

Appendix G

Noise Attachments

DUDEK

DESCRIPTION / SKETCH		TERRAIN	HARD	SOFT	MIXED	FLAT	OTHER:
PHOTOS		0493; 0494; 0495; 0496; 0497; 0498					
OTHER COMMENTS / SKETCH							

FIELD NOISE MEASUREMENT DATA

DUDEK

PROJECT 6TH & HIGHLAND WAREHOUSE PROJECT # 13228
 SITE ID _____ OBSERVER(S) PETE VITAR
 SITE ADDRESS _____
 START DATE 4/27/21 END DATE 4/27/21
 START TIME _____ END TIME _____

METEOROLOGICAL CONDITIONS
 TEMP 58 F HUMIDITY 48 % R.H. WIND CALM LIGHT MODERATE
 WINDSPD _____ MPH DIR. N NE S SE S SW W NW VARIABLE STEADY GUSTY
 SKY SUNNY CLEAR OVRCAST PRTY CLOUDY FOG RAIN

ACOUSTIC MEASUREMENTS
 MEAS. INSTRUMENT PICCOLO SLM-P3 TYPE 1 2 SERIAL # 140317004
 CALIBRATOR ISSA CA 114 SERIAL # 490151
 CALIBRATION CHECK _____ PRE-TEST _____ dBA SPL POST-TEST _____ dBA SPL WINDSCREEN YES

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

REC. #	BEGIN	END	Leg	Lmax	Lmin	L90	L50	L10	OTHER (SPECIFY METRIC)
<u>3-4</u>	<u>10:35</u>	<u>10:51</u>	<u>63.9</u>	<u>84.2</u>	<u>53.5</u>				

COMMENTS
READING TAKEN IN FRONT OF 7864 GRAPE ST (RESIDENTIAL); PRIMARY NOISE SOURCE IS SOUND OF DISTANT HEAVY CONSTRUCTION VEHICLES TRAVELING TO THE SOUTH; SOME TRAFFIC NOISE FROM 6TH ST TO THE SOUTH;

SOURCE INFO AND TRAFFIC COUNTS
 PRIMARY NOISE SOURCE ROADWAY TYPE: ASPHALT TRAFFIC AIRCRAFT RAIL INDUSTRIAL OTHER: DISTANT CONSTRUCTION NOISE
 DIST. TO RDWY C/L OR EOP: APX 20' FROM C/L ON GRAPE ST
 TRAFFIC COUNT DURATION: 15 MIN SPEED _____ MIN SPEED _____
 DIRECTION NB/EB SB/WB NB/EB SB/WB IF COUNTING BOTH DIRECTIONS AS ONE, CHECK HERE
 COUNT 1 (OR RDWY 1) AUTOS _____ MED TRKS _____ HVT TRKS _____ BUSES _____ MOTOCLS _____
 COUNT 2 (OR RDWY 2) _____
 SPEEDS ESTIMATED BY: RADAR/DRIVING THE PACE
 POSTED SPEED LIMIT SIGNS SAY: _____
 OTHER NOISE SOURCES (BACKGROUND): OCCASIONAL DIST. AIRCRAFT RUSTLING LEAVES DIST. BARKING DOGS BIRDS DIST. INDUSTRIAL
 DIST. KIDS PLAYING DIST. CONVERSATIONS/YELLING DIST. TRAFFIC (LIST RDWAYS BELOW) DIST. GARDENERS/LANDSCAPING NOISE
 OTHER: OCCASIONAL ROOSTERS CROWING; OCCASIONAL DUCKS RANKING; OCCASIONAL DISTANT JET & PROP PLANE NOISE

DESCRIPTION / SKETCH
 TERRAIN HARD SOFT MIXED FLAT OTHER: _____
 PHOTOS 0500; 0501; 0502; 0503; 0504; 0505; 0507
 OTHER COMMENTS / SKETCH


FIELD NOISE MEASUREMENT DATA

DUDEK

PROJECT	6TH & HIGHLAND WAREHOUSE		PROJECT #	15228
SITE ID			OBSERVER(S)	PETE VITAR
SITE ADDRESS				
START DATE	4/27/21	END DATE	4/27/21	
START TIME		END TIME		

METEOROLOGICAL CONDITIONS									
TEMP	57	F	HUMIDITY	52	% R.H.	WIND	CALM	<u>LIGHT</u>	MODERATE
WINDSPD	3	MPH	DIR.	N	NE S SE S SW W NW		VARIABLE	STEADY	GUSTY
SKY	SUNNY	CLEAR	OVRCAST	<u>PRTLY CLDY</u>	FOG	RAIN			
ACOUSTIC MEASUREMENTS									
MEAS. INSTRUMENT	PICCOLLO SLM-P3				TYPE	1	2	SERIAL #	140317004
CALIBRATOR	BSWA CA 114							SERIAL #	440151
CALIBRATION CHECK	PRE-TEST		dBa SPL	POST-TEST		dBa SPL	WINDSCREEN	YES	
SETTINGS	<u>A-WTD</u>	<u>SLOW</u>	FAST	FRONTAL	RANDOM	ANSI	OTHER:		
REC. #	6-7	BEGIN	11:04	END	11:24	L _{eq}	68.2	L _{max}	91.4
						L _{min}	54.1	L ₉₀	
						L ₅₀		L ₁₀	
						OTHER (SPECIFY METRIC)			
COMMENTS									
READING TAKEN IN FRONT OF 7943 VICTORIA AVE (VACANT LOT), NEXT TO 7933 VICTORIA AVE (RESIDENTIAL) JUST NORTH; PRIMARY NOISE SOURCE IS TRAFFIC ON VICTORIA AVE; SECONDARY IS TRAFFIC ON 5TH ST TO THE SOUTH;									

SOURCE INFO AND TRAFFIC COUNTS												
PRIMARY NOISE SOURCE					TRAFFIC	AIRCRAFT	RAIL	INDUSTRIAL	OTHER:			
ROADWAY TYPE:					ASPHALT				APX 40' TO CLK ON VICTORIA AVE			
TRAFFIC COUNT DURATION: 15 MIN					SPEED							
COUNT 1 (OR ROW 1)	DIRECTION	NB/EB	SB/WB	NB/EB	SB/WB	IF COUNTING BOTH DIRECTIONS AS ONE, CHECK HERE	COUNT 2 (OR ROW 2)	DIRECTION	NB/EB	SB/WB	NB/EB	SB/WB
	AUTOS	96										
	MID TRKS	1										
	HVY TRKS	2										
	BUSES	0										
	MOTOCLS	1										
SPEEDS ESTIMATED BY: RADAR / DRIVING THE PACE												
POSTED SPEED LIMIT SIGNS SAY:												
OTHER NOISE SOURCES (BACKGROUND):												
DIST. AIRCRAFT RUSTLING LEAVES DIST. BARKING DOGS BIRDS DIST. INDUSTRIAL												
DIST. KIDS PLAYING DIST. CONVERSING / YELLING DIST. TRAFFIC (LIST ROWS BELOW) DIST. GARDENERS / LANDSCAPING NOISE												
OTHER:												

DESCRIPTION / SKETCH									
TERRAIN	HARD	SOFT	MIXED	FLAT	OTHER:				
PHOTOS	0509; 0510; 0511; 0512;								
OTHER COMMENTS / SKETCH									
									

DUDEK

PROJECT	6TH & HIGHLAND WAREHOUSE		PROJECT #	15228
SITE ID			OBSERVER(S)	PETE VITAR
SITE ADDRESS				
START DATE	4/27/21	END DATE	4/27/21	
START TIME		END TIME		

METEOROLOGICAL CONDITIONS

TEMP 59 F HUMIDITY 49 % R.H. WIND CALM (LIGHT) MODERATE
WINDSPD 4 MPH DIR. N NE S SE S SW W NW VARIABLE STEADY GUSTY
SKY SUNNY CLEAR OVRCAST (PRTLY CLDY) FOG RAIN

ACOUSTIC MEASUREMENTS

MEAS. INSTRUMENT PICCOLO SLM-P3 TYPE 1 2 SERIAL# 140317004
CALIBRATOR BSWA CA 114 SERIAL# 440161
CALIBRATION CHECK PRE-TEST dBA SPL POST-TEST dBA SPL WINDSCREEN YES

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

REC. #	BEGIN	END	Leq	Lmax	Lmin	L90	L50	L10	OTHER (SPECIFY METRIC)
<u>8-9</u>	<u>11:37</u>	<u>11:52</u>	<u>69.0</u>	<u>88.3</u>	<u>54.2</u>				

COMMENTS

READING TAKEN IN FRONT OF 7770 VICTORIA AVE (RESIDENTIAL); PRIMARY NOISE SOURCE IS TRAFFIC ON VICTORIA AVE. SOME NOISE AUDIBLE DURING B IN TRAFFIC FROM REGENERATION UNITS ACROSS STREET AT "FAR WEST MEATS".

SOURCE INFO AND TRAFFIC COUNTS

PRIMARY NOISE SOURCE: TRAFFIC AIRCRAFT RAIL INDUSTRIAL OTHER: _____

ROADWAY TYPE: ASPHALT DIST. TO RDWY C/L OR EOP: APX 40' TO DOWN VICTIM'S

TRAFFIC COUNT DURATION: 15 MIN SPEED _____

COUNT 1 (OR RDWY 1)

DIRECTION	NB/EB	SB/WB	NB/EB	SB/WB
AUTOS	109			
MED TRKS	1			
HVY TRKS	4			
BUSES	1			
MOTOCLS	0			

IF COUNTING BOTH DIRECTIONS AS ONE, CHECK HERE ☒

COUNT 2 (OR RDWY 2)

DIRECTION	NB/EB	SB/WB	NB/EB	SB/WB
AUTOS				
MED TRKS				
HVY TRKS				
BUSES				
MOTOCLS				

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

OTHER: OCCASIONAL ROOSTER CROWING

[illegible]

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 6/22/2021
Case Description: 6th & Victoria - Demolition

		---- Receptor #1 ----					
		Baselines (dBA)					
Description	Land Use	Daytime	Evening	Night			
Nearest resi - 1-hour avg	Residential	65	60	55			
		Equipment					
		Impact	Spec	Actual	Receptor	Estimated	
Description		Device	Usage(%)	Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)
Excavator		No	40		80.7	30	0
Excavator		No	40		80.7	60	0
Excavator		No	40		80.7	80	0
Dozer		No	40		81.7	50	0
Dozer		No	40		81.7	80	0
Concrete Saw		No	20		89.6	60	0

		Results					
		Calculated (dBA)			Noise Limits (dBA)		
				Day	Evening		
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq
Excavator		85.1	81.2	N/A	N/A	N/A	N/A
Excavator		79.1	75.1	N/A	N/A	N/A	N/A
Excavator		76.6	72.6	N/A	N/A	N/A	N/A
Dozer		81.7	77.7	N/A	N/A	N/A	N/A
Dozer		77.6	73.6	N/A	N/A	N/A	N/A
Concrete Saw		88	81	N/A	N/A	N/A	N/A
	Total	88	85.9	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

		--- Receptor #2 ---					
		Baselines (dBA)					
Description	Land Use	Daytime	Evening	Night			
2nd-nearest - 1-hour avg	Residential	65	60	55			
		Equipment					
		Impact	Spec	Actual	Receptor	Estimated	
Description		Device	Usage(%)	Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)
Excavator		No	40		80.7	50	0
Excavator		No	40		80.7	80	0
Excavator		No	40		80.7	110	0
Dozer		No	40		81.7	60	0
Dozer		No	40		81.7	90	0
Concrete Saw		No	20		89.6	60	0

		Results					
		Calculated (dBA)			Noise Limits (dBA)		
				Day	Evening		
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq

Excavator	80.7	76.7	N/A	N/A	N/A	N/A
Excavator	76.6	72.6	N/A	N/A	N/A	N/A
Excavator	73.9	69.9	N/A	N/A	N/A	N/A
Dozer	80.1	76.1	N/A	N/A	N/A	N/A
Dozer	76.6	72.6	N/A	N/A	N/A	N/A
Concrete Saw	88	81	N/A	N/A	N/A	N/A
Total	88	84.2	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

--- Receptor #3 ---

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
3rd-nearest - 1-hour avg	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment		Receptor Distance (feet)	Estimated Shielding (dBA)
			Spec Lmax (dBA)	Actual Lmax (dBA)		
Excavator	No	40		80.7	150	0
Excavator	No	40		80.7	180	0
Excavator	No	40		80.7	210	0
Dozer	No	40		81.7	170	0
Dozer	No	40		81.7	200	0
Concrete Saw	No	20		89.6	160	0

Results

Equipment	Calculated (dBA)		Noise Limits (dBA)			
	*Lmax	Leq	Day Lmax	Day Leq	Evening Lmax	Evening Leq
Excavator	71.2	67.2	N/A	N/A	N/A	N/A
Excavator	69.6	65.6	N/A	N/A	N/A	N/A
Excavator	68.2	64.3	N/A	N/A	N/A	N/A
Dozer	71	67.1	N/A	N/A	N/A	N/A
Dozer	69.6	65.6	N/A	N/A	N/A	N/A
Concrete Saw	79.5	72.5	N/A	N/A	N/A	N/A
Total	79.5	75.8	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

--- Receptor #4 ---

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Nearest resi - 8-hour avg	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment		Receptor Distance (feet)	Estimated Shielding (dBA)
			Spec Lmax (dBA)	Actual Lmax (dBA)		
Excavator	No	40		80.7	60	0
Excavator	No	40		80.7	120	0
Excavator	No	40		80.7	160	0
Dozer	No	40		81.7	100	0
Dozer	No	40		81.7	160	0
Concrete Saw	No	20		89.6	120	0

Results

Calculated (dBA)	Noise Limits (dBA)
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Equipment	*Lmax	Leq	Day		Evening	
			Lmax	Leq	Lmax	Leq
Excavator	79.1		75.1	N/A	N/A	N/A
Excavator	73.1		69.1	N/A	N/A	N/A
Excavator	70.6		66.6	N/A	N/A	N/A
Dozer	75.6		71.7	N/A	N/A	N/A
Dozer	71.6		67.6	N/A	N/A	N/A
Concrete Saw	82		75	N/A	N/A	N/A
Total			82	79.9	N/A	N/A

*Calculated Lmax is the Loudest value.

--- Receptor #5 ---

Baselines (dBA)	
Description	Land Use
2nd-nearest - 8-hour avg	Residential
	Daytime Evening Night
	65 60 55

Description	Impact	Device	Equipment		Receptor Distance (feet)	Estimated Shielding (dBA)
			Spec Lmax (dBA)	Actual Lmax (dBA)		
Excavator	No		40	80.7	100	0
Excavator	No		40	80.7	160	0
Excavator	No		40	80.7	220	0
Dozer	No		40	81.7	120	0
Dozer	No		40	81.7	180	0
Concrete Saw	No		20	89.6	120	0

Results

Calculated (dBA)			Noise Limits (dBA)			
Equipment	*Lmax	Leq	Day		Evening	
			Lmax	Leq	Lmax	Leq
Excavator	74.7		70.7	N/A	N/A	N/A
Excavator	70.6		66.6	N/A	N/A	N/A
Excavator	67.8		63.9	N/A	N/A	N/A
Dozer	74.1		70.1	N/A	N/A	N/A
Dozer	70.5		66.6	N/A	N/A	N/A
Concrete Saw	82		75	N/A	N/A	N/A
Total			82	78.1	N/A	N/A

*Calculated Lmax is the Loudest value.

--- Receptor #6 ---

Baselines (dBA)	
Description	Land Use
3rd-nearest - 8-hour avg	Residential
	Daytime Evening Night
	65 60 55

Description	Impact	Device	Equipment		Receptor Distance (feet)	Estimated Shielding (dBA)
			Spec Lmax (dBA)	Actual Lmax (dBA)		
Excavator	No		40	80.7	300	0
Excavator	No		40	80.7	360	0
Excavator	No		40	80.7	420	0
Dozer	No		40	81.7	340	0
Dozer	No		40	81.7	400	0
Concrete Saw	No		20	89.6	320	0

		Results					
		Calculated (dBA)		Noise Limits (dBA)			
				Day		Evening	
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq
Excavator		65.1		61.2 N/A	N/A	N/A	N/A
Excavator		63.6		59.6 N/A	N/A	N/A	N/A
Excavator		62.2		58.2 N/A	N/A	N/A	N/A
Dozer		65		61 N/A	N/A	N/A	N/A
Dozer		63.6		59.6 N/A	N/A	N/A	N/A
Concrete Saw		73.5		66.5 N/A	N/A	N/A	N/A
	Total	73.5		69.8 N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

		---- Receptor #7 ----		
		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Nearest resi - acoustic center	Residential	65	60	55

		Equipment				
		Spec	Actual	Receptor	Estimated	
Impact		Lmax	Lmax	Distance	Shielding	
Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)	
Excavator	No	40	80.7	400		0
Excavator	No	40	80.7	400		0
Excavator	No	40	80.7	400		0
Dozer	No	40	81.7	400		0
Dozer	No	40	81.7	400		0
Concrete Saw	No	20	89.6	400		0

		Results					
		Calculated (dBA)		Noise Limits (dBA)			
				Day		Evening	
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq
Excavator		62.6		58.7 N/A	N/A	N/A	N/A
Excavator		62.6		58.7 N/A	N/A	N/A	N/A
Excavator		62.6		58.7 N/A	N/A	N/A	N/A
Dozer		63.6		59.6 N/A	N/A	N/A	N/A
Dozer		63.6		59.6 N/A	N/A	N/A	N/A
Concrete Saw		71.5		64.5 N/A	N/A	N/A	N/A
	Total	71.5		68.4 N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

		---- Receptor #8 ----		
		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
2nd-nearest - acoustic center	Residential	65	60	55

		Equipment				
		Spec	Actual	Receptor	Estimated	
Impact		Lmax	Lmax	Distance	Shielding	
Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)	
Excavator	No	40	80.7	450		0
Excavator	No	40	80.7	450		0
Excavator	No	40	80.7	450		0
Dozer	No	40	81.7	450		0
Dozer	No	40	81.7	450		0

Concrete Saw	No	20	89.6	450	0
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		Results					
		Calculated (dBA)		Noise Limits (dBA)			
				Day		Evening	
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq
Excavator		61.6		57.6	N/A	N/A	N/A
Excavator		61.6		57.6	N/A	N/A	N/A
Excavator		61.6		57.6	N/A	N/A	N/A
Dozer		62.6		58.6	N/A	N/A	N/A
Dozer		62.6		58.6	N/A	N/A	N/A
Concrete Saw		70.5		63.5	N/A	N/A	N/A
	Total	70.5		67.4	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

--- Receptor #9 ---

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
3rd-nearest - acoustic center	Residential	65	60	55

		Equipment				
		Impact	Spec	Actual	Receptor	Estimated
Description		Device	Usage(%)	Lmax (dBA)	Distance (feet)	Shielding (dBA)
Excavator		No	40	80.7	620	0
Excavator		No	40	80.7	620	0
Excavator		No	40	80.7	620	0
Dozer		No	40	81.7	620	0
Dozer		No	40	81.7	620	0
Concrete Saw		No	20	89.6	620	0

		Results					
		Calculated (dBA)		Noise Limits (dBA)			
				Day		Evening	
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq
Excavator		58.8		54.9	N/A	N/A	N/A
Excavator		58.8		54.9	N/A	N/A	N/A
Excavator		58.8		54.9	N/A	N/A	N/A
Dozer		59.8		55.8	N/A	N/A	N/A
Dozer		59.8		55.8	N/A	N/A	N/A
Concrete Saw		67.7		60.7	N/A	N/A	N/A
	Total	67.7		64.6	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 6/22/2021
Case Description: 6th & Victoria - Site Preparation

--- Receptor #1 ---

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Nearest resi - 1-hour avg	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment		Receptor Distance (feet)	Estimated Shielding (dBA)	
			Spec	Actual			
			Lmax (dBA)	Lmax (dBA)			
Dozer	No	40		81.7	30		0
Dozer	No	40		81.7	60		0
Dozer	No	40		81.7	85		0
Front End Loader	No	40		79.1	50		0
Backhoe	No	40		77.6	90		0
Tractor	No	40	84		120		0
Front End Loader	No	40		79.1	50		0

Equipment	Results					
	Calculated (dBA)			Noise Limits (dBA)		
			Day			Evening
	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Dozer	86.1	82.1	N/A	N/A	N/A	N/A
Dozer	80.1	76.1	N/A	N/A	N/A	N/A
Dozer	77.1	73.1	N/A	N/A	N/A	N/A
Front End Loader	79.1	75.1	N/A	N/A	N/A	N/A
Backhoe	72.5	68.5	N/A	N/A	N/A	N/A
Tractor	76.4	72.4	N/A	N/A	N/A	N/A
Front End Loader	79.1	75.1	N/A	N/A	N/A	N/A
Total	86.1	85	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
2nd-nearest - 1-hour avg	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment		Receptor Distance (feet)	Estimated Shielding (dBA)	
			Spec	Actual			
			Lmax (dBA)	Lmax (dBA)			
Dozer	No	40		81.7	50		0
Dozer	No	40		81.7	80		0
Dozer	No	40		81.7	110		0
Front End Loader	No	40		79.1	60		0
Backhoe	No	40		77.6	90		0
Tractor	No	40	84		110		0
Front End Loader	No	40		79.1	75		0

Equipment	Results					
	Calculated (dBA)			Noise Limits (dBA)		
			Day			Evening
	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Dozer	81.7	77.7	N/A	N/A	N/A	N/A
Dozer	77.6	73.6	N/A	N/A	N/A	N/A
Dozer	74.8	70.8	N/A	N/A	N/A	N/A
Front End Loader	77.5	73.5	N/A	N/A	N/A	N/A
Backhoe	72.5	68.5	N/A	N/A	N/A	N/A
Tractor	77.2	73.2	N/A	N/A	N/A	N/A
Front End Loader	75.6	71.6	N/A	N/A	N/A	N/A
Total	81.7	82	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

		Baselines (dBA)			---- Receptor #3 ----		
Description	Land Use	Daytime	Evening	Night			
3rd-nearest - 1-hour avg	Residential	65	60	55			
		Equipment					
		Impact		Spec	Actual	Receptor	Estimated
		Device	Usage(%)	Lmax	Lmax	Distance	Shielding
				(dBA)	(dBA)	(feet)	(dBA)
Dozer		No	40		81.7	150	0
Dozer		No	40		81.7	180	0
Dozer		No	40		81.7	210	0
Front End Loader		No	40		79.1	170	0
Backhoe		No	40		77.6	200	0
Tractor		No	40	84		220	0
Front End Loader		No	40		79.1	180	0
		Results					
		Calculated (dBA)			Noise Limits (dBA)		
				Day		Evening	
		*Lmax	Leq	Lmax	Leq	Lmax	Leq
Dozer		72.1	68.1	N/A	N/A	N/A	N/A
Dozer		70.5	66.6	N/A	N/A	N/A	N/A
Dozer		69.2	65.2	N/A	N/A	N/A	N/A
Front End Loader		68.5	64.5	N/A	N/A	N/A	N/A
Backhoe		65.5	61.5	N/A	N/A	N/A	N/A
Tractor		71.1	67.2	N/A	N/A	N/A	N/A
Front End Loader		68	64	N/A	N/A	N/A	N/A
	Total	72.1	74.2	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

		Baselines (dBA)			---- Receptor #4 ----		
Description	Land Use	Daytime	Evening	Night			
Nearest resi - 8-hour avg	Residential	65	60	55			
		Equipment					
		Impact	Spec	Actual	Receptor	Estimated	
Description		Device	Usage(%)	Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)
Dozer		No	40		81.7	60	0
Dozer		No	40		81.7	120	0
Dozer		No	40		81.7	170	0
Front End Loader		No	40		79.1	100	0
Backhoe		No	40		77.6	180	0
Tractor		No	40	84		240	0
Front End Loader		No	40		79.1	100	0
		Results					
		Calculated (dBA)			Noise Limits (dBA)		
					Day		Evening
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq
Dozer		80.1	76.1	N/A	N/A	N/A	N/A
Dozer		74.1	70.1	N/A	N/A	N/A	N/A

Dozer	71	67.1	N/A	N/A	N/A	N/A
Front End Loader	73.1	69.1	N/A	N/A	N/A	N/A
Backhoe	66.4	62.5	N/A	N/A	N/A	N/A
Tractor	70.4	66.4	N/A	N/A	N/A	N/A
Front End Loader	73.1	69.1	N/A	N/A	N/A	N/A
Total	80.1	78.9	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

--- Receptor #5 ---

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
2nd-nearest - 8-hour avg	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment		Receptor Distance (feet)	Estimated Shielding (dBA)
			Spec Lmax (dBA)	Actual Lmax (dBA)		
Dozer	No	40		81.7	100	0
Dozer	No	40		81.7	160	0
Dozer	No	40		81.7	220	0
Front End Loader	No	40		79.1	120	0
Backhoe	No	40		77.6	180	0
Tractor	No	40	84		220	0
Front End Loader	No	40		79.1	150	0

Results

Equipment	Calculated (dBA)		Noise Limits (dBA)			
	*Lmax	Leq	Day Lmax	Day Leq	Evening Lmax	Evening Leq
Dozer	75.6	71.7	N/A	N/A	N/A	N/A
Dozer	71.6	67.6	N/A	N/A	N/A	N/A
Dozer	68.8	64.8	N/A	N/A	N/A	N/A
Front End Loader	71.5	67.5	N/A	N/A	N/A	N/A
Backhoe	66.4	62.5	N/A	N/A	N/A	N/A
Tractor	71.1	67.2	N/A	N/A	N/A	N/A
Front End Loader	69.6	65.6	N/A	N/A	N/A	N/A
Total	75.6	76	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

--- Receptor #6 ---

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
3rd-nearest - 8-hour avg	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment		Receptor Distance (feet)	Estimated Shielding (dBA)
			Spec Lmax (dBA)	Actual Lmax (dBA)		
Dozer	No	40		81.7	300	0
Dozer	No	40		81.7	360	0
Dozer	No	40		81.7	420	0
Front End Loader	No	40		79.1	340	0
Backhoe	No	40		77.6	400	0
Tractor	No	40	84		440	0
Front End Loader	No	40		79.1	360	0

		Results					
		Calculated (dBA)		Noise Limits (dBA)			
				Day		Evening	
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq
Dozer		66.1		62.1	N/A	N/A	N/A
Dozer		64.5		60.5	N/A	N/A	N/A
Dozer		63.2		59.2	N/A	N/A	N/A
Front End Loader		62.5		58.5	N/A	N/A	N/A
Backhoe		59.5		55.5	N/A	N/A	N/A
Tractor		65.1		61.1	N/A	N/A	N/A
Front End Loader		62		58	N/A	N/A	N/A
	Total	66.1		68.2	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #7 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Nearest resi - acoustic center	Residential	65	60	55

		Equipment				
		Spec	Actual	Receptor	Estimated	
Impact		Lmax	Lmax	Distance	Shielding	
Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)	
Dozer	No	40	81.7	400		0
Dozer	No	40	81.7	400		0
Dozer	No	40	81.7	400		0
Front End Loader	No	40	79.1	400		0
Backhoe	No	40	77.6	400		0
Tractor	No	40	84	400		0
Front End Loader	No	40	79.1	400		0

		Results					
		Calculated (dBA)		Noise Limits (dBA)			
				Day		Evening	
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq
Dozer		63.6		59.6	N/A	N/A	N/A
Dozer		63.6		59.6	N/A	N/A	N/A
Dozer		63.6		59.6	N/A	N/A	N/A
Front End Loader		61		57.1	N/A	N/A	N/A
Backhoe		59.5		55.5	N/A	N/A	N/A
Tractor		65.9		62	N/A	N/A	N/A
Front End Loader		61		57.1	N/A	N/A	N/A
	Total	65.9		67.6	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #8 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
2nd-nearest - acoustic center	Residential	65	60	55

		Equipment				
		Spec	Actual	Receptor	Estimated	
Impact		Lmax	Lmax	Distance	Shielding	
Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)	
Dozer	No	40	81.7	450		0
Dozer	No	40	81.7	450		0

Dozer	No	40	81.7	450	0
Front End Loader	No	40	79.1	450	0
Backhoe	No	40	77.6	450	0
Tractor	No	40	84	450	0
Front End Loader	No	40	79.1	450	0

		Results					
		Calculated (dBA)		Noise Limits (dBA)			
				Day		Evening	
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq
Dozer		62.6		58.6	N/A	N/A	N/A
Dozer		62.6		58.6	N/A	N/A	N/A
Dozer		62.6		58.6	N/A	N/A	N/A
Front End Loader		60		56	N/A	N/A	N/A
Backhoe		58.5		54.5	N/A	N/A	N/A
Tractor		64.9		60.9	N/A	N/A	N/A
Front End Loader		60		56	N/A	N/A	N/A
	Total	64.9		66.5	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

		---- Receptor #9 ----		
		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
3rd-nearest - acoustic center	Residential	65	60	55

		Equipment				
		Spec	Actual	Receptor	Estimated	
Impact		Lmax	Lmax	Distance	Shielding	
Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)	
Dozer	No	40	81.7	620		0
Dozer	No	40	81.7	620		0
Dozer	No	40	81.7	620		0
Front End Loader	No	40	79.1	620		0
Backhoe	No	40	77.6	620		0
Tractor	No	40	84	620		0
Front End Loader	No	40	79.1	620		0

		Results					
		Calculated (dBA)		Noise Limits (dBA)			
				Day		Evening	
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq
Dozer		59.8		55.8	N/A	N/A	N/A
Dozer		59.8		55.8	N/A	N/A	N/A
Dozer		59.8		55.8	N/A	N/A	N/A
Front End Loader		57.2		53.3	N/A	N/A	N/A
Backhoe		55.7		51.7	N/A	N/A	N/A
Tractor		62.1		58.2	N/A	N/A	N/A
Front End Loader		57.2		53.3	N/A	N/A	N/A
	Total	62.1		63.8	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Report date:

6/22/2021

Case Description:

6th & Victoria - Building Construction

--- Receptor #1 ---

Description	Land Use	Baselines (dBA)					
		Daytime	Evening	Night			
Nearest resi - 1-hour avg	Residential	65	60	55			
Description	Land Use	Impact Device	Usage(%)	Equipment		Receptor Distance (feet)	Estimated Shielding (dBA)
				Spec Lmax (dBA)	Actual Lmax (dBA)		
Man Lift		No	20		74.7	50	0
Man Lift		No	20		74.7	80	0
Man Lift		No	20		74.7	70	0
Crane		No	16		80.6	100	0
Generator		No	50		80.6	80	0
Backhoe		No	40		77.6	120	0
Front End Loader		No	40		79.1	60	0
Tractor		No	40	84		120	0
Welder / Torch		No	40		74	80	0

Results

Equipment	Calculated (dBA)		Noise Limits (dBA)			
	*Lmax	Leq	Day		Evening	
			Lmax	Leq	Lmax	Leq
Man Lift	74.7	67.7	N/A	N/A	N/A	N/A
Man Lift	70.6	63.6	N/A	N/A	N/A	N/A
Man Lift	71.8	64.8	N/A	N/A	N/A	N/A
Crane	74.5	66.6	N/A	N/A	N/A	N/A
Generator	76.5	73.5	N/A	N/A	N/A	N/A
Backhoe	70	66	N/A	N/A	N/A	N/A
Front End Loader	77.5	73.5	N/A	N/A	N/A	N/A
Tractor	76.4	72.4	N/A	N/A	N/A	N/A
Welder / Torch	69.9	65.9	N/A	N/A	N/A	N/A
Total	77.5	79.4	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

--- Receptor #2 ---

Description	Land Use	Baselines (dBA)					
		Daytime	Evening	Night			
2nd-nearest - 1-hour avg	Residential	65	60	55			
Description	Land Use	Impact Device	Usage(%)	Equipment		Receptor Distance (feet)	Estimated Shielding (dBA)
				Spec Lmax (dBA)	Actual Lmax (dBA)		
Man Lift		No	20		74.7	80	0
Man Lift		No	20		74.7	120	0
Man Lift		No	20		74.7	100	0
Crane		No	16		80.6	130	0
Generator		No	50		80.6	95	0
Backhoe		No	40		77.6	120	0
Front End Loader		No	40		79.1	130	0
Tractor		No	40	84		110	0

Welder / Torch	No	40	74	95	0
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Equipment	Results					
	Calculated (dBA)			Noise Limits (dBA)		
			Day	Evening		
	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Man Lift	70.6		63.6 N/A	N/A	N/A	N/A
Man Lift	67.1		60.1 N/A	N/A	N/A	N/A
Man Lift	68.7		61.7 N/A	N/A	N/A	N/A
Crane	72.3		64.3 N/A	N/A	N/A	N/A
Generator	75.1		72 N/A	N/A	N/A	N/A
Backhoe	70		66 N/A	N/A	N/A	N/A
Front End Loader	70.8		66.8 N/A	N/A	N/A	N/A
Tractor	77.2		73.2 N/A	N/A	N/A	N/A
Welder / Torch	68.4		64.4 N/A	N/A	N/A	N/A
Total	77.2	77.5	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

--- Receptor #3 ---

Baselines (dBA)				
Description	Land Use	Daytime	Evening	Night
3rd-nearest - 1-hour avg	Residential	65	60	55

Description	Device	Equipment				
		Usage(%)	Spec	Actual	Receptor	Estimated
			Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)
Man Lift	No	20		74.7	150	0
Man Lift	No	20		74.7	180	0
Man Lift	No	20		74.7	170	0
Crane	No	16		80.6	190	0
Generator	No	50		80.6	175	0
Backhoe	No	40		77.6	200	0
Front End Loader	No	40		79.1	210	0
Tractor	No	40	84		160	0
Welder / Torch	No	40		74	175	0

Equipment	Results					
	Calculated (dBA)			Noise Limits (dBA)		
			Day	Evening		
	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Man Lift	65.2		58.2 N/A	N/A	N/A	N/A
Man Lift	63.6		56.6 N/A	N/A	N/A	N/A
Man Lift	64.1		57.1 N/A	N/A	N/A	N/A
Crane	69		61 N/A	N/A	N/A	N/A
Generator	69.7		66.7 N/A	N/A	N/A	N/A
Backhoe	65.5		61.5 N/A	N/A	N/A	N/A
Front End Loader	66.6		62.7 N/A	N/A	N/A	N/A
Tractor	73.9		69.9 N/A	N/A	N/A	N/A
Welder / Torch	63.1		59.1 N/A	N/A	N/A	N/A
Total	73.9	73.3	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

--- Receptor #4 ---

Baselines (dBA)				
Description	Land Use	Daytime	Evening	Night

Nearest resi - 8-hour avg

Residential

65

60

55

Description	Impact Device	Usage(%)	Equipment			
			Spec	Actual	Receptor	Estimated
			Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)
Man Lift	No	20		74.7	100	0
Man Lift	No	20		74.7	160	0
Man Lift	No	20		74.7	140	0
Crane	No	16		80.6	200	0
Generator	No	50		80.6	160	0
Backhoe	No	40		77.6	240	0
Front End Loader	No	40		79.1	120	0
Tractor	No	40	84		240	0
Welder / Torch	No	40		74	160	0

Equipment	Results					
	Calculated (dBA)			Noise Limits (dBA)		
	*Lmax	Leq	Day	Leq	Evening	
			Lmax		Lmax	Leq
Man Lift	68.7	61.7	N/A	N/A	N/A	N/A
Man Lift	64.6	57.6	N/A	N/A	N/A	N/A
Man Lift	65.8	58.8	N/A	N/A	N/A	N/A
Crane	68.5	60.6	N/A	N/A	N/A	N/A
Generator	70.5	67.5	N/A	N/A	N/A	N/A
Backhoe	63.9	60	N/A	N/A	N/A	N/A
Front End Loader	71.5	67.5	N/A	N/A	N/A	N/A
Tractor	70.4	66.4	N/A	N/A	N/A	N/A
Welder / Torch	63.9	59.9	N/A	N/A	N/A	N/A
Total	71.5	73.3	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #5 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
		65	60	55
2nd-nearest - 8-hour avg	Residential			

Description	Impact Device	Usage(%)	Equipment			
			Spec	Actual	Receptor	Estimated
			Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)
Man Lift	No	20		74.7	260	0
Man Lift	No	20		74.7	240	0
Man Lift	No	20		74.7	200	0
Crane	No	16		80.6	260	0
Generator	No	50		80.6	180	0
Backhoe	No	40		77.6	240	0
Front End Loader	No	40		79.1	260	0
Tractor	No	40	84		220	0
Welder / Torch	No	40		74	180	0

Equipment	Results					
	Calculated (dBA)			Noise Limits (dBA)		
	*Lmax	Leq	Day	Leq	Evening	
			Lmax		Lmax	Leq
Man Lift	60.4	53.4	N/A	N/A	N/A	N/A

Man Lift	61.1	54.1	N/A	N/A	N/A	N/A
Man Lift	62.7	55.7	N/A	N/A	N/A	N/A
Crane	66.2	58.3	N/A	N/A	N/A	N/A
Generator	69.5	66.5	N/A	N/A	N/A	N/A
Backhoe	63.9	60	N/A	N/A	N/A	N/A
Front End Loader	64.8	60.8	N/A	N/A	N/A	N/A
Tractor	71.1	67.2	N/A	N/A	N/A	N/A
Welder / Torch	62.9	58.9	N/A	N/A	N/A	N/A
Total	71.1	71.5	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

--- Receptor #6 ---

Baselines (dBA)				
Description	Land Use	Daytime	Evening	Night
3rd-nearest - 8-hour avg	Residential	65	60	55

		Equipment			
		Spec	Actual	Receptor	Estimated
Impact		Lmax	Lmax	Distance	Shielding
Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Man Lift	No	20	74.7	300	0
Man Lift	No	20	74.7	360	0
Man Lift	No	20	74.7	340	0
Crane	No	16	80.6	380	0
Generator	No	50	80.6	350	0
Backhoe	No	40	77.6	400	0
Front End Loader	No	40	79.1	420	0
Tractor	No	40	84	320	0
Welder / Torch	No	40	74	350	0

Results

Calculated (dBA)		Noise Limits (dBA)			
		Day		Evening	
*Lmax	Leq	Lmax	Leq	Lmax	Leq
Man Lift	59.1	52.1	N/A	N/A	N/A
Man Lift	57.6	50.6	N/A	N/A	N/A
Man Lift	58	51.1	N/A	N/A	N/A
Crane	62.9	55	N/A	N/A	N/A
Generator	63.7	60.7	N/A	N/A	N/A
Backhoe	59.5	55.5	N/A	N/A	N/A
Front End Loader	60.6	56.6	N/A	N/A	N/A
Tractor	67.9	63.9	N/A	N/A	N/A
Welder / Torch	57.1	53.1	N/A	N/A	N/A
Total	67.9	67.3	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

--- Receptor #7 ---

Baselines (dBA)				
Description	Land Use	Daytime	Evening	Night
Nearest resi - acoustic center	Residential	65	60	55

		Equipment			
		Spec	Actual	Receptor	Estimated
Impact		Lmax	Lmax	Distance	Shielding
Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Man Lift	No	20	74.7	400	0

Man Lift	No	20		74.7	400	0
Man Lift	No	20		74.7	400	0
Crane	No	16		80.6	400	0
Generator	No	50		80.6	400	0
Backhoe	No	40		77.6	400	0
Front End Loader	No	40		79.1	400	0
Tractor	No	40	84		400	0
Welder / Torch	No	40		74	400	0

		Results					
		Calculated (dBA)			Noise Limits (dBA)		
				Day	Evening		
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq
Man Lift		56.6	49.6	N/A	N/A	N/A	N/A
Man Lift		56.6	49.6	N/A	N/A	N/A	N/A
Man Lift		56.6	49.6	N/A	N/A	N/A	N/A
Crane		62.5	54.5	N/A	N/A	N/A	N/A
Generator		62.6	59.6	N/A	N/A	N/A	N/A
Backhoe		59.5	55.5	N/A	N/A	N/A	N/A
Front End Loader		61	57.1	N/A	N/A	N/A	N/A
Tractor		65.9	62	N/A	N/A	N/A	N/A
Welder / Torch		55.9	52	N/A	N/A	N/A	N/A
Total		65.9	66.1	N/A	N/A	N/A	N/A
*Calculated Lmax is the Loudest value.							

		---- Receptor #8 ----		
		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
2nd-nearest - acoustic center	Residential	65	60	55

		Equipment				
		Spec	Actual	Receptor	Estimated	
Impact		Lmax	Lmax	Distance	Shielding	
Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)	
Man Lift	No	20	74.7	450		0
Man Lift	No	20	74.7	450		0
Man Lift	No	20	74.7	450		0
Crane	No	16	80.6	450		0
Generator	No	50	80.6	450		0
Backhoe	No	40	77.6	450		0
Front End Loader	No	40	79.1	450		0
Tractor	No	40	84	450		0
Welder / Torch	No	40	74	450		0

		Results					
		Calculated (dBA)			Noise Limits (dBA)		
				Day	Evening		
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq
Man Lift		55.6	48.6	N/A	N/A	N/A	N/A
Man Lift		55.6	48.6	N/A	N/A	N/A	N/A
Man Lift		55.6	48.6	N/A	N/A	N/A	N/A
Crane		61.5	53.5	N/A	N/A	N/A	N/A
Generator		61.5	58.5	N/A	N/A	N/A	N/A
Backhoe		58.5	54.5	N/A	N/A	N/A	N/A
Front End Loader		60	56	N/A	N/A	N/A	N/A
Tractor		64.9	60.9	N/A	N/A	N/A	N/A

Welder / Torch		54.9	50.9	N/A	N/A	N/A	N/A
	Total	64.9	65.1	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

		--- Receptor #9 ---				
		Baselines (dBA)				
Description	Land Use	Daytime	Evening	Night		
3rd-nearest - acoustic center	Residential	65	60	55		
		Equipment				
		Impact	Spec	Actual	Receptor	Estimated
Description	Device	Usage(%)	Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)
Man Lift	No	20		74.7	620	
Man Lift	No	20		74.7	620	
Man Lift	No	20		74.7	620	
Crane	No	16		80.6	620	
Generator	No	50		80.6	620	
Backhoe	No	40		77.6	620	
Front End Loader	No	40		79.1	620	
Tractor	No	40	84		620	
Welder / Torch	No	40		74	620	

		Results					
		Calculated (dBA)		Noise Limits (dBA)			
				Day		Evening	
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq
Man Lift		52.8	45.8	N/A	N/A	N/A	N/A
Man Lift		52.8	45.8	N/A	N/A	N/A	N/A
Man Lift		52.8	45.8	N/A	N/A	N/A	N/A
Crane		58.7	50.7	N/A	N/A	N/A	N/A
Generator		58.8	55.8	N/A	N/A	N/A	N/A
Backhoe		55.7	51.7	N/A	N/A	N/A	N/A
Front End Loader		57.2	53.3	N/A	N/A	N/A	N/A
Tractor		62.1	58.2	N/A	N/A	N/A	N/A
Welder / Torch		52.1	48.2	N/A	N/A	N/A	N/A
	Total	62.1	62.3	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 6/22/2021
Case Description: 6th & Victoria - Paving

		--- Receptor #1 ---					
		Baselines (dBA)					
Description	Land Use	Daytime	Evening	Night			
Nearest resi - 1-hour avg	Residential	65	60	55			
		Equipment					
		Impact	Spec	Actual	Receptor	Estimated	
			Lmax	Lmax	Distance	Shielding	

Description	Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)	
Paver	No	50		77.2	30		0
Paver	No	50		77.2	60		0
Concrete Pump Truck	No	20		81.4	40		0
Concrete Mixer Truck	No	40		78.8	80		0
Roller	No	20		80	50		0
Roller	No	20		80	100		0

		Results					
		Calculated (dBA)		Noise Limits (dBA)			
				Day		Evening	
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq
Paver		81.7		78.6	N/A	N/A	N/A
Paver		75.6		72.6	N/A	N/A	N/A
Concrete Pump Truck		83.3		76.3	N/A	N/A	N/A
Concrete Mixer Truck		74.7		70.7	N/A	N/A	N/A
Roller		80		73	N/A	N/A	N/A
Roller		74		67	N/A	N/A	N/A
	Total	83.3		82.3	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

		--- Receptor #2 ---		
		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
2nd-nearest - 1-hour avg	Residential	65	60	55

		Equipment				
				Spec	Actual	Receptor
				Lmax	Lmax	Distance
		Impact	Usage(%)	(dBA)	(dBA)	(feet)
Description	Device					Shielding
Paver	No		50		77.2	50
Paver	No		50		77.2	80
Concrete Pump Truck	No		20		81.4	60
Concrete Mixer Truck	No		40		78.8	100
Roller	No		20		80	75
Roller	No		20		80	100

		Results					
		Calculated (dBA)		Noise Limits (dBA)			
				Day		Evening	
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq
Paver		77.2		74.2	N/A	N/A	N/A
Paver		73.1		70.1	N/A	N/A	N/A
Concrete Pump Truck		79.8		72.8	N/A	N/A	N/A
Concrete Mixer Truck		72.8		68.8	N/A	N/A	N/A
Roller		76.5		69.5	N/A	N/A	N/A
Roller		74		67	N/A	N/A	N/A
	Total	79.8		78.9	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

		--- Receptor #3 ---		
		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
3rd-nearest - 1-hour avg	Residential	65	60	55

Equipment

Description	Impact Device	Usage(%)	Spec	Actual	Receptor	Estimated
			Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)
Paver	No	50		77.2	150	0
Paver	No	50		77.2	180	0
Concrete Pump Truck	No	20		81.4	170	0
Concrete Mixer Truck	No	40		78.8	190	0
Roller	No	20		80	175	0
Roller	No	20		80	200	0

Results						
Calculated (dBA)			Noise Limits (dBA)			
Equipment	*Lmax	Leq	Day		Evening	
			Lmax	Leq	Lmax	Leq
Paver	67.7	64.7	N/A	N/A	N/A	N/A
Paver	66.1	63.1	N/A	N/A	N/A	N/A
Concrete Pump Truck	70.8	63.8	N/A	N/A	N/A	N/A
Concrete Mixer Truck	67.2	63.2	N/A	N/A	N/A	N/A
Roller	69.1	62.1	N/A	N/A	N/A	N/A
Roller	68	61	N/A	N/A	N/A	N/A
Total	70.8	70.9	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #4 ----

Baselines (dBA)				
Description	Land Use	Daytime	Evening	Night
Nearest resi - 8-hour avg	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment	Actual	Receptor	Estimated
			Spec Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)
Paver	No	50		77.2	60	0
Paver	No	50		77.2	120	0
Concrete Pump Truck	No	20		81.4	80	0
Concrete Mixer Truck	No	40		78.8	160	0
Roller	No	20		80	100	0
Roller	No	20		80	200	0

Results						
Calculated (dBA)			Noise Limits (dBA)			
Equipment	*Lmax	Leq	Day		Evening	
			Lmax	Leq	Lmax	Leq
Paver	75.6	72.6	N/A	N/A	N/A	N/A
Paver	69.6	66.6	N/A	N/A	N/A	N/A
Concrete Pump Truck	77.3	70.3	N/A	N/A	N/A	N/A
Concrete Mixer Truck	68.7	64.7	N/A	N/A	N/A	N/A
Roller	74	67	N/A	N/A	N/A	N/A
Roller	68	61	N/A	N/A	N/A	N/A
Total	77.3	76.3	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #5 ----

Baselines (dBA)				
Description	Land Use	Daytime	Evening	Night
2nd-nearest - 8-hour avg	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment		Receptor Distance (feet)	Estimated Shielding (dBA)
			Spec	Actual		
			Lmax (dBA)	Lmax (dBA)		
Paver	No	50		77.2	100	0
Paver	No	50		77.2	160	0
Concrete Pump Truck	No	20		81.4	120	0
Concrete Mixer Truck	No	40		78.8	200	0
Roller	No	20		80	150	0
Roller	No	20		80	200	0

Equipment	Results					
	Calculated (dBA)			Noise Limits (dBA)		
	*Lmax	Leq	Day	Leq	Evening	Leq
			Lmax		Lmax	
Paver	71.2	68.2	N/A	N/A	N/A	N/A
Paver	67.1	64.1	N/A	N/A	N/A	N/A
Concrete Pump Truck	73.8	66.8	N/A	N/A	N/A	N/A
Concrete Mixer Truck	66.8	62.8	N/A	N/A	N/A	N/A
Roller	70.5	63.5	N/A	N/A	N/A	N/A
Roller	68	61	N/A	N/A	N/A	N/A
Total	73.8	72.9	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

--- Receptor #6 ---

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
3rd-nearest - 8-hour avg	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment		Receptor Distance (feet)	Estimated Shielding (dBA)
			Spec	Actual		
			Lmax (dBA)	Lmax (dBA)		
Paver	No	50		77.2	300	0
Paver	No	50		77.2	360	0
Concrete Pump Truck	No	20		81.4	340	0
Concrete Mixer Truck	No	40		78.8	380	0
Roller	No	20		80	350	0
Roller	No	20		80	400	0

Equipment	Results					
	Calculated (dBA)			Noise Limits (dBA)		
	*Lmax	Leq	Day	Leq	Evening	Leq
			Lmax		Lmax	
Paver	61.7	58.6	N/A	N/A	N/A	N/A
Paver	60.1	57.1	N/A	N/A	N/A	N/A
Concrete Pump Truck	64.7	57.8	N/A	N/A	N/A	N/A
Concrete Mixer Truck	61.2	57.2	N/A	N/A	N/A	N/A
Roller	63.1	56.1	N/A	N/A	N/A	N/A
Roller	61.9	54.9	N/A	N/A	N/A	N/A
Total	64.7	64.9	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

--- Receptor #7 ---

Baselines (dBA)

Description	Land Use
Nearest resi - acoustic center	Residential

Daytime	Evening	Night
65	60	55

Description	Impact Device	Usage(%)	Equipment		Receptor Distance (feet)	Estimated Shielding (dBA)	
			Spec Lmax (dBA)	Actual Lmax (dBA)			
Paver	No	50		77.2	400		0
Paver	No	50		77.2	400		0
Concrete Pump Truck	No	20		81.4	400		0
Concrete Mixer Truck	No	40		78.8	400		0
Roller	No	20		80	400		0
Roller	No	20		80	400		0

Equipment	Results					
	Calculated (dBA)			Noise Limits (dBA)		
			Day			Evening
	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Paver	59.2		56.1 N/A	N/A	N/A	N/A
Paver	59.2		56.1 N/A	N/A	N/A	N/A
Concrete Pump Truck	63.3		56.3 N/A	N/A	N/A	N/A
Concrete Mixer Truck	60.7		56.8 N/A	N/A	N/A	N/A
Roller	61.9		54.9 N/A	N/A	N/A	N/A
Roller	61.9		54.9 N/A	N/A	N/A	N/A
Total	63.3		63.7 N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #8 ----

Description	Land Use
2nd-nearest - acoustic center	Residential

Baselines (dBA)
Daytime
Evening
Night
65
60
55

Description	Impact Device	Usage(%)	Equipment		Receptor Distance (feet)	Estimated Shielding (dBA)	
			Spec Lmax (dBA)	Actual Lmax (dBA)			
Paver	No	50		77.2	450		0
Paver	No	50		77.2	450		0
Concrete Pump Truck	No	20		81.4	450		0
Concrete Mixer Truck	No	40		78.8	450		0
Roller	No	20		80	450		0
Roller	No	20		80	450		0

Equipment	Results					
	Calculated (dBA)			Noise Limits (dBA)		
			Day			Evening
	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Paver	58.1		55.1 N/A	N/A	N/A	N/A
Paver	58.1		55.1 N/A	N/A	N/A	N/A
Concrete Pump Truck	62.3		55.3 N/A	N/A	N/A	N/A
Concrete Mixer Truck	59.7		55.7 N/A	N/A	N/A	N/A
Roller	60.9		53.9 N/A	N/A	N/A	N/A
Roller	60.9		53.9 N/A	N/A	N/A	N/A
Total	62.3		62.7 N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

		--- Receptor #9 ---					
		Baselines (dBA)					
Description	Land Use	Daytime	Evening	Night			
3rd-nearest - acoustic center	Residential	65	60	55			
		Equipment					
		Impact	Spec	Actual	Receptor	Estimated	
Description		Device	Usage(%)	Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)
Paver		No	50		77.2	620	0
Paver		No	50		77.2	620	0
Concrete Pump Truck		No	20		81.4	620	0
Concrete Mixer Truck		No	40		78.8	620	0
Roller		No	20		80	620	0
Roller		No	20		80	620	0
		Results					
		Calculated (dBA)			Noise Limits (dBA)		
					Day	Evening	
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq
Paver		55.4	52.3	N/A	N/A	N/A	N/A
Paver		55.4	52.3	N/A	N/A	N/A	N/A
Concrete Pump Truck		59.5	52.5	N/A	N/A	N/A	N/A
Concrete Mixer Truck		56.9	53	N/A	N/A	N/A	N/A
Roller		58.1	51.1	N/A	N/A	N/A	N/A
Roller		58.1	51.1	N/A	N/A	N/A	N/A
	Total	59.5	59.9	N/A	N/A	N/A	N/A
*Calculated Lmax is the Loudest value.							

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 6/22/2021
Case Description: 6th & Victoria - Architectural Coating

		--- Receptor #1 ---					
		Baselines (dBA)					
Description	Land Use	Daytime	Evening	Night			
Nearest resi - 1-hour avg	Residential	65	60	55			
		Equipment					
		Impact	Spec	Actual	Receptor	Estimated	
Description		Device	Usage(%)	Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)
Compressor (air)		No	40		77.7	50	0
		Results					
		Calculated (dBA)			Noise Limits (dBA)		
					Day	Evening	
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq
Compressor (air)		77.7	73.7	N/A	N/A	N/A	N/A
	Total	77.7	73.7	N/A	N/A	N/A	N/A
		*Calculated Lmax is the Loudest value.					

*Calculated Lmax is the Loudest value.

		--- Receptor #2 ---					
		Baselines (dBA)					
Description	Land Use	Daytime	Evening	Night			
2nd-nearest - 1-hour avg	Residential	65	60	55			
		Equipment					
		Impact	Spec	Actual	Receptor	Estimated	
Description		Device	Usage(%)	Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)
Compressor (air)		No	40		77.7	80	0
		Results					
		Calculated (dBA)		Noise Limits (dBA)			
				Day		Evening	
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq
Compressor (air)		73.6	69.6	N/A	N/A	N/A	N/A
	Total	73.6	69.6	N/A	N/A	N/A	N/A
		*Calculated Lmax is the Loudest value.					
		--- Receptor #3 ---					
		Baselines (dBA)					
Description	Land Use	Daytime	Evening	Night			
3rd-nearest - 1-hour avg	Residential	65	60	55			
		Equipment					
		Impact	Spec	Actual	Receptor	Estimated	
Description		Device	Usage(%)	Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)
Compressor (air)		No	40		77.7	180	0
		Results					
		Calculated (dBA)		Noise Limits (dBA)			
				Day		Evening	
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq
Compressor (air)		66.5	62.6	N/A	N/A	N/A	N/A
	Total	66.5	62.6	N/A	N/A	N/A	N/A
		*Calculated Lmax is the Loudest value.					
		--- Receptor #4 ---					
		Baselines (dBA)					
Description	Land Use	Daytime	Evening	Night			
Nearest resi - 8-hour avg	Residential	65	60	55			
		Equipment					
		Impact	Spec	Actual	Receptor	Estimated	
Description		Device	Usage(%)	Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)
Compressor (air)		No	40		77.7	100	0
		Results					
		Calculated (dBA)		Noise Limits (dBA)			
				Day		Evening	
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq
Compressor (air)		71.6	67.7	N/A	N/A	N/A	N/A
	Total	71.6	67.7	N/A	N/A	N/A	N/A
		*Calculated Lmax is the Loudest value.					

		--- Receptor #5 ---					
		Baselines (dBA)					
Description	Land Use	Daytime	Evening	Night			
2nd-nearest - 8-hour avg	Residential	65	60	55			
		Equipment					
		Impact	Spec	Actual	Receptor	Estimated	
Description		Device	Usage(%)	Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)
Compressor (air)		No	40		77.7	160	0
		Results					
		Calculated (dBA)		Noise Limits (dBA)			
				Day	Evening		
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq
Compressor (air)		67.6	63.6	N/A	N/A	N/A	N/A
	Total	67.6	63.6	N/A	N/A	N/A	N/A
*Calculated Lmax is the Loudest value.							

		--- Receptor #6 ---					
		Baselines (dBA)					
Description	Land Use	Daytime	Evening	Night			
3rd-nearest - 8-hour avg	Residential	65	60	55			
		Equipment					
		Impact	Spec	Actual	Receptor	Estimated	
Description		Device	Usage(%)	Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)
Compressor (air)		No	40		77.7	360	0
		Results					
		Calculated (dBA)		Noise Limits (dBA)			
				Day		Evening	
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq
Compressor (air)		60.5	56.5	N/A	N/A	N/A	N/A
	Total	60.5	56.5	N/A	N/A	N/A	N/A
*Calculated Lmax is the Loudest value.							

		--- Receptor #7 ---					
		Baselines (dBA)					
Description	Land Use	Daytime	Evening	Night			
Nearest resi - acoustic center	Residential	65	60	55			
		Equipment					
		Impact	Spec	Actual	Receptor	Estimated	
Description		Device	Usage(%)	Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)
Compressor (air)		No	40		77.7	400	0
		Results					
		Calculated (dBA)		Noise Limits (dBA)			
				Day	Evening		
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq
Compressor (air)		59.6	55.6	N/A	N/A	N/A	N/A
	Total	59.6	55.6	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

--- Receptor #8 ---

Description	Land Use
2nd-nearest - acoustic center	Residential

Baselines (dBA)		
Daytime	Evening	Night
65	60	55

Description	Device	Usage(%)	Equipment		Receptor Distance (feet)	Estimated Shielding (dBA)	
			Spec Lmax (dBA)	Actual Lmax (dBA)			
Compressor (air)	No	40		77.7	450		0

Results

Calculated (dBA)			Noise Limits (dBA)			
			Day		Evening	
*Lmax	Leq		Lmax	Leq	Lmax	Leq
58.6	54.6	N/A	N/A	N/A	N/A	N/A
58.6	54.6	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

--- Receptor #9 ---

Description	Land Use
3rd-nearest - acoustic center	Residential

Baselines (dBA)		
Daytime	Evening	Night
65	60	55

Description	Device	Usage(%)	Equipment		Receptor Distance (feet)	Estimated Shielding (dBA)	
			Spec Lmax (dBA)	Actual Lmax (dBA)			
Compressor (air)	No	40		77.7	620		0

Results

Calculated (dBA)			Noise Limits (dBA)			
			Day		Evening	
*Lmax	Leq		Lmax	Leq	Lmax	Leq
55.8	51.8	N/A	N/A	N/A	N/A	N/A
55.8	51.8	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.



TECHNICAL GUIDE

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



Description

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

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

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

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

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

Tested in accordance with:



Sound Performance

ZF/ZR/XP Indoor Sound Power Levels

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

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

ZE/ZF/ZR Outdoor Sound Power Levels

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

1. Rated in accordance with AHRI 270 standard.

XN/XP Outdoor Sound Power Levels

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

1. Rated in accordance with AHRI 270 standard.

MECHANICAL EQUIPMENT NOISE LEVEL

Input:

Equipment Locations / Source Noise Data

Site	X	Y	Elev. At Roof or Ground	Source Height	LwA		Sound Level at 50 feet Total	Equip. Location Site / Number	Frequency (in Hz)	500
					Single Source	Number of Units				
Bldg 1 NW Corn	1121	1460	36.5	3	80	2	51	Bldg 1 NW Corner York ZF-048		
Bldg 1 NE Corn	1846	1460	36.5	3	80	2	51	Bldg 1 NE Corner York ZF-048		

Receivers at P.L. and Vicinity				Applicable Standard	Building Elevation	Roof Elevation
N1	1121	1585	0	55	0	36.5
W1	960	1460	0	55		
SE1	2057	950	0	55		

Output:

Output:						Location:		1121		1585		0		Applicable Standard					55												
						N1																									
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																										
Bldg 1 NW C	1121	1460	36.5	1121	1585	York ZF-048	51	5	39.5	125	30	95	36.5	2.8	1.19	14	43	29													
Bldg 1 NE Cc	1846	1460	36.5	1121	1585	York ZF-048	51	5	39.5	736	35	701	36.5	2.8	0.03	6	28	22													
TOTAL Leq:																	43	30													
																	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		Sound Level at 50 feet Total	Equip. Location Site / Number	Frequency (in Hz)
					Single Source	Number of Units			
Bldg 1 NW Cor	1121	1460	36.5	3	80	2	51	Bldg 1 NW Corner York ZF-048	500
Bldg 1 NE Cor	1846	1460	36.5	3	80	2	51	Bldg 1 NE Corner York ZF-048	
Receivers at P.L. and Vicinity					Building Elevation		Roof Elevation		
N1					0		36.5		
W1					0		55		
SE1					0		55		

Output:

Output:				Location:				Applicable Standard										
				W1	960	1460	0	55										
Source Coordinates				Receiver Coordinate s	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													
Bldg 1 NW C	1121	1460	36.5	960	1460	York ZF-048	51	5	39.5	161	20	141	36.5	2.8	0.41	10	41	31
Bldg 1 NE Cc	1846	1460	36.5	960	1460	York ZF-048	51	5	39.5	886	745	141	36.5	2.8	3.07	18	26	8
TOTAL Leq:																	41	31
																	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		Sound Level at 50 feet Total	Equip. Location Site / Number	Frequency (in Hz)	500
					Single Source	Number of Units				
Bldg 1 NW Cor	1121	1460	36.5	3	80	2	51	Bldg 1 NW Corner York ZF-048		
Bldg 1 NE Cor	1846	1460	36.5	3	80	2	51	Bldg 1 NE Corner York ZF-048		
Receivers at P.L. and Vicinity					Building Elevation		Roof Elevation			
					0		36.5			
N1	1121	1585		0	Applicable Standard		55			
W1	960	1460		0			55			
SE1	2057	950		0			55			

Output:

Output:				Location: SE1				2057		950		0		Applicable Standard 55					
				Receiver 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														
Bldg 1 NW C	1121	1460	36.5	2057	950	York ZF-048	51	5	39.5	1,066	800	266	36.5	2.8	1.47	15	25	10	
Bldg 1 NE Cc	1846	1460	36.5	2057	950	York ZF-048	51	5	39.5	552	25	527	36.5	2.8	0.03	6	30	25	
TOTAL Leq:																	32	25	
																	Without Barrier	With Barrier/Parapet	

RAY-TRACE PROGRAM (FOR A POINT-SOURCE)

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

Project: 6th / Victoria Warehouse Project

Date: 6/24/21

By: MG

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

Ray Trace Number/Description	Source- Receiver Distance (ft. or m)	Source Base Elev. (ft. or m)	Source Height above Ground (ft. or m)	Receiver Base Elev. (ft. or m)	Receiver Height above Ground (ft. or m)	Horizontal Barrier Dist. (in ref. to source) (ft. or m)	Barrier Base Elev. (ft. or m)	Barrier Height (ft. or m)	Dominant Freq.(Hz)	Source- Rcvr Straight- Line Dist. (ft. or m)	Source- Top-of- Barrier Dist. (ft. or m)	Receiver- Top-of- Barrier Dist. (ft. or m)	Lambda	N _{max}	AE _(barriers) (dB)
1. Source -Truck Noise at W. PL	200.0	0.0	10.0	0.0	5.0	35.0	0.0	36.0	500.0	200.1	43.6	167.9	2.3	10.1	23.0
1. Source -Truck Noise at E. PL	380.0	0.0	10.0	0.0	5.0	20.0	0.0	36.0	500.0	380.0	32.8	361.3	2.3	12.5	24.0

From Dudek Transportation Analysts 06/24/21

ADT Summary - 6th & Victoria Warehouse

	2021	2040
Grape Street, north of 6th Street¹	997	1,175
6th Street, west of Victoria Avenue²	2,299	6,577
Victoria Avenue, north of 6th Street²	8,553	10,302

¹Average daily traffic (ADT) estimated from the node connector shown in the baseline SBTAM 2012 and 2040 model plots used for the Airport Gateway Specific Plan Project Draft Traffic Impact Study (July, 2019). 2021 volumes were estimated based on the annual percent growth between the 2012 and 2040 model volumes along the connector.

²ADT estimated from the counts conducted in 2019 for the Airport Gateway Specific Plan Project Draft Traffic Impact Study (July, 2019). 2021 volumes were estimated based on the annual percent growth between the 2019 and 2040 segment volumes.

Proposed Project Trip Distribution and Assignment (6th & Victoria)						
Roadway Segment	% Passenger Car Distribution	% Truck Distribution	Average Daily Traffic			Total Project (PCE)
			<i>Passenger</i>	<i>Trucks</i>	<i>Total Project (Non PCE)</i>	
Victoria Avenue, 6th Street to Project boundary	50%	80%	194	118	312	548
Victoria Avenue, north of Project Site	35%	30%	136	44	180	268
Victoria Avenue, south of 6th Street	30%	70%	116	103	219	425
Grape Street, 6th Street to Project boundary	50%	20%	194	29	223	281
Grape Street, north of Project Site	5%	0%	19	0	19	19
6th Street, east of Victoria Avenue	5%	0%	19	0	19	19
6th Street, Victoria Avenue to Grape Street	20%	0%	78	0	78	78
6th Street, west of Grape Street	25%	0%	97	0	97	97

Percentage Increase (PCE)		Associated Traffic Noise Increase Anticipated (dB) (PCE)	
6.4%	5.3%	0.3	0.2
3.1%	2.6%	0.1	0.1
5.0%	4.1%	0.2	0.2
28.2%	23.9%	1.1	0.9
1.9%	1.6%	0.1	0.1
0.8%	0.3%	0.0	0.0
3.4%	1.2%	0.1	0.1
4.2%	1.5%	0.2	0.1

