

APPENDIX E

Noise Modeling Data

APPENDIX E-1
Field Noise Measurement Data

M1

DUDEK

FIELD NOISE MEASUREMENT DATA

PROJECT	Montclair Plaza Expansion Project		PROJECT #	8530
SITE ID	M1 - Cimarron Oaks Multi-Family Res		OBSERVER(S)	Stephanie Tang
SITE ADDRESS	9355 Monte Vista Ave Montclair, CA 91763			
START DATE	11/4/14	END DATE	11/4/14	
START TIME	1324pm	END TIME	1339pm	

METEOROLOGICAL CONDITIONS				
TEMP	79° F	HUMIDITY	10 % R.H.	WIND
WINDSPD	5.21 MPH	DIR.	N NE S SE S SW W NW	CALM
SKY	SUNNY CLEAR	OVRCAST	PRTLY CLDY	FOG
				RAIN
				MODERATE
				GUSTY
ACOUSTIC MEASUREMENTS				
MEAS. INSTRUMENT	Piccolo SLM	TYPE	1 (2)	SERIAL #
CALIBRATOR	BSWA CA114			SERIAL #
CALIBRATION CHECK	PRE-TEST	94.0 dBA SPL	POST-TEST	94.0 dBA SPL
				WINDSCRN
SETTINGS	A-WTD	SLOW	FAST	FRONTAL
				RANDOM
				ANSI
				OTHER:
REC. #	BEGIN	END	Leq	Lmax
M1	1324PM	1339PM	65.0	81.3
				Lmin
				L90
				L50
				L10
				OTHER (SPECIFY METRIC)
COMMENTS				

SOURCE INFO AND TRAFFIC COUNTS									
PRIMARY NOISE SOURCE					OTHER:				
ROADWAY TYPE: Monte Vista Avenue					DIST. TO RDWY C/L OR EOP: ~85'				
TRAFFIC COUNT DURATION: 15 MIN					SPEED				
DIRECTION					NB/EB				
AUTOS					181 240				
MED TRKS					2 1				
HVY TRKS					5 6				
BUSES					0 2				
MOTRCLS					0 0				
SPEEDS ESTIMATED BY: RADAR / DRIVING THE PACE					POSTED SPEED LIMIT SIGNS SAY: 40mph				
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:					I-10 Freeway, Vehicles going in and out of complex				

DESCRIPTION / SKETCH	
TERRAIN	HARD SOFT MIXED FLAT OTHER: Walkway
PHOTOS	See Photo
OTHER COMMENTS / SKETCH	



MI - Cimarron Oaks Multi-Family Residential

M2

DUDEK

FIELD NOISE MEASUREMENT DATA

PROJECT	Montclair Plaza Expansion Project		PROJECT #	8530
SITE ID	M2 - The Lexington Townhomes		OBSERVER(S)	Stephanie Tang
SITE ADDRESS	9200 Monte Vista Ave Montclair, CA 91763			
START DATE	11/4/14	END DATE	11/4/14	
START TIME	1407PM	END TIME	1422PM	

METEOROLOGICAL CONDITIONS						
TEMP	79 F	HUMIDITY	10 % R.H.	WIND	CALM <u>LIGHT</u> MODERATE	
WINDSPD	4.3 MPH	DIR.	N NE S SE S <u>SW</u> W NW		VARIABLE STEADY GUSTY	
SKY	<u>SUNNY</u> <u>CLEAR</u>	OVRCAST	PRTLY CLDY	FOG	RAIN	
ACOUSTIC MEASUREMENTS						
MEAS. INSTRUMENT	Piccolo SLM		TYPE	1 <u>2</u>	SERIAL # 130625005	
CALIBRATOR	BSWA CA114				SERIAL # 490151	
CALIBRATION CHECK	PRE-TEST	94.0 dBA SPL	POST-TEST	94.0 dBA SPL	WINDSCRN <u>✓</u>	
SETTINGS	A-WTD	<u>SLOW</u>	FAST	FRONTAL	RANDOM ANSI OTHER:	
REC. #	BEGIN	END	Leg	Lmax	Lmin	L90 L50 L10 OTHER (SPECIFY METRIC)
M2	1407PM	1422PM	56.2	69.1	45.3	
COMMENTS						

SOURCE INFO AND TRAFFIC COUNTS										
PRIMARY NOISE SOURCE					OTHER:					
ROADWAY TYPE: Monte Vista Ave					DIST. TO RDWY C/L OR EOP: ~135'					
TRAFFIC COUNT DURATION: 15 MIN 40mph SPEED										
COUNT 1 (OR RDWY 1)	DIRECTION	NB/EB	SB/WB	NB/EB	SB/WB	COUNT 2 (OR RDWY 2)	NB/EB	SB/WB	NB/EB	SB/WB
	AUTOS	16	182							
	MED TRKS	2	6							
	HVY TRKS	4	4							
	BUSES	2	1							
	MOTRCLS	1	1							
SPEEDS ESTIMATED BY: RADAR / DRIVING THE PACE										
POSTED SPEED LIMIT SIGNS SAY: 40mph										
OTHER NOISE SOURCES (BACKGROUND): <u>DIST. AIRCRAFT</u> <u>RUSTLING LEAVES</u> <u>DIST. BARKING DOGS</u> <u>BIRDS</u> DIST. INDUSTRIAL										
DIST. KIDS PLAYING DIST. CONVRSTNS / YELLING DIST. TRAFFIC (LIST RDWYS BELOW) DISTD GARDENERS/LANDSCAPING NOISE										
OTHER: Vehicles going in and out of complex										

DESCRIPTION / SKETCH	
TERRAIN	<u>HARD</u> SOFT MIXED <u>FLAT</u> OTHER: Walkway
PHOTOS	See Photo
OTHER COMMENTS / SKETCH	



M2 - The Lexington Townhomes

PROJECT	Montclair Plaza Expansion Project	PROJECT #	8530
SITE ID	M3-Unitarian Universalist Congregation		
SITE ADDRESS	9185 Monte Vista Ave Montclair, CA 91763	OBSERVER(S)	Stephanie Tang
START DATE	11/4/14	END DATE	11/4/14
START TIME	1444 pm	END TIME	1459 pm

METEOROLOGICAL CONDITIONS

TEMP 79 F HUMIDITY 10 % R.H. WIND CALM LIGHT MODERATE
WINDSPD 4.3 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 TYPE 1 2 SERIAL # 130625005
CALIBRATOR BSWA CAL114 SERIAL # 490151
CALIBRATION CHECK PRE-TEST 94.0 dBA SPL POST-TEST 94.0 dBA SPL WINDSCRN ✓

SETTINGS A-WTD SLOW FAST FRONTAL RANDOM ANSI OTHER: _____

REC. # BEGIN END Leq Lmax Lmin L90 L50 L10 OTHER (SPECIFY METRIC)

M3 1444pm 1459pm 49.8 56.6 46.5 _____ _____ _____ _____

COMMENTS

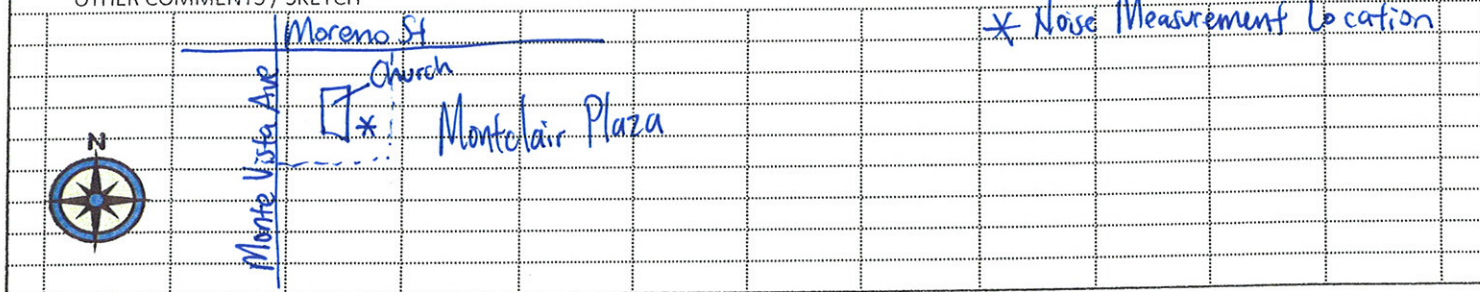
SOURCE INFO AND TRAFFIC COUNTS													
PRIMARY NOISE SOURCE				TRAFFIC		AIRCRAFT		RAIL		INDUSTRIAL		OTHER: _____	
ROADWAY TYPE: _____				DIST. TO RDWY C/L OR EOP: _____									
TRAFFIC COUNT DURATION: _____		MIN		SPEED						MIN		SPEED	
DIRECTION		NB/EB	SB/WB	NB/EB	SB/WB					NB/EB	SB/WB	NB/EB	SB/WB
COUNT 1 (OR RDWY 1)	AUTOS	_____	_____	_____	_____	IF COUNTING BOTH DIRECTIONS AS ONE, CHECK HERE _____		COUNT 2 (OR RDWY 2)	_____	_____	_____	_____	_____
	MED TRKS	_____	_____	_____	_____	_____	_____		_____	_____			
	HVY TRKS	_____	_____	_____	_____	_____	_____		_____	_____			
	BUSES	_____	_____	_____	_____	_____	_____		_____	_____			
	MOTRCLS	_____	_____	_____	_____	_____	_____		_____	_____			
SPEEDS ESTIMATED BY: RADAR / DRIVING THE PACE													
POSTED SPEED LIMIT SIGNS SAY: _____													
OTHER NOISE SOURCES (BACKGROUND): <u>DIST. AIRCRAFT</u> <u>RUSTLING LEAVES</u> DIST. BARKING DOGS BIRDS DIST. INDUSTRIAL													
DIST. KIDS PLAYING DIST. CONVRSTNS / YELLING DIST. TRAFFIC (LIST RDWYS BELOW) DISTD GARDENERS/LANDSCAPING NOISE													
OTHER: <u>Adjacent School (International Montessori School) in session.</u> <u>Teacher talking to students outside</u>													

DESCRIPTION / SKETCH

TERRAIN HARD SOFT MIXED FLAT OTHER: _____

PHOTOS See Attached Photo

OTHER COMMENTS / SKETCH _____





M3 - Unitarian Universalist Congregation

M4

FIELD NOISE MEASUREMENT DATA

PROJECT	Montclair Plaza Expansion Project		PROJECT #	8530
SITE ID	M4 - The Paseos (toward Moreno St)		OBSERVER(S)	Stephanie Tang
SITE ADDRESS	4914 Olive St Montclair, CA 91763			
START DATE	11/4/14	END DATE	11/4/14	
START TIME	1523pm	END TIME	1538pm	

METEOROLOGICAL CONDITIONS									
TEMP	78° F	HUMIDITY	10 % R.H.	WIND	CALM	LIGHT	MODERATE		
WINDSPD	1.74 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		TYPE	1	2	SERIAL #	130625005		
CALIBRATOR	BSWA CA 114					SERIAL #	490151		
CALIBRATION CHECK	PRE-TEST	94.0	dBa SPL	POST-TEST	93.9	dBa SPL	WINDSCRN		
SETTINGS	A-WTD	SLOW	FAST	FRONTAL	RANDOM	ANSI	OTHER:		
REC. #	BEGIN	END	Leq	Lmax	Lmin	L90	L50	L10	OTHER (SPECIFY METRIC)
M4	1523pm	1538pm	57.3	71.0	47.3				
COMMENTS									

SOURCE INFO AND TRAFFIC COUNTS											
PRIMARY NOISE SOURCE					TRAFFIC						
ROADWAY TYPE: Moreno St					DIST. TO RDWY C/L OR EOP: ~145'						
TRAFFIC COUNT DURATION: 15 MIN					SPEED: 40mph						
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	120	129								
	MED TRKS	1	1								
	HVY TRKS	2	0								
	BUSES	3	1								
	MOTRCLS	0	0								
SPEEDS ESTIMATED BY: RADAR / DRIVING THE PACE											
POSTED SPEED LIMIT SIGNS SAY: 40mph											
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: Vehicles going in and out of complex											

DESCRIPTION / SKETCH	
TERRAIN	HARD SOFT MIXED FLAT OTHER: Walkway
PHOTOS	See Attached Photo
OTHER COMMENTS / SKETCH	



M4- The Paseos

M5

DUDEK

FIELD NOISE MEASUREMENT DATA

PROJECT	Montclair Plaza Expansion Project		PROJECT #	8530
SITE ID	SEK		OBSERVER(S)	Stephanie Tang
SITE ADDRESS	5082 Moreno St Montclair, CA 91763			
START DATE	11/4/14	END DATE	11/4/14	
START TIME	1620PM	END TIME	1635PM	

METEOROLOGICAL CONDITIONS				
TEMP	76° F	HUMIDITY	10 % R.H.	WIND
WINDSPD	1.4 MPH	DIR.	N NE S SE S SW W NW	CALM <u>LIGHT</u> MODERATE
SKY	<u>SUNNY</u> <u>CLEAR</u>	OVRCAST	PRTLY CLDY	RAIN
ACOUSTIC MEASUREMENTS				
MEAS. INSTRUMENT	Piccolo SLM		TYPE	1 <u>2</u>
CALIBRATOR	BSWA CA114		SERIAL #	130625005
CALIBRATION CHECK	PRE-TEST	94.0 dBA SPL	POST-TEST	94.0 dBA SPL
SERIAL # 490151				
WINDSCRN <u>✓</u>				
SETTINGS	A-WTD	<u>SLOW</u>	FAST	FRONTAL
			RANDOM	ANSI
			OTHER:	
REC. #	BEGIN	END	Leq	Lmax
M5	1620PM	1635PM	64.3	75.8
			Lmin	L90
			L50	L10
			OTHER (SPECIFY METRIC)	
COMMENTS				

SOURCE INFO AND TRAFFIC COUNTS									
PRIMARY NOISE SOURCE					OTHER:				
ROADWAY TYPE: <u>Moreno St</u>					DIST. TO RDWY C/L OR EOP:				
TRAFFIC COUNT DURATION: <u>15</u> MIN <u>40mph</u> SPEED					MIN SPEED				
DIRECTION NB/EB SB/WB NB/EB SB/WB					NB/EB SB/WB NB/EB SB/WB				
COUNT 1 (OR RDWY 1)	AUTOS	<u>155</u>	<u>121</u>			COUNT 2 (OR RDWY 2)			
	MED TRKS	<u>1</u>	<u>1</u>						
	HVY TRKS	<u>0</u>	<u>0</u>						
	BUSES	<u>2</u>	<u>0</u>						
	MOTRCLS	<u>2</u>	<u>0</u>						
SPEEDS ESTIMATED BY: RADAR / DRIVING THE PACE									
POSTED SPEED LIMIT SIGNS SAY: <u>40mph</u>									
OTHER NOISE SOURCES (BACKGROUND): DIST. AIRCRAFT <u>RUSTLING LEAVES</u> <u>DIST. BARKING DOGS</u> <u>BIRDS</u> DIST. INDUSTRIAL									
DIST. KIDS PLAYING DIST. CONVRSTNS / YELLING DIST. TRAFFIC (LIST RDWYS BELOW) DISTD GARDENERS/LANDSCAPING NOISE									
OTHER:									

DESCRIPTION / SKETCH	
TERRAIN	<u>HARD</u> <u>SOFT</u> <u>MIXED</u> <u>FLAT</u> OTHER: <u>Driveway</u>
PHOTOS	<u>See Attached Photo</u>
OTHER COMMENTS / SKETCH	
Moreno St Montclair Plaza * Noise Measurement Location	



M5 - 5082 Moreno St Montclair, CA 91763 SFR

M6

DUDEK

FIELD NOISE MEASUREMENT DATA

PROJECT	Montclair	PROJECT #	8530
SITE ID	Commercial Site @ Chipotle		
SITE ADDRESS	9177B Central Ave Ste B Montclair, CA 91763	OBSERVER(S)	Stephanie Tang
START DATE	11/5/14	END DATE	11/5/14
START TIME	1454pm	END TIME	1509pm

METEOROLOGICAL CONDITIONS			
TEMP	83° F	HUMIDITY	9 % R.H.
WINDSPD	1.0 MPH	DIR.	N NE S SE <u>SW</u> W NW
SKY	SUNNY CLEAR	OVRCAST	PRTLY CLDY FOG
WIND		CALM	LIGHT MODERATE
		VARIABLE	STEADY GUSTY
ACOUSTIC MEASUREMENTS			
MEAS. INSTRUMENT	Piccolo SLM	TYPE	1 (2)
CALIBRATOR	BSWA CA114	SERIAL #	130625005
CALIBRATION CHECK	PRE-TEST	94.0 dBA SPL	POST-TEST 94.0 dBA SPL
SUNNY CLEAR		SERIAL #	490151
		WINDSCRN	✓
SETTINGS	A-WTD	SLOW	FAST FRONTAL RANDOM ANSI OTHER:
REC. #	BEGIN	END	Leg Lmax Lmin L90 L50 L10 OTHER (SPECIFY METRIC)
M6	1454pm	1509pm	71.6 82.5 63.6
COMMENTS			

SOURCE INFO AND TRAFFIC COUNTS									
PRIMARY NOISE SOURCE					TRAFFIC				
ROADWAY TYPE: Central Ave					DIST. TO RDWY C/L OR EOP: ~130'				
TRAFFIC COUNT DURATION: 15 MIN 40mph SPEED					MIN SPEED				
DIRECTION (NB/EB) (SB/WB)					NB/EB SB/WB				
COUNT 1 (OR RDWY 1)	AUTOS	322	283		IF COUNTING BOTH DIRECTIONS AS ONE, CHECK HERE	COUNT 2 (OR RDWY 2)			
	MED TRKS	7	3						
	HVY TRKS	4	2						
	BUSES	3	0						
	MOTRCLS	3	1						
SPEEDS ESTIMATED BY: RADAR / DRIVING THE PACE									
POSTED SPEED LIMIT SIGNS SAY: 40mph									
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: Vehicles going in and out of shopping center									

DESCRIPTION / SKETCH	
TERRAIN	HARD SOFT MIXED FLAT OTHER: Chipotle walkway
PHOTOS	
OTHER COMMENTS / SKETCH	



M6 - Commercial Site

M7

FIELD NOISE MEASUREMENT DATA

PROJECT	Montclair Plaza Expansion Project	PROJECT #	8530
SITE ID	Project Site	OBSERVER(S)	Stephanie Tang
SITE ADDRESS	500 East Montclair Plaza Lane		
START DATE	11/5/14	END DATE	11/5/14
START TIME	1542PM	END TIME	1557PM

METEOROLOGICAL CONDITIONS			
TEMP	74° F	HUMIDITY	9 % R.H.
WINDSPD	0.8 MPH	DIR.	N NE S SE S (SW) W NW
SKY	SUNNY CLEAR	OVRCAST	PRTLY CLDY FOG RAIN
ACOUSTIC MEASUREMENTS			
MEAS. INSTRUMENT	Piccolo SLM	TYPE	1 (2)
CALIBRATOR	BSWA CA114	SERIAL #	130625005
CALIBRATION CHECK	PRE-TEST 94.0 dBA SPL	POST-TEST	94.0 dBA SPL
SETTINGS	A-WTD SLOW	FAST	FRONTAL RANDOM ANSI OTHER:
REC. #	M7	BEGIN	1542PM
		END	1557PM
		Leg	70.7
		Lmax	79.9
		Lmin	66.2
		L90	
		L50	
		L10	
		OTHER (SPECIFY METRIC)	
COMMENTS			

SOURCE INFO AND TRAFFIC COUNTS									
PRIMARY NOISE SOURCE				TRAFFIC	AIRCRAFT	RAIL	INDUSTRIAL	OTHER:	
ROADWAY TYPE:				DIST. TO RDWY C/L OR EOP:					
TRAFFIC COUNT DURATION: MIN				SPEED		MIN SPEED			
DIRECTION NB/EB SB/WB				NB/EB SB/WB		NB/EB SB/WB			
COUNT 1 (OR RDWY 1)	AUTOS					IF COUNTING BOTH DIRECTIONS AS ONE, CHECK HERE	COUNT 2 (OR RDWY 2)		
	MED TRKS								
	HVY TRKS								
	BUSES								
	MOTRCLS								
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: I-10 Freeway, Vehicles passing through @ project site Behind Good Year Tires									

DESCRIPTION / SKETCH	
TERRAIN	HARD SOFT MIXED (FLAT) OTHER: Parking Lot
PHOTOS	
OTHER COMMENTS / SKETCH	



M7 - Montclair Plaza

FIELD NOISE MEASUREMENT DATA

PROJECT MONTCLAIR PLACE DISTRICT SP EIR PROJECT # 10665-01
 SITE ID _____ OBSERVER(S) PEYE VIVAR
 SITE ADDRESS _____
 START DATE 7/9/19 END DATE 7/9/19
 START TIME _____ END TIME _____

METEOROLOGICAL CONDITIONS

TEMP 66 F HUMIDITY 73 % R.H. WIND CALM LIGHT MODERATE
 WINDSPD _____ MPH DIR. N NE S SE S SW W NW VARIABLE STEADY GUSTY
 SKY BUNNY CLEAR OVRCAST PRTLY CLDY FOG RAIN

ACOUSTIC MEASUREMENTS

MEAS. INSTRUMENT PICOLO SLM-3 TYPE 1 2 SERIAL # 140317004
 CALIBRATOR BSWA CA 114 SERIAL # 480151
 CALIBRATION CHECK _____ PRE-TEST _____ dBA SPL POST-TEST _____ dBA SPL WINDSCREEN YES

SETTINGS

A-WTD SLOW FAST FRONTAL RANDOM ANSI OTHER: _____

REC. # 1-16 BEGIN 9:11 END 9:26 Leq Lmax Lmin L90 L50 L10 OTHER (SPECIFY METRIC)

COMMENTS

READING TAKEN IN FRONT OF 5052 MORENO ST. (RESIDENTIAL) BETWEEN
FREMONT AVE & LINDERO AVE; PRIMARY NOISE SOURCE IS TRAFFIC ON
MORENO ST;

SOURCE INFO AND TRAFFIC COUNTS

PRIMARY NOISE SOURCE

ROADWAY TYPE: ASPHALT

TRAFFIC

AIRCRAFT

RAIL

INDUSTRIAL

OTHER: _____

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
AUTOS	<u>119</u>			
MED TRKS	<u>1</u>			
HVY TRKS	<u>0</u>			
BUSES	<u>2</u>			
MOTCLS	<u>0</u>			

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. CONVRTSNS / YELLING DIST. TRAFFIC (LIST RDWYS BELOW) DISTD GARDENERS/LANDSCAPING NOISE

OTHER: _____

DESCRIPTION / SKETCH

TERRAIN

HARD

SOFT MIXED FLAT OTHER: _____

PHOTOS

5103; 5104; 5105; 5106

OTHER COMMENTS / SKETCH



APPENDIX E-2

Construction Noise Modeling Input and Output

To User: bordered cells are inputs, unbordered cells have formulae

noise level limit for construction phase, per County = **80**
allowable hours over which Leq is to be averaged (example: 8 for County of San Diego, FTA guidance) = **8**

Construction Phase	Equipment	Total Equipment Qty	AUF % (from FHWA RCNM)	Reference Lmax @ 50 ft. from FHWA RCNM	Client Equipment Description, Data Source and/or Notes	Source to NSR Distance (ft.)	Distance-Adjusted Lmax	Allowable Operation Time (hours)	Allowable Operation Time (minutes)	Predicted 8-hour Leq
Demolition	Concrete Saw	1	20	90		115	82.8	8	480	76
	Excavator	3	40	81		115	73.8	8	480	75
	Dozer	2	40	82		115	74.8	8	480	74
Total for Demolition Phase:										79.6
Site Preparation	Dozer	3	40	82		115	74.8	8	480	76
	Front End Loader	4	40	79		115	71.8	8	480	74
Total for Site Preparation Phase:										77.8
Grading	Excavator	2	40	81		115	73.8	8	480	73
	Grader	1	40	85		115	77.8	8	480	74
	Dozer	1	40	82		115	74.8	8	480	71
	Scraper	2	40	84		115	76.8	8	480	76
	Backhoe	2	40	78		115	70.8	8	480	70
Total for Grading Phase:										80.1
Building Construction	Crane	1	16	81		115	73.8	7	420	65
	Gradall	3	40	83		115	75.8	8	480	77
	Generator	1	50	72		115	64.8	8	480	62
	Backhoe	3	40	78		115	70.8	7	420	71
	Welder / Torch	1	40	73		115	65.8	8	480	62
Total for Building Construction Phase:										78.1
Architectural Coating	Compressor (air)	1	40	78		115	70.8	6	360	66
Total for Architectural Coating Phase:										65.5
Paving	Paver	2	50	77		115	69.8	8	480	70
	Dump Truck	2	40	76		115	68.8	8	480	68
	Roller	2	20	80		115	72.8	8	480	69
Total for Paving Phase:										73.6

To User: bordered cells are inputs, unbordered cells have formulae

noise level limit for construction phase, per County = **80**
allowable hours over which Leq is to be averaged (example: 8 for County of San Diego, FTA guidance) = **8**

Construction Phase	Equipment	Total Equipment Qty	AUF % (from FHWA RCNM)	Reference Lmax @ 50 ft. from FHWA RCNM	Client Equipment Description, Data Source and/or Notes	Source to NSR Distance (ft.)	Distance-Adjusted Lmax	Allowable Operation Time (hours)	Allowable Operation Time (minutes)	Predicted 8-hour Leq
Demolition	Concrete Saw	1	20	90		330	73.6	8	480	67
	Excavator	3	40	81		330	64.6	8	480	65
	Dozer	2	40	82		330	65.6	8	480	65
Total for Demolition Phase:										70.4
Site Preparation	Dozer	3	40	82		330	65.6	8	480	66
	Front End Loader	4	40	79		330	62.6	8	480	65
Total for Site Preparation Phase:										68.6
Grading	Excavator	2	40	81		330	64.6	8	480	64
	Grader	1	40	85		330	68.6	8	480	65
	Dozer	1	40	82		330	65.6	8	480	62
	Scraper	2	40	84		330	67.6	8	480	67
	Backhoe	2	40	78		330	61.6	8	480	61
Total for Grading Phase:										70.9
Building Construction	Crane	1	16	81		330	64.6	7	420	56
	Gradall	3	40	83		330	66.6	8	480	67
	Generator	1	50	72		330	55.6	8	480	53
	Backhoe	3	40	78		330	61.6	7	420	62
	Welder / Torch	1	40	73		330	56.6	8	480	53
Total for Building Construction Phase:										68.9
Architectural Coating	Compressor (air)	1	40	78		330	61.6	6	360	56
Total for Architectural Coating Phase:										56.4
Paving	Paver	2	50	77		330	60.6	8	480	61
	Dump Truck	2	40	76		330	59.6	8	480	59
	Roller	2	20	80		330	63.6	8	480	60
Total for Paving Phase:										64.5

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noise level limit for construction phase, per County = **80**
allowable hours over which Leq is to be averaged (example: 8 for County of San Diego, FTA guidance) = **8**

Construction Phase	Equipment	Total Equipment Qty	AUF % (from FHWA RCNM)	Reference Lmax @ 50 ft. from FHWA RCNM	Client Equipment Description, Data Source and/or Notes	Source to NSR Distance (ft.)	Distance-Adjusted Lmax	Allowable Operation Time (hours)	Allowable Operation Time (minutes)	Predicted 8-hour Leq
Demolition	Concrete Saw	1	20	90		135	81.4	8	480	74
	Excavator	3	40	81		135	72.4	8	480	73
	Dozer	2	40	82		135	73.4	8	480	72
Total for Demolition Phase:										78.2
Site Preparation	Dozer	3	40	82		135	73.4	8	480	74
	Front End Loader	4	40	79		135	70.4	8	480	72
Total for Site Preparation Phase:										76.4
Grading	Excavator	2	40	81		135	72.4	8	480	71
	Grader	1	40	85		135	76.4	8	480	72
	Dozer	1	40	82		135	73.4	8	480	69
	Scraper	2	40	84		135	75.4	8	480	74
	Backhoe	2	40	78		135	69.4	8	480	68
Total for Grading Phase:										78.7
Building Construction	Crane	1	16	81		135	72.4	7	420	64
	Gradall	3	40	83		135	74.4	8	480	75
	Generator	1	50	72		135	63.4	8	480	60
	Backhoe	3	40	78		135	69.4	7	420	70
	Welder / Torch	1	40	73		135	64.4	8	480	60
Total for Building Construction Phase:										76.7
Architectural Coating	Compressor (air)	1	40	78		135	69.4	6	360	64
Total for Architectural Coating Phase:										64.1
Paving	Paver	2	50	77		135	68.4	8	480	68
	Dump Truck	2	40	76		135	67.4	8	480	66
	Roller	2	20	80		135	71.4	8	480	67
Total for Paving Phase:										72.2

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Construction Phase	Equipment	Total Equipment Qty	AUF % (from FHWA RCNM)	Reference Lmax @ 50 ft. from FHWA RCNM	Client Equipment Description, Data Source and/or Notes	Source to NSR Distance (ft.)	Distance-Adjusted Lmax	Allowable Operation Time (hours)	Allowable Operation Time (minutes)	Predicted 8-hour Leq
Demolition	Concrete Saw	1	20	90		315	74.0	8	480	67
	Excavator	3	40	81		315	65.0	8	480	66
	Dozer	2	40	82		315	66.0	8	480	65
Total for Demolition Phase:										70.8
Site Preparation	Dozer	3	40	82		315	66.0	8	480	67
	Front End Loader	4	40	79		315	63.0	8	480	65
Total for Site Preparation Phase:										69.0
Grading	Excavator	2	40	81		315	65.0	8	480	64
	Grader	1	40	85		315	69.0	8	480	65
	Dozer	1	40	82		315	66.0	8	480	62
	Scraper	2	40	84		315	68.0	8	480	67
	Backhoe	2	40	78		315	62.0	8	480	61
Total for Grading Phase:										71.4
Building Construction	Crane	1	16	81		315	65.0	7	420	56
	Gradall	3	40	83		315	67.0	8	480	68
	Generator	1	50	72		315	56.0	8	480	53
	Backhoe	3	40	78		315	62.0	7	420	62
	Welder / Torch	1	40	73		315	57.0	8	480	53
Total for Building Construction Phase:										69.3
Architectural Coating	Compressor (air)	1	40	78		315	62.0	6	360	57
Total for Architectural Coating Phase:										56.8
Paving	Paver	2	50	77		315	61.0	8	480	61
	Dump Truck	2	40	76		315	60.0	8	480	59
	Roller	2	20	80		315	64.0	8	480	60
Total for Paving Phase:										64.9

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Construction Phase	Equipment	Total Equipment Qty	AUF % (from FHWA RCNM)	Reference Lmax @ 50 ft. from FHWA RCNM	Client Equipment Description, Data Source and/or Notes	Source to NSR Distance (ft.)	Distance-Adjusted Lmax	Allowable Operation Time (hours)	Allowable Operation Time (minutes)	Predicted 8-hour Leq
Demolition	Concrete Saw	1	20	90		145	80.8	8	480	74
	Excavator	3	40	81		145	71.8	8	480	73
	Dozer	2	40	82		145	72.8	8	480	72
Total for Demolition Phase:										77.5
Site Preparation	Dozer	3	40	82		145	72.8	8	480	74
	Front End Loader	4	40	79		145	69.8	8	480	72
Total for Site Preparation Phase:										75.8
Grading	Excavator	2	40	81		145	71.8	8	480	71
	Grader	1	40	85		145	75.8	8	480	72
	Dozer	1	40	82		145	72.8	8	480	69
	Scraper	2	40	84		145	74.8	8	480	74
	Backhoe	2	40	78		145	68.8	8	480	68
Total for Grading Phase:										78.1
Building Construction	Crane	1	16	81		145	71.8	7	420	63
	Gradall	3	40	83		145	73.8	8	480	75
	Generator	1	50	72		145	62.8	8	480	60
	Backhoe	3	40	78		145	68.8	7	420	69
	Welder / Torch	1	40	73		145	63.8	8	480	60
Total for Building Construction Phase:										76.1
Architectural Coating	Compressor (air)	1	40	78		145	68.8	6	360	64
Total for Architectural Coating Phase:										63.5
Paving	Paver	2	50	77		145	67.8	8	480	68
	Dump Truck	2	40	76		145	66.8	8	480	66
	Roller	2	20	80		145	70.8	8	480	67
Total for Paving Phase:										71.6

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Construction Phase	Equipment	Total Equipment Qty	AUF % (from FHWA RCNM)	Reference Lmax @ 50 ft. from FHWA RCNM	Client Equipment Description, Data Source and/or Notes	Source to NSR Distance (ft.)	Distance-Adjusted Lmax	Allowable Operation Time (hours)	Allowable Operation Time (minutes)	Predicted 8-hour Leq
Demolition	Concrete Saw	1	20	90		385	72.3	8	480	65
	Excavator	3	40	81		385	63.3	8	480	64
	Dozer	2	40	82		385	64.3	8	480	63
Total for Demolition Phase:										69.1
Site Preparation	Dozer	3	40	82		385	64.3	8	480	65
	Front End Loader	4	40	79		385	61.3	8	480	63
Total for Site Preparation Phase:										67.3
Grading	Excavator	2	40	81		385	63.3	8	480	62
	Grader	1	40	85		385	67.3	8	480	63
	Dozer	1	40	82		385	64.3	8	480	60
	Scraper	2	40	84		385	66.3	8	480	65
	Backhoe	2	40	78		385	60.3	8	480	59
Total for Grading Phase:										69.6
Building Construction	Crane	1	16	81		385	63.3	7	420	55
	Gradall	3	40	83		385	65.3	8	480	66
	Generator	1	50	72		385	54.3	8	480	51
	Backhoe	3	40	78		385	60.3	7	420	60
	Welder / Torch	1	40	73		385	55.3	8	480	51
Total for Building Construction Phase:										67.6
Architectural Coating	Compressor (air)	1	40	78		385	60.3	6	360	55
Total for Architectural Coating Phase:										55.0
Paving	Paver	2	50	77		385	59.3	8	480	59
	Dump Truck	2	40	76		385	58.3	8	480	57
	Roller	2	20	80		385	62.3	8	480	58
Total for Paving Phase:										63.1

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Construction Phase	Equipment	Total Equipment Qty	AUF % (from FHWA RCNM)	Reference Lmax @ 50 ft. from FHWA RCNM	Client Equipment Description, Data Source and/or Notes	Source to NSR Distance (ft.)	Distance-Adjusted Lmax	Allowable Operation Time (hours)	Allowable Operation Time (minutes)	Predicted 8-hour Leq
Demolition	Concrete Saw	1	20	90		120	82.4	8	480	75
	Excavator	3	40	81		120	73.4	8	480	74
	Dozer	2	40	82		120	74.4	8	480	73
Total for Demolition Phase:										79.2
Site Preparation	Dozer	3	40	82		120	74.4	8	480	75
	Front End Loader	4	40	79		120	71.4	8	480	73
Total for Site Preparation Phase:										77.4
Grading	Excavator	2	40	81		120	73.4	8	480	72
	Grader	1	40	85		120	77.4	8	480	73
	Dozer	1	40	82		120	74.4	8	480	70
	Scraper	2	40	84		120	76.4	8	480	75
	Backhoe	2	40	78		120	70.4	8	480	69
Total for Grading Phase:										79.7
Building Construction	Crane	1	16	81		120	73.4	7	420	65
	Gradall	3	40	83		120	75.4	8	480	76
	Generator	1	50	72		120	64.4	8	480	61
	Backhoe	3	40	78		120	70.4	7	420	71
	Welder / Torch	1	40	73		120	65.4	8	480	61
Total for Building Construction Phase:										77.7
Architectural Coating	Compressor (air)	1	40	78		120	70.4	6	360	65
Total for Architectural Coating Phase:										65.2
Paving	Paver	2	50	77		120	69.4	8	480	69
	Dump Truck	2	40	76		120	68.4	8	480	67
	Roller	2	20	80		120	72.4	8	480	68
Total for Paving Phase:										73.3

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Construction Phase	Equipment	Total Equipment Qty	AUF % (from FHWA RCNM)	Reference Lmax @ 50 ft. from FHWA RCNM	Client Equipment Description, Data Source and/or Notes	Source to NSR Distance (ft.)	Distance-Adjusted Lmax	Allowable Operation Time (hours)	Allowable Operation Time (minutes)	Predicted 8-hour Leq
Demolition	Concrete Saw	1	20	90		470	70.5	8	480	64
	Excavator	3	40	81		470	61.5	8	480	62
	Dozer	2	40	82		470	62.5	8	480	62
Total for Demolition Phase:										67.3
Site Preparation	Dozer	3	40	82		470	62.5	8	480	63
	Front End Loader	4	40	79		470	59.5	8	480	62
Total for Site Preparation Phase:										65.6
Grading	Excavator	2	40	81		470	61.5	8	480	61
	Grader	1	40	85		470	65.5	8	480	62
	Dozer	1	40	82		470	62.5	8	480	59
	Scraper	2	40	84		470	64.5	8	480	64
	Backhoe	2	40	78		470	58.5	8	480	58
Total for Grading Phase:										67.9
Building Construction	Crane	1	16	81		470	61.5	7	420	53
	Gradall	3	40	83		470	63.5	8	480	64
	Generator	1	50	72		470	52.5	8	480	50
	Backhoe	3	40	78		470	58.5	7	420	59
	Welder / Torch	1	40	73		470	53.5	8	480	50
Total for Building Construction Phase:										65.8
Architectural Coating	Compressor (air)	1	40	78		470	58.5	6	360	53
Total for Architectural Coating Phase:										53.3
Paving	Paver	2	50	77		470	57.5	8	480	58
	Dump Truck	2	40	76		470	56.5	8	480	56
	Roller	2	20	80		470	60.5	8	480	57
Total for Paving Phase:										61.4

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Construction Phase	Equipment	Total Equipment Qty	AUF % (from FHWA RCNM)	Reference Lmax @ 50 ft. from FHWA RCNM	Client Equipment Description, Data Source and/or Notes	Source to NSR Distance (ft.)	Distance-Adjusted Lmax	Allowable Operation Time (hours)	Allowable Operation Time (minutes)	Predicted 8-hour Leq
Demolition	Concrete Saw	1	20	90		415	71.6	8	480	65
	Excavator	3	40	81		415	62.6	8	480	63
	Dozer	2	40	82		415	63.6	8	480	63
Total for Demolition Phase:										68.4
Site Preparation	Dozer	3	40	82		415	63.6	8	480	64
	Front End Loader	4	40	79		415	60.6	8	480	63
Total for Site Preparation Phase:										66.6
Grading	Excavator	2	40	81		415	62.6	8	480	62
	Grader	1	40	85		415	66.6	8	480	63
	Dozer	1	40	82		415	63.6	8	480	60
	Scraper	2	40	84		415	65.6	8	480	65
	Backhoe	2	40	78		415	59.6	8	480	59
Total for Grading Phase:										69.0
Building Construction	Crane	1	16	81		415	62.6	7	420	54
	Gradall	3	40	83		415	64.6	8	480	65
	Generator	1	50	72		415	53.6	8	480	51
	Backhoe	3	40	78		415	59.6	7	420	60
	Welder / Torch	1	40	73		415	54.6	8	480	51
Total for Building Construction Phase:										66.9
Architectural Coating	Compressor (air)	1	40	78		415	59.6	6	360	54
Total for Architectural Coating Phase:										54.4
Paving	Paver	2	50	77		415	58.6	8	480	59
	Dump Truck	2	40	76		415	57.6	8	480	57
	Roller	2	20	80		415	61.6	8	480	58
Total for Paving Phase:										62.5

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Demolition	Concrete Saw	1	20	90		740	66.6	8	480	60
	Excavator	3	40	81		740	57.6	8	480	58
	Dozer	2	40	82		740	58.6	8	480	58
Total for Demolition Phase:										63.4
Site Preparation	Dozer	3	40	82		740	58.6	8	480	59
	Front End Loader	4	40	79		740	55.6	8	480	58
Total for Site Preparation Phase:										61.6
Grading	Excavator	2	40	81		740	57.6	8	480	57
	Grader	1	40	85		740	61.6	8	480	58
	Dozer	1	40	82		740	58.6	8	480	55
	Scraper	2	40	84		740	60.6	8	480	60
	Backhoe	2	40	78		740	54.6	8	480	54
Total for Grading Phase:										63.9
Building Construction	Crane	1	16	81		740	57.6	7	420	49
	Gradall	3	40	83		740	59.6	8	480	60
	Generator	1	50	72		740	48.6	8	480	46
	Backhoe	3	40	78		740	54.6	7	420	55
	Welder / Torch	1	40	73		740	49.6	8	480	46
Total for Building Construction Phase:										61.9
Architectural Coating	Compressor (air)	1	40	78		740	54.6	6	360	49
Total for Architectural Coating Phase:										49.4
Paving	Paver	2	50	77		740	53.6	8	480	54
	Dump Truck	2	40	76		740	52.6	8	480	52
	Roller	2	20	80		740	56.6	8	480	53
Total for Paving Phase:										57.5

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Demolition	Concrete Saw	1	20	90		180	78.9	8	480	72
	Excavator	3	40	81		180	69.9	8	480	71
	Dozer	2	40	82		180	70.9	8	480	70
Total for Demolition Phase:										75.7
Site Preparation	Dozer	3	40	82		180	70.9	8	480	72
	Front End Loader	4	40	79		180	67.9	8	480	70
Total for Site Preparation Phase:										73.9
Grading	Excavator	2	40	81		180	69.9	8	480	69
	Grader	1	40	85		180	73.9	8	480	70
	Dozer	1	40	82		180	70.9	8	480	67
	Scraper	2	40	84		180	72.9	8	480	72
	Backhoe	2	40	78		180	66.9	8	480	66
Total for Grading Phase:										76.2
Building Construction	Crane	1	16	81		180	69.9	7	420	61
	Gradall	3	40	83		180	71.9	8	480	73
	Generator	1	50	72		180	60.9	8	480	58
	Backhoe	3	40	78		180	66.9	7	420	67
	Welder / Torch	1	40	73		180	61.9	8	480	58
Total for Building Construction Phase:										74.2
Architectural Coating	Compressor (air)	1	40	78		180	66.9	6	360	62
Total for Architectural Coating Phase:										61.6
Paving	Paver	2	50	77		180	65.9	8	480	66
	Dump Truck	2	40	76		180	64.9	8	480	64
	Roller	2	20	80		180	68.9	8	480	65
Total for Paving Phase:										69.7

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Demolition	Concrete Saw	1	20	90		590	68.6	8	480	62
	Excavator	3	40	81		590	59.6	8	480	60
	Dozer	2	40	82		590	60.6	8	480	60
Total for Demolition Phase:										65.4
Site Preparation	Dozer	3	40	82		590	60.6	8	480	61
	Front End Loader	4	40	79		590	57.6	8	480	60
Total for Site Preparation Phase:										63.6
Grading	Excavator	2	40	81		590	59.6	8	480	59
	Grader	1	40	85		590	63.6	8	480	60
	Dozer	1	40	82		590	60.6	8	480	57
	Scraper	2	40	84		590	62.6	8	480	62
	Backhoe	2	40	78		590	56.6	8	480	56
Total for Grading Phase:										65.9
Building Construction	Crane	1	16	81		590	59.6	7	420	51
	Gradall	3	40	83		590	61.6	8	480	62
	Generator	1	50	72		590	50.6	8	480	48
	Backhoe	3	40	78		590	56.6	7	420	57
	Welder / Torch	1	40	73		590	51.6	8	480	48
Total for Building Construction Phase:										63.9
Architectural Coating	Compressor (air)	1	40	78		590	56.6	6	360	51
Total for Architectural Coating Phase:										51.3
Paving	Paver	2	50	77		590	55.6	8	480	56
	Dump Truck	2	40	76		590	54.6	8	480	54
	Roller	2	20	80		590	58.6	8	480	55
Total for Paving Phase:										59.4

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Demolition	Concrete Saw	1	20	90		145	80.8	8	480	74
	Excavator	3	40	81		145	71.8	8	480	73
	Dozer	2	40	82		145	72.8	8	480	72
Total for Demolition Phase:										77.5
Site Preparation	Dozer	3	40	82		145	72.8	8	480	74
	Front End Loader	4	40	79		145	69.8	8	480	72
Total for Site Preparation Phase:										75.8
Grading	Excavator	2	40	81		145	71.8	8	480	71
	Grader	1	40	85		145	75.8	8	480	72
	Dozer	1	40	82		145	72.8	8	480	69
	Scraper	2	40	84		145	74.8	8	480	74
	Backhoe	2	40	78		145	68.8	8	480	68
Total for Grading Phase:										78.1
Building Construction	Crane	1	16	81		145	71.8	7	420	63
	Gradall	3	40	83		145	73.8	8	480	75
	Generator	1	50	72		145	62.8	8	480	60
	Backhoe	3	40	78		145	68.8	7	420	69
	Welder / Torch	1	40	73		145	63.8	8	480	60
Total for Building Construction Phase:										76.1
Architectural Coating	Compressor (air)	1	40	78		145	68.8	6	360	64
Total for Architectural Coating Phase:										63.5
Paving	Paver	2	50	77		145	67.8	8	480	68
	Dump Truck	2	40	76		145	66.8	8	480	66
	Roller	2	20	80		145	70.8	8	480	67
Total for Paving Phase:										71.6

To User: bordered cells are inputs, unbordered cells have formulae

noise level limit for construction phase, per County = **80**
allowable hours over which Leq is to be averaged (example: 8 for County of San Diego, FTA guidance) = **8**

Construction Phase	Equipment	Total Equipment Qty	AUF % (from FHWA RCNM)	Reference Lmax @ 50 ft. from FHWA RCNM	Client Equipment Description, Data Source and/or Notes	Source to NSR Distance (ft.)	Distance-Adjusted Lmax	Allowable Operation Time (hours)	Allowable Operation Time (minutes)	Predicted 8-hour Leq
Demolition	Concrete Saw	1	20	90		360	72.9	8	480	66
	Excavator	3	40	81		360	63.9	8	480	65
	Dozer	2	40	82		360	64.9	8	480	64
Total for Demolition Phase:										69.6
Site Preparation	Dozer	3	40	82		360	64.9	8	480	66
	Front End Loader	4	40	79		360	61.9	8	480	64
Total for Site Preparation Phase:										67.9
Grading	Excavator	2	40	81		360	63.9	8	480	63
	Grader	1	40	85		360	67.9	8	480	64
	Dozer	1	40	82		360	64.9	8	480	61
	Scraper	2	40	84		360	66.9	8	480	66
	Backhoe	2	40	78		360	60.9	8	480	60
Total for Grading Phase:										70.2
Building Construction	Crane	1	16	81		360	63.9	7	420	55
	Gradall	3	40	83		360	65.9	8	480	67
	Generator	1	50	72		360	54.9	8	480	52
	Backhoe	3	40	78		360	60.9	7	420	61
	Welder / Torch	1	40	73		360	55.9	8	480	52
Total for Building Construction Phase:										68.2
Architectural Coating	Compressor (air)	1	40	78		360	60.9	6	360	56
Total for Architectural Coating Phase:										55.6
Paving	Paver	2	50	77		360	59.9	8	480	60
	Dump Truck	2	40	76		360	58.9	8	480	58
	Roller	2	20	80		360	62.9	8	480	59
Total for Paving Phase:										63.7

Equipment Description	Impact Device?	Acoustical Use Factor (%)	Lesser of available Lmax	Spec. 721 Lmax	Measured L _{max} @50ft (dBA, slow)
All Other Equipment > 5 HP	No	50	85	85	-- N/A --
Auger Drill Rig	No	20	84	85	84
Backhoe	No	40	78	80	78
Bar Bender	No	20	80	80	-- N/A --
Blasting	Yes	-- N/A --	94	94	-- N/A --
Boring Jack Power Unit	No	50	80	80	83
Chain Saw	No	20	84	85	84
Clam Shovel (dropping)	Yes	20	87	93	87
Compactor (ground)	No	20	80	80	83
Compressor (air)	No	40	78	80	78
Concrete Batch Plant	No	15	83	83	-- N/A --
Concrete Mixer Truck	No	40	79	85	79
Concrete Pump Truck	No	20	81	82	81
Concrete Saw	No	20	90	90	90
Crane	No	16	81	85	81
Dozer	No	40	82	85	82
Drill Rig Truck	No	20	79	84	79
Drum Mixer	No	50	80	80	80
Dump Truck	No	40	76	84	76
Excavator	No	40	81	85	81
Fiat Bed Truck	No	40	74	84	74
Front End Loader	No	40	79	80	79
Generator	No	50	72	72	81
Generator (<25KVA, VMS signs)	No	50	70	70	73
Gradall	No	40	83	85	83
Grader	No	40	85	85	-- N/A --
Grapple (on backhoe)	No	40	85	85	87
Horizontal Boring Hydr. Jack	No	25	80	80	82
Hydra Break Ram	Yes	10	90	90	-- N/A --
Impact Pile Driver	Yes	20	95	95	101
Jackhammer	Yes	20	85	85	89
Man Lift	No	20	75	85	75
Mounted Impact Hammer (hoe ram)	Yes	20	90	90	90
Pavement Scarifier	No	20	85	85	90
Paver	No	50	77	85	77
Pickup Truck	No	40	55	55	75
Pneumatic Tools	No	50	85	85	85
Pumps	No	50	77	77	81
Refrigerator Unit	No	100	73	82	73
Rivit Buster/chipping gun	Yes	20	79	85	79
Rock Drill	No	20	81	85	81
Roller	No	20	80	85	80
Sand Blasting (Single Nozzle)	No	20	85	85	96
Scraper	No	40	84	85	84
Shears (on backhoe)	No	40	85	85	96
Slurry Plant	No	100	78	78	78
Slurry Trenching Machine	No	50	80	82	80
Soil Mix Drill Rig	No	50	80	80	-- N/A --
Tractor	No	40	84	84	-- N/A --
Vacuum Excavator (Vac-truck)	No	40	85	85	85
Vacuum Street Sweeper	No	10	80	80	82
Ventilation Fan	No	100	79	85	79
Vibrating Hopper	No	50	85	85	87
Vibratory Concrete Mixer	No	20	80	80	80
Vibratory Pile Driver	No	20	95	95	101
Warning Horn	No	5	83	85	83
Welder / Torch	No	40	73	73	74

APPENDIX E-3

Traffic Noise Modeling Input and Output

INPUT: ROADWAYS

<Project Name?>

<Organization?>					7 May 2020						
<Analysis By?>					TNM 2.5						
INPUT: ROADWAYS					Average pavement type shall be used unless a State highway agency substantiates the use of a different type with the approval of FHWA						
PROJECT/CONTRACT:		<Project Name?>									
RUN:		Montclair CalRun 12515									
Roadway		Points									
Name	Width	Name	No.	Coordinates (pavement)			Flow Control			Segment	
				X	Y	Z	Control Device	Speed Constraint	Percent Vehicles Affected	Pvmt Type	On Struct?
	ft			ft	ft	ft		mph	%		
Monte Vista Ave	85.0	point1	1	0.0	0.0	0.00				Average	
		point11	11	0.0	1,025.0	0.00					
Central Ave	100.0	point5	5	2,700.0	2,250.0	0.00				Average	
		point6	6	2,700.0	1,215.0	0.00					
Moreno St	90.0	point9	9	-5.0	2,251.0	0.00				Average	
		point22	22	826.7	2,251.0	0.00					
I-10	180.0	point16	16	-10.0	-7.0	15.00				Average	
		point17	17	2,770.0	1,240.0	15.00					
Moreno St-2	90.0	point24	24	826.7	2,251.0	0.00				Average	
		point12	12	1,255.0	2,251.0	0.00					
Moreno St-2-2	90.0	point25	25	1,255.0	2,251.0	0.00				Average	
		point10	10	2,705.0	2,251.0	0.00					
Monte Vista Ave -2	85.0	point26	26	0.0	1,025.0	0.00				Average	
		point2	2	0.0	2,250.0	0.00					

INPUT: TRAFFIC FOR LAeq1h Volumes

<Project Name?>

<Organization?>												
<Analysis By?>												
INPUT: TRAFFIC FOR LAeq1h Volumes												
PROJECT/CONTRACT:	<Project Name?>											
RUN:	Montclair CalRun 12515											
Roadway	Points											
Name	Name	No.	Segment									
			Autos		MTrucks		HTrucks		Buses		Motorcycles	
			V	S	V	S	V	S	V	S	V	S
			veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph
Monte Vista Ave	point1	1	3434	40	71	40	35	40	0	0	0	0
	point11	11										
Central Ave	point5	5	4101	40	85	40	42	40	0	0	0	0
	point6	6										
Moreno St	point9	9	1490	40	31	40	15	40	0	0	0	0
	point22	22										
I-10	point16	16	11458	65	236	65	118	65	0	0	0	0
	point17	17										
Moreno St-2	point24	24	1447	40	30	40	15	40	0	0	0	0
	point12	12										
Moreno St-2-2	point25	25	1488	40	31	40	15	40	0	0	0	0
	point10	10										
Monte Vista Ave -2	point26	26	2566	40	53	40	26	40	0	0	0	0
	point2	2										

INPUT: RECEIVERS

<Project Name?>

<Organization?>												
<Analysis By?>												
INPUT: RECEIVERS												
PROJECT/CONTRACT:	<Project Name?>											
RUN:	Montclair CalRun 12515											
Receiver												
Name	No.	#DUs	Coordinates (ground)			Height	Input Sound Levels and Criteria				Active	
			X	Y	Z	above	Existing	Impact Criteria		NR	in	
						Ground	L _{Aeq} 1h	L _{Aeq} 1h	Sub'l	Goal	Calc.	
			ft	ft	ft	ft	dBA	dBA	dB	dB		
ST1	1	1	-55.0	520.0	0.00	5.00	65.00	66	10.0	8.0	Y	
ST2	2	1	-84.5	1,514.9	0.00	5.00	56.20	66	10.0	8.0	Y	
ST3	4	1	360.0	1,900.0	0.00	5.00	49.80	66	10.0	8.0	Y	
ST4	16	1	365.0	2,375.0	0.00	5.00	57.30	66	10.0	8.0	Y	
ST5	21	1	1,105.0	2,320.0	0.00	5.00	64.30	66	10.0	8.0	Y	
ST6	23	1	2,770.0	1,770.0	0.00	5.00	71.60	66	10.0	8.0	Y	
ST7	25	1	2,420.0	1,475.0	0.00	5.00	70.70	66	10.0	8.0	Y	
ST8	28	1	906.2	2,320.6	0.00	5.00	0.00	66	10.0	8.0	Y	

INPUT: BARRIERS

<Project Name?>

<Organization?>				7 May 2020															
<Analysis By?>				TNM 2.5															
INPUT: BARRIERS																			
PROJECT/CONTRACT:				<Project Name?>															
RUN:				Montclair CalRun 12515															
Barrier								Points											
Name	Type	Height		If Wall	If Berm			Add'tnl	Name	No.	Coordinates	(bottom)	Height	Segment					
		Min	Max	\$ per Unit	\$ per Unit	Top Width	Run:Rise	\$ per Unit			X	Y	Z	at Point	Seg Ht	Perturbs	On	Important	
				Area	Vol.			Length							ment	#Up	#Dn	Struct?	Reflec-tions?
		ft	ft	\$/sq ft	\$/cu yd	ft	ft:ft	\$/ft			ft	ft	ft	ft	ft				
Chipotle	W	0.00	99.99	0.00				0.00	point1	1	2,770.0	1,760.0	0.00	20.00	0.00	0	0		
									point2	2	2,870.0	1,760.0	0.00	20.00					
Wrought Iron Fence with Landscape S	W	0.00	99.99	0.00				0.00	point5	5	-45.0	530.0	0.00	6.00	0.00	0	0		
									point6	6	-45.0	170.0	0.00	6.00					
Church South Wall	W	0.00	99.99	0.00				0.00	point7	7	321.0	1,895.0	0.00	10.00	0.00	0	0		
									point8	8	365.0	1,895.0	0.00	10.00					
Church	W	0.00	99.99	0.00				0.00	point9	9	320.0	1,950.0	0.00	15.00	0.00	0	0		
									point10	10	320.0	1,850.0	0.00	15.00					
Black Angus	W	0.00	99.99	0.00				0.00	point13	13	45.0	170.0	0.00	20.00	0.00	0	0		
									point14	14	45.0	280.0	0.00	20.00					
Chili's	W	0.00	99.99	0.00				0.00	point15	15	80.0	400.0	0.00	20.00	0.00	0	0		
									point16	16	80.0	480.0	0.00	20.00					
Dragon 99 Chinese Cuisine	W	0.00	99.99	0.00				0.00	point17	17	80.0	640.0	0.00	20.00	0.00	0	0		
									point18	18	80.0	740.0	0.00	20.00					
Wrought Iron Fence with Landscape N	W	0.00	99.99	0.00				0.00	point19	19	-45.0	560.0	0.00	6.00	0.00	0	0		
									point20	20	-45.0	960.0	0.00	6.00					
Acapulco	W	0.00	99.99	0.00				0.00	point21	21	440.0	300.0	0.00	20.00	0.00	0	0		
									point22	22	580.0	380.0	0.00	20.00					
LA Fitness	W	0.00	99.99	0.00				0.00	point23	23	640.0	400.0	0.00	20.00	0.00	0	0		
									point24	24	640.0	760.0	0.00	20.00					
Ashley Furniture	W	0.00	99.99	0.00				0.00	point25	25	665.0	585.0	0.00	20.00	0.00	0	0		
									point26	26	880.0	670.0	0.00	20.00					
Wicks	W	0.00	99.99	0.00				0.00	point27	27	640.0	850.0	0.00	20.00	0.00	0	0		
									point28	28	940.0	950.0	0.00	20.00					
Elephant Bar	W	0.00	99.99	0.00				0.00	point29	29	140.0	860.0	0.00	20.00	0.00	0	0		
									point30	30	240.0	860.0	0.00	20.00					
Vacant Restaurant	W	0.00	99.99	0.00				0.00	point31	31	280.0	860.0	0.00	20.00	0.00	0	0		
									point32	32	370.0	860.0	0.00	20.00					
Red Lobster	W	0.00	99.99	0.00				0.00	point33	33	230.0	690.0	0.00	20.00	0.00	0	0		
									point34	34	340.0	690.0	0.00	20.00					
Olive Garden	W	0.00	99.99	0.00				0.00	point35	35	80.0	1,130.0	0.00	20.00	0.00	0	0		
									point36	36	80.0	1,230.0	0.00	20.00					
Applebee's	W	0.00	99.99	0.00				0.00	point37	37	80.0	1,380.0	0.00	20.00	0.00	0	0		
									point38	38	80.0	1,510.0	0.00	20.00					
International Montessori School	W	0.00	99.99	0.00				0.00	point41	41	320.0	1,849.0	0.00	12.00	0.00	0	0		

INPUT: BARRIERS

<Project Name?>

									point42	42	280.0	1,790.0	0.00	12.00					
Montclair Plaza	W	0.00	99.99	0.00				0.00	point43	43	595.0	1,580.0	0.00	25.00	0.00	0	0		
									point44	44	2,245.0	1,580.0	0.00	25.00					
Church East Wall	W	0.00	99.99	0.00				0.00	point45	45	366.0	1,769.0	0.00	6.00	0.00	0	0		
									point46	46	366.0	2,160.0	0.00	6.00					
Church Sep Bldg	W	0.00	99.99	0.00				0.00	point47	47	325.0	1,950.0	0.00	15.00	0.00	0	0		
									point48	48	325.0	1,990.0	0.00	15.00					
Church North Wall	W	0.00	99.99	0.00				0.00	point49	49	326.0	1,991.0	0.00	6.00	0.00	0	0		
									point50	50	365.0	1,991.0	0.00	6.00					
Goodyear	W	0.00	99.99	0.00				0.00	point51	51	2,520.0	1,675.0	0.00	12.00	0.00	0	0		
									point52	52	2,620.0	1,675.0	0.00	12.00					
International Montessori School2	W	0.00	99.99	0.00				0.00	point89	89	185.0	1,789.0	0.00	12.00	0.00	0	0		
									point90	90	355.0	1,789.0	0.00	12.00					
Commercial Strip	W	0.00	99.99	0.00				0.00	point91	91	140.0	2,165.0	0.00	15.00	0.00	0	0		
									point92	92	350.0	2,165.0	0.00	15.00					
School Wall	W	0.00	99.99	0.00				0.00	point93	93	365.0	1,769.0	0.00	6.00	0.00	0	0		
									point94	94	105.0	1,769.0	0.00	6.00					
Commercial Strip Wall	W	0.00	99.99	0.00				0.00	point95	95	360.0	2,157.0	0.00	6.00	0.00	0	0		
									point96	96	120.0	2,157.0	0.00	6.00					
Barrier53	W	0.00	99.99	0.00				0.00	point97	97	-65.0	530.0	0.00	20.00	0.00	0	0		
									point98	98	-65.0	170.0	0.00	20.00					
Barrier54	W	0.00	99.99	0.00				0.00	point99	99	-75.0	1,615.0	0.00	20.00	0.00	0	0		
									point100	100	-75.0	1,480.0	0.00	20.00					
Barrier55	W	0.00	99.99	0.00				0.00	point101	101	-110.0	1,615.0	0.00	20.00	0.00	0	0		
									point102	102	-110.0	1,480.0	0.00	20.00					
Barrier56	W	0.00	99.99	0.00				0.00	point103	103	380.0	2,296.0	0.00	30.00	0.00	0	0		
									point104	104	380.0	2,845.0	0.00	30.00					

INPUT: BUILDING ROWS

<Project Name?>

<Organization?>					7 May 2020	
<Analysis By?>					TNM 2.5	
INPUT: BUILDING ROWS						
PROJECT/CONTRACT:	<Project Name?>					
RUN:	Montclair CalRun 12515					
Building Row			Points			
Name	Average	Building	No.	Coordinates (ground)		
	Height	Percent		X	Y	Z
	ft	%		ft	ft	ft
MFR2 at M4	20.00	80	17	250.0	2,296.0	0.00
			18	250.0	2,845.0	0.00
MFR at M1 N	20.00	80	24	-65.0	560.0	20.00
			25	-65.0	950.0	20.00
MFR SE of M2	20.00	80	26	-75.0	1,425.0	20.00
			27	-75.0	1,075.0	20.00
MFR SW of M2	20.00	80	28	-110.0	1,075.0	0.00
			29	-110.0	1,425.0	0.00

RESULTS: SOUND LEVELS

<Project Name?>

<Organization?>													
<Analysis By?>													
RESULTS: SOUND LEVELS													
PROJECT/CONTRACT:													
RUN:													
BARRIER DESIGN:													
ATMOSPHERICS:													
Receiver													
Name	No.	#DUs	Existing	No Barrier					With Barrier				
			LAeq1h	LAeq1h			Increase over existing	Type	Calculated	Noise Reduction			
				Calculated	Crit'n		Calculated	Crit'n	Impact	LAeq1h	Calculated	Goal	Calculated
								Sub'l Inc					minus
													Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB	dB
ST1	1	1	65.0	67.2	66	2.2	10	Snd Lvl	67.2	0.0	8	-8.0	
ST2	2	1	56.2	56.9	66	0.7	10	----	56.9	0.0	8	-8.0	
ST3	4	1	49.8	49.8	66	0.0	10	----	49.8	0.0	8	-8.0	
ST4	16	1	57.3	60.5	66	3.2	10	----	60.5	0.0	8	-8.0	
ST5	21	1	64.3	66.5	66	2.2	10	Snd Lvl	66.5	0.0	8	-8.0	
ST6	23	1	71.6	71.4	66	-0.2	10	Snd Lvl	71.4	0.0	8	-8.0	
ST7	25	1	70.7	66.6	66	-4.1	10	Snd Lvl	66.6	0.0	8	-8.0	
ST8	28	1	0.0	66.4	66	66.4	10	Snd Lvl	66.4	0.0	8	-8.0	
Dwelling Units		# DUs	Noise Reduction										
			Min	Avg	Max								
			dB	dB	dB								
All Selected		8	0.0	0.0	0.0								
All Impacted		5	0.0	0.0	0.0								
All that meet NR Goal		0	0.0	0.0	0.0								

INPUT: ROADWAYS
Montclair

Dudek											
CB											
INPUT: ROADWAYS											
PROJECT/CONTRACT:				Montclair						Average pavement type shall be used unless a State highway agency substantiates the use of a different type with the approval of FHWA	
RUN:				E+P							
Roadway		Points									
Name	Width	Name	No.	Coordinates (pavement)			Flow Control			Segment	
				X	Y	Z	Control	Speed	Percent	Pvmt	On
							Device	Constraint	Vehicles	Type	Struct?
									Affected		
	ft			ft	ft	ft		mph	%		
Monte Vista Ave	85.0	point1	1	0.0	0.0	0.00				Average	
		point11	11	0.0	1,025.0	0.00					
Central Ave	100.0	point5	5	2,700.0	2,250.0	0.00				Average	
		point6	6	2,700.0	1,215.0	0.00					
Moreno St	90.0	point9	9	-5.0	2,251.0	0.00				Average	
		point22	22	826.7	2,251.0	0.00					
I-10	180.0	point16	16	-10.0	-7.0	15.00				Average	
		point17	17	2,770.0	1,240.0	15.00					
Moreno St-2	90.0	point24	24	826.7	2,251.0	0.00				Average	
		point12	12	1,255.0	2,251.0	0.00					
Moreno St-2-2	90.0	point25	25	1,255.0	2,251.0	0.00				Average	
		point10	10	2,705.0	2,251.0	0.00					
Monte Vista Ave -2	85.0	point26	26	0.0	1,025.0	0.00				Average	
		point2	2	0.0	2,250.0	0.00					

INPUT: TRAFFIC FOR LAeq1h Volumes
Montclair

Dudek												
CB												
INPUT: TRAFFIC FOR LAeq1h Volumes												
PROJECT/CONTRACT:	Montclair											
RUN:	E+P											
Roadway	Points											
Name	Name	No.	Segment									
			Autos		MTrucks		HTrucks		Buses		Motorcycles	
			V	S	V	S	V	S	V	S	V	S
			veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph
Monte Vista Ave	point1	1	4874	40	100	40	50	40	0	0	0	0
	point11	11										
Central Ave	point5	5	5300	40	109	40	55	40	0	0	0	0
	point6	6										
Moreno St	point9	9	1868	40	39	40	19	40	0	0	0	0
	point22	22										
I-10	point16	16	11639	65	239	65	119	65	0	0	0	0
	point17	17										
Moreno St-2	point24	24	1743	40	36	40	18	40	0	0	0	0
	point12	12										
Moreno St-2-2	point25	25	1972	40	41	40	20	40	0	0	0	0
	point10	10										
Monte Vista Ave -2	point26	26	3318	40	68	40	34	40	0	0	0	0
	point2	2										

INPUT: RECEIVERS
Montclair

Dudek											
CB											
INPUT: RECEIVERS											
PROJECT/CONTRACT:	Montclair										
RUN:	E+P										
Receiver											
Name	No.	#DUs	Coordinates (ground)			Height	Input Sound Levels and Criteria				Active
			X	Y	Z	above	Existing	Impact Criteria		NR	in
						Ground	L _{Aeq} 1h	L _{Aeq} 1h	Sub'l	Goal	Calc.
			ft	ft	ft	ft	dBA	dBA	dB	dB	
ST1	1	1	-55.0	520.0	0.00	5.00	65.00	66	10.0	8.0	Y
ST2	2	1	-84.5	1,514.9	0.00	5.00	56.20	66	10.0	8.0	Y
ST3	4	1	360.0	1,900.0	0.00	5.00	49.80	66	10.0	8.0	Y
ST4	16	1	365.0	2,375.0	0.00	5.00	57.30	66	10.0	8.0	Y
ST5	21	1	1,105.0	2,320.0	0.00	5.00	64.30	66	10.0	8.0	Y
ST6	23	1	2,770.0	1,770.0	0.00	5.00	71.60	66	10.0	8.0	Y
ST7	25	1	2,420.0	1,475.0	0.00	5.00	70.70	66	10.0	8.0	Y
ST8	28	1	906.2	2,320.6	0.00	5.00	0.00	66	10.0	8.0	Y

INPUT: BARRIERS

Montclair

Dudek					7 May 2020														
CB					TNM 2.5														
INPUT: BARRIERS																			
PROJECT/CONTRACT:				Montclair															
RUN:				E+P															
Barrier										Points									
Name	Type	Height		If Wall	If Berm			Add'tnl		Name	No.	Coordinates (bottom)			Height	Segment			
		Min	Max	\$ per Unit Area	\$ per Unit Vol.	Top Width	Run:Rise	\$ per Unit Length				X	Y	Z	at Point	Seg Ht	Perturbs	On	Important
		ft	ft	\$/sq ft	\$/cu yd	ft	ft:ft	\$/ft				ft	ft	ft	ft	ft	#Up	#Dn	Reflec-tions?
Chipotle	W	0.00	99.99	0.00				0.00		point1	1	2,770.0	1,760.0	0.00	20.00	0.00	0	0	
										point2	2	2,870.0	1,760.0	0.00	20.00				
Wrought Iron Fence with Landscape S	W	0.00	99.99	0.00				0.00		point5	5	-45.0	530.0	0.00	6.00	0.00	0	0	
										point6	6	-45.0	170.0	0.00	6.00				
Church South Wall	W	0.00	99.99	0.00				0.00		point7	7	321.0	1,895.0	0.00	10.00	0.00	0	0	
										point8	8	365.0	1,895.0	0.00	10.00				
Church	W	0.00	99.99	0.00				0.00		point9	9	320.0	1,950.0	0.00	15.00	0.00	0	0	
										point10	10	320.0	1,850.0	0.00	15.00				
Black Angus	W	0.00	99.99	0.00				0.00		point13	13	45.0	170.0	0.00	20.00	0.00	0	0	
										point14	14	45.0	280.0	0.00	20.00				
Chili's	W	0.00	99.99	0.00				0.00		point15	15	80.0	400.0	0.00	20.00	0.00	0	0	
										point16	16	80.0	480.0	0.00	20.00				
Dragon 99 Chinese Cuisine	W	0.00	99.99	0.00				0.00		point17	17	80.0	640.0	0.00	20.00	0.00	0	0	
										point18	18	80.0	740.0	0.00	20.00				
Wrought Iron Fence with Landscape N	W	0.00	99.99	0.00				0.00		point19	19	-45.0	560.0	0.00	6.00	0.00	0	0	
										point20	20	-45.0	960.0	0.00	6.00				
Acapulco	W	0.00	99.99	0.00				0.00		point21	21	440.0	300.0	0.00	20.00	0.00	0	0	
										point22	22	580.0	380.0	0.00	20.00				
LA Fitness	W	0.00	99.99	0.00				0.00		point23	23	640.0	400.0	0.00	20.00	0.00	0	0	
										point24	24	640.0	760.0	0.00	20.00				
Ashley Furniture	W	0.00	99.99	0.00				0.00		point25	25	665.0	585.0	0.00	20.00	0.00	0	0	
										point26	26	880.0	670.0	0.00	20.00				
Wicks	W	0.00	99.99	0.00				0.00		point27	27	640.0	850.0	0.00	20.00	0.00	0	0	
										point28	28	940.0	950.0	0.00	20.00				
Elephant Bar	W	0.00	99.99	0.00				0.00		point29	29	140.0	860.0	0.00	20.00	0.00	0	0	
										point30	30	240.0	860.0	0.00	20.00				
Vacant Restaurant	W	0.00	99.99	0.00				0.00		point31	31	280.0	860.0	0.00	20.00	0.00	0	0	
										point32	32	370.0	860.0	0.00	20.00				
Red Lobster	W	0.00	99.99	0.00				0.00		point33	33	230.0	690.0	0.00	20.00	0.00	0	0	
										point34	34	340.0	690.0	0.00	20.00				
Olive Garden	W	0.00	99.99	0.00				0.00		point35	35	80.0	1,130.0	0.00	20.00	0.00	0	0	
										point36	36	80.0	1,230.0	0.00	20.00				
Applebee's	W	0.00	99.99	0.00				0.00		point37	37	80.0	1,380.0	0.00	20.00	0.00	0	0	
										point38	38	80.0	1,510.0	0.00	20.00				
International Montessori School	W	0.00	99.99	0.00				0.00		point41	41	320.0	1,849.0	0.00	12.00	0.00	0	0	

INPUT: BARRIERS
Montclair

									point42	42	280.0	1,790.0	0.00	12.00					
Montclair Plaza	W	0.00	99.99	0.00				0.00	point43	43	595.0	1,580.0	0.00	25.00	0.00	0	0		
									point44	44	2,245.0	1,580.0	0.00	25.00					
Church East Wall	W	0.00	99.99	0.00				0.00	point45	45	366.0	1,769.0	0.00	6.00	0.00	0	0		
									point46	46	366.0	2,160.0	0.00	6.00					
Church Sep Bldg	W	0.00	99.99	0.00				0.00	point47	47	325.0	1,950.0	0.00	15.00	0.00	0	0		
									point48	48	325.0	1,990.0	0.00	15.00					
Church North Wall	W	0.00	99.99	0.00				0.00	point49	49	326.0	1,991.0	0.00	6.00	0.00	0	0		
									point50	50	365.0	1,991.0	0.00	6.00					
Goodyear	W	0.00	99.99	0.00				0.00	point51	51	2,520.0	1,675.0	0.00	12.00	0.00	0	0		
									point52	52	2,620.0	1,675.0	0.00	12.00					
International Montessori School2	W	0.00	99.99	0.00				0.00	point89	89	185.0	1,789.0	0.00	12.00	0.00	0	0		
									point90	90	355.0	1,789.0	0.00	12.00					
Commercial Strip	W	0.00	99.99	0.00				0.00	point91	91	140.0	2,165.0	0.00	15.00	0.00	0	0		
									point92	92	350.0	2,165.0	0.00	15.00					
School Wall	W	0.00	99.99	0.00				0.00	point93	93	365.0	1,769.0	0.00	6.00	0.00	0	0		
									point94	94	105.0	1,769.0	0.00	6.00					
Commercial Strip Wall	W	0.00	99.99	0.00				0.00	point95	95	360.0	2,157.0	0.00	6.00	0.00	0	0		
									point96	96	120.0	2,157.0	0.00	6.00					
Barrier53	W	0.00	99.99	0.00				0.00	point97	97	-65.0	530.0	0.00	20.00	0.00	0	0		
									point98	98	-65.0	170.0	0.00	20.00					
Barrier54	W	0.00	99.99	0.00				0.00	point99	99	-75.0	1,615.0	0.00	20.00	0.00	0	0		
									point100	100	-75.0	1,480.0	0.00	20.00					
Barrier55	W	0.00	99.99	0.00				0.00	point101	101	-110.0	1,615.0	0.00	20.00	0.00	0	0		
									point102	102	-110.0	1,480.0	0.00	20.00					
Barrier56	W	0.00	99.99	0.00				0.00	point103	103	380.0	2,296.0	0.00	30.00	0.00	0	0		
									point104	104	380.0	2,845.0	0.00	30.00					

INPUT: BUILDING ROWS

Montclair

Dudek					7 May 2020	
CB					TNM 2.5	
INPUT: BUILDING ROWS						
PROJECT/CONTRACT:	Montclair					
RUN:	E+P					
Building Row			Points			
Name	Average	Building	No.	Coordinates (ground)		
	Height	Percent		X	Y	Z
	ft	%		ft	ft	ft
MFR2 at M4	20.00	80	17	250.0	2,296.0	0.00
			18	250.0	2,845.0	0.00
MFR at M1 N	20.00	80	24	-65.0	560.0	20.00
			25	-65.0	950.0	20.00
MFR SE of M2	20.00	80	26	-75.0	1,425.0	20.00
			27	-75.0	1,075.0	20.00
MFR SW of M2	20.00	80	28	-110.0	1,075.0	0.00
			29	-110.0	1,425.0	0.00

RESULTS: SOUND LEVELS
Montclair

Dudek CB													
RESULTS: SOUND LEVELS													
PROJECT/CONTRACT:													
RUN:													
BARRIER DESIGN:													
ATMOSPHERICS:													
Receiver													
Name	No.	#DUs	Existing	No Barrier					With Barrier				
			LAeq1h	LAeq1h			Increase over existing	Type	Calculated	Noise Reduction			
				Calculated	Crit'n	Calculated	Crit'n	Impact	LAeq1h	Calculated	Goal	Calculated	
							Sub'l Inc					minus	
												Goal	
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB	
ST1	1	1	65.0	68.5	66	3.5	10	Snd Lvl	68.5	0.0	8	-8.0	
ST2	2	1	56.2	57.9	66	1.7	10	----	57.9	0.0	8	-8.0	
ST3	4	1	49.8	50.7	66	0.9	10	----	50.7	0.0	8	-8.0	
ST4	16	1	57.3	61.4	66	4.1	10	----	61.4	0.0	8	-8.0	
ST5	21	1	64.3	67.3	66	3.0	10	Snd Lvl	67.3	0.0	8	-8.0	
ST6	23	1	71.6	72.4	66	0.8	10	Snd Lvl	72.4	0.0	8	-8.0	
ST7	25	1	70.7	67.0	66	-3.7	10	Snd Lvl	67.0	0.0	8	-8.0	
ST8	28	1	0.0	67.3	66	67.3	10	Snd Lvl	67.3	0.0	8	-8.0	
Dwelling Units		# DUs	Noise Reduction										
			Min	Avg	Max								
			dB	dB	dB								
All Selected		8	0.0	0.0	0.0								
All Impacted		5	0.0	0.0	0.0								
All that meet NR Goal		0	0.0	0.0	0.0								

INPUT: ROADWAYS
Montclair

Dudek											
CB											
INPUT: ROADWAYS								Average pavement type shall be used unless			
PROJECT/CONTRACT:				Montclair				a State highway agency substantiates the use			
RUN:				2040 no project				of a different type with the approval of FHWA			
Roadway		Points									
Name	Width	Name	No.	Coordinates (pavement)			Flow Control			Segment	
				X	Y	Z	Control	Speed	Percent	Pvmt	On
							Device	Constraint	Vehicles	Type	Struct?
									Affected		
	ft			ft	ft	ft		mph	%		
Monte Vista Ave	85.0	point1	1	0.0	0.0	0.00				Average	
		point11	11	0.0	1,025.0	0.00					
Central Ave	100.0	point5	5	2,700.0	2,250.0	0.00				Average	
		point6	6	2,700.0	1,215.0	0.00					
Moreno St	90.0	point9	9	-5.0	2,251.0	0.00				Average	
		point22	22	826.7	2,251.0	0.00					
I-10	180.0	point16	16	-10.0	-7.0	15.00				Average	
		point17	17	2,770.0	1,240.0	15.00					
Moreno St-2	90.0	point24	24	826.7	2,251.0	0.00				Average	
		point12	12	1,255.0	2,251.0	0.00					
Moreno St-2-2	90.0	point25	25	1,255.0	2,251.0	0.00				Average	
		point10	10	2,705.0	2,251.0	0.00					
Monte Vista Ave -2	85.0	point26	26	0.0	1,025.0	0.00				Average	
		point2	2	0.0	2,250.0	0.00					

INPUT: TRAFFIC FOR LAeq1h Volumes
Montclair

Dudek												
CB												
INPUT: TRAFFIC FOR LAeq1h Volumes												
PROJECT/CONTRACT:	Montclair											
RUN:	2040 no project											
Roadway	Points											
Name	Name	No.	Segment									
			Autos		MTrucks		HTrucks		Buses		Motorcycles	
			V	S	V	S	V	S	V	S	V	S
			veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph
Monte Vista Ave	point1	1	3801	40	78	40	39	40	0	0	0	0
	point11	11										
Central Ave	point5	5	5274	40	109	40	54	40	0	0	0	0
	point6	6										
Moreno St	point9	9	1775	40	37	40	18	40	0	0	0	0
	point22	22										
I-10	point16	16	12437	65	256	65	128	65	0	0	0	0
	point17	17										
Moreno St-2	point24	24	1731	40	36	40	18	40	0	0	0	0
	point12	12										
Moreno St-2-2	point25	25	1644	40	34	40	17	40	0	0	0	0
	point10	10										
Monte Vista Ave -2	point26	26	2660	40	55	40	27	40	0	0	0	0
	point2	2										

INPUT: RECEIVERS
Montclair

Dudek											
CB											
INPUT: RECEIVERS											
PROJECT/CONTRACT:	Montclair										
RUN:	2040 no project										
Receiver											
Name	No.	#DUs	Coordinates (ground)			Height	Input Sound Levels and Criteria				Active
			X	Y	Z	above	Existing	Impact Criteria		NR	in
						Ground	LAeq1h	LAeq1h	Sub'l	Goal	Calc.
			ft	ft	ft	ft	dBA	dBA	dB	dB	
ST1	1	1	-55.0	520.0	0.00	5.00	65.00	66	10.0	8.0	Y
ST2	2	1	-84.5	1,514.9	0.00	5.00	56.20	66	10.0	8.0	Y
ST3	4	1	360.0	1,900.0	0.00	5.00	49.80	66	10.0	8.0	Y
ST4	16	1	365.0	2,375.0	0.00	5.00	57.30	66	10.0	8.0	Y
ST5	21	1	1,105.0	2,320.0	0.00	5.00	64.30	66	10.0	8.0	Y
ST6	23	1	2,770.0	1,770.0	0.00	5.00	71.60	66	10.0	8.0	Y
ST7	25	1	2,420.0	1,475.0	0.00	5.00	70.70	66	10.0	8.0	Y
ST8	28	1	906.2	2,320.6	0.00	5.00	0.00	66	10.0	8.0	Y

INPUT: BARRIERS

Montclair

Dudek					7 May 2020														
CB					TNM 2.5														
INPUT: BARRIERS																			
PROJECT/CONTRACT:				Montclair															
RUN:				2040 no project															
Barrier										Points									
Name	Type	Height		If Wall	If Berm			Add'tnl		Name	No.	Coordinates (bottom)			Height	Segment			
		Min	Max	\$ per Unit Area	\$ per Unit Vol.	Top Width	Run:Rise	\$ per Unit Length				X	Y	Z	at Point	Seg	Ht	Perturbs	On
																Incre-	#Up	#Dn	Struct?
		ft	ft	\$/sq ft	\$/cu yd	ft	ft:ft	\$/ft				ft	ft	ft	ft	ft			Reflec-
																ment			tions?
Chipotle	W	0.00	99.99	0.00				0.00		point1	1	2,770.0	1,760.0	0.00	20.00	0.00	0	0	
										point2	2	2,870.0	1,760.0	0.00	20.00				
Wrought Iron Fence with Landscape S	W	0.00	99.99	0.00				0.00		point5	5	-45.0	530.0	0.00	6.00	0.00	0	0	
										point6	6	-45.0	170.0	0.00	6.00				
Church South Wall	W	0.00	99.99	0.00				0.00		point7	7	321.0	1,895.0	0.00	10.00	0.00	0	0	
										point8	8	365.0	1,895.0	0.00	10.00				
Church	W	0.00	99.99	0.00				0.00		point9	9	320.0	1,950.0	0.00	15.00	0.00	0	0	
										point10	10	320.0	1,850.0	0.00	15.00				
Black Angus	W	0.00	99.99	0.00				0.00		point13	13	45.0	170.0	0.00	20.00	0.00	0	0	
										point14	14	45.0	280.0	0.00	20.00				
Chili's	W	0.00	99.99	0.00				0.00		point15	15	80.0	400.0	0.00	20.00	0.00	0	0	
										point16	16	80.0	480.0	0.00	20.00				
Dragon 99 Chinese Cuisine	W	0.00	99.99	0.00				0.00		point17	17	80.0	640.0	0.00	20.00	0.00	0	0	
										point18	18	80.0	740.0	0.00	20.00				
Wrought Iron Fence with Landscape N	W	0.00	99.99	0.00				0.00		point19	19	-45.0	560.0	0.00	6.00	0.00	0	0	
										point20	20	-45.0	960.0	0.00	6.00				
Acapulco	W	0.00	99.99	0.00				0.00		point21	21	440.0	300.0	0.00	20.00	0.00	0	0	
										point22	22	580.0	380.0	0.00	20.00				
LA Fitness	W	0.00	99.99	0.00				0.00		point23	23	640.0	400.0	0.00	20.00	0.00	0	0	
										point24	24	640.0	760.0	0.00	20.00				
Ashley Furniture	W	0.00	99.99	0.00				0.00		point25	25	665.0	585.0	0.00	20.00	0.00	0	0	
										point26	26	880.0	670.0	0.00	20.00				
Wicks	W	0.00	99.99	0.00				0.00		point27	27	640.0	850.0	0.00	20.00	0.00	0	0	
										point28	28	940.0	950.0	0.00	20.00				
Elephant Bar	W	0.00	99.99	0.00				0.00		point29	29	140.0	860.0	0.00	20.00	0.00	0	0	
										point30	30	240.0	860.0	0.00	20.00				
Vacant Restaurant	W	0.00	99.99	0.00				0.00		point31	31	280.0	860.0	0.00	20.00	0.00	0	0	
										point32	32	370.0	860.0	0.00	20.00				
Red Lobster	W	0.00	99.99	0.00				0.00		point33	33	230.0	690.0	0.00	20.00	0.00	0	0	
										point34	34	340.0	690.0	0.00	20.00				
Olive Garden	W	0.00	99.99	0.00				0.00		point35	35	80.0	1,130.0	0.00	20.00	0.00	0	0	
										point36	36	80.0	1,230.0	0.00	20.00				
Applebee's	W	0.00	99.99	0.00				0.00		point37	37	80.0	1,380.0	0.00	20.00	0.00	0	0	
										point38	38	80.0	1,510.0	0.00	20.00				
International Montessori School	W	0.00	99.99	0.00				0.00		point41	41	320.0	1,849.0	0.00	12.00	0.00	0	0	

INPUT: BARRIERS
Montclair

									point42	42	280.0	1,790.0	0.00	12.00					
Montclair Plaza	W	0.00	99.99	0.00				0.00	point43	43	595.0	1,580.0	0.00	25.00	0.00	0	0		
									point44	44	2,245.0	1,580.0	0.00	25.00					
Church East Wall	W	0.00	99.99	0.00				0.00	point45	45	366.0	1,769.0	0.00	6.00	0.00	0	0		
									point46	46	366.0	2,160.0	0.00	6.00					
Church Sep Bldg	W	0.00	99.99	0.00				0.00	point47	47	325.0	1,950.0	0.00	15.00	0.00	0	0		
									point48	48	325.0	1,990.0	0.00	15.00					
Church North Wall	W	0.00	99.99	0.00				0.00	point49	49	326.0	1,991.0	0.00	6.00	0.00	0	0		
									point50	50	365.0	1,991.0	0.00	6.00					
Goodyear	W	0.00	99.99	0.00				0.00	point51	51	2,520.0	1,675.0	0.00	12.00	0.00	0	0		
									point52	52	2,620.0	1,675.0	0.00	12.00					
International Montessori School2	W	0.00	99.99	0.00				0.00	point89	89	185.0	1,789.0	0.00	12.00	0.00	0	0		
									point90	90	355.0	1,789.0	0.00	12.00					
Commercial Strip	W	0.00	99.99	0.00				0.00	point91	91	140.0	2,165.0	0.00	15.00	0.00	0	0		
									point92	92	350.0	2,165.0	0.00	15.00					
School Wall	W	0.00	99.99	0.00				0.00	point93	93	365.0	1,769.0	0.00	6.00	0.00	0	0		
									point94	94	105.0	1,769.0	0.00	6.00					
Commercial Strip Wall	W	0.00	99.99	0.00				0.00	point95	95	360.0	2,157.0	0.00	6.00	0.00	0	0		
									point96	96	120.0	2,157.0	0.00	6.00					
Barrier53	W	0.00	99.99	0.00				0.00	point97	97	-65.0	530.0	0.00	20.00	0.00	0	0		
									point98	98	-65.0	170.0	0.00	20.00					
Barrier54	W	0.00	99.99	0.00				0.00	point99	99	-75.0	1,615.0	0.00	20.00	0.00	0	0		
									point100	100	-75.0	1,480.0	0.00	20.00					
Barrier55	W	0.00	99.99	0.00				0.00	point101	101	-110.0	1,615.0	0.00	20.00	0.00	0	0		
									point102	102	-110.0	1,480.0	0.00	20.00					
Barrier56	W	0.00	99.99	0.00				0.00	point103	103	380.0	2,296.0	0.00	30.00	0.00	0	0		
									point104	104	380.0	2,845.0	0.00	30.00					

INPUT: BUILDING ROWS
Montclair

Dudek					7 May 2020	
CB					TNM 2.5	
INPUT: BUILDING ROWS						
PROJECT/CONTRACT:	Montclair					
RUN:	2040 no project					
Building Row			Points			
Name	Average	Building	No.	Coordinates (ground)		
	Height	Percent		X	Y	Z
	ft	%		ft	ft	ft
MFR2 at M4	20.00	80	17	250.0	2,296.0	0.00
			18	250.0	2,845.0	0.00
MFR at M1 N	20.00	80	24	-65.0	560.0	20.00
			25	-65.0	950.0	20.00
MFR SE of M2	20.00	80	26	-75.0	1,425.0	20.00
			27	-75.0	1,075.0	20.00
MFR SW of M2	20.00	80	28	-110.0	1,075.0	0.00
			29	-110.0	1,425.0	0.00

RESULTS: SOUND LEVELS
Montclair

Dudek												
CB												
RESULTS: SOUND LEVELS												
PROJECT/CONTRACT:												
RUN:												
BARRIER DESIGN:												
ATMOSPHERICS:												
Receiver												
Name	No.	#DUs	Existing	No Barrier					With Barrier			
			LAeq1h	LAeq1h			Increase over existing	Type	Calculated	Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n	Impact	LAeq1h	Calculated	Goal	Calculated
							Sub'l Inc					minus
												Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
ST1	1	1	65.0	67.5	66	2.5	10	Snd Lvl	67.5	0.0	8	-8.0
ST2	2	1	56.2	57.2	66	1.0	10	----	57.2	0.0	8	-8.0
ST3	4	1	49.8	50.4	66	0.6	10	----	50.4	0.0	8	-8.0
ST4	16	1	57.3	61.2	66	3.9	10	----	61.2	0.0	8	-8.0
ST5	21	1	64.3	67.2	66	2.9	10	Snd Lvl	67.2	0.0	8	-8.0
ST6	23	1	71.6	72.4	66	0.8	10	Snd Lvl	72.4	0.0	8	-8.0
ST7	25	1	70.7	67.2	66	-3.5	10	Snd Lvl	67.2	0.0	8	-8.0
ST8	28	1	0.0	67.2	66	67.2	10	Snd Lvl	67.2	0.0	8	-8.0
Dwelling Units		# DUs	Noise Reduction									
			Min	Avg	Max							
			dB	dB	dB							
All Selected		8	0.0	0.0	0.0							
All Impacted		5	0.0	0.0	0.0							
All that meet NR Goal		0	0.0	0.0	0.0							

INPUT: ROADWAYS
Montclair

Dudek											
CB											
INPUT: ROADWAYS											
PROJECT/CONTRACT:	Montclair										
RUN:	2040 no project										
Roadway		Points									
Name	Width	Name	No.	Coordinates (pavement)			Flow Control			Segment	
				X	Y	Z	Control	Speed	Percent	Pvmt	On
							Device	Constraint	Vehicles	Type	Struct?
									Affected		
	ft			ft	ft	ft		mph	%		
Monte Vista Ave	85.0	point1	1	0.0	0.0	0.00				Average	
		point11	11	0.0	1,025.0	0.00					
Central Ave	100.0	point5	5	2,700.0	2,250.0	0.00				Average	
		point6	6	2,700.0	1,215.0	0.00					
Moreno St	90.0	point9	9	-5.0	2,251.0	0.00				Average	
		point22	22	826.7	2,251.0	0.00					
I-10	180.0	point16	16	-10.0	-7.0	15.00				Average	
		point17	17	2,770.0	1,240.0	15.00					
Moreno St-2	90.0	point24	24	826.7	2,251.0	0.00				Average	
		point12	12	1,255.0	2,251.0	0.00					
Moreno St-2-2	90.0	point25	25	1,255.0	2,251.0	0.00				Average	
		point10	10	2,705.0	2,251.0	0.00					
Monte Vista Ave -2	85.0	point26	26	0.0	1,025.0	0.00				Average	
		point2	2	0.0	2,250.0	0.00					

INPUT: TRAFFIC FOR LAeq1h Volumes
Montclair

Dudek												
CB												
INPUT: TRAFFIC FOR LAeq1h Volumes												
PROJECT/CONTRACT:	Montclair											
RUN:	2040 no project											
Roadway	Points											
Name	Name	No.	Segment									
			Autos		MTrucks		HTrucks		Buses		Motorcycles	
			V	S	V	S	V	S	V	S	V	S
			veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph
Monte Vista Ave	point1	1	4569	40	94	40	47	40	0	0	0	0
	point11	11										
Central Ave	point5	5	5819	40	120	40	60	40	0	0	0	0
	point6	6										
Moreno St	point9	9	1920	40	40	40	20	40	0	0	0	0
	point22	22										
I-10	point16	16	12572	65	259	65	129	65	0	0	0	0
	point17	17										
Moreno St-2	point24	24	1853	40	38	40	19	40	0	0	0	0
	point12	12										
Moreno St-2-2	point25	25	2056	40	42	40	21	40	0	0	0	0
	point10	10										
Monte Vista Ave -2	point26	26	2998	40	62	40	31	40	0	0	0	0
	point2	2										

INPUT: RECEIVERS
Montclair

Dudek						7 May 2020					
CB						TNM 2.5					
INPUT: RECEIVERS											
PROJECT/CONTRACT:	Montclair										
RUN:	2040 no project										
Receiver											
Name	No.	#DUs	Coordinates (ground)			Height	Input Sound Levels and Criteria				Active
			X	Y	Z	above	Existing	Impact Criteria		NR	in
						Ground	LAeq1h	LAeq1h	Sub'l	Goal	Calc.
			ft	ft	ft	ft	dBA	dBA	dB	dB	
ST1	1	1	-55.0	520.0	0.00	5.00	65.00	66	10.0	8.0	Y
ST2	2	1	-84.5	1,514.9	0.00	5.00	56.20	66	10.0	8.0	Y
ST3	4	1	360.0	1,900.0	0.00	5.00	49.80	66	10.0	8.0	Y
ST4	16	1	365.0	2,375.0	0.00	5.00	57.30	66	10.0	8.0	Y
ST5	21	1	1,105.0	2,320.0	0.00	5.00	64.30	66	10.0	8.0	Y
ST6	23	1	2,770.0	1,770.0	0.00	5.00	71.60	66	10.0	8.0	Y
ST7	25	1	2,420.0	1,475.0	0.00	5.00	70.70	66	10.0	8.0	Y
ST8	28	1	906.2	2,320.6	0.00	5.00	0.00	66	10.0	8.0	Y
M1 (50 Foot Cal)	30	1	903.4	2,201.0	0.00	5.00	0.00	66	10.0	8.0	Y
M2 (50 foot Cal)	31	1	50.0	1,018.0	0.00	5.00	0.00	66	10.0	8.0	Y
M1 (100 Foot Cal)	34	1	903.4	2,151.0	0.00	5.00	0.00	66	10.0	8.0	Y
M2 (100 foot Cal)	35	1	100.0	1,018.0	0.00	5.00	0.00	66	10.0	8.0	Y
M3 (100 foot Cal)	36	1	2,647.5	1,853.5	0.00	5.00	0.00	66	10.0	8.0	Y

INPUT: BARRIERS

Montclair

Dudek					7 May 2020														
CB					TNM 2.5														
INPUT: BARRIERS																			
PROJECT/CONTRACT:				Montclair															
RUN:				2040 no project															
Barrier										Points									
Name	Type	Height		If Wall	If Berm			Add'tnl		Name	No.	Coordinates (bottom)			Height	Segment			
		Min	Max	\$ per Unit Area	\$ per Unit Vol.	Top Width	Run:Rise	\$ per Unit Length				X	Y	Z	at Point	Seg	Ht	Perturbs	On
																Incre-	#Up	#Dn	Struct?
		ft	ft	\$/sq ft	\$/cu yd	ft	ft:ft	\$/ft				ft	ft	ft	ft	ft			Reflec-
																ment			tions?
Chipotle	W	0.00	99.99	0.00				0.00		point1	1	2,770.0	1,760.0	0.00	20.00	0.00	0	0	
										point2	2	2,870.0	1,760.0	0.00	20.00				
Wrought Iron Fence with Landscape S	W	0.00	99.99	0.00				0.00		point5	5	-45.0	530.0	0.00	6.00	0.00	0	0	
										point6	6	-45.0	170.0	0.00	6.00				
Church South Wall	W	0.00	99.99	0.00				0.00		point7	7	321.0	1,895.0	0.00	10.00	0.00	0	0	
										point8	8	365.0	1,895.0	0.00	10.00				
Church	W	0.00	99.99	0.00				0.00		point9	9	320.0	1,950.0	0.00	15.00	0.00	0	0	
										point10	10	320.0	1,850.0	0.00	15.00				
Black Angus	W	0.00	99.99	0.00				0.00		point13	13	45.0	170.0	0.00	20.00	0.00	0	0	
										point14	14	45.0	280.0	0.00	20.00				
Chili's	W	0.00	99.99	0.00				0.00		point15	15	80.0	400.0	0.00	20.00	0.00	0	0	
										point16	16	80.0	480.0	0.00	20.00				
Dragon 99 Chinese Cuisine	W	0.00	99.99	0.00				0.00		point17	17	80.0	640.0	0.00	20.00	0.00	0	0	
										point18	18	80.0	740.0	0.00	20.00				
Wrought Iron Fence with Landscape N	W	0.00	99.99	0.00				0.00		point19	19	-45.0	560.0	0.00	6.00	0.00	0	0	
										point20	20	-45.0	960.0	0.00	6.00				
Acapulco	W	0.00	99.99	0.00				0.00		point21	21	440.0	300.0	0.00	20.00	0.00	0	0	
										point22	22	580.0	380.0	0.00	20.00				
LA Fitness	W	0.00	99.99	0.00				0.00		point23	23	640.0	400.0	0.00	20.00	0.00	0	0	
										point24	24	640.0	760.0	0.00	20.00				
Ashley Furniture	W	0.00	99.99	0.00				0.00		point25	25	665.0	585.0	0.00	20.00	0.00	0	0	
										point26	26	880.0	670.0	0.00	20.00				
Wicks	W	0.00	99.99	0.00				0.00		point27	27	640.0	850.0	0.00	20.00	0.00	0	0	
										point28	28	940.0	950.0	0.00	20.00				
Elephant Bar	W	0.00	99.99	0.00				0.00		point29	29	140.0	860.0	0.00	20.00	0.00	0	0	
										point30	30	240.0	860.0	0.00	20.00				
Vacant Restaurant	W	0.00	99.99	0.00				0.00		point31	31	280.0	860.0	0.00	20.00	0.00	0	0	
										point32	32	370.0	860.0	0.00	20.00				
Red Lobster	W	0.00	99.99	0.00				0.00		point33	33	230.0	690.0	0.00	20.00	0.00	0	0	
										point34	34	340.0	690.0	0.00	20.00				
Olive Garden	W	0.00	99.99	0.00				0.00		point35	35	80.0	1,130.0	0.00	20.00	0.00	0	0	
										point36	36	80.0	1,230.0	0.00	20.00				
Applebee's	W	0.00	99.99	0.00				0.00		point37	37	80.0	1,380.0	0.00	20.00	0.00	0	0	
										point38	38	80.0	1,510.0	0.00	20.00				
International Montessori School	W	0.00	99.99	0.00				0.00		point41	41	320.0	1,849.0	0.00	12.00	0.00	0	0	

INPUT: BARRIERS
Montclair

									point42	42	280.0	1,790.0	0.00	12.00					
Montclair Plaza	W	0.00	99.99	0.00				0.00	point43	43	595.0	1,580.0	0.00	25.00	0.00	0	0		
									point44	44	2,245.0	1,580.0	0.00	25.00					
Church East Wall	W	0.00	99.99	0.00				0.00	point45	45	366.0	1,769.0	0.00	6.00	0.00	0	0		
									point46	46	366.0	2,160.0	0.00	6.00					
Church Sep Bldg	W	0.00	99.99	0.00				0.00	point47	47	325.0	1,950.0	0.00	15.00	0.00	0	0		
									point48	48	325.0	1,990.0	0.00	15.00					
Church North Wall	W	0.00	99.99	0.00				0.00	point49	49	326.0	1,991.0	0.00	6.00	0.00	0	0		
									point50	50	365.0	1,991.0	0.00	6.00					
Goodyear	W	0.00	99.99	0.00				0.00	point51	51	2,520.0	1,675.0	0.00	12.00	0.00	0	0		
									point52	52	2,620.0	1,675.0	0.00	12.00					
International Montessori School2	W	0.00	99.99	0.00				0.00	point89	89	185.0	1,789.0	0.00	12.00	0.00	0	0		
									point90	90	355.0	1,789.0	0.00	12.00					
Commercial Strip	W	0.00	99.99	0.00				0.00	point91	91	140.0	2,165.0	0.00	15.00	0.00	0	0		
									point92	92	350.0	2,165.0	0.00	15.00					
School Wall	W	0.00	99.99	0.00				0.00	point93	93	365.0	1,769.0	0.00	6.00	0.00	0	0		
									point94	94	105.0	1,769.0	0.00	6.00					
Commercial Strip Wall	W	0.00	99.99	0.00				0.00	point95	95	360.0	2,157.0	0.00	6.00	0.00	0	0		
									point96	96	120.0	2,157.0	0.00	6.00					
Barrier53	W	0.00	99.99	0.00				0.00	point97	97	-65.0	530.0	0.00	20.00	0.00	0	0		
									point98	98	-65.0	170.0	0.00	20.00					
Barrier54	W	0.00	99.99	0.00				0.00	point99	99	-75.0	1,615.0	0.00	20.00	0.00	0	0		
									point100	100	-75.0	1,480.0	0.00	20.00					
Barrier55	W	0.00	99.99	0.00				0.00	point101	101	-110.0	1,615.0	0.00	20.00	0.00	0	0		
									point102	102	-110.0	1,480.0	0.00	20.00					
Barrier56	W	0.00	99.99	0.00				0.00	point103	103	380.0	2,296.0	0.00	30.00	0.00	0	0		
									point104	104	380.0	2,845.0	0.00	30.00					

INPUT: BUILDING ROWS
Montclair

Dudek					7 May 2020	
CB					TNM 2.5	
INPUT: BUILDING ROWS						
PROJECT/CONTRACT:	Montclair					
RUN:	2040 no project					
Building Row			Points			
Name	Average	Building	No.	Coordinates (ground)		
	Height	Percent		X	Y	Z
	ft	%		ft	ft	ft
MFR2 at M4	20.00	80	17	250.0	2,296.0	0.00
			18	250.0	2,845.0	0.00
MFR at M1 N	20.00	80	24	-65.0	560.0	20.00
			25	-65.0	950.0	20.00
MFR SE of M2	20.00	80	26	-75.0	1,425.0	20.00
			27	-75.0	1,075.0	20.00
MFR SW of M2	20.00	80	28	-110.0	1,075.0	0.00
			29	-110.0	1,425.0	0.00

RESULTS: SOUND LEVELS
Montclair

Dudek CB													
RESULTS: SOUND LEVELS													
PROJECT/CONTRACT:													
RUN:													
BARRIER DESIGN:													
ATMOSPHERICS:													
Receiver													
Name	No.	#DUs	Existing	No Barrier					With Barrier				
			LAeq1h	LAeq1h			Increase over existing	Type	Calculated	Noise Reduction			
				Calculated	Crit'n		Calculated	Crit'n	Impact	LAeq1h	Calculated	Goal	Calculated
								Sub'l Inc					minus
													Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB	dB
ST1	1	1	65.0	68.3	66	3.3	10	Snd Lvl	68.3	0.0	8	-8.0	
ST2	2	1	56.2	57.7	66	1.5	10	----	57.7	0.0	8	-8.0	
ST3	4	1	49.8	50.8	66	1.0	10	----	50.8	0.0	8	-8.0	
ST4	16	1	57.3	61.5	66	4.2	10	----	61.5	0.0	8	-8.0	
ST5	21	1	64.3	67.5	66	3.2	10	Snd Lvl	67.5	0.0	8	-8.0	
ST6	23	1	71.6	72.8	66	1.2	10	Snd Lvl	72.8	0.0	8	-8.0	
ST7	25	1	70.7	67.3	66	-3.4	10	Snd Lvl	67.3	0.0	8	-8.0	
ST8	28	1	0.0	67.5	66	67.5	10	Snd Lvl	67.5	0.0	8	-8.0	
M1 (50 Foot Cal)	30	1	0.0	69.3	66	69.3	10	Snd Lvl	69.3	0.0	8	-8.0	
M2 (50 foot Cal)	31	1	0.0	72.4	66	72.4	10	Snd Lvl	72.4	0.0	8	-8.0	
M1 (100 Foot Cal)	34	1	0.0	65.6	66	65.6	10	----	65.6	0.0	8	-8.0	
M2 (100 foot Cal)	35	1	0.0	68.8	66	68.8	10	Snd Lvl	68.8	0.0	8	-8.0	
M3 (100 foot Cal)	36	1	0.0	74.0	66	74.0	10	Snd Lvl	74.0	0.0	8	-8.0	
Dwelling Units		# DUs	Noise Reduction										
			Min	Avg	Max								
			dB	dB	dB								
All Selected		13	0.0	0.0	0.0								
All Impacted		9	0.0	0.0	0.0								
All that meet NR Goal		0	0.0	0.0	0.0								

APPENDIX E-4

Operational Noise Modeling Input and Output

Montclair Place District SP info below is from "200331_Montclair_Place_EIR_Exhibits.pdf" and "200406_Montclair_Place_SP.pdf"
 other info, methods from Storm Inter-Noise 2018 proceedings paper ("Screening Noise Analysis with Preliminary Building Project Information") or as noted

"Base Residential" Option

AHUs (plug-type return fan only, no condenser units [assume in-building chilled water or DX plant]):

District	Block	Land Use Type	District Zone Area (Acres)	Dwelling Unit (DU) per Acre	Dwelling Units	Minimum for private outdoor space per DU		Gross Square Footage (GSF)	m ²	facility function	CFM psf	m ³ /s per 1,000 m ²		Pressure (Pa)	Q (m ³ /s)	fanteype = plug, tube, or prop	unweighted PWL (for CadnaA inputs) or OA (for Excel-based noise-grid model)										OA dB	Q (cfm)
						Percent of lot	Area (SF)					m ³ /s	Pa				63	125	250	500	1000	2000	4000	8000				
return air fans in building rooftop AHUs:																												
Corridor	all	non-residential	9.23					156212	14520																			
Corridor	1	non-residential	3.13					52973	4824	average of retail and restaurant dining area	319	1.62	750	8.0	plug	92	92	90	86	81	75	71	68	96	17000			
Corridor	14	non-residential	2.36					39942	3713	average of retail and restaurant dining area	319	1.62	750	6.0	plug	90	90	88	84	79	73	69	66	95	13000			
Corridor	15	non-residential	1.55					26233	2438	average of retail and restaurant dining area	319	1.62	750	3.9	plug	88	88	86	82	77	71	67	64	93	9000			
Corridor	16	non-residential	2.19					37064	3445	average of retail and restaurant dining area	319	1.62	750	5.6	plug	90	90	88	84	79	73	69	66	95	12000			
Corridor	1	base residential	3.13	40.67	127	15%	40	33946	3155	dormitory sleeping room	100	0.51	750	1.8	plug	88	85	83	79	74	68	64	61	89	4000			
Corridor	14	base residential	2.36	40.67	96	15%	40	25595	2379	dormitory sleeping room	100	0.51	750	1.2	plug	83	83	81	77	72	66	62	59	86	3000			
Corridor	15	base residential	1.55	40.67	63	15%	40	16810	1563	dormitory sleeping room	100	0.51	750	0.8	plug	81	81	79	75	70	64	60	57	86	2000			
Corridor	16	base residential	2.19	40.67	89	15%	40	23751	2208	dormitory sleeping room	100	0.51	750	1.1	plug	83	83	81	77	72	66	62	59	88	3000			
Place	all	"out parcels"	8.1					168027	16808																			
Place	11	"out parcels"	2.14					47774	4441	average of retail and restaurant dining area	319	1.62	750	7.2	plug	91	91	89	85	80	74	70	67	96	16000			
Place	12	"out parcels"	3.56					79475	7387	average of retail and restaurant dining area	319	1.62	750	12.0	plug	93	93	91	87	82	76	72	69	98	26000			
Place	13	"out parcels"	2.4					53578	4980	average of retail and restaurant dining area	319	1.62	750	8.1	plug	92	92	90	86	81	75	71	68	96	18000			
Place	11	base residential	2.14	56.74	121	15%	40	32380	3010	dormitory sleeping room	100	0.51	750	1.5	plug	84	84	82	78	73	67	63	60	89	4000			
Place	12	base residential	3.56	56.74	202	15%	40	53865	5007	dormitory sleeping room	100	0.51	750	2.5	plug	87	87	85	81	76	70	66	63	91	6000			
Place	13	base residential	2.4	56.74	136	15%	40	36314	3375	dormitory sleeping room	100	0.51	750	1.7	plug	85	85	83	79	74	68	64	61	90	4000			
Commons	all	non-residential	29.06					858909	79836																			
Commons	2A	non-residential	3.04					89851	8352	average of retail and restaurant dining area	319	1.62	750	13.5	plug	94	94	92	88	83	77	73	70	99	29000			
Commons	2B	non-residential	2.72					80393	7473	average of retail and restaurant dining area	319	1.62	750	12.1	plug	93	93	91	87	82	76	72	69	98	26000			
Commons	3	non-residential	1.89					55862	5192	average of retail and restaurant dining area	319	1.62	750	8.4	plug	92	92	90	86	81	75	71	68	97	18000			
Commons	4	non-residential	2.11					62364	5797	average of retail and restaurant dining area	319	1.62	750	9.4	plug	92	92	90	86	81	75	71	68	97	20000			
Commons	5	non-residential	2.38					70344	6539	average of retail and restaurant dining area	319	1.62	750	10.6	plug	93	93	91	87	82	76	72	69	98	23000			
Commons	6A	non-residential	1.21					35763	3324	average of retail and restaurant dining area	319	1.62	750	5.4	plug	90	90	88	84	79	73	69	66	95	12000			
Commons	6B	non-residential	1.77					52315	4863	average of retail and restaurant dining area	319	1.62	750	7.9	plug	91	91	89	85	80	74	70	67	96	17000			
Commons	6C	non-residential	1.33					39310	3654	average of retail and restaurant dining area	319	1.62	750	5.9	plug	90	90	88	84	79	73	69	66	95	13000			
Commons	7	non-residential	2.4					70935	6593	average of retail and restaurant dining area	319	1.62	750	10.7	plug	93	93	91	87	82	76	72	69	98	23000			
Commons	8	non-residential	3.41					100787	9368	average of retail and restaurant dining area	319	1.62	750	15.2	plug	94	94	92	88	83	77	73	70	99	33000			
Commons	9	non-residential	2.27					67093	6236	average of retail and restaurant dining area	319	1.62	750	10.1	plug	93	93	91	87	82	76	72	69	97	22000			
Commons	10	non-residential	2.4					70935	6593	average of retail and restaurant dining area	319	1.62	750	10.7	plug	93	93	91	87	82	76	72	69	98	23000			
Commons	17	non-residential	2.13					62955	5852	average of retail and restaurant dining area	319	1.62	750	9.5	plug	92	92	90	86	81	75	71	68	97	21000			
Commons	2A	base residential	3.04	88.95	270	10%	40	108163	10054	dormitory sleeping room	100	0.51	750	5.1	plug	90	90	88	84	79	73	69	66	94	11000			
Commons	2B	base residential	2.72	88.95	242	10%	40	96778	8996	dormitory sleeping room	100	0.51	750	4.6	plug	89	89	87	83	78	72	68	65	94	10000			
Commons	3	base residential	1.89	88.95	168	10%	40	67246	6251	dormitory sleeping room	100	0.51	750	3.2	plug	88	88	86	82	77	71	67	64	92	7000			
Commons	4	base residential	2.11	88.95	188	10%	40	75074	6978	dormitory sleeping room	100	0.51	750	3.5	plug	88	88	86	82	77	71	67	64	93	8000			
Commons	5	base residential	2.38	88.95	212	10%	40	84680	7871	dormitory sleeping room	100	0.51	750	4.0	plug	89	89	87	83	78	72	68	65	93	9000			
Commons	6A	base residential	1.21	88.95	108	10%	40	43052	4002	dormitory sleeping room	100	0.51	750	2.0	plug	86	86	84	80	75	69	65	62	90	5000			
Commons	6B	base residential	1.77	88.95	157	10%	40	62977	5854	dormitory sleeping room	100	0.51	750	3.0	plug	87	87	85	81	76	70	66	63	92	7000			
Commons	6C	base residential	1.33	88.95	118	10%	40	47321	4399	dormitory sleeping room	100	0.51	750	2.2	plug	86	86	84	80	75	69	65	62	91	5000			
Commons	7	base residential	2.4	88.95	213	10%	40	85392	7937	dormitory sleeping room	100	0.51	750	4.0	plug	89	89	87	83	78	72	68	65	93	9000			
Commons	8	base residential	3.41	88.95	303	10%	40	121328	11277	dormitory sleeping room	100	0.51	750	6.7	plug	89	89	88	84	79	73	68	65	95	13000			
Commons	9	base residential	2.27	88.95	202	10%	40	80767	7507	dormitory sleeping room	100	0.51	750	3.8	plug	88	88	86	82	77	71	67	64	93	8000			
Commons	10	base residential	2.4	88.95	213	10%	40	85392	7937	dormitory sleeping room	100	0.51	750	4.0	plug	89	89	87	83	78	72	68	65	93	9000			
Commons	17	base residential	2.13	88.95	189	10%	40	75785	7044	dormitory sleeping room	100	0.51	750	3.6	plug	88	88	86	82	77	71	67	64	93	8000			
Center	all	non-residential	17					862960	80213																			
Center	18	non-residential	3.32					168531	15665	average of retail and restaurant dining area	319	1.62	750	25.4	plug	97	97	95	91	86	80	76	73	101	54000			
Center	19A	non-residential	3.08					156348	14533	average of retail and restaurant dining area	319	1.62	750	22.9	plug	96	96	94	90	85	79	75	72	100	50000			
Center	19B	non-residential	0.9					45686	4247	average of retail and restaurant dining area	319	1.62	750	6.9	plug	91	91	89	85	80	74	70	67	96	15000			
Center	20	non-residential	3.54					179699	16703	average of retail and restaurant dining area	319	1.62	750	27.1	plug	97	97	95	91	86	80	76	73	102	58000			
Center	21	non-residential	3.37					171069	15801	average of retail and restaurant dining area	319	1.62	750	25.8	plug	97	97	95	91	86	80	76	73	101	55000			
Center	22	non-residential	2.79					141627	13164	average of retail and restaurant dining area	319	1.62	750	21.3	plug	96	96	94	90	85	79	75	72	101	46000			
Center	18	base residential	3.32	122.03	405	10%	40	162056	15063	dormitory sleeping room	100	0.51	750	7.6	plug	91	91	89	85	80	74	70	67	96	17000			
Center	19A	base residential	3.08	122.03	376	10%	40	150341	13974	dormitory sleeping room	100	0.51	750	7.1	plug	91	91	89	85	80	74	70	67	96	16000			
Center	19B	base residential	0.9	122.03	110	10%	40	43931	4083	dormitory sleeping room	100	0.51	750	2.1	plug	86	86	84	80	75	69	65	62	90	5000			
Center	20	base residential	3.54	122.03	432	10%	40	172794	16061	dormitory sleeping room	100	0.51	750	8.2	plug	92	92	90	86	81	75	71	68	96	18000			
Center	21	base residential	3.37	122.03	411	10%	40	164496	15290	dormitory sleeping room	100	0.51	750	7.8	plug	91	91	89	85	80	74	70	67	96	17000			
Center	22	base residential	2.79	122.03	340	10%	40	136185	12659	dormitory sleeping room	100	0.51	750	6.4	plug	91	91	89	85	80	74	70	67	95	14000			

Montclair Place District SP info below is from "200331_Montclair_Place_EIR_Exhibits.pdf" and "200406_Montclair_Place_SP.pdf"
 other info, methods from Storm Inter-Noise 2018 proceedings paper ("Screening Noise Analysis with Preliminary Building Project Information") or as noted

"Residential with 15% Density Bonus" Option

AHUs (plug-type return fan only, no condenser units [assume in-building chilled water or DX plant]):

District	Block	Land Use Type	District Zone Area (Acres)	Dwelling Unit (DU) per Acre	Dwelling Units	Minimum for private outdoor space per DU		Gross Square Footage (GSF)	m ²	facility function	CFM psf	m ³ /s per 1,000		fanteype = plug, tube, or prop	unweighted PWL (for CadnaA inputs) or OA (for Excel-based noise-grid model)										OA dB	Q (cfm)	
						Percent of lot	Area (SF)					m ³	Pressure (Pa)		Q (m ³ /s)	63	125	250	500	1000	2000	4000	8000				
return air fans in building rooftop AHUs:																											
Corridor	all	non-residential	9.23					156212	14520																		
Corridor	1	non-residential	3.13					52973	4824	average of retail and restaurant dining area	319	1.62	750	8.0	plug	92	92	90	86	81	75	71	68	96	17000		
Corridor	14	non-residential	2.36					39942	3713	average of retail and restaurant dining area	319	1.62	750	6.0	plug	90	90	88	84	79	73	69	66	95	13000		
Corridor	15	non-residential	1.55					26233	2438	average of retail and restaurant dining area	319	1.62	750	3.9	plug	88	88	86	82	77	71	67	64	93	9000		
Corridor	16	non-residential	2.19					37064	3445	average of retail and restaurant dining area	319	1.62	750	5.6	plug	90	90	88	84	79	73	69	66	95	12000		
Corridor	1	residential w/ density bonus	3.13	46.75	146	15%	40	39021	3627	dormitory sleeping room	100	0.51	750	1.8	plug	85	85	83	79	74	68	64	61	90	4000		
Corridor	14	residential w/ density bonus	2.36	46.75	110	15%	40	29421	2735	dormitory sleeping room	100	0.51	750	1.4	plug	84	84	82	78	73	67	63	60	89	3000		
Corridor	15	residential w/ density bonus	1.55	46.75	72	15%	40	19323	1796	dormitory sleeping room	100	0.51	750	0.9	plug	82	82	80	76	71	65	61	58	87	2000		
Corridor	16	residential w/ density bonus	2.19	46.75	102	15%	40	27302	2538	dormitory sleeping room	100	0.51	750	1.3	plug	84	84	82	78	73	67	63	60	88	3000		
Place	all	"out parcels"	8.1					180827	16808																		
Place	11	"out parcels"	2.14					47774	4441	average of retail and restaurant dining area	319	1.62	750	7.2	plug	91	91	89	85	80	74	70	67	96	16000		
Place	12	"out parcels"	3.56					79475	7387	average of retail and restaurant dining area	319	1.62	750	12.0	plug	93	93	91	87	82	76	72	69	98	26000		
Place	13	"out parcels"	2.4					53578	4980	average of retail and restaurant dining area	319	1.62	750	8.1	plug	92	92	90	86	81	75	71	68	96	18000		
Place	11	residential w/ density bonus	2.14	65.41	140	15%	40	37327	3470	dormitory sleeping room	100	0.51	750	1.8	plug	85	85	83	79	74	68	64	61	90	4000		
Place	12	residential w/ density bonus	3.56	65.41	233	15%	40	62096	5772	dormitory sleeping room	100	0.51	750	2.9	plug	87	87	85	81	76	70	66	63	92	7000		
Place	13	residential w/ density bonus	2.4	65.41	157	15%	40	41862	3891	dormitory sleeping room	100	0.51	750	2.0	plug	85	85	83	79	74	68	64	61	90	5000		
Commons	all	non-residential	29.06					858909	79836																		
Commons	2A	non-residential	3.04					89851	8352	average of retail and restaurant dining area	319	1.62	750	13.5	plug	94	94	92	88	83	77	73	70	99	29000		
Commons	2B	non-residential	2.72					80393	7473	average of retail and restaurant dining area	319	1.62	750	12.1	plug	93	93	91	87	82	76	72	69	98	26000		
Commons	3	non-residential	1.89					55862	5192	average of retail and restaurant dining area	319	1.62	750	8.4	plug	92	92	90	86	81	75	71	68	97	18000		
Commons	4	non-residential	2.11					62364	5797	average of retail and restaurant dining area	319	1.62	750	9.4	plug	92	92	90	86	81	75	71	68	97	20000		
Commons	5	non-residential	2.38					70344	6539	average of retail and restaurant dining area	319	1.62	750	10.6	plug	93	93	91	87	82	76	72	69	98	23000		
Commons	6A	non-residential	1.21					35763	3324	average of retail and restaurant dining area	319	1.62	750	5.4	plug	90	90	88	84	79	73	69	66	95	12000		
Commons	6B	non-residential	1.77					52315	4863	average of retail and restaurant dining area	319	1.62	750	7.9	plug	91	91	89	85	80	74	70	67	96	17000		
Commons	6C	non-residential	1.33					36310	3654	average of retail and restaurant dining area	319	1.62	750	5.9	plug	90	90	88	84	79	73	69	66	95	13000		
Commons	7	non-residential	2.4					70835	6593	average of retail and restaurant dining area	319	1.62	750	10.7	plug	93	93	91	87	82	76	72	69	98	23000		
Commons	8	non-residential	3.41					100787	9368	average of retail and restaurant dining area	319	1.62	750	15.2	plug	94	94	92	88	83	77	73	70	99	33000		
Commons	9	non-residential	2.27					67093	6236	average of retail and restaurant dining area	319	1.62	750	10.1	plug	93	93	91	87	82	76	72	69	97	22000		
Commons	10	non-residential	2.4					70835	6593	average of retail and restaurant dining area	319	1.62	750	10.7	plug	93	93	91	87	82	76	72	69	98	23000		
Commons	17	non-residential	2.13					62955	5852	average of retail and restaurant dining area	319	1.62	750	9.5	plug	92	92	90	86	81	75	71	68	97	21000		
Commons	2A	residential w/ density bonus	3.04	102.25	311	10%	40	124336	11557	dormitory sleeping room	100	0.51	750	5.9	plug	90	90	88	84	79	73	69	66	95	13000		
Commons	2B	residential w/ density bonus	2.72	102.25	278	10%	40	111248	10341	dormitory sleeping room	100	0.51	750	5.2	plug	90	90	88	84	79	73	69	66	94	12000		
Commons	3	residential w/ density bonus	1.89	102.25	193	10%	40	77301	7185	dormitory sleeping room	100	0.51	750	3.6	plug	88	88	86	82	77	71	67	64	93	8000		
Commons	4	residential w/ density bonus	2.11	102.25	216	10%	40	86299	8022	dormitory sleeping room	100	0.51	750	4.1	plug	89	89	87	83	78	72	68	65	93	9000		
Commons	5	residential w/ density bonus	2.38	102.25	243	10%	40	97342	9048	dormitory sleeping room	100	0.51	750	4.6	plug	89	89	87	83	78	72	68	65	94	10000		
Commons	6A	residential w/ density bonus	1.21	102.25	124	10%	40	49489	4600	dormitory sleeping room	100	0.51	750	2.3	plug	86	86	84	80	75	69	65	62	91	5000		
Commons	6B	residential w/ density bonus	1.77	102.25	181	10%	40	72393	6729	dormitory sleeping room	100	0.51	750	3.4	plug	88	88	86	82	77	71	67	64	93	8000		
Commons	6C	residential w/ density bonus	1.33	102.25	136	10%	40	54397	5056	dormitory sleeping room	100	0.51	750	2.6	plug	87	87	85	81	76	70	66	63	91	6000		
Commons	7	residential w/ density bonus	2.4	102.25	245	10%	40	98160	9124	dormitory sleeping room	100	0.51	750	4.6	plug	89	89	87	83	78	72	68	65	94	10000		
Commons	8	residential w/ density bonus	3.41	102.25	349	10%	40	139469	12964	dormitory sleeping room	100	0.51	750	6.6	plug	91	91	89	85	80	74	70	67	95	14000		
Commons	9	residential w/ density bonus	2.27	102.25	232	10%	40	92843	8630	dormitory sleeping room	100	0.51	750	4.4	plug	89	89	87	83	78	72	68	65	94	10000		
Commons	10	residential w/ density bonus	2.4	102.25	245	10%	40	98160	9124	dormitory sleeping room	100	0.51	750	4.6	plug	89	89	87	83	78	72	68	65	94	10000		
Commons	17	base residential	2.13	102.25	218	10%	40	87117	8098	dormitory sleeping room	100	0.51	750	4.1	plug	89	89	87	83	78	72	68	65	93	9000		
Center	all	non-residential	17					862960	80213																		
Center	18	non-residential	3.32					168531	15665	average of retail and restaurant dining area	319	1.62	750	25.4	plug	97	97	95	91	86	80	76	73	101	54000		
Center	19A	non-residential	3.08					156348	14533	average of retail and restaurant dining area	319	1.62	750	23.5	plug	96	96	94	90	85	79	75	72	101	50000		
Center	19B	non-residential	0.9					45686	4247	average of retail and restaurant dining area	319	1.62	750	6.9	plug	91	91	89	85	80	74	70	67	96	15000		
Center	20	non-residential	3.54					179699	16703	average of retail and restaurant dining area	319	1.62	750	27.1	plug	97	97	95	91	86	80	76	73	102	58000		
Center	21	non-residential	3.37					171069	15801	average of retail and restaurant dining area	319	1.62	750	25.8	plug	97	97	95	91	86	80	76	73	101	55000		
Center	22	non-residential	2.79					141627	13164	average of retail and restaurant dining area	319	1.62	750	21.3	plug	96	96	94	90	85	79	75	72	101	46000		
Center	18	residential w/ density bonus	3.32	140.83	468	10%	40	187022	17384	dormitory sleeping room	100	0.51	750	8.8	plug	92	92	90	86	81	75	71	68	97	15000		
Center	19A	residential w/ density bonus	3.08	140.83	434	10%	40	173503	16127	dormitory sleeping room	100	0.51	750	8.2	plug	92	92	90	86	81	75	71	68	96	18000		
Center	19B	residential w/ density bonus	0.9	140.83	127	10%	40	50699	4712	dormitory sleeping room	100	0.51	750	2.4	plug	86	86	84	80	75	69	65	62	91	6000		
Center	20	residential w/ density bonus	3.54	140.83	499	10%	40	199415	18536	dormitory sleeping room	100	0.51	750	9.0	plug	92	92	90	86	81	75	71	68	97	20000		
Center	21	residential w/ density bonus	3.37	140.83	475	10%	40	1988839</																			

