

**Appendix H:
Noise Supporting information**

THIS PAGE INTENTIONALLY LEFT BLANK

TABLE Existing-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/28/2026
ROADWAY SEGMENT: El Capitan Drive - north of Como Way
NOTES: Martin Hills Ranch - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 2900 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	---	-----
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 58.37

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
0.0	0.0	0.0	93.6

TABLE Existing-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/28/2026
ROADWAY SEGMENT: El Capitan Drive - south of Como Way
NOTES: Martin Hills Ranch - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 2900 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	---	-----
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 58.37

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
0.0	0.0	0.0	93.6

TABLE Existing-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/28/2026
ROADWAY SEGMENT: Como Way - east of El Capitan Drive
NOTES: Martin Hills Ranch - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 60 SPEED (MPH): 25 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	NIGHT -----
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 38.10

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn -----	65 Ldn -----	60 Ldn -----	55 Ldn -----
0.0	0.0	0.0	0.0

TABLE Existing plus Project-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/28/2026
ROADWAY SEGMENT: El Capitan Drive - north of Como Way
NOTES: Martin Hills Ranch - Existing plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 2900 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	---	-----
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 58.37

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
0.0	0.0	0.0	93.6

TABLE Existing plus Project-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/28/2026
ROADWAY SEGMENT: El Capitan Drive - south of Como Way
NOTES: Martin Hills Ranch - Existing plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 3100 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	
DAY	NIGHT
---	-----
AUTOS	
88.08	9.34
M-TRUCKS	
1.65	0.19
H-TRUCKS	
0.66	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 58.66

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
0.0	0.0	0.0	97.8

TABLE Existing plus Project-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/28/2026
ROADWAY SEGMENT: Como Way - east of El Capitan Drive
NOTES: Martin Hills Ranch - Existing plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 290 SPEED (MPH): 25 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	---	-----
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 44.95

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
0.0	0.0	0.0	0.0

Existing

Roadway Segment	ADT	Center-line to 70 LDN (feet)	Center-line to 65 LDN (feet)	Center-line to 60 LDN (feet)	LDN (dBA) 50 feet from Centerline of Outermost Lane	Distance to nearest off-site residence (adjacent to edge of project boundary)	Distance Attenuation (dBA)	Noise Level at nearest off-site residence	Combined Traffic Noise Levels at nearest off-site residence
El Capitan Drive - north of Como Way	2,900	< 50	< 50	< 50	58.4	600	-10	48.4	(48.4+38.1)
El Capitan Drive - south of Como Way	2,900	< 50	< 50	< 50	58.4	600	-10	48.4	48.8
Como Way - east of El Capitan Drive	60	< 50	< 50	< 50	38.1	50	0	38.1	

Existing plus Project

Roadway Segment	ADT	Center-line to 70 LDN (feet)	Center-line to 65 LDN (feet)	Center-line to 60 LDN (feet)	LDN (dBA) 50 feet from Centerline of Outermost Lane					Increase from Baseline Conditions
El Capitan Drive - north of Como Way	2,900	< 50	< 50	< 50	58.4	600	-10	48.4	(48.7+44.5)	
El Capitan Drive - south of Como Way	3,100	< 50	< 50	< 50	58.7	600	-10	48.7	50.1	1.3
Como Way - east of El Capitan Drive	260	< 50	< 50	< 50	44.5	50	0	44.5		

Mobile Construction Activity Noise Calculation

Receptor: Receiving residential property line		Noise Level Calculation Prior to Implementation of Noise Attenuation Requirements										
No.	Equipment Description	Reference (dBA) 50 ft	Quantity	Usage factor[1]	Distance to Receptor	Ground Effect[2]	Shielding (dBA)[3]	Calculated (dBA)		Energy		
		Lmax						Lmax	Leq			
1	Grader	85	1	40	200	1	0	73.0	63.0	1976423.538		
2	Excavator	85	1	40	250	1	0	71.0	60.1	1011928.851		
3	Dozer	85	1	40	250	1	0	71.0	60.1	1011928.851		
4	Front End Loader	80	1	40	250	1	0	66.0	55.1	320000		
5	Backhoe	80	1	40	250	1	0	66.0	55.1	320000		
6												
7												
8												
9												
10												
								Lmax[4]	73	Leq	67	

Notes:

- [1] Percentage of time activity occurs each hour
- [2] Soft ground terrain between project site and receptor.
- [3] Shielding due to terrain or structures
- [4] Calculated Lmax is the Loudest value.

Mobile Construction Activity Noise Calculation (Access Roadway)

Receptor: Receiving residential property line		Noise Level Calculation Prior to Implementation of Noise Attenuation Requirements										
No.	Equipment Description	Reference (dBA) 50 ft	Quantity	Usage factor[1]	Distance to Receptor	Ground Effect[2]	Shielding (dBA)[3]	Calculated (dBA)		Energy		
		Lmax						Lmax	Leq			
1	Grader	85	1	40	65	1	0	82.7	77.6	57574468.1		
2	Front End Loader	80	1	40	115	1	0	72.8	65.2	3287581.162		
3	Dump Truck	84	1	40	115	1	0	76.8	69.2	8258030.514		
4												
5												
6												
7												
8												
9												
10												
								Lmax[4]	83	Leq	78	

Notes:

- [1] Percentage of time activity occurs each hour
- [2] Soft ground terrain between project site and receptor.
- [3] Shielding due to terrain or structures
- [4] Calculated Lmax is the Loudest value.

Residential-Grade Mechanical Equipment

Receptor: Nearest Residential Receptor		Noise Level Calculation Prior to Implementation of Noise Attenuation Requirements									
No.	Equipment Description	Reference (dBA) 3 ft	Quantity	Usage factor[1]	Distance to Receptor	Ground Effect[2]	Shielding (dBA)[3]	Calculated (dBA)			Energy
		Lmax						Lmax	Leq		
1	Residential grade mechanical ventilation equipment	70	1	80	150	1	0	36.0	18.1	64	
2	Residential grade mechanical ventilation equipment	70	1	80	815	1	0	21.3	-4.0	0.399007377	
3	Residential grade mechanical ventilation equipment	70	1	80	900	1	0	20.5	-5.3	0.296296296	
4	Residential grade mechanical ventilation equipment	70	1	80	940	1	0	20.1	-5.8	0.260057983	
5											
6											
7											
8											
9											
10											
										Leq	18

Notes:

- [1] Percentage of time activity occurs each hour
- [2] Soft ground terrain between project site and receptor.
- [3] Shielding due to structural/soundwall shielding

THIS PAGE INTENTIONALLY LEFT BLANK