Appendix H
Noise Impact Analysis

Appendix H-1
Field Noise Data Sheets

DUDEK

FIELD NOISE MEASUREMENT DATA

PROJECT: I-15 INDUSTRIAL PARK — PROJECT #: 13087
SITE ID:
SITE ADDRESS:
OBSERVER(S): PETE VIZAR
START DATE: 1/5/21 — END DATE: 1/5/21
START TIME: — END TIME:

METEOROLOGICAL CONDITIONS
TEMP: 57 F — HUMIDITY: 37 % 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: PICCOLUS SLM P-3 — TYPE 1 2 — SERIAL # 1403 17064
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
(ST1)	14-15	13:46	14:01	68.5	83.8	52.6				

COMMENTS: READNG TAKEN AT SOUTHERN FENCELINE OF 12550 MAIN ST (MOBILE HOME PARK); PRIMARY NOISE SOURCE IS TRAFFIC ON MAIN ST; WILLOW OAKS ESTATES

SOURCE INFO AND TRAFFIC COUNTS
PRIMARY NOISE SOURCE: (TRAFFIC) AIRCRAFT RAIL INDUSTRIAL OTHER:
ROADWAY TYPE: ASPHALT — DIST. TO RDWY C/L OR EOP: APX 90' FROM C/L OF MAIN ST.

TRAFFIC COUNT DURATION: 15 MIN

COUNT 1 (OR RDWY 1)	DIRECTION	NB/EB	SB/WB	SPEED NB/EB	SPEED SB/WB
	AUTOS	366			
	MED TRKS	1			
	HVY TRKS	7			
	BUSES	0			
	MOTRCLS	3			

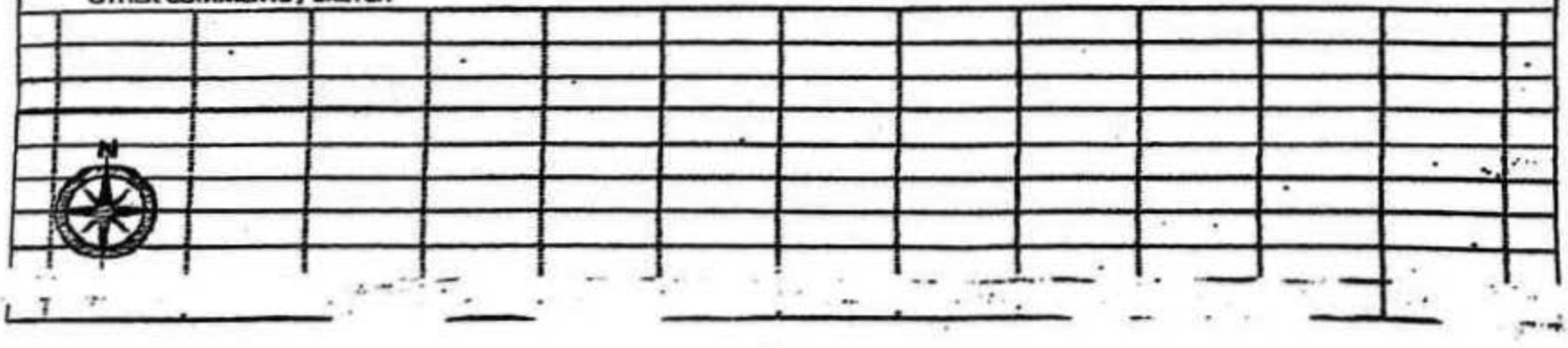
IF COUNTING BOTH DIRECTIONS AS ONE, CHECK HERE ✓

COUNT 2 (OR RDWY 2)	MIN	NB/EB	SB/WB	SPEED NB/EB	SPEED 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 9755; 9756; 9757; 9758; 9759; 9760; 9762; 9763
OTHER COMMENTS / SKETCH



DUDEK

FIELD NOISE MEASUREMENT DATA

PROJECT I-15 INDUSTRIAL PARK
PROJECT # 13087
SITE ID
SITE ADDRESS
OBSERVER(S) PETE VITAR
START DATE 1/5/21 END DATE 1/5/21
START TIME END TIME

METEOROLOGICAL CONDITIONS
TEMP 57 F HUMIDITY 34 % R.H. WIND CALM (LIGHT) MODERATE
WINDSPD 6 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 Piccolos SLM P-3 TYPE 1 2 SERIAL # 1403 17064
CALIBRATOR BSWA CA 114 SERIAL # 49015T
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) 16-17	14:19	14:34	59.3	69.3	50.5				

COMMENTS READING TAKEN AT SOUTH EASTERN END OF WEST MAIN VILLAS HOUSING TRACT (9800 MESA LINDA ST), ALONGSIDE UNIT 110; PRIMARY NOISE SOURCE IS TRAFFIC ON MAIN ST 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 125' TO C/L OF MAIN ST.

TRAFFIC COUNT DURATION: 15 MIN SPEED ___ MIN SPEED

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

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 9765; 9766; 9767; 9768
OTHER COMMENTS / SKETCH



DUDEK

FIELD NOISE MEASUREMENT DATA

PROJECT: I-15 INDUSTRIAL PARK — PROJECT #: 13087
SITE ID:
SITE ADDRESS: — OBSERVER(S): PETE VITAR
START DATE: 1/5/21 — END DATE: 1/5/21
START TIME: — END TIME:

METEOROLOGICAL CONDITIONS
TEMP: 57 F — HUMIDITY: 34 % R.H. — WIND: CALM (LIGHT) MODERATE
WINDSPD: 6 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: PICCOLOS SLM P-3 — TYPE 1 2 — SERIAL #: 1403 17064
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
(ST3) 18-19	15:13	15:29	63.7	77.6	58.0				

COMMENTS
READING TAKEN AT SOUTHERN END OF MOTEL 6 AT 9757 CATALINA RD; PRIMARY NOISE SOURCE IS TRAFFIC ON MAIN ST TO THE SOUTH; SECONDARY IS TRAFFIC ON CATALINA RD TO THE WEST & TRAFFIC ENTERING/EXITING 76 STATION ON NE CORNER OF MAIN ST & CATALINA RD.; WINDOW AIR CONDITIONING UNITS FROM MOTEL 6.

SOURCE INFO AND TRAFFIC COUNTS
PRIMARY NOISE SOURCE: (TRAFFIC) AIRCRAFT RAIL INDUSTRIAL OTHER:
ROADWAY TYPE: ASPHALT — DIST. TO RDWY C/L OR EOP: APX 350' FROM C/L OF MAIN ST

TRAFFIC COUNT DURATION: 15 MIN — SPEED ____ MIN

COUNT 1 (OR RDWY 1) DIRECTION	NB/EB	SB/WB	NB/EB SPEED	SB/WB SPEED
AUTOS	424			
MED TRKS	1			
HVY TRKS	4			
BUSES	1			
MOTRCLS	1			

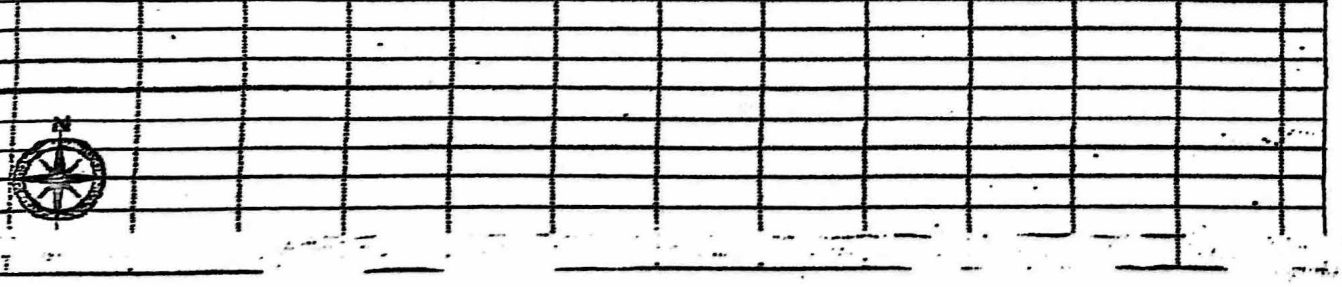
IF COUNTING BOTH DIRECTIONS AS ONE, CHECK HERE ✓

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

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 (UST RDWYS BELOW) DISTD GARDENERS/LANDSCAPING NOISE
OTHER:

DESCRIPTION / SKETCH
TERRAIN: (HARD) SOFT MIXED FLAT OTHER:
PHOTOS: 9779; 9780; 9781; 9782; 9783; 9784
OTHER COMMENTS / SKETCH



DUDEK

FIELD NOISE MEASUREMENT DATA

PROJECT I-15 INDUSTRIAL PARK PROJECT # 18087
SITE ID
SITE ADDRESS OBSERVER(S) PETE VITAR
START DATE 1/5/21 END DATE 1/6/21
START TIME END TIME

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

ACOUSTIC MEASUREMENTS
MEAS. INSTRUMENT PIccolo II TYPE 1 2 SERIAL # P0218091404
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
(LT1) 1-98									

COMMENTS
READING TAKEN IN PARKING AREA TO THE EAST OF MOTEL 6 AT-
RUNNAT NOISE SOURCE IS TRAFFIC ON MAIN ST; SECONDARY
IS TRAFFIC ON CATAWBA RD

SOURCE INFO AND TRAFFIC COUNTS
PRIMARY NOISE SOURCE TRAFFIC AIRCRAFT RAIL INDUSTRIAL OTHER:
ROADWAY TYPE: ASPHALT DIST. TO RDWY C/L OR EOP: APX 30' TO C/L ON MAIN ST

TRAFFIC COUNT DURATION: 15 MIN SPEED ____ MIN SPEED

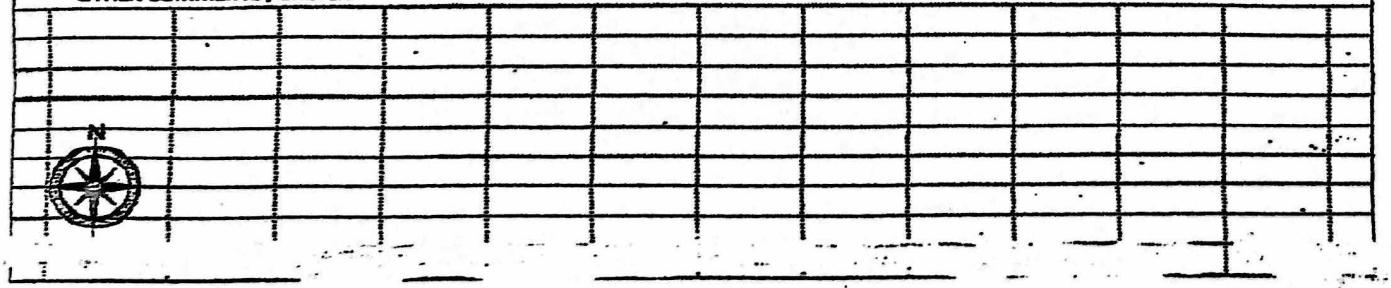
COUNT 1 (OR RDWY 1) DIRECTION	NB/EB	SB/WB	NB/EB	SB/WB	IF COUNTING BOTH DIRECTIONS AS ONE, CHECK HERE	COUNT 2 (OR RDWY 2)	NB/EB	SB/WB	NB/EB	SB/WB
AUTOS										
MED TRKS										
HVY TRKS										
BUSES										
MOTRCLS										

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:

3:06

DESCRIPTION / SKETCH
TERRAIN (HARD) SOFT MIXED FLAT OTHER:
PHOTOS 9770; 9771; 9772; 9773; 9774; 9775; 9776; 9777
OTHER COMMENTS / SKETCH



ST1

Rec 14 to 15	Slow Response		dBA weighting		2.0 dB resolution stats														
Date hh:mm:ss	LeqPeriod	Leq	SEL	Lmax	Lmin	L1%	L5%	L10%	L50%	L90%	L95%	L99%	Lmedian	Lmean	StdDev	L2%	L8%	L25%	
1/5/2021 13:46	15.0 min	68.5	101	83.8	52.6	79	77	75	67	55	55	53	67	66.2	6.84	79	75	71	
1/5/2021 14:01	6 sec	66.3	74.1	72.3	65.5	71	71	69	65	65	65	65	65	66.4	2.03	71	70.4	67	

ST2

Rec 16 to 17	Slow Response		dBA weighting		2.0 dB resolution stats														
Date hh:mm:ss	LeqPeriod	Leq	SEL	Lmax	Lmin	L1%	L5%	L10%	L50%	L90%	L95%	L99%	Lmedian	Lmean	StdDev	L2%	L8%	L25%	
1/5/2021 14:19	15.0 min	59.3	88.8	69.3	50.5	65	61	61	57	53	51	51	57	57.3	3.21	63	61	59	
1/5/2021 14:34	5 sec	55.2	62.2	57.6	54.1	57	57	56	55	53	53	53	55	54.3	1.35	57	57	55	

ST3

Rec 18 to 19	Slow Response		dBA weighting		2.0 dB resolution stats													
Date hh:mm:ss	LeqPeriod	Leq	SEL	Lmax	Lmin	L1%	L5%	L10%	L50%	L90%	L95%	L99%	Lmedian	Lmean	StdDev	L2%	L8%	L25%
1/5/2021 15:13	15.0 min	63.7	93.2	77.6	58	71	67	65	61	59	59	57	61	61.4	2.86	69	65	63
1/5/2021 15:28	51 sec	63.6	80.7	72.4	59.3	71	67	65	59	59	59	59	59	61.5	3.01	69	65	63

LT1

Duration	Meas Mode	Input Range	Input Type	SPL Time Weight	LN% Freq Weight	Overload	UnderRange	Sensitivity	LAeq		Hour Beginning	Hourly Leq			24-Hour Leq	CNEL	Loudest Hour	Quietest Hour
0:07:47	Auto	Low	Mic	Slow	dBA	Yes	No	19.09mV/F	79.1									
0:15:00	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/F	59.2	1	3:00:00 PM	58.5	58.5	708447	58.7	65.2	62.9	54.0
0:15:00	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/F	55.5									
0:14:59	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/F	59.4									
0:15:00	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/F	58.9									
0:15:00	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/F	59.5	2	4:00:00 PM	59.0	59.0	794810.2				
0:15:00	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/F	58									
0:14:59	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/F	61									
0:15:00	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/F	56									
0:15:00	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/F	57.2	3	5:00:00 PM	58.1	58.1	643727.8				
0:14:59	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/F	60.1									
0:15:00	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/F	57.3									
0:15:00	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/F	56.9									
0:14:59	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/F	58.9	4	6:00:01 PM	59.2	59.2	822512				
0:15:00	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/F	58									
0:15:00	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/F	58.5									
0:14:59	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/F	60.7									
0:15:00	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/F	59.2	5	7:00:00 PM	59.7	64.7	2963682				
0:15:00	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/F	58.1									
0:14:59	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/F	60.7									
0:15:00	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/F	60.4									
0:15:00	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/F	58.4	6	8:00:00 PM	59.8	64.8	3013038				
0:14:59	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/F	59.4									
0:15:00	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/F	57.7									
0:15:00	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/F	62.2									
0:14:59	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/F	58.5	7	9:00:01 PM	59.5	64.5	2829667				
0:15:00	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/F	58.4									
0:15:00	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/F	61.1									
0:14:59	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/F	59.5									
0:15:00	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/F	56.3	8	10:00:00 PM	57.9	67.9	6122615				
0:15:00	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/F	59.8									
0:14:59	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/F	57.7									
0:15:00	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/F	56.8									
0:15:00	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/F	58.3	9	11:00:00 PM	56.9	66.9	4876614				
0:14:59	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/F	55.3									
0:15:00	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/F	56.6									
0:15:00	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/F	56.8									
0:14:59	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/F	60.8	10	12:00:01 AM	58.0	68.0	6342829				
0:15:00	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/F	57.9									
0:15:00	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/F	55.7									
0:14:59	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/F	55.4									
0:15:00	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/F	56.6	11	1:00:00 AM	55.7	65.7	3677970				
0:15:00	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/F	55									
0:14:59	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/F	54									
0:15:00	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/F	56.5									
0:15:00	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/F	52.1	12	2:00:00 AM	54.0	64.0	2515627				
0:14:59	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/F	55.4									
0:15:00	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/F	54.6									
0:15:00	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/F	53.2									
0:14:59	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/F	56.2	13	3:00:01 AM	57.8	67.8	6073224				

0:15:00	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/P	54.4				
0:15:00	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/P	57.7				
0:14:59	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/P	60.6				
0:15:00	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/P	60.8	14	4:00:00 AM	62.0	72.0 15695134
0:15:00	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/P	61.1				
0:14:59	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/P	62.3				
0:15:00	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/P	63.2				
0:15:00	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/P	58.5	15	5:00:00 AM	59.3	69.3 8545142
0:14:59	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/P	58.3				
0:15:00	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/P	59.2				
0:15:00	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/P	60.8				
0:14:59	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/P	56.9	16	6:00:01 AM	58.5	68.5 7022485
0:15:00	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/P	58.9				
0:15:00	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/P	59.6				
0:14:59	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/P	58				
0:15:00	Auto	Low	Mic	Slow	dBA	Yes	No	19.09mV/P	66	17	7:00:00 AM	62.9	62.9 1940811
0:15:00	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/P	64				
0:14:59	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/P	58.5				
0:15:00	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/P	57.5				
0:15:00	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/P	57.9	18	8:00:00 AM	56.8	56.8 480152.4
0:15:00	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/P	56.3				
0:14:59	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/P	54.8				
0:15:00	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/P	57.6				
0:15:00	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/P	59.7	19	9:00:00 AM	56.9	56.9 484313
0:14:59	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/P	54.8				
0:15:00	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/P	54.4				
0:15:00	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/P	56.3				
0:14:59	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/P	56.4	20	10:00:01 AM	56.8	56.8 482073
0:15:00	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/P	55.5				
0:15:00	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/P	59.8				
0:14:59	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/P	52.6				
0:15:00	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/P	53.2	21	11:00:00 AM	54.9	54.9 306175
0:15:00	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/P	54.2				
0:14:59	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/P	56.4				
0:15:00	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/P	55				
0:15:00	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/P	55.1	22	12:00:00 PM	57.4	57.4 551243.1
0:14:59	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/P	57.2				
0:15:00	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/P	59.2				
0:15:00	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/P	57.2				
0:14:59	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/P	54.7	23	1:00:01 PM	55.7	55.7 373391.1
0:15:00	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/P	55.3				
0:15:00	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/P	54.1				
0:14:59	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/P	57.8				
0:15:00	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/P	55.6	24	2:00:00 PM	61.3	61.3 1339787
0:15:00	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/P	66.3				
0:14:59	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/P	57				
0:15:00	Auto	Low	Mic	Slow	dBA	No	No	19.09mV/P	53.6				
0:07:21	Auto	Low	Mic	Slow	dBA	Yes	No	19.09mV/P	72.5				

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Appendix H-2

Construction Noise Modeling Inputs and Outputs

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

noise level limit for construction phase, per FTA guidance = 90
allowable hours over which Leq is to be averaged (example: 8 for 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	1	40	82		700	59.1	8	480	55
	Dozer	1	40	82		750	58.5	8	480	54
	Dozer	1	40	82		800	57.9	8	480	54
	All Other Equipment > 5 HP	1	50	85		720	61.8	8	480	59
	Backhoe	1	40	78		720	54.8	8	480	51
	Backhoe	1	40	78		770	54.2	8	480	50
	Backhoe	1	40	78		800	53.9	8	480	50
	Backhoe	1	40	78		780	54.1	8	480	50
							Total for Site Preparation Phase:			**63.1**
Grading	Excavator	1	40	81		700	58.1	8	480	54
	Excavator	1	40	81		750	57.5	8	480	53
	Grader	1	40	85		800	60.9	8	480	57
	Dozer	1	40	82		720	58.8	8	480	55
	Scraper	1	40	84		770	60.2	8	480	56
	Scraper	1	40	84		800	59.9	8	480	56
	Backhoe	1	40	78		780	54.1	8	480	50
	Tractor	1	40	84		730	60.7	8	480	57
							Total for Grading Phase:			**64.3**
Building Construction	Crane	1	16	81		700	58.1	8	480	50
	Man lift	1	20	75		750	51.5	8	480	44
	Man lift	1	20	75		800	50.9	8	480	44
	Man lift	1	20	75		720	51.8	8	480	45
	Generator	1	50	72		770	48.2	8	480	45
	Backhoe	1	40	78		800	53.9	8	480	50
	Tractor	1	40	84		780	60.1	8	480	56
	Front End Loader	1	40	79		730	55.7	8	480	52
	Welder / Torch	1	40	73		750	49.5	8	480	45
							Total for Building Construction Phase:			**59.6**
Paving	Paver	1	50	77		700	54.1	8	480	51
	Paver	1	50	77		750	53.5	8	480	50
	Concrete Pump Truck	1	20	81		770	57.2	8	480	50
	Concrete Mixer Truck	1	40	79		800	54.9	8	480	51
	Roller	1	20	80		780	56.1	8	480	49
	Roller	1	20	80		750	56.5	8	480	49
							Total for Paving Phase:			**58.1**

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

noise level limit for construction phase, per FTA guidance = 90
allowable hours over which Leq is to be averaged (example: 8 for 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	1	40	82		1200	54.4	8	480	50
	Dozer	1	40	82		1200	54.4	8	480	50
	Dozer	1	40	82		1200	54.4	8	480	50
	All Other Equipment > 5 HP	1	50	85		1200	57.4	8	480	54
	Backhoe	1	40	78		1200	50.4	8	480	46
	Backhoe	1	40	78		1200	50.4	8	480	46
	Backhoe	1	40	78		1200	50.4	8	480	46
	Backhoe	1	40	78		1200	50.4	8	480	46
							Total for Site Preparation Phase:			**58.9**
Grading	Excavator	1	40	81		1200	53.4	8	480	49
	Excavator	1	40	81		1200	53.4	8	480	49
	Grader	1	40	85		1200	57.4	8	480	53
	Dozer	1	40	82		1200	54.4	8	480	50
	Scraper	1	40	84		1200	56.4	8	480	52
	Scraper	1	40	84		1200	56.4	8	480	52
	Backhoe	1	40	78		1200	50.4	8	480	46
	Tractor	1	40	84		1200	56.4	8	480	52
							Total for Grading Phase:			**60.3**
Building Construction	Crane	1	16	81		1200	53.4	8	480	45
	Man lift	1	20	75		1200	47.4	8	480	40
	Man lift	1	20	75		1200	47.4	8	480	40
	Man lift	1	20	75		1200	47.4	8	480	40
	Generator	1	50	72		1200	44.4	8	480	41
	Backhoe	1	40	78		1200	50.4	8	480	46
	Tractor	1	40	84		1200	56.4	8	480	52
	Front End Loader	1	40	79		1200	51.4	8	480	47
	Welder / Torch	1	40	73		1200	45.4	8	480	41
							Total for Building Construction Phase:			**55.7**
Paving	Paver	1	50	77		1200	49.4	8	480	46
	Paver	1	50	77		1200	49.4	8	480	46
	Concrete Pump Truck	1	20	81		1200	53.4	8	480	46
	Concrete Mixer Truck	1	40	79		1200	51.4	8	480	47
	Roller	1	20	80		1200	52.4	8	480	45
	Roller	1	20	80		1200	52.4	8	480	45
							Total for Paving Phase:			**54.1**

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

noise level limit for construction phase, per FTA guidance = 85
allowable hours over which Leq is to be averaged (example: 8 for 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	1	40	82		200	70.0	8	480	66
	Dozer	1	40	82		220	69.1	8	480	65
	Dozer	1	40	82		240	68.4	8	480	64
	All Other Equipment > 5 HP	1	50	85		200	73.0	8	480	70
	Backhoe	1	40	78		200	66.0	8	480	62
	Backhoe	1	40	78		220	65.1	8	480	61
	Backhoe	1	40	78		240	64.4	8	480	60
	Backhoe	1	40	78		200	66.0	8	480	62
							Total for Site Preparation Phase:			**74.1**
Grading	Excavator	1	40	81		200	69.0	8	480	65
	Excavator	1	40	81		220	68.1	8	480	64
	Grader	1	40	85		240	71.4	8	480	67
	Dozer	1	40	82		200	70.0	8	480	66
	Scraper	1	40	84		220	71.1	8	480	67
	Scraper	1	40	84		240	70.4	8	480	66
	Backhoe	1	40	78		200	66.0	8	480	62
	Tractor	1	40	84		220	71.1	8	480	67
							Total for Grading Phase:			**75.0**
Building Construction	Crane	1	16	81		200	69.0	8	480	61
	Man lift	1	20	75		220	62.1	8	480	55
	Man lift	1	20	75		240	61.4	8	480	54
	Man lift	1	20	75		200	63.0	8	480	56
	Generator	1	50	72		220	59.1	8	480	56
	Backhoe	1	40	78		240	64.4	8	480	60
	Tractor	1	40	84		210	71.5	8	480	68
	Front End Loader	1	40	79		250	65.0	8	480	61
	Welder / Torch	1	40	73		220	60.1	8	480	56
							Total for Building Construction Phase:			**70.5**
Paving	Paver	1	50	77		200	65.0	8	480	62
	Paver	1	50	77		220	64.1	8	480	61
	Concrete Pump Truck	1	20	81		220	68.1	8	480	61
	Concrete Mixer Truck	1	40	79		240	65.4	8	480	61
	Roller	1	20	80		210	67.5	8	480	61
	Roller	1	20	80		250	66.0	8	480	59
							Total for Paving Phase:			**68.7**

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

noise level limit for construction phase, per FTA guidance = 75
allowable hours over which Leq is to be averaged (example: 8 for 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	1	40	82		530	61.5	8	480	58
	Dozer	1	40	82		530	61.5	8	480	58
	Dozer	1	40	82		530	61.5	8	480	58
	All Other Equipment > 5 HP	1	50	85		530	64.5	8	480	61
	Backhoe	1	40	78		530	57.5	8	480	54
	Backhoe	1	40	78		530	57.5	8	480	54
	Backhoe	1	40	78		530	57.5	8	480	54
	Backhoe	1	40	78		530	57.5	8	480	54
							Total for Site Preparation Phase:			**66.0**
Grading	Excavator	1	40	81		530	60.5	8	480	57
	Excavator	1	40	81		530	60.5	8	480	57
	Grader	1	40	85		530	64.5	8	480	61
	Dozer	1	40	82		530	61.5	8	480	58
	Scraper	1	40	84		530	63.5	8	480	60
	Scraper	1	40	84		530	63.5	8	480	60
	Backhoe	1	40	78		530	57.5	8	480	54
	Tractor	1	40	84		530	63.5	8	480	60
							Total for Grading Phase:			**67.4**
Building Construction	Crane	1	16	81		530	60.5	8	480	53
	Man lift	1	20	75		530	54.5	8	480	48
	Man lift	1	20	75		530	54.5	8	480	48
	Man lift	1	20	75		530	54.5	8	480	48
	Generator	1	50	72		530	51.5	8	480	48
	Backhoe	1	40	78		530	57.5	8	480	54
	Tractor	1	40	84		530	63.5	8	480	60
	Front End Loader	1	40	79		530	58.5	8	480	55
	Welder / Torch	1	40	73		530	52.5	8	480	49
							Total for Building Construction Phase:			**62.8**
Paving	Paver	1	50	77		530	56.5	8	480	53
	Paver	1	50	77		530	56.5	8	480	53
	Concrete Pump Truck	1	20	81		530	60.5	8	480	54
	Concrete Mixer Truck	1	40	79		530	58.5	8	480	55
	Roller	1	20	80		530	59.5	8	480	53
	Roller	1	20	80		530	59.5	8	480	53
							Total for Paving Phase:			**61.2**

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

noise level limit for construction phase, per FTA guidance = 85
allowable hours over which Leq is to be averaged (example: 8 for 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	1	40	82		440	63.1	8	480	59
	Dozer	1	40	82		440	63.1	8	480	59
	Dozer	1	40	82		440	63.1	8	480	59
	All Other Equipment > 5 HP	1	50	85		440	66.1	8	480	63
	Backhoe	1	40	78		440	59.1	8	480	55
	Backhoe	1	40	78		440	59.1	8	480	55
	Backhoe	1	40	78		440	59.1	8	480	55
	Backhoe	1	40	78		440	59.1	8	480	55
							Total for Site Preparation Phase:			**67.6**
Grading	Excavator	1	40	81		440	62.1	8	480	58
	Excavator	1	40	81		440	62.1	8	480	58
	Grader	1	40	85		440	66.1	8	480	62
	Dozer	1	40	82		440	63.1	8	480	59
	Scraper	1	40	84		440	65.1	8	480	61
	Scraper	1	40	84		440	65.1	8	480	61
	Backhoe	1	40	78		440	59.1	8	480	55
	Tractor	1	40	84		440	65.1	8	480	61
							Total for Grading Phase:			**69.0**
Building Construction	Crane	1	16	81		750	57.5	8	480	50
	Man lift	1	20	75		750	51.5	8	480	44
	Man lift	1	20	75		750	51.5	8	480	44
	Man lift	1	20	75		750	51.5	8	480	44
	Generator	1	50	72		750	48.5	8	480	45
	Backhoe	1	40	78		750	54.5	8	480	50
	Tractor	1	40	84		750	60.5	8	480	56
	Front End Loader	1	40	79		750	55.5	8	480	51
	Welder / Torch	1	40	73		750	49.5	8	480	45
							Total for Building Construction Phase:			**59.8**
Paving	Paver	1	50	77		440	58.1	8	480	55
	Paver	1	50	77		440	58.1	8	480	55
	Concrete Pump Truck	1	20	81		440	62.1	8	480	55
	Concrete Mixer Truck	1	40	79		440	60.1	8	480	56
	Roller	1	20	80		440	61.1	8	480	54
	Roller	1	20	80		440	61.1	8	480	54
								8		**62.8**

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

noise level limit for construction phase, per FTA guidance = 85
allowable hours over which Leq is to be averaged (example: 8 for 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	1	40	82		650	59.7	8	480	56
	Dozer	1	40	82		680	59.3	8	480	55
	Dozer	1	40	82		700	59.1	8	480	55
	All Other Equipment > 5 HP	1	50	85		670	62.5	8	480	59
	Backhoe	1	40	78		670	55.5	8	480	51
	Backhoe	1	40	78		720	54.8	8	480	51
	Backhoe	1	40	78		770	54.2	8	480	50
	Backhoe	1	40	78		800	53.9	8	480	50
							Total for Site Preparation Phase:			**63.8**
Grading	Excavator	1	40	81		650	58.7	8	480	55
	Excavator	1	40	81		680	58.3	8	480	54
	Grader	1	40	85		700	62.1	8	480	58
	Dozer	1	40	82		670	59.5	8	480	55
	Scraper	1	40	84		720	60.8	8	480	57
	Scraper	1	40	84		770	60.2	8	480	56
	Backhoe	1	40	78		800	53.9	8	480	50
	Tractor	1	40	84		700	61.1	8	480	57
							Total for Grading Phase:			**64.9**
Building Construction	Crane	1	16	81		650	58.7	8	480	51
	Man lift	1	20	75		680	52.3	8	480	45
	Man lift	1	20	75		700	52.1	8	480	45
	Man lift	1	20	75		670	52.5	8	480	45
	Generator	1	50	72		720	48.8	8	480	46
	Backhoe	1	40	78		770	54.2	8	480	50
	Tractor	1	40	84		800	59.9	8	480	56
	Front End Loader	1	40	79		700	56.1	8	480	52
	Welder / Torch	1	40	73		680	50.3	8	480	46
							Total for Building Construction Phase:			**59.8**
Paving	Paver	1	50	77		650	54.7	8	480	52
	Paver	1	50	77		680	54.3	8	480	51
	Concrete Pump Truck	1	20	81		720	57.8	8	480	51
	Concrete Mixer Truck	1	40	79		770	55.2	8	480	51
	Roller	1	20	80		800	55.9	8	480	49
	Roller	1	20	80		700	57.1	8	480	50
								8		**58.6**

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

noise level limit for construction phase, per FTA guidance = 85
allowable hours over which Leq is to be averaged (example: 8 for 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	1	40	82		140	73.1	8	480	69
	Dozer	1	40	82		160	71.9	8	480	68
	Dozer	1	40	82		180	70.9	8	480	67
	All Other Equipment > 5 HP	1	50	85		200	73.0	8	480	70
	Backhoe	1	40	78		200	66.0	8	480	62
	Backhoe	1	40	78		180	66.9	8	480	63
	Backhoe	1	40	78		160	67.9	8	480	64
	Backhoe	1	40	78		140	69.1	8	480	65
							Total for Site Preparation Phase:			**75.8**
Grading	Excavator	1	40	81		140	72.1	8	480	68
	Excavator	1	40	81		160	70.9	8	480	67
	Grader	1	40	85		200	73.0	8	480	69
	Dozer	1	40	82		220	69.1	8	480	65
	Scraper	1	40	84		200	72.0	8	480	68
	Scraper	1	40	84		240	70.4	8	480	66
	Backhoe	1	40	78		200	66.0	8	480	62
	Tractor	1	40	84		180	72.9	8	480	69
							Total for Grading Phase:			**76.3**
Building Construction	Crane	1	16	81		450	61.9	8	480	54
	Man lift	1	20	75		480	55.4	8	480	48
	Man lift	1	20	75		520	54.7	8	480	48
	Man lift	1	20	75		550	54.2	8	480	47
	Generator	1	50	72		470	52.5	8	480	50
	Backhoe	1	40	78		500	58.0	8	480	54
	Tractor	1	40	84		550	63.2	8	480	59
	Front End Loader	1	40	79		570	57.9	8	480	54
	Welder / Torch	1	40	73		460	53.7	8	480	50
							Total for Building Construction Phase:			**62.9**
Paving	Paver	1	50	77		160	66.9	8	480	64
	Paver	1	50	77		190	65.4	8	480	62
	Concrete Pump Truck	1	20	81		170	70.4	8	480	63
	Concrete Mixer Truck	1	40	79		220	66.1	8	480	62
	Roller	1	20	80		180	68.9	8	480	62
	Roller	1	20	80		230	66.7	8	480	60
								8		**70.2**

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

noise level limit for construction phase, per FTA guidance = 85
allowable hours over which Leq is to be averaged (example: 8 for 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	1	40	82		1500	52.5	8	480	48
	Dozer	1	40	82		1500	52.5	8	480	48
	Dozer	1	40	82		1500	52.5	8	480	48
	All Other Equipment > 5 HP	1	50	85		1500	55.5	8	480	52
	Backhoe	1	40	78		1500	48.5	8	480	44
	Backhoe	1	40	78		1500	48.5	8	480	44
	Backhoe	1	40	78		1500	48.5	8	480	44
	Backhoe	1	40	78		1500	48.5	8	480	44
							Total for Site Preparation Phase:			**57.0**
Grading	Excavator	1	40	81		1500	51.5	8	480	47
	Excavator	1	40	81		1500	51.5	8	480	47
	Grader	1	40	85		1500	55.5	8	480	51
	Dozer	1	40	82		1500	52.5	8	480	48
	Scraper	1	40	84		1500	54.5	8	480	50
	Scraper	1	40	84		1500	54.5	8	480	50
	Backhoe	1	40	78		1500	48.5	8	480	44
	Tractor	1	40	84		1500	54.5	8	480	50
							Total for Grading Phase:			**58.4**
Building Construction	Crane	1	16	81		1500	51.5	8	480	43
	Man lift	1	20	75		1500	45.5	8	480	38
	Man lift	1	20	75		1500	45.5	8	480	38
	Man lift	1	20	75		1500	45.5	8	480	38
	Generator	1	50	72		1500	42.5	8	480	39
	Backhoe	1	40	78		1500	48.5	8	480	44
	Tractor	1	40	84		1500	54.5	8	480	50
	Front End Loader	1	40	79		1500	49.5	8	480	45
	Welder / Torch	1	40	73		1500	43.5	8	480	39
							Total for Building Construction Phase:			**53.7**
Paving	Paver	1	50	77		1500	47.5	8	480	44
	Paver	1	50	77		1500	47.5	8	480	44
	Concrete Pump Truck	1	20	81		1500	51.5	8	480	44
	Concrete Mixer Truck	1	40	79		1500	49.5	8	480	45
	Roller	1	20	80		1500	50.5	8	480	43
	Roller	1	20	80		1500	50.5	8	480	43
								8		**52.1**

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

noise level limit for construction phase, per FTA guidance = 85
allowable hours over which Leq is to be averaged (example: 8 for 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	1	40	82		950	56.4	8	480	52
	Dozer	1	40	82		980	56.2	8	480	52
	Dozer	1	40	82		1000	56.0	8	480	52
	All Other Equipment > 5 HP	1	50	85		970	59.2	8	480	56
	Backhoe	1	40	78		970	52.2	8	480	48
	Backhoe	1	40	78		1000	52.0	8	480	48
	Backhoe	1	40	78		1050	51.6	8	480	48
	Backhoe	1	40	78		1070	51.4	8	480	47
							Total for Site Preparation Phase:			**60.7**
Grading	Excavator	1	40	81		950	55.4	8	480	51
	Excavator	1	40	81		980	55.2	8	480	51
	Grader	1	40	85		1000	59.0	8	480	55
	Dozer	1	40	82		970	56.2	8	480	52
	Scraper	1	40	84		1000	58.0	8	480	54
	Scraper	1	40	84		1050	57.6	8	480	54
	Backhoe	1	40	78		1070	51.4	8	480	47
	Tractor	1	40	84		970	58.2	8	480	54
							Total for Grading Phase:			**61.9**
Building Construction	Crane	1	16	81		950	55.4	8	480	47
	Man lift	1	20	75		980	49.2	8	480	42
	Man lift	1	20	75		1000	49.0	8	480	42
	Man lift	1	20	75		970	49.2	8	480	42
	Generator	1	50	72		1000	46.0	8	480	43
	Backhoe	1	40	78		1050	51.6	8	480	48
	Tractor	1	40	84		1070	57.4	8	480	53
	Front End Loader	1	40	79		970	53.2	8	480	49
	Welder / Torch	1	40	73		980	47.2	8	480	43
							Total for Building Construction Phase:			**57.0**
Paving	Paver	1	50	77		950	51.4	8	480	48
	Paver	1	50	77		980	51.2	8	480	48
	Concrete Pump Truck	1	20	81		1000	55.0	8	480	48
	Concrete Mixer Truck	1	40	79		1050	52.6	8	480	49
	Roller	1	20	80		1070	53.4	8	480	46
	Roller	1	20	80		970	54.2	8	480	47
								8		**55.6**

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noise level limit for construction phase, per FTA guidance = 85
allowable hours over which Leq is to be averaged (example: 8 for 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	1	40	82		1875	50.5	8	480	47
	Dozer	1	40	82		1875	50.5	8	480	47
	Dozer	1	40	82		1875	50.5	8	480	47
	All Other Equipment > 5 HP	1	50	85		1875	53.5	8	480	51
	Backhoe	1	40	78		1875	46.5	8	480	43
	Backhoe	1	40	78		1875	46.5	8	480	43
	Backhoe	1	40	78		1875	46.5	8	480	43
	Backhoe	1	40	78		1875	46.5	8	480	43
							Total for Site Preparation Phase:			**55.0**
Grading	Excavator	1	40	81		1875	49.5	8	480	46
	Excavator	1	40	81		1875	49.5	8	480	46
	Grader	1	40	85		1875	53.5	8	480	50
	Dozer	1	40	82		1875	50.5	8	480	47
	Scraper	1	40	84		1875	52.5	8	480	49
	Scraper	1	40	84		1875	52.5	8	480	49
	Backhoe	1	40	78		1875	46.5	8	480	43
	Tractor	1	40	84		1875	52.5	8	480	49
							Total for Grading Phase:			**56.4**
Building Construction	Crane	1	16	81		1875	49.5	8	480	42
	Man lift	1	20	75		1875	43.5	8	480	37
	Man lift	1	20	75		1875	43.5	8	480	37
	Man lift	1	20	75		1875	43.5	8	480	37
	Generator	1	50	72		1875	40.5	8	480	38
	Backhoe	1	40	78		1875	46.5	8	480	43
	Tractor	1	40	84		1875	52.5	8	480	49
	Front End Loader	1	40	79		1875	47.5	8	480	44
	Welder / Torch	1	40	73		1875	41.5	8	480	38
							Total for Building Construction Phase:			**51.8**
Paving	Paver	1	50	77		1875	45.5	8	480	43
	Paver	1	50	77		1875	45.5	8	480	43
	Concrete Pump Truck	1	20	81		1875	49.5	8	480	43
	Concrete Mixer Truck	1	40	79		1875	47.5	8	480	44
	Roller	1	20	80		1875	48.5	8	480	42
	Roller	1	20	80		1875	48.5	8	480	42
								8		**50.2**

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noise level limit for construction phase, per FTA guidance = 80
allowable hours over which Leq is to be averaged (example: 8 for 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	1	40	82		1250	54.0	8	480	50
	Dozer	1	40	82		1300	53.7	8	480	50
	Dozer	1	40	82		1350	53.4	8	480	49
	All Other Equipment > 5 HP	1	50	85		1320	56.6	8	480	54
	Backhoe	1	40	78		1320	49.6	8	480	46
	Backhoe	1	40	78		1370	49.2	8	480	45
	Backhoe	1	40	78		1410	49.0	8	480	45
	Backhoe	1	40	78		1300	49.7	8	480	46
							Total for Site Preparation Phase:			**58.1**
Grading	Excavator	1	40	81		1250	53.0	8	480	49
	Excavator	1	40	81		1300	52.7	8	480	49
	Grader	1	40	85		1350	56.4	8	480	52
	Dozer	1	40	82		1320	53.6	8	480	50
	Scraper	1	40	84		1370	55.2	8	480	51
	Scraper	1	40	84		1410	55.0	8	480	51
	Backhoe	1	40	78		1300	49.7	8	480	46
	Tractor	1	40	84		1280	55.8	8	480	52
							Total for Grading Phase:			**59.4**
Building Construction	Crane	1	16	81		1250	53.0	8	480	45
	Man lift	1	20	75		1300	46.7	8	480	40
	Man lift	1	20	75		1350	46.4	8	480	39
	Man lift	1	20	75		1320	46.6	8	480	40
	Generator	1	50	72		1370	43.2	8	480	40
	Backhoe	1	40	78		1410	49.0	8	480	45
	Tractor	1	40	84		1300	55.7	8	480	52
	Front End Loader	1	40	79		1280	50.8	8	480	47
	Welder / Torch	1	40	73		1280	44.8	8	480	41
							Total for Building Construction Phase:			**54.9**
Paving	Paver	1	50	77		1250	49.0	8	480	46
	Paver	1	50	77		1300	48.7	8	480	46
	Concrete Pump Truck	1	20	81		1370	52.2	8	480	45
	Concrete Mixer Truck	1	40	79		1410	50.0	8	480	46
	Roller	1	20	80		1300	51.7	8	480	45
	Roller	1	20	80		1280	51.8	8	480	45
								8		**53.2**

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allowable hours over which Leq is to be averaged (example: 8 for 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	1	40	82		2250	48.9	8	480	45
	Dozer	1	40	82		2250	48.9	8	480	45
	Dozer	1	40	82		2250	48.9	8	480	45
	All Other Equipment > 5 HP	1	50	85		2250	51.9	8	480	49
	Backhoe	1	40	78		2250	44.9	8	480	41
	Backhoe	1	40	78		2250	44.9	8	480	41
	Backhoe	1	40	78		2250	44.9	8	480	41
	Backhoe	1	40	78		2250	44.9	8	480	41
							Total for Site Preparation Phase:			**53.5**
Grading	Excavator	1	40	81		2250	47.9	8	480	44
	Excavator	1	40	81		2250	47.9	8	480	44
	Grader	1	40	85		2250	51.9	8	480	48
	Dozer	1	40	82		2250	48.9	8	480	45
	Scraper	1	40	84		2250	50.9	8	480	47
	Scraper	1	40	84		2250	50.9	8	480	47
	Backhoe	1	40	78		2250	44.9	8	480	41
	Tractor	1	40	84		2250	50.9	8	480	47
							Total for Grading Phase:			**54.8**
Building Construction	Crane	1	16	81		2250	47.9	8	480	40
	Man lift	1	20	75		2250	41.9	8	480	35
	Man lift	1	20	75		2250	41.9	8	480	35
	Man lift	1	20	75		2250	41.9	8	480	35
	Generator	1	50	72		2250	38.9	8	480	36
	Backhoe	1	40	78		2250	44.9	8	480	41
	Tractor	1	40	84		2250	50.9	8	480	47
	Front End Loader	1	40	79		2250	45.9	8	480	42
	Welder / Torch	1	40	73		2250	39.9	8	480	36
							Total for Building Construction Phase:			**50.2**
Paving	Paver	1	50	77		2250	43.9	8	480	41
	Paver	1	50	77		2250	43.9	8	480	41
	Concrete Pump Truck	1	20	81		2250	47.9	8	480	41
	Concrete Mixer Truck	1	40	79		2250	45.9	8	480	42
	Roller	1	20	80		2250	46.9	8	480	40
	Roller	1	20	80		2250	46.9	8	480	40
								8		**48.6**

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Construction Phase	Equipment	Total Equipment Qty	AUF % (from FHWA RCNM)	Reference Lmax @ 50 ft. from FHWA RCNM	Client Equipment Description, Data Source and/or Notes	Source to NSR Distance (ft.)	Distance-Adjusted Lmax	Allowable Operation Time (hours)	Allowable Operation Time (minutes)	Predicted 8-hour Leq
Site Preparation	Dozer	1	40	82		1350	53.4	8	480	49
	Dozer	1	40	82		1400	53.1	8	480	49
	Dozer	1	40	82		1450	52.8	8	480	49
	All Other Equipment > 5 HP	1	50	85		1360	56.3	8	480	53
	Backhoe	1	40	78		1360	49.3	8	480	45
	Backhoe	1	40	78		1420	48.9	8	480	45
	Backhoe	1	40	78		1470	48.6	8	480	45
	Backhoe	1	40	78		1500	48.5	8	480	44
							Total for Site Preparation Phase:			**57.6**
Grading	Excavator	1	40	81		1350	52.4	8	480	48
	Excavator	1	40	81		1400	52.1	8	480	48
	Grader	1	40	85		1450	55.8	8	480	52
	Dozer	1	40	82		1360	53.3	8	480	49
	Scraper	1	40	84		1420	54.9	8	480	51
	Scraper	1	40	84		1470	54.6	8	480	51
	Backhoe	1	40	78		1500	48.5	8	480	44
	Tractor	1	40	84		1400	55.1	8	480	51
							Total for Grading Phase:			**58.8**
Building Construction	Crane	1	16	81		1350	52.4	8	480	44
	Man lift	1	20	75		1400	46.1	8	480	39
	Man lift	1	20	75		1450	45.8	8	480	39
	Man lift	1	20	75		1360	46.3	8	480	39
	Generator	1	50	72		1420	42.9	8	480	40
	Backhoe	1	40	78		1470	48.6	8	480	45
	Tractor	1	40	84		1500	54.5	8	480	50
	Front End Loader	1	40	79		1400	50.1	8	480	46
	Welder / Torch	1	40	73		1380	44.2	8	480	40
							Total for Building Construction Phase:			**54.0**
Paving	Paver	1	50	77		1350	48.4	8	480	45
	Paver	1	50	77		1400	48.1	8	480	45
	Concrete Pump Truck	1	20	81		1420	51.9	8	480	45
	Concrete Mixer Truck	1	40	79		1470	49.6	8	480	46
	Roller	1	20	80		1500	50.5	8	480	43
	Roller	1	20	80		1380	51.2	8	480	44
								8		**52.6**

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allowable hours over which Leq is to be averaged (example: 8 for 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	1	40	82		2380	48.4	8	480	44
	Dozer	1	40	82		2380	48.4	8	480	44
	Dozer	1	40	82		2380	48.4	8	480	44
	All Other Equipment > 5 HP	1	50	85		2380	51.4	8	480	48
	Backhoe	1	40	78		2380	44.4	8	480	40
	Backhoe	1	40	78		2380	44.4	8	480	40
	Backhoe	1	40	78		2380	44.4	8	480	40
	Backhoe	1	40	78		2380	44.4	8	480	40
							Total for Site Preparation Phase:			**53.0**
Grading	Excavator	1	40	81		2380	47.4	8	480	43
	Excavator	1	40	81		2380	47.4	8	480	43
	Grader	1	40	85		2380	51.4	8	480	47
	Dozer	1	40	82		2380	48.4	8	480	44
	Scraper	1	40	84		2380	50.4	8	480	46
	Scraper	1	40	84		2380	50.4	8	480	46
	Backhoe	1	40	78		2380	44.4	8	480	40
	Tractor	1	40	84		2380	50.4	8	480	46
							Total for Grading Phase:			**54.4**
Building Construction	Crane	1	16	81		2380	47.4	8	480	39
	Man lift	1	20	75		2380	41.4	8	480	34
	Man lift	1	20	75		2380	41.4	8	480	34
	Man lift	1	20	75		2380	41.4	8	480	34
	Generator	1	50	72		2380	38.4	8	480	35
	Backhoe	1	40	78		2380	44.4	8	480	40
	Tractor	1	40	84		2380	50.4	8	480	46
	Front End Loader	1	40	79		2380	45.4	8	480	41
	Welder / Torch	1	40	73		2380	39.4	8	480	35
							Total for Building Construction Phase:			**49.7**
Paving	Paver	1	50	77		2380	43.4	8	480	40
	Paver	1	50	77		2380	43.4	8	480	40
	Concrete Pump Truck	1	20	81		2380	47.4	8	480	40
	Concrete Mixer Truck	1	40	79		2380	45.4	8	480	41
	Roller	1	20	80		2380	46.4	8	480	39
	Roller	1	20	80		2380	46.4	8	480	39
								8		**48.1**

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noise level limit for construction phase, per FTA guidance = 80
allowable hours over which Leq is to be averaged (example: 8 for 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	1	40	82		1650	51.6	8	480	48
	Dozer	1	40	82		1700	51.4	8	480	47
	Dozer	1	40	82		1750	51.1	8	480	47
	All Other Equipment > 5 HP	1	50	85		1680	54.5	8	480	51
	Backhoe	1	40	78		1680	47.5	8	480	43
	Backhoe	1	40	78		1710	47.3	8	480	43
	Backhoe	1	40	78		1740	47.2	8	480	43
	Backhoe	1	40	78		1770	47.0	8	480	43
							Total for Site Preparation Phase:			**55.9**
Grading	Excavator	1	40	81		1650	50.6	8	480	47
	Excavator	1	40	81		1700	50.4	8	480	46
	Grader	1	40	85		1750	54.1	8	480	50
	Dozer	1	40	82		1680	51.5	8	480	47
	Scraper	1	40	84		1710	53.3	8	480	49
	Scraper	1	40	84		1740	53.2	8	480	49
	Backhoe	1	40	78		1770	47.0	8	480	43
	Tractor	1	40	84		1750	53.1	8	480	49
							Total for Grading Phase:			**57.2**
Building Construction	Crane	1	16	81		1650	50.6	8	480	43
	Man lift	1	20	75		1700	44.4	8	480	37
	Man lift	1	20	75		1750	44.1	8	480	37
	Man lift	1	20	75		1680	44.5	8	480	37
	Generator	1	50	72		1710	41.3	8	480	38
	Backhoe	1	40	78		1740	47.2	8	480	43
	Tractor	1	40	84		1770	53.0	8	480	49
	Front End Loader	1	40	79		1750	48.1	8	480	44
	Welder / Torch	1	40	73		1700	42.4	8	480	38
							Total for Building Construction Phase:			**52.4**
Paving	Paver	1	50	77		1650	46.6	8	480	44
	Paver	1	50	77		1700	46.4	8	480	43
	Concrete Pump Truck	1	20	81		1710	50.3	8	480	43
	Concrete Mixer Truck	1	40	79		1740	48.2	8	480	44
	Roller	1	20	80		1770	49.0	8	480	42
	Roller	1	20	80		1700	49.4	8	480	42
								8		**51.0**

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allowable hours over which Leq is to be averaged (example: 8 for 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	1	40	82		2700	47.4	8	480	43
	Dozer	1	40	82		2700	47.4	8	480	43
	Dozer	1	40	82		2700	47.4	8	480	43
	All Other Equipment > 5 HP	1	50	85		2700	50.4	8	480	47
	Backhoe	1	40	78		2700	43.4	8	480	39
	Backhoe	1	40	78		2700	43.4	8	480	39
	Backhoe	1	40	78		2700	43.4	8	480	39
	Backhoe	1	40	78		2700	43.4	8	480	39
							Total for Site Preparation Phase:			**51.9**
Grading	Excavator	1	40	81		2700	46.4	8	480	42
	Excavator	1	40	81		2700	46.4	8	480	42
	Grader	1	40	85		2700	50.4	8	480	46
	Dozer	1	40	82		2700	47.4	8	480	43
	Scraper	1	40	84		2700	49.4	8	480	45
	Scraper	1	40	84		2700	49.4	8	480	45
	Backhoe	1	40	78		2700	43.4	8	480	39
	Tractor	1	40	84		2700	49.4	8	480	45
							Total for Grading Phase:			**53.3**
Building Construction	Crane	1	16	81		2700	46.4	8	480	38
	Man lift	1	20	75		2700	40.4	8	480	33
	Man lift	1	20	75		2700	40.4	8	480	33
	Man lift	1	20	75		2700	40.4	8	480	33
	Generator	1	50	72		2700	37.4	8	480	34
	Backhoe	1	40	78		2700	43.4	8	480	39
	Tractor	1	40	84		2700	49.4	8	480	45
	Front End Loader	1	40	79		2700	44.4	8	480	40
	Welder / Torch	1	40	73		2700	38.4	8	480	34
							Total for Building Construction Phase:			**48.6**
Paving	Paver	1	50	77		2700	42.4	8	480	39
	Paver	1	50	77		2700	42.4	8	480	39
	Concrete Pump Truck	1	20	81		2700	46.4	8	480	39
	Concrete Mixer Truck	1	40	79		2700	44.4	8	480	40
	Roller	1	20	80		2700	45.4	8	480	38
	Roller	1	20	80		2700	45.4	8	480	38
								8		**47.0**

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noise level limit for construction phase, per FTA guidance = 80
allowable hours over which Leq is to be averaged (example: 8 for 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	Combined equipment type and quantity (for table in report document?)
Off-Site Utilities	Backhoe	1	40	78		130	69.7	8	480	66	Backhoe (1)
	Man lift	1	20	75		150	65.5	8	480	58	Man lift (1)
	Generator	1	50	72		170	61.4	8	480	58	Generator (1)
	Crane	1	16	81		200	69.0	8	480	61	Crane (1)
	Welder / Torch	1	40	73		180	61.9	8	480	58	Welder / Torch (1)
							Total for Off-Site Utilities Phase:			**68.4**	

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

noise level limit for construction phase, per FTA guidance = 80
allowable hours over which Leq is to be averaged (example: 8 for 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	Combined equipment type and quantity (for table in report document?)
Off-Site Utilities	Backhoe	1	40	78		1200	50.4	8	480	46	Backhoe (1)
	Man lift	1	20	75		1200	47.4	8	480	40	Man lift (1)
	Generator	1	50	72		1200	44.4	8	480	41	Generator (1)
	Crane	1	16	81		1200	53.4	8	480	45	Crane (1)
	Welder / Torch	1	40	73		1200	45.4	8	480	41	Welder / Torch (1)
							Total for Off-Site Utilities Phase:			**50.7**	

Appendix H-3
Traffic Noise Calculations

Dudek					**15 October 2021**							
MG					**TNM 2.5**							
INPUT: ROADWAYS								**Average pavement type shall be used unless**				
PROJECT/CONTRACT:	**13087**							**a State highway agency substantiates the use**				
RUN:	**I15 Industrial Project - 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	%		
Main Street - W. of Hwy 395	100.0	point1	1	807.2	8,559.2	100.00					Average	
		point3	3	2,099.7	8,550.5	100.00						
Hwy 395 N. of Main Street	65.0	point37	37	2,185.5	9,286.6	100.00					Average	
		point14	14	2,103.8	8,566.0	100.00						
Cataba Road	45.0	point39	39	6,306.0	8,517.8	100.00					Average	
		point26	26	6,323.4	7,038.8	100.00					Average	
		point27	27	6,334.3	6,789.5	100.00						
I-15 NB	65.0	point41	41	4,447.5	2,852.2	100.00					Average	
		point33	33	5,307.0	4,186.3	100.00					Average	
		point34	34	6,185.4	5,519.5	100.00					Average	
		point35	35	7,783.6	8,021.5	100.00					Average	
		point2	2	9,496.1	10,661.3	100.00						
I-15 SB	65.0	point43	43	9,411.9	10,707.1	100.00					Average	
		point29	29	6,583.5	6,406.0	100.00					Average	
		point30	30	4,899.4	3,781.5	100.00					Average	
		point31	31	4,265.6	2,899.7	100.00						
Mesa Linda Street	40.0	point45	45	4,991.4	8,527.9	100.00					Average	
		point8	8	5,008.9	5,916.6	100.00					Average	
		point9	9	5,003.6	4,598.1	100.00						
Hwy 395 S. of Main Street	65.0	point47	47	2,105.5	8,538.8	100.00					Average	
		point16	16	2,000.9	7,420.6	100.00					Average	
		point17	17	2,017.4	7,037.6	100.00					Average	
		point18	18	2,074.3	6,735.8	100.00					Average	
		point19	19	2,201.1	6,379.3	100.00					Average	
		point20	20	2,288.6	6,138.7	100.00					Average	

		point21	21	2,317.1	6,008.6	100.00				Average	
		point22	22	2,334.5	5,840.2	100.00				Average	
		point23	23	2,367.6	4,614.0	100.00					
Poplar Street	65.0	point49	49	4,976.8	4,614.1	100.00				Average	
		point11	11	3,636.7	4,603.6	100.00				Average	
		point12	12	2,379.9	4,614.1	100.00					
Hwy 395 S. of Poplar Street	65.0	point50	50	2,367.6	4,614.0	100.00				Average	
		point24	24	2,364.2	3,357.2	100.00					
Main Street - E. of Hwy 395	100.0	point51	51	2,099.7	8,550.5	100.00				Average	
		point4	4	4,977.8	8,536.6	100.00					
Main Street-Mesa Linda St. to Cataba Rd	100.0	point52	52	4,977.8	8,536.6	100.00				Average	
		point5	5	6,303.1	8,547.6	100.00					
Main Street-Cataba Rd to I-15	100.0	point53	53	6,303.1	8,547.6	100.00				Average	
		point6	6	7,950.9	8,553.1	100.00					

Dudek **15 October 2021**
MG **TNM 2.5**

INPUT: TRAFFIC FOR LAeq1h Volumes
PROJECT/CONTRACT: 13087
RUN: I15 Industrial Project - 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
Main Street - W. of Hwy 395	point1	1	1488	55	30	55	14	50	0	0	0	0
	point3	3										
Hwy 395 N. of Main Street	point37	37	1812	55	30	55	130	50	0	0	0	0
	point14	14										
Cataba Road	point39	39	638	45	5	45	2	40	0	0	0	0
	point26	26	638	45	5	45	2	40	0	0	0	0
	point27	27										
I-15 NB	point41	41	4875	70	168	70	560	65	0	0	0	0
	point33	33	4875	70	168	70	560	65	0	0	0	0
	point34	34	4875	70	168	70	560	65	0	0	0	0
	point35	35	4875	70	168	70	560	65	0	0	0	0
	point2	2										
I-15 SB	point43	43	4875	70	168	70	560	65	0	0	0	0
	point29	29	4875	70	168	70	560	65	0	0	0	0
	point30	30	4875	70	168	70	560	65	0	0	0	0
	point31	31										
Mesa Linda Street	point45	45	128	45	3	45	8	40	0	0	0	0
	point8	8	128	45	3	45	8	40	0	0	0	0
	point9	9										
Hwy 395 S. of Main Street	point47	47	1617	55	28	55	124	50	0	0	0	0
	point16	16	1617	55	28	55	124	50	0	0	0	0
	point17	17	1617	55	28	55	124	50	0	0	0	0
	point18	18	1617	55	28	55	124	50	0	0	0	0

INPUT: TRAFFIC FOR LAeq1h Volumes **13087**

	point19	19	1617	55	28	55	124	50	0	0	0	0
	point20	20	1617	55	28	55	124	50	0	0	0	0
	point21	21	1617	55	28	55	124	50	0	0	0	0
	point22	22	1617	55	28	55	124	50	0	0	0	0
	point23	23										
Poplar Street	point49	49	56	45	8	45	4	40	0	0	0	0
	point11	11	56	45	8	45	4	40	0	0	0	0
	point12	12										
Hwy 395 S. of Poplar Street	point50	50	1529	55	93	55	147	50	0	0	0	0
	point24	24										
Main Street - E. of Hwy 395	point51	51	1638	55	28	55	14	50	0	0	0	0
	point4	4										
Main Street-Mesa Linda St. to Cataba Rd	point52	52	1820	55	32	55	22	50	0	0	0	0
	point5	5										
Main Street-Cataba Rd to I-15	point53	53	1840	55	35	55	23	50	0	0	0	0
	point6	6										

Dudek
MG

15 October 2021
TNM 2.5

INPUT: RECEIVERS
PROJECT/CONTRACT: 13087
RUN: I15 Industrial Project - 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	5,230.5	8,654.1	100.00	5.00	0.00	66	10.0	8.0	Y
ST2	2	1	4,299.0	8,694.7	100.00	5.00	0.00	66	10.0	8.0	Y
ST3	3	1	6,467.0	8,873.1	100.00	5.00	0.00	66	10.0	8.0	Y
M1	4	1	6,447.7	6,498.4	100.00	5.00	0.00	66	10.0	8.0	Y
M2	5	1	3,268.1	4,508.8	100.00	5.00	0.00	66	10.0	8.0	Y
M3	6	1	2,469.0	3,910.1	100.00	5.00	0.00	66	10.0	8.0	Y
M4	8	1	5,255.5	8,692.6	100.00	5.00	0.00	66	10.0	8.0	Y

Dudek **15 October 2021**
MG **TNM 2.5**

INPUT: BARRIERS
PROJECT/CONTRACT: **13087**
RUN: **I15 Industrial Project - Existing**

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				
Barrier1	W	0.00	99.99	0.00				0.00	point1	1	2,632.2	5,843.7	100.00	40.00	0.00	0	0		
									point3	3	2,624.0	4,904.1	100.00	40.00	0.00	0	0		
									point4	4	2,560.6	4,909.6	100.00	40.00	0.00	0	0		
									point5	5	2,567.5	4,777.4	100.00	40.00	0.00	0	0		
									point6	6	3,299.1	4,787.0	100.00	40.00	0.00	0	0		
									point7	7	3,292.2	4,902.7	100.00	40.00	0.00	0	0		
									point8	8	3,244.0	4,906.8	100.00	40.00	0.00	0	0		
									point9	9	3,246.7	5,849.3	100.00	40.00	0.00	0	0		
									point10	10	2,640.5	5,838.2	100.00	40.00					
Barrier 2	W	0.00	99.99	0.00				0.00	point18	18	5,931.2	6,994.6	100.00	40.00	0.00	0	0		
									point12	12	5,927.7	5,581.6	100.00	40.00	0.00	0	0		
									point13	13	5,781.9	5,369.8	100.00	40.00	0.00	0	0		
									point14	14	5,313.2	5,369.8	100.00	40.00	0.00	0	0		
									point15	15	5,306.2	6,838.4	100.00	40.00	0.00	0	0		
									point16	16	5,254.2	6,824.5	100.00	40.00	0.00	0	0		
									point2	2	5,257.6	6,991.2	100.00	40.00					
Barrier4	W	0.00	99.99	0.00				0.00	point19	19	4,708.1	8,603.6	100.00	6.00	0.00	0	0		
									point20	20	3,329.1	8,603.6	100.00	6.00					
Barrier5	W	0.00	99.99	0.00				0.00	point21	21	5,035.8	8,665.2	100.00	6.00	0.00	0	0		
									point22	22	5,649.9	8,663.9	100.00	6.00					
Barrier6	W	0.00	99.99	0.00				0.00	point23	23	6,456.7	6,487.8	100.00	20.00	0.00	0	0		
									point24	24	6,579.0	6,675.3	100.00	20.00	0.00	0	0		
									point25	25	6,642.8	6,637.4	100.00	20.00	0.00	0	0		
									point26	26	6,515.0	6,445.7	100.00	20.00	0.00	0	0		
									point27	27	6,451.2	6,484.8	100.00	20.00					

Dudek
MG
15 October 2021
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: 13087
RUN: I15 Industrial Project - 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	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
ST1	1	1	0.0	68.7	66	68.7	10	Snd Lvl	68.7	0.0	8	-8.0
ST2	2	1	0.0	59.8	66	59.8	10	----	59.8	0.0	8	-8.0
ST3	3	1	0.0	63.9	66	63.9	10	----	63.9	0.0	8	-8.0
M1	4	1	0.0	71.0	66	71.0	10	Snd Lvl	71.0	0.0	8	-8.0
M2	5	1	0.0	57.7	66	57.7	10	----	57.7	0.0	8	-8.0
M3	6	1	0.0	70.4	66	70.4	10	Snd Lvl	70.4	0.0	8	-8.0
M4	8	1	0.0	61.0	66	61.0	10	----	61.0	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	7	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					**15 October 2021**							
MG					**TNM 2.5**							
INPUT: ROADWAYS								**Average pavement type shall be used unless**				
PROJECT/CONTRACT:	**13087**							**a State highway agency substantiates the use**				
RUN:	**I15 Industrial Project - Existing with Proj**							**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	%		
Main Street - W. of Hwy 395	100.0	point1	1	807.2	8,559.2	100.00					Average	
		point3	3	2,099.7	8,550.5	100.00						
Hwy 395 N. of Main Street	65.0	point37	37	2,185.5	9,286.6	100.00					Average	
		point14	14	2,103.8	8,566.0	100.00						
Cataba Road	45.0	point39	39	6,306.0	8,517.8	100.00					Average	
		point26	26	6,323.4	7,038.8	100.00					Average	
		point27	27	6,334.3	6,789.5	100.00						
I-15 NB	65.0	point41	41	4,447.5	2,852.2	100.00					Average	
		point33	33	5,307.0	4,186.3	100.00					Average	
		point34	34	6,185.4	5,519.5	100.00					Average	
		point35	35	7,783.6	8,021.5	100.00					Average	
		point2	2	9,496.1	10,661.3	100.00						
I-15 SB	65.0	point43	43	9,411.9	10,707.1	100.00					Average	
		point29	29	6,583.5	6,406.0	100.00					Average	
		point30	30	4,899.4	3,781.5	100.00					Average	
		point31	31	4,265.6	2,899.7	100.00						
Mesa Linda Street	40.0	point45	45	4,991.4	8,527.9	100.00					Average	
		point8	8	5,008.9	5,916.6	100.00					Average	
		point9	9	5,003.6	4,598.1	100.00						
Hwy 395 S. of Main Street	65.0	point47	47	2,105.5	8,538.8	100.00					Average	
		point16	16	2,000.9	7,420.6	100.00					Average	
		point17	17	2,017.4	7,037.6	100.00					Average	
		point18	18	2,074.3	6,735.8	100.00					Average	
		point19	19	2,201.1	6,379.3	100.00					Average	
		point20	20	2,288.6	6,138.7	100.00					Average	

		point21	21	2,317.1	6,008.6	100.00				Average	
		point22	22	2,334.5	5,840.2	100.00				Average	
		point23	23	2,367.6	4,614.0	100.00					
Poplar Street	65.0	point49	49	4,976.8	4,614.1	100.00				Average	
		point11	11	3,636.7	4,603.6	100.00				Average	
		point12	12	2,379.9	4,614.1	100.00					
Hwy 395 S. of Poplar Street	65.0	point50	50	2,367.6	4,614.0	100.00				Average	
		point24	24	2,364.2	3,357.2	100.00					
Main Street - E. of Hwy 395	100.0	point51	51	2,099.7	8,550.5	100.00				Average	
		point4	4	4,977.8	8,536.6	100.00					
Main Street-Mesa Linda St. to Cataba Rd	100.0	point52	52	4,977.8	8,536.6	100.00				Average	
		point5	5	6,303.1	8,547.6	100.00					
Main Street-Cataba Rd to I-15	100.0	point53	53	6,303.1	8,547.6	100.00				Average	
		point6	6	7,950.9	8,553.1	100.00					

Dudek **15 October 2021**
MG **TNM 2.5**

INPUT: TRAFFIC FOR LAeq1h Volumes
PROJECT/CONTRACT: 13087
RUN: I15 Industrial Project - Existing with Proj

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
Main Street - W. of Hwy 395	point1	1	1533	55	30	55	14	50	0	0	0	0
	point3	3										
Hwy 395 N. of Main Street	point37	37	1846	55	33	55	132	50	0	0	0	0
	point14	14										
Cataba Road	point39	39	761	45	5	45	2	40	0	0	0	0
	point26	26	761	45	5	45	2	40	0	0	0	0
	point27	27										
I-15 NB	point41	41	4875	70	168	70	560	65	0	0	0	0
	point33	33	4875	70	168	70	560	65	0	0	0	0
	point34	34	4875	70	168	70	560	65	0	0	0	0
	point35	35	4875	70	168	70	560	65	0	0	0	0
	point2	2										
I-15 SB	point43	43	4875	70	168	70	560	65	0	0	0	0
	point29	29	4875	70	168	70	560	65	0	0	0	0
	point30	30	4875	70	168	70	560	65	0	0	0	0
	point31	31										
Mesa Linda Street	point45	45	307	45	3	45	8	40	0	0	0	0
	point8	8	307	45	3	45	8	40	0	0	0	0
	point9	9										
Hwy 395 S. of Main Street	point47	47	1646	55	31	55	126	50	0	0	0	0
	point16	16	1646	55	31	55	126	50	0	0	0	0
	point17	17	1646	55	31	55	126	50	0	0	0	0
	point18	18	1646	55	31	55	126	50	0	0	0	0

	point19	19	1646	55	31	55	126	50	0	0	0	0
	point20	20	1646	55	31	55	126	50	0	0	0	0
	point21	21	1646	55	31	55	126	50	0	0	0	0
	point22	22	1646	55	31	55	126	50	0	0	0	0
	point23	23										
Poplar Street	point49	49	210	45	70	45	58	40	0	0	0	0
	point11	11	210	45	70	45	58	40	0	0	0	0
	point12	12										
Hwy 395 S. of Poplar Street	point50	50	1654	55	152	55	199	50	0	0	0	0
	point24	24										
Main Street - E. of Hwy 395	point51	51	1688	55	28	55	14	50	0	0	0	0
	point4	4										
Main Street-Mesa Linda St. to Cataba Rd	point52	52	2016	55	32	55	22	50	0	0	0	0
	point5	5										
Main Street-Cataba Rd to I-15	point53	53	2091	55	35	55	23	50	0	0	0	0
	point6	6										

Dudek
MG

15 October 2021
TNM 2.5

INPUT: RECEIVERS
PROJECT/CONTRACT: 13087
RUN: I15 Industrial Project - Existing with Proj

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	5,230.5	8,654.1	100.00	5.00	0.00	66	10.0	8.0	Y
ST2	2	1	4,299.0	8,694.7	100.00	5.00	0.00	66	10.0	8.0	Y
ST3	3	1	6,467.0	8,873.1	100.00	5.00	0.00	66	10.0	8.0	Y
M1	4	1	6,447.7	6,498.4	100.00	5.00	0.00	66	10.0	8.0	Y
M2	5	1	3,268.1	4,508.8	100.00	5.00	0.00	66	10.0	8.0	Y
M3	6	1	2,469.0	3,910.1	100.00	5.00	0.00	66	10.0	8.0	Y
M4	8	1	5,255.5	8,692.6	100.00	5.00	0.00	66	10.0	8.0	Y

Dudek 15 October 2021
MG TNM 2.5

INPUT: BARRIERS
PROJECT/CONTRACT: 13087
RUN: I15 Industrial Project - Existing with Proj

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				
Barrier1	W	0.00	99.99	0.00				0.00	point1	1	2,632.2	5,843.7	100.00	40.00	0.00	0	0		
									point3	3	2,624.0	4,904.1	100.00	40.00	0.00	0	0		
									point4	4	2,560.6	4,909.6	100.00	40.00	0.00	0	0		
									point5	5	2,567.5	4,777.4	100.00	40.00	0.00	0	0		
									point6	6	3,299.1	4,787.0	100.00	40.00	0.00	0	0		
									point7	7	3,292.2	4,902.7	100.00	40.00	0.00	0	0		
									point8	8	3,244.0	4,906.8	100.00	40.00	0.00	0	0		
									point9	9	3,246.7	5,849.3	100.00	40.00	0.00	0	0		
									point10	10	2,640.5	5,838.2	100.00	40.00					
Barrier 2	W	0.00	99.99	0.00				0.00	point18	18	5,931.2	6,994.6	100.00	40.00	0.00	0	0		
									point12	12	5,927.7	5,581.6	100.00	40.00	0.00	0	0		
									point13	13	5,781.9	5,369.8	100.00	40.00	0.00	0	0		
									point14	14	5,313.2	5,369.8	100.00	40.00	0.00	0	0		
									point15	15	5,306.2	6,838.4	100.00	40.00	0.00	0	0		
									point16	16	5,254.2	6,824.5	100.00	40.00	0.00	0	0		
									point2	2	5,257.6	6,991.2	100.00	40.00					
Barrier4	W	0.00	99.99	0.00				0.00	point19	19	4,708.1	8,603.6	100.00	6.00	0.00	0	0		
									point20	20	3,329.1	8,603.6	100.00	6.00					
Barrier5	W	0.00	99.99	0.00				0.00	point21	21	5,035.8	8,665.2	100.00	6.00	0.00	0	0		
									point22	22	5,649.9	8,663.9	100.00	6.00					
Barrier6	W	0.00	99.99	0.00				0.00	point23	23	6,456.7	6,487.8	100.00	20.00	0.00	0	0		
									point24	24	6,579.0	6,675.3	100.00	20.00	0.00	0	0		
									point25	25	6,642.8	6,637.4	100.00	20.00	0.00	0	0		
									point26	26	6,515.0	6,445.7	100.00	20.00	0.00	0	0		
									point27	27	6,451.2	6,484.8	100.00	20.00					

Dudek
MG
15 October 2021
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: 13087
RUN: I15 Industrial Project - Existing with Proj
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	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
ST1	1	1	0.0	69.0	66	69.0	10	Snd Lvl	69.0	0.0	8	-8.0
ST2	2	1	0.0	60.0	66	60.0	10	----	60.0	0.0	8	-8.0
ST3	3	1	0.0	64.3	66	64.3	10	----	64.3	0.0	8	-8.0
M1	4	1	0.0	71.0	66	71.0	10	Snd Lvl	71.0	0.0	8	-8.0
M2	5	1	0.0	64.2	66	64.2	10	----	64.2	0.0	8	-8.0
M3	6	1	0.0	71.4	66	71.4	10	Snd Lvl	71.4	0.0	8	-8.0
M4	8	1	0.0	61.3	66	61.3	10	----	61.3	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	7	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					**15 October 2021**							
MG					**TNM 2.5**							
INPUT: ROADWAYS								**Average pavement type shall be used unless**				
PROJECT/CONTRACT:	**13087**							**a State highway agency substantiates the use**				
RUN:	**I15 Industrial Project - Year 2040**							**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	%		
Main Street - W. of Hwy 395	100.0	point1	1	807.2	8,559.2	100.00					Average	
		point3	3	2,099.7	8,550.5	100.00						
Hwy 395 N. of Main Street	65.0	point37	37	2,185.5	9,286.6	100.00					Average	
		point14	14	2,103.8	8,566.0	100.00						
Cataba Road	45.0	point39	39	6,306.0	8,517.8	100.00					Average	
		point26	26	6,323.4	7,038.8	100.00					Average	
		point27	27	6,334.3	6,789.5	100.00						
I-15 NB	65.0	point41	41	4,447.5	2,852.2	100.00					Average	
		point33	33	5,307.0	4,186.3	100.00					Average	
		point34	34	6,185.4	5,519.5	100.00					Average	
		point35	35	7,783.6	8,021.5	100.00					Average	
		point2	2	9,496.1	10,661.3	100.00						
I-15 SB	65.0	point43	43	9,411.9	10,707.1	100.00					Average	
		point29	29	6,583.5	6,406.0	100.00					Average	
		point30	30	4,899.4	3,781.5	100.00					Average	
		point31	31	4,265.6	2,899.7	100.00						
Mesa Linda Street	40.0	point45	45	4,991.4	8,527.9	100.00					Average	
		point8	8	5,008.9	5,916.6	100.00					Average	
		point9	9	5,003.6	4,598.1	100.00						
Hwy 395 S. of Main Street	65.0	point47	47	2,105.5	8,538.8	100.00					Average	
		point16	16	2,000.9	7,420.6	100.00					Average	
		point17	17	2,017.4	7,037.6	100.00					Average	
		point18	18	2,074.3	6,735.8	100.00					Average	
		point19	19	2,201.1	6,379.3	100.00					Average	
		point20	20	2,288.6	6,138.7	100.00					Average	

		point21	21	2,317.1	6,008.6	100.00				Average	
		point22	22	2,334.5	5,840.2	100.00				Average	
		point23	23	2,367.6	4,614.0	100.00					
Poplar Street	65.0	point49	49	4,976.8	4,614.1	100.00				Average	
		point11	11	3,636.7	4,603.6	100.00				Average	
		point12	12	2,379.9	4,614.1	100.00					
Hwy 395 S. of Poplar Street	65.0	point50	50	2,367.6	4,614.0	100.00				Average	
		point24	24	2,364.2	3,357.2	100.00					
Main Street - E. of Hwy 395	100.0	point51	51	2,099.7	8,550.5	100.00				Average	
		point4	4	4,977.8	8,536.6	100.00					
Main Street-Mesa Linda St. to Cataba Rd	100.0	point52	52	4,977.8	8,536.6	100.00				Average	
		point5	5	6,303.1	8,547.6	100.00					
Main Street-Cataba Rd to I-15	100.0	point53	53	6,303.1	8,547.6	100.00				Average	
		point6	6	7,950.9	8,553.1	100.00					

Dudek **15 October 2021**
MG **TNM 2.5**

INPUT: TRAFFIC FOR LAeq1h Volumes
PROJECT/CONTRACT: 13087
RUN: I15 Industrial Project - Year 2040

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
Main Street - W. of Hwy 395	point1	1	2239	55	52	55	24	50	0	0	0	0
	point3	3										
Hwy 395 N. of Main Street	point37	37	4153	55	65	55	291	50	0	0	0	0
	point14	14										
Cataba Road	point39	39	710	45	7	45	3	40	0	0	0	0
	point26	26	710	45	7	45	3	40	0	0	0	0
	point27	27										
I-15 NB	point41	41	4875	70	168	70	560	65	0	0	0	0
	point33	33	4875	70	168	70	560	65	0	0	0	0
	point34	34	4875	70	168	70	560	65	0	0	0	0
	point35	35	4875	70	168	70	560	65	0	0	0	0
	point2	2										
I-15 SB	point43	43	4875	70	168	70	560	65	0	0	0	0
	point29	29	4875	70	168	70	560	65	0	0	0	0
	point30	30	4875	70	168	70	560	65	0	0	0	0
	point31	31										
Mesa Linda Street	point45	45	247	45	5	45	17	40	0	0	0	0
	point8	8	247	45	5	45	17	40	0	0	0	0
	point9	9										
Hwy 395 S. of Main Street	point47	47	3750	55	65	55	280	50	0	0	0	0
	point16	16	3750	55	65	55	280	50	0	0	0	0
	point17	17	3750	55	65	55	280	50	0	0	0	0
	point18	18	3750	55	65	55	280	50	0	0	0	0

	point19	19	3750	55	65	55	280	50	0	0	0	0
	point20	20	3750	55	65	55	280	50	0	0	0	0
	point21	21	3750	55	65	55	280	50	0	0	0	0
	point22	22	3750	55	65	55	280	50	0	0	0	0
	point23	23										
Poplar Street	point49	49	684	45	102	45	98	40	0	0	0	0
	point11	11	684	45	102	45	98	40	0	0	0	0
	point12	12										
Hwy 395 S. of Poplar Street	point50	50	3135	55	181	55	287	50	0	0	0	0
	point24	24										
Main Street - E. of Hwy 395	point51	51	2938	55	56	55	25	50	0	0	0	0
	point4	4										
Main Street-Mesa Linda St. to Cataba Rd	point52	52	3209	55	60	55	41	50	0	0	0	0
	point5	5										
Main Street-Cataba Rd to I-15	point53	53	3155	55	66	55	44	50	0	0	0	0
	point6	6										

Dudek
MG

15 October 2021
TNM 2.5

INPUT: RECEIVERS
PROJECT/CONTRACT: 13087
RUN: I15 Industrial Project - Year 2040

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	5,230.5	8,654.1	100.00	5.00	0.00	66	10.0	8.0	Y
ST2	2	1	4,299.0	8,694.7	100.00	5.00	0.00	66	10.0	8.0	Y
ST3	3	1	6,467.0	8,873.1	100.00	5.00	0.00	66	10.0	8.0	Y
M1	4	1	6,447.7	6,498.4	100.00	5.00	0.00	66	10.0	8.0	Y
M2	5	1	3,268.1	4,508.8	100.00	5.00	0.00	66	10.0	8.0	Y
M3	6	1	2,469.0	3,910.1	100.00	5.00	0.00	66	10.0	8.0	Y
M4	8	1	5,255.5	8,692.6	100.00	5.00	0.00	66	10.0	8.0	Y

Dudek 15 October 2021
MG TNM 2.5

INPUT: BARRIERS
PROJECT/CONTRACT: 13087
RUN: I15 Industrial Project - Year 2040

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				
Barrier1	W	0.00	99.99	0.00				0.00	point1	1	2,632.2	5,843.7	100.00	40.00	0.00	0	0		
									point3	3	2,624.0	4,904.1	100.00	40.00	0.00	0	0		
									point4	4	2,560.6	4,909.6	100.00	40.00	0.00	0	0		
									point5	5	2,567.5	4,777.4	100.00	40.00	0.00	0	0		
									point6	6	3,299.1	4,787.0	100.00	40.00	0.00	0	0		
									point7	7	3,292.2	4,902.7	100.00	40.00	0.00	0	0		
									point8	8	3,244.0	4,906.8	100.00	40.00	0.00	0	0		
									point9	9	3,246.7	5,849.3	100.00	40.00	0.00	0	0		
									point10	10	2,640.5	5,838.2	100.00	40.00					
Barrier 2	W	0.00	99.99	0.00				0.00	point18	18	5,931.2	6,994.6	100.00	40.00	0.00	0	0		
									point12	12	5,927.7	5,581.6	100.00	40.00	0.00	0	0		
									point13	13	5,781.9	5,369.8	100.00	40.00	0.00	0	0		
									point14	14	5,313.2	5,369.8	100.00	40.00	0.00	0	0		
									point15	15	5,306.2	6,838.4	100.00	40.00	0.00	0	0		
									point16	16	5,254.2	6,824.5	100.00	40.00	0.00	0	0		
									point2	2	5,257.6	6,991.2	100.00	40.00					
Barrier4	W	0.00	99.99	0.00				0.00	point19	19	4,708.1	8,603.6	100.00	6.00	0.00	0	0		
									point20	20	3,329.1	8,603.6	100.00	6.00					
Barrier5	W	0.00	99.99	0.00				0.00	point21	21	5,035.8	8,665.2	100.00	6.00	0.00	0	0		
									point22	22	5,649.9	8,663.9	100.00	6.00					
Barrier6	W	0.00	99.99	0.00				0.00	point23	23	6,456.7	6,487.8	100.00	20.00	0.00	0	0		
									point24	24	6,579.0	6,675.3	100.00	20.00	0.00	0	0		
									point25	25	6,642.8	6,637.4	100.00	20.00	0.00	0	0		
									point26	26	6,515.0	6,445.7	100.00	20.00	0.00	0	0		
									point27	27	6,451.2	6,484.8	100.00	20.00					

Dudek
MG
15 October 2021
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: 13087
RUN: I15 Industrial Project - Year 2040
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	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
ST1	1	1	0.0	71.2	66	71.2	10	Snd Lvl	71.2	0.0	8	-8.0
ST2	2	1	0.0	62.2	66	62.2	10	----	62.2	0.0	8	-8.0
ST3	3	1	0.0	65.8	66	65.8	10	----	65.8	0.0	8	-8.0
M1	4	1	0.0	71.0	66	71.0	10	Snd Lvl	71.0	0.0	8	-8.0
M2	5	1	0.0	66.9	66	66.9	10	Snd Lvl	66.9	0.0	8	-8.0
M3	6	1	0.0	73.5	66	73.5	10	Snd Lvl	73.5	0.0	8	-8.0
M4	8	1	0.0	63.3	66	63.3	10	----	63.3	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction 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

Dudek				**15 October 2021**							
MG				**TNM 2.5**							
INPUT: ROADWAYS							**Average pavement type shall be used unless**				
PROJECT/CONTRACT:	**13087**						**a State highway agency substantiates the use**				
RUN:	**I15 Industrial Project - Year 2040 w Proj**						**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	%		
Main Street - W. of Hwy 395	100.0	point1	1	807.2	8,559.2	100.00				Average	
		point3	3	2,099.7	8,550.5	100.00					
Hwy 395 N. of Main Street	65.0	point37	37	2,185.5	9,286.6	100.00				Average	
		point14	14	2,103.8	8,566.0	100.00					
Cataba Road	45.0	point39	39	6,306.0	8,517.8	100.00				Average	
		point26	26	6,323.4	7,038.8	100.00				Average	
		point27	27	6,334.3	6,789.5	100.00					
I-15 NB	65.0	point41	41	4,447.5	2,852.2	100.00				Average	
		point33	33	5,307.0	4,186.3	100.00				Average	
		point34	34	6,185.4	5,519.5	100.00				Average	
		point35	35	7,783.6	8,021.5	100.00				Average	
		point2	2	9,496.1	10,661.3	100.00					
I-15 SB	65.0	point43	43	9,411.9	10,707.1	100.00				Average	
		point29	29	6,583.5	6,406.0	100.00				Average	
		point30	30	4,899.4	3,781.5	100.00				Average	
		point31	31	4,265.6	2,899.7	100.00					
Mesa Linda Street	40.0	point45	45	4,991.4	8,527.9	100.00				Average	
		point8	8	5,008.9	5,916.6	100.00				Average	
		point9	9	5,003.6	4,598.1	100.00					
Hwy 395 S. of Main Street	65.0	point47	47	2,105.5	8,538.8	100.00				Average	
		point16	16	2,000.9	7,420.6	100.00				Average	
		point17	17	2,017.4	7,037.6	100.00				Average	
		point18	18	2,074.3	6,735.8	100.00				Average	
		point19	19	2,201.1	6,379.3	100.00				Average	
		point20	20	2,288.6	6,138.7	100.00				Average	

		point21	21	2,317.1	6,008.6	100.00				Average	
		point22	22	2,334.5	5,840.2	100.00				Average	
		point23	23	2,367.6	4,614.0	100.00					
Poplar Street	65.0	point49	49	4,976.8	4,614.1	100.00				Average	
		point11	11	3,636.7	4,603.6	100.00				Average	
		point12	12	2,379.9	4,614.1	100.00					
Hwy 395 S. of Poplar Street	65.0	point50	50	2,367.6	4,614.0	100.00				Average	
		point24	24	2,364.2	3,357.2	100.00					
Main Street - E. of Hwy 395	100.0	point51	51	2,099.7	8,550.5	100.00				Average	
		point4	4	4,977.8	8,536.6	100.00					
Main Street-Mesa Linda St. to Cataba Rd	100.0	point52	52	4,977.8	8,536.6	100.00				Average	
		point5	5	6,303.1	8,547.6	100.00					
Main Street-Cataba Rd to I-15	100.0	point53	53	6,303.1	8,547.6	100.00				Average	
		point6	6	7,950.9	8,553.1	100.00					

Dudek **15 October 2021**
MG **TNM 2.5**

INPUT: TRAFFIC FOR LAeq1h Volumes
PROJECT/CONTRACT: 13087
RUN: I15 Industrial Project - Year 2040 w Proj

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
Main Street - W. of Hwy 395	point1	1	2284	55	52	55	24	50	0	0	0	0
	point3	3										
Hwy 395 N. of Main Street	point37	37	4187	55	68	55	293	50	0	0	0	0
	point14	14										
Cataba Road	point39	39	833	45	7	45	3	40	0	0	0	0
	point26	26	833	45	7	45	3	40	0	0	0	0
	point27	27										
I-15 NB	point41	41	4875	70	168	70	560	65	0	0	0	0
	point33	33	4875	70	168	70	560	65	0	0	0	0
	point34	34	4875	70	168	70	560	65	0	0	0	0
	point35	35	4875	70	168	70	560	65	0	0	0	0
	point2	2										
I-15 SB	point43	43	4875	70	168	70	560	65	0	0	0	0
	point29	29	4875	70	168	70	560	65	0	0	0	0
	point30	30	4875	70	168	70	560	65	0	0	0	0
	point31	31										
Mesa Linda Street	point45	45	426	45	5	45	17	40	0	0	0	0
	point8	8	426	45	5	45	17	40	0	0	0	0
	point9	9										
Hwy 395 S. of Main Street	point47	47	3779	55	68	55	282	50	0	0	0	0
	point16	16	3779	55	68	55	282	50	0	0	0	0
	point17	17	3779	55	68	55	282	50	0	0	0	0
	point18	18	3779	55	68	55	282	50	0	0	0	0

	point19	19	3779	55	68	55	282	50	0	0	0	0
	point20	20	3779	55	68	55	282	50	0	0	0	0
	point21	21	3779	55	68	55	282	50	0	0	0	0
	point22	22	3779	55	68	55	282	50	0	0	0	0
	point23	23										
Poplar Street	point49	49	838	45	164	45	152	40	0	0	0	0
	point11	11	838	45	164	45	152	40	0	0	0	0
	point12	12										
Hwy 395 S. of Poplar Street	point50	50	3260	55	240	55	339	50	0	0	0	0
	point24	24										
Main Street - E. of Hwy 395	point51	51	2989	55	56	55	25	50	0	0	0	0
	point4	4										
Main Street-Mesa Linda St. to Cataba Rd	point52	52	3405	55	60	55	41	50	0	0	0	0
	point5	5										
Main Street-Cataba Rd to I-15	point53	53	3406	55	66	55	44	50	0	0	0	0
	point6	6										

Dudek
MG

15 October 2021
TNM 2.5

INPUT: RECEIVERS
PROJECT/CONTRACT: 13087
RUN: I15 Industrial Project - Year 2040 w Proj

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	5,230.5	8,654.1	100.00	5.00	0.00	66	10.0	8.0	Y
ST2	2	1	4,299.0	8,694.7	100.00	5.00	0.00	66	10.0	8.0	Y
ST3	3	1	6,467.0	8,873.1	100.00	5.00	0.00	66	10.0	8.0	Y
M1	4	1	6,447.7	6,498.4	100.00	5.00	0.00	66	10.0	8.0	Y
M2	5	1	3,268.1	4,508.8	100.00	5.00	0.00	66	10.0	8.0	Y
M3	6	1	2,469.0	3,910.1	100.00	5.00	0.00	66	10.0	8.0	Y
M4	8	1	5,255.5	8,692.6	100.00	5.00	0.00	66	10.0	8.0	Y

Dudek 15 October 2021
MG TNM 2.5

INPUT: BARRIERS
PROJECT/CONTRACT: 13087
RUN: I15 Industrial Project - Year 2040 w Proj

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				
Barrier1	W	0.00	99.99	0.00				0.00	point1	1	2,632.2	5,843.7	100.00	40.00	0.00	0	0		
									point3	3	2,624.0	4,904.1	100.00	40.00	0.00	0	0		
									point4	4	2,560.6	4,909.6	100.00	40.00	0.00	0	0		
									point5	5	2,567.5	4,777.4	100.00	40.00	0.00	0	0		
									point6	6	3,299.1	4,787.0	100.00	40.00	0.00	0	0		
									point7	7	3,292.2	4,902.7	100.00	40.00	0.00	0	0		
									point8	8	3,244.0	4,906.8	100.00	40.00	0.00	0	0		
									point9	9	3,246.7	5,849.3	100.00	40.00	0.00	0	0		
									point10	10	2,640.5	5,838.2	100.00	40.00					
Barrier 2	W	0.00	99.99	0.00				0.00	point18	18	5,931.2	6,994.6	100.00	40.00	0.00	0	0		
									point12	12	5,927.7	5,581.6	100.00	40.00	0.00	0	0		
									point13	13	5,781.9	5,369.8	100.00	40.00	0.00	0	0		
									point14	14	5,313.2	5,369.8	100.00	40.00	0.00	0	0		
									point15	15	5,306.2	6,838.4	100.00	40.00	0.00	0	0		
									point16	16	5,254.2	6,824.5	100.00	40.00	0.00	0	0		
									point2	2	5,257.6	6,991.2	100.00	40.00					
Barrier4	W	0.00	99.99	0.00				0.00	point19	19	4,708.1	8,603.6	100.00	6.00	0.00	0	0		
									point20	20	3,329.1	8,603.6	100.00	6.00					
Barrier5	W	0.00	99.99	0.00				0.00	point21	21	5,035.8	8,665.2	100.00	6.00	0.00	0	0		
									point22	22	5,649.9	8,663.9	100.00	6.00					
Barrier6	W	0.00	99.99	0.00				0.00	point23	23	6,456.7	6,487.8	100.00	20.00	0.00	0	0		
									point24	24	6,579.0	6,675.3	100.00	20.00	0.00	0	0		
									point25	25	6,642.8	6,637.4	100.00	20.00	0.00	0	0		
									point26	26	6,515.0	6,445.7	100.00	20.00	0.00	0	0		
									point27	27	6,451.2	6,484.8	100.00	20.00					

Dudek
MG
15 October 2021
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: 13087
RUN: I15 Industrial Project - Year 2040 w Proj
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	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
ST1	1	1	0.0	71.4	66	71.4	10	Snd Lvl	71.4	0.0	8	-8.0
ST2	2	1	0.0	62.3	66	62.3	10	----	62.3	0.0	8	-8.0
ST3	3	1	0.0	66.1	66	66.1	10	Snd Lvl	66.1	0.0	8	-8.0
M1	4	1	0.0	71.0	66	71.0	10	Snd Lvl	71.0	0.0	8	-8.0
M2	5	1	0.0	68.4	66	68.4	10	Snd Lvl	68.4	0.0	8	-8.0
M3	6	1	0.0	74.0	66	74.0	10	Snd Lvl	74.0	0.0	8	-8.0
M4	8	1	0.0	63.5	66	63.5	10	----	63.5	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	7	0.0	0.0	0.0
All Impacted	5	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

Dudek				**15 October 2021**							
MG				**TNM 2.5**							
INPUT: ROADWAYS							**Average pavement type shall be used unless**				
PROJECT/CONTRACT:	**13087**						**a State highway agency substantiates the use**				
RUN:	**I15 Industrial Project - Cal Run**						**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	%		
Main Street - W. of Hwy 395	100.0	point1	1	807.2	8,559.2	100.00				Average	
		point3	3	2,099.7	8,550.5	100.00					
Hwy 395 N. of Main Street	65.0	point37	37	2,185.5	9,286.6	100.00				Average	
		point14	14	2,103.8	8,566.0	100.00					
Cataba Road	45.0	point39	39	6,306.0	8,517.8	100.00				Average	
		point26	26	6,323.4	7,038.8	100.00				Average	
		point27	27	6,334.3	6,789.5	100.00					
I-15 NB	65.0	point41	41	4,447.5	2,852.2	100.00				Average	
		point33	33	5,307.0	4,186.3	100.00				Average	
		point34	34	6,185.4	5,519.5	100.00				Average	
		point35	35	7,783.6	8,021.5	100.00				Average	
		point2	2	9,496.1	10,661.3	100.00					
I-15 SB	65.0	point43	43	9,411.9	10,707.1	100.00				Average	
		point29	29	6,583.5	6,406.0	100.00				Average	
		point30	30	4,899.4	3,781.5	100.00				Average	
		point31	31	4,265.6	2,899.7	100.00					
Mesa Linda Street	40.0	point45	45	4,991.4	8,527.9	100.00				Average	
		point8	8	5,008.9	5,916.6	100.00				Average	
		point9	9	5,003.6	4,598.1	100.00					
Hwy 395 S. of Main Street	65.0	point47	47	2,105.5	8,538.8	100.00				Average	
		point16	16	2,000.9	7,420.6	100.00				Average	
		point17	17	2,017.4	7,037.6	100.00				Average	
		point18	18	2,074.3	6,735.8	100.00				Average	
		point19	19	2,201.1	6,379.3	100.00				Average	
		point20	20	2,288.6	6,138.7	100.00				Average	

		point21	21	2,317.1	6,008.6	100.00				Average	
		point22	22	2,334.5	5,840.2	100.00				Average	
		point23	23	2,367.6	4,614.0	100.00					
Poplar Street	65.0	point49	49	4,976.8	4,614.1	100.00				Average	
		point11	11	3,636.7	4,603.6	100.00				Average	
		point12	12	2,379.9	4,614.1	100.00					
Hwy 395 S. of Poplar Street	65.0	point50	50	2,367.6	4,614.0	100.00				Average	
		point24	24	2,364.2	3,357.2	100.00					
Main Street - E. of Hwy 395	100.0	point51	51	2,099.7	8,550.5	100.00				Average	
		point4	4	4,977.8	8,536.6	100.00					
Main Street-Mesa Linda St. to Cataba Rd	100.0	point52	52	4,977.8	8,536.6	100.00				Average	
		point5	5	6,303.1	8,547.6	100.00					
Main Street-Cataba Rd to I-15	100.0	point53	53	6,303.1	8,547.6	100.00				Average	
		point6	6	7,950.9	8,553.1	100.00					

Dudek **15 October 2021**
MG **TNM 2.5**

INPUT: TRAFFIC FOR LAeq1h Volumes
PROJECT/CONTRACT: 13087
RUN: I15 Industrial Project - Cal Run

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
Main Street - W. of Hwy 395	point1	1	0	0	0	0	0	0	0	0	0	0
	point3	3										
Hwy 395 N. of Main Street	point37	37	0	0	0	0	0	0	0	0	0	0
	point14	14										
Cataba Road	point39	39	0	0	0	0	0	0	0	0	0	0
	point26	26	0	0	0	0	0	0	0	0	0	0
	point27	27										
I-15 NB	point41	41	4875	70	168	70	560	65	0	0	0	0
	point33	33	4875	70	168	70	560	65	0	0	0	0
	point34	34	4875	70	168	70	560	65	0	0	0	0
	point35	35	4875	70	168	70	560	65	0	0	0	0
	point2	2										
I-15 SB	point43	43	4875	70	168	70	560	65	0	0	0	0
	point29	29	4875	70	168	70	560	65	0	0	0	0
	point30	30	4875	70	168	70	560	65	0	0	0	0
	point31	31										
Mesa Linda Street	point45	45	0	0	0	0	0	0	0	0	0	0
	point8	8	0	0	0	0	0	0	0	0	0	0
	point9	9										
Hwy 395 S. of Main Street	point47	47	0	0	0	0	0	0	0	0	0	0
	point16	16	0	0	0	0	0	0	0	0	0	0
	point17	17	0	0	0	0	0	0	0	0	0	0
	point18	18	0	0	0	0	0	0	0	0	0	0

	point19	19	0	0	0	0	0	0	0	0	0	0
	point20	20	0	0	0	0	0	0	0	0	0	0
	point21	21	0	0	0	0	0	0	0	0	0	0
	point22	22	0	0	0	0	0	0	0	0	0	0
	point23	23										
Poplar Street	point49	49	0	0	0	0	0	0	0	0	0	0
	point11	11	0	0	0	0	0	0	0	0	0	0
	point12	12										
Hwy 395 S. of Poplar Street	point50	50	0	0	0	0	0	0	0	0	0	0
	point24	24										
Main Street - E. of Hwy 395	point51	51	1464	55	4	55	28	50	0	0	12	55
	point4	4										
Main Street-Mesa Linda St. to Cataba Rd	point52	52	1464	55	4	55	28	50	0	0	12	55
	point5	5										
Main Street-Cataba Rd to I-15	point53	53	1696	55	4	55	16	50	4	55	4	55
	point6	6										

Dudek
MG

15 October 2021
TNM 2.5

INPUT: RECEIVERS
PROJECT/CONTRACT: 13087
RUN: I15 Industrial Project - Cal Run

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	5,230.5	8,654.1	100.00	5.00	68.50	66	10.0	8.0	Y
ST2	2	1	4,299.0	8,694.7	100.00	5.00	59.30	66	10.0	8.0	Y
ST3	3	1	6,467.0	8,873.1	100.00	5.00	63.70	66	10.0	8.0	Y
M1	4	1	6,447.7	6,498.4	100.00	5.00	0.00	66	10.0	8.0	Y
M2	5	1	3,268.1	4,508.8	100.00	5.00	0.00	66	10.0	8.0	Y
M3	6	1	2,469.0	3,910.1	100.00	5.00	0.00	66	10.0	8.0	Y
M4	8	1	5,255.5	8,692.6	100.00	5.00	0.00	66	10.0	8.0	Y

Dudek 15 October 2021
MG TNM 2.5

INPUT: BARRIERS
PROJECT/CONTRACT: 13087
RUN: I15 Industrial Project - Cal Run

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				
Barrier1	W	0.00	99.99	0.00				0.00	point1	1	2,632.2	5,843.7	100.00	40.00	0.00	0	0		
									point3	3	2,624.0	4,904.1	100.00	40.00	0.00	0	0		
									point4	4	2,560.6	4,909.6	100.00	40.00	0.00	0	0		
									point5	5	2,567.5	4,777.4	100.00	40.00	0.00	0	0		
									point6	6	3,299.1	4,787.0	100.00	40.00	0.00	0	0		
									point7	7	3,292.2	4,902.7	100.00	40.00	0.00	0	0		
									point8	8	3,244.0	4,906.8	100.00	40.00	0.00	0	0		
									point9	9	3,246.7	5,849.3	100.00	40.00	0.00	0	0		
									point10	10	2,640.5	5,838.2	100.00	40.00					
Barrier 2	W	0.00	99.99	0.00				0.00	point18	18	5,931.2	6,994.6	100.00	40.00	0.00	0	0		
									point12	12	5,927.7	5,581.6	100.00	40.00	0.00	0	0		
									point13	13	5,781.9	5,369.8	100.00	40.00	0.00	0	0		
									point14	14	5,313.2	5,369.8	100.00	40.00	0.00	0	0		
									point15	15	5,306.2	6,838.4	100.00	40.00	0.00	0	0		
									point16	16	5,254.2	6,824.5	100.00	40.00	0.00	0	0		
									point2	2	5,257.6	6,991.2	100.00	40.00					
Barrier4	W	0.00	99.99	0.00				0.00	point19	19	4,708.1	8,603.6	100.00	6.00	0.00	0	0		
									point20	20	3,329.1	8,603.6	100.00	6.00					
Barrier5	W	0.00	99.99	0.00				0.00	point21	21	5,035.8	8,665.2	100.00	6.00	0.00	0	0		
									point22	22	5,649.9	8,663.9	100.00	6.00					
Barrier6	W	0.00	99.99	0.00				0.00	point23	23	6,456.7	6,487.8	100.00	20.00	0.00	0	0		
									point24	24	6,579.0	6,675.3	100.00	20.00	0.00	0	0		
									point25	25	6,642.8	6,637.4	100.00	20.00	0.00	0	0		
									point26	26	6,515.0	6,445.7	100.00	20.00	0.00	0	0		
									point27	27	6,451.2	6,484.8	100.00	20.00					

Dudek
MG
15 October 2021
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: 13087
RUN: I15 Industrial Project - Cal Run
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	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
ST1	1	1	68.5	67.9	66	-0.6	10	Snd Lvl	67.9	0.0	8	-8.0
ST2	2	1	59.3	59.7	66	0.4	10	----	59.7	0.0	8	-8.0
ST3	3	1	63.7	63.3	66	-0.4	10	----	63.3	0.0	8	-8.0
M1	4	1	0.0	71.0	66	71.0	10	Snd Lvl	71.0	0.0	8	-8.0
M2	5	1	0.0	53.7	66	53.7	10	----	53.7	0.0	8	-8.0
M3	6	1	0.0	49.7	66	49.7	10	----	49.7	0.0	8	-8.0
M4	8	1	0.0	60.5	66	60.5	10	----	60.5	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	7	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

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Appendix H-4
Equipment Noise Calculations

MECHANICAL EQUIPMENT NOISE LEVEL

Input:

Equipment Locations / Source Noise Data

Site	X	Y	Elev. At Roof or Ground	Source Height	LwA Single Source	Number of Units	Sound Level at 50 feet Total	Equip. Location Site / Number
HVAC 1 Bldg 1	5288.25	6962.82	40	3	94.5	1	63	HVAC 1 Bldg 1 York ZF-048
HVAC 2 Bldg 1	5288.25	6858.12	40	3	94.5	1	63	HVAC 2 Bldg 1 York ZF-048
HVAC 3 Bldg 1	5955.14	6951.8	40	3	94.5	1	63	HVAC 3 Bldg 1 York ZF-048
HVAC 4 Bldg 1	5955.14	6869.14	40	3	94.5	1	63	HVAC 4 Bldg 1 York ZF-048
HVAC 1 Bldg 2	2600	4876	40	3	94.5	1	63	HVAC 1 Bldg 2 York ZF-048
HVAC 2 Bldg 2	2600	4814	40	3	94.5	1	63	HVAC 2 Bldg 2 York ZF-048
HVAC 3 Bldg 2	3264.45	4876	40	3	94.5	1	63	HVAC 3 Bldg 2 York ZF-048
HVAC 4 Bldg 2	3264.45	4814	40	3	94.5	1	63	HVAC 4 Bldg 2 York ZF-048

Frequency (in Hz) 500

Receivers at P.L. and Vicinity			Applicable Standard	Building Elevation	Roof Elevation
North PL Bldg 1	5511.19	7355.66	70	0	40
East PL Bldg 1	6315.15	6924.77	70		
West PL Bldg 1	5044.02	6882.59	70		
West PL Bldg 2	2389.46	4827.06	70		
South PL Bldg 2	2600	4643.53	70		
East PL Bldg 2	3494.12	4859.91	70		
Commerical to E	6444.12	6516.18	65		
Commercal to S	2979.26	4562.87	65		
Industrial to S	2488.04	3932.2	70		
Commercial to N	5279.72	8169.27	70		
Residential to North -	5273.55	8696.53	55		
Residential to North -	4221.49	8685.64	55		

Output:

Location: North PL Bldg 1 — 5511.19 — 7355.66 — 0 — Applicable Standard 70

Source Coordinates				Receiver Coordinates		Location-Equipment	Leq (h) at 50' (dBA)	Receiver Elevation (feet)	Source Elevation (feet)	Source to Receiver (feet)	Source to Barrier (feet)	Receiver to Barrier (feet)	Barrier (base) (feet)	Barrier Height (feet)	Fresnel No. at 500 Hz	Barrier Attenuation (dBA)	Leq w/o Barrier (dBA)	Leq w/Barrier (dBA)
Equip Site	X	Y	Z	X	Y													
HVAC 1 Bldg 1	5288.25	6962.82	40	5511.19	7355.66	York ZF-048	63	5	43.0	452	25	427	40	3.0	0.08	7	44	37
HVAC 2 Bldg 1	5288.25	6858.12	40	5511.19	7355.66	York ZF-048	63	5	43.0	545	25	520	40	3.0	0.06	6	42	36
HVAC 3 Bldg 1	5955.14	6951.8	40	5511.19	7355.66	York ZF-048	63	5	43.0	600	25	575	40	3.0	0.05	6	41	35
HVAC 4 Bldg 1	5955.14	6869.14	40	5511.19	7355.66	York ZF-048	63	5	43.0	659	25	634	40	3.0	0.04	6	40	35
HVAC 1 Bldg 2	2600	4876	40	5511.19	7355.66	York ZF-048	63	5	43.0	3,824	25	3,799	40	3.0	0.00	5	25	20
HVAC 2 Bldg 2	2600	4814	40	5511.19	7355.66	York ZF-048	63	5	43.0	3,865	25	3,840	40	3.0	0.00	5	25	20
HVAC 3 Bldg 2	3264.45	4876	40	5511.19	7355.66	York ZF-048	63	5	43.0	3,346	25	3,321	40	3.0	0.00	5	26	21
HVAC 4 Bldg 2	3264.45	4814	40	5511.19	7355.66	York ZF-048	63	5	43.0	3,392	25	3,367	40	3.0	0.00	5	26	21
																TOTAL Leq:	48	42
																	Without Barrier	With Barrier/ Parapet

MECHANICAL EQUIPMENT NOISE LEVEL

Input:

Equipment Locations / Source Noise Data

Site	X	Y	Elev. At Roof or Ground	Source Height	LwA Single Source	Number of Units	Sound Level at 50 feet Total	Equip. Location Site / Number
HVAC 1 Bldg 1	5288.25	6962.82	40	3	94.5	1	63	HVAC 1 Bldg 1 York ZF-048
HVAC 2 Bldg 1	5288.25	6858.12	40	3	94.5	1	63	HVAC 2 Bldg 1 York ZF-048
HVAC 3 Bldg 1	5955.14	6951.8	40	3	94.5	1	63	HVAC 3 Bldg 1 York ZF-048
HVAC 4 Bldg 1	5955.14	6869.14	40	3	94.5	1	63	HVAC 4 Bldg 1 York ZF-048
HVAC 1 Bldg 2	2600	4876	40	3	94.5	1	63	HVAC 1 Bldg 2 York ZF-048
HVAC 2 Bldg 2	2600	4814	40	3	94.5	1	63	HVAC 2 Bldg 2 York ZF-048
HVAC 3 Bldg 2	3264.45	4876	40	3	94.5	1	63	HVAC 3 Bldg 2 York ZF-048
HVAC 4 Bldg 2	3264.45	4814	40	3	94.5	1	63	HVAC 4 Bldg 2 York ZF-048

Frequency (in Hz) 500

Receivers at P.L. and Vicinity			Building Elevation	Applicable Standard	Roof Elevation
North PL Bldg 1	5511.19	7355.66	0	70	40
East PL Bldg 1	6315.15	6924.77	0	70	
West PL Bldg 1	5044.02	6882.59	0	70	
West PL Bldg 2	2389.46	4827.06	0	70	
South PL Bldg 2	2600	4643.53	0	70	
East PL Bldg 2	3494.12	4859.91	0	70	
Commerical to E	6444.12	6516.18	0	65	
Commercal to S	2979.26	4562.87	0	65	
Industrial to S	2488.04	3932.2	0	70	
Commercial to N	5279.72	8169.27	0	70	
Residential to North -	5273.55	8696.53	0	55	
Residential to North -	4221.49	8685.64	0	55	

Output:

Location:			Applicable Standard
East PL Bldg 1	6315.15	6924.77	0	70

Equip Site	Source Coordinates X	Y	Z	Receiver Coordinates X	Y	Location-Equipment	Leq (h) at 50' (dBA)	Receiver Elevation (feet)	Source Elevation (feet)	Source to Receiver (feet)	Source to Barrier (feet)	Receiver to Barrier (feet)	Barrier (base) (feet)	Barrier Height (feet)	Fresnel No. at 500 Hz	Barrier Attenuation (dBA)	Leq w/o Barrier (dBA)	Leq w/Barrier (dBA)
HVAC 1 Bldg 1	5288.25	6962.82	40	6315.15	6924.77	York ZF-048	63	5	43.0	1,028	25	1,003	40	3.0	0.02	5	37	31
HVAC 2 Bldg 1	5288.25	6858.12	40	6315.15	6924.77	York ZF-048	63	5	43.0	1,029	25	1,004	40	3.0	0.02	5	37	31
HVAC 3 Bldg 1	5955.14	6951.8	40	6315.15	6924.77	York ZF-048	63	5	43.0	361	25	336	40	3.0	0.13	8	46	38
HVAC 4 Bldg 1	5955.14	6869.14	40	6315.15	6924.77	York ZF-048	63	5	43.0	364	25	339	40	3.0	0.13	7	46	38
HVAC 1 Bldg 2	2600	4876	40	6315.15	6924.77	York ZF-048	63	5	43.0	4,243	25	4,218	40	3.0	0.00	5	24	19
HVAC 2 Bldg 2	2600	4814	40	6315.15	6924.77	York ZF-048	63	5	43.0	4,273	25	4,248	40	3.0	0.00	5	24	19
HVAC 3 Bldg 2	3264.45	4876	40	6315.15	6924.77	York ZF-048	63	5	43.0	3,675	25	3,650	40	3.0	0.00	5	25	21
HVAC 4 Bldg 2	3264.45	4814	40	6315.15	6924.77	York ZF-048	63	5	43.0	3,710	25	3,685	40	3.0	0.00	5	25	21
																TOTAL Leq:	49	42
																	Without Barrier	With Barrier/ Parapet

MECHANICAL EQUIPMENT NOISE LEVEL

Input:

Equipment Locations / Source Noise Data

Site	X	Y	Elev. At Roof or Ground	Source Height	LwA Single Source	Number of Units	Sound Level at 50 feet Total	Equip. Location Site / Number
HVAC 1 Bldg 1	5288.25	6962.82	40	3	94.5	1	63	HVAC 1 Bldg 1 York ZF-048
HVAC 2 Bldg 1	5288.25	6858.12	40	3	94.5	1	63	HVAC 2 Bldg 1 York ZF-048
HVAC 3 Bldg 1	5955.14	6951.8	40	3	94.5	1	63	HVAC 3 Bldg 1 York ZF-048
HVAC 4 Bldg 1	5955.14	6869.14	40	3	94.5	1	63	HVAC 4 Bldg 1 York ZF-048
HVAC 1 Bldg 2	2600	4876	40	3	94.5	1	63	HVAC 1 Bldg 2 York ZF-048
HVAC 2 Bldg 2	2600	4814	40	3	94.5	1	63	HVAC 2 Bldg 2 York ZF-048
HVAC 3 Bldg 2	3264.45	4876	40	3	94.5	1	63	HVAC 3 Bldg 2 York ZF-048
HVAC 4 Bldg 2	3264.45	4814	40	3	94.5	1	63	HVAC 4 Bldg 2 York ZF-048

Frequency (in Hz) 500

Receivers at P.L. and Vicinity			Applicable Standard	Building Elevation 0	Roof Elevation 40
North PL Bldg 1	5511.19	7355.66	0	70	
East PL Bldg 1	6315.15	6924.77	0	70	
West PL Bldg 1	5044.02	6882.59	0	70	
West PL Bldg 2	2389.46	4827.06	0	70	
South PL Bldg 2	2600	4643.53	0	70	
East PL Bldg 2	3494.12	4859.91	0	70	
Commerical to E	6444.12	6516.18	0	65	
Commercal to S	2979.26	4562.87	0	65	
Industrial to S	2488.04	3932.2	0	70	
Commercial to N	5279.72	8169.27	0	70	
Residential to North -	5273.55	8696.53	0	55	
Residential to North -	4221.49	8685.64	0	55	

Output:

Location: West PL Bldg 1 — 5044.02 — 6882.59 — 0 — Applicable Standard: 70

Source Coordinates				Receiver Coordinates		Location-Equipment	Leq (h) at 50' (dBA)	Receiver Elevation (feet)	Source Elevation (feet)	Source to Receiver (feet)	Source to Barrier (feet)	Receiver to Barrier (feet)	Barrier (base) (feet)	Barrier Height (feet)	Fresnel No. at 500 Hz	Barrier Attenuation (dBA)	Leq w/o Barrier (dBA)	Leq w/Barrier (dBA)
Equip Site	X	Y	Z	X	Y													
HVAC 1 Bldg 1	5288.25	6962.82	40	5044.02	6882.59	York ZF-048	63	5	43.0	257	25	232	40	3.0	0.27	9	49	39
HVAC 2 Bldg 1	5288.25	6858.12	40	5044.02	6882.59	York ZF-048	63	5	43.0	245	25	220	40	3.0	0.29	9	49	40
HVAC 3 Bldg 1	5955.14	6951.8	40	5044.02	6882.59	York ZF-048	63	5	43.0	914	25	889	40	3.0	0.02	5	38	32
HVAC 4 Bldg 1	5955.14	6869.14	40	5044.02	6882.59	York ZF-048	63	5	43.0	911	25	886	40	3.0	0.02	5	38	32
HVAC 1 Bldg 2	2600	4876	40	5044.02	6882.59	York ZF-048	63	5	43.0	3,162	25	3,137	40	3.0	0.00	5	27	22
HVAC 2 Bldg 2	2600	4814	40	5044.02	6882.59	York ZF-048	63	5	43.0	3,202	25	3,177	40	3.0	0.00	5	27	22
HVAC 3 Bldg 2	3264.45	4876	40	5044.02	6882.59	York ZF-048	63	5	43.0	2,682	25	2,657	40	3.0	0.00	5	28	23
HVAC 4 Bldg 2	3264.45	4814	40	5044.02	6882.59	York ZF-048	63	5	43.0	2,729	25	2,704	40	3.0	0.00	5	28	23
																TOTAL Leq:	52	43
																	Without Barrier	With Barrier/ Parapet

MECHANICAL EQUIPMENT NOISE LEVEL

Input:

Equipment Locations / Source Noise Data

Site	X	Y	Elev. At Roof or Ground	Source Height	LwA Single Source	Number of Units	Sound Level at 50 feet Total	Equip. Location Site / Number
HVAC 1 Bldg 1	5288.25	6962.82	40	3	94.5	1	63	HVAC 1 Bldg 1 York ZF-048
HVAC 2 Bldg 1	5288.25	6858.12	40	3	94.5	1	63	HVAC 2 Bldg 1 York ZF-048
HVAC 3 Bldg 1	5955.14	6951.8	40	3	94.5	1	63	HVAC 3 Bldg 1 York ZF-048
HVAC 4 Bldg 1	5955.14	6869.14	40	3	94.5	1	63	HVAC 4 Bldg 1 York ZF-048
HVAC 1 Bldg 2	2600	4876	40	3	94.5	1	63	HVAC 1 Bldg 2 York ZF-048
HVAC 2 Bldg 2	2600	4814	40	3	94.5	1	63	HVAC 2 Bldg 2 York ZF-048
HVAC 3 Bldg 2	3264.45	4876	40	3	94.5	1	63	HVAC 3 Bldg 2 York ZF-048
HVAC 4 Bldg 2	3264.45	4814	40	3	94.5	1	63	HVAC 4 Bldg 2 York ZF-048

Frequency (in Hz) 500

Receivers at P.L. and Vicinity			Applicable Standard	Building Elevation 0	Roof Elevation 40
North PL Bldg 1	5511.19	7355.66	0	70	
East PL Bldg 1	6315.15	6924.77	0	70	
West PL Bldg 1	5044.02	6882.59	0	70	
West PL Bldg 2	2389.46	4827.06	0	70	
South PL Bldg 2	2600	4643.53	0	70	
East PL Bldg 2	3494.12	4859.91	0	70	
Commerical to E	6444.12	6516.18	0	65	
Commercal to S	2979.26	4562.87	0	65	
Industrial to S	2488.04	3932.2	0	70	
Commercial to N	5279.72	8169.27	0	70	
Residential to North -	5273.55	8696.53	0	55	
Residential to North -	4221.49	8685.64	0	55	

Output:

Location: South PL Bldg 2 — 2600 — 4643.53 — 0 — Applicable Standard 70

Equip Site	Source Coordinates X	Y	Z	Receiver Coordinates X	Y	Location-Equipment	Leq (h) at 50' (dBA)	Receiver Elevation (feet)	Source Elevation (feet)	Source to Receiver (feet)	Source to Barrier (feet)	Receiver to Barrier (feet)	Barrier (base) (feet)	Barrier Height (feet)	Fresnel No. at 500 Hz	Barrier Attenuation (dBA)	Leq w/o Barrier (dBA)	Leq w/Barrier (dBA)
HVAC 1 Bldg 1	5288.25	6962.82	40	2600	4643.53	York ZF-048	63	5	43.0	3,550	25	3,525	40	3.0	0.00	5	26	21
HVAC 2 Bldg 1	5288.25	6858.12	40	2600	4643.53	York ZF-048	63	5	43.0	3,483	25	3,458	40	3.0	0.00	5	26	21
HVAC 3 Bldg 1	5955.14	6951.8	40	2600	4643.53	York ZF-048	63	5	43.0	4,072	25	4,047	40	3.0	0.00	5	25	20
HVAC 4 Bldg 1	5955.14	6869.14	40	2600	4643.53	York ZF-048	63	5	43.0	4,026	25	4,001	40	3.0	0.00	5	25	20
HVAC 1 Bldg 2	2600	4876	40	2600	4643.53	York ZF-048	63	5	43.0	232	25	207	40	3.0	0.33	10	49	40
HVAC 2 Bldg 2	2600	4814	40	2600	4643.53	York ZF-048	63	5	43.0	170	25	145	40	3.0	0.62	12	52	40
HVAC 3 Bldg 2	3264.45	4876	40	2600	4643.53	York ZF-048	63	5	43.0	704	25	679	40	3.0	0.03	6	40	34
HVAC 4 Bldg 2	3264.45	4814	40	2600	4643.53	York ZF-048	63	5	43.0	686	25	661	40	3.0	0.04	6	40	34
																TOTAL Leq:	54	44
																	Without Barrier	With Barrier/ Parapet

MECHANICAL EQUIPMENT NOISE LEVEL

Input:

Equipment Locations / Source Noise Data

Site	X	Y	Elev. At Roof or Ground	Source Height	LwA Single Source	Number of Units	Sound Level at 50 feet Total	Equip. Location Site / Number
HVAC 1 Bldg 1	5288.25	6962.82	40	3	94.5	1	63	HVAC 1 Bldg 1 York ZF-048
HVAC 2 Bldg 1	5288.25	6858.12	40	3	94.5	1	63	HVAC 2 Bldg 1 York ZF-048
HVAC 3 Bldg 1	5955.14	6951.8	40	3	94.5	1	63	HVAC 3 Bldg 1 York ZF-048
HVAC 4 Bldg 1	5955.14	6869.14	40	3	94.5	1	63	HVAC 4 Bldg 1 York ZF-048
HVAC 1 Bldg 2	2600	4876	40	3	94.5	1	63	HVAC 1 Bldg 2 York ZF-048
HVAC 2 Bldg 2	2600	4814	40	3	94.5	1	63	HVAC 2 Bldg 2 York ZF-048
HVAC 3 Bldg 2	3264.45	4876	40	3	94.5	1	63	HVAC 3 Bldg 2 York ZF-048
HVAC 4 Bldg 2	3264.45	4814	40	3	94.5	1	63	HVAC 4 Bldg 2 York ZF-048

Frequency (in Hz) 500

Receivers at P.L. and Vicinity	X	Y	Building Elevation	Applicable Standard	Roof Elevation
North PL Bldg 1	5511.19	7355.66	0	70	40
East PL Bldg 1	6315.15	6924.77	0	70	
West PL Bldg 1	5044.02	6882.59	0	70	
West PL Bldg 2	2389.46	4827.06	0	70	
South PL Bldg 2	2600	4643.53	0	70	
East PL Bldg 2	3494.12	4859.91	0	70	
Commerical to E	6444.12	6516.18	0	65	
Commercal to S	2979.26	4562.87	0	65	
Industrial to S	2488.04	3932.2	0	70	
Commercial to N	5279.72	8169.27	0	70	
Residential to North -	5273.55	8696.53	0	55	
Residential to North -	4221.49	8685.64	0	55	

Output:

Location: East PL Bldg 2 3494.12 4859.91 0 Applicable Standard 70

Equip Site	Source Coordinates X	Y	Z	Receiver Coordinates X	Y	Location-Equipment	Leq (h) at 50' (dBA)	Receiver Elevation (feet)	Source Elevation (feet)	Source to Receiver (feet)	Source to Barrier (feet)	Receiver to Barrier (feet)	Barrier (base) (feet)	Barrier Height (feet)	Fresnel No. at 500 Hz	Barrier Attenuation (dBA)	Leq w/o Barrier (dBA)	Leq w/Barrier (dBA)
HVAC 1 Bldg 1	5288.25	6962.82	40	3494.12	4859.91	York ZF-048	63	5	43.0	2,764	25	2,739	40	3.0	0.00	5	28	23
HVAC 2 Bldg 1	5288.25	6858.12	40	3494.12	4859.91	York ZF-048	63	5	43.0	2,685	25	2,660	40	3.0	0.00	5	28	23
HVAC 3 Bldg 1	5955.14	6951.8	40	3494.12	4859.91	York ZF-048	63	5	43.0	3,230	25	3,205	40	3.0	0.00	5	27	22
HVAC 4 Bldg 1	5955.14	6869.14	40	3494.12	4859.91	York ZF-048	63	5	43.0	3,177	25	3,152	40	3.0	0.00	5	27	22
HVAC 1 Bldg 2	2600	4876	40	3494.12	4859.91	York ZF-048	63	5	43.0	894	25	869	40	3.0	0.02	5	38	32
HVAC 2 Bldg 2	2600	4814	40	3494.12	4859.91	York ZF-048	63	5	43.0	895	25	870	40	3.0	0.02	5	38	32
HVAC 3 Bldg 2	3264.45	4876	40	3494.12	4859.91	York ZF-048	63	5	43.0	230	25	205	40	3.0	0.33	10	50	40
HVAC 4 Bldg 2	3264.45	4814	40	3494.12	4859.91	York ZF-048	63	5	43.0	234	25	209	40	3.0	0.32	10	49	40
																TOTAL Leq:	53	44
																	Without Barrier	With Barrier/ Parapet

MECHANICAL EQUIPMENT NOISE LEVEL

Input:

Equipment Locations / Source Noise Data

Site	X	Y	Elev. At Roof or Ground	Source Height	LwA Single Source	Number of Units	Sound Level at 50 feet Total	Equip. Location Site / Number
HVAC 1 Bldg 1	5288.25	6962.82	40	3	94.5	1	63	HVAC 1 Bldg 1 York ZF-048
HVAC 2 Bldg 1	5288.25	6858.12	40	3	94.5	1	63	HVAC 2 Bldg 1 York ZF-048
HVAC 3 Bldg 1	5955.14	6951.8	40	3	94.5	1	63	HVAC 3 Bldg 1 York ZF-048
HVAC 4 Bldg 1	5955.14	6869.14	40	3	94.5	1	63	HVAC 4 Bldg 1 York ZF-048
HVAC 1 Bldg 2	2600	4876	40	3	94.5	1	63	HVAC 1 Bldg 2 York ZF-048
HVAC 2 Bldg 2	2600	4814	40	3	94.5	1	63	HVAC 2 Bldg 2 York ZF-048
HVAC 3 Bldg 2	3264.45	4876	40	3	94.5	1	63	HVAC 3 Bldg 2 York ZF-048
HVAC 4 Bldg 2	3264.45	4814	40	3	94.5	1	63	HVAC 4 Bldg 2 York ZF-048

Frequency (in Hz) 500

Receivers at P.L. and Vicinity			Applicable Standard	Building Elevation	Roof Elevation
North PL Bldg 1	5511.19	7355.66	70	0	40
East PL Bldg 1	6315.15	6924.77	70		
West PL Bldg 1	5044.02	6882.59	70		
West PL Bldg 2	2389.46	4827.06	70		
South PL Bldg 2	2600	4643.53	70		
East PL Bldg 2	3494.12	4859.91	70		
Commerical to E	6444.12	6516.18	65		
Commercal to S	2979.26	4562.87	65		
Industrial to S	2488.04	3932.2	70		
Commercial to N	5279.72	8169.27	70		
Residential to North -	5273.55	8696.53	55		
Residential to North -	4221.49	8685.64	55		

Output:

Location: Commerical to E — 6444.12 — 6516.18 — 0 — Applicable Standard 65

Equip Site	Source Coordinates X	Y	Z	Receiver Coordinates X	Y	Location-Equipment	Leq (h) at 50' (dBA)	Receiver Elevation (feet)	Source Elevation (feet)	Source to Receiver (feet)	Source to Barrier (feet)	Receiver to Barrier (feet)	Barrier (base) (feet)	Barrier Height (feet)	Fresnel No. at 500 Hz	Barrier Attenuation (dBA)	Leq w/o Barrier (dBA)	Leq w/Barrier (dBA)
HVAC 1 Bldg 1	5288.25	6962.82	40	6444.12	6516.18	York ZF-048	63	5	43.0	1,239	25	1,214	40	3.0	0.01	5	35	30
HVAC 2 Bldg 1	5288.25	6858.12	40	6444.12	6516.18	York ZF-048	63	5	43.0	1,205	25	1,180	40	3.0	0.01	5	35	30
HVAC 3 Bldg 1	5955.14	6951.8	40	6444.12	6516.18	York ZF-048	63	5	43.0	655	25	630	40	3.0	0.04	6	40	35
HVAC 4 Bldg 1	5955.14	6869.14	40	6444.12	6516.18	York ZF-048	63	5	43.0	603	25	578	40	3.0	0.05	6	41	35
HVAC 1 Bldg 2	2600	4876	40	6444.12	6516.18	York ZF-048	63	5	43.0	4,179	25	4,154	40	3.0	0.00	5	24	20
HVAC 2 Bldg 2	2600	4814	40	6444.12	6516.18	York ZF-048	63	5	43.0	4,204	25	4,179	40	3.0	0.00	5	24	20
HVAC 3 Bldg 2	3264.45	4876	40	6444.12	6516.18	York ZF-048	63	5	43.0	3,578	25	3,553	40	3.0	0.00	5	26	21
HVAC 4 Bldg 2	3264.45	4814	40	6444.12	6516.18	York ZF-048	63	5	43.0	3,607	25	3,582	40	3.0	0.00	5	26	21
																TOTAL Leq:	45	39
																	Without Barrier	With Barrier/ Parapet

MECHANICAL EQUIPMENT NOISE LEVEL

Input:

Equipment Locations / Source Noise Data

Site	X	Y	Elev. At Roof or Ground	Source Height	LwA Single Source	Number of Units	Sound Level at 50 feet Total	Equip. Location Site / Number
HVAC 1 Bldg 1	5288.25	6962.82	40	3	94.5	1	63	HVAC 1 Bldg 1 York ZF-048
HVAC 2 Bldg 1	5288.25	6858.12	40	3	94.5	1	63	HVAC 2 Bldg 1 York ZF-048
HVAC 3 Bldg 1	5955.14	6951.8	40	3	94.5	1	63	HVAC 3 Bldg 1 York ZF-048
HVAC 4 Bldg 1	5955.14	6869.14	40	3	94.5	1	63	HVAC 4 Bldg 1 York ZF-048
HVAC 1 Bldg 2	2600	4876	40	3	94.5	1	63	HVAC 1 Bldg 2 York ZF-048
HVAC 2 Bldg 2	2600	4814	40	3	94.5	1	63	HVAC 2 Bldg 2 York ZF-048
HVAC 3 Bldg 2	3264.45	4876	40	3	94.5	1	63	HVAC 3 Bldg 2 York ZF-048
HVAC 4 Bldg 2	3264.45	4814	40	3	94.5	1	63	HVAC 4 Bldg 2 York ZF-048

Frequency (in Hz) 500

Receivers at P.L. and Vicinity			Applicable Standard	Building Elevation	Roof Elevation
North PL Bldg 1	5511.19	7355.66	70	0	40
East PL Bldg 1	6315.15	6924.77	70		
West PL Bldg 1	5044.02	6882.59	70		
West PL Bldg 2	2389.46	4827.06	70		
South PL Bldg 2	2600	4643.53	70		
East PL Bldg 2	3494.12	4859.91	70		
Commerical to E	6444.12	6516.18	65		
Commercal to S	2979.26	4562.87	65		
Industrial to S	2488.04	3932.2	70		
Commercial to N	5279.72	8169.27	70		
Residential to North -	5273.55	8696.53	55		
Residential to North -	4221.49	8685.64	55		

Output:

				Location: Commercal to S	2979.26	4562.87	0	Applicable Standard 65							
Source Coordinates				Receiver Coordinates		Location-Equipment	Leq (h) at 50' (dBA)	Receiver Elevation (feet)	Source Elevation (feet)	Source to Receiver (feet)	Source to Barrier (feet)	Receiver to Barrier (feet)	Barrier (base) (feet)	Barrier Height (feet)	Fresnel No. at 500 Hz	Barrier Attenuation (dBA)	Leq w/o Barrier (dBA)	Leq w/Barrier (dBA)
Equip Site	X	Y	Z	X	Y													
HVAC 1 Bldg 1	5288.25	6962.82	40	2979.26	4562.87	York ZF-048	63	5	43.0	3,330	25	3,305	40	3.0	0.00	5	26	22
HVAC 2 Bldg 1	5288.25	6858.12	40	2979.26	4562.87	York ZF-048	63	5	43.0	3,256	25	3,231	40	3.0	0.00	5	27	22
HVAC 3 Bldg 1	5955.14	6951.8	40	2979.26	4562.87	York ZF-048	63	5	43.0	3,816	25	3,791	40	3.0	0.00	5	25	20
HVAC 4 Bldg 1	5955.14	6869.14	40	2979.26	4562.87	York ZF-048	63	5	43.0	3,765	25	3,740	40	3.0	0.00	5	25	20
HVAC 1 Bldg 2	2600	4876	40	2979.26	4562.87	York ZF-048	63	5	43.0	492	25	467	40	3.0	0.07	6	43	37
HVAC 2 Bldg 2	2600	4814	40	2979.26	4562.87	York ZF-048	63	5	43.0	455	25	430	40	3.0	0.08	7	44	37
HVAC 3 Bldg 2	3264.45	4876	40	2979.26	4562.87	York ZF-048	63	5	43.0	424	25	399	40	3.0	0.09	7	44	37
HVAC 4 Bldg 2	3264.45	4814	40	2979.26	4562.87	York ZF-048	63	5	43.0	380	25	355	40	3.0	0.12	7	45	38
																TOTAL Leq:	50	43
																	Without Barrier	With Barrier/ Parapet

MECHANICAL EQUIPMENT NOISE LEVEL

Input:

Equipment Locations / Source Noise Data

Site	X	Y	Elev. At Roof or Ground	Source Height	LwA Single Source	Number of Units	Sound Level at 50 feet Total	Equip. Location Site / Number
HVAC 1 Bldg 1	5288.25	6962.82	40	3	94.5	1	63	HVAC 1 Bldg 1 York ZF-048
HVAC 2 Bldg 1	5288.25	6858.12	40	3	94.5	1	63	HVAC 2 Bldg 1 York ZF-048
HVAC 3 Bldg 1	5955.14	6951.8	40	3	94.5	1	63	HVAC 3 Bldg 1 York ZF-048
HVAC 4 Bldg 1	5955.14	6869.14	40	3	94.5	1	63	HVAC 4 Bldg 1 York ZF-048
HVAC 1 Bldg 2	2600	4876	40	3	94.5	1	63	HVAC 1 Bldg 2 York ZF-048
HVAC 2 Bldg 2	2600	4814	40	3	94.5	1	63	HVAC 2 Bldg 2 York ZF-048
HVAC 3 Bldg 2	3264.45	4876	40	3	94.5	1	63	HVAC 3 Bldg 2 York ZF-048
HVAC 4 Bldg 2	3264.45	4814	40	3	94.5	1	63	HVAC 4 Bldg 2 York ZF-048

Frequency (in Hz) 500

Receivers at P.L. and Vicinity	X	Y	Applicable Standard	Building Elevation	Roof Elevation
North PL Bldg 1	5511.19	7355.66	70	0	40
East PL Bldg 1	6315.15	6924.77	70		
West PL Bldg 1	5044.02	6882.59	70		
West PL Bldg 2	2389.46	4827.06	70		
South PL Bldg 2	2600	4643.53	70		
East PL Bldg 2	3494.12	4859.91	70		
Commerical to E	6444.12	6516.18	65		
Commercal to S	2979.26	4562.87	65		
Industrial to S	2488.04	3932.2	70		
Commercial to N	5279.72	8169.27	70		
Residential to North -	5273.55	8696.53	55		
Residential to North -	4221.49	8685.64	55		

Output:

Location: Industrial to S 2488.04 3932.2 0 Applicable Standard 70

Equip Site	Source Coordinates X	Y	Z	Receiver Coordinates X	Y	Location-Equipment	Leq (h) at 50' (dBA)	Receiver Elevation (feet)	Source Elevation (feet)	Source to Receiver (feet)	Source to Barrier (feet)	Receiver to Barrier (feet)	Barrier (base) (feet)	Barrier Height (feet)	Fresnel No. at 500 Hz	Barrier Attenuation (dBA)	Leq w/o Barrier (dBA)	Leq w/Barrier (dBA)
HVAC 1 Bldg 1	5288.25	6962.82	40	2488.04	3932.2	York ZF-048	63	5	43.0	4,126	25	4,101	40	3.0	0.00	5	24	20
HVAC 2 Bldg 1	5288.25	6858.12	40	2488.04	3932.2	York ZF-048	63	5	43.0	4,050	25	4,025	40	3.0	0.00	5	25	20
HVAC 3 Bldg 1	5955.14	6951.8	40	2488.04	3932.2	York ZF-048	63	5	43.0	4,598	25	4,573	40	3.0	0.00	5	24	19
HVAC 4 Bldg 1	5955.14	6869.14	40	2488.04	3932.2	York ZF-048	63	5	43.0	4,544	25	4,519	40	3.0	0.00	5	24	19
HVAC 1 Bldg 2	2600	4876	40	2488.04	3932.2	York ZF-048	63	5	43.0	950	25	925	40	3.0	0.02	5	37	32
HVAC 2 Bldg 2	2600	4814	40	2488.04	3932.2	York ZF-048	63	5	43.0	889	25	864	40	3.0	0.02	5	38	32
HVAC 3 Bldg 2	3264.45	4876	40	2488.04	3932.2	York ZF-048	63	5	43.0	1,222	25	1,197	40	3.0	0.01	5	35	30
HVAC 4 Bldg 2	3264.45	4814	40	2488.04	3932.2	York ZF-048	63	5	43.0	1,175	25	1,150	40	3.0	0.01	5	35	30
																TOTAL Leq:	43	38
																	Without Barrier	With Barrier/ Parapet

MECHANICAL EQUIPMENT NOISE LEVEL

Input:

Equipment Locations / Source Noise Data

Site	X	Y	Elev. At Roof or Ground	Source Height	LwA Single Source	Number of Units	Sound Level at 50 feet Total	Equip. Location Site / Number
HVAC 1 Bldg 1	5288.25	6962.82	40	3	94.5	1	63	HVAC 1 Bldg 1 York ZF-048
HVAC 2 Bldg 1	5288.25	6858.12	40	3	94.5	1	63	HVAC 2 Bldg 1 York ZF-048
HVAC 3 Bldg 1	5955.14	6951.8	40	3	94.5	1	63	HVAC 3 Bldg 1 York ZF-048
HVAC 4 Bldg 1	5955.14	6869.14	40	3	94.5	1	63	HVAC 4 Bldg 1 York ZF-048
HVAC 1 Bldg 2	2600	4876	40	3	94.5	1	63	HVAC 1 Bldg 2 York ZF-048
HVAC 2 Bldg 2	2600	4814	40	3	94.5	1	63	HVAC 2 Bldg 2 York ZF-048
HVAC 3 Bldg 2	3264.45	4876	40	3	94.5	1	63	HVAC 3 Bldg 2 York ZF-048
HVAC 4 Bldg 2	3264.45	4814	40	3	94.5	1	63	HVAC 4 Bldg 2 York ZF-048

Frequency (in Hz) 500

Receivers at P.L. and Vicinity			Applicable Standard	Building Elevation	Roof Elevation
North PL Bldg 1	5511.19	7355.66	70	0	40
East PL Bldg 1	6315.15	6924.77	70		
West PL Bldg 1	5044.02	6882.59	70		
West PL Bldg 2	2389.46	4827.06	70		
South PL Bldg 2	2600	4643.53	70		
East PL Bldg 2	3494.12	4859.91	70		
Commerical to E	6444.12	6516.18	65		
Commercal to S	2979.26	4562.87	65		
Industrial to S	2488.04	3932.2	70		
Commercial to N	5279.72	8169.27	65		
Residential to North -	5273.55	8696.53	55		
Residential to North -	4221.49	8685.64	55		

Output:

Location: Commercial to N 5279.72 8169.27 0 Applicable Standard 65

Source Coordinates				Receiver Coordinates		Location-Equipment	Leq (h) at 50' (dBA)	Receiver Elevation (feet)	Source Elevation (feet)	Source to Receiver (feet)	Source to Barrier (feet)	Receiver to Barrier (feet)	Barrier (base) (feet)	Barrier Height (feet)	Fresnel No. at 500 Hz	Barrier Attenuation (dBA)	Leq w/o Barrier (dBA)	Leq w/Barrier (dBA)
Equip Site	X	Y	Z	X	Y													
HVAC 1 Bldg 1	5288.25	6962.82	40	5279.72	8169.27	York ZF-048	63	5	43.0	1,206	25	1,181	40	3.0	0.01	5	35	30
HVAC 2 Bldg 1	5288.25	6858.12	40	5279.72	8169.27	York ZF-048	63	5	43.0	1,311	25	1,286	40	3.0	0.01	5	34	29
HVAC 3 Bldg 1	5955.14	6951.8	40	5279.72	8169.27	York ZF-048	63	5	43.0	1,392	25	1,367	40	3.0	0.01	5	34	29
HVAC 4 Bldg 1	5955.14	6869.14	40	5279.72	8169.27	York ZF-048	63	5	43.0	1,465	25	1,440	40	3.0	0.01	5	33	28
HVAC 1 Bldg 2	2600	4876	40	5279.72	8169.27	York ZF-048	63	5	43.0	4,246	25	4,221	40	3.0	0.00	5	24	19
HVAC 2 Bldg 2	2600	4814	40	5279.72	8169.27	York ZF-048	63	5	43.0	4,294	25	4,269	40	3.0	0.00	5	24	19
HVAC 3 Bldg 2	3264.45	4876	40	5279.72	8169.27	York ZF-048	63	5	43.0	3,861	25	3,836	40	3.0	0.00	5	25	20
HVAC 4 Bldg 2	3264.45	4814	40	5279.72	8169.27	York ZF-048	63	5	43.0	3,914	25	3,889	40	3.0	0.00	5	25	20
																TOTAL Leq:	41	36
																	Without Barrier	With Barrier/ Parapet

MECHANICAL EQUIPMENT NOISE LEVEL

Input:

Equipment Locations / Source Noise Data

Site	X	Y	Elev. At Roof or Ground	Source Height	LwA Single Source	Number of Units	Sound Level at 50 feet Total	Equip. Location Site / Number
HVAC 1 Bldg 1	5288.25	6962.82	40	3	94.5	1	63	HVAC 1 Bldg 1 York ZF-048
HVAC 2 Bldg 1	5288.25	6858.12	40	3	94.5	1	63	HVAC 2 Bldg 1 York ZF-048
HVAC 3 Bldg 1	5955.14	6951.8	40	3	94.5	1	63	HVAC 3 Bldg 1 York ZF-048
HVAC 4 Bldg 1	5955.14	6869.14	40	3	94.5	1	63	HVAC 4 Bldg 1 York ZF-048
HVAC 1 Bldg 2	2600	4876	40	3	94.5	1	63	HVAC 1 Bldg 2 York ZF-048
HVAC 2 Bldg 2	2600	4814	40	3	94.5	1	63	HVAC 2 Bldg 2 York ZF-048
HVAC 3 Bldg 2	3264.45	4876	40	3	94.5	1	63	HVAC 3 Bldg 2 York ZF-048
HVAC 4 Bldg 2	3264.45	4814	40	3	94.5	1	63	HVAC 4 Bldg 2 York ZF-048

Frequency (in Hz) 500

Receivers at P.L. and Vicinity			Applicable Standard	Building Elevation	Roof Elevation
North PL Bldg 1	5511.19	7355.66	70	0	40
East PL Bldg 1	6315.15	6924.77	70		
West PL Bldg 1	5044.02	6882.59	70		
West PL Bldg 2	2389.46	4827.06	70		
South PL Bldg 2	2600	4643.53	70		
East PL Bldg 2	3494.12	4859.91	70		
Commerical to E	6444.12	6516.18	65		
Commercal to S	2979.26	4562.87	65		
Industrial to S	2488.04	3932.2	70		
Commercial to N	5279.72	8169.27	70		
Residential to North -	5273.55	8696.53	55		
Residential to North -	4221.49	8685.64	55		

Output:

Location: Residential to North - Bldg1 — 5273.55 — 8696.53 — 0 — Applicable Standard 55

Source Coordinates				Receiver Coordinates		Location-Equipment	Leq (h) at 50' (dBA)	Receiver Elevation (feet)	Source Elevation (feet)	Source to Receiver (feet)	Source to Barrier (feet)	Receiver to Barrier (feet)	Barrier (base) (feet)	Barrier Height (feet)	Fresnel No. at 500 Hz	Barrier Attenuation (dBA)	Leq w/o Barrier (dBA)	Leq w/Barrier (dBA)
Equip Site	X	Y	Z	X	Y													
HVAC 1 Bldg 1	5288.25	6962.82	40	5273.55	8696.53	York ZF-048	63	5	43.0	1,734	25	1,709	40	3.0	0.01	5	32	27
HVAC 2 Bldg 1	5288.25	6858.12	40	5273.55	8696.53	York ZF-048	63	5	43.0	1,838	25	1,813	40	3.0	0.00	5	32	27
HVAC 3 Bldg 1	5955.14	6951.8	40	5273.55	8696.53	York ZF-048	63	5	43.0	1,873	25	1,848	40	3.0	0.00	5	31	26
HVAC 4 Bldg 1	5955.14	6869.14	40	5273.55	8696.53	York ZF-048	63	5	43.0	1,950	25	1,925	40	3.0	0.00	5	31	26
HVAC 1 Bldg 2	2600	4876	40	5273.55	8696.53	York ZF-048	63	5	43.0	4,663	25	4,638	40	3.0	0.00	5	23	19
HVAC 2 Bldg 2	2600	4814	40	5273.55	8696.53	York ZF-048	63	5	43.0	4,714	25	4,689	40	3.0	0.00	5	23	19
HVAC 3 Bldg 2	3264.45	4876	40	5273.55	8696.53	York ZF-048	63	5	43.0	4,317	25	4,292	40	3.0	0.00	5	24	19
HVAC 4 Bldg 2	3264.45	4814	40	5273.55	8696.53	York ZF-048	63	5	43.0	4,372	25	4,347	40	3.0	0.00	5	24	19
																TOTAL Leq:	38	33
																	Without Barrier	With Barrier/ Parapet