CHAPTER 5

Noise

This chapter summarizes the environmental noise analysis for the Bel-Red Corridor Project. The analysis was conducted to determine whether increased traffic resulting from proposed Bel-Red Corridor redevelopment would likely cause adversely high noise levels at noise-sensitive locations, such as residences, parks, or schools. This noise analysis was based on a computerized noise model that predicts future sound levels based on traffic volumes. Modeling results were used to assess the potential for traffic noise impacts at several identified sensitive receiving locations.

Methodology

Potential peak-period traffic noise levels were calculated for traffic conditions expected in 2030 for the No-Action Alternative and each action alternative. Field measurements were not conducted for this analysis; it is assumed that measurements will be conducted, however, for future project specific implementation, as warranted by the City of Bellevue. Three intersections were selected to represent possible noise conditions that might occur throughout the project: Bel-Red Road at 140th Avenue NE, Northup Way at 120th Avenue NE, and 130th Avenue NE at NE 16th Street. These locations were chosen because they would be close to noise-sensitive receivers (primarily residential areas) under one or more of the action alternatives. It is important to note, however, that the modeling does not consider site-specific variations, such as topography and buildings, that can considerably affect predicted noise levels.

These calculations were performed using the Federal Highway Administration (FHWA) Traffic Noise Prediction Model (FHWA-RD-77-108), as coded into the Traffic Noise Model (TNM), Version 2.5 computer program, to estimate traffic noise levels at nearby receptors. FHWA's TNM is the analytical method currently favored by many state and local agencies, including the Washington State Department of Transportation (WSDOT), for highway traffic noise prediction. TNM is based upon reference energy emission levels for automobiles, medium trucks (two axles), and heavy trucks (three or more axles), with consideration given to vehicle volume, speed, distance to the receiver, and the site acoustical characteristics. The model uses the traffic noise emission curves recommended by FHWA to calculate noise levels generated by highway traffic.

Table 5-1 shows the traffic data input to the models, including speeds, vehicle-type percentages, and peak-hour volumes. A receptor grid with 50-meter spacing to 500 meters was used to evaluate the extent of noise levels in the area surrounding the three representative intersections. The distribution of noise levels around the intersection can assist in planning the placement of commercial or residential buildings within a specific buffer zone from the edge of roadway.

TABLE 5-1
Traffic Volumes for the Intersections Modeled in Traffic Noise Model
Bel-Red Corridor Draft Environmental Impact Statement

Roadway Segment	Automobiles	Medium Trucks	Heavy Trucks
2030 No-Action Alternative			
Bel-Red Road and 140th Avenue NE			
West	3,042	63	63
East	2,731	57	57
North	1,895	39	39
South	1,755	37	37
Northup Way and 124th Ave NE			
West	1,521	32	32
East	2,749	57	57
North	2,096	44	44
South	976	20	20
130th Avenue NE and NE 16th Street			
North	608	13	13
South	427	9	9
2030 Alternative 1			
Bel-Red Road and 140th Avenue NE			
West	3,189	33	33
East	2,825	29	29
North	1,956	20	20
South	1,775	18	18
Northup Way and 124th Avenue NE			
West	1,674	17	17
East	3,004	31	31
North	2,299	23	23
South	1,085	11	11
130th Avenue NE and NE 16th Street			
West	2,235	47	47
East	2,233	47	47
North	1,207	25	25
South	999	21	21
2030 Alternative 2			
Bel-Red Road and 140th Avenue NE			
West	3,216	33	33
East	2,851	29	29
North	1,845	19	19
South	1,837	19	19

TABLE 5-1
Traffic Volumes for the Intersections Modeled in Traffic Noise Model
Bel-Red Corridor Draft Environmental Impact Statement

Roadway Segment	Automobiles	Medium Trucks	Heavy Trucks
Northup Way and 124th Avenue NE			
West	1,511	31	31
East	2,959	62	62
North	2,120	44	44
South	1,183	25	25
130th Avenue NE and NE 16th Street			
West	2,001	20	20
East	2,316	24	24
North	1,135	12	12
South	959	10	10
2030 Alternative 3			
Bel-Red Road and 140th Avenue NE			
West	3,383	35	35
East	2,977	30	30
North	2,002	20	20
South	1,838	19	19
Northup Way and 124th Avenue NE			
West	1,727	36	36
East	3,147	66	66
North	2,457	51	51
South	1,117	23	23
130th Avenue NE and NE 16th Street			
West	2,415	25	25
East	2,543	26	26
North	1,299	13	13
South	1,024	10	10

Source: CH2M HILL, 2006.

Noise Level Terminology and Measurement

Noise is sometimes defined as unwanted sound. This analysis makes no such distinction, and the terms *noise* and *sound* are used more or less synonymously. The human ear responds to a very wide range of sound intensities. The decibel (dB) scale used to describe sound is a logarithmic rating system that accounts for the large differences in audible sound intensities. On this scale, an increase in 10 dB represents a doubling of loudness. Therefore, a 70-dB sound level will sound twice as loud as a 60-dB sound level.

People generally cannot detect sound level differences (increases or decreases) of 1 dB in a given noise source. Although differences of 2 or 3 dB can be detected under ideal laboratory

conditions, they are difficult to discern in an active outdoor noise environment. A 5-dB change in a given noise source or environment is noticeable to most people under normal listening conditions.

When addressing the effect of noise on people, the frequency response of the human ear—or those frequencies that people hear best—must be considered. Sound-measuring instruments are, therefore, often designed to "weight" sounds based on the way people hear. The frequency-weighting most often used to evaluate environmental noise is A-weighting, and measurements from instruments using this system are reported in "A-weighted decibels" or dBA. This analysis reports all sound levels in dBA.

For a given noise source, factors affecting the potential noise impact include distance from the source, sound frequency, absorbency of the ground surface, the presence or absence of obstructions and their absorbency or reflectivity, and the sound duration. The degree of impact on humans also depends on who is listening and on existing sound levels in the area.

Because the dBA scale used to describe noise is logarithmic, a doubling of a traffic noise sources (i.e., twice as much traffic on a road) produces a 3-dBA increase in average roadway noise. As noted above, this is about the threshold at which a change in noise level becomes perceptible to the human ear. Average sound levels from "line" sources, such as roads, decrease with distance from the road at a rate of 3 to 4.5 dBA per doubling of the distance from the road, depending on the nature of the intervening ground. Sound levels from discrete events or "point" sources, such as from a single vehicle's brake screech or tire squeal, decrease by 6 dBA per doubling of the distance from the event. Conversely, moving half the distance closer to a road increases sound levels from roadway and point sources by 3 dBA and 6 dBA, respectively.

Federal regulatory agencies often use the equivalent sound level (Leq) to evaluate noise impacts. The Leq is the level of a constant sound that has the same sound energy as the actual, fluctuating sound. In discussing sound level measurements and predictions, the time period being considered must be identified because most sound-energy criteria address sound levels over some time period. In this way, noise criteria address both the intensity and the duration of sounds. Leqs discussed in this analysis are for a one-hour period—Leq(1) — during midday or peak-period traffic.

As discussed further in this chapter, the City of Bellevue applies both the hourly Leq and the day-night sound level (Ldn) when assessing potential noise impacts from certain traffic sources. The Ldn is a sound-energy average over a 24-hour period, with a 10-dBA "penalty" added to noise levels measured between 10 PM and 7 AM to account for potential sleep interference.

Noise Regulation Overview

City of Bellevue

Chapter 9.18 of the BCC establishes limits on noise levels and durations permitted to cross property boundaries. Allowable maximum sound levels depend on the land uses of the properties receiving the noise. For this purpose, land uses where noise is generated or heard are classified according to a set of categories called Environmental Designations for Noise Abatement (EDNAs). EDNAs derive from the typical land uses and/or zoning of the noise source and typical land uses and /or zoning of the receiving property (Table 5-2). Class A EDNAs generally correspond to residential uses and parks; Class B EDNAs typically

correspond to commercial uses; and Class C EDNAs are typically industrial or agricultural uses. Under the City of Bellevue noise regulations, traffic traveling on public roads is exempt from these limits, but they still can be used to indicate the relative impacts of traffic noise.

TABLE 5-2
Environmental Designations for Noise Abatement Levels
Bel-Red Corridor Draft Environmental Impact Statement

EDNA of Noise Source[a]	**EDNA of Sound-Receiving Property[1]**		
	Class A[2]	Class B	Class C
Class A	55/45	57	60
Class B	57/47	60	65
Class C	60/50	65	70

Source: Bellevue City Code, Chapter 9.18.
[1]EDNA= Environmental Designation for Noise Abatement, which is established based on specific zoning and/or land use; the three categories of sources and receivers describe the types of EDNAs defined in the rules.
[2]Between 10 PM and 7 AM, noise limits are reduced 10 A-weighted decibels (dBA) for receiving properties within Class A EDNAs.

The City of Bellevue has established a separate set of noise limits for traffic traveling along arterial roadways, similar to the limits established for use on state highways (see below). Section 9.18.045(C) of the BCC sets noise limits for Class A EDNA receivers affected by arterial improvements projects (excluding the addition of bicycle lanes, sidewalks, or a minor widening). Noise analyses are required if the existing or proposed traffic noise levels are greater than or equal to 67 dBA or if the improvement would cause an increase of 5 dBA or more in the hourly Leq. In cases where such traffic noise levels or increases occur, mitigation might be considered if the average Ldn could be reduced to 60dBA or lower. Mitigation must also be cost-effective, as established by the City of Bellevue's Director of Planning and Community Development or the City Council and the BCC.

Because the roadway components associated with all of the action alternatives would occur exclusively along arterial roadways, the noise limits established in the BCC apply to this study and are used as a basis for assessing noise impacts.

Federal Highway Administration and Washington State Department of Transportation

The FHWA has developed a set of Noise Abatement Criteria (NAC) that apply to peak-hour traffic noise levels. WSDOT uses the NAC to determine when noise mitigation is warranted for a project on a state or interstate highway. Table 5-3 shows the FHWA standards used for determining the NAC for specific land uses (for example, residential or commercial). FHWA considers a traffic noise impact to occur if predicted peak-hour traffic noise levels approach defined by WSDOT as within 1 dBA of the NAC) or exceed the NAC or substantially exceed (defined as an increase greater than 10 dBA resulting in at least 50 dBA Leq) existing levels. The FHWA and WSDOT noise rules are mentioned for reference purposes only to indicate the similarity of the BCC to the federal and state transportation noise control program. The federal and state noise limits are not directly applicable to the Bel-Red Corridor redevelopment. (A

complete copy of WSDOT's policies and procedures can be viewed online at http://www.wsdot.wa.gov/regions/Northwest/rp&s/environmental/aae/policies.htm.)

TABLE 5-3
FHWA Design Noise Level and Activity Relationships
Bel-Red Corridor Draft Environmental Impact Statement

Activity Category	Design Noise Levels (dBA)[1] Leq Hourly	Description of Land Use Activity Category
A[2]	57 (exterior)	Tracts of land where serenity and quiet are of extraordinary significance and serve an important public need and where preserving those qualities is essential if they are to continue to serve their intended purpose; such areas could include amphitheaters, particular parks or portions of parks, open spaces, or historic districts that are dedicated or recognized by appropriate local officials for activities requiring special qualities of serenity and quiet.
B[2]	67 (exterior)	Picnic areas, recreation areas, playgrounds, active sports areas, and parks that are not included in Category A, and residences, motels, hotels, public meeting rooms, schools, churches, libraries, and hospitals.
C	72 (exterior)	Developed lands, properties, or activities not included in Categories A and B above.
D	--	Undeveloped lands.
E	52 (interior)	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums.

Source: FHWA, 1992.
[1]Either Leq or L_{10} design levels might be used.
[2]Parts of Categories A and B include all such lands (public or private) that are used as parks as well as those public lands officially set aside or designated by a governmental agency as parks on the date of public knowledge of the proposed highway project.
dBA A-weighted decibel
CFR Code of Federal Regulations
FHWA Federal Highway Administration
L_{10} A-weighted sound level that is exceeded 10 percent of the time
Leq equivalent sound level

Impacts

Construction Impacts

During construction of any action alternative component, there would be temporary increases in sound levels near active construction areas and along routes to these areas because construction activities would involve operating heavy equipment and hauling construction materials. The extent to which noise levels would increase would depend on the types of equipment being used and the duration of its use. Excavation, grading, and construction activities would generate sounds audible to listeners at surrounding properties. Table 5-4 shows the typical range of noise levels for construction equipment that could be used during the construction of any action alternative.

Sounds from construction equipment (usually a point source) decrease about 6 dBA for each doubling in distance from the source. Road construction noise in residential EDNAs is exempt

from the maximum permissible sound levels (Table 5-2) between 7 AM and 10 PM on weekdays and 9 AM and 10 PM on weekends; noise in nonresidential EDNAs is exempt at all times. Construction noise can easily exceed levels, however, that are generally considered acceptable for residential and commercial settings. As a result, without effective controls or mitigation, construction noise could adversely impact nearby residents, parks, and businesses.

TABLE 5-4
Typical Noise Levels from Construction Equipment
Bel-Red Corridor Draft Environmental Impact Statement

	Noise Level (dBA)		
Activity	**At 50 Feet**	**At 100 Feet**	**At 200 Feet**
Clearing	83	77	71
Grading	75 to 88	69 to 82	63 to 76
Paving	72 to 88	66 to 82	60 to 76
Erection	72 to 84	66 to 78	60 to 72
	Range of Noise Levels (dBA)		
Types of Equipment	**At 50 Feet**	**At 100 Feet**	**At 200 Feet**
Bulldozer	77 to 96	71 to 90	65 to 84
Dump Truck	82 to 94	76 to 88	70 to 82
Scraper	80 to 93	74 to 87	68 to 81
Paver	86 to 88	80 to 82	74 to 76
Generators	71 to 82	65 to 76	59 to 70
Compressors	74 to 81	68 to 75	62 to 69

Source: USEPA, 1971.
dBA A-weighted decibel

Operational Impacts

As noted above, future noise levels were calculated for three intersections in the study area: Bel-Red Road at 140th Avenue NE, Northup Way at 120th Avenue NE, and 130th Avenue NE at NE 16th Street. These locations were chosen because they would be close to noise-sensitive receivers (primarily residential areas) under one or more of the action alternatives. Calculating future noise levels for these locations will allow developers to design their projects in ways that minimize the noise impacts on residential areas. The analysis did not consider the noise impacts from Sound Transit's proposed LRT line through the corridor because its design and alignment have not yet been determined. Sound Transit will evaluate noise impacts of the LRT system in a separate EIS. It is probable, however, that LRT noise would likely have cumulative impacts in the corridor.

The noise modeling predicted few differences among the alternatives. Overall noise levels throughout the study area in 2030 would be within 2 dBA of each other from location to location and alternative to alternative. The similarity in future noise levels is because, as noted

above, traffic volumes must double for the difference in noise levels to be audible to the human ear. Although traffic would increase in many locations with the action alternatives, it is not predicted to double in the areas studied for this analysis. The exception is the intersection of 130th Avenue NE and the future NE 16th Street, which would experience a 7- to 8-dBA increase between the No-Action Alternative and action alternatives. (This is to be expected because NE 16th Street does not currently exist at this location and because 130th Avenue NE carries relatively low volumes of traffic.)

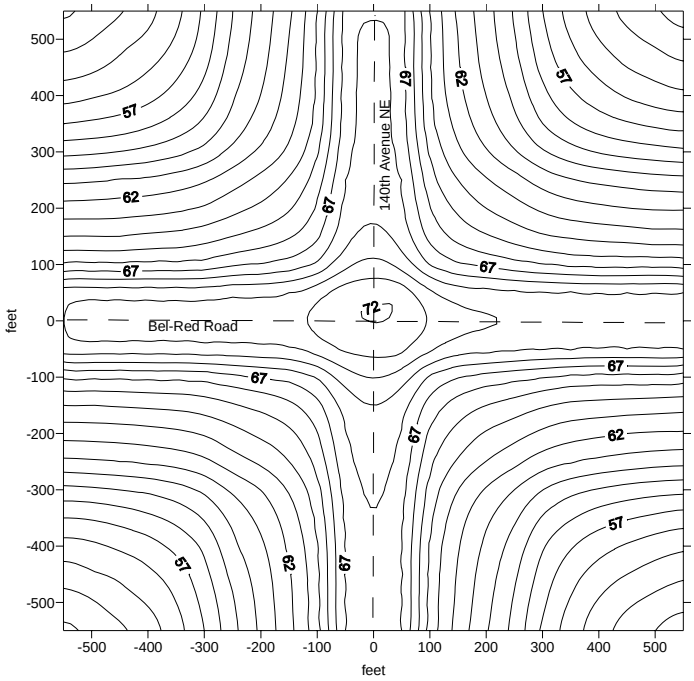
Table 5-5 presents the maximum 2030 noise levels predicted for each intersection in the TNM results. Figures 5-1 through 5-5 show the noise level contours around the intersections; these noise contours include traffic from arterial streets. The noise levels predicted for each alternative are described in more detail below.

TABLE 5-5
2030 Calculated Peak-Hour Sound Levels by Alternatives (dBA)
Bel-Red Corridor Draft Environmental Impact Statement

Location Description	No-Action Alternative	Alterative 1	Alternative 2	Alternative 3
Bel-Red Road and 140th Avenue NE	72	72	72	72
Northup Way and 124th Avenue NE	71	71	72	72
130th Avenue NE and NE 16th Street	63	71	70	70

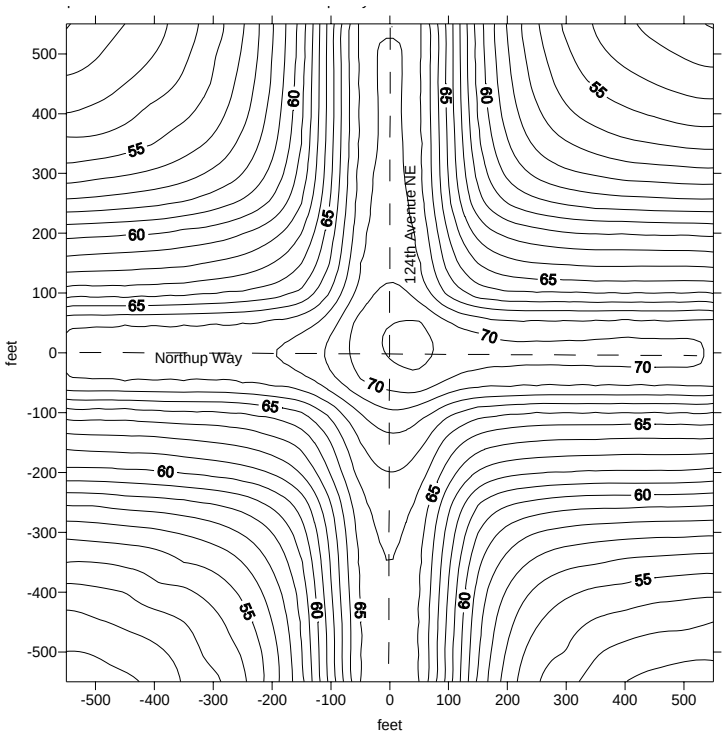
Source: CH2M HILL, 2006.
Note: Sound levels are calculated at a distance of 100 feet from the center of each intersection.

FIGURE 5-1
Representative Noise Contour for Bel-Red Road and 140th Avenue NE for No-Action Alternative and Alternatives 1, 2, and 3



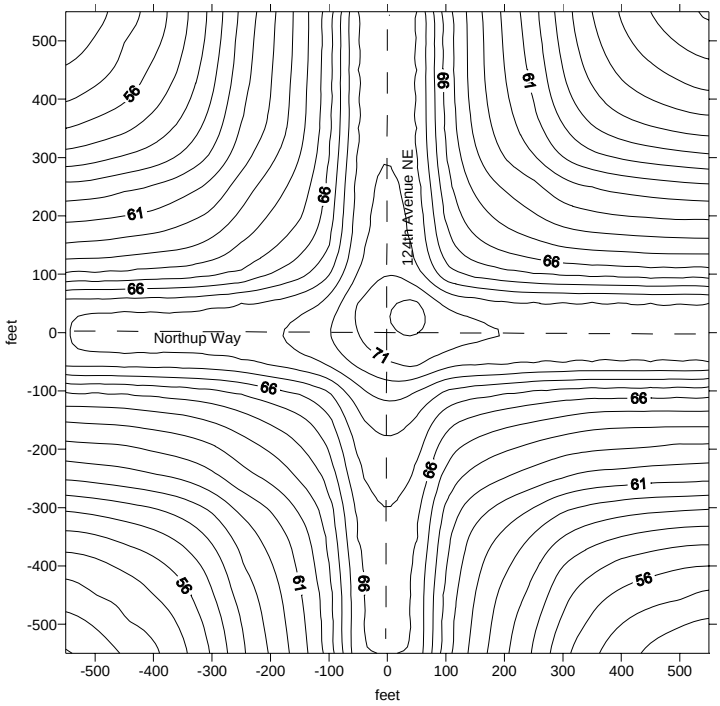
Note: Contours are in decibels (dBA) with 1dBA spacing

FIGURE 5-2
Representative Noise Contour for Northup Way and 124th Avenue NE for the No-Action Alternative and Alternative 1



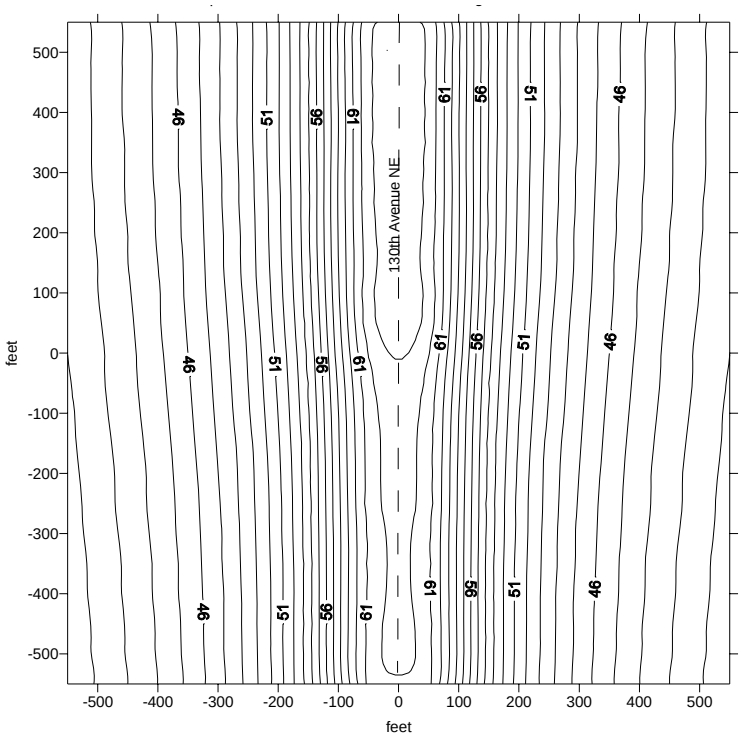
Note: Contours are in decibels (dBA) with 1dBA spacing

FIGURE 5-3
Representative Noise Contour for Northup Way and 124th Avenue NE for Alternative 2 and 3



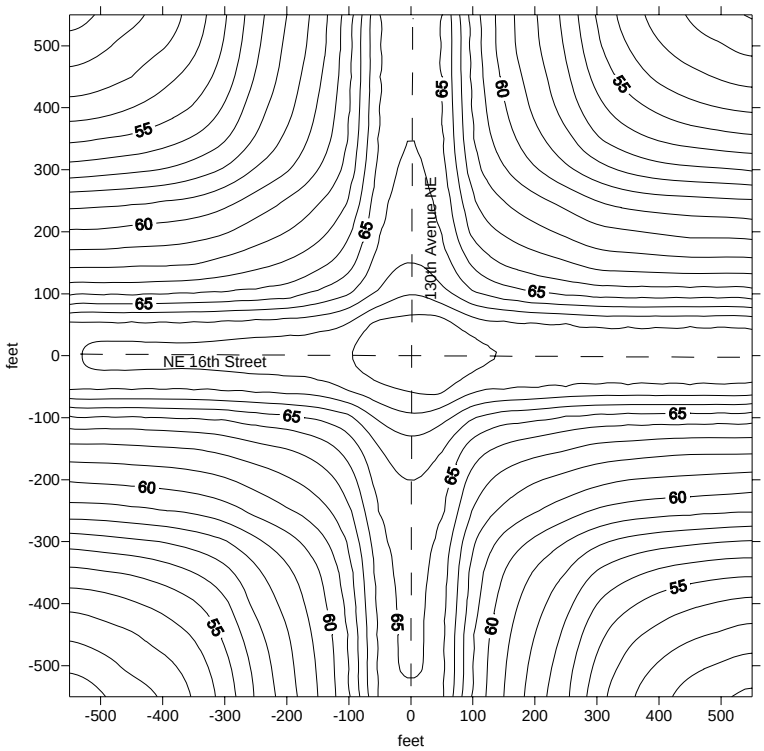
Note: Contours are in decibels (dBA) with 1dBA spacing

FIGURE 5-4
Representative Noise Contour for Existing 130th Avenue NE



Note: Contours are in decibels (dBA) with 1dBA spacing

FIGURE 5-5
Representative Noise Contour for NE 16th Street and 130th Avenue NE for Alternatives 1, 2, and 3



Note: Contours are in decibels (dBA) with 1dBA spacing

No-Action Alternative

With the No-Action Alternative, expected growth in traffic along major arterials in the study area would increase peak-hour traffic levels and, hence, noise levels. The largest increases in traffic would occur adjacent to the intersections at Bel-Red Road and 140th Avenue NE and also Northup Way and 124th Avenue NE. In 2030, both of these intersections are predicted to exceed the City of Bellevue's 67-dBA noise limit within 100 feet of the roadway's edge. Noise levels are predicted to remain below the 67-dBA limit at 130th Avenue NE and the future location of NE 16th Street because 130th Avenue NE is a two-lane road under the No-Action Alternative.

Alternative 1: Midrange Employment and Midrange Housing (Nodes at 122nd and 152nd Avenues NE)

For Alternative 1, traffic noise is expected to be the same as the No-Action Alternative at both the intersections of Bel-Red Road and 140th Avenue NE and Northup Way and 124th Avenue NE. The area of mixed-use housing and commercial development that is partly centered on the extension of NE 16th Street would generate more traffic resulting in higher predicted noise levels for 130th Avenue NE and NE 16th Street intersection. Therefore, Alternative 1 is predicted to have slightly higher noise levels at this location than Alternatives 2 and 3. The predicted noise levels for all three action alternatives indicate that, according to Bellevue's noise regulations, additional noise analysis will be required depending on the type and extent of specific future project development. Any analysis completed should be focused on ensuring that appropriate noise mitigating measures are included in the building design, residential outdoor living areas, and transportation facilities before construction. At all the modeled intersections, noise levels for Alternative 1 are predicted to be above 67 dBA within 100 feet of the roadway edge, assuming level terrain and no intervening structures.

Alternative 2: Low Employment and High Housing (Nodes at 116thand 130th Avenues NE and near 148th Avenue NE)

For Alternative 2, traffic noise is predicted to be the same at the intersection of Bel-Red Road and 140th Avenue NE as under No-Action Alternative and Alternative 1. Traffic noise levels at Northup Way and 124th Avenue NE are predicted to be slightly higher for Alternative 2 than for Alternative 1, while traffic noise levels at 130th Avenue NE and NE 16th Street are predicted to be slightly lower for Alternative 2 than for Alternative 1. Similar to Alternative 1, project-specific noise analysis might be required depending on the type and extent of redevelopment to occur. At all the modeled intersections, noise levels for Alternative 2 are predicted to be above 67 dBA within 100 feet of the roadway edge, assuming level terrain and no intervening structures.

Alternative 3: High Employment and High Housing (Nodes at 122nd, 130th, and 152nd Avenues NE)

For Alternative 3, traffic noise is predicted to be the same for the intersection of Bel-Red Road and 140th Avenue NE as under No-Action Alternative and Alternatives 1 and 2. Traffic noise levels at Northup Way and 124th Avenue NE are predicted to be the same as for Alternative 2. Traffic noise levels at 130th Avenue NE and NE 16th Street are predicted to be the same as under Alternative 2 and slightly lower than under Alternative 1. Similar to Alternative 1, project-specific noise analysis might be required depending on the type and extent of redevelopment to occur. At all the modeled intersections, noise levels for Alternative 3 would be above 67 dBA within 100 feet of the edge of roadway, assuming level terrain and no intervening structures.

Mitigation Measures

Construction

Although construction noise is exempt from the City of Bellevue noise limits (between 7 AM and 6 PM Monday through Friday, and between 9 AM and 6 PM Saturday) and no mitigation is legally required, noise impacts to nearby residences, parks, and businesses could be reduced with a few simple techniques. The following construction noise mitigation techniques are suggested for times when construction activities occur close to existing residences and businesses; these measures can be written into construction specifications as a condition of City-issued development permits:

- Minimize construction noise by using properly sized and maintained mufflers, engine intake silencers, and engine enclosures and by turning off equipment when not in use.
- Locate stationary construction equipment away from sensitive receiving properties where possible. Where this is not feasible—or where noise impacts would still likely occur—place portable noise barriers around equipment with openings directed away from the sensitive receiving property. These measures can provide about a 10-dBA reduction in Leq sound levels and are especially effective when using pumps, compressors, and welding machines that operate continuously and contribute to high, steady background noise levels.
- Although back-up alarms are exempt from the state noise ordinance, these devices emit some of the most objectionable sounds from a construction site. Where feasible, equipment operators should drive forward rather than backward to minimize noise. Minimize noise from material handling by lining truck beds and by requiring operators to lift rather than drag materials wherever feasible.
- Substitute hydraulic or electric models for impact tools, such as jackhammers, rock drills, and pavement breakers to also reduce construction noise. Use electric pumps if pumps are required to remove water from trenches or from areas excavated for the roadway.

Operation

Based on the BCC, noise abatement measures would be considered when the predicted noise levels approach or exceed those values shown in Table 5-3. This means noise abatement should be considered for any residential location where peak-hour noise levels are predicted to equal or exceed 67 dBA. Because the specific locations of new residential development in the study area are not known, the measures in this section are discussed as general guidelines for mitigation rather than prescriptive recommendations. Potential traffic noise abatement measures that might be considered for specific project implementation for residential and outdoor use areas include the following:

- Realign the roadways away from sensitive receptors.
- Implement traffic management measures (reduced speed limits, limitations, or restrictions on truck traffic).
- Acquire “buffer zones” or construct noise barriers limited to areas where future peak-hour noise levels exceed 67 dBA between the highway and affected properties.

- Provide noise insulation of public use or nonprofit institutional structures.

Of the above mitigation measures, when necessary, the noise barrier option is often the most practical and effective choice. However, barriers might not be the most appropriate option from an urban design perspective in areas where an attempt is being made to enhance the pedestrian environment and experience. Given the current and proposed future density of commercial and residential development throughout the study area, substantially realigning the existing street grid would not be feasible without significant property acquisitions. For the same reason, creating buffer zones is typically not a viable option for noise abatement. In areas where redevelopment is proposed, however, the potential exists to include a buffer zone as a condition of project permit approvals or in return for developer incentives.

Noise abatement in the form of noise barriers is not typical for commercial or industrial areas. Commercial establishments rely on visual exposure to the roadway to attract customers and to provide convenient access to their facilities. In addition, noise abatement is only provided for areas that people frequently use and where a lowered noise level would be beneficial. Areas where noise abatement is not normally recommended would include parking lots, storage areas, industrial areas, or areas where people might pass through on a temporary basis and where they are unlikely to linger. Noise abatement measures for the new intersection at 130th Avenue NE and NE 16th Street might include those listed above. Buffer zones can be created by locating commercial uses between residential areas and roadways.

If noise barriers are identified as a potential solution in some areas, their feasibility and reasonableness must be determined by a quantitative analysis. To be considered feasible, the noise barrier must achieve a minimum level of noise reduction. When the noise barrier construction has been determined to be feasible, it must be determined reasonable by thoroughly considering a wide range of criteria, including cost. The cost is determined by counting all residences benefited by the noise barrier and dividing that number into the total cost of the noise abatement measure. This analysis would be conducted on a case-by-case basis as roadway improvements and/or new residential development occur.

In many instances, new residential development in the Bel-Red Corridor will occur along roadways that already are—or predicted to be—above the City's limits for traffic noise. In such cases, developers can use site and/or building design techniques to reduce the noise experienced by their buildings' occupants. Such techniques might include setting back residential areas from busy streets (for example, by placing retail uses along the street in mixed-use developments) and/or creating landscaped buffers between residences and the street. Within buildings, housing layouts can be oriented to place less noise-sensitive areas (such as kitchens) facing the street and bedrooms facing away from the street. Developers can also incorporate a variety of soundproofing techniques and materials into the building design. Measures such as these will help to make new housing compatible with an urban setting.

Unavoidable Adverse Impacts

Any action alternative is predicted to result in small increases in traffic sound levels near areas proposed for residential or mixed-use development. While the expected increases are too small to be considered adverse noise impacts, existing and projected future total sound levels are predicted to approach or exceed the 67-dBA level that FHWA and WSDOT consider a noise

impact and that the City of Bellevue uses as a trigger for determining when to consider mitigation from traffic noise. Possible noise impacts and mitigation measures, therefore, should be further assessed through project-level SEPA review when any specific roadway and/or land use projects reach the design stage.