APPENDIX J

Noise Analysis and Discussion

NOISE ANALYSIS DISCUSSION
USING CITY OF CARSON STANDARDS

Noise Analysis Using City of Carson Standards

Carson General Plan and Municipal Code

The City of Carson General Plan Noise Element adopts the ONC Noise Compatibility Matrix as their guidelines for exterior noise exposure limits for each land use category within the City. Table NOI-APP-1 below illustrates these adopted exterior noise exposure guidelines.

Table NOI-APP-1
City of Carson Land Use Noise Compatibility Guidelines

Land Use Category	Community Noise Exposure			
	Ldn or CNEL, dB			
	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Residential-Low Density	50-60	60-65	65-75	75-85
Residential-Multiple Family	50-60	60-65	65-75	75-85
Transient Lodging-Motel, Hotels	50-65	65-70	70-80	80-85
Schools, Libraries, Churches, Hospitals, Nursing Homes	50-60	60-65	65-80	80-85
Auditoriums, Concert Halls, Amphitheaters	NA	50-65	NA	65-85
Sports Arenas, Outdoor Spectator Sports	NA	50-70	NA	70-85
Playgrounds, Neighborhood Parks	50-70	NA	70-75	75-85
Golf Courses, Riding Stables, Water Recreation, Cemeteries	50-70	NA	70-80	80-85
Office Buildings, Business Commercial and Professional	50-67.5	67.5-75	75-85	NA
Industrial, Manufacturing, Utilities, Agriculture	50-70	70-75	75-85	NA

Source: Modified from U.S. Department of Housing and Urban Development Guidelines and State of California Standards.

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

CONDITIONALLY ACCEPTABLE
New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.

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

CLEARLY UNACCEPTABLE
New construction or development should generally not be undertaken.

NA: Not Applicable

Source: City of Carson General Plan Noise Element (2004)

Project-Related Traffic Noise Increases

The primary noise-related effect the proposed project could have off site is an increase in traffic, which is the main source of noise in most urban areas. Project-related traffic noise levels were examined along roadways evaluated by the project traffic engineer (Gibson Transportation Consulting , or GTC), where the project would principally contribute vehicle trips. Roadway trip volumes for roadway segments of concern were calculated by Dudek, based upon the data provided by GTC for intersection performance analysis (refer to Appendix J for the traffic impact assessment).

The City methodology for traffic assessment specifies the project traffic should be evaluated in comparison to traffic predicted to occur on area roadways for the "opening" date of the project (in this case Year 2020). The City also requires that the examination of cumulative project traffic include a background ambient growth rate. The traffic engineers followed this methodology in evaluating project-related roadway traffic volume increases.

Traffic noise is generally assessed using software provided by the Federal Highway Administration (FHWA), the current version of which is titled Transportation Noise Model 2.5 (TNM 2.5). For projects in California, the TNM model is run based upon information found in California Vehicle Noise Emission Levels (Caltrans 1987) and Technical Noise Supplement – A Technical Supplement to the Traffic Noise Analysis Protocol (Caltrans 1998). The worksheets in the traffic noise section of this Appendix are based on the FHWA TNM 2.5 model, but provide an easier to understand format than the full model input and output data sheets. Acoustical calculations using standard noise modeling equations adapted from the FHWA noise prediction model were performed for the following scenarios: *Year 2020 without Project, Year 2020 Plus Project, Cumulative Without Project, and Cumulative Plus Project*.

The modeling calculations take into account the posted vehicle speed, average daily traffic volumes for each scenario, and the estimated vehicle mix (i.e., automobiles, medium and heavy trucks). The model assumed "pavement" propagation conditions, or a hard site surface. Noise levels are generally indicated at the residential property line adjacent to each roadway, which varies from approximately 25 to 45 feet from the roadway centerline. Noise levels at greater distances from the roadway centerline would be lower due to attenuation provided by increased distance from the noise source. Generally, noise from heavily traveled roadways would experience a decrease of approximately 3 dBA for every doubling of distance from the roadway. The noise model does not take into account the sound-attenuating effect of intervening structures, barriers, vegetation, or topography. Therefore, the noise levels predicted by the model are conservative with respect to potential exterior exposure levels at noise-sensitive uses located along these roadways.

Future increases in traffic noise, with and without the proposed project, are provided in Table NOI-APP-2, below. Based on the information in Table NOI-APP-2, proposed project-related traffic

noise increases would be well below the perceptible threshold of an increase of 3 dBA for all the evaluated roadways, compared to existing roadway noise levels. Therefore, the proposed project would have a **less-than-significant project-specific impact** on off-site roadway traffic noise levels, using the City methodology.

Again with respect to NOI-APP-2, the proposed project would increase the roadway noise level by less than 1 dBA in the cumulative scenario, compared to the noise levels from cumulative projects without the proposed project. Traffic noise levels would also increase less than 3 dBA CNEL on all of the examined roadway segments, when comparing existing traffic noise levels to those from traffic associated with cumulative projects plus the proposed project. This increase falls below a "noticeable" change of 3 dBA. Therefore, the proposed project would have a **less-than-significant impact** on cumulative off-site roadway traffic noise levels.

TABLE NOI-APP-2
Traffic Noise Modeling Results
City Methodology

Modeled Receiver	Existing (2018) Noise Level (dBA CNEL)	Existing (2018) Plus Project Noise Level (dBA CNEL)	Difference (dB)	Cumulative Traffic With Ambient Noise Level (dBA CNEL)	Cumulative Traffic With Ambient Plus Project Noise Level (dBA CNEL)	Difference (dB)	Significant ?
A – Del Amo west of Avalon	77.9	78.0	0.1	78.7	78.7	0	NO
B – Avalon north of Turmont	73.1	73.2	0.1	73.9	74.0	0.1	NO
C – Avalon north of Elsemere	73.3	73.5	0.2	73.9	74.1	0.2	NO
D – MLK west of Avalon	66.0	66.8	0.8	66.2	67.0	0.8	NO
E – University east of Wadley	80.6	80.7	0.1	80.8	80.8	0	NO
F – Avalon north of 184th	72.8	73.0	0.2	73.5	73.6	0.1	NO
G – Victoria west of Avalon	77.9	78.7	0.8	78.8	78.8	0	NO
H – Main north of Lifford	77.6	78.1	0.5	79.2	78.9	-0.3	NO
I – Main south of Del Amo	78.1	78.2	0.1	78.5	78.6	0.1	NO
J – Main south of MLK	77.9	78.2	0.3	78.4	78.6	0.2	NO
K – Albertoni west of Avalon	78.2	78.2	0	78.3	78.3	0	NO

FIELD DATA SHEETS
SOUND LEVEL MEASUREMENTS

DUDEK

FIELD NOISE MEASUREMENT DATA

PROJECT: Kimmelman Sports Center — PROJECT #: 10951
SITE ID:
SITE ADDRESS: — OBSERVER(S): PETE VITAR
START DATE: 10/11/18 — END DATE: 10/11/18
START TIME: — END TIME:

METEOROLOGICAL CONDITIONS
TEMP: 63 F — HUMIDITY: 68 % R.H. — WIND: (CALM) LIGHT MODERATE
WINDSPD: MPH — DIR. N NE S SE S SW W NW — VARIABLE STEADY GUSTY
SKY: SUNNY CLEAR OVRCAST (PRTLY CLDY) FOG RAIN

ACOUSTIC MEASUREMENTS
MEAS. INSTRUMENT: PICCOLO SLM - P3 — TYPE 1 (2) — SERIAL # 1403T0041
CALIBRATOR: BSWA CA 114 — SERIAL # 480151
CALIBRATION CHECK — PRE-TEST: dBA SPL — POST-TEST: dBA SPL — WINDSCRN: YES

SETTINGS: A-WTD (SLOW) FAST FRONTAL RANDOM ANSI OTHER:

REC. #	BEGIN	END	Leq	Lmax	Lmin	L90	L50	L10	OTHER (SPECIFY METRIC
K 1	9:16	9:31	75.6	88.4	66		73		

COMMENTS: READING TAKEN ON SOUTH SIDE OF E. ALBERTONI ST, WEST OF VISTA DR; PRIMARY NOISE SOURCE: TRAFFIC ON E. ALBERTONI ST;

SOURCE INFO AND TRAFFIC COUNTS
PRIMARY NOISE SOURCE: (TRAFFIC) AIRCRAFT RAIL INDUSTRIAL OTHER:
ROADWAY TYPE: ASPHALT — DIST. TO RDWY C/L OR (EOP): 19'
TRAFFIC COUNT DURATION: 15 MIN — SPEED: MIN — SPEED

COUNT 1 (OR RDWY 1) DIRECTION	NB/EB	SB/WB	NB/EB	SB/WB
AUTOS	172			
MED TRKS	6			
HVY TRKS	5			
BUSES	3			
MOTRCLS	0			

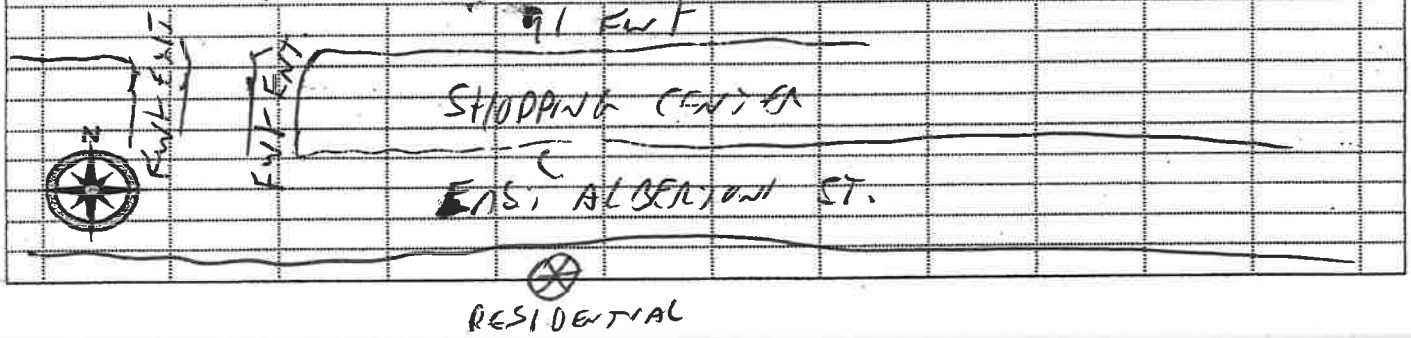
IF COUNTING BOTH DIRECTIONS AS ONE, CHECK HERE ✓

COUNT 2 (OR RDWY 2)	NB/EB	SB/WB	NB/EB	SB/WB

SPEEDS ESTIMATED BY: RADAR / DRIVING THE PACE
POSTED SPEED LIMIT SIGNS SAY:

OTHER NOISE SOURCES (BACKGROUND): DIST. AIRCRAFT RUSTLING LEAVES DIST. BARKING DOGS BIRDS DIST. INDUSTRIAL
DIST. KIDS PLAYING DIST. CONVRSTNS / YELLING (DIST. TRAFFIC (LIST RDWYS BELOW)) DISTD GARDENERS/LANDSCAPING NOISE
OTHER: TRAFFIC ON 91 FWY;

DESCRIPTION / SKETCH
TERRAIN (HARD) SOFT (MIXED) FLAT OTHER:
PHOTOS: 2412; 2413; 2414; 2415
OTHER COMMENTS / SKETCH



DUDEK

FIELD NOISE MEASUREMENT DATA

PROJECT: Kimmelman Sports Center | PROJECT #: 10951
SITE ID:
SITE ADDRESS: | OBSERVER(S): PETE VITAR
START DATE: 10/11/18 | END DATE: 10/11/18
START TIME: | END TIME:

METEOROLOGICAL CONDITIONS

TEMP: 67 F | HUMIDITY: 56 % R.H. | WIND: (CALM) LIGHT MODERATE
WINDSPD: MPH | DIR. N NE S SE S SW W NW | VARIABLE STEADY GUSTY
SKY: SUNNY CLEAR | OVRCAST | (PRTLY CLDY) | FOG | RAIN

ACOUSTIC MEASUREMENTS

MEAS. INSTRUMENT: PICCOLO SLM - P3 | TYPE 1 (2) | SERIAL # 1403176004
CALIBRATOR: BSWA CA 114 | SERIAL # 480151
CALIBRATION CHECK | PRE-TEST: dBA SPL | POST-TEST: dBA SPL | WINDSCRN: YES

SETTINGS: A-WTD (SLOW) FAST FRONTAL RANDOM ANSI OTHER:

REC. #	BEGIN	END	Leq	Lmax	Lmin	L90	L50	L10	OTHER (SPECIFY METRIC
G 2	9:51	10:01	78.9	87.8	57.2		73		

COMMENTS: READING TAKEN ON SOUTH SIDE OF E. VICTORIA ST, IN LINE WITH 408 VICTORIA (TO THE ~~WEST~~ OF METER); PRIMARY NOISE SOURCE: TRAFFIC ON E. VICTORIA ST.

SOURCE INFO AND TRAFFIC COUNTS

PRIMARY NOISE SOURCE: (TRAFFIC) AIRCRAFT RAIL INDUSTRIAL OTHER:
ROADWAY TYPE: ASPHALT | DIST. TO RDWY C/L OR (EOP): 8'

TRAFFIC COUNT DURATION: ___ MIN

COUNT 1 (OR RDWY 1) DIRECTION	NB/EB	SB/WB	NB/EB SPEED	SB/WB SPEED
AUTOS	198			
MED TRKS	14			
HVY TRKS	1			
BUSES	5			
MOTRCLS	1			

IF COUNTING BOTH DIRECTIONS AS ONE, CHECK HERE ✓

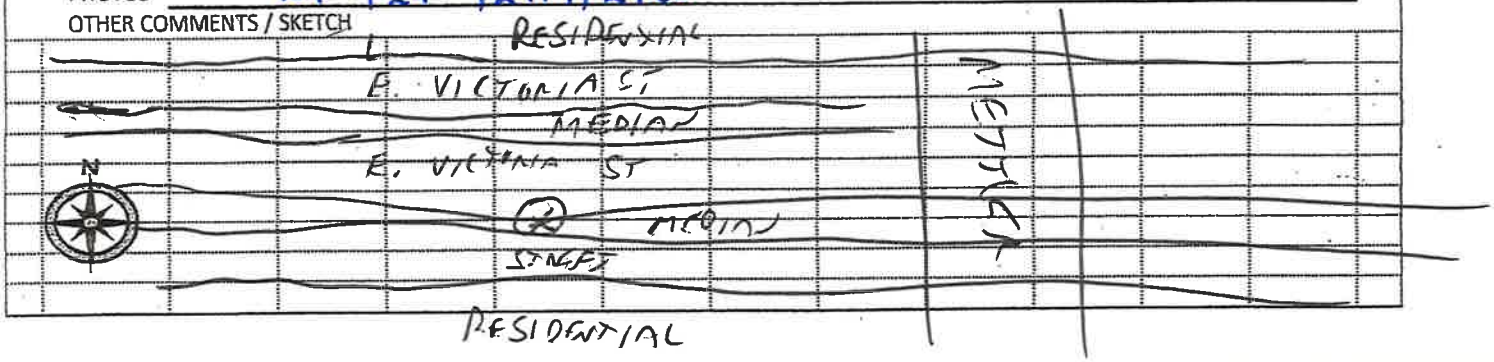
COUNT 2 (OR RDWY 2)	NB/EB	SB/WB	NB/EB SPEED	SB/WB SPEED
___ MIN				

SPEEDS ESTIMATED BY: RADAR / DRIVING THE PACE
POSTED SPEED LIMIT SIGNS SAY:

OTHER NOISE SOURCES (BACKGROUND): DIST. AIRCRAFT RUSTLING LEAVES DIST. BARKING DOGS (BIRDS) DIST. INDUSTRIAL
DIST. KIDS PLAYING DIST. CONVRSTNS / YELLING DIST. TRAFFIC (LIST RDWYS BELOW) DISTD GARDENERS/LANDSCAPING NOISE
OTHER:

DESCRIPTION / SKETCH

TERRAIN: (HARD) SOFT MIXED FLAT OTHER:
PHOTOS: 2417; 2418; 2419; 2420
OTHER COMMENTS / SKETCH



DUDEK

FIELD NOISE MEASUREMENT DATA

PROJECT: Kimmelman Sports Center | PROJECT #: 10951
SITE ID:
SITE ADDRESS:
OBSERVER(S): PETE VITAR
START DATE: 10/11/18 | END DATE: 10/11/18
START TIME: | END TIME:

METEOROLOGICAL CONDITIONS

TEMP: 67 F | HUMIDITY: 56 % R.H. | WIND: (CALM) LIGHT MODERATE
WINDSPD: MPH | DIR. N NE S SE S SW W NW | VARIABLE STEADY GUSTY
SKY: SUNNY CLEAR | OVRCAST (PRTLY CLDY) FOG | RAIN

ACOUSTIC MEASUREMENTS

MEAS. INSTRUMENT: PICCOLO SLM - P3 | TYPE 1 (2) | SERIAL # 1403176004
CALIBRATOR: BSWA CA 114 | SERIAL # 480151
CALIBRATION CHECK | PRE-TEST: dBA SPL | POST-TEST: dBA SPL | WINDSCRN: YES

SETTINGS: A-WTD (SLOW) FAST FRONTAL RANDOM ANSI OTHER:

REC. #	BEGIN	END	Leq	Lmax	Lmin	L90	L50	L10	OTHER (SPECIFY METRIC
F 3	10:16	10:31	72.2	85.7	54.2		65		

COMMENTS: READING TAKEN ON WEST SIDE OF AVALON BLVD, MID-BLOCK BETWEEN 183RD & 184TH STREETS (IN LINE WITH 18309 AVALON BL); PRIMARY NOISE SOURCE: TRAFFIC ON AVALON BLVD

SOURCE INFO AND TRAFFIC COUNTS

PRIMARY NOISE SOURCE: (TRAFFIC) AIRCRAFT RAIL INDUSTRIAL OTHER:
ROADWAY TYPE: ASPHALT | DIST. TO RDWY C/L OR (EOP): 8'

TRAFFIC COUNT DURATION: ___ MIN | SPEED ___ MIN

COUNT 1 (OR RDWY 1)	NB/EB	SB/WB	NB/EB SPEED	SB/WB SPEED
AUTOS	326			
MED TRKS	9			
HVY TRKS	1			
BUSES	10			
MOTRCLS	0			

IF COUNTING BOTH DIRECTIONS AS ONE, CHECK HERE ✓

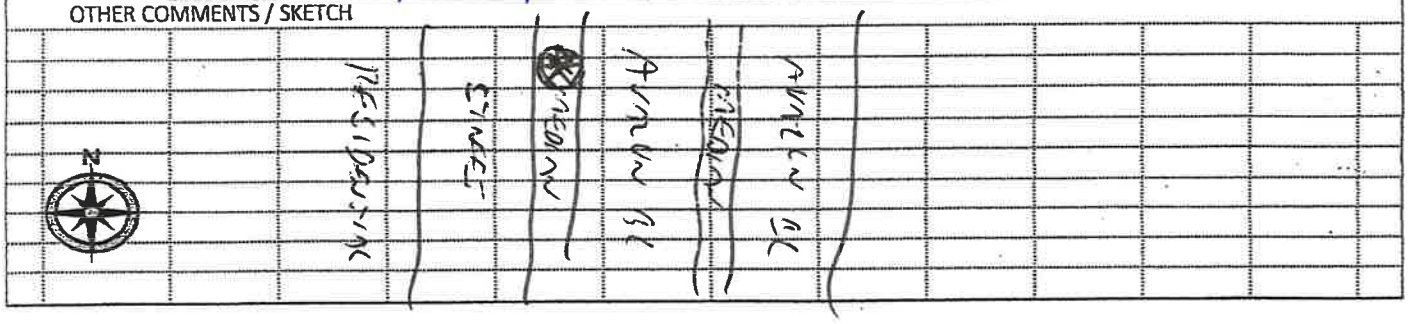
COUNT 2 (OR RDWY 2)	NB/EB	SB/WB	NB/EB SPEED	SB/WB SPEED

SPEEDS ESTIMATED BY: RADAR / DRIVING THE PACE
POSTED SPEED LIMIT SIGNS SAY:

OTHER NOISE SOURCES (BACKGROUND): DIST. AIRCRAFT RUSTLING LEAVES (DIST. BARKING DOGS) (BIRDS) DIST. INDUSTRIAL
DIST. KIDS PLAYING DIST. CONVRSTNS / YELLING DIST. TRAFFIC (LIST RDWYS BELOW) DISTD GARDENERS/LANDSCAPING NOISE
OTHER:

DESCRIPTION / SKETCH

TERRAIN: HARD SOFT (MIXED) FLAT OTHER:
PHOTOS: 2422; 2423; 2424; 2425
OTHER COMMENTS / SKETCH



DUDEK

FIELD NOISE MEASUREMENT DATA

PROJECT: Kimmelman Sports Center | PROJECT #: 10951
SITE ID:
SITE ADDRESS:
OBSERVER(S): PETE VITAR
START DATE: 10/11/18 | END DATE: 10/11/18
START TIME: | END TIME:

METEOROLOGICAL CONDITIONS

TEMP: 67 F | HUMIDITY: 56 % R.H. | WIND: (CALM) LIGHT MODERATE
WINDSPD: MPH | DIR. N NE S SE S SW W NW | VARIABLE STEADY GUSTY
SKY: SUNNY CLEAR | OVRCAST | (PRTLY CLDY) | FOG | RAIN

ACOUSTIC MEASUREMENTS

MEAS. INSTRUMENT: PICCOLO SLM - P3 | TYPE 1 (2) | SERIAL # 1403176041
CALIBRATOR: BSWA CA 114 | SERIAL # 480151
CALIBRATION CHECK | PRE-TEST: dBA SPL | POST-TEST: dBA SPL | WINDSCRN: YES

SETTINGS: A-WTD (SLOW) FAST FRONTAL RANDOM ANSI OTHER:

	REC. #	BEGIN	END	Leq	Lmax	Lmin	L90	L50	L10	OTHER (SPECIFY METRIC
H	4	11:06	11:21	79.4	90.8	61		75		

COMMENTS: READING TAKEN ON EAST SIDE OF MAIN ST, SOUTH OF INTERSECTION WITH GRIFFITH ST.; PRIMARY NOISE SOURCE: TRAFFIC ON MAIN ST.

SOURCE INFO AND TRAFFIC COUNTS

PRIMARY NOISE SOURCE: (TRAFFIC) AIRCRAFT RAIL INDUSTRIAL OTHER:
ROADWAY TYPE: ASPHALT | DIST. TO RDWY C/L OR (EOP): AT E.O.P

TRAFFIC COUNT DURATION: ___ MIN SPEED ___ MIN SPEED

COUNT 1 (OR RDWY 1) DIRECTION	NB/EB	SB/WB	NB/EB	SB/WB
AUTOS	150			
MED TRKS	10			
HVY TRKS	2			
BUSES	0			
MOTRCLS	0			

IF COUNTING BOTH DIRECTIONS AS ONE, CHECK HERE ✓

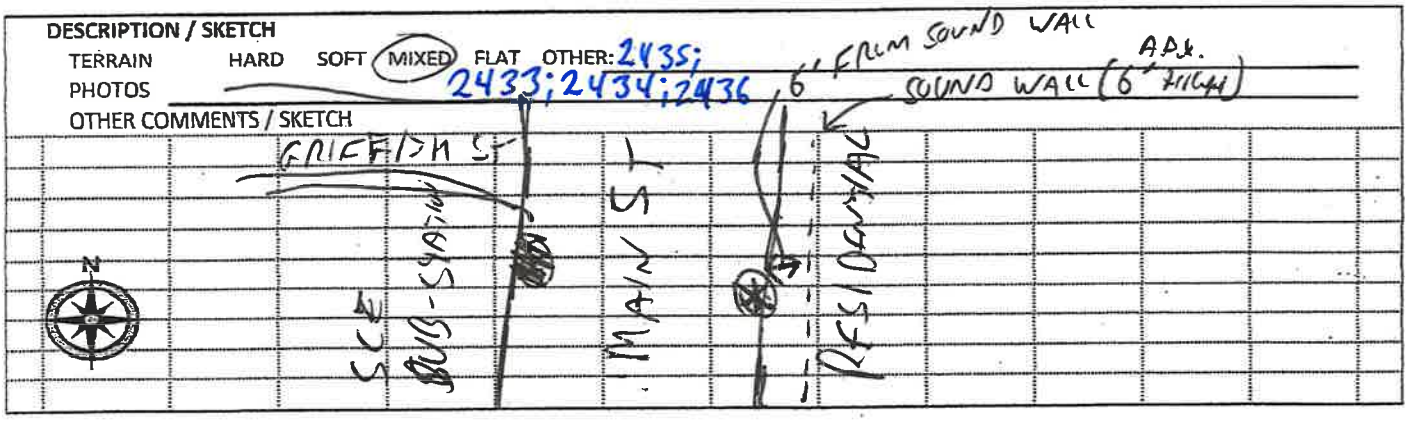
COUNT 2 (OR RDWY 2)	NB/EB	SB/WB	NB/EB	SB/WB

SPEEDS ESTIMATED BY: RADAR / DRIVING THE PACE
POSTED SPEED LIMIT SIGNS SAY:

OTHER NOISE SOURCES (BACKGROUND): DIST. AIRCRAFT RUSTLING LEAVES DIST. BARKING DOGS (BIRDS) DIST. INDUSTRIAL
DIST. KIDS PLAYING DIST. CONVRSTNS / YELLING (DIST. TRAFFIC (LIST RDWYS BELOW)) DISTD GARDENERS/LANDSCAPING NOISE
OTHER: TRAFFIC ON 405 FWY; HELICOPTER HOVERING OVER 405 FWY BRIEFLY;

DESCRIPTION / SKETCH

TERRAIN: HARD SOFT (MIXED) FLAT OTHER: 2435;
PHOTOS: 2433; 2434; 2436
OTHER COMMENTS / SKETCH



DUDEK

FIELD NOISE MEASUREMENT DATA

PROJECT: Kimmelman Sports Center | PROJECT #: 10951
SITE ID:
SITE ADDRESS: | OBSERVER(S): PETE VITAR
START DATE: 10/11/18 | END DATE: 10/11/18
START TIME: | END TIME:

METEOROLOGICAL CONDITIONS

TEMP: 71 F | HUMIDITY: 44 % R.H. | WIND: (CALM) LIGHT MODERATE
WINDSPD: MPH | DIR. N NE S SE S SW W NW | VARIABLE STEADY GUSTY
SKY: SUNNY CLEAR | OVRCAST | (PRTLY CLDY) | FOG | RAIN

ACOUSTIC MEASUREMENTS

MEAS. INSTRUMENT: PICCOLO SLM - P3 | TYPE 1 (2) | SERIAL # 1403176041
CALIBRATOR: BSWA CA 114 | SERIAL # 480151
CALIBRATION CHECK | PRE-TEST: dBA SPL | POST-TEST: dBA SPL | WINDSCRN: YES

SETTINGS: A-WTD (SLOW) FAST FRONTAL RANDOM ANSI OTHER:

REC. #	BEGIN	END	Leq	Lmax	Lmin	L90	L50	L10	OTHER (SPECIFY METRIC
J 5	11:38	11:53	77.2	91.2	65.1		73		

COMMENTS: READING TAKEN ON EAST SIDE OF MAIN ST. (ALONG GOODYEAR BLIMP PROPERTY) MID-WAY BETWEEN MLK JR ST AND 405 FWY; PRIMARY NOISE SOURCE: TRAFFIC ON MAIN ST; SECONDARY: TRAFFIC ON 405 FWY

SOURCE INFO AND TRAFFIC COUNTS

PRIMARY NOISE SOURCE: (TRAFFIC) AIRCRAFT RAIL INDUSTRIAL OTHER:
ROADWAY TYPE: ASPHALT | DIST. TO RDWY C/L OR (EOP): 6'
TRAFFIC COUNT DURATION: ___ MIN | SPEED ___ MIN | SPEED

COUNT 1 (OR RDWY 1) DIRECTION	NB/EB	SB/WB	NB/EB	SB/WB
AUTOS	152			
MED TRKS	5			
HVY TRKS	9			
BUSES	0			
MOTRCLS	0			

IF COUNTING BOTH DIRECTIONS AS ONE, CHECK HERE: ✓

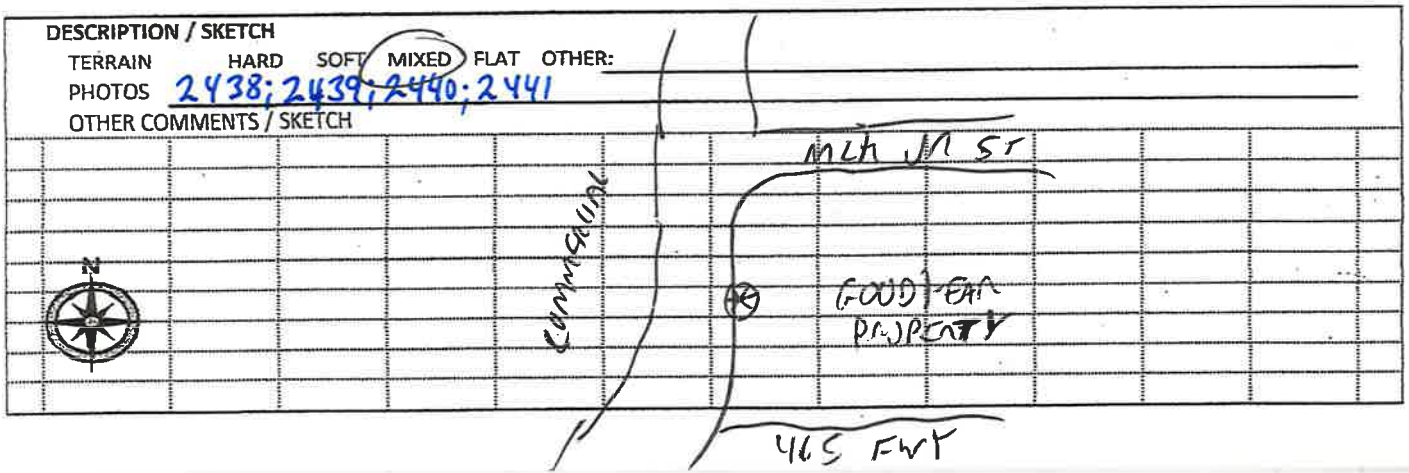
COUNT 2 (OR RDWY 2)	NB/EB	SB/WB	NB/EB	SB/WB

SPEEDS ESTIMATED BY: RADAR / DRIVING THE PACE
POSTED SPEED LIMIT SIGNS SAY:

OTHER NOISE SOURCES (BACKGROUND): DIST. AIRCRAFT RUSTLING LEAVES DIST. BARKING DOGS BIRDS DIST. INDUSTRIAL
DIST. KIDS PLAYING DIST. CONVRSTNS / YELLING (DIST. TRAFFIC (LIST RDWYS BELOW)) DISTD GARDENERS/LANDSCAPING NOISE
OTHER: TRAFFIC ON 405 FWY

DESCRIPTION / SKETCH

TERRAIN: HARD SOFT (MIXED) FLAT OTHER:
PHOTOS: 2438; 2439; 2440; 2441
OTHER COMMENTS / SKETCH



DUDEK

FIELD NOISE MEASUREMENT DATA

PROJECT: Kimmelman Sports Center | PROJECT #: 10951
SITE ID:
SITE ADDRESS:
OBSERVER(S): PETE VITAR
START DATE: 10/11/18 | END DATE: 10/11/18
START TIME: | END TIME:

METEOROLOGICAL CONDITIONS

TEMP: 71 F | HUMIDITY: 44 % R.H. | WIND: (CALM) LIGHT MODERATE
WINDSPD: MPH | DIR. N NE S ~~SE~~ S SW W NW | VARIABLE STEADY GUSTY
SKY: SUNNY CLEAR | OVRCAST (PRTLY CLDY) FOG | RAIN

ACOUSTIC MEASUREMENTS

MEAS. INSTRUMENT: PICCOLO SLM - P3 | TYPE 1 (2) | SERIAL # 1403176004
CALIBRATOR: BSWA CA 114 | SERIAL # 480151
CALIBRATION CHECK | PRE-TEST: dBA SPL | POST-TEST: dBA SPL | WINDSCRN: YES

SETTINGS: A-WTD (SLOW) FAST FRONTAL RANDOM ANSI OTHER:

REC. #	BEGIN	END	Leq	Lmax	Lmin	L90	L50	L10	OTHER (SPECIFY METRIC
D 6	12:21	12:41	65.0	77.9	58.6		63		

COMMENTS: READING TAKEN AT VICTORIA PARK, NORTH OF MLK JR ST AND WEST OF PARK PARKING LOT; PRIMARY NOISE SOURCE: TRAFFIC ON MLK JR ST; SECONDARY: TRAFFIC ON 405 FWY

SOURCE INFO AND TRAFFIC COUNTS

PRIMARY NOISE SOURCE: (TRAFFIC) AIRCRAFT RAIL INDUSTRIAL OTHER:
ROADWAY TYPE: ASPHALT | DIST. TO RDWY C/L OR (EOP): 66'
TRAFFIC COUNT DURATION: ___ MIN SPEED ___ MIN SPEED

COUNT 1 (OR RDWY 1) DIRECTION	NB/EB	SB/WB	NB/EB	SB/WB
AUTOS	109			
MED TRKS	3			
HVY TRKS	0			
BUSES	0			
MOTRCLS	1			

(IF COUNTING BOTH DIRECTIONS AS ONE, CHECK HERE ✓)

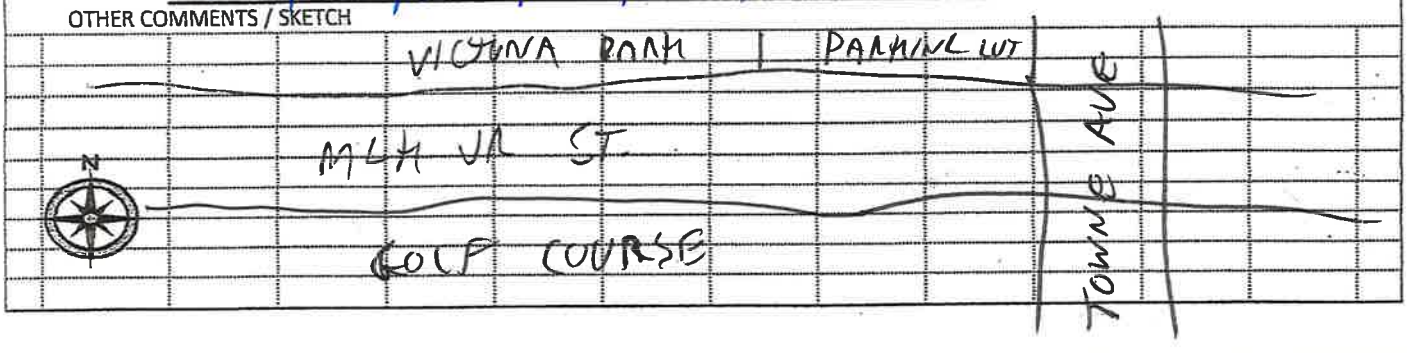
COUNT 2 (OR RDWY 2)	NB/EB	SB/WB	NB/EB	SB/WB

SPEEDS ESTIMATED BY: RADAR / DRIVING THE PACE
POSTED SPEED LIMIT SIGNS SAY:

OTHER NOISE SOURCES (BACKGROUND): DIST. AIRCRAFT RUSTLING LEAVES DIST. BARKING DOGS (BIRDS) DIST. INDUSTRIAL
DIST. KIDS PLAYING (DIST. CONVRSTNS./YELLING) (DIST. TRAFFIC (LIST RDWYS BELOW)) (DIST. GARDENERS/LANDSCAPING NOISE)
OTHER: TRAFFIC ON 405 FWY

DESCRIPTION / SKETCH

TERRAIN: HARD SOFT (MIXED) FLAT OTHER:
PHOTOS: 2443; 2444; 2445; 2446; 2447;
OTHER COMMENTS / SKETCH



DUDEK

FIELD NOISE MEASUREMENT DATA

PROJECT: Kimmelman Sports Center | PROJECT #: 10951
SITE ID:
SITE ADDRESS:
OBSERVER(S): PETE VITAR
START DATE: 10/11/18 | END DATE: 10/11/18
START TIME: | END TIME:

METEOROLOGICAL CONDITIONS
TEMP: 73 F | HUMIDITY: 40 % R.H. | WIND: (CALM) LIGHT MODERATE
WINDSPD: MPH | DIR. N NE S SE S SW W NW | VARIABLE STEADY GUSTY
SKY: SUNNY CLEAR | OVRCAST | (PRTLY CLDY) | FOG | RAIN

ACOUSTIC MEASUREMENTS
MEAS. INSTRUMENT: PICCOLO SLM - P3 | TYPE 1 (2) | SERIAL # 1403170041
CALIBRATOR: BSWA CA 114 | SERIAL # 480151
CALIBRATION CHECK | PRE-TEST dBA SPL | POST-TEST dBA SPL | WINDSCRN YES

SETTINGS: A-WTD (SLOW) FAST FRONTAL RANDOM ANSI OTHER:

REC. #	BEGIN	END	Leq	Lmax	Lmin	L90	L50	L10	OTHER (SPECIFY METRIC
E 7	13:08	13:23	79.7	92.8	58.3		75		

COMMENTS
READING TAKEN ON ~~EUCALYPTUS~~ SOUTH SIDE OF E. UNIVERSITY DR BETWEEN WADLEIGH AVE AND PEPPERDINE DR ; PRIMARY NOISE SOURCE: TRAFFIC ON UNIVERSITY DR

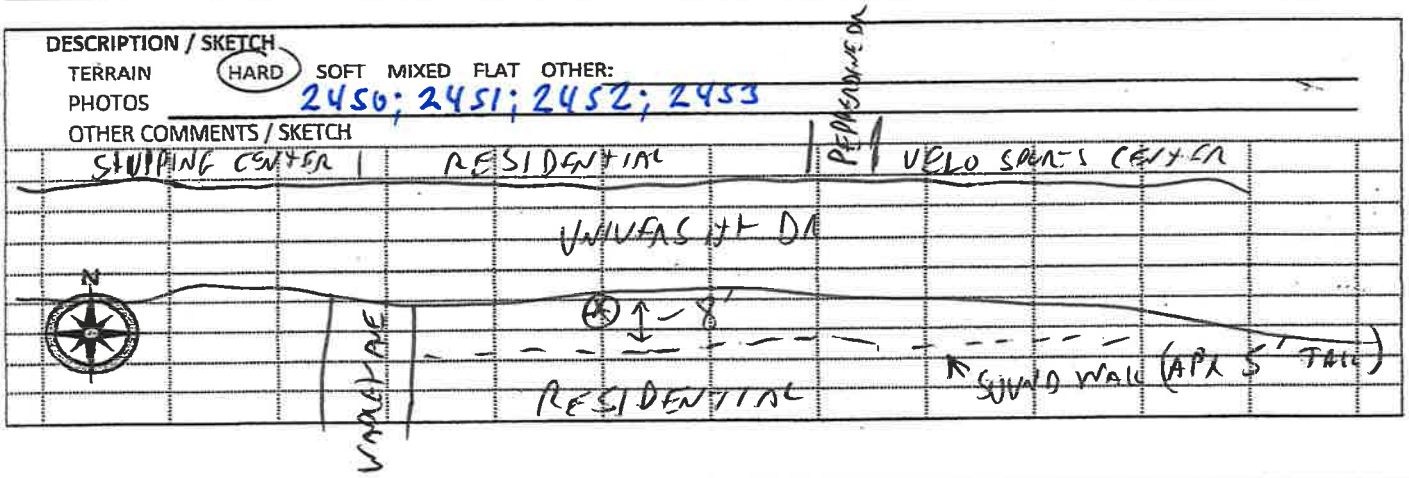
SOURCE INFO AND TRAFFIC COUNTS
PRIMARY NOISE SOURCE: (TRAFFIC) AIRCRAFT RAIL INDUSTRIAL OTHER:
ROADWAY TYPE: ASPHALT | DIST. TO RDWY C/L OR (EOP): AT EOP
TRAFFIC COUNT DURATION: ___ MIN SPEED ___ MIN SPEED

COUNT 1 (OR RDWY 1) DIRECTION	NB/EB	SB/WB	NB/EB	SB/WB	IF COUNTING BOTH DIRECTIONS AS ONE, CHECK HERE ✓	COUNT 2 (OR RDWY 2) NB/EB	SB/WB	NB/EB	SB/WB
AUTOS	197								
MED TRKS	3								
HVY TRKS	1								
BUSES	1								
MOTRCLS	0								

SPEEDS ESTIMATED BY: RADAR / DRIVING THE PACE
POSTED SPEED LIMIT SIGNS SAY:

OTHER NOISE SOURCES (BACKGROUND): DIST. AIRCRAFT RUSTLING LEAVES DIST. BARKING DOGS BIRDS DIST. INDUSTRIAL
DIST. KIDS PLAYING DIST. CONVRSTNS / YELLING DIST. TRAFFIC (LIST RDWYS BELOW) DISTD GARDENERS/LANDSCAPING NOISE
OTHER:

DESCRIPTION / SKETCH
TERRAIN: (HARD) SOFT MIXED FLAT OTHER:
PHOTOS: 2450; 2451; 2452; 2453
OTHER COMMENTS / SKETCH



DUDEK

FIELD NOISE MEASUREMENT DATA

PROJECT: Kimmelman Sports Center | PROJECT #: 10951
SITE ID:
SITE ADDRESS:
OBSERVER(S): PETE VITAR
START DATE: 10/11/18 | END DATE: 10/11/18
START TIME: | END TIME:

METEOROLOGICAL CONDITIONS

TEMP: 73 F | HUMIDITY: 40 % R.H. | WIND: (CALM) LIGHT MODERATE
WINDSPD: MPH | DIR. N NE S SE S SW W NW | VARIABLE STEADY GUSTY
SKY: SUNNY CLEAR | OVRCAST (PRTLY CLDY) FOG | RAIN

ACOUSTIC MEASUREMENTS

MEAS. INSTRUMENT: PICCOLO SLM - P3 | TYPE 1 (2) | SERIAL # 14037 7604
CALIBRATOR: BSWA CA 114 | SERIAL # 480151
CALIBRATION CHECK: PRE-TEST dBA SPL | POST-TEST dBA SPL | WINDSCRN YES

SETTINGS: A-WTD (SLOW) FAST FRONTAL RANDOM ANSI OTHER:

REC. #	BEGIN	END	Leq	Lmax	Lmin	L90	L50	L10	OTHER (SPECIFY METRIC
C 8	13:44	13:54	74.0	85.9	55.6		67		

COMMENTS: REGINA + AHERN ON WEST SIDE OF ~~SORRENTO~~ AVALON BLVD, BETWEEN MLK JR ST & ELSMERE DR

SOURCE INFO AND TRAFFIC COUNTS

PRIMARY NOISE SOURCE: (TRAFFIC) AIRCRAFT RAIL INDUSTRIAL OTHER:
ROADWAY TYPE: ASPHALT | DIST. TO RDWY C/L OR EOP: 10'

TRAFFIC COUNT DURATION: ___ MIN | SPEED ___ MIN | SPEED

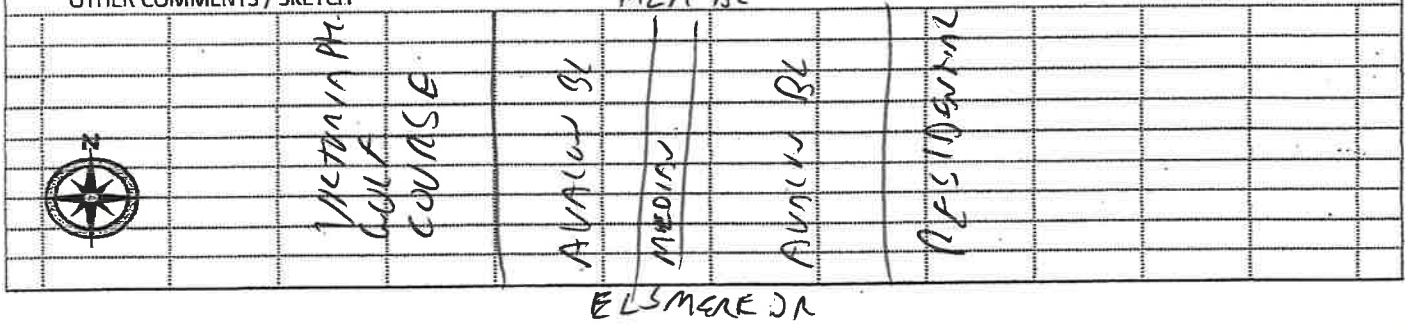
COUNT 1 (OR RDWY 1) DIRECTION	NB/EB	SB/WB	NB/EB	SB/WB	IF COUNTING BOTH DIRECTIONS AS ONE, CHECK HERE ✓	COUNT 2 (OR RDWY 2)	NB/EB	SB/WB	NB/EB	SB/WB
AUTOS	309									
MED TRKS	6									
HVY TRKS	0									
BUSES	2									
MOTRCLS	1									

SPEEDS ESTIMATED BY: RADAR / DRIVING THE PACE
POSTED SPEED LIMIT SIGNS SAY:

OTHER NOISE SOURCES (BACKGROUND): DIST. AIRCRAFT RUSTLING LEAVES DIST. BARKING DOGS BIRDS DIST. INDUSTRIAL
DIST. KIDS PLAYING DIST. CONVRSTNS / YELLING DIST. TRAFFIC (LIST RDWYS BELOW) DISTD GARDENERS/LANDSCAPING NOISE
OTHER:

DESCRIPTION / SKETCH

TERRAIN: HARD SOFT (MIXED) FLAT OTHER:
PHOTOS: 2455; 2456; 2457; 2458
OTHER COMMENTS / SKETCH



DUDEK

FIELD NOISE MEASUREMENT DATA

PROJECT: Kimmelman Sports Center — PROJECT #: 10951
SITE ID:
SITE ADDRESS: — OBSERVER(S): PETE VITAR
START DATE: 10/11/18 — END DATE: 10/11/18
START TIME: — END TIME:

METEOROLOGICAL CONDITIONS
TEMP: 73 F — HUMIDITY: 40 % R.H. — WIND: (CALM) LIGHT MODERATE
WINDSPD: MPH — DIR. N NE S SE S SW W NW — VARIABLE STEADY GUSTY
SKY: SUNNY CLEAR — OVRCAST — (PRTLY CLDY) — FOG — RAIN

ACOUSTIC MEASUREMENTS
MEAS. INSTRUMENT: PICCOLO SLM - P3 — TYPE 1 (2) — SERIAL # 1403176041
CALIBRATOR: BSWA CA 114 — SERIAL # 480151
CALIBRATION CHECK — PRE-TEST: dBA SPL — POST-TEST: dBA SPL — WINDSCRN: YES

SETTINGS: A-WTD (SLOW) FAST FRONTAL RANDOM ANSI — OTHER:

REC. #	BEGIN	END	Leq	Lmax	Lmin	L90	L50	L10	OTHER (SPECIFY METRIC
B 9	14:12	14:22	74.1	85.7	55.9		69		

COMMENTS: READING TAKEN ON WEST SIDE OF AVALON BL, BETWEEN ELSMERE DR & E. TURMONT ST

SOURCE INFO AND TRAFFIC COUNTS
PRIMARY NOISE SOURCE: (TRAFFIC) AIRCRAFT RAIL INDUSTRIAL OTHER:
ROADWAY TYPE: ASPHALT — DIST. TO RDWY C/L OR (EOP): 10'
TRAFFIC COUNT DURATION: ___ MIN — SPEED ___ MIN — SPEED

COUNT 1 (OR RDWY 1) DIRECTION	NB/EB	SB/WB	NB/EB	SB/WB
AUTOS	367			
MED TRKS	5			
HVY TRKS	2			
BUSES	5			
MOTRCLS	0			

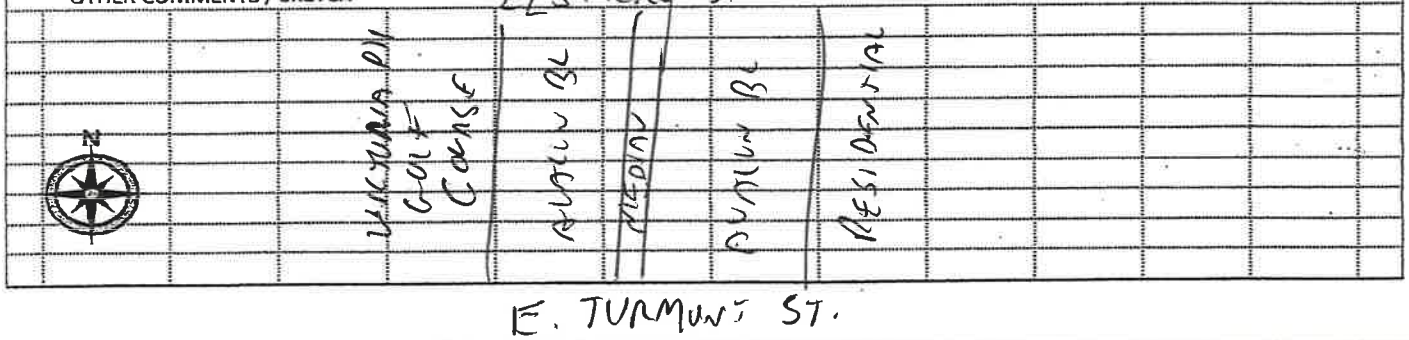
IF COUNTING BOTH DIRECTIONS AS ONE, CHECK HERE ✓

COUNT 2 (OR RDWY 2)	NB/EB	SB/WB	NB/EB	SB/WB

SPEEDS ESTIMATED BY: RADAR / DRIVING THE PACE
POSTED SPEED LIMIT SIGNS SAY:

OTHER NOISE SOURCES (BACKGROUND): DIST. AIRCRAFT RUSTLING LEAVES DIST. BARKING DOGS BIRDS DIST. INDUSTRIAL
DIST. KIDS PLAYING DIST. CONVRSTNS / YELLING DIST. TRAFFIC (LIST RDWYS BELOW) DISTD GARDENERS/LANDSCAPING NOISE
OTHER:

DESCRIPTION / SKETCH
TERRAIN: HARD SOFT (MIXED) FLAT OTHER:
PHOTOS: 2460; 2461; 2462; 2463
OTHER COMMENTS / SKETCH



DUDEK

FIELD NOISE MEASUREMENT DATA

PROJECT: Kimmelman Sports Center | PROJECT #: 10951
SITE ID:
SITE ADDRESS:
OBSERVER(S): PETE VITAR
START DATE: 10/11/18 | END DATE: 10/11/18
START TIME: | END TIME:

METEOROLOGICAL CONDITIONS

TEMP: 73 F | HUMIDITY: 43 % R.H. | WIND: (CALM) LIGHT MODERATE
WINDSPD: MPH | DIR. N NE S SE S SW W NW | VARIABLE STEADY GUSTY
SKY: SUNNY (CLEAR) | OVRCAST PRTLY CLDY FOG | RAIN

ACOUSTIC MEASUREMENTS

MEAS. INSTRUMENT: PICCOLO SLM-P3 | TYPE 1 (2) | SERIAL # 1403T0041
CALIBRATOR: BSWA CA 114 | SERIAL # 480151
CALIBRATION CHECK | PRE-TEST dBA SPL | POST-TEST dBA SPL | WINDSCRN YES

SETTINGS: A-WTD (SLOW) FAST FRONTAL RANDOM ANSI OTHER:

REC. #	BEGIN	END	Leq	Lmax	Lmin	L90	L50	L10	OTHER (SPECIFY METRIC
A 10	14:54	15:04	78.7	93.3	67.5		75		

COMMENTS: READING TAKEN ON NORTH SIDE OF DEL MAR BLVD, BETWEEN AVALON BLVD & [illegible] CHANNEL

SOURCE INFO AND TRAFFIC COUNTS

PRIMARY NOISE SOURCE: (TRAFFIC) AIRCRAFT RAIL INDUSTRIAL OTHER:
ROADWAY TYPE: AS PHALT | DIST. TO RDWY C/L OR (EOP): 15'

TRAFFIC COUNT DURATION: ___ MIN | SPEED

COUNT 1 (OR RDWY 1) DIRECTION	NB/EB	SB/WB	NB/EB SPEED	SB/WB SPEED
AUTOS	321			
MED TRKS	2			
HVY TRKS	11			
BUSES	1			
MOTRCLS	0			

IF COUNTING BOTH DIRECTIONS AS ONE, CHECK HERE ✓

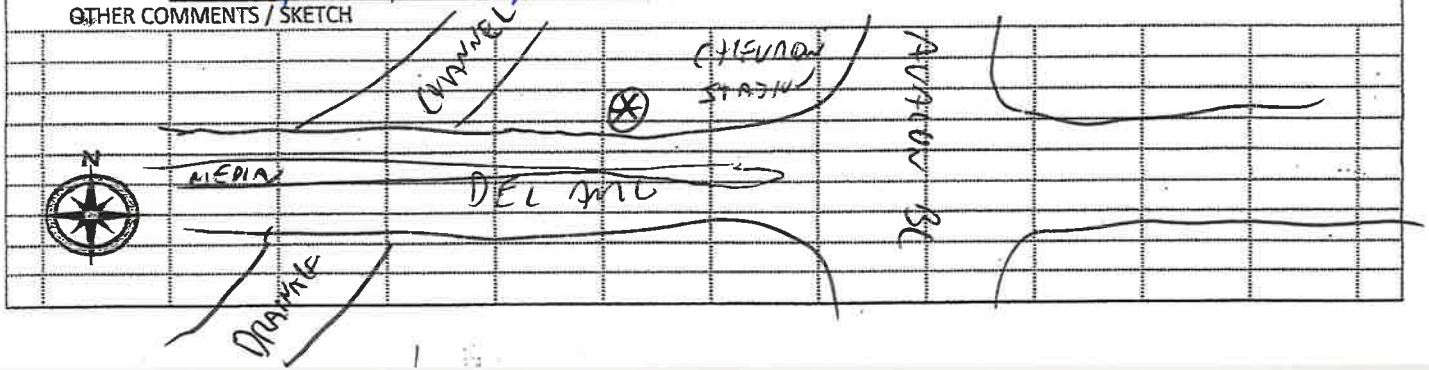
COUNT 2 (OR RDWY 2)	NB/EB	SB/WB	NB/EB SPEED	SB/WB SPEED
___ MIN				

SPEEDS ESTIMATED BY: RADAR / DRIVING THE PACE
POSTED SPEED LIMIT SIGNS SAY:

OTHER NOISE SOURCES (BACKGROUND): DIST. AIRCRAFT RUSTLING LEAVES DIST. BARKING DOGS BIRDS DIST. INDUSTRIAL
DIST. KIDS PLAYING DIST. CONVRSTNS / YELLING DIST. TRAFFIC (LIST RDWYS BELOW) DISTD GARDENERS/LANDSCAPING NOISE
OTHER:

DESCRIPTION / SKETCH

TERRAIN: HARD SOFT (MIXED) FLAT OTHER:
PHOTOS: 2465; 2466; 2467; 2468
OTHER COMMENTS / SKETCH



DUDEK

FIELD NOISE MEASUREMENT DATA

PROJECT: Kimmelman Sports Center | PROJECT #: 10951
SITE ID:
SITE ADDRESS: | OBSERVER(S): PETE VITAR
START DATE: 10/11/18 | END DATE: 10/11/18
START TIME: | END TIME:

METEOROLOGICAL CONDITIONS

TEMP 73 F | HUMIDITY 47 % R.H. | WIND: CALM (LIGHT) MODERATE
WINDSPD 13 MPH | DIR. N NE S SE S SW W NW | VARIABLE STEADY GUSTY
SKY SUNNY (CLEAR) | OVRCAST PRTLY CLDY FOG | RAIN

ACOUSTIC MEASUREMENTS

MEAS. INSTRUMENT: PICCOLO SLM-P3 | TYPE 1 (2) | SERIAL # 1403176004
CALIBRATOR: BSWA CA 114 | SERIAL # 480151
CALIBRATION CHECK | PRE-TEST ____ dBA SPL | POST-TEST ____ dBA SPL | WINDSCRN YES

SETTINGS: A-WTD (SLOW) FAST FRONTAL RANDOM ANSI | OTHER:

REC. #	BEGIN	END	Leq	Lmax	Lmin	L90	L50	L10	OTHER (SPECIFY METRIC
I 11	15:29	15:39	78.4	89.4	64.0		75		

COMMENTS: READING TAKEN ON EAST SIDE OF MAIN ST., ~~MAIN~~ SOUTH OF DEL AMO BLVD. AT ENTRANCE TO 20600 VISTA DEL LOMA (MIDDLE FORK PARK); PRIMARY NOISE SOURCE IS TRAFFIC ON MAIN ST.

SOURCE INFO AND TRAFFIC COUNTS

PRIMARY NOISE SOURCE: (TRAFFIC) AIRCRAFT RAIL INDUSTRIAL OTHER:
ROADWAY TYPE: ASPHALT | DIST. TO RDWY C/L OR (EOP): 9'

TRAFFIC COUNT DURATION: ____ MIN

COUNT 1 (OR RDWY 1) DIRECTION	NB/EB	SB/WB	NB/EB SPEED	SB/WB SPEED
AUTOS	281			
MED TRKS	6			
HVY TRKS	9			
BUSES	4			
MOTRCLS	0			

IF COUNTING BOTH DIRECTIONS AS ONE, CHECK HERE ✓

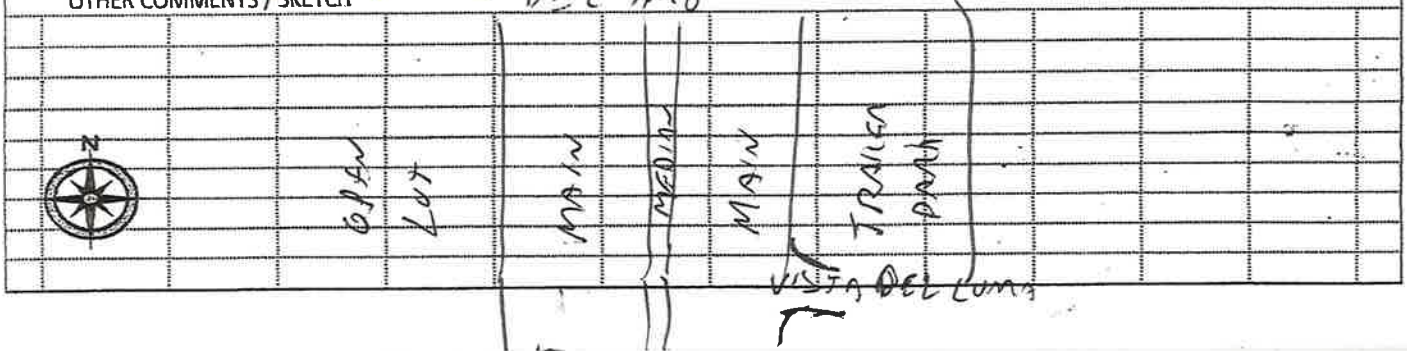
COUNT 2 (OR RDWY 2)	NB/EB	SB/WB	NB/EB SPEED	SB/WB SPEED

SPEEDS ESTIMATED BY: RADAR / DRIVING THE PACE
POSTED SPEED LIMIT SIGNS SAY:

OTHER NOISE SOURCES (BACKGROUND): DIST. AIRCRAFT RUSTLING LEAVES DIST. BARKING DOGS BIRDS DIST. INDUSTRIAL
DIST. KIDS PLAYING DIST. CONVRSTNS / YELLING DIST. TRAFFIC (LIST RDWYS BELOW) DISTD GARDENERS/LANDSCAPING NOISE
OTHER:

DESCRIPTION / SKETCH

TERRAIN HARD SOFT (MIXED) FLAT OTHER:
PHOTOS 2470; 2471; 2472; 2473
OTHER COMMENTS / SKETCH



Monitor Name
Date

DUDEK

FIELD NOISE MEASUREMENT DATA

PROJECT KIMMELMAN
PROJECT # 10951
SITE ID
SITE ADDRESS
OBSERVER(S) PETE VITAR
START DATE 1/17/19 END DATE 1/17/19
START TIME END TIME

METEOROLOGICAL CONDITIONS
TEMP 57 F HUMIDITY 93 % R.H. WIND CALM LIGHT MODERATE
WINDSPD MPH DIR. N NE E SE S SW W NW VARIABLE STEADY GUSTY
SKY SUNNY CLEAR OVRCAST (PRTLY CLDY) FOG RAIN

ACOUSTIC MEASUREMENTS
MEAS. INSTRUMENT PICCOLO SLM-P3 TYPE 1 (2) SERIAL # 14031.7004
CALIBRATOR BSWA CA 114 SERIAL # 480151
CALIBRATION CHECK PRE-TEST ____ dBA SPL POST-TEST ____ dBA SPL WINDSCRN YES

SETTINGS A-WTD (SLOW) FAST FRONTAL RANDOM ANSI OTHER:

REC. #	BEGIN	END	Leq	Lmax	Lmin	L90	L50	L10	OTHER (SPECIFY METRIC
(C) 1	22:07	22:22	73.5	85.2	59.7		67		

COMMENTS
READING TAKEN ON WEST SIDE OF AVALON BLVD, BETWEEN MARTIN LUTHER KING JR STREET AND ELSMERE DR.; PRIMARY NOISE SOURCE IS TRAFFIC ON AVALON BL; SECONDARY IS TRAFFIC NOISE FROM 405 & 110 FREEWAYS

SOURCE INFO AND TRAFFIC COUNTS
PRIMARY NOISE SOURCE (TRAFFIC) AIRCRAFT RAIL INDUSTRIAL OTHER:
ROADWAY TYPE: ASPHALT DIST. TO RDWY C/L OR (EOP): 10'

TRAFFIC COUNT DURATION: 15 MIN SPEED ____ MIN SPEED

COUNT 1 (OR RDWY 1) DIRECTION	NB/EB	SB/WB	NB/EB	SB/WB	IF COUNTING BOTH DIRECTIONS AS ONE, CHECK HERE ☑	COUNT 2 (OR RDWY 2) NB/EB	SB/WB	NB/EB	SB/WB
AUTOS	153								
MED TRKS	0								
HVY TRKS	0								
BUSES	3								
MOTRCLS	0								

SPEEDS ESTIMATED BY: RADAR / DRIVING THE PACE
POSTED SPEED LIMIT SIGNS SAY:

OTHER NOISE SOURCES (BACKGROUND): DIST. AIRCRAFT RUSTLING LEAVES DIST. BARKING DOGS BIRDS DIST. INDUSTRIAL
DIST. KIDS PLAYING DIST. CONVRSTNS / YELLING (DIST. TRAFFIC (LIST RDWYS BELOW)) DISTD GARDENERS/LANDSCAPING NOISE
OTHER: 405 & 110 FREEWAYS

DESCRIPTION / SKETCH
TERRAIN HARD SOFT (MIXED) FLAT OTHER:
PHOTOS 3553; 3554
OTHER COMMENTS / SKETCH

DUDEK

FIELD NOISE MEASUREMENT DATA

PROJECT: KIMMELMAN
PROJECT #: 10951
SITE ID:
SITE ADDRESS:
OBSERVER(S): PETE VITAR
START DATE: 1/17/19 END DATE: 1/17/19
START TIME: END TIME:

METEOROLOGICAL CONDITIONS
TEMP: 57 F HUMIDITY: 93 % R.H.
WINDSPD: MPH DIR. N NE E SE S SW W NW
SKY: SUNNY CLEAR OVRCAST PRTLY CLDY FOG RAIN
WIND: CALM LIGHT MODERATE VARIABLE STEADY GUSTY

ACOUSTIC MEASUREMENTS
MEAS. INSTRUMENT: PICCOLO SLM-P3 TYPE 1 (2) SERIAL # 1403170004
CALIBRATOR: BSWA CA 114 SERIAL # 480151
CALIBRATION CHECK: PRE-TEST dBA SPL POST-TEST dBA SPL WINDSCRN YES
SETTINGS: A-WTD (SLOW) FAST FRONTAL RANDOM ANSI OTHER:

REC. #	BEGIN	END	Leq	Lmax	Lmin	L90	L50	L10	OTHER (SPECIFY METRIC
(B) (MW) 2	22:49	22:59	62.9	71.7	57.6		57		

COMMENTS: READING TAKEN ON WEST SIDE OF AVALON BLVD BETWEEN ELSMERE DR AND TURMONT STREET; PRIMARY NOISE SOURCE IS TRAFFIC ON AVALON BLVD.

SOURCE INFO AND TRAFFIC COUNTS
PRIMARY NOISE SOURCE: (TRAFFIC) AIRCRAFT RAIL INDUSTRIAL OTHER:
ROADWAY TYPE: ASPHALT DIST. TO RDWY C/L OR (EOP): 10'
TRAFFIC COUNT DURATION: 15 MIN

COUNT 1 (OR RDWY 1)	DIRECTION	NB/EB	SB/WB	NB/EB SPEED	SB/WB SPEED
	AUTOS	104			
	MED TRKS	1			
	HVY TRKS	0			
	BUSES	0			
	MOTRCLS	0			

IF COUNTING BOTH DIRECTIONS AS ONE, CHECK HERE ✓

COUNT 2 (OR RDWY 2)	NB/EB	SB/WB	NB/EB SPEED	SB/WB SPEED

SPEEDS ESTIMATED BY: RADAR / DRIVING THE PACE
POSTED SPEED LIMIT SIGNS SAY:

OTHER NOISE SOURCES (BACKGROUND): DIST. AIRCRAFT RUSTLING LEAVES DIST. BARKING DOGS BIRDS DIST. INDUSTRIAL
DIST. KIDS PLAYING DIST. CONVRSTNS / YELLING DIST. TRAFFIC (LIST RDWYS BELOW) DISTD GARDENERS/LANDSCAPING NOISE
OTHER:

DESCRIPTION / SKETCH
TERRAIN: HARD SOFT (MIXED) FLAT OTHER:
PHOTOS: 3555, 3556
OTHER COMMENTS / SKETCH

RCNM

INPUTS & MODELLING RESULTS

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 1/25/2019
Case Description: Kimmelman_Demo/Site prep/C&G

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
School/Park PL - 75'	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dozer	No	40		81.7	75	0
Dozer	No	40		81.7	75	0
Front End Loader	No	40		79.1	75	0
Backhoe	No	40		77.6	75	0
Tractor	No	40	84		75	0

Results

Equipment		Calculated (dBA) *Lmax	Leq
Dozer		78.1	74.2
Dozer		78.1	74.2
Front End Loader		75.6	71.6
Backhoe		74	70.1
Tractor		80.5	76.5
	Total	80.5	80.8

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Nearest Residence 215'	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dozer	No	40		81.7	215	0
Dozer	No	40		81.7	215	0
Front End Loader	No	40		79.1	215	0
Backhoe	No	40		77.6	215	0
Tractor	No	40	84		215	0

Results

Calculated (dBA)

Equipment		*Lmax	Leq
Dozer		69	65
Dozer		69	65
Front End Loader		66.4	62.5
Backhoe		64.9	60.9
Tractor		71.3	67.4
	Total	71.3	71.7

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Acoustical Center 440'	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dozer	No	40		81.7	440	0
Dozer	No	40		81.7	440	0
Front End Loader	No	40		79.1	440	0
Backhoe	No	40		77.6	440	0
Tractor	No	40	84		440	0

Results

Calculated (dBA)

Equipment		*Lmax	Leq
Dozer		62.8	58.8
Dozer		62.8	58.8
Front End Loader		60.2	56.2
Backhoe		58.7	54.7
Tractor		65.1	61.1
	Total	65.1	65.5

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 1/25/2019
Case Description: Kimmelman_Grading

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
School/Park PL - 75'	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dozer	No	40		81.7	75	0
Dozer	No	40		81.7	75	0
Scraper	No	40		83.6	75	0
Scraper	No	40		83.6	75	0
Tractor	No	40	84		75	0
Front End Loader	No	40		79.1	75	0

Results

Equipment		Calculated (dBA) *Lmax	Leq
Dozer		78.1	74.2
Dozer		78.1	74.2
Scraper		80.1	76.1
Scraper		80.1	76.1
Tractor		80.5	76.5
Front End Loader		75.6	71.6
	Total	80.5	82.8

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Nearest Residence 235'	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dozer	No	40		81.7	215	0
Dozer	No	40		81.7	215	0
Scraper	No	40		83.6	215	0
Scraper	No	40		83.6	215	0

Tractor	No	40	84		215	0
Front End Loader	No	40		79.1	215	0

Results

Calculated (dBA)

Equipment	*Lmax	Leq
Dozer	69	65
Dozer	69	65
Scraper	70.9	66.9
Scraper	70.9	66.9
Tractor	71.3	67.4
Front End Loader	66.4	62.5
Total	71.3	73.7

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Acoustical Center 440'	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dozer	No	40		81.7	440	0
Dozer	No	40		81.7	440	0
Scraper	No	40		83.6	440	0
Scraper	No	40		83.6	440	0
Tractor	No	40	84		440	0
Front End Loader	No	40		79.1	440	0

Results

Calculated (dBA)

Equipment	*Lmax	Leq
Dozer	62.8	58.8
Dozer	62.8	58.8
Scraper	64.7	60.7
Scraper	64.7	60.7
Tractor	65.1	61.1
Front End Loader	60.2	56.2
Total	65.1	67.5

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 1/25/2019
Case Description: Kimmelman_Trenching

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
School/Park PL - 75'	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Excavator	No	40		80.7	75	0
Excavator	No	40		80.7	75	0
Tractor	No	40	84		75	0
Front End Loader	No	40		79.1	75	0
Slurry Trenching Machine	No	50		80.4	75	0
Slurry Trenching Machine	No	50		80.4	75	0

Results

Equipment		Calculated (dBA) *Lmax	Leq
Excavator		77.2	73.2
Excavator		77.2	73.2
Tractor		80.5	76.5
Front End Loader		75.6	71.6
Slurry Trenching Machine		76.8	73.8
Slurry Trenching Machine		76.8	73.8
	Total	80.5	81.7

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Nearest Residence 215'	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Excavator	No	40		80.7	215	0
Excavator	No	40		80.7	215	0
Tractor	No	40	84		215	0
Front End Loader	No	40		79.1	215	0

Slurry Trenching Machine		No	50	80.4	215	0
Slurry Trenching Machine		No	50	80.4	215	0

Results

Calculated (dBA)

Equipment		*Lmax	Leq
Excavator		68	64.1
Excavator		68	64.1
Tractor		71.3	67.4
Front End Loader		66.4	62.5
Slurry Trenching Machine		67.7	64.7
Slurry Trenching Machine		67.7	64.7
	Total	71.3	72.6

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Acoustical Center 440'	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Excavator	No	40		80.7	440	0
Excavator	No	40		80.7	440	0
Tractor	No	40	84		440	0
Front End Loader	No	40		79.1	440	0
Slurry Trenching Machine	No	50		80.4	440	0
Slurry Trenching Machine	No	50		80.4	440	0

Results

Calculated (dBA)

Equipment		*Lmax	Leq
Excavator		61.8	57.8
Excavator		61.8	57.8
Tractor		65.1	61.1
Front End Loader		60.2	56.2
Slurry Trenching Machine		61.5	58.5
Slurry Trenching Machine		61.5	58.5
	Total	65.1	66.4

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 1/25/2019
Case Description: Kimmelman_Building Construction

---- Receptor #1 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
School/Park PL - 75'	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Man Lift	No	20		74.7	75	0
Man Lift	No	20		74.7	75	0
Man Lift	No	20		74.7	75	0
Generator	No	50		80.6	75	0
Tractor	No	40	84		75	0
Front End Loader	No	40		79.1	75	0
Backhoe	No	40		77.6	75	0
Welder / Torch	No	40		74	75	0
Man Lift	No	20		74.7	75	0
Man Lift	No	20		74.7	75	0

Results

		Calculated (dBA)	
Equipment		*Lmax	Leq
Man Lift		71.2	64.2
Man Lift		71.2	64.2
Man Lift		71.2	64.2
Generator		77.1	74.1
Tractor		80.5	76.5
Front End Loader		75.6	71.6
Backhoe		74	70.1
Welder / Torch		70.5	66.5
Man Lift		71.2	64.2
Man Lift		71.2	64.2
	Total	80.5	80.5

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Nearest Residence 215'	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Man Lift	No	20		74.7	215	0
Man Lift	No	20		74.7	215	0
Man Lift	No	20		74.7	215	0
Generator	No	50		80.6	215	0
Tractor	No	40	84		215	0
Front End Loader	No	40		79.1	215	0
Backhoe	No	40		77.6	215	0
Welder / Torch	No	40		74	215	0
Man Lift	No	20		74.7	215	0
Man Lift	No	20		74.7	215	0

Results

Calculated (dBA)

Equipment	*Lmax	Leq
Man Lift	62	55
Man Lift	62	55
Man Lift	62	55
Generator	68	65
Tractor	71.3	67.4
Front End Loader	66.4	62.5
Backhoe	64.9	60.9
Welder / Torch	61.3	57.4
Man Lift	62	55
Man Lift	62	55
Total	71.3	71.4

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Acoustical Center 440'	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Man Lift	No	20		74.7	440	0
Man Lift	No	20		74.7	440	0
Man Lift	No	20		74.7	440	0
Generator	No	50		80.6	440	0
Tractor	No	40	84		440	0
Front End Loader	No	40		79.1	440	0

Backhoe	No	40	77.6	440	0
Welder / Torch	No	40	74	440	0
Man Lift	No	20	74.7	440	0
Man Lift	No	20	74.7	440	0

Results

Calculated (dBA)

Equipment	*Lmax	Leq
Man Lift	55.8	48.8
Man Lift	55.8	48.8
Man Lift	55.8	48.8
Generator	61.7	58.7
Tractor	65.1	61.1
Front End Loader	60.2	56.2
Backhoe	58.7	54.7
Welder / Torch	55.1	51.1
Man Lift	55.8	48.8
Man Lift	55.8	48.8
Total	65.1	65.1

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 1/25/2019
Case Description: Kimmelman_Architectural Coating

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
School/Park PL - 75'	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Compressor (air)	No	40		77.7	75	0
Compressor (air)	No	40		77.7	75	0

Results

Equipment	Calculated (dBA) *Lmax	Leq
Compressor (air)	74.1	70.2
Compressor (air)	74.1	70.2
Total	74.1	73.2

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Nearest Residence 215'	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Compressor (air)	No	40		77.7	215	0
Compressor (air)	No	40		77.7	215	0

Results

Equipment	Calculated (dBA) *Lmax	Leq
Compressor (air)	65	61
Compressor (air)	65	61
Total	65	64

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Acoustical Center 440'	Residential	65	60	55

Equipment

Description	Impact Device	Usage(%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Compressor (air)	No	40		77.7	440	0
Compressor (air)	No	40		77.7	440	0

Results

Calculated (dBA)

Equipment		*Lmax	Leq
Compressor (air)		58.8	54.8
Compressor (air)		58.8	54.8
	Total	58.8	57.8

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 1/25/2019
Case Description: Kimmelman_Paving

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
School/Park PL - 75'	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Paver	No	50		77.2	75	0
Paver	No	50		77.2	75	0
All Other Equipment > 5 HP	No	50	85		75	0
All Other Equipment > 5 HP	No	50	85		75	0
Roller	No	20		80	75	0
Roller	No	20		80	75	0
Excavator	No	40		80.7	75	0
Excavator	No	40		80.7	75	0
Flat Bed Truck	No	40		74.3	75	0
Flat Bed Truck	No	40		74.3	75	0

Results

Equipment		Calculated (dBA) *Lmax	Leq
Paver		73.7	70.7
Paver		73.7	70.7
All Other Equipment > 5 HP		81.5	78.5
All Other Equipment > 5 HP		81.5	78.5
Roller		76.5	69.5
Roller		76.5	69.5
Excavator		77.2	73.2
Excavator		77.2	73.2
Flat Bed Truck		70.7	66.7
Flat Bed Truck		70.7	66.7
	Total	81.5	83.7

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Nearest Residence 215'	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Paver	No	50		77.2	215	0
Paver	No	50		77.2	215	0
All Other Equipment > 5 HP	No	50	85		215	0
All Other Equipment > 5 HP	No	50	85		215	0
Roller	No	20		80	215	0
Roller	No	20		80	215	0
Excavator	No	40		80.7	215	0
Excavator	No	40		80.7	215	0
Flat Bed Truck	No	40		74.3	215	0
Flat Bed Truck	No	40		74.3	215	0

Results

Calculated (dBA)

Equipment		*Lmax	Leq
Paver		64.6	61.5
Paver		64.6	61.5
All Other Equipment > 5 HP		72.3	69.3
All Other Equipment > 5 HP		72.3	69.3
Roller		67.3	60.3
Roller		67.3	60.3
Excavator		68	64.1
Excavator		68	64.1
Flat Bed Truck		61.6	57.6
Flat Bed Truck		61.6	57.6
	Total	72.3	74.5

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Acoustical Center 440'	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Paver	No	50		77.2	440	0
Paver	No	50		77.2	440	0
All Other Equipment > 5 HP	No	50	85		440	0
All Other Equipment > 5 HP	No	50	85		440	0
Roller	No	20		80	440	0
Roller	No	20		80	440	0

Excavator	No	40	80.7	440	0
Excavator	No	40	80.7	440	0
Flat Bed Truck	No	40	74.3	440	0
Flat Bed Truck	No	40	74.3	440	0

Results

Calculated (dBA)

Equipment	*Lmax	Leq
Paver	58.3	55.3
Paver	58.3	55.3
All Other Equipment > 5 HP	66.1	63.1
All Other Equipment > 5 HP	66.1	63.1
Roller	61.1	54.1
Roller	61.1	54.1
Excavator	61.8	57.8
Excavator	61.8	57.8
Flat Bed Truck	55.4	51.4
Flat Bed Truck	55.4	51.4
Total	66.1	68.3

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 1/25/2019
Case Description: Kimmelman_Pile_Driving

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
North_School/Park PL - 100'	Residential	60	55	50

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Impact Pile Driver	Yes	20		101.3	100	0

Results

Calculated (dBA)

Equipment		*Lmax	Leq
Impact Pile Driver		95.2	88.3
	Total	95.2	88.3

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Park Lot Lights to East res 38	Residential	60	55	50

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Impact Pile Driver	Yes	20		101.3	380	0

Results

Calculated (dBA)

Equipment		*Lmax	Leq
Impact Pile Driver		83.7	76.7
	Total	83.7	76.7

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Nearest Residence North 75	Residential	60	55	50

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Impact Pile Driver	Yes	20		101.3	750	0

Results

Calculated (dBA)

Equipment		*Lmax	Leq
Impact Pile Driver		77.7	70.8
	Total	77.7	70.8

*Calculated Lmax is the Loudest value.

---- Receptor #4 ----

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Acoustic Center -510'	Residential	60	55	50

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Impact Pile Driver	Yes	20		101.3	510	0

Results

Calculated (dBA)

Equipment		*Lmax	Leq
Impact Pile Driver		81.1	74.1
	Total	81.1	74.1

*Calculated Lmax is the Loudest value.

MECHANICAL EQUIPMENT NOISE MODELLING SPREADSHEET

Kimmeman Center

MECHANICAL EQUIPMENT NOISE LEVEL

Receiver: Avalon Blvd Residences

Location-Equipment	Leq (h) at 50' (dBA)	Receiver Elevation (feet)	Source Elevation (feet)	Source to Receiver (feet)	Leq (dBA)
#1 (5-ton)	51	5	22.0	1,390	22
#2 (5-ton)	51	5	22.0	1,565	21
#6 (7.5-ton)	50	5	22.0	960	25
#7 (5-ton)	48	5	22.0	915	23
#17 (5-ton)	48	5	22.0	260	34
#25 (7.5-ton)	50	5	22.0	520	30

Source Sound Level Data

Total LEQ: 36

		LwA Single Source	Number of Units	Total Sound Level at 50 feet (Leq dBA)	
#1	5 ton	80	2	51	Welcome Center
#2	5 ton	80	2	51	Learning Center
#6	7.5 ton	82	1	50	Player Development
#7	5 ton	80	1	48	Tourney Administration
#17	5 ton	80	1	48	Maintenance Building
#25	7.5 ton	82	1	50	Soccer Support Building

Kimmeman Center

MECHANICAL EQUIPMENT NOISE LEVEL

Receiver: Victoria Park / Towne Elementary Property Line

Location-Equipment	Leq (h) at 50' (dBA)	Receiver Elevation (feet)	Source Elevation (feet)	Source to Receiver (feet)	Leq (dBA)
#1 (5-ton)	51	5	22.0	175	40
#2 (5-ton)	51	5	22.0	185	40
#6 (7.5-ton)	50	5	22.0	175	39
#7 (5-ton)	48	5	22.0	275	34
#17 (5-ton)	48	5	22.0	425	30
#25 (7.5-ton)	50	5	22.0	1,175	23

Source Sound Level Data

Total LEQ: 45

		LwA Single Source	Number of Units	Total Sound Level at 50 feet (Leq dBA)	
#1	5 ton	80	2	51	Welcome Center
#2	5 ton	80	2	51	Learning Center
#6	7.5 ton	82	1	50	Player Development
#7	5 ton	80	1	48	Tourney Administration
#17	5 ton	80	1	48	Maintenance Building
#25	7.5 ton	82	1	50	Soccer Support Building

Kimmeman Center

MECHANICAL EQUIPMENT NOISE LEVEL

Receiver: E 189th Street Residences

Location-Equipment	Leq (h) at 50' (dBA)	Receiver Elevation (feet)	Source Elevation (feet)	Source to Receiver (feet)	Leq (dBA)
#1 (5-ton)	51	5	22.0	915	26
#2 (5-ton)	51	5	22.0	1,000	25
#6 (7.5-ton)	50	5	22.0	785	26
#7 (5-ton)	48	5	22.0	935	23
#17 (5-ton)	48	5	22.0	1,285	20
#25 (7.5-ton)	50	5	22.0	1,890	19

Source Sound Level Data

Total LEQ: 32

		LwA Single Source	Number of Units	Total Sound Level at 50 feet (Leq dBA)	
#1	5 ton	80	2	51	Welcome Center
#2	5 ton	80	2	51	Learning Center
#6	7.5 ton	82	1	50	Player Development
#7	5 ton	80	1	48	Tourney Administration
#17	5 ton	80	1	48	Maintenance Building
#25	7.5 ton	82	1	50	Soccer Support Building

ROADWAY TRAFFIC NOISE MODELLING SPREADSHEETS

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman	JN:	10991
RECVR/ROAD:	**A** (Del Amo West of Avalon)	DATE:	12/6/2018
Scenario:	**Calibration**	BY:	J. Leech

ADT	20,100			PK HR VOL	2,010
SPEED	45				
PK HR %	10				
DIST CTL	42				
DIST N/F	76	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		18.6
DIST WALL	0		MED TRUCK SLE DIST		18.1
DIST W/OB	42		HVY TRUCK SLE DIST		18.1
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9500
MEDIUM TRUCKS	0.874	0.051	0.075	0.0100
HEAVY TRUCKS	0.891	0.028	0.081	0.0400

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	73.7	71.8	69.9	64.0	73.2
MEDIUM TRUCKS	65.1	63.7	57.3	54.3	63.8
HEAVY TRUCKS	75.9	74.6	65.6	65.4	74.6
VEHICULAR NOISE	**78.1**	76.6	71.5	67.9	77.1

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman	JN:	10991
RECVR/ROAD:	**A** (Del Amo West of Avalon)	DATE:	12/6/2018
Scenario:	**Existing**	BY:	J. Leech

ADT	24,090			PK HR VOL	2,409
SPEED	45				
PK HR %	10				
DIST CTL	42				
DIST N/F	76	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		18.6
DIST WALL	0		MED TRUCK SLE DIST		18.1
DIST W/OB	42		HVY TRUCK SLE DIST		18.1
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9500
MEDIUM TRUCKS	0.874	0.051	0.075	0.0100
HEAVY TRUCKS	0.891	0.028	0.081	0.0400

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	74.5	72.5	70.7	64.7	74.0
MEDIUM TRUCKS	65.8	64.5	58.1	55.1	64.6
HEAVY TRUCKS	76.7	75.4	66.4	66.2	75.4
VEHICULAR NOISE	**78.9**	77.4	72.3	68.7	77.9

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman	JN:	10991
RECVR/ROAD:	**A** (Del Amo West of Avalon)	DATE:	12/6/2018
Scenario:	**Existing + Project**	BY:	J. Leech

ADT	24,290			PK HR VOL	2,429
SPEED	45				
PK HR %	10				
DIST CTL	42				
DIST N/F	76	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		18.6
DIST WALL	0		MED TRUCK SLE DIST		18.1
DIST W/OB	42		HVY TRUCK SLE DIST		18.1
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9500
MEDIUM TRUCKS	0.874	0.051	0.075	0.0100
HEAVY TRUCKS	0.891	0.028	0.081	0.0400

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	74.5	72.6	70.8	64.8	74.0
MEDIUM TRUCKS	65.9	64.5	58.1	55.1	64.6
HEAVY TRUCKS	76.7	75.4	66.5	66.2	75.4
VEHICULAR NOISE	**79.0**	77.4	72.3	68.8	78.0

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman	JN:	10991
RECVR/ROAD:	**A** (Del Amo West of Avalon)	DATE:	12/6/2018
Scenario:	**Cumulative Traffic**	BY:	J. Leech

ADT	28,310			PK HR VOL	2,831
SPEED	45				
PK HR %	10				
DIST CTL	42				
DIST N/F	76	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		18.6
DIST WALL	0		MED TRUCK SLE DIST		18.1
DIST W/OB	42		HVY TRUCK SLE DIST		18.1
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9500
MEDIUM TRUCKS	0.874	0.051	0.075	0.0100
HEAVY TRUCKS	0.891	0.028	0.081	0.0400

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	75.2	73.2	71.4	65.4	74.7
MEDIUM TRUCKS	66.5	65.2	58.8	55.8	65.3
HEAVY TRUCKS	77.4	76.1	67.1	66.9	76.1
VEHICULAR NOISE	**79.6**	78.1	73.0	69.4	78.6

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman	JN:	10991
RECVR/ROAD:	**A** (Del Amo West of Avalon)	DATE:	12/6/2018
Scenario:	**Cumulative Traffic Plus Project**	BY:	J. Leech

ADT	28,510			PK HR VOL	2,851
SPEED	45				
PK HR %	10				
DIST CTL	42				
DIST N/F	76	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		18.6
DIST WALL	0		MED TRUCK SLE DIST		18.1
DIST W/OB	42		HVY TRUCK SLE DIST		18.1
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9500
MEDIUM TRUCKS	0.874	0.051	0.075	0.0100
HEAVY TRUCKS	0.891	0.028	0.081	0.0400

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	75.2	73.3	71.5	65.5	74.7
MEDIUM TRUCKS	66.6	65.2	58.8	55.8	65.3
HEAVY TRUCKS	77.4	76.1	67.1	66.9	76.1
VEHICULAR NOISE	**79.7**	78.1	73.0	69.5	78.7

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman	JN:	10991
RECVR/ROAD:	**A** (Del Amo West of Avalon)	DATE:	12/6/2018
Scenario:	**Cumulative With Ambient Growth (City Methodology)**	BY:	J. Leech

ADT	28,400			PK HR VOL	2,840
SPEED	45				
PK HR %	10				
DIST CTL	42				
DIST N/F	76	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		18.6
DIST WALL	0		MED TRUCK SLE DIST		18.1
DIST W/OB	42		HVY TRUCK SLE DIST		18.1
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				
SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0		AUTOMOBILES =	0.00	
ROAD	0.0		MEDIUM TRUCKS=	2.30	
			HEAVY TRUCKS =	8.01	
GRADE:	0.0 %		GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9500
MEDIUM TRUCKS	0.874	0.051	0.075	0.0100
HEAVY TRUCKS	0.891	0.028	0.081	0.0400

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	75.2	73.3	71.4	65.5	74.7
MEDIUM TRUCKS	66.6	65.2	58.8	55.8	65.3
HEAVY TRUCKS	77.4	76.1	67.1	66.9	76.1
VEHICULAR NOISE	**79.6**	78.1	73.0	69.4	78.7

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman	JN:	10991
RECVR/ROAD:	**A** (Del Amo West of Avalon)	DATE:	12/6/2018
Scenario:	**Cumulative With Ambient Growth w/Project (City Methodology)**	BY:	J. Leech

ADT	28,600			PK HR VOL	2,860
SPEED	45				
PK HR %	10				
DIST CTL	42				
DIST N/F	76	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		18.6
DIST WALL	0		MED TRUCK SLE DIST		18.1
DIST W/OB	42		HVY TRUCK SLE DIST		18.1
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				
SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0		AUTOMOBILES =	0.00	
ROAD	0.0		MEDIUM TRUCKS=	2.30	
			HEAVY TRUCKS =	8.01	
GRADE:	0.0 %		GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9500
MEDIUM TRUCKS	0.874	0.051	0.075	0.0100
HEAVY TRUCKS	0.891	0.028	0.081	0.0400

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	75.2	73.3	71.5	65.5	74.7
MEDIUM TRUCKS	66.6	65.2	58.9	55.8	65.3
HEAVY TRUCKS	77.4	76.1	67.2	66.9	76.1
VEHICULAR NOISE	**79.7**	78.2	73.0	69.5	78.7

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman	JN:	10991
RECVR/ROAD:	**B** (Avalon north of Turmont)	DATE:	12/6/2018
Scenario:	**Calibration**	BY:	J. Leech

ADT	22,740			PK HR VOL	2,274
SPEED	45				
PK HR %	10				
DIST CTL	50				
DIST N/F	76	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		32.9
DIST WALL	0		MED TRUCK SLE DIST		32.6
DIST W/OB	50		HVY TRUCK SLE DIST		32.6
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9600
MEDIUM TRUCKS	0.874	0.051	0.075	0.0300
HEAVY TRUCKS	0.891	0.028	0.081	0.0100

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	70.5	68.6	66.8	60.8	70.0
MEDIUM TRUCKS	66.5	65.2	58.8	55.8	65.2
HEAVY TRUCKS	66.6	65.3	56.3	56.1	65.3
VEHICULAR NOISE	**73.1**	71.4	67.8	63.0	72.2

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman	JN:	10991
RECVR/ROAD:	**B** (Avalon north of Turmont)	DATE:	12/6/2018
Scenario:	**Existing**	BY:	J. Leech

ADT	27,710			PK HR VOL	2,771
SPEED	45				
PK HR %	10				
DIST CTL	50				
DIST N/F	76	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		32.9
DIST WALL	0		MED TRUCK SLE DIST		32.6
DIST W/OB	50		HVY TRUCK SLE DIST		32.6
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9600
MEDIUM TRUCKS	0.874	0.051	0.075	0.0300
HEAVY TRUCKS	0.891	0.028	0.081	0.0100

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	71.4	69.5	67.7	61.7	70.9
MEDIUM TRUCKS	67.4	66.0	59.7	56.6	66.1
HEAVY TRUCKS	67.4	66.1	57.2	56.9	66.1
VEHICULAR NOISE	**73.9**	72.3	68.6	63.8	73.1

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman	JN:	10991
RECVR/ROAD:	**B** (Avalon north of Turmont)	DATE:	12/6/2018
Scenario:	**Existing Plus Project**	BY:	J. Leech

ADT	28,530			PK HR VOL	2,853
SPEED	45				
PK HR %	10				
DIST CTL	50				
DIST N/F	76	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		32.9
DIST WALL	0		MED TRUCK SLE DIST		32.6
DIST W/OB	50		HVY TRUCK SLE DIST		32.6
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9600
MEDIUM TRUCKS	0.874	0.051	0.075	0.0300
HEAVY TRUCKS	0.891	0.028	0.081	0.0100

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	71.5	69.6	67.8	61.8	71.0
MEDIUM TRUCKS	67.5	66.1	59.8	56.7	66.2
HEAVY TRUCKS	67.5	66.3	57.3	57.1	66.3
VEHICULAR NOISE	**74.1**	72.4	68.8	64.0	73.2

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman	JN:	10991
RECVR/ROAD:	**B** (Avalon north of Turmont)	DATE:	12/6/2018
Scenario:	**Cumulative**	BY:	J. Leech

ADT	33,320			PK HR VOL	3,332
SPEED	45				
PK HR %	10				
DIST CTL	50				
DIST N/F	76	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		32.9
DIST WALL	0		MED TRUCK SLE DIST		32.6
DIST W/OB	50		HVY TRUCK SLE DIST		32.6
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9600
MEDIUM TRUCKS	0.874	0.051	0.075	0.0300
HEAVY TRUCKS	0.891	0.028	0.081	0.0100

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	72.2	70.3	68.5	62.5	71.7
MEDIUM TRUCKS	68.2	66.8	60.5	57.4	66.9
HEAVY TRUCKS	68.2	66.9	58.0	57.7	66.9
VEHICULAR NOISE	**74.7**	73.1	69.4	64.6	73.9

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman	JN:	10991
RECVR/ROAD:	**B** (Avalon north of Turmont)	DATE:	12/6/2018
Scenario:	**Cumulative Plus Project**	BY:	J. Leech

ADT	34,140			PK HR VOL	3,414
SPEED	45				
PK HR %	10				
DIST CTL	50				
DIST N/F	76	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		32.9
DIST WALL	0		MED TRUCK SLE DIST		32.6
DIST W/OB	50		HVY TRUCK SLE DIST		32.6
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9600
MEDIUM TRUCKS	0.874	0.051	0.075	0.0300
HEAVY TRUCKS	0.891	0.028	0.081	0.0100

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	72.3	70.4	68.6	62.6	71.8
MEDIUM TRUCKS	68.3	66.9	60.6	57.5	67.0
HEAVY TRUCKS	68.3	67.0	58.1	57.8	67.0
VEHICULAR NOISE	**74.9**	73.2	69.5	64.8	74.0

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman	JN:	10991
RECVR/ROAD:	**B** (Avalon north of Turmont)	DATE:	12/6/2018
Scenario:	**Cumulative With Ambient Growth (City Methodology)**	BY:	J. Leech

ADT	33,590			PK HR VOL	3,359
SPEED	45				
PK HR %	10				
DIST CTL	50				
DIST N/F	76	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		32.9
DIST WALL	0		MED TRUCK SLE DIST		32.6
DIST W/OB	50		HVY TRUCK SLE DIST		32.6
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9600
MEDIUM TRUCKS	0.874	0.051	0.075	0.0300
HEAVY TRUCKS	0.891	0.028	0.081	0.0100

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	72.2	70.3	68.5	62.5	71.7
MEDIUM TRUCKS	68.2	66.9	60.5	57.4	66.9
HEAVY TRUCKS	68.3	67.0	58.0	57.8	67.0
VEHICULAR NOISE	**74.8**	73.1	69.5	64.7	73.9

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman	JN:	10991
RECVR/ROAD:	**B** (Avalon north of Turmont)	DATE:	12/6/2018
Scenario:	**Cumulative With Ambient Growth w/Project (City Methodology)**	BY:	J. Leech

ADT	34,410			PK HR VOL	3,441
SPEED	45				
PK HR %	10				
DIST CTL	50				
DIST N/F	76	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		32.9
DIST WALL	0		MED TRUCK SLE DIST		32.6
DIST W/OB	50		HVY TRUCK SLE DIST		32.6
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9600
MEDIUM TRUCKS	0.874	0.051	0.075	0.0300
HEAVY TRUCKS	0.891	0.028	0.081	0.0100

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	72.3	70.4	68.6	62.6	71.8
MEDIUM TRUCKS	68.3	67.0	60.6	57.6	67.0
HEAVY TRUCKS	68.4	67.1	58.1	57.9	67.1
VEHICULAR NOISE	**74.9**	73.2	69.6	64.8	74.0

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman	JN:	10991
RECVR/ROAD:	**C** (Avalon north of Elsemere)	DATE:	12/6/2018
Scenario:	**Calibration**	BY:	J. Leech

ADT	19,080			PK HR VOL	1,908
SPEED	46				
PK HR %	10				
DIST CTL	50				
DIST N/F	76	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		32.9
DIST WALL	0		MED TRUCK SLE DIST		32.6
DIST W/OB	50		HVY TRUCK SLE DIST		32.6
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9600
MEDIUM TRUCKS	0.874	0.051	0.075	0.0300
HEAVY TRUCKS	0.891	0.028	0.081	0.0100

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	70.0	68.1	66.3	60.3	69.5
MEDIUM TRUCKS	66.0	64.6	58.3	55.2	64.7
HEAVY TRUCKS	65.9	64.6	55.7	55.5	64.7
VEHICULAR NOISE	**72.6**	70.9	67.3	62.5	71.7

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman	JN:	10991
RECVR/ROAD:	**C** (Avalon north of Elsemere)	DATE:	12/6/2018
Scenario:	**Existing**	BY:	J. Leech

ADT	27,620			PK HR VOL	2,762
SPEED	46				
PK HR %	10				
DIST CTL	50				
DIST N/F	76	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		32.9
DIST WALL	0		MED TRUCK SLE DIST		32.6
DIST W/OB	50		HVY TRUCK SLE DIST		32.6
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9600
MEDIUM TRUCKS	0.874	0.051	0.075	0.0300
HEAVY TRUCKS	0.891	0.028	0.081	0.0100

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	71.7	69.7	67.9	61.9	71.1
MEDIUM TRUCKS	67.6	66.2	59.9	56.8	66.3
HEAVY TRUCKS	67.5	66.2	57.3	57.1	66.3
VEHICULAR NOISE	**74.2**	72.5	68.9	64.1	73.3

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman	JN:	10991
RECVR/ROAD:	**C** (Avalon north of Elsemere)	DATE:	12/6/2018
Scenario:	**Existing Plus Project**	BY:	J. Leech

ADT	28,840			PK HR VOL	2,884
SPEED	46				
PK HR %	10				
DIST CTL	50				
DIST N/F	76	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		32.9
DIST WALL	0		MED TRUCK SLE DIST		32.6
DIST W/OB	50		HVY TRUCK SLE DIST		32.6
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9600
MEDIUM TRUCKS	0.874	0.051	0.075	0.0300
HEAVY TRUCKS	0.891	0.028	0.081	0.0100

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	71.8	69.9	68.1	62.1	71.3
MEDIUM TRUCKS	67.8	66.4	60.1	57.0	66.5
HEAVY TRUCKS	67.7	66.4	57.5	57.3	66.4
VEHICULAR NOISE	**74.3**	72.7	69.1	64.3	73.5

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman	JN:	10991
RECVR/ROAD:	**C** (Avalon north of Elsemere)	DATE:	12/6/2018
Scenario:	**Cumulative**	BY:	J. Leech

ADT	31,080			PK HR VOL	3,108
SPEED	46				
PK HR %	10				
DIST CTL	50				
DIST N/F	76	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		32.9
DIST WALL	0		MED TRUCK SLE DIST		32.6
DIST W/OB	50		HVY TRUCK SLE DIST		32.6
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9600
MEDIUM TRUCKS	0.874	0.051	0.075	0.0300
HEAVY TRUCKS	0.891	0.028	0.081	0.0100

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	72.2	70.2	68.4	62.4	71.7
MEDIUM TRUCKS	68.1	66.7	60.4	57.3	66.8
HEAVY TRUCKS	68.1	66.8	57.8	57.6	66.8
VEHICULAR NOISE	**74.7**	73.0	69.4	64.6	73.8

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman	JN:	10991
RECVR/ROAD:	**C** (Avalon north of Elsemere)	DATE:	12/6/2018
Scenario:	**Cumulative Plus Project**	BY:	J. Leech

ADT	32,300			PK HR VOL	3,230
SPEED	46				
PK HR %	10				
DIST CTL	50				
DIST N/F	76	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		32.9
DIST WALL	0		MED TRUCK SLE DIST		32.6
DIST W/OB	50		HVY TRUCK SLE DIST		32.6
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9600
MEDIUM TRUCKS	0.874	0.051	0.075	0.0300
HEAVY TRUCKS	0.891	0.028	0.081	0.0100

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	72.3	70.4	68.6	62.6	71.8
MEDIUM TRUCKS	68.3	66.9	60.5	57.5	67.0
HEAVY TRUCKS	68.2	66.9	58.0	57.7	66.9
VEHICULAR NOISE	**74.8**	73.2	69.5	64.7	74.0

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman	JN:	10991
RECVR/ROAD:	**C** (Avalon north of Elsemere)	DATE:	12/6/2018
Scenario:	**Cumulative With Ambient Growth (City Methodology)**	BY:	J. Leech

ADT	31,640			PK HR VOL	3,164
SPEED	46				
PK HR %	10				
DIST CTL	50				
DIST N/F	76	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		32.9
DIST WALL	0		MED TRUCK SLE DIST		32.6
DIST W/OB	50		HVY TRUCK SLE DIST		32.6
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9600
MEDIUM TRUCKS	0.874	0.051	0.075	0.0300
HEAVY TRUCKS	0.891	0.028	0.081	0.0100

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	72.2	70.3	68.5	62.5	71.7
MEDIUM TRUCKS	68.2	66.8	60.5	57.4	66.9
HEAVY TRUCKS	68.1	66.8	57.9	57.7	66.9
VEHICULAR NOISE	**74.8**	73.1	69.5	64.7	73.9

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman	JN:	10991
RECVR/ROAD:	**C** (Avalon north of Elsemere)	DATE:	12/6/2018
Scenario:	**Cumulative With Ambient Growth w/Project (City Methodology)**	BY:	J. Leech

ADT	32,860			PK HR VOL	3,286
SPEED	46				
PK HR %	10				
DIST CTL	50				
DIST N/F	76	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		32.9
DIST WALL	0		MED TRUCK SLE DIST		32.6
DIST W/OB	50		HVY TRUCK SLE DIST		32.6
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9600
MEDIUM TRUCKS	0.874	0.051	0.075	0.0300
HEAVY TRUCKS	0.891	0.028	0.081	0.0100

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	72.4	70.5	68.7	62.7	71.9
MEDIUM TRUCKS	68.4	67.0	60.6	57.6	67.1
HEAVY TRUCKS	68.3	67.0	58.1	57.8	67.0
VEHICULAR NOISE	**74.9**	73.3	69.6	64.8	74.1

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman	JN:	10991
RECVR/ROAD:	**D** (MLK west of Avalon)	DATE:	12/6/2018
Scenario:	**Calibration**	BY:	J. Leech

ADT	3,390			PK HR VOL	339
SPEED	44				
PK HR %	10				
DIST CTL	50				
DIST N/F	76	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		32.9
DIST WALL	0		MED TRUCK SLE DIST		32.6
DIST W/OB	50		HVY TRUCK SLE DIST		32.6
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9600
MEDIUM TRUCKS	0.874	0.051	0.075	0.0400
HEAVY TRUCKS	0.891	0.028	0.081	0.0100

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	62.0	60.1	58.3	52.3	61.5
MEDIUM TRUCKS	59.3	57.9	51.5	48.5	58.0
HEAVY TRUCKS	58.2	56.9	47.9	47.7	56.9
VEHICULAR NOISE	**64.9**	63.3	59.4	54.7	64.0

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman	JN:	10991
RECVR/ROAD:	**D** (MLK west of Avalon)	DATE:	12/6/2018
Scenario:	**Existing**	BY:	J. Leech

ADT	5,380			PK HR VOL	538
SPEED	44				
PK HR %	10				
DIST CTL	50				
DIST N/F	76	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		32.9
DIST WALL	0		MED TRUCK SLE DIST		32.6
DIST W/OB	50		HVY TRUCK SLE DIST		32.6
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9600
MEDIUM TRUCKS	0.874	0.051	0.075	0.0400
HEAVY TRUCKS	0.891	0.028	0.081	0.0100

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	64.0	62.1	60.3	54.3	63.5
MEDIUM TRUCKS	61.3	59.9	53.5	50.5	60.0
HEAVY TRUCKS	60.2	58.9	49.9	49.7	58.9
VEHICULAR NOISE	**66.9**	65.3	61.4	56.8	66.0

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman	JN:	10991
RECVR/ROAD:	**D** (MLK west of Avalon)	DATE:	12/6/2018
Scenario:	**Existing Plus Project**	BY:	J. Leech

ADT	6,420			PK HR VOL	642
SPEED	44				
PK HR %	10				
DIST CTL	50				
DIST N/F	76	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		32.9
DIST WALL	0		MED TRUCK SLE DIST		32.6
DIST W/OB	50		HVY TRUCK SLE DIST		32.6
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9600
MEDIUM TRUCKS	0.874	0.051	0.075	0.0400
HEAVY TRUCKS	0.891	0.028	0.081	0.0100

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	64.8	62.8	61.0	55.1	64.3
MEDIUM TRUCKS	62.1	60.7	54.3	51.3	60.8
HEAVY TRUCKS	60.9	59.6	50.7	50.4	59.6
VEHICULAR NOISE	**67.7**	66.0	62.2	57.5	66.8

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman	JN:	10991
RECVR/ROAD:	**D** (MLK west of Avalon)	DATE:	12/6/2018
Scenario:	**Cumulative**	BY:	J. Leech

ADT	4,500			PK HR VOL	450
SPEED	44				
PK HR %	10				
DIST CTL	50				
DIST N/F	76	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		32.9
DIST WALL	0		MED TRUCK SLE DIST		32.6
DIST W/OB	50		HVY TRUCK SLE DIST		32.6
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9600
MEDIUM TRUCKS	0.874	0.051	0.075	0.0400
HEAVY TRUCKS	0.891	0.028	0.081	0.0100

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	63.2	61.3	59.5	53.5	62.7
MEDIUM TRUCKS	60.5	59.1	52.8	49.7	59.2
HEAVY TRUCKS	59.4	58.1	49.1	48.9	58.1
VEHICULAR NOISE	**66.1**	64.5	60.7	56.0	65.3

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman	JN:	10991
RECVR/ROAD:	**D** (MLK west of Avalon)	DATE:	12/6/2018
Scenario:	**Cumulative Plus Project**	BY:	J. Leech

ADT	5,540			PK HR VOL	554
SPEED	44				
PK HR %	10				
DIST CTL	50				
DIST N/F	76	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		32.9
DIST WALL	0		MED TRUCK SLE DIST		32.6
DIST W/OB	50		HVY TRUCK SLE DIST		32.6
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9600
MEDIUM TRUCKS	0.874	0.051	0.075	0.0400
HEAVY TRUCKS	0.891	0.028	0.081	0.0100

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	64.1	62.2	60.4	54.4	63.6
MEDIUM TRUCKS	61.4	60.0	53.7	50.6	60.1
HEAVY TRUCKS	60.3	59.0	50.0	49.8	59.0
VEHICULAR NOISE	**67.0**	65.4	61.6	56.9	66.2

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman	JN:	10991
RECVR/ROAD:	**D** (MLK west of Avalon)	DATE:	12/6/2018
Scenario:	**Cumulative With Ambient Growth (City Methodology)**	BY:	J. Leech

ADT	5,650			PK HR VOL	565
SPEED	44				
PK HR %	10				
DIST CTL	50				
DIST N/F	76	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		32.9
DIST WALL	0		MED TRUCK SLE DIST		32.6
DIST W/OB	50		HVY TRUCK SLE DIST		32.6
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9600
MEDIUM TRUCKS	0.874	0.051	0.075	0.0400
HEAVY TRUCKS	0.891	0.028	0.081	0.0100

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	64.2	62.3	60.5	54.5	63.7
MEDIUM TRUCKS	61.5	60.1	53.8	50.7	60.2
HEAVY TRUCKS	60.4	59.1	50.1	49.9	59.1
VEHICULAR NOISE	**67.1**	65.5	61.6	57.0	66.2

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman	JN:	10991
RECVR/ROAD:	**D** (MLK west of Avalon)	DATE:	12/6/2018
Scenario:	**Cumulative With Ambient Growth w/Project (City Methodology)**	BY:	J. Leech

ADT	6,690			PK HR VOL	669
SPEED	44				
PK HR %	10				
DIST CTL	50				
DIST N/F	76	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		32.9
DIST WALL	0		MED TRUCK SLE DIST		32.6
DIST W/OB	50		HVY TRUCK SLE DIST		32.6
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9600
MEDIUM TRUCKS	0.874	0.051	0.075	0.0400
HEAVY TRUCKS	0.891	0.028	0.081	0.0100

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	65.0	63.0	61.2	55.2	64.4
MEDIUM TRUCKS	62.2	60.9	54.5	51.5	61.0
HEAVY TRUCKS	61.1	59.8	50.9	50.6	59.8
VEHICULAR NOISE	**67.8**	66.2	62.4	57.7	67.0

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman	JN:	10991
RECVR/ROAD:	**E** (MLK University east of Wadley)	DATE:	12/6/2018
Scenario:	**Calibration**	BY:	J. Leech

ADT	8,080			PK HR VOL	808
SPEED	46				
PK HR %	10				
DIST CTL	19				
DIST N/F	36	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		7.9
DIST WALL	0		MED TRUCK SLE DIST		6.7
DIST W/OB	19		HVY TRUCK SLE DIST		6.8
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:		Kimmelman			
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9400
MEDIUM TRUCKS	0.874	0.051	0.075	0.0500
HEAVY TRUCKS	0.891	0.028	0.081	0.0100

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	75.5	73.6	71.8	65.8	75.0
MEDIUM TRUCKS	74.8	73.5	67.1	64.1	73.6
HEAVY TRUCKS	72.4	71.1	62.2	62.0	71.2
VEHICULAR NOISE	**79.2**	77.6	73.4	69.0	78.3

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman	JN:	10991
RECVR/ROAD:	**E** (MLK University east of Wadley)	DATE:	12/6/2018
Scenario:	**Existing**	BY:	J. Leech

ADT	13,850			PK HR VOL	1,385
SPEED	46				
PK HR %	10				
DIST CTL	19				
DIST N/F	36	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		7.9
DIST WALL	0		MED TRUCK SLE DIST		6.7
DIST W/OB	19		HVY TRUCK SLE DIST		6.8
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9400
MEDIUM TRUCKS	0.874	0.051	0.075	0.0500
HEAVY TRUCKS	0.891	0.028	0.081	0.0100

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	77.9	75.9	74.1	68.2	77.4
MEDIUM TRUCKS	77.2	75.8	69.4	66.4	75.9
HEAVY TRUCKS	74.8	73.5	64.5	64.3	73.5
VEHICULAR NOISE	**81.6**	80.0	75.7	71.3	80.6

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman	JN:	10991
RECVR/ROAD:	**E** (MLK University east of Wadley)	DATE:	12/6/2018
Scenario:	**Existing Plus Project**	BY:	J. Leech

ADT	13,980			PK HR VOL	1,398
SPEED	46				
PK HR %	10				
DIST CTL	19				
DIST N/F	36	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		7.9
DIST WALL	0		MED TRUCK SLE DIST		6.7
DIST W/OB	19		HVY TRUCK SLE DIST		6.8
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9400
MEDIUM TRUCKS	0.874	0.051	0.075	0.0500
HEAVY TRUCKS	0.891	0.028	0.081	0.0100

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	77.9	76.0	74.2	68.2	77.4
MEDIUM TRUCKS	77.2	75.8	69.5	66.4	75.9
HEAVY TRUCKS	74.8	73.5	64.6	64.3	73.5
VEHICULAR NOISE	**81.6**	80.0	75.8	71.4	80.7

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman	JN:	10991
RECVR/ROAD:	**E** (MLK University east of Wadley)	DATE:	12/6/2018
Scenario:	**Cumulative**	BY:	J. Leech

ADT	14,200			PK HR VOL	1,420
SPEED	46				
PK HR %	10				
DIST CTL	19				
DIST N/F	36	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		7.9
DIST WALL	0		MED TRUCK SLE DIST		6.7
DIST W/OB	19		HVY TRUCK SLE DIST		6.8
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9400
MEDIUM TRUCKS	0.874	0.051	0.075	0.0500
HEAVY TRUCKS	0.891	0.028	0.081	0.0100

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	78.0	76.1	74.3	68.3	77.5
MEDIUM TRUCKS	77.3	75.9	69.5	66.5	76.0
HEAVY TRUCKS	74.9	73.6	64.6	64.4	73.6
VEHICULAR NOISE	**81.7**	80.1	75.9	71.4	80.7

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman	JN:	10991
RECVR/ROAD:	**E** (MLK University east of Wadley)	DATE:	12/6/2018
Scenario:	**Cumulative Plus Project**	BY:	J. Leech

ADT	14,330			PK HR VOL	1,433
SPEED	46				
PK HR %	10				
DIST CTL	19				
DIST N/F	36	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		7.9
DIST WALL	0		MED TRUCK SLE DIST		6.7
DIST W/OB	19		HVY TRUCK SLE DIST		6.8
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9400
MEDIUM TRUCKS	0.874	0.051	0.075	0.0500
HEAVY TRUCKS	0.891	0.028	0.081	0.0100

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	78.0	76.1	74.3	68.3	77.5
MEDIUM TRUCKS	77.3	75.9	69.6	66.5	76.0
HEAVY TRUCKS	74.9	73.6	64.7	64.4	73.6
VEHICULAR NOISE	**81.7**	80.1	75.9	71.5	80.8

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman	JN:	10991
RECVR/ROAD:	**E** (MLK University east of Wadley)	DATE:	12/6/2018
Scenario:	**Cumulative With Ambient Growth (City Methodology)**	BY:	J. Leech

ADT	14,340			PK HR VOL	1,434
SPEED	46				
PK HR %	10				
DIST CTL	19				
DIST N/F	36	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		7.9
DIST WALL	0		MED TRUCK SLE DIST		6.7
DIST W/OB	19		HVY TRUCK SLE DIST		6.8
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9400
MEDIUM TRUCKS	0.874	0.051	0.075	0.0500
HEAVY TRUCKS	0.891	0.028	0.081	0.0100

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	78.0	76.1	74.3	68.3	77.5
MEDIUM TRUCKS	77.3	76.0	69.6	66.5	76.0
HEAVY TRUCKS	74.9	73.6	64.7	64.4	73.6
VEHICULAR NOISE	**81.7**	80.1	75.9	71.5	80.8

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman	JN:	10991
RECVR/ROAD:	**E** (MLK University east of Wadley)	DATE:	12/6/2018
Scenario:	**Cumulative With Ambient Growth w/Project (City Methodology)**	BY:	J. Leech

ADT	14,470			PK HR VOL	1,447
SPEED	46				
PK HR %	10				
DIST CTL	19				
DIST N/F	36	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		7.9
DIST WALL	0		MED TRUCK SLE DIST		6.7
DIST W/OB	19		HVY TRUCK SLE DIST		6.8
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9400
MEDIUM TRUCKS	0.874	0.051	0.075	0.0500
HEAVY TRUCKS	0.891	0.028	0.081	0.0100

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	78.1	76.1	74.3	68.3	77.6
MEDIUM TRUCKS	77.4	76.0	69.6	66.6	76.1
HEAVY TRUCKS	75.0	73.7	64.7	64.5	73.7
VEHICULAR NOISE	**81.8**	80.2	75.9	71.5	80.8

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman			JN:	10991
RECVR/ROAD:	**F** (Avalon north of 184th)			DATE:	12/6/2018
Scenario:	**Calibration**			BY:	J. Leech
ADT	13,840			PK HR VOL	1,384
SPEED	46				
PK HR %	10				
DIST CTL	52				
DIST N/F	76	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		35.8
DIST WALL	0		MED TRUCK SLE DIST		35.6
DIST W/OB	52		HVY TRUCK SLE DIST		35.6
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9400
MEDIUM TRUCKS	0.874	0.051	0.075	0.0500
HEAVY TRUCKS	0.891	0.028	0.081	0.0100

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	68.0	66.1	64.3	58.3	67.5
MEDIUM TRUCKS	66.3	64.9	58.5	55.5	65.0
HEAVY TRUCKS	64.0	62.7	53.7	53.5	62.7
VEHICULAR NOISE	**71.1**	69.5	65.6	61.0	70.3

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman	JN:	10991
RECVR/ROAD:	**F** (Avalon north of 184th)	DATE:	12/6/2018
Scenario:	**Existing**	BY:	J. Leech

ADT	25,160			PK HR VOL	2,516
SPEED	46				
PK HR %	10				
DIST CTL	52				
DIST N/F	76	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		35.8
DIST WALL	0		MED TRUCK SLE DIST		35.6
DIST W/OB	52		HVY TRUCK SLE DIST		35.6
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9400
MEDIUM TRUCKS	0.874	0.051	0.075	0.0500
HEAVY TRUCKS	0.891	0.028	0.081	0.0100

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	70.6	68.7	66.9	60.9	70.1
MEDIUM TRUCKS	68.8	67.5	61.1	58.1	67.6
HEAVY TRUCKS	66.6	65.3	56.3	56.1	65.3
VEHICULAR NOISE	**73.7**	72.1	68.2	63.6	72.8

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman	JN:	10991
RECVR/ROAD:	F (Avalon north of 184th)	DATE:	12/6/2018
Scenario:	**Existing Plus Project**	BY:	J. Leech

ADT	26,360			PK HR VOL	2,636
SPEED	46				
PK HR %	10				
DIST CTL	52				
DIST N/F	76	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		35.8
DIST WALL	0		MED TRUCK SLE DIST		35.6
DIST W/OB	52		HVY TRUCK SLE DIST		35.6
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9400
MEDIUM TRUCKS	0.874	0.051	0.075	0.0500
HEAVY TRUCKS	0.891	0.028	0.081	0.0100

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	70.8	68.9	67.1	61.1	70.3
MEDIUM TRUCKS	69.0	67.7	61.3	58.3	67.8
HEAVY TRUCKS	66.8	65.5	56.5	56.3	65.5
VEHICULAR NOISE	**73.9**	72.3	68.4	63.8	73.0

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman	JN:	10991
RECVR/ROAD:	**F** (Avalon north of 184th)	DATE:	12/6/2018
Scenario:	**Cumulative**	BY:	J. Leech

ADT	28,510			PK HR VOL	2,851
SPEED	46				
PK HR %	10				
DIST CTL	52				
DIST N/F	76	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		35.8
DIST WALL	0		MED TRUCK SLE DIST		35.6
DIST W/OB	52		HVY TRUCK SLE DIST		35.6
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9400
MEDIUM TRUCKS	0.874	0.051	0.075	0.0500
HEAVY TRUCKS	0.891	0.028	0.081	0.0100

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	71.1	69.2	67.4	61.4	70.6
MEDIUM TRUCKS	69.4	68.0	61.7	58.6	68.1
HEAVY TRUCKS	67.1	65.8	56.9	56.6	65.8
VEHICULAR NOISE	**74.3**	72.7	68.7	64.1	73.4

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman	JN:	10991
RECVR/ROAD:	F (Avalon north of 184th)	DATE:	12/6/2018
Scenario:	**Cumulative Plus Project**	BY:	J. Leech

ADT	29,710			PK HR VOL	2,971
SPEED	46				
PK HR %	10				
DIST CTL	52				
DIST N/F	76	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		35.8
DIST WALL	0		MED TRUCK SLE DIST		35.6
DIST W/OB	52		HVY TRUCK SLE DIST		35.6
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9400
MEDIUM TRUCKS	0.874	0.051	0.075	0.0500
HEAVY TRUCKS	0.891	0.028	0.081	0.0100

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	71.3	69.4	67.6	61.6	70.8
MEDIUM TRUCKS	69.6	68.2	61.8	58.8	68.3
HEAVY TRUCKS	67.3	66.0	57.1	56.8	66.0
VEHICULAR NOISE	**74.5**	72.8	68.9	64.3	73.6

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman	JN:	10991
RECVR/ROAD:	**F** (Avalon north of 184th)	DATE:	12/6/2018
Scenario:	**Cumulative With Ambient Growth (City Methodology)**	BY:	J. Leech

ADT	28,920			PK HR VOL	2,892
SPEED	46				
PK HR %	10				
DIST CTL	52				
DIST N/F	76	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		35.8
DIST WALL	0		MED TRUCK SLE DIST		35.6
DIST W/OB	52		HVY TRUCK SLE DIST		35.6
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9400
MEDIUM TRUCKS	0.874	0.051	0.075	0.0500
HEAVY TRUCKS	0.891	0.028	0.081	0.0100

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	71.2	69.3	67.5	61.5	70.7
MEDIUM TRUCKS	69.5	68.1	61.7	58.7	68.2
HEAVY TRUCKS	67.2	65.9	56.9	56.7	65.9
VEHICULAR NOISE	**74.3**	72.7	68.8	64.2	73.5

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman	JN:	10991
RECVR/ROAD:	**F** (Avalon north of 184th)	DATE:	12/6/2018
Scenario:	**Cumulative With Ambient Growth w/Project (City Methodology)**	BY:	J. Leech

ADT	30,160			PK HR VOL	3,016
SPEED	46				
PK HR %	10				
DIST CTL	52				
DIST N/F	76	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		35.8
DIST WALL	0		MED TRUCK SLE DIST		35.6
DIST W/OB	52		HVY TRUCK SLE DIST		35.6
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9400
MEDIUM TRUCKS	0.874	0.051	0.075	0.0500
HEAVY TRUCKS	0.891	0.028	0.081	0.0100

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	71.4	69.5	67.6	61.7	70.9
MEDIUM TRUCKS	69.6	68.3	61.9	58.9	68.3
HEAVY TRUCKS	67.4	66.1	57.1	56.9	66.1
VEHICULAR NOISE	**74.5**	72.9	69.0	64.3	73.6

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman	JN:	10991
RECVR/ROAD:	**G** (Victoria West of Avalon)	DATE:	12/6/2018
Scenario:	**Calibration**	BY:	J. Leech

ADT	13,680			PK HR VOL	1,368
SPEED	46				
PK HR %	10				
DIST CTL	40				
DIST N/F	76	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		13.5
DIST WALL	0		MED TRUCK SLE DIST		12.8
DIST W/OB	40		HVY TRUCK SLE DIST		12.8
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0		AUTOMOBILES =	0.00	
ROAD	0.0		MEDIUM TRUCKS=	2.30	
			HEAVY TRUCKS =	8.01	
GRADE:	0.0 %		GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9000
MEDIUM TRUCKS	0.874	0.051	0.075	0.0950
HEAVY TRUCKS	0.891	0.028	0.081	0.0050

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	74.1	72.2	70.4	64.4	73.6
MEDIUM TRUCKS	75.7	74.3	67.9	64.9	74.4
HEAVY TRUCKS	67.6	66.3	57.3	57.1	66.3
VEHICULAR NOISE	**78.4**	76.8	72.5	68.0	77.4

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman	JN:	10991
RECVR/ROAD:	**G** (Victoria West of Avalon)	DATE:	12/6/2018
Scenario:	**Existing**	BY:	J. Leech

ADT	15,430			PK HR VOL	1,543
SPEED	46				
PK HR %	10				
DIST CTL	40				
DIST N/F	76	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		13.5
DIST WALL	0		MED TRUCK SLE DIST		12.8
DIST W/OB	40		HVY TRUCK SLE DIST		12.8
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9000
MEDIUM TRUCKS	0.874	0.051	0.075	0.0950
HEAVY TRUCKS	0.891	0.028	0.081	0.0050

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	74.7	72.7	70.9	64.9	74.2
MEDIUM TRUCKS	76.2	74.8	68.4	65.4	74.9
HEAVY TRUCKS	68.1	66.8	57.8	57.6	66.8
VEHICULAR NOISE	**78.9**	77.3	73.0	68.6	77.9

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman	JN:	10991
RECVR/ROAD:	**G** (Victoria West of Avalon)	DATE:	12/6/2018
Scenario:	**Existing Plus Project**	BY:	J. Leech

ADT	18,350			PK HR VOL	1,835
SPEED	46				
PK HR %	10				
DIST CTL	40				
DIST N/F	76	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		13.5
DIST WALL	0		MED TRUCK SLE DIST		12.8
DIST W/OB	40		HVY TRUCK SLE DIST		12.8
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9000
MEDIUM TRUCKS	0.874	0.051	0.075	0.0950
HEAVY TRUCKS	0.891	0.028	0.081	0.0050

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	75.4	73.5	71.7	65.7	74.9
MEDIUM TRUCKS	76.9	75.6	69.2	66.2	75.7
HEAVY TRUCKS	68.8	67.5	58.6	58.4	67.5
VEHICULAR NOISE	**79.6**	78.1	73.8	69.3	78.7

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman	JN:	10991
RECVR/ROAD:	**G** (Victoria West of Avalon)	DATE:	12/6/2018
Scenario:	**Cumulative**	BY:	J. Leech

ADT	15,660			PK HR VOL	1,566
SPEED	46				
PK HR %	10				
DIST CTL	40				
DIST N/F	76	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		13.5
DIST WALL	0		MED TRUCK SLE DIST		12.8
DIST W/OB	40		HVY TRUCK SLE DIST		12.8
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9000
MEDIUM TRUCKS	0.874	0.051	0.075	0.0950
HEAVY TRUCKS	0.891	0.028	0.081	0.0050

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	74.7	72.8	71.0	65.0	74.2
MEDIUM TRUCKS	76.2	74.9	68.5	65.5	75.0
HEAVY TRUCKS	68.1	66.8	57.9	57.7	66.9
VEHICULAR NOISE	**78.9**	77.4	73.1	68.6	78.0

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman	JN:	10991
RECVR/ROAD:	**G** (Victoria West of Avalon)	DATE:	12/6/2018
Scenario:	**Cumulative Plus Project**	BY:	J. Leech

ADT	18,580			PK HR VOL	1,858
SPEED	46				
PK HR %	10				
DIST CTL	40				
DIST N/F	76	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		13.5
DIST WALL	0		MED TRUCK SLE DIST		12.8
DIST W/OB	40		HVY TRUCK SLE DIST		12.8
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9000
MEDIUM TRUCKS	0.874	0.051	0.075	0.0950
HEAVY TRUCKS	0.891	0.028	0.081	0.0050

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	75.5	73.5	71.7	65.8	75.0
MEDIUM TRUCKS	77.0	75.6	69.3	66.2	75.7
HEAVY TRUCKS	68.9	67.6	58.6	58.4	67.6
VEHICULAR NOISE	**79.7**	78.1	73.8	69.4	78.7

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman	JN:	10991
RECVR/ROAD:	**G** (Victoria West of Avalon)	DATE:	12/6/2018
Scenario:	**Cumulative With Ambient Growth (City Methodology)**	BY:	J. Leech

ADT	18,810			PK HR VOL	1,881
SPEED	46				
PK HR %	10				
DIST CTL	40				
DIST N/F	76	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		13.5
DIST WALL	0		MED TRUCK SLE DIST		12.8
DIST W/OB	40		HVY TRUCK SLE DIST		12.8
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9000
MEDIUM TRUCKS	0.874	0.051	0.075	0.0950
HEAVY TRUCKS	0.891	0.028	0.081	0.0050

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	75.5	73.6	71.8	65.8	75.0
MEDIUM TRUCKS	77.0	75.7	69.3	66.3	75.8
HEAVY TRUCKS	68.9	67.6	58.7	58.5	67.7
VEHICULAR NOISE	**79.7**	78.2	73.9	69.4	78.8

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman	JN:	10991
RECVR/ROAD:	**G** (Victoria West of Avalon)	DATE:	12/6/2018
Scenario:	**Cumulative With Ambient Growth w/Project (City Methodology)**	BY:	J. Leech

ADT	19,040			PK HR VOL	1,904
SPEED	46				
PK HR %	10				
DIST CTL	40				
DIST N/F	76	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		13.5
DIST WALL	0		MED TRUCK SLE DIST		12.8
DIST W/OB	40		HVY TRUCK SLE DIST		12.8
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0		AUTOMOBILES =	0.00	
ROAD	0.0		MEDIUM TRUCKS=	2.30	
			HEAVY TRUCKS =	8.01	
GRADE:	0.0 %		GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9000
MEDIUM TRUCKS	0.874	0.051	0.075	0.0950
HEAVY TRUCKS	0.891	0.028	0.081	0.0050

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	75.6	73.7	71.8	65.9	75.1
MEDIUM TRUCKS	77.1	75.7	69.4	66.3	75.8
HEAVY TRUCKS	69.0	67.7	58.8	58.5	67.7
VEHICULAR NOISE	**79.8**	78.2	73.9	69.5	78.8

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman	JN:	10991
RECVR/ROAD:	**H** (Main north of Lifford)	DATE:	12/6/2018
Scenario:	**Calibration**	BY:	J. Leech

ADT	6,480			PK HR VOL	648
SPEED	50				
PK HR %	10				
DIST CTL	29				
DIST N/F	52	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		13.8
DIST WALL	0		MED TRUCK SLE DIST		13.1
DIST W/OB	29		HVY TRUCK SLE DIST		13.2
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9000
MEDIUM TRUCKS	0.874	0.051	0.075	0.0850
HEAVY TRUCKS	0.891	0.028	0.081	0.0050

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	71.8	69.8	68.0	62.0	71.2
MEDIUM TRUCKS	72.6	71.2	64.9	61.8	71.3
HEAVY TRUCKS	64.7	63.4	54.4	54.2	63.4
VEHICULAR NOISE	**75.6**	74.0	69.9	65.3	74.6

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman			JN:	10991
RECVR/ROAD:	**H** (Main north of Lifford)			DATE:	12/6/2018
Scenario:	**Existing**			BY:	J. Leech
ADT	12,890			PK HR VOL	1,289
SPEED	50				
PK HR %	10				
DIST CTL	29				
DIST N/F	52	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		13.8
DIST WALL	0		MED TRUCK SLE DIST		13.1
DIST W/OB	29		HVY TRUCK SLE DIST		13.2
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9000
MEDIUM TRUCKS	0.874	0.051	0.075	0.0850
HEAVY TRUCKS	0.891	0.028	0.081	0.0050

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	74.7	72.8	71.0	65.0	74.2
MEDIUM TRUCKS	75.6	74.2	67.9	64.8	74.3
HEAVY TRUCKS	67.7	66.4	57.4	57.2	66.4
VEHICULAR NOISE	**78.6**	77.0	72.9	68.3	77.6

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman	JN:	10991
RECVR/ROAD:	**H** (Main north of Lifford)	DATE:	12/6/2018
Scenario:	**Existing Plus Project**	BY:	J. Leech

ADT	14,270			PK HR VOL	1,427
SPEED	50				
PK HR %	10				
DIST CTL	29				
DIST N/F	52	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		13.8
DIST WALL	0		MED TRUCK SLE DIST		13.1
DIST W/OB	29		HVY TRUCK SLE DIST		13.2
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9000
MEDIUM TRUCKS	0.874	0.051	0.075	0.0850
HEAVY TRUCKS	0.891	0.028	0.081	0.0050

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	75.2	73.3	71.5	65.5	74.7
MEDIUM TRUCKS	76.1	74.7	68.3	65.3	74.8
HEAVY TRUCKS	68.1	66.8	57.9	57.6	66.8
VEHICULAR NOISE	**79.0**	77.4	73.3	68.7	78.1

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman			JN:	10991
RECVR/ROAD:	**H** (Main north of Lifford)			DATE:	12/6/2018
Scenario:	**Cumulative**			BY:	J. Leech
ADT	17,340			PK HR VOL	1,734
SPEED	50				
PK HR %	10				
DIST CTL	29				
DIST N/F	52	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		13.8
DIST WALL	0		MED TRUCK SLE DIST		13.1
DIST W/OB	29		HVY TRUCK SLE DIST		13.2
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9000
MEDIUM TRUCKS	0.874	0.051	0.075	0.0850
HEAVY TRUCKS	0.891	0.028	0.081	0.0050

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	76.0	74.1	72.3	66.3	75.5
MEDIUM TRUCKS	76.9	75.5	69.2	66.1	75.6
HEAVY TRUCKS	68.9	67.6	58.7	58.5	67.7
VEHICULAR NOISE	**79.9**	78.3	74.1	69.6	78.9

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman	JN:	10991
RECVR/ROAD:	**H** (Main north of Lifford)	DATE:	12/6/2018
Scenario:	**Cumulative Plus Project**	BY:	J. Leech

ADT	18,720			PK HR VOL	1,872
SPEED	50				
PK HR %	10				
DIST CTL	29				
DIST N/F	52	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		13.8
DIST WALL	0		MED TRUCK SLE DIST		13.1
DIST W/OB	29		HVY TRUCK SLE DIST		13.2
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9000
MEDIUM TRUCKS	0.874	0.051	0.075	0.0850
HEAVY TRUCKS	0.891	0.028	0.081	0.0050

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	76.4	74.4	72.6	66.6	75.8
MEDIUM TRUCKS	77.2	75.9	69.5	66.5	75.9
HEAVY TRUCKS	69.3	68.0	59.0	58.8	68.0
VEHICULAR NOISE	**80.2**	78.6	74.5	69.9	79.2

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman	JN:	10991
RECVR/ROAD:	**H** (Main north of Lifford)	DATE:	12/6/2018
Scenario:	**Cumulative With Ambient Growth (City Methodology)**	BY:	J. Leech

ADT	17,470			PK HR VOL	1,747
SPEED	50				
PK HR %	10				
DIST CTL	29				
DIST N/F	52	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		13.8
DIST WALL	0		MED TRUCK SLE DIST		13.1
DIST W/OB	29		HVY TRUCK SLE DIST		13.2
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9000
MEDIUM TRUCKS	0.874	0.051	0.075	0.0850
HEAVY TRUCKS	0.891	0.028	0.081	0.0050

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	76.1	74.1	72.3	66.3	75.5
MEDIUM TRUCKS	76.9	75.6	69.2	66.2	75.6
HEAVY TRUCKS	69.0	67.7	58.7	58.5	67.7
VEHICULAR NOISE	**79.9**	78.3	74.2	69.6	78.9

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman	JN:	10991
RECVR/ROAD:	**H** (Main north of Lifford)	DATE:	12/6/2018
Scenario:	**Cumulative With Ambient Growth w/Project (City Methodology)**	BY:	J. Leech

ADT	18,850			PK HR VOL	1,885
SPEED	50				
PK HR %	10				
DIST CTL	29				
DIST N/F	52	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		13.8
DIST WALL	0		MED TRUCK SLE DIST		13.1
DIST W/OB	29		HVY TRUCK SLE DIST		13.2
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9000
MEDIUM TRUCKS	0.874	0.051	0.075	0.0850
HEAVY TRUCKS	0.891	0.028	0.081	0.0050

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	76.4	74.5	72.7	66.7	75.9
MEDIUM TRUCKS	77.3	75.9	69.5	66.5	76.0
HEAVY TRUCKS	69.3	68.0	59.1	58.8	68.0
VEHICULAR NOISE	**80.2**	78.6	74.5	69.9	79.3

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman			JN:	10991
RECVR/ROAD:	I (Main south of Del Amo)			DATE:	12/6/2018
Scenario:	**Calibration**			BY:	J. Leech
ADT	15,000			PK HR VOL	1,500
SPEED	45				
PK HR %	10				
DIST CTL	31				
DIST N/F	52	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		17.6
DIST WALL	0		MED TRUCK SLE DIST		17.1
DIST W/OB	31		HVY TRUCK SLE DIST		17.1
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9200
MEDIUM TRUCKS	0.874	0.051	0.075	0.0400
HEAVY TRUCKS	0.891	0.028	0.081	0.0400

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	72.6	70.7	68.9	62.9	72.1
MEDIUM TRUCKS	70.2	68.8	62.4	59.4	68.9
HEAVY TRUCKS	75.0	73.7	64.7	64.5	73.7
VEHICULAR NOISE	**77.8**	76.3	71.0	67.5	76.8

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman			JN:	10991
RECVR/ROAD:	I (Main south of Del Amo)			DATE:	12/6/2018
Scenario:	**Existing**			BY:	J. Leech
ADT	20,490			PK HR VOL	2,049
SPEED	45				
PK HR %	10				
DIST CTL	31				
DIST N/F	52	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		17.6
DIST WALL	0		MED TRUCK SLE DIST		17.1
DIST W/OB	31		HVY TRUCK SLE DIST		17.1
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9200
MEDIUM TRUCKS	0.874	0.051	0.075	0.0400
HEAVY TRUCKS	0.891	0.028	0.081	0.0400

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	74.0	72.0	70.2	64.3	73.5
MEDIUM TRUCKS	71.5	70.2	63.8	60.8	70.3
HEAVY TRUCKS	76.3	75.0	66.1	65.8	75.0
VEHICULAR NOISE	**79.1**	77.6	72.3	68.9	78.1

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman	JN:	10991
RECVR/ROAD:	I (Main south of Del Amo)	DATE:	12/6/2018
Scenario:	**Existing Plus Project**	BY:	J. Leech

ADT	20,840			PK HR VOL	2,084
SPEED	45				
PK HR %	10				
DIST CTL	31				
DIST N/F	52	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		17.6
DIST WALL	0		MED TRUCK SLE DIST		17.1
DIST W/OB	31		HVY TRUCK SLE DIST		17.1
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9200
MEDIUM TRUCKS	0.874	0.051	0.075	0.0400
HEAVY TRUCKS	0.891	0.028	0.081	0.0400

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	74.0	72.1	70.3	64.3	73.5
MEDIUM TRUCKS	71.6	70.2	63.9	60.8	70.3
HEAVY TRUCKS	76.4	75.1	66.2	65.9	75.1
VEHICULAR NOISE	**79.2**	77.7	72.4	68.9	78.2

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman	JN:	10991
RECVR/ROAD:	I (Main south of Del Amo)	DATE:	12/6/2018
Scenario:	**Cumulative**	BY:	J. Leech

ADT	22,320			PK HR VOL	2,232
SPEED	45				
PK HR %	10				
DIST CTL	31				
DIST N/F	52	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		17.6
DIST WALL	0		MED TRUCK SLE DIST		17.1
DIST W/OB	31		HVY TRUCK SLE DIST		17.1
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9200
MEDIUM TRUCKS	0.874	0.051	0.075	0.0400
HEAVY TRUCKS	0.891	0.028	0.081	0.0400

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	74.3	72.4	70.6	64.6	73.8
MEDIUM TRUCKS	71.9	70.5	64.2	61.1	70.6
HEAVY TRUCKS	76.7	75.4	66.5	66.2	75.4
VEHICULAR NOISE	**79.5**	78.0	72.7	69.2	78.5

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman			JN:	10991
RECVR/ROAD:	I (Main south of Del Amo)			DATE:	12/6/2018
Scenario:	**Cumulative Plus Project**			BY:	J. Leech
ADT	22,670			PK HR VOL	2,267
SPEED	45				
PK HR %	10				
DIST CTL	31				
DIST N/F	52	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		17.6
DIST WALL	0		MED TRUCK SLE DIST		17.1
DIST W/OB	31		HVY TRUCK SLE DIST		17.1
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9200
MEDIUM TRUCKS	0.874	0.051	0.075	0.0400
HEAVY TRUCKS	0.891	0.028	0.081	0.0400

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	74.4	72.5	70.7	64.7	73.9
MEDIUM TRUCKS	72.0	70.6	64.2	61.2	70.7
HEAVY TRUCKS	76.8	75.5	66.5	66.3	75.5
VEHICULAR NOISE	**79.6**	78.1	72.7	69.3	78.5

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman	JN:	10991
RECVR/ROAD:	I (Main south of Del Amo)	DATE:	12/6/2018
Scenario:	**Cumulative With Ambient Growth (City Methodology)**	BY:	J. Leech

ADT	22,520			PK HR VOL	2,252
SPEED	45				
PK HR %	10				
DIST CTL	31				
DIST N/F	52	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		17.6
DIST WALL	0		MED TRUCK SLE DIST		17.1
DIST W/OB	31		HVY TRUCK SLE DIST		17.1
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9200
MEDIUM TRUCKS	0.874	0.051	0.075	0.0400
HEAVY TRUCKS	0.891	0.028	0.081	0.0400

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	74.4	72.5	70.6	64.7	73.9
MEDIUM TRUCKS	71.9	70.6	64.2	61.2	70.7
HEAVY TRUCKS	76.7	75.4	66.5	66.3	75.4
VEHICULAR NOISE	**79.6**	78.1	72.7	69.3	78.5

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman	JN:	10991
RECVR/ROAD:	I (Main south of Del Amo)	DATE:	12/6/2018
Scenario:	**Cumulative With Ambient Growth w/Project (City Methodology)**	BY:	J. Leech

ADT	22,870			PK HR VOL	2,287
SPEED	45				
PK HR %	10				
DIST CTL	31				
DIST N/F	52	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		17.6
DIST WALL	0		MED TRUCK SLE DIST		17.1
DIST W/OB	31		HVY TRUCK SLE DIST		17.1
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9200
MEDIUM TRUCKS	0.874	0.051	0.075	0.0400
HEAVY TRUCKS	0.891	0.028	0.081	0.0400

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	74.4	72.5	70.7	64.7	73.9
MEDIUM TRUCKS	72.0	70.6	64.3	61.2	70.7
HEAVY TRUCKS	76.8	75.5	66.6	66.3	75.5
VEHICULAR NOISE	**79.6**	78.1	72.8	69.3	78.6

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman	JN:	10991
RECVR/ROAD:	J (Main south of MLK)	DATE:	12/6/2018
Scenario:	**Calibration**	BY:	J. Leech

ADT	6,640			PK HR VOL	664
SPEED	47				
PK HR %	10				
DIST CTL	31				
DIST N/F	52	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		17.6
DIST WALL	0		MED TRUCK SLE DIST		17.1
DIST W/OB	31		HVY TRUCK SLE DIST		17.1
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9100
MEDIUM TRUCKS	0.874	0.051	0.075	0.0300
HEAVY TRUCKS	0.891	0.028	0.081	0.0600

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	69.6	67.6	65.8	59.8	69.0
MEDIUM TRUCKS	65.8	64.5	58.1	55.1	64.6
HEAVY TRUCKS	73.5	72.2	63.2	63.0	72.2
VEHICULAR NOISE	**75.4**	74.0	68.2	65.1	74.4

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman	JN:	10991
RECVR/ROAD:	J (Main south of MLK)	DATE:	12/6/2018
Scenario:	**Existing**	BY:	J. Leech

ADT	15,040			PK HR VOL	1,504
SPEED	47				
PK HR %	10				
DIST CTL	31				
DIST N/F	52	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		17.6
DIST WALL	0		MED TRUCK SLE DIST		17.1
DIST W/OB	31		HVY TRUCK SLE DIST		17.1
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9100
MEDIUM TRUCKS	0.874	0.051	0.075	0.0300
HEAVY TRUCKS	0.891	0.028	0.081	0.0600

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	73.1	71.2	69.4	63.4	72.6
MEDIUM TRUCKS	69.4	68.0	61.7	58.6	68.1
HEAVY TRUCKS	77.0	75.7	66.8	66.5	75.7
VEHICULAR NOISE	**79.0**	77.5	71.7	68.7	77.9

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman	JN:	10991
RECVR/ROAD:	J (Main south of MLK)	DATE:	12/6/2018
Scenario:	**Existing Plus Project**	BY:	J. Leech

ADT	15,920			PK HR VOL	1,592
SPEED	47				
PK HR %	10				
DIST CTL	31				
DIST N/F	52	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		17.6
DIST WALL	0		MED TRUCK SLE DIST		17.1
DIST W/OB	31		HVY TRUCK SLE DIST		17.1
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9100
MEDIUM TRUCKS	0.874	0.051	0.075	0.0300
HEAVY TRUCKS	0.891	0.028	0.081	0.0600

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	73.4	71.4	69.6	63.6	72.8
MEDIUM TRUCKS	69.6	68.3	61.9	58.9	68.4
HEAVY TRUCKS	77.3	76.0	67.0	66.8	76.0
VEHICULAR NOISE	**79.2**	77.8	72.0	68.9	78.2

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman	JN:	10991
RECVR/ROAD:	J (Main south of MLK)	DATE:	12/6/2018
Scenario:	**Cumulative**	BY:	J. Leech

ADT	16,400			PK HR VOL	1,640
SPEED	47				
PK HR %	10				
DIST CTL	31				
DIST N/F	52	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		17.6
DIST WALL	0		MED TRUCK SLE DIST		17.1
DIST W/OB	31		HVY TRUCK SLE DIST		17.1
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9100
MEDIUM TRUCKS	0.874	0.051	0.075	0.0300
HEAVY TRUCKS	0.891	0.028	0.081	0.0600

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	73.5	71.6	69.8	63.8	73.0
MEDIUM TRUCKS	69.8	68.4	62.0	59.0	68.5
HEAVY TRUCKS	77.4	76.1	67.2	66.9	76.1
VEHICULAR NOISE	**79.4**	77.9	72.1	69.1	78.3

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman	JN:	10991
RECVR/ROAD:	J (Main south of MLK)	DATE:	12/6/2018
Scenario:	**Cumulative Plus Project**	BY:	J. Leech

ADT	17,280			PK HR VOL	1,728
SPEED	47				
PK HR %	10				
DIST CTL	31				
DIST N/F	52	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		17.6
DIST WALL	0		MED TRUCK SLE DIST		17.1
DIST W/OB	31		HVY TRUCK SLE DIST		17.1
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9100
MEDIUM TRUCKS	0.874	0.051	0.075	0.0300
HEAVY TRUCKS	0.891	0.028	0.081	0.0600

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	73.7	71.8	70.0	64.0	73.2
MEDIUM TRUCKS	70.0	68.6	62.3	59.2	68.7
HEAVY TRUCKS	77.6	76.3	67.4	67.1	76.3
VEHICULAR NOISE	**79.6**	78.1	72.3	69.3	78.5

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman	JN:	10991
RECVR/ROAD:	J (Main south of MLK)	DATE:	12/6/2018
Scenario:	**Cumulative With Ambient Growth (City Methodology)**	BY:	J. Leech

ADT	16,630			PK HR VOL	1,663
SPEED	47				
PK HR %	10				
DIST CTL	31				
DIST N/F	52	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		17.6
DIST WALL	0		MED TRUCK SLE DIST		17.1
DIST W/OB	31		HVY TRUCK SLE DIST		17.1
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9100
MEDIUM TRUCKS	0.874	0.051	0.075	0.0300
HEAVY TRUCKS	0.891	0.028	0.081	0.0600

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	73.5	71.6	69.8	63.8	73.0
MEDIUM TRUCKS	69.8	68.5	62.1	59.1	68.5
HEAVY TRUCKS	77.4	76.2	67.2	67.0	76.2
VEHICULAR NOISE	**79.4**	78.0	72.2	69.1	78.4

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman	JN:	10991
RECVR/ROAD:	J (Main south of MLK)	DATE:	12/6/2018
Scenario:	**Cumulative With Ambient Growth w/Project (City Methodology)**	BY:	J. Leech

ADT	17,430			PK HR VOL	1,743
SPEED	47				
PK HR %	10				
DIST CTL	31				
DIST N/F	52	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		17.6
DIST WALL	0		MED TRUCK SLE DIST		17.1
DIST W/OB	31		HVY TRUCK SLE DIST		17.1
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9100
MEDIUM TRUCKS	0.874	0.051	0.075	0.0300
HEAVY TRUCKS	0.891	0.028	0.081	0.0600

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	73.8	71.8	70.0	64.0	73.2
MEDIUM TRUCKS	70.0	68.7	62.3	59.3	68.8
HEAVY TRUCKS	77.7	76.4	67.4	67.2	76.4
VEHICULAR NOISE	**79.6**	78.2	72.4	69.3	78.6

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman	JN:	10991
RECVR/ROAD:	**K** (Albertoni west of Avalon)	DATE:	12/6/2018
Scenario:	**Calibration**	BY:	J. Leech

ADT	7,440			PK HR VOL	744
SPEED	46				
PK HR %	10				
DIST CTL	41				
DIST N/F	76	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		16.2
DIST WALL	0		MED TRUCK SLE DIST		15.6
DIST W/OB	41		HVY TRUCK SLE DIST		15.7
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9300
MEDIUM TRUCKS	0.874	0.051	0.075	0.0500
HEAVY TRUCKS	0.891	0.028	0.081	0.0200

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	70.4	68.5	66.7	60.7	69.9
MEDIUM TRUCKS	68.9	67.5	61.2	58.1	67.6
HEAVY TRUCKS	69.6	68.3	59.4	59.1	68.3
VEHICULAR NOISE	**74.5**	72.9	68.4	64.2	73.5

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman	JN:	10991
RECVR/ROAD:	**K** (Albertoni west of Avalon)	DATE:	12/6/2018
Scenario:	**Existing**	BY:	J. Leech

ADT	21,870			PK HR VOL	2,187
SPEED	46				
PK HR %	10				
DIST CTL	41				
DIST N/F	76	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		16.2
DIST WALL	0		MED TRUCK SLE DIST		15.6
DIST W/OB	41		HVY TRUCK SLE DIST		15.7
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9300
MEDIUM TRUCKS	0.874	0.051	0.075	0.0500
HEAVY TRUCKS	0.891	0.028	0.081	0.0200

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	75.1	73.2	71.4	65.4	74.6
MEDIUM TRUCKS	73.6	72.2	65.9	62.8	72.3
HEAVY TRUCKS	74.3	73.0	64.1	63.8	73.0
VEHICULAR NOISE	**79.2**	77.6	73.0	68.9	78.2

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman	JN:	10991
RECVR/ROAD:	**K** (Albertoni west of Avalon)	DATE:	12/6/2018
Scenario:	**Existing Plus Project**	BY:	J. Leech

ADT	21,870			PK HR VOL	2,187
SPEED	46				
PK HR %	10				
DIST CTL	41				
DIST N/F	76	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		16.2
DIST WALL	0		MED TRUCK SLE DIST		15.6
DIST W/OB	41		HVY TRUCK SLE DIST		15.7
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9300
MEDIUM TRUCKS	0.874	0.051	0.075	0.0500
HEAVY TRUCKS	0.891	0.028	0.081	0.0200

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	75.1	73.2	71.4	65.4	74.6
MEDIUM TRUCKS	73.6	72.2	65.9	62.8	72.3
HEAVY TRUCKS	74.3	73.0	64.1	63.8	73.0
VEHICULAR NOISE	**79.2**	77.6	73.0	68.9	78.2

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman	JN:	10991
RECVR/ROAD:	**K** (Albertoni west of Avalon)	DATE:	12/6/2018
Scenario:	**Cumulative**	BY:	J. Leech

ADT	20,910			PK HR VOL	2,091
SPEED	46				
PK HR %	10				
DIST CTL	41				
DIST N/F	76	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		16.2
DIST WALL	0		MED TRUCK SLE DIST		15.6
DIST W/OB	41		HVY TRUCK SLE DIST		15.7
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9300
MEDIUM TRUCKS	0.874	0.051	0.075	0.0500
HEAVY TRUCKS	0.891	0.028	0.081	0.0200

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	74.9	73.0	71.2	65.2	74.4
MEDIUM TRUCKS	73.4	72.0	65.7	62.6	72.1
HEAVY TRUCKS	74.1	72.8	63.9	63.6	72.8
VEHICULAR NOISE	**79.0**	77.4	72.9	68.7	78.0

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman	JN:	10991
RECVR/ROAD:	**K** (Albertoni west of Avalon)	DATE:	12/6/2018
Scenario:	**Cumulative Plus Project**	BY:	J. Leech

ADT	20,910			PK HR VOL	2,091
SPEED	46				
PK HR %	10				
DIST CTL	41				
DIST N/F	76	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		16.2
DIST WALL	0		MED TRUCK SLE DIST		15.6
DIST W/OB	41		HVY TRUCK SLE DIST		15.7
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9300
MEDIUM TRUCKS	0.874	0.051	0.075	0.0500
HEAVY TRUCKS	0.891	0.028	0.081	0.0200

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	74.9	73.0	71.2	65.2	74.4
MEDIUM TRUCKS	73.4	72.0	65.7	62.6	72.1
HEAVY TRUCKS	74.1	72.8	63.9	63.6	72.8
VEHICULAR NOISE	**79.0**	77.4	72.9	68.7	78.0

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman	JN:	10991
RECVR/ROAD:	**K** (Albertoni west of Avalon)	DATE:	12/6/2018
Scenario:	**Cumulative With Ambient Growth (City Methodology)**	BY:	J. Leech

ADT	22,190			PK HR VOL	2,219
SPEED	46				
PK HR %	10				
DIST CTL	41				
DIST N/F	76	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		16.2
DIST WALL	0		MED TRUCK SLE DIST		15.6
DIST W/OB	41		HVY TRUCK SLE DIST		15.7
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9300
MEDIUM TRUCKS	0.874	0.051	0.075	0.0500
HEAVY TRUCKS	0.891	0.028	0.081	0.0200

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	75.2	73.3	71.4	65.5	74.7
MEDIUM TRUCKS	73.7	72.3	65.9	62.9	72.4
HEAVY TRUCKS	74.4	73.1	64.1	63.9	73.1
VEHICULAR NOISE	**79.2**	77.7	73.1	69.0	78.3

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Kimmelman	JN:	10991
RECVR/ROAD:	**K** (Albertoni west of Avalon)	DATE:	12/6/2018
Scenario:	**Cumulative With Ambient Growth w/Project (City Methodology)**	BY:	J. Leech

ADT	22,190			PK HR VOL	2,219
SPEED	46				
PK HR %	10				
DIST CTL	41				
DIST N/F	76	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		16.2
DIST WALL	0		MED TRUCK SLE DIST		15.6
DIST W/OB	41		HVY TRUCK SLE DIST		15.7
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9300
MEDIUM TRUCKS	0.874	0.051	0.075	0.0500
HEAVY TRUCKS	0.891	0.028	0.081	0.0200

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	75.2	73.3	71.4	65.5	74.7
MEDIUM TRUCKS	73.7	72.3	65.9	62.9	72.4
HEAVY TRUCKS	74.4	73.1	64.1	63.9	73.1
VEHICULAR NOISE	**79.2**	77.7	73.1	69.0	78.3