Appendix H

Noise Report

APPENDIX H-1

Field Noise Data Sheets

DUDEK
CREATOR OF KERATA TECHNOLOGY

FIELD DATA REPORT

Field Noise Measurement Data

Record: 854	
Project Name	*RDA Curci*
Observer(s)	*Connor Burke*
Date	*2018-02-23*

Meteorological Conditions	
Temp (F)	*51*
Humidity % (R.H.)	*29*
Wind	*Light*
Wind Speed (MPH)	*8*
Wind Direction	*East*
Sky	*Partly Cloudy*

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

Recordings	
Record #	*1*
Site ID	*ST2*
Site Location Lat/Long	*33.596960, -117.167317*
Begin (Time)	*09:56:00*
End (Time)	*10:11:00*
Leq	*55*
Lmax	*65.1*
Lmin	*46.8*
Other Lx?	*L90, L50, L10*
L90	*49.2*
L50	*52*
L10	*58.4*
Other Lx (Specify Metric)	*L*
Primary Noise Source	*HVAC / pool pumps.*
Other Noise Sources (Background)	*Birds, Distant Aircraft, Distant Traffic*
Other Noise Sources Additional Description	*Backup alarms. Hvac. School construction site.*
Is the same instrument and calibrator being used as previously noted?	*Yes*
Are the meteorological conditions the same as previously noted?	*Yes*

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Description / Photos

Site Photos

Photo	
Comments / Description	*Facing northwest towards Clinton Keith.*

Recordings

Record #	*2*
Site ID	*ST3*
Site Location Lat/Long	*33.598021, -117.166866*
Begin (Time)	*10:18:00*
End (Time)	*10:28:00*
Leq	*54.3*
Lmax	*65.8*
Lmin	*44.2*
Other Lx?	*L90, L50, L10*
L90	*47.3*
L50	*52.6*
L10	*57.8*
Other Lx (Specify Metric)	*L*
Primary Noise Source	*Traffic*
Other Noise Sources (Background)	*Birds, Rustling Leaves*
Other Noise Sources Additional Description	*Backup alarms.*
Is the same instrument and calibrator being used as previously noted?	*Yes*
Are the meteorological conditions the same as previously noted?	*Yes*

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FIELD DATA REPORT

Source Info and Traffic Counts	
Number of Lanes	*5*
Lane Width (feet)	*10*
Roadway Width (feet)	*50*
Roadway Width (m)	*15*
Distance to Roadway (feet)	*60*
Distance to Roadway (m)	*60*
Distance Measured to Centerline or Edge of Pavement?	*Centerline*
Estimated Vehicle Speed (MPH)	*40*
Count Duration (Min)	*10*

Traffic Counts	
Vehicle Count Summary	*Autos 102, MT 1, HT 1, Buses 0, MC 0*
Count Duration (minutes)	*0*
Counting Both Directions?	*Yes*
Vehicle Count Tally	
Select Method for Vehicle Counts	*Use Counter (+/-)*
Autos	*102*
Medium Trucks	*1*
Heavy Trucks	*1*
Buses	*0*
Motorcycles	*0*

Description / Photos

Site Photos	
Photo	
Comments / Description	*Facing south east towards Clinton Keith.*

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FIELD DATA REPORT

Recordings	
Record #	*3*
Site ID	*ST4*
Site Location Lat/Long	*33.600975, -117.166889*
Begin (Time)	*10:39:00*
End (Time)	*10:49:00*
Leq	*52.1*
Lmax	*63.6*
Lmin	*43.9*
Other Lx?	*L90, L50, L10*
L90	*45.4*
L50	*48.2*
L10	*55.9*
Other Lx (Specify Metric)	*L*
Primary Noise Source	*Construction noise.*
Other Noise Sources (Background)	*Birds, Distant Aircraft, Rustling Leaves*
Other Noise Sources Additional Description	*Backup alarms. Excavator.*
Is the same instrument and calibrator being used as previously noted?	*Yes*
Are the meteorological conditions the same as previously noted?	*Yes*

Description / Photos

Site Photos	
Photo	
Comments / Description	*Facing west towards project site.*

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FIELD DATA REPORT

Recordings	
Record #	4
Site ID	ST1
Site Location Lat/Long	33.597558, -117.172063
Begin (Time)	10:56:00
End (Time)	11:06:00
Leq	55.6
Lmax	71.3
Lmin	46.3
Other Lx?	L90, L50, L10
L90	48.9
L50	52
L10	55.4
Other Lx (Specify Metric)	L
Primary Noise Source	Traffic
Other Noise Sources (Background)	Birds, Distant Traffic, Rustling Leaves
Other Noise Sources Additional Description	Siren. Hvac
Is the same instrument and calibrator being used as previously noted?	Yes
Are the meteorological conditions the same as previously noted?	Yes

Source Info and Traffic Counts	
Number of Lanes	0
Lane Width (feet)	10
Roadway Width (feet)	0
Roadway Width (m)	0
Distance to Roadway (feet)	50
Distance to Roadway (m)	50
Distance Measured to Centerline or Edge of Pavement?	Centerline
Estimated Vehicle Speed (MPH)	40
Count Duration (Min)	10

Traffic Counts	
Vehicle Count Summary	Autos 0, MT 0, HT 0, Buses 0, MC 0
Count Duration (minutes)	0
Counting Both Directions?	Yes
Vehicle Count Tally	
Select Method for Vehicle Counts	Enter Manually
Autos	0
Number of Vehicles - Autos	123
Medium Trucks	0
Number of Vehicles - Medium Trucks	3
Heavy Trucks	0
Number of Vehicles - Heavy Trucks	2
Buses	0
Motorcycles	0

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Description / Photos

Site Photos	
Photo	
Comments / Description	*Facing north towards Clinton Keith*

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DUDEK
CREATOR OF KERATA TECHNOLOGY

FIELD DATA REPORT

Field Noise Measurement Data

Record: 1181	
Project Name	*Costco Murietta*
Observer(s)	*Connor Burke*
Date	*2019-08-13*

Meteorological Conditions	
Temp (F)	*89*
Humidity % (R.H.)	*28*
Wind	*Light*
Wind Speed (MPH)	*2*
Wind Direction	*East*
Sky	*Sunny*

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

Monitoring	
Record #	*1*
Site ID	*ST5*
Site Location Lat/Long	*33.601058, -117.166876*
Begin (Time)	*10:34:00*
End (Time)	*10:49:00*
Leq	*40.6*
Lmax	*49.7*
Lmin	*37.5*
Other Lx?	*L90, L50, L10*
L90	*38.7*
L50	*40.1*
L10	*42.1*
Other Lx (Specify Metric)	*L*
Primary Noise Source	*Construction on project site.*
Other Noise Sources (Background)	*Birds, Distant Aircraft, Distant Traffic*
Is the same instrument and calibrator being used as previously noted?	*Yes*
Are the meteorological conditions the same as previously noted?	*Yes*

Description / Photos

Site Photos

Photo	
Comments / Description	*Facing project site.*

APPENDIX H-2

Construction Noise Modeling
Input and Output

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 4/4/2019
Case Descriptior Curci Murrieta - Site Prep

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Resi's and Schoc	Residential	60	55	50

Equipment

Description	Impact Device	Usage(%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dozer	No	40		81.7	175	0
Dozer	No	40		81.7	185	0
Backhoe	No	40		77.6	200	0
Front End Loader	No	40		79.1	200	0

Results

	Calculated (dBA)		Noise Limits (dBA)			
			Day		Evening	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Dozer	70.8	66.8	N/A	N/A	N/A	N/A
Dozer	70.3	66.3	N/A	N/A	N/A	N/A
Backhoe	65.5	61.5	N/A	N/A	N/A	N/A
Front End Loader	67.1	63.1	N/A	N/A	N/A	N/A
Total	70.8	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
Resi's and Schoc	Residential	60	55	50

Equipment

Description	Impact Device	Usage(%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dozer	No	40		81.7	450	0
Dozer	No	40		81.7	450	0
Backhoe	No	40		77.6	450	0
Front End Loader	No	40		79.1	450	0

Results

Calculated (dBA) Noise Limits (dBA)

Equipment	*Lmax	Leq	Day Lmax	Day Leq	Evening Lmax	Evening Leq
Dozer	62.6	58.6	N/A	N/A	N/A	N/A
Dozer	62.6	58.6	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
Total	62.6	63.3	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Resi's to the eas	Residential	60	55	50

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dozer	No	40		81.7	1400	0
Dozer	No	40		81.7	1425	0
Backhoe	No	40		77.6	1450	0
Front End Loader	No	40		79.1	1450	0

Results

Equipment	Calculated (dBA) *Lmax	Leq	Noise Limits (dBA) Day Lmax	Day Leq	Evening Lmax	Evening Leq
Dozer	52.7	48.7	N/A	N/A	N/A	N/A
Dozer	52.6	48.6	N/A	N/A	N/A	N/A
Backhoe	48.3	44.3	N/A	N/A	N/A	N/A
Front End Loader	49.9	45.9	N/A	N/A	N/A	N/A
Total	52.7	53.3	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #4 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Resi's to the eas	Residential	60	55	50

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dozer	No	40		81.7	1600	0
Dozer	No	40		81.7	1600	0
Backhoe	No	40		77.6	1600	0
Front End Loader	No	40		79.1	1600	0

	Results					
	Calculated (dBA)		Noise Limits (dBA)			
			Day		Evening	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Dozer	51.6	47.6	N/A	N/A	N/A	N/A
Dozer	51.6	47.6	N/A	N/A	N/A	N/A
Backhoe	47.5	43.5	N/A	N/A	N/A	N/A
Front End Loader	49	45	N/A	N/A	N/A	N/A
Total	51.6	52.3	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 4/4/2019
Case Descriptior Curci Murrieta - Grading

				---- Receptor #1 ----
		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Resi's and Schoc	Residential	60	55	50

			Equipment			
			Spec	Actual	Receptor	Estimated
	Impact		Lmax	Lmax	Distance	Shielding
Description	Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Excavator	No	40		80.7	175	0
Grader	No	40	85		185	0
Dozer	No	40		81.7	200	0
Front End Loader	No	40		79.1	200	0
Tractor	No	40	84		180	0
Scraper	No	40		83.6	190	0
Scraper	No	40		83.6	200	0
Scraper	No	40		83.6	200	0

	Results					
	Calculated (dBA)		Noise Limits (dBA)			
			Day		Evening	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Excavator	69.8	65.8	N/A	N/A	N/A	N/A
Grader	73.6	69.7	N/A	N/A	N/A	N/A
Dozer	69.6	65.6	N/A	N/A	N/A	N/A
Front End Loader	67.1	63.1	N/A	N/A	N/A	N/A
Tractor	72.9	68.9	N/A	N/A	N/A	N/A
Scraper	72	68	N/A	N/A	N/A	N/A

Scraper		71.5	67.6	N/A	N/A	N/A	N/A
Scraper		71.5	67.6	N/A	N/A	N/A	N/A
	Total	73.6	76.5	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Resi's and Schoc	Residential	60	55	50

			Equipment			
			Spec	Actual	Receptor	Estimated
	Impact		Lmax	Lmax	Distance	Shielding
Description	Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Excavator	No	40		80.7	450	0
Grader	No	40	85		450	0
Dozer	No	40		81.7	450	0
Front End Loader	No	40		79.1	450	0
Tractor	No	40	84		450	0
Scraper	No	40		83.6	450	0
Scraper	No	40		83.6	450	0
Scraper	No	40		83.6	450	0

			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	N/A
Grader	65.9	61.9	N/A	N/A	N/A	N/A
Dozer	62.6	58.6	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
Scraper	64.5	60.5	N/A	N/A	N/A	N/A
Scraper	64.5	60.5	N/A	N/A	N/A	N/A
Scraper	64.5	60.5	N/A	N/A	N/A	N/A
	Total	65.9	69	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Resi's to the eas	Residential	60	55	50

			Equipment			
			Spec	Actual	Receptor	Estimated
	Impact		Lmax	Lmax	Distance	Shielding
Description	Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)

Excavator	No	40		80.7	1400	0
Grader	No	40	85		1425	0
Dozer	No	40		81.7	1450	0
Front End Loader	No	40		79.1	1450	0
Tractor	No	40	84		1425	0
Scraper	No	40		83.6	1450	0
Scraper	No	40		83.6	1475	0
Scraper	No	40		83.6	1450	0

Results

	Calculated (dBA)		Noise Limits (dBA)			
			Day		Evening	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Excavator	51.8	47.8	N/A	N/A	N/A	N/A
Grader	55.9	51.9	N/A	N/A	N/A	N/A
Dozer	52.4	48.4	N/A	N/A	N/A	N/A
Front End Loader	49.9	45.9	N/A	N/A	N/A	N/A
Tractor	54.9	50.9	N/A	N/A	N/A	N/A
Scraper	54.3	50.4	N/A	N/A	N/A	N/A
Scraper	54.2	50.2	N/A	N/A	N/A	N/A
Scraper	54.3	50.4	N/A	N/A	N/A	N/A
Total	55.9	58.9	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #4 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Resi's to the eas	Residential	60	55	50

Equipment

Description	Impact Device	Usage(%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Excavator	No	40		80.7	1600	0
Grader	No	40	85		1600	0
Dozer	No	40		81.7	1600	0
Front End Loader	No	40		79.1	1600	0
Tractor	No	40	84		1600	0
Scraper	No	40		83.6	1600	0
Scraper	No	40		83.6	1600	0
Scraper	No	40		83.6	1600	0

Results

	Calculated (dBA)		Noise Limits (dBA)			
			Day		Evening	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Excavator	50.6	46.6	N/A	N/A	N/A	N/A

Grader	54.9	50.9	N/A	N/A	N/A	N/A
Dozer	51.6	47.6	N/A	N/A	N/A	N/A
Front End Loader	49	45	N/A	N/A	N/A	N/A
Tractor	53.9	49.9	N/A	N/A	N/A	N/A
Scraper	53.5	49.5	N/A	N/A	N/A	N/A
Scraper	53.5	49.5	N/A	N/A	N/A	N/A
Scraper	53.5	49.5	N/A	N/A	N/A	N/A
Total	54.9	58	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 4/4/2019
Case Descriptior Curci Murrieta - Buiilding Construction

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Resi's and Schoc	Residential	60	55	50

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	175	0
Man Lift	No	20		74.7	185	0
Man Lift	No	20		74.7	200	0
Generator	No	50		80.6	200	0
Generator	No	50		80.6	200	0
Generator	No	50		80.6	210	0
Generator	No	50		80.6	200	0
Generator	No	50		80.6	200	0
Generator	No	50		80.6	200	0
Generator	No	50		80.6	190	0
Generator	No	50		80.6	200	0
Generator	No	50		80.6	200	0
Generator	No	50		80.6	220	0
Generator	No	50		80.6	250	0
Generator	No	50		80.6	220	0
Backhoe	No	40		77.6	190	0
Front End Loader	No	40		79.1	200	0
Tractor	No	40	84		200	0

Results

Calculated (dBA)	Noise Limits (dBA)

Equipment	*Lmax	Leq	Day Lmax	Day Leq	Evening Lmax	Evening Leq
Crane	69.7	61.7	N/A	N/A	N/A	N/A
Man Lift	63.3	56.3	N/A	N/A	N/A	N/A
Man Lift	62.7	55.7	N/A	N/A	N/A	N/A
Generator	68.6	65.6	N/A	N/A	N/A	N/A
Generator	68.6	65.6	N/A	N/A	N/A	N/A
Generator	68.2	65.2	N/A	N/A	N/A	N/A
Generator	68.6	65.6	N/A	N/A	N/A	N/A
Generator	68.6	65.6	N/A	N/A	N/A	N/A
Generator	68.6	65.6	N/A	N/A	N/A	N/A
Generator	69	66	N/A	N/A	N/A	N/A
Generator	68.6	65.6	N/A	N/A	N/A	N/A
Generator	68.6	65.6	N/A	N/A	N/A	N/A
Generator	67.8	64.8	N/A	N/A	N/A	N/A
Generator	66.7	63.6	N/A	N/A	N/A	N/A
Generator	67.8	64.8	N/A	N/A	N/A	N/A
Backhoe	66	62	N/A	N/A	N/A	N/A
Front End Loader	67.1	63.1	N/A	N/A	N/A	N/A
Tractor	72	68	N/A	N/A	N/A	N/A
Total	72	77.2	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Resi's and Schoc	Residential	60	55	50

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	450	0
Man Lift	No	20		74.7	450	0
Generator	No	50		80.6	450	0
Generator	No	50		80.6	450	0
Generator	No	50		80.6	450	0
Generator	No	50		80.6	450	0
Generator	No	50		80.6	450	0
Generator	No	50		80.6	450	0
Generator	No	50		80.6	450	0
Generator	No	50		80.6	450	0
Generator	No	50		80.6	450	0
Generator	No	50		80.6	450	0
Generator	No	50		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

			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	55.6	48.6	N/A	N/A	N/A	N/A
Man Lift	55.6	48.6	N/A	N/A	N/A	N/A
Generator	61.5	58.5	N/A	N/A	N/A	N/A
Generator	61.5	58.5	N/A	N/A	N/A	N/A
Generator	61.5	58.5	N/A	N/A	N/A	N/A
Generator	61.5	58.5	N/A	N/A	N/A	N/A
Generator	61.5	58.5	N/A	N/A	N/A	N/A
Generator	61.5	58.5	N/A	N/A	N/A	N/A
Generator	61.5	58.5	N/A	N/A	N/A	N/A
Generator	61.5	58.5	N/A	N/A	N/A	N/A
Generator	61.5	58.5	N/A	N/A	N/A	N/A
Generator	61.5	58.5	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
Total	64.9	70.4	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

				---- Receptor #3 ----
		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Resi's to the eas	Residential	60	55	50

			Equipment			
			Spec	Actual	Receptor	Estimated
	Impact		Lmax	Lmax	Distance	Shielding
Description	Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Crane	No	16		80.6	1400	0
Man Lift	No	20		74.7	1425	0
Man Lift	No	20		74.7	1450	0
Generator	No	50		80.6	1450	0
Generator	No	50		80.6	1425	0
Generator	No	50		80.6	1425	0
Generator	No	50		80.6	1450	0
Generator	No	50		80.6	1475	0
Generator	No	50		80.6	1475	0

Generator	No	50		80.6	1425	0
Generator	No	50		80.6	1450	0
Generator	No	50		80.6	1450	0
Generator	No	50		80.6	1500	0
Generator	No	50		80.6	1475	0
Generator	No	50		80.6	1500	0
Backhoe	No	40		77.6	1475	0
Front End Loader	No	40		79.1	1450	0
Tractor	No	40	84		1450	0

			Results			
	Calculated (dBA)			Noise Limits (dBA)		
			Day		Evening	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Crane	51.6	43.6	N/A	N/A	N/A	N/A
Man Lift	45.6	38.6	N/A	N/A	N/A	N/A
Man Lift	45.5	38.5	N/A	N/A	N/A	N/A
Generator	51.4	48.4	N/A	N/A	N/A	N/A
Generator	51.5	48.5	N/A	N/A	N/A	N/A
Generator	51.5	48.5	N/A	N/A	N/A	N/A
Generator	51.4	48.4	N/A	N/A	N/A	N/A
Generator	51.2	48.2	N/A	N/A	N/A	N/A
Generator	51.2	48.2	N/A	N/A	N/A	N/A
Generator	51.5	48.5	N/A	N/A	N/A	N/A
Generator	51.4	48.4	N/A	N/A	N/A	N/A
Generator	51.4	48.4	N/A	N/A	N/A	N/A
Generator	51.1	48.1	N/A	N/A	N/A	N/A
Generator	51.2	48.2	N/A	N/A	N/A	N/A
Generator	51.1	48.1	N/A	N/A	N/A	N/A
Backhoe	48.2	44.2	N/A	N/A	N/A	N/A
Front End Loader	49.9	45.9	N/A	N/A	N/A	N/A
Tractor	54.8	50.8	N/A	N/A	N/A	N/A
Total	54.8	60.2	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #4 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Resi's to the eas	Residential	60	55	50

			Equipment			
			Spec	Actual	Receptor	Estimated
	Impact		Lmax	Lmax	Distance	Shielding
Description	Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Crane	No	16		80.6	1600	0
Man Lift	No	20		74.7	1600	0
Man Lift	No	20		74.7	1600	0

Generator	No	50		80.6	1600	0
Generator	No	50		80.6	1600	0
Generator	No	50		80.6	1600	0
Generator	No	50		80.6	1600	0
Generator	No	50		80.6	1600	0
Generator	No	50		80.6	1600	0
Generator	No	50		80.6	1600	0
Generator	No	50		80.6	1600	0
Generator	No	50		80.6	1600	0
Generator	No	50		80.6	1600	0
Generator	No	50		80.6	1600	0
Generator	No	50		80.6	1600	0
Backhoe	No	40		77.6	1600	0
Front End Loader	No	40		79.1	1600	0
Tractor	No	40	84		1600	0

			Results			
	Calculated (dBA)			Noise Limits (dBA)		
			Day		Evening	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Crane	50.4	42.5	N/A	N/A	N/A	N/A
Man Lift	44.6	37.6	N/A	N/A	N/A	N/A
Man Lift	44.6	37.6	N/A	N/A	N/A	N/A
Generator	50.5	47.5	N/A	N/A	N/A	N/A
Generator	50.5	47.5	N/A	N/A	N/A	N/A
Generator	50.5	47.5	N/A	N/A	N/A	N/A
Generator	50.5	47.5	N/A	N/A	N/A	N/A
Generator	50.5	47.5	N/A	N/A	N/A	N/A
Generator	50.5	47.5	N/A	N/A	N/A	N/A
Generator	50.5	47.5	N/A	N/A	N/A	N/A
Generator	50.5	47.5	N/A	N/A	N/A	N/A
Generator	50.5	47.5	N/A	N/A	N/A	N/A
Generator	50.5	47.5	N/A	N/A	N/A	N/A
Generator	50.5	47.5	N/A	N/A	N/A	N/A
Generator	50.5	47.5	N/A	N/A	N/A	N/A
Backhoe	47.5	43.5	N/A	N/A	N/A	N/A
Front End Loader	49	45	N/A	N/A	N/A	N/A
Tractor	53.9	49.9	N/A	N/A	N/A	N/A
Total	53.9	59.3	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 4/4/2019

Case Descriptior Curci Murrieta - Trenching

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Resi's and Schoc	Residential	60	55	50

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Excavator	No	40		80.7	175	0
Front End Loader	No	40		79.1	185	0
Backhoe	No	40		77.6	200	0

Results

Equipment	Calculated (dBA) *Lmax	Leq	Noise Limits (dBA) Day Lmax	Leq	Evening Lmax	Leq
Excavator	69.8	65.8	N/A	N/A	N/A	N/A
Front End Loader	67.7	63.8	N/A	N/A	N/A	N/A
Backhoe	65.5	61.5	N/A	N/A	N/A	N/A
Total	69.8	68.8	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Resi's and Schoc	Residential	60	55	50

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Excavator	No	40		80.7	450	0
Front End Loader	No	40		79.1	450	0
Backhoe	No	40		77.6	450	0

Results

Equipment	Calculated (dBA) *Lmax	Leq	Noise Limits (dBA) Day Lmax	Leq	Evening Lmax	Leq
Excavator	61.6	57.6	N/A	N/A	N/A	N/A
Front End Loader	60	56	N/A	N/A	N/A	N/A
Backhoe	58.5	54.5	N/A	N/A	N/A	N/A
Total	61.6	61	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Resi's to the eas	Residential	60	55	50

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Excavator	No	40		80.7	1400	0
Front End Loader	No	40		79.1	1425	0
Backhoe	No	40		77.6	1450	0

Results

	Calculated (dBA)		Noise Limits (dBA)			
			Day		Evening	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Excavator	51.8	47.8	N/A	N/A	N/A	N/A
Front End Loader	50	46	N/A	N/A	N/A	N/A
Backhoe	48.3	44.3	N/A	N/A	N/A	N/A
Total	51.8	51	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #4 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Resi's to the eas	Residential	60	55	50

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Excavator	No	40		80.7	1600	0
Front End Loader	No	40		79.1	1600	0
Backhoe	No	40		77.6	1600	0

Results

	Calculated (dBA)		Noise Limits (dBA)			
			Day		Evening	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Excavator	50.6	46.6	N/A	N/A	N/A	N/A
Front End Loader	49	45	N/A	N/A	N/A	N/A
Backhoe	47.5	43.5	N/A	N/A	N/A	N/A
Total	50.6	50	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 4/4/2019
Case Descriptior Curci Murrieta - Paving

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Resi's and Schoc	Residential	60	55	50

Equipment

Description	Impact Device	Usage(%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Backhoe	No	40		77.6	175	0
Front End Loader	No	40		79.1	185	0
Paver	No	50		77.2	200	0
Roller	No	20		80	185	0
Roller	No	20		80	200	0

Results

	Calculated (dBA)		Noise Limits (dBA)			
			Day		Evening	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Backhoe	66.7	62.7	N/A	N/A	N/A	N/A
Front End Loader	67.7	63.8	N/A	N/A	N/A	N/A
Paver	65.2	62.2	N/A	N/A	N/A	N/A
Roller	68.6	61.6	N/A	N/A	N/A	N/A
Roller	68	61	N/A	N/A	N/A	N/A
Total	68.6	69.3	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Resi's and Schoc	Residential	60	55	50

Equipment

Description	Impact Device	Usage(%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Backhoe	No	40		77.6	450	0
Front End Loader	No	40		79.1	450	0
Paver	No	50		77.2	450	0

Roller	No	20	80	450	0
Roller	No	20	80	450	0

Results

	Calculated (dBA)		Noise Limits (dBA)			
			Day		Evening	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq
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
Paver	58.1	55.1	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	60.9	61.8	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Resi's to the eas	Residential	60	55	50

Equipment

Description	Impact Device	Usage(%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Backhoe	No	40		77.6	1400	0
Front End Loader	No	40		79.1	1425	0
Paver	No	50		77.2	1450	0
Roller	No	20		80	1425	0
Roller	No	20		80	1420	0

Results

	Calculated (dBA)		Noise Limits (dBA)			
			Day		Evening	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Backhoe	48.6	44.6	N/A	N/A	N/A	N/A
Front End Loader	50	46	N/A	N/A	N/A	N/A
Paver	48	45	N/A	N/A	N/A	N/A
Roller	50.9	43.9	N/A	N/A	N/A	N/A
Roller	50.9	43.9	N/A	N/A	N/A	N/A
Total	50.9	51.8	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #4 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Resi's to the eas	Residential	60	55	50

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Backhoe	No	40		77.6	1600	0
Front End Loader	No	40		79.1	1600	0
Paver	No	50		77.2	1600	0
Roller	No	20		80	1600	0
Roller	No	20		80	1600	0

Results

	Calculated (dBA)		Noise Limits (dBA)			
			Day		Evening	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Backhoe	47.5	43.5	N/A	N/A	N/A	N/A
Front End Loader	49	45	N/A	N/A	N/A	N/A
Paver	47.1	44.1	N/A	N/A	N/A	N/A
Roller	49.9	42.9	N/A	N/A	N/A	N/A
Roller	49.9	42.9	N/A	N/A	N/A	N/A
Total	49.9	50.8	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 4/4/2019
Case Descriptior Curci Murrieta - Architectural Coatings

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Resi's and Schoc	Residential	60	55	50

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Compressor (air)	No	40		77.7	175	0
Compressor (air)	No	40		77.7	185	0

Results

	Calculated (dBA)		Noise Limits (dBA)			
			Day		Evening	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Compressor (air)	66.8	62.8	N/A	N/A	N/A	N/A
Compressor (air)	66.3	62.3	N/A	N/A	N/A	N/A

	Total	66.8	65.6	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Resi's and Schoc	Residential	60	55	50

Equipment

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

Results

	Calculated (dBA)		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
Compressor (air)	58.6	54.6	N/A	N/A	N/A	N/A
Total	58.6	57.6	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Resi's to the eas	Residential	60	55	50

Equipment

Description	Impact Device	Usage(%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Compressor (air)	No	40		77.7	1400	0
Compressor (air)	No	40		77.7	1425	0

Results

	Calculated (dBA)		Noise Limits (dBA)			
			Day		Evening	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Compressor (air)	48.7	44.7	N/A	N/A	N/A	N/A
Compressor (air)	48.6	44.6	N/A	N/A	N/A	N/A
Total	48.7	47.7	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #4 ----

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Resi's to the eas	Residential	60	55	50

Equipment

Description	Impact Device	Usage(%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Compressor (air)	No	40		77.7	1600	0
Compressor (air)	No	40		77.7	1600	0

Results

	Calculated (dBA)		Noise Limits (dBA)			
			Day		Evening	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Compressor (air)	47.6	43.6	N/A	N/A	N/A	N/A
Compressor (air)	47.6	43.6	N/A	N/A	N/A	N/A
Total	47.6	46.6	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

APPENDIX H-3

Traffic Noise Modeling

Input and Output

Dudek 31 March 2020
M Greene TNM 2.5

INPUT: ROADWAYS
PROJECT/CONTRACT: 10773
RUN: RDA Curci Vineyard III 2019 - Existing

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

Roadway Name	Width	Points Name	No.	Coordinates (pavement) X	Y	Z	Flow Control Control Device	Speed Constraint	Percent Vehicles Affected	Segment Pvmt Type	On Struct?
	ft			ft	ft	ft		mph	%		
Clinton Keith Rd - east of Creighton Ave	100.0	point1	1	4,540.0	2,082.1	1,500.00				Average	
		point3	3	1,894.7	2,071.7	1,518.00				Average	
		point4	4	1,877.4	2,071.7	1,520.00					
I-215	120.0	point29	29	734.8	1,945.7	1,515.00				Average	
		point9	9	963.2	2,315.1	1,515.00					
I-215 NB Onramp	45.0	point31	31	1,561.4	2,190.7	1,530.00				Average	
		point21	21	1,456.5	2,282.5	1,530.00				Average	
		point22	22	1,412.7	2,356.9	1,530.00				Average	
		point23	23	1,421.5	2,492.5	1,530.00				Average	
		point24	24	1,780.2	3,485.3	1,530.00				Average	
		point25	25	1,850.1	3,730.3	1,530.00					
Whitewood Road	100.0	point33	33	4,478.8	2,121.8	1,500.00				Average	
		point27	27	4,496.4	4,024.5	1,500.00					
I-215 NB Offramp	45.0	point36	36	717.3	1,648.3	1,520.00				Average	
		point17	17	1,167.8	1,871.4	1,525.00				Average	
		point18	18	1,281.5	1,989.5	1,528.00				Average	
		point19	19	1,355.9	2,173.2	1,530.00					
I-215-2	120.0	point39	39	980.0	2,337.3	1,515.00				Average	
		point10	10	1,294.7	2,754.9	1,520.00				Average	
		point11	11	1,552.7	3,192.3	1,525.00				Average	
		point12	12	1,727.6	3,603.4	1,530.00				Average	
		point13	13	1,823.9	3,918.3	1,530.00				Average	
		point14	14	1,876.4	4,123.9	1,530.00				Average	
		point15	15	1,950.7	4,425.7	1,530.00					
Clinton Keith Road-west of Creighton Av	100.0	point41	41	1,877.4	2,071.7	1,520.00				Average	

		point5	5	1,705.5	2,092.5	1,530.00				Average	
		point6	6	1,367.1	2,194.9	1,530.00				Average	
		point7	7	540.4	2,474.8	1,530.00					

Dudek 31 March 202
M Greene TNM 2.5

INPUT: TRAFFIC FOR LAeq1h Percentages
PROJECT/CONTRACT: 10773
RUN: RDA Curci Vineyard III 2019 - Existing

Roadway	Points												
Name	Name	No.	Segment										
			Total	Autos		MTrucks		HTrucks		Buses		Motorcycles	
			Volume	P	S	P	S	P	S	P	S	P	S
			veh/hr	%	mph	%	mph	%	mph	%	mph	%	mph
Clinton Keith Rd - east of Creighton Ave	point1	1	2526	97	40	2	40	1	40	0	0	0	0
	point3	3	2526	97	40	2	40	1	40	0	0	0	0
	point4	4											
I-215	point29	29	11700	93	65	3	65	4	65	0	0	0	0
	point9	9											
I-215 NB Onramp	point31	31	100	97	45	2	45	1	45	0	0	0	0
	point21	21	100	97	45	2	45	1	45	0	0	0	0
	point22	22	100	97	45	2	45	1	45	0	0	0	0
	point23	23	100	97	45	2	45	1	45	0	0	0	0
	point24	24	100	97	45	2	45	1	45	0	0	0	0
	point25	25											
Whitewood Road	point33	33	1250	97	45	2	45	1	45	0	0	0	0
	point27	27											
I-215 NB Offramp	point36	36	100	97	45	2	45	1	45	0	0	0	0
	point17	17	100	97	45	2	45	1	45	0	0	0	0
	point18	18	100	97	45	2	45	1	45	0	0	0	0
	point19	19											
I-215-2	point39	39	11700	93	65	3	65	4	65	0	0	0	0
	point10	10	11700	93	65	3	65	4	65	0	0	0	0
	point11	11	11700	93	65	3	65	4	65	0	0	0	0
	point12	12	11700	93	65	3	65	4	65	0	0	0	0
	point13	13	11700	93	65	3	65	4	65	0	0	0	0
	point14	14	11700	93	65	3	65	4	65	0	0	0	0

	point15	15											
Clinton Keith Road-west of Creighton Av	point41	41	2526	97	40	2	40	1	40	0	0	0	0
	point5	5	2526	97	40	2	40	1	40	0	0	0	0
	point6	6	2526	97	40	2	40	1	40	0	0	0	0
	point7	7											

Dudek 31 March 2020
M Greene TNM 2.5

INPUT: RECEIVERS
PROJECT/CONTRACT: 10773
RUN: RDA Curci Vineyard III 2019 - Existing

Receiver Name	No.	#DUs	Coordinates (ground) X	Y	Z	Height above Ground	Input Sound Levels and Criteria Existing LAeq1h	Impact Criteria LAeq1h	Sub'l	NR Goal	Active in Calc.
			ft	ft	ft	ft	dBA	dBA	dB	dB	
ST1	1	1	1,702.5	1,982.2	1,512.00	5.00	0.00	66	10.0	8.0	
ST2	2	1	3,422.5	1,837.3	1,510.00	5.00	0.00	66	10.0	8.0	
ST3	3	1	3,310.7	2,162.6	1,510.00	5.00	0.00	66	10.0	8.0	Y
ST4	4	1	3,272.5	2,640.2	1,510.00	5.00	0.00	66	10.0	8.0	
ST5	5	1	3,315.6	3,261.9	1,517.00	5.00	0.00	66	10.0	8.0	Y
M1	7	1	4,402.0	2,379.6	1,510.00	5.00	0.00	66	10.0	8.0	

Dudek 31 March 2020
M Greene TNM 2.5

INPUT: BARRIERS
PROJECT/CONTRACT: 10773
RUN: RDA Curci Vineyard III 2019 - Existing

Barrier Name	Type	Height Min	Height Max	If Wall $ per Unit Area	If Berm $ per Unit Vol.	Top Width	Run:Rise	Add'tnl $ per Unit Length	Points Name	No.	Coordinates (bottom) X	Y	Z	Height at Point	Segment Seg Ht Increment	Perturbs #Up	#Dn	On Struct?	Important Reflections?
		ft	ft	$/sq ft	$/cu yd	ft	ft:ft	$/ft			ft	ft	ft	ft	ft				
Barrier1	W	0.00	99.99	0.00				0.00	point1	1	3,293.2	2,144.9	1,510.00	6.00	0.00	0	0		
									point2	2	3,801.1	2,135.3	1,510.00	6.00	0.00	0	0		
									point3	3	3,891.6	2,142.2	1,510.00	6.00	0.00	0	0		
									point4	4	4,384.6	2,142.2	1,510.00	6.00	0.00	0	0		
									point5	5	4,413.2	2,143.7	1,510.00	6.00	0.00	0	0		
									point6	6	4,422.0	3,547.7	1,510.00	6.00					
Barrier11	W	0.00	99.99	0.00				0.00	point10	10	3,293.3	2,145.3	1,510.00	10.00	0.00	0	0		
									point8	8	3,289.2	2,570.5	1,510.00	10.00					
Barrier21	W	0.00	99.99	0.00				0.00	point11	11	3,201.5	1,661.5	1,510.00	20.00	0.00	0	0		
									point37	37	3,204.3	1,713.9	1,510.00	20.00	0.00	0	0		
									point38	38	3,413.7	1,713.9	1,510.00	20.00	0.00	0	0		
									point39	39	3,411.0	1,653.3	1,510.00	20.00					
Barrier8	W	0.00	99.99	0.00				0.00	point48	48	3,325.9	2,270.4	1,510.00	20.00	0.00	0	0		
									point13	13	3,323.7	2,163.3	1,510.00	20.00	0.00	0	0		
									point14	14	3,787.3	2,158.9	1,510.00	20.00	0.00	0	0		
									point15	15	3,787.3	2,272.6	1,510.00	20.00					
Barrier9	W	0.00	99.99	0.00				0.00	point50	50	3,894.5	2,263.9	1,510.00	20.00	0.00	0	0		
									point17	17	3,901.0	2,165.4	1,510.00	20.00	0.00	0	0		
									point18	18	4,275.0	2,158.9	1,510.00	20.00	0.00	0	0		
									point46	46	4,272.8	2,266.0	1,510.00	20.00					
Barrier10	W	0.00	99.99	0.00				0.00	point52	52	4,323.8	2,378.3	1,510.00	20.00	0.00	0	0		
									point20	20	4,321.0	2,157.9	1,510.00	20.00	0.00	0	0		
									point21	21	4,395.4	2,160.7	1,510.00	20.00	0.00	0	0		
									point22	22	4,398.2	2,381.1	1,510.00	20.00					
Barrier 5	W	0.00	99.99	0.00				0.00	point54	54	4,086.8	2,609.8	1,510.00	20.00	0.00	0	0		
									point24	24	4,097.8	2,923.9	1,510.00	20.00	0.00	0	0		
									point25	25	4,340.3	2,918.4	1,510.00	20.00	0.00	0	0		
									point45	45	4,343.1	3,406.1	1,510.00	20.00	0.00	0	0		
									point26	26	3,403.5	3,411.6	1,510.00	20.00	0.00	0	0		
									point27	27	3,422.8	2,609.8	1,510.00	20.00					
Barrier7	W	0.00	99.99	0.00				0.00	point56	56	3,305.6	2,340.4	1,510.00	20.00	0.00	0	0		
									point29	29	4,282.4	2,337.0	1,510.00	20.00	0.00	0	0		
									point30	30	4,276.9	2,546.4	1,510.00	20.00	0.00	0	0		
									point31	31	3,309.8	2,557.5	1,510.00	20.00	0.00	0	0		
									point33	33	3,308.6	2,342.3	1,510.00	20.00					

Barrier6	W	0.00	99.99	0.00				0.00	point58	58	3,318.3	3,099.4	1,510.00	20.00	0.00	0	0		
									point35	35	3,310.0	2,589.7	1,510.00	20.00	0.00	0	0		
									point36	36	3,376.2	2,586.9	1,510.00	20.00	0.00	0	0		
									point12	12	3,381.7	3,093.9	1,510.00	20.00					
Barrier20	W	0.00	99.99	0.00				0.00	point60	60	3,433.3	1,768.9	1,510.00	20.00	0.00	0	0		
									point41	41	3,434.4	1,876.1	1,510.00	20.00	0.00	0	0		
									point42	42	3,552.5	1,875.0	1,510.00	20.00	0.00	0	0		
									point43	43	3,552.5	1,771.1	1,510.00	20.00					
Barrier19	W	0.00	99.99	0.00				0.00	point61	61	1,708.0	2,180.4	1,530.00	0.00	0.00	0	0		
									point62	62	1,819.1	2,524.1	1,540.00	0.00	0.00	0	0		
									point63	63	1,871.2	2,975.4	1,550.00	0.00	0.00	0	0		
									point64	64	1,968.4	3,697.5	1,550.00	0.00	0.00	0	0		
									point65	65	1,975.3	4,003.0	1,540.00	0.00					
Barrier22	W	0.00	99.99	0.00				0.00	point67	67	1,779.6	1,933.4	1,530.00	20.00	0.00	0	0		
									point68	68	1,659.0	1,949.5	1,530.00	20.00	0.00	0	0		
									point69	69	1,506.3	2,035.2	1,530.00	20.00	0.00	0	0		
									point70	70	1,238.3	1,737.8	1,530.00	20.00	0.00	0	0		
									point71	71	1,160.6	1,692.2	1,530.00	20.00					
Wall - 6'	W	0.00	99.99	0.00				0.00	point72	72	3,289.2	2,570.5	1,510.00	6.00	0.00	0	0		
									point74	74	3,291.3	2,898.6	1,512.33	6.00	0.00	0	0		
									point75	75	3,293.3	3,226.7	1,517.00	6.00	0.00	0	0		
									point73	73	3,295.4	3,554.8	1,520.00	6.00					

Dudek
M Greene

31 March 2020
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: 10773
RUN: RDA Curci Vineyard III 2019 - Existing
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

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

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
ST1	1	1	0.0	61.0	66	61.0	10	----	61.0	0.0	8	-8.0
ST2	2	1	0.0	59.9	66	59.9	10	----	59.9	0.0	8	-8.0
ST3	3	1	0.0	59.4	66	59.4	10	----	59.4	0.0	8	-8.0
ST4	4	1	0.0	52.9	66	52.9	10	----	52.9	0.0	8	-8.0
ST5	5	1	0.0	46.2	66	46.2	10	----	46.2	0.0	8	-8.0
M1	7	1	0.0	56.6	66	56.6	10	----	56.6	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	6	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

Dudek 31 March 2020
M Greene TNM 2.5

INPUT: ROADWAYS
PROJECT/CONTRACT: 10773
RUN: RDA Curci Vineyard III 2020 - Exist p Prj

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

Roadway Name	Width	Points Name	No.	Coordinates (pavement) X	Y	Z	Flow Control Control Device	Speed Constraint	Percent Vehicles Affected	Segment Pvmt Type	On Struct?
	ft			ft	ft	ft		mph	%		
Clinton Keith Rd - east of Creighton Ave	100.0	point1	1	4,540.0	2,082.1	1,500.00				Average	
		point3	3	1,894.7	2,071.7	1,518.00				Average	
		point4	4	1,877.4	2,071.7	1,520.00					
I-215	120.0	point29	29	734.8	1,945.7	1,515.00				Average	
		point9	9	963.2	2,315.1	1,515.00					
I-215 NB Onramp	45.0	point31	31	1,561.4	2,190.7	1,530.00				Average	
		point21	21	1,456.5	2,282.5	1,530.00				Average	
		point22	22	1,412.7	2,356.9	1,530.00				Average	
		point23	23	1,421.5	2,492.5	1,530.00				Average	
		point24	24	1,780.2	3,485.3	1,530.00				Average	
		point25	25	1,850.1	3,730.3	1,530.00					
Whitewood Road	100.0	point33	33	4,478.8	2,121.8	1,500.00				Average	
		point27	27	4,496.4	4,024.5	1,500.00					
I-215 NB Offramp	45.0	point36	36	717.3	1,648.3	1,520.00				Average	
		point17	17	1,167.8	1,871.4	1,525.00				Average	
		point18	18	1,281.5	1,989.5	1,528.00				Average	
		point19	19	1,355.9	2,173.2	1,530.00					
I-215-2	120.0	point39	39	980.0	2,337.3	1,515.00				Average	
		point10	10	1,294.7	2,754.9	1,520.00				Average	
		point11	11	1,552.7	3,192.3	1,525.00				Average	
		point12	12	1,727.6	3,603.4	1,530.00				Average	
		point13	13	1,823.9	3,918.3	1,530.00				Average	
		point14	14	1,876.4	4,123.9	1,530.00				Average	
		point15	15	1,950.7	4,425.7	1,530.00					
Clinton Keith Road-west of Creighton Av	100.0	point41	41	1,877.4	2,071.7	1,520.00				Average	

		point5	5	1,705.5	2,092.5	1,530.00				Average	
		point6	6	1,367.1	2,194.9	1,530.00				Average	
		point7	7	540.4	2,474.8	1,530.00					

Dudek 31 March 202
M Greene TNM 2.5

INPUT: TRAFFIC FOR LAeq1h Percentages
PROJECT/CONTRACT: 10773
RUN: RDA Curci Vineyard III 2020 - Exist p Prj

Roadway	Points												
Name	Name	No.	Segment										
			Total	Autos		MTrucks		HTrucks		Buses		Motorcycles	
			Volume	P	S	P	S	P	S	P	S	P	S
			veh/hr	%	mph	%	mph	%	mph	%	mph	%	mph
Clinton Keith Rd - east of Creighton Ave	point1	1	2659	97	40	2	40	1	40	0	0	0	0
	point3	3	2659	97	40	2	40	1	40	0	0	0	0
	point4	4											
I-215	point29	29	11700	93	65	3	65	4	65	0	0	0	0
	point9	9											
I-215 NB Onramp	point31	31	100	97	45	2	45	1	45	0	0	0	0
	point21	21	100	97	45	2	45	1	45	0	0	0	0
	point22	22	100	97	45	2	45	1	45	0	0	0	0
	point23	23	100	97	45	2	45	1	45	0	0	0	0
	point24	24	100	97	45	2	45	1	45	0	0	0	0
	point25	25											
Whitewood Road	point33	33	1250	97	45	2	45	1	45	0	0	0	0
	point27	27											
I-215 NB Offramp	point36	36	100	97	45	2	45	1	45	0	0	0	0
	point17	17	100	97	45	2	45	1	45	0	0	0	0
	point18	18	100	97	45	2	45	1	45	0	0	0	0
	point19	19											
I-215-2	point39	39	11700	93	65	3	65	4	65	0	0	0	0
	point10	10	11700	93	65	3	65	4	65	0	0	0	0
	point11	11	11700	93	65	3	65	4	65	0	0	0	0
	point12	12	11700	93	65	3	65	4	65	0	0	0	0
	point13	13	11700	93	65	3	65	4	65	0	0	0	0
	point14	14	11700	93	65	3	65	4	65	0	0	0	0

	point15	15											
Clinton Keith Road-west of Creighton Av	point41	41	2792	97	40	2	40	1	40	0	0	0	0
	point5	5	2792	97	40	2	40	1	40	0	0	0	0
	point6	6	2792	97	40	2	40	1	40	0	0	0	0
	point7	7											

Dudek 31 March 2020
M Greene TNM 2.5

INPUT: RECEIVERS
PROJECT/CONTRACT: 10773
RUN: RDA Curci Vineyard III 2020 - Exist p Prj

Receiver Name	No.	#DUs	Coordinates (ground) X	Y	Z	Height above Ground	Input Sound Levels and Criteria Existing LAeq1h	Impact Criteria LAeq1h	Sub'l	NR Goal	Active in Calc.
			ft	ft	ft	ft	dBA	dBA	dB	dB	
ST1	1	1	1,702.5	1,982.2	1,512.00	5.00	0.00	66	10.0	8.0	
ST2	2	1	3,422.5	1,837.3	1,510.00	5.00	0.00	66	10.0	8.0	
ST3	3	1	3,310.7	2,162.6	1,510.00	5.00	0.00	66	10.0	8.0	Y
ST4	4	1	3,272.5	2,640.2	1,510.00	5.00	0.00	66	10.0	8.0	
ST5	5	1	3,315.6	3,261.9	1,517.00	5.00	0.00	66	10.0	8.0	Y
M1	7	1	4,402.0	2,379.6	1,510.00	5.00	0.00	66	10.0	8.0	

Dudek **31 March 2020**
M Greene **TNM 2.5**

INPUT: BARRIERS
PROJECT/CONTRACT: **10773**
RUN: **RDA Curci Vineyard III 2020 - Exist p Prj**

Barrier									Points									
Name	Type	Height Min	Max	If Wall $ per Unit Area	If Berm $ per Unit Vol.	Top Width	Run:Rise	Add'tnl $ per Unit Length	Name	No.	Coordinates (bottom) X	Y	Z	Height at Point	Segment Seg Ht Incre-ment	Perturbs #Up	#Dn	On Struct?	Important Reflec-tions?
		ft	ft	$/sq ft	$/cu yd	ft	ft:ft	$/ft			ft	ft	ft	ft	ft				
Barrier1	W	0.00	99.99	0.00				0.00	point1	1	3,293.2	2,144.9	1,510.00	6.00	0.00	0	0		
									point2	2	3,801.1	2,135.3	1,510.00	6.00	0.00	0	0		
									point3	3	3,891.6	2,142.2	1,510.00	6.00	0.00	0	0		
									point4	4	4,384.6	2,142.2	1,510.00	6.00	0.00	0	0		
									point5	5	4,413.2	2,143.7	1,510.00	6.00	0.00	0	0		
									point6	6	4,422.0	3,547.7	1,510.00	6.00					
Barrier11	W	0.00	99.99	0.00				0.00	point10	10	3,293.3	2,145.3	1,510.00	10.00	0.00	0	0		
									point8	8	3,289.2	2,570.5	1,510.00	10.00					
Barrier21	W	0.00	99.99	0.00				0.00	point11	11	3,201.5	1,661.5	1,510.00	20.00	0.00	0	0		
									point37	37	3,204.3	1,713.9	1,510.00	20.00	0.00	0	0		
									point38	38	3,413.7	1,713.9	1,510.00	20.00	0.00	0	0		
									point39	39	3,411.0	1,653.3	1,510.00	20.00					
Barrier8	W	0.00	99.99	0.00				0.00	point48	48	3,325.9	2,270.4	1,510.00	20.00	0.00	0	0		
									point13	13	3,323.7	2,163.3	1,510.00	20.00	0.00	0	0		
									point14	14	3,787.3	2,158.9	1,510.00	20.00	0.00	0	0		
									point15	15	3,787.3	2,272.6	1,510.00	20.00					
Barrier9	W	0.00	99.99	0.00				0.00	point50	50	3,894.5	2,263.9	1,510.00	20.00	0.00	0	0		
									point17	17	3,901.0	2,165.4	1,510.00	20.00	0.00	0	0		
									point18	18	4,275.0	2,158.9	1,510.00	20.00	0.00	0	0		
									point46	46	4,272.8	2,266.0	1,510.00	20.00					
Barrier10	W	0.00	99.99	0.00				0.00	point52	52	4,323.8	2,378.3	1,510.00	20.00	0.00	0	0		
									point20	20	4,321.0	2,157.9	1,510.00	20.00	0.00	0	0		
									point21	21	4,395.4	2,160.7	1,510.00	20.00	0.00	0	0		
									point22	22	4,398.2	2,381.1	1,510.00	20.00					
Barrier 5	W	0.00	99.99	0.00				0.00	point54	54	4,086.8	2,609.8	1,510.00	20.00	0.00	0	0		
									point24	24	4,097.8	2,923.9	1,510.00	20.00	0.00	0	0		
									point25	25	4,340.3	2,918.4	1,510.00	20.00	0.00	0	0		
									point45	45	4,343.1	3,406.1	1,510.00	20.00	0.00	0	0		
									point26	26	3,403.5	3,411.6	1,510.00	20.00	0.00	0	0		
									point27	27	3,422.8	2,609.8	1,510.00	20.00					
Barrier7	W	0.00	99.99	0.00				0.00	point56	56	3,305.6	2,340.4	1,510.00	20.00	0.00	0	0		
									point29	29	4,282.4	2,337.0	1,510.00	20.00	0.00	0	0		
									point30	30	4,276.9	2,546.4	1,510.00	20.00	0.00	0	0		
									point31	31	3,309.8	2,557.5	1,510.00	20.00	0.00	0	0		
									point33	33	3,308.6	2,342.3	1,510.00	20.00					

Barrier6	W	0.00	99.99	0.00				0.00	point58	58	3,318.3	3,099.4	1,510.00	20.00	0.00	0	0		
									point35	35	3,310.0	2,589.7	1,510.00	20.00	0.00	0	0		
									point36	36	3,376.2	2,586.9	1,510.00	20.00	0.00	0	0		
									point12	12	3,381.7	3,093.9	1,510.00	20.00					
Barrier20	W	0.00	99.99	0.00				0.00	point60	60	3,433.3	1,768.9	1,510.00	20.00	0.00	0	0		
									point41	41	3,434.4	1,876.1	1,510.00	20.00	0.00	0	0		
									point42	42	3,552.5	1,875.0	1,510.00	20.00	0.00	0	0		
									point43	43	3,552.5	1,771.1	1,510.00	20.00					
Barrier19	W	0.00	99.99	0.00				0.00	point61	61	1,708.0	2,180.4	1,530.00	0.00	0.00	0	0		
									point62	62	1,819.1	2,524.1	1,540.00	0.00	0.00	0	0		
									point63	63	1,871.2	2,975.4	1,550.00	0.00	0.00	0	0		
									point64	64	1,968.4	3,697.5	1,550.00	0.00	0.00	0	0		
									point65	65	1,975.3	4,003.0	1,540.00	0.00					
Barrier22	W	0.00	99.99	0.00				0.00	point67	67	1,779.6	1,933.4	1,530.00	20.00	0.00	0	0		
									point68	68	1,659.0	1,949.5	1,530.00	20.00	0.00	0	0		
									point69	69	1,506.3	2,035.2	1,530.00	20.00	0.00	0	0		
									point70	70	1,238.3	1,737.8	1,530.00	20.00	0.00	0	0		
									point71	71	1,160.6	1,692.2	1,530.00	20.00					
Wall - 6'	W	0.00	99.99	0.00				0.00	point72	72	3,289.2	2,570.5	1,510.00	6.00	0.00	0	0		
									point74	74	3,291.3	2,898.6	1,512.33	6.00	0.00	0	0		
									point75	75	3,293.3	3,226.7	1,517.00	6.00	0.00	0	0		
									point73	73	3,295.4	3,554.8	1,520.00	6.00					

Dudek
M Greene

31 March 2020
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: 10773
RUN: RDA Curci Vineyard III 2020 - Exist p Prj
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

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

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
ST1	1	1	0.0	61.3	66	61.3	10	----	61.3	0.0	8	-8.0
ST2	2	1	0.0	60.1	66	60.1	10	----	60.1	0.0	8	-8.0
ST3	3	1	0.0	59.6	66	59.6	10	----	59.6	0.0	8	-8.0
ST4	4	1	0.0	53.1	66	53.1	10	----	53.1	0.0	8	-8.0
ST5	5	1	0.0	46.3	66	46.3	10	----	46.3	0.0	8	-8.0
M1	7	1	0.0	56.6	66	56.6	10	----	56.6	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	6	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

Dudek 31 March 2020
M Greene TNM 2.5

INPUT: ROADWAYS
PROJECT/CONTRACT: 10773
RUN: RDA Vnyd II 2020 - Exist p Amb p Cumltv

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

Roadway Name	Width	Points Name	No.	Coordinates (pavement) X	Y	Z	Flow Control Control Device	Speed Constraint	Percent Vehicles Affected	Segment Pvmt Type	On Struct?
	ft			ft	ft	ft		mph	%		
Clinton Keith Rd - east of Creighton Ave	100.0	point1	1	4,540.0	2,082.1	1,500.00				Average	
		point3	3	1,894.7	2,071.7	1,518.00				Average	
		point4	4	1,877.4	2,071.7	1,520.00					
I-215	120.0	point29	29	734.8	1,945.7	1,515.00				Average	
		point9	9	963.2	2,315.1	1,515.00					
I-215 NB Onramp	45.0	point31	31	1,561.4	2,190.7	1,530.00				Average	
		point21	21	1,456.5	2,282.5	1,530.00				Average	
		point22	22	1,412.7	2,356.9	1,530.00				Average	
		point23	23	1,421.5	2,492.5	1,530.00				Average	
		point24	24	1,780.2	3,485.3	1,530.00				Average	
		point25	25	1,850.1	3,730.3	1,530.00					
Whitewood Road	100.0	point33	33	4,478.8	2,121.8	1,500.00				Average	
		point27	27	4,496.4	4,024.5	1,500.00					
I-215 NB Offramp	45.0	point36	36	717.3	1,648.3	1,520.00				Average	
		point17	17	1,167.8	1,871.4	1,525.00				Average	
		point18	18	1,281.5	1,989.5	1,528.00				Average	
		point19	19	1,355.9	2,173.2	1,530.00					
I-215-2	120.0	point39	39	980.0	2,337.3	1,515.00				Average	
		point10	10	1,294.7	2,754.9	1,520.00				Average	
		point11	11	1,552.7	3,192.3	1,525.00				Average	
		point12	12	1,727.6	3,603.4	1,530.00				Average	
		point13	13	1,823.9	3,918.3	1,530.00				Average	
		point14	14	1,876.4	4,123.9	1,530.00				Average	
		point15	15	1,950.7	4,425.7	1,530.00					
Clinton Keith Road-west of Creighton Av	100.0	point41	41	1,877.4	2,071.7	1,520.00				Average	

		point5	5	1,705.5	2,092.5	1,530.00				Average	
		point6	6	1,367.1	2,194.9	1,530.00				Average	
		point7	7	540.4	2,474.8	1,530.00					

Dudek 31 March 202
M Greene TNM 2.5

INPUT: TRAFFIC FOR LAeq1h Percentages
PROJECT/CONTRACT: 10773
RUN: RDA Vnyd II 2020 - Exist p Amb p Cumltv

Roadway	Points												
Name	Name	No.	Segment										
			Total	Autos		MTrucks		HTrucks		Buses		Motorcycles	
			Volume	P	S	P	S	P	S	P	S	P	S
			veh/hr	%	mph	%	mph	%	mph	%	mph	%	mph
Clinton Keith Rd - east of Creighton Ave	point1	1	4112	97	40	2	40	1	40	0	0	0	0
	point3	3	4112	97	40	2	40	1	40	0	0	0	0
	point4	4											
I-215	point29	29	11700	93	65	3	65	4	65	0	0	0	0
	point9	9											
I-215 NB Onramp	point31	31	100	97	45	2	45	1	45	0	0	0	0
	point21	21	100	97	45	2	45	1	45	0	0	0	0
	point22	22	100	97	45	2	45	1	45	0	0	0	0
	point23	23	100	97	45	2	45	1	45	0	0	0	0
	point24	24	100	97	45	2	45	1	45	0	0	0	0
	point25	25											
Whitewood Road	point33	33	1696	97	45	2	45	1	45	0	0	0	0
	point27	27											
I-215 NB Offramp	point36	36	100	97	45	2	45	1	45	0	0	0	0
	point17	17	100	97	45	2	45	1	45	0	0	0	0
	point18	18	100	97	45	2	45	1	45	0	0	0	0
	point19	19											
I-215-2	point39	39	11700	93	65	3	65	4	65	0	0	0	0
	point10	10	11700	93	65	3	65	4	65	0	0	0	0
	point11	11	11700	93	65	3	65	4	65	0	0	0	0
	point12	12	11700	93	65	3	65	4	65	0	0	0	0
	point13	13	11700	93	65	3	65	4	65	0	0	0	0
	point14	14	11700	93	65	3	65	4	65	0	0	0	0

	point15	15											
Clinton Keith Road-west of Creighton Av	point41	41	4112	97	40	2	40	1	40	0	0	0	0
	point5	5	4112	97	40	2	40	1	40	0	0	0	0
	point6	6	4112	97	40	2	40	1	40	0	0	0	0
	point7	7											

Dudek 31 March 2020
M Greene TNM 2.5

INPUT: RECEIVERS
PROJECT/CONTRACT: 10773
RUN: RDA Vnyd II 2020 - Exist p Amb p Cumltv

Receiver Name	No.	#DUs	Coordinates (ground) X	Y	Z	Height above Ground	Input Sound Levels and Criteria Existing LAeq1h	Impact Criteria LAeq1h	Sub'l	NR Goal	Active in Calc.
			ft	ft	ft	ft	dBA	dBA	dB	dB	
ST1	1	1	1,702.5	1,982.2	1,512.00	5.00	0.00	66	10.0	8.0	
ST2	2	1	3,422.5	1,837.3	1,510.00	5.00	0.00	66	10.0	8.0	
ST3	3	1	3,310.7	2,162.6	1,510.00	5.00	0.00	66	10.0	8.0	Y
ST4	4	1	3,272.5	2,640.2	1,510.00	5.00	0.00	66	10.0	8.0	
ST5	5	1	3,315.6	3,261.9	1,517.00	5.00	0.00	66	10.0	8.0	Y
M1	7	1	4,402.0	2,379.6	1,510.00	5.00	0.00	66	10.0	8.0	

Dudek 31 March 2020
M Greene TNM 2.5

INPUT: BARRIERS
PROJECT/CONTRACT: 10773
RUN: RDA Vnyd II 2020 - Exist p Amb p Cumltv

Barrier Name	Type	Height Min	Height Max	If Wall $ per Unit Area	If Berm $ per Unit Vol.	Top Width	Run:Rise	Add'tnl $ per Unit Length	Points Name	No.	Coordinates (bottom) X	Y	Z	Height at Point	Segment Seg Ht Increment	Perturbs #Up	#Dn	On Struct?	Important Reflections?
		ft	ft	$/sq ft	$/cu yd	ft	ft:ft	$/ft			ft	ft	ft	ft	ft				
Barrier1	W	0.00	99.99	0.00				0.00	point1	1	3,293.2	2,144.9	1,510.00	6.00	0.00	0	0		
									point2	2	3,801.1	2,135.3	1,510.00	6.00	0.00	0	0		
									point3	3	3,891.6	2,142.2	1,510.00	6.00	0.00	0	0		
									point4	4	4,384.6	2,142.2	1,510.00	6.00	0.00	0	0		
									point5	5	4,413.2	2,143.7	1,510.00	6.00	0.00	0	0		
									point6	6	4,422.0	3,547.7	1,510.00	6.00					
Barrier11	W	0.00	99.99	0.00				0.00	point10	10	3,293.3	2,145.3	1,510.00	10.00	0.00	0	0		
									point8	8	3,289.2	2,570.5	1,510.00	10.00					
Barrier21	W	0.00	99.99	0.00				0.00	point11	11	3,201.5	1,661.5	1,510.00	20.00	0.00	0	0		
									point37	37	3,204.3	1,713.9	1,510.00	20.00	0.00	0	0		
									point38	38	3,413.7	1,713.9	1,510.00	20.00	0.00	0	0		
									point39	39	3,411.0	1,653.3	1,510.00	20.00					
Barrier8	W	0.00	99.99	0.00				0.00	point48	48	3,325.9	2,270.4	1,510.00	20.00	0.00	0	0		
									point13	13	3,323.7	2,163.3	1,510.00	20.00	0.00	0	0		
									point14	14	3,787.3	2,158.9	1,510.00	20.00	0.00	0	0		
									point15	15	3,787.3	2,272.6	1,510.00	20.00					
Barrier9	W	0.00	99.99	0.00				0.00	point50	50	3,894.5	2,263.9	1,510.00	20.00	0.00	0	0		
									point17	17	3,901.0	2,165.4	1,510.00	20.00	0.00	0	0		
									point18	18	4,275.0	2,158.9	1,510.00	20.00	0.00	0	0		
									point46	46	4,272.8	2,266.0	1,510.00	20.00					
Barrier10	W	0.00	99.99	0.00				0.00	point52	52	4,323.8	2,378.3	1,510.00	20.00	0.00	0	0		
									point20	20	4,321.0	2,157.9	1,510.00	20.00	0.00	0	0		
									point21	21	4,395.4	2,160.7	1,510.00	20.00	0.00	0	0		
									point22	22	4,398.2	2,381.1	1,510.00	20.00					
Barrier 5	W	0.00	99.99	0.00				0.00	point54	54	4,086.8	2,609.8	1,510.00	20.00	0.00	0	0		
									point24	24	4,097.8	2,923.9	1,510.00	20.00	0.00	0	0		
									point25	25	4,340.3	2,918.4	1,510.00	20.00	0.00	0	0		
									point45	45	4,343.1	3,406.1	1,510.00	20.00	0.00	0	0		
									point26	26	3,403.5	3,411.6	1,510.00	20.00	0.00	0	0		
									point27	27	3,422.8	2,609.8	1,510.00	20.00					
Barrier7	W	0.00	99.99	0.00				0.00	point56	56	3,305.6	2,340.4	1,510.00	20.00	0.00	0	0		
									point29	29	4,282.4	2,337.0	1,510.00	20.00	0.00	0	0		
									point30	30	4,276.9	2,546.4	1,510.00	20.00	0.00	0	0		
									point31	31	3,309.8	2,557.5	1,510.00	20.00	0.00	0	0		
									point33	33	3,308.6	2,342.3	1,510.00	20.00					

Barrier6	W	0.00	99.99	0.00				0.00	point58	58	3,318.3	3,099.4	1,510.00	20.00	0.00	0	0		
									point35	35	3,310.0	2,589.7	1,510.00	20.00	0.00	0	0		
									point36	36	3,376.2	2,586.9	1,510.00	20.00	0.00	0	0		
									point12	12	3,381.7	3,093.9	1,510.00	20.00					
Barrier20	W	0.00	99.99	0.00				0.00	point60	60	3,433.3	1,768.9	1,510.00	20.00	0.00	0	0		
									point41	41	3,434.4	1,876.1	1,510.00	20.00	0.00	0	0		
									point42	42	3,552.5	1,875.0	1,510.00	20.00	0.00	0	0		
									point43	43	3,552.5	1,771.1	1,510.00	20.00					
Barrier19	W	0.00	99.99	0.00				0.00	point61	61	1,708.0	2,180.4	1,530.00	0.00	0.00	0	0		
									point62	62	1,819.1	2,524.1	1,540.00	0.00	0.00	0	0		
									point63	63	1,871.2	2,975.4	1,550.00	0.00	0.00	0	0		
									point64	64	1,968.4	3,697.5	1,550.00	0.00	0.00	0	0		
									point65	65	1,975.3	4,003.0	1,540.00	0.00					
Barrier22	W	0.00	99.99	0.00				0.00	point67	67	1,779.6	1,933.4	1,530.00	20.00	0.00	0	0		
									point68	68	1,659.0	1,949.5	1,530.00	20.00	0.00	0	0		
									point69	69	1,506.3	2,035.2	1,530.00	20.00	0.00	0	0		
									point70	70	1,238.3	1,737.8	1,530.00	20.00	0.00	0	0		
									point71	71	1,160.6	1,692.2	1,530.00	20.00					
Wall - 6'	W	0.00	99.99	0.00				0.00	point72	72	3,289.2	2,570.5	1,510.00	6.00	0.00	0	0		
									point74	74	3,291.3	2,898.6	1,512.33	6.00	0.00	0	0		
									point75	75	3,293.3	3,226.7	1,517.00	6.00	0.00	0	0		
									point73	73	3,295.4	3,554.8	1,520.00	6.00					

Dudek
M Greene

31 March 2020
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: 10773
RUN: RDA Vnyd II 2020 - Exist p Amb p Cumltv
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

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

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
ST1	1	1	0.0	62.9	66	62.9	10	----	62.9	0.0	8	-8.0
ST2	2	1	0.0	61.9	66	61.9	10	----	61.9	0.0	8	-8.0
ST3	3	1	0.0	61.5	66	61.5	10	----	61.5	0.0	8	-8.0
ST4	4	1	0.0	54.5	66	54.5	10	----	54.5	0.0	8	-8.0
ST5	5	1	0.0	46.9	66	46.9	10	----	46.9	0.0	8	-8.0
M1	7	1	0.0	58.0	66	58.0	10	----	58.0	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	6	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

Dudek 31 March 2020
M Greene TNM 2.5

INPUT: ROADWAYS
PROJECT/CONTRACT: 10773
RUN: RDA 2020 - Exi p Amb p Prj p Cmltv

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

Roadway Name	Width	Points Name	No.	Coordinates (pavement) X	Y	Z	Flow Control Control Device	Speed Constraint	Percent Vehicles Affected	Segment Pvmt Type	On Struct?
	ft			ft	ft	ft		mph	%		
Clinton Keith Rd - east of Creighton Ave	100.0	point1	1	4,540.0	2,082.1	1,500.00				Average	
		point3	3	1,894.7	2,071.7	1,518.00				Average	
		point4	4	1,877.4	2,071.7	1,520.00					
I-215	120.0	point29	29	734.8	1,945.7	1,515.00				Average	
		point9	9	963.2	2,315.1	1,515.00					
I-215 NB Onramp	45.0	point31	31	1,561.4	2,190.7	1,530.00				Average	
		point21	21	1,456.5	2,282.5	1,530.00				Average	
		point22	22	1,412.7	2,356.9	1,530.00				Average	
		point23	23	1,421.5	2,492.5	1,530.00				Average	
		point24	24	1,780.2	3,485.3	1,530.00				Average	
		point25	25	1,850.1	3,730.3	1,530.00					
Whitewood Road	100.0	point33	33	4,478.8	2,121.8	1,500.00				Average	
		point27	27	4,496.4	4,024.5	1,500.00					
I-215 NB Offramp	45.0	point36	36	717.3	1,648.3	1,520.00				Average	
		point17	17	1,167.8	1,871.4	1,525.00				Average	
		point18	18	1,281.5	1,989.5	1,528.00				Average	
		point19	19	1,355.9	2,173.2	1,530.00					
I-215-2	120.0	point39	39	980.0	2,337.3	1,515.00				Average	
		point10	10	1,294.7	2,754.9	1,520.00				Average	
		point11	11	1,552.7	3,192.3	1,525.00				Average	
		point12	12	1,727.6	3,603.4	1,530.00				Average	
		point13	13	1,823.9	3,918.3	1,530.00				Average	
		point14	14	1,876.4	4,123.9	1,530.00				Average	
		point15	15	1,950.7	4,425.7	1,530.00					
Clinton Keith Road-west of Creighton Av	100.0	point41	41	1,877.4	2,071.7	1,520.00				Average	

		point5	5	1,705.5	2,092.5	1,530.00				Average	
		point6	6	1,367.1	2,194.9	1,530.00				Average	
		point7	7	540.4	2,474.8	1,530.00					

Dudek 31 March 202
M Greene TNM 2.5

INPUT: TRAFFIC FOR LAeq1h Percentages
PROJECT/CONTRACT: 10773
RUN: RDA 2020 - Exi p Amb p Prj p Cmltv

Roadway	Points												
Name	Name	No.	Segment										
			Total	Autos		MTrucks		HTrucks		Buses		Motorcycles	
			Volume	P	S	P	S	P	S	P	S	P	S
			veh/hr	%	mph	%	mph	%	mph	%	mph	%	mph
Clinton Keith Rd - east of Creighton Ave	point1	1	4245	97	40	2	40	1	40	0	0	0	0
	point3	3	4245	97	40	2	40	1	40	0	0	0	0
	point4	4											
I-215	point29	29	11700	93	65	3	65	4	65	0	0	0	0
	point9	9											
I-215 NB Onramp	point31	31	100	97	45	2	45	1	45	0	0	0	0
	point21	21	100	97	45	2	45	1	45	0	0	0	0
	point22	22	100	97	45	2	45	1	45	0	0	0	0
	point23	23	100	97	45	2	45	1	45	0	0	0	0
	point24	24	100	97	45	2	45	1	45	0	0	0	0
	point25	25											
Whitewood Road	point33	33	1740	97	45	2	45	1	45	0	0	0	0
	point27	27											
I-215 NB Offramp	point36	36	100	97	45	2	45	1	45	0	0	0	0
	point17	17	100	97	45	2	45	1	45	0	0	0	0
	point18	18	100	97	45	2	45	1	45	0	0	0	0
	point19	19											
I-215-2	point39	39	11700	93	65	3	65	4	65	0	0	0	0
	point10	10	11700	93	65	3	65	4	65	0	0	0	0
	point11	11	11700	93	65	3	65	4	65	0	0	0	0
	point12	12	11700	93	65	3	65	4	65	0	0	0	0
	point13	13	11700	93	65	3	65	4	65	0	0	0	0
	point14	14	11700	93	65	3	65	4	65	0	0	0	0

	point15	15											
Clinton Keith Road-west of Creighton Av	point41	41	4378	97	40	2	40	1	40	0	0	0	0
	point5	5	4378	97	40	2	40	1	40	0	0	0	0
	point6	6	4378	97	40	2	40	1	40	0	0	0	0
	point7	7											

Dudek 31 March 2020
M Greene TNM 2.5

INPUT: RECEIVERS
PROJECT/CONTRACT: 10773
RUN: RDA 2020 - Exi p Amb p Prj p Cmltv

Receiver Name	No.	#DUs	Coordinates (ground) X	Y	Z	Height above Ground	Input Sound Levels and Criteria Existing LAeq1h	Impact Criteria LAeq1h	Sub'l	NR Goal	Active in Calc.
			ft	ft	ft	ft	dBA	dBA	dB	dB	
ST1	1	1	1,702.5	1,982.2	1,512.00	5.00	0.00	66	10.0	8.0	
ST2	2	1	3,422.5	1,837.3	1,510.00	5.00	0.00	66	10.0	8.0	
ST3	3	1	3,310.7	2,162.6	1,510.00	5.00	0.00	66	10.0	8.0	Y
ST4	4	1	3,272.5	2,640.2	1,510.00	5.00	0.00	66	10.0	8.0	
ST5	5	1	3,315.6	3,261.9	1,517.00	5.00	0.00	66	10.0	8.0	Y
M1	7	1	4,402.0	2,379.6	1,510.00	5.00	0.00	66	10.0	8.0	

Dudek 31 March 2020
M Greene TNM 2.5

INPUT: BARRIERS
PROJECT/CONTRACT: 10773
RUN: RDA 2020 - Exi p Amb p Prj p Cmltv

Barrier Name	Type	Height Min	Height Max	If Wall $ per Unit Area	If Berm $ per Unit Vol.	Top Width	Run:Rise	Add'tnl $ per Unit Length	Points Name	No.	Coordinates (bottom) X	Y	Z	Height at Point	Segment Seg Ht Increment	Perturbs #Up	#Dn	On Struct?	Important Reflections?
		ft	ft	$/sq ft	$/cu yd	ft	ft:ft	$/ft			ft	ft	ft	ft	ft				
Barrier1	W	0.00	99.99	0.00				0.00	point1	1	3,293.2	2,144.9	1,510.00	6.00	0.00	0	0		
									point2	2	3,801.1	2,135.3	1,510.00	6.00	0.00	0	0		
									point3	3	3,891.6	2,142.2	1,510.00	6.00	0.00	0	0		
									point4	4	4,384.6	2,142.2	1,510.00	6.00	0.00	0	0		
									point5	5	4,413.2	2,143.7	1,510.00	6.00	0.00	0	0		
									point6	6	4,422.0	3,547.7	1,510.00	6.00					
Barrier11	W	0.00	99.99	0.00				0.00	point10	10	3,293.3	2,145.3	1,510.00	10.00	0.00	0	0		
									point8	8	3,289.2	2,570.5	1,510.00	10.00					
Barrier21	W	0.00	99.99	0.00				0.00	point11	11	3,201.5	1,661.5	1,510.00	20.00	0.00	0	0		
									point37	37	3,204.3	1,713.9	1,510.00	20.00	0.00	0	0		
									point38	38	3,413.7	1,713.9	1,510.00	20.00	0.00	0	0		
									point39	39	3,411.0	1,653.3	1,510.00	20.00					
Barrier8	W	0.00	99.99	0.00				0.00	point48	48	3,325.9	2,270.4	1,510.00	20.00	0.00	0	0		
									point13	13	3,323.7	2,163.3	1,510.00	20.00	0.00	0	0		
									point14	14	3,787.3	2,158.9	1,510.00	20.00	0.00	0	0		
									point15	15	3,787.3	2,272.6	1,510.00	20.00					
Barrier9	W	0.00	99.99	0.00				0.00	point50	50	3,894.5	2,263.9	1,510.00	20.00	0.00	0	0		
									point17	17	3,901.0	2,165.4	1,510.00	20.00	0.00	0	0		
									point18	18	4,275.0	2,158.9	1,510.00	20.00	0.00	0	0		
									point46	46	4,272.8	2,266.0	1,510.00	20.00					
Barrier10	W	0.00	99.99	0.00				0.00	point52	52	4,323.8	2,378.3	1,510.00	20.00	0.00	0	0		
									point20	20	4,321.0	2,157.9	1,510.00	20.00	0.00	0	0		
									point21	21	4,395.4	2,160.7	1,510.00	20.00	0.00	0	0		
									point22	22	4,398.2	2,381.1	1,510.00	20.00					
Barrier 5	W	0.00	99.99	0.00				0.00	point54	54	4,086.8	2,609.8	1,510.00	20.00	0.00	0	0		
									point24	24	4,097.8	2,923.9	1,510.00	20.00	0.00	0	0		
									point25	25	4,340.3	2,918.4	1,510.00	20.00	0.00	0	0		
									point45	45	4,343.1	3,406.1	1,510.00	20.00	0.00	0	0		
									point26	26	3,403.5	3,411.6	1,510.00	20.00	0.00	0	0		
									point27	27	3,422.8	2,609.8	1,510.00	20.00					
Barrier7	W	0.00	99.99	0.00				0.00	point56	56	3,305.6	2,340.4	1,510.00	20.00	0.00	0	0		
									point29	29	4,282.4	2,337.0	1,510.00	20.00	0.00	0	0		
									point30	30	4,276.9	2,546.4	1,510.00	20.00	0.00	0	0		
									point31	31	3,309.8	2,557.5	1,510.00	20.00	0.00	0	0		
									point33	33	3,308.6	2,342.3	1,510.00	20.00					

Barrier6	W	0.00	99.99	0.00				0.00	point58	58	3,318.3	3,099.4	1,510.00	20.00	0.00	0	0		
									point35	35	3,310.0	2,589.7	1,510.00	20.00	0.00	0	0		
									point36	36	3,376.2	2,586.9	1,510.00	20.00	0.00	0	0		
									point12	12	3,381.7	3,093.9	1,510.00	20.00					
Barrier20	W	0.00	99.99	0.00				0.00	point60	60	3,433.3	1,768.9	1,510.00	20.00	0.00	0	0		
									point41	41	3,434.4	1,876.1	1,510.00	20.00	0.00	0	0		
									point42	42	3,552.5	1,875.0	1,510.00	20.00	0.00	0	0		
									point43	43	3,552.5	1,771.1	1,510.00	20.00					
Barrier19	W	0.00	99.99	0.00				0.00	point61	61	1,708.0	2,180.4	1,530.00	0.00	0.00	0	0		
									point62	62	1,819.1	2,524.1	1,540.00	0.00	0.00	0	0		
									point63	63	1,871.2	2,975.4	1,550.00	0.00	0.00	0	0		
									point64	64	1,968.4	3,697.5	1,550.00	0.00	0.00	0	0		
									point65	65	1,975.3	4,003.0	1,540.00	0.00					
Barrier22	W	0.00	99.99	0.00				0.00	point67	67	1,779.6	1,933.4	1,530.00	20.00	0.00	0	0		
									point68	68	1,659.0	1,949.5	1,530.00	20.00	0.00	0	0		
									point69	69	1,506.3	2,035.2	1,530.00	20.00	0.00	0	0		
									point70	70	1,238.3	1,737.8	1,530.00	20.00	0.00	0	0		
									point71	71	1,160.6	1,692.2	1,530.00	20.00					
Wall - 6'	W	0.00	99.99	0.00				0.00	point72	72	3,289.2	2,570.5	1,510.00	6.00	0.00	0	0		
									point74	74	3,291.3	2,898.6	1,512.33	6.00	0.00	0	0		
									point75	75	3,293.3	3,226.7	1,517.00	6.00	0.00	0	0		
									point73	73	3,295.4	3,554.8	1,520.00	6.00					

Dudek
M Greene

31 March 2020
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: 10773
RUN: RDA 2020 - Exi p Amb p Prj p Cmltv
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

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

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
ST1	1	1	0.0	63.1	66	63.1	10	----	63.1	0.0	8	-8.0
ST2	2	1	0.0	62.0	66	62.0	10	----	62.0	0.0	8	-8.0
ST3	3	1	0.0	61.6	66	61.6	10	----	61.6	0.0	8	-8.0
ST4	4	1	0.0	54.6	66	54.6	10	----	54.6	0.0	8	-8.0
ST5	5	1	0.0	46.9	66	46.9	10	----	46.9	0.0	8	-8.0
M1	7	1	0.0	58.1	66	58.1	10	----	58.1	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	6	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

APPENDIX H-4

Equipment Noise Calculations

Vineyard III Project, Murrieta

On-Site Noise Calculations - HVAC

Building	HVAC Units				Distance from residents (approximate worst-case) (feet)	Resultant Unattenuated Noise Level (dBA L_{eq})		Resultant Combined Unattenuated Noise Level (dBA Leq)	Attenuation from Building Parapets (dB)	Resultant noise level with Attenuation (dBA L_{eq})		Resultant Combined Noise Level (dBA L_{eq})
	Quantity	Sizing Assumptions (10-ton or 5-ton)		Capacity (in tons)								
		5 ton	10 ton			5 ton	10 ton			5 ton	10 ton	
Building Y	3	2	1	20	186	41.1	43.1	45.2	7.7	33.4	35.3	37.5
Buildging X	2	2	0	10	240	38.9	0.0	38.9	7.4	31.5	0.0	31.5
Building W1	3	3	0	15	340	37.6	0.0	37.6	7.1	30.6	0.0	30.6
Building W2	5	4	1	30	407	37.3	36.3	39.8	6.5	30.8	29.8	33.3
Building W3	3	3	0	15	470	34.8	0.0	34.8	6.2	28.7	0.0	28.7
Building V	7	7	0	35	680	35.3	0.0	35.3	5.7	29.6	0.0	29.6
Building U	5	5	0	25	840	32.0	0.0	32.0	5.5	26.5	0.0	26.5
Building T	4	4	0	20	1040	29.2	0.0	29.2	5.3	23.8	0.0	23.8
Combined noise level at nearest noise-sensitive receivers (worst-case)												
	Cumlative Total											**41.0**

Assumptions:
SPLs (shown) calculated based upon Lennox specifications (provided in Appendix H)

5-Ton Unit	49.5 at 50 feet
10-Ton Unit	54.5 at 50 feet

Building Square Footage (SF) and HVAC Tallies - Vineyard III

Based on information from Allan Davis, there would be 30 5-ton units and 2 10-ton units

Building	Distance to Nearest Receiver (Feet)	SF	Number of HVAC units	Number of HVAC units (rounded)	Sizing Assumptions (10-ton or 5-ton)	
					5	10
Building Y	166	3470	3.47	3	2	1
Buildging X	220	2500	2.5	2	2	
Building W1	320	2500	2.5	3	3	
Building W2	387	4500	4.5	5	4	1
Building W3	450	3000	3	3	3	
Building V	660	7150	7.15	7	7	
Building U	820	5000	5	5	5	
Building T	1020	4000	4	4	4	
			32.12	**32**	**30**	**2**

Project: Vineyard III Murrieta
Date: 8/16/19
By: MGG

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)
Building Y	186.0	1526.0	23.0	1518.0	5.0	20.0	1545.0	**4.0**	500.0	187.8	20.0	168.0	2.3	0.2	**7.7**
Buildging X	240.0	1528.0	26.0	1518.0	5.0	20.0	1550.0	**4.0**	500.0	242.0	20.0	222.2	2.3	0.2	**7.4**
Building W1	340.0	1532.0	32.0	1518.0	5.0	20.0	1560.0	**4.0**	500.0	342.5	20.0	322.6	2.3	0.1	**7.1**
Building W2	407.0	1532.0	32.0	1518.0	5.0	20.0	1560.0	**4.0**	500.0	409.1	20.0	389.2	2.3	0.1	**6.5**
Building W3	470.0	1532.0	32.0	1518.0	5.0	20.0	1560.0	**4.0**	500.0	471.8	20.0	451.9	2.3	0.1	**6.2**
Building V	680.0	1537.0	30.0	1518.0	5.0	20.0	1563.0	**4.0**	500.0	681.4	20.0	661.5	2.3	0.0	**5.7**
Building U	840.0	1541.0	29.0	1518.0	5.0	20.0	1566.0	**4.0**	500.0	841.3	20.0	821.3	2.3	0.0	**5.5**
Building T	1040.0	1541.0	29.0	1518.0	5.0	20.0	1566.0	**4.0**	500.0	1041.1	20.0	1021.1	2.3	0.0	**5.3**

HVAC Calcs - Vineyard III
Sound Power Level, Sound Pressure Level

Per Diehl, pg. 80:

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

Test Lw (dBA)	Test R (Ft)	Diehl (Reflecting Plane): Lp (dBA)
81.0	50.0	49.5
86.0	50.0	54.5

AIR CONDITIONERS

ELS

ELITE® COMMERCIAL SPLIT SYSTEMS

R-410A - 60 HZ

Bulletin No. 210804
February 2018

PRODUCT SPECIFICATIONS

ELITE® SERIES

072-090 Models

180-240 Models

120-150 Models

EER up to 12.0
6 to 20 Tons
Cooling Capacity - 71,000 to 232,000 Btuh

MODEL NUMBER IDENTIFICATION

EL S 120 S 4 S T 1 Y

Brand/Family
EL = Elite® Product Line

Unit Type
S = Split System Air Conditioner

Nominal Cooling Capacity – Tons
072 = 6 Tons
090 = 7.5 Tons
120 = 10 Tons
150 = 12.5 Tons
180 = 15 Tons
240 = 20 Tons

Cooling Efficiency
S = Standard Efficiency

Voltage
Y = 208/230V-3 phase-60hz
G = 460V-3 phase-60hz
J = 575V-3 phase-60hz

Minor Design Sequence
1 = 1st Revision
2 = 2nd Revision
3 = 3rd Revision

Part Load Capability
S = Single StageCompressor
T = Dual Stage Compressor

Refrigerant Circuits
S = Single Circuit
D = Dual Circuits

Refrigerant Type
4 = R–410A

AHRI SYSTEM MATCHES

Model	Cooling Btuh	EER	IEER	Air Handler	Expansion Device	AHRI Reference
ELS072S4S	71,000	12.0	16.0	ELA072S4S	Factory TXV	201753420
ELS090S4S	89,000	11.2	14.4	ELA090S4D	Factory TXV	201753421
ELS120S4S	115,000	11.2	14.4	ELA120S4D	Factory TXV	201753423
ELS120S4D	115,000	11.2	12.9	ELA120S4D	Factory TXV	201753422
ELS150S4D	136,000	11.0	12.4	ELA150S4D	Factory TXV	201753424
ELS180S4D	178,000	11.0	12.4	ELA180S4D	Factory TXV	201753975
ELS240S4D	232,000	11.0	12.4	ELA240S4D	Factory TXV	201753426

NOTES - Units with capacity of 65,000 Btuh or greater are AHRI Certified to AHRI Standard 340/360: 95°F outdoor air temperature, 80°F db/67°F wb entering evaporator air (minimum external duct static pressure) with 25 ft. of connecting refrigerant lines.

SOUND DATA

[1] Unit Model No.	Octave Band Linear Sound Power Levels dB, re 10^{-12} Watts Center Frequency - HZ							[1] Sound Rating Number (dB)
	125	250	500	1000	2000	4000	8000	
ELS072S4S	65	68	73	76	72	68	63	81
ELS090S4S	64	69	73	77	74	70	63	81
ELS120S4S	70	77	82	81	77	75	71	86
ELS120S4D	71	77	80	80	77	72	67	85
ELS150S4D	68	77	80	82	78	73	65	86
ELS180S4D	73	80	83	83	79	74	66	88
ELS240S4D	73	80	85	84	80	78	74	89

NOTE - the octave sound power data does not include tonal correction.

[1] Tested according to AHRI Standard 270 test conditions.

Drive-Through Lane Noise - Vineyard III Project

Reference: Illingworth and Rodkin, Inc. 2010. In-N-Out Burger, North Main Street, Environmental Noise Assessment, Pleasant Hill, California. June 10, 2010. Petaluma, CA. http://www.ci.pleasant-

As measured at 20 feet:

Speaker Noise:
62 to 67 dBA Lmax

Vehicle Noise (Typical)
56 to 58 dBA Lmax

Occasional Louder Vehicles:
70 to 72 dBA Lmax

Average Drive-Through Lane Noise
63 dBA Leq

At 200 feet:
Speaker Noise:
42 to 47 dBA Lmax

Vehicle Noise (Typical)
36 to 38 dBA Lmax

Occasional Louder Vehicles:
50 to 52 dBA Lmax

Average Drive-Through Lane Noise
43 dBA Leq