Appendix F
Noise Attachments

DUDEK

FIELD NOISE MEASUREMENT DATA

MISSION BLVD WMSE

PROJECT ~~MONTCLAIR NEW CROSSINGS~~ PROJECT # 13916

SITE ID

SITE ADDRESS OBSERVER(S) PETE VITAR

START DATE 9/22/21 END DATE 9/22/21

START TIME END TIME

METEOROLOGICAL CONDITIONS

TEMP 92 F HUMIDITY 23 % R.H. WIND CALM (LIGHT) MODERATE

WINDSPD 5 MPH DIR. N NE S SE S SW W NW VARIABLE STEADY GUSTY

SKY (SUNNY) (CLEAR) OVRCAST PRTLY CLDY FOG RAIN

ACOUSTIC MEASUREMENTS

MEAS. INSTRUMENT PICCOLO SLM-P3 TYPE 1 2 SERIAL # 14031704

CALIBRATOR BSWA CAL 114 SERIAL # 490151

CALIBRATION CHECK PRE-TEST ____ dBA SPL POST-TEST ____ dBA SPL WINDSCRN YES

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

	REC. #	BEGIN	END	Leq	Lmax	Lmin	L90	L50	L10	OTHER (SPECIFY METRIC
(ST1)	71-86	11:38	11:53							

COMMENTS

READING TAKEN ON SOUTH SIDE OF MISSION BLVD, EAST OF MONTE VISTA AVE, AT NORTHEAST CORNER OF RESIDENCE AT 4998 MISSION BLVD; PRIMARY NOISE SOURCE IS TRAFFIC ON MISSION BLVD;

SOURCE INFO AND TRAFFIC COUNTS

PRIMARY NOISE SOURCE (TRAFFIC) AIRCRAFT RAIL INDUSTRIAL OTHER:

ROADWAY TYPE: ASPHALT DIST. TO RDWY C/L OR EOP: APX 60' TO EDGE OF C/L MEDIAN ON MISSION BL

TRAFFIC COUNT DURATION: 15 MIN SPEED ____ MIN SPEED

	DIRECTION	NB/EB	SB/WB	NB/EB	SB/WB		NB/EB	SB/WB	NB/EB	SB/WB
COUNT 1 (OR RDWY 1)	AUTOS	256				IF COUNTING BOTH DIRECTIONS AS ONE, CHECK HERE ✓				
	MED TRKS	11								
	HVY TRKS	7								
	BUSES	1								
	MOTRCLS	2								

COUNT 2 (OR RDWY 2)

SPEEDS ESTIMATED BY: RADAR / DRIVING THE PACE

POSTED SPEED LIMIT SIGNS SAY:

OTHER NOISE SOURCES (BACKGROUND): DIST. AIRCRAFT RUSTLING LEAVES DIST. BARKING DOGS BIRDS DIST. INDUSTRIAL

DIST. KIDS PLAYING DIST. CONVRSTNS / YELLING DIST. TRAFFIC (LIST RDWYS BELOW) DISTD GARDENERS/LANDSCAPING NOISE

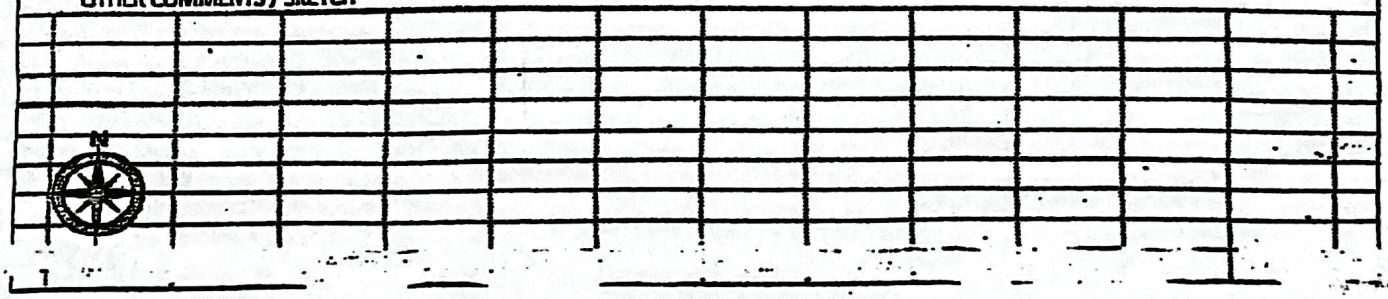
OTHER:

DESCRIPTION / SKETCH

TERRAIN HARD SOFT (MIXED) FLAT OTHER:

PHOTOS 2236; 2237; 2238; 2239;

OTHER COMMENTS / SKETCH



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DUDEK

FIELD NOISE MEASUREMENT DATA

PROJECT: ~~MONTCLAIR NEW CAUSEWAY~~ MISSION BL WHSE
PROJECT #: 13716
SITE ID:
SITE ADDRESS:
OBSERVER(S): PETE VITAR
START DATE: 9/22/21 END DATE: 9/22/21
START TIME: END TIME:

METEOROLOGICAL CONDITIONS

TEMP: 96 F HUMIDITY: 20 % R.H. WIND: CALM (LIGHT) MODERATE
WINDSPD: 8 MPH DIR. N NE S SE S SW W NW VARIABLE STEADY GUSTY
SKY: (SUNNY) (CLEAR) OVRCAST PRTLY CLDY FOG RAIN

ACOUSTIC MEASUREMENTS

MEAS. INSTRUMENT: PICCULO SLM P-3 TYPE 1 2 SERIAL #: 14031700 4
CALIBRATOR: BSWA CA 114 SERIAL #: 490151
CALIBRATION CHECK: PRE-TEST ____ dBA SPL POST-TEST ____ dBA SPL WINDSCRN: YES

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

	REC. #	BEGIN	END	Leq	Lmax	Lmin	L90	L50	L10	OTHER (SPECIFY METRIC
ST2	87-102	12:03	12:18							

COMMENTS

READING TAKEN ON NORTH SIDE MISSION BLVD, EAST OF MONTE VISTA AVE; AT SOUTHEAST CORNER OF BUILDING AT 4918 MISSION BLVD; PRIMARY NOISE SOURCE IS TRAFFIC ON MISSION BLVD; SOME TRAFFIC NOISE FROM MONTE VISTA AVE TO THE WEST

SOURCE INFO AND TRAFFIC COUNTS

PRIMARY NOISE SOURCE: (TRAFFIC) AIRCRAFT RAIL INDUSTRIAL OTHER:
ROADWAY TYPE: ASPHALT DIST. TO RDWY (C/L) OR EOP: APX 70' TO EDGE OF MEDIAN ON MISSION BL

TRAFFIC COUNT DURATION: 15 MIN

COUNT 1 (OR RDWY 1)	NB/EB	SB/WB	SPEED NB/EB	SPEED SB/WB
AUTOS	283			
MED TRKS	9			
HVY TRKS	12			
BUSES	0			
MOTRCLS	1			

IF COUNTING BOTH DIRECTIONS AS ONE, CHECK HERE: ✓

COUNT 2 (OR RDWY 2)	NB/EB	SB/WB	SPEED NB/EB	SPEED SB/WB
AUTOS				
MED TRKS				
HVY TRKS				
BUSES				
MOTRCLS				

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

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

DESCRIPTION / SKETCH

TERRAIN: HARD SOFT (MIXED) FLAT OTHER:
PHOTOS: 2241; 2242; 2243; 2244; 2245; 2246; 2247
OTHER COMMENTS / SKETCH

DUDEK

FIELD NOISE MEASUREMENT DATA

PROJECT: MISSION BL WHSE (~~MONTE VISTA NEW CROSSING~~) PROJECT #: 13716
SITE ID:
SITE ADDRESS: OBSERVER(S): PEYE VITAL
START DATE: 4/22/21 END DATE: 4/22/21
START TIME: END TIME:

METEOROLOGICAL CONDITIONS

TEMP: 97 F HUMIDITY: 20 % R.H. WIND: CALM (LIGHT) MODERATE
WINDSPD: 0 MPH DIR. N NE E SE S SW W NW VARIABLE STEADY GUSTY
SKY: (SUNNY) (CLEAR) OVRCAST PRTLY CLDY FOG RAIN

ACOUSTIC MEASUREMENTS

MEAS. INSTRUMENT: PICCOLO SLM P-3 TYPE 1 2 SERIAL #: 14031704
CALIBRATOR: BSW.A CA 114 SERIAL #: 490151
CALIBRATION CHECK PRE-TEST: dBA SPL POST-TEST: dBA SPL WINDSCRN: YES

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

REC. #	BEGIN	END	Leq	Lmax	Lmin	L90	L50	L10	OTHER (SPECIFY METRIC
(ST3) 103–118	12:27	12:42							

COMMENTS
READING TAKEN ON WEST SIDE OF MONTE VISTA AVE SOUTH OF EARNHART WAY; PRIMARY NOISE SOURCE IS TRAFFIC ON MONTE VISTA AVE; SOME TRAFFIC NOISE FROM MISSION BLVD TO THE SOUTH

SOURCE INFO AND TRAFFIC COUNTS

PRIMARY NOISE SOURCE: (TRAFFIC) AIRCRAFT RAIL INDUSTRIAL OTHER:
ROADWAY TYPE: ASPHALT DIST. TO RDWY C/L OR EOP: APX 32' FROM C/L OF MONTE VISTA AVE

TRAFFIC COUNT DURATION: 15 MIN SPEED ___ MIN SPEED

COUNT 1 (OR RDWY 1) DIRECTION	NB/EB	SB/WB	NB/EB	SB/WB
AUTOS	206			
MED TRKS	6			
HVY TRKS	1			
BUSES	1			
MOTRCLS	0			

IF COUNTING BOTH DIRECTIONS AS ONE, CHECK HERE ✓

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

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

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

DESCRIPTION / SKETCH

TERRAIN: HARD SOFT (MIXED) FLAT OTHER:
PHOTOS: 2249; 2250; 2251; 2252; 2253; 2254
OTHER COMMENTS / SKETCH

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

noise level limit for construction phase, per County = 80

allowable hours over which Leq is to be averaged (example: 8 for County of San Diego, FTA guidance) = 8

Construction Phase	Equipment	Total Equipment Qty	AUF % (from FHWA RCNM)	Reference Lmax @ 50 ft. from FHWA RCNM	Client Equipment Description, Data Source and/or Notes	Source to NSR Distance (ft.)	Distance-Adjusted Lmax	Allowable Operation Time (hours)	Allowable Operation Time (minutes)	Predicted 8-hour Leq
Site Preparation	Dozer	3	40	82		150	72.5	8	480	73
	Backhoe	4	40	78		150	68.5	8	480	70
							Total for Site Preparation Phase:			**75.1**
Demolition	concrete saw	1	20	90		150	80.5	8	480	73
	excavator	3	40	81		150	71.5	8	480	72
	dozer	2	40	82		150	72.5	8	480	71
							Total for Demolition Phase:			**77.3**
Grading	Excavator	1	40	81		150	71.5	8	480	67
	Dozer	1	40	82		150	72.5	8	480	68
	Backhoe	3	40	78		150	68.5	8	480	69
							Total for Grading Phase:			**73.2**
Building Construction	Crane	1	16	81		150	71.5	7	420	63
	Man Lift	3	20	75		150	65.5	8	480	63
	Generator	1	50	72		150	62.5	8	480	59
	Backhoe	1	40	78		150	68.5	7	420	64
	Front End Loader	2	40	79		150	69.5	7	420	68
	Welder / Torch	3	40	73		150	63.5	8	480	64
							Total for Building Construction Phase:			**72.1**
Architectural Coating	Compressor (air)	1	40	78		150	68.5	6	360	63
							Total for Architectural Coating Phase:			**63.2**
Paving	Paver	2	50	77		150	67.5	8	480	67
	Concrete Mixer Truck	1	40	79		150	69.5	8	480	65
	Roller	2	20	80		150	70.5	8	480	66
							Total for Paving Phase:			**71.3**

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

noise level limit for construction phase, per County = 80

allowable hours over which Leq is to be averaged (example: 8 for County of San Diego, FTA guidance) = 8

Construction Phase	Equipment	Total Equipment Qty	AUF % (from FHWA RCNM)	Reference Lmax @ 50 ft. from FHWA RCNM	Client Equipment Description, Data Source and/or Notes	Source to NSR Distance (ft.)	Distance-Adjusted Lmax	Allowable Operation Time (hours)	Allowable Operation Time (minutes)	Predicted 8-hour Leq
Site Preparation	Dozer	3	40	82		335	65.5	8	480	66
	Backhoe	4	40	78		335	61.5	8	480	64
							Total for Site Preparation Phase:			**68.1**
Demolition	concrete saw	1	20	90		335	73.5	8	480	66
	excavator	3	40	81		335	64.5	8	480	65
	dozer	2	40	82		335	65.5	8	480	65
							Total for Demolition Phase:			**70.3**
Grading	Excavator	1	40	81		335	64.5	8	480	60
	Dozer	1	40	82		335	65.5	8	480	61
	Backhoe	3	40	78		335	61.5	8	480	62
							Total for Grading Phase:			**66.3**
Building Construction	Crane	1	16	81		335	64.5	7	420	56
	Man Lift	3	20	75		335	58.5	8	480	56
	Generator	1	50	72		335	55.5	8	480	52
	Backhoe	1	40	78		335	61.5	7	420	57
	Front End Loader	2	40	79		335	62.5	7	420	61
	Welder / Torch	3	40	73		335	56.5	8	480	57
							Total for Building Construction Phase:			**65.1**
Architectural Coating	Compressor (air)	1	40	78		335	61.5	6	360	56
							Total for Architectural Coating Phase:			**56.2**
Paving	Paver	2	50	77		335	60.5	8	480	60
	Concrete Mixer Truck	1	40	79		335	62.5	8	480	58
	Roller	2	20	80		335	63.5	8	480	59
							Total for Paving Phase:			**64.3**

Equipment Description	Impact Device?	Acoustical Use Factor (%)	Lesser of or available Lmax	Spec. 721 Lmax	Measured L_{max} @50ft (dBA, slow)
All Other Equipment > 5 HP	No	50	85	85	-- N/A --
Auger Drill Rig	No	20	84	85	84
Backhoe	No	40	78	80	78
Bar Bender	No	20	80	80	-- N/A --
Blasting	Yes	-- N/A --	94	94	-- N/A --
Boring Jack Power Unit	No	50	80	80	83
Chain Saw	No	20	84	85	84
Clam Shovel (dropping)	Yes	20	87	93	87
Compactor (ground)	No	20	80	80	83
Compressor (air)	No	40	78	80	78
Concrete Batch Plant	No	15	83	83	-- N/A --
Concrete Mixer Truck	No	40	79	85	79
Concrete Pump Truck	No	20	81	82	81
Concrete Saw	No	20	90	90	90
Crane	No	16	81	85	81
Dozer	No	40	82	85	82
Drill Rig Truck	No	20	79	84	79
Drum Mixer	No	50	80	80	80
Dump Truck	No	40	76	84	76
Excavator	No	40	81	85	81
Flat Bed Truck	No	40	74	84	74
Front End Loader	No	40	79	80	79
Generator	No	50	72	72	81
Generator (<25KVA, VMS signs)	No	50	70	70	73
Gradall	No	40	83	85	83
Grader	No	40	85	85	-- N/A --
Grapple (on backhoe)	No	40	85	85	87
Horizontal Boring Hydr. Jack	No	25	80	80	82
Hydra Break Ram	Yes	10	90	90	-- N/A --
Impact Pile Driver	Yes	20	95	95	101
Jackhammer	Yes	20	85	85	89
Man Lift	No	20	75	85	75
Mounted Impact Hammer (hoe ram)	Yes	20	90	90	90
Pavement Scarafier	No	20	85	85	90
Paver	No	50	77	85	77
Pickup Truck	No	40	55	55	75
Pneumatic Tools	No	50	85	85	85
Pumps	No	50	77	77	81
Refrigerator Unit	No	100	73	82	73
Rivit Buster/chipping gun	Yes	20	79	85	79

Rock Drill	No	20	81	85	81
Roller	No	20	80	85	80
Sand Blasting (Single Nozzle)	No	20	85	85	96
Scraper	No	40	84	85	84
Shears (on backhoe)	No	40	85	85	96
Slurry Plant	No	100	78	78	78
Slurry Trenching Machine	No	50	80	82	80
Soil Mix Drill Rig	No	50	80	80	-- N/A --
Tractor	No	40	84	84	-- N/A --
Vacuum Excavator (Vac-truck)	No	40	85	85	85
Vacuum Street Sweeper	No	10	80	80	82
Ventilation Fan	No	100	79	85	79
Vibrating Hopper	No	50	85	85	87
Vibratory Concrete Mixer	No	20	80	80	80
Vibratory Pile Driver	No	20	95	95	101
Warning Horn	No	5	83	85	83
Welder / Torch	No	40	73	73	74

TECHNICAL GUIDE

R-410A
ZE/ZF/ZR/XN/XP SERIES
3 - 6 TON
60 Hertz

Description

YORK® ZE/ZF/ZR/XN/XP Series units are convertible single package high efficiency rooftops with a common roof curb for the 3, 4, 5 and 6 Ton sizes (ZE, ZR, XN, XP not available in 6 Ton). Although the units are primarily designed for curb mounting on a roof, they can also be slab-mounted at ground level or set on steel beams above a finished roof.

All ZE/ZF/ZR/XN/XP Series units are self-contained and assembled on rigid full perimeter base rails allowing for overhead rigging. Every unit is completely charged, wired, piped and tested at the factory to provide a quick and easy field installation.

All models (including those with an economizer) are convertible between bottom and horizontal duct connections.

ZE/ZF/ZR Series units are available in the following configurations: cooling only, cooling with electric heat, and cooling with one or two stage gas heat. Electric heaters are available as factory-installed option or field installed accessory.

XN/XP Series units are available in the following configurations: cooling and heating only and cooling and heating with electric heat.

Tested in accordance with:

DESIGN CERTIFIED

C SA® US

CERTIFIED

AHRI CERTIFIED™ www.ahridirectory.org Unitary Small AC AHRI Standard 210/240

AHRI CERTIFIED™ www.ahridirectory.org Unitary Small HP AHRI Standard 210/240

Sound Performance

ZF/ZR/XP Indoor Sound Power Levels

Size (Tons)	CFM	ESP (IWG)	Blower		Sound Power, dB (10^{-12}) Watts							
					Sound Rating[1]	Octave Band Centerline Frequency (Hz)						
			RPM	BHP	dB (A)	63	125	250	500	1000	2000	4000	8000
036 (3.0)	1200	0.2	630	0.41	63	82	77	59	50	43	42	40	45
048 (4.0)	1600	0.2	791	0.54	72	95	84	58	54	46	44	45	44
060 (5.0)	2000	0.2	840	0.67	62	84	71	58	53	50	49	49	49
072 (6.0)	2200	0.3	920	1.45	76	61	71	68	67	72	66	61	54

1. These values have been accessed using a model of sound propagation from a point source into the hemispheric/free field. The dBA values provided are to be used for reference only. Calculation of dBA values cover matters of system design and the fan manufacture has no way of knowing the details of each system. This constitutes an exception to any specification or guarantee requiring a dBA value of sound data in any other form than sound power level ratings.

ZE/ZF/ZR Outdoor Sound Power Levels

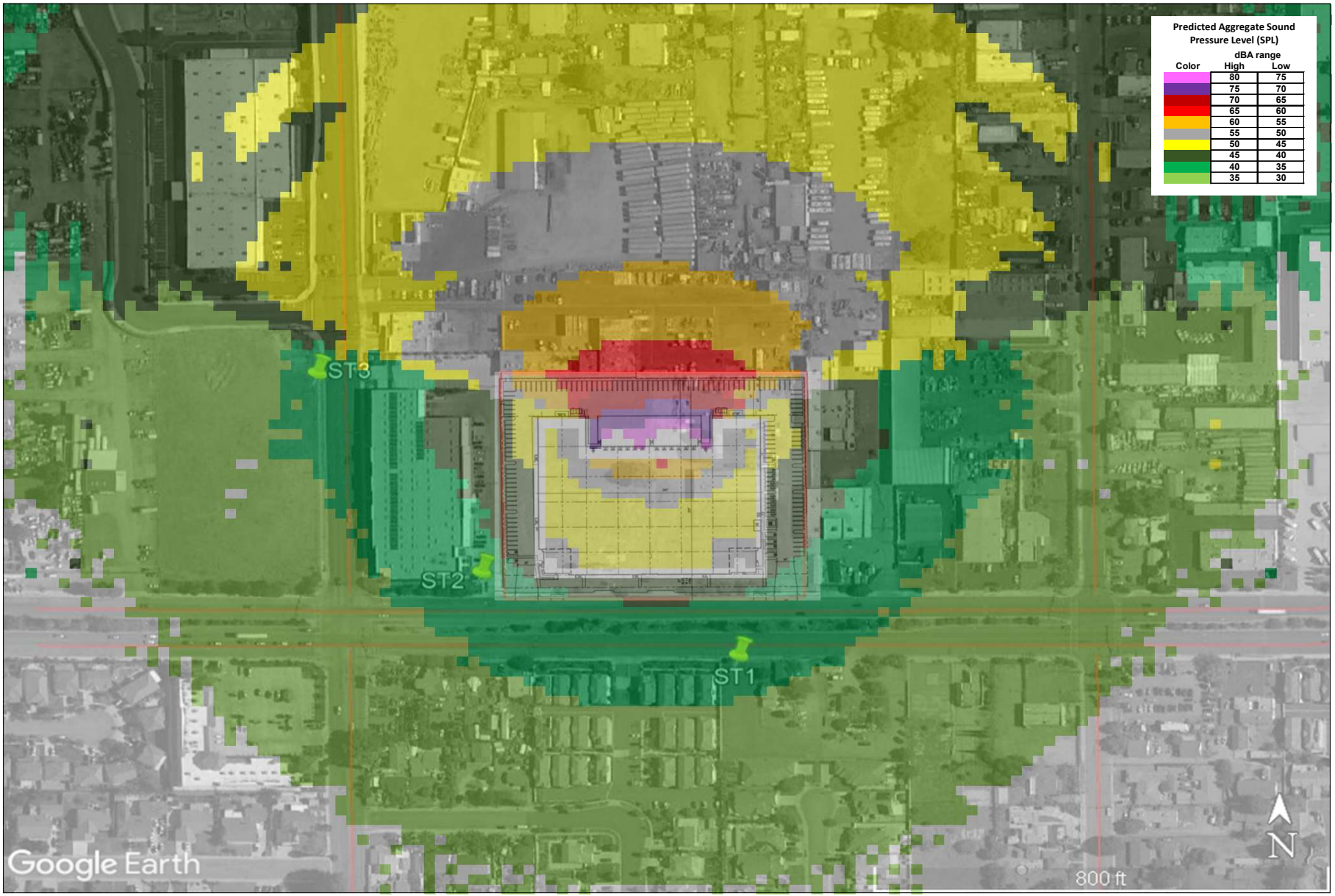
Size (Tons)	Sound Rating[1] dB (A)	Octave Band Centerline Frequency (Hz)							
		63	125	250	500	1000	2000	4000	8000
036 (3.0)	81	87.5	86.0	81.0	77.0	75.0	69.5	65.5	70.5
048 (4.0)	80	84.5	81.0	80.0	78.0	75.0	70.0	67.0	70.5
060 (5.0)	82	86.5	87.5	81.5	77.5	75.0	71.5	68.0	70.5
072 (6.0)	83	-	84.0	85.0	79.0	80.0	72.0	67.5	62.5

1. Rated in accordance with AHRI 270 standard.

XN/XP Outdoor Sound Power Levels

Size (Tons)	Sound Rating[1] dB (A)	Octave Band Centerline Frequency (Hz)							
		63	125	250	500	1000	2000	4000	8000
036 (3.0)	76	83.5	84.5	76.5	72.0	68.0	66.0	60.0	56.0
048 (4.0)	80	85.0	83.0	81.0	77.5	75.5	71.5	67.5	61.5
060 (5.0)	80	86.0	84.0	81.0	77.0	75.5	71.0	66.5	60.5

1. Rated in accordance with AHRI 270 standard.



SOURCE: Dudek 2021

DUDEK

0 195 390 Feet

FIGURE 2

Predicted Stationary Source Operations Noise

Mission Blvd Warehouse

RAY-TRACE PROGRAM (FOR A POINT-SOURCE)

Uses the Equation: $(A_{e4})_{point}=20*\log[(2*pi*N)^{1/2}/\tanh(2*pi*N)^{1/2}]+5dB$
(Ref. Pg.174, Noise and Vibration Control, L.L. Beranek Editor, 1971 Ed.

Project: Mission BLVD Warehouse
Date: 10/12/21
By: CB

Please Enter: Using English (E) units or Metric (M) units ? **E** 1128

Ray Trace Number/Description	Source-Receiver Distance (ft. or m)	Source Base Elev. (ft. or m)	Source Height above Ground (ft. or m)	Receiver Base Elev. (ft. or m)	Receiver Height above Ground (ft. or m)	Horizontal Barrier Dist. (in ref. to source) (ft. or m)	Barrier Base Elev. (ft. or m)	Barrier Height (ft. or m)	Dominant Freq.(Hz)	Source-Rcvr Straight-Line Dist. (ft. or m)	Source-Top-of-Barrier Dist. (ft. or m)	Receiver-Top-of-Barrier Dist. (ft. or m)	Lambda	N_{max}	$AE_{(barriers)}$ (dB)
1. Source - Truck Noise at Neasrest Residence	150.0	0.0	5.0	0.0	5.0	0.0	0.0	**35.0**	500.0	150.0	30.0	153.0	2.3	29.2	**27.6**

Dudek					**13 October 2021**						
CB					**TNM 2.5**						
INPUT: ROADWAYS							**Average pavement type shall be used unless**				
PROJECT/CONTRACT:	**Mission Blvd Warehouse**						**a State highway agency substantiates the use**				
RUN:	**Existing**						**of a different type with the approval of FHWA**				
Roadway		**Points**									
Name	**Width**	**Name**	**No.**	**Coordinates (pavement)**			**Flow Control**			**Segment**	
				X	**Y**	**Z**	**Control Device**	**Speed Constraint**	**Percent Vehicles Affected**	**Pvmt Type**	**On Struct?**
	ft			ft	ft	ft		mph	%		
Monte Vista Ave North	50.0	point1	1	6,653,064.5	1,844,220.2	0.00				Average	
		point2	2	6,653,088.5	1,842,924.5	0.00					
Mission Blvd West	40.0	point3	3	6,655,108.0	1,842,900.5	0.00				Average	
		point4	4	6,654,811.0	1,842,899.5	0.00				Average	
		point5	5	6,654,379.5	1,842,893.8	0.00				Average	
		point6	6	6,654,267.0	1,842,893.4	0.00				Average	
		point7	7	6,653,674.5	1,842,891.1	0.00				Average	
		point8	8	6,653,092.0	1,842,889.1	0.00					
Monte Vista Ave South	50.0	point10	10	6,653,089.5	1,842,812.1	0.00				Average	
		point11	11	6,653,104.5	1,841,696.4	0.00					
Fremont Ave South	50.0	point12	12	6,654,403.5	1,842,809.2	0.00				Average	
		point13	13	6,654,420.5	1,841,634.8	0.00					
Fremont Ave North	50.0	point14	14	6,654,388.0	1,843,818.4	0.00				Average	
		point15	15	6,654,393.5	1,843,533.6	0.00				Average	
		point16	16	6,654,400.0	1,842,936.2	0.00					
Mission Blvd East	40.0	point17	17	6,652,541.0	1,842,819.2	0.00				Average	
		point22	22	6,653,087.5	1,842,830.2	0.00					
Mission Blvd West-2	40.0	point19	19	6,653,092.0	1,842,889.1	0.00				Average	
		point9	9	6,652,539.5	1,842,891.8	0.00					
Mission Blvd East-2	40.0	point24	24	6,653,087.5	1,842,830.2	0.00				Average	
		point21	21	6,653,182.0	1,842,822.0	0.00				Average	
		point20	20	6,653,823.5	1,842,824.8	0.00				Average	
		point18	18	6,655,106.0	1,842,830.2	0.00					

Dudek **13 October 2021**
CB **TNM 2.5**

INPUT: TRAFFIC FOR LAeq1h Volumes
PROJECT/CONTRACT: **Mission Blvd Warehouse**
RUN: **Existing**

Roadway	Points		Segment									
Name	Name	No.	Autos		MTrucks		HTrucks		Buses		Motorcycles	
			V	S	V	S	V	S	V	S	V	S
			veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph
Monte Vista Ave North	point1	1	1377	35	28	35	14	35	0	0	0	0
	point2	2										
Mission Blvd West	point3	3	1069	45	22	45	11	45	0	0	0	0
	point4	4	1069	45	22	45	11	45	0	0	0	0
	point5	5	1069	45	22	45	11	45	0	0	0	0
	point6	6	1069	45	22	45	11	45	0	0	0	0
	point7	7	1069	45	22	45	11	45	0	0	0	0
	point8	8										
Monte Vista Ave South	point10	10	1032	35	21	35	10	35	0	0	0	0
	point11	11										
Fremont Ave South	point12	12	100	35	0	0	0	0	0	0	0	0
	point13	13										
Fremont Ave North	point14	14	100	35	0	0	0	0	0	0	0	0
	point15	15	100	35	0	0	0	0	0	0	0	0
	point16	16										
Mission Blvd East	point17	17	982	45	20	45	10	45	0	0	0	0
	point22	22										
Mission Blvd West-2	point19	19	982	45	20	45	10	45	0	0	0	0
	point9	9										
Mission Blvd East-2	point24	24	1069	45	22	45	11	45	0	0	0	0
	point21	21	1069	45	22	45	11	45	0	0	0	0
	point20	20	1069	45	22	45	11	45	0	0	0	0
	point18	18										

Dudek 13 October 2021
CB TNM 2.5

INPUT: RECEIVERS
PROJECT/CONTRACT: Mission Blvd Warehouse
RUN: Existing

Receiver Name	No.	#DUs	Coordinates (ground) X	Y	Z	Height above Ground	Input Sound Levels and Criteria Existing LAeq1h	Impact Criteria LAeq1h	Impact Criteria Sub'l	NR Goal	Active in Calc.
			ft	ft	ft	ft	dBA	dBA	dB	dB	
ST1	1	1	6,653,765.0	1,842,777.6	0.00	4.92	74.33	66	10.0	8.0	Y
ST2	2	1	6,653,312.0	1,842,939.5	0.00	4.92	74.14	66	10.0	8.0	Y
ST3	3	1	6,653,022.0	1,843,328.4	0.00	4.92	70.18	66	10.0	8.0	Y

Dudek
CB
13 October 2021
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Mission Blvd Warehouse
RUN: Existing
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
ST1	1	1	74.3	70.0	66	-4.3	10	Snd Lvl	70.0	0.0	8	-8.0
ST2	2	1	74.1	69.9	66	-4.2	10	Snd Lvl	69.9	0.0	8	-8.0
ST3	3	1	70.2	66.4	66	-3.8	10	Snd Lvl	66.4	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	3	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

Dudek					**13 October 2021**						
CB					**TNM 2.5**						
INPUT: ROADWAYS							**Average pavement type shall be used unless**				
PROJECT/CONTRACT:	**Mission Blvd Warehouse**						**a State highway agency substantiates the use**				
RUN:	**Existing + P**						**of a different type with the approval of FHWA**				
Roadway		**Points**									
Name	**Width**	**Name**	**No.**	**Coordinates (pavement)**			**Flow Control**			**Segment**	
				X	**Y**	**Z**	**Control Device**	**Speed Constraint**	**Percent Vehicles Affected**	**Pvmt Type**	**On Struct?**
	ft			ft	ft	ft		mph	%		
Monte Vista Ave North	50.0	point1	1	6,653,064.5	1,844,220.2	0.00				Average	
		point2	2	6,653,088.5	1,842,924.5	0.00					
Mission Blvd West	40.0	point3	3	6,655,108.0	1,842,900.5	0.00				Average	
		point4	4	6,654,811.0	1,842,899.5	0.00				Average	
		point5	5	6,654,379.5	1,842,893.8	0.00				Average	
		point6	6	6,654,267.0	1,842,893.4	0.00				Average	
		point7	7	6,653,674.5	1,842,891.1	0.00				Average	
		point8	8	6,653,092.0	1,842,889.1	0.00					
Monte Vista Ave South	50.0	point10	10	6,653,089.5	1,842,812.1	0.00				Average	
		point11	11	6,653,104.5	1,841,696.4	0.00					
Fremont Ave South	50.0	point12	12	6,654,403.5	1,842,809.2	0.00				Average	
		point13	13	6,654,420.5	1,841,634.8	0.00					
Fremont Ave North	50.0	point14	14	6,654,388.0	1,843,818.4	0.00				Average	
		point15	15	6,654,393.5	1,843,533.6	0.00				Average	
		point16	16	6,654,400.0	1,842,936.2	0.00					
Mission Blvd East	40.0	point17	17	6,652,541.0	1,842,819.2	0.00				Average	
		point22	22	6,653,087.5	1,842,830.2	0.00					
Mission Blvd West-2	40.0	point19	19	6,653,092.0	1,842,889.1	0.00				Average	
		point9	9	6,652,539.5	1,842,891.8	0.00					
Mission Blvd East-2	40.0	point24	24	6,653,087.5	1,842,830.2	0.00				Average	
		point21	21	6,653,182.0	1,842,822.0	0.00				Average	
		point20	20	6,653,823.5	1,842,824.8	0.00				Average	
		point18	18	6,655,106.0	1,842,830.2	0.00					

Dudek **13 October 2021**
CB **TNM 2.5**

INPUT: TRAFFIC FOR LAeq1h Volumes
PROJECT/CONTRACT: **Mission Blvd Warehouse**
RUN: **Existing + P**

Roadway	Points		Segment									
Name	Name	No.	Autos		MTrucks		HTrucks		Buses		Motorcycles	
			V	S	V	S	V	S	V	S	V	S
			veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph
Monte Vista Ave North	point1	1	1396	35	28	35	14	35	0	0	0	0
	point2	2										
Mission Blvd West	point3	3	1134	45	23	45	11	45	0	0	0	0
	point4	4	1134	45	23	45	11	45	0	0	0	0
	point5	5	1134	45	23	45	11	45	0	0	0	0
	point6	6	1134	45	23	45	11	45	0	0	0	0
	point7	7	1134	45	23	45	11	45	0	0	0	0
	point8	8										
Monte Vista Ave South	point10	10	1057	35	21	35	10	35	0	0	0	0
	point11	11										
Fremont Ave South	point12	12	100	35	0	0	0	0	0	0	0	0
	point13	13										
Fremont Ave North	point14	14	100	35	0	0	0	0	0	0	0	0
	point15	15	100	35	0	0	0	0	0	0	0	0
	point16	16										
Mission Blvd East	point17	17	1010	45	20	45	10	45	0	0	0	0
	point22	22										
Mission Blvd West-2	point19	19	1010	45	20	45	10	45	0	0	0	0
	point9	9										
Mission Blvd East-2	point24	24	1134	45	23	45	11	45	0	0	0	0
	point21	21	1134	45	23	45	11	45	0	0	0	0
	point20	20	1134	45	23	45	11	45	0	0	0	0
	point18	18										

Dudek						**13 October 2021**					
CB						**TNM 2.5**					
INPUT: RECEIVERS											
PROJECT/CONTRACT:	**Mission Blvd Warehouse**										
RUN:	**Existing + P**										
Receiver											
Name	**No.**	**#DUs**	**Coordinates (ground)**			**Height**	**Input Sound Levels and Criteria**				**Active**
			X	**Y**	**Z**	**above**	**Existing**	**Impact Criteria**		**NR**	**in**
						Ground	**LAeq1h**	**LAeq1h**	**Sub'l**	**Goal**	**Calc.**
			ft	ft	ft	ft	dBA	dBA	dB	dB	
ST1	1	1	6,653,765.0	1,842,777.6	0.00	4.92	74.33	66	10.0	8.0	Y
ST2	2	1	6,653,312.0	1,842,939.5	0.00	4.92	74.14	66	10.0	8.0	Y
ST3	3	1	6,653,022.0	1,843,328.4	0.00	4.92	70.18	66	10.0	8.0	Y

Dudek 13 October 2021
CB TNM 2.5

INPUT: BARRIERS
PROJECT/CONTRACT: Mission Blvd Warehouse
RUN: Existing + P

Barrier									Points										
Name	Type	Height		If Wall	If Berm			Add'tnl	Name	No.	Coordinates (bottom)			Height	Segment				
		Min	Max	$ per Unit Area	$ per Unit Vol.	Top Width	Run:Rise	$ per Unit Length			X	Y	Z	at Point	Seg Ht Incre-ment	#Up	#Dn	On Struct?	Important Reflec-tions?
		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	6,653,499.5	1,843,258.0	0.00	45.00	0.00	0	0		
									point2	2	6,653,499.5	1,843,219.2	0.00	45.00	0.00	0	0		
									point3	3	6,653,808.0	1,843,218.1	0.00	45.00	0.00	0	0		
									point4	4	6,653,810.5	1,843,009.6	0.00	45.00	0.00	0	0		
									point5	5	6,653,753.5	1,843,006.5	0.00	45.00	0.00	0	0		
									point6	6	6,653,752.5	1,842,956.8	0.00	45.00	0.00	0	0		
									point7	7	6,653,477.5	1,842,954.5	0.00	45.00	0.00	0	0		
									point8	8	6,653,473.5	1,843,003.2	0.00	45.00	0.00	0	0		
									point9	9	6,653,418.5	1,843,005.1	0.00	45.00	0.00	0	0		
									point10	10	6,653,414.5	1,843,276.6	0.00	45.00	0.00	0	0		
									point11	11	6,653,499.5	1,843,278.8	0.00	45.00					

Dudek
CB

13 October 2021
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Mission Blvd Warehouse
RUN: Existing + P
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
ST1	1	1	74.3	70.2	66	-4.1	10	Snd Lvl	70.2	0.0	8	-8.0
ST2	2	1	74.1	70.1	66	-4.0	10	Snd Lvl	70.1	0.0	8	-8.0
ST3	3	1	70.2	66.4	66	-3.8	10	Snd Lvl	66.4	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	3	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

Dudek					**13 October 2021**						
CB					**TNM 2.5**						
INPUT: ROADWAYS							**Average pavement type shall be used unless**				
PROJECT/CONTRACT:	**Mission Blvd Warehouse**						**a State highway agency substantiates the use**				
RUN:	**Future**						**of a different type with the approval of FHWA**				
Roadway		**Points**									
Name	**Width**	**Name**	**No.**	**Coordinates (pavement)**			**Flow Control**			**Segment**	
				X	**Y**	**Z**	**Control Device**	**Speed Constraint**	**Percent Vehicles Affected**	**Pvmt Type**	**On Struct?**
	ft			ft	ft	ft		mph	%		
Monte Vista Ave North	50.0	point1	1	6,653,064.5	1,844,220.2	0.00				Average	
		point2	2	6,653,088.5	1,842,924.5	0.00					
Mission Blvd West	40.0	point3	3	6,655,108.0	1,842,900.5	0.00				Average	
		point4	4	6,654,811.0	1,842,899.5	0.00				Average	
		point5	5	6,654,379.5	1,842,893.8	0.00				Average	
		point6	6	6,654,267.0	1,842,893.4	0.00				Average	
		point7	7	6,653,674.5	1,842,891.1	0.00				Average	
		point8	8	6,653,092.0	1,842,889.1	0.00					
Monte Vista Ave South	50.0	point10	10	6,653,089.5	1,842,812.1	0.00				Average	
		point11	11	6,653,104.5	1,841,696.4	0.00					
Fremont Ave South	50.0	point12	12	6,654,403.5	1,842,809.2	0.00				Average	
		point13	13	6,654,420.5	1,841,634.8	0.00					
Fremont Ave North	50.0	point14	14	6,654,388.0	1,843,818.4	0.00				Average	
		point15	15	6,654,393.5	1,843,533.6	0.00				Average	
		point16	16	6,654,400.0	1,842,936.2	0.00					
Mission Blvd East	40.0	point17	17	6,652,541.0	1,842,819.2	0.00				Average	
		point22	22	6,653,087.5	1,842,830.2	0.00					
Mission Blvd West-2	40.0	point19	19	6,653,092.0	1,842,889.1	0.00				Average	
		point9	9	6,652,539.5	1,842,891.8	0.00					
Mission Blvd East-2	40.0	point24	24	6,653,087.5	1,842,830.2	0.00				Average	
		point21	21	6,653,182.0	1,842,822.0	0.00				Average	
		point20	20	6,653,823.5	1,842,824.8	0.00				Average	
		point18	18	6,655,106.0	1,842,830.2	0.00					

Dudek **13 October 2021**
CB **TNM 2.5**

INPUT: TRAFFIC FOR LAeq1h Volumes
PROJECT/CONTRACT: **Mission Blvd Warehouse**
RUN: **Future**

Roadway	Points		Segment									
Name	Name	No.	Autos		MTrucks		HTrucks		Buses		Motorcycles	
			V	S	V	S	V	S	V	S	V	S
			veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph
Monte Vista Ave North	point1	1	1441	35	29	35	14	35	0	0	0	0
	point2	2										
Mission Blvd West	point3	3	1256	45	25	45	12	45	0	0	0	0
	point4	4	1256	45	25	45	12	45	0	0	0	0
	point5	5	1256	45	25	45	12	45	0	0	0	0
	point6	6	1256	45	25	45	12	45	0	0	0	0
	point7	7	1256	45	25	45	12	45	0	0	0	0
	point8	8										
Monte Vista Ave South	point10	10	119	35	23	35	11	35	0	0	0	0
	point11	11										
Fremont Ave South	point12	12	100	35	0	0	0	0	0	0	0	0
	point13	13										
Fremont Ave North	point14	14	100	35	0	0	0	0	0	0	0	0
	point15	15	100	35	0	0	0	0	0	0	0	0
	point16	16										
Mission Blvd East	point17	17	1110	45	22	45	11	45	0	0	0	0
	point22	22										
Mission Blvd West-2	point19	19	1110	45	22	45	11	45	0	0	0	0
	point9	9										
Mission Blvd East-2	point24	24	1256	45	25	45	12	45	0	0	0	0
	point21	21	1256	45	25	45	12	45	0	0	0	0
	point20	20	1256	45	25	45	12	45	0	0	0	0
	point18	18										

Dudek						**13 October 2021**					
CB						**TNM 2.5**					
INPUT: RECEIVERS											
PROJECT/CONTRACT:	**Mission Blvd Warehouse**										
RUN:	**Future**										
Receiver											
Name	**No.**	**#DUs**	**Coordinates (ground)**			**Height**	**Input Sound Levels and Criteria**				**Active**
			X	**Y**	**Z**	**above**	**Existing**	**Impact Criteria**		**NR**	**in**
						Ground	**LAeq1h**	**LAeq1h**	**Sub'l**	**Goal**	**Calc.**
			ft	ft	ft	ft	dBA	dBA	dB	dB	
ST1	1	1	6,653,765.0	1,842,777.6	0.00	4.92	74.33	66	10.0	8.0	Y
ST2	2	1	6,653,312.0	1,842,939.5	0.00	4.92	74.14	66	10.0	8.0	Y
ST3	3	1	6,653,022.0	1,843,328.4	0.00	4.92	70.18	66	10.0	8.0	Y

Dudek 13 October 2021
CB TNM 2.5

INPUT: BARRIERS
PROJECT/CONTRACT: Mission Blvd Warehouse
RUN: Future

Barrier									Points										
Name	Type	Height		If Wall	If Berm			Add'tnl	Name	No.	Coordinates (bottom)			Height	Segment				
		Min	Max	$ per	$ per	Top	Run:Rise	$ per			X	Y	Z	at	Seg Ht	Perturbs		On	Important
				Unit	Unit	Width		Unit						Point	Incre-	#Up	#Dn	Struct?	Reflec-
				Area	Vol.			Length							ment				tions?
		ft	ft	$/sq ft	$/cu yd	ft	ft:ft	$/ft			ft	ft	ft	ft	ft				
<< This table is empty >>																			

Dudek
CB
13 October 2021
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Mission Blvd Warehouse
RUN: Future
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
ST1	1	1	74.3	70.7	66	-3.6	10	Snd Lvl	70.7	0.0	8	-8.0
ST2	2	1	74.1	70.4	66	-3.7	10	Snd Lvl	70.4	0.0	8	-8.0
ST3	3	1	70.2	66.6	66	-3.6	10	Snd Lvl	66.6	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	3	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

Dudek					**13 October 2021**						
CB					**TNM 2.5**						
INPUT: ROADWAYS							**Average pavement type shall be used unless**				
PROJECT/CONTRACT:	**Mission Blvd Warehouse**						**a State highway agency substantiates the use**				
RUN:	**Future + Project**						**of a different type with the approval of FHWA**				
Roadway		**Points**									
Name	**Width**	**Name**	**No.**	**Coordinates (pavement)**			**Flow Control**			**Segment**	
				X	**Y**	**Z**	**Control Device**	**Speed Constraint**	**Percent Vehicles Affected**	**Pvmt Type**	**On Struct?**
	ft			ft	ft	ft		mph	%		
Monte Vista Ave North	50.0	point1	1	6,653,064.5	1,844,220.2	0.00				Average	
		point2	2	6,653,088.5	1,842,924.5	0.00					
Mission Blvd West	40.0	point3	3	6,655,108.0	1,842,900.5	0.00				Average	
		point4	4	6,654,811.0	1,842,899.5	0.00				Average	
		point5	5	6,654,379.5	1,842,893.8	0.00				Average	
		point6	6	6,654,267.0	1,842,893.4	0.00				Average	
		point7	7	6,653,674.5	1,842,891.1	0.00				Average	
		point8	8	6,653,092.0	1,842,889.1	0.00					
Monte Vista Ave South	50.0	point10	10	6,653,089.5	1,842,812.1	0.00				Average	
		point11	11	6,653,104.5	1,841,696.4	0.00					
Fremont Ave South	50.0	point12	12	6,654,403.5	1,842,809.2	0.00				Average	
		point13	13	6,654,420.5	1,841,634.8	0.00					
Fremont Ave North	50.0	point14	14	6,654,388.0	1,843,818.4	0.00				Average	
		point15	15	6,654,393.5	1,843,533.6	0.00				Average	
		point16	16	6,654,400.0	1,842,936.2	0.00					
Mission Blvd East	40.0	point17	17	6,652,541.0	1,842,819.2	0.00				Average	
		point22	22	6,653,087.5	1,842,830.2	0.00					
Mission Blvd West-2	40.0	point19	19	6,653,092.0	1,842,889.1	0.00				Average	
		point9	9	6,652,539.5	1,842,891.8	0.00					
Mission Blvd East-2	40.0	point24	24	6,653,087.5	1,842,830.2	0.00				Average	
		point21	21	6,653,182.0	1,842,822.0	0.00				Average	
		point20	20	6,653,823.5	1,842,824.8	0.00				Average	
		point18	18	6,655,106.0	1,842,830.2	0.00					

Dudek 13 October 2021
CB TNM 2.5

INPUT: TRAFFIC FOR LAeq1h Volumes
PROJECT/CONTRACT: Mission Blvd Warehouse
RUN: Future + Project

Roadway	Points		Segment									
Name	Name	No.	Autos		MTrucks		HTrucks		Buses		Motorcycles	
			V	S	V	S	V	S	V	S	V	S
			veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph
Monte Vista Ave North	point1	1	1451	35	29	35	14	35	0	0	0	0
	point2	2										
Mission Blvd West	point3	3	1262	45	26	45	13	45	0	0	0	0
	point4	4	1262	45	26	45	13	45	0	0	0	0
	point5	5	1262	45	26	45	13	45	0	0	0	0
	point6	6	1262	45	26	45	13	45	0	0	0	0
	point7	7	1262	45	26	45	13	45	0	0	0	0
	point8	8										
Monte Vista Ave South	point10	10	1131	35	23	35	11	35	0	0	0	0
	point11	11										
Fremont Ave South	point12	12	100	35	0	0	0	0	0	0	0	0
	point13	13										
Fremont Ave North	point14	14	100	35	0	0	0	0	0	0	0	0
	point15	15	100	35	0	0	0	0	0	0	0	0
	point16	16										
Mission Blvd East	point17	17	1124	45	23	45	11	45	0	0	0	0
	point22	22										
Mission Blvd West-2	point19	19	1124	45	23	45	11	45	0	0	0	0
	point9	9										
Mission Blvd East-2	point24	24	1262	45	26	45	13	45	0	0	0	0
	point21	21	1262	45	26	45	13	45	0	0	0	0
	point20	20	1262	45	26	45	13	45	0	0	0	0
	point18	18										

Dudek						**13 October 2021**					
CB						**TNM 2.5**					
INPUT: RECEIVERS											
PROJECT/CONTRACT:	**Mission Blvd Warehouse**										
RUN:	**Future + Project**										
Receiver											
Name	**No.**	**#DUs**	**Coordinates (ground)**			**Height**	**Input Sound Levels and Criteria**				**Active**
			X	**Y**	**Z**	**above**	**Existing**	**Impact Criteria**		**NR**	**in**
						Ground	**LAeq1h**	**LAeq1h**	**Sub'l**	**Goal**	**Calc.**
			ft	ft	ft	ft	dBA	dBA	dB	dB	
ST1	1	1	6,653,765.0	1,842,777.6	0.00	4.92	74.33	66	10.0	8.0	Y
ST2	2	1	6,653,312.0	1,842,939.5	0.00	4.92	74.14	66	10.0	8.0	Y
ST3	3	1	6,653,022.0	1,843,328.4	0.00	4.92	70.18	66	10.0	8.0	Y
M1 - South	5	1	6,653,650.0	1,842,951.9	0.00	4.92	0.00	66	10.0	8.0	Y
M2 - West	6	1	6,653,410.5	1,843,115.5	0.00	4.92	0.00	66	10.0	8.0	Y
M3 - North	7	1	6,653,614.0	1,843,222.1	0.00	4.92	0.00	66	10.0	8.0	Y
M4- East	8	1	6,653,815.0	1,843,119.6	0.00	4.92	0.00	66	10.0	8.0	Y

Dudek 13 October 2021
CB TNM 2.5

INPUT: BARRIERS
PROJECT/CONTRACT: Mission Blvd Warehouse
RUN: Future + Project

Barrier									Points										
Name	Type	Height		If Wall	If Berm			Add'tnl	Name	No.	Coordinates (bottom)			Height	Segment				
		Min	Max	$ per Unit Area	$ per Unit Vol.	Top Width	Run:Rise	$ per Unit Length			X	Y	Z	at Point	Seg Ht Incre-ment	#Up	#Dn	On Struct?	Important Reflec-tions?
		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	6,653,499.5	1,843,258.0	0.00	45.00	0.00	0	0		
									point2	2	6,653,499.5	1,843,219.2	0.00	45.00	0.00	0	0		
									point3	3	6,653,808.0	1,843,218.1	0.00	45.00	0.00	0	0		
									point4	4	6,653,810.5	1,843,009.6	0.00	45.00	0.00	0	0		
									point5	5	6,653,753.5	1,843,006.5	0.00	45.00	0.00	0	0		
									point6	6	6,653,752.5	1,842,956.8	0.00	45.00	0.00	0	0		
									point7	7	6,653,477.5	1,842,954.5	0.00	45.00	0.00	0	0		
									point8	8	6,653,473.5	1,843,003.2	0.00	45.00	0.00	0	0		
									point9	9	6,653,418.5	1,843,005.1	0.00	45.00	0.00	0	0		
									point10	10	6,653,414.5	1,843,276.6	0.00	45.00	0.00	0	0		
									point11	11	6,653,499.5	1,843,278.8	0.00	45.00					

Dudek
CB

13 October 2021
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Mission Blvd Warehouse
RUN: Future + Project
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
ST1	1	1	74.3	70.7	66	-3.6	10	Snd Lvl	70.7	0.0	8	-8.0
ST2	2	1	74.1	70.6	66	-3.5	10	Snd Lvl	70.6	0.0	8	-8.0
ST3	3	1	70.2	66.6	66	-3.6	10	Snd Lvl	66.6	0.0	8	-8.0
M1 - South	5	1	0.0	69.7	66	69.7	10	Snd Lvl	69.7	0.0	8	-8.0
M2 - West	6	1	0.0	62.9	66	62.9	10	----	62.9	0.0	8	-8.0
M3 - North	7	1	0.0	49.1	66	49.1	10	----	49.1	0.0	8	-8.0
M4- East	8	1	0.0	61.6	66	61.6	10	----	61.6	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	7	0.0	0.0	0.0
All Impacted	4	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0