

Appendix C

Noise Model Calculations

Day Cable Crossing Equipment (no helicopter)

| Location | Distance to Nearest Receptor in feet | Combined Predicted Noise Level (L_{eq} dBA) | Equipment | Reference Emission | Usage |
|-------------|--------------------------------------|------------------------------------------------|------------|----------------------------------------------------|---------------------|
| | | | | Noise Levels (L_{max}) at 50 feet ¹ | Factor ¹ |
| Threshold | 80 | 80.0 | Grader | 85 | 0.4 |
| Residence 1 | 300 | 68.5 | Excavator | 81 | 0.4 |
| Residence 2 | 250 | 70.1 | Dozer | 82 | 0.4 |
| | | | Dump Truck | 76 | 0.4 |

| | |
|----------------------------|------|
| Ground Type | hard |
| Source Height | 8 |
| Receiver Height | 5 |
| Ground Factor ² | 0.00 |

| Predicted Noise Level ³ | L_{eq} dBA at 50 feet ³ |
|------------------------------------|--------------------------------------|
| Grader | 81.0 |
| Excavator | 77.0 |
| Dozer | 78.0 |
| Dump Truck | 72.0 |

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

84.1

Sources:

¹ Obtained from the FHWA Roadway Construction Noise Model, January 2006. Table 1.

² Based on Figure 6-5 from the Federal Transit Noise and Vibration Impact Assessment, 2006 (pg 6-23).

³ Based on the following from the Federal Transit Noise and Vibration Impact Assessment, 2006 (pg 12-3).

$$L_{eq}(\text{equip}) = E.L. + 10 \cdot \log(U.F.) - 20 \cdot \log(D/50) - 10 \cdot G \cdot \log(D/50)$$

Where: E.L. = Emission Level;

U.F. = Usage Factor;

G = Constant that accounts for topography and ground effects (FTA 2006: pg 6-23); and

D = Distance from source to receiver.



Day Cable Crossing Equipment (no helicopter)

| Location | Distance to Nearest Receptor in feet | Combined Predicted Noise Level (L _{eq} dBA) | Equipment | Reference Emission Noise Levels (L _{max}) at 50 feet ¹ | Usage Factor ¹ |
|-----------------|--------------------------------------|------------------------------------------------------|------------|-----------------------------------------------------------------------------|---------------------------|
| Reference Level | 50 | 88.1 | Grader | 85 | 1 |
| Residence | 100 | 82.0 | Excavator | 81 | 1 |
| Residence | 100 | 82.0 | Dozer | 82 | 1 |
| | | | Dump Truck | 76 | 1 |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Ground Type hard
Source Height 8
Receiver Height 5
Ground Factor² 0.00

| Predicted Noise Level ³ | L _{eq} dBA at 50 feet ³ |
|------------------------------------|---------------------------------------------|
| Grader | 85.0 |
| Excavator | 81.0 |
| Dozer | 82.0 |
| Dump Truck | 76.0 |

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

88.1

Sources:
¹ Obtained from the FHWA Roadway Construction Noise Model, January 2006. Table 1.
² Based on Figure 6-5 from the Federal Transit Noise and Vibration Impact Assessment, 2006 (pg 6-23).
³ Based on the following from the Federal Transit Noise and Vibration Impact Assessment, 2006 (pg 12-3).
L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)
Where: E.L. = Emission Level;
U.F.= Usage Factor;
G = Constant that accounts for topography and ground effects (FTA 2006: pg 6-23); and
D = Distance from source to receiver.

Attenuation Calculations for Stationary Noise Sources

KEY: Orange cells are for input.

Grey cells are intermediate calculations performed by the model.

Green cells are data to present in a written analysis (output).

STEP 1: Identify the noise source and enter the reference noise level (dBA and distance).

STEP 2: Select the ground type (hard or soft), and enter the source and receiver heights.

STEP 3: Select the distance to the receiver.

| Noise Source/ID | Reference Noise Level | | | Attenuation Characteristics | | | | Attenuated Noise Level at Receptor | | |
|------------------------|-----------------------|---|---------------|-----------------------------|--------------------|----------------------|---------------|------------------------------------|---|---------------|
| | noise level (dBA) | @ | distance (ft) | Ground Type (soft/hard) | Source Height (ft) | Receiver Height (ft) | Ground Factor | noise level (dBA) | @ | distance (ft) |
| Helicopter chipper | 79.5 | @ | 50 | soft | 6 | 5 | 0.65 | 79.5 | @ | 50 |
| blasting (night lmax) | 99.0 | @ | 3 | soft | 6 | 5 | 0.65 | 67.7 | @ | 50 |
| helicopter (night leq) | 94.0 | @ | 50 | soft | 6 | 5 | 0.65 | 65.0 | @ | 620 |
| blasting (day lmax) | 68.0 | @ | 492.00 | soft | 6 | 5 | 0.65 | 45.1 | @ | 3600 |
| helicopter (day leq) | 94.0 | @ | 50 | soft | 6 | 5 | 0.65 | 70.1 | @ | 400 |
| Blasting (SF Res) | 68.0 | @ | 492 | soft | 6 | 5 | 0.65 | 55.0 | @ | 1520 |
| blasting | 94.0 | @ | 50 | soft | 6 | 5 | 0.65 | 79.6 | @ | 175 |
| construction | 94.0 | @ | 50 | soft | 6 | 5 | 0.65 | 86.0 | @ | 100 |
| construction | 85.0 | @ | 50 | soft | 6 | 5 | 0.65 | 93.0 | @ | 25 |
| construction | 95.0 | @ | 50 | soft | 6 | 5 | 0.65 | 103.0 | @ | 25 |
| | | | | | | | 0.66 | | | |
| | | | | | | | 0.66 | | | |
| | | | | | | | 0.66 | | | |
| | | | | | | | 0.66 | | | |

Notes:

Estimates of attenuated noise levels do not account for reductions from intervening barriers, including walls, trees, vegetation, or structures of any type.

Computation of the attenuated noise level is based on the equation presented on pg. 12-3 and 12-4 of FTA 2006.

Computation of the ground factor is based on the equation presented in Figure 6-23 on pg. 6-23 of FTA 2006, where the distance of the reference noise level can be adjusted and the usage factor is not applied (i.e., the usage factor is equal to 1).

Sources:

Federal Transit Association (FTA). 2006 (May). Transit Noise and Vibration Impact Assessment. FTA-VA-90-1003-06. Washington, D.C. Available: <http://www.fta.dot.gov/documents/FTA_Noise_and_Vibration_Manual.pdf>. Accessed: September 24, 2010.

| Equipment Description | Acoustical Usage Factor (%) | Spec 721.560 Lmax @ 50ft (dBA slow) | Actual Measured Lmax @ 50ft (dBA slow) | No. of Actual Data Samples (count) | Spec 721.560 LmaxCalc | Spec 721.560 Leq | Distance | Actual Measured LmaxCalc | Actual Measured Leq |
|---------------------------------|-----------------------------|-------------------------------------|----------------------------------------|------------------------------------|-----------------------|------------------|----------|--------------------------|---------------------|
| Auger Drill Rig | 20 | 85 | 84 | 36 | 79.0 | 72.0 | 100 | 78.0 | 71.0 |
| Backhoe | 40 | 80 | 78 | 372 | 74.0 | 70.0 | 100 | 72.0 | 68.0 |
| Bar Bender | 20 | 80 | na | 0 | 74.0 | 67.0 | 100 | | |
| Blasting | na | 94 | na | 0 | 88.0 | | 100 | | |
| Boring Jack Power Unit | 50 | 80 | 83 | 1 | 74.0 | 71.0 | 100 | 77.0 | 74.0 |
| Chain Saw | 20 | 85 | 84 | 46 | 79.0 | 72.0 | 100 | 78.0 | 71.0 |
| Clam Shovel (dropping) | 20 | 93 | 87 | 4 | 87.0 | 80.0 | 100 | 81.0 | 74.0 |
| Compactor (ground) | 20 | 80 | 83 | 57 | 74.0 | 67.0 | 100 | 77.0 | 70.0 |
| Compressor (air) | 40 | 80 | 78 | 18 | 74.0 | 70.0 | 100 | 72.0 | 68.0 |
| Concrete Batch Plant | 15 | 83 | na | 0 | 77.0 | 68.7 | 100 | | |
| Concrete Mixer Truck | 40 | 85 | 79 | 40 | 79.0 | 75.0 | 100 | 73.0 | 69.0 |
| Concrete Pump Truck | 20 | 82 | 81 | 30 | 76.0 | 69.0 | 100 | 75.0 | 68.0 |
| Concrete Saw | 20 | 90 | 90 | 55 | 84.0 | 77.0 | 100 | 84.0 | 77.0 |
| Crane | 16 | 85 | 81 | 405 | 79.0 | 71.0 | 100 | 75.0 | 67.0 |
| Dozer | 40 | 85 | 82 | 55 | 79.0 | 75.0 | 100 | 76.0 | 72.0 |
| Drill Rig Truck | 20 | 84 | 79 | 22 | 78.0 | 71.0 | 100 | 73.0 | 66.0 |
| Drum Mixer | 50 | 80 | 80 | 1 | 74.0 | 71.0 | 100 | 74.0 | 71.0 |
| Dump Truck | 40 | 84 | 76 | 31 | 78.0 | 74.0 | 100 | 70.0 | 66.0 |
| Excavator | 40 | 85 | 81 | 170 | 79.0 | 75.0 | 100 | 75.0 | 71.0 |
| Flat Bed Truck | 40 | 84 | 74 | 4 | 78.0 | 74.0 | 100 | 68.0 | 64.0 |
| Front End Loader | 40 | 80 | 79 | 96 | 74.0 | 70.0 | 100 | 73.0 | 69.0 |
| Generator | 50 | 82 | 81 | 19 | 76.0 | 73.0 | 100 | 75.0 | 72.0 |
| Generator (<25KVA, VMS signs) | 50 | 70 | 73 | 74 | 64.0 | 61.0 | 100 | 67.0 | 64.0 |
| Gradall | 40 | 85 | 83 | 70 | 79.0 | 75.0 | 100 | 77.0 | 73.0 |
| Grader | 40 | 85 | na | 0 | 79.0 | 75.0 | 100 | | |
| Grapple (on Backhoe) | 40 | 85 | 87 | 1 | 79.0 | 75.0 | 100 | 81.0 | 77.0 |
| Horizontal Boring Hydr. Jack | 25 | 80 | 82 | 6 | 74.0 | 68.0 | 100 | 76.0 | 70.0 |
| Hydra Break Ram | 10 | 90 | na | 0 | 84.0 | 74.0 | 100 | | |
| Impact Pile Driver | 20 | 95 | 101 | 11 | 89.0 | 82.0 | 100 | 95.0 | 88.0 |
| Jackhammer | 20 | 85 | 89 | 133 | 79.0 | 72.0 | 100 | 83.0 | 76.0 |
| Man Lift | 20 | 85 | 75 | 23 | 79.0 | 72.0 | 100 | 69.0 | 62.0 |
| Mounted Impact Hammer (hoe ram) | 20 | 90 | 90 | 212 | 84.0 | 77.0 | 100 | 84.0 | 77.0 |
| Pavement Scarafier | 20 | 85 | 90 | 2 | 79.0 | 72.0 | 100 | 84.0 | 77.0 |
| Paver | 50 | 85 | 77 | 9 | 79.0 | 76.0 | 100 | 71.0 | 68.0 |
| Pickup Truck | 40 | 55 | 75 | 1 | 49.0 | 45.0 | 100 | 69.0 | 65.0 |
| Pneumatic Tools | 50 | 85 | 85 | 90 | 79.0 | 76.0 | 100 | 79.0 | 76.0 |
| Pumps | 50 | 77 | 81 | 17 | 71.0 | 68.0 | 100 | 75.0 | 72.0 |
| Refrigerator Unit | 100 | 82 | 73 | 3 | 76.0 | 76.0 | 100 | 67.0 | 67.0 |
| Rivit Buster/chipping gun | 20 | 85 | 79 | 19 | 79.0 | 72.0 | 100 | 73.0 | 66.0 |
| Rock Drill | 20 | 85 | 81 | 3 | 79.0 | 72.0 | 100 | 75.0 | 68.0 |
| Roller | 20 | 85 | 80 | 16 | 79.0 | 72.0 | 100 | 74.0 | 67.0 |
| Sand Blasting (Single Nozzle) | 20 | 85 | 96 | 9 | 79.0 | 72.0 | 100 | 90.0 | 83.0 |
| Scraper | 40 | 85 | 84 | 12 | 79.0 | 75.0 | 100 | 78.0 | 74.0 |
| Shears (on backhoe) | 40 | 85 | 96 | 5 | 79.0 | 75.0 | 100 | 90.0 | 86.0 |
| Slurry Plant | 100 | 78 | 78 | 1 | 72.0 | 72.0 | 100 | 72.0 | 72.0 |
| Slurry Trenching Machine | 50 | 82 | 80 | 75 | 76.0 | 73.0 | 100 | 74.0 | 71.0 |
| Soil Mix Drill Rig | 50 | 80 | na | 0 | 74.0 | 71.0 | 100 | | |
| Tractor | 40 | 84 | na | 0 | 78.0 | 74.0 | 100 | | |
| Vacuum Excavator (Vac-truck) | 40 | 85 | 85 | 149 | 79.0 | 75.0 | 100 | 79.0 | 75.0 |
| Vacuum Street Sweeper | 10 | 80 | 82 | 19 | 74.0 | 64.0 | 100 | 76.0 | 66.0 |
| Ventilation Fan | 100 | 85 | 79 | 13 | 79.0 | 79.0 | 100 | 73.0 | 73.0 |
| Vibrating Hopper | 50 | 85 | 87 | 1 | 79.0 | 76.0 | 100 | 81.0 | 78.0 |
| Vibratory Concrete Mixer | 20 | 80 | 80 | 1 | 74.0 | 67.0 | 100 | 74.0 | 67.0 |
| Vibratory Pile Driver | 20 | 95 | 101 | 44 | 89.0 | 82.0 | 100 | 95.0 | 88.0 |
| Warning Horn | 5 | 85 | 83 | 12 | 79.0 | 66.0 | 100 | 77.0 | 64.0 |
| Welder / Torch | 40 | 73 | 74 | 5 | 67.0 | 63.0 | 100 | 68.0 | 64.0 |
| chipper | | 75 | | | | | | | |

Source:

FHWA Roadway Construction Noise Model, January 2006. Table 9.1

U.S. Department of Transportation

CA/T Construction Spec. 721.560



Traffic Noise Spreadsheet Calculator

Project: Gateway-Main Street Specific Plan

| Number | Segment Description and Location | | | Cumulative Conditions | Cumulative +Project Conditions | Δ Cumulative – Cumulative + Project |
|-------------------------------|----------------------------------|---------------|-----------------|-----------------------|--------------------------------|-------------------------------------|
| | North-South | East-West | Roadway Segment | | | |
| Summary of Net Changes | | | | | | |
| 1 | Park Victoria Dr | Calaveras Dr. | Calaveras West | 67.8 | 67.8 | 0.0 |
| 2 | Hillview Dr | Calaveras Dr. | Calaveras West | 69.1 | 68.9 | -0.2 |
| 3 | Hillview Dr | Calaveras Dr. | Calaveras East | 69.1 | 68.8 | -0.4 |
| 4 | Milipitas Blvd | Calaveras Dr. | Calaveras West | 69.1 | 68.8 | -0.3 |
| 5 | Milipitas Blvd | Calaveras Dr. | Calaveras East | 63.5 | 63.2 | -0.2 |
| 6 | Abel St | Calaveras Dr. | Abel North | 59.1 | 58.6 | -0.4 |
| 7 | Abel St | Sierra Way | Abel South | 64.1 | 63.7 | -0.4 |
| 8 | Abel St | Calaveras Dr. | Calaveras West | 70.1 | 70.0 | -0.2 |
| 9 | Abel St | Marylinn Dr | Abel North | 58.8 | 58.6 | -0.3 |
| 10 | Abel St | Marylinn Dr | Abel South | 58.5 | 58.3 | -0.3 |
| 11 | Abbott Ave | Calaveras Dr. | Calaveras West | 64.4 | 64.2 | -0.2 |
| 12 | Abbott Ave | Calaveras Dr. | Calaveras East | 64.2 | 64.0 | -0.2 |
| 13 | Abel St | Sierra Way | Abel South | 57.8 | 57.3 | -0.4 |
| 14 | Abel St | Corning Ave | Abel South | 57.7 | 57.4 | -0.2 |
| 15 | Abel St | Curtis Ave | Abel South | 58.9 | 58.5 | -0.4 |
| 16 | Main St | Curtis Ave | Main South | 56.1 | 55.4 | -0.7 |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

*All modeling assumes average pavement, level roadways (less than 1.5% grade), constant traffic flow and does not account for shielding of any type or finite roadway adjustments. All levels are reported as A-weighted noise levels.

Cumulative Traffic Noise Spreadsheet Calculator



Project: Gateway-Main Street Specific Plan

Noise Level Descriptor: Ldn
 Site Conditions: Hard
 Traffic Input: ADT
 Traffic K-Factor: 10

| | | | | Input | | | | | | | | | Output | | | | | |
|----------------------------|----------------------------------|---------------|-----------------|--------|-------------|---------------------------------------------------------|-----|--------------------------------------|----------|---------|-------|-------|-----------------------------|------------------------------------------|--------|--------|--------|--------|
| Number | Segment Description and Location | | Roadway Segment | ADT | Speed (mph) | Distance to Directional Centerline, (feet) ₄ | | Traffic Distribution Characteristics | | | | | Ldn, (dBA) _{5,6,7} | Distance to Contour, (feet) ₃ | | | | |
| | North-South | East-West | | | | Near | Far | % Auto | % Medium | % Heavy | % Day | % Eve | | % Night | 75 dBA | 70 dBA | 65 dBA | 60 dBA |
| Existing Conditions | | | | | | | | | | | | | | | | | | |
| 1 | Park Victoria Dr | Calaveras Dr. | Calaveras West | 24,514 | 45 | 100 | 100 | 97.0% | 2.0% | 1.0% | 80.0% | 15.0% | 5.0% | 67.8 | 19 | 60 | 189 | 596 |
| 2 | Hillview Dr | Calaveras Dr. | Calaveras West | 33,031 | 45 | 100 | 100 | 97.0% | 2.0% | 1.0% | 80.0% | 15.0% | 5.0% | 69.1 | 25 | 80 | 254 | 804 |
| 3 | Hillview Dr | Calaveras Dr. | Calaveras East | 33,787 | 45 | 100 | 100 | 97.0% | 2.0% | 1.0% | 80.0% | 15.0% | 5.0% | 69.1 | 26 | 82 | 260 | 822 |
| 4 | Millipitas Blvd | Calaveras Dr. | Calaveras West | 33,139 | 45 | 100 | 100 | 97.0% | 2.0% | 1.0% | 80.0% | 15.0% | 5.0% | 69.1 | 25 | 81 | 255 | 806 |
| 5 | Millipitas Blvd | Calaveras Dr. | Calaveras East | 39,236 | 25 | 100 | 100 | 97.0% | 2.0% | 1.0% | 80.0% | 15.0% | 5.0% | 63.5 | 7 | 22 | 70 | 221 |
| 6 | Abel St | Calaveras Dr. | Abel North | 14,258 | 25 | 100 | 100 | 97.0% | 2.0% | 1.0% | 80.0% | 15.0% | 5.0% | 59.1 | 3 | 8 | 25 | 80 |
| 7 | Abel St | Sierra Way | Abel South | 10,629 | 45 | 100 | 100 | 97.0% | 2.0% | 1.0% | 80.0% | 15.0% | 5.0% | 64.1 | 8 | 26 | 82 | 259 |
| 8 | Abel St | Calaveras Dr. | Calaveras West | 42,481 | 45 | 100 | 100 | 97.0% | 2.0% | 1.0% | 80.0% | 15.0% | 5.0% | 70.1 | 33 | 103 | 327 | 1034 |
| 9 | Abel St | Marylinn Dr | Abel North | 13,503 | 25 | 100 | 100 | 97.0% | 2.0% | 1.0% | 80.0% | 15.0% | 5.0% | 58.8 | 2 | 8 | 24 | 76 |
| 10 | Abel St | Marylinn Dr | Abel South | 12,673 | 25 | 100 | 100 | 97.0% | 2.0% | 1.0% | 80.0% | 15.0% | 5.0% | 58.5 | 2 | 7 | 23 | 71 |
| 11 | Abbott Ave | Calaveras Dr. | Calaveras West | 48,960 | 25 | 100 | 100 | 97.0% | 2.0% | 1.0% | 80.0% | 15.0% | 5.0% | 64.4 | 9 | 28 | 87 | 276 |
| 12 | Abbott Ave | Calaveras Dr. | Calaveras East | 47,130 | 25 | 100 | 100 | 97.0% | 2.0% | 1.0% | 80.0% | 15.0% | 5.0% | 64.2 | 8 | 27 | 84 | 266 |
| 13 | Abel St | Sierra Way | Abel South | 10,629 | 25 | 100 | 100 | 97.0% | 2.0% | 1.0% | 80.0% | 15.0% | 5.0% | 57.8 | 2 | 6 | 19 | 60 |
| 14 | Abel St | Corning Ave | Abel South | 10,370 | 25 | 100 | 100 | 97.0% | 2.0% | 1.0% | 80.0% | 15.0% | 5.0% | 57.7 | 2 | 6 | 18 | 58 |
| 15 | Abel St | Curtis Ave | Abel South | 13,861 | 25 | 100 | 100 | 97.0% | 2.0% | 1.0% | 80.0% | 15.0% | 5.0% | 58.9 | 2 | 8 | 25 | 78 |
| 16 | Main St | Curtis Ave | Main South | 7,210 | 25 | 100 | 100 | 97.0% | 2.0% | 1.0% | 80.0% | 15.0% | 5.0% | 56.1 | 1 | 4 | 13 | 41 |

*All modeling assumes average pavement, level roadways (less than 1.5% grade), constant traffic flow and does not account for shielding of any type or finite roadway adjustments. All levels are reported as A-weighted noise levels.

Cumulative + Project Traffic Noise Spreadsheet Calculator



| Project: Gateway-Main Street Specific Plan | | | | Input | | | | | | | | | | Output | | | | |
|----------------------------------------------------------------------------------------------------|----------------------------------|---------------|-----------------|--------|-------------|---------------------------------------------------------|-----|--------------------------------------|----------|---------|-------|-------|-----------------------------|------------------------------------------|--------|--------|--------|--------|
| Noise Level Descriptor: Ldn Site Conditions: Hard Traffic Input: ADT Traffic K-Factor: 10 | | | | | | | | | | | | | | | | | | |
| Number | Segment Description and Location | | Roadway Segment | ADT | Speed (mph) | Distance to Directional Centerline, (feet) ₄ | | Traffic Distribution Characteristics | | | | | Ldn, (dBA) _{5,6,7} | Distance to Contour, (feet) ₃ | | | | |
| | North-South | East-West | | | | Near | Far | % Auto | % Medium | % Heavy | % Day | % Eve | | % Night | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| Existing + Project Conditions | | | | | | | | | | | | | | | | | | |
| 1 | Park Victoria Dr | Calaveras Dr. | Calaveras West | 24,670 | 45 | 100 | 100 | 97.0% | 2.0% | 1.0% | 80.0% | 15.0% | 5.0% | 67.8 | 60 | 190 | 600 | 1898 |
| 2 | Hillview Dr | Calaveras Dr. | Calaveras West | 31,623 | 45 | 100 | 100 | 97.0% | 2.0% | 1.0% | 80.0% | 15.0% | 5.0% | 68.9 | 77 | 243 | 769 | 2433 |
| 3 | Hillview Dr | Calaveras Dr. | Calaveras East | 30,958 | 45 | 100 | 100 | 97.0% | 2.0% | 1.0% | 80.0% | 15.0% | 5.0% | 68.8 | 75 | 238 | 753 | 2382 |
| 4 | Milipitas Blvd | Calaveras Dr. | Calaveras West | 31,063 | 45 | 100 | 100 | 97.0% | 2.0% | 1.0% | 80.0% | 15.0% | 5.0% | 68.8 | 76 | 239 | 756 | 2390 |
| 5 | Milipitas Blvd | Calaveras Dr. | Calaveras East | 37,067 | 25 | 100 | 100 | 97.0% | 2.0% | 1.0% | 80.0% | 15.0% | 5.0% | 63.2 | 21 | 66 | 209 | 661 |
| 6 | Abel St | Calaveras Dr. | Abel North | 12,932 | 25 | 100 | 100 | 97.0% | 2.0% | 1.0% | 80.0% | 15.0% | 5.0% | 58.6 | 7 | 23 | 73 | 231 |
| 7 | Abel St | Sierra Way | Abel South | 9,615 | 45 | 100 | 100 | 97.0% | 2.0% | 1.0% | 80.0% | 15.0% | 5.0% | 63.7 | 23 | 74 | 234 | 740 |
| 8 | Abel St | Calaveras Dr. | Calaveras West | 40,880 | 45 | 100 | 100 | 97.0% | 2.0% | 1.0% | 80.0% | 15.0% | 5.0% | 70.0 | 99 | 315 | 995 | 3145 |
| 9 | Abel St | Marylinn Dr | Abel North | 12,700 | 25 | 100 | 100 | 97.0% | 2.0% | 1.0% | 80.0% | 15.0% | 5.0% | 58.6 | 7 | 23 | 72 | 227 |
| 10 | Abel St | Marylann Dr | Abel South | 11,871 | 25 | 100 | 100 | 97.0% | 2.0% | 1.0% | 80.0% | 15.0% | 5.0% | 58.3 | 7 | 21 | 67 | 212 |
| 11 | Abbott Ave | Calaveras Dr. | Calaveras West | 47,006 | 25 | 100 | 100 | 97.0% | 2.0% | 1.0% | 80.0% | 15.0% | 5.0% | 64.2 | 27 | 84 | 265 | 838 |
| 12 | Abbott Ave | Calaveras Dr. | Calaveras East | 44,856 | 25 | 100 | 100 | 97.0% | 2.0% | 1.0% | 80.0% | 15.0% | 5.0% | 64.0 | 25 | 80 | 253 | 800 |
| 13 | Abel St | Sierra Way | Abel South | 9,615 | 25 | 100 | 100 | 97.0% | 2.0% | 1.0% | 80.0% | 15.0% | 5.0% | 57.3 | 5 | 17 | 54 | 172 |
| 14 | Abel St | Corning Ave | Abel South | 9,849 | 25 | 100 | 100 | 97.0% | 2.0% | 1.0% | 80.0% | 15.0% | 5.0% | 57.4 | 6 | 18 | 56 | 176 |
| 15 | Abel St | Curtis Ave | Abel South | 12,558 | 25 | 100 | 100 | 97.0% | 2.0% | 1.0% | 80.0% | 15.0% | 5.0% | 58.5 | 7 | 22 | 71 | 224 |
| 16 | Main St | Curtis Ave | Main South | 6,182 | 25 | 100 | 100 | 97.0% | 2.0% | 1.0% | 80.0% | 15.0% | 5.0% | 55.4 | 3 | 11 | 35 | 110 |
| | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |

*All modeling assumes average pavement, level roadways (less than 1.5% grade), constant traffic flow and does not account for shielding of any type or finite roadway adjustments. All levels are reported as A-weighted noise levels.

| Intersection # | Street Name | | Road Segment | ADT* | | Project Traffic | | | Factor | ADT** | |
|----------------|-----------------------------|--------------|--------------------------------------|-----------------|-----------------|-----------------|---------|-------|--------|-------------------|-------------------|
| | North-South | East-West | | 2015-No Project | 2040-No Project | AM Peak | PM Peak | Total | | 2015-Plus Project | 2040-Plus Project |
| 1 | SR 113/Birds Landing Rd | SR 12 | SR 113 North | 6,890 | 10,452 | 10 | 32 | 42 | 6.8 | 7,176 | 10,738 |
| | | | SR 113 South | 250 | 378 | 0 | 0 | 0 | 6.8 | 250 | 378 |
| | | | SR 12 West | 16,700 | 23,388 | 91 | 237 | 328 | 6.8 | 18,930 | 25,618 |
| | | | SR 12 East | 23,234 | 33,008 | 251 | 165 | 416 | 6.8 | 26,063 | 35,837 |
| 2 | Azevedo Rd | SR 12 | Azevedo Rd North | 18 | 1,904 | 0 | 0 | 0 | 5.5 | 18 | 1,904 |
| | | | Azevedo Rd South | 61 | 132 | 0 | 0 | 0 | 5.5 | 61 | 132 |
| | | | SR 12 West | 23,247 | 32,946 | 101 | 269 | 370 | 6.8 | 25,763 | 35,462 |
| | | | SR 12 East | 23,215 | 30,990 | 251 | 165 | 416 | 6.8 | 26,044 | 33,819 |
| 3 | Azevedo Rd | Canright Rd | Azevedo Rd South | 18 | 1,904 | 0 | 0 | 0 | 5.5 | 18 | 1,904 |
| | | | Canright Rd West | 35 | 125 | 0 | 0 | 0 | 5.5 | 35 | 125 |
| | | | Canright Rd East | 18 | 1,917 | 0 | 0 | 0 | 5.5 | 18 | 1,917 |
| 5 | Project Driveway | McCormack Rd | McCormack Rd West | 10 | 21 | 9 | 32 | 41 | 6.1 | 260 | 271 |
| | | | McCormack Rd East | 10 | 21 | 10 | 31 | 41 | 6.1 | 260 | 271 |
| 6 | Summerset Rd | SR 12 | Summerset Rd North | 2,497 | 4,402 | 362 | 236 | 598 | 7.1 | 6,743 | 8,648 |
| | | | SR 12 West | 23,222 | 30,999 | 101 | 269 | 370 | 6.8 | 25,738 | 33,515 |
| | | | SR 12 East | 22,995 | 30,644 | 152 | 377 | 529 | 6.8 | 26,592 | 34,241 |
| 7 | Province Path | Canright Rd | Province Path South | 1,432 | 2,656 | 119 | 333 | 452 | 6.7 | 4,460 | 5,684 |
| | | | Canright Rd West | 21 | 1,920 | 76 | 92 | 168 | 5.5 | 945 | 2,844 |
| | | | Canright Rd East/Liberty Island Road | 1,447 | 4,515 | 7 | 19 | 26 | 6.3 | 1,611 | 4,679 |
| 8 | Hillside Terrace | SR 12 | Hillside Ter North | 1,494 | 2,957 | 0 | 0 | 0 | 6.3 | 1,494 | 2,957 |
| | | | SR 12 West | 23,418 | 31,586 | 355 | 231 | 586 | 6.8 | 27,403 | 35,571 |
| | | | SR 12 East | 19,719 | 25,255 | 129 | 365 | 494 | 6.8 | 23,078 | 28,614 |
| 9 | SR 84 (River Rd)/N Front St | SR 12 | SR 84 (River Rd) North | 339 | 457 | 46 | 132 | 178 | 6.3 | 1,460 | 1,578 |
| | | | SR 12 West | 21,189 | 27,284 | 214 | 140 | 354 | 6.8 | 23,596 | 29,691 |
| | | | SR 12 East | 20,852 | 26,827 | 83 | 233 | 316 | 6.8 | 23,001 | 28,976 |

*- From Solano Napa Travel Demand Model

**-ADT from Travel Model + Project ADT (Estimated from AM and PM peak hour)

Source: Kittelson & Associates 2024