106	329	1807	
430-530	577	33	269	879	799	68	91	958	1376	101	360	1837	
445-545	574	40	256	870	780	55	82	917	1354	95	338	1787	
500-600	592	38	226	856	665	39	60	764	1257	77	286	1620	