

Appendix H  
**Supporting Noise and Vibration Analysis  
Documentation**

---



## Residential Noise Impact Descriptions for Valley Rail Sacramento Extension Project

Location	Side of Track	Near Track Dist (feet)	Max Train Speed (mph)	Existing Noise (dBA)	Project Noise Levels (dBA)			Type and # of Impacts	
					Increase	FTA Criteria		Mod.	Sev.
						Mod.	Sev.		
East Weber Avenue to East Harding Way	NB	454	44	62.3	0.1	1.7	4.4	0	0
East Weber Avenue to East Harding Way	SB	274	44	64.5	0.3	1.5	3.8	0	0
East Harding Way to East Alpine Avenue	NB	323	44	59.2	0.2	2.2	5.3	0	0
East Harding Way to East Alpine Avenue	SB	42	44	68.0	0.7	1.2	3.1	0	0
East Alpine Avenue to Bianchi Road	NB	88	44	69.4	0.6	1.1	2.8	0	0
East Alpine Avenue to Bianchi Road	SB	98	44	68.9	0.6	1.1	2.9	0	0
Bianchi Road to East Swain Road	NB	58	44	61.5	1.6	1.8	4.6	0	0
Bianchi Road to East Swain Road	SB	64	44	61.1	1.5	1.9	4.7	0	0
East Swain Road to East Hammer Lane	NB	81	44	60.1	1.3	2.0	5.0	0	0
East Swain Road to East Hammer Lane	SB	70	44	60.7	1.4	1.9	4.8	0	0
East Hammer Lane to Mosher Creek	NB	116	44	55.8	1.8	2.9	6.7	0	0
East Hammer Lane to Mosher Creek	SB	60	44	58.7	2.5	2.3	5.5	16	0
Mosher Creek to Morada Lane	NB	97	44	56.6	2.0	2.7	6.4	0	0
Mosher Creek to Morada Lane	SB	79	44	57.5	2.2	2.5	6.0	0	0
Lower Sacramento Road to Eight Mile Road	NB	246	44	52.6	0.5	4.0	8.5	0	0
Lower Sacramento Road to Eight Mile Road	SB	98	44	56.6	2.0	2.8	6.4	0	0
Eight Mile Road to Armstrong Road	NB	154	44	67.0	0.5	1.2	3.3	0	0
Eight Mile Road to Armstrong Road	SB	173	44	66.5	0.4	1.3	3.4	0	0
West Harney Lane to SR 12	NB	84	44	69.6	1.1	1.1	2.8	1	0
West Harney Lane to SR 12	SB	102	68	68.8	0.6	1.1	3.0	0	0

## Residential Noise Impact Descriptions for Valley Rail Sacramento Extension Project

Location	Side of Track	Near Track Dist (feet)	Max Train Speed (mph)	Existing Noise (dBA)	Project Noise Levels (dBA)			Type and # of Impacts	
					Increase	FTA Criteria		Mod.	Sev.
						Mod.	Sev.		
SR 12 to West Sargent Road	NB	404	68	62.8	0.3	1.7	4.2	0	0
SR 12 to West Sargent Road	SB	471	68	62.1	0.3	1.7	4.4	0	0
West Sargent Road to West Turner Road	NB	No noise sensitive receivers.							
West Sargent Road to West Turner Road	SB	517	68	61.7	0.2	1.8	4.5	0	0
West Turner Road to West Woodbridge Road	NB	99	68	68.9	0.6	1.1	2.9	0	0
West Turner Road to West Woodbridge Road	SB	237	68	58.0	0.5	2.4	5.8	0	0
West Woodbridge Road to West Peltier Road	NB	152	68	59.9	0.7	2.1	5.1	0	0
West Woodbridge Road to West Peltier Road	SB	669	68	60.6	0.2	2.0	4.9	0	0
West Peltier Road to Thornton Road	NB	No noise sensitive receivers.							
West Peltier Road to Thornton Road	SB	226	68	58.2	0.5	2.4	5.7	0	0
Thornton	NB	144	68	60.2	2.1	2.0	5.0	1	0
Thornton	SB	198	68	58.8	1.8	2.3	5.5	0	0
North New Hope Road to Mokelumne River	NB	105	68	61.5	1.9	1.8	4.6	1	0
North New Hope Road to Mokelumne River	SB	149	68	60.0	0.7	2.1	5.1	0	0
Lambert Road to Core Road	NB	275	68	57.3	0.5	2.6	6.1	0	0
Lambert Road to Core Road	SB	215	68	65.5	0.4	1.4	3.5	0	0
Core Road to Bilby Road	NB	133	68	60.5	0.7	2.0	4.9	0	0
Core Road to Bilby Road	SB	342	68	56.4	0.2	2.8	6.5	0	0
Bilby Road to Whitelock Parkway	NB	274	68	57.3	0.5	2.6	6.1	0	0

## Residential Noise Impact Descriptions for Valley Rail Sacramento Extension Project

Location	Side of Track	Near Track Dist (feet)	Max Train Speed (mph)	Existing Noise (dBA)	Project Noise Levels (dBA)			Type and # of Impacts	
					Increase	FTA Criteria		Mod.	Sev.
						Mod.	Sev.		
Bilby Road to Whitelock Parkway	SB	197	68	58.8	0.6	2.3	5.5	0	0
Elk Grove Boulevard to Laguna Boulevard	NB	254	68	54.0	0.4	3.5	7.6	0	0
Elk Grove Boulevard to Laguna Boulevard	SB	256	68	54.0	0.4	3.5	7.7	0	0
Laguna Boulevard to Cosumnes River Boulevard	NB	271	68	53.7	0.9	3.6	7.8	0	0
Laguna Boulevard to Cosumnes River Boulevard	SB	No noise sensitive receivers.							
Cosumnes River Boulevard to Meadowview Road	NB	286	25	51.2	1.6	4.5	9.3	0	0
Cosumnes River Boulevard to Meadowview Road	SB	140	25	54.3	2.2	3.4	7.5	0	0
Meadowview Road to Florin Road	NB	206	25	52.7	1.8	3.9	8.4	0	0
Meadowview Road to Florin Road	SB	99	25	55.8	2.6	2.9	6.7	0	0
Florin Road to 47th Avenue	NB	69	25	57.4	3.1	2.5	6.0	14	0
Florin Road to 47th Avenue	SB	157	25	53.8	2.1	3.5	7.7	0	0
47th Avenue to Fruitridge Road	NB	181	25	54.1	0.7	3.4	7.6	0	0
47th Avenue to Fruitridge Road	SB	185	25	54.1	0.6	3.5	7.6	0	0
Fruitridge Road to Sutterville Road	NB	67	25	58.5	2.6	2.3	5.6	2	0
Fruitridge Road to Sutterville Road	SB	418	25	50.5	1.1	4.8	9.7	0	0
Sutterville Road to 5th Avenue	NB	216	19	51.7	2.4	4.3	8.9	0	0
Sutterville Road to 5th Avenue	SB	267	19	50.8	2.2	4.6	9.5	0	0
5th Avenue to Highway 50	NB	115	19	54.5	3.4	3.3	7.4	2	0
5th Avenue to Highway 50	SB	128	19	54.0	3.1	3.5	7.7	0	0

## Residential Noise Impact Descriptions for Valley Rail Sacramento Extension Project

Location	Side of Track	Near Track Dist (feet)	Max Train Speed (mph)	Existing Noise (dBA)	Project Noise Levels (dBA)			Type and # of Impacts	
					Increase	FTA Criteria			
						Mod.	Sev.	Mod.	Sev.
Highway 50 to K Street	NB	71	19	67.1	0.5	1.2	3.2	0	0
Highway 50 to K Street	SB	88	22	66.2	0.4	1.3	3.4	0	0
K Street to C Street	NB	55	22	68.2	0.5	1.2	3.1	0	0
K Street to C Street	SB	44	22	69.2	0.6	1.1	2.9	0	0
C Street to Arden Way	NB	220	22	62.2	0.2	1.7	4.4	0	0
C Street to Arden Way	SB	No noise sensitive receivers.							
Arden Way to Lampasas Avenue	NB	145	33	58.2	0.9	2.4	5.7	0	0
Arden Way to Lampasas Avenue	SB	No noise sensitive receivers.							
Lampasas Avenue to Silver Eagle Road	NB	147	33	58.2	1.2	2.4	5.7	0	0
Lampasas Avenue to Silver Eagle Road	SB	No noise sensitive receivers.							
Silver Eagle Road to I-80	NB	169	33	57.6	0.8	2.5	6.0	0	0
Silver Eagle Road to I-80	SB	No noise sensitive receivers.							
Main Avenue to West Ascot Avenue	NB	No noise sensitive receivers.							
Main Avenue to West Ascot Avenue	SB	411	33	57.6	0.2	2.5	6.0	0	0
West Ascot Avenue to West Elkhorn Boulevard	NB	227	33	60.2	0.4	2.0	5.0	0	0
West Ascot Avenue to West Elkhorn Boulevard	SB								
<b>Institutional Receivers</b>									
Jane Frederick High School	NB	467	44	51	1.4	8.2	13.8	0	0
Stockton Pre-School	NB	587	44	50	0.9	8.8	14.5	0	0
Iglesia Nueva Vido En Cristo	SB	1049	44	48	0.5	10.3	16.4	0	0
Richard Pittman Elementary School	SB	725	44	49	0.8	9.3	15.2	0	0
Temple Israel Cemetery	NB	426	44	52	1.4	8.0	13.5	0	0

## Residential Noise Impact Descriptions for Valley Rail Sacramento Extension Project

Location	Side of Track	Near Track Dist (feet)	Max Train Speed (mph)	Existing Noise (dBA)	Project Noise Levels (dBA)			Type and # of Impacts	
					Increase	FTA Criteria		Mod.	Sev.
						Mod.	Sev.		
Health Careers Academy	SB	70	44	55	4.9	6.3	11.4	0	0
San Joaquin Catholic Cemetery	SB	465	44	47	0.3	10.8	17.1	0	0
Stockton Rural Cemetery	SB	110	44	53	4.0	7.2	12.6	0	0
Valley Ministries MCC	NB	354	44	48	1.0	10.0	16.1	0	0
Delta Bridges K-8 Charter School	SB	730	44	46	0.8	11.3	17.6	0	0
Community Medical Centers	NB	336	44	44	2.4	13.1	19.7	0	0
Congregation of Zion	NB	95	44	49	7.6	9.3	15.2	0	0
Mary Help of Christians Center	NB	116	44	49	7.1	9.8	15.8	0	0
Turner School	NB	833	68	64	0.1	3.7	7.6	0	0
New Hope Elementary School	SB	695	68	50	1.1	8.9	14.7	0	0
Nichirin Buddhist Church	SB	483	25	47	0.8	11.1	17.4	0	0
Seven Stars Baptist Church	SB	225	25	50	1.6	8.9	14.7	0	0
Resurrection Christian Center	SB	113	25	53	4.6	7.4	12.8	0	0
Wo'se Community Church	SB	267	25	49	1.5	9.4	15.3	0	0
Calvary Chapel Rivercity Church	NB	377	19	46	1.1	11.4	17.7	0	0
Victory Restoration Center	NB	181	19	49	1.0	9.4	15.3	0	0
Bayside Church	SB	68	19	64	1.5	3.6	7.5	0	0
Thistle Dew Dessert Theatre	SB	164	22	60	0.2	4.6	8.9	0	0
The Formulation Room	SB	401	22	56	0.1	5.9	10.8	0	0

**Notes:**

dBA = A-weighted decibel

Dist. = Distance

Mod. = Moderate Impact

Sev. = Severe Impact

### Residential Vibration Impact Descriptions for Sacramento Extension

Location	Side of Track	Near Track Dist (feet)	Max Train Speed (mph)	Vibration Levels (VdB)		Number of Impacts
				Project Level	FTA Criteria	
North New Hope Road to Mokelumne River	NB	202	68	86	80	1
North New Hope Road to Mokelumne River	SB	No vibration-sensitive receivers.				
Laguna Boulevard to Cosumnes River Boulevard	NB	187	25	80	80	0
Laguna Boulevard to Cosumnes River Boulevard	SB	No vibration-sensitive receivers.				
Cosumnes River Boulevard to Meadowview Road	NB	254	25	79	80	0
Cosumnes River Boulevard to Meadowview Road	SB	85	25	79	80	0
Meadowview Road to Florin Road	NB	181	25	73	80	0
Meadowview Road to Florin Road	SB	No vibration-sensitive receivers.				
Fruitridge Road to Sutterville Road	NB	254	25	79	80	0
Fruitridge Road to Sutterville Road	SB	108	25	81	80	1
Sutterville Road to 5th Avenue	NB	No vibration-sensitive receivers.				
Sutterville Road to 5th Avenue	SB	264	19	67	80	0
5th Avenue to Highway 50	NB	220	19	76	80	0
5th Avenue to Highway 50	SB	No vibration-sensitive receivers.				
Lampasas Avenue to Silver Eagle Road	NB	322	33	76	80	0
Lampasas Avenue to Silver Eagle Road	SB	No vibration sensitive receivers.				
West Ascot Avenue to West Elkhorn Boulevard	NB	221	33	72	80	0
West Ascot Avenue to West Elkhorn Boulevard	SB	No vibration-sensitive receivers.				