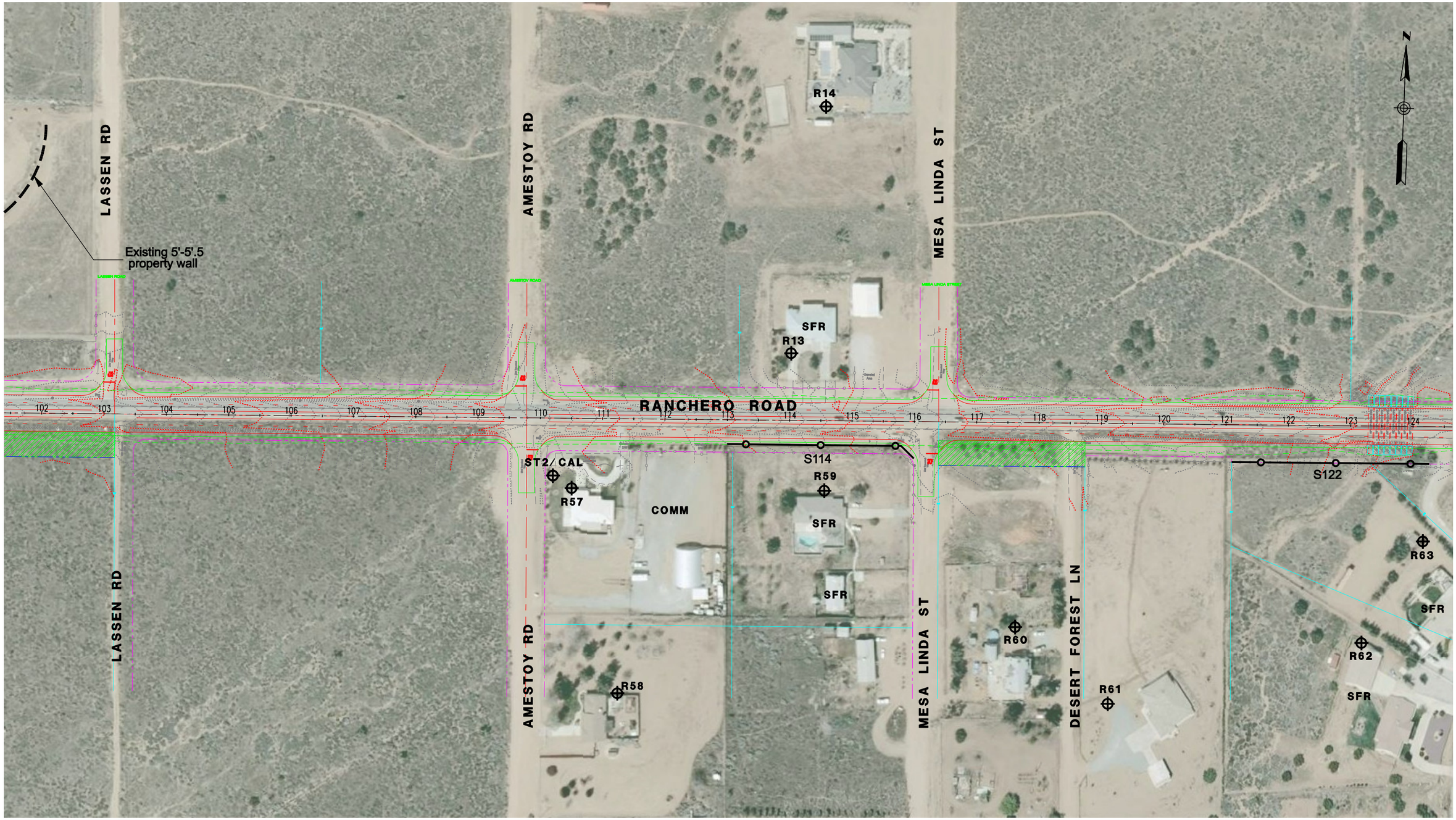


LEGEND

- Rxx – NOISE RECEIVERS SITE
- ST – SHORTERM MEASUREMENT
- LT – LONGTERM MEASUREMENT
- SFR – SINGLE FAMILY RESIDENTIAL
- COMM – COMMERCIAL
- – – – – – EXISTING WALL
- SOUNDWALL

1 : 150ft

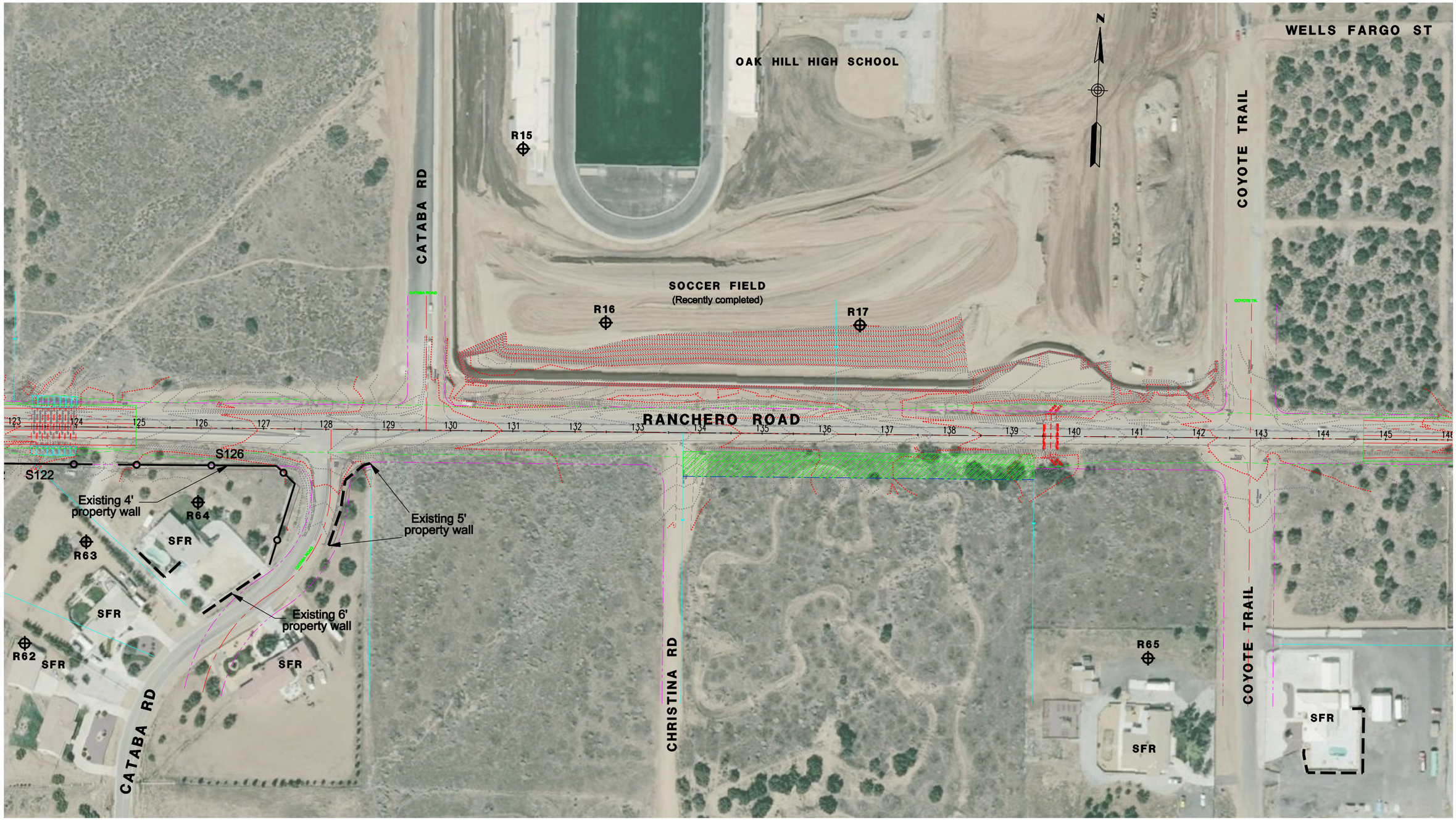
0ft 75ft 150ft 225ft 300ft

PARSONS
100 WEST WALNUT ST.
PASADENA, CA 91124
(626) 440-6100

RANCHERO ROAD WIDENING PROJECT NOISE RECEIVERS AND BARRIER LOCATIONS

OCTOBER 21, 2011

FIGURE 3



LEGEND

- Rxx – NOISE RECEIVERS SITE
- ST – SHORTERM MEASUREMENT
- LT – LONGTERM MEASUREMENT
- SFR – SINGLE FAMILY RESIDENTIAL
- COMM – COMMERCIAL
- – – – – – – – – EXISTING WALL
- SOUNDWALL

1 : 150ft

0ft 75ft 150ft 225ft 300ft

PARSONS
100 WEST WALNUT ST.
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(626) 440-6100

RANCHERO ROAD WIDENING PROJECT
NOISE RECEIVERS AND BARRIER LOCATIONS

OCTOBER 21, 2011

FIGURE 4

WELLS FARGO ST

WELLS FARGO ST

SFR

R18

THE SOLID ROCK
DAY CARE
CHURCH

R20

FOLEY RD

R21

SFR

SFR

R19

ST3/CAL

S147

S151

R22

RANCHERO ROAD

145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167

S148

R66

SFR

SFR

R67

R68

SFR

KUKI ST

FOLEY RD

Existing 5.75'
property wall

SFR

SFR

N

LEGEND

- Rxx – NOISE RECEIVERS SITE
- ST – SHORTERM MEASUREMENT
- LT – LONGTERM MEASUREMENT
- SFR – SINGLE FAMILY RESIDENTIAL
- COMM – COMMERCIAL
- – – – – – EXISTING WALL
- —o—o— SOUNDWALL

1 : 150ft

0ft 75ft 150ft 225ft 300ft

PARSONS
100 WEST WALNUT ST.
PASADENA, CA 91124
(626) 440-6100

RANCHERO ROAD WIDENING PROJECT
NOISE RECEIVERS AND BARRIER LOCATIONS

OCTOBER 21, 2011

FIGURE 5

LEGEND

- ⊕ Rxx – NOISE RECEIVERS SITE
- ⊕ ST – SHORTERM MEASUREMENT
- ⊕ LT – LONGTERM MEASUREMENT
- SFR – SINGLE FAMILY RESIDENTIAL
- COMM – COMMERCIAL
- – · – · – EXISTING WALL
- –o–o– SOUNDWALL

1 : 150ft

0ft 75ft 150ft 225ft 300ft

PARSONS
100 WEST WALNUT ST.
PASADENA, CA 91124
(626) 440-6100

RANCHERO ROAD WIDENING PROJECT
NOISE RECEIVERS AND BARRIER LOCATIONS

OCTOBER 21, 2011 | FIGURE 6

LEGEND

- Rxx – NOISE RECEIVERS SITE
- ST – SHORTERM MEASUREMENT
- LT – LONGTERM MEASUREMENT
- SFR – SINGLE FAMILY RESIDENTIAL
- COMM – COMMERCIAL
- – – – – EXISTING WALL
- —o—o— SOUNDWALL

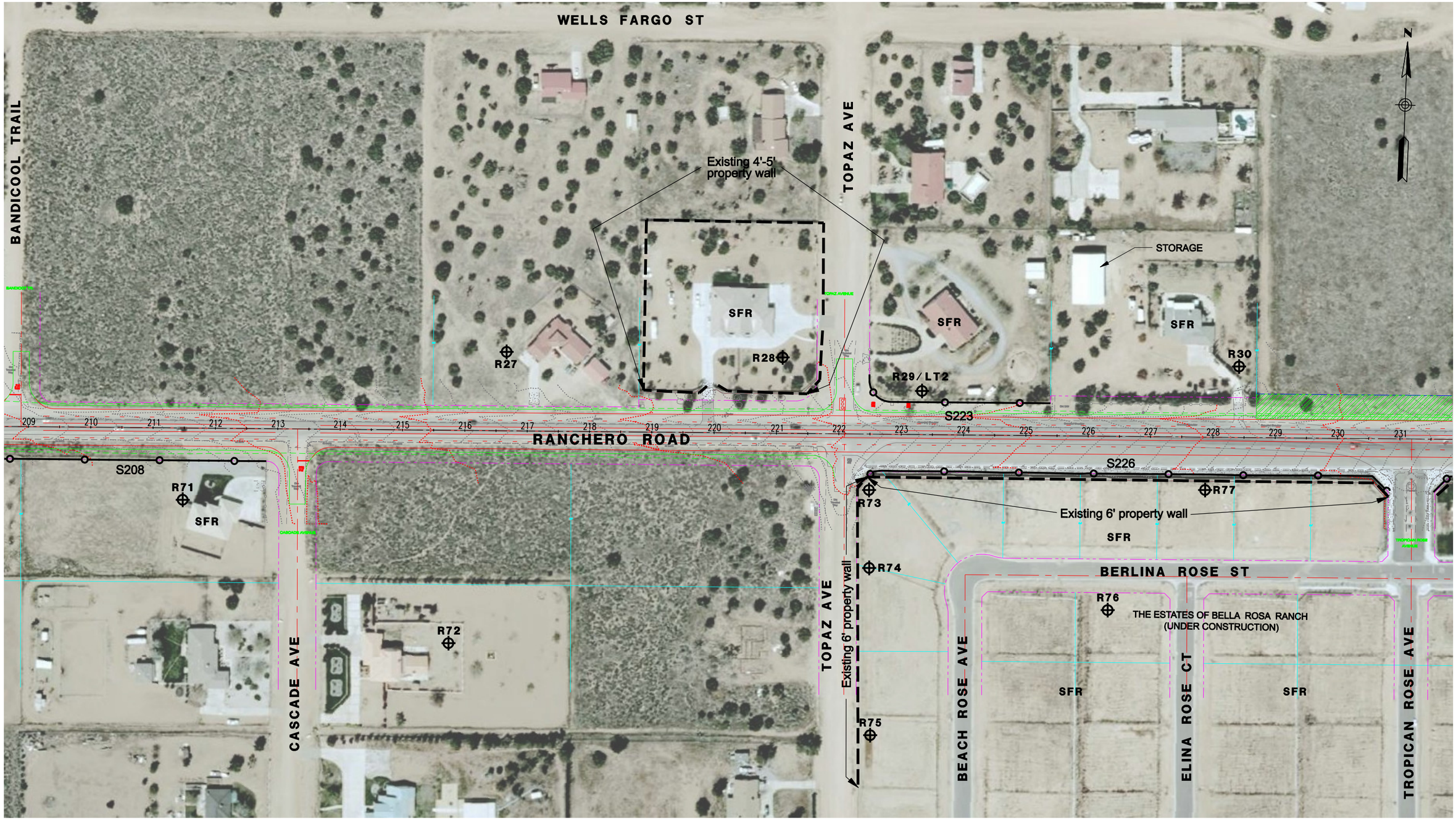
1 : 150ft

0ft 75ft 150ft 225ft 300ft

PARSONS
100 WEST WALNUT ST.
PASADENA, CA 91124
(626) 440-6100

RANCHERO ROAD WIDENING PROJECT NOISE RECEIVERS AND BARRIER LOCATIONS

OCTOBER 21, 2011 | FIGURE 7



LEGEND

- ⊕ Rxx – NOISE RECEIVERS SITE
- ⊕ ST – SHORTERM MEASUREMENT
- ⊕ LT – LONGTERM MEASUREMENT
- SFR – SINGLE FAMILY RESIDENTIAL
- COMM – COMMERCIAL
- – – – – · – EXISTING WALL
- –o–o– SOUNDWALL

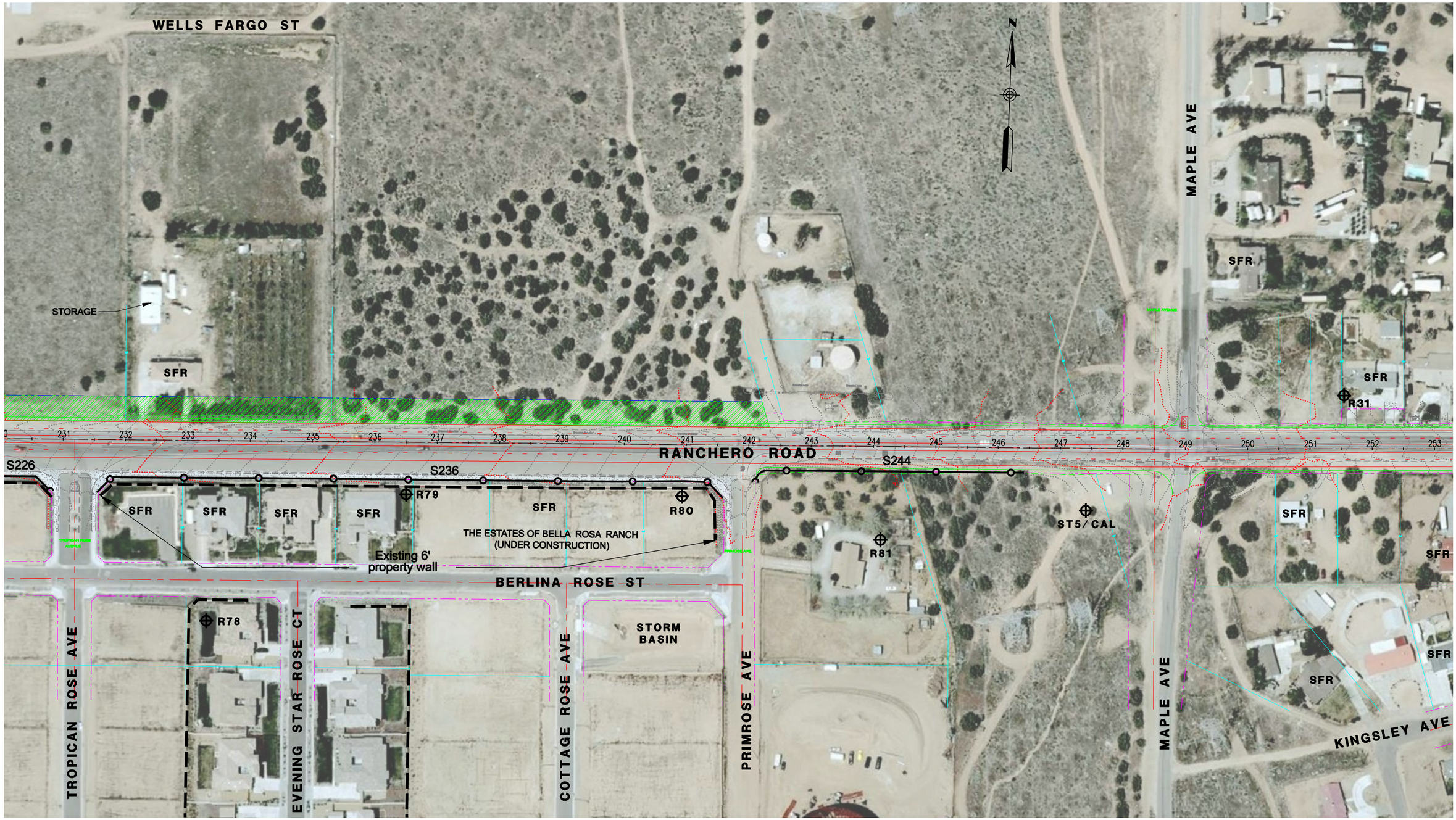
1 : 150ft

0ft 75ft 150ft 225ft 300ft

PARSONS
100 WEST WALNUT ST.
PASADENA, CA 91124
(626) 440-6100

RANCHERO ROAD WIDENING PROJECT
NOISE RECEIVERS AND BARRIER LOCATIONS

OCTOBER 21, 2011 | FIGURE 8



LEGEND

- Rxx – NOISE RECEIVERS SITE
- ST – SHORTERM MEASUREMENT
- LT – LONGTERM MEASUREMENT
- SFR – SINGLE FAMILY RESIDENTIAL
- COMM – COMMERCIAL
- – – – – – – EXISTING WALL
- SOUNDWALL

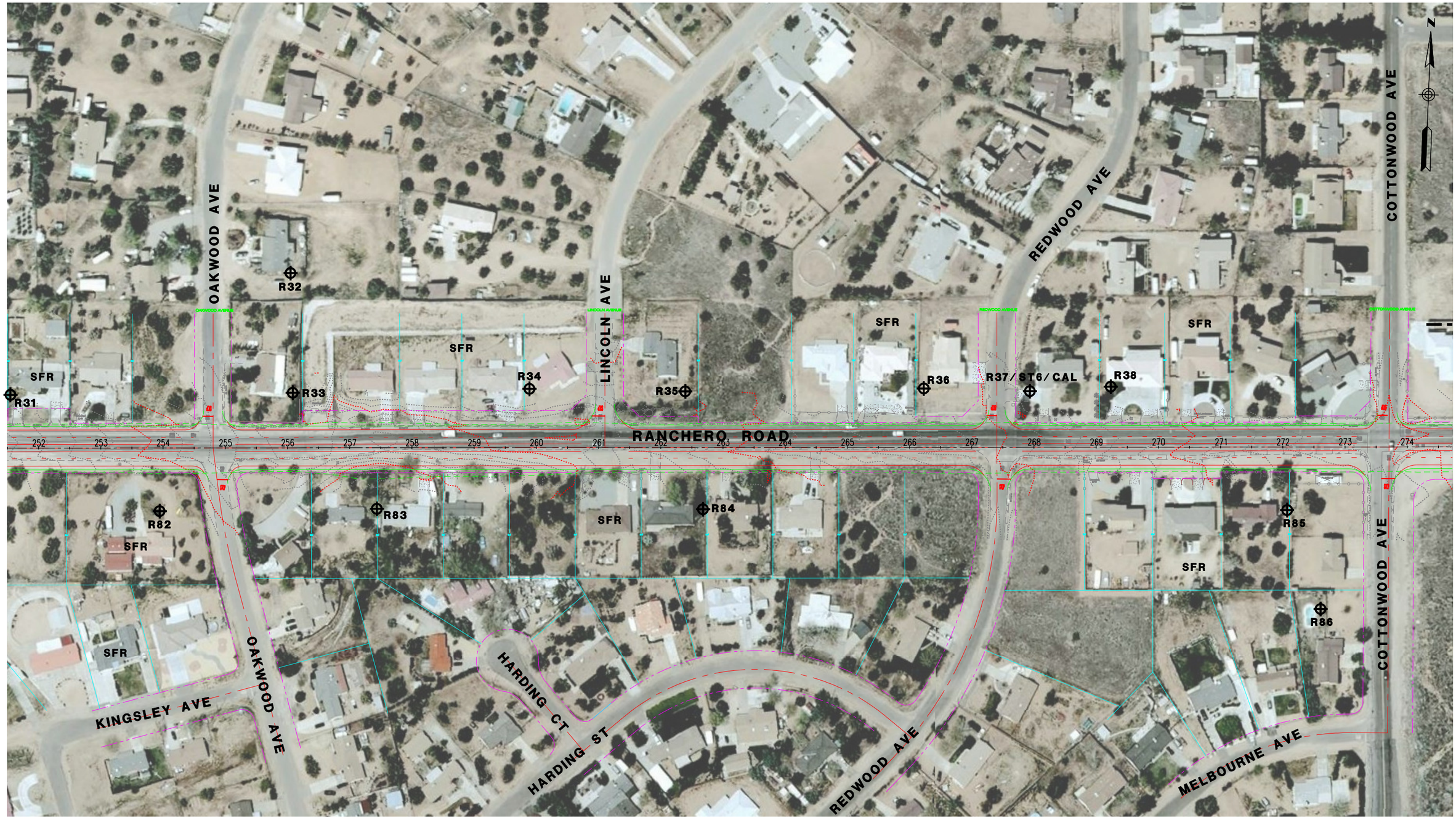
1 : 150ft

0ft 75ft 150ft 225ft 300ft

PARSONS
100 WEST WALNUT ST.
PASADENA, CA 91124
(626) 440-6100

RANCHERO ROAD WIDENING PROJECT
NOISE RECEIVERS AND BARRIER LOCATIONS

OCTOBER 21, 2011 | FIGURE 9



LEGEND

- ⊕ Rxx – NOISE RECEIVERS SITE
- ⊕ ST – SHORTERM MEASUREMENT
- ⊕ LT – LONGTERM MEASUREMENT
- SFR – SINGLE FAMILY RESIDENTIAL
- COMM – COMMERCIAL
- – – – · – EXISTING WALL
- –o–o– SOUNDWALL

1 : 150ft

0ft 75ft 150ft 225ft 300ft

PARSONS
100 WEST WALNUT ST.
PASADENA, CA 91124
(626) 440-6100

RANCHERO ROAD WIDENING PROJECT
NOISE RECEIVERS AND BARRIER LOCATIONS

OCTOBER 21, 2011 | FIGURE 10

LEGEND

- ⊕Rxx – NOISE RECEIVERS SITE
- ⊕ST – SHORTERM MEASUREMENT
- ⊕LT – LONGTERM MEASUREMENT
- SFR – SINGLE FAMILY RESIDENTIAL
- COMM – COMMERCIAL
- – – – – EXISTING WALL
- ⊸—⊸ – SOUNDWALL

1 : 150ft

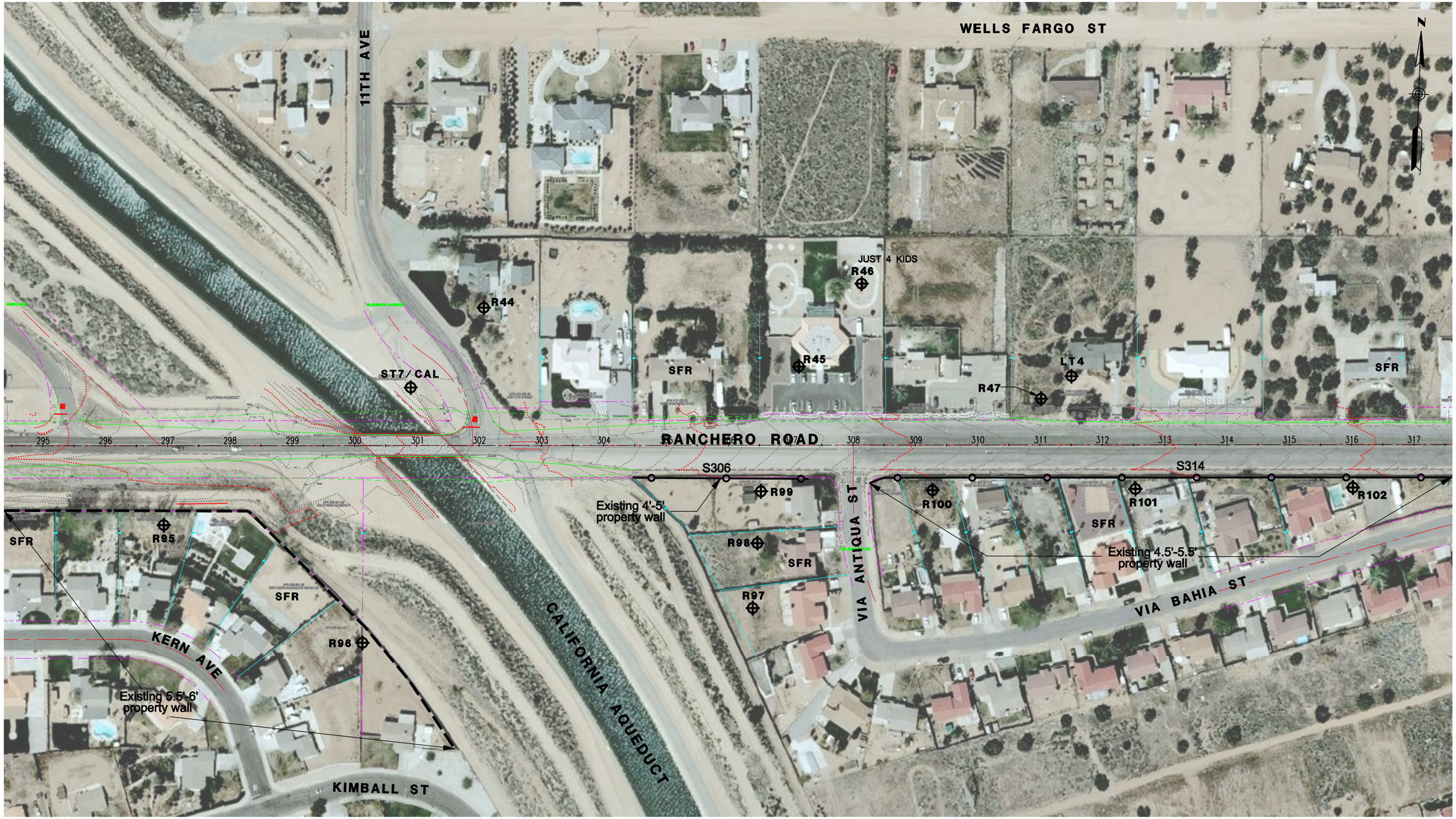
75ft 225ft

0ft 150ft 300ft

PARSONS
100 WEST WALNUT ST.
PASADENA, CA 91124
(626) 440-6100

RANCHERO ROAD WIDENING PROJECT NOISE RECEIVERS AND BARRIER LOCATIONS

OCTOBER 21, 2011 | FIGURE 11



LEGEND

- Rxx – NOISE RECEIVERS SITE
- ST – SHORTERM MEASUREMENT
- LT – LONGTERM MEASUREMENT
- SFR – SINGLE FAMILY RESIDENTIAL
- COMM – COMMERCIAL
- – – – – · – EXISTING WALL
- –o–o– SOUNDWALL

1 : 150ft

0ft 75ft 150ft 225ft 300ft

PARSONS
100 WEST WALNUT ST.
PASADENA, CA 91124
(626) 440-6100

RANCHERO ROAD WIDENING PROJECT
NOISE RECEIVERS AND BARRIER LOCATIONS

OCTOBER 21, 2011

FIGURE 12

LEGEND

⊕ Rxx	– NOISE RECEIVERS SITE	SFR	– SINGLE FAMILY RESIDENTIAL
⊕ ST	– SHORTERM MEASUREMENT	COMM	– COMMERCIAL
⊕ LT	– LONGTERM MEASUREMENT	– – – –	– EXISTING WALL
		——o——o——	– SOUNDWALL

1 : 150ft

75ft 225ft

0ft 150ft 300ft

PARSONS
100 WEST WALNUT ST.
PASADENA, CA 91124
(626) 440-6100

RANCHERO ROAD WIDENING PROJECT
NOISE RECEIVERS AND BARRIER LOCATIONS

OCTOBER 21, 2011 | FIGURE 13

Appendix J Noise Analysis Tables

Table D-1.Predicted Future Noise Levels and Noise Abatement Analysis: National-Average Pavement Conditions (cont'd)

Receiver I.D. [1]	Barrier I.D. and Location	Land Use [2]	Number of Dwelling Units	Existing Noise Level CNEL, dBA	Future Noise Levels in Outdoor Activity Areas															
					Design Year Without Project		Design Year With Project			Impact Type		Noise Prediction with Barrier[5]						CNEL at Selected Building Façades With Project (Without Barrier), dBA [8]	Minimum Outdoor to Indoor Level Reduction (OILR, dB) to Avoid Interior Impact[9]
												Barrier Design A[6]			Barrier Design B[7]				
					CNEL, dBA	Difference from Existing Conditions CNEL, dBA	CNEL, dBA	Difference from Existing Conditions CNEL, dBA	Difference from Future No Project Conditions CNEL, dBA	Design Year With Project CNEL Equals or Exceeds 65 dBA [4]	Project Increase of 5 dB or More Resulting in CNEL of 60 dBA or More	Height, ft	CNEL, dBA	I.L., dB	Height, ft	CNEL, dBA	I.L., dB		
R 1 [W]	S67 R/W	SFR	1	49.0	54.6	+5.6	56.1	+7.1	+1.5	No	No	7	56	0	11	55	1	--	--
R 2 [W]		SFR	1	58.0	63.3	+5.3	65.0	+7.0	+1.7	Yes	No	**7**	**63**	2	**11**	60	**5**	--	--
R 3 [W]	S73 R/W	SFR	1	59.6	64.9	+5.3	66.6	+7.0	+1.7	Yes	No	**7**	**64**	3	**10**	60	**7**	--	--
R 4 [W]		SFR	3	46.2	52.0	+5.8	53.4	+7.2	+1.4	No	No	7	53	0	10	52	1	--	--
R 5 [W]		SFR	1	58.1	63.4	+5.3	65.1	+7.0	+1.7	Yes	No	**7**	**63**	2	**10**	60	**5**	--	--
R 6 [W]	S81 R/W	SFR	1	58.4	63.7	+5.3	65.4	+7.0	+1.7	Yes	No	**7**	**63**	2	**10**	60	**5**	--	--
R 7 [W]		SFR	1	49.1	55.5	+6.4	56.8	+7.7	+1.3	No	No	7	57	0	10	56	1	--	--
R 8 [W]		SFR	1	58.3	64.4	+6.1	66.0	+7.7	+1.6	Yes	No	**7**	**64**	2	**10**	60	**6**	--	--
R 9 [W]	--	SFR	1	56.0	63.2	+7.2	61.7	+5.7	-1.5	No	No	--	--	--	--	--	--	--	--
R 9A [LT1/CAL]	--	SFR	1	54.2	60.6	+6.4	60.4	+6.2	-0.2	No	No	--	--	--	--	--	--	--	--
R 10		SFR	1	52.0	58.0	+6.0	59.1	+7.1	+1.1	No	No	--	--	--	--	--	--	--	--
R 11 [W]		SFR	1	50.7	56.5	+5.8	58.0	+7.3	+1.5	No	No	--	--	--	--	--	--	--	--
R 12 [W]		SFR	2	50.3	56.0	+5.7	57.7	+7.4	+1.7	No	No	--	--	--	--	--	--	--	--

Notes:

1 - STxx or LTxx - measurement site number; CAL - Calibration site.

2 - Land Use: SFR - single-family residence; CHR - Church; SCH - School; PLG - Playgrounds, recreational/sports fields.

3 - Noise levels in these columns are reported to a precision of 0.1 dBA to more clearly distinguish whether or not predicted noise levels are expected to increase between Without Project and With Project conditions. The accuracy of the absolute noise level predictions shown here is not as fine as one tenth of a decibel.

4 - The City's currently-adopted General Plan Noise Element establishes an CNEL of 65 dBA as the exterior noise standard for residential development, the facades of classrooms, and park uses.

5 - The minimum barrier height considered was 6 feet or 2 feet taller than the existing property wall (if applicable), whichever is higher. The maximum barrier height considered is 12 feet.

6 - Design A was only considered where one or more receivers were predicted to experience a Community Noise Equivalent Level (CNEL) of 65 dBA or higher under Design Year With Project conditions. It represents the minimum height required to reduce outdoor traffic noise exposure to a CNEL below 65 dBA at as many of the receivers exposed to those impacts as possible.

7 - Design B represents the minimum height required to provide five or more decibels of reduction in traffic noise exposure at all impacted receivers where such reduction is possible.

8 - In many cases, receivers selected to represent outdoor activity areas are set back a different distance from the roadway than the buildings themselves. Where outdoor impacts have been identified under one or more cruise speed scenarios and where the adequacy of noise reduction could be an issue for one or more of those scenarios, CNEL values predicted at the building facade are presented here. These are the appropriate values to use in computing the minimum OILR.

9 - It has been assumed that the Ranchero-Rd.-facing facades of buildings will provide at least 25 dB of outdoor to indoor noise level reduction (OILR) for older homes and at least 30 dB of OILR for newer homes. Therefore, values are reported in these columns only if the minimum required OILR is above these assumed levels.

* - Intervening building structures substantially obstruct line of sight to Ranchero Road. @ - OILR requirement is assumed to be met.

I.L. - Insertion Loss. W - Existing private property wall or soundwall. X - Represented land use depends upon Ranchero Road for vehicular access.

S - These receivers are located within school property. However, abatement is not warranted at these sports fields. The actual school classrooms are set much further back from the Ranchero Road, and would not be exposed to significant noise impacts.

Y - Adjacent/intervening driveways would inhibit feasibility of sound walls within existing/future City right-of-way.

Z - To be feasible, a soundwall would need to extend along the boundary of adjacent undeveloped property. However, the undeveloped property would depend upon vehicular access to Ranchero Road to remain viable.

Table D-1. Predicted Future Noise Levels and Noise Abatement Analysis: National-Average Pavement Conditions (cont'd)

Receiver I.D. [1]	Barrier I.D. and Location	Land Use [2]	Number of Dwelling Units	Existing Noise Level CNEL, dBA	Future Noise Levels in Outdoor Activity Areas														CNEL at Selected Building Façades With Project (Without Barrier), dBA [8]	Minimum Outdoor to Indoor Level Reduction (OILR, dB) to Avoid Interior Impact [9]
					Design Year Without Project		Design Year With Project			Impact Type		Noise Prediction with Barrier [5]								
												Barrier Design A [6]			Barrier Design B [7]					
					CNEL, dBA	Difference from Existing Conditions CNEL, dBA	CNEL, dBA	Difference from Existing Conditions CNEL, dBA	Difference from Future No Project Conditions CNEL, dBA	Design Year With Project CNEL Equals or Exceeds 65 dBA [4]	Project Increase of 5 dB or More Resulting in CNEL of 60 dBA or More	Height, ft	CNEL, dBA	I.L., dB	Height, ft	CNEL, dBA	I.L., dB		
R 13 X	--	SFR	1	65.3	70.1	+4.8	72.2	+6.9	+2.1	Yes	No	--	--	--	--	--	--	--	@
R 14		SFR	1	50.8	56.6	+5.8	58.5	+7.7	+1.9	No	No	--	--	--	--	--	--	--	--
R 15	--	PLG S	1	50.5	55.7	+5.2	57.3	+6.8	+1.6	No	No	--	--	--	--	--	--	--	--
R 16		PLG S	3	56.6	61.7	+5.1	63.3	+6.7	+1.6	No	No	--	--	--	--	--	--	--	--
R 17		PLG S	8	58.4	63.3	+4.9	64.7	+6.3	+1.4	No	No	--	--	--	--	--	--	--	--
R 18	S147 R/W	SFR	1	51.4	57.2	+5.8	59.9	+8.5	+2.7	No	No	11	58	2	6	59	1	--	--
R 19		SFR	1	65.0	70.0	+5.0	72.9	+7.9	+2.9	Yes	No	**11**	**64**	9	**6**	68	**5**	--	--
R 20	S151 R/W	SCH	1	53.1	58.8	+5.7	62.1	+9.0	+3.3	No	No	**6**	**60**	2	10	59	3	--	--
R 21		CHR	1	58.5	63.8	+5.3	67.0	+8.5	+3.2	Yes	No	**6**	**64**	3	**10**	62	**5**	--	--
R 22 X		SFR	1	67.7	72.6	+4.9	75.9	+8.2	+3.3	Yes	No	6	70	6	**10**	69	**7**	--	--
R 23 X	--	SFR	2	62.2	67.0	+4.8	68.5	+6.3	+1.5	Yes	No	--	--	--	--	--	--	--	@
R 24 Z		SFR	1	48.9	54.4	+5.5	56.4	+7.5	+2.0	No	No	--	--	--	--	--	--	--	--
R 25 X,W		SFR	1	58.9	64.0	+5.1	66.0	+7.1	+2.0	Yes	No	--	--	--	--	--	--	--	@

Notes:

1 - STxx or LTxx - measurement site number; CAL - Calibration site.

2 - Land Use: SFR - single-family residence; CHR - Church; SCH - School; PLG - Playgrounds, recreational/sports fields.

3 - Noise levels in these columns are reported to a precision of 0.1 dBA to more clearly distinguish whether or not predicted noise levels are expected to increase between Without Project and With Project conditions. The accuracy of the absolute noise level predictions shown here is not as fine as one tenth of a decibel.

4 - The City's currently-adopted General Plan Noise Element establishes an CNEL of 65 dBA as the exterior noise standard for residential development, the facades of classrooms, and park uses.

5 - The minimum barrier height considered was 6 feet or 2 feet taller than the existing property wall (if applicable), whichever is higher. The maximum barrier height considered is 12 feet.

6 - Design A was only considered where one or more receivers were predicted to experience a Community Noise Equivalent Level (CNEL) of 65 dBA or higher under Design Year With Project conditions. It represents the minimum height required to reduce outdoor traffic noise exposure to a CNEL below 65 dBA at as many of the receivers exposed to those impacts as possible.

7 - Design B represents the minimum height required to provide five or more decibels of reduction in traffic noise exposure at all impacted receivers where such reduction is possible.

8 - In many cases, receivers selected to represent outdoor activity areas are set back a different distance from the roadway than the buildings themselves. Where outdoor impacts have been identified under one or more cruise speed scenarios and where the adequacy of noise reduction could be an issue for one or more of those scenarios, CNEL values predicted at the building facade are presented here. These are the appropriate values to use in computing the minimum OILR.

9 - It has been assumed that the Ranchero-Rd.-facing facades of buildings will provide at least 25 dB of outdoor to indoor noise level reduction (OILR) for older homes and at least 30 dB of OILR for newer homes. Therefore, values are reported in these columns only if the minimum required OILR is above these assumed levels.

* - Intervening building structures substantially obstruct line of sight to Ranchero Road. @ - OILR requirement is assumed to be met.

I.L. - Insertion Loss. W - Existing private property wall or soundwall. X - Represented land use depends upon Ranchero Road for vehicular access.

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Table D-1. Predicted Future Noise Levels and Noise Abatement Analysis: National-Average Pavement Conditions (cont'd)

Receiver I.D. [1]	Barrier I.D. and Location	Land Use [2]	Number of Dwelling Units	Existing Noise Level CNEL, dBA	Future Noise Levels in Outdoor Activity Areas														CNEL at Selected Building Façades With Project (Without Barrier), dBA [8]	Minimum Outdoor to Indoor Level Reduction (OILR, dB) to Avoid Interior Impact [9]
					Design Year Without Project		Design Year With Project			Impact Type		Noise Prediction with Barrier [5]								
												Barrier Design A [6]			Barrier Design B [7]					
					CNEL, dBA	Difference from Existing Conditions CNEL, dBA	CNEL, dBA	Difference from Existing Conditions CNEL, dBA	Difference from Future No Project Conditions CNEL, dBA	Design Year With Project CNEL Equals or Exceeds 65 dBA [4]	Project Increase of 5 dB or More Resulting in CNEL of 60 dBA or More	Height, ft	CNEL, dBA	I.L., dB	Height, ft	CNEL, dBA	I.L., dB		
R 26	S197 R/W	SFR	2	62.8	67.7	+4.9	69.1	+6.3	+1.4	Yes	No	**6**	**64**	5	**6**	64	**5**	--	--
R 27 X	--	SFR	1	63.9	68.7	+4.8	69.3	+5.4	+0.6	Yes	No	--	--	--	--	--	--	--	@
R 28 X,W		SFR	1	61.2	66.2	+5.0	67.7	+6.5	+1.5	Yes	No	--	--	--	--	--	--	--	@
R 29 LT2/CAL	S223 R/W	SFR	1	66.5	71.3	+4.8	72.9	+6.4	+1.6	Yes	No	**9**	**64**	9	**6**	67	**6**	--	--
R 30 X		SFR	2	64.1	69.0	+4.9	70.4	+6.3	+1.4	Yes	No	--	--	--	--	--	--	--	@
R 31 X		SFR	2	64.0	70.0	+6.0	71.4	+7.4	+1.4	Yes	No	--	--	--	--	--	--	--	@
R 32 *		SFR	3	53.9	60.1	+6.2	61.3	+7.4	+1.2	No	No	--	--	--	--	--	--	--	--
R 33 Z		SFR	1	64.3	70.3	+6.0	71.0	+6.7	+0.7	Yes	No	--	--	--	--	--	--	--	@
R 34 X	--	SFR	4	63.9	70.0	+6.1	70.4	+6.5	+0.4	Yes	No	--	--	--	--	--	--	--	@
R 35 Z		SFR	1	64.3	70.4	+6.1	70.8	+6.5	+0.4	Yes	No	--	--	--	--	--	--	--	@
R 36 Y		SFR	3	63.9	70.0	+6.1	70.2	+6.3	+0.2	Yes	No	--	--	--	--	--	--	--	@
R 37 X		SFR	1	64.4	70.5	+6.1	71.0	+6.6	+0.5	Yes	No	--	--	--	--	--	--	--	@
R 38 X		SFR	4	63.9	69.9	+6.0	70.1	+6.2	+0.2	Yes	No	--	--	--	--	--	--	--	26

Notes:

1 - STxx or LTxx - measurement site number; CAL - Calibration site.

2 - Land Use: SFR - single-family residence; CHR - Church; SCH - School; PLG - Playgrounds, recreational/sports fields.

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5 - The minimum barrier height considered was 6 feet or 2 feet taller than the existing property wall (if applicable), whichever is higher. The maximum barrier height considered is 12 feet.

6 - Design A was only considered where one or more receivers were predicted to experience a Community Noise Equivalent Level (CNEL) of 65 dBA or higher under Design Year With Project conditions. It represents the minimum height required to reduce outdoor traffic noise exposure to a CNEL below 65 dBA at as many of the receivers exposed to those impacts as possible.

7 - Design B represents the minimum height required to provide five or more decibels of reduction in traffic noise exposure at all impacted receivers where such reduction is possible.

8 - In many cases, receivers selected to represent outdoor activity areas are set back a different distance from the roadway than the buildings themselves. Where outdoor impacts have been identified under one or more cruise speed scenarios and where the adequacy of noise reduction could be an issue for one or more of those scenarios, CNEL values predicted at the building facade are presented here. These are the appropriate values to use in computing the minimum OILR.

9 - It has been assumed that the Ranchero-Rd.-facing facades of buildings will provide at least 25 dB of outdoor to indoor noise level reduction (OILR) for older homes and at least 30 dB of OILR for newer homes. Therefore, values are reported in these columns only if the minimum required OILR is above these assumed levels.

* - Intervening building structures substantially obstruct line of sight to Ranchero Road. @ - OILR requirement is assumed to be met.

I.L. - Insertion Loss. W - Existing private property wall or soundwall. X - Represented land use depends upon Ranchero Road for vehicular access.

S - These receivers are located within school property. However, abatement is not warranted at these sports fields. The actual school classrooms are set much further back from the Ranchero Road, and would not be exposed to significant noise impacts.

Y - Adjacent/intervening driveways would inhibit feasibility of sound walls within existing/future City right-of-way.

Z - To be feasible, a soundwall would need to extend along the boundary of adjacent undeveloped property. However, the undeveloped property would depend upon vehicular access to Ranchero Road to remain viable.

Table D-1. Predicted Future Noise Levels and Noise Abatement Analysis: National-Average Pavement Conditions (cont'd)

Receiver I.D. [1]	Barrier I.D. and Location	Land Use [2]	Number of Dwelling Units	Existing Noise Level CNEL, dBA	Future Noise Levels in Outdoor Activity Areas																	
					Design Year Without Project		Design Year With Project				Impact Type		Noise Prediction with Barrier [5]									
													Barrier Design A [6]			Barrier Design B [7]					
					CNEL, dBA	Difference from Existing Conditions CNEL, dBA	CNEL, dBA	Difference from Existing Conditions CNEL, dBA	Difference from Future No Project Conditions CNEL, dBA		Design Year With Project CNEL Equals or Exceeds 65 dBA [4]	Project Increase of 5 dB or More Resulting in CNEL of 60 dBA or More	Height, ft	CNEL, dBA	I.L., dB	Height, ft	CNEL, dBA	I.L., dB	CNEL at Selected Building Façades With Project (Without Barrier), dBA [8]	Minimum Outdoor to Indoor Level Reduction (OILR, dB) to Avoid Interior Impact [9]
R 39 Z		SFR	1	64.1	70.2	+6.1	70.4	+6.3	+0.2		Yes	No	--	--	--	--	--	--	--	--
R 40 X		SFR	5	63.9	70.0	+6.1	71.2	+7.3	+1.2		Yes	No	--	--	--	--	--	--	71	27
R 41 X		SFR	4	63.9	70.0	+6.1	71.7	+7.8	+1.7		Yes	No	--	--	--	--	--	--	72	28
R 42 X		SFR	3	64.0	70.1	+6.1	71.7	+7.7	+1.6		Yes	No	--	--	--	--	--	--	--	@
R 43 X		SFR	1	64.0	70.0	+6.0	72.0	+8.0	+2.0		Yes	No	--	--	--	--	--	--	72	28
R 44 Y		SFR	3	54.7	61.4	+6.7	62.4	+7.7	+1.0		No	No	--	--	--	--	--	--	--	--
R 45 X	--	SCH	1	60.5	66.6	+6.1	67.7	+7.2	+1.1		Yes	No	--	--	--	--	--	--	--	@
R 46 X,*		PLY	1	52.5	58.8	+6.3	60.2	+7.7	+1.4		No	No	--	--	--	--	--	--	--	--
R 47 X		SFR	4	61.5	67.5	+6.0	69.1	+7.6	+1.6		Yes	No	--	--	--	--	--	--	68	@
R 48 X		SFR	2	60.6	66.6	+6.0	68.3	+7.7	+1.7		Yes	No	--	--	--	--	--	--	68	@
R 49 X		SFR	1	60.2	66.5	+6.3	68.3	+8.1	+1.8		Yes	No	--	--	--	--	--	--	68	@
R 50 X		SFR	2	59.1	67.2	+8.1	69.8	+10.7	+2.6		Yes	No	--	--	--	--	--	--	68	@
R 51 Y		SFR	1	46.9	55.0	+8.1	57.3	+10.4	+2.3		No	No	--	--	--	--	--	--	--	--

Notes:

1 - STxx or LTxx - measurement site number; CAL - Calibration site.

2 - Land Use: SFR - single-family residence; CHR - Church; SCH - School; PLG - Playgrounds, recreational/sports fields.

3 - Noise levels in these columns are reported to a precision of 0.1 dBA to more clearly distinguish whether or not predicted noise levels are expected to increase between Without Project and With Project conditions. The accuracy of the absolute noise level predictions shown here is not as fine as one tenth of a decibel.

4 - The City's currently-adopted General Plan Noise Element establishes an CNEL of 65 dBA as the exterior noise standard for residential development, the facades of classrooms, and park uses.

5 - The minimum barrier height considered was 6 feet or 2 feet taller than the existing property wall (if applicable), whichever is higher. The maximum barrier height considered is 12 feet.

6 - Design A was only considered where one or more receivers were predicted to experience a Community Noise Equivalent Level (CNEL) of 65 dBA or higher under Design Year With Project conditions. It represents the minimum height required to reduce outdoor traffic noise exposure to a CNEL below 65 dBA at as many of the receivers exposed to those impacts as possible.

7 - Design B represents the minimum height required to provide five or more decibels of reduction in traffic noise exposure at all impacted receivers where such reduction is possible.

8 - In many cases, receivers selected to represent outdoor activity areas are set back a different distance from the roadway than the buildings themselves. Where outdoor impacts have been identified under one or more cruise speed scenarios and where the adequacy of noise reduction could be an issue for one or more of those scenarios, CNEL values predicted at the building facade are presented here. These are the appropriate values to use in computing the minimum OILR.

9 - It has been assumed that the Ranchero-Rd.-facing facades of buildings will provide at least 25 dB of outdoor to indoor noise level reduction (OILR) for older homes and at least 30 dB of OILR for newer homes. Therefore, values are reported in these columns only if the minimum required OILR is above these assumed levels.

* - Intervening building structures substantially obstruct line of sight to Ranchero Road. @ - OILR requirement is assumed to be met.

I.L. - Insertion Loss. W - Existing private property wall or soundwall. X - Represented land use depends upon Ranchero Road for vehicular access.

S - These receivers are located within school property. However, abatement is not warranted at these sports fields. The actual school classrooms are set much further back from the Ranchero Road, and would not be exposed to significant noise impacts.

Y - Adjacent/intervening driveways would inhibit feasibility of sound walls within existing/future City right-of-way.

Z - To be feasible, a soundwall would need to extend along the boundary of adjacent undeveloped property. However, the undeveloped property would depend upon vehicular access to Ranchero Road to remain viable.

Table D-1. Predicted Future Noise Levels and Noise Abatement Analysis: National-Average Pavement Conditions (cont'd)

Receiver I.D. [1]	Barrier I.D. and Location	Land Use [2]	Number of Dwelling Units	Existing Noise Level CNEL, dBA	Future Noise Levels in Outdoor Activity Areas														CNEL at Selected Building Façades With Project (Without Barrier), dBA [8]	Minimum Outdoor to Indoor Level Reduction (OILR, dB) to Avoid Interior Impact [9]
					Design Year Without Project		Design Year With Project			Impact Type		Noise Prediction with Barrier [5]								
												Barrier Design A [6]			Barrier Design B [7]					
					CNEL, dBA	Difference from Existing Conditions CNEL, dBA	CNEL, dBA	Difference from Existing Conditions CNEL, dBA	Difference from Future No Project Conditions CNEL, dBA	Design Year With Project CNEL Equals or Exceeds 65 dBA [4]	Project Increase of 5 dB or More Resulting in CNEL of 60 dBA or More	Height, ft	CNEL, dBA	I.L., dB	Height, ft	CNEL, dBA	I.L., dB		
R 52 X	--	SFR	1	60.4	65.4	+5.0	67.7	+7.3	+2.3	Yes	No	--	--	--	--	--	--	--	@
R 53	S74 R/W	SFR	1	63.0	67.8	+4.8	68.3	+5.3	+0.5	Yes	No	**6**	**63**	5	**6**	63	**5**	--	--
R 54	S80 R/W	SFR	1	62.8	67.6	+4.8	68.0	+5.2	+0.4	Yes	No	**6**	**64**	4	**6**	63	**5**	--	--
R 55		SFR	1	50.7	56.2	+5.5	57.6	+6.9	+1.4	No	No	6	55	3	6	55	3	--	--
R 56		SFR	--[10]	62.3	67.4	+5.1	68.9	+6.6	+1.5	Yes	No	**6**	**63**	6	**6**	62	**7**	--	--
R 57 X	--	SFR	1	65.2	70.0	+4.8	71.5	+6.3	+1.5	Yes	No	--	--	--	--	--	--	--	@
R 58 Y		SFR	1	52.0	57.7	+5.7	60.0	+8.0	+2.3	No	No	--	--	--	--	--	--	--	--
R 59	S114 R/W	SFR	1	65.2	70.1	+4.9	71.9	+6.7	+1.8	Yes	No	12	66	6	**9**	67	**5**	--	--
R 60 Y	--	SFR	1	54.7	60.2	+5.5	62.8	+8.1	+2.6	No	No	--	--	--	--	--	--	--	--
R 61 Y		SFR	1	51.6	57.3	+5.7	59.5	+7.9	+2.2	No	No	--	--	--	--	--	--	--	--
R 62	S122 R/W	SFR	1	53.7	59.2	+5.5	60.9	+7.2	+1.7	No	No	6	60	1	12	59	2	--	--
R 63		SFR	1	60.6	65.6	+5.0	66.7	+6.1	+1.1	Yes	No	**6**	**65**	2	12	63	4	--	--
R 64 W	S126 R/W	SFR	1	60.9	66.1	+5.2	67.3	+6.4	+1.2	Yes	No	**11**	**64**	3	12	63	4	--	--
R 65 Z	--	SFR	6	52.6	58.3	+5.7	60.6	+8.0	+2.3	No	No	--	--	--	--	--	--	--	--

Notes:

1 - STxx or LTxx - measurement site number; CAL - Calibration site.

2 - Land Use: SFR - single-family residence; CHR - Church; SCH - School; PLG - Playgrounds, recreational/sports fields.

3 - Noise levels in these columns are reported to a precision of 0.1 dBA to more clearly distinguish whether or not predicted noise levels are expected to increase between Without Project and With Project conditions. The accuracy of the absolute noise level predictions shown here is not as fine as one tenth of a decibel.

4 - The City's currently-adopted General Plan Noise Element establishes an CNEL of 65 dBA as the exterior noise standard for residential development, the facades of classrooms, and park uses.

5 - The minimum barrier height considered was 6 feet or 2 feet taller than the existing property wall (if applicable), whichever is higher. The maximum barrier height considered is 12 feet.

6 - Design A was only considered where one or more receivers were predicted to experience a Community Noise Equivalent Level (CNEL) of 65 dBA or higher under Design Year With Project conditions. It represents the minimum height required to reduce outdoor traffic noise exposure to a CNEL below 65 dBA at as many of the receivers exposed to those impacts as possible.

7 - Design B represents the minimum height required to provide five or more decibels of reduction in traffic noise exposure at all impacted receivers where such reduction is possible.

8 - In many cases, receivers selected to represent outdoor activity areas are set back a different distance from the roadway than the buildings themselves. Where outdoor impacts have been identified under one or more cruise speed scenarios and where the adequacy of noise reduction could be an issue for one or more of those scenarios, CNEL values predicted at the building facade are presented here. These are the appropriate values to use in computing the minimum OILR.

9 - It has been assumed that the Ranchero-Rd.-facing facades of buildings will provide at least 25 dB of outdoor to indoor noise level reduction (OILR) for older homes and at least 30 dB of OILR for newer homes. Therefore, values are reported in these columns only if the minimum required OILR is above these assumed levels.

10 - R56 represents the same residential unit as R54. The applicable dwelling unit is accounted for with R54.

* - Intervening building structures substantially obstruct line of sight to Ranchero Road. @ - OILR requirement is assumed to be met.

I.L. - Insertion Loss. W - Existing private property wall or soundwall. X - Represented land use depends upon Ranchero Road for vehicular access.

S - These receivers are located within school property. However, abatement is not warranted at these sports fields. The actual school classrooms are set much further back from the Ranchero Road, and would not be exposed to significant noise impacts.

Y - Adjacent/intervening driveways would inhibit feasibility of sound walls within existing/future City right-of-way.

Z - To be feasible, a soundwall would need to extend along the boundary of adjacent undeveloped property. However, the undeveloped property would depend upon vehicular access to Ranchero Road to remain viable.

Table D-1. Predicted Future Noise Levels and Noise Abatement Analysis: National-Average Pavement Conditions (cont'd)

Receiver I.D. [1]	Barrier I.D. and Location	Land Use [2]	Number of Dwelling Units	Existing Noise Level CNEL, dBA	Future Noise Levels in Outdoor Activity Areas														CNEL at Selected Building Façades With Project (Without Barrier), dBA [8]	Minimum Outdoor to Indoor Level Reduction (OILR, dB) to Avoid Interior Impact [9]
					Design Year Without Project		Design Year With Project			Impact Type		Noise Prediction with Barrier [5]								
												Barrier Design A [6]			Barrier Design B [7]					
					CNEL, dBA	Difference from Existing Conditions CNEL, dBA	CNEL, dBA	Difference from Existing Conditions CNEL, dBA	Difference from Future No Project Conditions CNEL, dBA	Design Year With Project CNEL Equals or Exceeds 65 dBA [4]	Project Increase of 5 dB or More Resulting in CNEL of 60 dBA or More	Height, ft	CNEL, dBA	I.L., dB	Height, ft	CNEL, dBA	I.L., dB		
R 66 W	S148 R/W	SFR	1	62.0	67.1	+5.1	69.7	+7.7	+2.6	Yes	No	**10**	**64**	6	**9**	65	**5**	--	--
R 67 X	--	SFR	1	62.9	67.9	+5.0	70.6	+7.7	+2.7	Yes	No	--	--	--	--	--	--	--	@
R 68 Z		SFR	1	63.6	68.5	+4.9	70.5	+6.9	+2.0	Yes	No	--	--	--	--	--	--	--	@
R 69	S198 R/W	SFR	1	61.4	66.3	+4.9	67.1	+5.7	+0.8	Yes	No	**6**	**63**	4	**8**	62	**5**	--	--
R 70	--	SFR	1	57.2	62.4	+5.2	63.7	+6.5	+1.3	No	No	--	--	--	--	--	--	--	--
R 71	S208 R/W	SFR	2	64.7	69.6	+4.9	70.2	+5.5	+0.6	Yes	No	**9**	**64**	6	**8**	65	**5**	--	--
R 72	--	SFR	2	53.9	59.3	+5.4	61.3	+7.4	+2.0	No	No	--	--	--	--	--	--	--	--
R 73 W	S226 R/W	SFR	3	59.6	64.8	+5.2	66.1	+6.5	+1.3	Yes	No	**9**	**63**	3	12	62	4	--	--
R 74 W		SFR	1	53.4	58.9	+5.5	59.5	+6.1	+0.6	No	No	9	60	0	12	60	0	--	--
R 75 W		SFR	2	46.7	52.6	+5.9	53.5	+6.8	+0.9	No	No	9	54	0	12	54	0	--	--
R 76 W		SFR	13	52.1	57.6	+5.5	59.0	+6.9	+1.4	No	No	9	58	1	12	58	1	--	--
R 77 W		SFR	5	59.6	64.9	+5.3	66.6	+7.0	+1.7	Yes	No	**9**	**63**	4	**12**	62	**5**	--	--

Notes:

1 - STxx or LTxx - measurement site number; CAL - Calibration site.

2 - Land Use: SFR - single-family residence; CHR - Church; SCH - School; PLG - Playgrounds, recreational/sports fields.

3 - Noise levels in these columns are reported to a precision of 0.1 dBA to more clearly distinguish whether or not predicted noise levels are expected to increase between Without Project and With Project conditions. The accuracy of the absolute noise level predictions shown here is not as fine as one tenth of a decibel.

4 - The City's currently-adopted General Plan Noise Element establishes an CNEL of 65 dBA as the exterior noise standard for residential development, the facades of classrooms, and park uses.

5 - The minimum barrier height considered was 6 feet or 2 feet taller than the existing property wall (if applicable), whichever is higher. The maximum barrier height considered is 12 feet.

6 - Design A was only considered where one or more receivers were predicted to experience a Community Noise Equivalent Level (CNEL) of 65 dBA or higher under Design Year With Project conditions. It represents the minimum height required to reduce outdoor traffic noise exposure to a CNEL below 65 dBA at as many of the receivers exposed to those impacts as possible.

7 - Design B represents the minimum height required to provide five or more decibels of reduction in traffic noise exposure at all impacted receivers where such reduction is possible.

8 - In many cases, receivers selected to represent outdoor activity areas are set back a different distance from the roadway than the buildings themselves. Where outdoor impacts have been identified under one or more cruise speed scenarios and where the adequacy of noise reduction could be an issue for one or more of those scenarios, CNEL values predicted at the building facade are presented here. These are the appropriate values to use in computing the minimum OILR.

9 - It has been assumed that the Ranchero-Rd.-facing facades of buildings will provide at least 25 dB of outdoor to indoor noise level reduction (OILR) for older homes and at least 30 dB of OILR for newer homes. Therefore, values are reported in these columns only if the minimum required OILR is above these assumed levels.

* - Intervening building structures substantially obstruct line of sight to Ranchero Road. @ - OILR requirement is assumed to be met.

I.L. - Insertion Loss. W - Existing private property wall or soundwall. X - Represented land use depends upon Ranchero Road for vehicular access.

S - These receivers are located within school property. However, abatement is not warranted at these sports fields. The actual school classrooms are set much further back from the Ranchero Road, and would not be exposed to significant noise impacts.

Y - Adjacent/intervening driveways would inhibit feasibility of sound walls within existing/future City right-of-way.

Z - To be feasible, a soundwall would need to extend along the boundary of adjacent undeveloped property. However, the undeveloped property would depend upon vehicular access to Ranchero Road to remain viable.

Table D-1. Predicted Future Noise Levels and Noise Abatement Analysis: National-Average Pavement Conditions (cont'd)

Receiver I.D. [1]	Barrier I.D. and Location	Land Use [2]	Number of Dwelling Units	Existing Noise Level CNEL, dBA	Future Noise Levels in Outdoor Activity Areas																
					Design Year Without Project		Design Year With Project			Impact Type		Noise Prediction with Barrier [5]							CNEL at Selected Building Façades With Project (Without Barrier), dBA [8]	Minimum Outdoor to Indoor Level Reduction (OILR, dB) to Avoid Interior Impact [9]
												Barrier Design A [6]			Barrier Design B [7]					
					CNEL, dBA	Difference from Existing Conditions CNEL, dBA	CNEL, dBA	Difference from Existing Conditions CNEL, dBA	Difference from Future No Project Conditions CNEL, dBA	Design Year With Project CNEL Equals or Exceeds 65 dBA [4]	Project Increase of 5 dB or More Resulting in CNEL of 60 dBA or More	Height, ft	CNEL, dBA	I.L., dB	Height, ft	CNEL, dBA	I.L., dB		
R 78 W,*	--	SFR	4	47.9	53.9	+6.0	55.1	+7.2	+1.2	No	No	9	55 [10]	0	12	55 [10]	0	--	--
R 79 W		SFR	5	58.1	63.9	+5.8	65.8	+7.7	+1.9	Yes	No	**9**	**63**	3	**12**	61	**5**	--	--
R 80 W		SFR	3	57.5	63.7	+6.2	65.4	+7.9	+1.7	Yes	No	**9**	**64**	1	12	62	3	--	--
R 81	S244/R/W	SFR	1	58.0	65.7	+7.7	65.7	+7.7	0.0	Yes	No	**6**	**63**	3	**12**	61	**5**	--	--
R 82 X	--	SFR	2	61.4	67.5	+6.1	69.7	+8.3	+2.2	Yes	No	--	--	--	--	--	--	--	@
R 83 X		SFR	4	61.5	67.6	+6.1	70.4	+8.9	+2.8	Yes	No	--	--	--	--	--	--	71	27
R 84 X		SFR	4	61.4	67.6	+6.2	69.8	+8.4	+2.2	Yes	No	--	--	--	--	--	--	--	@
R 85 X		SFR	4	61.1	67.3	+6.2	69.6	+8.5	+2.3	Yes	No	--	--	--	--	--	--	--	@
R 86 Y,*		SFR	3	52.2	58.6	+6.4	60.5	+8.3	+1.9	No	No	--	--	--	--	--	--	--	--
R 87 W,*		SFR	1	51.0	57.5	+6.5	59.1	+8.1	+1.6	No	No	--	--	--	--	--	--	--	--
R 88 W,*		SFR	1	53.6	60.1	+6.5	61.5	+7.9	+1.4	No	No	--	--	--	--	--	--	--	--
R 89 X		SFR	1	62.3	68.4	+6.1	70.2	+7.9	+1.8	Yes	No	--	--	--	--	--	--	--	@

Notes:

1 - STxx or LTxx - measurement site number; CAL - Calibration site.

2 - Land Use: SFR - single-family residence; CHR - Church; SCH - School; PLG - Playgrounds, recreational/sports fields.

3 - Noise levels in these columns are reported to a precision of 0.1 dBA to more clearly distinguish whether or not predicted noise levels are expected to increase between Without Project and With Project conditions. The accuracy of the absolute noise level predictions shown here is not as fine as one tenth of a decibel.

4 - The City's currently-adopted General Plan Noise Element establishes an CNEL of 65 dBA as the exterior noise standard for residential development, the facades of classrooms, and park uses.

5 - The minimum barrier height considered was 6 feet or 2 feet taller than the existing property wall (if applicable), whichever is higher. The maximum barrier height considered is 12 feet.

6 - Design A was only considered where one or more receivers were predicted to experience a Community Noise Equivalent Level (CNEL) of 65 dBA or higher under Design Year With Project conditions. It represents the minimum height required to reduce outdoor traffic noise exposure to a CNEL below 65 dBA at as many of the receivers exposed to those impacts as possible.

7 - Design B represents the minimum height required to provide five or more decibels of reduction in traffic noise exposure at all impacted receivers where such reduction is possible.

8 - In many cases, receivers selected to represent outdoor activity areas are set back a different distance from the roadway than the buildings themselves. Where outdoor impacts have been identified under one or more cruise speed scenarios and where the adequacy of noise reduction could be an issue for one or more of those scenarios, CNEL values predicted at the building facade are presented here. These are the appropriate values to use in computing the minimum OILR.

9 - It has been assumed that the Ranchero-Rd.-facing facades of buildings will provide at least 25 dB of outdoor to indoor noise level reduction (OILR) for older homes and at least 30 dB of OILR for newer homes. Therefore, values are reported in these columns only if the minimum required OILR is above these assumed levels.

10 - Noise levels predicted by TNM are not reliable due to issues with procedures used in TNM to calculate noise levels when two parallel walls intervene between source and receiver. Accordingly, these noise levels have been set to be equal noise levels predicted without abatement. This is deemed to be relatively conservative corrected values.

* - Intervening building structures substantially obstruct line of sight to Ranchero Road. @ - OILR requirement is assumed to be met.

I.L. - Insertion Loss. W - Existing private property wall or soundwall. X - Represented land use depends upon Ranchero Road for vehicular access.

S - These receivers are located within school property. However, abatement is not warranted at these sports fields. The actual school classrooms are set much further back from the Ranchero Road, and would not be exposed to significant noise impacts.

Y - Adjacent/intervening driveways would inhibit feasibility of sound walls within existing/future City right-of-way.

Z - To be feasible, a soundwall would need to extend along the boundary of adjacent undeveloped property. However, the undeveloped property would depend upon vehicular access to Ranchero Road to remain viable.

Table D-1. Predicted Future Noise Levels and Noise Abatement Analysis: National-Average Pavement Conditions (cont'd)

Receiver I.D. [1]	Barrier I.D. and Location	Land Use [2]	Number of Dwelling Units	Existing Noise Level CNEL, dBA	Future Noise Levels in Outdoor Activity Areas																
					Design Year Without Project		Design Year With Project			Impact Type		Noise Prediction with Barrier [5]							CNEL at Selected Building Façades With Project (Without Barrier), dBA [8]	Minimum Outdoor to Indoor Level Reduction (OILR, dB) to Avoid Interior Impact [9]
												Barrier Design A [6]			Barrier Design B [7]					
					CNEL, dBA	Difference from Existing Conditions CNEL, dBA	CNEL, dBA	Difference from Existing Conditions CNEL, dBA	Difference from Future No Project Conditions CNEL, dBA	Design Year With Project CNEL Equals or Exceeds 65 dBA [4]	Project Increase of 5 dB or More Resulting in CNEL of 60 dBA or More	Height, ft	CNEL, dBA	I.L., dB	Height, ft	CNEL, dBA	I.L., dB		
R 90 W	S284 R/W	SFR	1	61.8	68.0	+6.2	70.6	+8.8	+2.6	Yes	No	**10**	**63**	8	**10**	63	**8**	--	--
R 91 W,LT3/CAL		SFR	2	60.2	66.5	+6.3	68.7	+8.5	+2.2	Yes	No	**10**	**64**	5	**10**	64	**5**	--	--
R 92 W	S288 R/W	SFR	1	64.0	70.1	+6.1	72.9	+8.9	+2.8	Yes	No	**10**	**64**	9	**7**	68	**5**	--	--
R 93 W	S292 R/W	SFR	1	63.5	69.6	+6.1	72.4	+8.9	+2.8	Yes	No	**12**	**64**	8	**8**	67	**5**	--	--
R 93A W		SFR	2	60.1	66.2	+6.1	68.0	+7.9	+1.8	Yes	No	**12**	**60**	8	**8**	62	**6**	--	--
R 94 W	--	SFR	4	57.2	63.5	+6.3	64.8	+7.6	+1.3	No	No	**--**	**--**	--	**--**	--	**--**	--	--
R 95 W		SFR	4	56.5	62.9	+6.4	63.8	+7.3	+0.9	No	No	**--**	**--**	--	**--**	--	**--**	--	--
R 96 W		SFR	3	46.6	53.4	+6.8	54.5	+7.9	+1.1	No	No	--	--	--	--	--	--	--	--
R 97 W	S306 R/W	SFR	1	50.8	57.3	+6.5	58.2	+7.4	+0.9	No	No	8	57	1	8	57	1	--	--
R 98 W		SFR	1	55.1	61.4	+6.3	62.2	+7.1	+0.8	No	No	8	60	2	8	60	2	--	--
R 99 W		SFR	1	61.2	67.3	+6.1	69.1	+7.9	+1.8	Yes	No	**8**	**64**	5	**8**	64	**5**	--	--
R 100 W	S314 R/W	SFR	4	60.0	66.2	+6.2	67.5	+7.5	+1.3	Yes	No	**8**	**64**	4	**10**	61	**7**	--	--
R 101 W		SFR	3	59.9	66.1	+6.2	67.2	+7.3	+1.1	Yes	No	**8**	**64**	3	**10**	62	**5**	--	--
R 102 W		SFR	1	60.0	66.1	+6.1	67.3	+7.3	+1.2	Yes	No	**8**	**64**	3	**10**	62	**5**	--	--
R 103 W	--	SFR	1	57.0	63.2	+6.2	64.3	+7.3	+1.1	No	No	--	--	--	--	--	--	--	--
R 104	--	SFR	1	49.3	57.0	+7.7	58.6	+9.3	+1.6	No	No	--	--	--	--	--	--	--	--

Notes:

1 - STxx or LTxx - measurement site number; CAL - Calibration site.

2 - Land Use: SFR - single-family residence; CHR - Church; SCH - School; PLG - Playgrounds, recreational/sports fields.

3 - Noise levels in these columns are reported to a precision of 0.1 dBA to more clearly distinguish whether or not predicted noise levels are expected to increase between Without Project and With Project conditions. The accuracy of the absolute noise level predictions shown here is not as fine as one tenth of a decibel.

4 - The City's currently-adopted General Plan Noise Element establishes an CNEL of 65 dBA as the exterior noise standard for residential development, the facades of classrooms, and park uses.

5 - The minimum barrier height considered was 6 feet or 2 feet taller than the existing property wall (if applicable), whichever is higher. The maximum barrier height considered is 12 feet.

6 - Design A was only considered where one or more receivers were predicted to experience a Community Noise Equivalent Level (CNEL) of 65 dBA or higher under Design Year With Project conditions. It represents the minimum height required to reduce outdoor traffic noise exposure to a CNEL below 65 dBA at as many of the receivers exposed to those impacts as possible.

7 - Design B represents the minimum height required to provide five or more decibels of reduction in traffic noise exposure at all impacted receivers where such reduction is possible.

8 - In many cases, receivers selected to represent outdoor activity areas are set back a different distance from the roadway than the buildings themselves. Where outdoor impacts have been identified under one or more cruise speed scenarios and where the adequacy of noise reduction could be an issue for one or more of those scenarios, CNEL values predicted at the building facade are presented here. These are the appropriate values to use in computing the minimum OILR.

9 - It has been assumed that the Ranchero-Rd.-facing facades of buildings will provide at least 25 dB of outdoor to indoor noise level reduction (OILR) for older homes and at least 30 dB of OILR for newer homes. Therefore, values are reported in these columns only if the minimum required OILR is above these assumed levels.

* - Intervening building structures substantially obstruct line of sight to Ranchero Road. @ - OILR requirement is assumed to be met.

I.L. - Insertion Loss. W - Existing private property wall or soundwall. X - Represented land use depends upon Ranchero Road for vehicular access.

S - These receivers are located within school property. However, abatement is not warranted at these sports fields. The actual school classrooms are set much further back from the Ranchero Road, and would not be exposed to significant noise impacts.

Y - Adjacent/intervening driveways would inhibit feasibility of sound walls within existing/future City right-of-way.

Z - To be feasible, a soundwall would need to extend along the boundary of adjacent undeveloped property. However, the undeveloped property would depend upon vehicular access to Ranchero Road to remain viable.

Table D-2. Predicted Future Noise Levels and Noise Abatement Analysis: National-Average Pavement Conditions: OGAC Pavement

Receiver I.D. [1]	Barrier I.D. and Location	Land Use [2]	Number of Dwelling Units	Existing Noise Level CNEL, dBA	Future Noise Levels in Outdoor Activity Areas													CNEL at Selected Building Façades With Project (Without Barrier), dBA [8]	Minimum Outdoor to Indoor Level Reduction (OILR, dB) to Avoid Interior Impact [9]
					Design Year Without Project		Design Year With Project			Impact Type		Noise Prediction with Barrier [5]							
												Barrier Design A [6]			Barrier Design B [7]				
					CNEL, dBA	Difference from Existing Conditions CNEL, dBA	CNEL, dBA	Difference from Existing Conditions CNEL, dBA	Difference from Future No Project Conditions CNEL, dBA	Design Year With Project CNEL Equals or Exceeds 65 dBA [4]	Project Increase of 5 dB or More Resulting in CNEL of 60 dBA or More	Height, ft	CNEL, dBA	I.L., dB	Height, ft	CNEL, dBA	I.L., dB		
R 1 [W]	--	SFR	1	49.0	54.6	+5.6	54.6	+5.6	0.0	No	No	--	--	--	--	--	--	--	--
R 2 [W]		SFR	1	58.0	63.3	+5.3	63.5	+5.5	+0.2	No	No	--	--	--	--	--	--	--	--
R 3 [W]	S73 R/W	SFR	1	59.6	64.9	+5.3	65.1	+5.5	+0.2	Yes	No	**7**	**63**	2	**10**	60	**5**	--	--
R 4 [W]		SFR	3	46.2	52.0	+5.8	51.9	+5.7	-0.1	No	No	7	52	0	10	51	1	--	--
R 5 [W]		SFR	1	58.1	63.4	+5.3	63.6	+5.5	+0.2	No	No	7	63	1	10	59	5	--	--
R 6 [W]	--	SFR	1	58.4	63.7	+5.3	63.9	+5.5	+0.2	No	No	--	--	--	--	--	--	--	--
R 7 [W]		SFR	1	49.1	55.5	+6.4	55.3	+6.2	-0.2	No	No	--	--	--	--	--	--	--	--
R 8 [W]		SFR	1	58.3	64.4	+6.1	64.5	+6.2	+0.1	No	No	--	--	--	--	--	--	--	--
R 9 [W]	--	SFR	1	56.0	63.2	+7.2	60.2	+4.2	-3.0	No	No	--	--	--	--	--	--	--	--
R 9A [LT1/CAL]	--	SFR	1	54.2	60.6	+6.4	58.9	+4.7	-1.7	No	No	--	--	--	--	--	--	--	--
R 10		SFR	1	52.0	58.0	+6.0	57.6	+5.6	-0.4	No	No	--	--	--	--	--	--	--	--
R 11 [W]		SFR	1	50.7	56.5	+5.8	56.5	+5.8	0.0	No	No	--	--	--	--	--	--	--	--
R 12 [W]		SFR	2	50.3	56.0	+5.7	56.2	+5.9	+0.2	No	No	--	--	--	--	--	--	--	--

Notes:

1 - STxx or LTxx - measurement site number; CAL - Calibration site.

2 - Land Use: SFR - single-family residence; CHR - Church; SCH - School; PLG - Playgrounds, recreational/sports fields.

3 - Noise levels in these columns are reported to a precision of 0.1 dBA to more clearly distinguish whether or not predicted noise levels are expected to increase between Without Project and With Project conditions. The accuracy of the absolute noise level predictions shown here is not as fine as one tenth of a decibel.

4 - The City's currently-adopted General Plan Noise Element establishes a CNEL of 65 dBA as the exterior noise standard for residential development, the facades of classrooms, and park uses.

5 - The minimum barrier height considered was 6 feet or 2 feet taller than the existing property wall (if applicable), whichever is higher. The maximum barrier height considered is 12 feet.

6 - Design A was only considered where one or more receivers were predicted to experience a Community Noise Equivalent Level (CNEL) of 65 dBA or higher under Design Year With Project conditions. It represents the minimum height required to reduce outdoor traffic noise exposure to a CNEL below 65 dBA at as many of the receivers exposed to those impacts as possible.

7 - Design B represents the minimum height required to provide five or more decibels of reduction in traffic noise exposure at all impacted receivers where such reduction is possible.

8 - In many cases, receivers selected to represent outdoor activity areas are set back a different distance from the roadway than the buildings themselves. Where outdoor impacts have been identified under one or more cruise speed scenarios and where the adequacy of noise reduction could be an issue for one or more of those scenarios, CNEL values predicted at the building facade are presented here. These are the appropriate values to use in computing the minimum OILR.

9 - It has been assumed that the Ranchero-Rd.-facing facades of buildings will provide at least 25 dB of outdoor to indoor noise level reduction (OILR) for older homes and at least 30 dB of OILR for newer homes. Therefore, values are reported in these columns only if the minimum required OILR is above these assumed levels.

* - Intervening building structures substantially obstruct line of sight to Ranchero Road. @ - OILR requirement is assumed to be met.

I.L. - Insertion Loss. W - Existing private property wall or soundwall. X - Represented land use depends upon Ranchero Road for vehicular access.

S - These receivers are located within school property. However, abatement is not warranted at these sports fields. The actual school classrooms are set much further back from the Ranchero Road, and would not be exposed to significant noise impacts.

Y - Adjacent/intervening driveways would inhibit feasibility of sound walls within existing/future City right-of-way.

Z - To be feasible, a soundwall would need to extend along the boundary of adjacent undeveloped property. However, the undeveloped property would depend upon vehicular access to Ranchero Road to remain viable.

Table D-2. Predicted Future Noise Levels and Noise Abatement Analysis: National-Average Pavement Conditions: OGAC Pavement (cont'd)

Receiver I.D. [1]	Barrier I.D. and Location	Land Use [2]	Number of Dwelling Units	Existing Noise Level CNEL, dBA	Future Noise Levels in Outdoor Activity Areas														CNEL at Selected Building Façades With Project (Without Barrier), dBA [8]	Minimum Outdoor to Indoor Level Reduction (OILR, dB) to Avoid Interior Impact [9]
					Design Year Without Project		Design Year With Project			Impact Type		Noise Prediction with Barrier [5]								
												Barrier Design A [6]			Barrier Design B [7]					
					CNEL, dBA	Difference from Existing Conditions CNEL, dBA	CNEL, dBA	Difference from Existing Conditions CNEL, dBA	Difference from Future No Project Conditions CNEL, dBA	Design Year With Project CNEL Equals or Exceeds 65 dBA [4]	Project Increase of 5 dB or More Resulting in CNEL of 60 dBA or More	Height, ft	CNEL, dBA	I.L., dB	Height, ft	CNEL, dBA	I.L., dB		
R 13 X	--	SFR	1	65.3	70.1	+4.8	70.7	+5.4	+0.6	Yes	No	--	--	--	--	--	--	--	@
R 14		SFR	1	50.8	56.6	+5.8	57.0	+6.2	+0.4	No	No	--	--	--	--	--	--	--	--
R 15	--	PLG S	1	50.5	55.7	+5.2	55.8	+5.3	+0.1	No	No	--	--	--	--	--	--	--	--
R 16		PLG S	3	56.6	61.7	+5.1	61.8	+5.2	+0.1	No	No	--	--	--	--	--	--	--	--
R 17		PLG S	8	58.4	63.3	+4.9	63.2	+4.8	-0.1	No	No	--	--	--	--	--	--	--	--
R 18	S147	SFR	1	51.4	57.2	+5.8	58.4	+7.0	+1.2	No	No	9	57	1	6	57	1	--	--
R 19	R/W	SFR	1	65.0	70.0	+5.0	71.4	+6.4	+1.4	Yes	No	**9**	**64**	7	**6**	66	**5**	--	--
R 20	S151	SCH	1	53.1	58.8	+5.7	60.6	+7.5	+1.8	No	No	6	58	3	9	58	3	--	--
R 21	R/W	CHR	1	58.5	63.8	+5.3	65.5	+7.0	+1.7	Yes	No	**6**	**62**	4	**9**	61	**5**	--	--
R 22 X		SFR	1	67.7	72.6	+4.9	74.4	+6.7	+1.8	Yes	No	6	69	5	**9**	68	**6**	--	--
R 23 X	--	SFR	2	62.2	67.0	+4.8	67.0	+4.8	0.0	Yes	No	--	--	--	--	--	--	--	@
R 24 Z		SFR	1	48.9	54.4	+5.5	54.9	+6.0	+0.5	No	No	--	--	--	--	--	--	--	--
R 25 X,W		SFR	1	58.9	64.0	+5.1	64.5	+5.6	+0.5	No	No	--	--	--	--	--	--	--	@

Notes:

1 - STxx or LTxx - measurement site number; CAL - Calibration site.

2 - Land Use: SFR - single-family residence; CHR - Church; SCH - School; PLG - Playgrounds, recreational/sports fields.

3 - Noise levels in these columns are reported to a precision of 0.1 dBA to more clearly distinguish whether or not predicted noise levels are expected to increase between Without Project and With Project conditions. The accuracy of the absolute noise level predictions shown here is not as fine as one tenth of a decibel.

4 - The City's currently-adopted General Plan Noise Element establishes a CNEL of 65 dBA as the exterior noise standard for residential development, the facades of classrooms, and park uses.

5 - The minimum barrier height considered was 6 feet or 2 feet taller than the existing property wall (if applicable), whichever is higher. The maximum barrier height considered is 12 feet.

6 - Design A was only considered where one or more receivers were predicted to experience a Community Noise Equivalent Level (CNEL) of 65 dBA or higher under Design Year With Project conditions. It represents the minimum height required to reduce outdoor traffic noise exposure to a CNEL below 65 dBA at as many of the receivers exposed to those impacts as possible.

7 - Design B represents the minimum height required to provide five or more decibels of reduction in traffic noise exposure at all impacted receivers where such reduction is possible.

8 - In many cases, receivers selected to represent outdoor activity areas are set back a different distance from the roadway than the buildings themselves. Where outdoor impacts have been identified under one or more cruise speed scenarios and where the adequacy of noise reduction could be an issue for one or more of those scenarios, CNEL values predicted at the building facade are presented here. These are the appropriate values to use in computing the minimum OILR.

9 - It has been assumed that the Ranchero-Rd.-facing facades of buildings will provide at least 25 dB of outdoor to indoor noise level reduction (OILR) for older homes and at least 30 dB of OILR for newer homes. Therefore, values are reported in these columns only if the minimum required OILR is above these assumed levels.

* - Intervening building structures substantially obstruct line of sight to Ranchero Road. @ - OILR requirement is assumed to be met.

I.L. - Insertion Loss. W - Existing private property wall or soundwall. X - Represented land use depends upon Ranchero Road for vehicular access.

S - These receivers are located within school property. However, abatement is not warranted at these sports fields. The actual school classrooms are set much further back from the Ranchero Road, and would not be exposed to significant noise impacts.

Y - Adjacent/intervening driveways would inhibit feasibility of sound walls within existing/future City right-of-way.

Z - To be feasible, a soundwall would need to extend along the boundary of adjacent undeveloped property. However, the undeveloped property would depend upon vehicular access to Ranchero Road to remain viable.

Table D-2. Predicted Future Noise Levels and Noise Abatement Analysis: National-Average Pavement Conditions: OGAC Pavement (cont'd)

Receiver I.D. [1]	Barrier I.D. and Location	Land Use [2]	Number of Dwelling Units	Existing Noise Level CNEL, dBA	Future Noise Levels in Outdoor Activity Areas														CNEL at Selected Building Façades With Project (Without Barrier), dBA [8]	Minimum Outdoor to Indoor Level Reduction (OILR, dB) to Avoid Interior Impact [9]
					Design Year Without Project		Design Year With Project			Impact Type		Noise Prediction with Barrier [5]								
												Barrier Design A [6]			Barrier Design B [7]					
					CNEL, dBA	Difference from Existing Conditions CNEL, dBA	CNEL, dBA	Difference from Existing Conditions CNEL, dBA	Difference from Future No Project Conditions CNEL, dBA	Design Year With Project CNEL Equals or Exceeds 65 dBA [4]	Project Increase of 5 dB or More Resulting in CNEL of 60 dBA or More	Height, ft	CNEL, dBA	I.L., dB	Height, ft	CNEL, dBA	I.L., dB		
R 26	--	SFR	2	62.8	67.7	+4.9	67.6	+4.8	-0.1	Yes	No	--	--	--	--	--	--	--	-
R 27 X	--	SFR	1	63.9	68.7	+4.8	67.8	+3.9	-0.9	Yes	No	--	--	--	--	--	--	--	@
R 28 X,W		SFR	1	61.2	66.2	+5.0	66.2	+5.0	0.0	Yes	No	--	--	--	--	--	--	--	@
R 29 LT2/CAL	S223 R/W	SFR	1	66.5	71.3	+4.8	71.4	+4.9	+0.1	Yes	No	**8**	**63**	8	**6**	65	**6**	--	-
R 30 X		SFR	2	64.1	69.0	+4.9	68.9	+4.8	-0.1	Yes	No	--	--	--	--	--	--	--	@
R 31 X		SFR	2	64.0	70.0	+6.0	69.9	+5.9	-0.1	Yes	No	--	--	--	--	--	--	--	@
R 32 *		SFR	3	53.9	60.1	+6.2	59.8	+5.9	-0.3	No	No	--	--	--	--	--	--	--	-
R 33 Z		SFR	1	64.3	70.3	+6.0	69.5	+5.2	-0.8	Yes	No	--	--	--	--	--	--	--	@
R 34 X	--	SFR	4	63.9	70.0	+6.1	68.9	+5.0	-1.1	Yes	No	--	--	--	--	--	--	--	@
R 35 Z		SFR	1	64.3	70.4	+6.1	69.3	+5.0	-1.1	Yes	No	--	--	--	--	--	--	--	@
R 36 Y		SFR	3	63.9	70.0	+6.1	68.7	+4.8	-1.3	Yes	No	--	--	--	--	--	--	--	@
R 37 X		SFR	1	64.4	70.5	+6.1	69.5	+5.1	-1.0	Yes	No	--	--	--	--	--	--	--	@
R 38 X		SFR	4	63.9	69.9	+6.0	68.6	+4.7	-1.3	Yes	No	--	--	--	--	--	--	--	26

Notes:

1 - STxx or LTxx - measurement site number; CAL - Calibration site.

2 - Land Use: SFR - single-family residence; CHR - Church; SCH - School; PLG - Playgrounds, recreational/sports fields.

3 - Noise levels in these columns are reported to a precision of 0.1 dBA to more clearly distinguish whether or not predicted noise levels are expected to increase between Without Project and With Project conditions. The accuracy of the absolute noise level predictions shown here is not as fine as one tenth of a decibel.

4 - The City's currently-adopted General Plan Noise Element establishes a CNEL of 65 dBA as the exterior noise standard for residential development, the facades of classrooms, and park uses.

5 - The minimum barrier height considered was 6 feet or 2 feet taller than the existing property wall (if applicable), whichever is higher. The maximum barrier height considered is 12 feet.

6 - Design A was only considered where one or more receivers were predicted to experience a Community Noise Equivalent Level (CNEL) of 65 dBA or higher under Design Year With Project conditions. It represents the minimum height required to reduce outdoor traffic noise exposure to a CNEL below 65 dBA at as many of the receivers exposed to those impacts as possible.

7 - Design B represents the minimum height required to provide five or more decibels of reduction in traffic noise exposure at all impacted receivers where such reduction is possible.

8 - In many cases, receivers selected to represent outdoor activity areas are set back a different distance from the roadway than the buildings themselves. Where outdoor impacts have been identified under one or more cruise speed scenarios and where the adequacy of noise reduction could be an issue for one or more of those scenarios, CNEL values predicted at the building facade are presented here. These are the appropriate values to use in computing the minimum OILR.

9 - It has been assumed that the Ranchero-Rd.-facing facades of buildings will provide at least 25 dB of outdoor to indoor noise level reduction (OILR) for older homes and at least 30 dB of OILR for newer homes. Therefore, values are reported in these columns only if the minimum required OILR is above these assumed levels.

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Table D-2. Predicted Future Noise Levels and Noise Abatement Analysis: National-Average Pavement Conditions: OGAC Pavement (cont'd)

Receiver I.D. [1]	Barrier I.D. and Location	Land Use [2]	Number of Dwelling Units	Existing Noise Level CNEL, dBA	Future Noise Levels in Outdoor Activity Areas							Noise Prediction with Barrier [5]						CNEL at Selected Building Façades With Project (Without Barrier), dBA [8]	Minimum Outdoor to Indoor Level Reduction (OILR, dB) to Avoid Interior Impact [9]
					Design Year Without Project		Design Year With Project			Impact Type		Barrier Design A [6]			Barrier Design B [7]				
					CNEL, dBA	Difference from Existing Conditions CNEL, dBA	CNEL, dBA	Difference from Existing Conditions CNEL, dBA	Difference from Future No Project Conditions CNEL, dBA	Design Year With Project CNEL Equals or Exceeds 65 dBA [4]	Project Increase of 5 dB or More Resulting in CNEL of 60 dBA or More	Height, ft	CNEL, dBA	I.L., dB	Height, ft	CNEL, dBA	I.L., dB		
R 39 Z		SFR	1	64.1	70.2	+6.1	68.9	+4.8	-1.3	Yes	No	--	--	--	--	--	--	--	@
R 40 X		SFR	5	63.9	70.0	+6.1	69.7	+5.8	-0.3	Yes	No	--	--	--	--	--	--	71	27
R 41 X		SFR	4	63.9	70.0	+6.1	70.2	+6.3	+0.2	Yes	No	--	--	--	--	--	--	72	28
R 42 X		SFR	3	64.0	70.1	+6.1	70.2	+6.2	+0.1	Yes	No	--	--	--	--	--	--	--	@
R 43 X		SFR	1	64.0	70.0	+6.0	70.5	+6.5	+0.5	Yes	No	--	--	--	--	--	--	72	28
R 44 Y		SFR	3	54.7	61.4	+6.7	60.9	+6.2	-0.5	No	No	--	--	--	--	--	--	--	--
R 45 X	--	SCH	1	60.5	66.6	+6.1	66.2	+5.7	-0.4	Yes	No	--	--	--	--	--	--	--	@
R 46 X,*		PLY	1	52.5	58.8	+6.3	58.7	+6.2	-0.1	No	No	--	--	--	--	--	--	--	--
R 47 X		SFR	4	61.5	67.5	+6.0	67.6	+6.1	+0.1	Yes	No	--	--	--	--	--	--	68	@
R 48 X		SFR	2	60.6	66.6	+6.0	66.8	+6.2	+0.2	Yes	No	--	--	--	--	--	--	68	@
R 49 X		SFR	1	60.2	66.5	+6.3	66.8	+6.6	+0.3	Yes	No	--	--	--	--	--	--	68	@
R 50 X		SFR	2	59.1	67.2	+8.1	68.3	+9.2	+1.1	Yes	No	--	--	--	--	--	--	68	@
R 51 Y		SFR	1	46.9	55.0	+8.1	55.8	+8.9	+0.8	No	No	--	--	--	--	--	--	--	--

Notes:

1 - STxx or LTxx - measurement site number; CAL - Calibration site.

2 - Land Use: SFR - single-family residence; CHR - Church; SCH - School; PLG - Playgrounds, recreational/sports fields.

3 - Noise levels in these columns are reported to a precision of 0.1 dBA to more clearly distinguish whether or not predicted noise levels are expected to increase between Without Project and With Project conditions. The accuracy of the absolute noise level predictions shown here is not as fine as one tenth of a decibel.

4 - The City's currently-adopted General Plan Noise Element establishes a CNEL of 65 dBA as the exterior noise standard for residential development, the facades of classrooms, and park uses.

5 - The minimum barrier height considered was 6 feet or 2 feet taller than the existing property wall (if applicable), whichever is higher. The maximum barrier height considered is 12 feet.

6 - Design A was only considered where one or more receivers were predicted to experience a Community Noise Equivalent Level (CNEL) of 65 dBA or higher under Design Year With Project conditions. It represents the minimum height required to reduce outdoor traffic noise exposure to a CNEL below 65 dBA at as many of the receivers exposed to those impacts as possible.

7 - Design B represents the minimum height required to provide five or more decibels of reduction in traffic noise exposure at all impacted receivers where such reduction is possible.

8 - In many cases, receivers selected to represent outdoor activity areas are set back a different distance from the roadway than the buildings themselves. Where outdoor impacts have been identified under one or more cruise speed scenarios and where the adequacy of noise reduction could be an issue for one or more of those scenarios, CNEL values predicted at the building facade are presented here. These are the appropriate values to use in computing the minimum OILR.

9 - It has been assumed that the Ranchero-Rd.-facing facades of buildings will provide at least 25 dB of outdoor to indoor noise level reduction (OILR) for older homes and at least 30 dB of OILR for newer homes. Therefore, values are reported in these columns only if the minimum required OILR is above these assumed levels.

* - Intervening building structures substantially obstruct line of sight to Ranchero Road. @ - OILR requirement is assumed to be met.

I.L. - Insertion Loss. W - Existing private property wall or soundwall. X - Represented land use depends upon Ranchero Road for vehicular access.

S - These receivers are located within school property. However, abatement is not warranted at these sports fields. The actual school classrooms are set much further back from the Ranchero Road, and would not be exposed to significant noise impacts.

Y - Adjacent/intervening driveways would inhibit feasibility of sound walls within existing/future City right-of-way.

Z - To be feasible, a soundwall would need to extend along the boundary of adjacent undeveloped property. However, the undeveloped property would depend upon vehicular access to Ranchero Road to remain viable.

Table D-2. Predicted Future Noise Levels and Noise Abatement Analysis: National-Average Pavement Conditions: OGAC Pavement (cont'd)

Receiver I.D. [1]	Barrier I.D. and Location	Land Use [2]	Number of Dwelling Units	Existing Noise Level CNEL, dBA	Future Noise Levels in Outdoor Activity Areas														CNEL at Selected Building Façades With Project (Without Barrier), dBA [8]	Minimum Outdoor to Indoor Level Reduction (OILR, dB) to Avoid Interior Impact [9]
					Design Year Without Project		Design Year With Project			Impact Type		Noise Prediction with Barrier [5]								
												Barrier Design A [6]			Barrier Design B [7]					
					CNEL, dBA	Difference from Existing Conditions CNEL, dBA	CNEL, dBA	Difference from Existing Conditions CNEL, dBA	Difference from Future No Project Conditions CNEL, dBA	Design Year With Project CNEL Equals or Exceeds 65 dBA [4]	Project Increase of 5 dB or More Resulting in CNEL of 60 dBA or More	Height, ft	CNEL, dBA	I.L., dB	Height, ft	CNEL, dBA	I.L., dB		
R 52 X	--	SFR	1	60.4	65.4	+5.0	66.2	+5.8	+0.8	Yes	No	--	--	--	--	--	--	--	@
R 53	--	SFR	1	63.0	67.8	+4.8	66.8	+3.8	-1.0	Yes	No	--	--	--	--	--	--	--	--
R 54	S80 R/W	SFR	1	62.8	67.6	+4.8	66.5	+3.7	-1.1	Yes	No	**6**	**62**	5	**6**	62	**5**	--	--
R 55		SFR	1	50.7	56.2	+5.5	56.1	+5.4	-0.1	No	No	6	54	2	6	54	2	--	--
R 56		SFR	--[10]	62.3	67.4	+5.1	67.4	+5.1	0.0	Yes	No	**6**	**61**	6	**6**	61	**6**	--	--
R 57 X	--	SFR	1	65.2	70.0	+4.8	70.0	+4.8	0.0	Yes	No	--	--	--	--	--	--	--	@
R 58 Y		SFR	1	52.0	57.7	+5.7	58.5	+6.5	+0.8	No	No	--	--	--	--	--	--	--	--
R 59	S114 R/W	SFR	1	65.2	70.1	+4.9	70.4	+5.2	+0.3	Yes	No	**12**	**64**	6	**9**	65	**5**	--	--
R 60 Y	--	SFR	1	54.7	60.2	+5.5	61.3	+6.6	+1.1	No	No	--	--	--	--	--	--	--	--
R 61 Y		SFR	1	51.6	57.3	+5.7	58.0	+6.4	+0.7	No	No	--	--	--	--	--	--	--	--
R 62	--	SFR	1	53.7	59.2	+5.5	59.4	+5.7	+0.2	No	No	--	--	--	--	--	--	--	--
R 63		SFR	1	60.6	65.6	+5.0	65.2	+4.6	-0.4	Yes	No	--	--	--	--	--	--	--	--
R 64 W	--	SFR	1	60.9	66.1	+5.2	65.8	+4.9	-0.3	Yes	No	--	--	--	--	--	--	--	--
R 65 Z	--	SFR	6	52.6	58.3	+5.7	59.1	+6.5	+0.8	No	No	--	--	--	--	--	--	--	--

Notes:

1 - STxx or LTxx - measurement site number; CAL - Calibration site.

2 - Land Use: SFR - single-family residence; CHR - Church; SCH - School; PLG - Playgrounds, recreational/sports fields.

3 - Noise levels in these columns are reported to a precision of 0.1 dBA to more clearly distinguish whether or not predicted noise levels are expected to increase between Without Project and With Project conditions. The accuracy of the absolute noise level predictions shown here is not as fine as one tenth of a decibel.

4 - The City's currently-adopted General Plan Noise Element establishes a CNEL of 65 dBA as the exterior noise standard for residential development, the facades of classrooms, and park uses.

5 - The minimum barrier height considered was 6 feet or 2 feet taller than the existing property wall (if applicable), whichever is higher. The maximum barrier height considered is 12 feet.

6 - Design A was only considered where one or more receivers were predicted to experience a Community Noise Equivalent Level (CNEL) of 65 dBA or higher under Design Year With Project conditions. It represents the minimum height required to reduce outdoor traffic noise exposure to a CNEL below 65 dBA at as many of the receivers exposed to those impacts as possible.

7 - Design B represents the minimum height required to provide five or more decibels of reduction in traffic noise exposure at all impacted receivers where such reduction is possible.

8 - In many cases, receivers selected to represent outdoor activity areas are set back a different distance from the roadway than the buildings themselves. Where outdoor impacts have been identified under one or more cruise speed scenarios and where the adequacy of noise reduction could be an issue for one or more of those scenarios, CNEL values predicted at the building facade are presented here. These are the appropriate values to use in computing the minimum OILR.

9 - It has been assumed that the Ranchero-Rd.-facing facades of buildings will provide at least 25 dB of outdoor to indoor noise level reduction (OILR) for older homes and at least 30 dB of OILR for newer homes. Therefore, values are reported in these columns only if the minimum required OILR is above these assumed levels.

10 - R56 represents the same residential unit as R54. The applicable dwelling unit is accounted for with R54.

* - Intervening building structures substantially obstruct line of sight to Ranchero Road. @ - OILR requirement is assumed to be met.

I.L. - Insertion Loss. W - Existing private property wall or soundwall. X - Represented land use depends upon Ranchero Road for vehicular access.

S - These receivers are located within school property. However, abatement is not warranted at these sports fields. The actual school classrooms are set much further back from the Ranchero Road, and would not be exposed to significant noise impacts.

Y - Adjacent/intervening driveways would inhibit feasibility of sound walls within existing/future City right-of-way.

Z - To be feasible, a soundwall would need to extend along the boundary of adjacent undeveloped property. However, the undeveloped property would depend upon vehicular access to Ranchero Road to remain viable.

Table D-2. Predicted Future Noise Levels and Noise Abatement Analysis: National-Average Pavement Conditions: OGAC Pavement (cont'd)

Receiver I.D. [1]	Barrier I.D. and Location	Land Use [2]	Number of Dwelling Units	Existing Noise Level CNEL, dBA	Future Noise Levels in Outdoor Activity Areas													CNEL at Selected Building Façades With Project (Without Barrier), dBA [8]	Minimum Outdoor to Indoor Level Reduction (OILR, dB) to Avoid Interior Impact [9]
					Design Year Without Project		Design Year With Project			Impact Type		Noise Prediction with Barrier [5]							
												Barrier Design A [6]			Barrier Design B [7]				
					CNEL, dBA	Difference from Existing Conditions CNEL, dBA	CNEL, dBA	Difference from Existing Conditions CNEL, dBA	Difference from Future No Project Conditions CNEL, dBA	Design Year With Project CNEL Equals or Exceeds 65 dBA [4]	Project Increase of 5 dB or More Resulting in CNEL of 60 dBA or More	Height, ft	CNEL, dBA	I.L., dB	Height, ft	CNEL, dBA	I.L., dB		
R 66 W	S148 R/W	SFR	1	62.0	67.1	+5.1	68.2	+6.2	+1.1	Yes	No	**8**	**64**	4	**9**	63	**5**	--	--
R 67 X	--	SFR	1	62.9	67.9	+5.0	69.1	+6.2	+1.2	Yes	No	--	--	--	--	--	--	--	@
R 68 Z		SFR	1	63.6	68.5	+4.9	69.0	+5.4	+0.5	Yes	No	--	--	--	--	--	--	--	@
R 69	--	SFR	1	61.4	66.3	+4.9	65.6	+4.2	-0.7	Yes	No	--	--	--	--	--	--	--	--
R 70	--	SFR	1	57.2	62.4	+5.2	62.2	+5.0	-0.2	No	No	--	--	--	--	--	--	--	--
R 71	--	SFR	2	64.7	69.6	+4.9	68.7	+4.0	-0.9	Yes	No	--	--	--	--	--	--	--	--
R 72	--	SFR	2	53.9	59.3	+5.4	59.8	+5.9	+0.5	No	No	--	--	--	--	--	--	--	--
R 73 W	S226 R/W	SFR	3	59.6	64.8	+5.2	64.6	+5.0	-0.2	No	No	8	63	2	12	61	4	--	--
R 74 W		SFR	1	53.4	58.9	+5.5	58.0	+4.6	-0.9	No	No	8	58	0	12	58	0	--	--
R 75 W		SFR	2	46.7	52.6	+5.9	52.0	+5.3	-0.6	No	No	8	52 [10]	0	12	52 [10]	0	--	--
R 76 W		SFR	13	52.1	57.6	+5.5	57.5	+5.4	-0.1	No	No	8	58	0	12	57	1	--	--
R 77 W		SFR	5	59.6	64.9	+5.3	65.1	+5.5	+0.2	Yes	No	**8**	**63**	2	**12**	60	**5**	--	--

Notes:

1 - STxx or LTxx - measurement site number; CAL - Calibration site.

2 - Land Use: SFR - single-family residence; CHR - Church; SCH - School; PLG - Playgrounds, recreational/sports fields.

3 - Noise levels in these columns are reported to a precision of 0.1 dBA to more clearly distinguish whether or not predicted noise levels are expected to increase between Without Project and With Project conditions. The accuracy of the absolute noise level predictions shown here is not as fine as one tenth of a decibel.

4 - The City's currently-adopted General Plan Noise Element establishes a CNEL of 65 dBA as the exterior noise standard for residential development, the facades of classrooms, and park uses.

5 - The minimum barrier height considered was 6 feet or 2 feet taller than the existing property wall (if applicable), whichever is higher. The maximum barrier height considered is 12 feet.

6 - Design A was only considered where one or more receivers were predicted to experience a Community Noise Equivalent Level (CNEL) of 65 dBA or higher under Design Year With Project conditions. It represents the minimum height required to reduce outdoor traffic noise exposure to a CNEL below 65 dBA at as many of the receivers exposed to those impacts as possible.

7 - Design B represents the minimum height required to provide five or more decibels of reduction in traffic noise exposure at all impacted receivers where such reduction is possible.

8 - In many cases, receivers selected to represent outdoor activity areas are set back a different distance from the roadway than the buildings themselves. Where outdoor impacts have been identified under one or more cruise speed scenarios and where the adequacy of noise reduction could be an issue for one or more of those scenarios, CNEL values predicted at the building facade are presented here. These are the appropriate values to use in computing the minimum OILR.

9 - It has been assumed that the Ranchero-Rd.-facing facades of buildings will provide at least 25 dB of outdoor to indoor noise level reduction (OILR) for older homes and at least 30 dB of OILR for newer homes. Therefore, values are reported in these columns only if the minimum required OILR is above these assumed levels.

10 - Noise levels predicted by TNM are not reliable due to issues with procedures used in TNM to calculate noise levels when two parallel walls intervene between source and receiver. Accordingly, these noise levels have been set to be equal noise levels predicted without abatement. This is deemed to be relatively conservative corrected values.

* - Intervening building structures substantially obstruct line of sight to Ranchero Road. @ - OILR requirement is assumed to be met.

I.L. - Insertion Loss. W - Existing private property wall or soundwall. X - Represented land use depends upon Ranchero Road for vehicular access.

S - These receivers are located within school property. However, abatement is not warranted at these sports fields. The actual school classrooms are set much further back from the Ranchero Road, and would not be exposed to significant noise impacts.

Y - Adjacent/intervening driveways would inhibit feasibility of sound walls within existing/future City right-of-way.

Z - To be feasible, a soundwall would need to extend along the boundary of adjacent undeveloped property. However, the undeveloped property would depend upon vehicular access to Ranchero Road to remain viable.

Table D-2. Predicted Future Noise Levels and Noise Abatement Analysis: National-Average Pavement Conditions: OGAC Pavement (cont'd)

Receiver I.D. [1]	Barrier I.D. and Location	Land Use [2]	Number of Dwelling Units	Existing Noise Level CNEL, dBA	Future Noise Levels in Outdoor Activity Areas																
					Design Year Without Project		Design Year With Project			Impact Type		Noise Prediction with Barrier [5]							CNEL at Selected Building Façades With Project (Without Barrier), dBA [8]	Minimum Outdoor to Indoor Level Reduction (OILR, dB) to Avoid Interior Impact [9]
												Barrier Design A [6]			Barrier Design B [7]					
					CNEL, dBA	Difference from Existing Conditions CNEL, dBA	CNEL, dBA	Difference from Existing Conditions CNEL, dBA	Difference from Future No Project Conditions CNEL, dBA	Design Year With Project CNEL Equals or Exceeds 65 dBA [4]	Project Increase of 5 dB or More Resulting in CNEL of 60 dBA or More	Height, ft	CNEL, dBA	I.L., dB	Height, ft	CNEL, dBA	I.L., dB		
R 78 W,*	--	SFR	4	47.9	53.9	+6.0	53.6	+5.7	-0.3	No	No	--	--	--	--	--	--	--	--
R 79 W		SFR	5	58.1	63.9	+5.8	64.3	+6.2	+0.4	No	No	--	--	--	--	--	--	--	@
R 80 W		SFR	3	57.5	63.7	+6.2	63.9	+6.4	+0.2	No	No	--	--	--	--	--	--	--	@
R 81	--	SFR	1	58.0	65.7	+7.7	64.2	+6.2	-1.5	No	No	--	--	--	--	--	--	--	--
R 82 X	--	SFR	2	61.4	67.5	+6.1	68.2	+6.8	+0.7	Yes	No	--	--	--	--	--	--	--	@
R 83 X		SFR	4	61.5	67.6	+6.1	68.9	+7.4	+1.3	Yes	No	--	--	--	--	--	--	71	27
R 84 X		SFR	4	61.4	67.6	+6.2	68.3	+6.9	+0.7	Yes	No	--	--	--	--	--	--	--	@
R 85 X		SFR	4	61.1	67.3	+6.2	68.1	+7.0	+0.8	Yes	No	--	--	--	--	--	--	--	@
R 86 Y,*		SFR	3	52.2	58.6	+6.4	59.0	+6.8	+0.4	No	No	--	--	--	--	--	--	--	--
R 87 W,*		SFR	1	51.0	57.5	+6.5	57.6	+6.6	+0.1	No	No	--	--	--	--	--	--	--	--
R 88 W,*		SFR	1	53.6	60.1	+6.5	60.0	+6.4	-0.1	No	No	--	--	--	--	--	--	--	--
R 89 X		SFR	1	62.3	68.4	+6.1	68.7	+6.4	+0.3	Yes	No	--	--	--	--	--	--	--	@

Notes:

1 - STxx or LTxx - measurement site number; CAL - Calibration site.

2 - Land Use: SFR - single-family residence; CHR - Church; SCH - School; PLG - Playgrounds, recreational/sports fields.

3 - Noise levels in these columns are reported to a precision of 0.1 dBA to more clearly distinguish whether or not predicted noise levels are expected to increase between Without Project and With Project conditions. The accuracy of the absolute noise level predictions shown here is not as fine as one tenth of a decibel.

4 - The City's currently-adopted General Plan Noise Element establishes a CNEL of 65 dBA as the exterior noise standard for residential development, the facades of classrooms, and park uses.

5 - The minimum barrier height considered was 6 feet or 2 feet taller than the existing property wall (if applicable), whichever is higher. The maximum barrier height considered is 12 feet.

6 - Design A was only considered where one or more receivers were predicted to experience a Community Noise Equivalent Level (CNEL) of 65 dBA or higher under Design Year With Project conditions. It represents the minimum height required to reduce outdoor traffic noise exposure to a CNEL below 65 dBA at as many of the receivers exposed to those impacts as possible.

7 - Design B represents the minimum height required to provide five or more decibels of reduction in traffic noise exposure at all impacted receivers where such reduction is possible.

8 - In many cases, receivers selected to represent outdoor activity areas are set back a different distance from the roadway than the buildings themselves. Where outdoor impacts have been identified under one or more cruise speed scenarios and where the adequacy of noise reduction could be an issue for one or more of those scenarios, CNEL values predicted at the building facade are presented here. These are the appropriate values to use in computing the minimum OILR.

9 - It has been assumed that the Ranchero-Rd.-facing facades of buildings will provide at least 25 dB of outdoor to indoor noise level reduction (OILR) for older homes and at least 30 dB of OILR for newer homes. Therefore, values are reported in these columns only if the minimum required OILR is above these assumed levels.

10 - Noise levels predicted by TNM are not reliable due to issues with procedures used in TNM to calculate noise levels when two parallel walls intervene between source and receiver. Accordingly, these noise levels have been set to be equal noise levels predicted without abatement. This is deemed to be relatively conservative corrected values.

* - Intervening building structures substantially obstruct line of sight to Ranchero Road. @ - OILR requirement is assumed to be met.

I.L. - Insertion Loss. W - Existing private property wall or soundwall. X - Represented land use depends upon Ranchero Road for vehicular access.

S - These receivers are located within school property. However, abatement is not warranted at these sports fields. The actual school classrooms are set much further back from the Ranchero Road, and would not be exposed to significant noise impacts.

Y - Adjacent/intervening driveways would inhibit feasibility of sound walls within existing/future City right-of-way.

Z - To be feasible, a soundwall would need to extend along the boundary of adjacent undeveloped property. However, the undeveloped property would depend upon vehicular access to Ranchero Road to remain viable.

Table D-2. Predicted Future Noise Levels and Noise Abatement Analysis: National-Average Pavement Conditions: OGAC Pavement (cont'd)

Receiver I.D. [1]	Barrier I.D. and Location	Land Use [2]	Number of Dwelling Units	Existing Noise Level CNEL, dBA	Future Noise Levels in Outdoor Activity Areas														CNEL at Selected Building Façades With Project (Without Barrier), dBA [8]	Minimum Outdoor to Indoor Level Reduction (OILR, dB) to Avoid Interior Impact [9]
					Design Year Without Project		Design Year With Project			Impact Type		Noise Prediction with Barrier [5]								
												Barrier Design A [6]			Barrier Design B [7]					
					CNEL, dBA	Difference from Existing Conditions CNEL, dBA	CNEL, dBA	Difference from Existing Conditions CNEL, dBA	Difference from Future No Project Conditions CNEL, dBA	Design Year With Project CNEL Equals or Exceeds 65 dBA [4]	Project Increase of 5 dB or More Resulting in CNEL of 60 dBA or More	Height, ft	CNEL, dBA	I.L., dB	Height, ft	CNEL, dBA	I.L., dB		
R 90 [W]	S284	SFR	1	61.8	68.0	+6.2	69.1	+7.3	+1.1	Yes	No	**9**	**63**	6	**10**	62	**7**	--	--
R 91 [W,LT3/CAL]	R/W	SFR	2	60.2	66.5	+6.3	67.2	+7.0	+0.7	Yes	No	**9**	**63**	4	**10**	62	**5**	--	--
R 92 [W]	S288 R/W	SFR	1	64.0	70.1	+6.1	71.4	+7.4	+1.3	Yes	No	**10**	**63**	8	**8**	66	**5**	--	--
R 93 [W]	S292	SFR	1	63.5	69.6	+6.1	70.9	+7.4	+1.3	Yes	No	**10**	**64**	7	**8**	66	**5**	--	--
R 93A [W]	R/W	SFR	2	60.1	66.2	+6.1	66.5	+6.4	+0.3	Yes	No	**10**	**60**	7	**8**	61	**6**	--	--
R 94 [W]		SFR	4	57.2	63.5	+6.3	63.3	+6.1	-0.2	No	No	**--**	**--**	--	**--**	--	**--**	--	--
R 95 [W]	--	SFR	4	56.5	62.9	+6.4	62.3	+5.8	-0.6	No	No	**--**	**--**	--	**--**	--	**--**	--	--
R 96 [W]		SFR	3	46.6	53.4	+6.8	53.0	+6.4	-0.4	No	No	--	--	--	--	--	--	--	--
R 97 [W]	S306	SFR	1	50.8	57.3	+6.5	56.7	+5.9	-0.6	No	No	7	56	1	8	55	2	--	--
R 98 [W]	R/W	SFR	1	55.1	61.4	+6.3	60.7	+5.6	-0.7	No	No	7	59	2	8	59	2	--	--
R 99 [W]		SFR	1	61.2	67.3	+6.1	67.6	+6.4	+0.3	Yes	No	**7**	**64**	4	**8**	63	**5**	--	--
R 100 [W]		SFR	4	60.0	66.2	+6.2	66.0	+6.0	-0.2	Yes	No	**--**	**--**	--	**--**	--	**--**	--	--
R 101 [W]	--	SFR	3	59.9	66.1	+6.2	65.7	+5.8	-0.4	Yes	No	**--**	**--**	--	**--**	--	**--**	--	--
R 102 [W]		SFR	1	60.0	66.1	+6.1	65.8	+5.8	-0.3	Yes	No	--	--	--	--	--	--	--	--
R 103 [W]	--	SFR	1	57.0	63.2	+6.2	62.8	+5.8	-0.4	No	No	--	--	--	--	--	--	--	--
R 104	--	SFR	1	49.3	57.0	+7.7	57.1	+7.8	+0.1	No	No	--	--	--	--	--	--	--	--

Notes:

1 - STxx or LTxx - measurement site number; CAL - Calibration site.

2 - Land Use: SFR - single-family residence; CHR - Church; SCH - School; PLG - Playgrounds, recreational/sports fields.

3 - Noise levels in these columns are reported to a precision of 0.1 dBA to more clearly distinguish whether or not predicted noise levels are expected to increase between Without Project and With Project conditions. The accuracy of the absolute noise level predictions shown here is not as fine as one tenth of a decibel.

4 - The City's currently-adopted General Plan Noise Element establishes a CNEL of 65 dBA as the exterior noise standard for residential development, the facades of classrooms, and park uses.

5 - The minimum barrier height considered was 6 feet or 2 feet taller than the existing property wall (if applicable), whichever is higher. The maximum barrier height considered is 12 feet.

6 - Design A was only considered where one or more receivers were predicted to experience a Community Noise Equivalent Level (CNEL) of 65 dBA or higher under Design Year With Project conditions. It represents the minimum height required to reduce outdoor traffic noise exposure to a CNEL below 65 dBA at as many of the receivers exposed to those impacts as possible.

7 - Design B represents the minimum height required to provide five or more decibels of reduction in traffic noise exposure at all impacted receivers where such reduction is possible.

8 - In many cases, receivers selected to represent outdoor activity areas are set back a different distance from the roadway than the buildings themselves. Where outdoor impacts have been identified under one or more cruise speed scenarios and where the adequacy of noise reduction could be an issue for one or more of those scenarios, CNEL values predicted at the building facade are presented here. These are the appropriate values to use in computing the minimum OILR.

9 - It has been assumed that the Ranchero-Rd.-facing facades of buildings will provide at least 25 dB of outdoor to indoor noise level reduction (OILR) for older homes and at least 30 dB of OILR for newer homes. Therefore, values are reported in these columns only if the minimum required OILR is above these assumed levels.

* - Intervening building structures substantially obstruct line of sight to Ranchero Road. @ - OILR requirement is assumed to be met.

I.L. - Insertion Loss. W - Existing private property wall or soundwall. X - Represented land use depends upon Ranchero Road for vehicular access.

S - These receivers are located within school property. However, abatement is not warranted at these sports fields. The actual school classrooms are set much further back from the Ranchero Road, and would not be exposed to significant noise impacts.

Y - Adjacent/intervening driveways would inhibit feasibility of sound walls within existing/future City right-of-way.

Z - To be feasible, a soundwall would need to extend along the boundary of adjacent undeveloped property. However, the undeveloped property would depend upon vehicular access to Ranchero Road to remain viable.

Table D-3. Noise Abatement Analysis for Different Cruise Speeds: National-Average Pavement Conditions

Receiver I.D.[1]	Barrier I.D. and Location	Land Use[2]	Number of Dwelling Units	Design Year Without Project[3]	Noise Levels In Outdoor Activity Areas With Project																								CNEL at Selected Building Façades With Project (Without Barrier), dBA[8]			Minimum Outdoor to Indoor Level Reduction (OILR) to Avoid Interior Impact, dB[9]		
					CNEL Without Barrier, dBA[3,4]			Difference from Future No Project Conditions CNEL, dBA[3]			Noise Prediction with Barrier[5]																							
											Barrier Design A[6]									Barrier Design B[7]													
											Height, ft			CNEL, dBA			Insertion Loss, dB			Height, ft			CNEL, dBA			Insertion Loss, dB							
					50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph
R 1 W	S67 R/W	SFR	1	54.6	56.1	54.9	53.7	+1.5	+0.3	-0.9	7	--	--	56	--	--	0	--	--	11	--	--	55	--	--	1	--	--	--	--	--	--	--	--
R 2 W		SFR	1	63.3	**65.0**	63.7	62.4	+1.7	+0.4	-0.9	**7**	--	--	**63**	--	--	2	--	--	**11**	--	--	60	--	--	**5**	--	--	--	--	--	--	--	--
R 3 W	S73 R/W	SFR	1	64.9	**66.6**	**65.2**	64.0	+1.7	+0.3	-0.9	**7**	**7**	--	**64**	**63**	--	3	2	--	**10**	**10**	--	60	60	--	**7**	**5**	--	--	--	--	--	--	--
R 4 W		SFR	3	52.0	53.4	52.4	51.3	+1.4	+0.4	-0.7	7	7	--	53	52	--	0	0	--	10	10	--	52	52	--	1	0	--	--	--	--	--	--	--
R 5 W		SFR	1	63.4	**65.1**	64.3	62.7	+1.7	+0.9	-0.7	**7**	7	--	**63**	63	--	2	1	--	**10**	10	--	60	60	--	**5**	4	--	--	--	--	--	--	--
R 6 W	S81 R/W	SFR	1	63.7	**65.4**	64.6	63.0	+1.7	+0.9	-0.7	**7**	7	--	**63**	63	--	2	2	--	**10**	10	--	60	59	--	**5**	**6**	--	--	--	--	--	--	--
R 7 W		SFR	1	55.5	56.8	56.1	54.7	+1.3	+0.6	-0.8	7	7	--	57	56	--	0	1	--	10	10	--	56	55	--	1	1	--	--	--	--	--	--	--
R 8 W		SFR	1	64.4	**66.0**	**65.1**	63.5	+1.6	+0.7	-0.9	**7**	**7**	--	**64**	**63**	--	2	3	--	**10**	**10**	--	60	60	--	**6**	**5**	--	--	--	--	--	--	--
R 9 W	--	SFR	1	63.2	61.7	60.9	59.4	-1.5	-2.3	-3.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 9A LT1/CAL	--	SFR	1	60.6	60.4	59.5	58.1	-0.2	-1.1	-2.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 10		SFR	1	58.0	59.1	58.2	56.9	+1.1	+0.2	-1.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 11 W		SFR	1	56.5	58.0	57.2	55.8	+1.5	+0.7	-0.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 12 W		SFR	2	56.0	57.7	57.0	55.7	+1.7	+1.0	-0.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

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2 - Land Use: SFR - single-family residence; CHR - Church; SCH - School; PLG - Playgrounds, recreational/sports fields.

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4 - The City's currently-adopted General Plan Noise Element establishes an CNEL of 65 dBA as the exterior noise standard for residential development, the facades of classrooms, and park uses.

5 - The minimum barrier height considered was 6 feet or 2 feet taller than the existing property wall (if applicable), whichever is higher. The maximum barrier height considered is 12 feet.

6 - Design A was only considered where one or more receivers were predicted to experience a Community Noise Equivalent Level (CNEL) of 65 dBA or higher under Design Year With Project conditions. It represents the minimum height required to reduce outdoor traffic noise exposure to a CNEL below 65 dBA at as many of the receivers exposed to those impacts as possible.

7 - Design B represents the minimum height required to provide five or more decibels of reduction in traffic noise exposure at all impacted receivers where such reduction is possible.

8 - In many cases, receivers selected to represent outdoor activity areas are set back a different distance from the roadway than the buildings themselves. Where outdoor impacts have been identified under one or more cruise speed scenarios and where the adequacy of noise reduction could be an issue for one or more of those scenarios, CNEL values predicted at the building facade are presented here. These are the appropriate values to use in computing the minimum OILR.

9 - It has been assumed that the Ranchero-Rd.-facing facades of buildings will provide at least 25 dB of outdoor to indoor noise level reduction (OILR) for older homes and at least 30 dB of OILR for newer homes. Therefore, values are reported in these columns only if the minimum required OILR is above these assumed levels.

* - Intervening building structures substantially obstruct line of sight to Ranchero Road. @ - OILR requirement is assumed to be met.

I.L. - Insertion Loss. W - Existing private property wall or soundwall. X - Represented land use depends upon Ranchero Road for vehicular access.

S - These receivers are located within school property. However, abatement is not warranted at these sports fields. The actual school classrooms are set much further back from the Ranchero Road, and would not be exposed to significant noise impacts.

Y - Adjacent/intervening driveways would inhibit feasibility of sound walls within existing/future City right-of-way.

Z - To be feasible, a soundwall would need to extend along the boundary of adjacent undeveloped property. However, the undeveloped property would depend upon vehicular access to Ranchero Road to remain viable.

Table D-3. Noise Abatement Analysis for Different Cruise Speeds: National-Average Pavement Conditions (cont'd)

Receiver I.D.[1]	Barrier I.D. and Location	Land Use[2]	Number of Dwelling Units	Design Year Without Project[3]	Noise Levels In Outdoor Activity Areas With Project																								CNEL at Selected Building Façades With Project (Without Barrier), dBA[8]			Minimum Outdoor to Indoor Level Reduction (OILR) to Avoid Interior Impact, dB[9]		
					CNEL Without Barrier, dBA[3,4]			Difference from Future No Project Conditions CNEL, dBA[3]			Noise Prediction with Barrier[5]																						
											Barrier Design A[6]									Barrier Design B[7]												
											Height, ft			CNEL, dBA			Insertion Loss, dB			Height, ft			CNEL, dBA			Insertion Loss, dB						
					50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph
R 13 [X]	--	SFR	1	70.1	**72.2**	**71.1**	70.0	+2.1	+1.0	-0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	@	@	--
R 14		SFR	1	56.6	58.5	57.7	57.0	+1.9	+1.1	+0.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 15	--	PLG[S]	1	55.7	57.3	56.2	55.2	+1.6	+0.5	-0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 16		PLG[S]	3	61.7	63.3	62.2	61.1	+1.6	+0.5	-0.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 17		PLG[S]	8	63.3	64.7	63.4	62.3	+1.4	+0.1	-1.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 18	S147	SFR	1	57.2	59.9	58.7	57.7	+2.7	+1.5	+0.5	11	9	6	58	57	57	2	2	1	6	6	6	59	58	57	1	1	1	--	--	--	--	--	--
R 19	R/W	SFR	1	70.0	**72.9**	**71.5**	**70.3**	+2.9	+1.5	+0.3	**11**	**9**	**6**	**64**	**64**	**63**	9	8	7	**6**	**6**	**6**	68	66	65	**5**	**6**	**5**	--	--	--	--	--	--
R 20	S151	SCH	1	58.8	62.1	60.8	59.8	+3.3	+2.0	+1.0	**6**	6	6	**60**	59	58	2	2	2	10	10	6	59	58	58	3	3	2	--	--	--	--	--	--
R 21	R/W	CHR	1	63.8	**67.0**	**65.6**	64.5	+3.2	+1.8	+0.7	**6**	**6**	6	**64**	**62**	**61**	3	4	4	**10**	**10**	6	62	61	61	**5**	**5**	4	--	--	--	--	--	--
R 22 [X]		SFR	1	72.6	**75.9**	**74.4**	**73.1**	+3.3	+1.8	+0.5	**6**	**6**	**6**	70	69	68	6	5	5	**10**	**10**	**6**	69	68	68	**7**	**6**	**5**	--	--	--	--	--	--
R 23 [X]	--	SFR	2	67.0	**68.5**	**67.1**	65.9	+1.5	+0.1	-1.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	@	@	--
R 24 [Z]		SFR	1	54.4	56.4	55.3	54.2	+2.0	+0.9	-0.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 25 [X,W]		SFR	1	64.0	**66.0**	64.6	63.5	+2.0	+0.6	-0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	@	--	--

Notes:

1 - STxx or LTxx - measurement site number; CAL - Calibration site.

2 - Land Use: SFR - single-family residence; CHR - Church; SCH - School; PLG - Playgrounds, recreational/sports fields.

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4 - The City's currently-adopted General Plan Noise Element establishes an CNEL of 65 dBA as the exterior noise standard for residential development, the facades of classrooms, and park uses.

5 - The minimum barrier height considered was 6 feet or 2 feet taller than the existing property wall (if applicable), whichever is higher. The maximum barrier height considered is 12 feet.

6 - Design A was only considered where one or more receivers were predicted to experience a Community Noise Equivalent Level (CNEL) of 65 dBA or higher under Design Year With Project conditions. It represents the minimum height required to reduce outdoor traffic noise exposure to a CNEL below 65 dBA at as many of the receivers exposed to those impacts as possible.

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Table D-3. Noise Abatement Analysis for Different Cruise Speeds: National-Average Pavement Conditions (cont'd)

Receiver I.D.[1]	Barrier I.D. and Location	Land Use[2]	Number of Dwelling Units	Design Year Without Project[3]	Noise Levels In Outdoor Activity Areas With Project																								CNEL at Selected Building Façades With Project (Without Barrier), dBA[8]			Minimum Outdoor to Indoor Level Reduction (OILR) to Avoid Interior Impact, dB[9]		
					CNEL Without Barrier, dBA[3,4]			Difference from Future No Project Conditions CNEL, dBA[3]			Noise Prediction with Barrier[5]																							
											Barrier Design A[6]									Barrier Design B[7]													
											Height, ft			CNEL, dBA			Insertion Loss, dB			Height, ft			CNEL, dBA			Insertion Loss, dB							
					50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph
R 26	S197 R/W	SFR	2	67.7	**69.1**	**68.0**	**66.5**	+1.4	+0.3	-1.2	**6**	**6**	**6**	**64**	**63**	**62**	5	5	5	**6**	**6**	**6**	64	63	62	**5**	**5**	5	--	--	--	--	--	--
R 27 X	--	SFR	1	68.7	**69.3**	**68.3**	66.8	+0.6	-0.4	-1.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	@	--	--
R 28 X,W		SFR	1	66.2	**67.7**	**66.8**	**66.3**	+1.5	+0.6	+0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	@	@	@
R 29 LT2/CAL	S223 R/W	SFR	1	71.3	**72.9**	**71.9**	**70.3**	+1.6	+0.6	-1.0	**9**	**8**	**7**	**64**	**64**	**64**	9	8	6	**6**	**6**	**6**	67	66	65	**6**	**6**	**5**	--	--	--	--	--	--
R 30 X		SFR	2	69.0	**70.4**	**69.4**	67.9	+1.4	+0.4	-1.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	@	@	--
R 31 X		SFR	2	70.0	**71.4**	**70.2**	68.7	+1.4	+0.2	-1.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	@	@	--
R 32 *		SFR	3	60.1	61.3	60.1	59.0	+1.2	0.0	-1.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 33 Z		SFR	1	70.3	**71.0**	69.6	68.3	+0.7	-0.7	-2.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	@	--	--
R 34 X	--	SFR	4	70.0	**70.4**	69.0	67.7	+0.4	-1.0	-2.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	@	--	--
R 35 Z		SFR	1	70.4	**70.8**	69.4	68.1	+0.4	-1.0	-2.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	@	--	--
R 36 Y		SFR	3	70.0	**70.2**	68.8	67.6	+0.2	-1.2	-2.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	@	--	--
R 37 X		SFR	1	70.5	**71.0**	69.6	68.3	+0.5	-0.9	-2.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	@	--	--
R 38 X		SFR	4	69.9	**70.1**	68.7	67.4	+0.2	-1.2	-2.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	26	--	--

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											Height, ft			CNEL, dBA			Insertion Loss, dB			Height, ft			CNEL, dBA			Insertion Loss, dB							
					50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph
R 39 Z		SFR	1	70.2	**70.4**	69.0	67.8	+0.2	-1.2	-2.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	@	--	--
R 40 X		SFR	5	70.0	**71.2**	69.9	68.6	+1.2	-0.1	-1.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	71	--	--	27	--	--
R 41 X		SFR	4	70.0	**71.7**	**70.3**	69.0	+1.7	+0.3	-1.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	72	--	--	28	26	--
R 42 X		SFR	3	70.1	**71.7**	**70.3**	69.0	+1.6	+0.2	-1.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	@	@	--
R 43 X		SFR	1	70.0	**72.0**	**70.6**	69.3	+2.0	+0.6	-0.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	72	--	--	28	27	--
R 44 Y		SFR	3	61.4	62.4	61.4	60.0	+1.0	0.0	-1.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 45 X	--	SCH	1	66.6	**67.7**	**66.7**	65.1	+1.1	+0.1	-1.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	@	@	--
R 46 X*		PLY	1	58.8	60.2	59.3	58.0	+1.4	+0.5	-0.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 47 X		SFR	4	67.5	**69.1**	**68.0**	66.5	+1.6	+0.5	-1.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	68	--	--	@	@	--
R 48 X		SFR	2	66.6	**68.3**	**67.2**	66.1	+1.7	+0.6	-0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	68	--	--	@	@	--
R 49 X		SFR	1	66.5	**68.3**	**67.3**	66.0	+1.8	+0.8	-0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	68	--	--	@	@	--
R 50 X		SFR	2	67.2	**69.8**	**68.7**	67.2	+2.6	+1.5	0.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	68	67	--	@	@	--
R 51 Y		SFR	1	55.0	57.3	56.4	55.3	+2.3	+1.4	+0.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

1 - STxx or LTxx - measurement site number; CAL - Calibration site.

2 - Land Use: SFR - single-family residence; CHR - Church; SCH - School; PLG - Playgrounds, recreational/sports fields.

3 - Noise levels in these columns are reported to a precision of 0.1 dBA to more clearly distinguish whether or not predicted noise levels are expected to increase between Without Project and With Project conditions. The accuracy of the absolute noise level predictions shown here is not as fine as one tenth of a decibel.

4 - The City's currently-adopted General Plan Noise Element establishes an CNEL of 65 dBA as the exterior noise standard for residential development, the facades of classrooms, and park uses.

5 - The minimum barrier height considered was 6 feet or 2 feet taller than the existing property wall (if applicable), whichever is higher. The maximum barrier height considered is 12 feet.

6 - Design A was only considered where one or more receivers were predicted to experience a Community Noise Equivalent Level (CNEL) of 65 dBA or higher under Design Year With Project conditions. It represents the minimum height required to reduce outdoor traffic noise exposure to a CNEL below 65 dBA at as many of the receivers exposed to those impacts as possible.

7 - Design B represents the minimum height required to provide five or more decibels of reduction in traffic noise exposure at all impacted receivers where such reduction is possible.

8 - In many cases, receivers selected to represent outdoor activity areas are set back a different distance from the roadway than the buildings themselves. Where outdoor impacts have been identified under one or more cruise speed scenarios and where the adequacy of noise reduction could be an issue for one or more of those scenarios, CNEL values predicted at the building facade are presented here. These are the appropriate values to use in computing the minimum OILR.

9 - It has been assumed that the Ranchero-Rd.-facing facades of buildings will provide at least 25 dB of outdoor to indoor noise level reduction (OILR) for older homes and at least 30 dB of OILR for newer homes. Therefore, values are reported in these columns only if the minimum required OILR is above these assumed levels.

* - Intervening building structures substantially obstruct line of sight to Ranchero Road. @ - OILR requirement is assumed to be met.

I.L. - Insertion Loss. W - Existing private property wall or soundwall. X - Represented land use depends upon Ranchero Road for vehicular access.

S - These receivers are located within school property. However, abatement is not warranted at these sports fields. The actual school classrooms are set much further back from the Ranchero Road, and would not be exposed to significant noise impacts.

Y - Adjacent/intervening driveways would inhibit feasibility of sound walls within existing/future City right-of-way.

Z - To be feasible, a soundwall would need to extend along the boundary of adjacent undeveloped property. However, the undeveloped property would depend upon vehicular access to Ranchero Road to remain viable.

Table D-3. Noise Abatement Analysis for Different Cruise Speeds: National-Average Pavement Conditions (cont'd)

Receiver I.D. [1]	Barrier I.D. and Location	Land Use [2]	Number of Dwelling Units	Design Year Without Project [3]	Noise Levels In Outdoor Activity Areas With Project																								CNEL at Selected Building Façades With Project (Without Barrier), dBA[8]			Minimum Outdoor to Indoor Level Reduction (OILR) to Avoid Interior Impact, dB[9]		
					CNEL Without Barrier, dBA[3,4]			Difference from Future No Project Conditions CNEL, dBA[3]			Noise Prediction with Barrier[5]																									
											Barrier Design A[6]									Barrier Design B[7]															
											Height, ft			CNEL, dBA			Insertion Loss, dB			Height, ft			CNEL, dBA			Insertion Loss, dB								
					50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph
R 52 X	--	SFR	1	65.4	**67.7**	**66.4**	65.2	+2.3	+1.0	-0.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	@	@	--
R 53	S74 R/W	SFR	1	67.8	**68.3**	67.1	65.7	+0.5	-0.7	-2.1	**6**	--	**--**	**63**	--	**--**	5	--	--	**6**	--	**--**	63	62	--	**5**	--	**--**	--	--	--	--	--	--
R 54	S80 R/W	SFR	1	67.6	**68.0**	66.9	65.5	+0.4	-0.7	-2.1	**6**	6	**--**	**64**	62	**--**	4	5	--	**6**	6	**--**	63	62	--	**5**	5	**--**	--	--	--	--	--	--
R 55		SFR	1	56.2	57.6	55.7	54.3	+1.4	-0.5	-1.9	6	6	--	55	54	--	3	2	--	6	6	--	55	54	--	3	2	--	--	--	--	--	--	--
R 56		SFR	--[10]	67.4	**68.9**	**66.7**	65.3	+1.5	-0.7	-2.1	**6**	**6**	**--**	**63**	**62**	**--**	6	5	--	**6**	**6**	**--**	62	62	--	**7**	**5**	**--**	--	--	--	--	--	--
R 57 X	--	SFR	1	70.0	**71.5**	**70.4**	**69.3**	+1.5	+0.4	-0.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	@	@	--
R 58 Y		SFR	1	57.7	60.0	59.1	58.3	+2.3	+1.4	+0.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 59	S114 R/W	SFR	1	70.1	**71.9**	**70.7**	69.6	+1.8	+0.6	-0.5	**12**	**12**	**--**	**66**	**64**	**--**	6	7	--	**9**	**9**	**--**	67	66	**--**	**5**	**5**	**--**	--	--	--	--	--	--
R 60 Y	--	SFR	1	60.2	62.8	61.8	60.8	+2.6	+1.6	+0.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 61 Y		SFR	1	57.3	59.5	58.6	57.7	+2.2	+1.3	+0.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 62	S122 R/W	SFR	1	59.2	60.9	59.9	59.0	+1.7	+0.7	-0.2	6	--	--	60	--	--	1	--	--	12	--	--	59	--	--	2	--	--	--	--	--	--	--	--
R 63		SFR	1	65.6	**66.7**	65.6	64.5	+1.1	0.0	-1.1	**6**	--	--	**65**	--	--	2	--	--	12	--	--	63	--	--	4	--	--	--	--	--	--	--	--
R 64 W	S126 R/W	SFR	1	66.1	**67.3**	**66.3**	65.2	+1.2	+0.2	-0.9	**11**	**9**	**--**	**64**	**64**	**--**	3	2	--	12	12	**--**	63	62	**--**	4	4	--	--	--	--	--	--	--	--
R 65 Z	--	SFR	6	58.3	60.6	59.3	58.3	+2.3	+1.0	0.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

1 - STxx or LTxx - measurement site number; CAL - Calibration site.

2 - Land Use: SFR - single-family residence; CHR - Church; SCH - School; PLG - Playgrounds, recreational/sports fields.

3 - Noise levels in these columns are reported to a precision of 0.1 dBA to more clearly distinguish whether or not predicted noise levels are expected to increase between Without Project and With Project conditions. The accuracy of the absolute noise level predictions shown here is not as fine as one tenth of a decibel.

4 - The City's currently-adopted General Plan Noise Element establishes an CNEL of 65 dBA as the exterior noise standard for residential development, the facades of classrooms, and park uses.

5 - The minimum barrier height considered was 6 feet or 2 feet taller than the existing property wall (if applicable), whichever is higher. The maximum barrier height considered is 12 feet.

6 - Design A was only considered where one or more receivers were predicted to experience a Community Noise Equivalent Level (CNEL) of 65 dBA or higher under Design Year With Project conditions. It represents the minimum height required to reduce outdoor traffic noise exposure to a CNEL below 65 dBA at as many of the receivers exposed to those impacts as possible.

7 - Design B represents the minimum height required to provide five or more decibels of reduction in traffic noise exposure at all impacted receivers where such reduction is possible.

8 - In many cases, receivers selected to represent outdoor activity areas are set back a different distance from the roadway than the buildings themselves. Where outdoor impacts have been identified under one or more cruise speed scenarios and where the adequacy of noise reduction could be an issue for one or more of those scenarios, CNEL values predicted at the building facade are presented here. These are the appropriate values to use in computing the minimum OILR.

9 - It has been assumed that the Ranchero-Rd.-facing facades of buildings will provide at least 25 dB of outdoor to indoor noise level reduction (OILR) for older homes and at least 30 dB of OILR for newer homes. Therefore, values are reported in these columns only if the minimum required OILR is above these assumed levels.

* - Intervening building structures substantially obstruct line of sight to Ranchero Road. @ - OILR requirement is assumed to be met.

10 - R56 represents the same residential unit as R54. The applicable dwelling unit is accounted for with R54.

I.L. - Insertion Loss. W - Existing private property wall or soundwall. X - Represented land use depends upon Ranchero Road for vehicular access.

S - These receivers are located within school property. However, abatement is not warranted at these sports fields. The actual school classrooms are set much further back from the Ranchero Road, and would not be exposed to significant noise impacts.

Y - Adjacent/intervening driveways would inhibit feasibility of sound walls within existing/future City right-of-way.

Z - To be feasible, a soundwall would need to extend along the boundary of adjacent undeveloped property. However, the undeveloped property would depend upon vehicular access to Ranchero Road to remain viable.

Table D-3. Noise Abatement Analysis for Different Cruise Speeds: National-Average Pavement Conditions (cont'd)

Receiver I.D.[1]	Barrier I.D. and Location	Land Use[2]	Number of Dwelling Units	Design Year Without Project[3]	Noise Levels In Outdoor Activity Areas With Project																								CNEL at Selected Building Façades With Project (Without Barrier), dBA[8]			Minimum Outdoor to Indoor Level Reduction (OILR) to Avoid Interior Impact, dB[9]		
					CNEL Without Barrier, dBA[3,4]			Difference from Future No Project Conditions CNEL, dBA[3]			Noise Prediction with Barrier[5]																							
											Barrier Design A[6]									Barrier Design B[7]													
											Height, ft			CNEL, dBA			Insertion Loss, dB			Height, ft			CNEL, dBA			Insertion Loss, dB							
					50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph
R 66 W	S148 R/W	SFR	1	67.1	**69.7**	**68.4**	**67.2**	+2.6	+1.3	+0.1	**10**	**8**	**6**	**64**	**64**	**64**	6	4	3	**9**	**9**	**9**	65	63	62	**5**	**5**	**5**	--	--	--	--	--	--
R 67 X	--	SFR	1	67.9	**70.6**	**69.3**	**68.0**	+2.7	+1.4	+0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	@	@	@
R 68 Z		SFR	1	68.5	**70.5**	**69.2**	68.0	+2.0	+0.7	-0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	@	@	--
R 69	S198 R/W	SFR	1	66.3	**67.1**	66.0	64.6	+0.8	-0.3	-1.7	**6**	--	--	**63**	--	--	--	--	--	**8**	--	--	62	--	--	**5**	--	--	--	--	--	--	--	--
R 70	--	SFR	1	62.4	63.7	62.7	61.4	+1.3	+0.3	-1.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 71	S208 R/W	SFR	2	69.6	**70.2**	69.0	67.7	+0.6	-0.6	-1.9	**9**	--	--	**64**	--	--	--	--	--	**8**	--	--	65	--	--	**5**	--	--	--	--	--	--	--	--
R 72	--	SFR	2	59.3	61.3	60.3	59.0	+2.0	+1.0	-0.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 73 W		SFR	3	64.8	**66.1**	**65.1**	63.8	+1.3	+0.3	-1.0	9	8	--	**63**	**64**	--	3	--	--	12	**12**	--	62	60	--	4	**5**	--	--	--	--	--	--	--
R 74 W		SFR	1	58.9	59.5	58.7	57.3	+0.6	-0.2	-1.6	9	8	--	60	59	--	0	--	--	12	12	--	60	58	--	0	1	--	--	--	--	--	--	--
R 75 W	S226 R/W	SFR	2	52.6	53.5	52.9	51.6	+0.9	+0.3	-1.0	9	8	--	54	54	--	0	--	--	12	12	--	54	53	--	0	0	--	--	--	--	--	--	--
R 76 W		SFR	13	57.6	59.0	58.2	56.9	+1.4	+0.6	-0.7	9	8	--	58	59	--	1	--	--	12	12	--	58	57	--	1	1	--	--	--	--	--	--	--
R 77 W		SFR	5	64.9	**66.6**	**65.6**	64.3	+1.7	+0.7	-0.6	9	8	--	**63**	**63**	--	4	--	--	**12**	**12**	--	62	60	--	**5**	**6**	--	--	--	--	--	--	--

Notes:

1 - STxx or LTxx - measurement site number; CAL - Calibration site.

2 - Land Use: SFR - single-family residence; CHR - Church; SCH - School; PLG - Playgrounds, recreational/sports fields.

3 - Noise levels in these columns are reported to a precision of 0.1 dBA to more clearly distinguish whether or not predicted noise levels are expected to increase between Without Project and With Project conditions. The accuracy of the absolute noise level predictions shown here is not as fine as one tenth of a decibel.

4 - The City's currently-adopted General Plan Noise Element establishes an CNEL of 65 dBA as the exterior noise standard for residential development, the facades of classrooms, and park uses.

5 - The minimum barrier height considered was 6 feet or 2 feet taller than the existing property wall (if applicable), whichever is higher. The maximum barrier height considered is 12 feet.

6 - Design A was only considered where one or more receivers were predicted to experience a Community Noise Equivalent Level (CNEL) of 65 dBA or higher under Design Year With Project conditions. It represents the minimum height required to reduce outdoor traffic noise exposure to a CNEL below 65 dBA at as many of the receivers exposed to those impacts as possible.

7 - Design B represents the minimum height required to provide five or more decibels of reduction in traffic noise exposure at all impacted receivers where such reduction is possible.

8 - In many cases, receivers selected to represent outdoor activity areas are set back a different distance from the roadway than the buildings themselves. Where outdoor impacts have been identified under one or more cruise speed scenarios and where the adequacy of noise reduction could be an issue for one or more of those scenarios, CNEL values predicted at the building facade are presented here. These are the appropriate values to use in computing the minimum OILR.

9 - It has been assumed that the Ranchero-Rd.-facing facades of buildings will provide at least 25 dB of outdoor to indoor noise level reduction (OILR) for older homes and at least 30 dB of OILR for newer homes. Therefore, values are reported in these columns only if the minimum required OILR is above these assumed levels.

* - Intervening building structures substantially obstruct line of sight to Ranchero Road. @ - OILR requirement is assumed to be met.

I.L. - Insertion Loss. W - Existing private property wall or soundwall. X - Represented land use depends upon Ranchero Road for vehicular access.

S - These receivers are located within school property. However, abatement is not warranted at these sports fields. The actual school classrooms are set much further back from the Ranchero Road, and would not be exposed to significant noise impacts.

Y - Adjacent/intervening driveways would inhibit feasibility of sound walls within existing/future City right-of-way.

Z - To be feasible, a soundwall would need to extend along the boundary of adjacent undeveloped property. However, the undeveloped property would depend upon vehicular access to Ranchero Road to remain viable.

Table D-3. Noise Abatement Analysis for Different Cruise Speeds: National-Average Pavement Conditions (cont'd)

Receiver I.D.[1]	Barrier I.D. and Location	Land Use[2]	Number of Dwelling Units	Design Year Without Project[3]	Noise Levels In Outdoor Activity Areas With Project																								CNEL at Selected Building Façades With Project (Without Barrier), dBA[8]			Minimum Outdoor to Indoor Level Reduction (OILR) to Avoid Interior Impact, dB[9]		
					CNEL Without Barrier, dBA[3,4]			Difference from Future No Project Conditions CNEL, dBA[3]			Noise Prediction with Barrier[5]																							
											Barrier Design A[6]									Barrier Design B[7]													
											Height, ft			CNEL, dBA			Insertion Loss, dB			Height, ft			CNEL, dBA			Insertion Loss, dB							
					50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph
R 78 W,*		SFR	4	53.9	55.1	54.5	53.4	+1.2	+0.6	-0.5	9	--	--	55 [10]	--	--	0	--	--	12	--	--	55 [10]	--	--	0	--	--	--	--	--	--	--	--
R 79 W	--	SFR	5	63.9	**65.8**	64.8	63.6	+1.9	+0.9	-0.3	9	--	--	63	--	--	3	--	--	12	--	--	61	--	--	5	--	--	--	--	--	--	--	--
R 80 W		SFR	3	63.7	**65.4**	64.5	63.4	+1.7	+0.8	-0.3	9	--	--	64	--	--	1	--	--	12	--	--	62	--	--	3	--	--	--	--	--	--	--	--
R 81	S244 R/W	SFR	1	65.7	**65.7**	64.7	63.6	0.0	-1.0	-2.1	**6**	--	--	**63**	--	--	3	--	--	12	--	--	**61**	--	--	**5**	--	--	--	--	--	--	--	--
R 82 X		SFR	2	67.5	**69.7**	**68.5**	67.1	+2.2	+1.0	-0.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	@	@	--
R 83 X		SFR	4	67.6	**70.4**	**69.1**	**67.8**	+2.8	+1.5	+0.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	71	69	--	27	@	@
R 84 X		SFR	4	67.6	**69.8**	**68.5**	67.3	+2.2	+0.9	-0.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	@	@	--
R 85 X		SFR	4	67.3	**69.6**	**68.4**	67.1	+2.3	+1.1	-0.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	@	@	--
R 86 Y,*	--	SFR	3	58.6	60.5	59.3	58.2	+1.9	+0.7	-0.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 87 W,*		SFR	1	57.5	59.1	57.9	57.0	+1.6	+0.4	-0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 88 W,*		SFR	1	60.1	61.5	60.3	59.3	+1.4	+0.2	-0.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 89 X		SFR	1	68.4	**70.2**	**68.9**	67.7	+1.8	+0.5	-0.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	@	@	--

Notes:

1 - STxx or LTxx - measurement site number; CAL - Calibration site.

2 - Land Use: SFR - single-family residence; CHR - Church; SCH - School; PLG - Playgrounds, recreational/sports fields.

3 - Noise levels in these columns are reported to a precision of 0.1 dBA to more clearly distinguish whether or not predicted noise levels are expected to increase between Without Project and With Project conditions. The accuracy of the absolute noise level predictions shown here is not as fine as one tenth of a decibel.

4 - The City's currently-adopted General Plan Noise Element establishes an CNEL of 65 dBA as the exterior noise standard for residential development, the facades of classrooms, and park uses.

5 - The minimum barrier height considered was 6 feet or 2 feet taller than the existing property wall (if applicable), whichever is higher. The maximum barrier height considered is 12 feet.

6 - Design A was only considered where one or more receivers were predicted to experience a Community Noise Equivalent Level (CNEL) of 65 dBA or higher under Design Year With Project conditions. It represents the minimum height required to reduce outdoor traffic noise exposure to a CNEL below 65 dBA at as many of the receivers exposed to those impacts as possible.

7 - Design B represents the minimum height required to provide five or more decibels of reduction in traffic noise exposure at all impacted receivers where such reduction is possible.

8 - In many cases, receivers selected to represent outdoor activity areas are set back a different distance from the roadway than the buildings themselves. Where outdoor impacts have been identified under one or more cruise speed scenarios and where the adequacy of noise reduction could be an issue for one or more of those scenarios, CNEL values predicted at the building facade are presented here. These are the appropriate values to use in computing the minimum OILR.

9 - It has been assumed that the Ranchero-Rd.-facing facades of buildings will provide at least 25 dB of outdoor to indoor noise level reduction (OILR) for older homes and at least 30 dB of OILR for newer homes. Therefore, values are reported in these columns only if the minimum required OILR is above these assumed levels.

10 - Noise levels predicted by TNM are not reliable due to issues with procedures used in TNM to calculate noise levels when two parallel walls intervene between source and receiver. Accordingly, these noise levels have been set to be equal noise levels predicted without abatement. This is deemed to be relatively conservative corrected values.

* - Intervening building structures substantially obstruct line of sight to Ranchero Road. @ - OILR requirement is assumed to be met.

I.L. - Insertion Loss. W - Existing private property wall or soundwall. X - Represented land use depends upon Ranchero Road for vehicular access.

S - These receivers are located within school property. However, abatement is not warranted at these sports fields. The actual school classrooms are set much further back from the Ranchero Road, and would not be exposed to significant noise impacts.

Y - Adjacent/intervening driveways would inhibit feasibility of sound walls within existing/future City right-of-way.

Z - To be feasible, a soundwall would need to extend along the boundary of adjacent undeveloped property. However, the undeveloped property would depend upon vehicular access to Ranchero Road to remain viable.

Table D-3. Noise Abatement Analysis for Different Cruise Speeds: National-Average Pavement Conditions (cont'd)

Receiver I.D. [1]	Barrier I.D. and Location	Land Use [2]	Number of Dwelling Units	Design Year Without Project [3]	Noise Levels In Outdoor Activity Areas With Project																						CNEL at Selected Building Façades With Project (Without Barrier), dBA [8]			Minimum Outdoor to Indoor Level Reduction (OILR) to Avoid Interior Impact, dB [9]		
					CNEL Without Barrier, dBA [3,4]			Difference from Future No Project Conditions CNEL, dBA [3]			Noise Prediction with Barrier [5]																					
											Barrier Design A [6]									Barrier Design B [7]											
											Height, ft			CNEL, dBA			Insertion Loss, dB			Height, ft			CNEL, dBA			Insertion Loss, dB							
					50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph
R 90 W	S284	SFR	1	68.0	**70.6**	**69.4**	**68.2**	+2.6	+1.4	+0.2	**10**	**9**	**8**	**63**	**62**	**63**	8	7	5	**10**	**10**	**11**	63	62	61	**8**	**7**	**7**	--	--	--	--	--	--
R 91 W,LT3/CAL	R/W	SFR	2	66.5	**68.7**	**67.5**	66.4	+2.2	+1.0	-0.1	**10**	**9**	8	**64**	**63**	64	5	5	2	**10**	**10**	11	64	63	61	**5**	**5**	5	--	--	--	--	--	--
R 92 W	S288 R/W	SFR	1	70.1	**72.9**	**71.6**	**70.3**	+2.8	+1.5	+0.2	**10**	**10**	**9**	**64**	**65**	**64**	9	7	6	**7**	**7**	**8**	68	67	65	**5**	**5**	**5**	--	--	--	--	--	--
R 93 W	S292	SFR	1	69.6	**72.4**	**71.1**	**69.9**	+2.8	+1.5	+0.3	**12**	**10**	**9**	**64**	**65**	**64**	8	6	6	**8**	**8**	**8**	67	66	65	**5**	**5**	**5**	--	--	--	--	--	--
R 93A W	R/W	SFR	2	66.2	**68.0**	**66.7**	**65.5**	+1.8	+0.5	-0.7	**12**	**10**	**9**	**60**	**60**	**60**	8	7	6	**8**	**8**	**8**	62	61	60	**6**	**6**	**6**	--	--	--	--	--	--
R 94 W		SFR	4	63.5	64.8	63.6	62.5	+1.3	+0.1	-1.0	**--**	--	--	**--**	--	--	--	--	--	**--**	--	--	--	--	--	**--**	--	--	--	--	--	--	--
R 95 W		SFR	4	62.9	63.8	62.7	61.6	+0.9	-0.2	-1.3	**--**	**--**	**--**	**--**	**--**	**--**	--	--	--	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	--	--	--	--	--	--
R 96 W		SFR	3	53.4	54.5	53.6	52.6	+1.1	+0.2	-0.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 97 W	S306 R/W	SFR	1	57.3	58.2	57.4	56.0	+0.9	+0.1	-1.3	8	8	--	57	56	--	1	1	--	8	9	--	57	56	--	1	1	--	--	--	--	--	--	--
R 98 W		SFR	1	61.4	62.2	61.2	59.8	+0.8	-0.2	-1.6	8	8	--	60	59	--	2	2	--	8	9	--	60	59	--	2	2	--	--	--	--	--	--	--
R 99 W		SFR	1	67.3	**69.1**	**68.0**	66.6	+1.8	+0.7	-0.7	**8**	**8**	--	**64**	**64**	--	5	4	--	**8**	**9**	--	64	62	--	**5**	**6**	--	--	--	--	--	--	--
R 100 W	S314 R/W	SFR	4	66.2	**67.5**	**66.5**	65.1	+1.3	+0.3	-1.1	**8**	**7**	--	**64**	**64**	--	4	3	--	**10**	**10**	--	61	60	--	**7**	**7**	--	--	--	--	--	--	--
R 101 W		SFR	3	66.1	**67.2**	**66.2**	64.9	+1.1	+0.1	-1.2	**8**	**7**	--	**64**	**64**	**--**	3	2	--	**10**	**10**	--	62	61	**--**	**5**	**5**	--	--	--	--	--	--	--
R 102 W		SFR	1	66.1	**67.3**	**66.3**	65.0	+1.2	+0.2	-1.1	**8**	**7**	--	**64**	**64**	--	3	2	--	**10**	**10**	--	62	61	--	**5**	**5**	--	--	--	--	--	--	--
R 103 W	--	SFR	1	63.2	64.3	63.3	62.3	+1.1	+0.1	-0.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 104	--	SFR	1	57.0	58.6	57.7	56.4	+1.6	+0.7	-0.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

1 - STxx or LTxx - measurement site number; CAL - Calibration site.

2 - Land Use: SFR - single-family residence; CHR - Church; SCH - School; PLG - Playgrounds, recreational/sports fields.

3 - Noise levels in these columns are reported to a precision of 0.1 dBA to more clearly distinguish whether or not predicted noise levels are expected to increase between Without Project and With Project conditions. The accuracy of the absolute noise level predictions shown here is not as fine as one tenth of a decibel.

4 - The City's currently-adopted General Plan Noise Element establishes an CNEL of 65 dBA as the exterior noise standard for residential development, the facades of classrooms, and park uses.

5 - The minimum barrier height considered was 6 feet or 2 feet taller than the existing property wall (if applicable), whichever is higher. The maximum barrier height considered is 12 feet.

6 - Design A was only considered where one or more receivers were predicted to experience a Community Noise Equivalent Level (CNEL) of 65 dBA or higher under Design Year With Project conditions. It represents the minimum height required to reduce outdoor traffic noise exposure to a CNEL below 65 dBA at as many of the receivers exposed to those impacts as possible.

7 - Design B represents the minimum height required to provide five or more decibels of reduction in traffic noise exposure at all impacted receivers where such reduction is possible.

8 - In many cases, receivers selected to represent outdoor activity areas are set back a different distance from the roadway than the buildings themselves. Where outdoor impacts have been identified under one or more cruise speed scenarios and where the adequacy of noise reduction could be an issue for one or more of those scenarios, CNEL values predicted at the building facade are presented here. These are the appropriate values to use in computing the minimum OILR.

9 - It has been assumed that the Ranchero-Rd.-facing facades of buildings will provide at least 25 dB of outdoor to indoor noise level reduction (OILR) for older homes and at least 30 dB of OILR for newer homes. Therefore, values are reported in these columns only if the minimum required OILR is above these assumed levels.

* - Intervening building structures substantially obstruct line of sight to Ranchero Road. @ - OILR requirement is assumed to be met.

I.L. - Insertion Loss. W - Existing private property wall or soundwall. X - Represented land use depends upon Ranchero Road for vehicular access.

S - These receivers are located within school property. However, abatement is not warranted at these sports fields. The actual school classrooms are set much further back from the Ranchero Road, and would not be exposed to significant noise impacts.

Y - Adjacent/intervening driveways would inhibit feasibility of sound walls within existing/future City right-of-way.

Z - To be feasible, a soundwall would need to extend along the boundary of adjacent undeveloped property. However, the undeveloped property would depend upon vehicular access to Ranchero Road to remain viable.

Table D-4. Noise Abatement Analysis for Different Cruise Speeds: OGAC Pavement

Receiver I.D.[1]	Barrier I.D. and Location	Land Use[2]	Number of Dwelling Units	Design Year Without Project[3]	Noise Levels In Outdoor Activity Areas With Project																						CNEL at Selected Building Façades With Project (Without Barrier), dBA[8]			Minimum Outdoor to Indoor Level Reduction (OILR) to Avoid Interior Impact, dB[9]		
					CNEL Without Barrier, dBA[3,4]			Difference from Future No Project Conditions CNEL, dBA[3]			Noise Prediction with Barrier[5]																						
											Barrier Design A[6]									Barrier Design B[7]												
											Height, ft			CNEL, dBA			Insertion Loss, dB			Height, ft			CNEL, dBA			Insertion Loss, dB						
					50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph
R 1 W	--	SFR	1	54.6	54.6	53.4	52.2	0.0	-1.2	-2.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 2 W		SFR	1	63.3	63.5	62.2	60.9	+0.2	-1.1	-2.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 3 W	S73 R/W	SFR	1	64.9	**65.1**	63.7	62.5	+0.2	-1.2	-2.4	**7**	--	--	**63**	--	--	2	--	--	**10**	--	--	60	--	--	**5**	--	--	--	--	--	--	--
R 4 W		SFR	3	52.0	51.9	50.9	49.8	-0.1	-1.1	-2.2	7	--	--	52	--	--	0	--	--	10	--	--	51	--	--	1	--	--	--	--	--	--	--
R 5 W		SFR	1	63.4	63.6	62.8	61.2	+0.2	-0.6	-2.2	7	--	--	63	--	--	1	--	--	10	--	--	59	--	--	**5**	--	--	--	--	--	--	--
R 6 W	--	SFR	1	63.7	63.9	63.1	61.5	+0.2	-0.6	-2.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 7 W		SFR	1	55.5	55.3	54.6	53.2	-0.2	-0.9	-2.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 8 W		SFR	1	64.4	64.5	63.6	62.0	+0.1	-0.8	-2.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 9 W	--	SFR	1	63.2	60.2	59.4	57.9	-3.0	-3.8	-5.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 9A LT1/CAL	--	SFR	1	60.6	58.9	58.0	56.6	-1.7	-2.6	-4.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 10		SFR	1	58.0	57.6	56.7	55.4	-0.4	-1.3	-2.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 11 W		SFR	1	56.5	56.5	55.7	54.3	0.0	-0.8	-2.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 12 W		SFR	2	56.0	56.2	55.5	54.2	+0.2	-0.5	-1.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

1 - STxx or LTxx - measurement site number; CAL - Calibration site.

2 - Land Use: SFR - single-family residence; CHR - Church; SCH - School; PLG - Playgrounds, recreational/sports fields.

3 - Noise levels in these columns are reported to a precision of 0.1 dBA to more clearly distinguish whether or not predicted noise levels are expected to increase between Without Project and With Project conditions. The accuracy of the absolute noise level predictions shown here is not as fine as one tenth of a decibel.

4 - The City's currently-adopted General Plan Noise Element establishes an CNEL of 65 dBA as the exterior noise standard for residential development, the facades of classrooms, and park uses.

5 - The minimum barrier height considered was 6 feet or 2 feet taller than the existing property wall (if applicable), whichever is higher. The maximum barrier height considered is 12 feet.

6 - Design A was only considered where one or more receivers were predicted to experience a Community Noise Equivalent Level (CNEL) of 65 dBA or higher under Design Year With Project conditions. It represents the minimum height required to reduce outdoor traffic noise exposure to a CNEL below 65 dBA at as many of the receivers exposed to those impacts as possible.

7 - Design B represents the minimum height required to provide five or more decibels of reduction in traffic noise exposure at all impacted receivers where such reduction is possible.

8 - In many cases, receivers selected to represent outdoor activity areas are set back a different distance from the roadway than the buildings themselves. Where outdoor impacts have been identified under one or more cruise speed scenarios and where the adequacy of noise reduction could be an issue for one or more of those scenarios, CNEL values predicted at the building facade are presented here. These are the appropriate values to use in computing the minimum OILR.

9 - It has been assumed that the Ranchero-Rd.-facing facades of buildings will provide at least 25 dB of outdoor to indoor noise level reduction (OILR) for older homes and at least 30 dB of OILR for newer homes. Therefore, values are reported in these columns only if the minimum required OILR is above these assumed levels.

* - Intervening building structures substantially obstruct line of sight to Ranchero Road. @ - OILR requirement is assumed to be met.

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Table D-4. Noise Abatement Analysis for Different Cruise Speeds: OGAC Pavement (cont'd)

Receiver I.D.[1]	Barrier I.D. and Location	Land Use[2]	Number of Dwelling Units	Design Year Without Project[3]	Noise Levels In Outdoor Activity Areas With Project																								CNEL at Selected Building Façades With Project (Without Barrier), dBA[8]			Minimum Outdoor to Indoor Level Reduction (OILR) to Avoid Interior Impact, dB[9]		
					CNEL Without Barrier, dBA[3,4]			Difference from Future No Project Conditions CNEL, dBA[3]			Noise Prediction with Barrier[5]																							
											Barrier Design A[6]									Barrier Design B[7]													
											Height, ft			CNEL, dBA			Insertion Loss, dB			Height, ft			CNEL, dBA			Insertion Loss, dB							
					50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph
R 13 X	--	SFR	1	70.1	**70.7**	69.6	68.5	+0.6	-0.5	-1.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	@	--	--
R 14		SFR	1	56.6	57.0	56.2	55.5	+0.4	-0.4	-1.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 15	--	PLG[S]	1	55.7	55.8	54.7	53.7	+0.1	-1.0	-2.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 16		PLG[S]	3	61.7	61.8	60.7	59.6	+0.1	-1.0	-2.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 17		PLG[S]	8	63.3	63.2	61.9	60.8	-0.1	-1.4	-2.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 18	S147 R/W	SFR	1	57.2	58.4	57.2	56.2	+1.2	0.0	-1.0	9	8	--	57	56	--	1	1	--	6	6	--	57	56	--	1	1	--	--	--	--	--	--	--
R 19		SFR	1	70.0	**71.4**	**70.0**	68.8	+1.4	0.0	-1.2	**9**	**8**	--	**64**	**64**	--	7	6	--	**6**	**6**	--	66	65	--	**5**	**5**	--	--	--	--	--	--	--
R 20	S151 R/W	SCH	1	58.8	60.6	59.3	58.3	+1.8	+0.5	-0.5	**6**	6	--	**58**	57	--	3	2	--	9	6	--	58	57	--	3	2	--	--	--	--	--	--	--
R 21		CHR	1	63.8	**65.5**	64.1	63.0	+1.7	+0.3	-0.8	**6**	**6**	--	**62**	**61**	--	4	3	--	**9**	6	--	61	59	--	**5**	5	--	--	--	--	--	--	--
R 22 X		SFR	1	72.6	**74.4**	**72.9**	71.6	+1.8	+0.3	-1.0	**6**	**6**	--	69	67	--	5	6	--	**9**	**6**	--	68	66	--	**6**	**7**	--	--	--	--	--	--	--
R 23 X	--	SFR	2	67.0	**67.0**	65.6	64.4	0.0	-1.4	-2.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 24 Z		SFR	1	54.4	54.9	53.8	52.7	+0.5	-0.6	-1.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 25 X,W		SFR	1	64.0	64.5	63.1	62.0	+0.5	-0.9	-2.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

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6 - Design A was only considered where one or more receivers were predicted to experience a Community Noise Equivalent Level (CNEL) of 65 dBA or higher under Design Year With Project conditions. It represents the minimum height required to reduce outdoor traffic noise exposure to a CNEL below 65 dBA at as many of the receivers exposed to those impacts as possible.

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											Barrier Design A[6]									Barrier Design B[7]												
											Height, ft			CNEL, dBA			Insertion Loss, dB			Height, ft			CNEL, dBA			Insertion Loss, dB						
					50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph
R 26	--	SFR	2	67.7	67.6	66.5	65.0	-0.1	-1.2	-2.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 27 X	--	SFR	1	68.7	67.8	66.8	65.3	-0.9	-1.9	-3.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 28 X,W		SFR	1	66.2	66.2	65.3	64.8	0.0	-0.9	-1.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 29 LT2/CAL	S223 R/W	SFR	1	71.3	**71.4**	70.4	68.8	+0.1	-0.9	-2.5	**8**	**--**	**--**	**63**	**--**	**--**	8	--	--	**6**	**--**	**--**	65	**--**	--	**6**	**--**	**--**	--	--	--	--	--	--
R 30 X		SFR	2	69.0	68.9	67.9	66.4	-0.1	-1.1	-2.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 31 X		SFR	2	70.0	69.9	68.7	67.2	-0.1	-1.3	-2.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 32 *		SFR	3	60.1	59.8	58.6	57.5	-0.3	-1.5	-2.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 33 Z		SFR	1	70.3	69.5	68.1	66.8	-0.8	-2.2	-3.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 34 X	--	SFR	4	70.0	68.9	67.5	66.2	-1.1	-2.5	-3.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 35 Z		SFR	1	70.4	69.3	67.9	66.6	-1.1	-2.5	-3.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 36 Y		SFR	3	70.0	68.7	67.3	66.1	-1.3	-2.7	-3.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 37 X		SFR	1	70.5	69.5	68.1	66.8	-1.0	-2.4	-3.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 38 X		SFR	4	69.9	68.6	67.2	65.9	-1.3	-2.7	-4.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

1 - STxx or LTxx - measurement site number; CAL - Calibration site.

2 - Land Use: SFR - single-family residence; CHR - Church; SCH - School; PLG - Playgrounds, recreational/sports fields.

3 - Noise levels in these columns are reported to a precision of 0.1 dBA to more clearly distinguish whether or not predicted noise levels are expected to increase between Without Project and With Project conditions. The accuracy of the absolute noise level predictions shown here is not as fine as one tenth of a decibel.

4 - The City's currently-adopted General Plan Noise Element establishes an CNEL of 65 dBA as the exterior noise standard for residential development, the facades of classrooms, and park uses.

5 - The minimum barrier height considered was 6 feet or 2 feet taller than the existing property wall (if applicable), whichever is higher. The maximum barrier height considered is 12 feet.

6 - Design A was only considered where one or more receivers were predicted to experience a Community Noise Equivalent Level (CNEL) of 65 dBA or higher under Design Year With Project conditions. It represents the minimum height required to reduce outdoor traffic noise exposure to a CNEL below 65 dBA at as many of the receivers exposed to those impacts as possible.

7 - Design B represents the minimum height required to provide five or more decibels of reduction in traffic noise exposure at all impacted receivers where such reduction is possible.

8 - In many cases, receivers selected to represent outdoor activity areas are set back a different distance from the roadway than the buildings themselves. Where outdoor impacts have been identified under one or more cruise speed scenarios and where the adequacy of noise reduction could be an issue for one or more of those scenarios, CNEL values predicted at the building facade are presented here. These are the appropriate values to use in computing the minimum OILR.

9 - It has been assumed that the Ranchero-Rd.-facing facades of buildings will provide at least 25 dB of outdoor to indoor noise level reduction (OILR) for older homes and at least 30 dB of OILR for newer homes. Therefore, values are reported in these columns only if the minimum required OILR is above these assumed levels.

* - Intervening building structures substantially obstruct line of sight to Ranchero Road. @ - OILR requirement is assumed to be met.

I.L. - Insertion Loss. W - Existing private property wall or soundwall. X - Represented land use depends upon Ranchero Road for vehicular access.

S - These receivers are located within school property. However, abatement is not warranted at these sports fields. The actual school classrooms are set much further back from the Ranchero Road, and would not be exposed to significant noise impacts.

Y - Adjacent/intervening driveways would inhibit feasibility of sound walls within existing/future City right-of-way.

Z - To be feasible, a soundwall would need to extend along the boundary of adjacent undeveloped property. However, the undeveloped property would depend upon vehicular access to Ranchero Road to remain viable.

Table D-4. Noise Abatement Analysis for Different Cruise Speeds: OGAC Pavement (cont'd)

Receiver I.D.[1]	Barrier I.D. and Location	Land Use[2]	Number of Dwelling Units	Design Year Without Project[3]	Noise Levels In Outdoor Activity Areas With Project																						CNEL at Selected Building Façades With Project (Without Barrier), dBA[8]			Minimum Outdoor to Indoor Level Reduction (OILR) to Avoid Interior Impact, dB[9]		
					CNEL Without Barrier, dBA[3,4]			Difference from Future No Project Conditions CNEL, dBA[3]			Noise Prediction with Barrier[5]																					
											Barrier Design A[6]									Barrier Design B[7]											
											Height, ft			CNEL, dBA			Insertion Loss, dB			Height, ft			CNEL, dBA			Insertion Loss, dB					
					50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph
R 39 Z		SFR	1	70.2	68.9	67.5	66.3	-1.3	-2.7	-3.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 40 X		SFR	5	70.0	69.7	68.4	67.1	-0.3	-1.6	-2.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 41 X		SFR	4	70.0	**70.2**	68.8	67.5	+0.2	-1.2	-2.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	70	--	--	26	--	--
R 42 X		SFR	3	70.1	**70.2**	68.8	67.5	+0.1	-1.3	-2.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	@	--	--
R 43 X		SFR	1	70.0	**70.5**	69.1	67.8	+0.5	-0.9	-2.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	70	--	--	26	--	--
R 44 Y		SFR	3	61.4	60.9	59.9	58.5	-0.5	-1.5	-2.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 45 X	--	SCH	1	66.6	66.2	65.2	63.6	-0.4	-1.4	-3.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 46 X*		PLY	1	58.8	58.7	57.8	56.5	-0.1	-1.0	-2.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 47 X		SFR	4	67.5	**67.6**	66.5	65.0	+0.1	-1.0	-2.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	67	--	--	@	--	--
R 48 X		SFR	2	66.6	**66.8**	65.7	64.6	+0.2	-0.9	-2.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	67	--	--	@	--	--
R 49 X		SFR	1	66.5	**66.8**	65.8	64.5	+0.3	-0.7	-2.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	67	--	--	@	--	--
R 50 X		SFR	2	67.2	**68.3**	67.2	65.7	+1.1	0.0	-1.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	67	--	--	@	--	--
R 51 Y		SFR	1	55.0	55.8	54.9	53.8	+0.8	-0.1	-1.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

1 - STxx or LTxx - measurement site number; CAL - Calibration site.

2 - Land Use: SFR - single-family residence; CHR - Church; SCH - School; PLG - Playgrounds, recreational/sports fields.

3 - Noise levels in these columns are reported to a precision of 0.1 dBA to more clearly distinguish whether or not predicted noise levels are expected to increase between Without Project and With Project conditions. The accuracy of the absolute noise level predictions shown here is not as fine as one tenth of a decibel.

4 - The City's currently-adopted General Plan Noise Element establishes an CNEL of 65 dBA as the exterior noise standard for residential development, the facades of classrooms, and park uses.

5 - The minimum barrier height considered was 6 feet or 2 feet taller than the existing property wall (if applicable), whichever is higher. The maximum barrier height considered is 12 feet.

6 - Design A was only considered where one or more receivers were predicted to experience a Community Noise Equivalent Level (CNEL) of 65 dBA or higher under Design Year With Project conditions. It represents the minimum height required to reduce outdoor traffic noise exposure to a CNEL below 65 dBA at as many of the receivers exposed to those impacts as possible.

7 - Design B represents the minimum height required to provide five or more decibels of reduction in traffic noise exposure at all impacted receivers where such reduction is possible.

8 - In many cases, receivers selected to represent outdoor activity areas are set back a different distance from the roadway than the buildings themselves. Where outdoor impacts have been identified under one or more cruise speed scenarios and where the adequacy of noise reduction could be an issue for one or more of those scenarios, CNEL values predicted at the building facade are presented here. These are the appropriate values to use in computing the minimum OILR.

9 - It has been assumed that the Ranchero-Rd.-facing facades of buildings will provide at least 25 dB of outdoor to indoor noise level reduction (OILR) for older homes and at least 30 dB of OILR for newer homes. Therefore, values are reported in these columns only if the minimum required OILR is above these assumed levels.

* - Intervening building structures substantially obstruct line of sight to Ranchero Road. @ - OILR requirement is assumed to be met.

I.L. - Insertion Loss. W - Existing private property wall or soundwall. X - Represented land use depends upon Ranchero Road for vehicular access.

S - These receivers are located within school property. However, abatement is not warranted at these sports fields. The actual school classrooms are set much further back from the Ranchero Road, and would not be exposed to significant noise impacts.

Y - Adjacent/intervening driveways would inhibit feasibility of sound walls within existing/future City right-of-way.

Z - To be feasible, a soundwall would need to extend along the boundary of adjacent undeveloped property. However, the undeveloped property would depend upon vehicular access to Ranchero Road to remain viable.

Table D-4. Noise Abatement Analysis for Different Cruise Speeds: OGAC Pavement (cont'd)

Receiver I.D.[1]	Barrier I.D. and Location	Land Use[2]	Number of Dwelling Units	Design Year Without Project[3]	Noise Levels In Outdoor Activity Areas With Project																								CNEL at Selected Building Façades With Project (Without Barrier), dBA[8]			Minimum Outdoor to Indoor Level Reduction (OILR) to Avoid Interior Impact, dB[9]		
					CNEL Without Barrier, dBA[3,4]			Difference from Future No Project Conditions CNEL, dBA[3]			Noise Prediction with Barrier[5]																						
											Barrier Design A[6]									Barrier Design B[7]												
											Height, ft			CNEL, dBA			Insertion Loss, dB			Height, ft			CNEL, dBA			Insertion Loss, dB						
					50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph
R 52 X	--	SFR	1	65.4	**66.2**	64.9	63.7	+0.8	-0.5	-1.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	@	--	--
R 53	--	SFR	1	67.8	66.8	65.6	64.2	-1.0	-2.2	-3.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 54	S80 R/W	SFR	1	67.6	**66.5**	65.4	64.0	-1.1	-2.2	-3.6	**6**	**--**	**--**	**62**	**--**	**--**	5	--	--	**6**	**--**	**--**	62	--	--	**5**	**--**	**--**	--	--	--	--	--	--
R 55		SFR	1	56.2	56.1	54.2	52.8	-0.1	-2.0	-3.4	6	--	--	54	--	--	2	--	--	6	--	--	54	--	--	2	--	--	--	--	--	--	--	--
R 56		SFR	--[10]	67.4	**67.4**	65.2	63.8	0.0	-2.2	-3.6	**6**	**--**	**--**	**61**	**--**	**--**	6	--	--	**6**	**--**	**--**	61	--	--	**6**	**--**	**--**	--	--	--	--	--	--
R 57 X	--	SFR	1	70.0	**70.0**	68.9	67.8	0.0	-1.1	-2.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 58 Y		SFR	1	57.7	58.5	57.6	56.8	+0.8	-0.1	-0.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 59	S114 R/W	SFR	1	70.1	**70.4**	69.2	68.1	+0.3	-0.9	-2.0	**12**	**--**	**--**	**64**	**--**	**--**	6	--	--	**9**	**--**	**--**	65	--	--	**5**	**--**	**--**	--	--	--	--	--	--
R 60 Y	--	SFR	1	60.2	61.3	60.3	59.3	+1.1	+0.1	-0.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 61 Y		SFR	1	57.3	58.0	57.1	56.2	+0.7	-0.2	-1.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 62	--	SFR	1	59.2	59.4	58.4	57.5	+0.2	-0.8	-1.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 63		SFR	1	65.6	65.2	64.1	63.0	-0.4	-1.5	-2.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 64 W	--	SFR	1	66.1	65.8	64.8	63.7	-0.3	-1.3	-2.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 65 Z	--	SFR	6	58.3	59.1	57.8	56.8	+0.8	-0.5	-1.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

1 - STxx or LTxx - measurement site number; CAL - Calibration site.

2 - Land Use: SFR - single-family residence; CHR - Church; SCH - School; PLG - Playgrounds, recreational/sports fields.

3 - Noise levels in these columns are reported to a precision of 0.1 dBA to more clearly distinguish whether or not predicted noise levels are expected to increase between Without Project and With Project conditions. The accuracy of the absolute noise level predictions shown here is not as fine as one tenth of a decibel.

4 - The City's currently-adopted General Plan Noise Element establishes an CNEL of 65 dBA as the exterior noise standard for residential development, the facades of classrooms, and park uses.

5 - The minimum barrier height considered was 6 feet or 2 feet taller than the existing property wall (if applicable), whichever is higher. The maximum barrier height considered is 12 feet.

6 - Design A was only considered where one or more receivers were predicted to experience a Community Noise Equivalent Level (CNEL) of 65 dBA or higher under Design Year With Project conditions. It represents the minimum height required to reduce outdoor traffic noise exposure to a CNEL below 65 dBA at as many of the receivers exposed to those impacts as possible.

7 - Design B represents the minimum height required to provide five or more decibels of reduction in traffic noise exposure at all impacted receivers where such reduction is possible.

8 - In many cases, receivers selected to represent outdoor activity areas are set back a different distance from the roadway than the buildings themselves. Where outdoor impacts have been identified under one or more cruise speed scenarios and where the adequacy of noise reduction could be an issue for one or more of those scenarios, CNEL values predicted at the building facade are presented here. These are the appropriate values to use in computing the minimum OILR.

9 - It has been assumed that the Ranchero-Rd.-facing facades of buildings will provide at least 25 dB of outdoor to indoor noise level reduction (OILR) for older homes and at least 30 dB of OILR for newer homes. Therefore, values are reported in these columns only if the minimum required OILR is above these assumed levels.

10 - R56 represents the same residential unit as R54. The applicable dwelling unit is accounted for with R54.

* - Intervening building structures substantially obstruct line of sight to Ranchero Road. @ - OILR requirement is assumed to be met.

I.L. - Insertion Loss. W - Existing private property wall or soundwall. X - Represented land use depends upon Ranchero Road for vehicular access.

S - These receivers are located within school property. However, abatement is not warranted at these sports fields. The actual school classrooms are set much further back from the Ranchero Road, and would not be exposed to significant noise impacts.

Y - Adjacent/intervening driveways would inhibit feasibility of sound walls within existing/future City right-of-way.

Z - To be feasible, a soundwall would need to extend along the boundary of adjacent undeveloped property. However, the undeveloped property would depend upon vehicular access to Ranchero Road to remain viable.

Table D-4. Noise Abatement Analysis for Different Cruise Speeds: OGAC Pavement (cont'd)

Receiver I.D.[1]	Barrier I.D. and Location	Land Use[2]	Number of Dwelling Units	Design Year Without Project[3]	Noise Levels In Outdoor Activity Areas With Project																						CNEL at Selected Building Façades With Project (Without Barrier), dBA[8]			Minimum Outdoor to Indoor Level Reduction (OILR) to Avoid Interior Impact, dB[9]		
					CNEL Without Barrier, dBA[3,4]			Difference from Future No Project Conditions CNEL, dBA[3]			Noise Prediction with Barrier[5]																					
											Barrier Design A[6]									Barrier Design B[7]											
											Height, ft			CNEL, dBA			Insertion Loss, dB			Height, ft			CNEL, dBA			Insertion Loss, dB					
					50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph
R 66 W	S148 R/W	SFR	1	67.1	**68.2**	66.9	65.7	+1.1	-0.2	-1.4	**8**	--	--	**64**	--	--	4	--	--	**9**	--	--	63	--	--	**5**	**--**	**--**	--	--	--	--	--	--
R 67 X	--	SFR	1	67.9	**69.1**	67.8	66.5	+1.2	-0.1	-1.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	@	--	--
R 68 Z		SFR	1	68.5	**69.0**	67.7	66.5	+0.5	-0.8	-2.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	@	--	--
R 69	--	SFR	1	66.3	65.6	64.5	63.1	-0.7	-1.8	-3.2	**--**	--	--	**--**	--	--	--	--	--	**--**	--	--	--	--	--	**--**	--	--	--	--	--	--	--
R 70	--	SFR	1	62.4	62.2	61.2	59.9	-0.2	-1.2	-2.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 71	--	SFR	2	69.6	68.7	67.5	66.2	-0.9	-2.1	-3.4	**--**	--	--	**--**	--	--	--	--	--	**--**	--	--	--	--	--	**--**	--	--	--	--	--	--	--
R 72	--	SFR	2	59.3	59.8	58.8	57.5	+0.5	-0.5	-1.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 73 W	S226 R/W	SFR	3	64.8	64.6	63.6	62.3	-0.2	-1.2	-2.5	8	--	--	63	--	--	2	--	--	12	--	--	61	--	--	**4**	--	--	--	--	--	--	--	--
R 74 W		SFR	1	58.9	58.0	57.2	55.8	-0.9	-1.7	-3.1	8	--	--	58	--	--	0	--	--	12	--	--	58	--	--	**0**	--	--	--	--	--	--	--	--
R 75 W		SFR	2	52.6	52.0	51.4	50.1	-0.6	-1.2	-2.5	8	--	--	53	--	--	0	--	--	12	--	--	53	--	--	**0**	--	--	--	--	--	--	--	--
R 76 W		SFR	13	57.6	57.5	56.7	55.4	-0.1	-0.9	-2.2	8	--	--	58	--	--	0	--	--	12	--	--	57	--	--	**1**	--	--	--	--	--	--	--	--
R 77 W		SFR	5	64.9	**65.1**	64.1	62.8	+0.2	-0.8	-2.1	**8**	--	--	**63**	--	--	2	--	--	**12**	--	--	60	--	--	**5**	--	--	--	--	--	--	--	--

Notes:

1 - STxx or LTxx - measurement site number; CAL - Calibration site.

2 - Land Use: SFR - single-family residence; CHR - Church; SCH - School; PLG - Playgrounds, recreational/sports fields.

3 - Noise levels in these columns are reported to a precision of 0.1 dBA to more clearly distinguish whether or not predicted noise levels are expected to increase between Without Project and With Project conditions. The accuracy of the absolute noise level predictions shown here is not as fine as one tenth of a decibel.

4 - The City's currently-adopted General Plan Noise Element establishes an CNEL of 65 dBA as the exterior noise standard for residential development, the facades of classrooms, and park uses.

5 - The minimum barrier height considered was 6 feet or 2 feet taller than the existing property wall (if applicable), whichever is higher. The maximum barrier height considered is 12 feet.

6 - Design A was only considered where one or more receivers were predicted to experience a Community Noise Equivalent Level (CNEL) of 65 dBA or higher under Design Year With Project conditions. It represents the minimum height required to reduce outdoor traffic noise exposure to a CNEL below 65 dBA at as many of the receivers exposed to those impacts as possible.

7 - Design B represents the minimum height required to provide five or more decibels of reduction in traffic noise exposure at all impacted receivers where such reduction is possible.

8 - In many cases, receivers selected to represent outdoor activity areas are set back a different distance from the roadway than the buildings themselves. Where outdoor impacts have been identified under one or more cruise speed scenarios and where the adequacy of noise reduction could be an issue for one or more of those scenarios, CNEL values predicted at the building facade are presented here. These are the appropriate values to use in computing the minimum OILR.

9 - It has been assumed that the Ranchero-Rd.-facing facades of buildings will provide at least 25 dB of outdoor to indoor noise level reduction (OILR) for older homes and at least 30 dB of OILR for newer homes. Therefore, values are reported in these columns only if the minimum required OILR is above these assumed levels.

* - Intervening building structures substantially obstruct line of sight to Ranchero Road. @ - OILR requirement is assumed to be met.

I.L. - Insertion Loss. W - Existing private property wall or soundwall. X - Represented land use depends upon Ranchero Road for vehicular access.

S - These receivers are located within school property. However, abatement is not warranted at these sports fields. The actual school classrooms are set much further back from the Ranchero Road, and would not be exposed to significant noise impacts.

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Z - To be feasible, a soundwall would need to extend along the boundary of adjacent undeveloped property. However, the undeveloped property would depend upon vehicular access to Ranchero Road to remain viable.

Table D-4. Noise Abatement Analysis for Different Cruise Speeds: OGAC Pavement (cont'd)

Receiver I.D. [1]	Barrier I.D. and Location	Land Use [2]	Number of Dwelling Units	Design Year Without Project [3]	Noise Levels In Outdoor Activity Areas With Project																						CNEL at Selected Building Façades With Project (Without Barrier), dBA [8]			Minimum Outdoor to Indoor Level Reduction (OILR) to Avoid Interior Impact, dB [9]		
					CNEL Without Barrier, dBA [3,4]			Difference from Future No Project Conditions CNEL, dBA [3]			Noise Prediction with Barrier [5]																						
											Barrier Design A [6]									Barrier Design B [7]												
											Height, ft			CNEL, dBA			Insertion Loss, dB			Height, ft			CNEL, dBA			Insertion Loss, dB						
					50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph
R 78 W,*		SFR	4	53.9	53.6	53.0	51.9	-0.3	-0.9	-2.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 79 W	--	SFR	5	63.9	64.3	63.3	62.1	+0.4	-0.6	-1.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 80 W		SFR	3	63.7	63.9	63.0	61.9	+0.2	-0.7	-1.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 81	--	SFR	1	65.7	64.2	63.2	62.1	-1.5	-2.5	-3.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 82 X		SFR	2	67.5	**68.2**	67.0	65.6	+0.7	-0.5	-1.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	@	--	--
R 83 X		SFR	4	67.6	**68.9**	67.6	66.3	+1.3	0.0	-1.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	@	--	--
R 84 X		SFR	4	67.6	**68.3**	67.0	65.8	+0.7	-0.6	-1.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	@	--	--
R 85 X		SFR	4	67.3	**68.1**	66.9	65.6	+0.8	-0.4	-1.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	@	--	--
R 86 Y,*	--	SFR	3	58.6	59.0	57.8	56.7	+0.4	-0.8	-1.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 87 W,*		SFR	1	57.5	57.6	56.4	55.5	+0.1	-1.1	-2.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 88 W,*		SFR	1	60.1	60.0	58.8	57.8	-0.1	-1.3	-2.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 89 X		SFR	1	68.4	**68.7**	67.4	66.2	+0.3	-1.0	-2.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	@	--	--

Notes:

1 - STxx or LTxx - measurement site number; CAL - Calibration site.

2 - Land Use: SFR - single-family residence; CHR - Church; SCH - School; PLG - Playgrounds, recreational/sports fields.

3 - Noise levels in these columns are reported to a precision of 0.1 dBA to more clearly distinguish whether or not predicted noise levels are expected to increase between Without Project and With Project conditions. The accuracy of the absolute noise level predictions shown here is not as fine as one tenth of a decibel.

4 - The City's currently-adopted General Plan Noise Element establishes an CNEL of 65 dBA as the exterior noise standard for residential development, the facades of classrooms, and park uses.

5 - The minimum barrier height considered was 6 feet or 2 feet taller than the existing property wall (if applicable), whichever is higher. The maximum barrier height considered is 12 feet.

6 - Design A was only considered where one or more receivers were predicted to experience a Community Noise Equivalent Level (CNEL) of 65 dBA or higher under Design Year With Project conditions. It represents the minimum height required to reduce outdoor traffic noise exposure to a CNEL below 65 dBA at as many of the receivers exposed to those impacts as possible.

7 - Design B represents the minimum height required to provide five or more decibels of reduction in traffic noise exposure at all impacted receivers where such reduction is possible.

8 - In many cases, receivers selected to represent outdoor activity areas are set back a different distance from the roadway than the buildings themselves. Where outdoor impacts have been identified under one or more cruise speed scenarios and where the adequacy of noise reduction could be an issue for one or more of those scenarios, CNEL values predicted at the building facade are presented here. These are the appropriate values to use in computing the minimum OILR.

9 - It has been assumed that the Ranchero-Rd.-facing facades of buildings will provide at least 25 dB of outdoor to indoor noise level reduction (OILR) for older homes and at least 30 dB of OILR for newer homes. Therefore, values are reported in these columns only if the minimum required OILR is above these assumed levels.

* - Intervening building structures substantially obstruct line of sight to Ranchero Road. @ - OILR requirement is assumed to be met.

I.L. - Insertion Loss. W - Existing private property wall or soundwall. X - Represented land use depends upon Ranchero Road for vehicular access.

S - These receivers are located within school property. However, abatement is not warranted at these sports fields. The actual school classrooms are set much further back from the Ranchero Road, and would not be exposed to significant noise impacts.

Y - Adjacent/intervening driveways would inhibit feasibility of sound walls within existing/future City right-of-way.

Z - To be feasible, a soundwall would need to extend along the boundary of adjacent undeveloped property. However, the undeveloped property would depend upon vehicular access to Ranchero Road to remain viable.

Table D-4. Noise Abatement Analysis for Different Cruise Speeds: OGAC Pavement (cont'd)

Receiver I.D. [1]	Barrier I.D. and Location	Land Use [2]	Number of Dwelling Units	Design Year Without Project [3]	Noise Levels In Outdoor Activity Areas With Project																						CNEL at Selected Building Façades With Project (Without Barrier), dBA [8]			Minimum Outdoor to Indoor Level Reduction (OILR) to Avoid Interior Impact, dB [9]		
					CNEL Without Barrier, dBA [3,4]			Difference from Future No Project Conditions CNEL, dBA [3]			Noise Prediction with Barrier [5]																					
											Barrier Design A [6]									Barrier Design B [7]											
											Height, ft			CNEL, dBA			Insertion Loss, dB			Height, ft			CNEL, dBA			Insertion Loss, dB					
					50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph	50 mph	45 mph	40 mph
R 90 W	S284 R/W	SFR	1	68.0	**69.1**	67.9	66.7	+1.1	-0.1	-1.3	**9**	--	--	**63**	--	--	6	--	--	**10**	--	--	62	61	62	**7**	--	--	--	--	--	--	--	--
R 91 W,LT3/CAL		SFR	2	66.5	**67.2**	66.0	64.9	+0.7	-0.5	-1.6	**9**	--	--	**63**	--	--	4	--	--	**10**	--	--	62	61	63	**5**	--	--	--	--	--	--	--	--
R 92 W	S288 R/W	SFR	1	70.1	**71.4**	**70.1**	68.8	+1.3	0.0	-1.3	**10**	**9**	--	**63**	**64**	--	8	6	--	**8**	**8**	--	66	64	--	**5**	**6**	--	--	--	--	--	--	--
R 93 W	S292 R/W	SFR	1	69.6	**70.9**	**69.6**	68.4	+1.3	0.0	-1.2	**10**	**9**	--	**64**	**63**	--	7	7	--	**8**	**8**	--	66	65	--	**5**	**5**	--	--	--	--	--	--	--
R 93A W		SFR	2	66.2	**66.5**	**65.2**	64.0	+0.3	-1.0	-2.2	**10**	**9**	--	**60**	**59**	--	7	6	--	**8**	**8**	--	61	60	--	**6**	**5**	--	--	--	--	--	--	--
R 94 W		SFR	4	63.5	63.3	62.1	61.0	-0.2	-1.4	-2.5	**--**	--	--	**--**	--	--	--	--	--	**--**	--	--	--	--	--	**--**	--	--	--	--	--	--	--	--
R 95 W		SFR	4	62.9	62.3	61.2	60.1	-0.6	-1.7	-2.8	**--**	**--**	**--**	**--**	**--**	**--**	--	--	--	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	--	--	--	--	--	--
R 96 W		SFR	3	53.4	53.0	52.1	51.1	-0.4	-1.3	-2.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 97 W	S306 R/W	SFR	1	57.3	56.7	55.9	54.5	-0.6	-1.4	-2.8	7	--	--	56	--	--	1	--	--	8	--	--	55	--	--	2	--	--	--	--	--	--	--	--
R 98 W		SFR	1	61.4	60.7	59.7	58.3	-0.7	-1.7	-3.1	7	**--**	--	59	**--**	--	2	--	--	8	**--**	--	59	**--**	--	2	--	--	--	--	--	--	--	--
R 99 W		SFR	1	67.3	**67.6**	66.5	65.1	+0.3	-0.8	-2.2	**7**	--	**--**	**64**	--	**--**	4	--	--	**8**	--	--	63	--	--	**5**	**--**	--	--	--	--	--	--	--
R 100 W	--	SFR	4	66.2	66.0	65.0	63.6	-0.2	-1.2	-2.6	**--**	--	**--**	--	--	**--**	--	--	--	**--**	--	--	--	--	--	**--**	**--**	--	--	--	--	--	--	--
R 101 W		SFR	3	66.1	65.7	64.7	63.4	-0.4	-1.4	-2.7	**--**	**--**	**--**	**--**	**--**	**--**	--	--	--	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	--	--	--	--	--	--	--	--
R 102 W		SFR	1	66.1	65.8	64.8	63.5	-0.3	-1.3	-2.6	**--**	--	**--**	--	--	**--**	--	--	--	**--**	--	--	--	--	--	**--**	--	--	--	--	--	--	--	--
R 103 W	--	SFR	1	63.2	62.8	61.8	60.8	-0.4	-1.4	-2.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 104	--	SFR	1	57.0	57.1	56.2	54.9	+0.1	-0.8	-2.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

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