CRAIN & ASSOCIATES
Transportation Planning / Traffic Engineering

VIA E-MAIL

August 26, 2016

Mr. Corey Evans
KPRS Construction Services, Inc.
515 South Flower Street
Suite 3641
Los Angeles, CA 90045

RE: 5800 Bristol Parkway Construction Hauling Route Assessment Analysis

Dear Corey,

We have reviewed the construction hauling routes and traffic counts associated with the request to expand construction hauling activities during the weekday hours for the construction site located at 5800 Bristol Parkway (the "Project"). The Project is located at the northeast corner of the intersection of Bristol Parkway and Hannum Avenue, in the City of Culver City (the "City"). The Project is an approximately 281,400 square foot office development, and will construct approximately 990 parking spaces as part of the Project.

The Project proposes to expand the work hours to be from 4:00 AM to 8:00 PM to expedite the construction timeline. The expansion of construction activities would be primarily for the hauling of concrete to and from the Project site. Up to 14 construction trucks is expected to travel to and from the site on an hourly basis. This is equivalent to 28 passenger vehicles per hour when a heavy vehicle factor of 2.0 passenger car equivalents (PCE's) per truck is applied. This factor is consistent with recommendations from the 2010 Highway Capacity Manual (HCM) and applies to heavy vehicles traveling through roadways with signalized intersections. Therefore, 28 PCE trips are traveling inbound and 28 PCE trips are traveling outbound for a total of 56 PCE trips per hour. Between 4:00 AM to 8:00 AM, for a total of four hours, approximately 56 construction trucks would be traveling to and from the site for a total of 224 PCEs, allowing for truck trips in low traffic volume times and commensurately decreasing trips during the high volume times.

The hauling route is primarily located on the San Diego Freeway (I-405 Freeway) to the south. However, in order to access the site, the construction trucks travel along portions of Slauson Avenue, Jefferson Boulevard, and Hannum Avenue. Construction trucks traveling northbound on the I-405 Freeway exit at the Slauson Avenue exit, merge onto Sepulveda Boulevard northbound, make a right turn onto Slauson Avenue and then turn right onto Hannum Avenue and continue onto the site. For the return trip, the trucks exit the site onto Hannum Avenue, make a left turn onto Slauson Avenue, then a left turn onto

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Jefferson Boulevard from which they enter onto the I-405 Freeway southbound on-ramp. Attachment 1 illustrates the construction hauling routes to and from the Project site.

The three main roadways that serve as the primary street access to the site were examined. As part of this review, 24-hour roadway segment counts were undertaken along portions of these roadways on Wednesday, August 17, 2016. The three roadway segments, as shown in Attachment 1, include the following:

1. Jefferson Boulevard, between Slauson Avenue and I-405 Freeway Ramps
2. Slauson Avenue, between Hannum Avenue and Sepulveda Boulevard
3. Hannum Avenue, between the Site and Slauson Boulevard

The City of Culver City's *General Plan Circulation Element* provides roadway classification designations. Based on these classifications, the roadway segments are designated as follows with the Project study area:

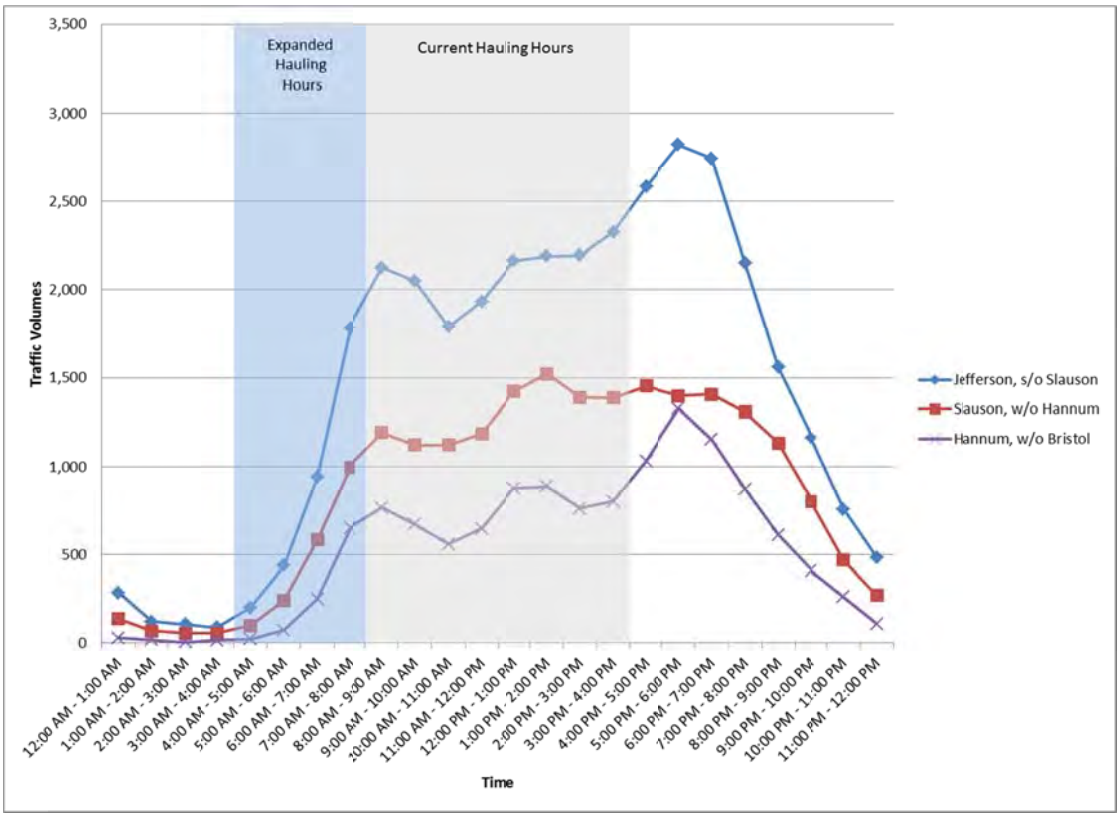
- Jefferson Boulevard, is designated as a Primary Artery, with generally two through travel lanes in each direction, left-turn lanes at all major intersections, and right-turn lanes at Slauson Avenue, and at the I-405 northbound and southbound ramps.
- Slauson Avenue, is designated as a Primary Artery, with generally three through travel lanes in each direction, left-turn lanes at all major intersections, and right-turn lanes at Jefferson Boulevard, Sepulveda Boulevard, Hannum Avenue, SR-90, Bristol Parkway, and Buckingham Parkway.
- Hannum Avenue, is designated as a Secondary Artery, with two through travel lanes in each direction and left-turn lanes at all intersections.

Examination of the 24-hour roadway counts between the requested extended construction haul hours to include 4:00 AM to 8:00 AM was evaluated to determine the relative use of the roadways during the early morning hours. Table 1 summarizes the average hourly traffic counts during the 4:00 to 8:00 AM and 8:00 AM to 4:00 PM hours. The traffic count volumes for each segment are shown graphically in Figure 1. The traffic counts for the three roadway segments are provided in Attachment 2.

Table 1
Roadway Segment Counts and
Project Construction Hauling Trips

ROADWAY SEGMENT	AVERAGE HOURLY TRAFFIC VOLUMES (4:00 – 8:00 AM)	AVERAGE HOURLY TRAFFIC VOLUMES (8:00 AM – 4:00 PM)
Jefferson Boulevard, south of Slauson Avenue	839	2,097
Slauson Avenue, west of Hannum Avenue	481	1,293
Hannum Avenue, west of Bristol Parkway	249	747

Figure 1
Roadway Segment Counts



As Table 1 and Figure 1 present, there is less traffic on the roadways for the trucks to interfere with during the early morning hours than during the mid-day hours. It should also be noted that Project site and the I-405 ramps and surface segments on the haul route are located in a predominantly commercial area.

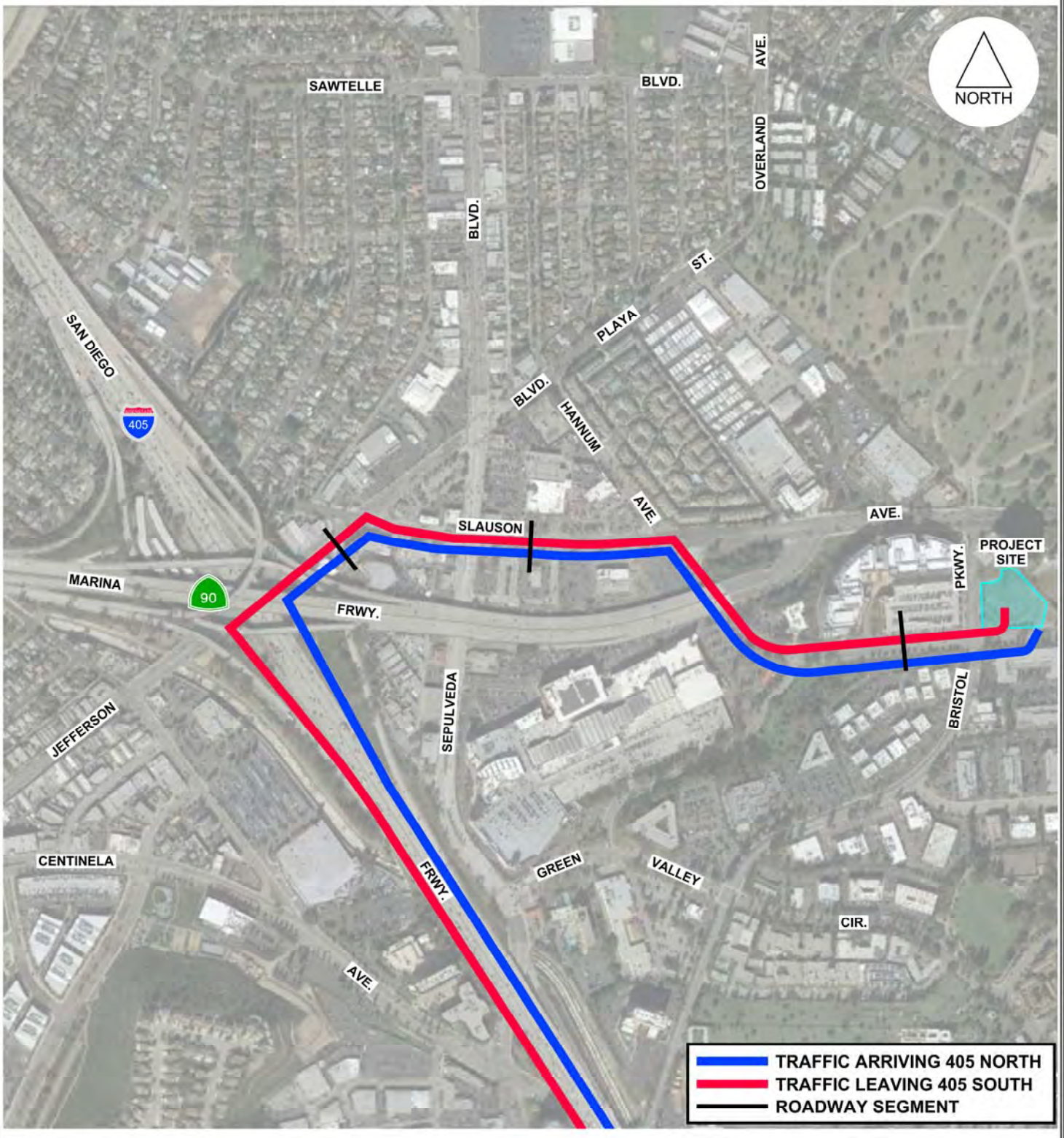
The expanded work hours would also shift construction workers' arrival time away from the AM peak period. For workers to arrive at the current start time of 8:00 AM, they need to travel in the AM peak period of the roadways, which is generally considered between 7:00 to 9:00 AM. Changing the start time to 4:00 AM would move their arrival times to well outside the AM peak period of the roadways. Thus, in addition to the expansion of hauling activity, which allows truck trips during lower volume roadway times, the shift in work hours would shift much of the AM worker commute trips outside the AM peak period.

Sincerely,

George Rhyner, PE
Senior Transportation Engineer
TE 2143, CE 47763

GR/hm
C22094

ATTACHMENT 1
Construction Hauling Routes and Roadway Segment Count Locations



ATTACHMENT 1

8/26/2016

FN: CORPORATE PT 700-701 CULVER CITY\HAUL-ROUTES-1

5800 BRISTOL PARKWAY
CONSTRUCTION HAULING ROUTE MAP
AND ROADWAY SEGMENT COUNT LOCATIONS

CRAIN & ASSOCIATES
Transportation Planning
Traffic Engineering
300 Corporate Pointe, Suite 470
Culver City, California 90230
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ATTACHMENT 2
24-Hour Count Volumes

Counts Unlimited, Inc

PO Box 1178
Corona, CA 92878
Phone: 951-268-6268
email: counts@countsunlimited.com

City of Los Angeles
Jefferson Boulevard
S/ Slauson Avenue
24 Hour Directional Volume Count

LAC001
Site Code: 166-16426

Start	8/17/2016	Northbound		Hour Totals		Southbound		Hour Totals		Combined Totals	
Time	Wed	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		37	223			44	262				
12:15		26	261			45	292				
12:30		22	243			50	325				
12:45		26	249	111	976	35	310	174	1189	285	2165
01:00		19	252			26	297				
01:15		8	239			17	322				
01:30		10	234			19	310				
01:45		3	226	40	951	20	310	82	1239	122	2190
02:00		11	263			21	299				
02:15		14	258			15	297				
02:30		8	246			11	291				
02:45		13	234	46	1001	14	307	61	1194	107	2195
03:00		8	261			8	267				
03:15		2	302			10	303				
03:30		15	346			16	295				
03:45		13	270	38	1179	18	282	52	1147	90	2326
04:00		18	300			14	305				
04:15		14	330			13	281				
04:30		26	357			36	322				
04:45		39	345	97	1332	41	**344**	104	1252	201	2584
05:00		29	365			49	**325**				
05:15		36	357			50	**329**				
05:30		49	354			64	**337**				
05:45		68	**417**	182	1493	92	337	255	1328	437	2821
06:00		72	**372**			110	327				
06:15		77	**358**			110	318				
06:30		102	**357**			172	350				
06:45		117	322	368	1409	180	340	572	1335	940	2744
07:00		160	282			219	304				
07:15		183	273			232	333				
07:30		198	253			253	264				
07:45		246	179	787	987	288	263	992	1164	1779	2151
08:00		212	188			291	284				
08:15		**229**	166			281	225				
08:30		**229**	139			**313**	217				
08:45		**252**	136	922	629	**319**	203	1204	929	2126	1558
09:00		**239**	129			**328**	215				
09:15		214	93			**324**	199				
09:30		217	106			306	158				
09:45		195	114	865	442	227	149	1185	721	2050	1163
10:00		223	105			244	125				
10:15		203	94			243	107				
10:30		185	76			245	108				
10:45		205	54	816	329	240	89	972	429	1788	758
11:00		227	72			275	101				
11:15		223	46			258	63				
11:30		220	43			256	65				
11:45		211	38	881	199	263	56	1052	285	1933	484
Total		5153	10927	5153	10927	6705	12212	6705	12212	11858	23139
Combined Total		16080		16080		18917		18917		34997	
AM Peak	-	08:15	-	-	-	08:30	-	-	-	-	-
Vol.	-	949	-	-	-	1284	-	-	-	-	-
P.H.F.		0.941				0.979					
PM Peak	-	-	05:45	-	-	-	04:45	-	-	-	-
Vol.	-	-	1504	-	-	-	1335	-	-	-	-
P.H.F.			0.902				0.970				
Percentage		32.0%	68.0%			35.4%	64.6%				
ADT/AADT		ADT 34,997		AADT 34,997							

Counts Unlimited, Inc

PO Box 1178
Corona, CA 92878
Phone: 951-268-6268
email: counts@countsunlimited.com

City of Los Angeles
Slauson Avenue
W/ Hannum Avenue
24 Hour Directional Volume Count

LAC002
Site Code: 166-16426

Start Time	8/17/2016 Wed	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		36	151			19	208				
12:15		16	161			10	215				
12:30		26	169			16	168				
12:45		12	167	90	648	2	184	47	775	137	1423
01:00		19	191			10	**195**				
01:15		11	182			7	**203**				
01:30		4	183			5	**189**				
01:45		6	186	40	742	7	**193**	29	780	69	1522
02:00		17	176			5	189				
02:15		8	176			5	167				
02:30		4	172			4	144				
02:45		5	186	34	710	7	180	21	680	55	1390
03:00		6	183			9	164				
03:15		1	185			4	180				
03:30		2	187			8	174				
03:45		4	160	13	715	22	155	43	673	56	1388
04:00		4	**203**			7	163				
04:15		9	**187**			9	142				
04:30		12	**197**			21	179				
04:45		9	**192**	34	779	30	190	67	674	101	1453
05:00		10	180			26	156				
05:15		15	178			24	206				
05:30		20	169			46	168				
05:45		26	175	71	702	75	166	171	696	242	1398
06:00		25	181			68	184				
06:15		29	198			97	182				
06:30		41	170			120	181				
06:45		49	164	144	713	154	147	439	694	583	1407
07:00		43	202			171	157				
07:15		56	174			190	157				
07:30		67	160			194	148				
07:45		86	155	252	691	189	155	744	617	996	1308
08:00		88	170			187	161				
08:15		92	125			**202**	127				
08:30		101	150			**201**	118				
08:45		116	157	397	602	**205**	125	795	531	1192	1133
09:00		90	172			**193**	105				
09:15		128	131			202	87				
09:30		88	99			162	57				
09:45		103	90	409	492	155	60	712	309	1121	801
10:00		103	78			150	63				
10:15		122	78			184	55				
10:30		114	63			162	56				
10:45		108	40	447	259	178	36	674	210	1121	469
11:00		**132**	58			166	34				
11:15		**101**	43			156	35				
11:30		**122**	29			175	29				
11:45		**144**	22	499	152	190	19	687	117	1186	269
Total		2430	7205	2430	7205	4429	6756	4429	6756	6859	13961
Combined Total		9635		9635		11185		11185		20820	
AM Peak	-	11:00	-	-	-	08:15	-	-	-	-	-
Vol.	-	499	-	-	-	801	-	-	-	-	-
P.H.F.		0.866				0.977					
PM Peak	-	-	04:00	-	-	-	01:00	-	-	-	-
Vol.	-	-	779	-	-	-	780	-	-	-	-
P.H.F.			0.959				0.907				
Percentage		25.2%	74.8%			39.6%	60.4%				
ADT/AADT		ADT 20,820		AADT 20,820							

Counts Unlimited, Inc

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City of Los Angeles
Hannum Avenue
W/ Bristol Parkway
24 Hour Directional Volume Count

LAC004
Site Code: 166-16426

Start Time	8/17/2016 Wed	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		6	73			1	143				
12:15		2	87			9	115				
12:30		2	106			5	118				
12:45		1	120	11	386	3	116	18	492	29	878
01:00		2	112			1	123				
01:15		3	119			4	109				
01:30		1	112			3	99				
01:45		2	111	8	454	3	104	11	435	19	889
02:00		0	119			0	95				
02:15		1	93			1	81				
02:30		0	76			0	92				
02:45		0	107	1	395	2	99	3	367	4	762
03:00		1	94			0	95				
03:15		2	115			1	79				
03:30		0	107			4	108				
03:45		1	111	4	427	6	92	11	374	15	801
04:00		0	159			4	112				
04:15		1	142			0	98				
04:30		1	145			6	110				
04:45		2	150	4	596	8	**115**	18	435	22	1031
05:00		3	202			5	**168**				
05:15		4	204			7	**113**				
05:30		3	**226**			25	**117**				
05:45		4	**219**	14	851	22	79	59	477	73	1328
06:00		13	**197**			42	111				
06:15		3	**218**			34	67				
06:30		7	177			47	103				
06:45		16	175	39	767	89	106	212	387	251	1154
07:00		20	161			110	99				
07:15		15	121			132	86				
07:30		39	140			146	62				
07:45		41	118	115	540	147	86	535	333	650	873
08:00		49	120			**147**	66				
08:15		36	91			**133**	58				
08:30		46	91			**159**	47				
08:45		40	97	171	399	**157**	42	596	213	767	612
09:00		56	86			141	29				
09:15		34	70			117	36				
09:30		44	62			137	36				
09:45		30	48	164	266	112	42	507	143	671	409
10:00		29	38			103	49				
10:15		43	52			98	37				
10:30		52	24			94	26				
10:45		43	16	167	130	97	18	392	130	559	260
11:00		**56**	32			108	13				
11:15		**53**	15			88	13				
11:30		**57**	11			93	12				
11:45		**84**	8	250	66	108	5	397	43	647	109
Total		948	5277	948	5277	2759	3829	2759	3829	3707	9106
Combined Total		6225		6225		6588		6588		12813	
AM Peak	-	11:00	-	-	-	08:00	-	-	-	-	-
Vol.	-	250	-	-	-	596	-	-	-	-	-
P.H.F.		0.744				0.937					
PM Peak	-	-	05:30	-	-	-	04:45	-	-	-	-
Vol.	-	-	860	-	-	-	513	-	-	-	-
P.H.F.			0.951				0.763				
Percentage		15.2%	84.8%			41.9%	58.1%				
ADT/AADT		ADT 12,813		AADT 12,813							

C3 CONSTRUCTION LIGHTING

STUDY OF LIGHTING IMPACT ON RESIDENTIAL NEIGHBORHOOD

August 25, 2016

KGM

KPRS

C3 CONSTRUCTION LIGHTING

2016-08-25

LIGHT TOWER CALCULATION ON 3RD FLOOR

Illuminance (Fc)
Average=0.09 Maximum=0.1 Minimum=0.0 Avg/Min=N.A. Max/Min=N.A.

Illuminance (Fc)
Average=0.00 Maximum=0.0 Minimum=0.0 Avg/Min=N.A. Max/Min=N.A.

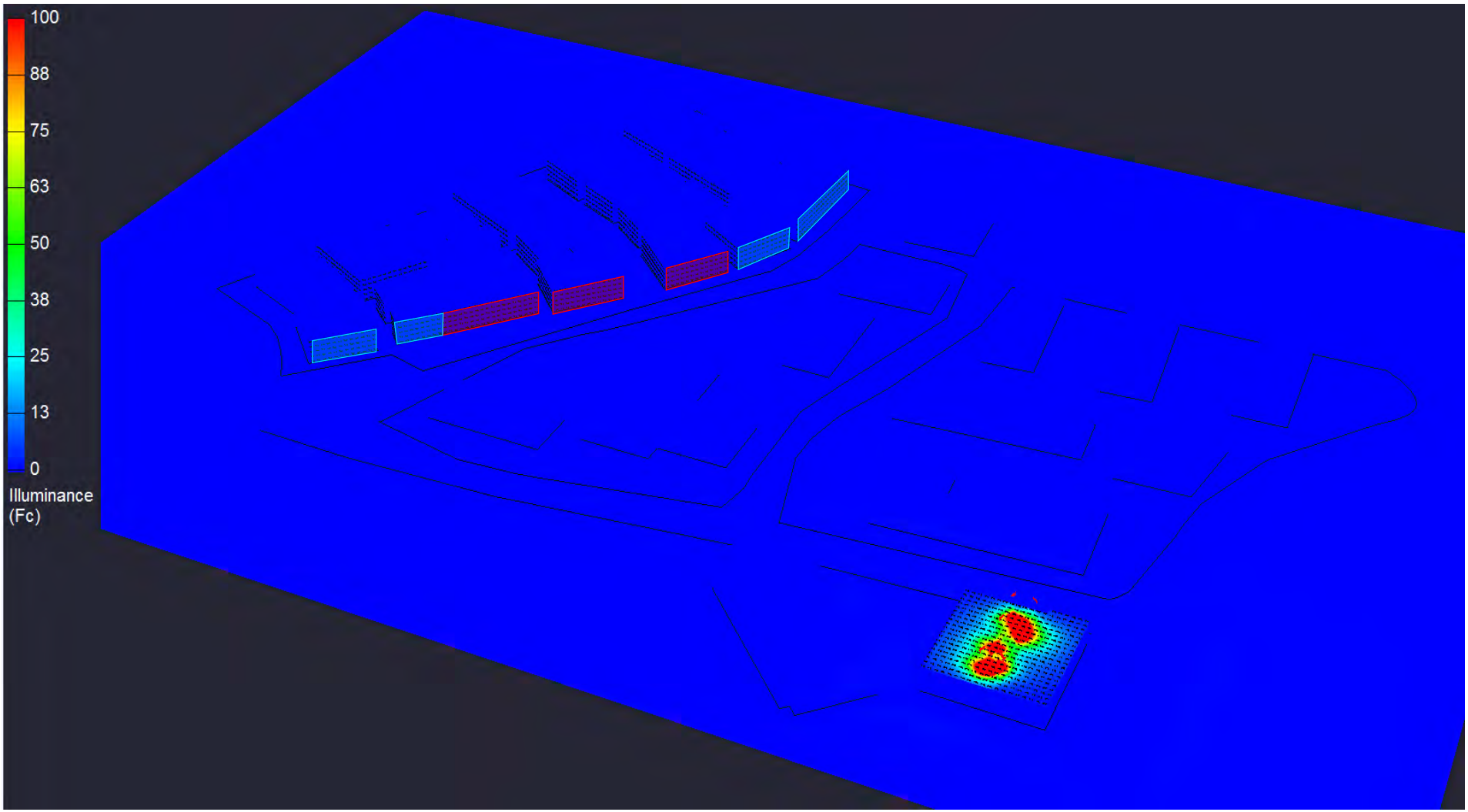
KGM

KPRS

C3 CONSTRUCTION LIGHTING

2016-08-25

LIGHT TOWER CALCULATION ON 3RD FLOOR



Illuminance (Fc)
Average=0.09 Maximum=0.1 Minimum=0.0 Avg/Min=N.A. Max/Min=N.A.

Illuminance (Fc)
Average=0.00 Maximum=0.0 Minimum=0.0 Avg/Min=N.A. Max/Min=N.A.

KGM

KPRS

C3 CONSTRUCTION LIGHTING

2016-08-25

LIGHT TOWER CALCULATION ON ROOF

Illuminance (Fc)
Average=0.09 Maximum=0.1 Minimum=0.0 Avg/Min=N.A. Max/Min=N.A.

Illuminance (Fc)
Average=0.00 Maximum=0.0 Minimum=0.0 Avg/Min=N.A. Max/Min=N.A.

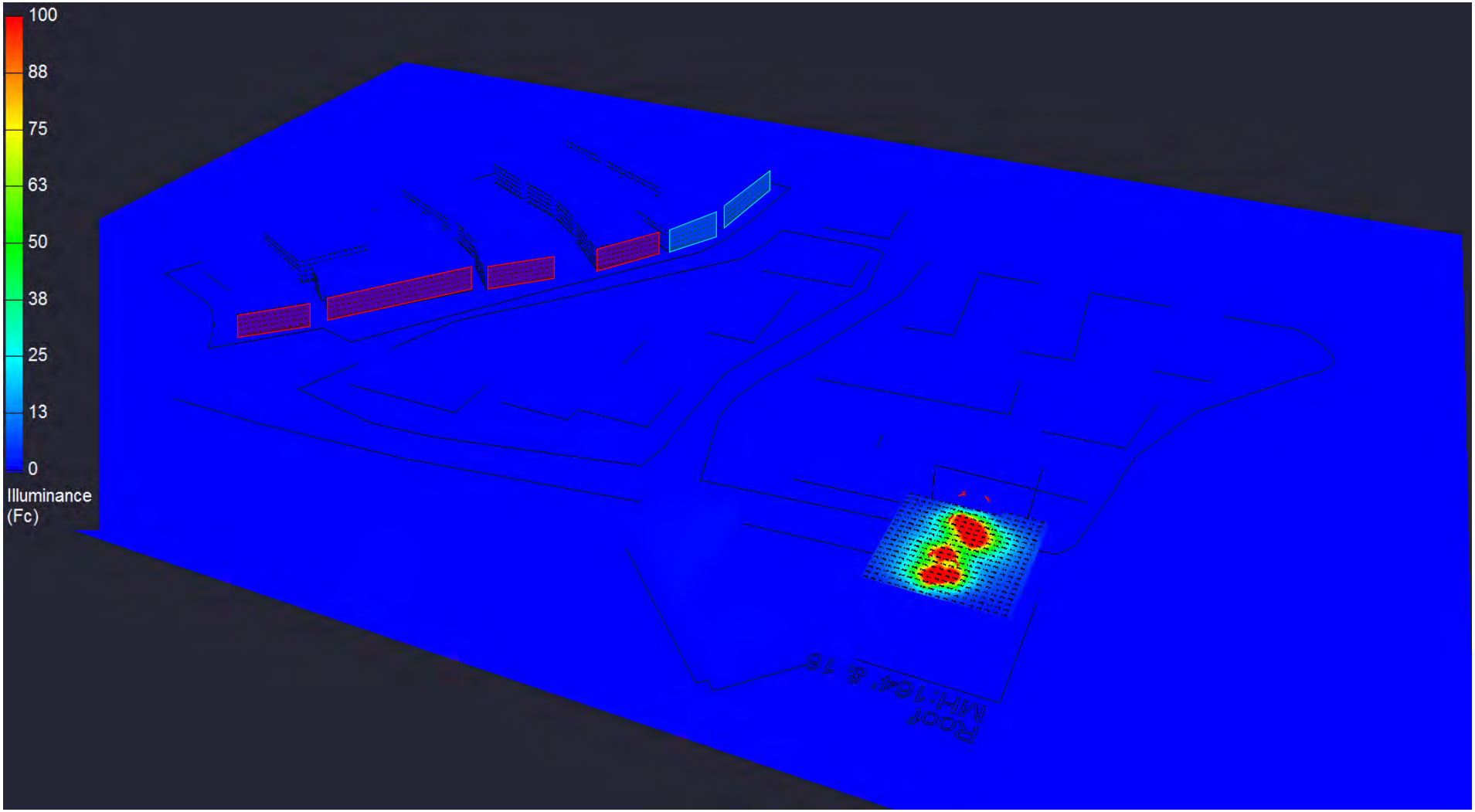
KGM

KPRS

C3 CONSTRUCTION LIGHTING

2016-08-25

LIGHT TOWER CALCULATION ON ROOF



Illuminance (Fc)
Average=0.09 Maximum=0.1 Minimum=0.0 Avg/Min=N.A. Max/Min=N.A.

Illuminance (Fc)
Average=0.00 Maximum=0.0 Minimum=0.0 Avg/Min=N.A. Max/Min=N.A.

KGM

KPRS

August 26, 2016

Bach Le
KPRS CONSTRUCTION SERVICES, INC.
2850 Saturn Street
Brea, CA 92821

Subject: C3 Construction Site Noise Analysis, City of Culver City

Dear Mr. Le:

Introduction

RK ENGINEERING GROUP, INC. (RK) is pleased to provide this noise analysis for the C3 Construction Site project. The site is located at the northeast corner of Bristol Parkway and Hannum Avenue, in the City of Culver City. The purpose of this study is to evaluate potential noise impacts from construction activity during non-permissible hours on weekdays and Saturdays. Noise impacts are analyzed at the nearest sensitive receptor locations, which have been identified as multi-family residential units located along Buckingham Parkway, approximately 850 feet to the southeast of the site.

The project proposes to operate fourteen (14) concrete mixing trucks and one (1) concrete placing boom and pump beginning at 4 a.m. A variance is required by the City of Culver City to permit construction activity before 8 a.m. A location map is shown in Exhibit A and the proposed truck staging area is shown in Exhibit B.

Culver City Noise Standards

The City of Culver City outlines their noise regulations and standards within the Noise Element from the General Plan and the Municipal Code (Appendix A). The primary goal of regulating stationary noise sources it to protect residential land uses and other identified noise sensitive uses.

Culver City Noise Standards

Daytime Levels (7:00 a.m. – 10:00 p.m.)	Nighttime Levels (10:00 p.m. – 7:00 a.m.	Duration
55 dBA - Leq	50 dBA - Leq	30 minutes
60 dBA - Leq	55 dBA - Leq	15 minutes
65 dBA - Leq	60 dBA - Leq	5 minutes
70 dBA - Leq	65 dBA - Leq	1 minute
75 dBA - Leq	70 dBA - Leq	Never

* A penalty of 5 dBA should be incorporated for pure tone noise.

4000 westerly place, suite 280
newport beach, california 92660
tel 949.474.0809 fax 949.474.0902
www.rkengineer.com

Ambient Noise Measurements

Noise measurements are taken to determine the existing ambient noise levels at the nearest sensitive noise receiver. A noise receiver, or receptor, is any location in the noise analysis in which noise might produce an impact. In this case, the nearest sensitive noise receptors are the multi-family residential homes located along Buckingham Parkway, approximately 850 feet to the southeast of the project site. The following criteria are used to select measurement locations and receptors:

- Locations expected to receive the highest noise impacts, such as first row of houses
- Locations that are acoustically representative and equivalent of the area of concern
- Human land usage
- Sites clear of major obstruction and contamination

RK conducted the sound level measurements in accordance to Caltrans technical noise specifications. All measurement equipment meets American National Standards Institute (ANSI) specifications for sound level meters (S1.4-1983 identified in Chapter 19.68.020.AA). The following gives a brief description of the Caltrans Technical Noise Supplement procedures for sound level measurements:

- Microphones for sound level meters were placed five (5) feet above the ground for all measurements
- Sound level meters were calibrated (Larson Davis CAL 200) before and after each measurement
- Following the calibration of equipment, a wind screen was placed over the microphone
- Frequency weighting was set on "A" and slow response
- Results of the long-term noise measurements were recorded on field data sheets
- During any short-term noise measurements any noise contaminations such as barking dogs, local traffic, lawn mowers, or aircraft fly-overs were noted
- Temperature and sky conditions were observed and documented

Using a Larson Davis 712 Type 2 sound level meter, two (2) short-term (10-minute) noise measurements were recorded on-site. The Leq, Lmin, Lmax, L2, L8, L25, and L50 statistical data were recorded over the 10-minute period. Field sheets and photographs are provided in Appendix B. Ambient noise levels were conducted on Monday, August 22, 2016, at the following locations:

1. Short term monitoring location one (ST-1) - Noise measurement taken at the corner of Buckingham Parkway and Cambridge Way, 10 feet from the northwestern residential property line.

2. Short term monitoring location two (ST-2) - Noise measurement taken off Buckingham Parkway, 60 feet north from Windsor Way, adjacent to residential property.

The following table shows the ambient noise level measurements taken near the multi-family residential properties along Buckingham Parkway.

Ambient Noise Levels Measurements (dBA)

Site No.	Time Started[1]	Leq	L_{min}	L_{max}	L_2	L_8	L_{25}	L_{50}
ST-1	5:26 AM	49.0	41.3	62.7	56.6	52.8	49.6	46.5
ST-2	5:42 AM	56.3	42.2	73.4	67.1	60.0	52.6	47.8

[1] Noise measurements taken on August 22, 2016 for approximately 10-minute intervals.

Construction Noise Analysis

The construction noise analysis utilizes the Federal Highway Administration (FHWA) Roadway Construction Noise Model version 1.1. Key input parameters include distance to the sensitive receiver, equipment usage, and baseline parameters for the project site. Noise levels were projected approximately 850 feet to the southeast of the site. A total of fourteen (14) concrete mixer trucks and one (1) pump are projected to operate on-site simultaneously. The referenced noise level of a single concrete mixer truck is 85.0 dBA Lmax. The referenced noise level of one pump is 77.0 dBA Lmax. Construction equipment is projected over the vertical and horizontal distance between the noise source and sensitive receptor. Noise levels are projected from the proposed staging area on-site to the nearest residential property line. The combined noise level of all pieces of equipment is logarithmically added to model the potential worst case condition when all equipment is operating simultaneously. The construction noise calculation output worksheets are located in Appendix C.

The following table shows the projected construction noise levels of all pieces of equipment operating simultaneously at the nearest residential property to the southeast. Noise attenuation and shielding is expected to occur from topographical changes in terrain and building shielding.

Projected Construction Noise Levels at Nearest Residential Property Along Buckingham Parkway

NOISE SOURCE	LEQ (dBA)	LMAX (dBA)
Projected Construction Noise Levels	43.6	47.4
Culver City Nighttime Noise Standard (adjusted for pure tone noise)	45.0	65.0
Noise Level Exceeds Standard? (Yes/No)	No	No

As demonstrated in the table above, **the projected construction noise levels would be below the City's nighttime noise standard.**

Combined Noise Levels

The projected construction noise levels are combined with the ambient noise levels to determine the change in the ambient environment at the sensitive receiver locations. Generally, the human ear cannot perceive changes in noise levels below 3 decibels. Therefore, it is common practice to conclude that a change in noise level as the result of a proposed noise source is less than significant if the change in the ambient environment is 3 dBA or less. The following table shows the change in the ambient noise levels as a result of the nighttime construction operations for residential units near ST-1.

Combined Noise Levels for (ST-1)

NOISE SOURCE	LEQ (dBA)	LMAX (dBA)
Projected Construction Noise Level	43.6	47.4
Existing Ambient Noise Level	49.0	62.7
Combined Noise Level	50.1	62.8
Change as a Result of Project	1.1	0.1
Significant Increase? (Yes/No)	No	No

Combined Noise Levels for (ST-2)

NOISE SOURCE	LEQ (dBA)	LMAX (dBA)
Projected Construction Noise Level	43.6	47.4
Existing Ambient Noise Level	56.3	73.4
Combined Noise Level	56.5	73.4
Change as a Result of Project	0.2	0.0
Significant Increase? (Yes/No)	No	No

As shown in the table above, **the projected construction activity would not cause a significant increase in the existing ambient noise environment.**

Recommendations

In order to ensure noise levels remain below the allowable limits and do not significantly impact the nearby residential homes, the following recommendations should be implemented to help further reduce noise levels during construction:

1. The contractor shall ensure all construction equipment is equipped with appropriate noise attenuating devices.

2. Idling equipment shall be turned off when not in use.

3. Equipment shall be maintained so that vehicles and their loads are secured from rattling and banging.

4. Locate staging area, trucks, and pumping equipment as far from the southeastern property line of the site reasonably feasible.

5. No impact pile driving activities should be performed on the site during nighttime hours.

6. Monitor noise the first week to see if there is any significant change in noise.

Conclusions

The noise levels associated with the proposed nighttime activities at C3 Construction Site are not projected to exceed the City of Culver City noise standards. Furthermore, noise levels will not cause a significant change in the ambient noise environment at the nearest residential properties. Based on this analysis, a variance for construction can be granted without adverse noise impacts.

RK is pleased to assist KPRS CONSTRUCTION SERVICES, INC. with this noise analysis. If you have any questions regarding this study, please call Bryan Estrada at (949) 474-0809.

Sincerely,
RK ENGINEERING GROUP, INC.

Bryan Estrada, P.T.P.
Senior Transportation Planner

Robert Kahn, P.E.
Principal

Attachments

Exhibits

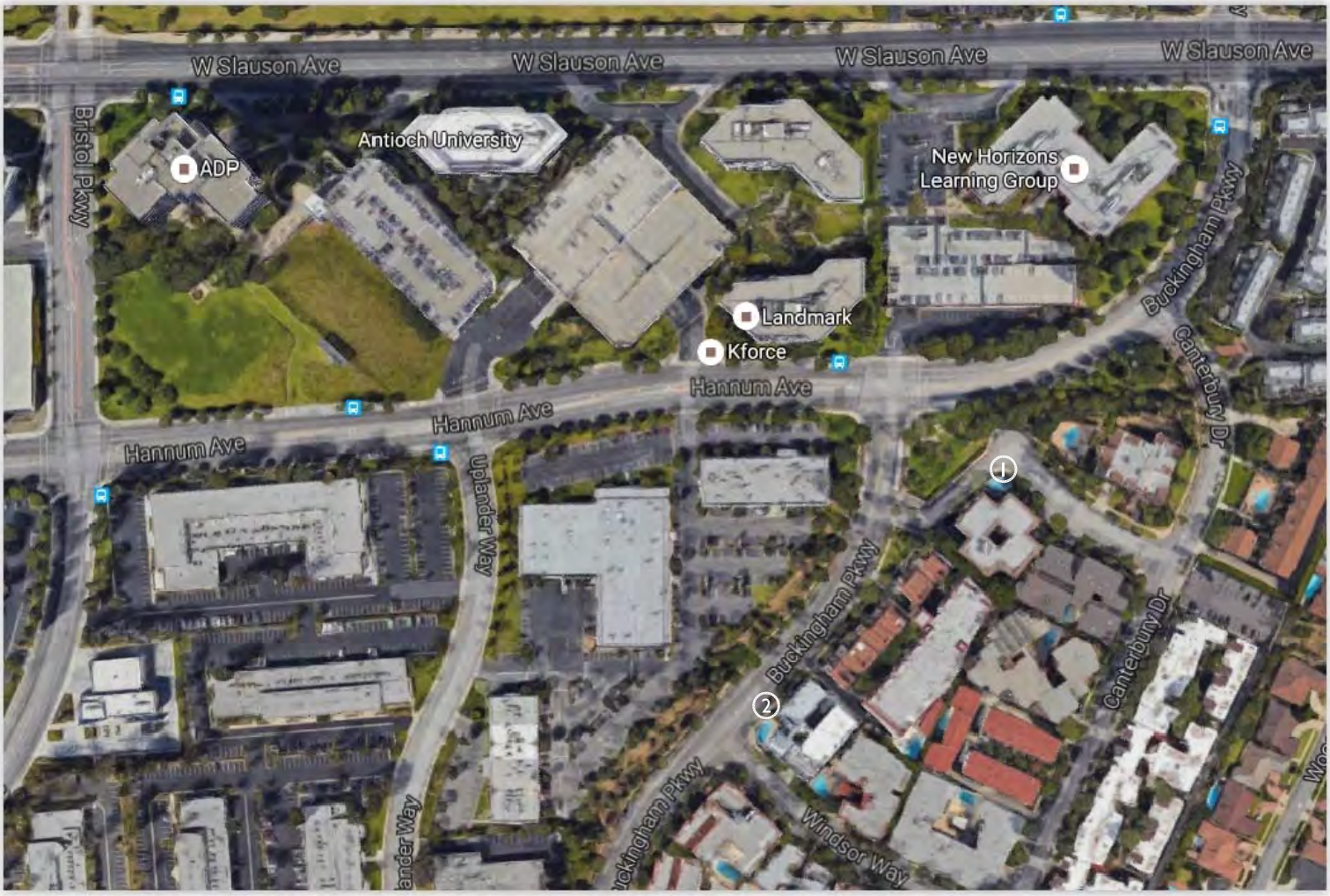
Location Map

N

Exhibit B
Staging Area

Exhibit C

Noise Monitoring Locations



Legend:

① = Noise Monitoring Location

RK engineering group, inc.

Appendices

Appendix A

Culver City Noise Element and
Noise Control Ordinance

PURPOSE OF THE NOISE ELEMENT. Culver City, located on the west side of the Los Angeles basin, is subject to the variety of different types of noise typical of an urban area. The Noise Element of a General Plan is a comprehensive program for including noise control in the planning process. It is a tool for local decision makers to use in achieving and maintaining land uses that minimize the exposure of the community to excessive noises. The Noise Element identifies noise-sensitive land uses and noise sources, and defines areas of noise impact. The goal, objectives, policies and implementation measures are developed to ensure, to the greatest extent feasible, that all segments of the community will be protected from excessive noise intrusion.

ADT	Average Daily Traffic Volume
Ambient Noise	Common background noise
A-Weighting	Adjusted to how people perceive sound
CNEL	Community Noise Equivalent Level
dB	Decibel
dBA	A-Weighted Decibel
Leq	Equivalent Noise Level
Ldn	Day-Night Average Noise Level
Lmax	The Maximum Noise Level
Lmin	The Minimum Noise Level
L%	The Noise Level Exceeded X% of the Time
Noise	Unwanted Sound
Noise Contours	Lines showing where the noise is the same level
Noise Source	Mobile or stationary object which generates noise
OSHA	Occupational Safety and Health Administration
Receptor	Any person or place affected by noise

See Definitions and Standards section for additional terms and details.

The Noise Element follows recently revised State guidelines in the State Government Code, Section 65302(f) and Section 46050.1 of the Health and Safety Code. Because, generally, the major sources of noise in an urban environment are motor vehicles on local streets, the Noise Element quantifies the community noise environment in terms of noise exposure contours for both near and long-term levels of growth and traffic activity. The information will become a guideline both for the development of policies to achieve compatible land uses and to provide baseline levels and noise source identification for local noise ordinance enforcement. The Noise Element must be consistent with other elements of the General Plan. Of particular relevance are the Land Use, Circulation, and Housing Elements. Of these, the Circulation Element has the most direct effect on community noise levels because the Circulation Element establishes policy for the flow of traffic throughout the City. Review of these elements indicates that adequate consideration for noise is included and that the Noise Element is consistent with these General Plan Elements.

BACKGROUND. Culver City first adopted a General Plan Noise Element in 1974. The document provided a comprehensive description of existing noise levels. This 1994 Noise Element is an update of the 1974 element, including updated noise measurements and noise contours. It also includes revised noise standards to better analyze and determine noise impacts and to better protect noise sensitive areas. It is important to note that Culver City is fully urbanized and thus experiences a set of noise problems unique to urbanized areas. In this update of the General Plan Noise Element, the technical description of noise in Culver City has been updated and a series of comprehensive goals, policies, and implementing actions have been developed. The process of updating the Noise Element included a review of existing City policies concerning environmental noise, a review of noise complaints, a review of City procedures for handling noise complaints, and community workshops to solicit citizen input on noise and other issues addressed in the 1994 comprehensive General Plan Update.

The major sections of the Noise Element provide background information, inventory noise conditions, identify noise issues, provide definitions and standards, and present goals, objectives, policies and

implementation measures. The Environmental Impact Report (EIR), prepared as a part of the General Plan update, includes a Technical Appendix that provides more detailed information, and a glossary that defines a number of key terms used in noise assessments.

Noise is defined here as unwanted sound and it is known to have several adverse effects on people. Criteria have been established to help protect the public health and safety and to prevent disruption of certain human activities. These criteria are based on such known effects of noise on individuals as hearing loss (not generally a factor with community noise), communication interference, sleep interference, physiological responses, and annoyance. Each of these potential noise impacts on people are briefly discussed in subsequent sections. Examples of typical noise sources and their corresponding noise levels are listed in Table N-1, Examples of Typical Sound Levels.

REGIONAL NOISE. Culver City is located in an area of southern California that is saturated by regional noise sources, such as freeways and airports. These sources generate noise that can be heard in noise sensitive areas throughout the City. The City is bordered by three major freeways. The Marina (SR-90) Freeway is located in the southwest area of the City and terminates at Slauson Avenue. The San Diego (I-405) Freeway runs through the western half of the City, while the Santa Monica (I-10) Freeway, currently the busiest freeway in the state, runs adjacent to the northern City limits. Unlike the other two freeways, ~~T~~the Santa Monica ~~(10)~~-Freeway ~~is far enough from~~ does not enter the City. However, Santa Monica Freeway noise does ~~limit that there is no impact on the~~ Culver City. The City is also located within a few miles of two busy southland airports.

Los Angeles International Airport, the busiest airport in southern California, is located approximately two miles to the southwest. Santa Monica Airport is located about two miles north of the western part of Culver City. As a result, the City is subject to both jet aircraft and helicopter noise events. Sports and other outdoor events at West Los Angeles College, located to the southeast of the City, and Culver City High School are another source of noise for the local residents.

EXISTING CITY NOISE LEVELS. A complete description of the noise environment includes a community noise measurement survey, identification of noise sources and noise sensitive land uses, and noise contour maps.

Noise Measurements. A review of noise issues and identification of major noise sources in the community provided the initial base for development of the community noise survey. Twenty-eight (28) sites were selected for measurement of the noise environment in Culver City. The measurement locations were selected on the basis of proximity to major noise sources and noise sensitivity of the surrounding land uses. The measurement locations are shown in Figure N-1, Noise Measurement Locations. Sites 1 - 10 were at or near the same area as those measurement locations used in the 1974 Noise Element. A comparison of the data from these sites is under *Findings* (in this section), and reveals how the noise environment throughout the City has changed in the past 20 years.

In the noise measurement program, the quantities measured were the average or Equivalent Noise Level (Leq), the maximum noise level (Lmax) and the Percent Noise Levels (L%). Percent Noise Levels are a statistical method of characterizing the distribution of the measured noise levels. The designation L01 refers to the noise level exceeded 1% of the time and represents the peak noise level measured; L50 is the level exceeded 50% of the time and represents the median noise level; L99 is the noise level exceeded 99% of the time and represents the background or ambient noise level, and so on.

The noise measurement program was conducted in two segments. The short-term [15-minute Leq and percentile distribution] measurements were taken on July 21-22, 1993 during the day, at 22 locations throughout the City (numbers 1-22 on Figure N-1, Noise Measurement Locations). These measurements are taken in such areas as the west

Table N-1
EXAMPLES OF TYPICAL SOUND LEVELS
(A-Weighted Sound Levels)

dBA	OVER-ALL LEVEL Sound Pressure Level Approx. 0.0002 Microbar	COMMUNITY (Outdoor)	HOME OR INDUSTRY	LOUDNESS Human Judgement of Different Sound Levels relative to 70 dBA
130	UNCOMFORTABLY LOUD	Military Jet Take-Off with After-burner From Aircraft Carrier @ 50 ft. (130)	Oxygen Torch (121)	120 dBA - 32 times as loud
120	VERY	Turbo-Fan Aircraft at Take Off Power @ 200 ft. (110)	Riveting Machine (110) Rock-N-Roll Band (108-114)	110 dBA - 16 times as loud
110	LOUD	Jet Flyover @ 1000 ft. (103)		
100		Boeing 707, DC-8 @ 6080 ft. Before Landing (106) Bell J-2A Helicopter @ 100 ft. (100)		100 dBA - 8 times as loud
90	LOUD	Power Mower (96) Boeing 737, DC-9 @ 6080 ft. Before Landing (97) Motorcycle @ 25 ft. (90)	Newspaper Press (97)	90 dBA - 4 times as loud
80	MODERATELY	Car Wash @ 20 ft. (89) Prop. Plane Flyover @ 1000 ft. (88) Diesel Truck, 40 MPH @ 50 ft. (84) Diesel Train, 45 MPH @ 100 ft. (83)	Food Blender (88) Milling Machine (85) Garbage Disposal (80)	80 dBA - 2 times as loud
70	LOUD	High Urban Ambient Sound (80) Passenger Car, 65 MPH @ 25 ft. (77) Freeway @ 50 ft. From Pavement Edge, 10:00 a.m. (76±6)	Living Room Music (76) TV-Audio, Vacuum Cleaner	70 dBA
60	MODERATELY	Air Conditioning Unit @ 100 ft. (60)	Cash Register @ 10 ft. (65-70) Electric Typwriter @ 10 ft. (64) Conversation (60)	60 dBA - 1/2 as loud
50	QUIET	Large Transformer @ 100 ft. (50)		50 dBA - 1/4 as loud

SOURCE: Modified from Melville C. Branch and R. Dale Beland, "Outdoor Noise in the Metropolitan Environment" Published by the City of Los Angeles, 1970, p.2.

Continuing search for more current Example

PROPOSED LAND USE CATEGORIES		DESIGN STANDARD CNEL	
CATEGORIES	USES	INTERIOR	EXTERIOR
RESIDENTIAL	Single Family, Duplex Multiple Family	45*	65
	Mobile Home	- - -	65°
COMMERCIAL INDUSTRIAL INSTITUTIONAL	Hotel, Motel, Transient Lodging	45	65†
	Commercial Retail, Bank Restaurant	55	- - -
	Office Building, Research and Development, Professional Offices, City Office Building	50	- - -
	Amphitheater, Concert Hall Auditorium, Meeting Hall	45	- - -
	Gymnasium (Multipurpose)	50	- - -
	Sports Club	55	- - -
	Manufacturing, Warehousing, Wholesale, Utilities	65	- - -
	Movie Theatres	45	- - -
INSTITUTIONAL	Hospital, Schools' Classroom	45	65
	Church, Library	45	- - -
OPEN SPACE	Parks	- - -	65

SOURCE: Mestre Greve Associates

INTERPRETATION

INTERIOR NOISE ENVIRONMENT EXCLUDES:
Bathrooms, toilets, closets and corridors.

EXTERIOR NOISE ENVIRONMENT LIMITED TO:
Private yards of single family homes
Multi-family private patio or balcony which is greater than 6 feet in depth, and is not a required emergency fire exit as defined in the UBC.
Mobile home parks
Hospital patios
Park's picnic area
School's playground
Hotel and motel recreation area

* Noise level requirement with closed windows. Mechanical ventilation system or other means of natural ventilation shall be provided as of Chapter 12, Section 1205 of the 1974 UBC.

° Exterior noise levels should be such that interior noise level will not exceed 45 dB CNEL.

† Except those areas affected by aircraft noise.

- - - No applicable standard

TABLE N-3.
INTERIOR AND EXTERIOR NOISE STANDARDS

CRITERIA FOR DEVELOPING NOISE SOURCE REGULATIONS. The underlying purpose of the Noise Element is to provide guidelines to limit community exposure to excessive noise levels, and to integrate this information into land use planning decisions. In addition to the standards previously discussed, criteria have been developed to establish the qualitative basis or ground rules for the City's noise regulations.

Land Use Compatibility of Noise Sources and Receptors. A primary means of protecting the quality of life within a community is through the distribution of land uses. Determining the compatibility of noise sources and receptors becomes one of the gauges for such decision making. This is achieved by establishing standards and criteria that specify acceptable limits of noise for various land uses throughout the City. The recommended criteria used to assess the compatibility of proposed land uses with the noise environment are presented in Table N-4, "Land Use/Noise Compatibility Matrix."

A complete list of noise levels generated from either stationary or transportation-related sources and land uses with which they are compatible is given in this table. Noise concerns are incorporated and addressed in Culver City's land use planning to reduce future noise and land use incompatibilities.

Table N-4 is used in the land planning stage of the development process. It is used to identify project opportunities and constraints. In conjunction with Figure N-9, "Existing (1991) CNEL Noise Contours," this matrix may be used to determine whether a certain type of land use is appropriate in a particular CNEL zone. For example, a residential use in a 60-70 CNEL zone would only be appropriate with certain mitigation. In locations where noise levels impact mixed-use areas, where some receptors are more sensitive to noise than others, the noise level should be mitigated to the more sensitive land use standard.

The Exterior/Interior Noise Standards shown in Table N-3 are the actual design standards that should be used in the project design stage of new projects in the City. Compliance with these standards should be required in the Conditions of Approval or other project requirements and evaluated as part of the City's development review and building permit plan check.

In conjunction with land use distribution decisions, the adoption of a comprehensive noise ordinance is a major tool in protecting the community from excessive noise. Such an ordinance would regulate stationary and transportation-related noise sources.

Regulation of Stationary Noise Sources. The primary goal in regulating stationary noise sources is to protect residential land uses and other identified noise sensitive uses. The impacts from these noise sources are most effectively controlled through the adoption and application of a City Noise Ordinance. The Noise Ordinance should include effective measures against noises like commercial and industrial activities, construction noise, late-night entertainment, spa and pool equipment, air-conditioners, or loud music from establishments; means to control the noise of persons leaving places of entertainment. In order to control noise generated from stationary sources, and single event noise, standards should place a limit on the noise level and the time that noise may occur during any hour of the day. A penalty of an appropriate amount, e.g., 5 dBA, should be incorporated for pure tone noise. Typical noise ordinance levels and durations are listed as follows:

DAYTIME LEVELS (7:00 a.m. - 10:00 p.m.)	NIGHTTIME LEVELS (10:00 p.m. - 7:00 a.m.)	DURATION
55 dBA-Leq	50 dBA-Leq	30 minutes
60 dBA-Leq	55 dBA-Leq	15 minutes
65 dBA-Leq	60 dBA-Leq	5 minutes
70 dBA-Leq	65 dBA-Leq	1 minute
75 dBA-Leq	70 dBA-Leq	NEVER

This means that 55 dBA Leq may not be exceeded for more than 30 minutes out of any hour between 7:00 a.m. and 10:00 p.m. These standards refer to the average noise levels (leq) of short term measurements (10-15-min.) made at the property line of the noise sensitive receptor. They should not be confused with the long term CNEL measurement.

It is also important that the City develop procedures which enforce these standards. Mitigation of construction and maintenance noise is largely dependent upon enforcement of the noise ordinance and adequate consideration of construction noise impacts during the planning, review and approval of projects in or adjacent to established residential or other noise sensitive areas.

Regulation of Transportation-Related Noise Sources. Within Culver City there are a number of transportation-related noise sources, including freeways, aircraft overflight corridors, major arterials, and collector roadways, that are major contributors of noise. Policies to reduce their influence on the community noise environment are an essential part of the Noise Element. In brief, these policies include coordinating with the California Department of Transportation (Caltrans), to complete the installation of freeway noise barriers appropriate noise mitigation measures along I-405, the San Diego, Santa Monica, and Marina Freeways to effectively attenuate freeway noise for existing noise sensitive land uses. The City should shall coordinate with the Metropolitan Transportation Agency Authority (MTA) to ensure that the noise mitigation measures are integrated into the design of future light-rail projects near noise sensitive land uses. The City should encourage the use of equipment which includes the latest in noise reduction technology. Limit truck movements to those arterials designed to handle the traffic, and those located farther from noise sensitive areas. Coordinate with the Air Traffic Control Division of the FAA regarding any possible future changes in flight paths of helicopters and aircraft into and out of LAX and Santa Monica Airport. Encourage new departure or arrival tracks be diverted away from the city to limit the exposure of aircraft noise. A complete list of the policies to help control transportation-related noise are listed in the subsequent section.

PROPOSED LAND USE CATEGORIES		COMPATIBLE LAND USE ZONES						
CATEGORIES	USES	CNEL <55	55-60	60-65	65-70	70-75	75-80	CNEL >80
RESIDENTIAL	Single Family, Duplex Multiple Family	A	A	B	B	C	D	D
RESIDENTIAL	Mobile Home	A	A	B	C	C	D	D
COMMERCIAL	Hotel, Motel, Transient Lodging	A	A	B	B	C	C	D
COMMERCIAL	Commercial Retail, Bank Restaurant, Movie Theatres	A	A	A	A	B	B	C
COMMERCIAL INDUSTRIAL INSTITUTIONAL	Office Building, Research and Development, Professional Offices, City Office Building	A	A	A	B	B	C	D
COMMERCIAL INSTITUTIONAL	Amphitheater, Concert Hall Auditorium, Meeting Hall	B	B	C	C	D	D	D
COMMERCIAL	Children's Amusement Park, Miniature Golf Course, Go-Cart Track, Equestrian Center, Sports Club	A	A	A	B	B	D	D
COMMERCIAL INDUSTRIAL INSTITUTIONAL	Automobile Service Station, Auto Dealership, Manufacturing, Warehousing, Wholesale, Utilities	A	A	A	A	B	B	B
INSTITUTIONAL	Hospital, Church, Library Schools' Classroom, Day Care	A	A	B	C	C	D	D
OPEN SPACE	Parks	A	A	A	B	C	D	D
OPEN SPACE	Golf Courses, Cemeteries, Nature Centers, Wildlife Reserves, Wildlife Habitat	A	A	A	A	B	C	C
AGRICULTURE	Agriculture	A	A	A	A	A	A	A

SOURCE: Mestre Greve Associates

INTERPRETATION

ZONE A - CLEARLY COMPATIBLE

Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements.

ZONE B - COMPATIBLE WITH MITIGATION

New construction or development should be undertaken only after detailed analysis of the noise reduction requirements are made and needed noise insulation features in the design are determined. Conventional construction with closed windows and fresh air supply systems or air conditioning, will normally suffice. Note that residential uses are prohibited with Airport CNEL greater than 65 dB.

ZONE C - NORMALLY INCOMPATIBLE

New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of noise reduction requirements must be made and needed noise insulation features included in the design.

ZONE D - CLEARLY INCOMPATIBLE

New construction or development should generally not be undertaken.

TABLE N-4
LAND USE/NOISE COMPATIBILITY MATRIX

Print

Culver City Municipal Code

CHAPTER 9.07: NOISE REGULATIONS

Section

Cross-reference:

Nuisances declared and prohibited, see § 9.04.020

§ 9.07.005 DECLARATION OF POLICY.

A. In order to control unnecessary, excessive and annoying noise in the City of Culver City, it is hereby declared to be the policy of the City to prohibit or limit such noise generated from or by all sources as specified in this Chapter.

B. It shall be the policy of the City to maintain, preserve and enhance the quiet atmosphere of the City, to implement programs aimed at retaining ambient noise levels throughout the City, and to mitigate noise conflicts. It is determined that certain noise levels are detrimental to the public health, welfare and safety, and are contrary to the public interest. Therefore, creating, maintaining, causing, or allowing to be created, caused, or maintained, any noise in a manner prohibited by the provisions of this Chapter is a public nuisance and shall be punishable as such.

('65 Code, § 23-44.1) (Ord. No. 95-004 § 2 (part))

§ 9.07.010 DEFINITIONS.

Unless the context otherwise clearly indicates, the words and phrases used in this Chapter are defined in this Section. All terminology used in this Chapter not defined below shall be in conformance with applicable publications of the American National Standards Institute (ANSI) or its successor body. The following words, phrases, and terms as used in this Section shall have the meanings as follows:

AMBIENT NOISE. The composite of all noise from sources near and far, none of which are particularly dominant. The ***AMBIENT NOISE*** constitutes the normal or existing level of environmental noise at a given location.

AMPLIFIED SOUND. Sound enhanced by use of electronic equipment.

A-WEIGHTED NOISE LEVEL. The sound level in decibels as measured on a sound level meter using the A-Weighted scale. The level so read is designated in dBA.

COMMERCIAL PROPERTY. A parcel of real property zoned and used entirely, or partially, for commercial purposes.

CONSTRUCTION. Any site preparation, demolition, assembly, erection, substantial repair, alteration, or similar action, or related services or activities, for or of private property, structures, utilities, or public rights-of-way.

CUMULATIVE. An additive period of time composed of individual time segments which may be continuous or interrupted.

DECIBEL. A unit for measuring the amplitude of sound, equal to ten (10) times the logarithm (to the base of ten (10)) of the ratio of the two (2) mean square values of sound pressure, voltage, or current.

DOMINANT NOISE SOURCE. The most significant source of noise at a given location which is identifiable by the Officer.

EQUIVALENT SOUND LEVEL (LEQ). Constant noise level that, in a given situation and time period, contains the same acoustic energy as the actual time-varying A-weighted sound level.

EMERGENCY. Any occurrence or set of circumstances involving actual or imminent physical trauma or property damage which demands immediate action.

EMERGENCY WORK. Any work performed for the purpose of preventing or alleviating the physical trauma or property damage threatened or caused by an emergency.

FIXED NOISE SOURCE. A stationary device which creates noise while in a fixed or stationary position including, but not limited to, industrial and commercial machinery and equipment, pumps, fan compressors, generators, air conditioners, and refrigeration equipment.

IMPULSIVE NOISE. A noise of short duration usually of high intensity with an abrupt onset and rapid decay. Impulsive noise sources include but are not limited to impact wrenches, pneumatic hammers, hammering devices, explosions, fire arms and other similar noise sources.

INDUSTRIAL PROPERTY. A parcel of real property which is zoned and used entirely or partially for industrial purposes.

INTRUSIVE NOISE. That alleged offensive noise which exceeds the existing ambient noise at a given location.

MOBILE NOISE SOURCE. Any noise source other than a fixed noise source.

NOISE. An unwanted sound which is generally random in nature.

NOISE DISTURBANCE. Any noise which, as judged by a City employee or City-employed agent that annoys or disturbs a reasonable person or exceeds the standard set forth in this Chapter. Compliance with the quantitative standards as listed herein shall constitute elimination of a noise disturbance.

NOISE LEVEL (LN). The sound pressure level as measured with a sound level meter.

PERCENT NOISE LEVEL (%). That noise level expressed in decibels which exceeds the specified (LN) value as a percentage of total time measured. For instance, an L25 noise level means that noise level which is exceeded twenty-five percent (25%) of the time measured.

PERSON. An individual, firm, association, partnership, joint venture or corporation including any officer, employee, department, agency, or instrumentality of a State or political subdivision of a State.

PITCH. The frequency of a noise.

PUBLIC RIGHT-OF-WAY. Any street, parkway, trail, public way, sidewalk, bike path, alley or similar place which is owned or controlled by a governmental entity.

PURE TONE. Any noise which is judged as audible as a single frequency or a set of single frequencies. Pure tones include but are not limited to noise from whistles, bells, fans or other mechanical devices that emit audible tones.

REAL PROPERTY BOUNDARY. An imaginary line along the ground surface, and its vertical extension, which separates the real property owned by one person from that owned by another person or a public right-of-way.

RESIDENTIAL PROPERTY. A parcel of real property which is zoned and used either in part or in whole for residential purposes.

SOUND. A pressure oscillation in air which is capable of evoking the sensation of hearing.

SOUND AMPLIFYING EQUIPMENT. Any device for the amplification of the human voice, music, or any other sound, excluding automobile radios when used and heard only by the occupants of the vehicle in which the radio is installed, and, as used in the Chapter, warning devices on authorized emergency vehicles or horns or other warning devices on any vehicle used only for traffic safety purposes.

SOUND LEVEL METER. An instrument, including a microphone, amplifier, output meter, and frequency weighing networks for the measurement of noise and sound levels, which satisfies the requirements pertinent for Type A meters in American National Standards Institute specifications for Sound Level Meters, S1.4-1983, or the most recent revision thereof.

SOUND TRUCK. Any motor vehicle, or any other vehicle, except public health and safety vehicles, regardless of motive power, whether in motion or stationary, having mounted thereon or attached thereto any sound amplifying equipment.

VIBRATION. The minimum ground or structure-borne shaking motion necessary to cause a normal person to be aware of the shaking by such direct means as, but not limited to, sensation by touch or visual observations of moving objects.

WEEKDAY. Any day, Monday through Friday, which is not a City specified holiday.

('65 Code, § 23-44.2) (Ord. No. 95-004 § 2 (part))

§ 9.07.015 VIOLATIONS; PENALTIES.

A. *Prima facie violation.* Any noise which is reasonably determined to be excessively loud, piercing, or offensive to occupants of neighboring properties or peace officers called to the location of the noise shall be deemed prima facie evidence of a violation of the provisions of this Chapter.

B. *Penalty for violation.* Any person violating any of the provisions of this chapter shall be guilty of a misdemeanor and upon conviction thereof, shall be fined in an amount not to exceed One Thousand Dollars ($1,000.00) or be imprisoned in jail for a period not to exceed six (6) months or by both fine and

imprisonment. Each day such violation is committed or permitted to continue shall constitute a separate offense.

C. *Additional remedy.* The operation or maintenance of any device, instrument, vehicle, or machinery in violation of any provision of this Chapter which causes or creates noise levels exceeding the allowable limits as specified, shall be deemed a public nuisance and may be subject to abatement summarily by a restraining order or injunction issued by a court of competent jurisdiction. Additionally, no provisions of this Chapter shall be construed to impair by common law or statutory cause of action, or legal remedy therefrom, or any person from injury or damage arising from any violation of this Chapter or from other law.

D. *Severability.* If any provision, clause, sentence, or paragraph of this Chapter, or the application thereof to any person or circumstances, shall be held invalid, such invalidity shall not affect the other provisions, or application of the provisions of this Chapter, which are effective without the invalid provisions or application and, therefore, the provisions of this Chapter are hereby declared to be severable.

('65 Code, § 23-44.3) (Ord. No. 95-004 § 2 (part))

§ 9.07.020 NOISE DISTURBANCES PROHIBITED; SPECIFIC PROHIBITIONS.

No person shall unnecessarily make, continue, or cause to be made or continued, any noise disturbance. The following actions, and the causing or permitting thereof, are prohibited and are declared to be in violation of this Chapter.

('65 Code, § 23-44.4) (Ord. No. 94-004 § 2 (part))

§ 9.07.025 STREET SALES.

A. It is prohibited for any person to offer for sale, sell or advertise anything, by shouting or outcry within any area of the City. The provisions of this Section shall not be construed to prohibit the selling by outcry of merchandise, food, and beverages at licensed sporting events, parades, fairs, circuses, or other similar licensed public entertainment events.

B. It is prohibited for any person to operate a horn or bell or similar signaling device on a lunch truck within a residential area.

('65 Code, § 23-44.5) (Ord. No. 95-004 § 2 (part))

§ 9.07.030 ANIMALS AND FOWL.

Any animal or fowl which emanates sound or outcry in an excessive, continuous, or untimely fashion, shall be considered a public nuisance and is subject to abatement pursuant to Chapter 9.04 of the Culver City Municipal Code.

('65 Code, § 23-44.6) (Ord. No. 95-004 § 2 (part))

Cross-reference:

Animal annoyance prohibited, see § 9.01.035

§ 9.07.035 CONSTRUCTION.

A. All construction activity shall be prohibited, except between the hours of:

8:00 a.m. and 8:00 p.m. Mondays through Fridays

9:00 a.m. and 7:00 p.m. Saturdays

10:00 a.m. and 7:00 p.m. Sundays

B. It is prohibited for any person to operate any radio, disc player or cassette player or similar device at a construction site in a manner that results in noise levels that are audible beyond the construction site property line.

C. In the case of an emergency, the Building Official may issue a permit for construction activity for periods during which construction activity is prohibited by Subsection A. of this Section. Such permit shall be issued for only the period of the emergency.

D. The City Council shall retain the right to impose more restrictive hours of construction upon any project by adding appropriate conditions to the approval of any Use Permits that are required for the project.

E. Home repairs and routine maintenance of personal property such as automobiles or boats are not considered construction.

F. All minor exterior home improvement construction activities such as, but not limited to roof replacement, and patio construction shall be subject to the provisions of this Chapter.

('65 Code, § 23-44.7) (Ord. No. 95-004 § 2 (part); Ord. No. 95-014 § 1)

Cross-reference:

Administrative Assessment Cost Recovery Program, see §§ 15.02.900 through 15.02.915

§ 9.07.040 STATIONARY NONEMERGENCY SIGNALING DEVICES.

A. It is prohibited for any person to intentionally sound or permit the sounding outdoors of any electronically-amplified signal from any stationary bell, chime, siren, whistle, automobile or vehicle alarm or similar device intended primarily for nonemergency purposes, from any place, for more than fifteen (15) seconds in any hour.

B. It is prohibited for any person to operate or permit the operation of a horn or bell or any other signaling device on a parking lot sweeper except as required by law.

C. Church bells and chimes sounding at a church site or Veteran's Auditorium or other City facility shall be exempt from the provisions of this Section.

('65 Code, § 23-44.9) (Ord. No. 95-004 § 2 (part))

§ 9.07.045 EMERGENCY SIGNALING DEVICES.

A. It is prohibited for any person to intentionally sound or permit the sounding outdoors of any fire, burglar, or civil defense alarm, siren, whistle, or similar stationary emergency signaling device, except for emergency purposes or for testing as provided in Subsection B. of this Section.

B. The testing of a stationary emergency signaling device shall not occur except between 7:00 a.m. and 7:00 p.m. Any such testing shall only use the minimum cycle test time. In no case shall such test time exceed sixty (60) seconds. The testing of the complete emergency signaling system, including the

functioning of the signaling device and the personnel response to the signaling device, shall not occur more than once in each calendar month.

C. It is prohibited for any person to sound or permit the sounding of any exterior audible burglar or fire alarm or any motor vehicle burglar alarm unless such alarm is automatically terminated within fifteen (15) minutes after activation. Repetition of the sounding of the alarm within a twenty-four (24) hour period for nonemergency reasons shall constitute a violation.

('65 Code, § 23-44.10) (Ord. No. 95-004 § 2 (part))

§ 9.07.050 DOMESTIC POWER TOOLS.

A. It is prohibited for any person to operate or permit the operation of any power saw, sander, drill, grinder, lawn or garden tool, or similar tool, or pneumatic or other air-powered tool except between 7:30 a.m. and 10:00 p.m. so as to be audible at or beyond the property line where the tool is located.

B. It is prohibited for any person to operate, or permit the operation of any gasoline-powered lawn mower, leaf blowers, or similar equipment within the City except during the hours of 8:00 a.m. to 8:00 p.m. Monday through Friday, and except during the hours of 9:00 a.m. to 8:00 p.m. on Saturday, Sunday, and City-specified holidays.

('65 Code, § 23-44.11) (Ord. No. 95-004 § 2 (part))

§ 9.07.055 AMPLIFIED SOUNDS.

A. *Electronic devices.* It is prohibited for any person to permit the transmission of, or cause to be transmitted, any amplified sound on any public street, sidewalk, alley, right-of-way, park, or any other public place or property which sound is audible at fifty (50) feet. This Section shall not apply to any noncommercial public speaking, public assembly, or other activity for which a permit has been issued.

('65 Code, § 23-44.12)

B. *On private property.* It shall be prohibited for any persons to operate a loud speaker or sound amplifying equipment for the purposes of transmitting messages, giving instructions or providing entertainment which is audible at a distance of fifty (50) feet or beyond the subject's property line without first filing an application and obtaining a permit as set forth in this Chapter.

('65 Code, § 23-44.13)

C. *Permits.* Every user of sound amplifying equipment on public or private property, except block parties which have obtained a permit from the Chief of Police or activities in public parks which have obtained a permit for use of amplifying equipment from the Parks, Recreation and Community Services Department shall file an application with the Committee on Permits and Licenses at least ten (10) days prior to the day on which the sound amplifying equipment is to be used.

1. *Restrictions.* The commercial and noncommercial use of sound amplifying equipment shall be subject to the following restrictions:

a. The only sounds permitted shall be either music or human speech, or both.

b. The operation of sound amplifying equipment shall occur only between the hours of:

8:00 a.m. through 8:00 p.m. Monday through Thursday

8:00 a.m. through 10:00 p.m. Friday,

10:00 a.m. through 10:00 p.m. Saturday,

10:00 a.m. through 8:00 p.m. Sunday and City specified holidays

2. Exempt from these hours of operation are those activities which are authorized by the City of Culver City or the public school districts serving the residents of the City, including the use of the Civic Center facilities, athletic fields and courts, community centers, and the conduct of City approved special events.

('65 Code, § 23-44.14)

(Ord. No. 95-004 § 2 (part); Ord. No. 2002-005 § 1 (part))

§ 9.07.060 EXEMPTIONS FROM PROVISIONS.

A. *Emergency exemptions.* The emission of noise for the purpose of alerting persons to the existence of an emergency or the emission of noises in the performance of emergency work is exempted from the provisions of this Chapter.

B. *Warning devices.* Warning devices necessary for the protection of public safety, as for example fire, police and ambulance sirens, including the testing of such devices, are exempted from the provisions of this Chapter.

C. *Outdoor activities.* Permitted activities conducted on public playgrounds and public or private school grounds including but not limited to school athletic and entertainment events are exempted from the provisions of this Chapter.

D. *Trash collection activities.* All trash collection activities in residential area within the City are exempted from the provisions of this Chapter if after 7:00 a.m.

E. *Public utilities.* Public utilities operating under the authority of the Public Utilities Commission are exempted from the provisions of this Chapter only when specifically authorized through the City's permit system.

F. *Filming activity.* Filming activity conducted in accordance with the provisions of Chapter 11.14 is exempt from the provisions of this Chapter.

('65 Code, § 23-44.15) (Ord. No. 95-004 § 2 (part); Ord. No. 2004-018 § 2)

§ 9.07.065 CONFLICT OF PROVISIONS.

In the event of any conflict between this Chapter and any other provisions of this Code, this Chapter shall prevail.

('65 Code, § 23-46) (Ord. No. CS-653 § 2 (part))

Appendix B

Field Sheets and Photographs

Field Sheet

Project: C3 CONSTRUCTION SITE NOISE ANALYSIS **Engineer:** Alex Vu **Date:** 8/22/2016 **JN:** 2618-2016-01

Measurement Address: 5735 HANNUM AVENUE **City:** Culver City **Site No.:** 1

Sound Level Meter:
LD-712
Serial # A0520

Calibrator:
LD-250 250
Serial # 1322

Calibration Record:

	Input, dB/	Reading, dB/	Offset, dB/	Time
Before	114.0/	114.0/	26.9/	
After	114.0/	114.0/	26.3/	
Before	/	/	/	
After	/	/	/	

Notes:
Temp: 64°
Windspeed: 0 MPH
Direction: --
Skies: Clear
Camera:
Photo Nos.

Meter Settings:
☒ A-WTD ☐ LINEAR ☒ SLOW ☐ 1/1 OCT ☒ INTERVALS ___10____- MINUTE
☐ C-WTD ☐ IMPULSE ☐ FAST ☐ 1/3 OCT ☒ L_N PERCENTILE VALUES

Notes:
Ambient noise from traffic along Buckingham Parkway, with some ambient noise also coming from the West Slauson Avenue.

Measurement Type:
Long-term
Short-term X

		Start Time	Stop Time	Leq	Lmin	Lmax	L2	L8	L25	L50
Locations	1-1	5:26 AM	5:36 AM	49.0	41.3	62.7	56.6	52.8	49.6	46.5
		Taken off Cambridge Way 10' away from the wall.								
	1-2	5:42 AM	5:52 AM	56.3	42.2	73.4	67.1	60.0	52.6	47.8
		Taken off Buckingham Parkway, 6' away from gate entrance closest to Windsor Way								
	2									
	3									

RK engineering group, inc.

Field Sheet - ST1 Location Photos

Project: C3 CONSTRUCTION SITE NOISE ANALYSIS	**Engineer:** Alex Vu	**Date:**	8/22/2016
		JN:	2618-16-01
Measurement Address: 5663-5699 Cambridge Way	**City:** Culver City	**Site No.:**	1

RK engineering group, inc.

Field Sheet - ST2 Location Photos

Project: C3 CONSTRUCTION SITE NOISE ANALYSIS	**Engineer:** Alex Vu	**Date:**	8/22/2016
		JN:	2618-16-01
Measurement Address: 5978-5998 Buckingham Parkway	**City:** Culver City	**Site No.:**	2

RK engineering group, inc.

Appendix C

Noise Calculation Worksheets

NOISE INTERVAL AVERAGER (2.0)

PROJECT: C3 CONSTRUCTION SITE JOB #: 2618-2016-01
LOCATION: RESIDENTIAL UNITS 850 FEET TO SOUTHEAST DATE: 8/26/2016
SOURCE: CONSTRUCTION EQUIPMENT (NIGHTTIME) BY: J. NARCISO

NOISE LEVEL MEASUREMENTS (dBA)

	NOISE SOURCE	LEQ	L(MAX)	L(2)	L(8)	L(25)	L(50)
dBA Adder	PUMP	50.3	53.3				
	CEMENT MIXER TRUCK #1	47.2	51.2				
	CEMENT MIXER TRUCK #2	47.2	51.2				
	CEMENT MIXER TRUCK #3	47.2	51.2				
	CEMENT MIXER TRUCK #4	47.2	51.2				
	CEMENT MIXER TRUCK #5	47.2	51.2				
	CEMENT MIXER TRUCK #6	47.2	51.2				
	CEMENT MIXER TRUCK #7	47.2	51.2				
	CEMENT MIXER TRUCK #8	47.2	51.2				
	CEMENT MIXER TRUCK #9	47.2	51.2				
	CEMENT MIXER TRUCK #10	47.2	51.2				
	CEMENT MIXER TRUCK #11	47.2	51.2				
	CEMENT MIXER TRUCK #12	47.2	51.2				
	CEMENT MIXER TRUCK #13	47.2	51.2				
	CEMENT MIXER TRUCK #14	47.2	51.2				
TOTAL		59.3	63.1	#NUM!	#NUM!	#NUM!	#NUM!

NOISE BARRIER CALCULATIONS - BASED UPON FHWA - RD-77-108

PROJECT:	C3 CONSTRUCTION SITE	JOB #:	2618-2016-01
SOURCE:	ALL CONSTRUCTION EQUIPMENT	DATE:	26-Aug-16
LOCATION:	RESIDENTIAL UNITS TO THE SOUTHEAST	BY:	J. NARCISO

NOISE INPUT DATA

OBS DIST=	850.0			
DT WALL=	600.0			
DT W/OB=	250.0			
HTH WALL=	35.0	********		
BARRIER =	1.0	(0=WALL,1=BERM)		
OBS HTH=	5.0			
NOISE HTH=	8.0		BARRIER+	
OBS EL =	105.0		TOPO SHIELDING =	-15.70
NOISE EL =	105.0		NOISE HTH EL=	113.0
DROP-OFF=	20.0	(20 = 6 dBA PER DOUBLING OF DISTANCE)		

NOISE OUTPUT DATA (dBA)

	DIST (FT)	Leq	Lmax	L2	L8	L25	L50
REF LEVEL	850	59.3	63.1				
PROJ LEVEL	850	59.3	63.1	0.0	0.0	0.0	0.0
SHIELDING	850	-15.7	-15.7	-15.7	-15.7	-15.7	-15.7
ADJ LEVEL	850	***43.6***	***47.4***	***-15.7***	***-15.7***	***-15.7***	***-15.7***

NOISE LEVEL REDUCTION DUE TO DISTANCE = 0

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 8/26/2016
Case Description: C3 Construction Site

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Residential	Residential	50	50	50

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Concrete Mixer Truck	No	40		78.8	850	3
Concrete Mixer Truck	No	40		78.8	850	3
Concrete Mixer Truck	No	40		78.8	850	3
Concrete Mixer Truck	No	40		78.8	850	3
Concrete Mixer Truck	No	40		78.8	850	3
Concrete Mixer Truck	No	40		78.8	850	3
Concrete Mixer Truck	No	40		78.8	850	3
Concrete Mixer Truck	No	40		78.8	850	3
Concrete Mixer Truck	No	40		78.8	850	3
Concrete Mixer Truck	No	40		78.8	850	3
Concrete Mixer Truck	No	40		78.8	850	3
Concrete Mixer Truck	No	40		78.8	850	3
Concrete Mixer Truck	No	40		78.8	850	3
Concrete Mixer Truck	No	40		78.8	850	3
Pumps	No	50		80.9	850	3

Calculated (dBA)

Equipment		*Lmax	Leq
Concrete Mixer Truck		51.2	47.2
Concrete Mixer Truck		51.2	47.2
Concrete Mixer Truck		51.2	47.2
Concrete Mixer Truck		51.2	47.2
Concrete Mixer Truck		51.2	47.2
Concrete Mixer Truck		51.2	47.2
Concrete Mixer Truck		51.2	47.2
Concrete Mixer Truck		51.2	47.2
Concrete Mixer Truck		51.2	47.2
Concrete Mixer Truck		51.2	47.2
Concrete Mixer Truck		51.2	47.2
Concrete Mixer Truck		51.2	47.2
Concrete Mixer Truck		51.2	47.2
Concrete Mixer Truck		51.2	47.2
Pumps		53.3	50.3
	Total	53.3	59.3

*Calculated Lmax is the Loudest value.

NOISE INTERVAL AVERAGER (2.0)

PROJECT:	C3 CONSTRUCTION SITE	JOB #:	2618-2016-1
LOCATION:	RESIDENTIAL UNITS 850 FEET TO SOUTHEAST	DATE:	8/26/2016
SOURCE:	ST-1 ALL NOISE SOURCES (NIGHTTIME)	BY:	J. NARCISO

NOISE LEVEL MEASUREMENTS (dBA)

dBA Adder	NOISE SOURCE	LEQ	L(MAX)	L(2)	L(8)	L(25)	L(50)
	AMBIENT NOISE LEVEL	49.0	62.7				
	PROJECT CONSTRUCTION EQUIPMENT	43.6	47.4				
TOTAL		50.1	62.8	#NUM!	#NUM!	#NUM!	#NUM!

NOISE INTERVAL AVERAGER (2.0)

PROJECT: C3 CONSTRUCTION SITE
LOCATION: RESIDENTIAL UNITS 850 FEET TO SOUTHEAST
SOURCE: ST-2 ALL NOISE SOURCES (NIGHTTIME)

JOB #: 2618-2016-1
DATE: 8/26/2016
BY: J. NARCISO

NOISE LEVEL MEASUREMENTS (dBA)

dBA Adder	NOISE SOURCE	LEQ	L(MAX)	L(2)	L(8)	L(25)	L(50)
	AMBIENT NOISE LEVEL	56.3	73.4				
	PROJECT CONSTRUCTION EQUIPMENT	43.6	47.4				
TOTAL		56.5	73.4	#NUM!	#NUM!	#NUM!	#NUM!