Appendix D

Noise Calculations

Field Noise Measurement Data Sheets

DUDEK

FIELD NOISE MEASUREMENT DATA

PROJECT: EL CAMINO COLLEGE FINE ACADEMY — PROJECT #: 13453
SITE ID:
SITE ADDRESS:
OBSERVER(S): PEYE VITAL
START DATE: 8/18/21 — END DATE: 8/18/21
START TIME: — END TIME:

METEOROLOGICAL CONDITIONS

TEMP: 75 F — HUMIDITY: 62 % R.H. — WIND: CALM (LIGHT) MODERATE
WINDSPD: 10 MPH — DIR: N NE S SE E SW W NW — VARIABLE STEADY GUSTY
SKY: SUNNY CLEAR (OVRCAST) [illegible] FOG RAIN

ACOUSTIC MEASUREMENTS

MEAS. INSTRUMENT: PICCOLO SLM-P3 — TYPE 1 2 — SERIAL #: 14037004
CALIBRATOR: LSSWA CA 114 — SERIAL #: 990151
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
(S7) 1-16	12:02	12:17							

COMMENTS: READING TAKEN IN FRONT OF 16501 FAUSA AVE (RESIDENTIAL); PRIMARY NOISE SOURCE IS TRAFFIC FROM NEARBY REDONDO BEACH BLVD

SOURCE INFO AND TRAFFIC COUNTS

PRIMARY NOISE SOURCE: (TRAFFIC) AIRCRAFT RAIL INDUSTRIAL OTHER:
ROADWAY TYPE: ASPHALT — DIST. TO RDWY C/L OR EOP: APX 5' TO EDGE OF STREET
TRAFFIC COUNT DURATION: 15 MIN — SPEED: ____ MIN

COUNT 1 (OR RDWY 1)

DIRECTION	NB/EB	SB/WB	NB/EB SPEED	SB/WB SPEED
AUTOS	0			
MED TRKS	0			
HVY TRKS	0			
BUSES	0			
MOTRCLS	0			

IF COUNTING BOTH DIRECTIONS AS ONE, CHECK HERE ✓

COUNT 2 (OR RDWY 2)

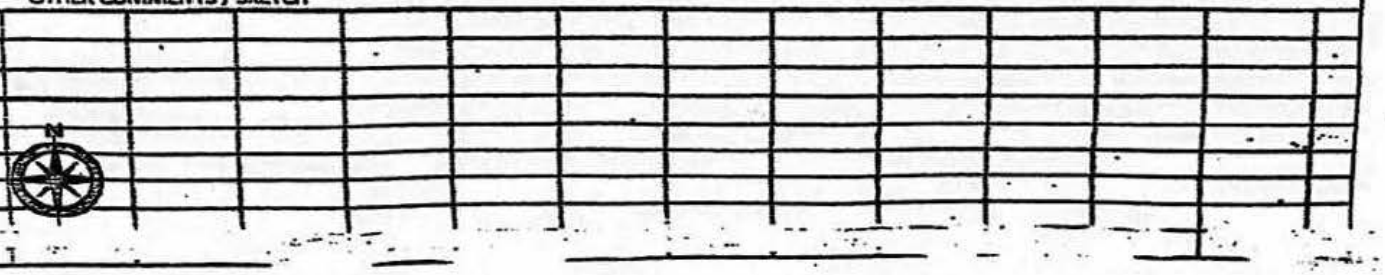
NB/EB	SB/WB	NB/EB SPEED	SB/WB SPEED

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 (LIST RDWYS BELOW)) DISTD GARDENERS/LANDSCAPING NOISE
OTHER: DISTANT TRAFFIC FROM REDONDO BEACH BLVD

DESCRIPTION / SKETCH

TERRAIN: (HARD) SOFT MIXED FLAT OTHER:
PHOTOS: 0529; 0530; 0531; 0532;
OTHER COMMENTS / SKETCH



DUDEK

FIELD NOISE MEASUREMENT DATA

PROJECT: EL CAMINO COLLEGE FIRE ACADEMY — PROJECT #: 13453
SITE ID:
SITE ADDRESS: — OBSERVER(S): PEYE VITAL
START DATE: 8/18/21 — END DATE: 8/18/21
START TIME: — END TIME:

METEOROLOGICAL CONDITIONS

TEMP: 75 F — HUMIDITY: 62 % R.H. — WIND: CALM (LIGHT) MODERATE
WINDSPD: 10 MPH — DIR. N NE S SE S SW W NW — VARIABLE STEADY GUSTY
SKY: SUNNY CLEAR (OVRCAST) PRTLY CLDY FOG RAIN

ACOUSTIC MEASUREMENTS

MEAS. INSTRUMENT: PICCOLO SLM-P3 — TYPE 1 2 — SERIAL #: 14031704
CALIBRATOR: LSSWA CA 114 — SERIAL #: 490151
CALIBRATION CHECK — PRE-TEST: ____ dBA SPL — POST-TEST: ____ dBA SPL — WINDSCRN: YES

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

	REC. #	BEGIN	END	Leq	Lmax	Lmin	L90	L50	L10	OTHER (SPECIFY METRIC
ST2	17-32	12:27	12:42							

COMMENTS: AT BACK EDGE OF PROPERTY LINE
READING TAKEN [redacted] OF 3211 W. 166TH ST (RESIDENTIAL); PRIMARY NOISE SOURCE IS TRAFFIC ON REDONDO BEACH BLVD AND CRENSHAW BLVD;

SOURCE INFO AND TRAFFIC COUNTS

PRIMARY NOISE SOURCE: (TRAFFIC) AIRCRAFT RAIL INDUSTRIAL OTHER:
ROADWAY TYPE: ASPHALT — DIST. TO RDWY C/L OR EOP: [illegible]
TRAFFIC COUNT DURATION: 15 MIN

COUNT 1 (OR RDWY 1)

DIRECTION	NB/EB	SB/WB	SPEED NB/EB	SPEED SB/WB
AUTOS				
MED TRKS	2			
HVY TRKS	0			
BUSES	0			
MOTRCLS	0			

IF COUNTING BOTH DIRECTIONS AS ONE, CHECK HERE ✓

COUNT 2 (OR RDWY 2) — ____ MIN

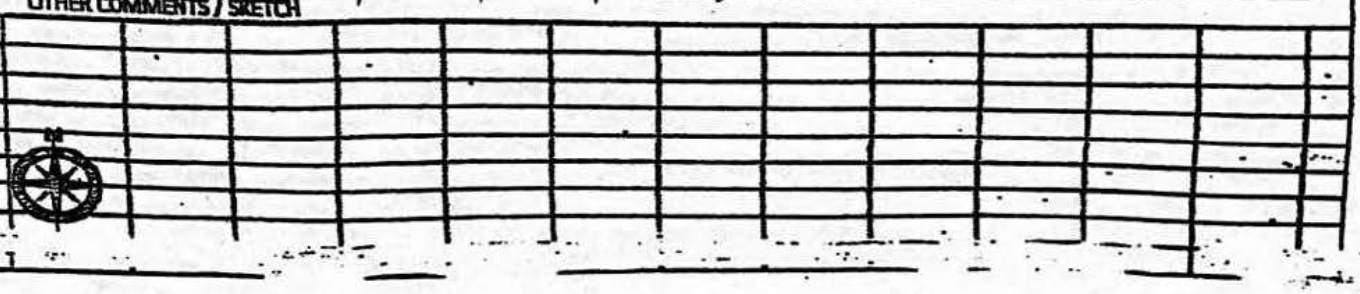
NB/EB	SB/WB	SPEED NB/EB	SPEED SB/WB

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: REDONDO BEACH BLVD; CRENSHAW BLVD

DESCRIPTION / SKETCH

TERRAIN: (HARD) SOFT MIXED FLAT OTHER:
PHOTOS: 0534; 0535; 0536; 0537;
OTHER COMMENTS / SKETCH



DUDEK

FIELD NOISE MEASUREMENT DATA

PROJECT: EL CAMINO COLLEGE FINE ACADEMY — PROJECT #: 13453
SITE ID:
SITE ADDRESS:
OBSERVER(S): PEYE VITAR
START DATE: 8/18/21 — END DATE: 8/18/21
START TIME: — END TIME:

METEOROLOGICAL CONDITIONS

TEMP: 76 F — HUMIDITY: 58 % R.H. — WIND: CALM (LIGHT) MODERATE
WINDSPD: 9 MPH — DIR. N NE S SE S SW W NW — VARIABLE STEADY GUSTY
SKY: SUNNY CLEAR (OVRCAST) PRTLY CLDY FOG — RAIN

ACOUSTIC MEASUREMENTS

MEAS. INSTRUMENT: PICCOLO SLM-P3 — TYPE 1 2 — SERIAL #: 14031704
CALIBRATOR: BSWA 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) 34-49	13:01	13:16							

COMMENTS: READING TAKEN AT SOUTHEASTER PORTION OF ALONDRA PARK; PRIMARY NOISE SOURCE IS TRAFFIC ON REDONDO BEACH BLVD; SECONDARY IS GEESE HONKING;

SOURCE INFO AND TRAFFIC COUNTS

PRIMARY NOISE SOURCE: (TRAFFIC) AIRCRAFT RAIL INDUSTRIAL OTHER:
ROADWAY TYPE: ASPHALT — DIST. TO RDWY (C/L) OR EOP: APX 200' TO C/L ON REDONDO BEACH BLVD

TRAFFIC COUNT DURATION: 15 MIN — SPEED ____ MIN

COUNT 1 (OR RDWY 1) DIRECTION	NB/EB	SB/WB	NB/EB	SB/WB
AUTOS	392			
MED TRKS	3			
HVY TRKS	1			
BUSES	5			
MOTRCLS	0			

IF COUNTING BOTH DIRECTIONS AS ONE, CHECK HERE ✓

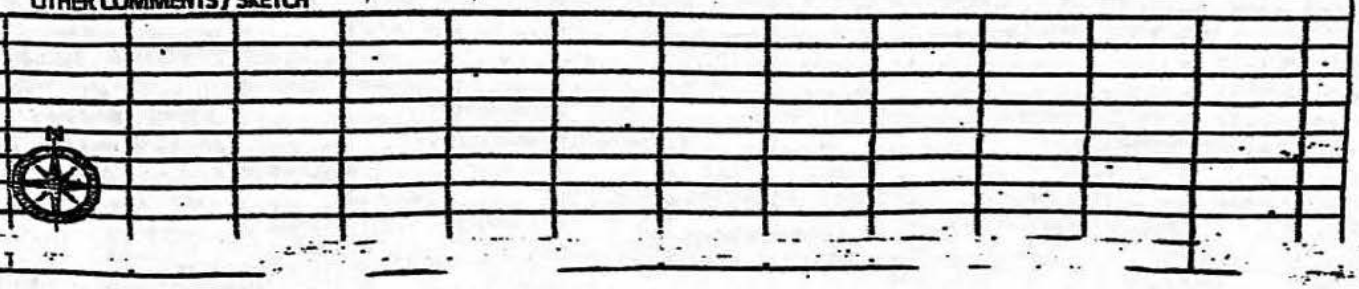
COUNT 2 (OR RDWY 2)	NB/EB	SB/WB	NB/EB	SB/WB

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

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

DESCRIPTION / SKETCH

TERRAIN: HARD SOFT (MIXED) FLAT OTHER:
PHOTOS: 0539; 0540; 0541; 0542;
OTHER COMMENTS / SKETCH



FIELD NOISE MEASUREMENT DATA

DUDEK

PROJECT: EL CAMINO COLLEGE FINE ACADEMY — PROJECT #: 13453
SITE ID:
SITE ADDRESS:
OBSERVER(S): PEYE VITAL
START DATE: 8/18/21 — END DATE: 8/18/21
START TIME: — END TIME:

METEOROLOGICAL CONDITIONS

TEMP: 76 F — HUMIDITY: 60 % R.H. — WIND: CALM (LIGHT) MODERATE
WINDSPD: 8 MPH — DIR: N NE S SE S SW W NW — VARIABLE STEADY GUSTY
SKY: SUNNY CLEAR (OVRCAST) PRTLY CLDY FOG — RAIN

ACOUSTIC MEASUREMENTS

MEAS. INSTRUMENT: PICCOLO SLM-P3 — TYPE 1 2 — SERIAL #: 14031004
CALIBRATOR: LSSWA 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
(ST4) SD-65	13:29	13:44							

COMMENTS: READNG TAKEN IN PARKING ARE ON SOUTH SIDE OF EL CAMINO COLLEGE, ALONG REDONDO BEACH BLVD; PRIMARY NOISE SOURCE IS TRAFFIC ALONG REDONDO BEACH BLVD;

SOURCE INFO AND TRAFFIC COUNTS

PRIMARY NOISE SOURCE: (TRAFFIC) AIRCRAFT RAIL INDUSTRIAL OTHER:
ROADWAY TYPE: ASPHLT — DIST. TO RDWY (C/L) OR EOP: APX 160' TO C/L ON REDONDO BEACH BL

TRAFFIC COUNT DURATION: 15 MIN — SPEED: ____ MIN

COUNT 1 (OR RDWY 1)

DIRECTION	NB/EB	SB/WB	NB/EB	SB/WB
AUTOS	417			
MED TRKS	5			
HVY TRKS	0			
BUSES	4			
MOTRCLS	1			

IF COUNTING BOTH DIRECTIONS AS ONE, CHECK HERE ↓

COUNT 2 (OR RDWY 2)

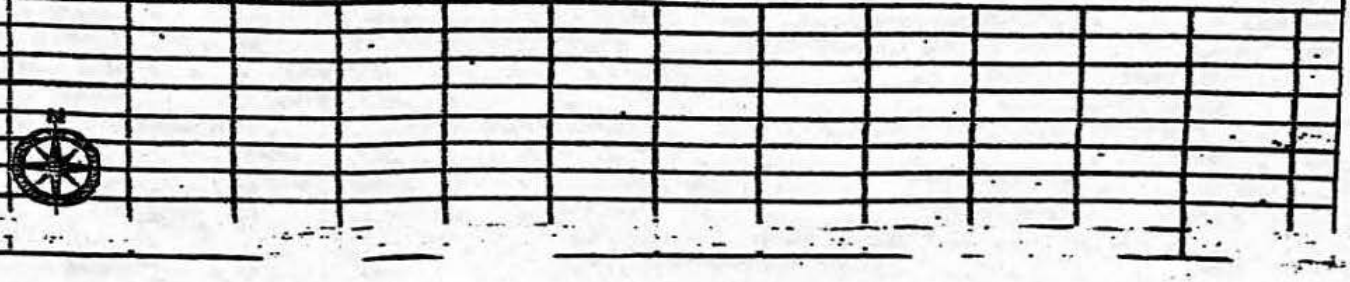
NB/EB	SB/WB	NB/EB	SB/WB

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: 0546; 0547; 0548; 0549; 0550; 0551;
OTHER COMMENTS / SKETCH



Construction Noise Model Input / Output

Report date: 8/30/2021
Case Descriptic El Camino College Fire Academy_Ph 1 Demo Nearest

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Resis to S, SW	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dozer	No	40		81.7	150	0
Backhoe	No	40		77.6	180	0
Concrete Saw	No	20		89.6	200	0
Front End Loader	No	40		79.1	210	0
Tractor	No	40	84		220	0

Results

Equipment	Calculated (dBA) *Lmax	Leq	Day Lmax	Noise Limits (dBA) Leq	Evening Lmax	Leq
Dozer	72.1	68.1	N/A	N/A	N/A	N/A
Backhoe	66.4	62.5	N/A	N/A	N/A	N/A
Concrete Saw	77.5	70.5	N/A	N/A	N/A	N/A
Front End Loader	66.6	62.7	N/A	N/A	N/A	N/A
Tractor	71.1	67.2	N/A	N/A	N/A	N/A
Total	77.5	74.3	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Park to NW	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dozer	No	40		81.7	400	0
Backhoe	No	40		77.6	420	0
Concrete Saw	No	20		89.6	440	0
Front End Loader	No	40		79.1	430	0
Tractor	No	40	84		450	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	N/A
Backhoe	71.1	64.1	N/A	N/A	N/A	N/A
Concrete Saw	58.7	54.7	N/A	N/A	N/A	N/A
Front End Loader	60.4	56.4	N/A	N/A	N/A	N/A
Tractor	64.9	60.9	N/A	N/A	N/A	N/A
Total	71.1	67.4	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
ECC to N	Residential	65	60	55

			Equipment			
			Spec	Actual	Receptor	Estimated
	Impact		Lmax	Lmax	Distance	Shielding
Description	Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Dozer	No	40		81.7	300	0
Backhoe	No	40		77.6	320	0
Concrete Saw	No	20		89.6	340	0
Front End Loader	No	40		79.1	330	0
Tractor	No	40	84		350	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	N/A
Backhoe	73.5	66.5	N/A	N/A	N/A	N/A
Concrete Saw	60.9	56.9	N/A	N/A	N/A	N/A
Front End Loader	62.7	58.7	N/A	N/A	N/A	N/A
Tractor	67.1	63.1	N/A	N/A	N/A	N/A
Total	73.5	69.7	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Report date: 8/30/2021
Case Descriptic El Camino College Fire Academy_Ph 1 Demo Typical

---- Receptor #1 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Resis to S, SW	Residential	65	60	55

Equipment

Description	Impact Device	Usage(%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dozer	No	40		81.7	300	0
Backhoe	No	40		77.6	300	0
Concrete Saw	No	20		89.6	300	0
Front End Loader	No	40		79.1	300	0
Tractor	No	40	84		300	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	N/A
Backhoe	62	58	N/A	N/A	N/A	N/A
Concrete Saw	74	67	N/A	N/A	N/A	N/A
Front End Loader	63.5	59.6	N/A	N/A	N/A	N/A
Tractor	68.4	64.5	N/A	N/A	N/A	N/A
Total	74	70.4	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Park to NW	Residential	65	60	55

Equipment

Description	Impact Device	Usage(%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dozer	No	40		81.7	620	0
Backhoe	No	40		77.6	620	0
Concrete Saw	No	20		89.6	620	0
Front End Loader	No	40		79.1	620	0
Tractor	No	40	84		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	N/A
Backhoe	67.7	60.7	N/A	N/A	N/A	N/A
Concrete Saw	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
Total	67.7	64.1	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
ECC to N	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dozer	No	40		81.7	460	0
Backhoe	No	40		77.6	460	0
Concrete Saw	No	20		89.6	460	0
Front End Loader	No	40		79.1	460	0
Tractor	No	40	84		460	0

		Results					
		Calculated (dBA)		Noise Limits (dBA)			
				Day		Evening	
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq
Dozer		62.4	58.4	N/A	N/A	N/A	N/A
Backhoe		70.3	63.3	N/A	N/A	N/A	N/A
Concrete Saw		58.3	54.3	N/A	N/A	N/A	N/A
Front End Loader		59.8	55.9	N/A	N/A	N/A	N/A
Tractor		64.7	60.7	N/A	N/A	N/A	N/A
	Total	70.3	66.7	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 8/27/2021
Case Descriptic El Camino College Fire Academy_Ph 1 Site Prep Nearest

---- Receptor #1 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Resis to S, SW	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Grader	No	40	85		150	0
Front End Loader	No	40		79.1	170	0
Scraper	No	40		83.6	200	0

Results

		Calculated (dBA)		Noise Limits (dBA)			
				Day		Evening	
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq
Grader		75.5	71.5	N/A	N/A	N/A	N/A
Front End Loader		68.5	64.5	N/A	N/A	N/A	N/A
Scraper		71.5	67.6	N/A	N/A	N/A	N/A
	Total	75.5	73.5	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Park to NW	Residential	65	60	55

		Equipment				
		Spec	Actual	Receptor	Estimated	
	Impact	Lmax	Lmax	Distance	Shielding	
Description	Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Grader	No	40	85		400	0
Front End Loader	No	40		79.1	430	0
Scraper	No	40		83.6	450	0

Results

		Calculated (dBA)		Noise Limits (dBA)			
				Day		Evening	
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq
Grader		66.9	63	N/A	N/A	N/A	N/A
Front End Loader		60.4	56.4	N/A	N/A	N/A	N/A
Scraper		64.5	60.5	N/A	N/A	N/A	N/A
	Total	66.9	65.5	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
ECC to N	Residential	65	60	55

		Equipment				
		Spec	Actual	Receptor	Estimated	
	Impact	Lmax	Lmax	Distance	Shielding	
Description	Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Grader	No	40	85		300	0
Front End Loader	No	40		79.1	330	0
Scraper	No	40		83.6	350	0

Results

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

Grader		69.4	65.5	N/A	N/A	N/A	N/A
Front End Loader		62.7	58.7	N/A	N/A	N/A	N/A
Scraper		66.7	62.7	N/A	N/A	N/A	N/A
	Total	69.4	67.9	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 8/27/2021
Case Descriptic El Camino College Fire Academy_Ph 1 Site Prep Typical

---- Receptor #1 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Resis to S, SW	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Grader	No	40	85		300	0
Front End Loader	No	40		79.1	300	0
Scraper	No	40		83.6	300	0

	Results					
	Calculated (dBA)		Noise Limits (dBA)			
			Day		Evening	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Grader	69.4	65.5	N/A	N/A	N/A	N/A
Front End Loader	63.5	59.6	N/A	N/A	N/A	N/A
Scraper	68	64	N/A	N/A	N/A	N/A
Total	69.4	68.4	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Park to NW	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Grader	No	40	85		620	0
Front End Loader	No	40		79.1	620	0
Scraper	No	40		83.6	620	0

		Results					
		Calculated (dBA)		Noise Limits (dBA)			
				Day		Evening	
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq
Grader		63.1	59.2	N/A	N/A	N/A	N/A
Front End Loader		57.2	53.3	N/A	N/A	N/A	N/A
Scraper		61.7	57.7	N/A	N/A	N/A	N/A
	Total	63.1	62.1	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

		---- Receptor #3 ----		
		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
ECC to N	Residential	65	60	55

			Equipment			
			Spec	Actual	Receptor	Estimated
	Impact		Lmax	Lmax	Distance	Shielding
Description	Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Grader	No	40	85		460	0
Front End Loader	No	40		79.1	460	0
Scraper	No	40		83.6	460	0

		Results					
		Calculated (dBA)		Noise Limits (dBA)			
				Day		Evening	
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq
Grader		65.7	61.7	N/A	N/A	N/A	N/A
Front End Loader		59.8	55.9	N/A	N/A	N/A	N/A
Scraper		64.3	60.3	N/A	N/A	N/A	N/A
	Total	65.7	64.7	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Report date: 8/27/2021
Case Descriptic El Camino College Fire Academy_Ph 1 Grading Nearest

		---- Receptor #1 ----		
		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Resis to S, SW	Residential	65	60	55

			Equipment			
			Spec	Actual	Receptor	Estimated
	Impact		Lmax	Lmax	Distance	Shielding

Description	Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Dozer	No	40		81.7	150	0
Backhoe	No	40		77.6	180	0
Front End Loader	No	40		79.1	200	0
Grader	No	40	85		170	0

Results

	Calculated (dBA)		Noise Limits (dBA)			
			Day		Evening	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Dozer	72.1	68.1	N/A	N/A	N/A	N/A
Backhoe	66.4	62.5	N/A	N/A	N/A	N/A
Front End Loader	67.1	63.1	N/A	N/A	N/A	N/A
Grader	74.4	70.4	N/A	N/A	N/A	N/A
Total	74.4	73.3	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Park to NW	Residential	65	60	55

			Equipment Spec	Actual	Receptor	Estimated
	Impact		Lmax	Lmax	Distance	Shielding
Description	Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Dozer	No	40		81.7	400	0
Backhoe	No	40		77.6	420	0
Front End Loader	No	40		79.1	440	0
Grader	No	40	85		430	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	N/A
Backhoe	59.1	55.1	N/A	N/A	N/A	N/A
Front End Loader	60.2	56.2	N/A	N/A	N/A	N/A
Grader	66.3	62.3	N/A	N/A	N/A	N/A
Total	66.3	65.3	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
ECC to N	Residential	65	60	55

			Equipment Spec	Actual	Receptor	Estimated

Description	Impact Device	Usage(%)	Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)
Dozer	No	40		81.7	300	0
Backhoe	No	40		77.6	320	0
Front End Loader	No	40		79.1	340	0
Grader	No	40	85		330	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	N/A
Backhoe	61.4	57.5	N/A	N/A	N/A	N/A
Front End Loader	62.5	58.5	N/A	N/A	N/A	N/A
Grader	68.6	64.6	N/A	N/A	N/A	N/A
Total	68.6	67.6	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 8/27/2021
Case Descriptic El Camino College Fire Academy_Ph 1 Grading Typical

---- Receptor #1 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Resis to S, SW	Residential	65	60	55

Equipment

Description	Impact Device	Usage(%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dozer	No	40		81.7	300	0
Backhoe	No	40		77.6	300	0
Front End Loader	No	40		79.1	300	0
Grader	No	40	85		300	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	N/A
Backhoe	62	58	N/A	N/A	N/A	N/A
Front End Loader	63.5	59.6	N/A	N/A	N/A	N/A
Grader	69.4	65.5	N/A	N/A	N/A	N/A
Total	69.4	68.3	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Park to NW	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dozer	No	40		81.7	620	0
Backhoe	No	40		77.6	620	0
Front End Loader	No	40		79.1	620	0
Grader	No	40	85		620	0

Results

Equipment	Calculated (dBA) *Lmax	Leq	Noise Limits (dBA) Day Lmax	Day Leq	Evening Lmax	Evening Leq
Dozer	59.8	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
Grader	63.1	59.2	N/A	N/A	N/A	N/A
Total	63.1	61.9	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
ECC to N	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dozer	No	40		81.7	460	0
Backhoe	No	40		77.6	460	0
Front End Loader	No	40		79.1	460	0
Grader	No	40	85		460	0

Results

Equipment	Calculated (dBA) *Lmax	Leq	Noise Limits (dBA) Day Lmax	Day Leq	Evening Lmax	Evening Leq
Dozer	62.4	58.4	N/A	N/A	N/A	N/A
Backhoe	58.3	54.3	N/A	N/A	N/A	N/A
Front End Loader	59.8	55.9	N/A	N/A	N/A	N/A
Grader	65.7	61.7	N/A	N/A	N/A	N/A

	Total	65.7	64.5	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 8/27/2021

Case Descriptic El Camino College Fire Academy_Ph 1 Trenching Nearest

				---- Receptor #1 ----			
		Baselines (dBA)					
Description	Land Use	Daytime	Evening	Night			
Resis to S, SW	Residential	65	60	55			

			Equipment			
			Spec	Actual	Receptor	Estimated
	Impact		Lmax	Lmax	Distance	Shielding
Description	Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Compactor (ground)	No	20		83.2	150	0
Backhoe	No	40		77.6	180	0
Slurry Trenching Machine	No	50		80.4	200	0

			Results			
	Calculated (dBA)		Noise Limits (dBA)			
			Day		Evening	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Compactor (ground)	73.7	66.7	N/A	N/A	N/A	N/A
Backhoe	66.4	62.5	N/A	N/A	N/A	N/A
Slurry Trenching Machine	68.3	65.3	N/A	N/A	N/A	N/A
Total	73.7	69.9	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

				---- Receptor #2 ----			
		Baselines (dBA)					
Description	Land Use	Daytime	Evening	Night			
Park to NW	Residential	65	60	55			

			Equipment			
			Spec	Actual	Receptor	Estimated
	Impact		Lmax	Lmax	Distance	Shielding
Description	Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Compactor (ground)	No	20		83.2	400	0
Backhoe	No	40		77.6	420	0
Slurry Trenching Machine	No	50		80.4	440	0

			Results			
	Calculated (dBA)		Noise Limits (dBA)			

Equipment	*Lmax	Leq	Day Lmax	Day Leq	Evening Lmax	Evening Leq
Compactor (ground)	65.2	58.2	N/A	N/A	N/A	N/A
Backhoe	59.1	55.1	N/A	N/A	N/A	N/A
Slurry Trenching Machine	61.5	58.5	N/A	N/A	N/A	N/A
Total	65.2	62.3	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
ECC to N	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Compactor (ground)	No	20		83.2	300	0
Backhoe	No	40		77.6	320	0
Slurry Trenching Machine	No	50		80.4	340	0

Results

Equipment	Calculated (dBA) *Lmax	Leq	Noise Limits (dBA) Day Lmax	Day Leq	Evening Lmax	Evening Leq
Compactor (ground)	67.7	60.7	N/A	N/A	N/A	N/A
Backhoe	61.4	57.5	N/A	N/A	N/A	N/A
Slurry Trenching Machine	63.7	60.7	N/A	N/A	N/A	N/A
Total	67.7	64.6	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 8/27/2021

Case Descriptic El Camino College Fire Academy_Ph 1 Trenching Typical

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Resis to S, SW	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Compactor (ground)	No	20		83.2	300	0
Backhoe	No	40		77.6	300	0

Slurry Trenching Machine	No	50	80.4	300	0

Results

	Calculated (dBA)		Noise Limits (dBA)			
			Day		Evening	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Compactor (ground)	67.7	60.7	N/A	N/A	N/A	N/A
Backhoe	62	58	N/A	N/A	N/A	N/A
Slurry Trenching Machine	64.8	61.8	N/A	N/A	N/A	N/A
Total	67.7	65.2	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Park to NW	Residential	65	60	55

Equipment

Description	Impact Device	Usage(%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Compactor (ground)	No	20		83.2	620	0
Backhoe	No	40		77.6	620	0
Slurry Trenching Machine	No	50		80.4	620	0

Results

	Calculated (dBA)		Noise Limits (dBA)			
			Day		Evening	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Compactor (ground)	61.4	54.4	N/A	N/A	N/A	N/A
Backhoe	55.7	51.7	N/A	N/A	N/A	N/A
Slurry Trenching Machine	58.5	55.5	N/A	N/A	N/A	N/A
Total	61.4	58.9	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
ECC to N	Residential	65	60	55

Equipment

Description	Impact Device	Usage(%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Compactor (ground)	No	20		83.2	460	0
Backhoe	No	40		77.6	460	0
Slurry Trenching Machine	No	50		80.4	460	0

Results

	Calculated (dBA)		Noise Limits (dBA)			
			Day		Evening	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Compactor (ground)	64	57	N/A	N/A	N/A	N/A
Backhoe	58.3	54.3	N/A	N/A	N/A	N/A
Slurry Trenching Machine	61.1	58.1	N/A	N/A	N/A	N/A
Total	64	61.5	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 8/27/2021
Case Descriptic ECC College Fire Acdmy_Ph 1 ModBldInst Nearest

---- Receptor #1 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Resis to S, SW	Residential	65	60	55

			Equipment			
			Spec	Actual	Receptor	Estimated
	Impact		Lmax	Lmax	Distance	Shielding
Description	Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Crane	No	16		80.6	150	0
Man Lift	No	20		74.7	180	0
Man Lift	No	20		74.7	200	0
Front End Loader	No	40		79.1	170	0
Welder / Torch	No	40		74	220	0
Welder / Torch	No	40		74	180	0
Welder / Torch	No	40		74	210	0
Generator	No	50		80.6	170	0

Results

	Calculated (dBA)		Noise Limits (dBA)			
			Day		Evening	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Crane	71	63	N/A	N/A	N/A	N/A
Man Lift	63.6	56.6	N/A	N/A	N/A	N/A
Man Lift	62.7	55.7	N/A	N/A	N/A	N/A
Front End Loader	68.5	64.5	N/A	N/A	N/A	N/A
Welder / Torch	61.1	57.2	N/A	N/A	N/A	N/A
Welder / Torch	62.9	58.9	N/A	N/A	N/A	N/A
Welder / Torch	61.5	57.6	N/A	N/A	N/A	N/A
Generator	70	67	N/A	N/A	N/A	N/A
Total	71	71	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Park to NW	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	400	0
Man Lift	No	20		74.7	420	0
Man Lift	No	20		74.7	440	0
Front End Loader	No	40		79.1	430	0
Welder / Torch	No	40		74	450	0
Welder / Torch	No	40		74	440	0
Welder / Torch	No	40		74	470	0
Generator	No	50		80.6	440	0

Equipment	Calculated (dBA) *Lmax	Leq	Results Day Lmax	Noise Limits (dBA) Day Leq	Evening Lmax	Evening Leq
Crane	62.5	54.5	N/A	N/A	N/A	N/A
Man Lift	56.2	49.2	N/A	N/A	N/A	N/A
Man Lift	55.8	48.8	N/A	N/A	N/A	N/A
Front End Loader	60.4	56.4	N/A	N/A	N/A	N/A
Welder / Torch	54.9	50.9	N/A	N/A	N/A	N/A
Welder / Torch	55.1	51.1	N/A	N/A	N/A	N/A
Welder / Torch	54.5	50.6	N/A	N/A	N/A	N/A
Generator	61.7	58.7	N/A	N/A	N/A	N/A
Total	62.5	63	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
ECC to N	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	300	0
Man Lift	No	20		74.7	320	0
Man Lift	No	20		74.7	340	0
Front End Loader	No	40		79.1	330	0
Welder / Torch	No	40		74	350	0
Welder / Torch	No	40		74	330	0
Welder / Torch	No	40		74	370	0

Generator	No	50	80.6	350	0

	Results					
	Calculated (dBA)		Noise Limits (dBA)			
			Day		Evening	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Crane	65	57	N/A	N/A	N/A	N/A
Man Lift	58.6	51.6	N/A	N/A	N/A	N/A
Man Lift	58	51.1	N/A	N/A	N/A	N/A
Front End Loader	62.7	58.7	N/A	N/A	N/A	N/A
Welder / Torch	57.1	53.1	N/A	N/A	N/A	N/A
Welder / Torch	57.6	53.6	N/A	N/A	N/A	N/A
Welder / Torch	56.6	52.6	N/A	N/A	N/A	N/A
Generator	63.7	60.7	N/A	N/A	N/A	N/A
Total	65	65.2	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 8/27/2021
Case Descriptic ECC College Fire Acdmy_Ph 1 ModBldInst Typical

				---- Receptor #1 ----	
		Baselines (dBA)			
Description	Land Use	Daytime	Evening	Night	
Resis to S, SW	Residential	65	60	55	

			Equipment			
			Spec	Actual	Receptor	Estimated
	Impact		Lmax	Lmax	Distance	Shielding
Description	Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Crane	No	16		80.6	300	0
Man Lift	No	20		74.7	300	0
Man Lift	No	20		74.7	300	0
Front End Loader	No	40		79.1	300	0
Welder / Torch	No	40		74	300	0
Welder / Torch	No	40		74	300	0
Welder / Torch	No	40		74	300	0
Generator	No	50		80.6	300	0

	Results					
	Calculated (dBA)		Noise Limits (dBA)			
			Day		Evening	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Crane	65	57	N/A	N/A	N/A	N/A
Man Lift	59.1	52.1	N/A	N/A	N/A	N/A
Man Lift	59.1	52.1	N/A	N/A	N/A	N/A

Front End Loader		63.5	59.6	N/A	N/A	N/A	N/A
Welder / Torch		58.4	54.5	N/A	N/A	N/A	N/A
Welder / Torch		58.4	54.5	N/A	N/A	N/A	N/A
Welder / Torch		58.4	54.5	N/A	N/A	N/A	N/A
Generator		65.1	62.1	N/A	N/A	N/A	N/A
	Total	65.1	66.2	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Park to NW	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	620	0
Man Lift	No	20		74.7	620	0
Man Lift	No	20		74.7	620	0
Front End Loader	No	40		79.1	620	0
Welder / Torch	No	40		74	620	0
Welder / Torch	No	40		74	620	0
Welder / Torch	No	40		74	620	0
Generator	No	50		80.6	620	0

	Calculated (dBA)		Results Noise Limits (dBA)			
			Day		Evening	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Crane	58.7	50.7	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
Front End Loader	57.2	53.3	N/A	N/A	N/A	N/A
Welder / Torch	52.1	48.2	N/A	N/A	N/A	N/A
Welder / Torch	52.1	48.2	N/A	N/A	N/A	N/A
Welder / Torch	52.1	48.2	N/A	N/A	N/A	N/A
Generator	58.8	55.8	N/A	N/A	N/A	N/A
Total	58.8	59.9	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
ECC to N	Residential	65	60	55

		Equipment Spec	Actual	Receptor	Estimated
	Impact	Lmax	Lmax	Distance	Shielding

Description	Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Crane	No	16		80.6	460	0
Man Lift	No	20		74.7	460	0
Man Lift	No	20		74.7	460	0
Front End Loader	No	40		79.1	460	0
Welder / Torch	No	40		74	460	0
Welder / Torch	No	40		74	460	0
Welder / Torch	No	40		74	460	0
Generator	No	50		80.6	460	0

Results

	Calculated (dBA)		Noise Limits (dBA)			
			Day		Evening	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Crane	61.3	53.3	N/A	N/A	N/A	N/A
Man Lift	55.4	48.4	N/A	N/A	N/A	N/A
Man Lift	55.4	48.4	N/A	N/A	N/A	N/A
Front End Loader	59.8	55.9	N/A	N/A	N/A	N/A
Welder / Torch	54.7	50.7	N/A	N/A	N/A	N/A
Welder / Torch	54.7	50.7	N/A	N/A	N/A	N/A
Welder / Torch	54.7	50.7	N/A	N/A	N/A	N/A
Generator	61.4	58.3	N/A	N/A	N/A	N/A
Total	61.4	62.5	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 8/27/2021
Case Descriptic El Camino College Fire Academy_Ph 1 Paving Nearest

---- Receptor #1 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Resis to S, SW	Residential	65	60	55

			Equipment			
			Spec	Actual	Receptor	Estimated
	Impact		Lmax	Lmax	Distance	Shielding
Description	Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Paver	No	50		77.2	150	0
Concrete Mixer Truck	No	40		78.8	180	0
Roller	No	20		80	200	0
Roller	No	20		80	170	0
Tractor	No	40	84		220	0
Concrete Pump Truck	No	20		81.4	190	0

Results

	Calculated (dBA)		Noise Limits (dBA)			
			Day		Evening	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Paver	67.7	64.7	N/A	N/A	N/A	N/A
Concrete Mixer Truck	67.7	63.7	N/A	N/A	N/A	N/A
Roller	68	61	N/A	N/A	N/A	N/A
Roller	69.4	62.4	N/A	N/A	N/A	N/A
Tractor	71.1	67.2	N/A	N/A	N/A	N/A
Concrete Pump Truck	69.8	62.8	N/A	N/A	N/A	N/A
Total	71.1	71.9	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Park to NW	Residential	65	60	55

			Equipment			
			Spec	Actual	Receptor	Estimated
	Impact		Lmax	Lmax	Distance	Shielding
Description	Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Paver	No	50		77.2	400	0
Concrete Mixer Truck	No	40		78.8	420	0
Roller	No	20		80	440	0
Roller	No	20		80	430	0
Tractor	No	40	84		450	0
Concrete Pump Truck	No	20		81.4	460	0

Results

	Calculated (dBA)		Noise Limits (dBA)			
			Day		Evening	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Paver	59.2	56.1	N/A	N/A	N/A	N/A
Concrete Mixer Truck	60.3	56.3	N/A	N/A	N/A	N/A
Roller	61.1	54.1	N/A	N/A	N/A	N/A
Roller	61.3	54.3	N/A	N/A	N/A	N/A
Tractor	64.9	60.9	N/A	N/A	N/A	N/A
Concrete Pump Truck	62.1	55.1	N/A	N/A	N/A	N/A
Total	64.9	64.7	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
ECC to N	Residential	65	60	55

			Equipment			
			Spec	Actual	Receptor	Estimated
	Impact		Lmax	Lmax	Distance	Shielding

Description	Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Paver	No	50		77.2	300	0
Concrete Mixer Truck	No	40		78.8	320	0
Roller	No	20		80	340	0
Roller	No	20		80	330	0
Tractor	No	40	84		350	0
Concrete Pump Truck	No	20		81.4	340	0

Results

	Calculated (dBA)		Noise Limits (dBA)			
			Day		Evening	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Paver	61.7	58.6	N/A	N/A	N/A	N/A
Concrete Mixer Truck	62.7	58.7	N/A	N/A	N/A	N/A
Roller	63.3	56.4	N/A	N/A	N/A	N/A
Roller	63.6	56.6	N/A	N/A	N/A	N/A
Tractor	67.1	63.1	N/A	N/A	N/A	N/A
Concrete Pump Truck	64.7	57.8	N/A	N/A	N/A	N/A
Total	67.1	67	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 8/30/2021

Case Descriptic El Camino College Fire Academy_Ph 1 Paving Typical

---- Receptor #1 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Resis to S, SW	Residential	65	60	55

			Equipment			
			Spec	Actual	Receptor	Estimated
	Impact		Lmax	Lmax	Distance	Shielding
Description	Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Paver	No	50		77.2	300	0
Concrete Mixer Truck	No	40		78.8	300	0
Roller	No	20		80	300	0
Roller	No	20		80	300	0
Tractor	No	40	84		300	0
Concrete Pump Truck	No	20		81.4	300	0

Results

	Calculated (dBA)		Noise Limits (dBA)			
			Day		Evening	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Paver	61.7	58.6	N/A	N/A	N/A	N/A

Concrete Mixer Truck	63.2	59.3	N/A	N/A	N/A	N/A
Roller	64.4	57.4	N/A	N/A	N/A	N/A
Roller	64.4	57.4	N/A	N/A	N/A	N/A
Tractor	68.4	64.5	N/A	N/A	N/A	N/A
Concrete Pump Truck	65.8	58.8	N/A	N/A	N/A	N/A
Total	68.4	68	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Park to NW	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Paver	No	50		77.2	620	0
Concrete Mixer Truck	No	40		78.8	620	0
Roller	No	20		80	620	0
Roller	No	20		80	620	0
Tractor	No	40	84		620	0
Concrete Pump Truck	No	20		81.4	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
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
Tractor	62.1	58.2	N/A	N/A	N/A	N/A
Concrete Pump Truck	59.5	52.5	N/A	N/A	N/A	N/A
Total	62.1	61.6	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
ECC to N	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Paver	No	50		77.2	460	0
Concrete Mixer Truck	No	40		78.8	460	0
Roller	No	20		80	460	0

Roller	No	20		80	460	0
Tractor	No	40	84		460	0
Concrete Pump Truck	No	20		81.4	460	0

	Results					
	Calculated (dBA)		Noise Limits (dBA)			
			Day		Evening	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Paver	57.9	54.9	N/A	N/A	N/A	N/A
Concrete Mixer Truck	59.5	55.5	N/A	N/A	N/A	N/A
Roller	60.7	53.7	N/A	N/A	N/A	N/A
Roller	60.7	53.7	N/A	N/A	N/A	N/A
Tractor	64.7	60.7	N/A	N/A	N/A	N/A
Concrete Pump Truck	62.1	55.1	N/A	N/A	N/A	N/A
Total	64.7	64.2	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 8/27/2021
Case Descriptic ECC Fire Academy_Ph 1 Arch Coating Nearest

				---- Receptor #1 ----
		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Resis to S, SW	Residential	65	60	55

			Equipment			
			Spec	Actual	Receptor	Estimated
	Impact		Lmax	Lmax	Distance	Shielding
Description	Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Compressor (air)	No	40		77.7	150	0

	Results					
	Calculated (dBA)		Noise Limits (dBA)			
			Day		Evening	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Compressor (air)	68.1	64.1	N/A	N/A	N/A	N/A
Total	68.1	64.1	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

				---- Receptor #2 ----
		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Park to NW	Residential	65	60	55

Equipment

Description	Impact Device	Usage(%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated 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 #3 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
ECC to N	Residential	65	60	55

Equipment

Description	Impact Device	Usage(%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Compressor (air)	No	40		77.7	300	0

Results

	Calculated (dBA)		Noise Limits (dBA)			
			Day		Evening	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Compressor (air)	62.1	58.1	N/A	N/A	N/A	N/A
Total	62.1	58.1	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 8/27/2021
Case Descriptic ECC Fire Academy_Ph 1 Arch Coating Typical

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Resis to S, SW	Residential	65	60	55

Equipment

Description	Impact Device	Usage(%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Compressor (air)	No	40		77.7	300	0

Results

	Calculated (dBA)		Noise Limits (dBA)			
			Day		Evening	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Compressor (air)	62.1	58.1	N/A	N/A	N/A	N/A
Total	62.1	58.1	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Park to NW	Residential	65	60	55

Equipment

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

Results

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

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
ECC to N	Residential	65	60	55

Equipment

Description	Impact Device	Usage(%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Compressor (air)	No	40		77.7	460	0

Results

	Calculated (dBA)		Noise Limits (dBA)			
			Day		Evening	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Compressor (air)	58.4	54.4	N/A	N/A	N/A	N/A
Total	58.4	54.4	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Report date: 8/30/2021
Case Descriptic El Camino College Fire Academy_Ph 2 Site Prep Nearest

---- Receptor #1 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Resis to S, SW	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Grader	No	40	85		150	0
Front End Loader	No	40		79.1	170	0
Scraper	No	40		83.6	200	0

	Results Calculated (dBA)		Noise Limits (dBA) Day		Evening	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Grader	75.5	71.5	N/A	N/A	N/A	N/A
Front End Loader	68.5	64.5	N/A	N/A	N/A	N/A
Scraper	71.5	67.6	N/A	N/A	N/A	N/A
Total	75.5	73.5	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Park to NW	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Grader	No	40	85		450	0
Front End Loader	No	40		79.1	480	0
Scraper	No	40		83.6	500	0

	Results Calculated (dBA)		Noise Limits (dBA) Day		Evening	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Grader	65.9	61.9	N/A	N/A	N/A	N/A
Front End Loader	59.5	55.5	N/A	N/A	N/A	N/A
Scraper	63.6	59.6	N/A	N/A	N/A	N/A

	Total	65.9	64.5	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

				---- Receptor #3 ----
		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
ECC to N	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Grader	No	40	85		430	0
Front End Loader	No	40		79.1	450	0
Scraper	No	40		83.6	470	0

	Results					
	Calculated (dBA)		Noise Limits (dBA)			
			Day		Evening	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Grader	66.3	62.3	N/A	N/A	N/A	N/A
Front End Loader	60	56	N/A	N/A	N/A	N/A
Scraper	64.1	60.1	N/A	N/A	N/A	N/A
Total	66.3	65	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 8/30/2021
Case Descriptic El Camino College Fire Academy_Ph 2 Site Prep Typical

				---- Receptor #1 ----
		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Resis to S, SW	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Grader	No	40	85		225	0
Front End Loader	No	40		79.1	225	0
Scraper	No	40		83.6	225	0

	Results		
	Calculated (dBA)		Noise Limits (dBA)

Equipment	*Lmax	Leq	Day Lmax	Day Leq	Evening Lmax	Evening Leq
Grader	71.9	68	N/A	N/A	N/A	N/A
Front End Loader	66	62.1	N/A	N/A	N/A	N/A
Scraper	70.5	66.5	N/A	N/A	N/A	N/A
Total	71.9	70.9	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Park to NW	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Grader	No	40	85		640	0
Front End Loader	No	40		79.1	640	0
Scraper	No	40		83.6	640	0

Results

Equipment	Calculated (dBA) *Lmax	Leq	Noise Limits (dBA) Day Lmax	Day Leq	Evening Lmax	Evening Leq
Grader	62.9	58.9	N/A	N/A	N/A	N/A
Front End Loader	57	53	N/A	N/A	N/A	N/A
Scraper	61.4	57.5	N/A	N/A	N/A	N/A
Total	62.9	61.8	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
ECC to N	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Grader	No	40	85		515	0
Front End Loader	No	40		79.1	515	0
Scraper	No	40		83.6	515	0

Results

Equipment	Calculated (dBA) *Lmax	Leq	Noise Limits (dBA) Day Lmax	Day Leq	Evening Lmax	Evening Leq
Grader	64.7	60.8	N/A	N/A	N/A	N/A

Front End Loader		58.9	54.9	N/A	N/A	N/A	N/A
Scraper		63.3	59.3	N/A	N/A	N/A	N/A
	Total	64.7	63.7	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 8/30/2021
Case Descriptic ECC College Fire Acdmy_Ph 2 BldCnst Nearest

---- Receptor #1 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Resis to S, SW	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	150	0
Man Lift	No	20		74.7	180	0
Man Lift	No	20		74.7	200	0
Front End Loader	No	40		79.1	170	0
Welder / Torch	No	40		74	220	0
Welder / Torch	No	40		74	180	0
Welder / Torch	No	40		74	210	0
Generator	No	50		80.6	170	0

	Calculated (dBA)		Results Noise Limits (dBA)			
			Day		Evening	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Crane	71	63	N/A	N/A	N/A	N/A
Man Lift	63.6	56.6	N/A	N/A	N/A	N/A
Man Lift	62.7	55.7	N/A	N/A	N/A	N/A
Front End Loader	68.5	64.5	N/A	N/A	N/A	N/A
Welder / Torch	61.1	57.2	N/A	N/A	N/A	N/A
Welder / Torch	62.9	58.9	N/A	N/A	N/A	N/A
Welder / Torch	61.5	57.6	N/A	N/A	N/A	N/A
Generator	70	67	N/A	N/A	N/A	N/A
Total	71	71	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night

Park to NW	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	450	0
Man Lift	No	20		74.7	480	0
Man Lift	No	20		74.7	500	0
Front End Loader	No	40		79.1	470	0
Welder / Torch	No	40		74	490	0
Welder / Torch	No	40		74	510	0
Welder / Torch	No	40		74	470	0
Generator	No	50		80.6	440	0

Results

	Calculated (dBA)		Noise Limits (dBA)			
			Day		Evening	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Crane	61.5	53.5	N/A	N/A	N/A	N/A
Man Lift	55.1	48.1	N/A	N/A	N/A	N/A
Man Lift	54.7	47.7	N/A	N/A	N/A	N/A
Front End Loader	59.6	55.7	N/A	N/A	N/A	N/A
Welder / Torch	54.2	50.2	N/A	N/A	N/A	N/A
Welder / Torch	53.8	49.8	N/A	N/A	N/A	N/A
Welder / Torch	54.5	50.6	N/A	N/A	N/A	N/A
Generator	61.7	58.7	N/A	N/A	N/A	N/A
Total	61.7	62.5	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
ECC to N	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	430	0
Man Lift	No	20		74.7	450	0
Man Lift	No	20		74.7	500	0
Front End Loader	No	40		79.1	460	0
Welder / Torch	No	40		74	470	0
Welder / Torch	No	40		74	510	0
Welder / Torch	No	40		74	480	0
Generator	No	50		80.6	460	0

Results

	Calculated (dBA)		Noise Limits (dBA)			
			Day		Evening	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Crane	61.9	53.9	N/A	N/A	N/A	N/A
Man Lift	55.6	48.6	N/A	N/A	N/A	N/A
Man Lift	54.7	47.7	N/A	N/A	N/A	N/A
Front End Loader	59.8	55.9	N/A	N/A	N/A	N/A
Welder / Torch	54.5	50.6	N/A	N/A	N/A	N/A
Welder / Torch	53.8	49.8	N/A	N/A	N/A	N/A
Welder / Torch	54.4	50.4	N/A	N/A	N/A	N/A
Generator	61.4	58.3	N/A	N/A	N/A	N/A
Total	61.9	62.5	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 8/30/2021
Case Descriptic ECC College Fire Acdmy_Ph 2 BldCnst Typical

				---- Receptor #1 ----	
		Baselines (dBA)			
Description	Land Use	Daytime	Evening	Night	
Resis to S, SW	Residential	65	60	55	

			Equipment			
			Spec	Actual	Receptor	Estimated
	Impact		Lmax	Lmax	Distance	Shielding
Description	Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Crane	No	16		80.6	225	0
Man Lift	No	20		74.7	225	0
Man Lift	No	20		74.7	225	0
Front End Loader	No	40		79.1	225	0
Welder / Torch	No	40		74	225	0
Welder / Torch	No	40		74	225	0
Welder / Torch	No	40		74	225	0
Generator	No	50		80.6	225	0

Results

	Calculated (dBA)		Noise Limits (dBA)			
			Day		Evening	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Crane	67.5	59.5	N/A	N/A	N/A	N/A
Man Lift	61.6	54.6	N/A	N/A	N/A	N/A
Man Lift	61.6	54.6	N/A	N/A	N/A	N/A
Front End Loader	66	62.1	N/A	N/A	N/A	N/A
Welder / Torch	60.9	57	N/A	N/A	N/A	N/A
Welder / Torch	60.9	57	N/A	N/A	N/A	N/A

Welder / Torch		60.9	57	N/A	N/A	N/A	N/A
Generator		67.6	64.6	N/A	N/A	N/A	N/A
	Total	67.6	68.7	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Park to NW	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	640	0
Man Lift	No	20		74.7	640	0
Man Lift	No	20		74.7	640	0
Front End Loader	No	40		79.1	640	0
Welder / Torch	No	40		74	640	0
Welder / Torch	No	40		74	640	0
Welder / Torch	No	40		74	640	0
Generator	No	50		80.6	640	0

			Results			
	Calculated (dBA)		Noise Limits (dBA)			
			Day		Evening	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Crane	58.4	50.4	N/A	N/A	N/A	N/A
Man Lift	52.6	45.6	N/A	N/A	N/A	N/A
Man Lift	52.6	45.6	N/A	N/A	N/A	N/A
Front End Loader	57	53	N/A	N/A	N/A	N/A
Welder / Torch	51.9	47.9	N/A	N/A	N/A	N/A
Welder / Torch	51.9	47.9	N/A	N/A	N/A	N/A
Welder / Torch	51.9	47.9	N/A	N/A	N/A	N/A
Generator	58.5	55.5	N/A	N/A	N/A	N/A
Total	58.5	59.6	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
ECC to N	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	515	0
Man Lift	No	20		74.7	515	0

Man Lift	No	20	74.7	515	0
Front End Loader	No	40	79.1	515	0
Welder / Torch	No	40	74	515	0
Welder / Torch	No	40	74	515	0
Welder / Torch	No	40	74	515	0
Generator	No	50	80.6	515	0

Results

	Calculated (dBA)		Noise Limits (dBA)			
			Day		Evening	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Crane	60.3	52.3	N/A	N/A	N/A	N/A
Man Lift	54.4	47.5	N/A	N/A	N/A	N/A
Man Lift	54.4	47.5	N/A	N/A	N/A	N/A
Front End Loader	58.9	54.9	N/A	N/A	N/A	N/A
Welder / Torch	53.7	49.8	N/A	N/A	N/A	N/A
Welder / Torch	53.7	49.8	N/A	N/A	N/A	N/A
Welder / Torch	53.7	49.8	N/A	N/A	N/A	N/A
Generator	60.4	57.4	N/A	N/A	N/A	N/A
Total	60.4	61.5	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 8/30/2021
Case Descriptic ECC Fire Academy_Ph 2 Arch Coating Nearest

---- Receptor #1 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Resis to S, SW	Residential	65	60	55

Equipment

Description	Impact Device	Usage(%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Compressor (air)	No	40		77.7	150	0

Results

	Calculated (dBA)		Noise Limits (dBA)			
			Day		Evening	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Compressor (air)	68.1	64.1	N/A	N/A	N/A	N/A
Total	68.1	64.1	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Park to NW	Residential	65	60	55

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

	Calculated (dBA)		Results Noise Limits (dBA)			
			Day		Evening	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Compressor (air)	58.6	54.6	N/A	N/A	N/A	N/A
Total	58.6	54.6	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
ECC to N	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Compressor (air)	No	40		77.7	430	0

	Calculated (dBA)		Results Noise Limits (dBA)			
			Day		Evening	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Compressor (air)	59	55	N/A	N/A	N/A	N/A
Total	59	55	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Report date: 8/30/2021
Case Descriptic ECC Fire Academy_Ph 2 Arch Coating Typical

---- Receptor #1 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Resis to S, SW	Residential	65	60	55

			Equipment			
	Impact		Spec Lmax	Actual Lmax	Receptor Distance	Estimated Shielding
Description	Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Compressor (air)	No	40		77.7	225	0

		Results			
	Calculated (dBA)		Noise Limits (dBA)		
		Day		Evening	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Compressor (air)	64.6	60.6	N/A	N/A	N/A	N/A
Total	64.6	60.6	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Park to NW	Residential	65	60	55

			Equipment			
	Impact		Spec Lmax	Actual Lmax	Receptor Distance	Estimated Shielding
Description	Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Compressor (air)	No	40		77.7	640	0

		Results			
	Calculated (dBA)		Noise Limits (dBA)		
		Day		Evening	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Compressor (air)	55.5	51.5	N/A	N/A	N/A	N/A
Total	55.5	51.5	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
ECC to N	Residential	65	60	55

			Equipment			
	Impact		Spec Lmax	Actual Lmax	Receptor Distance	Estimated Shielding
Description	Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Compressor (air)	No	40		77.7	515	0

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

Compressor (air)	57.4	53.4	N/A	N/A	N/A	N/A
Total	57.4	53.4	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Mechanical Noise Calculations

TECHNICAL GUIDE

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

Description

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

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

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

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

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

Tested in accordance with:

DESIGN CERTIFIED

C SA US

CERTIFIED

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

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

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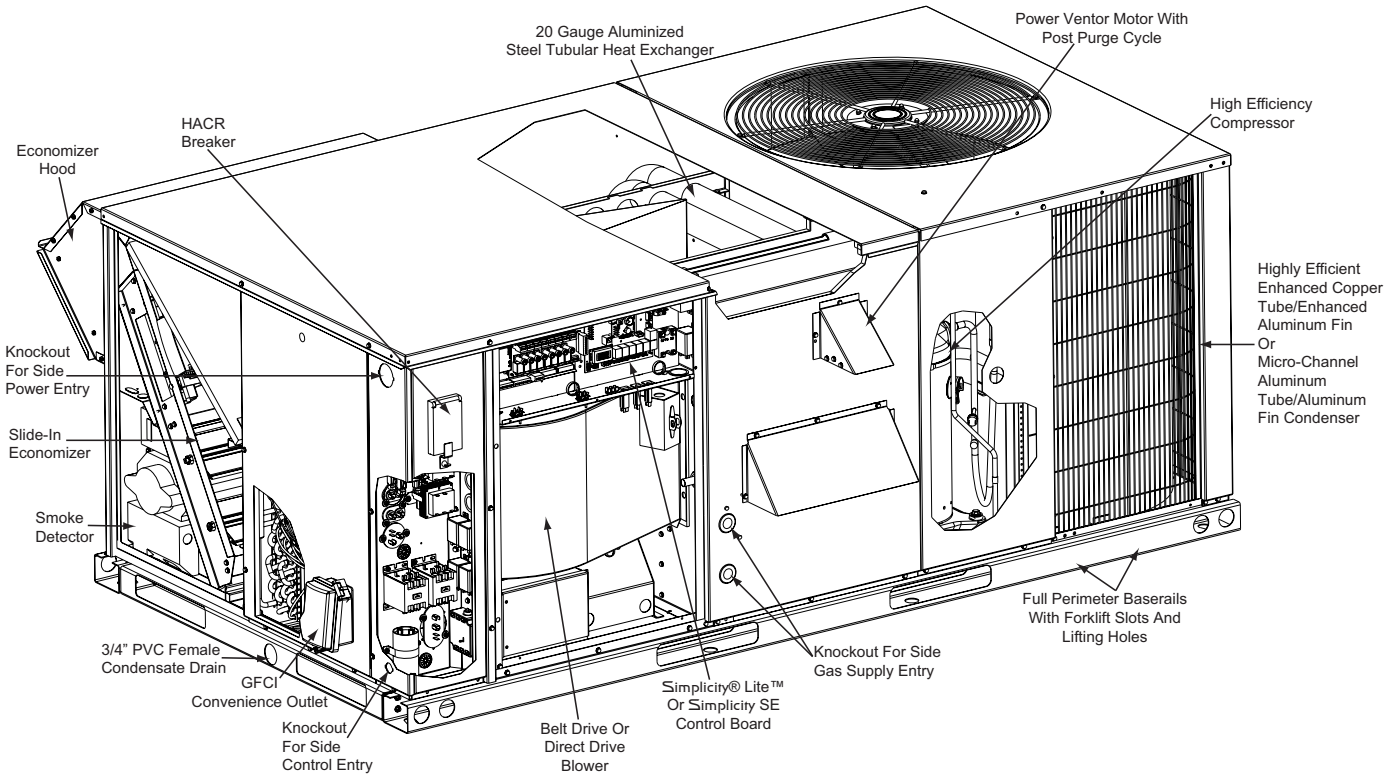
Component Location

Gas/Electric



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

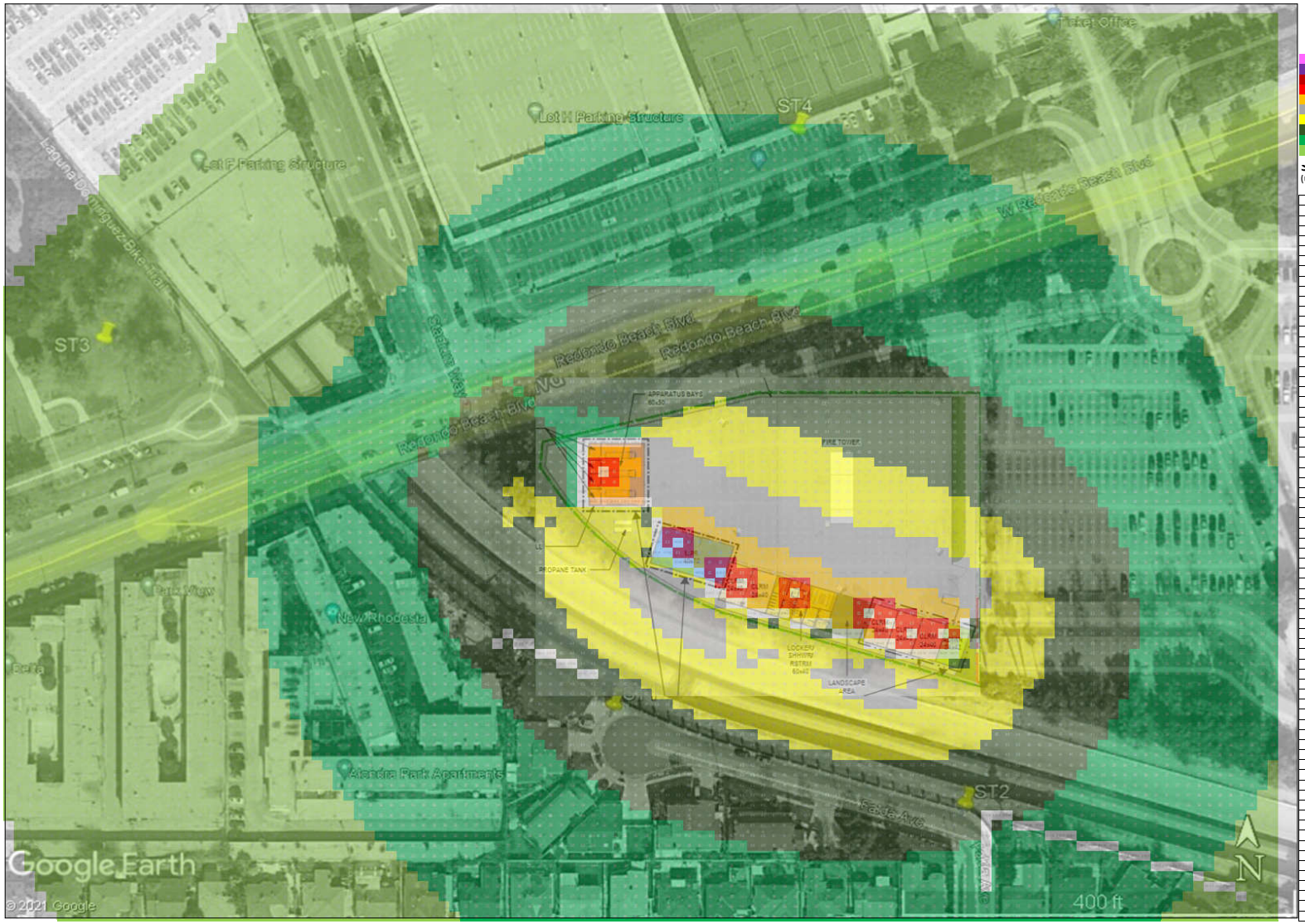
Size (Tons)	Sound Rating[1] dB (A)	Octave Band Centerline Frequency (Hz)							
		63	125	250	500	1000	2000	4000	8000
036 (3.0)	76	83.5	84.5	76.5	72.0	68.0	66.0	60.0	56.0
048 (4.0)	80	85.0	83.0	81.0	77.5	75.5	71.5	67.5	61.5
060 (5.0)	80	86.0	84.0	81.0	77.0	75.5	71.0	66.5	60.5

1. Rated in accordance with AHRI 270 standard.

Sound Power Level, Sound Pressure Level

Per Diehl, pg. 80:
(Ref: Diehl, George M. Machinery Acoustics, 1974.)
Lp=Ld=Lw-20*Log(R)+2.5, in feet - true for a free field above a reflecting plane.

Test Lw (dBA)	Test R (Ft)	Diehl (Reflecting Plane): Lp (dBA)	
81.0	3.3	73.1	3 Tons York
82.0	3.3	74.2	5 Tons York
83.0	3.3	75.2	6 Tons York



Predicted Aggregate Sound Pressure Level (SPL)

Color	dBA range High	Low
	80	75
	75	70
	70	65
	65	60
	60	55
	55	50
	50	45
	45	40
	40	35
	35	30

Selected Receptors
(user: enter rcvr tag from i

Tag	dBA	Row
R001	42.7	66
R002	39.4	82
R003	32.9	37
R004	35.1	11
R005	40.8	60
R006	#####	-1
R007	#####	-1
R008	#####	-1
R009	#####	-1
R010	#####	-1
R011	#####	-1
R012	#####	-1
R013	#####	-1
R014	#####	-1
R015	#####	-1
R016	#####	-1
R017	#####	-1
R018	#####	-1
R019	#####	-1
R020	#####	-1
R021	#####	-1
R022	#####	-1
R023	#####	-1
R024	#####	-1
R025	#####	-1
R026	#####	-1
R027	#####	-1
R028	#####	-1
R029	#####	-1
R030	#####	-1
R031	#####	-1
R032	#####	-1
R033	#####	-1
R034	#####	-1
R035	#####	-1
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R065	#####	-1
R066	#####	-1
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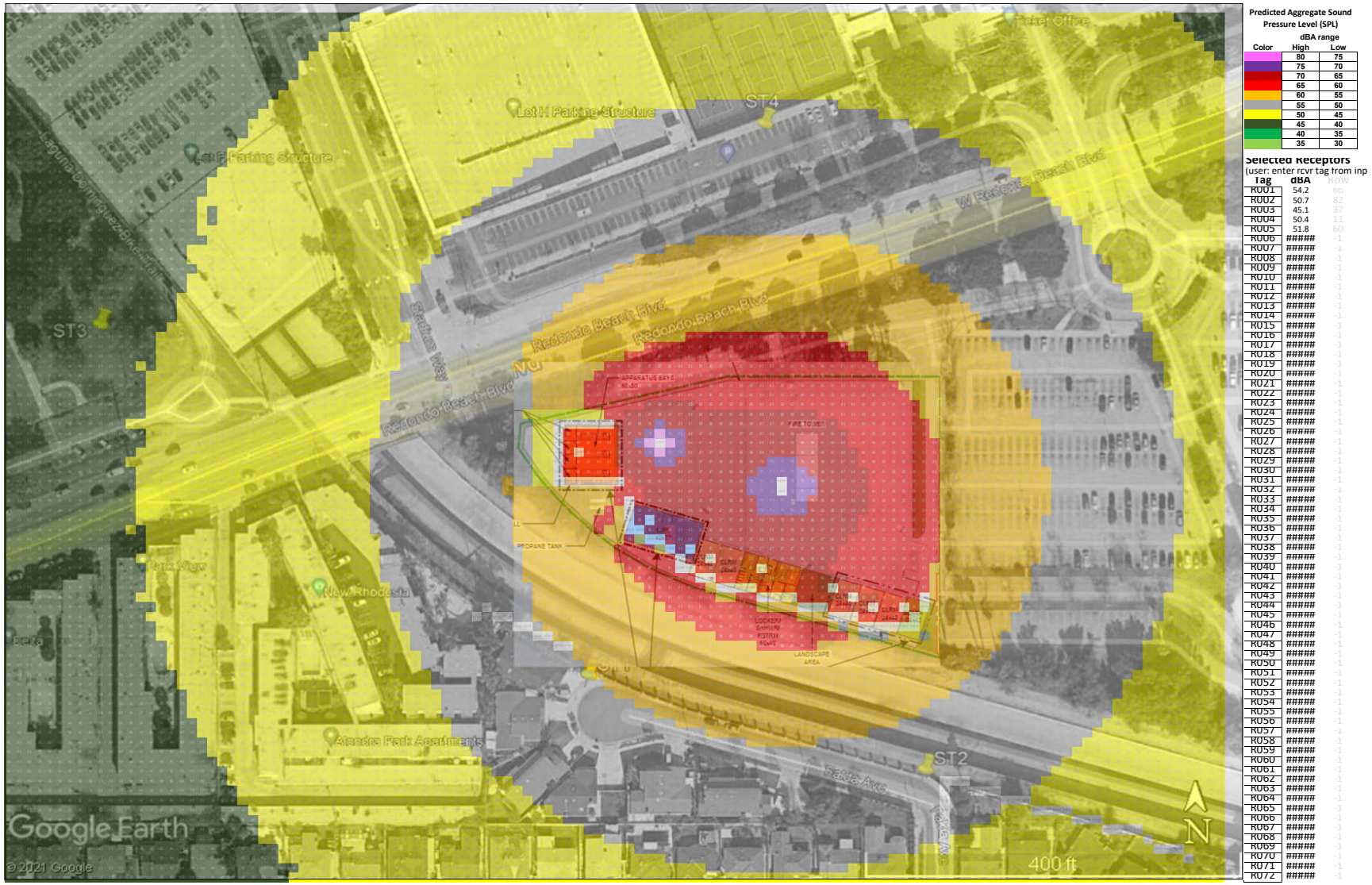
R068	#####	-1
R069	#####	-1
R070	#####	-1
R071	#####	-1
R072	#####	-1


Predicted Aggregate Sound Pressure Level (SPL)
dBA range
Color High Low
80 75
75 70
70 65
65 60
60 55
55 50
50 45
45 40
40 35
35 30
Selected Receptors
(user: enter rcvr tag from inp
Tag dBA ROW
R001 54.2 66
R002 50.7 82
R003 45.1 37
R004 50.4 11
R005 51.8 60
Lot H Parking Structure
ST4
ST3
ST2
Redondo Beach Blvd
Aviation Park Apartments
Google Earth
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400 ft
N