Appendix D2

Noise Screening Analysis

NOISE SCREENING ANALYSIS FOR BERTHS 97-109 CONTAINER TERMINAL PROJECT (CHINA SHIPPING)

AUGUST 14, 2018

PREPARED FOR:
PORT OF LOS ANGELES
ENVIRONMENTAL DIVISION

THE PORT OF LOS ANGELES

PREPARED BY:

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CONSULTANTS IN ACOUSTICS, NOISE & VIBRATION

Noise Screening Analysis
For Berths 97-109 Container Terminal Project
(China Shipping)

Prepared for:
Port of Los Angeles
Environmental Division

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EXECUTIVE SUMMARY

Acoustics Group, Inc., (AGI) was retained to conduct a noise screening level analysis to determine the incremental noise change between the Berths 97-109 Container Terminal Project (China Shipping) future build out of 1.55 million and 1.7 million TEUs. AGI has reviewed the City of Los Angeles Noise Standards, conducted noise measurements, analyzed the noise levels from 1.55M TEUs and 1.7M TEUs, and assessed the impact of the incremental increase.

The results of the noise screening analysis indicate that the incremental change in noise level from 1.55M to 1.7M would range from 0.0 to 0.4 dB at the noise sensitive receptors that border the China Shipping Terminal and the Truck Haul Routes.

The 2008 EIS/EIR, which assumed "full-capacity" China Shipping Terminal throughput at 1.55 million TEUs, identified significant operational noise level impacts of the Approved Project at receptors in two areas: (1) the east side of Knoll Hill and (2) west of Front Street and south of the Vincent Thomas Bridge. This screening analysis concludes that the incremental increase in noise levels at receptors in those two areas, due to an incremental increase in Terminal throughput from 1.55 million TEUs to 1.7 million TEUs, would be 0.4 dB or less. Therefore, this screening analysis concludes that the incremental increase in Terminal throughput to 1.7 million TEUs would not result in a substantial increase in severity of any significant operational noise level impact identified in the 2008 EIS/EIR. This analysis further concludes that, because the incremental increase in noise levels at all receptors would be 0.4 dB or less, the incremental increase in Terminal throughput to 1.7 million TEUs would not result in any new significant operational noise level impacts, compared to those identified in the 2008 EIS/EIR.

This report has been organized into multiple sections for ease of reference. Section 1 introduces the Project and provides a general discussion on the Project Components. Section 2 discusses Noise Fundamentals, and Section 3 presents the Noise Standards. Section 4 discusses the Noise Sensitive Receptor Locations. Section 5 discusses the Noise Screening Analysis, Section 6 discusses the Incremental Change and Impact Assessment and Section 7 presents the Conclusion.

INTRODUCTION

Acoustics Group, Inc., (AGI) was retained to conduct a noise screening level analysis to determine the incremental noise change between the Berths 97-109 Container Terminal Project (China Shipping) future build out of 1.55 million and 1.7 million TEUs. Refer to Figure 1 for the general location of the China Shipping Project Site and Vicinity Map. Land uses immediately surrounding the site are comprised of a mix of residential and commercial.

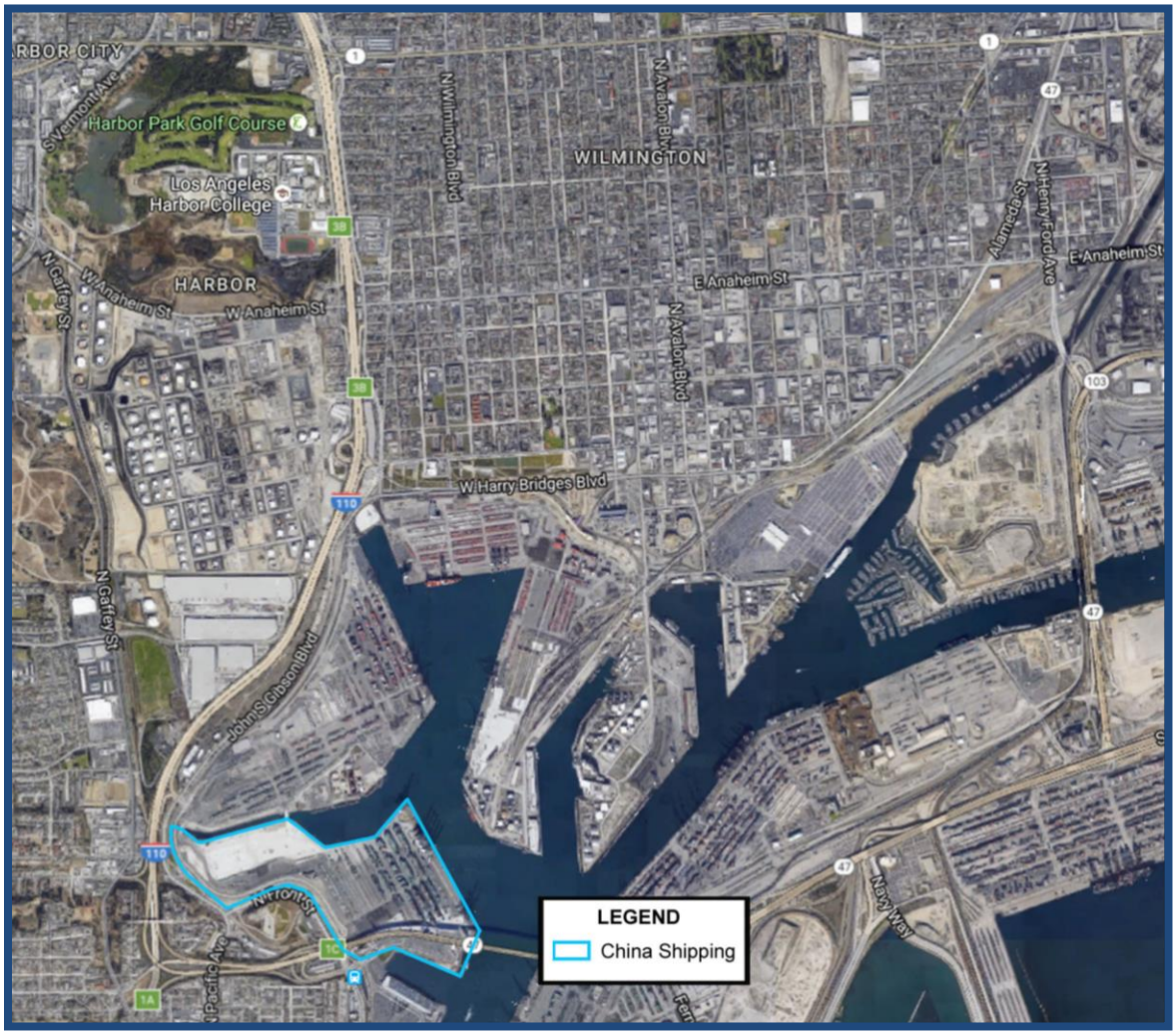

Figure 1. Location of the Project Site and Vicinity Map

NOISE

The magnitude by which noise affects its surrounding environment is measured on a logarithmic scale in decibels (dB). Because the human ear is limited to hearing a specific range of frequencies, the A-weighted filter system is used to form relevant results. A-weighted sound levels are represented as dBA. Figure 2 shows typical A-weighted exterior and interior noise levels that occur in human environments.

Common Outdoor Activities	Noise Level dBA	Common Indoor Activities
	--- 110 ---	Rock Band
Jet Fly-over at 300 m (1000 ft)		
	--- 100 ---	
Gas Lawn Mower at 1 m (3 ft)		
	--- 90 ---	
Diesel Truck at 15 m (50 ft),		Food Blender at 1 m (3 ft)
at 80 km/hr (50 mph)	--- 80 ---	Garbage Disposal at 1 m (3 ft)
Noisy Urban Area, Daytime		
Gas Lawn Mower at 30 m (100 ft)	--- 70 ---	Vacuum Cleaner at 3 m (10 ft)
Commercial Area		Normal Speech at 1 m (3 ft)
Heavy Traffic at 90 m (300 ft)	--- 60 ---	
		Large Business Office
Quiet Urban Daytime	--- 50 ---	Dishwasher Next Room
Quiet Urban Nighttime	--- 40 ---	Theater, Large Conference Room
Quiet Suburban Nighttime		(Background)
	--- 30 ---	Library
Quiet Rural Nighttime		Bedroom at Night, Concert Hall
	--- 20 ---	(Background)
		Broadcast/Recording Studio
	--- 10 ---	
Lowest Threshold of Human Hearing	--- 0 ---	Lowest Threshold of Human Hearing

Source: TNS, 1998

Figure 2. Typical A-weighted Noise Levels

Several noise metrics have been developed to evaluate noise. L_{eq} is the energy average noise level and corresponds to a steady-state sound level that has the same acoustical energy as the sum of all the time varying noise events. L_{max} is the maximum noise level measured during a sampling period, and L_{xx} are the statistical noise levels that are exceeded xx-% of the time of the measurement. L_{50} is the average noise level that is exceeded 50% of the time, 30 minutes in a 60 minute period.

Because environmental noise fluctuates over time, CNEL and Ldn were devised to relate noise exposure over time to human response. CNEL and Ldn are 24-hour averages of the hourly Leq, but with penalties to account for the increased sensitivity to noise events that occur during the more sensitive evening and nighttime periods. Specifically, CNEL penalizes noise by 5 dB during the evening time period (7:00 pm to 10:00 pm) and 10 dB during the nighttime time period (10:00 pm to 7:00 am), while Ldn only penalizes noise by 10 dB during the nighttime time period (10:00 pm to 7:00 am).

NOISE STANDARDS & THRESHOLDS OF SIGNIFICANCE

City of Los Angeles

The City of Los Angeles establishes noise standards for the purpose of protecting citizens from potential hearing damage and from various other adverse physiological, psychological and social effects associated with noise. The following guidelines and regulations will be used to assess the impact of noise that would be generated by the project and experienced by nearby sensitive receptors.

City of Los Angeles CEQA Thresholds Guide

The *City of Los Angeles CEQA Thresholds Guide* (City of Los Angeles, 2006) contains the following significance thresholds for operational noise impacts due to stationary sources, vehicular traffic, or increased railroad operations.

- A project would normally have a significant impact on noise levels from project operations if the project causes the ambient noise level measured at the property line of affected uses to increase by 3 dBA in CNEL to or within the 'normally unacceptable' or 'clearly unacceptable category,' or any 5 dBA or greater noise increase.

Table 1 presents the land use noise compatibility guidelines. The purpose of these guidelines is to maintain acceptable noise levels for different land use types. Noise compatibility by different land uses types is categorized into four general levels: "normally acceptable," "conditionally acceptable," "normally unacceptable," and "clearly unacceptable." Sensitive receivers in the Port area that are potentially affected by operational noise from the proposed Project include residential land uses (single- and multi-family housing) and neighborhood parks. At these land uses, a significant impact would occur if the proposed Project causes CNEL noise levels to increase by (1) 5 dBA or greater where the existing CNEL is less than 70 dBA; or (2) 3 dBA or greater where the existing CNEL exceeds 70 dBA.

Table 1. Land Use Compatibility Guidelines

Land Use	Community Noise Exposure (CNEL, dB)			
	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Single-Family, Duplex, Mobile Homes	50 - 60	50 - 70	70 - 75	Above 70
Multifamily Homes	50 - 65	60 - 70	70 - 75	Above 70
Schools, Libraries, Churches, Hospitals, Nursing Homes	50 - 70	60 - 70	70 - 80	Above 80
Transient Lodging – Motels, Hotels	50 – 65	60 - 70	70 - 80	Above 80
Auditoriums, Concert Halls, Amphitheaters	-	50 - 70	-	Above 65
Sports Arena, Outdoor Spectator Sports	-	50 - 75	-	Above 70
Playgrounds, Neighborhood Parks	50 – 70	-	67 – 75	Above 72
Golf Courses, Riding Stables, Water Recreation, Cemeteries	50 – 75	-	70 – 75	Above 80
Office Buildings, Business and Professional Commercial	50 – 70	67 - 77	Above 75	-
Industrial, Manufacturing, Utilities, Agriculture	50 – 75	70 - 80	Above 75	-

Normally Acceptable: Specified land use is satisfactory, based on the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements.
Conditionally Acceptable: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning, will normally suffice.
Normally Unacceptable: New construction or development generally should be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.
Clearly Unacceptable: New construction or development generally should not be undertaken.

Source: City of Los Angeles CEQA Thresholds Guide, 2006, Section I.2.2.

City of Los Angeles Municipal Code

Section 41.40 of the City of Los Angeles Municipal Code prohibits construction activity and repair work where the use of any power tool, device, or equipment would disturb persons occupying sleeping quarters in any dwelling, hotel, apartment, or other place of residence between the hours of 9:00 p.m. and 7:00 a.m. Monday through Friday, between 6:00 p.m. and 8:00 a.m. on Saturdays or national holidays, and at any time on Sundays. Construction hours may be extended with approval from the Executive Director of the Board of Police Commissioners.

Section 112.05 prohibits the operation of any powered equipment or powered hand tool that produces a maximum noise level exceeding the following noise limits at a distance of 50 feet from the source of the noise between the hours of 7:00 a.m. and 10:00 p.m. when the source is located within 500 feet of a residential zone:

- 75 dBA - construction, industrial, and agricultural machinery
- 75 dBA - powered equipment of 20 horsepower or less intended for infrequent use in residential areas
- 65 dBA - powered equipment intended for repetitive use in residential areas.

A noise level increase of five dBA over the existing average ambient noise level at an adjacent property line is considered a noise violation. The baseline ambient noise level is either the actual measured ambient noise level or the City's presumed ambient noise level, whichever is greater. If the ambient noise level is established by an actual measurement, the measurement must be averaged over a period of at least 15 minutes. Where the actual measured ambient conditions are not known, the City's presumed daytime (7:00 a.m. to 10:00 p.m.) and nighttime (10:00 p.m. to 7:00 a.m.) ambient noise levels should be used. The City's presumed ambient noise levels for specific land use zones are shown in Table 2.

Section 111.02 states that under conditions where noise alleged to be offending occurs between five and 15 minutes in any 1-hour period between the hours of 7:00 a.m. and 10:00 p.m. of any day, a five dBA allowance should be provided to the noise source. Additionally, under conditions where the offending noise occurs for five minutes or less in any 1-hour period between the hours of 7:00 a.m. and 10:00 p.m. of any day, an additional five dBA allowance can be provided to the noise source. When the offending noise source generates repeated impulsive noise levels, a five dBA penalty should be accounted for in the noise levels.

Table 2. City of Los Angeles Presumed Ambient Noise Levels

Land Use	Presumed Ambient Noise Levels, dBA	
	Daytime (7:00 a.m. to 10:00 p.m.)	Nighttime (10:00 p.m. to 7:00 a.m.)
Residential, School, Hospitals, Hotels	50	40
Commercial	60	55
Manufacturing (M1, MR1, and MR2)	60	55
Heavy Manufacturing (M2 and M3)	65	65

Source: City of Los Angeles. Official City of Los Angeles Municipal Code, Section 111.03.

NOISE SENSITIVE RECEPTOR LOCATIONS

Sixteen (16) noise sensitive locations were identified to represent the nearest noise-sensitive areas near the China Shipping Terminal and Haul Routes. Sensitive receivers include single- and multi-family residences (LT-1, LT-2, LT-3, LT-4, LT-5, LT-6, LT-7, LT-8, ST-4), apartments (ST-1, ST-8), community centers (ST-3, ST-7), and parks (ST-2, ST-5, ST-6). Refer to Table 3 for a summary of the noise sensitive locations identified by AGI relative to the Berth 97-109 Container Terminal Project RDEIR sensitive receptor locations. Figures 3 through 5 show the locations of the noise sensitive receptors.

Table 3. Summary of the Noise Sensitive Receptors

Receptor		Location	Typical Noise Sources
AGI	RDEIR[1]		
LT-1	LT-3/ ST-5	604 N Palos Verdes St (Side/Backyard)	Constant noise from trucks and traffic on S Harbor Blvd, Community Noise, Aircraft, Truck Noise, Watershow noise, Wildlife, Truck Noise, Backup beeper
LT-2	LT-1	321 Viewland Pl (Top of Knoll Hill)	Constant faint Port Noise, Constant Truck Traffic, Truck Horn/Brakes, Community Noise, Wildlife, Aircraft Train,
LT-3	LT-2	557 Shields Drive (Overlooking Pacific Avenue and most of the West Basin)	Truck Noise from Port, Constant Truck Traffic, Traffic noise from Freeway, Wildlife, Backup Beeper, Aircraft, Community Noise
LT-4	-	1319 Emden St (Side Yard)	Constant Traffic Noise from Figueroa and Freeway, Wildlife, Heavy and Medium Trucks Passing, Aircraft, Traffic, Community Noise
LT-5	LT-4/ ST-10	1211 W Ct St (Near C St/Hawaiian Ave)	Machinery from nearby warehouse, Truck Horn/Brakes, Backup beeper, Vehicles Wildlife, Community Noise, Aircraft, Train
LT-6	LT-5/ ST-7	821 C St Unit B (Front Yard)	Community Noise, Forklift, Construction at Park, Drilling, Cars along C St, Truck Horn, Backup beeper, Train Horn
LT-7	-	Alameda St/ E Mauretania St	Constant traffic on Alameda, Auto dismantling yard operations, Train, wildlife, trucks waiting to pull into truck stop, backup beepers
LT-8	-	783 Gatun St Residential Community	Constant Traffic on Gaffey Street, Trucks, Motorcycles, Community Noise, Wildlife, Train
ST-1	M-1	Samoan Sea Apartments	Aircraft, Cars, Backup beeper, Community noise, Truck horn, Siren, Heavy Trucks
ST-2	ST-1	Top of Knoll Hill (Baseball Field)	Constant heavy trucks from port, Community Noise, Baseball, Boat horn, truck horn, train, backup beeper, motorcycle, aircraft
ST-3	ST-3	Harbor Occupational Center	Traffic from N Pacific Avenue, Cars entering and exiting the Parking Lot, Talking, Aircraft, Truck Noise from Port, Train
ST-4	ST-2/ ST-2A	Elberon, Summerland, MacArthur intersection, top of slope	Community Noise, Cars Starting/Stopping/Passing, Aircraft, Backup Beeper, Truck Horn, Port truck noise, Motorcycle,
ST-5	-	Fields of Dreams Soccer Field	Noise from adjacent industrial facility, community noise, aircraft, faint traffic
ST-6	LT-7/ ST-8	Wilmington Waterfront Park (overlooking W Harry Bridges Blvd)	Noise from Port, Traffic noise from W Harry bridges Blvd, Community Park Noise, Aircraft, Backup beepers, Truck Horns
ST-7	LT-6/ ST-9	Wilmington Recreation Center Baseball Field (Intersection of Bay View Ave and C St)	Traffic Noise from C St, Community Noise, Aircraft, Faint Port Noise
ST-8	-	200 Broad Ave	Traffic Noise from Harry Bridges Blvd, Truck Horn, Backup beeper, Aircraft, Motorcycle, Community Noise

Note: [1]Berths 97-109 Container Terminal Project RDEIR Section 3.11 Noise

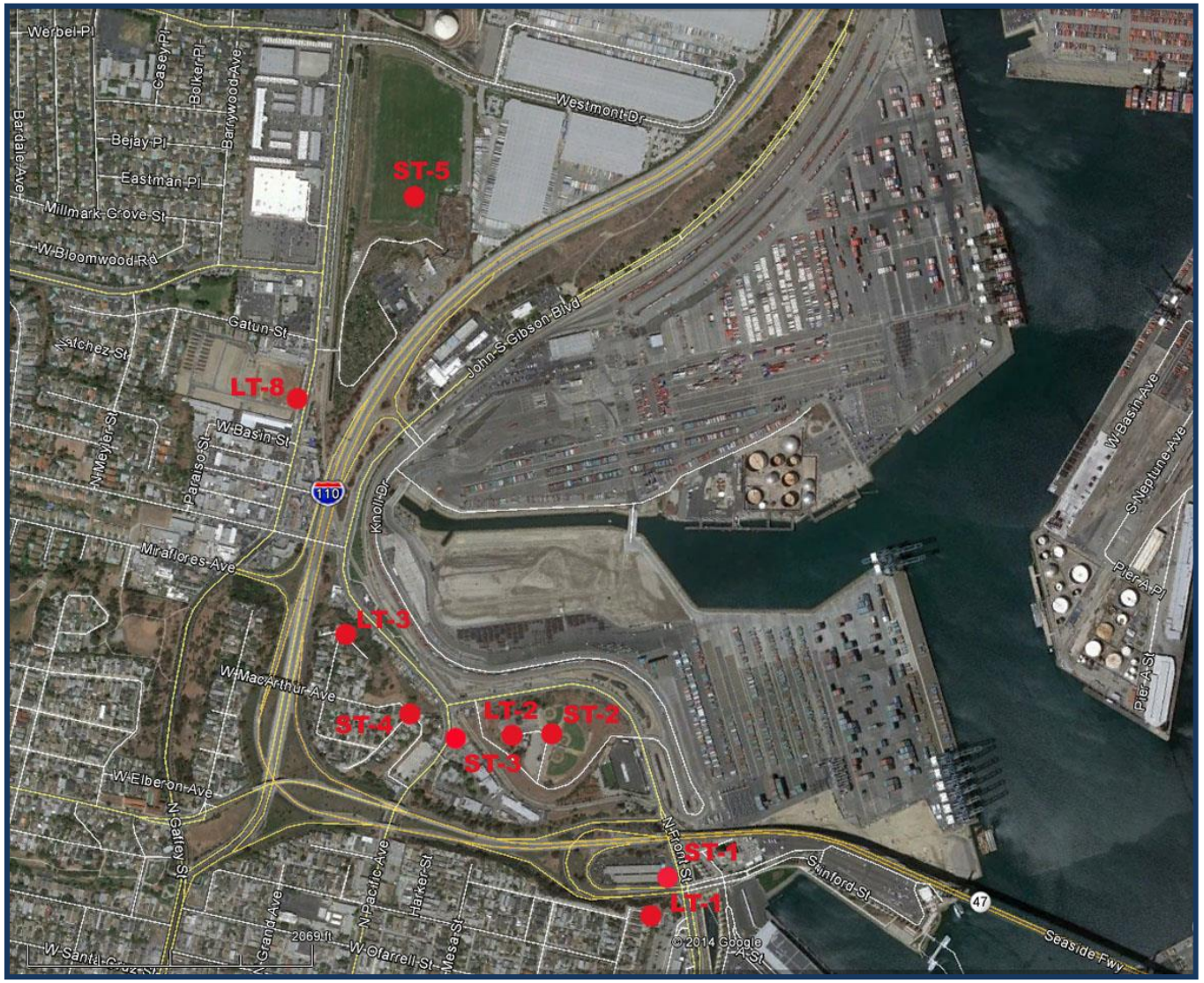

Figure 3. Noise Sensitive Receptor Locations – South of China Shipping Project

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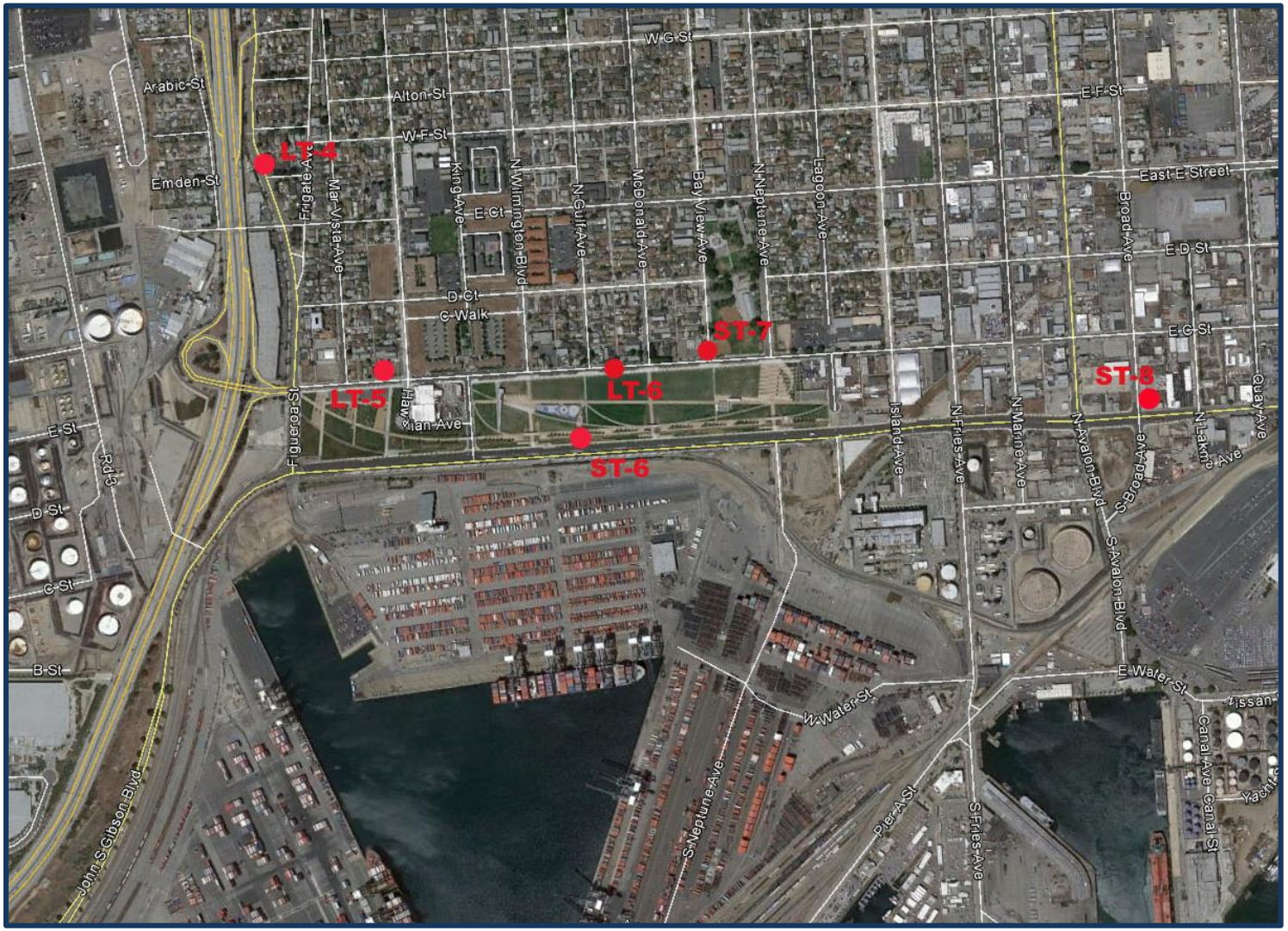

Figure 4. Noise Sensitive Receptor Locations – Northeast of China Shipping Project

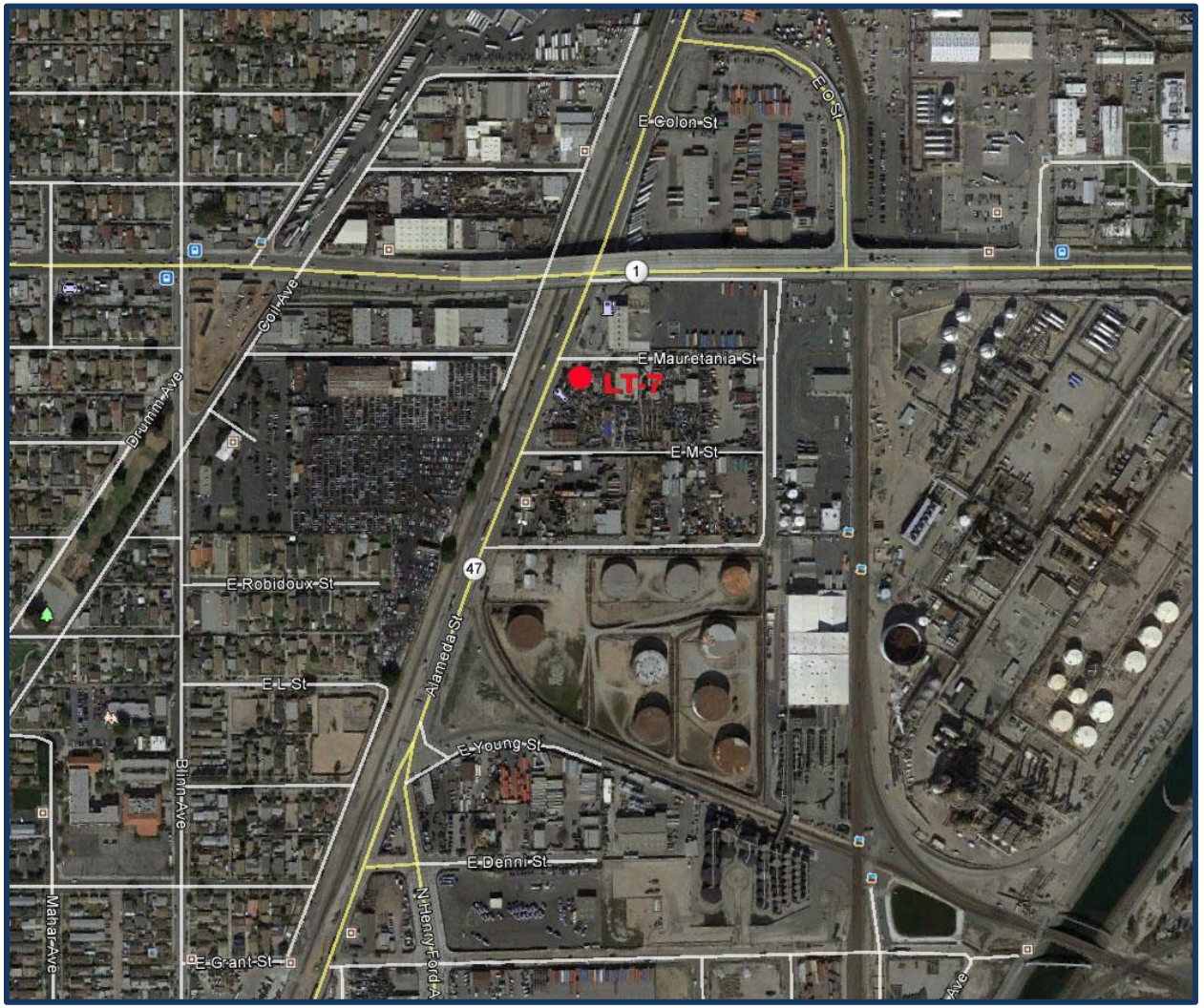

Figure 5. Noise Sensitive Receptor Locations – East of China Shipping Project

Pacific Avenue-Channel Street Neighborhood

At the residential receiver 604 N Palos Verdes St (LT-1) contributing noise sources included constant noise from trucks and traffic on S Harbor Blvd, occasional motorcycle, community noise, aircrafts, music from nearby water show, and wildlife. The residential receiver at 557 Shields Drive (LT-3) overlooks the western basin of the Port of Los Angeles, specifically the China Shipping Terminal and Pacific Avenue. Typical noise sources are constant faint Port Noise, constant truck traffic and operations, community activity, wildlife, aircraft and trains. Noise sources that contributed to the ambient noise environment at the Samoan Sea Apartments (ST-1) were aircraft, vehicles and trucks, backup beepers, trains, and community noise. The residential area at the intersection of Elberton, Summerland, and MacArthur (ST-4) overlooks the western edge of the Port of Los Angeles. Typical noise sources experienced at this location include community noise, vehicles within the community, faint truck usage and backup beepers from the port, trains, and aircraft.

Knoll Hill Neighborhood

The residential receiver at 321 Viewland Place (LT-2) on top of Knoll Hill is exposed to noise from aircraft, community noise, and port operations including trucks, horns, and trains. The baseball field at the top of Knoll Hill (ST-2) overlooks the western edge of the Port of Los Angeles, specifically the China Shipping Terminal and Pacific Avenue. Typical noise sources experienced at this location include continuous truck usage from the port, backup beepers, trains, and community noise including baseball at the park. At the educational Harbor Occupational Center (ST-3), the noise sources were dominated by constant vehicular and truck traffic from N Pacific Avenue, trains, aircraft, and activity at the center parking lot.

Wilmington Neighborhood

At the residential receiver 1319 Emden Street (LT-4), typical contributing noise sources included vehicular, motorcycle, and truck traffic from Figueroa and the adjacent freeway, aircraft, community noise, and wildlife. At the residence located at 1211 W C St (LT -5), noise sources that contributed to the ambient noise environment were from the nearby industrial facility, vehicular and truck noise, motorcycles, community noise, and wildlife. The Wilmington Waterfront Park (ST-6) overlooks W Harry Bridges Blvd and haul routes, experiences noise sources from vehicular and truck traffic along W Harry Bridges Boulevard, port noise (horns and backup beeper), community park noise, and aircraft. Noise levels in the area around Wilmington Recreation Center and Baseball Field (ST-7) are dominated by local traffic on C St, community noise, aircrafts, and faint port noise.

Typical noise sources experienced at the residential receiver at 200 Broad Ave (ST-8) include traffic noise from Harry Bridges Blvd, trucks, backup beepers, aircraft, motorcycles, and community noise.

Other Noise Sensitive Receptors

At residential receiver 821 C Street Unit B (LT-6), the noise sources were from community activity, park activity, vehicles along C St, trucks, and trains. At the residential receiver by the intersection of Alameda St and Mauretania St (LT-7), noise sources were continuous traffic on Alameda, auto dismantling yard operations, train, wildlife, trucks waiting to pull into adjacent truck stop, and backup beepers. At 783 Gatun St Residential Community (LT-8), noise sources were continuous traffic on Gaffey, train, wildlife, and community noise. The park receiver at the Fields of Dreams Soccer Field (ST-5) is located further away from the project area and is exposed to noise from the adjacent industrial facility, community noise, aircraft, and traffic.

NOISE SCREENING ANALYSIS

The CadnaA Acoustical Model was used to simulate the future noise of the project. Operational noise source data (China Shipping terminal operations, haul routes, and non-China Shipping related traffic) was inputted into the model along with the relative location of the area sources, receivers, topography, and intervening structures. The computer model was calibrated to a field measurement of specific operations and noise level to ensure accuracy. Buildout 1.55M and Buildout 1.7M TEUs operational levels were evaluated to determine the incremental increase between the two future scenarios. The peak hour Leq was calculated for each scenario. The CNEL was calculated using peak hour/CNEL calibration factors measured during 24-hour noise surveys at or near each noise sensitive location.

1.55 Million TEUs

The results of the analysis indicate that future peak hour noise levels from AM operations for 1.55M TEUS would be approximately 72.9, 79.9, 77.7, 76.9, 65.6, 58.0, 69.7, and 64.2 dBA at long term receptors LT-1 through LT-8, respectively. The future peak hour noise levels from PM operations would be approximately 73.2, 79.9, 77.8, 77.3, 66.0, 58.4, 70.2, 64.2 dBA at the same locations, respectively. The future peak hour noise levels from AM operations for 1.55M TEUS would be approximately 74.8, 75.9, 74.4, 77.8, 64.1, 58.5, 56.7, and 58.2 dBA at short term receptors ST-1 through ST-8, respectively. The future peak hour noise levels from PM operations would be approximately 75.1, 75.9, 74.5, 77.8, 64.2, 58.9, 57.3, and 57.8 dBA at the same locations, respectively. Table 4 summarizes the results of the China Shipping 1.55 million TEUs noise screening analysis.

The future CNEL from Buildout 1.55 Million TEUs Operations would be approximately 75.9, 83.2, 80.0, 79.9, 67.8, 59.1, 71.6, and 65.8 dB at long term receptors LT-1 through LT-8, respectively. The future CNEL from the Buildout 1.55M TEUs Operations would be approximately 77.8, 79.2, 76.7, 80.0, 65.8, 59.6, 58.0, and 58.9 dB at short term receptors ST-1 through ST-8, respectively. Table 5 summarizes the results of the China Shipping Buildout 1.55M TEUs Operations CNEL noise screening analysis.

1.7 Million TEUs

The results of the analysis indicate that future peak hour noise levels from AM operations for 1.7M TEUS would be approximately 73.2, 80.3, 78.1, 76.9, 65.6, 58.0, 69.7, and 64.4 dBA at long term receptors LT-1 through LT-8, respectively. The future peak hour noise levels from PM operations would be approximately 73.4, 80.3, 78.2, 77.3, 66.0, 58.5, 70.3, and 64.5 dBA at the same locations, respectively. The future peak hour noise levels from AM operations for 1.7M TEUS would be approximately 75.0, 76.3, 74.7, 78.1, 64.4, 58.6, 56.8, and 58.3 dBA at short term receptors ST-1 through ST-8, respectively. The future peak hour noise levels from PM operations would be approximately 75.3, 76.3, 74.8, 78.2, 64.5, 58.9, 57.3, and 57.8 dBA at the same locations, respectively. Table 4 summarizes the results of the China Shipping 1.7 million TEUs noise screening analysis.

The future CNEL from Buildout 1.7 Million TEUs Operations would be approximately 76.1, 83.6, 80.4, 79.9, 67.8, 59.2, 71.7, and 66.1 dB at long term receptors LT-1 through LT-8, respectively. The future CNEL from Buildout 1.7 Million TEUs Operations would be approximately 78.0, 79.6, 77.0, 80.4, 66.1, 59.6, 58.0, and 59.0 dB at short term receptors ST-1 through ST-8, respectively. Table 5 summarizes the results of the China Shipping Buildout 1.7M TEUs Operations CNEL noise screening analysis.

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Table 4. Results of China Shipping Noise Screening Analysis for Peak Hour Leq

Measurement Location		Description	Peak Hour Leq, dBA			
			Buildout 2045 Operations 1.55M TEUs		Buildout 2045 Operations 1.7M TEUs	
			AM	PM	AM	PM
Long Term Measurement	LT-1	604 N Palos Verdes St (Side/Backyard)	72.9	73.2	73.2	73.4
	LT-2	321 Viewland Pl (Top of Knoll Hill)	79.9	79.9	80.3	80.3
	LT-3	557 Shields Drive (Overlooking Pacific Avenue and most of the West Basin)	77.7	77.8	78.1	78.2
	LT-4	1319 Emden St (Side Yard)	76.9	77.3	76.9	77.3
	LT-5	1211 W Ct St (Near C St/Hawaiian Ave)	65.6	66.0	65.6	66.0
	LT-6	821 C St Unit B (Front Yard)	58.0	58.4	58.0	58.5
	LT-7	Alameda St/ E Mauretania St	69.7	70.2	69.7	70.3
	LT-8	783 Gatun St Residential Community	64.2	64.2	64.4	64.5
Short Term Measurement	ST-1	Samoan Sea Apartments	74.8	75.1	75.0	75.3
	ST-2	Top of Knoll Hill (Baseball Field)	75.9	75.9	76.3	76.3
	ST-3	Harbor Occupational Center	74.4	74.5	74.7	74.8
	ST-4	Elberon, Summerland, MacArthur intersection, top of slope	77.8	77.8	78.1	78.2
	ST-5	Fields of Dreams Soccer Field	64.1	64.2	64.4	64.5
	ST-6	Wilmington Waterfront Park (overlooking W Harry Bridges Blvd)	58.5	58.9	58.6	58.9
	ST-7	Wilmington Recreation Center Baseball Field (Intersection of Bay View Ave and C St)	56.7	57.3	56.8	57.3
	ST-8	200 Broad Ave	58.2	57.8	58.3	57.8

Table 5. Results of China Shipping Noise Screening Analysis for CNEL

Measurement Location		Description	CNEL, dB	
			Buildout 2045 Operations 1.55M TEUs	Buildout 2045 Operations 1.7M TEUs
Long Term Measurement	LT-1	604 N Palos Verdes St (Side/Backyard)	75.9	76.1
	LT-2	321 Viewland Pl (Top of Knoll Hill)	83.2	83.6
	LT-3	557 Shields Drive (Overlooking Pacific Avenue and most of the West Basin)	80.0	80.4
	LT-4	1319 Emden St (Side Yard)	79.9	79.9
	LT-5	1211 W Ct St (Near C St/Hawaiian Ave)	67.8	67.8
	LT-6	821 C St Unit B (Front Yard)	59.1	59.2
	LT-7	Alameda St/ E Mauretania St	71.6	71.7
	LT-8	783 Gatun St Residential Community	65.8	66.1
Short Term Measurement	ST-1	Samoan Sea Apartments	77.8	78.0
	ST-2	Top of Knoll Hill (Baseball Field)	79.2	79.6
	ST-3	Harbor Occupational Center	76.7	77.0
	ST-4	Elberon, Summerland, MacArthur intersection, top of slope	80.0	80.4
	ST-5	Fields of Dreams Soccer Field	65.8	66.1
	ST-6	Wilmington Waterfront Park (overlooking W Harry Bridges Blvd)	59.6	59.6
	ST-7	Wilmington Recreation Center Baseball Field (Intersection of Bay View Ave and C St)	58.0	58.0
	ST-8	200 Broad Ave	58.9	59.0

INCREMENTAL CHANGE AND IMPACT ASSESSMENT

The results of the analysis indicate that the incremental change in noise level from 1.55M to 1.7M would range from 0 to 0.4 dB at the noise sensitive receptors that border the China Shipping Terminal and the Truck Haul Routes.

The incremental change would not be a noticeable difference in the context of a community noise environment and would not be considered a significant or substantial change. Therefore, the results of the noise impact analysis between the 1.55M and the 1.7M buildout conditions would remain the same. Refer to Table 6 for a summary of the incremental increase and impact assessment.

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Table 6. Incremental Increase and Impact Assessment

Measurement Location		Description	Incremental Increase from Buildout 2045 1.55M TEUs to Buildout 2045 1.7M TEUs Δ			Impact Assessment
			AM	PM	CNEL	
Long Term Measurement	LT-1	604 N Palos Verdes St (Side/Backyard)	0.3	0.2	0.2	**Less than significant**
	LT-2	321 Viewland Pl (Top of Knoll Hill)	0.4	0.4	0.4	**Less than significant**
	LT-3	557 Shields Drive (Overlooking Pacific Avenue and most of the West Basin)	0.4	0.4	0.4	**Less than significant**
	LT-4	1319 Emden St (Side Yard)	0.0	0.0	0.0	**Less than significant**
	LT-5	1211 W Ct St (Near C St/Hawaiian Ave)	0.0	0.0	0.0	**Less than significant**
	LT-6	821 C St Unit B (Front Yard)	0.0	0.1	0.1	**Less than significant**
	LT-7	Alameda St/ E Mauretania St	0.0	0.1	0.1	**Less than significant**
	LT-8	783 Gatun St Residential Community	0.2	0.3	0.3	**Less than significant**
Short Term Measurement	ST-1	Samoan Sea Apartments	0.2	0.2	0.2	**Less than significant**
	ST-2	Top of Knoll Hill (Baseball Field)	0.4	0.4	0.4	**Less than significant**
	ST-3	Harbor Occupational Center	0.3	0.3	0.3	**Less than significant**
	ST-4	Elberon, Summerland, MacArthur intersection, top of slope	0.3	0.4	0.4	**Less than significant**
	ST-5	Fields of Dreams Soccer Field	0.3	0.3	0.3	**Less than significant**
	ST-6	Wilmington Waterfront Park (overlooking W Harry Bridges Blvd)	0.1	0.0	0.0	**Less than significant**
	ST-7	Wilmington Recreation Center Baseball Field (Intersection of Bay View Ave and C St)	0.1	0.0	0.0	**Less than significant**
	ST-8	200 Broad Ave	0.1	0.0	0.1	**Less than significant**

CONCLUSION

Acoustics Group, Inc., (AGI) conducted a noise screening level analysis to determine the incremental noise change between the Berths 97-109 Container Terminal Project (China Shipping) future build out of 1.55 million and 1.7 million TEUs. AGI has reviewed the City of Los Angeles Noise Standards, conducted noise measurements, analyzed the noise levels from 1.55M TEUs and 1.7M TEUs operations, and assessed the impact of the incremental increase.

The 2008 EIS/EIR, which assumed "full-capacity" China Shipping Terminal throughput at 1.55 million TEUs, identified significant operational noise level impacts of the Approved Project at receptors in two areas: (1) the east side of Knoll Hill and (2) west of Front Street and south of the Vincent Thomas Bridge. This screening analysis concludes that the incremental increase in noise levels at receptors in those two areas, due to an incremental increase in Terminal throughput from 1.55 million TEUs to 1.7 million TEUs, would be 0.4 dB or less. Therefore, this screening analysis concludes that the incremental increase in Terminal throughput to 1.7 million TEUs would not result in a substantial increase in severity of any significant operational noise level impact identified in the 2008 EIS/EIR. This analysis further concludes that, because the incremental increase in noise levels at all receptors would be 0.4 dB or less, the incremental increase in Terminal throughput to 1.7 million TEUs would not result in any new significant operational noise level impacts, compared to those identified in the 2008 EIS/EIR.

REFERENCES

1. Caltrans Technical Noise Supplement, 1998.
2. City of Los Angeles CEQA Thresholds Guide, 2006.
3. City of Los Angeles Municipal Code.
4. Berths 97-109 Container Terminal Project RDEIR Section 3.11 Noise.