Appendix D

Noise Calculation Worksheets

Modera Argyle Project

Noise Calculations Worksheets

Provided by Acoustical Engineering Services

Ambient Noise Measurements

AES
ACOUSTICAL ENGINEERING SERVICES

Location: R1
Date: 11/29/2018

Time	Overload	Leq	Lmax	L10	L90
10:34:48 AM	No	53.6	58.1	55.6	51.5
10:35:48 AM	No	53	56.5	53.9	51.6
10:36:48 AM	No	53.5	60.6	55	51.1
10:37:48 AM	No	52.6	57.4	54.1	51.3
10:38:48 AM	No	52.2	59.5	53.5	50.4
10:39:48 AM	No	50.3	53.9	51.7	48.9
10:40:48 AM	No	57.3	67.3	59.2	52
10:41:48 AM	No	52.6	57.7	54.2	50.7
10:42:48 AM	No	54.5	62.1	56.8	51.6
10:43:48 AM	No	53.9	61.8	56.9	49.1
10:44:48 AM	No	57.3	70	59.3	50.1
10:45:48 AM	No	58.9	69.3	61.4	51.4
10:46:48 AM	No	59.1	68.7	64.1	49.1
10:47:48 AM	No	55.4	67.4	57.3	49.6
10:48:48 AM	No	55.6	62.2	59.2	50
		55.4			

Time	Overload	Leq	Lmax	L10	L90
10:21:13 PM	No	51.8	54.2	52.9	50.5
10:22:13 PM	No	57.9	66.4	62.8	50.4
10:23:13 PM	No	64.3	76.6	71.8	50.8
10:24:13 PM	No	71.7	85.6	77.6	51.9
10:25:13 PM	No	58.2	65.3	61.3	52.9
10:26:13 PM	No	54.9	62.5	58	51.8
10:27:13 PM	No	52.1	57.2	54.5	50.3
10:28:13 PM	No	51.8	53.5	52.9	50.8
10:29:13 PM	No	54	57.8	57.2	50.7
10:30:13 PM	No	53.7	59.7	57.9	49.8
10:31:13 PM	No	58.1	60.9	60.7	50.4
10:32:13 PM	No	52.1	55.8	53.9	50.5
10:33:13 PM	No	51.2	52.9	52.3	50.3
10:34:13 PM	No	51.8	56.2	53.1	50
10:35:13 PM	No	52	56.6	54.6	49.4
		54.6			

AES
ACOUSTICAL ENGINEERING SERVICES

Location: R2
Date: 11/29/2018

Time	Overload	Leq	Lmax	L10	L90
10:52:06 AM	No	63.6	68.9	67	59.7
10:53:06 AM	No	64.8	69.3	68.1	59.1
10:54:06 AM	No	67.9	78	72.1	60.2
10:55:06 AM	No	72.3	87.3	76.3	62
10:56:06 AM	No	69.5	86.4	64.9	57.2
10:57:06 AM	No	65.7	71.5	69.9	59.2
10:58:06 AM	No	66	72	69.5	60
10:59:06 AM	No	65.6	70.5	69.4	58.3
11:00:06 AM	No	64.1	71	67.8	58.1
11:01:06 AM	No	65.2	68.6	67.2	59.4
11:02:06 AM	No	65.9	72.2	68.3	61.2
11:03:06 AM	No	63.4	67.1	65.8	60.1
11:04:06 AM	No	66.1	75.4	68.9	60
11:05:06 AM	No	66.2	72.2	68.6	62.2
11:06:06 AM	No	64.4	70.3	67.2	61.4
		66.8			

Time	Overload	Leq	Lmax	L10	L90
10:38:47 PM	No	59.1	66.5	62.4	54.1
10:39:47 PM	No	62.3	71.4	65.9	53.9
10:40:47 PM	No	67.7	77.2	72.2	59.1
10:41:47 PM	No	60.5	68.7	62.9	56.2
10:42:47 PM	No	65.2	72.5	69.1	53.6
10:43:47 PM	No	61.9	70	64.5	57.1
10:44:47 PM	No	57.5	67.8	59.1	54.7
10:45:47 PM	No	66.4	72.3	69.9	59.1
10:46:47 PM	No	64.8	70.3	68.1	58.7
10:47:47 PM	No	62	71.8	66.1	57.3
10:48:47 PM	No	59.9	67.2	62.9	57.3
10:49:47 PM	No	62.2	68.3	65.6	55.7
10:50:47 PM	No	59.3	66.2	62.6	56.1
10:51:47 PM	No	64.9	73	66.9	60.8
10:52:47 PM	No	66.6	71.5	68.8	64.1
		63.7			

AES
ACOUSTICAL ENGINEERING SERVICES

Location: R3
Date: 11/29/2018

Time	Overload	Leq	Lmax	L10	L90
11:16:25 AM	No	72.6	80.1	73.8	69.7
11:17:25 AM	No	68.3	71	69.4	67.2
11:18:25 AM	No	67.8	70.5	68.6	66.8
11:19:25 AM	No	69.7	77.2	71.1	67.6
11:20:25 AM	No	71.8	81.3	74.8	68.1
11:21:25 AM	No	68.2	70.1	69.1	67.5
11:22:25 AM	No	68.6	71.6	70.1	67.6
11:23:25 AM	No	68.3	70.9	69.1	67.3
11:24:25 AM	No	68.1	69.9	68.9	67.4
11:25:25 AM	No	70.1	77.3	73.3	67.4
11:26:25 AM	No	68.6	72.4	69.9	67.2
11:27:25 AM	No	68.4	71.9	70	67.3
11:28:25 AM	No	69	77.3	69.5	67.8
11:29:25 AM	No	72.9	82.1	76.1	69
11:30:25 AM	No	71.5	79	73.2	68.8
		70.0			

Time	Overload	Leq	Lmax	L10	L90
10:55:57 PM	No	65.2	72.6	68.5	61.6
10:56:57 PM	No	65.7	70.4	67.8	63.3
10:57:57 PM	No	64.3	67.4	65.3	62.7
10:58:57 PM	No	64.3	69.9	67	62
10:59:57 PM	No	62.3	66.7	64.8	60.6
11:00:57 PM	No	68.5	79	71.2	62.1
11:01:57 PM	No	65.4	69.5	67.3	63.3
11:02:57 PM	No	67.4	75.3	70.4	63
11:03:57 PM	No	66.3	70.3	68.1	63.7
11:04:57 PM	No	68.3	73.6	71.3	62.7
11:05:57 PM	No	64.9	70.3	68.5	61.8
11:06:57 PM	No	65.1	69.7	67.1	62.7
11:07:57 PM	No	66.1	74.4	69.2	59.8
11:08:57 PM	No	61.9	68.2	64.6	58.9
11:09:57 PM	No	67.3	77.3	70.2	62.2
		65.9			

AES
ACOUSTICAL ENGINEERING SERVICES

Location: R4
Date: 11/29/2018

Time	Overload	Leq	Lmax	L10	L90
11:33:21 AM	No	70.2	76.8	75.1	63.5
11:34:21 AM	No	68.2	76.1	70.3	63.9
11:35:21 AM	No	68.5	73.6	72	63.7
11:36:21 AM	No	68.9	74.4	70.4	67.2
11:37:21 AM	No	67.1	75.3	73.7	60
11:38:21 AM	Yes	68.6	81.7	69.7	64.4
11:39:21 AM	No	70.5	79.1	74.4	63.8
11:40:21 AM	No	73.6	83.4	76.8	65.8
11:41:21 AM	No	67.7	72.8	69.9	63.4
11:42:21 AM	No	65.1	73.6	68.9	60.4
11:43:21 AM	No	68.3	75	73.6	62.4
11:44:21 AM	No	66.2	70.8	68.5	63.9
11:45:21 AM	No	68.4	74.8	70.4	65.4
11:46:21 AM	No	68.4	78	71.8	62.1
11:47:21 AM	No	62.1	67.9	65	59.6
		68.8			

Time	Overload	Leq	Lmax	L10	L90
11:12:45 PM	No	65.5	79.4	67	60.9
11:13:45 PM	No	63.1	68.3	65.7	60.5
11:14:45 PM	No	63.1	68.3	65.5	60.2
11:15:45 PM	No	63.7	69.2	65.2	61.8
11:16:45 PM	No	65.2	71.8	67.5	59.8
11:17:45 PM	No	72.5	83.2	75.5	60.2
11:18:45 PM	No	62.4	67.2	65.4	56.4
11:19:45 PM	No	67.5	75.5	70.1	63.9
11:20:45 PM	No	63.8	71.6	66.4	60
11:21:45 PM	No	63.8	69.3	66.1	60.9
11:22:45 PM	No	62.7	67.2	65	58.7
11:23:45 PM	No	60.7	67.1	64.1	55.1
11:24:45 PM	No	62.4	69.9	66.6	55
11:25:45 PM	No	63.5	70	66.4	58.9
11:26:45 PM	No	71.8	83.4	76.1	58.7
		66.4			

AES
ACOUSTICAL ENGINEERING SERVICES

Location: R5
Date: 11/29/2018

Time	Overload	Leq	Lmax	L10	L90
12:18:58 PM	No	59.7	64.9	61.9	56.4
12:19:58 PM	No	61.5	69.5	63.9	57.9
12:20:58 PM	No	62.1	67.2	64.7	58.8
12:21:58 PM	No	60	65.8	62.9	57.1
12:22:58 PM	No	60.7	64.7	62.3	57.9
12:23:58 PM	No	63.3	69.7	66.4	59.5
12:24:58 PM	No	69.5	79.3	75.3	59
12:25:58 PM	No	61.2	64.9	63.5	59.2
12:26:58 PM	No	60.3	63.2	62.1	58.4
12:27:58 PM	No	63.4	75.5	65.2	58.7
12:28:58 PM	No	63.4	75.4	65.4	57.6
12:29:58 PM	No	66.9	76.5	71.5	58.2
12:30:58 PM	No	59.3	65.1	62.1	55.8
12:31:58 PM	No	65.4	73	69.5	57.9
12:32:58 PM	No	61.2	69.2	64.4	57.7
		63.6			

Time	Overload	Leq	Lmax	L10	L90
11:49:49 PM	No	54.4	58	55.7	53.4
11:50:49 PM	No	57.8	66.1	60.7	54.2
11:51:49 PM	No	54.3	58.5	55.7	53.3
11:52:49 PM	No	55.2	59.5	56.3	54
11:53:49 PM	No	54.6	57.3	55.8	53.5
11:54:49 PM	No	54.8	63.4	56.1	52.6
11:55:49 PM	No	56.3	63.9	59.4	53.4
11:56:49 PM	No	55.5	61.9	57	53.9
11:57:49 PM	No	55.8	62.2	57.6	53.4
11:58:49 PM	No	57.2	67.6	58.7	53.3
11:59:49 PM	No	56.1	64	57.3	53.7
12:00:49 AM	No	53.5	55.3	54.3	52.8
12:01:49 AM	No	54	57.2	55.2	52.8
12:02:49 AM	No	57	64.1	59.9	54.2
12:03:49 AM	No	54.2	56.5	55.3	53.2
		55.6			

AES
ACOUSTICAL ENGINEERING SERVICES

Location: R6
Date: 11/29/2018

Time	Overload	Leq	Lmax	L10	L90
12:41:26 PM	No	75.5	84.7	78.8	71.5
12:42:26 PM	No	81.3	94	85.4	72.4
12:43:26 PM	No	74.5	76.9	75.5	73
12:44:26 PM	No	72.5	78.6	75	69.5
12:45:26 PM	No	73.9	80.2	75.9	71.5
12:46:26 PM	No	75.8	83	78.1	72.9
12:47:26 PM	No	74.1	77.1	75.9	70.9
12:48:26 PM	No	72.2	76.7	74.5	68.6
12:49:26 PM	No	74	78	76.2	69.9
12:50:26 PM	No	72.3	78.9	74	70
12:51:26 PM	No	71.9	76.4	73.8	68.5
12:52:26 PM	No	74	77.5	75.9	71.4
12:53:26 PM	No	74.1	80.4	75.7	71.8
12:54:26 PM	No	77.5	83.3	80.3	74.7
12:55:26 PM	No	75.5	80.7	77.6	72.6
		75.4			

Time	Overload	Leq	Lmax	L10	L90
12:10:37 AM	No	72.5	77.4	76.1	61.4
12:11:37 AM	No	71.9	78	76.8	61.9
12:12:37 AM	No	73.5	82.5	77.9	54.3
12:13:37 AM	No	70.1	76.5	74.4	56.8
12:14:37 AM	No	68.9	74.2	72.9	60.8
12:15:37 AM	No	69.1	77	74	58.6
12:16:37 AM	No	68.1	76.1	72.7	58.4
12:17:37 AM	No	70.5	78.3	75.2	56.9
12:18:37 AM	No	70.5	75.5	73.8	59.9
12:19:37 AM	No	68.6	74.8	73	59.8
12:20:37 AM	No	69.6	74.7	73.2	64
12:21:37 AM	No	72.1	78.6	75.8	61.5
12:22:37 AM	No	67.4	73.4	72.1	60.7
12:23:37 AM	No	73.2	78.7	77.2	61.5
12:24:37 AM	No	69.1	73.9	72.6	61.9
		70.7			

AES
ACOUSTICAL ENGINEERING SERVICES

Location: R4
Date: 11/29/2018

Time	Overload	Leq	Lmax	L10	L90
11:50:09 AM	No	70.8	80	74.9	64.6
11:51:09 AM	No	70.4	74.2	72.7	67.5
11:52:09 AM	No	75.4	83	79.3	67.5
11:53:09 AM	No	69	72.4	70.6	66.6
11:54:09 AM	No	69.7	72.9	71.8	67.9
11:55:09 AM	No	75.2	83.3	81.1	68
11:56:09 AM	No	67.9	70.9	69.2	66.1
11:57:09 AM	No	71.9	81.5	77.7	66.2
11:58:09 AM	No	70.7	80.4	74.8	65
11:59:09 AM	No	69.3	75.4	71.6	65
12:00:09 PM	No	72	79.8	78	66.5
12:01:09 PM	No	76.3	83.8	81.8	66.3
12:02:09 PM	No	71.2	78.2	73.8	68.8
12:03:09 PM	No	73.8	80.4	79.4	68.9
12:04:09 PM	No	73	81.8	75.1	68.9
		72.5			

Time	Overload	Leq	Lmax	L10	L90
11:30:16 PM	No	64.1	71.7	66.6	60
11:31:16 PM	No	63.1	70.4	66.4	56.6
11:32:16 PM	No	67.3	73.8	71	59.7
11:33:16 PM	No	67.7	71.9	70.1	63.8
11:34:16 PM	No	65	70.8	67.6	60.3
11:35:16 PM	No	63	69	67.5	58.1
11:36:16 PM	No	65.1	75.5	69.7	58.2
11:37:16 PM	No	64.5	74.6	66.7	57.7
11:38:16 PM	No	61.3	66.4	64.5	58
11:39:16 PM	No	63.9	70.6	67.3	59
11:40:16 PM	No	65.3	73.2	68.5	61.8
11:41:16 PM	No	62.3	69	66.3	57.8
11:42:16 PM	No	63.6	70.7	67.8	56.5
11:43:16 PM	No	65.5	72.6	69.1	58.8
11:44:16 PM	No	64.2	69.7	67.8	60.4
		64.7			

Construction Noise & Vibration Calculations

AES
ACOUSTICAL ENGINEERING SERVICES

Project: Modera Argyle Project EIR

Construction Phase: ***Demolition***

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	25	0
Loader	1	79	40%	25	0
Air Compressor	2	78	40%	50	0
Concrete Saw	1	90	20%	50	0
Crane	1	81	16%	75	0

6

Receptor: ***R1***

Results:

1-hour Leq: 90.7

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: Modera Argyle Project EIR

Construction Phase: *Grading / Excavation*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Bore/Drill Rig	1	84	20%	25	0
Excavator	1	81	40%	25	0
Plate Compactor	1	83	20%	50	0
Crane	1	81	16%	50	0
Excavator	1	81	40%	75	0

5

Receptor: ***R1***

Results:

1-hour Leq: 86.9

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: Modera Argyle Project EIR

Construction Phase: *Foundation*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	25	0
Plate Compactor	1	83	20%	25	0
Crane	1	81	16%	50	0
Cement & Mortar Mixer	1	80	50%	50	0
Concrete Pump	2	81	20%	75	0
Welders	1	74	40%	75	0
Crane	1	81	16%	100	0
Air Compressor	1	78	40%	100	0
	9				

Receptor: ***R1***

Results:

1-hour Leq: 90.3

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: Modera Argyle Project EIR

Construction Phase: ***Building Construction***

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Crane	1	81	16%	25	0
Tractor/Loader/Backhoe	1	79	40%	25	0
Welders	1	74	40%	50	0
Air Compressor	1	78	40%	50	0
Material Lift	1	83	40%	75	0
Forklift	2	75	20%	75	0
Crane	1	81	16%	100	0
Welders	1	74	40%	100	0
Air Compressor	1	78	40%	125	0

10

Receptor: ***R1***

Results:

1-hour Leq: 84.7

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: Modera Argyle Project EIR

Construction Phase: Paving/Concrete/Landscape

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Crane	1	81	16%	25	0
Tractor/Loader/Backhoe	1	79	40%	25	0
Skid Steer Loader	1	79	40%	50	0
Paving Equipment	1	77	50%	50	0
Cement & Mortar Mixer	1	80	50%	75	0

5

Receptor: ***R1***

Results:

1-hour Leq: 84.6

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: Modera Argyle Project EIR

Construction Phase: ***Demolition***

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	80	0
Loader	1	79	40%	80	0
Air Compressor	2	78	40%	105	0
Concrete Saw	1	90	20%	105	0
Crane	1	81	16%	130	0

6

Receptor: ***R2***

Results:

1-hour Leq: 81.8

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: Modera Argyle Project EIR

Construction Phase: *Grading / Excavation*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Bore/Drill Rig	1	84	20%	80	0
Excavator	1	81	40%	80	0
Plate Compactor	1	83	20%	105	0
Crane	1	81	16%	105	0
Excavator	1	81	40%	130	0

5

Receptor: ***R2***

Results:

1-hour Leq: 77.8

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: Modera Argyle Project EIR

Construction Phase: *Foundation*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	80	0
Plate Compactor	1	83	20%	80	0
Crane	1	81	16%	105	0
Cement & Mortar Mixer	1	80	50%	105	0
Concrete Pump	2	81	20%	130	0
Welders	1	74	40%	130	0
Crane	1	81	16%	155	0
Air Compressor	1	78	40%	155	0
	9				

Receptor: ***R2***

Results:

1-hour Leq: 80.9

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: Modera Argyle Project EIR

Construction Phase: ***Building Construction***

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Crane	1	81	16%	80	0
Tractor/Loader/Backhoe	1	79	40%	80	0
Welders	1	74	40%	105	0
Air Compressor	1	78	40%	105	0
Material Lift	1	83	40%	130	0
Forklift	2	75	20%	130	0
Crane	1	81	16%	155	0
Welders	1	74	40%	155	0
Air Compressor	1	78	40%	155	0

10

Receptor: ***R2***

Results:

1-hour Leq: 76.8

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: Modera Argyle Project EIR

Construction Phase: Paving/Concrete/Landscape

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Crane	1	81	16%	80	0
Tractor/Loader/Backhoe	1	79	40%	80	0
Skid Steer Loader	1	79	40%	105	0
Paving Equipment	1	77	50%	105	0
Cement & Mortar Mixer	1	80	50%	130	0

5

Receptor: ***R2***

Results:

1-hour Leq: 76.1

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: Modera Argyle Project EIR

Construction Phase: ***Demolition***

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	125	0
Loader	1	79	40%	125	0
Air Compressor	2	78	40%	150	0
Concrete Saw	1	90	20%	150	0
Crane	1	81	16%	150	0

6

Receptor: ***R3***

Results:

1-hour Leq: 78.3

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: Modera Argyle Project EIR

Construction Phase: *Grading / Excavation*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Bore/Drill Rig	1	84	20%	125	0
Excavator	1	81	40%	125	0
Plate Compactor	1	83	20%	150	0
Crane	1	81	16%	150	0
Excavator	1	81	40%	150	0

5

Receptor: ***R3***

Results:

1-hour Leq: 74.5

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: Modera Argyle Project EIR

Construction Phase: *Foundation*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	125	0
Plate Compactor	1	83	20%	125	0
Crane	1	81	16%	150	0
Cement & Mortar Mixer	1	80	50%	150	0
Concrete Pump	2	81	20%	150	0
Welders	1	74	40%	150	0
Crane	1	81	16%	150	0
Air Compressor	1	78	40%	150	0
	9				

Receptor: ***R3***

Results:

1-hour Leq: 77.6

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: Modera Argyle Project EIR

Construction Phase: ***Building Construction***

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Crane	1	81	16%	125	0
Tractor/Loader/Backhoe	1	79	40%	125	0
Welders	1	74	40%	150	0
Air Compressor	1	78	40%	150	0
Material Lift	1	83	40%	150	0
Forklift	2	75	20%	150	0
Crane	1	81	16%	150	0
Welders	1	74	40%	150	0
Air Compressor	1	78	40%	150	0

10

Receptor: ***R3***

Results:

1-hour Leq: 74.6

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: Modera Argyle Project EIR

Construction Phase: Paving/Concrete/Landscape

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Crane	1	81	16%	125	0
Tractor/Loader/Backhoe	1	79	40%	125	0
Skid Steer Loader	1	79	40%	150	0
Paving Equipment	1	77	50%	150	0
Cement & Mortar Mixer	1	80	50%	150	0
	5				

Receptor: ***R3***

Results:

1-hour Leq: 73.0

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: Modera Argyle Project EIR

Construction Phase: ***Demolition***

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	110	5
Loader	1	79	40%	110	5
Air Compressor	2	78	40%	135	5
Concrete Saw	1	90	20%	135	5
Crane	1	81	16%	160	5
	6				

Receptor: ***R4***

Results:

1-hour Leq: 74.3

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: Modera Argyle Project EIR

Construction Phase: *Grading / Excavation*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Bore/Drill Rig	1	84	20%	110	5
Excavator	1	81	40%	110	5
Plate Compactor	1	83	20%	135	5
Crane	1	81	16%	135	5
Excavator	1	81	40%	160	5
	5				

Receptor: ***R4***

Results:

1-hour Leq: 70.3

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: Modera Argyle Project EIR

Construction Phase: ***Foundation***

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	110	5
Plate Compactor	1	83	20%	110	5
Crane	1	81	16%	135	5
Cement & Mortar Mixer	1	80	50%	135	5
Concrete Pump	2	81	20%	160	5
Welders	1	74	40%	160	5
Crane	1	81	16%	160	5
Air Compressor	1	78	40%	160	5
	9				

Receptor: ***R4***

Results:

1-hour Leq: 73.4

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: Modera Argyle Project EIR

Construction Phase: ***Building Construction***

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Crane	1	81	16%	110	5
Tractor/Loader/Backhoe	1	79	40%	110	5
Welders	1	74	40%	135	5
Air Compressor	1	78	40%	135	5
Material Lift	1	83	40%	160	5
Forklift	2	75	20%	160	5
Crane	1	81	16%	160	5
Welders	1	74	40%	160	5
Air Compressor	1	78	40%	160	5

10

Receptor: ***R4***

Results:

1-hour Leq: 69.8

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: Modera Argyle Project EIR

Construction Phase: Paving/Concrete/Landscape

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Crane	1	81	16%	110	5
Tractor/Loader/Backhoe	1	79	40%	110	5
Skid Steer Loader	1	79	40%	135	5
Paving Equipment	1	77	50%	135	5
Cement & Mortar Mixer	1	80	50%	160	5
	5				

Receptor: ***R4***

Results:

1-hour Leq: 68.7

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: Modera Argyle Project EIR

Construction Phase: ***Demolition***

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	230	0
Loader	1	79	40%	230	0
Air Compressor	2	78	40%	230	0
Concrete Saw	1	90	20%	230	0
Crane	1	81	16%	230	0
	6				

Receptor: ***R5***

Results:

1-hour Leq: 73.8

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: Modera Argyle Project EIR

Construction Phase: *Grading / Excavation*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Bore/Drill Rig	1	84	20%	230	0
Excavator	1	81	40%	230	0
Plate Compactor	1	83	20%	230	0
Crane	1	81	16%	230	0
Excavator	1	81	40%	230	0

5

Receptor: ***R5***

Results:

1-hour Leq: 70.0

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: Modera Argyle Project EIR

Construction Phase: *Foundation*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	230	0
Plate Compactor	1	83	20%	230	0
Crane	1	81	16%	230	0
Cement & Mortar Mixer	1	80	50%	230	0
Concrete Pump	2	81	20%	230	0
Welders	1	74	40%	230	0
Crane	1	81	16%	230	0
Air Compressor	1	78	40%	230	0
	9				

Receptor: ***R5***

Results:

1-hour Leq: 72.9

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: Modera Argyle Project EIR

Construction Phase: ***Building Construction***

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Crane	1	81	16%	230	0
Tractor/Loader/Backhoe	1	79	40%	230	0
Welders	1	74	40%	230	0
Air Compressor	1	78	40%	230	0
Material Lift	1	83	40%	230	0
Forklift	2	75	20%	230	0
Crane	1	81	16%	230	0
Welders	1	74	40%	230	0
Air Compressor	1	78	40%	230	0

10

Receptor: ***R5***

Results:

1-hour Leq: 70.5

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: Modera Argyle Project EIR

Construction Phase: Paving/Concrete/Landscape

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Crane	1	81	16%	230	0
Tractor/Loader/Backhoe	1	79	40%	230	0
Skid Steer Loader	1	79	40%	230	0
Paving Equipment	1	77	50%	230	0
Cement & Mortar Mixer	1	80	50%	230	0

5

Receptor: ***R5***

Results:

1-hour Leq: 68.8

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: Modera Argyle Project EIR

Construction Phase: ***Demolition***

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	420	0
Loader	1	79	40%	420	0
Air Compressor	2	78	40%	420	0
Concrete Saw	1	90	20%	420	0
Crane	1	81	16%	420	0
	6				

Receptor: ***R6***

Results:

1-hour Leq: 68.5

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: Modera Argyle Project EIR

Construction Phase: *Grading / Excavation*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Bore/Drill Rig	1	84	20%	420	0
Excavator	1	81	40%	420	0
Plate Compactor	1	83	20%	420	0
Crane	1	81	16%	420	0
Excavator	1	81	40%	420	0

5

Receptor: ***R6***

Results:

1-hour Leq: 64.8

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: Modera Argyle Project EIR

Construction Phase: *Foundation*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	420	0
Plate Compactor	1	83	20%	420	0
Crane	1	81	16%	420	0
Cement & Mortar Mixer	1	80	50%	420	0
Concrete Pump	2	81	20%	420	0
Welders	1	74	40%	420	0
Crane	1	81	16%	420	0
Air Compressor	1	78	40%	420	0
	9				

Receptor: ***R6***

Results:

1-hour Leq: 67.7

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: Modera Argyle Project EIR

Construction Phase: ***Building Construction***

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Crane	1	81	16%	420	0
Tractor/Loader/Backhoe	1	79	40%	420	0
Welders	1	74	40%	420	0
Air Compressor	1	78	40%	420	0
Material Lift	1	83	40%	420	0
Forklift	2	75	20%	420	0
Crane	1	81	16%	420	0
Welders	1	74	40%	420	0
Air Compressor	1	78	40%	420	0

10

Receptor: ***R6***

Results:

1-hour Leq: 65.2

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: Modera Argyle Project EIR

Construction Phase: Paving/Concrete/Landscape

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Crane	1	81	16%	420	0
Tractor/Loader/Backhoe	1	79	40%	420	0
Skid Steer Loader	1	79	40%	420	0
Paving Equipment	1	77	50%	420	0
Cement & Mortar Mixer	1	80	50%	420	0

5

Receptor: ***R6***

Results:

1-hour Leq: 63.5

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: Modera Argyle Project EIR

Construction Phase: *Demolition*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	280	10
Loader	1	79	40%	280	10
Air Compressor	2	78	40%	280	10
Concrete Saw	1	90	20%	280	10
Crane	1	81	16%	280	10

6

Receptor: ***R7***

Results:

1-hour Leq: 62.0

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: Modera Argyle Project EIR

Construction Phase: *Grading / Excavation*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Bore/Drill Rig	1	84	20%	280	10
Excavator	1	81	40%	280	10
Plate Compactor	1	83	20%	280	10
Crane	1	81	16%	280	10
Excavator	1	81	40%	280	10

5

Receptor: ***R7***

Results:

1-hour Leq: 58.3

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: Modera Argyle Project EIR

Construction Phase: *Foundation*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	280	10
Plate Compactor	1	83	20%	280	10
Crane	1	81	16%	280	10
Cement & Mortar Mixer	1	80	50%	280	10
Concrete Pump	2	81	20%	280	10
Welders	1	74	40%	280	10
Crane	1	81	16%	280	10
Air Compressor	1	78	40%	280	10
	9				

Receptor: ***R7***

Results:

1-hour Leq: 61.2

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: Modera Argyle Project EIR

Construction Phase: ***Building Construction***

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Crane	1	81	16%	280	10
Tractor/Loader/Backhoe	1	79	40%	280	10
Welders	1	74	40%	280	10
Air Compressor	1	78	40%	280	10
Material Lift	1	83	40%	280	10
Forklift	2	75	20%	280	10
Crane	1	81	16%	280	10
Welders	1	74	40%	280	10
Air Compressor	1	78	40%	280	10

10

Receptor: ***R7***

Results:

1-hour Leq: 58.7

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: Modera Argyle Project EIR

Construction Phase: Paving/Concrete/Landscape

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Crane	1	81	16%	280	10
Tractor/Loader/Backhoe	1	79	40%	280	10
Skid Steer Loader	1	79	40%	280	10
Paving Equipment	1	77	50%	280	10
Cement & Mortar Mixer	1	80	50%	280	10

5

Receptor: ***R7***

Results:

1-hour Leq: 57.0

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: Modera Argyle Project EIR

Construction Vibration Impacts

Reference Levels at 25 feet are based on FTA, 2006 (Transit Noise and Vibration Impact Assessment)
Calculations using FTA procedure with n= **1.5** for structure at 25 feet for further
1.5 For structure at distances closer than 25 feet (per Caltrans, 2004)

ON-SITE CONSTRUCTION ACTIVITIES

Table 1: Construction Equipment Vibration Levels (PPV) - Building Damages

		Estimated Vibration Levels at nearest off-site building structures (distance in feet), PPV						
	Reference Vibration Levels at 25 ft., PPV	Commercial building to the North	Palladium Theater	Multi-story Residential building to the east	6-story Residential building to the west	Palladium Residences		
Equipment		**60**	**70**	**230**	**80**	**15**		
Large Bulldozer	0.089	0.024	0.019	0.003	0.016	0.192		
Caisson Drilling	0.089	0.024	0.019	0.003	0.016	0.192		
Loaded Trucks	0.076	0.020	0.016	0.003	0.013	0.164		
Jackhammer	0.035	0.009	0.008	0.001	0.006	0.075		
Small bulldozer	0.003	0.001	0.001	0.000	0.001	0.007		
Significance Threshold, PPV		0.3	0.12	0.5	0.5	0.5		

Table 2: Construction Equipment Vibration Levels (VdB) - Human Annoyance

		Estimated Vibration Levels at Off-Site Receptors (at note distance in feet), VdB						
	Reference Vibration Levels at 25 ft., VdB	R1	R2	R3	R4	R5	R6	R7
Equipment		**25**	**80**	**125**	**110**	**230**	**420**	**280**
Large Bulldozer	87	87	72	66	68	58	50	56
Caisson Drilling	87	87	72	66	68	58	50	56
Loaded Trucks	86	86	71	65	67	57	49	55
Jackhammer	79	79	64	58	60	50	42	48
Small bulldozer	58	58	43	37	39	29	21	27
Significance Threshold, VdB		72	72	72	65	72	72	65

OFF-SITE CONSTRUCTION HAUL TRUCKS

Table 3: Off-Site Haul Trucks - Building Damage

		Estimated Vibration Levels at noted distance in feet, PPV						
	Reference Vibration Levels at 50 ft., PPV	25						
Equipment								
Typical road surface	0.00565	0.016						
Significance Threshold, PPV		0.12						

Ref. Levels based on FTA Figure 7-3 (converted from VdB to PPV)

Table 4: Off-Site Haul Trucks - Human Annoyance

		Estimated Vibration Levels at noted distance in feet, VdB						
	Reference Vibration Levels at 50 ft., VdB	25						
Equipment								
Typical road surface	63	72						
Significance Threshold, VdB		72						

Ref. Levels based on FTA Figure 7-3

Eyestone Environmental 17 January 2019
SKB TNM 2.5

INPUT: ROADWAYS
PROJECT/CONTRACT: Modera Argyle
RUN: Trucks - Demolition

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

Roadway		Points									
Name	Width	Name	No.	Coordinates (pavement)			Flow Control			Segment	
				X	Y	Z	Control Device	Speed Constraint	Percent Vehicles Affected	Pvmt Type	On Struct?
	ft			ft	ft	ft		mph	%		
Haul Route	12.0	point1	1	0.0	0.0	0.00	Signal	0.00	100	Average	
		point2	2	1,000.0	0.0	0.00					

Eyestone Environmental **17 January 2019**
SKB **TNM 2.5**

INPUT: TRAFFIC FOR LAeq1h Volumes
PROJECT/CONTRACT: **Modera Argyle**
RUN: **Trucks - Demolition**

Roadway Name	Points Name	No.	Segment									
			User 1		User 2		User 3		User 4		<unknown>	
			V	S	V	S	V	S	V	S	V	S
			veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph
Haul Route	point1	1										
	point2	2										

Eyestone Environmental 17 January 2019
SKB TNM 2.5

INPUT: RECEIVERS
PROJECT/CONTRACT: Modera Argyle
RUN: Trucks - Demolition

Receiver Name	No.	#DUs	Coordinates (ground) X	Y	Z	Height above Ground	Input Sound Levels and Criteria Existing LAeq1h	Impact Criteria LAeq1h	Impact Criteria Sub'l	NR Goal	Active in Calc.
			ft	ft	ft	ft	dBA	dBA	dB	dB	
Along Argyle and Selma	1	1	250.0	25.0	0.00	4.92	0.00	0	0.0	0.0	Y
Along Gower	13	1	250.0	30.0	0.00	4.92	0.00	0	0.0	0.0	Y

Eyestone Environmental
SKB
17 January 2019
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Modera Argyle
RUN: Trucks - Demolition
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

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

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	With Barrier Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Noise Reduction Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Along Argyle and Selma	1	1	0.0	58.1	0	58.1	0	Snd Lvl	58.1	0.0	0	0.0
Along Gower	13	1	0.0	57.3	0	57.3	0	Snd Lvl	57.3	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	2	0.0	0.0	0.0
All Impacted	2	0.0	0.0	0.0
All that meet NR Goal	2	0.0	0.0	0.0

Eyestone Environmental 17 January 2019
SKB TNM 2.5

INPUT: ROADWAYS
PROJECT/CONTRACT: Modera Argyle
RUN: Trucks - Grading

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

Roadway		Points									
Name	Width	Name	No.	Coordinates (pavement)			Flow Control			Segment	
				X	Y	Z	Control Device	Speed Constraint	Percent Vehicles Affected	Pvmt Type	On Struct?
	ft			ft	ft	ft		mph	%		
Haul Route	12.0	point1	1	0.0	0.0	0.00	Signal	0.00	100	Average	
		point2	2	1,000.0	0.0	0.00					

Eyestone Environmental **17 January 2019**
SKB **TNM 2.5**

INPUT: TRAFFIC FOR LAeq1h Volumes
PROJECT/CONTRACT: **Modera Argyle**
RUN: **Trucks - Grading**

Roadway Name	Points Name	No.	Segment Autos		MTrucks		HTrucks		Buses		Motorcycles	
			V	S	V	S	V	S	V	S	V	S
			veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph
Haul Route	point1	1	16	35	0	0	21	25	0	0	0	0
	point2	2										

Eyestone Environmental 17 January 2019
SKB TNM 2.5

INPUT: RECEIVERS
PROJECT/CONTRACT: Modera Argyle
RUN: Trucks - Grading

Receiver Name	No.	#DUs	Coordinates (ground) X	Y	Z	Height above Ground	Input Sound Levels and Criteria Existing LAeq1h	Impact Criteria LAeq1h	Impact Criteria Sub'l	NR Goal	Active in Calc.
			ft	ft	ft	ft	dBA	dBA	dB	dB	
Along Argyle and Selma	1	1	250.0	25.0	0.00	4.92	0.00	0	0.0	0.0	Y
Along Gower	13	1	250.0	30.0	0.00	4.92	0.00	0	0.0	0.0	Y

Eyestone Environmental
SKB
17 January 2019
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Modera Argyle
RUN: Trucks - Grading
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

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

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Along Argyle and Selma	1	1	0.0	67.4	0	67.4	0	Snd Lvl	67.4	0.0	0	0.0
Along Gower	13	1	0.0	66.7	0	66.7	0	Snd Lvl	66.7	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	2	0.0	0.0	0.0
All Impacted	2	0.0	0.0	0.0
All that meet NR Goal	2	0.0	0.0	0.0

Eyestone Environmental 17 January 2019
SKB TNM 2.5

INPUT: ROADWAYS
PROJECT/CONTRACT: Modera Argyle
RUN: Trucks - Foundation

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

Roadway		Points									
Name	Width	Name	No.	Coordinates (pavement)			Flow Control			Segment	
				X	Y	Z	Control Device	Speed Constraint	Percent Vehicles Affected	Pvmt Type	On Struct?
	ft			ft	ft	ft		mph	%		
Haul Route	12.0	point1	1	0.0	0.0	0.00	Signal	0.00	100	Average	
		point2	2	1,000.0	0.0	0.00					

Eyestone Environmental **17 January 2019**
SKB **TNM 2.5**

INPUT: TRAFFIC FOR LAeq1h Volumes
PROJECT/CONTRACT: **Modera Argyle**
RUN: **Trucks - Foundation**

Roadway Name	Points Name	No.	Segment Autos V	Autos S	MTrucks V	MTrucks S	HTrucks V	HTrucks S	Buses V	Buses S	Motorcycles V	Motorcycles S
			veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph
Haul Route	point1	1	80	35	0	0	4	25	0	0	0	0
	point2	2										

Eyestone Environmental 17 January 2019
SKB TNM 2.5

INPUT: RECEIVERS
PROJECT/CONTRACT: Modera Argyle
RUN: Trucks - Foundation

Receiver Name	No.	#DUs	Coordinates (ground) X	Y	Z	Height above Ground	Input Sound Levels and Criteria Existing LAeq1h	Impact Criteria LAeq1h	Impact Criteria Sub'l	NR Goal	Active in Calc.
			ft	ft	ft	ft	dBA	dBA	dB	dB	
Along Argyle and Selma	1	1	250.0	25.0	0.00	4.92	0.00	0	0.0	0.0	Y
Along Gower	13	1	250.0	30.0	0.00	4.92	0.00	0	0.0	0.0	Y

Eyestone Environmental
SKB
17 January 2019
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Modera Argyle
RUN: Trucks - Foundation
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

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

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Along Argyle and Selma	1	1	0.0	62.8	0	62.8	0	Snd Lvl	62.8	0.0	0	0.0
Along Gower	13	1	0.0	62.0	0	62.0	0	Snd Lvl	62.0	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction Min dB	Noise Reduction Avg dB	Noise Reduction Max dB
All Selected	2	0.0	0.0	0.0
All Impacted	2	0.0	0.0	0.0
All that meet NR Goal	2	0.0	0.0	0.0

Eyestone Environmental 17 January 2019
SKB TNM 2.5

INPUT: ROADWAYS
PROJECT/CONTRACT: Modera Argyle
RUN: Trucks - Building Construction

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

Roadway		Points									
Name	Width	Name	No.	Coordinates (pavement)			Flow Control			Segment	
				X	Y	Z	Control Device	Speed Constraint	Percent Vehicles Affected	Pvmt Type	On Struct?
	ft			ft	ft	ft		mph	%		
Haul Route	12.0	point1	1	0.0	0.0	0.00	Signal	0.00	100	Average	
		point2	2	1,000.0	0.0	0.00					

Eyestone Environmental **17 January 2019**
SKB **TNM 2.5**

INPUT: TRAFFIC FOR LAeq1h Volumes
PROJECT/CONTRACT: **Modera Argyle**
RUN: **Trucks - Building Construction**

Roadway Name	Points Name	No.	Segment Autos V	Autos S	MTrucks V	MTrucks S	HTrucks V	HTrucks S	Buses V	Buses S	Motorcycles V	Motorcycles S
			veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph
Haul Route	point1	1	120	35	0	0	4	25	0	0	0	0
	point2	2										

Eyestone Environmental 17 January 2019
SKB TNM 2.5

INPUT: RECEIVERS
PROJECT/CONTRACT: Modera Argyle
RUN: Trucks - Building Construction

Receiver Name	No.	#DUs	Coordinates (ground) X	Y	Z	Height above Ground	Input Sound Levels and Criteria: Existing LAeq1h	Impact Criteria LAeq1h	Impact Criteria Sub'l	NR Goal	Active in Calc.
			ft	ft	ft	ft	dBA	dBA	dB	dB	
Along Argyle and Selma	1	1	250.0	25.0	0.00	4.92	0.00	0	0.0	0.0	Y
Along Gower	13	1	250.0	30.0	0.00	4.92	0.00	0	0.0	0.0	Y

Eyestone Environmental
SKB
17 January 2019
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Modera Argyle
RUN: Trucks - Building Construction
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

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

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Along Argyle and Selma	1	1	0.0	63.7	0	63.7	0	Snd Lvl	63.7	0.0	0	0.0
Along Gower	13	1	0.0	62.9	0	62.9	0	Snd Lvl	62.9	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	2	0.0	0.0	0.0
All Impacted	2	0.0	0.0	0.0
All that meet NR Goal	2	0.0	0.0	0.0

Eyestone Environmental 17 January 2019
SKB TNM 2.5

INPUT: ROADWAYS
PROJECT/CONTRACT: Modera Argyle
RUN: Trucks - Finishing

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

Roadway		Points									
Name	Width	Name	No.	Coordinates (pavement)			Flow Control			Segment	
				X	Y	Z	Control Device	Speed Constraint	Percent Vehicles Affected	Pvmt Type	On Struct?
	ft			ft	ft	ft		mph	%		
Haul Route	12.0	point1	1	0.0	0.0	0.00	Signal	0.00	100	Average	
		point2	2	1,000.0	0.0	0.00					

Eyestone Environmental **17 January 2019**
SKB **TNM 2.5**

INPUT: TRAFFIC FOR LAeq1h Volumes
PROJECT/CONTRACT: **Modera Argyle**
RUN: **Trucks - Finishing**

Roadway	Points		Segment									
Name	Name	No.	Autos		MTrucks		HTrucks		Buses		Motorcycles	
			V	S	V	S	V	S	V	S	V	S
			veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph
Haul Route	point1	1	40	35	0	0	3	25	0	0	0	0
	point2	2										

Eyestone Environmental 17 January 2019
SKB TNM 2.5

INPUT: RECEIVERS
PROJECT/CONTRACT: Modera Argyle
RUN: Trucks - Finishing

Receiver Name	No.	#DUs	Coordinates (ground) X	Y	Z	Height above Ground	Input Sound Levels and Criteria: Existing LAeq1h	Impact Criteria LAeq1h	Impact Criteria Sub'l	NR Goal	Active in Calc.
			ft	ft	ft	ft	dBA	dBA	dB	dB	
Along Argyle and Selma	1	1	250.0	25.0	0.00	4.92	0.00	0	0.0	0.0	Y
Along Gower	13	1	250.0	30.0	0.00	4.92	0.00	0	0.0	0.0	Y

Eyestone Environmental
SKB
17 January 2019
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Modera Argyle
RUN: Trucks - Finishing
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

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

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Along Argyle and Selma	1	1	0.0	60.8	0	60.8	0	Snd Lvl	60.8	0.0	0	0.0
Along Gower	13	1	0.0	60.0	0	60.0	0	Snd Lvl	60.0	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	2	0.0	0.0	0.0
All Impacted	2	0.0	0.0	0.0
All that meet NR Goal	2	0.0	0.0	0.0

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Project: Modera Argyle Project EIR

Construction Vibration Impacts

Reference Levels at 25 feet are based on FTA, 2006 (Transit Noise and Vibration Impact Assessment)
Calculations using FTA procedure with n= **1.5** for structure at 25 feet for further
1.5 For structure at distances closer than 25 feet (per Caltrans, 2004)

ON-SITE CONSTRUCTION ACTIVITIES

Table 1: Construction Equipment Vibration Levels (PPV) - Building Damages

		Estimated Vibration Levels at nearest off-site building structures (distance in feet), PPV						
	Reference Vibration Levels at 25 ft., PPV	Commercial building to the North	Palladium Theater	Multi-story Residential building to the east	6-story Residential building to the west	Palladium Residences		
Equipment		**60**	**70**	**230**	**80**	**15**		
Large Bulldozer	0.089	0.024	0.019	0.003	0.016	0.192		
Caisson Drilling	0.089	0.024	0.019	0.003	0.016	0.192		
Loaded Trucks	0.076	0.020	0.016	0.003	0.013	0.164		
Jackhammer	0.035	0.009	0.008	0.001	0.006	0.075		
Small bulldozer	0.003	0.001	0.001	0.000	0.001	0.007		
Significance Threshold, PPV		0.3	0.12	0.5	0.5	0.5		

Table 2: Construction Equipment Vibration Levels (VdB) - Human Annoyance

		Estimated Vibration Levels at Off-Site Receptors (at note distance in feet), VdB						
	Reference Vibration Levels at 25 ft., VdB	R1	R2	R3	R4	R5	R6	R7
Equipment		**25**	**80**	**125**	**110**	**230**	**420**	**280**
Large Bulldozer	87	87	72	66	68	58	50	56
Caisson Drilling	87	87	72	66	68	58	50	56
Loaded Trucks	86	86	71	65	67	57	49	55
Jackhammer	79	79	64	58	60	50	42	48
Small bulldozer	58	58	43	37	39	29	21	27
Significance Threshold, VdB		72	72	72	65	72	72	65

OFF-SITE CONSTRUCTION HAUL TRUCKS

Table 3: Off-Site Haul Trucks - Building Damage

		Estimated Vibration Levels at noted distance in feet, PPV						
	Reference Vibration Levels at 50 ft., PPV	25						
Equipment								
Typical road surface	0.00565	0.016						
Significance Threshold, PPV		0.12						

Ref. Levels based on FTA Figure 7-3 (converted from VdB to PPV)

Table 4: Off-Site Haul Trucks - Human Annoyance

		Estimated Vibration Levels at noted distance in feet, VdB						
	Reference Vibration Levels at 50 ft., VdB	25						
Equipment								
Typical road surface	63	72						
Significance Threshold, VdB		72						

Ref. Levels based on FTA Figure 7-3

Operation Noise Calculations

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ACOUSTICAL ENGINEERING SERVICES

Project Composite Noise Calculations (CNEL)

Project: Modera Argyle Project

Receptor	Ambient	Traffic[a]	Mechanical		Loading	Outdoor		Project Composite	Ambient + Project	Increase
R1	59.4	53.0	49.0		42.3	55.5		58.1	61.8	2.4
R2	69.2	53.0	29.9		55.6	53.1		58.8	69.6	0.4
R3	71.7	55.8	28.6		37.3	59.4		61.0	72.1	0.4
R4	71.6	49.4	26.9		51.9	54.3		57.1	71.7	0.1
R5	63.3	49.9	31.8		22.1	53.2		54.9	63.9	0.6
R6	76.8	53.9	30.8		46.0	40.1		54.7	76.8	0.0
R7	72.3	49.4	19.9		25.1	47.3		51.5	72.3	0.0

[a] - traffic noise levels at each receptor is based on the traffic noise analysis for the roadway segment in front of the receptor.

		Traffic Noise Levels, CNEL								
Receptor	Roadway Segment	Existing	Existing + Project	Project Only	distance to roadway, ft	Existing	Existing + Project	barrier	distance to Center Line	adj. for distance
R1	Argyle	64.5	64.8	53.0	10	64.5	64.8	0	35	0.0
R2	Argyle	64.5	64.8	53.0	10	64.5	64.8	0	35	0.0
R3	Selma	64.9	65.4	55.8	10	64.9	65.4	0	30	0.0
R4	Argyle	65.7	65.8	49.4	10	65.7	65.8	0	35	0.0

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Outdoor Mechanical Equipment Noise Calculations

Project: Modera Argyle Project

	Estimated Noise Levels, Leq from SOUNDPLAN		Hours of Operations Ld (7am to 7pm)	Le (7pm to 10pm)	Ln (10pm to 7am)
Receptor	Leq	CNEL	12	3	9
R1	42.3	49.0	42.3	42.3	42.3
R2	23.2	29.9	23.2	23.2	23.2
R3	21.9	28.6	21.9	21.9	21.9
R4	20.2	26.9	20.2	20.2	20.2
R5	25.1	31.8	25.1	25.1	25.1
R6	24.1	30.8	24.1	24.1	24.1
R7	13.2	19.9	13.2	13.2	13.2

Receptor	Ambient CNEL	Ambient + Project (CNEL)	Increase (CNEL)	ambient (Leq)	Ambient + Project (Leq)
R1	59.4	59.8	0.4	54.6	54.8
R2	69.2	69.2	0.0	63.7	63.7
R3	71.7	71.7	0.0	65.9	65.9
R4	71.6	71.6	0.0	66.4	66.4
R5	63.3	63.3	0.0	55.6	55.6
R6	76.8	76.8	0.0	70.7	70.7
R7	72.3	72.3	0.0	64.7	64.7

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Outdoor Noise Calculations

Project: Modera Argyle Project

					Hours of Operations		
	Estimated noise levels, Leq (FROM SOUNDPLAN)				Ld (7am to 7pm)	Le (7pm to 10pm)	Ln (10pm to 7am)
Receptor	Sound System	Occupants	Total, Leq	CNEL	9	**3**	**4**
R1	50.1	46.3	51.6	55.5	50.4	51.6	48.1
R2	48.7	39.5	49.2	53.1	48.0	49.2	45.7
R3	54.9	46.7	55.5	59.4	54.3	55.5	52.0
R4	50.0	39.8	50.4	54.3	49.2	50.4	46.9
R5	44.7	47.5	49.3	53.2	48.1	49.3	45.8
R6	35.1	29.8	36.2	40.1	35.0	36.2	32.7
R7	43.2	30.3	43.4	47.3	42.2	43.4	39.9

TOTAL COMBINED

Receptor	Project (CNEL)	Ambient (CNEL)	Ambient + Project (CNEL)	Increase (CNEL)	Project Noise, (Leq)	Ambient (Leq)	Ambient + Project (Leq)
R1	55.5	59.4	60.9	1.5	51.6	54.6	56.4
R2	53.1	69.2	69.3	0.1	49.2	63.7	63.9
R3	59.4	71.7	71.9	0.2	55.5	65.9	66.3
R4	54.3	71.6	71.7	0.1	50.4	66.4	66.5
R5	53.2	63.3	63.7	0.4	49.3	55.6	56.5
R6	40.1	76.8	76.8	0.0	36.2	70.7	70.7
R7	47.3	72.3	72.3	0.0	43.4	64.7	64.7

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Acoustical Engineering Services

Loading and Trash Compactor Noise Calculations

Project: Modera Argyle Project

LOADING

	Estimated Noise Levels, Leq from SOUNDPLAN		Ld (7am to 7pm)	Le (7pm to 10pm)	Ln (10pm to 7am)
Receptor	Leq	CNEL	3	3	0
R1	45.1	42.3	39.1	45.1	0.0
R2	58.4	55.6	52.4	58.4	0.0
R3	40.1	37.3	34.1	40.1	0.0
R4	54.7	51.9	48.7	54.7	0.0
R5	24.7	22.0	18.7	24.7	0.0
R6	48.8	46.0	42.8	48.8	0.0
R7	27.8	25.0	21.8	27.8	0.0

TOTAL COMBINED

Receptor	Project CNEL	Ambient CNEL	Ambient + Project (CNEL)	Increase (CNEL)	Project Noise, (Leq)	daytime ambient (Leq)	Ambient + Project (Leq)
R1	42.3	59.4	59.5	0.1	45.1	55.4	55.8
R2	55.6	69.2	69.4	0.2	58.4	66.8	67.4
R3	37.3	71.7	71.7	0.0	40.1	70.0	70.0
R4	51.9	71.6	71.6	0.0	54.7	68.8	69.0
R5	22.1	63.3	63.3	0.0	24.7	63.6	63.6
R6	46.0	76.8	76.8	0.0	48.8	75.4	75.4
R7	25.1	72.3	72.3	0.0	27.8	72.5	72.5

Modera Argyle
Assessed contribution level - Mechanical-No Palladium

Source	Ld dB(A)	
Receiver R1 Ld 22.4 dB(A)		
Mechanical	-7.6	
Mechanical	-7.4	
Mechanical	-7.6	
Mechanical	-7.4	
Mechanical	-7.6	
Mechanical	-7.4	
Mechanical	-7.6	
Mechanical	-7.5	
Mechanical	-7.6	
Mechanical	-7.5	
Mechanical	-7.6	
Mechanical	-7.5	
Mechanical	-7.6	
Mechanical	-7.5	
Mechanical	-7.7	
Mechanical	-7.5	
Mechanical	-7.7	
Mechanical	-7.5	
Mechanical	-7.7	
Mechanical	-7.5	
Mechanical	-7.7	
Mechanical	-7.5	
Mechanical	-7.7	
Mechanical	-7.6	
Mechanical	-7.7	
Mechanical	-7.6	
Mechanical	-7.8	
Mechanical	-7.6	
Mechanical	-7.8	
Mechanical	-7.6	
Mechanical	-7.8	
Mechanical	-7.6	
Mechanical	-7.8	
Mechanical	-7.7	
Mechanical	-7.8	
Mechanical	-7.7	
Mechanical	-7.9	
Mechanical	-7.7	
Mechanical	-7.9	
Mechanical	-7.7	

Modera Argyle
Assessed contribution level - Mechanical-No Palladium

Source	Ld dB(A)	
Mechanical	-7.9	
Mechanical	-7.7	
Mechanical	-7.9	
Mechanical	-7.8	
Mechanical	-7.9	
Mechanical	-7.8	
Mechanical	-8.0	
Mechanical	-7.8	
Mechanical	3.7	
Mechanical	4.5	
Mechanical	3.6	
Mechanical	4.5	
Mechanical	5.2	
Mechanical	5.6	
Mechanical	5.2	
Mechanical	5.6	
Mechanical	3.6	
Mechanical	4.5	
Mechanical	3.6	
Mechanical	4.5	
Mechanical	3.6	
Mechanical	4.7	
Mechanical	3.2	
Mechanical	5.3	
Mechanical	3.3	
Mechanical	5.3	
Mechanical	2.9	
Mechanical	5.2	
Mechanical	3.7	
Mechanical	5.2	
Mechanical	3.7	
Mechanical	4.8	
Mechanical	3.6	
Mechanical	4.7	
Mechanical	3.5	
Mechanical	4.6	
Mechanical	3.5	
Mechanical	4.6	
Mechanical	3.4	
Mechanical	4.5	
Mechanical	3.3	

Modera Argyle
Assessed contribution level - Mechanical-No Palladium

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Source	Ld dB(A)	
Mechanical	4.4	
Mechanical	3.3	
Mechanical	4.4	
Mechanical	3.2	
Mechanical	4.3	
Mechanical	3.2	
Mechanical	4.2	
Mechanical	2.9	
Mechanical	4.2	
Mechanical	4.2	
Mechanical	5.2	
Mechanical	4.1	
Mechanical	5.2	
Mechanical	4.0	
Mechanical	5.0	
Mechanical	4.0	
Mechanical	4.9	
Mechanical	2.2	
Mechanical	4.5	
Mechanical	-3.8	
Mechanical	-3.9	
Mechanical	-3.8	
Mechanical	-3.7	
Mechanical	-3.9	
Mechanical	-3.8	
Mechanical	-4.1	
Mechanical	-4.0	
Mechanical	-4.3	
Mechanical	-4.2	
Mechanical	-4.5	
Mechanical	-4.5	
Mechanical	-4.9	
Mechanical	-4.7	
Mechanical	-5.1	
Mechanical	-4.7	
Mechanical	-5.3	
Mechanical	-5.0	
Mechanical	-5.5	
Mechanical	-5.2	
Mechanical	-5.7	
Mechanical	-5.5	

Modera Argyle
Assessed contribution level - Mechanical-No Palladium

9

Source	Ld dB(A)	
Mechanical	-5.7	
Mechanical	-5.7	
Mechanical	-5.9	
Mechanical	-5.9	
Mechanical	-6.1	
Mechanical	-6.1	
Mechanical	-6.3	
Mechanical	-6.4	
Mechanical	-6.6	
Mechanical	-6.6	
Mechanical	-6.8	
Mechanical	-6.8	
Mechanical	-7.0	
Mechanical	-7.0	
Mechanical	-7.2	
Mechanical	-7.2	
Mechanical	-7.3	
Mechanical	-7.4	
Mechanical	-7.5	
Mechanical	-7.5	
Mechanical	-7.6	
Mechanical	-7.6	
Mechanical	-7.7	
Mechanical	-7.7	
Mechanical	-7.8	
Mechanical	-7.9	
Mechanical	-8.0	
Mechanical	-2.5	
Mechanical	-1.2	
Mechanical	-2.0	
Mechanical	-1.0	
Mechanical	-2.0	
Mechanical	-1.2	
Mechanical	-3.3	
Mechanical	-2.6	
Mechanical	-3.4	
Mechanical	-2.8	
Mechanical	-3.6	
Mechanical	-2.9	
Mechanical	-3.7	
Mechanical	-3.1	

Source	Ld dB(A)	
Mechanical	-3.8	
Mechanical	-3.2	
Mechanical	-3.9	
Mechanical	-3.2	
Mechanical	-4.9	
Mechanical	-4.4	
Mechanical	-5.0	
Mechanical	-4.6	
Mechanical	-5.2	
Mechanical	-4.8	
Mechanical	-5.4	
Mechanical	-4.9	
Mechanical	-3.8	
Mechanical	-5.1	
Mechanical	-3.9	
Mechanical	-5.2	
Mechanical	-3.9	
Mechanical	-5.2	
Receiver R1A Ld 21.8 dB(A)		
Mechanical	-5.1	
Mechanical	-4.9	
Mechanical	-5.1	
Mechanical	-4.9	
Mechanical	-5.1	
Mechanical	-4.9	
Mechanical	-5.1	
Mechanical	-4.9	
Mechanical	-5.1	
Mechanical	-4.9	
Mechanical	-5.1	
Mechanical	-4.9	
Mechanical	-5.1	
Mechanical	-4.9	
Mechanical	-5.1	
Mechanical	-4.9	
Mechanical	-5.2	
Mechanical	-4.9	
Mechanical	-5.2	
Mechanical	-5.0	
Mechanical	-5.2	
Mechanical	-5.0	

Modera Argyle
Assessed contribution level - Mechanical-No Palladium

Source	Ld dB(A)	
Mechanical	-5.2	
Mechanical	-5.0	
Mechanical	-5.3	
Mechanical	-5.0	
Mechanical	-5.3	
Mechanical	-5.1	
Mechanical	-5.3	
Mechanical	-5.1	
Mechanical	-5.4	
Mechanical	-5.1	
Mechanical	-5.4	
Mechanical	-5.2	
Mechanical	-5.5	
Mechanical	-5.2	
Mechanical	-5.5	
Mechanical	-5.3	
Mechanical	-5.5	
Mechanical	-5.3	
Mechanical	-5.6	
Mechanical	-5.4	
Mechanical	-5.7	
Mechanical	-5.5	
Mechanical	-5.7	
Mechanical	-5.5	
Mechanical	-5.8	
Mechanical	-5.6	
Mechanical	2.7	
Mechanical	3.2	
Mechanical	3.0	
Mechanical	3.2	
Mechanical	4.6	
Mechanical	4.9	
Mechanical	4.7	
Mechanical	5.0	
Mechanical	2.9	
Mechanical	3.6	
Mechanical	2.5	
Mechanical	3.5	
Mechanical	2.4	
Mechanical	3.4	
Mechanical	2.4	

Modera Argyle
Assessed contribution level - Mechanical-No Palladium

Source	Ld dB(A)	
Mechanical	3.0	
Mechanical	2.3	
Mechanical	2.9	
Mechanical	2.3	
Mechanical	2.8	
Mechanical	2.2	
Mechanical	2.7	
Mechanical	2.1	
Mechanical	2.5	
Mechanical	2.0	
Mechanical	2.3	
Mechanical	1.9	
Mechanical	2.1	
Mechanical	1.8	
Mechanical	2.1	
Mechanical	1.7	
Mechanical	1.8	
Mechanical	1.4	
Mechanical	1.7	
Mechanical	1.3	
Mechanical	1.6	
Mechanical	1.2	
Mechanical	1.5	
Mechanical	1.1	
Mechanical	1.4	
Mechanical	1.0	
Mechanical	1.3	
Mechanical	2.7	
Mechanical	1.2	
Mechanical	2.6	
Mechanical	1.1	
Mechanical	2.5	
Mechanical	2.6	
Mechanical	1.6	
Mechanical	2.6	
Mechanical	0.9	
Mechanical	2.5	
Mechanical	-2.2	
Mechanical	-2.0	
Mechanical	-2.4	
Mechanical	-2.2	

Modera Argyle
Assessed contribution level - Mechanical-No Palladium

Source	Ld dB(A)	
Mechanical	-2.5	
Mechanical	-2.3	
Mechanical	-2.7	
Mechanical	-2.5	
Mechanical	-2.9	
Mechanical	-2.6	
Mechanical	-3.0	
Mechanical	-2.8	
Mechanical	-3.2	
Mechanical	-3.0	
Mechanical	-3.3	
Mechanical	-3.1	
Mechanical	-3.5	
Mechanical	-3.3	
Mechanical	-3.6	
Mechanical	-3.5	
Mechanical	-3.8	
Mechanical	-3.6	
Mechanical	-3.9	
Mechanical	-3.8	
Mechanical	-4.1	
Mechanical	-3.9	
Mechanical	-4.2	
Mechanical	-4.1	
Mechanical	-4.4	
Mechanical	-4.2	
Mechanical	-4.5	
Mechanical	-4.4	
Mechanical	-4.7	
Mechanical	-4.5	
Mechanical	-4.8	
Mechanical	-4.7	
Mechanical	-4.9	
Mechanical	-4.8	
Mechanical	-5.1	
Mechanical	-5.0	
Mechanical	-5.2	
Mechanical	-5.1	
Mechanical	-5.3	
Mechanical	-5.2	
Mechanical	-5.5	

Source	Ld dB(A)	
Mechanical	-5.4	
Mechanical	-5.6	
Mechanical	-5.7	
Mechanical	-5.8	
Mechanical	1.0	
Mechanical	0.6	
Mechanical	0.8	
Mechanical	0.5	
Mechanical	0.1	
Mechanical	0.3	
Mechanical	-0.5	
Mechanical	-0.4	
Mechanical	-0.6	
Mechanical	-0.6	
Mechanical	-0.8	
Mechanical	-0.7	
Mechanical	-0.9	
Mechanical	-0.9	
Mechanical	-1.1	
Mechanical	-1.0	
Mechanical	-1.3	
Mechanical	-1.2	
Mechanical	-2.0	
Mechanical	-2.1	
Mechanical	-2.2	
Mechanical	-2.2	
Mechanical	-2.4	
Mechanical	-2.4	
Mechanical	-2.6	
Mechanical	-2.5	
Mechanical	-1.0	
Mechanical	-2.7	
Mechanical	-1.1	
Mechanical	-2.8	
Mechanical	-1.1	
Mechanical	-2.9	
Receiver R2 Ld 23.2 dB(A)		
Mechanical	-5.5	
Mechanical	-5.7	
Mechanical	-5.4	
Mechanical	-5.6	

Source	Ld dB(A)	
Mechanical	-5.2	
Mechanical	-5.3	
Mechanical	-5.1	
Mechanical	-5.2	
Mechanical	-5.0	
Mechanical	-4.9	
Mechanical	-4.9	
Mechanical	-4.8	
Mechanical	-4.7	
Mechanical	-4.6	
Mechanical	-4.6	
Mechanical	-2.6	
Mechanical	-4.5	
Mechanical	-2.6	
Mechanical	-4.4	
Mechanical	-2.6	
Mechanical	-2.6	
Mechanical	-2.5	
Mechanical	-2.6	
Mechanical	-2.5	
Mechanical	-2.5	
Mechanical	-2.4	
Mechanical	-2.5	
Mechanical	-2.4	
Mechanical	-2.3	
Mechanical	-2.3	
Mechanical	-2.1	
Mechanical	-2.1	
Mechanical	-1.9	
Mechanical	-1.8	
Mechanical	-1.1	
Mechanical	-1.0	
Mechanical	-0.8	
Mechanical	-0.7	
Mechanical	0.0	
Mechanical	0.0	
Mechanical	0.8	
Mechanical	0.4	
Mechanical	1.1	
Mechanical	1.2	
Mechanical	1.5	

Source	Ld dB(A)	
Mechanical	1.0	
Mechanical	2.0	
Mechanical	1.6	
Mechanical	-5.1	
Mechanical	-5.1	
Mechanical	-4.9	
Mechanical	-5.0	
Mechanical	-4.8	
Mechanical	-4.8	
Mechanical	-4.7	
Mechanical	-4.7	
Mechanical	-4.5	
Mechanical	-4.6	
Mechanical	-4.4	
Mechanical	-4.4	
Mechanical	-4.2	
Mechanical	-4.3	
Mechanical	-4.0	
Mechanical	-4.1	
Mechanical	-3.1	
Mechanical	-4.0	
Mechanical	-3.0	
Mechanical	-3.8	
Mechanical	-1.5	
Mechanical	-3.6	
Mechanical	-1.6	
Mechanical	-3.0	
Mechanical	-1.5	
Mechanical	-2.8	
Mechanical	-1.4	
Mechanical	-2.7	
Mechanical	-1.3	
Mechanical	-2.5	
Mechanical	-1.2	
Mechanical	-2.3	
Mechanical	-0.6	
Mechanical	-2.0	
Mechanical	-0.4	
Mechanical	-0.4	
Mechanical	-0.6	
Mechanical	0.7	

Source	Ld dB(A)	
Mechanical	-0.3	
Mechanical	1.1	
Mechanical	0.1	
Mechanical	1.5	
Mechanical	1.6	
Mechanical	1.9	
Mechanical	2.3	
Mechanical	2.4	
Mechanical	3.0	
Mechanical	2.9	
Mechanical	3.4	
Mechanical	3.6	
Mechanical	4.5	
Mechanical	4.1	
Mechanical	5.0	
Mechanical	3.7	
Mechanical	5.0	
Mechanical	3.9	
Mechanical	5.0	
Mechanical	3.8	
Mechanical	5.0	
Mechanical	3.8	
Mechanical	5.0	
Mechanical	3.8	
Mechanical	4.9	
Mechanical	3.5	
Mechanical	4.9	
Mechanical	3.5	
Mechanical	4.8	
Mechanical	3.6	
Mechanical	4.8	
Mechanical	3.6	
Mechanical	4.7	
Mechanical	3.5	
Mechanical	4.6	
Mechanical	3.5	
Mechanical	4.5	
Mechanical	3.4	
Mechanical	4.5	
Mechanical	3.3	
Mechanical	4.4	

Source	Ld dB(A)	
Mechanical	3.2	
Mechanical	4.3	
Mechanical	3.2	
Mechanical	4.2	
Mechanical	3.1	
Mechanical	4.1	
Mechanical	3.0	
Mechanical	4.0	
Mechanical	2.9	
Mechanical	3.9	
Mechanical	2.9	
Mechanical	3.8	
Mechanical	2.8	
Mechanical	3.8	
Mechanical	2.7	
Mechanical	3.7	
Mechanical	2.7	
Mechanical	3.7	
Mechanical	2.0	
Mechanical	3.7	
Mechanical	3.9	
Mechanical	3.0	
Mechanical	-4.9	
Mechanical	-5.1	
Mechanical	-4.9	
Mechanical	-5.1	
Mechanical	-4.9	
Mechanical	-5.1	
Mechanical	-4.9	
Mechanical	-5.1	
Mechanical	-4.9	
Mechanical	-5.1	
Mechanical	-4.9	
Mechanical	-5.1	
Mechanical	-4.9	
Mechanical	-5.1	
Mechanical	-4.9	
Mechanical	-5.2	
Mechanical	-4.9	
Mechanical	-5.2	
Mechanical	-5.0	

Source	Ld dB(A)	
Mechanical	-5.2	
Mechanical	-5.0	
Mechanical	-5.7	
Mechanical	-5.0	
Mechanical	-5.7	
Mechanical	-5.0	
Mechanical	-5.8	
Mechanical	-5.5	
Mechanical	-5.8	
Mechanical	-5.6	
Mechanical	-5.4	
Mechanical	-5.6	
Mechanical	-5.4	
Receiver R3 Ld 21.9 dB(A)		
Mechanical	-2.0	
Mechanical	-2.7	
Mechanical	-2.0	
Mechanical	-2.8	
Mechanical	-2.6	
Mechanical	-2.8	
Mechanical	-2.1	
Mechanical	-2.8	
Mechanical	-0.9	
Mechanical	-2.0	
Mechanical	-1.1	
Mechanical	-1.9	
Mechanical	-1.2	
Mechanical	-1.9	
Mechanical	-2.0	
Mechanical	-2.8	
Mechanical	-1.3	
Mechanical	-2.8	
Mechanical	-0.4	
Mechanical	-2.0	
Mechanical	-0.6	
Mechanical	-1.2	
Mechanical	-0.7	
Mechanical	-1.2	
Mechanical	-0.7	
Mechanical	-1.1	
Mechanical	-0.6	

Source	Ld dB(A)	
Mechanical	-0.9	
Mechanical	-0.4	
Mechanical	-0.7	
Mechanical	-0.2	
Mechanical	-0.5	
Mechanical	0.0	
Mechanical	-0.3	
Mechanical	0.3	
Mechanical	0.0	
Mechanical	0.7	
Mechanical	0.3	
Mechanical	1.0	
Mechanical	0.7	
Mechanical	1.5	
Mechanical	1.1	
Mechanical	1.9	
Mechanical	1.6	
Mechanical	2.5	
Mechanical	2.0	
Mechanical	3.1	
Mechanical	2.4	
Mechanical	-9.3	
Mechanical	-9.3	
Mechanical	-8.6	
Mechanical	-8.6	
Mechanical	-8.6	
Mechanical	-7.6	
Mechanical	-7.3	
Mechanical	-7.4	
Mechanical	-7.2	
Mechanical	-7.2	
Mechanical	-4.8	
Mechanical	-7.1	
Mechanical	-4.7	
Mechanical	-6.9	
Mechanical	-4.6	
Mechanical	-4.8	
Mechanical	-4.5	
Mechanical	-4.7	
Mechanical	-4.4	
Mechanical	-4.4	

Source	Ld dB(A)	
Mechanical	-5.7	
Mechanical	-4.3	
Mechanical	-5.5	
Mechanical	-5.0	
Mechanical	-4.7	
Mechanical	-4.8	
Mechanical	-4.5	
Mechanical	-4.6	
Mechanical	-4.3	
Mechanical	-4.3	
Mechanical	-4.0	
Mechanical	-4.7	
Mechanical	-4.0	
Mechanical	-4.6	
Mechanical	-3.9	
Mechanical	-4.0	
Mechanical	-3.8	
Mechanical	-3.9	
Mechanical	-4.0	
Mechanical	-3.6	
Mechanical	-4.1	
Mechanical	-3.1	
Mechanical	-3.8	
Mechanical	-3.1	
Mechanical	-3.5	
Mechanical	-2.7	
Mechanical	0.2	
Mechanical	0.2	
Mechanical	0.2	
Mechanical	0.9	
Mechanical	2.7	
Mechanical	2.0	
Mechanical	1.9	
Mechanical	0.3	
Mechanical	2.0	
Mechanical	1.0	
Mechanical	2.1	
Mechanical	1.1	
Mechanical	2.2	
Mechanical	1.2	
Mechanical	2.3	

Modera Argyle
Assessed contribution level - Mechanical-No Palladium

Source	Ld dB(A)	
Mechanical	1.3	
Mechanical	2.4	
Mechanical	0.7	
Mechanical	2.7	
Mechanical	0.8	
Mechanical	2.8	
Mechanical	1.1	
Mechanical	2.9	
Mechanical	1.2	
Mechanical	3.0	
Mechanical	1.3	
Mechanical	3.1	
Mechanical	1.4	
Mechanical	3.3	
Mechanical	1.5	
Mechanical	3.4	
Mechanical	1.6	
Mechanical	2.6	
Mechanical	1.7	
Mechanical	2.7	
Mechanical	1.5	
Mechanical	2.8	
Mechanical	1.6	
Mechanical	2.9	
Mechanical	1.7	
Mechanical	3.0	
Mechanical	1.8	
Mechanical	3.1	
Mechanical	1.8	
Mechanical	3.2	
Mechanical	1.9	
Mechanical	3.3	
Mechanical	2.0	
Mechanical	3.4	
Mechanical	2.1	
Mechanical	3.5	
Mechanical	2.2	
Mechanical	3.6	
Mechanical	3.7	
Mechanical	4.0	
Mechanical	-7.6	

Source	Ld dB(A)	
Mechanical	-7.8	
Mechanical	-7.4	
Mechanical	-7.7	
Mechanical	-7.4	
Mechanical	-7.6	
Mechanical	-7.3	
Mechanical	-7.6	
Mechanical	-7.3	
Mechanical	-7.5	
Mechanical	-7.2	
Mechanical	-7.5	
Mechanical	-7.2	
Mechanical	-7.4	
Mechanical	-7.1	
Mechanical	-7.3	
Mechanical	-7.1	
Mechanical	-7.3	
Mechanical	-7.0	
Mechanical	-7.1	
Mechanical	-6.9	
Mechanical	-7.0	
Mechanical	-6.7	
Mechanical	-6.9	
Mechanical	-6.6	
Mechanical	-6.7	
Mechanical	-6.5	
Mechanical	-6.6	
Mechanical	-6.3	
Mechanical	-6.5	
Mechanical	-6.2	
Mechanical	-6.8	
Receiver R4 Ld 20.2 dB(A)		
Mechanical	-2.2	
Mechanical	-2.8	
Mechanical	-2.0	
Mechanical	-2.6	
Mechanical	-1.9	
Mechanical	-0.4	
Mechanical	-1.7	
Mechanical	-0.2	
Mechanical	-1.6	

Source	Ld dB(A)	
Mechanical	-2.2	
Mechanical	-1.4	
Mechanical	-2.0	
Mechanical	-1.2	
Mechanical	-1.9	
Mechanical	-1.1	
Mechanical	-1.8	
Mechanical	-0.9	
Mechanical	-1.6	
Mechanical	-0.7	
Mechanical	-1.5	
Mechanical	-0.6	
Mechanical	-1.3	
Mechanical	-0.4	
Mechanical	-1.2	
Mechanical	-0.3	
Mechanical	-1.0	
Mechanical	-0.1	
Mechanical	-0.9	
Mechanical	0.4	
Mechanical	-0.7	
Mechanical	0.5	
Mechanical	-0.2	
Mechanical	0.7	
Mechanical	-0.1	
Mechanical	0.9	
Mechanical	0.1	
Mechanical	1.0	
Mechanical	0.2	
Mechanical	1.2	
Mechanical	0.4	
Mechanical	1.4	
Mechanical	0.5	
Mechanical	1.4	
Mechanical	0.4	
Mechanical	1.6	
Mechanical	0.6	
Mechanical	2.8	
Mechanical	1.9	
Mechanical	-8.4	
Mechanical	-9.0	

Source	Ld dB(A)	
Mechanical	-8.3	
Mechanical	-8.5	
Mechanical	-8.3	
Mechanical	-8.4	
Mechanical	-8.2	
Mechanical	-8.4	
Mechanical	-8.2	
Mechanical	-8.3	
Mechanical	-5.8	
Mechanical	-8.3	
Mechanical	-7.5	
Mechanical	-8.2	
Mechanical	-7.4	
Mechanical	-8.2	
Mechanical	-7.4	
Mechanical	-7.5	
Mechanical	-7.2	
Mechanical	-7.4	
Mechanical	-7.1	
Mechanical	-7.3	
Mechanical	-7.1	
Mechanical	-7.2	
Mechanical	-7.0	
Mechanical	-7.1	
Mechanical	-6.9	
Mechanical	-7.0	
Mechanical	-6.9	
Mechanical	-6.9	
Mechanical	-6.8	
Mechanical	-6.9	
Mechanical	-6.7	
Mechanical	-6.8	
Mechanical	-6.7	
Mechanical	-6.7	
Mechanical	-6.6	
Mechanical	-6.6	
Mechanical	-5.3	
Mechanical	-5.3	
Mechanical	-5.4	
Mechanical	-5.3	
Mechanical	-5.3	

Source	Ld dB(A)	
Mechanical	-5.2	
Mechanical	-5.2	
Mechanical	-5.0	
Mechanical	-5.1	
Mechanical	-4.9	
Mechanical	-4.8	
Mechanical	-4.2	
Mechanical	-4.6	
Mechanical	-4.0	
Mechanical	-3.5	
Mechanical	-1.8	
Mechanical	-3.3	
Mechanical	-1.8	
Mechanical	-3.2	
Mechanical	-1.8	
Mechanical	-3.0	
Mechanical	-1.7	
Mechanical	-2.8	
Mechanical	-2.6	
Mechanical	-2.7	
Mechanical	-2.5	
Mechanical	-2.5	
Mechanical	-2.3	
Mechanical	-2.3	
Mechanical	-2.2	
Mechanical	-2.1	
Mechanical	-2.7	
Mechanical	-1.9	
Mechanical	-2.5	
Mechanical	-1.7	
Mechanical	-2.3	
Mechanical	-1.4	
Mechanical	-2.1	
Mechanical	-1.4	
Mechanical	-1.9	
Mechanical	-1.1	
Mechanical	-1.7	
Mechanical	-0.9	
Mechanical	-1.4	
Mechanical	-0.6	
Mechanical	-1.2	

Source	Ld dB(A)	
Mechanical	-0.3	
Mechanical	-0.9	
Mechanical	-0.1	
Mechanical	-0.6	
Mechanical	0.2	
Mechanical	-0.3	
Mechanical	0.6	
Mechanical	0.1	
Mechanical	0.9	
Mechanical	0.4	
Mechanical	1.3	
Mechanical	0.8	
Mechanical	1.7	
Mechanical	1.2	
Mechanical	2.2	
Mechanical	2.7	
Mechanical	3.4	
Mechanical	-5.3	
Mechanical	-8.0	
Mechanical	-5.3	
Mechanical	-5.4	
Mechanical	-6.8	
Mechanical	-7.4	
Mechanical	-6.7	
Mechanical	-7.3	
Mechanical	-6.6	
Mechanical	-6.8	
Mechanical	-6.9	
Mechanical	-6.7	
Mechanical	-6.8	
Mechanical	-6.9	
Mechanical	-6.7	
Mechanical	-6.8	
Mechanical	-6.6	
Mechanical	-6.7	
Mechanical	-6.5	
Mechanical	-6.6	
Mechanical	-6.3	
Mechanical	-6.5	
Mechanical	-6.1	
Mechanical	-6.3	

Source	Ld dB(A)	
Mechanical	-5.9	
Mechanical	-6.0	
Mechanical	-5.7	
Mechanical	-6.2	
Mechanical	-5.5	
Mechanical	-6.1	
Mechanical	-5.7	
Mechanical	-5.9	
Receiver R5 Ld 25.1 dB(A)		
Mechanical	8.5	
Mechanical	8.5	
Mechanical	7.3	
Mechanical	7.1	
Mechanical	6.5	
Mechanical	6.1	
Mechanical	5.3	
Mechanical	5.3	
Mechanical	4.3	
Mechanical	4.6	
Mechanical	3.6	
Mechanical	4.0	
Mechanical	3.1	
Mechanical	3.1	
Mechanical	2.5	
Mechanical	2.5	
Mechanical	2.0	
Mechanical	2.0	
Mechanical	1.7	
Mechanical	1.7	
Mechanical	1.2	
Mechanical	-2.2	
Mechanical	0.7	
Mechanical	-2.9	
Mechanical	0.3	
Mechanical	-3.2	
Mechanical	0.0	
Mechanical	-3.4	
Mechanical	-0.3	
Mechanical	-3.6	
Mechanical	-0.6	
Mechanical	-3.8	

Source	Ld dB(A)	
Mechanical	-0.9	
Mechanical	-3.9	
Mechanical	-1.1	
Mechanical	-4.1	
Mechanical	-1.4	
Mechanical	-4.3	
Mechanical	-1.7	
Mechanical	-4.5	
Mechanical	-1.9	
Mechanical	-4.7	
Mechanical	-2.1	
Mechanical	-4.8	
Mechanical	-2.3	
Mechanical	-5.0	
Mechanical	-2.5	
Mechanical	-5.2	
Mechanical	8.1	
Mechanical	7.9	
Mechanical	6.8	
Mechanical	6.7	
Mechanical	5.7	
Mechanical	5.7	
Mechanical	4.7	
Mechanical	4.9	
Mechanical	3.8	
Mechanical	4.1	
Mechanical	-1.0	
Mechanical	3.6	
Mechanical	-1.3	
Mechanical	3.0	
Mechanical	-1.5	
Mechanical	2.4	
Mechanical	-1.4	
Mechanical	1.8	
Mechanical	-1.4	
Mechanical	1.3	
Mechanical	-1.4	
Mechanical	-2.9	
Mechanical	-1.5	
Mechanical	-3.3	
Mechanical	-1.5	

Source	Ld dB(A)	
Mechanical	-3.5	
Mechanical	-1.5	
Mechanical	-3.7	
Mechanical	-1.6	
Mechanical	-3.8	
Mechanical	-1.5	
Mechanical	-4.0	
Mechanical	-4.1	
Mechanical	-4.2	
Mechanical	-4.3	
Mechanical	-4.3	
Mechanical	-4.5	
Mechanical	-4.5	
Mechanical	-4.5	
Mechanical	-4.6	
Mechanical	-4.6	
Mechanical	-4.8	
Mechanical	-2.9	
Mechanical	-4.9	
Mechanical	-3.3	
Mechanical	-5.1	
Mechanical	-3.6	
Mechanical	-5.2	
Mechanical	-5.9	
Mechanical	-5.3	
Mechanical	-6.1	
Mechanical	-5.5	
Mechanical	-5.1	
Mechanical	-4.9	
Mechanical	-5.1	
Mechanical	-4.9	
Mechanical	-5.0	
Mechanical	-4.9	
Mechanical	-5.1	
Mechanical	-4.9	
Mechanical	-5.1	
Mechanical	-4.9	
Mechanical	-5.1	
Mechanical	-4.8	
Mechanical	-5.3	
Mechanical	-4.7	

Source	Ld dB(A)	
Mechanical	-5.3	
Mechanical	-4.7	
Mechanical	-5.3	
Mechanical	-4.7	
Mechanical	-5.3	
Mechanical	-4.7	
Mechanical	-5.3	
Mechanical	-4.6	
Mechanical	-4.9	
Mechanical	-4.6	
Mechanical	-4.9	
Mechanical	-4.6	
Mechanical	-5.0	
Mechanical	-4.6	
Mechanical	-5.0	
Mechanical	-4.7	
Mechanical	-5.0	
Mechanical	-4.7	
Mechanical	-4.8	
Mechanical	-4.5	
Mechanical	-4.8	
Mechanical	-4.5	
Mechanical	-5.4	
Mechanical	-5.2	
Mechanical	-5.4	
Mechanical	-5.2	
Mechanical	-5.4	
Mechanical	-5.2	
Mechanical	-5.4	
Mechanical	-5.2	
Mechanical	-5.4	
Mechanical	-5.4	
Mechanical	-5.2	
Mechanical	6.0	
Mechanical	7.7	
Mechanical	5.9	
Mechanical	7.7	
Mechanical	6.0	
Mechanical	7.7	

Source	Ld dB(A)	
Mechanical	6.0	
Mechanical	7.8	
Mechanical	6.0	
Mechanical	7.8	
Mechanical	5.9	
Mechanical	8.0	
Mechanical	6.0	
Mechanical	7.9	
Mechanical	6.2	
Mechanical	7.9	
Mechanical	6.1	
Mechanical	8.0	
Mechanical	6.0	
Mechanical	8.0	
Mechanical	6.0	
Mechanical	8.0	
Mechanical	6.0	
Mechanical	7.9	
Mechanical	6.0	
Mechanical	8.0	
Mechanical	6.1	
Mechanical	8.0	
Mechanical	6.3	
Mechanical	8.0	
Mechanical	6.2	
Mechanical	8.0	
Receiver R6 Ld 24.1 dB(A)		
Mechanical	-6.2	
Mechanical	-6.2	
Mechanical	-7.6	
Mechanical	-7.4	
Mechanical	-9.1	
Mechanical	-10.7	
Mechanical	-9.1	
Mechanical	-10.7	
Mechanical	-6.2	
Mechanical	-6.1	
Mechanical	-6.2	
Mechanical	-6.1	
Mechanical	-6.2	
Mechanical	-6.1	

Source	Ld dB(A)	
Mechanical	-6.2	
Mechanical	-6.1	
Mechanical	-6.1	
Mechanical	-6.1	
Mechanical	-6.1	
Mechanical	-6.1	
Mechanical	-6.1	
Mechanical	-6.1	
Mechanical	-6.1	
Mechanical	-6.1	
Mechanical	-6.2	
Mechanical	-6.1	
Mechanical	-6.2	
Mechanical	-6.1	
Mechanical	-6.2	
Mechanical	-6.1	
Mechanical	-6.2	
Mechanical	-6.1	
Mechanical	-6.1	
Mechanical	-6.1	
Mechanical	-6.1	
Mechanical	-6.1	
Mechanical	-6.1	
Mechanical	-6.1	
Mechanical	-4.9	
Mechanical	-3.7	
Mechanical	-5.2	
Mechanical	-5.0	
Mechanical	-5.2	
Mechanical	-5.0	
Mechanical	-5.0	
Mechanical	-4.9	
Mechanical	-5.0	
Mechanical	-4.9	
Mechanical	4.8	
Mechanical	6.1	
Mechanical	4.8	
Mechanical	6.1	
Mechanical	6.8	
Mechanical	7.4	
Mechanical	6.8	

Source	Ld dB(A)	
Mechanical	7.4	
Mechanical	4.9	
Mechanical	6.2	
Mechanical	4.9	
Mechanical	6.2	
Mechanical	4.9	
Mechanical	6.2	
Mechanical	4.9	
Mechanical	6.2	
Mechanical	4.9	
Mechanical	6.3	
Mechanical	4.9	
Mechanical	6.2	
Mechanical	4.9	
Mechanical	6.2	
Mechanical	5.0	
Mechanical	6.2	
Mechanical	5.0	
Mechanical	6.2	
Mechanical	5.0	
Mechanical	6.3	
Mechanical	4.9	
Mechanical	6.2	
Mechanical	5.0	
Mechanical	6.2	
Mechanical	5.0	
Mechanical	6.3	
Mechanical	5.0	
Mechanical	6.3	
Mechanical	5.0	
Mechanical	6.3	
Mechanical	5.0	
Mechanical	6.3	
Mechanical	6.9	
Mechanical	7.6	
Mechanical	6.9	
Mechanical	7.5	
Mechanical	6.9	
Mechanical	7.5	
Mechanical	6.9	
Mechanical	7.6	

Source	Ld dB(A)	
Mechanical	5.0	
Mechanical	6.3	
Mechanical	5.0	
Mechanical	6.3	
Mechanical	-0.3	
Mechanical	-5.5	
Mechanical	-0.5	
Mechanical	-4.7	
Mechanical	-0.7	
Mechanical	-4.3	
Mechanical	-0.9	
Mechanical	-3.9	
Mechanical	-1.1	
Mechanical	-3.8	
Mechanical	-1.3	
Mechanical	-3.7	
Mechanical	-1.6	
Mechanical	-3.7	
Mechanical	-1.8	
Mechanical	-3.7	
Mechanical	-2.0	
Mechanical	-3.7	
Mechanical	-2.2	
Mechanical	-3.7	
Mechanical	-2.4	
Mechanical	-3.8	
Mechanical	-2.5	
Mechanical	-3.9	
Mechanical	-2.7	
Mechanical	-3.9	
Mechanical	-2.9	
Mechanical	-4.0	
Mechanical	-3.1	
Mechanical	-4.1	
Mechanical	-3.2	
Mechanical	-4.2	
Mechanical	-3.4	
Mechanical	-4.3	
Mechanical	-3.5	
Mechanical	-4.3	
Mechanical	-3.7	

Source	Ld dB(A)	
Mechanical	-4.4	
Mechanical	-3.8	
Mechanical	-4.5	
Mechanical	-4.0	
Mechanical	-4.6	
Mechanical	-4.1	
Mechanical	-4.7	
Mechanical	-4.2	
Mechanical	-4.8	
Mechanical	-4.4	
Mechanical	-4.5	
Mechanical	-4.6	
Mechanical	-5.5	
Mechanical	-0.3	
Mechanical	-4.8	
Mechanical	-0.5	
Mechanical	-4.5	
Mechanical	-1.1	
Mechanical	-4.2	
Mechanical	-2.0	
Mechanical	-3.8	
Mechanical	-2.7	
Mechanical	-3.3	
Mechanical	-3.8	
Mechanical	-5.0	
Mechanical	-3.9	
Mechanical	-4.8	
Mechanical	-3.8	
Mechanical	-4.7	
Mechanical	-3.8	
Mechanical	-2.5	
Mechanical	-3.9	
Mechanical	-2.7	
Mechanical	-3.9	
Mechanical	-3.0	
Mechanical	-4.0	
Mechanical	-3.2	
Mechanical	-4.2	
Mechanical	-1.8	
Mechanical	-4.2	
Mechanical	-1.9	

Source	Ld dB(A)	
Mechanical	-3.7	
Mechanical	-2.0	
Mechanical	-5.5	
Receiver R7 Ld 13.2 dB(A)		
Mechanical	-8.7	
Mechanical	-8.8	
Mechanical	-6.5	
Mechanical	-8.8	
Mechanical	-6.4	
Mechanical	-6.4	
Mechanical	-8.5	
Mechanical	-6.4	
Mechanical	-8.5	
Mechanical	-8.6	
Mechanical	-8.4	
Mechanical	-8.6	
Mechanical	-8.4	
Mechanical	-8.5	
Mechanical	-8.3	
Mechanical	-8.5	
Mechanical	-8.3	
Mechanical	-8.5	
Mechanical	-8.2	
Mechanical	-8.4	
Mechanical	-8.2	
Mechanical	-8.4	
Mechanical	-8.1	
Mechanical	-8.3	
Mechanical	-8.1	
Mechanical	-8.3	
Mechanical	-8.1	
Mechanical	-8.3	
Mechanical	-8.0	
Mechanical	-8.2	
Mechanical	-8.0	
Mechanical	-8.2	
Mechanical	-8.0	
Mechanical	-8.2	
Mechanical	-7.9	
Mechanical	-8.1	
Mechanical	-7.9	

Source	Ld dB(A)	
Mechanical	-8.1	
Mechanical	-7.9	
Mechanical	-8.1	
Mechanical	-8.1	
Mechanical	-8.1	
Mechanical	-8.1	
Mechanical	-8.0	
Mechanical	-8.1	
Mechanical	-8.0	
Mechanical	-8.1	
Mechanical	-8.0	
Mechanical	-11.5	
Mechanical	-11.6	
Mechanical	-11.4	
Mechanical	-11.6	
Mechanical	-11.4	
Mechanical	-11.5	
Mechanical	-11.3	
Mechanical	-11.4	
Mechanical	-11.3	
Mechanical	-11.4	
Mechanical	-11.3	
Mechanical	-11.4	
Mechanical	-11.2	
Mechanical	-11.3	
Mechanical	-11.2	
Mechanical	-11.3	
Mechanical	-11.1	
Mechanical	-11.2	
Mechanical	-11.1	
Mechanical	-11.2	
Mechanical	-11.1	
Mechanical	-11.1	
Mechanical	-11.0	
Mechanical	-11.1	
Mechanical	-11.0	
Mechanical	-11.0	
Mechanical	-10.9	
Mechanical	-11.0	
Mechanical	-10.9	
Mechanical	-10.9	

Source	Ld dB(A)	
Mechanical	-10.8	
Mechanical	-10.9	
Mechanical	-10.8	
Mechanical	-10.8	
Mechanical	-10.7	
Mechanical	-10.8	
Mechanical	-10.7	
Mechanical	-10.7	
Mechanical	-10.6	
Mechanical	-10.7	
Mechanical	-10.6	
Mechanical	-10.6	
Mechanical	-10.5	
Mechanical	-10.5	
Mechanical	-10.5	
Mechanical	-10.4	
Mechanical	-10.4	
Mechanical	-10.3	
Mechanical	-11.1	
Mechanical	-10.3	
Mechanical	-10.9	
Mechanical	-10.9	
Mechanical	-10.2	
Mechanical	-8.2	
Mechanical	-10.1	
Mechanical	-8.2	
Mechanical	-10.1	
Mechanical	-8.2	
Mechanical	-10.0	
Mechanical	-8.1	
Mechanical	-9.9	
Mechanical	-8.1	
Mechanical	-9.8	
Mechanical	-8.1	
Mechanical	-9.8	
Mechanical	-8.1	
Mechanical	-9.7	
Mechanical	-9.7	
Mechanical	-9.6	
Mechanical	-9.6	
Mechanical	-9.5	

Source	Ld dB(A)	
Mechanical	-9.5	
Mechanical	-9.4	
Mechanical	-9.4	
Mechanical	-9.3	
Mechanical	-9.3	
Mechanical	-9.2	
Mechanical	-9.2	
Mechanical	-9.1	
Mechanical	-9.1	
Mechanical	-9.0	
Mechanical	-9.0	
Mechanical	-8.9	
Mechanical	-8.9	
Mechanical	-8.8	
Mechanical	-8.8	
Mechanical	-8.7	
Mechanical	-8.7	
Mechanical	-8.6	
Mechanical	-8.6	
Mechanical	-8.5	
Mechanical	-8.5	
Mechanical	-8.4	
Mechanical	-8.4	
Mechanical	-8.3	
Mechanical	-8.3	
Mechanical	-8.2	
Mechanical	-8.2	
Mechanical	-8.0	
Mechanical	-8.2	
Mechanical	-8.1	
Mechanical	-8.9	
Mechanical	-11.5	
Mechanical	-8.9	
Mechanical	-11.2	
Mechanical	-8.7	
Mechanical	-10.8	
Mechanical	-10.6	
Mechanical	-10.7	
Mechanical	-10.6	
Mechanical	-10.6	
Mechanical	-10.8	

Source	Ld dB(A)	
Mechanical	-10.5	
Mechanical	-10.7	
Mechanical	-10.8	
Mechanical	-10.6	
Mechanical	-10.7	
Mechanical	-10.5	
Mechanical	-10.6	
Mechanical	-10.4	
Mechanical	-10.5	
Mechanical	-10.3	
Mechanical	-10.4	
Mechanical	-10.2	
Mechanical	-10.3	
Mechanical	-10.1	
Mechanical	-10.2	
Mechanical	-10.1	
Mechanical	-10.1	
Mechanical	-10.0	
Mechanical	-10.0	
Mechanical	-9.8	
Mechanical	-9.9	

Modera Argyle
Assessed contribution level - Mechanical Palladium Only

Source	Ld dB(A)	
Receiver Palladium 1 Fl G Ld 42.3 dB(A)		
Mechanical	20.4	
Mechanical	20.9	
Mechanical	18.8	
Mechanical	20.6	
Mechanical	18.7	
Mechanical	18.9	
Mechanical	18.4	
Mechanical	15.3	
Mechanical	15.3	
Mechanical	7.3	
Mechanical	15.0	
Mechanical	7.3	
Mechanical	12.2	
Mechanical	8.5	
Mechanical	9.9	
Mechanical	10.1	
Mechanical	10.6	
Mechanical	11.5	
Mechanical	11.6	
Mechanical	14.3	
Mechanical	14.1	
Mechanical	14.2	
Mechanical	14.0	
Mechanical	14.0	
Mechanical	13.8	
Mechanical	13.9	
Mechanical	14.5	
Mechanical	14.6	
Mechanical	14.2	
Mechanical	14.4	
Mechanical	14.0	
Mechanical	15.1	
Mechanical	14.0	
Mechanical	15.0	
Mechanical	14.8	
Mechanical	14.9	
Mechanical	14.8	
Mechanical	15.4	
Mechanical	15.3	
Mechanical	15.7	

Modera Argyle
Assessed contribution level - Mechanical Palladium Only

Source	Ld dB(A)	
Mechanical	15.4	
Mechanical	15.8	
Mechanical	15.3	
Mechanical	15.6	
Mechanical	15.2	
Mechanical	15.5	
Mechanical	15.4	
Mechanical	15.5	
Mechanical	25.3	
Mechanical	25.3	
Mechanical	24.6	
Mechanical	24.7	
Mechanical	24.0	
Mechanical	24.0	
Mechanical	24.0	
Mechanical	23.6	
Mechanical	23.6	
Mechanical	23.6	
Mechanical	22.7	
Mechanical	23.5	
Mechanical	22.6	
Mechanical	22.7	
Mechanical	22.3	
Mechanical	22.4	
Mechanical	22.0	
Mechanical	22.1	
Mechanical	21.8	
Mechanical	21.9	
Mechanical	21.6	
Mechanical	21.6	
Mechanical	21.3	
Mechanical	21.4	
Mechanical	21.1	
Mechanical	21.2	
Mechanical	20.9	
Mechanical	21.0	
Mechanical	20.7	
Mechanical	20.8	
Mechanical	20.5	
Mechanical	20.3	
Mechanical	20.0	

Modera Argyle
Assessed contribution level - Mechanical Palladium Only

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Source	Ld dB(A)	
Mechanical	20.1	
Mechanical	19.8	
Mechanical	19.9	
Mechanical	19.6	
Mechanical	20.2	
Mechanical	19.5	
Mechanical	20.0	
Mechanical	19.3	
Mechanical	19.8	
Mechanical	20.1	
Mechanical	19.6	
Mechanical	19.9	
Mechanical	19.5	
Mechanical	19.8	
Mechanical	19.8	
Mechanical	19.6	
Mechanical	19.6	
Mechanical	19.5	
Mechanical	19.5	
Mechanical	13.1	
Mechanical	13.3	
Mechanical	14.0	
Mechanical	14.5	
Mechanical	15.2	
Mechanical	15.7	
Mechanical	15.1	
Mechanical	16.2	
Mechanical	16.0	
Mechanical	16.8	
Mechanical	16.1	
Mechanical	16.9	
Mechanical	17.8	
Mechanical	17.9	
Mechanical	17.7	
Mechanical	17.4	
Mechanical	17.2	
Mechanical	17.2	
Mechanical	17.1	
Mechanical	17.1	
Mechanical	16.9	
Mechanical	17.0	

Modera Argyle
Assessed contribution level - Mechanical Palladium Only

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Source	Ld dB(A)	
Mechanical	16.8	
Mechanical	16.8	
Mechanical	16.7	
Mechanical	16.7	
Mechanical	16.6	
Mechanical	16.7	
Mechanical	16.6	
Mechanical	16.6	
Mechanical	16.5	
Mechanical	16.5	
Mechanical	16.4	
Mechanical	16.5	
Mechanical	16.0	
Mechanical	16.1	
Mechanical	16.3	
Mechanical	16.3	
Mechanical	16.2	
Mechanical	16.3	
Mechanical	16.2	
Mechanical	16.2	
Mechanical	16.1	
Mechanical	16.1	
Mechanical	16.0	
Mechanical	16.1	
Mechanical	15.8	
Mechanical	15.3	
Mechanical	15.3	
Mechanical	23.2	
Mechanical	23.9	
Mechanical	22.8	
Mechanical	23.6	
Mechanical	22.6	
Mechanical	23.4	
Mechanical	22.5	
Mechanical	23.2	
Mechanical	22.3	
Mechanical	23.0	
Mechanical	22.2	
Mechanical	22.8	
Mechanical	22.0	
Mechanical	22.8	

Source	Ld dB(A)	
Mechanical	21.8	
Mechanical	22.5	
Mechanical	21.7	
Mechanical	22.2	
Mechanical	21.5	
Mechanical	22.0	
Mechanical	21.3	
Mechanical	21.8	
Mechanical	21.2	
Mechanical	21.4	
Mechanical	21.5	
Mechanical	22.5	
Mechanical	21.5	
Mechanical	22.8	
Mechanical	20.7	
Mechanical	23.1	
Mechanical	20.5	
Mechanical	20.7	
Receiver Palladium 2 Fl G Ld 41.3 dB(A)		
Mechanical	20.4	
Mechanical	22.0	
Mechanical	20.0	
Mechanical	20.3	
Mechanical	19.8	
Mechanical	20.1	
Mechanical	19.5	
Mechanical	19.9	
Mechanical	19.3	
Mechanical	9.9	
Mechanical	19.1	
Mechanical	8.7	
Mechanical	15.8	
Mechanical	8.9	
Mechanical	11.1	
Mechanical	9.7	
Mechanical	10.5	
Mechanical	10.2	
Mechanical	10.4	
Mechanical	10.6	
Mechanical	10.6	
Mechanical	10.7	

Modera Argyle
Assessed contribution level - Mechanical Palladium Only

Source	Ld dB(A)	
Mechanical	10.8	
Mechanical	10.9	
Mechanical	10.8	
Mechanical	11.0	
Mechanical	10.9	
Mechanical	11.0	
Mechanical	10.9	
Mechanical	11.0	
Mechanical	10.9	
Mechanical	12.0	
Mechanical	11.8	
Mechanical	12.3	
Mechanical	11.7	
Mechanical	12.6	
Mechanical	11.9	
Mechanical	14.3	
Mechanical	12.3	
Mechanical	14.4	
Mechanical	12.8	
Mechanical	14.3	
Mechanical	12.9	
Mechanical	14.3	
Mechanical	14.0	
Mechanical	14.2	
Mechanical	13.9	
Mechanical	14.9	
Mechanical	22.2	
Mechanical	22.7	
Mechanical	22.5	
Mechanical	22.3	
Mechanical	22.3	
Mechanical	22.1	
Mechanical	22.5	
Mechanical	21.9	
Mechanical	20.6	
Mechanical	22.5	
Mechanical	19.1	
Mechanical	22.4	
Mechanical	18.9	
Mechanical	21.9	
Mechanical	18.9	

Modera Argyle
Assessed contribution level - Mechanical Palladium Only

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Source	Ld dB(A)	
Mechanical	20.3	
Mechanical	18.6	
Mechanical	20.2	
Mechanical	18.2	
Mechanical	18.5	
Mechanical	18.7	
Mechanical	18.4	
Mechanical	19.0	
Mechanical	17.5	
Mechanical	18.9	
Mechanical	17.4	
Mechanical	18.2	
Mechanical	17.3	
Mechanical	18.3	
Mechanical	17.2	
Mechanical	17.4	
Mechanical	17.1	
Mechanical	16.1	
Mechanical	16.7	
Mechanical	16.2	
Mechanical	16.6	
Mechanical	16.2	
Mechanical	16.4	
Mechanical	17.6	
Mechanical	16.4	
Mechanical	17.4	
Mechanical	16.3	
Mechanical	18.6	
Mechanical	16.3	
Mechanical	18.5	
Mechanical	17.1	
Mechanical	18.4	
Mechanical	17.6	
Mechanical	17.1	
Mechanical	18.3	
Mechanical	15.9	
Mechanical	18.1	
Mechanical	15.5	
Mechanical	15.7	
Mechanical	15.6	
Mechanical	15.8	

Modera Argyle
Assessed contribution level - Mechanical Palladium Only

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Source	Ld dB(A)	
Mechanical	15.7	
Mechanical	16.5	
Mechanical	15.9	
Mechanical	17.1	
Mechanical	16.4	
Mechanical	17.1	
Mechanical	16.9	
Mechanical	17.0	
Mechanical	16.9	
Mechanical	17.0	
Mechanical	16.9	
Mechanical	17.0	
Mechanical	16.8	
Mechanical	16.9	
Mechanical	16.8	
Mechanical	16.9	
Mechanical	16.7	
Mechanical	16.9	
Mechanical	16.7	
Mechanical	16.8	
Mechanical	16.7	
Mechanical	16.8	
Mechanical	16.6	
Mechanical	16.8	
Mechanical	16.6	
Mechanical	16.7	
Mechanical	16.6	
Mechanical	16.7	
Mechanical	16.5	
Mechanical	16.3	
Mechanical	16.1	
Mechanical	16.2	
Mechanical	15.5	
Mechanical	15.0	
Mechanical	15.4	
Mechanical	14.9	
Mechanical	14.8	
Mechanical	14.9	
Mechanical	14.7	
Mechanical	14.8	
Mechanical	14.7	

Source	Ld dB(A)	
Mechanical	14.8	
Mechanical	14.7	
Mechanical	14.7	
Mechanical	13.8	
Mechanical	21.8	
Mechanical	22.4	
Mechanical	21.9	
Mechanical	22.4	
Mechanical	21.9	
Mechanical	22.5	
Mechanical	22.0	
Mechanical	22.6	
Mechanical	22.1	
Mechanical	22.7	
Mechanical	22.1	
Mechanical	22.7	
Mechanical	22.0	
Mechanical	22.7	
Mechanical	22.0	
Mechanical	22.7	
Mechanical	22.0	
Mechanical	22.6	
Mechanical	22.0	
Mechanical	22.6	
Mechanical	22.0	
Mechanical	22.6	
Mechanical	21.9	
Mechanical	22.5	
Mechanical	21.9	
Mechanical	22.4	
Mechanical	21.7	
Mechanical	22.3	
Mechanical	21.5	
Mechanical	21.7	
Mechanical	21.0	
Mechanical	21.6	
Receiver Palladium 3 Fl G Ld 40.1 dB(A)		
Mechanical	20.9	
Mechanical	21.3	
Mechanical	20.5	
Mechanical	20.7	

Source	Ld dB(A)	
Mechanical	20.0	
Mechanical	20.2	
Mechanical	19.5	
Mechanical	19.9	
Mechanical	19.1	
Mechanical	19.6	
Mechanical	18.7	
Mechanical	10.5	
Mechanical	18.6	
Mechanical	11.8	
Mechanical	18.6	
Mechanical	11.5	
Mechanical	18.3	
Mechanical	11.6	
Mechanical	12.8	
Mechanical	11.6	
Mechanical	12.3	
Mechanical	11.1	
Mechanical	11.0	
Mechanical	10.8	
Mechanical	10.8	
Mechanical	10.8	
Mechanical	10.7	
Mechanical	10.9	
Mechanical	10.8	
Mechanical	11.1	
Mechanical	11.0	
Mechanical	11.5	
Mechanical	11.4	
Mechanical	11.4	
Mechanical	11.3	
Mechanical	11.3	
Mechanical	11.2	
Mechanical	11.2	
Mechanical	11.1	
Mechanical	11.1	
Mechanical	11.0	
Mechanical	11.0	
Mechanical	10.9	
Mechanical	10.9	
Mechanical	10.8	

Source	Ld dB(A)	
Mechanical	10.8	
Mechanical	10.7	
Mechanical	11.9	
Mechanical	22.2	
Mechanical	20.7	
Mechanical	20.8	
Mechanical	20.6	
Mechanical	20.7	
Mechanical	20.5	
Mechanical	16.7	
Mechanical	21.1	
Mechanical	17.3	
Mechanical	21.0	
Mechanical	15.3	
Mechanical	18.5	
Mechanical	15.4	
Mechanical	17.3	
Mechanical	15.4	
Mechanical	17.2	
Mechanical	15.7	
Mechanical	17.3	
Mechanical	15.9	
Mechanical	17.3	
Mechanical	18.6	
Mechanical	16.5	
Mechanical	18.5	
Mechanical	17.1	
Mechanical	18.4	
Mechanical	18.4	
Mechanical	18.6	
Mechanical	18.3	
Mechanical	18.5	
Mechanical	18.2	
Mechanical	18.4	
Mechanical	16.8	
Mechanical	17.7	
Mechanical	16.7	
Mechanical	17.6	
Mechanical	16.5	
Mechanical	16.3	
Mechanical	16.3	

Source	Ld dB(A)	
Mechanical	16.2	
Mechanical	16.2	
Mechanical	16.1	
Mechanical	16.0	
Mechanical	17.3	
Mechanical	16.0	
Mechanical	15.6	
Mechanical	16.4	
Mechanical	15.5	
Mechanical	16.8	
Mechanical	14.9	
Mechanical	16.7	
Mechanical	13.0	
Mechanical	14.2	
Mechanical	12.9	
Mechanical	13.1	
Mechanical	13.1	
Mechanical	13.8	
Mechanical	13.3	
Mechanical	13.4	
Mechanical	11.9	
Mechanical	14.2	
Mechanical	12.1	
Mechanical	13.9	
Mechanical	12.9	
Mechanical	13.9	
Mechanical	12.9	
Mechanical	13.8	
Mechanical	13.7	
Mechanical	14.2	
Mechanical	13.7	
Mechanical	14.1	
Mechanical	14.0	
Mechanical	14.1	
Mechanical	13.9	
Mechanical	14.1	
Mechanical	13.9	
Mechanical	14.0	
Mechanical	13.9	
Mechanical	14.0	
Mechanical	13.8	

Source	Ld dB(A)	
Mechanical	14.0	
Mechanical	13.8	
Mechanical	13.9	
Mechanical	13.8	
Mechanical	13.9	
Mechanical	13.7	
Mechanical	13.9	
Mechanical	15.4	
Mechanical	15.6	
Mechanical	15.4	
Mechanical	15.6	
Mechanical	12.0	
Mechanical	12.1	
Mechanical	12.0	
Mechanical	12.0	
Mechanical	11.9	
Mechanical	12.0	
Mechanical	11.9	
Mechanical	12.0	
Mechanical	11.9	
Mechanical	11.8	
Mechanical	11.7	
Mechanical	20.1	
Mechanical	20.5	
Mechanical	20.2	
Mechanical	20.8	
Mechanical	20.3	
Mechanical	20.9	
Mechanical	20.5	
Mechanical	23.5	
Mechanical	20.6	
Mechanical	21.2	
Mechanical	20.8	
Mechanical	21.0	
Mechanical	20.9	
Mechanical	21.2	
Mechanical	20.6	
Mechanical	20.9	
Mechanical	20.7	
Mechanical	21.1	
Mechanical	20.8	

Source	Ld dB(A)	
Mechanical	21.3	
Mechanical	20.9	
Mechanical	21.4	
Mechanical	20.7	
Mechanical	21.6	
Mechanical	20.9	
Mechanical	21.7	
Mechanical	21.0	
Mechanical	21.8	
Mechanical	20.8	
Mechanical	21.8	
Mechanical	20.9	
Mechanical	21.8	
Receiver Palladium 4 Fl G Ld 39.9 dB(A)		
Mechanical	17.5	
Mechanical	18.8	
Mechanical	17.4	
Mechanical	18.8	
Mechanical	17.3	
Mechanical	17.2	
Mechanical	14.9	
Mechanical	12.0	
Mechanical	14.5	
Mechanical	5.0	
Mechanical	12.1	
Mechanical	6.0	
Mechanical	10.3	
Mechanical	8.6	
Mechanical	9.8	
Mechanical	13.2	
Mechanical	13.1	
Mechanical	13.1	
Mechanical	13.0	
Mechanical	13.1	
Mechanical	12.9	
Mechanical	13.2	
Mechanical	12.9	
Mechanical	14.3	
Mechanical	13.0	
Mechanical	14.2	
Mechanical	14.0	

Source	Ld dB(A)	
Mechanical	14.1	
Mechanical	13.9	
Mechanical	14.5	
Mechanical	13.8	
Mechanical	14.4	
Mechanical	14.3	
Mechanical	14.3	
Mechanical	14.2	
Mechanical	14.2	
Mechanical	14.1	
Mechanical	14.6	
Mechanical	14.0	
Mechanical	14.5	
Mechanical	13.9	
Mechanical	14.4	
Mechanical	14.3	
Mechanical	14.3	
Mechanical	14.2	
Mechanical	13.5	
Mechanical	14.1	
Mechanical	13.3	
Mechanical	22.5	
Mechanical	22.8	
Mechanical	22.0	
Mechanical	22.4	
Mechanical	21.5	
Mechanical	22.1	
Mechanical	21.2	
Mechanical	21.4	
Mechanical	22.7	
Mechanical	21.0	
Mechanical	22.5	
Mechanical	20.6	
Mechanical	19.9	
Mechanical	20.3	
Mechanical	19.6	
Mechanical	20.0	
Mechanical	19.4	
Mechanical	19.7	
Mechanical	19.1	
Mechanical	19.5	

Source	Ld dB(A)	
Mechanical	18.8	
Mechanical	19.3	
Mechanical	18.7	
Mechanical	19.1	
Mechanical	18.5	
Mechanical	18.9	
Mechanical	18.4	
Mechanical	18.7	
Mechanical	18.2	
Mechanical	18.5	
Mechanical	17.8	
Mechanical	18.3	
Mechanical	17.6	
Mechanical	18.1	
Mechanical	17.4	
Mechanical	18.0	
Mechanical	17.3	
Mechanical	17.8	
Mechanical	17.1	
Mechanical	17.6	
Mechanical	17.0	
Mechanical	17.5	
Mechanical	16.8	
Mechanical	17.3	
Mechanical	16.7	
Mechanical	17.2	
Mechanical	18.1	
Mechanical	17.0	
Mechanical	16.4	
Mechanical	16.8	
Mechanical	16.2	
Mechanical	16.7	
Mechanical	10.7	
Mechanical	10.8	
Mechanical	13.9	
Mechanical	14.0	
Mechanical	12.9	
Mechanical	12.9	
Mechanical	12.5	
Mechanical	12.7	
Mechanical	13.1	

Source	Ld dB(A)	
Mechanical	13.2	
Mechanical	13.0	
Mechanical	13.0	
Mechanical	12.8	
Mechanical	12.9	
Mechanical	12.7	
Mechanical	12.8	
Mechanical	12.6	
Mechanical	12.8	
Mechanical	12.7	
Mechanical	14.1	
Mechanical	13.5	
Mechanical	13.5	
Mechanical	13.3	
Mechanical	13.0	
Mechanical	12.8	
Mechanical	12.7	
Mechanical	12.6	
Mechanical	12.4	
Mechanical	12.4	
Mechanical	12.2	
Mechanical	12.1	
Mechanical	12.0	
Mechanical	11.9	
Mechanical	11.9	
Mechanical	11.8	
Mechanical	11.9	
Mechanical	11.8	
Mechanical	11.8	
Mechanical	11.7	
Mechanical	11.8	
Mechanical	11.7	
Mechanical	11.8	
Mechanical	11.6	
Mechanical	13.1	
Mechanical	12.9	
Mechanical	13.2	
Mechanical	13.0	
Mechanical	13.0	
Mechanical	13.1	
Mechanical	20.6	

Source	Ld dB(A)	
Mechanical	21.1	
Mechanical	20.4	
Mechanical	20.7	
Mechanical	20.5	
Mechanical	20.5	
Mechanical	20.3	
Mechanical	20.6	
Mechanical	19.9	
Mechanical	20.4	
Mechanical	19.7	
Mechanical	20.0	
Mechanical	19.6	
Mechanical	19.9	
Mechanical	19.4	
Mechanical	19.4	
Mechanical	18.9	
Mechanical	19.2	
Mechanical	19.3	
Mechanical	19.6	
Mechanical	19.2	
Mechanical	19.5	
Mechanical	19.1	
Mechanical	19.3	
Mechanical	18.9	
Mechanical	19.2	
Mechanical	18.8	
Mechanical	19.0	
Mechanical	18.7	
Mechanical	19.1	
Mechanical	18.5	
Mechanical	18.9	

Modera Argyle
Assessed contribution level - People Option 2 No Palladium

Source	Ld dB(A)	
Receiver R1 Ld 38.1 dB(A)		
People Level 2 Courtyard	27.1	
People Level 1 Plaza	13.7	
People Level 2 - Rear Yard	37.7	
People Level 7 Deck	18.2	
Receiver R1A Ld 35.1 dB(A)		
People Level 2 Courtyard	31.1	
People Level 1 Plaza	15.9	
People Level 2 - Rear Yard	32.6	
People Level 7 Deck	18.8	
Receiver R2 Ld 39.5 dB(A)		
People Level 2 Courtyard	30.4	
People Level 1 Plaza	38.3	
People Level 2 - Rear Yard	24.6	
People Level 7 Deck	28.0	
Receiver R3 Ld 46.7 dB(A)		
People Level 2 Courtyard	27.2	
People Level 1 Plaza	46.2	
People Level 2 - Rear Yard	26.2	
People Level 7 Deck	35.9	
Receiver R4 Ld 39.8 dB(A)		
People Level 2 Courtyard	28.4	
People Level 1 Plaza	39.2	
People Level 2 - Rear Yard	22.7	
People Level 7 Deck	26.5	
Receiver R5 Ld 47.5 dB(A)		
People Level 2 Courtyard	24.1	
People Level 1 Plaza	13.1	
People Level 2 - Rear Yard	46.8	
People Level 7 Deck	39.2	
Receiver R6 Ld 29.8 dB(A)		
People Level 2 Courtyard	20.0	
People Level 1 Plaza	9.6	
People Level 2 - Rear Yard	29.0	
People Level 7 Deck	17.6	
Receiver R7 Ld 30.3 dB(A)		
People Level 2 Courtyard	23.2	
People Level 1 Plaza	27.7	
People Level 2 - Rear Yard	17.3	

Source	Ld dB(A)	
People Level 7 Deck	23.5	

Modera Argyle
Assessed contribution level - People Option 2 Palladium Only

Source	Ld dB(A)	
Receiver Palladium 1 Ld 46.4 dB(A)		
People Level 2 Courtyard	33.4	
People Level 1 Plaza	18.2	
People Level 2 - Rear Yard	45.4	
People Level 7 Deck	37.7	
Receiver Palladium 2 Ld 44.5 dB(A)		
People Level 2 Courtyard	32.7	
People Level 1 Plaza	18.6	
People Level 2 - Rear Yard	40.4	
People Level 7 Deck	41.8	
Receiver Palladium 3 Ld 46.0 dB(A)		
People Level 2 Courtyard	32.3	
People Level 1 Plaza	18.2	
People Level 2 - Rear Yard	41.1	
People Level 7 Deck	43.9	
Receiver Palladium 4 Ld 44.5 dB(A)		
People Level 2 Courtyard	31.1	
People Level 1 Plaza	16.2	
People Level 2 - Rear Yard	43.6	
People Level 7 Deck	36.2	

Modera Argyle
Assessed contribution level - Speakers Option 2 No Palladium

Source	Ld dB(A)	
Receiver R1 Ld 43.0 dB(A)		
Speakers Level 2	39.8	
Speakers Level 2	39.4	
Speakers Level 2	31.2	
Speakers Level 2	25.2	
Speaker Level 1 Plaza	7.9	
Speaker Level 7 - 2	18.5	
Receiver R1A Ld 46.8 dB(A)		
Speakers Level 2	44.1	
Speakers Level 2	42.3	
Speakers Level 2	35.3	
Speakers Level 2	32.6	
Speaker Level 1 Plaza	10.0	
Speaker Level 7 - 2	19.4	
Receiver R2 Ld 48.7 dB(A)		
Speakers Level 2	35.4	
Speakers Level 2	31.7	
Speakers Level 2	43.6	
Speakers Level 2	44.0	
Speaker Level 1 Plaza	22.4	
Speaker Level 7 - 2	43.1	
Receiver R3 Ld 54.9 dB(A)		
Speakers Level 2	31.9	
Speakers Level 2	35.2	
Speakers Level 2	35.3	
Speakers Level 2	35.4	
Speaker Level 1 Plaza	52.4	
Speaker Level 7 - 2	50.8	
Receiver R4 Ld 50.0 dB(A)		
Speakers Level 2	39.5	
Speakers Level 2	39.9	
Speakers Level 2	29.6	
Speakers Level 2	32.9	
Speaker Level 1 Plaza	48.6	
Speaker Level 7 - 2	37.6	
Receiver R5 Ld 44.7 dB(A)		
Speakers Level 2	25.8	
Speakers Level 2	29.1	
Speakers Level 2	37.6	

Modera Argyle
Assessed contribution level - Speakers Option 2 No Palladium

Source	Ld dB(A)	
Speakers Level 2	37.0	
Speaker Level 1 Plaza	9.2	
Speaker Level 7 - 2	42.4	
Receiver R6 Ld 35.1 dB(A)		
Speakers Level 2	31.9	
Speakers Level 2	31.1	
Speakers Level 2	21.0	
Speakers Level 2	23.6	
Speaker Level 1 Plaza	3.9	
Speaker Level 7 - 2	18.1	
Receiver R7 Ld 43.2 dB(A)		
Speakers Level 2	34.4	
Speakers Level 2	36.6	
Speakers Level 2	21.7	
Speakers Level 2	27.1	
Speaker Level 1 Plaza	37.5	
Speaker Level 7 - 2	38.5	

Modera Argyle
Assessed contribution level - Speakers Option 2 Palladium Only

Source	Ld dB(A)	
Receiver Palladium 1 Ld 48.6 dB(A)		
Speakers Level 2	40.8	
Speakers Level 2	36.3	
Speakers Level 2	44.1	
Speakers Level 2	43.1	
Speaker Level 1 Plaza	30.4	
Speaker Level 7 - 2	39.9	
Receiver Palladium 2 Ld 49.9 dB(A)		
Speakers Level 2	38.8	
Speakers Level 2	36.5	
Speakers Level 2	45.7	
Speakers Level 2	44.1	
Speaker Level 1 Plaza	13.6	
Speaker Level 7 - 2	43.6	
Receiver Palladium 3 Ld 50.1 dB(A)		
Speakers Level 2	36.9	
Speakers Level 2	37.8	
Speakers Level 2	44.0	
Speakers Level 2	43.4	
Speaker Level 1 Plaza	13.7	
Speaker Level 7 - 2	46.5	
Receiver Palladium 4 Ld 45.1 dB(A)		
Speakers Level 2	39.2	
Speakers Level 2	35.3	
Speakers Level 2	38.9	
Speakers Level 2	37.7	
Speaker Level 1 Plaza	30.7	
Speaker Level 7 - 2	37.8	

Modera Argyle
Assessed contribution level - Loading Option 2 No Palladium

Source	Ld dB(A)	
Receiver R1 Ld 58.0 dB(A)		
Loading Option 2 - North	25.9	
Loading Option 2 - Southwest	58.0	
Receiver R1A Ld 59.8 dB(A)		
Loading Option 2 - North	28.8	
Loading Option 2 - Southwest	59.8	
Receiver R2 Ld 58.4 dB(A)		
Loading Option 2 - North	28.2	
Loading Option 2 - Southwest	58.4	
Receiver R3 Ld 40.1 dB(A)		
Loading Option 2 - North	28.2	
Loading Option 2 - Southwest	39.8	
Receiver R4 Ld 33.1 dB(A)		
Loading Option 2 - North	28.3	
Loading Option 2 - Southwest	31.4	
Receiver R4b (behind) Ld 54.7 dB(A)		
Loading Option 2 - North	54.7	
Loading Option 2 - Southwest	25.2	
Receiver R5 Ld 24.7 dB(A)		
Loading Option 2 - North	19.7	
Loading Option 2 - Southwest	23.1	
Receiver R6 Ld 48.8 dB(A)		
Loading Option 2 - North	18.5	
Loading Option 2 - Southwest	48.8	
Receiver R7 Ld 27.8 dB(A)		
Loading Option 2 - North	21.8	
Loading Option 2 - Southwest	26.6	

Modera Argyle
Assessed contribution level - Loading Option 2 Palladium Only

Source	Ld dB(A)	
Receiver Palladium 1 Ld 37.1 dB(A)		
Loading Option 2 - North	32.3	
Loading Option 2 - Southwest	35.3	
Receiver Palladium 2 Ld 29.8 dB(A)		
Loading Option 2 - North		
Loading Option 2 - Southwest	29.8	
Receiver Palladium 3 Ld 27.5 dB(A)		
Loading Option 2 - North		
Loading Option 2 - Southwest	27.5	
Receiver Palladium 4 Ld 45.1 dB(A)		
Loading Option 2 - North	35.5	
Loading Option 2 - Southwest	44.5	

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Off-Site Traffic Noise Calculations
Project: Modera Argyle Project

Traffic Distribution as % of ADT				
Vehicle Type	**Day**	**Eve**	**Night**	**Sub total**
Auto	77.6%	9.7%	9.7%	97.0%
Medium Truck	1.6%	0.2%	0.2%	2.0%
Heavy Truck	0.8%	0.1%	0.1%	1.0%
	80.0%	10.0%	10.0%	100.0%

PHV to ADT factor 10%

EXISTING CONDITIONS

Roadway Segment	Roadway Width*, ft	Distance to Edge of Roadway, ft	Distance to Centerline, feet	Speed mph	Traffic Volume PHV	Traffic Volume ADT	PHV to ADT factor	Barrier Atten.	Site Adjust., dBA	24-Hour CNEL
Ivar Avenue										
- Between Yucca St. and Hollywood Blvd.	40	10	30	35	457	4,570	10%	0	0	66.9
- Between Hollywood Blvd. and Selma Ave.	40	10	30	35	562	5,620	10%	0	0	67.8
Vine Street										
- Between Yucca St. and Hollywood Blvd.	70	10	45	35	2,118	21,180	10%	0	0	71.6
- Between Hollywood Blvd. and Selma Ave.	70	10	45	35	2,346	23,460	10%	0	0	72.1
- Between Selma Ave. and Sunset Blvd.	70	10	45	35	2,339	23,390	10%	0	0	72.0
Argyle Avenue										
- Between Yucca St. and Hollywood Blvd.	50	10	35	35	713	7,130	10%	0	0	68.0
- Between Hollywood Blvd. and Selma Ave.	50	10	35	35	749	7,490	10%	0	0	68.2
- Between Selma Ave. and Sunset Blvd.	50	10	35	35	575	5,750	10%	0	0	67.1
Gower Street										
- Between Yucca St. and Hollywood Blvd.	60	10	40	35	1,484	14,840	10%	0	0	70.6
- Between Hollywood Blvd. and Selma Ave.	50	10	35	35	1,447	14,470	10%	0	0	71.1
- Between Selma Ave. and Sunset Blvd.	50	10	35	35	1,303	13,030	10%	0	0	70.6
Franklin Avenue										
- Between Argyle Ave. and Gower St.	50	10	35	35	2,045	20,450	10%	0	0	72.6
Yucca Street										
- Between Ivar Ave. and Vine St.	70	10	45	35	633	6,330	10%	0	0	66.4
- Between Vine St. and Argyle Ave.	70	10	45	35	504	5,040	10%	0	0	65.4
- Between Argyle Ave. and Gower St.	40	10	30	35	240	2,400	10%	0	0	64.1
Hollywood Boulevard										
- Between Ivar Ave. and Vine St.	70	10	45	35	1,835	18,350	10%	0	0	71.0
- Between Vine St. and Argyle Ave.	60	10	40	35	2,031	20,310	10%	0	0	71.9
- Between Argyle Ave. and Gower St.	60	10	40	35	1,942	19,420	10%	0	0	71.7
Selma Avenue										
- Between Ivar Ave. and Vine St.	40	10	30	35	386	3,860	10%	0	0	66.1

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EXISTING CONDITIONS

Roadway Segment	Roadway Width*, ft	Distance to Edge of Roadway, ft	Distance to Centerline, feet	Speed mph	Traffic Volume PHV	Traffic Volume ADT	PHV to ADT factor	Barrier Atten.	Site Adjust., dBA	24-Hour CNEL
- Between Vine St. and Argyle Ave.	40	10	30	35	540	5,400	10%	0	0	67.6
- Between Argyle Ave. and Gower St.	40	10	30	35	299	2,990	10%	0	0	65.0
Sunset Boulevard										
- Between Vine St. and Argyle Ave.	70	10	45	35	2,956	29,560	10%	0	0	73.1
- Between Argyle Ave. and Gower St.	70	10	45	35	2,819	28,190	10%	0	0	72.9
- Between Gower St. and Bronson Ave.	70	10	45	35	3,170	31,700	10%	0	0	73.4

* Estimated based on Google Earth map.

** Calculated using FHWA's TNM Version 2.5 Computer Noise Model.

Date Printed: 1/17/2019

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Off-Site Traffic Noise Calculations
Project: Modera Argyle Project

Traffic Distribution as % of ADT				
Vehicle Type	**Day**	**Eve**	**Night**	**Sub total**
Auto	77.6%	9.7%	9.7%	97.0%
Medium Truck	1.6%	0.2%	0.2%	2.0%
Heavy Truck	0.8%	0.1%	0.1%	1.0%
	80.0%	10.0%	10.0%	100.0%

PHV to ADT factor 10%

EXISTING + PROJECT CONDITIONS

Roadway Segment	Roadway Width*, ft	Distance to Edge of Roadway, ft	Distance to Centerline, feet	Speed mph	Traffic Volume PHV	Traffic Volume ADT	PHV to ADT factor	Barrier Atten.	Site Adjust., dBA	24-Hour CNEL
Ivar Avenue										
- Between Yucca St. and Hollywood Blvd.	40	10	30	35	457	4,570	10%	0	0	66.9
- Between Hollywood Blvd. and Selma Ave.	40	10	30	35	562	5,620	10%	0	0	67.8
Vine Street										
- Between Yucca St. and Hollywood Blvd.	70	10	45	35	2,137	21,370	10%	0	0	71.7
- Between Hollywood Blvd. and Selma Ave.	70	10	45	35	2,365	23,650	10%	0	0	72.1
- Between Selma Ave. and Sunset Blvd.	70	10	45	35	2,344	23,440	10%	0	0	72.1
Argyle Avenue										
- Between Yucca St. and Hollywood Blvd.	50	10	35	35	728	7,280	10%	0	0	68.1
- Between Hollywood Blvd. and Selma Ave.	50	10	35	35	777	7,770	10%	0	0	68.4
- Between Selma Ave. and Sunset Blvd.	50	10	35	35	614	6,140	10%	0	0	67.3
Gower Street										
- Between Yucca St. and Hollywood Blvd.	60	10	40	35	1,498	14,980	10%	0	0	70.6
- Between Hollywood Blvd. and Selma Ave.	50	10	35	35	1,461	14,610	10%	0	0	71.1
- Between Selma Ave. and Sunset Blvd.	50	10	35	35	1,305	13,050	10%	0	0	70.6
Franklin Avenue										
- Between Argyle Ave. and Gower St.	50	10	35	35	2,045	20,450	10%	0	0	72.6
Yucca Street										
- Between Ivar Ave. and Vine St.	70	10	45	35	633	6,330	10%	0	0	66.4
- Between Vine St. and Argyle Ave.	70	10	45	35	504	5,040	10%	0	0	65.4
- Between Argyle Ave. and Gower St.	40	10	30	35	240	2,400	10%	0	0	64.1
Hollywood Boulevard										
- Between Ivar Ave. and Vine St.	70	10	45	35	1,846	18,460	10%	0	0	71.0
- Between Vine St. and Argyle Ave.	60	10	40	35	2,042	20,420	10%	0	0	72.0
- Between Argyle Ave. and Gower St.	60	10	40	35	1,947	19,470	10%	0	0	71.7
Selma Avenue										
- Between Ivar Ave. and Vine St.	40	10	30	35	422	4,220	10%	0	0	66.5

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EXISTING + PROJECT CONDITIONS

Roadway Segment	Roadway Width*, ft	Distance to Edge of Roadway, ft	Distance to Centerline, feet	Speed mph	Traffic Volume PHV	Traffic Volume ADT	PHV to ADT factor	Barrier Atten.	Site Adjust., dBA	24-Hour CNEL
- Between Vine St. and Argyle Ave.	40	10	30	35	599	5,990	10%	0	0	68.0
- Between Argyle Ave. and Gower St.	40	10	30	35	380	3,800	10%	0	0	66.1
Sunset Boulevard										
- Between Vine St. and Argyle Ave.	70	10	45	35	2,975	29,750	10%	0	0	73.1
- Between Argyle Ave. and Gower St.	70	10	45	35	2,855	28,550	10%	0	0	72.9
- Between Gower St. and Bronson Ave.	70	10	45	35	3,207	32,070	10%	0	0	73.4

* Estimated based on Google Earth map.

** Calculated using FHWA's TNM Version 2.5 Computer Noise Model.

Date Printed: 1/17/2019

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Off-Site Traffic Noise Calculations
Project: Modera Argyle Project

Traffic Distribution as % of ADT				
Vehicle Type	**Day**	**Eve**	**Night**	**Sub total**
Auto	77.6%	9.7%	9.7%	97.0%
Medium Truck	1.6%	0.2%	0.2%	2.0%
Heavy Truck	0.8%	0.1%	0.1%	1.0%
	80.0%	10.0%	10.0%	100.0%

PHV to ADT factor 10%

EXISTING + PROJECT CONDITIONS

Roadway Segment	Roadway Width*, ft	Distance to Edge of Roadway, ft	Distance to Centerline, feet	Speed mph	Traffic Volume PHV	Traffic Volume ADT	PHV to ADT factor	Barrier Atten.	Site Adjust., dBA	24-Hour CNEL
Ivar Avenue										
- Between Yucca St. and Hollywood Blvd.	40	10	30	35	459	4,590	10%	0	0	66.9
- Between Hollywood Blvd. and Selma Ave.	40	10	30	35	565	5,650	10%	0	0	67.8
Vine Street										
- Between Yucca St. and Hollywood Blvd.	70	10	45	35	2,137	21,370	10%	0	0	71.7
- Between Hollywood Blvd. and Selma Ave.	70	10	45	35	2,365	23,650	10%	0	0	72.1
- Between Selma Ave. and Sunset Blvd.	70	10	45	35	2,345	23,450	10%	0	0	72.1
Argyle Avenue										
- Between Yucca St. and Hollywood Blvd.	50	10	35	35	730	7,300	10%	0	0	68.1
- Between Hollywood Blvd. and Selma Ave.	50	10	35	35	778	7,780	10%	0	0	68.4
- Between Selma Ave. and Sunset Blvd.	50	10	35	35	609	6,090	10%	0	0	67.3
Gower Street										
- Between Yucca St. and Hollywood Blvd.	60	10	40	35	1,498	14,980	10%	0	0	70.6
- Between Hollywood Blvd. and Selma Ave.	50	10	35	35	1,461	14,610	10%	0	0	71.1
- Between Selma Ave. and Sunset Blvd.	50	10	35	35	1,305	13,050	10%	0	0	70.6
Franklin Avenue										
- Between Argyle Ave. and Gower St.	50	10	35	35	2,045	20,450	10%	0	0	72.6
Yucca Street										
- Between Ivar Ave. and Vine St.	70	10	45	35	633	6,330	10%	0	0	66.4
- Between Vine St. and Argyle Ave.	70	10	45	35	504	5,040	10%	0	0	65.4
- Between Argyle Ave. and Gower St.	40	10	30	35	240	2,400	10%	0	0	64.1
Hollywood Boulevard										
- Between Ivar Ave. and Vine St.	70	10	45	35	1,857	18,570	10%	0	0	71.0
- Between Vine St. and Argyle Ave.	60	10	40	35	2,043	20,430	10%	0	0	72.0
- Between Argyle Ave. and Gower St.	60	10	40	35	1,948	19,480	10%	0	0	71.8
Selma Avenue										
- Between Ivar Ave. and Vine St.	40	10	30	35	425	4,250	10%	0	0	66.5

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EXISTING + PROJECT CONDITIONS

Roadway Segment	Roadway Width*, ft	Distance to Edge of Roadway, ft	Distance to Centerline, feet	Speed mph	Traffic Volume PHV	Traffic Volume ADT	PHV to ADT factor	Barrier Atten.	Site Adjust., dBA	24-Hour CNEL
- Between Vine St. and Argyle Ave.	40	10	30	35	603	6,030	10%	0	0	68.1
- Between Argyle Ave. and Gower St.	40	10	30	35	384	3,840	10%	0	0	66.1
Sunset Boulevard										
- Between Vine St. and Argyle Ave.	70	10	45	35	2,977	29,770	10%	0	0	73.1
- Between Argyle Ave. and Gower St.	70	10	45	35	2,857	28,570	10%	0	0	72.9
- Between Gower St. and Bronson Ave.	70	10	45	35	3,209	32,090	10%	0	0	73.4

* Estimated based on Google Earth map.

** Calculated using FHWA's TNM Version 2.5 Computer Noise Model.

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AES
ACOUSTICAL ENGINEERING SERVICES

Off-Site Traffic Noise Calculations
Project: Modera Argyle Project

Traffic Distribution as % of ADT				
Vehicle Type	**Day**	**Eve**	**Night**	**Sub total**
Auto	77.6%	9.7%	9.7%	97.0%
Medium Truck	1.6%	0.2%	0.2%	2.0%
Heavy Truck	0.8%	0.1%	0.1%	1.0%
	80.0%	10.0%	10.0%	100.0%

PHV to ADT factor 10%

FUTURE NO PROJECT CONDITIONS

Roadway Segment	Roadway Width*, ft	Distance to Edge of Roadway, ft	Distance to Centerline, feet	Speed mph	Traffic Volume PHV	Traffic Volume ADT	PHV to ADT factor	Barrier Atten.	Site Adjust., dBA	24-Hour CNEL
Ivar Avenue										
- Between Yucca St. and Hollywood Blvd.	40	10	30	35	485	4,850	10%	0	0	67.1
- Between Hollywood Blvd. and Selma Ave.	40	10	30	35	597	5,970	10%	0	0	68.0
Vine Street										
- Between Yucca St. and Hollywood Blvd.	70	10	45	35	2,608	26,080	10%	0	0	72.5
- Between Hollywood Blvd. and Selma Ave.	70	10	45	35	2,781	27,810	10%	0	0	72.8
- Between Selma Ave. and Sunset Blvd.	70	10	45	35	2,794	27,940	10%	0	0	72.8
Argyle Avenue										
- Between Yucca St. and Hollywood Blvd.	50	10	35	35	878	8,780	10%	0	0	68.9
- Between Hollywood Blvd. and Selma Ave.	50	10	35	35	836	8,360	10%	0	0	68.7
- Between Selma Ave. and Sunset Blvd.	50	10	35	35	636	6,360	10%	0	0	67.5
Gower Street										
- Between Yucca St. and Hollywood Blvd.	60	10	40	35	1,685	16,850	10%	0	0	71.1
- Between Hollywood Blvd. and Selma Ave.	50	10	35	35	1,781	17,810	10%	0	0	72.0
- Between Selma Ave. and Sunset Blvd.	50	10	35	35	1,622	16,220	10%	0	0	71.6
Franklin Avenue										
- Between Argyle Ave. and Gower St.	50	10	35	35	2,292	22,920	10%	0	0	73.1
Yucca Street										
- Between Ivar Ave. and Vine St.	70	10	45	35	738	7,380	10%	0	0	67.0
- Between Vine St. and Argyle Ave.	70	10	45	35	655	6,550	10%	0	0	66.5
- Between Argyle Ave. and Gower St.	40	10	30	35	371	3,710	10%	0	0	65.9
Hollywood Boulevard										
- Between Ivar Ave. and Vine St.	70	10	45	35	2,650	26,500	10%	0	0	72.6
- Between Vine St. and Argyle Ave.	60	10	40	35	2,874	28,740	10%	0	0	73.4
- Between Argyle Ave. and Gower St.	60	10	40	35	2,800	28,000	10%	0	0	73.3
Selma Avenue										
- Between Ivar Ave. and Vine St.	40	10	30	35	426	4,260	10%	0	0	66.5

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FUTURE NO PROJECT CONDITIONS

Roadway Segment	Roadway Width*, ft	Distance to Edge of Roadway, ft	Distance to Centerline, feet	Speed mph	Traffic Volume PHV	Traffic Volume ADT	PHV to ADT factor	Barrier Atten.	Site Adjust., dBA	24-Hour CNEL
- Between Vine St. and Argyle Ave.	40	10	30	35	582	5,820	10%	0	0	67.9
- Between Argyle Ave. and Gower St.	40	10	30	35	318	3,180	10%	0	0	65.3
Sunset Boulevard										
- Between Vine St. and Argyle Ave.	70	10	45	35	3,972	39,720	10%	0	0	74.3
- Between Argyle Ave. and Gower St.	70	10	45	35	3,905	39,050	10%	0	0	74.3
- Between Gower St. and Bronson Ave.	70	10	45	35	4,286	42,860	10%	0	0	74.7

* Estimated based on Google Earth map.

** Calculated using FHWA's TNM Version 2.5 Computer Noise Model.

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ACOUSTICAL ENGINEERING SERVICES

Off-Site Traffic Noise Calculations
Project: Modera Argyle Project

Traffic Distribution as % of ADT				
Vehicle Type	**Day**	**Eve**	**Night**	**Sub total**
Auto	77.6%	9.7%	9.7%	97.0%
Medium Truck	1.6%	0.2%	0.2%	2.0%
Heavy Truck	0.8%	0.1%	0.1%	1.0%
	80.0%	10.0%	10.0%	100.0%

PHV to ADT factor 10%

FUTURE + PROJECT CONDITIONS

Roadway Segment	Roadway Width*, ft	Distance to Edge of Roadway, ft	Distance to Centerline, feet	Speed mph	Traffic Volume PHV	Traffic Volume ADT	PHV to ADT factor	Barrier Atten.	Site Adjust., dBA	24-Hour CNEL
Ivar Avenue										
- Between Yucca St. and Hollywood Blvd.	40	10	30	35	485	4,850	10%	0	0	67.1
- Between Hollywood Blvd. and Selma Ave.	40	10	30	35	597	5,970	10%	0	0	68.0
Vine Street										
- Between Yucca St. and Hollywood Blvd.	70	10	45	35	2,627	26,270	10%	0	0	72.6
- Between Hollywood Blvd. and Selma Ave.	70	10	45	35	2,800	28,000	10%	0	0	72.8
- Between Selma Ave. and Sunset Blvd.	70	10	45	35	2,799	27,990	10%	0	0	72.8
Argyle Avenue										
- Between Yucca St. and Hollywood Blvd.	50	10	35	35	893	8,930	10%	0	0	69.0
- Between Hollywood Blvd. and Selma Ave.	50	10	35	35	862	8,620	10%	0	0	68.8
- Between Selma Ave. and Sunset Blvd.	50	10	35	35	679	6,790	10%	0	0	67.8
Gower Street										
- Between Yucca St. and Hollywood Blvd.	60	10	40	35	1,699	16,990	10%	0	0	71.2
- Between Hollywood Blvd. and Selma Ave.	50	10	35	35	1,795	17,950	10%	0	0	72.0
- Between Selma Ave. and Sunset Blvd.	50	10	35	35	1,624	16,240	10%	0	0	71.6
Franklin Avenue										
- Between Argyle Ave. and Gower St.	50	10	35	35	2,292	22,920	10%	0	0	73.1
Yucca Street										
- Between Ivar Ave. and Vine St.	70	10	45	35	738	7,380	10%	0	0	67.0
- Between Vine St. and Argyle Ave.	70	10	45	35	655	6,550	10%	0	0	66.5
- Between Argyle Ave. and Gower St.	40	10	30	35	371	3,710	10%	0	0	65.9
Hollywood Boulevard										
- Between Ivar Ave. and Vine St.	70	10	45	35	2,661	26,610	10%	0	0	72.6
- Between Vine St. and Argyle Ave.	60	10	40	35	2,885	28,850	10%	0	0	73.5
- Between Argyle Ave. and Gower St.	60	10	40	35	2,806	28,060	10%	0	0	73.3
Selma Avenue										
- Between Ivar Ave. and Vine St.	40	10	30	35	462	4,620	10%	0	0	66.9

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FUTURE + PROJECT CONDITIONS

Roadway Segment	Roadway Width*, ft	Distance to Edge of Roadway, ft	Distance to Centerline, feet	Speed mph	Traffic Volume PHV	Traffic Volume ADT	PHV to ADT factor	Barrier Atten.	Site Adjust., dBA	24-Hour CNEL
- Between Vine St. and Argyle Ave.	40	10	30	35	642	6,420	10%	0	0	68.3
- Between Argyle Ave. and Gower St.	40	10	30	35	399	3,990	10%	0	0	66.3
Sunset Boulevard										
- Between Vine St. and Argyle Ave.	70	10	45	35	3,991	39,910	10%	0	0	74.4
- Between Argyle Ave. and Gower St.	70	10	45	35	3,941	39,410	10%	0	0	74.3
- Between Gower St. and Bronson Ave.	70	10	45	35	4,323	43,230	10%	0	0	74.7

* Estimated based on Google Earth map.

** Calculated using FHWA's TNM Version 2.5 Computer Noise Model.

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Off-Site Traffic Noise Calculations
Project: 222 West 2nd

Traffic Distribution as % of ADT				
Vehicle Type	**Day**	**Eve**	**Night**	**Sub total**
Auto	77.6%	9.7%	9.7%	97.0%
Medium Truck	1.6%	0.2%	0.2%	2.0%
Heavy Truck	0.8%	0.1%	0.1%	1.0%
	80.0%	10.0%	10.0%	100.0%

PHV to ADT factor 10%

FUTURE + PROJECT CONDITIONS

Roadway Segment	Roadway Width*, ft	Distance to Edge of Roadway, ft	Distance to Centerline, feet	Speed mph	Traffic Volume PHV	Traffic Volume ADT	PHV to ADT factor	Barrier Atten.	Site Adjust., dBA	24-Hour CNEL
Ivar Avenue										
- Between Yucca St. and Hollywood Blvd.	40	10	30	35	487	4,870	10%	0	0	67.1
- Between Hollywood Blvd. and Selma Ave.	40	10	30	35	600	6,000	10%	0	0	68.0
Vine Street										
- Between Yucca St. and Hollywood Blvd.	70	10	45	35	2,627	26,270	10%	0	0	72.6
- Between Hollywood Blvd. and Selma Ave.	70	10	45	35	2,800	28,000	10%	0	0	72.8
- Between Selma Ave. and Sunset Blvd.	70	10	45	35	2,800	28,000	10%	0	0	72.8
Argyle Avenue										
- Between Yucca St. and Hollywood Blvd.	50	10	35	35	895	8,950	10%	0	0	69.0
- Between Hollywood Blvd. and Selma Ave.	50	10	35	35	865	8,650	10%	0	0	68.8
- Between Selma Ave. and Sunset Blvd.	50	10	35	35	674	6,740	10%	0	0	67.7
Gower Street										
- Between Yucca St. and Hollywood Blvd.	60	10	40	35	1,699	16,990	10%	0	0	71.2
- Between Hollywood Blvd. and Selma Ave.	50	10	35	35	1,795	17,950	10%	0	0	72.0
- Between Selma Ave. and Sunset Blvd.	50	10	35	35	1,624	16,240	10%	0	0	71.6
Franklin Avenue										
- Between Argyle Ave. and Gower St.	50	10	35	35	2,292	22,920	10%	0	0	73.1
Yucca Street										
- Between Ivar Ave. and Vine St.	70	10	45	35	738	7,380	10%	0	0	67.0
- Between Vine St. and Argyle Ave.	70	10	45	35	655	6,550	10%	0	0	66.5
- Between Argyle Ave. and Gower St.	40	10	30	35	371	3,710	10%	0	0	65.9
Hollywood Boulevard										
- Between Ivar Ave. and Vine St.	70	10	45	35	2,672	26,720	10%	0	0	72.6
- Between Vine St. and Argyle Ave.	60	10	40	35	2,886	28,860	10%	0	0	73.5
- Between Argyle Ave. and Gower St.	60	10	40	35	2,806	28,060	10%	0	0	73.3
Selma Avenue										
- Between Ivar Ave. and Vine St.	40	10	30	35	465	4,650	10%	0	0	66.9

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FUTURE + PROJECT CONDITIONS

Roadway Segment	Roadway Width*, ft	Distance to Edge of Roadway, ft	Distance to Centerline, feet	Speed mph	Traffic Volume PHV	Traffic Volume ADT	PHV to ADT factor	Barrier Atten.	Site Adjust., dBA	24-Hour CNEL
- Between Vine St. and Argyle Ave.	40	10	30	35	645	6,450	10%	0	0	68.4
- Between Argyle Ave. and Gower St.	40	10	30	35	403	4,030	10%	0	0	66.3
Sunset Boulevard										
- Between Vine St. and Argyle Ave.	70	10	45	35	3,993	39,930	10%	0	0	74.4
- Between Argyle Ave. and Gower St.	70	10	45	35	3,942	39,420	10%	0	0	74.3
- Between Gower St. and Bronson Ave.	70	10	45	35	4,325	43,250	10%	0	0	74.7

* Estimated based on Google Earth map.

** Calculated using FHWA's TNM Version 2.5 Computer Noise Model.

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