

Noise Appendix G

Field Noise Measurement Data Sheets

Field Noise Measurement Data

Record: 403

Project Name	Euclid and Broadway
Observer(s)	Connor Burke
Date	2017-04-06
autoemail	cburke@dudek.com

Meteorological Conditions

Temp (F)	72
Humidity % (R.H.)	60
Wind	Calm
Wind Speed (MPH)	2
Wind Direction	East
Sky	Sunny

Instrument and Calibrator Information

Instrument Name List	(ENC) Rion NL-52
Instrument Name	(ENC) Rion NL-52
Instrument Name Lookup Key	(ENC) Rion NL-52
Manufacturer	Rion
Model	NL-52
Serial Number	553896
Calibrator Name	(ENC) LD CAL150
Calibrator Name	(ENC) LD CAL150
Calibrator Name Lookup Key	(ENC) LD CAL150
Calibrator Manufacturer	Larson Davis
Calibrator Model	LD CAL150
Calibrator Serial #	5152
Pre-Test (dBA SPL)	94
Post-Test (dBA SPL)	94
Windscreen	Yes
Weighting?	A-WTD
Slow/Fast?	Slow
ANSI?	Yes

Recordings

Record #	1
Site ID	ST1
Site Location	Latitude:33.828120, Longitude:-117.941281, Altitude:39.407879, Speed:0.000000, Horizontal Accuracy:10.000000, Vertical Accuracy:3.000000, Time:10:37:45 AM PDT
Begin (Time)	10:37:00
End (Time)	10:48:00
Leq	71.2
Lmax	91.6
Lmin	53
Other Lx?	L90, L50, L10
L90	59.9
L50	68.1
L10	73.9
Other (Specify Metric)	
Primary Noise Source	Traffic


Other Noise Sources (Background)	Birds, Distant Conversations / Yelling, Distant Dog Barking, Distant Traffic
Is the same instrument and calibrator being used as previously notated?	Yes
Are the meteorological conditions the same as previously notated?	Yes

Source Info and Traffic Counts	
Distance to Roadway (feet)	10
Distance to Roadway - Centerline/Edge of Pavement	Edge of Pavement
Estimated Vehicle Speed (MPH)	35
Count Duration (Min)	10
Posted Speed Limit Sign (MPH)	35

Traffic Counts	
Counting Both Directions?	Yes
Autos	1
Number of Vehicles - Autos	382
Medium Trucks	1
Number of Vehicles - Medium Trucks	5
Heavy Trucks	1
Number of Vehicles - Heavy Trucks	2
Buses	1
Number of Vehicles - Buses	1

Description / Photos

Site Photos

Photo	
Comments / Description	Facing west towards Euclid St.

Recordings	
Record #	2
Site ID	ST2
Site Location	Latitude:33.828754, Longitude:-117.940900, Altitude:38.415508, Speed:0.000000, Horizontal Accuracy:10.000000, Vertical Accuracy:3.000000, Time:10:53:41 AM PDT
Begin (Time)	10:53:00
End (Time)	11:03:00
Leq	68.8
Lmax	82.1
Lmin	54.7
Other Lx?	L90, L50, L10
L90	60.1
L50	65.6
L10	72.8
Primary Noise Source	Traffic
Other Noise Sources (Background)	Birds, Distant Conversations / Yelling, Distant Traffic
Other Noise Sources Additional Description	Backup alarm.
Is the same instrument and calibrator being used as previously notated?	Yes
Are the meteorological conditions the same as previously notated?	Yes

Source Info and Traffic Counts	
Distance to Roadway (feet)	10
Distance to Roadway - Centerline/Edge of Pavement	Edge of Pavement
Estimated Vehicle Speed (MPH)	35
Count Duration (Min)	10

Traffic Counts	
Counting Both Directions?	Yes
Autos	1
Number of Vehicles - Autos	175
Medium Trucks	1
Number of Vehicles - Medium Trucks	2

Description / Photos	

Site Photos

Photo



Comments / Description

Facing north towards Broadway.

Recordings


Record #	3
Site ID	CN-1
Site Location	Latitude:33.828170, Longitude:-117.940310, Altitude:34.261761, Speed:0.000000, Horizontal Accuracy:10.000000, Vertical Accuracy:3.000000, Time:11:09:59 AM PDT
Begin (Time)	10:35:00
End (Time)	11:35:00
Leq	53.3
Lmax	78.9
Lmin	45.5
Other Lx?	L90, L50, L10
L90	47
L50	51
L10	55
Other (Specify Metric)	
Primary Noise Source	Traffic
Other Noise Sources (Background)	Birds, Distant Aircraft, Distant Conversations / Yelling, Distant Dog Barking, Distant Gardener / Landscape Noise, Distant Traffic, Rustling Leaves
Is the same instrument and calibrator being used as previously notated?	No
Are the meteorological conditions the same as previously notated?	Yes

Instrument and Calibration Info

Instrument Name List	(ENC) Piccolo #1008
Instrument Name	(ENC) Piccolo #1008
Instrument Name Lookup Key	(ENC) Piccolo #1008
Manufacturer	Soft dB
Model	Piccolo
Serial Number	150921008
Calibration Date	10/9/2015
Calibrator Name	(ENC) LD CAL150
Calibrator Name	(ENC) LD CAL150
Calibrator Name Lookup Key	(ENC) LD CAL150
Calibrator Manufacturer	Larson Davis
Calibrator Model	LD CAL150
Calibrator Serial #	5152
Pre-Test (dBA SPL)	94
Post-Test (dBA SPL)	94
Windscreen	Yes
Weighting?	A-WTD
Slow/Fast?	Slow
ANSI?	NA

Description / Photos

Site Photos

Photo	
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Comments / Description	Measurement locations
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Traffic Noise Model Input / Output

INPUT: ROADWAYS

9289_0002

Dudek													
MG												5 June 2017	
												TNM 2.5	
INPUT: ROADWAYS													
PROJECT/CONTRACT:		9289_0002										Average pavement type shall be used unless	
RUN:		Euclid_Broadway_Resi Anhm CalRun										a State highway agency substantiates the use	
												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	%			
West Broadway w of S Euclid St		64.0	point1	1	560.0	1,542.2	120.00				Average		
			point2	2	1,270.9	1,540.0	120.00						
S Euclid St n of W Broadway		80.0	point4	4	1,260.0	2,141.6	120.00				Average		
			point5	5	1,275.2	1,551.1	120.00						
S Euclid St s of W Broadway		80.0	point8	8	1,274.5	1,534.9	120.00				Average		
			point6	6	1,279.6	608.2	120.00						
West Broadway e of S Euclid St		64.0	point9	9	1,270.9	1,540.0	120.00				Average		
			point3	3	2,180.8	1,548.8	120.00						

INPUT: TRAFFIC FOR LAeq1h Volumes

9289_0002

Dudek		5 June 2017										
MG		TNM 2.5										
INPUT: TRAFFIC FOR LAeq1h Volumes												
PROJECT/CONTRACT:		9289_0002										
RUN:		Euclid_Broadway_Resi Anhm CalRun										
Roadway	Points											
Name	Name	No.	Segment		MTrucks		HTrucks		Buses		Motorcycles	
			Autos		V	S	V	S	V	S	V	S
			veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph
West Broadway w of S Euclid St	point1	1	1050	35	12	35	0	0	6	35	0	0
	point2	2										
S Euclid St n of W Broadway	point4	4	2292	35	30	35	12	35	0	0	0	0
	point5	5										
S Euclid St s of W Broadway	point8	8	2292	35	30	35	12	35	0	0	0	0
	point6	6										
West Broadway e of S Euclid St	point9	9	1050	35	12	35	0	0	6	35	0	0
	point3	3										

INPUT: RECEIVERS

9289_0002

							5 June 2017					
Dudek							TNM 2.5					
MG												
INPUT: RECEIVERS												
PROJECT/CONTRACT:		9289_0002										
RUN:		Euclid_Broadway_Resi Anhm CalRun										
Receiver												
Name	No.	#DUs	Coordinates (ground)			Height above Ground	Input Sound Levels and Criteria				Active in Calc.	
			X	Y	Z		Existing LAeq1h	Impact LAeq1h	Criteria Sub'l	NR Goal		
			ft	ft	ft	ft	dBA	dBA	dB	dB		
ST1	1	1	1,316.4	1,288.6	120.00	5.00	71.20	66	10.0	8.0	Y	
ST2	2	1	1,472.1	1,507.5	120.00	5.00	68.80	66	10.0	8.0	Y	
CN1	3	1	1,627.7	1,370.4	120.00	5.00	0.00	66	10.0	8.0		
M1	4	1	1,202.2	1,103.4	120.00	5.00	0.00	66	10.0	8.0		
M2	5	1	1,698.2	1,478.3	120.00	5.00	0.00	66	10.0	8.0		
M3	6	1	817.7	1,468.6	120.00	5.00	0.00	66	10.0	8.0		

Dudek				5 June 2017															
MG				TNM 2.5															
INPUT: BARRIERS																			
PROJECT/CONTRACT:	9289_0002																		
RUN:	Euclid_Broadway_Resi Anhm CalRun																		

Barrier									Points										
Name	Type	Height		If Wall \$ per Unit Area	If Berm \$ per Unit Vol.	Top Width	Run:Rise ft:ft	Add'tnl \$ per Unit Length	Name	No.	Coordinates (bottom)			Height at Point	Segment			On Struct?	Important Reflec- tions?
		Min	Max								X	Y	Z		Seg Incr-	Ht #Up	Perturbs #Dn		
		ft	ft	\$/sq ft	\$/cu yd	ft	ft:ft	\$/ft			ft	ft	ft	ft	ft				
Barrier1	W	0.00	99.99	0.00				0.00	point1	1	1,649.1	1,381.4	120.00	12.00	0.00	0	0		
									point2	2	1,647.7	1,478.5	120.00	12.00	0.00	0	0		
									point3	3	1,687.6	1,478.5	120.00	12.00	0.00	0	0		
									point4	4	1,689.0	1,381.4	120.00	12.00					
Barrier2	W	0.00	99.99	0.00				0.00	point5	5	1,712.5	1,384.1	120.00	12.00	0.00	0	0		
									point6	6	1,709.0	1,479.2	120.00	12.00	0.00	0	0		
									point7	7	1,748.3	1,479.2	120.00	12.00	0.00	0	0		
									point8	8	1,750.3	1,384.8	120.00	12.00					
Barrier3	W	0.00	99.99	0.00				0.00	point9	9	1,818.6	1,387.6	120.00	12.00	0.00	0	0		
									point10	10	1,817.2	1,479.9	120.00	12.00	0.00	0	0		
									point11	11	1,856.4	1,479.9	120.00	12.00	0.00	0	0		
									point12	12	1,856.4	1,386.9	120.00	12.00					
Barrier4	W	0.00	99.99	0.00				0.00	point13	13	1,884.0	1,386.2	120.00	12.00	0.00	0	0		
									point14	14	1,881.2	1,482.7	120.00	12.00	0.00	0	0		
									point15	15	1,919.8	1,482.0	120.00	12.00	0.00	0	0		
									point16	16	1,922.6	1,384.8	120.00	12.00					
Barrier5	W	0.00	99.99	0.00				0.00	point17	17	1,678.2	1,233.7	120.00	12.00	0.00	0	0		
									point18	18	1,678.2	1,371.8	120.00	12.00	0.00	0	0		
									point19	19	1,715.6	1,371.8	120.00	12.00	0.00	0	0		
									point20	20	1,717.3	1,299.7	120.00	12.00	0.00	0	0		
									point21	21	1,849.3	1,300.6	120.00	12.00	0.00	0	0		
									point22	22	1,846.6	1,375.2	120.00	12.00	0.00	0	0		
									point23	23	1,885.7	1,376.1	120.00	12.00	0.00	0	0		
									point24	24	1,887.4	1,235.5	120.00	12.00					
Barrier6	W	0.00	99.99	0.00				0.00	point25	25	1,681.7	1,033.4	120.00	12.00	0.00	0	0		
									point26	26	1,679.7	1,172.6	120.00	12.00	0.00	0	0		
									point27	27	1,885.7	1,174.7	120.00	12.00	0.00	0	0		
									point28	28	1,888.4	1,038.2	120.00	12.00	0.00	0	0		
									point29	29	1,847.8	1,036.9	120.00	12.00	0.00	0	0		
									point30	30	1,848.5	1,109.2	120.00	12.00	0.00	0	0		
									point31	31	1,716.9	1,106.5	120.00	12.00	0.00	0	0		
									point32	32	1,718.3	1,030.7	120.00	12.00					
Barrier7	W	0.00	99.99	0.00				0.00	point33	33	1,653.7	944.6	120.00	12.00	0.00	0	0		
									point34	34	1,652.0	1,015.0	120.00	12.00	0.00	0	0		
									point35	35	1,913.3	1,017.6	120.00	12.00	0.00	0	0		

INPUT: BARRIERS

9289_0002

									point36	36	1,914.2	946.4	120.00	12.00				
Barrier8	W	0.00	99.99	0.00			0.00	point37	37	1,127.6	1,471.9	120.00	15.00	0.00	0	0		
								point38	38	1,181.4	1,471.0	120.00	15.00	0.00	0	0		
								point39	39	1,181.4	1,392.0	120.00	15.00	0.00	0	0		
								point40	40	1,138.0	1,392.0	120.00	15.00	0.00	0	0		
								point41	41	1,138.9	1,428.5	120.00	15.00	0.00	0	0		
								point42	42	1,125.0	1,427.6	120.00	15.00					
Barrier9	W	0.00	99.99	0.00			0.00	point44	44	1,064.2	1,345.2	120.00	15.00	0.00	0	0		
								point45	45	1,178.8	1,346.9	120.00	15.00	0.00	0	0		
								point46	46	1,179.7	1,257.5	120.00	15.00	0.00	0	0		
								point47	47	1,043.4	1,260.9	120.00	15.00	0.00	0	0		
								point48	48	1,046.9	1,382.5	120.00	15.00	0.00	0	0		
								point49	49	1,106.8	1,381.6	120.00	15.00					
Barrier10	W	0.00	99.99	0.00			0.00	point50	50	1,395.0	1,034.4	120.00	12.00	0.00	0	0		
								point51	51	1,396.7	974.5	120.00	12.00	0.00	0	0		
								point52	52	1,625.9	978.8	120.00	12.00	0.00	0	0		
								point53	53	1,623.3	1,020.5	120.00	12.00	0.00	0	0		
								point54	54	1,441.0	1,019.6	120.00	12.00	0.00	0	0		
								point55	55	1,439.3	1,037.0	120.00	12.00					
Barrier11	W	0.00	99.99	0.00			0.00	point56	56	1,380.4	1,400.2	120.00	15.00	0.00	0	0		
								point57	57	1,433.5	1,446.6	120.00	15.00	0.00	0	0		
								point58	58	1,455.3	1,419.3	120.00	15.00	0.00	0	0		
								point59	59	1,405.6	1,375.5	120.00	15.00					
Barrier12	W	0.00	99.99	0.00			0.00	point60	60	1,391.9	1,248.1	120.00	10.00	0.00	0	0		
								point61	61	1,391.4	1,348.7	120.00	10.00	0.00	0	0		
								point62	62	1,475.0	1,349.8	120.00	10.00	0.00	0	0		
								point63	63	1,475.6	1,325.8	120.00	10.00	0.00	0	0		
								point64	64	1,469.0	1,325.8	120.00	10.00	0.00	0	0		
								point65	65	1,470.7	1,250.3	120.00	10.00					
Barrier13	W	0.00	99.99	0.00			0.00	point66	66	1,392.5	1,124.2	120.00	12.00	0.00	0	0		
								point67	67	1,391.1	1,167.6	120.00	12.00	0.00	0	0		
								point68	68	1,519.3	1,169.0	120.00	12.00	0.00	0	0		
								point69	69	1,519.3	1,127.6	120.00	12.00					
Barrier14	W	0.00	99.99	0.00			0.00	point70	70	1,522.8	1,407.4	120.00	12.00	0.00	0	0		
								point71	71	1,522.4	1,439.5	120.00	12.00	0.00	0	0		
								point72	72	1,507.6	1,439.1	120.00	12.00	0.00	0	0		
								point73	73	1,507.2	1,478.2	120.00	12.00	0.00	0	0		
								point74	74	1,555.4	1,477.7	120.00	12.00	0.00	0	0		
								point75	75	1,554.5	1,446.5	120.00	12.00	0.00	0	0		
								point76	76	1,581.4	1,446.1	120.00	12.00	0.00	0	0		
								point77	77	1,579.7	1,489.0	120.00	12.00	0.00	0	0		
								point78	78	1,614.8	1,489.0	120.00	12.00	0.00	0	0		
								point79	79	1,615.3	1,477.3	120.00	12.00	0.00	0	0		
								point80	80	1,615.7	1,449.5	120.00	12.00	0.00	0	0		
								point81	81	1,607.0	1,449.5	120.00	12.00	0.00	0	0		
								point82	82	1,607.0	1,407.0	120.00	12.00					
Barrier15	W	0.00	99.99	0.00			0.00	point84	84	1,198.4	1,215.1	120.00	15.00	0.00	0	0		
								point85	85	1,148.1	1,213.4	120.00	15.00	0.00	0	0		
								point86	86	1,149.8	969.4	120.00	15.00	0.00	0	0		

INPUT: BARRIERS

9289_0002

									point87	87	1,194.9	967.7	120.00	15.00	0.00	0	0		
									point88	88	1,193.2	1,188.2	120.00	15.00	0.00	0	0		
									point89	89	1,200.2	1,188.2	120.00	15.00					

RESULTS: SOUND LEVELS

9289_0002

Dudek										5 June 2017			
MG										TNM 2.5			
										Calculated with TNM 2.5			
RESULTS: SOUND LEVELS													
PROJECT/CONTRACT:		9289_0002											
RUN:		Euclid_Broadway_Resi Anhm CalRun											
BARRIER DESIGN:		INPUT HEIGHTS								Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.			
ATMOSPHERICS:		68 deg F, 50% RH											
Receiver													
Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h	Increase over existing		Type	With Barrier		Noise Reduction			
				Calculated	Crit'n	Calculated	Crit'n	Impact	Calculated LAeq1h	Calculated	Goal	Calculated minus Goal	
			dB	dB	dB	dB	dB		dB	dB	dB	dB	
ST1	1	1	71.2	69.0	66	-2.2	10	Snd Lvl	69.0	0.0	8	-8.0	
ST2	2	1	68.8	66.9	66	-1.9	10	Snd Lvl	66.9	0.0	8	-8.0	
CN1	3	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0	
M1	4	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0	
M2	5	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0	
M3	6	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0	
Dwelling Units		# DUs	Noise Reduction										
			Min	Avg	Max								
			dB	dB	dB								
All Selected		6	0.0	0.0	0.0								
All Impacted		2	0.0	0.0	0.0								
All that meet NR Goal		0	0.0	0.0	0.0								

INPUT: ROADWAYS

9289_0002

Dudek MG				5 June 2017 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:		9289_0002									
RUN:		Euclid_Broadway_Resi Anhm Existing									
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	%		
West Broadway w of S Euclid St	64.0	point1	1	560.0	1,542.2	120.00				Average	
		point2	2	1,270.9	1,540.0	120.00					
S Euclid St n of W Broadway	80.0	point4	4	1,260.0	2,141.6	120.00				Average	
		point5	5	1,275.2	1,551.1	120.00					
S Euclid St s of W Broadway	80.0	point8	8	1,274.5	1,534.9	120.00				Average	
		point6	6	1,279.6	608.2	120.00					
West Broadway e of S Euclid St	64.0	point9	9	1,270.9	1,540.0	120.00				Average	
		point3	3	2,180.8	1,548.8	120.00					

INPUT: TRAFFIC FOR LAeq1h Percentages

9289_0002

Dudek				5 June 2017										
MG				TNM 2.5										
INPUT: TRAFFIC FOR LAeq1h Percentages														
PROJECT/CONTRACT:		9289_0002												
RUN:		Euclid_Broadway_Resi Anhm Existing												
Roadway		Points												
Name		Name	No.	Segment	Autos		MTrucks		HTrucks		Buses		Motorcycles	
				Total										
				Volume	P	S	P	S	P	S	P	S	P	S
				veh/hr	%	mph	%	mph	%	mph	%	mph	%	mph
West Broadway w of S Euclid St		point1	1	1660	97	35	2	35	1	35	0	0	0	0
		point2	2											
S Euclid St n of W Broadway		point4	4	3270	97	35	2	35	1	35	0	0	0	0
		point5	5											
S Euclid St s of W Broadway		point8	8	3170	97	35	2	35	1	35	0	0	0	0
		point6	6											
West Broadway e of S Euclid St		point9	9	1630	97	35	2	35	1	35	0	0	0	0
		point3	3											

INPUT: RECEIVERS

9289_0002

							5 June 2017					
Dudek							TNM 2.5					
MG												
INPUT: RECEIVERS												
PROJECT/CONTRACT:		9289_0002										
RUN:		Euclid_Broadway_Resi Anhm Existing										
Receiver												
Name	No.	#DUs	Coordinates (ground)			Height above Ground	Input Sound Levels and Criteria				Active in Calc.	
			X	Y	Z		Existing LAeq1h	Impact LAeq1h	Criteria Sub'l	NR Goal		
			ft	ft	ft	ft	dBA	dBA	dB	dB		
ST1	1	1	1,316.4	1,288.6	120.00	5.00	0.00	66	10.0	8.0	Y	
ST2	2	1	1,472.1	1,507.5	120.00	5.00	0.00	66	10.0	8.0	Y	
CN1	3	1	1,627.7	1,370.4	120.00	5.00	0.00	66	10.0	8.0	Y	
M1	4	1	1,202.2	1,103.4	120.00	5.00	0.00	66	10.0	8.0	Y	
M2	5	1	1,698.2	1,478.3	120.00	5.00	0.00	66	10.0	8.0	Y	
M3	6	1	817.7	1,468.6	120.00	5.00	0.00	66	10.0	8.0	Y	

Dudek MG										5 June 2017 TNM 2.5									
INPUT: BARRIERS																			
PROJECT/CONTRACT:		9289_0002																	
RUN:		Euclid_Broadway_Resi Anhm Existing																	
Barrier									Points										
Name	Type	Height		If Wall \$ per Unit Area	If Berm \$ per Unit Vol.	Top Width ft	Run:Rise ft:ft	Add'tnl \$ per Unit Length	Name	No.	Coordinates (bottom)			Height at Point ft	Segment				Important Reflec- tions?
		Min ft	Max ft								X ft	Y ft	Z ft		Seg Ht ft	Perturbs #Up	#Dn	On Struct?	
Barrier1	W	0.00	99.99	0.00				0.00	point1	1	1,649.1	1,381.4	120.00	12.00	0.00	0	0		
									point2	2	1,647.7	1,478.5	120.00	12.00	0.00	0	0		
									point3	3	1,687.6	1,478.5	120.00	12.00	0.00	0	0		
Barrier2	W	0.00	99.99	0.00				0.00	point4	4	1,689.0	1,381.4	120.00	12.00					
									point5	5	1,712.5	1,384.1	120.00	12.00	0.00	0	0		
									point6	6	1,709.0	1,479.2	120.00	12.00	0.00	0	0		
Barrier3	W	0.00	99.99	0.00				0.00	point7	7	1,748.3	1,479.2	120.00	12.00	0.00	0	0		
									point8	8	1,750.3	1,384.8	120.00	12.00					
									point9	9	1,818.6	1,387.6	120.00	12.00	0.00	0	0		
Barrier4	W	0.00	99.99	0.00				0.00	point10	10	1,817.2	1,479.9	120.00	12.00	0.00	0	0		
									point11	11	1,856.4	1,479.9	120.00	12.00	0.00	0	0		
									point12	12	1,856.4	1,386.9	120.00	12.00					
Barrier5	W	0.00	99.99	0.00				0.00	point13	13	1,884.0	1,386.2	120.00	12.00	0.00	0	0		
									point14	14	1,881.2	1,482.7	120.00	12.00	0.00	0	0		
									point15	15	1,919.8	1,482.0	120.00	12.00	0.00	0	0		
Barrier6	W	0.00	99.99	0.00				0.00	point16	16	1,922.6	1,384.8	120.00	12.00					
									point17	17	1,678.2	1,233.7	120.00	12.00	0.00	0	0		
									point18	18	1,678.2	1,371.8	120.00	12.00	0.00	0	0		
Barrier7	W	0.00	99.99	0.00				0.00	point19	19	1,715.6	1,371.8	120.00	12.00	0.00	0	0		
									point20	20	1,717.3	1,299.7	120.00	12.00	0.00	0	0		
									point21	21	1,849.3	1,300.6	120.00	12.00	0.00	0	0		
Barrier8	W	0.00	99.99	0.00				0.00	point22	22	1,846.6	1,375.2	120.00	12.00	0.00	0	0		
									point23	23	1,885.7	1,376.1	120.00	12.00	0.00	0	0		
									point24	24	1,887.4	1,235.5	120.00	12.00					
Barrier9	W	0.00	99.99	0.00				0.00	point25	25	1,681.7	1,033.4	120.00	12.00	0.00	0	0		
									point26	26	1,679.7	1,172.6	120.00	12.00	0.00	0	0		
									point27	27	1,885.7	1,174.7	120.00	12.00	0.00	0	0		
Barrier10	W	0.00	99.99	0.00				0.00	point28	28	1,888.4	1,038.2	120.00	12.00	0.00	0	0		
									point29	29	1,847.8	1,036.9	120.00	12.00	0.00	0	0		
									point30	30	1,848.5	1,109.2	120.00	12.00	0.00	0	0		
Barrier11	W	0.00	99.99	0.00				0.00	point31	31	1,716.9	1,106.5	120.00	12.00	0.00	0	0		
									point32	32	1,718.3	1,030.7	120.00	12.00					
									point33	33	1,653.7	944.6	120.00	12.00	0.00	0	0		
Barrier12	W	0.00	99.99	0.00				0.00	point34	34	1,652.0	1,015.0	120.00	12.00	0.00	0	0		
									point35	35	1,913.3	1,017.6	120.00	12.00	0.00	0	0		

INPUT: BARRIERS

9289_0002

									point36	36	1,914.2	946.4	120.00	12.00				
Barrier8	W	0.00	99.99	0.00			0.00	point37	37	1,127.6	1,471.9	120.00	15.00	0.00	0	0		
								point38	38	1,181.4	1,471.0	120.00	15.00	0.00	0	0		
								point39	39	1,181.4	1,392.0	120.00	15.00	0.00	0	0		
								point40	40	1,138.0	1,392.0	120.00	15.00	0.00	0	0		
								point41	41	1,138.9	1,428.5	120.00	15.00	0.00	0	0		
								point42	42	1,125.0	1,427.6	120.00	15.00					
Barrier9	W	0.00	99.99	0.00			0.00	point44	44	1,064.2	1,345.2	120.00	15.00	0.00	0	0		
								point45	45	1,178.8	1,346.9	120.00	15.00	0.00	0	0		
								point46	46	1,179.7	1,257.5	120.00	15.00	0.00	0	0		
								point47	47	1,043.4	1,260.9	120.00	15.00	0.00	0	0		
								point48	48	1,046.9	1,382.5	120.00	15.00	0.00	0	0		
								point49	49	1,106.8	1,381.6	120.00	15.00					
Barrier10	W	0.00	99.99	0.00			0.00	point50	50	1,395.0	1,034.4	120.00	12.00	0.00	0	0		
								point51	51	1,396.7	974.5	120.00	12.00	0.00	0	0		
								point52	52	1,625.9	978.8	120.00	12.00	0.00	0	0		
								point53	53	1,623.3	1,020.5	120.00	12.00	0.00	0	0		
								point54	54	1,441.0	1,019.6	120.00	12.00	0.00	0	0		
								point55	55	1,439.3	1,037.0	120.00	12.00					
Barrier11	W	0.00	99.99	0.00			0.00	point56	56	1,380.4	1,400.2	120.00	15.00	0.00	0	0		
								point57	57	1,433.5	1,446.6	120.00	15.00	0.00	0	0		
								point58	58	1,455.3	1,419.3	120.00	15.00	0.00	0	0		
								point59	59	1,405.6	1,375.5	120.00	15.00					
Barrier12	W	0.00	99.99	0.00			0.00	point60	60	1,391.9	1,248.1	120.00	10.00	0.00	0	0		
								point61	61	1,391.4	1,348.7	120.00	10.00	0.00	0	0		
								point62	62	1,475.0	1,349.8	120.00	10.00	0.00	0	0		
								point63	63	1,475.6	1,325.8	120.00	10.00	0.00	0	0		
								point64	64	1,469.0	1,325.8	120.00	10.00	0.00	0	0		
								point65	65	1,470.7	1,250.3	120.00	10.00					
Barrier13	W	0.00	99.99	0.00			0.00	point66	66	1,392.5	1,124.2	120.00	12.00	0.00	0	0		
								point67	67	1,391.1	1,167.6	120.00	12.00	0.00	0	0		
								point68	68	1,519.3	1,169.0	120.00	12.00	0.00	0	0		
								point69	69	1,519.3	1,127.6	120.00	12.00					
Barrier14	W	0.00	99.99	0.00			0.00	point70	70	1,522.8	1,407.4	120.00	12.00	0.00	0	0		
								point71	71	1,522.4	1,439.5	120.00	12.00	0.00	0	0		
								point72	72	1,507.6	1,439.1	120.00	12.00	0.00	0	0		
								point73	73	1,507.2	1,478.2	120.00	12.00	0.00	0	0		
								point74	74	1,555.4	1,477.7	120.00	12.00	0.00	0	0		
								point75	75	1,554.5	1,446.5	120.00	12.00	0.00	0	0		
								point76	76	1,581.4	1,446.1	120.00	12.00	0.00	0	0		
								point77	77	1,579.7	1,489.0	120.00	12.00	0.00	0	0		
								point78	78	1,614.8	1,489.0	120.00	12.00	0.00	0	0		
								point79	79	1,615.3	1,477.3	120.00	12.00	0.00	0	0		
								point80	80	1,615.7	1,449.5	120.00	12.00	0.00	0	0		
								point81	81	1,607.0	1,449.5	120.00	12.00	0.00	0	0		
								point82	82	1,607.0	1,407.0	120.00	12.00					
Barrier15	W	0.00	99.99	0.00			0.00	point84	84	1,198.4	1,215.1	120.00	15.00	0.00	0	0		
								point85	85	1,148.1	1,213.4	120.00	15.00	0.00	0	0		
								point86	86	1,149.8	969.4	120.00	15.00	0.00	0	0		

INPUT: BARRIERS

9289_0002

									point87	87	1,194.9	967.7	120.00	15.00	0.00	0	0		
									point88	88	1,193.2	1,188.2	120.00	15.00	0.00	0	0		
									point89	89	1,200.2	1,188.2	120.00	15.00					
Barrier16	W	0.00	99.99	0.00				0.00	point90	90	1,625.4	1,501.4	120.00	6.00	0.00	0	0		
									point91	91	1,625.6	1,077.2	120.00	6.00					

RESULTS: SOUND LEVELS

9289_0002

Dudek										5 June 2017			
MG										TNM 2.5			
										Calculated with TNM 2.5			
RESULTS: SOUND LEVELS													
PROJECT/CONTRACT:		9289_0002											
RUN:		Euclid_Broadway_Resi Anhm Existing											
BARRIER DESIGN:		INPUT HEIGHTS								Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.			
ATMOSPHERICS:		68 deg F, 50% RH											
Receiver													
Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h	Increase over existing		Type	With Barrier		Noise Reduction			
			Calculated	Crit'n	Calculated	Crit'n	Impact	Calculated LAeq1h	Calculated	Goal	Calculated	minus Goal	
			dB	dB	dB	dB		dB	dB	dB	dB	dB	
ST1	1	1	0.0	70.7	66	70.7	10	Snd Lvl	70.7	0.0	8	-8.0	
ST2	2	1	0.0	69.2	66	69.2	10	Snd Lvl	69.2	0.0	8	-8.0	
CN1	3	1	0.0	51.2	66	51.2	10	----	51.2	0.0	8	-8.0	
M1	4	1	0.0	67.3	66	67.3	10	Snd Lvl	67.3	0.0	8	-8.0	
M2	5	1	0.0	65.0	66	65.0	10	----	65.0	0.0	8	-8.0	
M3	6	1	0.0	64.7	66	64.7	10	----	64.7	0.0	8	-8.0	
Dwelling Units		# DUs	Noise Reduction										
			Min	Avg	Max								
			dB	dB	dB								
All Selected		6	0.0	0.0	0.0								
All Impacted		3	0.0	0.0	0.0								
All that meet NR Goal		0	0.0	0.0	0.0								

INPUT: ROADWAYS

9289_0002

Dudek				5 June 2017								
MG				TNM 2.5								
INPUT: ROADWAYS												
PROJECT/CONTRACT:		9289_0002									Average pavement type shall be used unless a State highway agency substantiates the use of a different type with the approval of FHWA	
RUN:		Euclid_Broadway_Resi Anhm Ex w Proj										
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	%		
West Broadway w of S Euclid St		64.0	point1	1	560.0	1,542.2	119.00				Average	
			point2	2	1,270.9	1,540.0	119.00					
S Euclid St n of W Broadway		80.0	point4	4	1,260.0	2,141.6	119.00				Average	
			point5	5	1,275.2	1,551.1	119.00					
S Euclid St s of W Broadway		80.0	point8	8	1,274.5	1,534.9	119.00				Average	
			point6	6	1,279.6	608.2	119.00					
West Broadway e of S Euclid St		64.0	point9	9	1,270.9	1,540.0	119.00				Average	
			point3	3	2,180.8	1,548.8	119.00					

INPUT: TRAFFIC FOR LAeq1h Percentages

9289_0002

Dudek				5 June 2017										
MG				TNM 2.5										
INPUT: TRAFFIC FOR LAeq1h Percentages														
PROJECT/CONTRACT:		9289_0002												
RUN:		Euclid_Broadway_Resi Anhm Ex w Proj												
Roadway		Points												
Name		Name	No.	Segment	Autos		MTrucks		HTrucks		Buses		Motorcycles	
				Total										
				Volume	P	S	P	S	P	S	P	S	P	S
				veh/hr	%	mph	%	mph	%	mph	%	mph	%	mph
West Broadway w of S Euclid St		point1	1	1670	97	35	2	35	1	35	0	0	0	0
		point2	2											
S Euclid St n of W Broadway		point4	4	3290	97	35	2	35	1	35	0	0	0	0
		point5	5											
S Euclid St s of W Broadway		point8	8	3180	97	35	2	35	1	35	0	0	0	0
		point6	6											
West Broadway e of S Euclid St		point9	9	1640	97	35	2	35	1	35	0	0	0	0
		point3	3											

INPUT: RECEIVERS

9289_0002

							5 June 2017					
Dudek							TNM 2.5					
MG												
INPUT: RECEIVERS												
PROJECT/CONTRACT:		9289_0002										
RUN:		Euclid_Broadway_Resi Anhm Ex w Proj										
Receiver												
Name	No.	#DUs	Coordinates (ground)			Height above Ground	Input Sound Levels and Criteria				Active in Calc.	
			X	Y	Z		Existing LAeq1h	Impact LAeq1h	Criteria Sub'l	NR Goal		
			ft	ft	ft	ft	dBA	dBA	dB	dB		
ST1	1	1	1,316.4	1,288.6	120.00	5.00	0.00	66	10.0	8.0	Y	
ST2	3	1	1,472.1	1,507.5	120.00	5.00	0.00	66	10.0	8.0	Y	
CN1	58	1	1,627.7	1,370.4	120.00	5.00	0.00	66	10.0	8.0	Y	
M1	59	1	1,202.2	1,103.4	120.00	5.00	0.00	66	10.0	8.0	Y	
M2	60	1	1,698.2	1,478.3	120.00	5.00	0.00	66	10.0	8.0	Y	
M3	61	1	817.7	1,468.6	120.00	5.00	0.00	66	10.0	8.0	Y	

INPUT: BARRIERS

9289_0002

									point36	36	1,914.2	946.4	120.00	12.00				
Barrier8	W	0.00	99.99	0.00			0.00	point37	37	1,127.6	1,471.9	120.00	15.00	0.00	0	0		
								point38	38	1,181.4	1,471.0	120.00	15.00	0.00	0	0		
								point39	39	1,181.4	1,392.0	120.00	15.00	0.00	0	0		
								point40	40	1,138.0	1,392.0	120.00	15.00	0.00	0	0		
								point41	41	1,138.9	1,428.5	120.00	15.00	0.00	0	0		
								point42	42	1,125.0	1,427.6	120.00	15.00					
Barrier9	W	0.00	99.99	0.00			0.00	point44	44	1,064.2	1,345.2	120.00	15.00	0.00	0	0		
								point45	45	1,178.8	1,346.9	120.00	15.00	0.00	0	0		
								point46	46	1,179.7	1,257.5	120.00	15.00	0.00	0	0		
								point47	47	1,043.4	1,260.9	120.00	15.00	0.00	0	0		
								point48	48	1,046.9	1,382.5	120.00	15.00	0.00	0	0		
								point49	49	1,106.8	1,381.6	120.00	15.00					
Barrier10	W	0.00	99.99	0.00			0.00	point50	50	1,395.0	1,034.4	120.00	12.00	0.00	0	0		
								point51	51	1,396.7	974.5	120.00	12.00	0.00	0	0		
								point52	52	1,625.9	978.8	120.00	12.00	0.00	0	0		
								point53	53	1,623.3	1,020.5	120.00	12.00	0.00	0	0		
								point54	54	1,441.0	1,019.6	120.00	12.00	0.00	0	0		
								point55	55	1,439.3	1,037.0	120.00	12.00					
Barrier11	W	0.00	99.99	0.00			0.00	point56	56	1,380.4	1,400.2	120.00	15.00	0.00	0	0		
								point57	57	1,433.5	1,446.6	120.00	15.00	0.00	0	0		
								point58	58	1,455.3	1,419.3	120.00	15.00	0.00	0	0		
								point59	59	1,405.6	1,375.5	120.00	15.00					
Barrier15	W	0.00	99.99	0.00			0.00	point84	84	1,198.4	1,215.1	120.00	15.00	0.00	0	0		
								point85	85	1,148.1	1,213.4	120.00	15.00	0.00	0	0		
								point86	86	1,149.8	969.4	120.00	15.00	0.00	0	0		
								point87	87	1,194.9	967.7	120.00	15.00	0.00	0	0		
								point88	88	1,193.2	1,188.2	120.00	15.00	0.00	0	0		
								point89	89	1,200.2	1,188.2	120.00	15.00					
Lot 33 Plan 1	W	0.00	99.99	0.00			0.00	point96	96	1,352.4	1,293.5	120.00	25.50	0.00	0	0		
								point97	97	1,373.0	1,293.1	120.00	25.50	0.00	0	0		
								point98	98	1,372.9	1,246.5	120.00	25.00	0.00	0	0		
								point99	99	1,351.9	1,246.1	120.00	25.50					
Lot 32 Plan 1	W	0.00	99.99	0.00			0.00	point100	100	1,379.7	1,294.3	120.00	25.50	0.00	0	0		
								point102	102	1,400.4	1,294.0	120.00	25.50	0.00	0	0		
								point103	103	1,400.3	1,247.4	120.00	25.00	0.00	0	0		
								point104	104	1,379.2	1,247.0	120.00	25.50					
Lot 31 Plan 1	W	0.00	99.99	0.00			0.00	point202	202	1,406.8	1,293.3	120.00	25.50	0.00	0	0		
								point106	106	1,427.4	1,292.9	120.00	25.50	0.00	0	0		
								point107	107	1,427.3	1,246.3	120.00	25.00	0.00	0	0		
								point108	108	1,406.2	1,245.9	120.00	25.50					
Lot 30 Plan 1	W	0.00	99.99	0.00			0.00	point204	204	1,434.2	1,294.7	120.00	25.50	0.00	0	0		
								point110	110	1,454.9	1,294.3	120.00	25.50	0.00	0	0		
								point111	111	1,454.8	1,247.7	120.00	25.00	0.00	0	0		
								point112	112	1,433.7	1,247.3	120.00	25.50					
Lot 28 Plan 1	W	0.00	99.99	0.00			0.00	point207	207	1,488.1	1,294.0	120.00	25.50	0.00	0	0		
								point118	118	1,508.7	1,293.7	120.00	25.50	0.00	0	0		
								point119	119	1,508.6	1,247.0	120.00	25.50	0.00	0	0		
								point120	120	1,487.6	1,246.7	120.00	25.50					

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Lot 29 Plan 1	W	0.00	99.99	0.00				0.00	point208	208	1,460.8	1,293.1	120.00	25.50	0.00	0	0		
									point114	114	1,481.5	1,292.8	120.00	25.50	0.00	0	0		
									point115	115	1,481.4	1,246.1	120.00	25.50	0.00	0	0		
									point116	116	1,460.3	1,245.8	120.00	25.50					
Lot 27 Plan 1	W	0.00	99.99	0.00				0.00	point210	210	1,343.6	1,213.3	120.00	25.50	0.00	0	0		
									point122	122	1,364.1	1,213.1	120.00	25.50	0.00	0	0		
									point123	123	1,364.4	1,165.8	120.00	25.50	0.00	0	0		
									point124	124	1,343.9	1,166.1	120.00	25.50					
Lot 26 Plan 1	W	0.00	99.99	0.00				0.00	point212	212	1,370.8	1,213.3	120.00	25.50	0.00	0	0		
									point126	126	1,391.3	1,213.1	120.00	25.50	0.00	0	0		
									point127	127	1,391.6	1,165.8	120.00	25.50	0.00	0	0		
									point128	128	1,371.1	1,166.1	120.00	25.50					
Lot 25 Plan 1	W	0.00	99.99	0.00				0.00	point214	214	1,397.9	1,213.5	120.00	25.50	0.00	0	0		
									point130	130	1,418.4	1,213.3	120.00	25.50	0.00	0	0		
									point131	131	1,418.8	1,166.0	120.00	25.50	0.00	0	0		
									point132	132	1,398.3	1,166.3	120.00	25.50					
Lot 24 Plan 1	W	0.00	99.99	0.00				0.00	point216	216	1,425.0	1,213.4	120.00	25.50	0.00	0	0		
									point134	134	1,445.5	1,213.2	120.00	25.50	0.00	0	0		
									point135	135	1,445.8	1,165.9	120.00	25.50	0.00	0	0		
									point136	136	1,425.4	1,166.2	120.00	25.50					
Lot 22 Plan 1	W	0.00	99.99	0.00				0.00	point218	218	1,480.6	1,213.3	120.00	25.50	0.00	0	0		
									point142	142	1,501.1	1,213.1	120.00	25.50	0.00	0	0		
									point143	143	1,501.4	1,165.8	120.00	25.50	0.00	0	0		
									point144	144	1,480.9	1,166.1	120.00	25.50					
Lot 21 Plan 1	W	0.00	99.99	0.00				0.00	point220	220	1,507.1	1,213.3	120.00	25.50	0.00	0	0		
									point146	146	1,527.6	1,213.1	120.00	25.50	0.00	0	0		
									point147	147	1,528.0	1,165.8	120.00	25.50	0.00	0	0		
									point148	148	1,507.5	1,166.1	120.00	25.50					
Lot 23 Plan 1	W	0.00	99.99	0.00				0.00	point221	221	1,452.1	1,213.2	120.00	25.50	0.00	0	0		
									point138	138	1,472.6	1,213.0	120.00	25.50	0.00	0	0		
									point139	139	1,472.9	1,165.6	120.00	25.50	0.00	0	0		
									point140	140	1,452.4	1,166.0	120.00	25.50					
Lot 20 Plan 2	W	0.00	99.99	0.00				0.00	point224	224	1,343.2	1,135.8	120.00	35.50	0.00	0	0		
									point150	150	1,364.4	1,135.3	120.00	35.50	0.00	0	0		
									point151	151	1,364.3	1,097.1	120.00	35.50	0.00	0	0		
									point152	152	1,343.3	1,097.6	120.00	35.50					
Lot 19 Plan 2	W	0.00	99.99	0.00				0.00	point226	226	1,370.9	1,135.8	120.00	35.50	0.00	0	0		
									point154	154	1,392.1	1,135.3	120.00	35.50	0.00	0	0		
									point155	155	1,392.0	1,097.1	120.00	35.50	0.00	0	0		
									point156	156	1,371.1	1,097.6	120.00	35.50					
Lot 18 Plan 2	W	0.00	99.99	0.00				0.00	point228	228	1,397.5	1,135.6	120.00	35.50	0.00	0	0		
									point158	158	1,418.7	1,135.1	120.00	35.50	0.00	0	0		
									point159	159	1,418.6	1,096.9	120.00	35.50	0.00	0	0		
									point160	160	1,397.7	1,097.3	120.00	35.50					
Lot 17 Plan 2	W	0.00	99.99	0.00				0.00	point229	229	1,424.9	1,135.9	120.00	35.50	0.00	0	0		
									point162	162	1,446.1	1,135.4	120.00	35.50	0.00	0	0		
									point163	163	1,446.0	1,097.2	120.00	35.50	0.00	0	0		
									point164	164	1,425.1	1,097.7	120.00	35.50					
Lot 16 Plan 2	W	0.00	99.99	0.00				0.00	point232	232	1,451.9	1,135.6	120.00	35.50	0.00	0	0		

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									point166	166	1,473.1	1,135.1	120.00	35.50	0.00	0	0		
									point167	167	1,473.0	1,096.9	120.00	35.50	0.00	0	0		
									point168	168	1,452.1	1,097.3	120.00	35.50					
Lot 15 Plan 2	W	0.00	99.99	0.00			0.00		point234	234	1,478.9	1,136.3	120.00	35.50	0.00	0	0		
									point170	170	1,500.1	1,135.7	120.00	35.50	0.00	0	0		
									point171	171	1,500.0	1,097.6	120.00	35.50	0.00	0	0		
									point172	172	1,479.1	1,098.0	120.00	35.50					
Lot 14 Plan 2	W	0.00	99.99	0.00			0.00		point236	236	1,506.7	1,136.3	120.00	35.50	0.00	0	0		
									point174	174	1,527.9	1,135.7	120.00	35.50	0.00	0	0		
									point175	175	1,527.7	1,097.6	120.00	35.50	0.00	0	0		
									point176	176	1,506.8	1,098.0	120.00	35.50					
Lot 39 Plan 2	W	0.00	99.99	0.00			0.00		point238	238	1,491.1	1,482.1	120.00	35.50	0.00	0	0		
									point178	178	1,528.9	1,481.8	120.00	35.50	0.00	0	0		
									point179	179	1,528.9	1,460.9	120.00	35.50	0.00	0	0		
									point180	180	1,491.6	1,460.9	120.00	35.50					
Lot 1 Plan 2	W	0.00	99.99	0.00			0.00		point240	240	1,575.7	1,483.1	120.00	35.50	0.00	0	0		
									point182	182	1,614.2	1,482.6	120.00	35.50	0.00	0	0		
									point183	183	1,613.3	1,461.5	120.00	35.50	0.00	0	0		
									point184	184	1,575.7	1,461.7	120.00	35.50					
Lot 37 Plan 2	W	0.00	99.99	0.00			0.00		point244	244	1,490.9	1,438.9	120.00	35.50	0.00	0	0		
									point190	190	1,528.6	1,438.6	120.00	35.50	0.00	0	0		
									point191	191	1,528.6	1,417.7	120.00	35.50	0.00	0	0		
									point192	192	1,491.4	1,417.7	120.00	35.50					
Lot 34 Plan 2	W	0.00	99.99	0.00			0.00		point249	249	1,490.5	1,363.8	120.00	35.50	0.00	0	0		
									point198	198	1,528.2	1,363.5	120.00	35.50	0.00	0	0		
									point199	199	1,528.3	1,343.1	120.00	35.50	0.00	0	0		
									point101	101	1,491.1	1,343.1	120.00	35.50					
Lot 38 Plan 2	W	0.00	99.99	0.00			0.00		point250	250	1,491.4	1,460.5	120.00	35.50	0.00	0	0		
									point252	252	1,529.1	1,460.2	120.00	35.50	0.00	0	0		
									point253	253	1,529.1	1,439.4	120.00	35.50	0.00	0	0		
									point254	254	1,491.9	1,439.4	120.00	35.50					
Lot 2 Plan 2	W	0.00	99.99	0.00			0.00		point297	297	1,575.7	1,461.2	120.00	35.50	0.00	0	0		
									point256	256	1,614.2	1,461.0	120.00	35.50	0.00	0	0		
									point257	257	1,613.3	1,440.0	120.00	35.50	0.00	0	0		
									point258	258	1,575.7	1,440.2	120.00	35.50					
Lot 7 Plan 2	W	0.00	99.99	0.00			0.00		point303	303	1,574.2	1,281.5	120.00	35.50	0.00	0	0		
									point268	268	1,574.5	1,302.9	120.00	35.50	0.00	0	0		
									point269	269	1,614.6	1,302.9	120.00	35.50	0.00	0	0		
									point270	270	1,614.3	1,281.5	120.00	35.50					
Lot 8 Plan 2	W	0.00	99.99	0.00			0.00		point305	305	1,574.2	1,250.2	120.00	35.50	0.00	0	0		
									point272	272	1,574.5	1,271.7	120.00	35.50	0.00	0	0		
									point273	273	1,614.6	1,271.7	120.00	35.50	0.00	0	0		
									point274	274	1,614.3	1,250.2	120.00	35.50					
Lot 9 Plan 2	W	0.00	99.99	0.00			0.00		point307	307	1,574.2	1,219.0	120.00	35.50	0.00	0	0		
									point276	276	1,574.5	1,240.4	120.00	35.50	0.00	0	0		
									point277	277	1,614.6	1,240.4	120.00	35.50	0.00	0	0		
									point278	278	1,614.3	1,219.0	120.00	35.50					
Lot 13 Plan 2	W	0.00	99.99	0.00			0.00		point309	309	1,574.2	1,093.2	120.00	35.50	0.00	0	0		
									point292	292	1,574.5	1,114.6	120.00	35.50	0.00	0	0		

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									point293	293	1,614.6	1,114.6	120.00	35.50	0.00	0	0		
									point294	294	1,614.3	1,093.2	120.00	35.50					
Lot 12 Plan 2	W	0.00	99.99	0.00			0.00		point311	311	1,574.2	1,124.2	120.00	35.50	0.00	0	0		
									point288	288	1,574.5	1,145.6	120.00	35.50	0.00	0	0		
									point289	289	1,614.6	1,145.6	120.00	35.50	0.00	0	0		
									point290	290	1,614.3	1,124.2	120.00	35.50					
Lot 11 Plan 2	W	0.00	99.99	0.00			0.00		point313	313	1,574.2	1,155.6	120.00	35.50	0.00	0	0		
									point284	284	1,574.5	1,177.0	120.00	35.50	0.00	0	0		
									point285	285	1,614.6	1,177.0	120.00	35.50	0.00	0	0		
									point286	286	1,614.3	1,155.6	120.00	35.50					
Lot 10 Plan 2	W	0.00	99.99	0.00			0.00		point315	315	1,574.2	1,187.7	120.00	35.50	0.00	0	0		
									point280	280	1,574.5	1,209.1	120.00	35.50	0.00	0	0		
									point281	281	1,614.6	1,209.2	120.00	35.50	0.00	0	0		
									point282	282	1,614.3	1,187.7	120.00	35.50					
Perimeter Wall	W	0.00	99.99	0.00			0.00		point316	316	1,326.2	1,350.0	120.00	6.00	0.00	0	0		
									point317	317	1,474.3	1,351.0	120.00	6.00	0.00	0	0		
									point318	318	1,474.7	1,499.2	120.00	6.00					
Lot 36 Plan 2	W	0.00	99.99	0.00			0.00		point242	242	1,490.2	1,407.8	120.00	35.50	0.00	0	0		
									point186	186	1,528.0	1,407.5	120.00	35.50	0.00	0	0		
									point248	248	1,528.0	1,386.9	120.00	35.50	0.00	0	0		
									point188	188	1,490.7	1,386.8	120.00	35.50					
Lot 35 Plan 2	W	0.00	99.99	0.00			0.00		point319	319	1,490.7	1,386.6	120.00	35.50	0.00	0	0		
									point320	320	1,528.0	1,386.6	120.00	35.50	0.00	0	0		
									point321	321	1,528.3	1,363.9	120.00	35.50	0.00	0	0		
									point322	322	1,490.6	1,364.2	120.00	35.50					
Lot 4 Plan 2	W	0.00	99.99	0.00			0.00		point324	324	1,613.9	1,408.3	120.00	35.50	0.00	0	0		
									point261	261	1,613.9	1,387.2	120.00	35.50	0.00	0	0		
									point262	262	1,575.9	1,387.3	120.00	35.50					
Lot 3 Plan 2	W	0.00	99.99	0.00			0.00		point299	299	1,576.0	1,429.5	120.00	35.50	0.00	0	0		
									point260	260	1,613.8	1,429.5	120.00	35.50	0.00	0	0		
									point325	325	1,613.9	1,408.3	120.00	35.50	0.00	0	0		
									point326	326	1,575.9	1,408.3	120.00	35.50					
Lot 5 Plan 2	W	0.00	99.99	0.00			0.00		point329	329	1,575.9	1,355.7	120.00	35.50	0.00	0	0		
									point264	264	1,575.8	1,376.6	120.00	35.50	0.00	0	0		
									point265	265	1,613.8	1,376.0	120.00	35.50	0.00	0	0		
									point327	327	1,613.8	1,355.4	120.00	35.50					
Lot 6 Plan 2	W	0.00	99.99	0.00			0.00		point301	301	1,576.0	1,334.8	120.00	35.50	0.00	0	0		
									point331	331	1,575.9	1,355.7	120.00	35.50	0.00	0	0		
									point330	330	1,613.8	1,355.4	120.00	35.50	0.00	0	0		
									point266	266	1,613.8	1,334.8	120.00	35.50					
Barrier103	W	0.00	99.99	0.00			0.00		point333	333	1,611.1	1,483.1	120.00	6.00	0.00	0	0		
									point335	335	1,611.4	1,489.7	120.00	6.00	0.00	0	0		
									point336	336	1,624.8	1,489.6	120.00	6.00	0.00	0	0		
									point337	337	1,624.7	1,460.8	120.00	6.00	0.00	0	0		
									point338	338	1,614.0	1,461.2	120.00	6.00					
Barrier1132	W	0.00	99.99	0.00			0.00		point435	435	1,614.1	1,408.6	120.00	6.00	0.00	0	0		
									point388	388	1,624.8	1,408.4	120.00	6.00	0.00	0	0		
									point389	389	1,624.8	1,382.2	120.00	6.00	0.00	0	0		
									point390	390	1,603.7	1,382.1	120.00	6.00					

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Barrier108	W	0.00	99.99	0.00				0.00	point437	437	1,495.8	1,087.2	120.00	6.00	0.00	0	0		
									point439	439	1,499.9	1,087.2	120.00	6.00	0.00	0	0		
									point440	440	1,499.8	1,097.2	120.00	6.00	0.00	0	0		
									point441	441	1,500.1	1,097.3	120.00	6.00	0.00	0	0		
									point442	442	1,500.4	1,087.0	120.00	6.00	0.00	0	0		
									point443	443	1,518.8	1,086.7	120.00	6.00					
Barrier1282	W	0.00	99.99	0.00				0.00	point478	478	1,615.0	1,113.4	120.00	6.00	0.00	0	0		
									point448	448	1,624.6	1,113.4	120.00	6.00	0.00	0	0		
									point449	449	1,624.8	1,077.6	120.00	6.00	0.00	0	0		
									point450	450	1,576.6	1,077.4	120.00	6.00	0.00	0	0		
									point451	451	1,576.5	1,086.6	120.00	6.00					
Barrier1987	W	0.00	99.99	0.00				0.00	point480	480	1,523.1	1,086.9	120.00	6.00	0.00	0	0		
									point445	445	1,527.4	1,086.9	120.00	6.00	0.00	0	0		
									point446	446	1,527.0	1,097.6	120.00	6.00					
Barrier11545	W	0.00	99.99	0.00				0.00	point581	581	1,490.9	1,481.4	120.00	6.00	0.00	0	0		
									point498	498	1,481.6	1,481.4	120.00	6.00	0.00	0	0		
									point499	499	1,481.6	1,472.7	120.00	6.00	0.00	0	0		
									point500	500	1,491.1	1,472.7	120.00	6.00	0.00	0	0		
									point501	501	1,490.9	1,472.5	120.00	6.00	0.00	0	0		
									point502	502	1,481.4	1,472.4	120.00	6.00	0.00	0	0		
									point503	503	1,481.6	1,461.0	120.00	6.00	0.00	0	0		
									point504	504	1,490.9	1,461.0	120.00	6.00	0.00	0	0		
									point505	505	1,491.1	1,460.5	120.00	6.00	0.00	0	0		
									point506	506	1,480.5	1,460.5	120.00	6.00	0.00	0	0		
									point507	507	1,480.4	1,454.2	120.00	6.00	0.00	0	0		
									point508	508	1,491.4	1,454.1	120.00	6.00	0.00	0	0		
									point509	509	1,491.3	1,453.8	120.00	6.00	0.00	0	0		
									point510	510	1,480.3	1,453.9	120.00	6.00	0.00	0	0		
									point511	511	1,480.5	1,447.5	120.00	6.00	0.00	0	0		
									point512	512	1,491.5	1,447.4	120.00	6.00	0.00	0	0		
									point513	513	1,491.5	1,447.3	120.00	6.00	0.00	0	0		
									point514	514	1,480.3	1,447.4	120.00	6.00	0.00	0	0		
									point515	515	1,480.6	1,439.0	120.00	6.00					
Barrier115678	W	0.00	99.99	0.00				0.00	point583	583	1,480.5	1,368.9	120.00	6.00	0.00	0	0		
									point529	529	1,480.5	1,363.9	120.00	6.00	0.00	0	0		
									point530	530	1,489.9	1,363.9	120.00	6.00	0.00	0	0		
									point531	531	1,489.8	1,363.4	120.00	6.00	0.00	0	0		
									point532	532	1,481.1	1,363.4	120.00	6.00	0.00	0	0		
									point533	533	1,481.3	1,343.8	120.00	6.00	0.00	0	0		
									point534	534	1,490.5	1,343.8	120.00	6.00					
Barrier118976	W	0.00	99.99	0.00				0.00	point585	585	1,625.4	1,501.4	120.00	6.00	0.00	0	0		
									point548	548	1,625.6	1,077.2	120.00	6.00	0.00	0	0		
									point549	549	1,326.1	1,074.9	120.00	6.00					
Barrier11786	W	0.00	99.99	0.00				0.00	point588	588	1,343.6	1,097.5	120.00	6.00	0.00	0	0		
									point551	551	1,343.4	1,087.0	120.00	6.00	0.00	0	0		
									point552	552	1,364.4	1,087.0	120.00	6.00	0.00	0	0		
									point553	553	1,364.2	1,096.9	120.00	6.00	0.00	0	0		
									point554	554	1,364.5	1,096.8	120.00	6.00	0.00	0	0		
									point555	555	1,364.5	1,087.4	120.00	6.00	0.00	0	0		

INPUT: BARRIERS

9289_0002

									point556	556	1,382.6	1,087.0	120.00	6.00				
Barrier1879	W	0.00	99.99	0.00			0.00	point590	590	1,387.2	1,087.2	120.00	6.00	0.00	0	0		
								point558	558	1,391.2	1,087.2	120.00	6.00	0.00	0	0		
								point559	559	1,391.2	1,097.0	120.00	6.00	0.00	0	0		
								point560	560	1,391.6	1,097.0	120.00	6.00	0.00	0	0		
								point561	561	1,391.6	1,087.1	120.00	6.00	0.00	0	0		
								point562	562	1,410.2	1,086.7	120.00	6.00					
Barrier1652	W	0.00	99.99	0.00			0.00	point592	592	1,414.7	1,086.8	120.00	6.00	0.00	0	0		
								point564	564	1,418.5	1,086.9	120.00	6.00	0.00	0	0		
								point565	565	1,418.5	1,096.7	120.00	6.00	0.00	0	0		
								point566	566	1,418.7	1,096.6	120.00	6.00	0.00	0	0		
								point567	567	1,418.7	1,087.3	120.00	6.00	0.00	0	0		
								point568	568	1,437.1	1,087.1	120.00	6.00					
Barrier178345	W	0.00	99.99	0.00			0.00	point594	594	1,441.3	1,087.3	120.00	6.00	0.00	0	0		
								point570	570	1,445.6	1,087.3	120.00	6.00	0.00	0	0		
								point571	571	1,445.6	1,097.1	120.00	6.00	0.00	0	0		
								point572	572	1,445.8	1,097.0	120.00	6.00	0.00	0	0		
								point573	573	1,445.8	1,086.9	120.00	6.00	0.00	0	0		
								point574	574	1,464.3	1,086.8	120.00	6.00					
Barrier 677	W	0.00	99.99	0.00			0.00	point596	596	1,468.6	1,086.9	120.00	6.00	0.00	0	0		
								point576	576	1,472.6	1,087.1	120.00	6.00	0.00	0	0		
								point577	577	1,472.6	1,096.6	120.00	6.00	0.00	0	0		
								point578	578	1,472.8	1,096.5	120.00	6.00	0.00	0	0		
								point579	579	1,473.0	1,087.2	120.00	6.00	0.00	0	0		
								point580	580	1,491.6	1,087.2	120.00	6.00					
Barrier11555	W	0.00	99.99	0.00			0.00	point597	597	1,480.6	1,439.0	120.00	6.00	0.00	0	0		
								point516	516	1,490.8	1,439.0	120.00	6.00					
Barrier115733	W	0.00	99.99	0.00			0.00	point600	600	1,490.5	1,438.5	120.00	6.00	0.00	0	0		
								point518	518	1,481.1	1,438.5	120.00	6.00	0.00	0	0		
								point519	519	1,481.5	1,418.0	120.00	6.00	0.00	0	0		
								point520	520	1,491.5	1,418.0	120.00	6.00					
Barrier115-787	W	0.00	99.99	0.00			0.00	point602	602	1,490.1	1,407.0	120.00	6.00	0.00	0	0		
								point522	522	1,481.3	1,407.3	120.00	6.00	0.00	0	0		
								point523	523	1,481.3	1,386.2	120.00	6.00	0.00	0	0		
								point524	524	1,490.5	1,386.0	120.00	6.00					
Barrier115-9998	W	0.00	99.99	0.00			0.00	point604	604	1,490.5	1,385.8	120.00	6.00	0.00	0	0		
								point526	526	1,480.3	1,386.0	120.00	6.00	0.00	0	0		
								point527	527	1,480.3	1,373.2	120.00	6.00					
Barrier1032323	W	0.00	99.99	0.00			0.00	point605	605	1,603.5	1,381.7	120.00	6.00	0.00	0	0		
								point392	392	1,624.8	1,381.7	120.00	6.00	0.00	0	0		
								point393	393	1,624.8	1,355.5	120.00	6.00	0.00	0	0		
								point394	394	1,614.2	1,355.4	120.00	6.00	0.00	0	0		
								point395	395	1,614.1	1,354.7	120.00	6.00	0.00	0	0		
								point396	396	1,624.9	1,354.7	120.00	6.00	0.00	0	0		
								point397	397	1,624.7	1,334.2	120.00	6.00	0.00	0	0		
								point398	398	1,613.9	1,334.3	120.00	6.00					
Barrier103-2	W	0.00	99.99	0.00			0.00	point607	607	1,614.3	1,460.8	120.00	6.00	0.00	0	0		
								point340	340	1,624.8	1,460.6	120.00	6.00	0.00	0	0		
								point341	341	1,624.9	1,434.9	120.00	6.00					

INPUT: BARRIERS

9289_0002

Barrier1115563	W	0.00	99.99	0.00				0.00	point610	610	1,624.9	1,176.0	120.00	6.00	0.00	0	0		
									point458	458	1,624.9	1,145.9	120.00	6.00	0.00	0	0		
									point459	459	1,615.3	1,145.8	120.00	6.00					
Barrier11152-2	W	0.00	99.99	0.00				0.00	point611	611	1,624.9	1,145.1	120.00	6.00	0.00	0	0		
									point454	454	1,624.8	1,113.7	120.00	6.00	0.00	0	0		
									point455	455	1,615.0	1,113.8	120.00	6.00	0.00	0	0		
									point456	456	1,614.9	1,176.4	120.00	6.00					
Barrier103-2-2	W	0.00	99.99	0.00				0.00	point612	612	1,624.9	1,434.9	120.00	6.00	0.00	0	0		
									point342	342	1,603.9	1,434.9	120.00	6.00					
Barrier103-67	W	0.00	99.99	0.00				0.00	point613	613	1,603.9	1,434.6	120.00	6.00	0.00	0	0		
									point346	346	1,624.9	1,434.7	120.00	6.00	0.00	0	0		
									point347	347	1,625.1	1,408.9	120.00	6.00	0.00	0	0		
									point348	348	1,614.2	1,408.9	120.00	6.00					
Barrier1115681	W	0.00	99.99	0.00				0.00	point616	616	1,615.3	1,302.8	120.00	6.00	0.00	0	0		
									point461	461	1,624.8	1,302.5	120.00	6.00	0.00	0	0		
									point462	462	1,624.9	1,271.4	120.00	6.00	0.00	0	0		
									point463	463	1,614.6	1,271.6	120.00	6.00	0.00	0	0		
									point464	464	1,614.8	1,270.9	120.00	6.00	0.00	0	0		
									point465	465	1,624.8	1,271.0	120.00	6.00	0.00	0	0		
									point466	466	1,625.2	1,240.2	120.00	6.00	0.00	0	0		
									point467	467	1,614.8	1,240.3	120.00	6.00					
Barrier111565	W	0.00	99.99	0.00				0.00	point618	618	1,614.9	1,208.1	120.00	6.00	0.00	0	0		
									point473	473	1,625.0	1,208.0	120.00	6.00	0.00	0	0		
									point474	474	1,625.1	1,177.1	120.00	6.00	0.00	0	0		
									point438	438	1,615.5	1,177.1	120.00	6.00					
Barrier111544	W	0.00	99.99	0.00				0.00	point619	619	1,615.1	1,208.7	120.00	6.00	0.00	0	0		
									point469	469	1,625.1	1,208.5	120.00	6.00	0.00	0	0		
									point470	470	1,625.0	1,239.7	120.00	6.00	0.00	0	0		
									point471	471	1,614.8	1,239.6	120.00	6.00	0.00	0	0		
									point472	472	1,614.9	1,208.1	120.00	6.00					

RESULTS: SOUND LEVELS

9289_0002

Dudek										5 June 2017			
MG										TNM 2.5			
										Calculated with TNM 2.5			
RESULTS: SOUND LEVELS													
PROJECT/CONTRACT:		9289_0002											
RUN:		Euclid_Broadway_Resi Anhm Ex w Proj											
BARRIER DESIGN:		INPUT HEIGHTS								Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.			
ATMOSPHERICS:		68 deg F, 50% RH											
Receiver													
Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h	Increase over existing		Type	With Barrier		Noise Reduction			
				Calculated	Crit'n	Calculated	Crit'n	Impact	Calculated LAeq1h	Calculated	Goal	Calculated minus Goal	
			dB	dB	dB	dB	dB		dB	dB	dB	dB	
ST1	1	1	0.0	70.7	66	70.7	10	Snd Lvl	70.7	0.0	8	-8.0	
ST2	3	1	0.0	69.2	66	69.2	10	Snd Lvl	69.2	0.0	8	-8.0	
CN1	58	1	0.0	49.8	66	49.8	10	----	49.8	0.0	8	-8.0	
M1	59	1	0.0	67.3	66	67.3	10	Snd Lvl	67.3	0.0	8	-8.0	
M2	60	1	0.0	65.1	66	65.1	10	----	65.1	0.0	8	-8.0	
M3	61	1	0.0	64.7	66	64.7	10	----	64.7	0.0	8	-8.0	
Dwelling Units		# DUs	Noise Reduction										
			Min	Avg	Max								
			dB	dB	dB								
All Selected		6	0.0	0.0	0.0								
All Impacted		3	0.0	0.0	0.0								
All that meet NR Goal		0	0.0	0.0	0.0								

INPUT: ROADWAYS

9289_0002

Dudek				5 June 2017							
MG				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:		9289_0002									
RUN:		Euclid_Broadway_Resi Anhm GP w/o Prj									
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	%		
West Broadway w of S Euclid St	64.0	point1	1	560.0	1,542.2	120.00				Average	
		point2	2	1,270.9	1,540.0	120.00					
S Euclid St n of W Broadway	80.0	point4	4	1,260.0	2,141.6	120.00				Average	
		point5	5	1,275.2	1,551.1	120.00					
S Euclid St s of W Broadway	80.0	point8	8	1,274.5	1,534.9	120.00				Average	
		point6	6	1,279.6	608.2	120.00					
West Broadway e of S Euclid St	64.0	point9	9	1,270.9	1,540.0	120.00				Average	
		point3	3	2,180.8	1,548.8	120.00					

INPUT: TRAFFIC FOR LAeq1h Percentages

9289_0002

													5 June 2017												
Dudek																									
MG													TNM 2.5												
INPUT: TRAFFIC FOR LAeq1h Percentages																									
PROJECT/CONTRACT: 9289_0002																									
RUN: Euclid_Broadway_Resi Anhm GP w/o Prj																									
Roadway													Points												
Name													Name	No.	Segment	Autos		MTrucks		HTrucks		Buses		Motorcycles	
													Total												
													Volume	P	S	P	S	P	S	P	S	P	S	P	S
													veh/hr	%	mph	%	mph	%	mph	%	mph	%	mph	%	mph
West Broadway w of S Euclid St													point1	1	1790	97	35	2	35	1	35	0	0	0	0
													point2	2											
S Euclid St n of W Broadway													point4	4	4500	97	35	2	35	1	35	0	0	0	0
													point5	5											
S Euclid St s of W Broadway													point8	8	4190	97	35	2	35	1	35	0	0	0	0
													point6	6											
West Broadway e of S Euclid St													point9	9	1610	97	35	2	35	1	35	0	0	0	0
													point3	3											

INPUT: RECEIVERS

9289_0002

							5 June 2017					
Dudek							TNM 2.5					
MG												
INPUT: RECEIVERS												
PROJECT/CONTRACT:		9289_0002										
RUN:		Euclid_Broadway_Resi Anhm GP w/o Prj										
Receiver												
Name	No.	#DUs	Coordinates (ground)			Height above Ground	Input Sound Levels and Criteria				Active in Calc.	
			X	Y	Z		Existing LAeq1h	Impact LAeq1h	Criteria Sub'l	NR Goal		
			ft	ft	ft	ft	dBA	dBA	dB	dB		
ST1	1	1	1,316.4	1,288.6	120.00	5.00	0.00	66	10.0	8.0	Y	
ST2	2	1	1,472.1	1,507.5	120.00	5.00	0.00	66	10.0	8.0	Y	
CN1	3	1	1,627.7	1,370.4	120.00	5.00	0.00	66	10.0	8.0	Y	
M1	4	1	1,202.2	1,103.4	120.00	5.00	0.00	66	10.0	8.0	Y	
M2	5	1	1,698.2	1,478.3	120.00	5.00	0.00	66	10.0	8.0	Y	
M3	6	1	817.7	1,468.6	120.00	5.00	0.00	66	10.0	8.0	Y	

INPUT: BARRIERS

9289_0002

									point36	36	1,914.2	946.4	120.00	12.00				
Barrier8	W	0.00	99.99	0.00			0.00	point37	37	1,127.6	1,471.9	120.00	15.00	0.00	0	0		
								point38	38	1,181.4	1,471.0	120.00	15.00	0.00	0	0		
								point39	39	1,181.4	1,392.0	120.00	15.00	0.00	0	0		
								point40	40	1,138.0	1,392.0	120.00	15.00	0.00	0	0		
								point41	41	1,138.9	1,428.5	120.00	15.00	0.00	0	0		
								point42	42	1,125.0	1,427.6	120.00	15.00					
Barrier9	W	0.00	99.99	0.00			0.00	point44	44	1,064.2	1,345.2	120.00	15.00	0.00	0	0		
								point45	45	1,178.8	1,346.9	120.00	15.00	0.00	0	0		
								point46	46	1,179.7	1,257.5	120.00	15.00	0.00	0	0		
								point47	47	1,043.4	1,260.9	120.00	15.00	0.00	0	0		
								point48	48	1,046.9	1,382.5	120.00	15.00	0.00	0	0		
								point49	49	1,106.8	1,381.6	120.00	15.00					
Barrier10	W	0.00	99.99	0.00			0.00	point50	50	1,395.0	1,034.4	120.00	12.00	0.00	0	0		
								point51	51	1,396.7	974.5	120.00	12.00	0.00	0	0		
								point52	52	1,625.9	978.8	120.00	12.00	0.00	0	0		
								point53	53	1,623.3	1,020.5	120.00	12.00	0.00	0	0		
								point54	54	1,441.0	1,019.6	120.00	12.00	0.00	0	0		
								point55	55	1,439.3	1,037.0	120.00	12.00					
Barrier11	W	0.00	99.99	0.00			0.00	point56	56	1,380.4	1,400.2	120.00	15.00	0.00	0	0		
								point57	57	1,433.5	1,446.6	120.00	15.00	0.00	0	0		
								point58	58	1,455.3	1,419.3	120.00	15.00	0.00	0	0		
								point59	59	1,405.6	1,375.5	120.00	15.00					
Barrier12	W	0.00	99.99	0.00			0.00	point60	60	1,391.9	1,248.1	120.00	10.00	0.00	0	0		
								point61	61	1,391.4	1,348.7	120.00	10.00	0.00	0	0		
								point62	62	1,475.0	1,349.8	120.00	10.00	0.00	0	0		
								point63	63	1,475.6	1,325.8	120.00	10.00	0.00	0	0		
								point64	64	1,469.0	1,325.8	120.00	10.00	0.00	0	0		
								point65	65	1,470.7	1,250.3	120.00	10.00					
Barrier13	W	0.00	99.99	0.00			0.00	point66	66	1,392.5	1,124.2	120.00	12.00	0.00	0	0		
								point67	67	1,391.1	1,167.6	120.00	12.00	0.00	0	0		
								point68	68	1,519.3	1,169.0	120.00	12.00	0.00	0	0		
								point69	69	1,519.3	1,127.6	120.00	12.00					
Barrier14	W	0.00	99.99	0.00			0.00	point70	70	1,522.8	1,407.4	120.00	12.00	0.00	0	0		
								point71	71	1,522.4	1,439.5	120.00	12.00	0.00	0	0		
								point72	72	1,507.6	1,439.1	120.00	12.00	0.00	0	0		
								point73	73	1,507.2	1,478.2	120.00	12.00	0.00	0	0		
								point74	74	1,555.4	1,477.7	120.00	12.00	0.00	0	0		
								point75	75	1,554.5	1,446.5	120.00	12.00	0.00	0	0		
								point76	76	1,581.4	1,446.1	120.00	12.00	0.00	0	0		
								point77	77	1,579.7	1,489.0	120.00	12.00	0.00	0	0		
								point78	78	1,614.8	1,489.0	120.00	12.00	0.00	0	0		
								point79	79	1,615.3	1,477.3	120.00	12.00	0.00	0	0		
								point80	80	1,615.7	1,449.5	120.00	12.00	0.00	0	0		
								point81	81	1,607.0	1,449.5	120.00	12.00	0.00	0	0		
								point82	82	1,607.0	1,407.0	120.00	12.00					
Barrier15	W	0.00	99.99	0.00			0.00	point84	84	1,198.4	1,215.1	120.00	15.00	0.00	0	0		
								point85	85	1,148.1	1,213.4	120.00	15.00	0.00	0	0		
								point86	86	1,149.8	969.4	120.00	15.00	0.00	0	0		

INPUT: BARRIERS

9289_0002

									point87	87	1,194.9	967.7	120.00	15.00	0.00	0	0		
									point88	88	1,193.2	1,188.2	120.00	15.00	0.00	0	0		
									point89	89	1,200.2	1,188.2	120.00	15.00					
Barrier16	W	0.00	99.99	0.00				0.00	point90	90	1,625.4	1,501.4	120.00	6.00	0.00	0	0		
									point91	91	1,625.6	1,077.2	120.00	6.00					

RESULTS: SOUND LEVELS

9289_0002

Dudek										5 June 2017			
MG										TNM 2.5			
										Calculated with TNM 2.5			
RESULTS: SOUND LEVELS													
PROJECT/CONTRACT:		9289_0002											
RUN:		Euclid_Broadway_Resi Anhm GP w/o Prj											
BARRIER DESIGN:		INPUT HEIGHTS								Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.			
ATMOSPHERICS:		68 deg F, 50% RH											
Receiver													
Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h	Increase over existing		Type	With Barrier		Noise Reduction			
				Calculated	Crit'n	Calculated	Crit'n	Impact	Calculated LAeq1h	Calculated	Goal	Calculated minus Goal	
			dB	dB	dB	dB	dB		dB	dB	dB	dB	
ST1	1	1	0.0	72.0	66	72.0	10	Snd Lvl	72.0	0.0	8	-8.0	
ST2	2	1	0.0	69.4	66	69.4	10	Snd Lvl	69.4	0.0	8	-8.0	
CN1	3	1	0.0	51.4	66	51.4	10	----	51.4	0.0	8	-8.0	
M1	4	1	0.0	68.6	66	68.6	10	Snd Lvl	68.6	0.0	8	-8.0	
M2	5	1	0.0	65.1	66	65.1	10	----	65.1	0.0	8	-8.0	
M3	6	1	0.0	65.0	66	65.0	10	----	65.0	0.0	8	-8.0	
Dwelling Units		# DUs	Noise Reduction										
			Min	Avg	Max								
			dB	dB	dB								
All Selected		6	0.0	0.0	0.0								
All Impacted		3	0.0	0.0	0.0								
All that meet NR Goal		0	0.0	0.0	0.0								

INPUT: ROADWAYS

9289_0002

Dudek											
MG											
INPUT: ROADWAYS											
PROJECT/CONTRACT:		9289_0002								Average pavement type shall be used unless a State highway agency substantiates the use of a different type with the approval of FHWA	
RUN:		Euclid_Broadway_Resi Anhm GP w Proj									
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	%	
West Broadway w of S Euclid St		64.0	point1	1	560.0	1,542.2	119.00				Average
			point2	2	1,270.9	1,540.0	119.00				
S Euclid St n of W Broadway		80.0	point4	4	1,260.0	2,141.6	119.00				Average
			point5	5	1,275.2	1,551.1	119.00				
S Euclid St s of W Broadway		80.0	point8	8	1,274.5	1,534.9	119.00				Average
			point6	6	1,279.6	608.2	119.00				
West Broadway e of S Euclid St		64.0	point9	9	1,270.9	1,540.0	119.00				Average
			point3	3	2,180.8	1,548.8	119.00				

INPUT: RECEIVERS**9289_0002**

Lot 33 Plan 1 w facing	27	1	1,351.2	1,276.2	120.00	5.00	0.00	66	10.0	8.0	Y
Lot 37 Plan 2 rear yard	28	1	1,487.6	1,429.1	120.00	5.00	0.00	66	10.0	8.0	Y
Lot 38 Plan 2 rear yard	29	1	1,487.9	1,449.8	120.00	5.00	0.00	66	10.0	8.0	Y
Lot 39 Plan 2 n facing	32	1	1,501.6	1,483.3	120.00	5.00	0.00	66	10.0	8.0	Y
Lot 39 Plan 2 w facing	33	1	1,490.7	1,475.2	120.00	5.00	0.00	66	10.0	8.0	Y
Lot 39 Plan 2 rear yard	34	1	1,486.0	1,477.2	120.00	5.00	0.00	66	10.0	8.0	Y
Central sitting area	36	1	1,518.2	1,227.9	120.00	5.00	0.00	66	10.0	8.0	Y
BBQ area e side 1	37	1	1,617.9	1,318.1	120.00	5.00	0.00	66	10.0	8.0	Y
BBQ area e side 2	38	1	1,581.3	1,317.7	120.00	5.00	0.00	66	10.0	8.0	Y
Lot 1 Plan 2 n facing 2nd flr	39	1	1,604.7	1,483.1	120.00	15.00	0.00	66	10.0	8.0	Y
Lot 1 Plan 2 nw facing 2nd flr	40	1	1,575.4	1,481.8	120.00	15.00	0.00	66	10.0	8.0	Y
Lot 2 Plan 2 e facing 2nd flr	41	1	1,613.8	1,448.5	120.00	15.00	0.00	66	10.0	8.0	Y
Lot 3 Plan 2 e facing 2nd flr	42	1	1,614.2	1,418.4	120.00	15.00	0.00	66	10.0	8.0	Y
Lot 5 'Plan 2 e facing 2nd flr	43	1	1,614.0	1,365.1	120.00	15.00	0.00	66	10.0	8.0	Y
Lot 19 Plan 2 s facing 2nd flr	44	1	1,410.1	1,096.8	120.00	15.00	0.00	66	10.0	8.0	Y
Lot 20 Plan 2 s facing 2nd flr	45	1	1,385.4	1,096.8	120.00	15.00	0.00	66	10.0	8.0	Y
Lot 20 Plan 2 w facing 2nd flr	46	1	1,342.7	1,116.5	120.00	15.00	0.00	66	10.0	8.0	Y
Lot 26 Plan 1 n facing 2nd flr	47	1	1,378.8	1,217.0	120.00	15.00	0.00	66	10.0	8.0	Y
Lot 27 Plan 1 e facing 2nd flr	48	1	1,342.5	1,199.4	120.00	15.00	0.00	66	10.0	8.0	Y
Lot 27 Plan 1 s facing 2nd flr	49	1	1,357.5	1,165.2	120.00	15.00	0.00	66	10.0	8.0	Y
Lot 32 Plan 1 s facing 2nd flr	50	1	1,383.1	1,242.8	120.00	15.00	0.00	66	10.0	8.0	Y
Lot 33 Plan 1 n facing 2nd flr	51	1	1,357.1	1,294.3	120.00	15.00	0.00	66	10.0	8.0	Y
Lot 33 Plan 1 w facing 2nd flr	52	1	1,351.2	1,276.2	120.00	15.00	0.00	66	10.0	8.0	Y
Lot 39 Plan 2 n facing 2nd flr	53	1	1,501.6	1,483.3	120.00	15.00	0.00	66	10.0	8.0	Y
Lot 39 Plan 2 w facing 2nd flr	54	1	1,490.7	1,475.2	120.00	15.00	0.00	66	10.0	8.0	Y
Lot 1 Plan 2 n facing 3rd flr	55	1	1,604.7	1,483.1	120.00	25.00	0.00	66	10.0	8.0	Y
Lot 1 Plan 2 nw facing 3rd flr	56	1	1,575.4	1,481.8	120.00	25.00	0.00	66	10.0	8.0	Y
Lot 2 Plan 2 e facing 3rd flr	57	1	1,613.8	1,448.5	120.00	25.00	0.00	66	10.0	8.0	Y
Lot 3 Plan 2 e facing 3rd flr	58	1	1,614.2	1,418.4	120.00	25.00	0.00	66	10.0	8.0	Y
Lot 5 'Plan 2 e facing 3rd flr	59	1	1,614.0	1,365.1	120.00	25.00	0.00	66	10.0	8.0	Y
Lot 19 Plan 2 s facing 3rd flr	60	1	1,410.1	1,096.8	120.00	25.00	0.00	66	10.0	8.0	Y
Lot 20 Plan 2 s facing 3rd flr	61	1	1,385.4	1,096.8	120.00	25.00	0.00	66	10.0	8.0	Y
Lot 20 Plan 2 w facing 3rd flr	63	1	1,342.7	1,116.5	120.00	25.00	0.00	66	10.0	8.0	Y
Lot 39 Plan 2 n facing 3rd flr	64	1	1,501.6	1,483.3	120.00	25.00	0.00	66	10.0	8.0	Y
Lot 39 Plan 2 w facing 3rd flr	65	1	1,490.7	1,475.2	120.00	25.00	0.00	66	10.0	8.0	Y

INPUT: BARRIERS

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									point36	36	1,914.2	946.4	120.00	12.00				
Barrier8	W	0.00	99.99	0.00			0.00	point37	37	1,127.6	1,471.9	120.00	15.00	0.00	0	0		
								point38	38	1,181.4	1,471.0	120.00	15.00	0.00	0	0		
								point39	39	1,181.4	1,392.0	120.00	15.00	0.00	0	0		
								point40	40	1,138.0	1,392.0	120.00	15.00	0.00	0	0		
								point41	41	1,138.9	1,428.5	120.00	15.00	0.00	0	0		
								point42	42	1,125.0	1,427.6	120.00	15.00					
Barrier9	W	0.00	99.99	0.00			0.00	point44	44	1,064.2	1,345.2	120.00	15.00	0.00	0	0		
								point45	45	1,178.8	1,346.9	120.00	15.00	0.00	0	0		
								point46	46	1,179.7	1,257.5	120.00	15.00	0.00	0	0		
								point47	47	1,043.4	1,260.9	120.00	15.00	0.00	0	0		
								point48	48	1,046.9	1,382.5	120.00	15.00	0.00	0	0		
								point49	49	1,106.8	1,381.6	120.00	15.00					
Barrier10	W	0.00	99.99	0.00			0.00	point50	50	1,395.0	1,034.4	120.00	12.00	0.00	0	0		
								point51	51	1,396.7	974.5	120.00	12.00	0.00	0	0		
								point52	52	1,625.9	978.8	120.00	12.00	0.00	0	0		
								point53	53	1,623.3	1,020.5	120.00	12.00	0.00	0	0		
								point54	54	1,441.0	1,019.6	120.00	12.00	0.00	0	0		
								point55	55	1,439.3	1,037.0	120.00	12.00					
Barrier11	W	0.00	99.99	0.00			0.00	point56	56	1,380.4	1,400.2	120.00	15.00	0.00	0	0		
								point57	57	1,433.5	1,446.6	120.00	15.00	0.00	0	0		
								point58	58	1,455.3	1,419.3	120.00	15.00	0.00	0	0		
								point59	59	1,405.6	1,375.5	120.00	15.00					
Barrier15	W	0.00	99.99	0.00			0.00	point84	84	1,198.4	1,215.1	120.00	15.00	0.00	0	0		
								point85	85	1,148.1	1,213.4	120.00	15.00	0.00	0	0		
								point86	86	1,149.8	969.4	120.00	15.00	0.00	0	0		
								point87	87	1,194.9	967.7	120.00	15.00	0.00	0	0		
								point88	88	1,193.2	1,188.2	120.00	15.00	0.00	0	0		
								point89	89	1,200.2	1,188.2	120.00	15.00					
Lot 33 Plan 1	W	0.00	99.99	0.00			0.00	point96	96	1,352.4	1,293.5	120.00	25.50	0.00	0	0		
								point97	97	1,373.0	1,293.1	120.00	25.50	0.00	0	0		
								point98	98	1,372.9	1,246.5	120.00	25.00	0.00	0	0		
								point99	99	1,351.9	1,246.1	120.00	25.50					
Lot 32 Plan 1	W	0.00	99.99	0.00			0.00	point100	100	1,379.7	1,294.3	120.00	25.50	0.00	0	0		
								point102	102	1,400.4	1,294.0	120.00	25.50	0.00	0	0		
								point103	103	1,400.3	1,247.4	120.00	25.00	0.00	0	0		
								point104	104	1,379.2	1,247.0	120.00	25.50					
Lot 31 Plan 1	W	0.00	99.99	0.00			0.00	point202	202	1,406.8	1,293.3	120.00	25.50	0.00	0	0		
								point106	106	1,427.4	1,292.9	120.00	25.50	0.00	0	0		
								point107	107	1,427.3	1,246.3	120.00	25.00	0.00	0	0		
								point108	108	1,406.2	1,245.9	120.00	25.50					
Lot 30 Plan 1	W	0.00	99.99	0.00			0.00	point204	204	1,434.2	1,294.7	120.00	25.50	0.00	0	0		
								point110	110	1,454.9	1,294.3	120.00	25.50	0.00	0	0		
								point111	111	1,454.8	1,247.7	120.00	25.00	0.00	0	0		
								point112	112	1,433.7	1,247.3	120.00	25.50					
Lot 28 Plan 1	W	0.00	99.99	0.00			0.00	point207	207	1,488.1	1,294.0	120.00	25.50	0.00	0	0		
								point118	118	1,508.7	1,293.7	120.00	25.50	0.00	0	0		
								point119	119	1,508.6	1,247.0	120.00	25.50	0.00	0	0		
								point120	120	1,487.6	1,246.7	120.00	25.50					

INPUT: BARRIERS

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Lot 29 Plan 1	W	0.00	99.99	0.00				0.00	point208	208	1,460.8	1,293.1	120.00	25.50	0.00	0	0		
									point114	114	1,481.5	1,292.8	120.00	25.50	0.00	0	0		
									point115	115	1,481.4	1,246.1	120.00	25.50	0.00	0	0		
									point116	116	1,460.3	1,245.8	120.00	25.50					
Lot 27 Plan 1	W	0.00	99.99	0.00				0.00	point210	210	1,343.6	1,213.3	120.00	25.50	0.00	0	0		
									point122	122	1,364.1	1,213.1	120.00	25.50	0.00	0	0		
									point123	123	1,364.4	1,165.8	120.00	25.50	0.00	0	0		
									point124	124	1,343.9	1,166.1	120.00	25.50					
Lot 26 Plan 1	W	0.00	99.99	0.00				0.00	point212	212	1,370.8	1,213.3	120.00	25.50	0.00	0	0		
									point126	126	1,391.3	1,213.1	120.00	25.50	0.00	0	0		
									point127	127	1,391.6	1,165.8	120.00	25.50	0.00	0	0		
									point128	128	1,371.1	1,166.1	120.00	25.50					
Lot 25 Plan 1	W	0.00	99.99	0.00				0.00	point214	214	1,397.9	1,213.5	120.00	25.50	0.00	0	0		
									point130	130	1,418.4	1,213.3	120.00	25.50	0.00	0	0		
									point131	131	1,418.8	1,166.0	120.00	25.50	0.00	0	0		
									point132	132	1,398.3	1,166.3	120.00	25.50					
Lot 24 Plan 1	W	0.00	99.99	0.00				0.00	point216	216	1,425.0	1,213.4	120.00	25.50	0.00	0	0		
									point134	134	1,445.5	1,213.2	120.00	25.50	0.00	0	0		
									point135	135	1,445.8	1,165.9	120.00	25.50	0.00	0	0		
									point136	136	1,425.4	1,166.2	120.00	25.50					
Lot 22 Plan 1	W	0.00	99.99	0.00				0.00	point218	218	1,480.6	1,213.3	120.00	25.50	0.00	0	0		
									point142	142	1,501.1	1,213.1	120.00	25.50	0.00	0	0		
									point143	143	1,501.4	1,165.8	120.00	25.50	0.00	0	0		
									point144	144	1,480.9	1,166.1	120.00	25.50					
Lot 21 Plan 1	W	0.00	99.99	0.00				0.00	point220	220	1,507.1	1,213.3	120.00	25.50	0.00	0	0		
									point146	146	1,527.6	1,213.1	120.00	25.50	0.00	0	0		
									point147	147	1,528.0	1,165.8	120.00	25.50	0.00	0	0		
									point148	148	1,507.5	1,166.1	120.00	25.50					
Lot 23 Plan 1	W	0.00	99.99	0.00				0.00	point221	221	1,452.1	1,213.2	120.00	25.50	0.00	0	0		
									point138	138	1,472.6	1,213.0	120.00	25.50	0.00	0	0		
									point139	139	1,472.9	1,165.6	120.00	25.50	0.00	0	0		
									point140	140	1,452.4	1,166.0	120.00	25.50					
Lot 20 Plan 2	W	0.00	99.99	0.00				0.00	point224	224	1,343.2	1,135.8	120.00	35.50	0.00	0	0		
									point150	150	1,364.4	1,135.3	120.00	35.50	0.00	0	0		
									point151	151	1,364.3	1,097.1	120.00	35.50	0.00	0	0		
									point152	152	1,343.3	1,097.6	120.00	35.50					
Lot 19 Plan 2	W	0.00	99.99	0.00				0.00	point226	226	1,370.9	1,135.8	120.00	35.50	0.00	0	0		
									point154	154	1,392.1	1,135.3	120.00	35.50	0.00	0	0		
									point155	155	1,392.0	1,097.1	120.00	35.50	0.00	0	0		
									point156	156	1,371.1	1,097.6	120.00	35.50					
Lot 18 Plan 2	W	0.00	99.99	0.00				0.00	point228	228	1,397.5	1,135.6	120.00	35.50	0.00	0	0		
									point158	158	1,418.7	1,135.1	120.00	35.50	0.00	0	0		
									point159	159	1,418.6	1,096.9	120.00	35.50	0.00	0	0		
									point160	160	1,397.7	1,097.3	120.00	35.50					
Lot 17 Plan 2	W	0.00	99.99	0.00				0.00	point229	229	1,424.9	1,135.9	120.00	35.50	0.00	0	0		
									point162	162	1,446.1	1,135.4	120.00	35.50	0.00	0	0		
									point163	163	1,446.0	1,097.2	120.00	35.50	0.00	0	0		
									point164	164	1,425.1	1,097.7	120.00	35.50					
Lot 16 Plan 2	W	0.00	99.99	0.00				0.00	point232	232	1,451.9	1,135.6	120.00	35.50	0.00	0	0		

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									point166	166	1,473.1	1,135.1	120.00	35.50	0.00	0	0		
									point167	167	1,473.0	1,096.9	120.00	35.50	0.00	0	0		
									point168	168	1,452.1	1,097.3	120.00	35.50					
Lot 15 Plan 2	W	0.00	99.99	0.00			0.00		point234	234	1,478.9	1,136.3	120.00	35.50	0.00	0	0		
									point170	170	1,500.1	1,135.7	120.00	35.50	0.00	0	0		
									point171	171	1,500.0	1,097.6	120.00	35.50	0.00	0	0		
									point172	172	1,479.1	1,098.0	120.00	35.50					
Lot 14 Plan 2	W	0.00	99.99	0.00			0.00		point236	236	1,506.7	1,136.3	120.00	35.50	0.00	0	0		
									point174	174	1,527.9	1,135.7	120.00	35.50	0.00	0	0		
									point175	175	1,527.7	1,097.6	120.00	35.50	0.00	0	0		
									point176	176	1,506.8	1,098.0	120.00	35.50					
Lot 39 Plan 2	W	0.00	99.99	0.00			0.00		point238	238	1,491.1	1,482.1	120.00	35.50	0.00	0	0		
									point178	178	1,528.9	1,481.8	120.00	35.50	0.00	0	0		
									point179	179	1,528.9	1,460.9	120.00	35.50	0.00	0	0		
									point180	180	1,491.6	1,460.9	120.00	35.50					
Lot 1 Plan 2	W	0.00	99.99	0.00			0.00		point240	240	1,575.7	1,483.1	120.00	35.50	0.00	0	0		
									point182	182	1,614.2	1,482.6	120.00	35.50	0.00	0	0		
									point183	183	1,613.3	1,461.5	120.00	35.50	0.00	0	0		
									point184	184	1,575.7	1,461.7	120.00	35.50					
Lot 37 Plan 2	W	0.00	99.99	0.00			0.00		point244	244	1,490.9	1,438.9	120.00	35.50	0.00	0	0		
									point190	190	1,528.6	1,438.6	120.00	35.50	0.00	0	0		
									point191	191	1,528.6	1,417.7	120.00	35.50	0.00	0	0		
									point192	192	1,491.4	1,417.7	120.00	35.50					
Lot 34 Plan 2	W	0.00	99.99	0.00			0.00		point249	249	1,490.5	1,363.8	120.00	35.50	0.00	0	0		
									point198	198	1,528.2	1,363.5	120.00	35.50	0.00	0	0		
									point199	199	1,528.3	1,343.1	120.00	35.50	0.00	0	0		
									point101	101	1,491.1	1,343.1	120.00	35.50					
Lot 38 Plan 2	W	0.00	99.99	0.00			0.00		point250	250	1,491.4	1,460.5	120.00	35.50	0.00	0	0		
									point252	252	1,529.1	1,460.2	120.00	35.50	0.00	0	0		
									point253	253	1,529.1	1,439.4	120.00	35.50	0.00	0	0		
									point254	254	1,491.9	1,439.4	120.00	35.50					
Lot 2 Plan 2	W	0.00	99.99	0.00			0.00		point297	297	1,575.7	1,461.2	120.00	35.50	0.00	0	0		
									point256	256	1,614.2	1,461.0	120.00	35.50	0.00	0	0		
									point257	257	1,613.3	1,440.0	120.00	35.50	0.00	0	0		
									point258	258	1,575.7	1,440.2	120.00	35.50					
Lot 7 Plan 2	W	0.00	99.99	0.00			0.00		point303	303	1,574.2	1,281.5	120.00	35.50	0.00	0	0		
									point268	268	1,574.5	1,302.9	120.00	35.50	0.00	0	0		
									point269	269	1,614.6	1,302.9	120.00	35.50	0.00	0	0		
									point270	270	1,614.3	1,281.5	120.00	35.50					
Lot 8 Plan 2	W	0.00	99.99	0.00			0.00		point305	305	1,574.2	1,250.2	120.00	35.50	0.00	0	0		
									point272	272	1,574.5	1,271.7	120.00	35.50	0.00	0	0		
									point273	273	1,614.6	1,271.7	120.00	35.50	0.00	0	0		
									point274	274	1,614.3	1,250.2	120.00	35.50					
Lot 9 Plan 2	W	0.00	99.99	0.00			0.00		point307	307	1,574.2	1,219.0	120.00	35.50	0.00	0	0		
									point276	276	1,574.5	1,240.4	120.00	35.50	0.00	0	0		
									point277	277	1,614.6	1,240.4	120.00	35.50	0.00	0	0		
									point278	278	1,614.3	1,219.0	120.00	35.50					
Lot 13 Plan 2	W	0.00	99.99	0.00			0.00		point309	309	1,574.2	1,093.2	120.00	35.50	0.00	0	0		
									point292	292	1,574.5	1,114.6	120.00	35.50	0.00	0	0		

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									point293	293	1,614.6	1,114.6	120.00	35.50	0.00	0	0		
									point294	294	1,614.3	1,093.2	120.00	35.50					
Lot 12 Plan 2	W	0.00	99.99	0.00			0.00		point311	311	1,574.2	1,124.2	120.00	35.50	0.00	0	0		
									point288	288	1,574.5	1,145.6	120.00	35.50	0.00	0	0		
									point289	289	1,614.6	1,145.6	120.00	35.50	0.00	0	0		
									point290	290	1,614.3	1,124.2	120.00	35.50					
Lot 11 Plan 2	W	0.00	99.99	0.00			0.00		point313	313	1,574.2	1,155.6	120.00	35.50	0.00	0	0		
									point284	284	1,574.5	1,177.0	120.00	35.50	0.00	0	0		
									point285	285	1,614.6	1,177.0	120.00	35.50	0.00	0	0		
									point286	286	1,614.3	1,155.6	120.00	35.50					
Lot 10 Plan 2	W	0.00	99.99	0.00			0.00		point315	315	1,574.2	1,187.7	120.00	35.50	0.00	0	0		
									point280	280	1,574.5	1,209.1	120.00	35.50	0.00	0	0		
									point281	281	1,614.6	1,209.2	120.00	35.50	0.00	0	0		
									point282	282	1,614.3	1,187.7	120.00	35.50					
Perimeter Wall	W	0.00	99.99	0.00			0.00		point316	316	1,326.2	1,350.0	120.00	6.00	0.00	0	0		
									point317	317	1,474.3	1,351.0	120.00	6.00	0.00	0	0		
									point318	318	1,474.7	1,499.2	120.00	6.00					
Lot 36 Plan 2	W	0.00	99.99	0.00			0.00		point242	242	1,490.2	1,407.8	120.00	35.50	0.00	0	0		
									point186	186	1,528.0	1,407.5	120.00	35.50	0.00	0	0		
									point248	248	1,528.0	1,386.9	120.00	35.50	0.00	0	0		
									point188	188	1,490.7	1,386.8	120.00	35.50					
Lot 35 Plan 2	W	0.00	99.99	0.00			0.00		point319	319	1,490.7	1,386.6	120.00	35.50	0.00	0	0		
									point320	320	1,528.0	1,386.6	120.00	35.50	0.00	0	0		
									point321	321	1,528.3	1,363.9	120.00	35.50	0.00	0	0		
									point322	322	1,490.6	1,364.2	120.00	35.50					
Lot 4 Plan 2	W	0.00	99.99	0.00			0.00		point324	324	1,613.9	1,408.3	120.00	35.50	0.00	0	0		
									point261	261	1,613.9	1,387.2	120.00	35.50	0.00	0	0		
									point262	262	1,575.9	1,387.3	120.00	35.50					
Lot 3 Plan 2	W	0.00	99.99	0.00			0.00		point299	299	1,576.0	1,429.5	120.00	35.50	0.00	0	0		
									point260	260	1,613.8	1,429.5	120.00	35.50	0.00	0	0		
									point325	325	1,613.9	1,408.3	120.00	35.50	0.00	0	0		
									point326	326	1,575.9	1,408.3	120.00	35.50					
Lot 5 Plan 2	W	0.00	99.99	0.00			0.00		point329	329	1,575.9	1,355.7	120.00	35.50	0.00	0	0		
									point264	264	1,575.8	1,376.6	120.00	35.50	0.00	0	0		
									point265	265	1,613.8	1,376.0	120.00	35.50	0.00	0	0		
									point327	327	1,613.8	1,355.4	120.00	35.50					
Lot 6 Plan 2	W	0.00	99.99	0.00			0.00		point301	301	1,576.0	1,334.8	120.00	35.50	0.00	0	0		
									point331	331	1,575.9	1,355.7	120.00	35.50	0.00	0	0		
									point330	330	1,613.8	1,355.4	120.00	35.50	0.00	0	0		
									point266	266	1,613.8	1,334.8	120.00	35.50					
Barrier103	W	0.00	99.99	0.00			0.00		point333	333	1,611.1	1,483.1	120.00	6.00	0.00	0	0		
									point335	335	1,611.4	1,489.7	120.00	6.00	0.00	0	0		
									point336	336	1,624.8	1,489.6	120.00	6.00	0.00	0	0		
									point337	337	1,624.7	1,460.8	120.00	6.00	0.00	0	0		
									point338	338	1,614.0	1,461.2	120.00	6.00					
Barrier1132	W	0.00	99.99	0.00			0.00		point435	435	1,614.1	1,408.6	120.00	6.00	0.00	0	0		
									point388	388	1,624.8	1,408.4	120.00	6.00	0.00	0	0		
									point389	389	1,624.8	1,382.2	120.00	6.00	0.00	0	0		
									point390	390	1,603.7	1,382.1	120.00	6.00					

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Barrier108	W	0.00	99.99	0.00				0.00	point437	437	1,495.8	1,087.2	120.00	6.00	0.00	0	0		
									point439	439	1,499.9	1,087.2	120.00	6.00	0.00	0	0		
									point440	440	1,499.8	1,097.2	120.00	6.00	0.00	0	0		
									point441	441	1,500.1	1,097.3	120.00	6.00	0.00	0	0		
									point442	442	1,500.4	1,087.0	120.00	6.00	0.00	0	0		
									point443	443	1,518.8	1,086.7	120.00	6.00					
Barrier1282	W	0.00	99.99	0.00				0.00	point478	478	1,615.0	1,113.4	120.00	6.00	0.00	0	0		
									point448	448	1,624.6	1,113.4	120.00	6.00	0.00	0	0		
									point449	449	1,624.8	1,077.6	120.00	6.00	0.00	0	0		
									point450	450	1,576.6	1,077.4	120.00	6.00	0.00	0	0		
									point451	451	1,576.5	1,086.6	120.00	6.00					
Barrier1987	W	0.00	99.99	0.00				0.00	point480	480	1,523.1	1,086.9	120.00	6.00	0.00	0	0		
									point445	445	1,527.4	1,086.9	120.00	6.00	0.00	0	0		
									point446	446	1,527.0	1,097.6	120.00	6.00					
Barrier11545	W	0.00	99.99	0.00				0.00	point581	581	1,490.9	1,481.4	120.00	6.00	0.00	0	0		
									point498	498	1,481.6	1,481.4	120.00	6.00	0.00	0	0		
									point499	499	1,481.6	1,472.7	120.00	6.00	0.00	0	0		
									point500	500	1,491.1	1,472.7	120.00	6.00	0.00	0	0		
									point501	501	1,490.9	1,472.5	120.00	6.00	0.00	0	0		
									point502	502	1,481.4	1,472.4	120.00	6.00	0.00	0	0		
									point503	503	1,481.6	1,461.0	120.00	6.00	0.00	0	0		
									point504	504	1,490.9	1,461.0	120.00	6.00	0.00	0	0		
									point505	505	1,491.1	1,460.5	120.00	6.00	0.00	0	0		
									point506	506	1,480.5	1,460.5	120.00	6.00	0.00	0	0		
									point507	507	1,480.4	1,454.2	120.00	6.00	0.00	0	0		
									point508	508	1,491.4	1,454.1	120.00	6.00	0.00	0	0		
									point509	509	1,491.3	1,453.8	120.00	6.00	0.00	0	0		
									point510	510	1,480.3	1,453.9	120.00	6.00	0.00	0	0		
									point511	511	1,480.5	1,447.5	120.00	6.00	0.00	0	0		
									point512	512	1,491.5	1,447.4	120.00	6.00	0.00	0	0		
									point513	513	1,491.5	1,447.3	120.00	6.00	0.00	0	0		
									point514	514	1,480.3	1,447.4	120.00	6.00	0.00	0	0		
									point515	515	1,480.6	1,439.0	120.00	6.00					
Barrier115678	W	0.00	99.99	0.00				0.00	point583	583	1,480.5	1,368.9	120.00	6.00	0.00	0	0		
									point529	529	1,480.5	1,363.9	120.00	6.00	0.00	0	0		
									point530	530	1,489.9	1,363.9	120.00	6.00	0.00	0	0		
									point531	531	1,489.8	1,363.4	120.00	6.00	0.00	0	0		
									point532	532	1,481.1	1,363.4	120.00	6.00	0.00	0	0		
									point533	533	1,481.3	1,343.8	120.00	6.00	0.00	0	0		
									point534	534	1,490.5	1,343.8	120.00	6.00					
Barrier118976	W	0.00	99.99	0.00				0.00	point585	585	1,625.4	1,501.4	120.00	6.00	0.00	0	0		
									point548	548	1,625.6	1,077.2	120.00	6.00	0.00	0	0		
									point549	549	1,326.1	1,074.9	120.00	6.00					
Barrier11786	W	0.00	99.99	0.00				0.00	point588	588	1,343.6	1,097.5	120.00	6.00	0.00	0	0		
									point551	551	1,343.4	1,087.0	120.00	6.00	0.00	0	0		
									point552	552	1,364.4	1,087.0	120.00	6.00	0.00	0	0		
									point553	553	1,364.2	1,096.9	120.00	6.00	0.00	0	0		
									point554	554	1,364.5	1,096.8	120.00	6.00	0.00	0	0		
									point555	555	1,364.5	1,087.4	120.00	6.00	0.00	0	0		

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									point556	556	1,382.6	1,087.0	120.00	6.00				
Barrier1879	W	0.00	99.99	0.00			0.00	point590	590	1,387.2	1,087.2	120.00	6.00	0.00	0	0		
								point558	558	1,391.2	1,087.2	120.00	6.00	0.00	0	0		
								point559	559	1,391.2	1,097.0	120.00	6.00	0.00	0	0		
								point560	560	1,391.6	1,097.0	120.00	6.00	0.00	0	0		
								point561	561	1,391.6	1,087.1	120.00	6.00	0.00	0	0		
								point562	562	1,410.2	1,086.7	120.00	6.00					
Barrier1652	W	0.00	99.99	0.00			0.00	point592	592	1,414.7	1,086.8	120.00	6.00	0.00	0	0		
								point564	564	1,418.5	1,086.9	120.00	6.00	0.00	0	0		
								point565	565	1,418.5	1,096.7	120.00	6.00	0.00	0	0		
								point566	566	1,418.7	1,096.6	120.00	6.00	0.00	0	0		
								point567	567	1,418.7	1,087.3	120.00	6.00	0.00	0	0		
								point568	568	1,437.1	1,087.1	120.00	6.00					
Barrier178345	W	0.00	99.99	0.00			0.00	point594	594	1,441.3	1,087.3	120.00	6.00	0.00	0	0		
								point570	570	1,445.6	1,087.3	120.00	6.00	0.00	0	0		
								point571	571	1,445.6	1,097.1	120.00	6.00	0.00	0	0		
								point572	572	1,445.8	1,097.0	120.00	6.00	0.00	0	0		
								point573	573	1,445.8	1,086.9	120.00	6.00	0.00	0	0		
								point574	574	1,464.3	1,086.8	120.00	6.00					
Barrier 677	W	0.00	99.99	0.00			0.00	point596	596	1,468.6	1,086.9	120.00	6.00	0.00	0	0		
								point576	576	1,472.6	1,087.1	120.00	6.00	0.00	0	0		
								point577	577	1,472.6	1,096.6	120.00	6.00	0.00	0	0		
								point578	578	1,472.8	1,096.5	120.00	6.00	0.00	0	0		
								point579	579	1,473.0	1,087.2	120.00	6.00	0.00	0	0		
								point580	580	1,491.6	1,087.2	120.00	6.00					
Barrier11555	W	0.00	99.99	0.00			0.00	point597	597	1,480.6	1,439.0	120.00	6.00	0.00	0	0		
								point516	516	1,490.8	1,439.0	120.00	6.00					
Barrier115733	W	0.00	99.99	0.00			0.00	point600	600	1,490.5	1,438.5	120.00	6.00	0.00	0	0		
								point518	518	1,481.1	1,438.5	120.00	6.00	0.00	0	0		
								point519	519	1,481.5	1,418.0	120.00	6.00	0.00	0	0		
								point520	520	1,491.5	1,418.0	120.00	6.00					
Barrier115-787	W	0.00	99.99	0.00			0.00	point602	602	1,490.1	1,407.0	120.00	6.00	0.00	0	0		
								point522	522	1,481.3	1,407.3	120.00	6.00	0.00	0	0		
								point523	523	1,481.3	1,386.2	120.00	6.00	0.00	0	0		
								point524	524	1,490.5	1,386.0	120.00	6.00					
Barrier115-9998	W	0.00	99.99	0.00			0.00	point604	604	1,490.5	1,385.8	120.00	6.00	0.00	0	0		
								point526	526	1,480.3	1,386.0	120.00	6.00	0.00	0	0		
								point527	527	1,480.3	1,373.2	120.00	6.00					
Barrier1032323	W	0.00	99.99	0.00			0.00	point605	605	1,603.5	1,381.7	120.00	6.00	0.00	0	0		
								point392	392	1,624.8	1,381.7	120.00	6.00	0.00	0	0		
								point393	393	1,624.8	1,355.5	120.00	6.00	0.00	0	0		
								point394	394	1,614.2	1,355.4	120.00	6.00	0.00	0	0		
								point395	395	1,614.1	1,354.7	120.00	6.00	0.00	0	0		
								point396	396	1,624.9	1,354.7	120.00	6.00	0.00	0	0		
								point397	397	1,624.7	1,334.2	120.00	6.00	0.00	0	0		
								point398	398	1,613.9	1,334.3	120.00	6.00					
Barrier103-2	W	0.00	99.99	0.00			0.00	point607	607	1,614.3	1,460.8	120.00	6.00	0.00	0	0		
								point340	340	1,624.8	1,460.6	120.00	6.00	0.00	0	0		
								point341	341	1,624.9	1,434.9	120.00	6.00					

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Barrier1115563	W	0.00	99.99	0.00				0.00	point610	610	1,624.9	1,176.0	120.00	6.00	0.00	0	0		
									point458	458	1,624.9	1,145.9	120.00	6.00	0.00	0	0		
									point459	459	1,615.3	1,145.8	120.00	6.00					
Barrier11152-2	W	0.00	99.99	0.00				0.00	point611	611	1,624.9	1,145.1	120.00	6.00	0.00	0	0		
									point454	454	1,624.8	1,113.7	120.00	6.00	0.00	0	0		
									point455	455	1,615.0	1,113.8	120.00	6.00	0.00	0	0		
									point456	456	1,614.9	1,176.4	120.00	6.00					
Barrier103-2-2	W	0.00	99.99	0.00				0.00	point612	612	1,624.9	1,434.9	120.00	6.00	0.00	0	0		
									point342	342	1,603.9	1,434.9	120.00	6.00					
Barrier103-67	W	0.00	99.99	0.00				0.00	point613	613	1,603.9	1,434.6	120.00	6.00	0.00	0	0		
									point346	346	1,624.9	1,434.7	120.00	6.00	0.00	0	0		
									point347	347	1,625.1	1,408.9	120.00	6.00	0.00	0	0		
									point348	348	1,614.2	1,408.9	120.00	6.00					
Barrier1115681	W	0.00	99.99	0.00				0.00	point616	616	1,615.3	1,302.8	120.00	6.00	0.00	0	0		
									point461	461	1,624.8	1,302.5	120.00	6.00	0.00	0	0		
									point462	462	1,624.9	1,271.4	120.00	6.00	0.00	0	0		
									point463	463	1,614.6	1,271.6	120.00	6.00	0.00	0	0		
									point464	464	1,614.8	1,270.9	120.00	6.00	0.00	0	0		
									point465	465	1,624.8	1,271.0	120.00	6.00	0.00	0	0		
									point466	466	1,625.2	1,240.2	120.00	6.00	0.00	0	0		
									point467	467	1,614.8	1,240.3	120.00	6.00					
Barrier111565	W	0.00	99.99	0.00				0.00	point618	618	1,614.9	1,208.1	120.00	6.00	0.00	0	0		
									point473	473	1,625.0	1,208.0	120.00	6.00	0.00	0	0		
									point474	474	1,625.1	1,177.1	120.00	6.00	0.00	0	0		
									point438	438	1,615.5	1,177.1	120.00	6.00					
Barrier111544	W	0.00	99.99	0.00				0.00	point619	619	1,615.1	1,208.7	120.00	6.00	0.00	0	0		
									point469	469	1,625.1	1,208.5	120.00	6.00	0.00	0	0		
									point470	470	1,625.0	1,239.7	120.00	6.00	0.00	0	0		
									point471	471	1,614.8	1,239.6	120.00	6.00	0.00	0	0		
									point472	472	1,614.9	1,208.1	120.00	6.00					

RESULTS: SOUND LEVELS

9289_0002

Dudek													
MG													
RESULTS: SOUND LEVELS													
PROJECT/CONTRACT:		9289_0002											
RUN:		Euclid_Broadway_Resi Anhm GP w Proj											
BARRIER DESIGN:		INPUT HEIGHTS											
		Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.											
ATMOSPHERICS:		68 deg F, 50% RH											

Receiver													
Name	No.	#DUs	Existing	No Barrier			Increase over existing		Type	With Barrier			
			LAeq1h	LAeq1h	Crit'n	Calculated	Crit'n	Calculated		LAeq1h	Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n	Impact		Calculated	Calculated	Goal	Calculated minus Goal
			dB	dB	dB	dB	dB			dB	dB	dB	dB
ST1	4	1	0.0	71.9	66	71.9	10	Snd Lvl	71.9	0.0	8	-8.0	
ST2	5	1	0.0	69.4	66	69.4	10	Snd Lvl	69.4	0.0	8	-8.0	
CN1	6	1	0.0	49.8	66	49.8	10	----	49.8	0.0	8	-8.0	
M1	8	1	0.0	68.6	66	68.6	10	Snd Lvl	68.6	0.0	8	-8.0	
M2	9	1	0.0	65.1	66	65.1	10	----	65.1	0.0	8	-8.0	
M3	10	1	0.0	65.1	66	65.1	10	----	65.1	0.0	8	-8.0	
Lot 1 Plan 2 n facing	11	1	0.0	65.1	66	65.1	10	----	65.1	0.0	8	-8.0	
Lot 1 Plan 2 nw facing	12	1	0.0	63.9	66	63.9	10	----	63.9	0.0	8	-8.0	
Lot 1 Plan 2 rear yard	13	1	0.0	56.8	66	56.8	10	----	56.8	0.0	8	-8.0	
Lot 2 Plan 2 e facing	14	1	0.0	47.4	66	47.4	10	----	47.4	0.0	8	-8.0	
Lot 2 Plan 2 rear yard	15	1	0.0	48.0	66	48.0	10	----	48.0	0.0	8	-8.0	
Lot 3 Plan 2 e facing	16	1	0.0	45.5	66	45.5	10	----	45.5	0.0	8	-8.0	
Lot 5 Plan 2 e facing	17	1	0.0	43.2	66	43.2	10	----	43.2	0.0	8	-8.0	
Lot 19 Plan 2 s facing	18	1	0.0	50.9	66	50.9	10	----	50.9	0.0	8	-8.0	
Lot 20 Plan 2 s facing	19	1	0.0	53.2	66	53.2	10	----	53.2	0.0	8	-8.0	
Lot 20 Plan 2 w facing	20	1	0.0	69.0	66	69.0	10	Snd Lvl	69.0	0.0	8	-8.0	
Lot 20 Plan 2 rear yard	21	1	0.0	58.8	66	58.8	10	----	58.8	0.0	8	-8.0	
Lot 26 Plan 1 n facing	22	1	0.0	62.4	66	62.4	10	----	62.4	0.0	8	-8.0	
Lot 27 Plan 1 e facing	23	1	0.0	69.3	66	69.3	10	Snd Lvl	69.3	0.0	8	-8.0	
Lot 27 Plan 1 s facing	24	1	0.0	64.5	66	64.5	10	----	64.5	0.0	8	-8.0	
Lot 32 Plan 1 s facing	25	1	0.0	61.3	66	61.3	10	----	61.3	0.0	8	-8.0	
Lot 33 Plan 1 n facing	26	1	0.0	65.2	66	65.2	10	----	65.2	0.0	8	-8.0	
Lot 33 Plan 1 w facing	27	1	0.0	68.4	66	68.4	10	Snd Lvl	68.4	0.0	8	-8.0	
Lot 37 Plan 2 rear yard	28	1	0.0	51.3	66	51.3	10	----	51.3	0.0	8	-8.0	

RESULTS: SOUND LEVELS

9289_0002

Lot 38 Plan 2 rear yard	29	1	0.0	52.1	66	52.1	10	----	52.1	0.0	8	-8.0
Lot 39 Plan 2 n facing	32	1	0.0	65.8	66	65.8	10	----	65.8	0.0	8	-8.0
Lot 39 Plan 2 w facing	33	1	0.0	54.7	66	54.7	10	----	54.7	0.0	8	-8.0
Lot 39 Plan 2 rear yard	34	1	0.0	55.2	66	55.2	10	----	55.2	0.0	8	-8.0
Central sitting area	36	1	0.0	51.9	66	51.9	10	----	51.9	0.0	8	-8.0
BBQ area e side 1	37	1	0.0	50.1	66	50.1	10	----	50.1	0.0	8	-8.0
BBQ area e side 2	38	1	0.0	51.6	66	51.6	10	----	51.6	0.0	8	-8.0
Lot 1 Plan 2 n facing 2nd flr	39	1	0.0	66.2	66	66.2	10	Snd Lvl	66.2	0.0	8	-8.0
Lot 1 Plan 2 nw facing 2nd flr	40	1	0.0	64.2	66	64.2	10	----	64.2	0.0	8	-8.0
Lot 2 Plan 2 e facing 2nd flr	41	1	0.0	59.0	66	59.0	10	----	59.0	0.0	8	-8.0
Lot 3 Plan 2 e facing 2nd flr	42	1	0.0	55.7	66	55.7	10	----	55.7	0.0	8	-8.0
Lot 5 'Plan 2 e facing 2nd flr	43	1	0.0	51.7	66	51.7	10	----	51.7	0.0	8	-8.0
Lot 19 Plan 2 s facing 2nd flr	44	1	0.0	62.5	66	62.5	10	----	62.5	0.0	8	-8.0
Lot 20 Plan 2 s facing 2nd flr	45	1	0.0	63.9	66	63.9	10	----	63.9	0.0	8	-8.0
Lot 20 Plan 2 w facing 2nd flr	46	1	0.0	69.5	66	69.5	10	Snd Lvl	69.5	0.0	8	-8.0
Lot 26 Plan 1 n facing 2nd flr	47	1	0.0	62.9	66	62.9	10	----	62.9	0.0	8	-8.0
Lot 27 Plan 1 e facing 2nd flr	48	1	0.0	69.6	66	69.6	10	Snd Lvl	69.6	0.0	8	-8.0
Lot 27 Plan 1 s facing 2nd flr	49	1	0.0	65.0	66	65.0	10	----	65.0	0.0	8	-8.0
Lot 32 Plan 1 s facing 2nd flr	50	1	0.0	61.8	66	61.8	10	----	61.8	0.0	8	-8.0
Lot 33 Plan 1 n facing 2nd flr	51	1	0.0	66.5	66	66.5	10	Snd Lvl	66.5	0.0	8	-8.0
Lot 33 Plan 1 w facing 2nd flr	52	1	0.0	69.1	66	69.1	10	Snd Lvl	69.1	0.0	8	-8.0
Lot 39 Plan 2 n facing 2nd flr	53	1	0.0	66.7	66	66.7	10	Snd Lvl	66.7	0.0	8	-8.0
Lot 39 Plan 2 w facing 2nd flr	54	1	0.0	65.1	66	65.1	10	----	65.1	0.0	8	-8.0
Lot 1 Plan 2 n facing 3rd flr	55	1	0.0	66.0	66	66.0	10	Snd Lvl	66.0	0.0	8	-8.0
Lot 1 Plan 2 nw facing 3rd flr	56	1	0.0	64.3	66	64.3	10	----	64.3	0.0	8	-8.0
Lot 2 Plan 2 e facing 3rd flr	57	1	0.0	60.5	66	60.5	10	----	60.5	0.0	8	-8.0
Lot 3 Plan 2 e facing 3rd flr	58	1	0.0	59.1	66	59.1	10	----	59.1	0.0	8	-8.0
Lot 5 'Plan 2 e facing 3rd flr	59	1	0.0	54.6	66	54.6	10	----	54.6	0.0	8	-8.0
Lot 19 Plan 2 s facing 3rd flr	60	1	0.0	63.0	66	63.0	10	----	63.0	0.0	8	-8.0
Lot 20 Plan 2 s facing 3rd flr	61	1	0.0	64.1	66	64.1	10	----	64.1	0.0	8	-8.0
Lot 20 Plan 2 w facing 3rd flr	63	1	0.0	69.3	66	69.3	10	Snd Lvl	69.3	0.0	8	-8.0
Lot 39 Plan 2 n facing 3rd flr	64	1	0.0	66.5	66	66.5	10	Snd Lvl	66.5	0.0	8	-8.0
Lot 39 Plan 2 w facing 3rd flr	65	1	0.0	65.3	66	65.3	10	----	65.3	0.0	8	-8.0
Dwelling Units		# DUs	Noise Reduction									
			Min	Avg	Max							
			dB	dB	dB							
All Selected		57	0.0	0.0	0.0							
All Impacted		15	0.0	0.0	0.0							
All that meet NR Goal		0	0.0	0.0	0.0							

Construction Noise Model Input / Output

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 4/17/2017
 Case Description: Phase 1 Building Demolition an Site Clearing

---- Receptor #1 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Nearest Receivers 25'	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment			
			Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Excavator	No	40		80.7	25	0
Front End Loader	No	40		79.1	25	0
Dump Truck	No	40		76.5	25	0
Dump Truck	No	40		76.5	50	0
All Other Equipment > 5 HP	No	50	85		50	0
All Other Equipment > 5 HP	No	50	85		50	0
Pneumatic Tools	No	50		85.2	75	0
Pickup Truck	No	40		75	75	0
Pickup Truck	No	40		75	75	0

Results

Equipment	Calculated (dBA)				Noise Limits (dBA)			
			Day		Evening		Night	
	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	
Excavator	86.7	82.8	N/A	N/A	N/A	N/A	N/A	
Front End Loader	85.1	81.2	N/A	N/A	N/A	N/A	N/A	
Dump Truck	82.5	78.5	N/A	N/A	N/A	N/A	N/A	
Dump Truck	76.5	72.5	N/A	N/A	N/A	N/A	N/A	
All Other Equipment > 5 HP	85	82	N/A	N/A	N/A	N/A	N/A	
All Other Equipment > 5 HP	85	82	N/A	N/A	N/A	N/A	N/A	
Pneumatic Tools	81.7	78.6	N/A	N/A	N/A	N/A	N/A	
Pickup Truck	71.5	67.5	N/A	N/A	N/A	N/A	N/A	
Pickup Truck	71.5	67.5	N/A	N/A	N/A	N/A	N/A	
Total	86.7	89.1	N/A	N/A	N/A	N/A	N/A	

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Acoustical Center 90'	Residential	65	60	55

Equipment			
Spec	Actual	Receptor	Estimated

Description	Impact	Usage(%)	Lmax	Lmax	Distance	Shielding
	Device		(dBA)	(dBA)	(feet)	(dBA)
Excavator	No	40		80.7	90	0
Front End Loader	No	40		79.1	90	0
Dump Truck	No	40		76.5	90	0
Dump Truck	No	40		76.5	90	0
All Other Equipment > 5 HP	No	50	85		90	0
All Other Equipment > 5 HP	No	50	85		90	0
Pneumatic Tools	No	50		85.2	90	0
Pickup Truck	No	40		75	90	0
Pickup Truck	No	40		75	90	0

Results

Equipment	Calculated (dBA)			Noise Limits (dBA)			
	*Lmax	Leq	Day	Leq	Evening		Night
			Lmax		Lmax	Leq	Lmax
Excavator	75.6	71.6	N/A	N/A	N/A	N/A	N/A
Front End Loader	74	70	N/A	N/A	N/A	N/A	N/A
Dump Truck	71.3	67.4	N/A	N/A	N/A	N/A	N/A
Dump Truck	71.3	67.4	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5 HP	79.9	76.9	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5 HP	79.9	76.9	N/A	N/A	N/A	N/A	N/A
Pneumatic Tools	80.1	77.1	N/A	N/A	N/A	N/A	N/A
Pickup Truck	69.9	65.9	N/A	N/A	N/A	N/A	N/A
Pickup Truck	69.9	65.9	N/A	N/A	N/A	N/A	N/A
Total	80.1	82.8	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 4/17/2017
Case Description: Phase 2 Site Grading and Site Infrastructure

---- Receptor #1 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Nearest Receivers 25'	Residential	65	60	55

Description	Impact	Usage(%)	Equipment			
			Spec	Actual	Receptor	Estimated
			Lmax	Lmax	Distance	Shielding
Front End Loader	No	40		79.1	25	0
Dozer	No	40		81.7	25	0
Excavator	No	40		80.7	25	0
Compactor (ground)	No	20		83.2	50	0
All Other Equipment > 5 HP	No	50	85		50	0
Backhoe	No	40		77.6	50	0

Backhoe	No	40		77.6	75	0
Grader	No	40	85		75	0
Dump Truck	No	40		76.5	75	0
Dump Truck	No	40		76.5	100	0
Pickup Truck	No	40		75	100	0
Pickup Truck	No	40		75	100	0

Results

Equipment	Calculated (dBA)		Noise Limits (dBA)				
	*Lmax	Leq	Day		Evening		Night
			Lmax	Leq	Lmax	Leq	Lmax
Front End Loader	85.1	81.2	N/A	N/A	N/A	N/A	N/A
Dozer	87.7	83.7	N/A	N/A	N/A	N/A	N/A
Excavator	86.7	82.8	N/A	N/A	N/A	N/A	N/A
Compactor (ground)	83.2	76.2	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5 HP	85	82	N/A	N/A	N/A	N/A	N/A
Backhoe	77.6	73.6	N/A	N/A	N/A	N/A	N/A
Backhoe	74	70.1	N/A	N/A	N/A	N/A	N/A
Grader	81.5	77.5	N/A	N/A	N/A	N/A	N/A
Dump Truck	72.9	68.9	N/A	N/A	N/A	N/A	N/A
Dump Truck	70.4	66.5	N/A	N/A	N/A	N/A	N/A
Pickup Truck	69	65	N/A	N/A	N/A	N/A	N/A
Pickup Truck	69	65	N/A	N/A	N/A	N/A	N/A
Total	87.7	89.4	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Acoustical Center 90'	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment			
			Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
			Front End Loader	No	40	79.1
Dozer	No	40	81.7	90	0	
Excavator	No	40	80.7	90	0	
Compactor (ground)	No	20	83.2	90	0	
All Other Equipment > 5 HP	No	50	85	90	0	
Backhoe	No	40	77.6	90	0	
Backhoe	No	40	77.6	90	0	
Grader	No	40	85	90	0	
Dump Truck	No	40	76.5	90	0	
Dump Truck	No	40	76.5	90	0	
Pickup Truck	No	40	75	90	0	
Pickup Truck	No	40	75	90	0	

Equipment	Results						
	Calculated (dBA)			Noise Limits (dBA)			
	*Lmax	Leq	Day		Evening		Night
			Lmax	Leq	Lmax	Leq	Lmax
Front End Loader	74	70	N/A	N/A	N/A	N/A	N/A
Dozer	76.6	72.6	N/A	N/A	N/A	N/A	N/A
Excavator	75.6	71.6	N/A	N/A	N/A	N/A	N/A
Compactor (ground)	78.1	71.1	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5 HP	79.9	76.9	N/A	N/A	N/A	N/A	N/A
Backhoe	72.5	68.5	N/A	N/A	N/A	N/A	N/A
Backhoe	72.5	68.5	N/A	N/A	N/A	N/A	N/A
Grader	79.9	75.9	N/A	N/A	N/A	N/A	N/A
Dump Truck	71.3	67.4	N/A	N/A	N/A	N/A	N/A
Dump Truck	71.3	67.4	N/A	N/A	N/A	N/A	N/A
Pickup Truck	69.9	65.9	N/A	N/A	N/A	N/A	N/A
Pickup Truck	69.9	65.9	N/A	N/A	N/A	N/A	N/A
Total	79.9	82.5	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 4/17/2017
Case Description: Phase 3 - Residences Construction

---- Receptor #1 ----								
Description	Land Use	Baselines (dBA)			Equipment			
		Daytime	Evening	Night	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Nearest Receivers 25'	Residential	65	60	55				
					Impact Device	Usage(%)		
All Other Equipment > 5 HP			50	85	No	50	25	0
All Other Equipment > 5 HP			50	85	No	50	25	0
Concrete Mixer Truck			40	78.8	No	40	25	0
Concrete Mixer Truck			40	78.8	No	40	50	0
Concrete Pump Truck			20	81.4	No	20	50	0
Flat Bed Truck			40	74.3	No	40	50	0
Compressor (air)			40	77.7	No	40	75	0
Compressor (air)			40	77.7	No	40	75	0
Compressor (air)			40	77.7	No	40	75	0
Compressor (air)			40	77.7	No	40	100	0
Compressor (air)			40	77.7	No	40	100	0
Compressor (air)			40	77.7	No	40	100	0
Compressor (air)			40	77.7	No	40	125	0

Compressor (air)	No	40	77.7	125	0
Compressor (air)	No	40	77.7	125	0
Compressor (air)	No	40	77.7	150	0
Pneumatic Tools	No	50	85.2	150	0
Pneumatic Tools	No	50	85.2	150	0
Pickup Truck	No	40	75	175	0
Pickup Truck	No	40	75	175	0

Results

Equipment	Calculated (dBA)		Noise Limits (dBA)				
	*Lmax	Leq	Day		Evening		Night
			Lmax	Leq	Lmax	Leq	Lmax
All Other Equipment > 5 HP	91	88	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5 HP	91	88	N/A	N/A	N/A	N/A	N/A
Concrete Mixer Truck	84.8	80.8	N/A	N/A	N/A	N/A	N/A
Concrete Mixer Truck	78.8	74.8	N/A	N/A	N/A	N/A	N/A
Concrete Pump Truck	81.4	74.4	N/A	N/A	N/A	N/A	N/A
Flat Bed Truck	74.3	70.3	N/A	N/A	N/A	N/A	N/A
Compressor (air)	74.1	70.2	N/A	N/A	N/A	N/A	N/A
Compressor (air)	74.1	70.2	N/A	N/A	N/A	N/A	N/A
Compressor (air)	74.1	70.2	N/A	N/A	N/A	N/A	N/A
Compressor (air)	71.6	67.7	N/A	N/A	N/A	N/A	N/A
Compressor (air)	71.6	67.7	N/A	N/A	N/A	N/A	N/A
Compressor (air)	71.6	67.7	N/A	N/A	N/A	N/A	N/A
Compressor (air)	69.7	65.7	N/A	N/A	N/A	N/A	N/A
Compressor (air)	69.7	65.7	N/A	N/A	N/A	N/A	N/A
Compressor (air)	69.7	65.7	N/A	N/A	N/A	N/A	N/A
Compressor (air)	68.1	64.1	N/A	N/A	N/A	N/A	N/A
Pneumatic Tools	75.6	72.6	N/A	N/A	N/A	N/A	N/A
Pneumatic Tools	75.6	72.6	N/A	N/A	N/A	N/A	N/A
Pickup Truck	64.1	60.1	N/A	N/A	N/A	N/A	N/A
Pickup Truck	64.1	60.1	N/A	N/A	N/A	N/A	N/A
Total	91	91.9	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Description	Land Use	Baselines (dBA)			Equipment			
		Daytime	Evening	Night	Spec Lmax	Actual Lmax	Receptor Distance (feet)	Estimated Shielding (dBA)
Acoustical Center 90'	Residential	65	60	55				
Description	Device	Usage(%)	Impact	(dBA)	(dBA)	(feet)	(dBA)	
All Other Equipment > 5 HP	No	50		85		90	0	
All Other Equipment > 5 HP	No	50		85		90	0	
Concrete Mixer Truck	No	40			78.8	90	0	

Concrete Mixer Truck	No	40	78.8	90	0
Concrete Pump Truck	No	20	81.4	90	0
Flat Bed Truck	No	40	74.3	90	0
Compressor (air)	No	40	77.7	90	0
Compressor (air)	No	40	77.7	90	0
Compressor (air)	No	40	77.7	90	0
Compressor (air)	No	40	77.7	90	0
Compressor (air)	No	40	77.7	90	0
Compressor (air)	No	40	77.7	90	0
Compressor (air)	No	40	77.7	90	0
Compressor (air)	No	40	77.7	90	0
Compressor (air)	No	40	77.7	90	0
Compressor (air)	No	40	77.7	90	0
Pneumatic Tools	No	50	85.2	90	0
Pneumatic Tools	No	50	85.2	90	0
Pickup Truck	No	40	75	90	0
Pickup Truck	No	40	75	90	0

Results

Equipment	Calculated (dBA)		Noise Limits (dBA)				
	*Lmax	Leq	Day		Evening		Night
			Lmax	Leq	Lmax	Leq	Lmax
All Other Equipment > 5 HP	79.9	76.9	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5 HP	79.9	76.9	N/A	N/A	N/A	N/A	N/A
Concrete Mixer Truck	73.7	69.7	N/A	N/A	N/A	N/A	N/A
Concrete Mixer Truck	73.7	69.7	N/A	N/A	N/A	N/A	N/A
Concrete Pump Truck	76.3	69.3	N/A	N/A	N/A	N/A	N/A
Flat Bed Truck	69.1	65.2	N/A	N/A	N/A	N/A	N/A
Compressor (air)	72.6	68.6	N/A	N/A	N/A	N/A	N/A
Compressor (air)	72.6	68.6	N/A	N/A	N/A	N/A	N/A
Compressor (air)	72.6	68.6	N/A	N/A	N/A	N/A	N/A
Compressor (air)	72.6	68.6	N/A	N/A	N/A	N/A	N/A
Compressor (air)	72.6	68.6	N/A	N/A	N/A	N/A	N/A
Compressor (air)	72.6	68.6	N/A	N/A	N/A	N/A	N/A
Compressor (air)	72.6	68.6	N/A	N/A	N/A	N/A	N/A
Compressor (air)	72.6	68.6	N/A	N/A	N/A	N/A	N/A
Compressor (air)	72.6	68.6	N/A	N/A	N/A	N/A	N/A
Compressor (air)	72.6	68.6	N/A	N/A	N/A	N/A	N/A
Pneumatic Tools	80.1	77.1	N/A	N/A	N/A	N/A	N/A
Pneumatic Tools	80.1	77.1	N/A	N/A	N/A	N/A	N/A
Pickup Truck	69.9	65.9	N/A	N/A	N/A	N/A	N/A
Pickup Truck	69.9	65.9	N/A	N/A	N/A	N/A	N/A
Total	80.1	84.9	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.