

**Appendix G:
Noise Supporting Information**

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Mobile Construction Activity

Receptor: Closest residential common area

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						Leq			
1	Backhoe	85	1	1	50	1	0	85.0	65.0	3162277.66	
2	Front End Loader	85	1	1	100	1	0	79.0	56.0	395284.7075	
3	Scraper	85	1	1	100	1	0	79.0	56.0	395284.7075	
4	Rubber Tired Dozer	85	1	1	125	1	0	77.0	53.1	202385.7703	
5	Front End Loader	85	1	1	125	1	0	77.0	53.1	202385.7703	
6											
7											
8											
9											
10											
								Lmax[4]	85	Leq	66

Notes:

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

Ldn Calculations	Time	Hourly Leq	Leq'	0.1*Leq	antiLog
Night	12:00 AM	0.0	10.0	1	10
	1:00 AM	0.0	10.0	1	10
	2:00 AM	0.0	10.0	1	10
	3:00 AM	0.0	10.0	1	10
	4:00 AM	0.0	10.0	1	10
	5:00 AM	0.0	10.0	1	10
Day	6:00 AM	0.0	10.0	1	10
	7:00 AM	66.4	66.4	6.639249218	4357618.616
	8:00 AM	66.4	66.4	6.639249218	4357618.616
	9:00 AM	66.4	66.4	6.639249218	4357618.616
	10:00 AM	60.0	60.0	6	1000000
	11:00 AM	60.0	60.0	6	1000000
	12:00 PM	60.0	60.0	6	1000000
	1:00 PM	54.0	54.0	5.4	251188.6432
	2:00 PM	54.0	54.0	5.4	251188.6432
	3:00 PM	54.0	54.0	5.4	251188.6432
	4:00 PM	48.0	48.0	4.8	63095.73445
	5:00 PM	48.0	48.0	4.8	63095.73445
	6:00 PM	48.0	48.0	4.8	63095.73445
	7:00 PM	42.0	42.0	4.2	15848.93192
8:00 PM	42.0	42.0	4.2	15848.93192	
Night	9:00 PM	42.0	42.0	4.2	15848.93192
	10:00 PM	0.0	10.0	1	10
	11:00 PM	0.0	10.0	1	10
Sum					17063345.78
Sum/24					710972.7407
Log10(Sum/24)					5.85185295
10*Log10(Sum/24)					58.5185295
24 Hour Ldn					59

Mechanical Equipment Noise Calculation

Receptor: Closest Residence - northwest of Project

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						Leq			
1	Residential grade mechanical ventilation equipment	70	4	100	90	0.5	0	40.5	39.1	8114.408259	
2	Residential grade mechanical ventilation equipment	70	4	100	110	0.5	0	38.7	36.9	4913.39201	
3	Residential grade mechanical ventilation equipment	70	4	100	130	0.5	0	37.3	35.1	3235.971942	
4											
5											
6											
7											
8											
9											
10											
								Lmax[4]	40	Leq	42

Notes:

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

CNEL Calculations	Time	Hourly Leq	Leq'	0.1*Leq	antiLog
Night	12:00 AM	42.1	52.1	5.211221283	162637.7221
	1:00 AM	42.1	52.1	5.211221283	162637.7221
	2:00 AM	42.1	52.1	5.211221283	162637.7221
	3:00 AM	42.1	52.1	5.211221283	162637.7221
	4:00 AM	42.1	52.1	5.211221283	162637.7221
	5:00 AM	42.1	52.1	5.211221283	162637.7221
Day	6:00 AM	42.1	52.1	5.211221283	162637.7221
	7:00 AM	42.1	42.1	4.211221283	16263.77221
	8:00 AM	42.1	42.1	4.211221283	16263.77221
	9:00 AM	42.1	42.1	4.211221283	16263.77221
	10:00 AM	42.1	42.1	4.211221283	16263.77221
	11:00 AM	42.1	42.1	4.211221283	16263.77221
	12:00 PM	42.1	42.1	4.211221283	16263.77221
	1:00 PM	42.1	42.1	4.211221283	16263.77221
	2:00 PM	42.1	42.1	4.211221283	16263.77221
	3:00 PM	42.1	42.1	4.211221283	16263.77221
	4:00 PM	42.1	42.1	4.211221283	16263.77221
	5:00 PM	42.1	42.1	4.211221283	16263.77221
Evening	6:00 PM	42.1	42.1	4.211221283	16263.77221
	7:00 PM	42.1	47.1	4.711221283	51430.56353
	8:00 PM	42.1	47.1	4.711221283	51430.56353
Night	9:00 PM	42.1	47.1	4.711221283	51430.56353
	10:00 PM	42.1	52.1	5.211221283	162637.7221
	11:00 PM	42.1	52.1	5.211221283	162637.7221
Sum					1813196.456
Sum/24					75549.85234
Log10(Sum/24)					4.87823362
10*Log10(Sum/24)					48.7823362
24 Hour CNEL					49

Parking Lot activity

Receptor: Closest Residence - east of project site

No.	Equipment Description	Reference (dBA) 25 ft	Quantity	Usage factor[1]	Distance to Receptor	Ground Effect[2]	Shielding (dBA)[3]	Calculated (dBA)		Energy	
		Lmax						Leq			
1	parking lot activity	70	10	1	120	1	0	56.4	39.6	9042.24537	
2	parking lot activity	70	10	1	160	1	0	53.9	35.8	3814.697266	
3	parking lot activity	70	10	1	200	1	0	51.9	32.9	1953.125	
4	parking lot activity	70	10	1	240	1	0	50.4	30.5	1130.280671	
5											
6											
7											
8											
9											
10											
								Lmax[4]	56	Leq	42

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.

CNEL Calculations					
	Time	Hourly Leq	Leq'	0.1*Leq	antiLog
Night	12:00 AM	42.0	52.0	5.202497807	159403.4831
	1:00 AM	42.0	52.0	5.202497807	159403.4831
	2:00 AM	42.0	52.0	5.202497807	159403.4831
	3:00 AM	42.0	52.0	5.202497807	159403.4831
	4:00 AM	42.0	52.0	5.202497807	159403.4831
	5:00 AM	42.0	52.0	5.202497807	159403.4831
Day	6:00 AM	42.0	52.0	5.202497807	159403.4831
	7:00 AM	42.0	42.0	4.202497807	15940.34831
	8:00 AM	42.0	42.0	4.202497807	15940.34831
	9:00 AM	42.0	42.0	4.202497807	15940.34831
	10:00 AM	42.0	42.0	4.202497807	15940.34831
	11:00 AM	42.0	42.0	4.202497807	15940.34831
	12:00 PM	42.0	42.0	4.202497807	15940.34831
	1:00 PM	42.0	42.0	4.202497807	15940.34831
	2:00 PM	42.0	42.0	4.202497807	15940.34831
	3:00 PM	42.0	42.0	4.202497807	15940.34831
	4:00 PM	42.0	42.0	4.202497807	15940.34831
	5:00 PM	42.0	42.0	4.202497807	15940.34831
Evening	6:00 PM	42.0	42.0	4.202497807	15940.34831
	7:00 PM	42.0	47.0	4.702497807	50407.80735
	8:00 PM	42.0	47.0	4.702497807	50407.80735
Night	9:00 PM	42.0	47.0	4.702497807	50407.80735
	10:00 PM	42.0	52.0	5.202497807	159403.4831
	11:00 PM	42.0	52.0	5.202497807	159403.4831
Sum					1777138.949
Sum/24					74047.45622
Log10(Sum/24)					4.869510144
10*Log10(Sum/24)					48.69510144
24 Hour CNEL					49

TABLE Existing-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/02/2022
ROADWAY SEGMENT: Shiloh Road - Highway 101 to Hembree Lane
NOTES: Shiloh Crossing - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 19900 SPEED (MPH): 40 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.10

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	99.5	209.4	448.7

TABLE Existing-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/02/2022
ROADWAY SEGMENT: Hembree Lane - north of Shiloh Road
NOTES: Shiloh Crossing - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 18900 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.45

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	78.8	163.4	349.0

TABLE Existing-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/02/2022
ROADWAY SEGMENT: Shiloh Road - Hembree Lane to Business Park Court
NOTES: Shiloh Crossing - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 11900 SPEED (MPH): 40 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.79

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	69.7	148.3	318.7

TABLE Existing-04
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/02/2022
ROADWAY SEGMENT: Business Park Court - north of Shiloh Road
NOTES: Shiloh Crossing - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 810 SPEED (MPH): 25 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

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

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 49.81

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

TABLE Existing-05
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/02/2022

ROADWAY SEGMENT: Shiloh Road - Business Park Court to Old Redwood Highway

NOTES: Shiloh Crossing - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 11700 SPEED (MPH): 40 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

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

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.30

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	68.2	146.4	315.1

TABLE Existing Plus Project-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/02/2022
ROADWAY SEGMENT: Shiloh Road - Highway 101 to Hembree Lane
NOTES: Shiloh Crossing - Existing Plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 20300 SPEED (MPH): 40 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.18

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	100.8	212.2	454.7

TABLE Existing Plus Project-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/02/2022
ROADWAY SEGMENT: Hembree Lane - north of Shiloh Road
NOTES: Shiloh Crossing - Existing Plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 19000 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.48

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	79.0	164.0	350.2

TABLE Existing Plus Project-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/02/2022

ROADWAY SEGMENT: Shiloh Road - Hembree Lane to Business Park Court

NOTES: Shiloh Crossing - Existing Plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 12400 SPEED (MPH): 40 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.97

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	71.6	152.4	327.5

TABLE Existing Plus Project-04
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/02/2022
ROADWAY SEGMENT: Business Park Court - north of Shiloh Road
NOTES: Shiloh Crossing - Existing Plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 2000 SPEED (MPH): 25 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

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

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 53.74

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

TABLE Existing Plus Project-05
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/02/2022

ROADWAY SEGMENT: Shiloh Road - Business Park Court to Old Redwood Highway

NOTES: Shiloh Crossing - Existing Plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 12100 SPEED (MPH): 40 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

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

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.44

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	69.7	149.7	322.3

TABLE Cumulative No Project-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/02/2022
ROADWAY SEGMENT: Shiloh Road - Highway 101 to Hembree Lane
NOTES: Shiloh Crossing - Cumulative No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 26500 SPEED (MPH): 40 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.34

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
59.3	119.3	252.9	542.8

TABLE Cumulative No Project-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/02/2022
ROADWAY SEGMENT: Hembree Lane - north of Shiloh Road
NOTES: Shiloh Crossing - Cumulative No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 21100 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.93

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	84.2	175.6	375.4

TABLE Cumulative No Project-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/02/2022

ROADWAY SEGMENT: Shiloh Road - Hembree Lane to Business Park Court

NOTES: Shiloh Crossing - Cumulative No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 20300 SPEED (MPH): 40 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.11

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	98.7	211.4	454.8

TABLE Cumulative No Project-04
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/02/2022

ROADWAY SEGMENT: Business Park Court - north of Shiloh Road

NOTES: Shiloh Crossing - Cumulative No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 810 SPEED (MPH): 25 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

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

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 49.81

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

TABLE Cumulative No Project-05
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/02/2022

ROADWAY SEGMENT: Shiloh Road - Business Park Court to Old Redwood Highway

NOTES: Shiloh Crossing - Cumulative No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 20200 SPEED (MPH): 40 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

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

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.67

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	97.9	210.6	453.5

TABLE Cumulative Plus Project-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/02/2022
ROADWAY SEGMENT: Shiloh Road - Highway 101 to Hembree Lane
NOTES: Shiloh Crossing - Cumulative Plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 26900 SPEED (MPH): 40 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.41

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
59.8	120.5	255.4	548.2

TABLE Cumulative Plus Project-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/02/2022
ROADWAY SEGMENT: Hembree Lane - north of Shiloh Road
NOTES: Shiloh Crossing - Cumulative Plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 21200 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.95

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	84.5	176.1	376.6

TABLE Cumulative Plus Project-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/02/2022

ROADWAY SEGMENT: Shiloh Road - Hembree Lane to Business Park Court

NOTES: Shiloh Crossing - Cumulative Plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 21100 SPEED (MPH): 40 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.28

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	101.3	216.9	466.6

TABLE Cumulative Plus Project-04
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/02/2022
ROADWAY SEGMENT: Business Park Court - north of Shiloh Road
NOTES: Shiloh Crossing - Cumulative Plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 2000 SPEED (MPH): 25 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

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

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 53.74

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

TABLE Cumulative Plus Project-05
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/02/2022

ROADWAY SEGMENT: Shiloh Road - Business Park Court to Old Redwood Highway

NOTES: Shiloh Crossing - Cumulative Plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 20500 SPEED (MPH): 40 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

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

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.73

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	98.9	212.7	457.9

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