Long-Term 24 Hour Continuous Noise Monitoring Model Input Sheet



Project:	60577193 - Oceano Dunes Planning+Outrea	ch	
Date:	Wednesday, November 11, 2020	to	Thursday, November 12, 2020
Site:	LT-01		

10:00 53.5 89.1 51.4 49.1 $11:00$ 55.7 91.3 52.7 49.8 Day $12:00$ 55.3 90.9 53.4 49.8 Nigh $13:00$ 54.9 90.5 53.7 50.3 14:00 $14:00$ 57.4 93.0 55.9 54.1 15:00 $15:00$ 58.0 93.5 56.4 54.7 16:00 $16:00$ 56.2 91.8 54.0 49.9 17:00 $17:00$ 53.7 89.2 50.2 47.8 18:00 $19:00$ 52.3 87.9 48.0 45.8 Nigh $20:00$ 48.4 83.9 46.1 43.9 21:00 $21:00$ 46.8 82.4 45.3 43.4 $22:00$ 45.5 81.1 44.2 42.6 $23:00$ 49.5 85.1 49.5 44.0 $0:00$ 52.4 88.0 51.5 49.2 $1:00$ 53.0 88.6 52.2 49.8 $2:00$ 49.4 85.0 49.1 47.4 $3:00$ 51.5 87.1 50.6 47.7 $5:00$ 50.9 86.5 50.7 49.2 $6:00$ 51.4 87.0 50.2 48.2 $7:00$ 57.2 92.8 54.1 52.1 $8:00$ 51.8 87.3 50.4 48.2	Hour	Leq	Lmax	L50	L90	
12:00 55.3 90.9 53.4 49.8 Nigh $13:00$ 54.9 90.5 53.7 50.3 $14:00$ 57.4 93.0 55.9 54.1 $15:00$ 58.0 93.5 56.4 54.7 $16:00$ 56.2 91.8 54.0 49.9 $17:00$ 53.7 89.2 50.2 47.8 $18:00$ 49.7 85.3 47.8 45.7 Day $19:00$ 52.3 87.9 48.0 45.8 Nigh $20:00$ 48.4 83.9 46.1 43.9 $21:00$ 46.8 82.4 45.3 43.4 $22:00$ 45.5 81.1 44.2 42.6 $23:00$ 49.5 85.1 49.5 44.0 $0:00$ 52.4 88.0 51.5 49.2 $1:00$ 53.0 88.6 52.2 49.8 $2:00$ 49.4 85.0 49.1 47.4 $3:00$ 51.5 87.1 50.6 47.7 $5:00$ 50.9 86.5 50.7 49.2 $6:00$ 51.4 87.0 50.2 48.2 $7:00$ 57.2 92.8 54.1 52.1 52.1 57.2	10:00	53.5	89.1	51.4	49.1	
13:00 54.9 90.5 53.7 50.3 $14:00$ 57.4 93.0 55.9 54.1 $15:00$ 58.0 93.5 56.4 54.7 $16:00$ 56.2 91.8 54.0 49.9 $17:00$ 53.7 89.2 50.2 47.8 $18:00$ 49.7 85.3 47.8 45.7 Day $19:00$ 52.3 87.9 48.0 45.8 Nigh $20:00$ 48.4 83.9 46.1 43.9 $21:00$ 46.8 82.4 45.3 43.4 $22:00$ 45.5 81.1 44.2 42.6 $23:00$ 49.5 85.1 49.5 44.0 $0:00$ 52.4 88.0 51.5 49.2 $1:00$ 53.0 88.6 52.2 49.8 $2:00$ 49.4 85.0 49.1 47.4 $3:00$ 51.5 87.1 50.6 47.7 $5:00$ 50.9 86.5 50.7 49.2 $6:00$ 51.4 87.0 50.2 48.2 $7:00$ 57.2 92.8 54.1 52.1	11:00	55.7	91.3	52.7	49.8	Day
14:00 57.4 93.0 55.9 54.1 $15:00$ 58.0 93.5 56.4 54.7 $16:00$ 56.2 91.8 54.0 49.9 $17:00$ 53.7 89.2 50.2 47.8 $18:00$ 49.7 85.3 47.8 45.7 Day $19:00$ 52.3 87.9 48.0 45.8 Nigh $20:00$ 48.4 83.9 46.1 43.9 $21:00$ 46.8 82.4 45.3 43.4 $22:00$ 45.5 81.1 44.2 42.6 $23:00$ 49.5 85.1 49.5 44.0 $0:00$ 52.4 88.0 51.5 49.2 $1:00$ 53.0 88.6 52.2 49.8 $2:00$ 49.4 85.0 49.1 47.4 $3:00$ 51.5 87.1 50.6 47.7 $5:00$ 50.9 86.5 50.7 49.2 $6:00$ 51.4 87.0 50.2 48.2 $7:00$ 57.2 92.8 54.1 52.1	12:00	55.3	90.9	53.4	49.8	Nigh
15:00 58.0 93.5 56.4 54.7 $16:00$ 56.2 91.8 54.0 49.9 $17:00$ 53.7 89.2 50.2 47.8 $18:00$ 49.7 85.3 47.8 45.7 Day $19:00$ 52.3 87.9 48.0 45.8 Nigh $20:00$ 48.4 83.9 46.1 43.9 $21:00$ 46.8 82.4 45.3 43.4 $22:00$ 45.5 81.1 44.2 42.6 $23:00$ 49.5 85.1 49.5 44.0 $0:00$ 52.4 88.0 51.5 49.2 $1:00$ 53.0 88.6 52.2 49.8 $2:00$ 49.4 85.0 49.1 47.4 $3:00$ 51.5 87.1 50.6 47.7 $5:00$ 50.9 86.5 50.7 49.2 $6:00$ 51.4 87.0 50.2 48.2 $7:00$ 57.2 92.8 54.1 52.1	13:00	54.9	90.5	53.7	50.3	
16:00 56.2 91.8 54.0 49.9 $17:00$ 53.7 89.2 50.2 47.8 $18:00$ 49.7 85.3 47.8 45.7 Day $19:00$ 52.3 87.9 48.0 45.8 Nigh $20:00$ 48.4 83.9 46.1 43.9 $21:00$ 46.8 82.4 45.3 43.4 $22:00$ 45.5 81.1 44.2 42.6 $23:00$ 49.5 85.1 49.5 44.0 $0:00$ 52.4 88.0 51.5 49.2 $1:00$ 53.0 88.6 52.2 49.8 $2:00$ 49.4 85.0 49.1 47.4 $3:00$ 51.5 87.1 50.6 47.7 $5:00$ 50.9 86.5 50.7 49.2 $6:00$ 51.4 87.0 50.2 48.2 $7:00$ 57.2 92.8 54.1 52.1	14:00	57.4	93.0	55.9	54.1	
17:00 53.7 89.2 50.2 47.8 $18:00$ 49.7 85.3 47.8 45.7 Day $19:00$ 52.3 87.9 48.0 45.8 Nigh $20:00$ 48.4 83.9 46.1 43.9 $21:00$ 46.8 82.4 45.3 43.4 $22:00$ 45.5 81.1 44.2 42.6 $23:00$ 49.5 85.1 49.5 44.0 $0:00$ 52.4 88.0 51.5 49.2 $1:00$ 53.0 88.6 52.2 49.8 $2:00$ 49.4 85.0 49.1 47.4 $3:00$ 51.5 87.1 50.6 47.7 $5:00$ 50.9 86.5 50.7 49.2 $6:00$ 51.4 87.0 50.2 48.2 $7:00$ 57.2 92.8 54.1 52.1	15:00	58.0	93.5	56.4	54.7	
18:00 49.7 85.3 47.8 45.7 Day 19:00 52.3 87.9 48.0 45.8 Night 20:00 48.4 83.9 46.1 43.9 143.9 21:00 46.8 82.4 45.3 43.4 143.9 22:00 45.5 81.1 44.2 42.6 23:00 49.5 85.1 49.5 44.0 0:00 52.4 88.0 51.5 49.2 1:00 53.0 88.6 52.2 49.8 2:00 49.4 85.0 49.1 47.4 3:00 51.5 87.1 50.6 47.4 4:00 51.1 86.7 50.6 47.7 5:00 50.9 86.5 50.7 49.2 6:00 51.4 87.0 50.2 48.2 7:00 57.2 92.8 54.1 52.1	16:00	56.2	91.8	54.0	49.9	
19:00 52.3 87.9 48.0 45.8 Night 20:00 48.4 83.9 46.1 43.9 21:00 46.8 82.4 45.3 43.4 22:00 45.5 81.1 44.2 42.6 23:00 49.5 85.1 49.5 44.0 0:00 52.4 88.0 51.5 49.2 1:00 53.0 88.6 52.2 49.8 2:00 49.4 85.0 49.1 47.4 3:00 51.5 87.1 50.6 47.7 5:00 50.9 86.5 50.7 49.2 6:00 51.4 87.0 50.2 48.2 7:00 57.2 92.8 54.1 52.1	17:00	53.7	89.2	50.2	47.8	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	18:00	49.7	85.3	47.8	45.7	Day
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	19:00	52.3	87.9	48.0	45.8	Nigh
22:0045.581.144.242.623:0049.585.149.544.00:0052.488.051.549.21:0053.088.652.249.82:0049.485.049.147.43:0051.587.150.647.44:0051.186.750.647.75:0050.986.550.749.26:0051.487.050.248.27:0057.292.854.152.1	20:00	48.4	83.9	46.1	43.9	-
23:0049.585.149.544.00:0052.488.051.549.21:0053.088.652.249.82:0049.485.049.147.43:0051.587.150.647.44:0051.186.750.647.75:0050.986.550.749.26:0051.487.050.248.27:0057.292.854.152.1	21:00	46.8	82.4	45.3	43.4	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	22:00	45.5	81.1	44.2	42.6	
1:0053.088.652.249.82:0049.485.049.147.43:0051.587.150.647.44:0051.186.750.647.75:0050.986.550.749.26:0051.487.050.248.27:0057.292.854.152.1	23:00	49.5	85.1	49.5	44.0	
2:0049.485.049.147.43:0051.587.150.647.44:0051.186.750.647.75:0050.986.550.749.26:0051.487.050.248.27:0057.292.854.152.1	0:00	52.4	88.0	51.5	49.2	
3:0051.587.150.647.44:0051.186.750.647.75:0050.986.550.749.26:0051.487.050.248.27:0057.292.854.152.1	1:00	53.0	88.6	52.2	49.8	
4:0051.186.750.647.75:0050.986.550.749.26:0051.487.050.248.27:0057.292.854.152.1	2:00	49.4	85.0	49.1	47.4	
5:0050.986.550.749.26:0051.487.050.248.27:0057.292.854.152.1	3:00	51.5	87.1	50.6	47.4	
6:00 51.4 87.0 50.2 48.2 7:00 57.2 92.8 54.1 52.1	4:00	51.1	86.7	50.6	47.7	
7:00 57.2 92.8 54.1 52.1	5:00	50.9	86.5	50.7	49.2	
	6:00	51.4	87.0	50.2	48.2	
8:00 51.8 87.3 50.4 48.2	7:00	57.2	92.8	54.1	52.1	
	8:00	51.8	87.3	50.4	48.2	

9:00 52.1 87.7 49.4 46.3

		Aver	ages	
	Leq	Lmax	L50	L90
ime (7 a.m 10 p.m.)	54.6	89.1	51.3	48.7
time (10 p.m 7 a.m.)	50.9	86.1	49.8	47.3

58.0

53.0

aytime (7 a.m 10 p.m.)	
ghttime (10 p.m 7 a.m.)	

Percenta	ge of Energy
Daytime	79%
Nighttime	21%

Uppermost-Level

56.4

52.2

L90

54.7

49.8

Leq Lmax L50

93.5

88.6

Calculated L _{dn} , dBA	
58.1	

Long-Term 24 Hour Continuous Noise Monitoring Model Input Sheet



Project:	60577193 - Oceano Dunes Planning+Outrea	ch	
Date:	Wednesday, November 11, 2020	to	Thursday, November 12, 2020
Site:	LT-02		

10:00 48.7 82.1 44.5 40.6

Hour	Leq	Lmax	L50	L90			Aver	ages	
11:00	50.9	86.5	45.0	42.5		Leq	Lmax	L50	L90
12:00	48.0	83.6	45.9	43.6	Daytime (7 a.m 10 p.m.)	49.0	83.1	45.1	42.8
13:00	51.4	87.0	48.3	45.3	Nighttime (10 p.m 7 a.m.)	45.4	80.0	43.9	41.8
14:00	53.2	88.7	49.4	48.2					
15:00	52.3	87.8	50.2	49.1					
16:00	50.1	85.7	47.9	45.6					
17:00	46.9	82.5	45.7	44.1		U	ppermo	ost-Leve	əl
18:00	43.3	78.8	42.6	40.5		Leq	Lmax	L50	L90
19:00	43.3	78.8	42.6	41.1	Daytime (7 a.m 10 p.m.)	53.2	88.7	50.2	49.1
20:00	43.2	78.8	41.5	39.0	Nighttime (10 p.m 7 a.m.)	49.9	85.5	49.2	46.4
21:00	41.3	76.8	40.1	37.5					
22:00	41.2	76.8	40.3	38.1					
23:00	41.1	76.6	40.4	38.3					
0:00	43.9	79.5	43.6	41.0		Per	centage	e of Ene	rgy
1:00	44.3	79.9	43.8	41.9		Daytime		79%	
2:00	42.9	78.5	42.6	41.0		Nighttime	;	21%	
3:00	43.2	78.8	42.7	40.7					
4:00	46.8	82.4	46.3	44.1					
5:00	46.8	82.3	46.2	44.3					
6:00	49.9	85.5	49.2	46.4		C	alculated	d L _{dn} , dE	BA
7:00	48.7	84.2	47.9	45.5			52	.5	
8:00	45.3	80.8	43.0	40.9					
9:00	48.1	83.7	41.5	38.3					

Long-Term 24 Hour Continuous Noise Monitoring Model Input Sheet



Project:	60577193 - Oceano Dunes Planning+Outrea	ch	
Date:	Wednesday, November 11, 2020	to	Thursday, November 12, 2020
Site:	LT-03		

12:00 50.5 86.1 49.1 45.9

Hour	Leq	Lmax	L50	L90			Aver	ages	
13:00	52.1	87.7	50.8	48.3		Leq	Lmax	L50	L90
14:00	51.5	87.1	50.4	47.2	Daytime (7 a.m 10 p.m.)	49.9	84.6	47.3	43.5
15:00	53.6	89.2	53.1	50.7	Nighttime (10 p.m 7 a.m.)	46.7	80.0	42.3	39.5
16:00	52.1	87.7	50.7	48.1					
17:00	49.5	85.1	48.6	44.1					
18:00	47.1	82.6	45.2	39.2					
19:00	44.6	80.2	42.9	38.4		U	ppermo	ost-Leve	el
20:00	43.8	79.4	42.3	38.6		Leq	Lmax	L50	L90
21:00	43.0	78.6	41.3	38.0	Daytime (7 a.m 10 p.m.)	53.6	89.2	53.1	50.7
22:00	41.6	77.2	39.2	36.8	Nighttime (10 p.m 7 a.m.)	52.4	88.0	51.6	48.0
23:00	41.0	76.6	39.0	37.1					
0:00	40.8	76.4	38.5	36.3					
1:00	40.7	76.2	37.8	35.2		_			
2:00	42.1	77.7	38.8	36.3			centage		ergy
3:00	44.1	79.7	41.8	38.8		Daytime		78%	
4:00	46.8	82.4	45.1	42.5		Nighttime	•	22%	
5:00	50.4	86.0	49.0	44.6					
6:00	52.4	88.0	51.6	48.0					
7:00	50.5	86.1	49.3	46.2					
8:00	49.5	85.1	46.1	41.4		C	alculated	d L _{dn} , dE	BA
9:00	49.2	84.8	45.3	40.5			53	.8	
10:00	48.8	84.4	46.4	41.2					
11:00	49.6	85.2	47.7	44.3					

Demolition Oso Flaco

Project-Generated Construction Source Noise Prediction Model



60577193 - Oceano Dunes Planning+Outreach

	Distance to Nearest	Combined Predicted		Reference Emission Noise Levels (L_{max}) at 50	Usage
Location	Receiver in feet	Noise Level (L _{eg} dBA)	Assumptions:	feet ¹	Factor ¹
 Threshold*	577	60	Concrete Saw	90	0.2
	50	87	Excavator	85	0.4
ST-01	50	87	Dozer	85	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level ²	L _{eq} dBA at 50 feet ²
Concrete Saw	83.0
Excavator	81.0
Dozer	81.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)

86.6

Sources:

¹ Obtained from the FHWA Roadway Construction Noise Model, Janua ² Based on the following from the Federal Transit Noise and Vibration 1 $L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.



60577193 - Oceano Dunes Planning+Outreach

	Distance to Nearest	Combined Predicted		Reference Emission Noise Levels (L _{max}) at 50	Usage
 Location	Receiver in feet	Noise Level (L _{eg} dBA)	Assumptions:	feet ¹	Factor ¹
 Threshold*	485	60	Excavator	85	0.4
	50	85	Dozer	85	0.4
ST-01	50	85	Backhoe	80	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level ²	L _{eq} dBA at 50 feet ²
Excavator	81.0
Dozer	81.0
Backhoe	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)

84.7

Sources:

¹ Obtained from the FHWA Roadway Construction Noise Model, Janua ² Based on the following from the Federal Transit Noise and Vibration 1 $L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.



60577193 - Oceano Dunes Planning+Outreach

				Reference Emission Noise Levels (L _{max}) at 50	Usaga
Location	Distance to Nearest Receiver in feet	Combined Predicted Noise Level (L _{ea} dBA)	Assumptions:	feet ¹	Usage Factor ¹
 Threshold*	<u>387</u>	60	Dozer	85	0.4
Threshold	50	82	Backhoe	80	0.4
ST-01	50	82			

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level ²	L _{eq} dBA at 50 feet ²
Dozer	81.0
Backhoe	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)

82.2

Sources:

¹ Obtained from the FHWA Roadway Construction Noise Model, Janua ² Based on the following from the Federal Transit Noise and Vibration 1 $L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

Grading Oso Flaco

Project-Generated Construction Source Noise Prediction Model



60577193 - Oceano Dunes Planning+Outreach

				Reference Emission	
	Distance to Nearest	Combined Predicted		Noise Levels (L _{max}) at 50	Usage
 Location	Receiver in feet	Noise Level (L _{eg} dBA)	Assumptions:	feet ¹	Factor ¹
 Threshold*	560	60	Excavator	85	0.4
	50	86	Grader	85	0.4
ST-01	50	86	Dozer	85	0.4
			Backhoe	80	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level ²	L _{eq} dBA at 50 feet ²
Excavator	81.0
Grader	81.0
Dozer	81.0
Backhoe	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)

86.2

Sources:

¹ Obtained from the FHWA Roadway Construction Noise Model, Janua ² Based on the following from the Federal Transit Noise and Vibration 1 $L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

Paving Oso Flaco

Project-Generated Construction Source Noise Prediction Model



60577193 - Oceano Dunes Planning+Outreach

	Distance to Nearest	Combined Predicted		Reference Emission Noise Levels (L _{max}) at 50	Usage
 Location	Receiver in feet	Noise Level (L _{eg} dBA)	Assumptions:	feet ¹	Factor ¹
 Threshold*	479	60	Paver	85	0.5
	50	85	Pavement Scarafier	85	0.2
ST-01	50	85	Roller	85	0.2

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level ²	L _{eq} dBA at 50 feet ²
Paver	82.0
Pavement Scarafier	78.0
Roller	78.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)

84.5

Sources:

¹ Obtained from the FHWA Roadway Construction Noise Model, Janua ² Based on the following from the Federal Transit Noise and Vibration 1 $L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.



60577193 - Oceano Dunes Planning+Outreach

	Distance to Nearest	Combined Predicted		Reference Emission Noise Levels (L _{max}) at 50	Usage
Location	Receiver in feet	Noise Level (L _{eq} dBA)	Assumptions:	feet ¹	Factor ¹
Threshold*	486	60	Crane	85	0.16
	50	85	Man Lift	85	0.2
ST-01	50	85	Generator	82	0.5
			Tractor	84	0.4
			Welder / Torch	73	0.05

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level ²	L _{eq} dBA at 50 feet ²
Crane	77.0
Man Lift	78.0
Generator	79.0
Tractor	80.0
Welder / Torch	60.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)

84.7

Sources:

¹ Obtained from the FHWA Roadway Construction Noise Model, Janua ² Based on the following from the Federal Transit Noise and Vibration 1 $L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.



60577193 - Oceano Dunes Planning+Outreach

	Distance to Nearest	Combined Predicted		Reference Emission Noise Levels (L _{max}) at 50	Usage
 Location	Receiver in feet	Noise Level (L _{eg} dBA)	Assumptions:	feet ¹	Factor ¹
 Threshold*	219	60	Compressor (air)	80	0.4
	50	76			
ST-01	50	76			

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level ²	L _{eq} dBA at 50 feet ²
Compressor (air)	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)

76.0

Sources:

¹ Obtained from the FHWA Roadway Construction Noise Model, Janua ² Based on the following from the Federal Transit Noise and Vibration 1 $L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

Demolition Corp Yard1

Project-Generated Construction Source Noise Prediction Model



60577193 - Oceano Dunes Planning+Outreach

	Distance to Nearest	Combined Predicted		Reference Emission Noise Levels (L _{max}) at 50	Usage
 Location	Receiver in feet	Noise Level (L _{eg} dBA)	Assumptions:	feet ¹	Factor ¹
 Threshold*	577	60	Concrete Saw	90	0.2
	50	87	Excavator	85	0.4
ST-01	50	87	Dozer	85	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level ²	L _{eq} dBA at 50 feet ²
Concrete Saw	83.0
Excavator	81.0
Dozer	81.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)

86.6

Sources:

¹ Obtained from the FHWA Roadway Construction Noise Model, Janua ² Based on the following from the Federal Transit Noise and Vibration 1 $L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.



60577193 - Oceano Dunes Planning+Outreach

				Reference Emission Noise Levels (L _{max}) at 50	Usaga
Location	Distance to Nearest Receiver in feet	Combined Predicted Noise Level (L _{ea} dBA)	Assumptions:	feet ¹	Usage Factor ¹
 Threshold*	<u>387</u>	60	Dozer	85	0.4
Threshold	50	82	Backhoe	80	0.4
ST-01	50	82			

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level ²	L _{eq} dBA at 50 feet ²
Dozer	81.0
Backhoe	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)

82.2

Sources:

¹ Obtained from the FHWA Roadway Construction Noise Model, Janua ² Based on the following from the Federal Transit Noise and Vibration 1 $L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

Grading Corp Yard1

Project-Generated Construction Source Noise Prediction Model



60577193 - Oceano Dunes Planning+Outreach

		Distance to Nearest	Combined Predicted		Reference Emission Noise Levels (L _{max}) at 50	Usage
]	Location	Receiver in feet	Noise Level (L _{eg} dBA)	Assumptions:	feet ¹	Factor ¹
Т	"hreshold*	560	60	Excavator	85	0.4
		50	86	Grader	85	0.4
	ST-01	50	86	Dozer	85	0.4
				Backhoe	80	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level ²	L _{eq} dBA at 50 feet ²
Excavator	81.0
Grader	81.0
Dozer	81.0
Backhoe	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)

86.2

Sources:

¹ Obtained from the FHWA Roadway Construction Noise Model, Janua ² Based on the following from the Federal Transit Noise and Vibration 1 $L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.



60577193 - Oceano Dunes Planning+Outreach

Location	Distance to Nearest Receiver in feet	Combined Predicted Noise Level (Leg dBA)	Assumptions:	Reference Emission Noise Levels (L _{max}) at 50 feet ¹	Usage Factor ¹
Threshold*	486	60	Crane	85	0.16
	50	85	Man Lift	85	0.2
ST-01	50	85	Generator	82	0.5
			Tractor	84	0.4
			Welder / Torch	73	0.05

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level ²	L _{eq} dBA at 50 feet ²
Crane	77.0
Man Lift	78.0
Generator	79.0
Tractor	80.0
Welder / Torch	60.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)

84.7

Sources:

¹ Obtained from the FHWA Roadway Construction Noise Model, Janua ² Based on the following from the Federal Transit Noise and Vibration 1 $L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

Paving Oso Corp Yard1

Project-Generated Construction Source Noise Prediction Model



60577193 - Oceano Dunes Planning+Outreach

	Distance to Nearest	Combined Predicted		Reference Emission Noise Levels (L _{max}) at 50	Usage
 Location	Receiver in feet	Noise Level (L _{ea} dBA)	Assumptions:	feet ¹	Factor ¹
 Threshold*	479	60	Paver	85	0.5
	50	85	Pavement Scarafier	85	0.2
ST-01	50	85	Roller	85	0.2

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level ²	L _{eq} dBA at 50 feet ²
Paver	82.0
Pavement Scarafier	78.0
Roller	78.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)

84.5

Sources:

¹ Obtained from the FHWA Roadway Construction Noise Model, Janua ² Based on the following from the Federal Transit Noise and Vibration 1 $L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.



60577193 - Oceano Dunes Planning+Outreach

				Reference Emission	
	Distance to Nearest	Combined Predicted		Noise Levels (L _{max}) at 50	Usage
Location	Receiver in feet	Noise Level (L _{eg} dBA)	Assumptions:	feet ¹	Factor ¹
 Threshold*	219	60	Compressor (air)	80	0.4
	50	76			
ST-01	50	76			

Ground TypeSoftGround Factor0.50

Predicted Noise Level ²	L _{eq} dBA at 50 feet ²
Compressor (air)	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)

76.0

Sources:

¹ Obtained from the FHWA Roadway Construction Noise Model, Janua ² Based on the following from the Federal Transit Noise and Vibration 1 $L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.



60577193 - Oceano Dunes Planning+Outreach

				Reference Emission	
	Distance to Nearest	Combined Predicted		Noise Levels (L _{max}) at 50	Usage
Location	Receiver in feet	Noise Level (L _{eg} dBA)	Assumptions:	feet ¹	Factor ¹
Threshold*	387	60	Grader	85	0.4
	50	82	Backhoe	80	0.4
ST-01	50	82			

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level ²	L _{eq} dBA at 50 feet ²
Grader	81.0
Backhoe	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)

82.2

Sources:

¹ Obtained from the FHWA Roadway Construction Noise Model, Janua ² Based on the following from the Federal Transit Noise and Vibration 1 $L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

Grading CorpYard2

Project-Generated Construction Source Noise Prediction Model



60577193 - Oceano Dunes Planning+Outreach

	Distance to Nearest	Combined Predicted		Reference Emission Noise Levels (L _{max}) at 50	Usage
Location	Receiver in feet	Noise Level (L _{eg} dBA)	Assumptions:	feet ¹	Factor ¹
 Threshold*	530	60	Concrete Saw	90	0.2
	50	86	Dozer	85	0.4
ST-01	50	86	Backhoe	80	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level ²	L _{eq} dBA at 50 feet ²
Concrete Saw	83.0
Dozer	81.0
Backhoe	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)

85.6

Sources:

¹ Obtained from the FHWA Roadway Construction Noise Model, Janua ² Based on the following from the Federal Transit Noise and Vibration 1 $L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.



60577193 - Oceano Dunes Planning+Outreach

	Distance to Nearest	Combined Predicted		Reference Emission Noise Levels (L _{max}) at 50	Usage
Location	Receiver in feet	Noise Level (L _{eq} dBA)	Assumptions:	feet ¹	Factor ¹
 Threshold*	428	60	Crane	85	0.16
	50	83	Man Lift	85	0.2
ST-01	50	83	Tractor	84	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level ²	L _{eq} dBA at 50 feet ²
Crane	77.0
Man Lift	78.0
Tractor	80.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)

83.3

Sources:

¹ Obtained from the FHWA Roadway Construction Noise Model, Janua ² Based on the following from the Federal Transit Noise and Vibration 1 $L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.



60577193 - Oceano Dunes Planning+Outreach

				Reference Emission	
	Distance to Nearest	Combined Predicted		Noise Levels (L _{max}) at 50	Usage
 Location	Receiver in feet	Noise Level (L _{eg} dBA)	Assumptions:	feet ¹	Factor ¹
 Threshold*	219	60	Compressor (air)	80	0.4
	50	76			
ST-01	50	76			

Ground TypeSoftGround Factor0.50

Predicted Noise Level ²	L _{eq} dBA at 50 feet ²
Compressor (air)	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)

76.0

Sources:

¹ Obtained from the FHWA Roadway Construction Noise Model, Janua ² Based on the following from the Federal Transit Noise and Vibration 1 $L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

Demolition Oceano CG

Project-Generated Construction Source Noise Prediction Model



60577193 - Oceano Dunes Planning+Outreach

	Distance to Nearest	Combined Predicted		Reference Emission Noise Levels (L _{max}) at 50	Usage
Location	Receiver in feet	Noise Level (L _{eq} dBA)	Assumptions:	feet ¹	Factor ¹
 Threshold*	530	60	Concrete Saw	90	0.2
	50	86	Dozer	85	0.4
ST-01	50	86	Backhoe	80	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level ²	L _{eq} dBA at 50 feet ²
Concrete Saw	83.0
Dozer	81.0
Backhoe	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)

85.6

Sources:

¹ Obtained from the FHWA Roadway Construction Noise Model, Janua ² Based on the following from the Federal Transit Noise and Vibration 1 $L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.



60577193 - Oceano Dunes Planning+Outreach

				Reference Emission Noise Levels (L _{max}) at 50	Usaga
Location	Distance to Nearest Receiver in feet	Combined Predicted Noise Level (L _{ea} dBA)	Assumptions:	feet ¹	Usage Factor ¹
 Threshold*	<u>387</u>	60	Dozer	85	0.4
Threshold	50	82	Backhoe	80	0.4
ST-01	50	82			

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level ²	L _{eq} dBA at 50 feet ²
Dozer	81.0
Backhoe	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)

82.2

Sources:

¹ Obtained from the FHWA Roadway Construction Noise Model, Janua ² Based on the following from the Federal Transit Noise and Vibration 1 $L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

Grading Oceano CG

Project-Generated Construction Source Noise Prediction Model



60577193 - Oceano Dunes Planning+Outreach

				Reference Emission	
	Distance to Nearest	Combined Predicted		Noise Levels (L _{max}) at 50	Usage
Location	Receiver in feet	Noise Level (L _{ea} dBA)	Assumptions:	feet ¹	Factor ¹
Threshold*	560	60	Excavator	85	0.4
	50	86	Grader	85	0.4
ST-01	50	86	Dozer	85	0.4
			Backhoe	80	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level ²	L _{eq} dBA at 50 feet ²
Excavator	81.0
Grader	81.0
Dozer	81.0
Backhoe	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)

86.2

Sources:

¹ Obtained from the FHWA Roadway Construction Noise Model, Janua ² Based on the following from the Federal Transit Noise and Vibration 1 $L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.



60577193 - Oceano Dunes Planning+Outreach

	Distance to Nearest	Combined Predicted		Reference Emission Noise Levels (L _{max}) at 50	Usage
Location	Receiver in feet	Noise Level (L _{eq} dBA)	Assumptions:	feet	Factor
Threshold*	576	60	Concrete Mixer Truck	85	0.4
	50	87	Paver	85	0.5
ST-01	50	87	Pavement Scarafier	85	0.2
			Roller	85	0.2
			Backhoe	80	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level ²	L _{eq} dBA at 50 feet ²
Concrete Mixer Truck	81.0
Paver	82.0
Pavement Scarafier	78.0
Roller	78.0
Backhoe	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)

86.5

Sources:

¹ Obtained from the FHWA Roadway Construction Noise Model, Janua ² Based on the following from the Federal Transit Noise and Vibration 1 $L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.



60577193 - Oceano Dunes Planning+Outreach

				Reference Emission	
	Distance to Nearest	Combined Predicted		Noise Levels (L _{max}) at 50	Usage
Location	Receiver in feet	Noise Level (L _{eg} dBA)	Assumptions:	feet ¹	Factor ¹
 Threshold*	219	60	Compressor (air)	80	0.4
	50	76			
ST-01	50	76			

Ground TypeSoftGround Factor0.50

Predicted Noise Level ²	L _{eq} dBA at 50 feet ²
Compressor (air)	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)

76.0

Sources:

¹ Obtained from the FHWA Roadway Construction Noise Model, Janua ² Based on the following from the Federal Transit Noise and Vibration 1 $L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.



60577193 - Oceano Dunes Planning+Outreach

	Distance to Nearest	Combined Predicted		Reference Emission Noise Levels (L_{max}) at 50	Usage
Location	Receiver in feet	Noise Level (L _{eg} dBA)	Assumptions:	feet ¹	Factor ¹
 Threshold*	577	60	Concrete Saw	90	0.2
	50	87	Excavator	85	0.4
ST-01	50	87	Dozer	85	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level ²	L _{eq} dBA at 50 feet ²
Concrete Saw	83.0
Excavator	81.0
Dozer	81.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)

86.6

Sources:

¹ Obtained from the FHWA Roadway Construction Noise Model, Janua ² Based on the following from the Federal Transit Noise and Vibration 1 $L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.



60577193 - Oceano Dunes Planning+Outreach

				Reference Emission	
	Distance to Nearest	Combined Predicted		Noise Levels (L _{max}) at 50	Usage
Location	Receiver in feet	Noise Level (L _{eg} dBA)	Assumptions:	feet ¹	Factor ¹
Threshold*	387	60	Grader	85	0.4
	50	82	Backhoe	80	0.4
ST-01	50	82			

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level ²	L _{eq} dBA at 50 feet ²
Grader	81.0
Backhoe	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)

82.2

Sources:

¹ Obtained from the FHWA Roadway Construction Noise Model, Janua ² Based on the following from the Federal Transit Noise and Vibration 1 $L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.



60577193 - Oceano Dunes Planning+Outreach

	Distance to Nearest	Combined Predicted		Reference Emission Noise Levels (L _{max}) at 50	Usage
Location	Receiver in feet	Noise Level (L _{eq} dBA)	Assumptions:	feet ¹	Factor ¹
Threshold*	530	60	Concrete Saw	90	0.2
	50	86	Dozer	85	0.4
ST-01	50	86	Backhoe	80	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level ²	L _{eq} dBA at 50 feet ²
Concrete Saw	83.0
Dozer	81.0
Backhoe	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)

85.6

Sources:

¹ Obtained from the FHWA Roadway Construction Noise Model, Janua ² Based on the following from the Federal Transit Noise and Vibration 1 $L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.



60577193 - Oceano Dunes Planning+Outreach

	Distance to Nearest	Combined Predicted		Reference Emission Noise Levels (L _{max}) at 50	Usage
 Location	Receiver in feet	Noise Level (L _{eg} dBA)	Assumptions:	feet ¹	Factor ¹
 Threshold*	428	60	Crane	85	0.16
	50	83	Man Lift	85	0.2
ST-01	50	83	Tractor	84	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level ²	L _{eq} dBA at 50 feet ²
Crane	77.0
Man Lift	78.0
Tractor	80.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)

83.3

Sources:

¹ Obtained from the FHWA Roadway Construction Noise Model, Janua ² Based on the following from the Federal Transit Noise and Vibration 1 $L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.



60577193 - Oceano Dunes Planning+Outreach

	Distance to Nearest	Combined Predicted		Reference Emission Noise Levels (L _{max}) at 50	Usage
Location	Receiver in feet	Noise Level (L _{eg} dBA)	Assumptions:	feet ¹	Factor ¹
Threshold*	575	60	Concrete Mixer Truck	85	0.4
	50	87	Paver	85	0.5
ST-01	50	87	Roller	85	0.2
			Tractor	84	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level ²	L _{eq} dBA at 50 feet ²
Concrete Mixer Truck	81.0
Paver	82.0
Roller	78.0
Tractor	80.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)

86.5

Sources:

¹ Obtained from the FHWA Roadway Construction Noise Model, Janua ² Based on the following from the Federal Transit Noise and Vibration 1 $L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.



60577193 - Oceano Dunes Planning+Outreach

				Reference Emission	
	Distance to Nearest	Combined Predicted		Noise Levels (L _{max}) at 50	Usage
 Location	Receiver in feet	Noise Level (L _{eg} dBA)	Assumptions:	feet ¹	Factor ¹
 Threshold*	219	60	Compressor (air)	80	0.4
	50	76			
ST-01	50	76			

Ground TypeSoftGround Factor0.50

Predicted Noise Level 2Leq dBA at 50 feet2Compressor (air)76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)

76.0

Sources:

¹ Obtained from the FHWA Roadway Construction Noise Model, Janua ² Based on the following from the Federal Transit Noise and Vibration 1 $L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.



60577193 - Oceano Dunes Planning+Outreach

	Distance to Nearest	Combined Predicted		Reference Emission Noise Levels (L _{max}) at 50	Usage
 Location	Receiver in feet	Noise Level (L _{eg} dBA)	Assumptions:	feet ¹	Factor ¹
 Threshold*	530	60	Concrete Saw	90	0.2
	50	86	Dozer	85	0.4
ST-01	50	86	Backhoe	80	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level ²	L _{eq} dBA at 50 feet ²
Concrete Saw	83.0
Dozer	81.0
Backhoe	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)

85.6

Sources:

¹ Obtained from the FHWA Roadway Construction Noise Model, Janua ² Based on the following from the Federal Transit Noise and Vibration 1 $L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.



60577193 - Oceano Dunes Planning+Outreach

				Reference Emission	
	Distance to Nearest	Combined Predicted		Noise Levels (L _{max}) at 50	Usage
Location	Receiver in feet	Noise Level (L _{eg} dBA)	Assumptions:	feet ¹	Factor ¹
Threshold*	387	60	Grader	85	0.4
	50	82	Backhoe	80	0.4
ST-01	50	82			

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level ²	L _{eq} dBA at 50 feet ²		
Grader	81.0		
Backhoe	76.0		

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)

82.2

Sources:

¹ Obtained from the FHWA Roadway Construction Noise Model, Janua ² Based on the following from the Federal Transit Noise and Vibration 1 $L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.



60577193 - Oceano Dunes Planning+Outreach

				Reference Emission	
	Distance to Nearest	Combined Predicted		Noise Levels (L _{max}) at 50	Usage
Location	Receiver in feet	Noise Level (L _{ea} dBA)	Assumptions:	feet ¹	Factor ¹
Threshold*	597	60	Concrete Saw	90	0.2
	50	87	Excavator	85	0.4
ST-01	50	87	Dozer	85	0.4
			Backhoe	80	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level ²	L _{eq} dBA at 50 feet ²
Concrete Saw	83.0
Excavator	81.0
Dozer	81.0
Backhoe	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)

86.9

Sources:

¹ Obtained from the FHWA Roadway Construction Noise Model, Janua ² Based on the following from the Federal Transit Noise and Vibration 1 $L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.



60577193 - Oceano Dunes Planning+Outreach

	Distance to Nearest	Combined Predicted		Reference Emission Noise Levels (L _{max}) at 50	Usage
 Location	Receiver in feet	Noise Level (L _{eg} dBA)	Assumptions:	feet ¹	Factor ¹
 Threshold*	428	60	Crane	85	0.16
	50	83	Man Lift	85	0.2
ST-01	50	83	Tractor	84	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level ²	L _{eq} dBA at 50 feet ²
Crane	77.0
Man Lift	78.0
Tractor	80.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)

83.3

Sources:

¹ Obtained from the FHWA Roadway Construction Noise Model, Janua ² Based on the following from the Federal Transit Noise and Vibration 1 $L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.



60577193 - Oceano Dunes Planning+Outreach

				Reference Emission	
	Distance to Nearest	Combined Predicted		Noise Levels (L _{max}) at 50	Usage
Location	Receiver in feet	Noise Level (L _{ea} dBA)	Assumptions:	feet ¹	Factor ¹
Threshold*	543	60	Concrete Mixer Truck	85	0.4
	50	86	Paver	85	0.5
ST-01	50	86	Roller	85	0.2
			Backhoe	80	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level ²	L _{eq} dBA at 50 feet ²
Concrete Mixer Truck	81.0
Paver	82.0
Roller	78.0
Backhoe	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)

85.9

Sources:

¹ Obtained from the FHWA Roadway Construction Noise Model, Janua ² Based on the following from the Federal Transit Noise and Vibration 1 $L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.



60577193 - Oceano Dunes Planning+Outreach

				Reference Emission	
	Distance to Nearest	Combined Predicted		Noise Levels (L _{max}) at 50	Usage
 Location	Receiver in feet	Noise Level (L _{eg} dBA)	Assumptions:	feet ¹	Factor ¹
 Threshold*	219	60	Compressor (air)	80	0.4
	50	76			
ST-01	50	76			

Ground TypeSoftGround Factor0.50

Predicted Noise Level 2Leq dBA at 50 feet2Compressor (air)76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)

76.0

Sources:

¹ Obtained from the FHWA Roadway Construction Noise Model, Janua ² Based on the following from the Federal Transit Noise and Vibration 1 $L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.



60577193 - Oceano Dunes Planning+Outreach

	Distance to Nearest	Combined Predicted		Reference Emission Noise Levels (L _{max}) at 50	Usage
 Location	Receiver in feet	Noise Level (L _{ea} dBA)	Assumptions:	feet ¹	Factor ¹
 Threshold*	530	60	Concrete Saw	90	0.2
	50	86	Dozer	85	0.4
ST-01	50	86	Backhoe	80	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level ²	L _{eq} dBA at 50 feet ²
Concrete Saw	83.0
Dozer	81.0
Backhoe	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)

85.6

Sources:

¹ Obtained from the FHWA Roadway Construction Noise Model, Janua ² Based on the following from the Federal Transit Noise and Vibration 1 $L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.



60577193 - Oceano Dunes Planning+Outreach

				Reference Emission	
	Distance to Nearest	Combined Predicted		Noise Levels (L _{max}) at 50	Usage
Location	Receiver in feet	Noise Level (L _{eg} dBA)	Assumptions:	feet ¹	Factor ¹
Threshold	* 387	60	Grader	85	0.4
	50	82	Backhoe	80	0.4
ST-01	50	82			

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level ²	L _{eq} dBA at 50 feet ²
Grader	81.0
Backhoe	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)

82.2

Sources:

¹ Obtained from the FHWA Roadway Construction Noise Model, Janua ² Based on the following from the Federal Transit Noise and Vibration 1 $L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.



60577193 - Oceano Dunes Planning+Outreach

				Reference Emission	
	Distance to Nearest	Combined Predicted		Noise Levels (L _{max}) at 50	Usage
Location	Receiver in feet	Noise Level (L _{ea} dBA)	Assumptions:	feet ¹	Factor ¹
Threshold*	597	60	Concrete Saw	90	0.2
	50	87	Excavator	85	0.4
ST-01	50	87	Dozer	85	0.4
			Backhoe	80	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level ²	L _{eq} dBA at 50 feet ²
Concrete Saw	83.0
Excavator	81.0
Dozer	81.0
Backhoe	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)

86.9

Sources:

¹ Obtained from the FHWA Roadway Construction Noise Model, Janua ² Based on the following from the Federal Transit Noise and Vibration 1 $L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.



60577193 - Oceano Dunes Planning+Outreach

	Distance to Nearest	Combined Predicted		Reference Emission Noise Levels (L _{max}) at 50	Usage
Location	Receiver in feet	Noise Level (L _{eq} dBA)	Assumptions:	feet ¹	Factor ¹
 Threshold*	428	60	Crane	85	0.16
	50	83	Man Lift	85	0.2
ST-01	50	83	Tractor	84	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level ²	L _{eq} dBA at 50 feet ²
Crane	77.0
Man Lift	78.0
Tractor	80.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)

83.3

Sources:

¹ Obtained from the FHWA Roadway Construction Noise Model, Janua ² Based on the following from the Federal Transit Noise and Vibration 1 $L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.



60577193 - Oceano Dunes Planning+Outreach

				Reference Emission	
	Distance to Nearest	Combined Predicted		Noise Levels (L _{max}) at 50	Usage
Location	Receiver in feet	Noise Level (L _{eg} dBA)	Assumptions:	feet ¹	Factor ¹
Threshold*	543	60	Concrete Mixer Truck	85	0.4
	50	86	Paver	85	0.5
ST-01	50	86	Roller	85	0.2
			Backhoe	80	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level ²	L _{eq} dBA at 50 feet ²
Concrete Mixer Truck	81.0
Paver	82.0
Roller	78.0
Backhoe	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)

85.9

Sources:

¹ Obtained from the FHWA Roadway Construction Noise Model, Janua ² Based on the following from the Federal Transit Noise and Vibration 1 $L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.



60577193 - Oceano Dunes Planning+Outreach

	Distance to Nearest	Combined Predicted		Reference Emission Noise Levels (L _{max}) at 50	Usage
 Location	Receiver in feet	Noise Level (L _{eg} dBA)	Assumptions:	feet ¹	Factor ¹
 Threshold*	219	60	Compressor (air)	80	0.4
	50	76			
ST-01	50	76			

Ground TypeSoftGround Factor0.50

Predicted Noise Level 2Leq dBA at 50 feet2Compressor (air)76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)

76.0

Sources:

¹ Obtained from the FHWA Roadway Construction Noise Model, Janua ² Based on the following from the Federal Transit Noise and Vibration 1 $L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.



60577193 - Oceano Dunes Planning+Outreach

				Reference Emission Noise Levels (L _{max}) at 50	Usaga
Location	Distance to Nearest Receiver in feet	Combined Predicted Noise Level (L _{ea} dBA)	Assumptions:	feet ¹	Usage Factor ¹
 Threshold*	<u>387</u>	60	Dozer	85	0.4
Threshold	50	82	Backhoe	80	0.4
ST-01	50	82			

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level ²	L _{eq} dBA at 50 feet ²
Dozer	81.0
Backhoe	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)

82.2

Sources:

¹ Obtained from the FHWA Roadway Construction Noise Model, Janua ² Based on the following from the Federal Transit Noise and Vibration 1 $L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

Grading Pismo B BW

Project-Generated Construction Source Noise Prediction Model



60577193 - Oceano Dunes Planning+Outreach

				Reference Emission	
	Distance to Nearest	Combined Predicted		Noise Levels (L _{max}) at 50	Usage
Location	Receiver in feet	Noise Level (L _{ea} dBA)	Assumptions:	feet ¹	Factor ¹
Threshold*	560	60	Excavator	85	0.4
	50	86	Grader	85	0.4
ST-01	50	86	Dozer	85	0.4
			Backhoe	80	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level ²	L _{eq} dBA at 50 feet ²
Excavator	81.0
Grader	81.0
Dozer	81.0
Backhoe	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)

86.2

Sources:

¹ Obtained from the FHWA Roadway Construction Noise Model, Janua ² Based on the following from the Federal Transit Noise and Vibration 1 $L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.



60577193 - Oceano Dunes Planning+Outreach

¥	Distance to Nearest	Combined Predicted		Reference Emission Noise Levels (L _{max}) at 50	Usage
Location	Receiver in feet	Noise Level (L _{ea} dBA)	Assumptions:	feet	Factor
Threshold*	486	60	Crane	85	0.16
	50	85	Man Lift	85	0.2
ST-01	50	85	Generator	82	0.5
			Tractor	84	0.4
			Welder / Torch	73	0.05

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level ²	L _{eq} dBA at 50 feet ²
Crane	77.0
Man Lift	78.0
Generator	79.0
Tractor	80.0
Welder / Torch	60.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)

84.7

Sources:

¹ Obtained from the FHWA Roadway Construction Noise Model, Janua ² Based on the following from the Federal Transit Noise and Vibration 1 $L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.



60577193 - Oceano Dunes Planning+Outreach

				Reference Emission	
	Distance to Nearest	Combined Predicted		Noise Levels (L _{max}) at 50	Usage
 Location	Receiver in feet	Noise Level (L _{eg} dBA)	Assumptions:	feet ¹	Factor ¹
 Threshold*	219	60	Compressor (air)	80	0.4
	50	76			
ST-01	50	76			

Ground TypeSoftGround Factor0.50

Predicted Noise Level ²	L _{eq} dBA at 50 feet ²
Compressor (air)	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)

76.0

Sources:

¹ Obtained from the FHWA Roadway Construction Noise Model, Janua ² Based on the following from the Federal Transit Noise and Vibration 1 $L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.



60577193 - Oceano Dunes Planning+Outreach

	Distance to Nearest	Combined Predicted		Reference Emission Noise Levels (L _{max}) at 50	Usage
 Location	Receiver in feet	Noise Level (L _{eg} dBA)	Assumptions:	feet ¹	Factor ¹
 Threshold*	485	60	Dozer	85	0.4
	50	85	Scraper	85	0.4
ST-01	50	85	Backhoe	80	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level ²	L _{eq} dBA at 50 feet ²
Dozer	81.0
Scraper	81.0
Backhoe	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)

84.7

Sources:

¹ Obtained from the FHWA Roadway Construction Noise Model, Janua ² Based on the following from the Federal Transit Noise and Vibration 1 $L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

Grading 40 Acre

Project-Generated Construction Source Noise Prediction Model



60577193 - Oceano Dunes Planning+Outreach

				Reference Emission	T
Location	Distance to Nearest Receiver in feet	Combined Predicted Noise Level (L _{eg} dBA)	Assumptions:	Noise Levels (L _{max}) at 50 feet ¹	Usage Factor ¹
Threshold*	560	60	Excavator	85	0.4
	50	86	Grader	85	0.4
ST-01	50	86	Dozer	85	0.4
			Backhoe	80	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level ²	L _{eq} dBA at 50 feet ²
Excavator	81.0
Grader	81.0
Dozer	81.0
Backhoe	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)

86.2

Sources:

¹ Obtained from the FHWA Roadway Construction Noise Model, Janua ² Based on the following from the Federal Transit Noise and Vibration 1 $L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.



60577193 - Oceano Dunes Planning+Outreach

	Distance to Nearest	Combined Predicted		Reference Emission Noise Levels (L _{max}) at 50	Usage
Location	Receiver in feet	Noise Level (L _{eq} dBA)	Assumptions:	feet ¹	Factor
Threshold*	476	60	Crane	85	0.16
	50	84	Excavator	85	0.4
ST-01	50	84	Man Lift	85	0.2
			Backhoe	80	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level ²	L _{eq} dBA at 50 feet ²
Crane	77.0
Excavator	81.0
Man Lift	78.0
Backhoe	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)

84.5

Sources:

¹ Obtained from the FHWA Roadway Construction Noise Model, Janua ² Based on the following from the Federal Transit Noise and Vibration 1 $L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.



60577193 - Oceano Dunes Planning+Outreach

	Distance to Nearest	Combined Predicted		Reference Emission Noise Levels (L _{max}) at 50	Usage
Location	Receiver in feet	Noise Level (L _{eg} dBA)	Assumptions:	feet ¹	Factor ¹
 Threshold*	530	60	Concrete Saw	90	0.2
	50	86	Dozer	85	0.4
ST-01	50	86	Backhoe	80	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level ²	L _{eq} dBA at 50 feet ²
Concrete Saw	83.0
Dozer	81.0
Backhoe	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)

85.6

Sources:

¹ Obtained from the FHWA Roadway Construction Noise Model, Janua ² Based on the following from the Federal Transit Noise and Vibration 1 $L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.



60577193 - Oceano Dunes Planning+Outreach

	Distance to Nearest	Combined Predicted		Reference Emission Noise Levels (L _{max}) at 50	Usage
 Location	Receiver in feet	Noise Level (L _{eg} dBA)	Assumptions:	feet	Factor
 Threshold*	375	60	Crane	85	0.16
	50	82	Man Lift	85	0.2
ST-01	50	82	Backhoe	80	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level ²	L _{eq} dBA at 50 feet ²
Crane	77.0
Man Lift	78.0
Backhoe	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)

81.9

Sources:

¹Obtained from the FHWA Roadway Construction Noise Model, Janua ² Based on the following from the Federal Transit Noise and Vibration $L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

Demolition Safety & EC

Project-Generated Construction Source Noise Prediction Model



60577193 - Oceano Dunes Planning+Outreach

	Distance to Nearest	Combined Predicted		Reference Emission Noise Levels (L _{max}) at 50	Usage
 Location	Receiver in feet	Noise Level (L _{eg} dBA)	Assumptions:	feet ¹	Factor ¹
Threshold*	530	60	Concrete Saw	90	0.2
	50	86	Dozer	85	0.4
ST-01	50	86	Backhoe	80	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level ²	L _{eq} dBA at 50 feet ²
Concrete Saw	83.0
Dozer	81.0
Backhoe	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)

85.6

Sources:

¹ Obtained from the FHWA Roadway Construction Noise Model, Janua ² Based on the following from the Federal Transit Noise and Vibration 1 $L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.



60577193 - Oceano Dunes Planning+Outreach

					Reference Emission	
		Distance to Nearest	Combined Predicted		Noise Levels (L _{max}) at 50	Usage
Locat	tion	Receiver in feet	Noise Level (L _{eg} dBA)	Assumptions:	feet ¹	Factor ¹
Thresh	old*	387	60	Grader	85	0.4
		50	82	Backhoe	80	0.4
ST-0	01	50	82			

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level ²	L _{eq} dBA at 50 feet ²
Grader	81.0
Backhoe	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)

82.2

Sources:

¹ Obtained from the FHWA Roadway Construction Noise Model, Janua ² Based on the following from the Federal Transit Noise and Vibration 1 $L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.



60577193 - Oceano Dunes Planning+Outreach

	Distance to Nearest	Combined Predicted		Reference Emission Noise Levels (L _{max}) at 50	Usage
Location	Receiver in feet	Noise Level (L _{eg} dBA)	Assumptions:	feet ¹	Factor ¹
Threshold*	376	60	Crane	85	0.16
	50	82	Man Lift	85	0.2
ST-01	50	82	Backhoe	80	0.4
			Welder / Torch	73	0.05

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level ²	L _{eq} dBA at 50 feet ²
Crane	77.0
Man Lift	78.0
Backhoe	76.0
Welder / Torch	60.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)

81.9

Sources:

¹ Obtained from the FHWA Roadway Construction Noise Model, Janua ² Based on the following from the Federal Transit Noise and Vibration 1 $L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.



60577193 - Oceano Dunes Planning+Outreach

				Reference Emission	
	Distance to Nearest	Combined Predicted		Noise Levels (L _{max}) at 50	Usage
 Location	Receiver in feet	Noise Level (L _{eg} dBA)	Assumptions:	feet ¹	Factor ¹
 Threshold*	219	60	Compressor (air)	80	0.4
	50	76			
ST-01	50	76			

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level ²	L _{eq} dBA at 50 feet ²
Compressor (air)	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)

76.0

Sources:

¹ Obtained from the FHWA Roadway Construction Noise Model, Janua ² Based on the following from the Federal Transit Noise and Vibration 1 $L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

Demolition Oceano CFC

Project-Generated Construction Source Noise Prediction Model



60577193 - Oceano Dunes Planning+Outreach

	Distance to Nearest	Combined Predicted		Reference Emission Noise Levels (L _{max}) at 50	Usage
Location	Receiver in feet	Noise Level (L _{eq} dBA)	Assumptions:	feet ¹	Factor ¹
 Threshold*	530	60	Concrete Saw	90	0.2
	50	86	Dozer	85	0.4
ST-01	50	86	Backhoe	80	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level ²	L _{eq} dBA at 50 feet ²
Concrete Saw	83.0
Dozer	81.0
Backhoe	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)

85.6

Sources:

¹ Obtained from the FHWA Roadway Construction Noise Model, Janua ² Based on the following from the Federal Transit Noise and Vibration 1 $L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.



60577193 - Oceano Dunes Planning+Outreach

				Reference Emission	
	Distance to Nearest	Combined Predicted		Noise Levels (L _{max}) at 50	Usage
 Location	Receiver in feet	Noise Level (L _{eg} dBA)	Assumptions:	feet ¹	Factor ¹
 Threshold*	387	60	Grader	85	0.4
	50	82	Backhoe	80	0.4
ST-01	50	82			

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level ²	L _{eq} dBA at 50 feet ²
Grader	81.0
Backhoe	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)

82.2

Sources:

¹ Obtained from the FHWA Roadway Construction Noise Model, Janua ² Based on the following from the Federal Transit Noise and Vibration 1 $L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.



60577193 - Oceano Dunes Planning+Outreach

	Distance to Nearest	Combined Predicted		Reference Emission Noise Levels (L _{max}) at 50	Usage
Location	Receiver in feet	Noise Level (L _{eq} dBA)	Assumptions:	feet ¹	Factor ¹
 Threshold*	530	60	Concrete Saw	90	0.2
	50	86	Dozer	85	0.4
ST-01	50	86	Backhoe	80	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level ²	L _{eq} dBA at 50 feet ²
Concrete Saw	83.0
Dozer	81.0
Backhoe	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)

85.6

Sources:

¹ Obtained from the FHWA Roadway Construction Noise Model, Janua ² Based on the following from the Federal Transit Noise and Vibration 1 $L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.



60577193 - Oceano Dunes Planning+Outreach

	Distance to Nearest	Combined Predicted		Reference Emission Noise Levels (L _{max}) at 50	Usage
Location	Receiver in feet	Noise Level (L _{eg} dBA)	Assumptions:	feet ¹	Factor ¹
 Threshold*	428	60	Crane	85	0.16
	50	83	Man Lift	85	0.2
ST-01	50	83	Tractor	84	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level ²	L _{eq} dBA at 50 feet ²
Crane	77.0
Man Lift	78.0
Tractor	80.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)

83.3

Sources:

¹ Obtained from the FHWA Roadway Construction Noise Model, Janua ² Based on the following from the Federal Transit Noise and Vibration 1 $L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.



60577193 - Oceano Dunes Planning+Outreach

					Reference Emission	
		Distance to Nearest	Combined Predicted		Noise Levels (L _{max}) at 50	Usage
I	Location	Receiver in feet	Noise Level (L _{eg} dBA)	Assumptions:	feet ¹	Factor ¹
Tl	hreshold*	543	60	Concrete Mixer Truck	85	0.4
		50	86	Paver	85	0.5
	ST-01	50	86	Roller	85	0.2
				Backhoe	80	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level ²	L _{eq} dBA at 50 feet ²
Concrete Mixer Truck	81.0
Paver	82.0
Roller	78.0
Backhoe	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)

85.9

Sources:

¹ Obtained from the FHWA Roadway Construction Noise Model, Janua ² Based on the following from the Federal Transit Noise and Vibration 1 $L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.



60577193 - Oceano Dunes Planning+Outreach

				Reference Emission	
	Distance to Nearest	Combined Predicted		Noise Levels (L _{max}) at 50	Usage
 Location	Receiver in feet	Noise Level (L _{eg} dBA)	Assumptions:	feet ¹	Factor ¹
 Threshold*	219	60	Compressor (air)	80	0.4
	50	76			
ST-01	50	76			

Ground TypeSoftGround Factor0.50

Predicted Noise Level 2Leq dBA at 50 feet2Compressor (air)76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)

76.0

Sources:

¹ Obtained from the FHWA Roadway Construction Noise Model, Janua ² Based on the following from the Federal Transit Noise and Vibration 1 $L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

Traffic Noise Prediction Model, (FHWA RD-77-108) Model Input Sheet



Project Name : 60577193 - Oceano Dunes Planning+Outreach Project Number : 60577193 Modeling Condition : Existing Ground Type : Hard Metric (Leq, Ldn, CNEL) : Ldn

K Factor : NA Traffic Desc. (Peak or ADT) : ADT

Segment				Speed	Distance							Offset
Segment	Roadway	From To	Traffic Vol.	(Mph)	to CL	% Autos	%MT	% HT	Day %	Eve %	Night %	(dB)
1	Highway 1	OSO FLACO UNDERPASS North of OSO FLACO UNDERP	ASS 7300	40	50	97	2	1	87	0	13	
2	Highway 1	ENTRANCE, UNION OIL COKING PLANT North of ENTRANCE, UNION OIL COKING F	PLANT 7700	40	50	97	2	1	87	0	13	
3	Highway 1	ARROYO GRANDE ROAD North of ARROYO GRANDE R	oad 7200	40	50	97	2	1	87	0	13	
4	Highway 1	HALCYON ROAD North of HALCYON RC	DAD 9900	40	50	97	2	1	87	0	13	
5	Highway 1	ENTRANCE, PISMO BEACH STATE PARK North of ENTRANCE, PISMO BEACH STATE F	ракк 11400	40	50	97	2	1	87	0	13	
6	Highway 1	GROVER CITY, GRAND AVENUE North of GROVER CITY, GRAND AVE	ENUE 13000	40	50	97	2	1	87	0	13	
7	Highway 1	PISMO BEACH, VILLA CREEK North of PISMO BEACH, VILLA CR	_{кеек} 10400	40	50	97	2	1	87	0	13	

0 Traffic Noise Prediction Model, (FHWA RD-77-108) Predicted Noise Levels



Project Name : 60577193 - Oceano Dunes Planning+Outreach Project Number : 60577193 Modeling Condition : Existing Metric (Leq, Ldn, CNEL) : Ldn

		Segme	ent	Noise Levels, dB Ldn			Distar	Distance to Traffic Noise Contours, Feet					
Segment	Roadway	From	То	Auto	MT	HT	Total	70 dB	65 dB	60 dB	55 dB	50 dB	
1	Highway 1	OSO FLACO UNDING	orth of OSO FLA(64.0	56.1	57.9	65.5	18	56	177	561	1775	
2	Highway 1	ENTRANCE, UNION	orth of ENTRANC	64.3	56.3	58.1	65.7	19	59	187	592	1872	
3	Highway 1	ARROYO GRANDING	orth of ARROYO	64.0	56.0	57.8	65.4	18	55	175	554	1751	
4	Highway 1	HALCYON ROAD NO	orth of HALCYON	65.3	57.4	59.2	66.8	24	76	241	761	2407	
5	Highway 1	ENTRANCE, PISM NO	orth of ENTRANC	66.0	58.0	59.8	67.4	28	88	277	877	2772	
6	Highway 1	GROVER CITY, GIN	orth of GROVER	66.5	58.6	60.4	68.0	32	100	316	1000	3161	
7	Highway 1	PISMO BEACH, VI No	orth of PISMO BE	65.6	57.6	59.4	67.0	25	80	253	800	2529	

Traffic Noise Prediction Model, (FHWA RD-77-108) Model Input Sheet



Project Name : 60577193 - Oceano Dunes Planning+Outreach Project Number : 60577193 Modeling Condition : Construction Trips Ground Type : Hard Metric (Leq, Ldn, CNEL) : Leq

K Factor : NA Traffic Desc. (Peak or ADT) : Peak

			Segment			Speed	Distance							Offset
S	Segment	Roadway	From	То	Traffic Vol.	(Mph)	to CL	% Autos	%MT	% HT	Day %	Eve %	Night %	(dB)
	1	Haul Route	Point A	Point B	32	35	50	93	2	5	87	0	13	

0 Traffic Noise Prediction Model, (FHWA RD-77-108) Predicted Noise Levels



Project Name : 60577193 - Oceano Dunes Planning+Outreach Project Number : 60577193 Modeling Condition : Construction Trips Metric (Leq, Ldn, CNEL) : Leq

		Se	Noise Levels, dB Leq				Distance to Traffic Noise Contours, Feet	
Segment	Roadway	From	То	Auto	MT	HT	Total	70 dB 65 dB 60 dB 55 dB 50 dB
1 H	Haul Route	Point A	Point B	49.0	42.0	51.2	53.6	1 4 11 36 114