

Appendix I

Noise Worksheets

550 Shatto Place

On-Site Heavy-Duty Construction Equipment Assumptions

Construction Phase	Heavy-Duty Equipment	No. of Heavy-Duty Equipment-Original	Hours of Operation/Day Per Equipment	Mitigation	Notes/Comments
Demolition	Concrete/Industrial Saws	1	8	Tier 4 Final	
	Rubber Tired Dozers	1	8	Tier 4 Final	
	Tractors/Loaders/Backhoes	3	8	Tier 4 Final	
Grading/Excavation	Bore/Drill Rigs	1	8	Tier 4 Final	
	Excavators	2	8	Tier 4 Final	
	Rubber Tired Dozers	1	8	Tier 4 Final	
	Sweepers/Scrubbers	1	8	Tier 4 Final	
	Tractors/Loaders/Backhoes	2	8	Tier 4 Final	
Utilities/Trenching	Sweepers/Scrubbers	1	8	Tier 4 Final	
	Tractors/Loaders/Backhoes	1	8	Tier 4 Final	
Foundations	Cranes	1	8	Electric	Crane would be electric powered
	Forklifts	1	8	CNG	
	Pumps	3	8	Tier 4 Final	
	Sweepers/Scrubbers	1	8	Tier 4 Final	
	Tractors/Loaders/Backhoes	1	8	Tier 4 Final	
Building Construction Mainly formwork and does not seem like there would be room/need for a tractor/backhoe/loader	Cranes	1	8	Electric	Crane would be electric powered Construction site would have access to power Welders need to be electric powered for HRA
	Forklifts	1	8	CNG	
	Generator Sets	1	8	Tier 4 Final	
	Tractors/Loaders/Backhoes	1	8	Tier 4 Final	
	Welders	3	8	Electric	
Architectural Coating/Finishing	Air Compressors	1	8	Tier 4 Final	
Paving	Cement and Mortar Mixers	1	8	No Change, <50 HP	
	Pavers	1	8	Tier 4 Final	
	Paving Equipment	1	8	Tier 4 Final	
	Rollers	1	8	Tier 4 Final	
Renovation	Aerial Lifts	1	8	Tier 4 Final	
	Forklifts	1	8	CNG	
	Generator Sets	1	8	Tier 4 Final	
	Tractors/Loaders/Backhoes	1	8	Tier 4 Final	

Project: 550 Shatto Place

Construction Noise Impact on Sensitive Receptors



Parameters

Construction Hours:	8 Daytime hours (7 am to 7 pm)
	0 Evening hours (7 pm to 10 pm)
	0 Nighttime hours (10 pm to 7 am)
Leq to L10 factor	3

				R1					R2				
Construction Phase Equipment Type	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance (ft)	Lmax	Leq	L10	Estimated Noise Shielding, dBA	Distance (ft)	Lmax	Leq	L10	Estimated Noise Shielding, dBA
Demolition					63	61				69	64		
Rubber Tired Dozer	1	82	40%	90	62	58	61	15	230	64	60	63	5
Concrete Saw	1	90	20%	190	63	56	59	15	330	69	62	65	5
Tractor/Loader/Backhoe	3	80	25%	290	55	48	51	15	430	61	55	58	5
Site Preparation					59	57				63	62		
Bore/Drill Rig	1	79	20%	90	59	52	55	15	230	61	54	57	5
Excavator	2	81	40%	190	57	53	56	15	330	63	59	62	5
Dozer	1	82	40%	290	52	48	51	15	430	58	54	57	5
Sweeper/Scrubbers	1	82	10%	290	52	42	45	15	430	58	48	51	5
Tractor/Loader/Backhoe	2	80	25%	390	50	44	47	15	530	58	51	54	5
Utilities/Trenching					62	53				64	56		
Sweeper/Scrubbers	1	82	10%	90	62	52	55	15	230	64	54	57	5
Tractor/Loader/Backhoe	1	80	25%	190	53	47	50	15	330	59	53	56	5
Foundation/Concrete Pour					60	58				61	60		
Backhoe	1	80	40%	90	60	56	59	15	300	59	55	58	5
Cranes	1	81	16%	190	54	46	49	15	400	58	50	53	5
Forklift	1	75	10%	290	45	35	38	15	500	50	40	43	5
Pumps	3	81	50%	290	56	52	55	15	500	61	58	61	5
Sweeper/Scrubbers	1	82	10%	390	49	39	42	15	600	55	45	48	5
Building Construction					61	56				60	58		
Cranes	1	81	16%	90	61	53	56	15	300	60	52	55	5
Forklift	1	75	10%	190	48	38	41	15	400	52	42	45	5
Generator Sets	1	81	50%	190	54	51	54	15	400	58	55	58	5
Tractor/Loader/Backhoe	1	78	40%	290	48	44	47	15	500	53	49	52	5
Welders	3	74	40%	290	49	45	48	15	500	54	50	53	5
Architectural Coating					58	54				57	53		
Air Compressor	1	78	40%	90	58	54	57	15	300	57	53	56	5
Paving					63	59				67	61		
Paver	1	77	50%	90	57	54	57	15	300	56	53	56	5
Pavement Scarifier	1	90	20%	190	63	56	59	15	400	67	60	63	5
Cement and Mortar Mixers	1	79	40%	290	49	45	48	15	500	54	50	53	5
Roller	1	80	20%	290	50	43	46	15	500	55	48	51	5
Renovation					45	44				62	61		
Aerial Lift	1	75	20%	430	41	34	37	15	140	61	54	57	5
Forklift	1	75	10%	530	39	29	32	15	240	56	46	49	5
Generator Sets	1	81	50%	530	45	42	45	15	240	62	59	62	5
Tractor/Loader/Backhoe	1	80	25%	630	43	37	40	15	340	58	52	55	5

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

Project: 550 Shatto Place

Construction Noise Impact on Sensitive Receptors



Parameters

Construction Hours:	8 Daytime hours (7 am to 7 pm)
	0 Evening hours (7 pm to 10 pm)
	0 Nighttime hours (10 pm to 7 am)
Leq to L10 factor	3

				R3					R4				
Construction Phase Equipment Type	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance (ft)	Lmax	Leq	L10	Estimated Noise Shielding, dBA	Distance (ft)	Lmax	Leq	L10	Estimated Noise Shielding, dBA
Demolition					88	85				64	61		
Rubber Tired Dozer	1	82	40%	25	88	84	87	0	80	63	59	62	15
Concrete Saw	1	90	20%	125	82	75	78	0	180	64	57	60	15
Tractor/Loader/Backhoe	3	80	25%	225	72	66	69	0	280	55	49	52	15
Site Preparation					85	79				60	57		
Bore/Drill Rig	1	79	20%	25	85	78	81	0	80	60	53	56	15
Excavator	2	81	40%	125	76	72	75	0	180	58	54	57	15
Dozer	1	82	40%	225	69	65	68	0	280	52	48	51	15
Sweeper/Scrubbers	1	82	10%	225	69	59	62	0	280	52	42	45	15
Tractor/Loader/Backhoe	2	80	25%	325	67	61	64	0	380	50	44	47	15
Utilities/Trenching					88	78				63	54		
Sweeper/Scrubbers	1	82	10%	25	88	78	81	0	80	63	53	56	15
Tractor/Loader/Backhoe	1	80	25%	125	72	66	69	0	180	54	48	51	15
Foundation/Concrete Pour					83	80				60	56		
Backhoe	1	80	40%	35	83	79	82	0	90	60	56	59	15
Cranes	1	81	16%	135	72	64	67	0	190	54	46	49	15
Forklift	1	75	10%	235	62	52	55	0	290	45	35	38	15
Pumps	3	81	50%	235	72	69	72	0	290	56	52	55	15
Sweeper/Scrubbers	1	82	10%	335	65	55	58	0	390	49	39	42	15
Building Construction					84	77				59	52		
Cranes	1	81	16%	35	84	76	79	0	110	59	51	54	15
Forklift	1	75	10%	135	66	56	59	0	210	48	38	41	15
Generator Sets	1	81	50%	135	72	69	72	0	210	54	51	54	15
Tractor/Loader/Backhoe	1	78	40%	235	65	61	64	0	310	47	43	46	15
Welders	3	74	40%	235	65	61	64	0	310	48	44	47	15
Architectural Coating					81	77				56	52		
Air Compressor	1	78	40%	35	81	77	80	0	110	56	52	55	15
Paving					83	81				63	57		
Paver	1	77	50%	25	83	80	83	0	110	55	52	55	15
Pavement Scarifier	1	90	20%	125	82	75	78	0	210	63	56	59	15
Cement and Mortar Mixers	1	79	40%	225	66	62	65	0	310	48	44	47	15
Roller	1	80	20%	225	67	60	63	0	310	49	42	45	15
Renovation					79	75				45	39		
Aerial Lift	1	75	20%	30	79	72	75	0	435	41	34	37	15
Forklift	1	75	10%	130	67	57	60	0	535	39	29	32	15
Generator Sets	1	81	50%	130	73	70	73	0	535	45	42	45	15
Tractor/Loader/Backhoe	1	80	25%	230	67	61	64	0	635	43	37	40	15

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005



APPLICATION FOR REVIEW OF IMPORT – EXPORT (EFFECTIVE 5/17/2010)

REV.: 5/10

GGI -08

SECTION 91.7006.7.4, REQUIRES A PUBLIC HEARING BEFORE THE BOARD OF BUILDING AND SAFETY COMMISSIONERS (BBSC) FOR ANY IMPORT OR EXPORT OF MORE THAN 1,000 CUBIC YARDS OF EARTH MATERIAL IN A GRADING HILLSIDE AREA.

THE FOLLOWING SHALL BE SUBMITTED BY THE APPLICANT TO THE GRADING SECTION:

1. A completed "APPLICATION FOR REVIEW OF TECHNICAL REPORTS AND IMPORT-EXPORT ROUTES" form with a filing fee of \$529.00 for the first 1000 cubic yards and \$100.00 additional for each 1000 cubic yard or portion of 1000 cubic yards, plus surcharges (22% + \$10.00).
2. A copy of the grading plan, showing the location and amounts of cut and/or fill, and export/import amounts.
3. A copy of the Department letter approving soils/engineering/geology reports, when such reports are required pursuant to L.A.M.C. Section 91.7006.2
4. A completed **Haul Route Questionnaire**. The questionnaire shall include the location of borrow and /or dispersal sites, all streets included in the route, the proposed staging area and the maximum gross weight of the trucks when loaded. (ATTACHMENT 1)
5. A completed **City of Los Angeles Categorical Exemption Questionnaire**. Note: If the Department determines that the proposed grading may not be categorically exempt, then an environmental assessment form (EAF) shall be filed with the Department of City Planning for appropriate action. If your project has received a Mitigated Negative Declaration (MND) or if an Environmental Impact Report (EIR) has been prepared, please provide a copy. (ATTACHMENT 2)
6. One (1) copy of a **300-foot vicinity map** showing all lots within 300 feet of the subject property boundaries. Indicate the location of significant physical features which might have bearing on the proposed hauling and show public facilities such as schools, hospitals, libraries and city parks which are in the vicinity of the project site. (ATTACHMENT 3)
7. A **list of property owners and three (3) sets of gummed labels** for all parcels shown on the 300-foot vicinity map. The list shall be cross-referenced onto the vicinity map.
8. **An information accuracy certificate**. (ATTACHMENT 4)
9. An **8-1/2" x 11" haul route map** of appropriate scale which indicates the location of the project site, showing streets and direction of hauling up to and including the end of the route.

If you have any questions regarding the status of your haul route application, after it has been accepted, you may contact the Commission Office, (213) 482-0466.

Footnotes:

1. The department shall not accept an application for "import - export" nor shall a grading permit be issued until the appropriate agency has filed a "Notice of Determination" approving the project.
2. The ND, MND or EIR must specifically address the temporary impacts (temporary or cumulative) of the hauling and grading work.

CITY OF LOS ANGELES
DEPARTMENT OF BUILDING AND SAFETY
Grading Division

District	Log No.
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APPLICATION FOR REVIEW OF IMPORT-EXPORT ROUTES

INSTRUCTIONS

- A. Address all communications to the Grading Division, LADBS, 201 N. Figueroa St., 3rd Fl., Los Angeles, CA 90012
Telephone No. (213)482-0480.
- B. Submit one copy of application with items "1" through "4" and "10" completed.
- C. Check should be made to the City of Los Angeles.

1. LEGAL DESCRIPTION

Tract: Shatto Place
Block: 3 Lots: 10, 11, 12

3. OWNER: TF Shatto Limited Partnership

Address: 11400 Olympic Blvd.
City: Los Angeles, CA Zip: 90064
Phone (Daytime): _____

2. PROJECT ADDRESS:

550 S. Shatto Place

4. APPLICANT Alexander Irvine

Address: 633 W. 5th Street, Suite 2800
City: Los Angeles, CA Zip: 90071
Phone (Daytime): 213-473-3403
E-mail address: alex@irvineassoc.com

5. Report(s) Prepared by: Geotechnologies, Inc.

6. Report Date(s): July 20, 2018 and updated August 3, 2018

7. Status of project: ☒ Proposed ☐ Under Construction ☐ Storm Damage

8. Previous site reports? ☒ YES if yes, give date(s) of report(s) and name of company who prepared report(s)

11/22/2017 by Geotechnologies, Inc. Report No. 2153

9. Previous Department actions? ☒ YES if yes, provide dates and attach a copy to expedite processing.

Dates: June 26, 2018 LOG # 103798

10. Applicant Signature: _____

Position: _____

(DEPARTMENT USE ONLY)

REVIEW REQUESTED	FEES	REVIEW REQUESTED	FEES
<input type="checkbox"/> Soils Engineering		No. of Lots	
<input type="checkbox"/> Geology		No. of Acres	
<input type="checkbox"/> Combined Soils Engr. & Geol.		<input type="checkbox"/> Division of Land	
<input type="checkbox"/> Supplemental		Other	
<input type="checkbox"/> Combined Supplemental		<input type="checkbox"/> Expedite	
<input type="checkbox"/> Import-Export Route		<input type="checkbox"/> Response to Correction	
Cubic Yards: _____		<input type="checkbox"/> Expedite ONLY	
		Sub-total	
		One-Stop Surcharge	
		TOTAL FEE	

Fee Due: _____
Fee Verified By: _____ Date: _____
(Cashier Use Only)

ACTION BY:

THE REPORT IS: ☐ NOT APPROVED

☐ APPROVED WITH CONDITIONS ☐ BELOW ☐ ATTACHED

For Geology

Date

For Soils

Date

CITY OF LOS ANGELES
DEPARTMENT OF BUILDING AND SAFETY

ENVIRONMENTAL REVIEW QUESTIONNAIRE

JOB ADDRESS: 550 S. Shatto Place

Briefly describe the complete project and include the proposed amount of Import/Export of soil for hauling and the number of residential units, if applicable: **See Exhibit "A"**

DEPARTMENT OF CITY PLANNING OR PUBLIC WORKS USE ONLY:

- ☐ The Department of City Planning has analyzed this project, which includes the import/export of soil and hauling, and pursuant to State and City Environmental Quality Act (CEQA) Guidelines, has determined it qualifies for a Categorical Exemption (CE) per the attached Notice of Exemption. (Case No. _____)

The Notice of Exemption references the following amount of import/export of soil to be hauled: _____ cubic yards

- ☐ The Department of City Planning or Public Works has analyzed this project, which includes the import/export of soil and hauling, and pursuant to State and City Environmental Quality Act (CEQA) Guidelines, has prepared or has had another agency prepare the ATTACHED Mitigated Negative Declaration (MND). (Case No. _____)

The circulation end date for the above mentioned MND is: _____

The MND references the following amount of import/export of soil to be hauled: _____ cubic yards

Mitigated measures for hauling are found on the following MND pages : _____

Check one of the following boxes:

- ☐ No Comments were received during the circulation period.
- ☐ Yes, Comments were received during the circulation period. These comments and written responses from the agency that prepared the MND are ATTACHED with the MND referenced above.

- ☐ The Department of City Planning or Public Works has analyzed this project, which includes the import/export of soil and hauling, and pursuant to State and City Environmental Quality Act (CEQA) Guidelines, has prepared or has had another agency prepare the ATTACHED Environmental Impact Report (EIR). (Case No. _____)

The circulation end date for the above mentioned EIR: _____

The EIR references the following amount of import/export of soil to be hauled: _____ cubic yards

Mitigated measures for hauling are found on the following EIR pages: _____

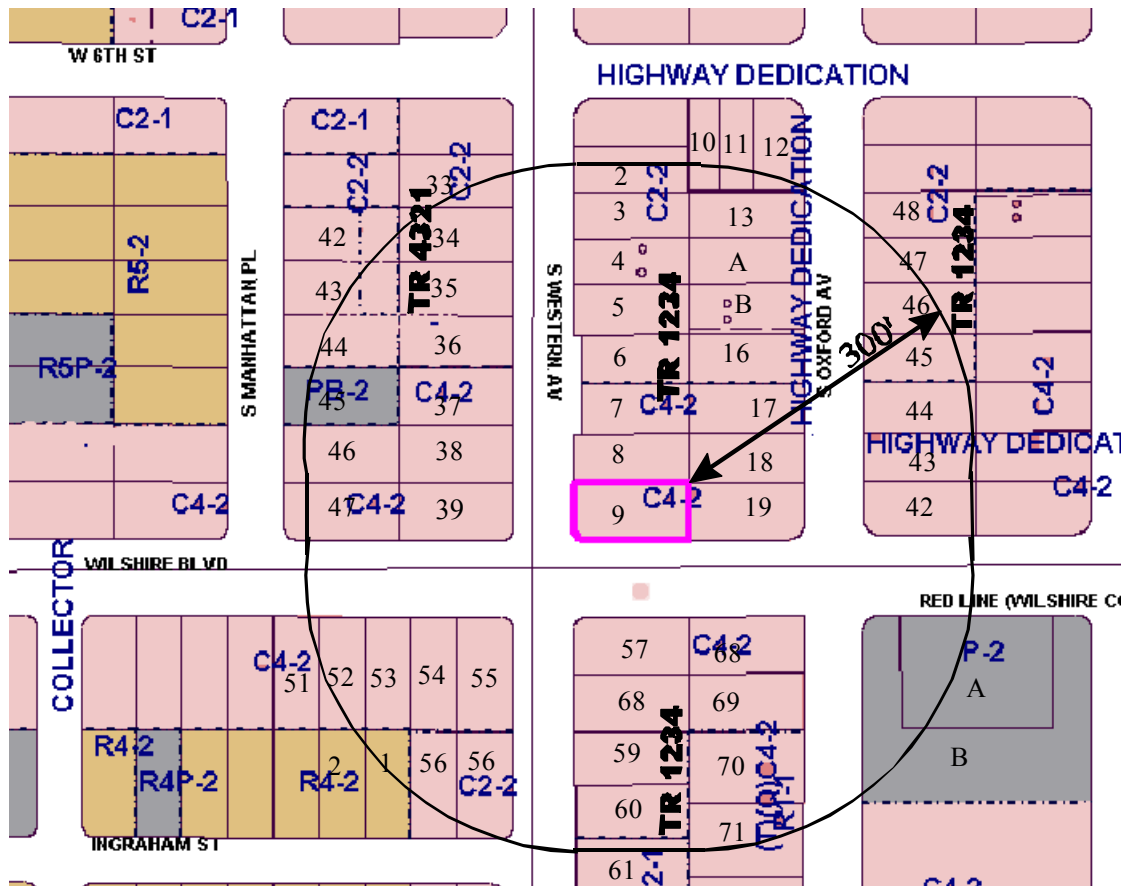
Check one of the following boxes:

- ☐ No Comments were received during the circulation period.
- ☐ Yes, Comments were received during the circulation period. These comments and written responses from the agency that prepared the EIR are ATTACHED with the EIR referenced above.

CITY OF LOS ANGELES
DEPARTMENT OF BUILDING AND SAFETY

ATTACHMENT 3

300 FEET RADIUS MAP SAMPLE



Indicate the location of significant physical features which might have bearing on the proposed hauling and show public facilities such as schools, hospitals, libraries and city parks which are in the vicinity of the project site.

RADIUS MAP: Identifies all the properties within 300 feet of the property.

THREE SETS OF LABELS: Labels must contain the current owner's name and mailing address of each lot within the area circumscribed by the 300' radius. Labels must be cross-referenced to the radius map so the owner of each lot can be identified in relationship to the map.

CITY OF LOS ANGELES
DEPARTMENT OF BUILDING AND SAFETY

ATTACHMENT 4

INFORMATION ACCURACY STATEMENT

I hereby certify that, to the best of my knowledge, the attached vicinity map correctly depicts the notification area required by Section 91.7006.7.4 of the Los Angeles Municipal Code. Further, I hereby certify that, to the best of my knowledge, as of _____, the attached list correctly identifies the names and addresses of the latest owners of the properties indicated on the attached vicinity map.
*(date list was obtained *)*

Signature

Print Name

Date

* The list must be no older than six months at the time of application.

550 Shatto Place

Off-Site Construction Traffic Assumptions

CalEEMod Construction Phase	Start Date	End Date	No. Work Days	Demolition (CY)	Truck Capacity (CY)	Truck Total One-Way Trips	Truck Daily One-Way Trips	Soil Export (CY)	Soil Import (CY)	Soil Haul Truck Capacity (CY)	Soil Haul Truck Total One-Way Trips	Soil Haul Truck Daily One-Way Trips	Haul Trip Distance (mi)	Concrete Mat Volume (CY)	Concrete Truck Capacity (CY)	Concrete Truck Total One-Way Trips	Concrete Truck Daily One-Way Trips	Worker One-Way Trips/Max Day	Vendor One-Way Trips/Max Day
Project																			
Demolition	6/10/2019	8/9/2019	53	1100	10	220	4						20					14	6
Grading/Excavation	8/10/2019	1/6/2020	128					56000	0	14	8000	64	20					8	6
Utilities/Trenching	1/7/2020	4/8/2020	80															100	50
Foundations	3/16/2020	6/4/2020	70											4900	9	1090	32	100	50
Building Construction	6/5/2020	8/27/2021	385															200	50
Architectural Coating/Finishing	3/18/2021	8/27/2021	140															50	50
Paving	8/7/2021	8/27/2021	18															14	0
Renovation of Existing Use	3/3/2021	8/27/2021	153	1100	10	220	2						20					52	52

OFF-SITE CONSTRUCTION TRAFFIC NOISE ANALYSIS TOOL



Project Name: 550 Shatto Place
Analysis Scenario: Grading and Excavation
Source of Traffic Volumes: Applicant

Roadway Segment	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Noise Level dBA CNEL
			Auto	MT	HT	Auto	MT	HT		
Shatto Pl, between 4th St and 6th St	Hard	50	30	30	30	740	15	20	63.2	63.5
4th St, between Vermont Ave and Shatto Pl	Hard	45	30	30	30	944	19	22	64.5	64.8
Vermont Ave, between 3rd St and 4th St	Hard	50	30	30	30	2953	61	42	68.4	68.7

Model Notes:

The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).

The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.

Accuracy of the calculation is within ± 0.1 dB when comparing to TNM results.

Noise propagation greater than 50 feet is based on the following assumptions:

For hard ground, the propagation rate is 3 dB per doubling the distance.

For soft ground, the propagation rate is 4.5 dB per doubling the distance.

Vehicles are assumed to be on a long straight roadway with cruise speed.

Roadway grade is less than 1.5%.

CNEL levels were obtained based on Figure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL



Project Name: 550 Shatto Place
Analysis Scenario: Existing
Source of Traffic Volumes:

Roadway Segment	Ground Type	Distance from Roadway Center to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Noise Level dBA CNEL
			Auto	MT	HT	Auto	MT	HT		
6th St, between Normandie Ave and Vermont Ave	Hard	40	30	30	30	2277	47	23	68.0	68.3
6th St, between Vermont Ave and Shatto Place	Hard	50	30	30	30	2277	47	23	67.0	67.3
6th St, between Shatto Place and Virgil Ave	Hard	40	30	30	30	2082	43	21	67.6	67.9
6th St, between Virgil Ave and Rampart Blvd	Hard	40	30	30	30	1979	41	20	67.3	67.6
6th St, between Rampart Blvd and Alvarado St	Hard	50	30	30	30	1751	36	18	65.8	66.1
Shatto Pl, between 4th St and 6th St	Hard	50	30	30	30	732	15	8	62.1	62.4
Shatto Pl, between 6th St and Wilshire Blvd	Hard	45	30	30	30	625	13	6	61.8	62.1
4th St, between Vermont Ave and Shatto Pl	Hard	45	30	30	30	936	19	10	63.6	63.9
4th St, between Shatto Pl and Virgil Ave	Hard	45	30	30	30	864	18	9	63.2	63.5
Wilshire Blvd, between Vermont Ave and Shatto Pl	Hard	45	30	30	30	2507	52	26	67.9	68.2
Wilshire Blvd, between Shatto Pl and Hoover St	Hard	45	30	30	30	2844	59	29	68.4	68.7
3rd St, between Vermont Ave and Virgil Ave	Hard	45	30	30	30	2483	51	26	67.8	68.1
Vermont Ave, between 3rd St and 4th St	Hard	50	30	30	30	2945	61	30	68.1	68.4
Vermont Ave, between 4th St and 6th St	Hard	50	30	30	30	2598	54	27	67.6	67.9
Vermont Ave, between 6th St and Wilshire Blvd	Hard	60	30	30	30	2620	54	27	66.8	67.1
Vermont Ave, between Wilshire Blvd and 8th St	Hard	50	30	30	30	2648	55	27	67.6	67.9
Virgil Ave, between 3rd St and 4th St	Hard	50	30	30	30	1593	33	16	65.4	65.7
Virgil Ave, between 4th St and 6th St	Hard	50	30	30	30	1432	30	15	65.0	65.3

Model Notes:

The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).

The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.

Accuracy of the calculation is within ± 0.1 dB when comparing to TNM results.

Noise propagation greater than 50 feet is based on the following assumptions:

For hard ground, the propagation rate is 3 dB per doubling the distance.

For soft ground, the propagation rate is 4.5 dB per doubling the distance.

Vehicles are assumed to be on a long straight roadway with cruise speed.

Roadway grade is less than 1.5%.

CNEL levels were obtained based on Figure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL



Project Name: 550 Shatto Place
 Analysis Scenario: Existing plus Project
 Source of Traffic Volumes:

Roadway Segment	Ground Type	Distance from Roadway Center to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Noise Level dBA CNEL
			Auto	MT	HT	Auto	MT	HT		
6th St, between Normandie Ave and Vermont Ave	Hard	40	30	30	30	2279	47	23	68.0	68.3
6th St, between Vermont Ave and Shatto Place	Hard	50	30	30	30	2279	47	23	67.0	67.3
6th St, between Shatto Place and Virgil Ave	Hard	40	30	30	30	2097	43	22	67.6	67.9
6th St, between Virgil Ave and Rampart Blvd	Hard	40	30	30	30	1994	41	21	67.4	67.7
6th St, between Rampart Blvd and Alvarado St	Hard	50	30	30	30	1754	36	18	65.9	66.2
Shatto Pl, between 4th St and 6th St	Hard	50	30	30	30	707	15	7	61.9	62.2
Shatto Pl, between 6th St and Wilshire Blvd	Hard	45	30	30	30	631	13	7	61.9	62.2
4th St, between Vermont Ave and Shatto Pl	Hard	45	30	30	30	961	20	10	63.7	64.0
4th St, between Shatto Pl and Virgil Ave	Hard	45	30	30	30	870	18	9	63.3	63.6
Wilshire Blvd, between Vermont Ave and Shatto Pl	Hard	45	30	30	30	2509	52	26	67.9	68.2
Wilshire Blvd, between Shatto Pl and Hoover St	Hard	45	30	30	30	2848	59	29	68.4	68.7
3rd St, between Vermont Ave and Virgil Ave	Hard	45	30	30	30	2483	51	26	67.8	68.1
Vermont Ave, between 3rd St and 4th St	Hard	50	30	30	30	2972	61	31	68.1	68.4
Vermont Ave, between 4th St and 6th St	Hard	50	30	30	30	2600	54	27	67.6	67.9
Vermont Ave, between 6th St and Wilshire Blvd	Hard	60	30	30	30	2623	54	27	66.8	67.1
Vermont Ave, between Wilshire Blvd and 8th St	Hard	50	30	30	30	2651	55	27	67.6	67.9
Virgil Ave, between 3rd St and 4th St	Hard	50	30	30	30	1594	33	16	65.4	65.7
Virgil Ave, between 4th St and 6th St	Hard	50	30	30	30	1432	30	15	65.0	65.3

Model Notes:

The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).

The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.

Accuracy of the calculation is within ± 0.1 dB when comparing to TNM results.

Noise propagation greater than 50 feet is based on the following assumptions:

For hard ground, the propagation rate is 3 dB per doubling the distance.

For soft ground, the propagation rate is 4.5 dB per doubling the distance.

Vehicles are assumed to be on a long straight roadway with cruise speed.

Roadway grade is less than 1.5%.

CNEL levels were obtained based on Figure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL



Project Name: 550 Shatto Place
Analysis Scenario: Future
Source of Traffic Volumes:

Roadway Segment	Ground Type	Distance from Roadway Center to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Noise Level dBA CNEL
			Auto	MT	HT	Auto	MT	HT		
6th St, between Normandie Ave and Vermont Ave	Hard	40	30	30	30	2735	56	28	68.8	69.1
6th St, between Vermont Ave and Shatto Place	Hard	50	30	30	30	2735	56	28	67.8	68.1
6th St, between Shatto Place and Virgil Ave	Hard	40	30	30	30	2638	54	27	68.6	68.9
6th St, between Virgil Ave and Rampart Blvd	Hard	40	30	30	30	2472	51	25	68.3	68.6
6th St, between Rampart Blvd and Alvarado St	Hard	50	30	30	30	2243	46	23	66.9	67.2
Shatto Pl, between 4th St and 6th St	Hard	50	30	30	30	748	15	8	62.2	62.5
Shatto Pl, between 6th St and Wilshire Blvd	Hard	45	30	30	30	628	13	6	61.8	62.1
4th St, between Vermont Ave and Shatto Pl	Hard	45	30	30	30	1108	23	11	64.3	64.6
4th St, between Shatto Pl and Virgil Ave	Hard	45	30	30	30	1006	21	10	63.9	64.2
Wilshire Blvd, between Vermont Ave and Shatto Pl	Hard	45	30	30	30	3256	67	34	69.0	69.3
Wilshire Blvd, between Shatto Pl and Hoover St	Hard	45	30	30	30	3611	74	37	69.4	69.7
3rd St, between Vermont Ave and Virgil Ave	Hard	45	30	30	30	2679	55	28	68.2	68.5
Vermont Ave, between 3rd St and 4th St	Hard	50	30	30	30	4102	85	42	69.5	69.8
Vermont Ave, between 4th St and 6th St	Hard	50	30	30	30	3598	74	37	69.0	69.3
Vermont Ave, between 6th St and Wilshire Blvd	Hard	60	30	30	30	3633	75	37	68.2	68.5
Vermont Ave, between Wilshire Blvd and 8th St	Hard	50	30	30	30	3385	70	35	68.7	69.0
Virgil Ave, between 3rd St and 4th St	Hard	50	30	30	30	1882	39	19	66.2	66.5
Virgil Ave, between 4th St and 6th St	Hard	50	30	30	30	1746	36	18	65.8	66.1

Model Notes:

The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).

The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.

Accuracy of the calculation is within ± 0.1 dB when comparing to TNM results.

Noise propagation greater than 50 feet is based on the following assumptions:

For hard ground, the propagation rate is 3 dB per doubling the distance.

For soft ground, the propagation rate is 4.5 dB per doubling the distance.

Vehicles are assumed to be on a long straight roadway with cruise speed.

Roadway grade is less than 1.5%.

CNEL levels were obtained based on Figure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL



Project Name: 550 Shatto Place
 Analysis Scenario: Future plus Project
 Source of Traffic Volumes:

Roadway Segment	Ground Type	Distance from Roadway Center to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Noise Level dBA CNEL
			Auto	MT	HT	Auto	MT	HT		
6th St, between Normandie Ave and Vermont Ave	Hard	40	30	30	30	2746	57	28	68.8	69.1
6th St, between Vermont Ave and Shatto Place	Hard	50	30	30	30	2746	57	28	67.8	68.1
6th St, between Shatto Place and Virgil Ave	Hard	40	30	30	30	2654	55	27	68.6	68.9
6th St, between Virgil Ave and Rampart Blvd	Hard	40	30	30	30	2487	51	26	68.3	68.6
6th St, between Rampart Blvd and Alvarado St	Hard	50	30	30	30	2246	46	23	66.9	67.2
Shatto Pl, between 4th St and 6th St	Hard	50	30	30	30	723	15	7	62.0	62.3
Shatto Pl, between 6th St and Wilshire Blvd	Hard	45	30	30	30	633	13	7	61.9	62.2
4th St, between Vermont Ave and Shatto Pl	Hard	45	30	30	30	1133	23	12	64.4	64.7
4th St, between Shatto Pl and Virgil Ave	Hard	45	30	30	30	1012	21	10	63.9	64.2
Wilshire Blvd, between Vermont Ave and Shatto Pl	Hard	45	30	30	30	3258	67	34	69.0	69.3
Wilshire Blvd, between Shatto Pl and Hoover St	Hard	45	30	30	30	3617	75	37	69.5	69.8
3rd St, between Vermont Ave and Virgil Ave	Hard	45	30	30	30	2679	55	28	68.2	68.5
Vermont Ave, between 3rd St and 4th St	Hard	50	30	30	30	4129	85	43	69.6	69.9
Vermont Ave, between 4th St and 6th St	Hard	50	30	30	30	3600	74	37	69.0	69.3
Vermont Ave, between 6th St and Wilshire Blvd	Hard	60	30	30	30	3658	75	38	68.3	68.6
Vermont Ave, between Wilshire Blvd and 8th St	Hard	50	30	30	30	3388	70	35	68.7	69.0
Virgil Ave, between 3rd St and 4th St	Hard	50	30	30	30	1883	39	19	66.2	66.5
Virgil Ave, between 4th St and 6th St	Hard	50	30	30	30	1746	36	18	65.8	66.1

Model Notes:

The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).

The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.

Accuracy of the calculation is within ± 0.1 dB when comparing to TNM results.

Noise propagation greater than 50 feet is based on the following assumptions:

For hard ground, the propagation rate is 3 dB per doubling the distance.

For soft ground, the propagation rate is 4.5 dB per doubling the distance.

Vehicles are assumed to be on a long straight roadway with cruise speed.

Roadway grade is less than 1.5%.

CNEL levels were obtained based on Figure 2-19, on page 2-58 Caltran's TeNS 2013.

Generator and Loading Dock Related Noise Levels

Job No. DPCRE01.EP	Sheet No. 1
Date 12/28/2017	Made by Kyle Kim

Title: Noise Measurement Data

[illegible]



Job No.	Sheet No.
	1
Date:	Made by

Title Noise Data												
Description			Ref. Dist.	dB(A)								
					63	125	250	500	1k	2k	4k	8k
	Walmart Loading and refuse service noise measurement											
	Large Delivery truck	Leq	5	75.0	74.7	69.3	66.9	66.6	67.7	68.4	68.9	68.5

The loading dock facility and trash compactor noise measurements were conducted at a loading dock facility at a Wal-Mart store using the Larson-Davis 820 Precision Integrated Sound Level Meter ("SLM") in June 15, 2016. The Larson-Davis 820 SLM is a Type 1 standard instrument as defined in the American National Standard Institute S1.4. All instruments were calibrated and operated according to the applicable manufacturer specification. The microphone was placed at a height of approximately 5 feet above the local grade.

Veriaon Monrovia Generator

Location	Number	Date	Time	Duration	Leq	SEL	Lmax	Lmin
Generator@25	0	15Nov 00	9:26:33	39	96.2	112.1	99.5	92.3
Generator@25	0	15Nov 00	9:27:53	24.8	96.1	110.5	102.9	89.3

Time Warner Cable Site in Palm Springs

17-May-16

Noise Levels dBA

102 at 15 feet from the generator louver

Perspective | October 1998

Average Speech Levels and Spectra in Various Speaking/Listening Conditions

A Summary of the Pearson, Bennett, & Fidell (1977) Report

Wayne O. Olsen (solr/searchResults.aspx?author=Wayne+O.+Olsen)

American Journal of Audiology, October 1998, Vol. 7, 21-25. doi:10.1044/1059-0889(1998/012)

History: Received August 26, 1997; Accepted October 17, 1997

The large study undertaken by Pearsons et al. (1977) for the Environmental Protection Agency nicely demonstrates "usual" speech levels in a variety of settings in classrooms, homes, hospitals, department stores, and commercial transportation. In most settings, speech levels were between 55 and 66 dBA at conversation distances in the school, home, hospital, and department store environments. S/N ratios on the order of 5 to 15 dB were maintained.

Communication distance in the trains and airplanes was considerably less than the usual 1 m, and the speech levels were higher, 73 to 77 dBA, but still at a -1 or -2 dB S/N ratio in the train and airplanes, respectively. Their measurements in an anechoic chamber further reflected the levels of conversational speech in a quiet environment, as well as the levels and spectra for different vocal efforts by females, males, and children. Speech spectra were generally similar for the groups of talkers for casual conversation through raised vocal efforts. For loud speech, and particularly for shouted speech, male speech levels were greater than the speech levels of the females and children. The maximum one-third octave bands for loud and shouted speech shifted to higher frequencies for all three groups.

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Shatto Place Koreatown
Vibration Source Levels
Based on Federal Transit Administration, Office of Planning and Environment

Table III. Off-Site Structural Impact Analysis

N = 1.5

Construction Equipment	Project Equipment	Equipment Peak Particle Velocity @ 25 Feet* (inches/second)	Distance to Receptor for < 0.5 PPV (Feet)	Estimated Velocity Decibels @ Distance** (VdB)	Estimated Peak Particle Velocity @ Distance*** (inches/second)
R1					
Large Bulldozer	Yes	0.089	270	56	0.003
Loaded Trucks	Yes	0.076	270	55	0.002
Jackhammer	Yes	0.035	270	48	0.001
Small Bulldozer	Yes	0.003	270	26	0.000
R2					
Pile Driver (Impact - Upper Range)	Yes	0.089	150	34	0.006
Pile Driver (Impact - Typical)	Yes	0.076	150	31	0.005
Pile Driver (Sonic - Upper Range)	Yes	0.035	150	27	0.002
Pile Driver (Sonic - Typical)	Yes	0.003	150	24	0.000
R3					
Large Bulldozer	Yes	0.089	5	108	0.99
Loaded Trucks	Yes	0.076	5	107	0.85
Jackhammer	Yes	0.035	5	100	0.39
Small Bulldozer	Yes	0.003	5	78	0.03
R4					
Large Bulldozer	Yes	0.089	270	56	0.003
Loaded Trucks	Yes	0.076	270	55	0.002
Jackhammer	Yes	0.035	270	48	0.001
Small Bulldozer	Yes	0.003	270	26	0.000

Source:

U.S. Department of Transportation, Federal Transit Administration, Office of Planning and Environment, *Transit Noise and Vibration Impact Assessment (FTA-VA-90-1003-06)*, (2006).

Notes:

* Values taken from Table 12-2.

*** Based on the formula $PPV(D) = PPV(25 \text{ ft}) \times (25/D)^N$, where D is equal to the distance.

N = soil type classification factor (typically ranges from 1 to 1.5)