CHAPTER 2

Description of Alternatives

Development of Alternatives

The City of Bellevue staff and consultant team developed the action alternatives for the Bel-Red Corridor Project through a structured process that included analyzing market conditions, analyzing existing land use patterns, developing potential land use and transportation scenarios, and seeking input from the public, property owners, and business owners. The Steering Committee advised on the content of the alternatives and narrowed four initial action alternatives to the three evaluated in this EIS. The fourth alternative was dropped because it provided for a lower amount of housing than the Steering Committee believed was needed to meet the project objectives.

Market Conditions Analysis

An early step in developing the alternatives was conducting a market conditions analysis to identify development opportunities in the Bel-Red Corridor. This analysis (Leland Consulting Group, 2006; included in Appendix B) identified the following key factors affecting development potential in the Bel-Red Corridor:

- The Bel-Red Corridor area is centrally located between Downtown Bellevue and Redmond's Overlake area, home to the Microsoft Corporate Campus, which serve as significant employment anchors on either side of the corridor. The current expansion of both the OHMC and Group Health medical campus (now under construction) and the Microsoft Corporate Campus present leveraging opportunities for developing the Bel-Red Corridor.
- The existing land uses in the area are diverse and tend to group into several subdistricts.
- Much of the land is underdeveloped (as calculated based on land value versus improvement value); most buildings in the corridor were built before 1980, and land values have risen significantly in recent years.
- Because of the increasing land values, new manufacturing or warehouse uses have become less economically viable. For this reason, the No-Action Alternative, which does not change existing zoning, would likely result in economic stagnation in the corridor.

Based on these findings, several land use objectives were recommended for the Bel-Red Corridor by staff, consultants, and the Steering Committee with City Council concurrence:

- Create a new identity for the western half of the corridor to attract new types of development that will complement—not compete with—existing and planned development in Downtown Bellevue.
- Create multifamily housing in the corridor to address the significant demand for housing in Bellevue and on the Eastside generally.

- Establish "transit villages" at proposed stations along the proposed Sound Transit LRT route and work with Sound Transit to identify alignment and station locations that encourage new development.
- Maintain and expand the medical office corridor on 116th Avenue NE, and expand the "auto corner" at 136th Avenue NE and NE 20th Street.
- Treat the wetlands and riparian corridors in the Bel-Red Corridor as development amenities, and look for opportunities to enhance these natural features.

The market conditions analysis identified the potential future demand for various land uses in the corridor through 2030. According to the analysis, the market will be able to support between 2.5 and 3.9 million square feet of office space; 200,000 to 400,000 square feet of additional retail space; 2,500 to 5,000 residential units; and 200 to 300 hotel rooms. The analysis predicted a net loss in industrial space because future demand is expected to be less than the existing supply of land in the corridor that is currently designated for industrial development.

The market analysis represents what is considered a likely scenario for the Bel-Red Corridor, given its location and local economic factors. However, the recent historical trend of high demand for both businesses and residents to relocate to the Puget Sound region—coupled with strong economic conditions—could conceivably result in both housing and commercial development outperforming the market forecast. This is especially true if investments are made in the infrastructure that would support higher levels of development. Should development appear to be reaching the 2030 estimates sooner than anticipated, then the City would likely update the plan to ensure that development above these levels continue in a fashion consistent with the Planning Principles and Steering Committee objectives and that its effects were evaluated under SEPA.

Potential Land Use and Transportation Scenario Development and Screening

With an understanding of the land use types, density, and intensity that the Bel-Red Corridor could best support, the City staff and consultant team evaluated existing land use conditions in the study area. The evaluation considered the results of the market study and its assessment of the land use types, density, and intensity the corridor could support by 2030. Staff led tours of the study area for members of the Steering Committee to acquaint them with the study area. Staff then worked with land use and transportation consultants to determine how the land uses that were forecast by the market analysis could be distributed throughout the corridor and how they could be served by transportation infrastructure. A primary consideration in land use distribution was how each combination of uses might support—and be supported by—the proposed Sound Transit LRT route through the corridor. Planning experience in other communities suggests that land within a quarter-mile radius of an LRT station is most conducive to transit-oriented development (TOD) because this is the distance that most people are willing to walk to a station. Using this guideline, the Bel-Red Corridor Project team identified several potential station locations and evaluated which types of land uses could be located nearby, given the local physical characteristics (for example, topography, views, and environmentally sensitive areas) and the existing land uses and land ownership patterns.

Although developing LRT through the Bel-Red Corridor would provide substantial people-moving capacity to connect the area to many major regional employment centers, additional transportation improvements would be needed to support more intensive land use

development. Roadway capacity improvements would be needed to provide near-term capacity before the LRT line is completed and would also serve the continuing need for people to use automobiles. Transportation planners developed traffic forecasts for the No-Action Alternative and modeled how traffic would be distributed throughout the corridor. This allowed them to identify areas where the future traffic volume would exceed the capacities of study area roads and intersections. This knowledge, in turn, enabled planners to develop a set of transportation system improvements that would provide new street and highway connections, improve existing roads, and provide new or enhanced facilities for pedestrians and cyclists.

Also key to developing alternatives was considering the natural environment. Although the corridor streams, lake, and wetlands have been altered by development and have lost much of their value as habitat, redevelopment could offer significant potential to protect and restore them. A study identified the existing functions and values of the streams in the corridor to determine where protection and restoration would be most beneficial and cost-effective. Generally, streams with the least number of constraints would provide the greatest opportunities for ecological enhancements. The study concluded that Valley Creek, located in the eastern portion of the corridor (see Figure 4-1 in Chapter 4), would provide the best rehabilitation opportunities, followed by Goff Creek and Sears Creek. "Third-tier" streams that are likely to support less aquatic life are the West Tributary and the Unnamed Tributary of Kelsey Creek, along with Sturtevant Creek, which is the least suitable for investments in habitat enhancement (although downstream habitat would benefit from water quality improvements). Based on these results, the City of Bellevue determined that all action alternatives should consider the potential for environmental enhancements to corridor streams, with special consideration given to those streams that would have significant potential for habitat enhancement.

No-Action Alternative

The No-Action Alternative is used as a baseline against which to measure the impacts of the action alternatives. A No-Action Alternative assumes that no major changes would occur to land use or transportation in the Bel-Red Corridor other than those that are already programmed as part of existing City plans or proposed by other agencies. This section briefly describes the land use and transportation characteristics of the No-Action Alternative.

Land Use

The No-Action Alternative would continue the existing zoning and land use mix in the Bel-Red Corridor; this generally includes medical facility and medical office uses at the far western end of the corridor, light industrial uses in the west central portion, and service and retail uses on the east. There would be no housing assumed other than the existing residential development at Lake Bellevue. Environmental enhancements would not occur unless they became necessary as a condition of redevelopment under existing zoning designations and environmental regulations.

Several noteworthy land use changes near the Bel-Red Corridor would occur even under the No-Action Alternative. One is the continued increase in intensity in Downtown Bellevue, which still has realized only part of the growth projected in the City of Bellevue *Downtown Implementation Plan* (City of Bellevue, 2003) completed in 2003. Another is growth in adjacent

areas of Redmond by developing Overlake as an urban center and expanding the Microsoft Corporate Campus by approximately 2 million square feet. A third, already underway, is the increasing intensity on the OHMC site as a result of a recent City of Bellevue Land Use Code Amendment (LUCA) that raised the level of permitted development on the hospital campus. Increased population and/or employment in all of these areas will increase development pressure on the Bel-Red Corridor, particularly for office and commercial uses; such pressure is already being felt under existing conditions. However, the existing zoning and transportation system would limit the City's ability to accommodate change.

Transportation

Some transportation system improvements are planned and funded for the Bel-Red Corridor under the No-Action Alternative (Figure 2-1). These improvements are limited to those already identified in the City of Bellevue *2005-2011 Capital Improvement Program* (City of Bellevue, 2005). Most of these improvements are intersection improvements, including adding new turn-pockets at four intersections within the Bel-Red Corridor. In addition, a center two-way, left-turn lane will be designed for Northup Way, and the NE 10th Street extension over I-405 will be constructed. Last, pedestrian and bicycle facilities are planned on NE 24th Street and Northup Way; these improvements are illustrated in Figure 2-2 and are identified by a CIP project number in red, such as R-146. Additionally, other regional roadway improvement projects would be implemented, including improvements to the I-405, SR 520, and I-90 corridors; these are discussed further in Chapter 10.

The No-Action Alternative assumes that Sound Transit would construct an LRT route through the Bel-Red Corridor as proposed in the Sound Transit East Link Project; however, the No-Action Alternative would include one station near OHMC and another at 152nd Avenue NE in Redmond. The alignment included in the Sound Transit East Link Project is very general and includes a potential station near OHMC and another in the Overlake area near 152nd Avenue NE in Redmond. Under the No-Action Alternative, an LRT alignment might be located along SR 520 as opposed to through the center of the Bel-Red Corridor study area as proposed under the action alternatives. As noted above, several routes are currently being considered; the ultimate decision will be made by the Sound Transit Board. An important part of the purpose of the Bel-Red Corridor Project is to help inform the Board's decision by identifying the potential for land use supportive of transit ridership.

Description of the Action Alternatives

After evaluating various possible scenarios, the City staff and its consultants initially identified four potential land use alternatives. Each alternative assumed a distinct future development program and a particular land use configuration and density, with one or more LRT station nodes as organizing principles. Each alternative also included an assumed set of transportation system improvements and environmental enhancements. The City presented these four alternatives to the Steering Committee for evaluation and introduced them to the public and Bel-Red Corridor property and business owners in spring 2006.

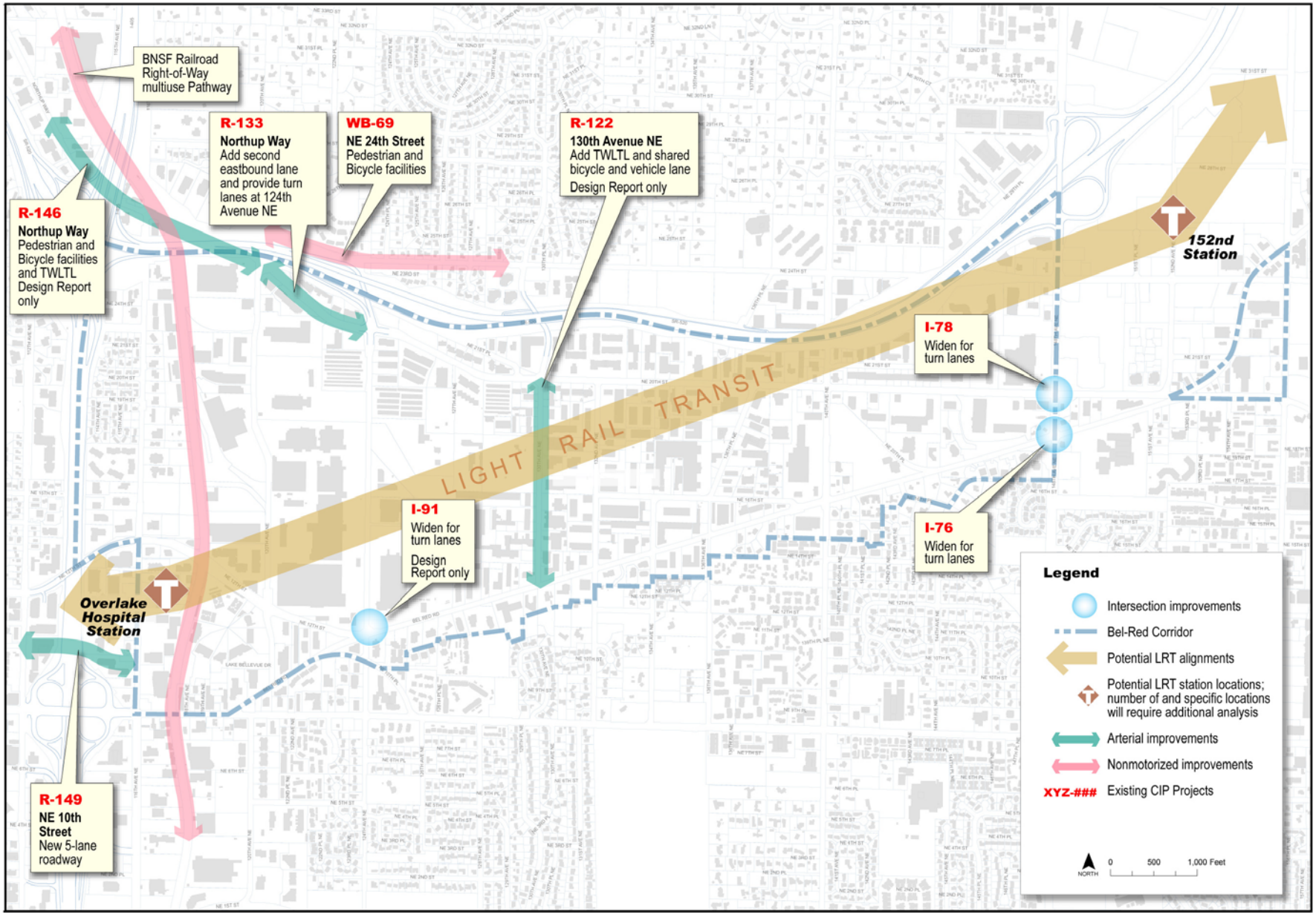

Figure 2-1
No-Action Alternative Transportation Improvements
Bel-Red Corridor Draft EIS

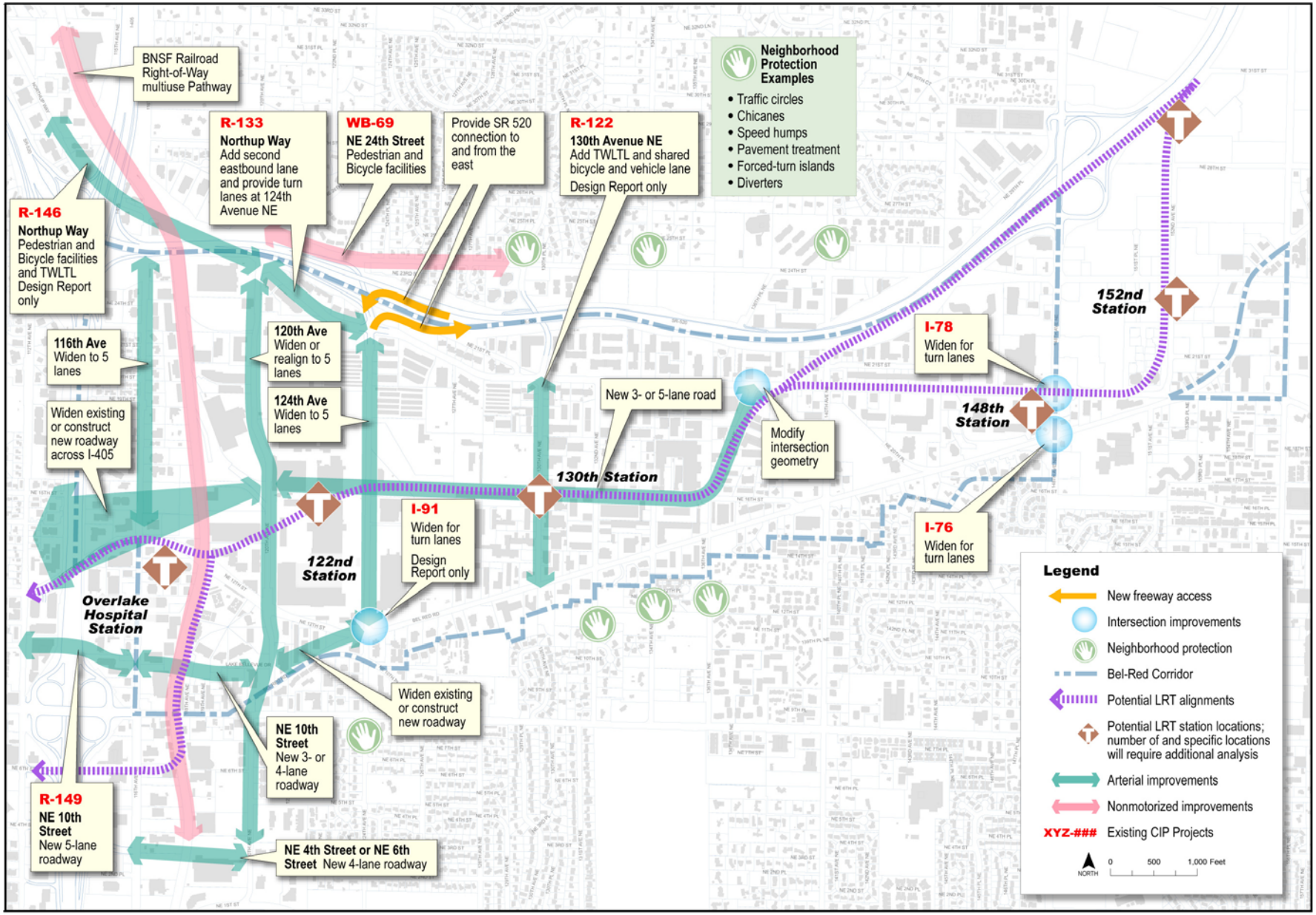

Figure 2-2
Transportation Improvements Common to All Alternatives
Bel-Red Corridor Draft EIS

After considering the alternatives and the feedback from corridor stakeholders and the public, the Steering Committee in late June 2006 eliminated one alternative from consideration and recommended that the remaining three action alternatives be evaluated in the EIS in addition to the No-Action Alternative. The alternative eliminated was one that included a lower proportion of housing than the other alternatives. The Steering Committee concluded that this alternative contained less housing than was desirable from the standpoint of jobs-housing balance (one of the committee's objectives) and was inconsistent with the high demand forecasted for housing in the study area.

The three action alternatives in this EIS allow the City to evaluate a variety of ways to redevelop the study area in accordance with the Bel-Red Corridor Planning Principles and the Steering Committee objectives. Some features are similar across alternatives. Based on the results of the market conditions analysis, for example, the City determined that potential future land uses in the corridor would be primarily a mix of office and housing development, some of it taking the form of mixed-use areas where employment and residential development could coexist along with supporting retail. Because of the regional importance of the medical office area at the west end of the corridor, this land use is assumed to remain under all alternatives; similarly, the Overlake retail and employment area at the east end would be maintained under each alternative. Further, all three alternatives feature areas of denser development within a quarter-mile of potential future LRT station locations.

Despite these similarities, the alternatives also differ in significant ways. The reason for the differences is to allow the City to evaluate how alternatives might perform, might differ in their environmental impacts, and/or might provide more or less support for adopted City policies, the Bel-Red Corridor Planning Principles, and the Steering Committee objectives. Areas in which the action alternatives vary, and why, include the following:

- **Proportions of different land uses.** The action alternatives vary in the amounts of housing and office development proposed. Although they might be similar in scale, these two general types of development have different effects on travel patterns and traffic volumes, as well as on the demand for supporting amenities, like parks and recreation. In addition, they afford differing opportunities to protect or enhance ecosystems. Evaluating a range of options allows the City to identify the relative levels of traffic effects and infrastructure requirements and to identify the potential for preserving and enhancing natural resources.

- **Locations of different land uses.** The physical development patterns affect the surrounding infrastructure by creating demand on different portions of the study area's transportation and utility systems. They also affect the physical environment by creating or altering developed areas near streams and wetlands. Some locations might be desirable for certain uses because of views or other amenities but have impacts on traffic congestion or stormwater runoff. Looking generally at where specific types of activities will take place lets the City "test" which areas are most suitable for which uses. Also considered as part of the analysis were areas where the City might maintain areas of uses that currently predominate in the corridor, such as services and light industrial.

- **Locations of LRT stations.** LRT is used successfully in many areas of the country and the world as an organizing principle for development. LRT has great potential to support the development of walkable, densely developed mixed-use areas centered around transit stations. The availability of transit allows people to reduce their use of automobiles, thereby

reducing air and noise pollution as well as traffic congestion. Each action alternative has a different set of LRT stations, providing a way to evaluate several development "nodes" in terms of their effects on the built and physical environment. These nodes were designated to differentiate a more intensely developed land use pattern that that assumed to occur across the study area as a whole. They do not depend on LRT (because higher concentrations of development would occur before LRT), but LRT would support the land uses in the nodes. Development nodes can be primarily a single type of use, such as office, or can contain a mix of housing and commercial uses.

In contrast to these differences, the three action alternatives include many of the same transportation system improvements. This is primarily because most of the study area's roadways are expected to be at or over capacity in 2030 even without any land use changes in the Bel-Red Corridor, due in large part to anticipated growth in other areas such as Downtown Bellevue and Redmond's Overlake area. Hence, improvements would be needed to many facilities to accommodate increased levels of development.

The area's topography and the presence of bordering freeways on the west and north also limit the possible range of improvements to a large degree. Based on traffic modeling conducted for this EIS, however, unique transportation system changes (such as additional through- and/or turn-lanes) were included for each alternative to reflect the traffic patterns generated by its particular mix and location of land uses.

Each alternative also presents different opportunities to incorporate the concept of sustainability—one of the Bel-Red Corridor Planning Principles. Rather than imposing specific sustainability measures on each alternative, however, the City opted to evaluate how the proposed land uses and transportation system provide (or do not provide) opportunities for sustainable development. The most promising of the opportunities identified will be included in the Preferred Alternative to be presented in the Final EIS (FEIS).

The remainder of this chapter describes the alternatives first in terms of their differing land uses, then in terms of the transportation system, which includes many common elements along with distinct variations tailored to each alternative's land uses. The chapter concludes with a discussion of sustainable development in the context of the Bel-Red Corridor alternatives. Table 2-1 summarizes the alternatives' key characteristics, and Figures 2-3, 2-4, and 2-5 illustrate the general pattern of land uses.

TABLE 2-1
Assumed Commercial and Residential Development from 2005 to 2030 by Alternative
Bel-Red Corridor Draft Environmental Impact Statement

Use Type	No-Action Alternative	Alternative 1	Alternative 2	Alternative 3
Commercial (square feet)	1 million[1]	3.5 million	2.5 million	4.5 million
Residential (dwelling units)	None	3,500	5,000	5,000

Note: Figures represent increase over existing conditions.
[1]Includes 300,000 square feet of new industrial development.

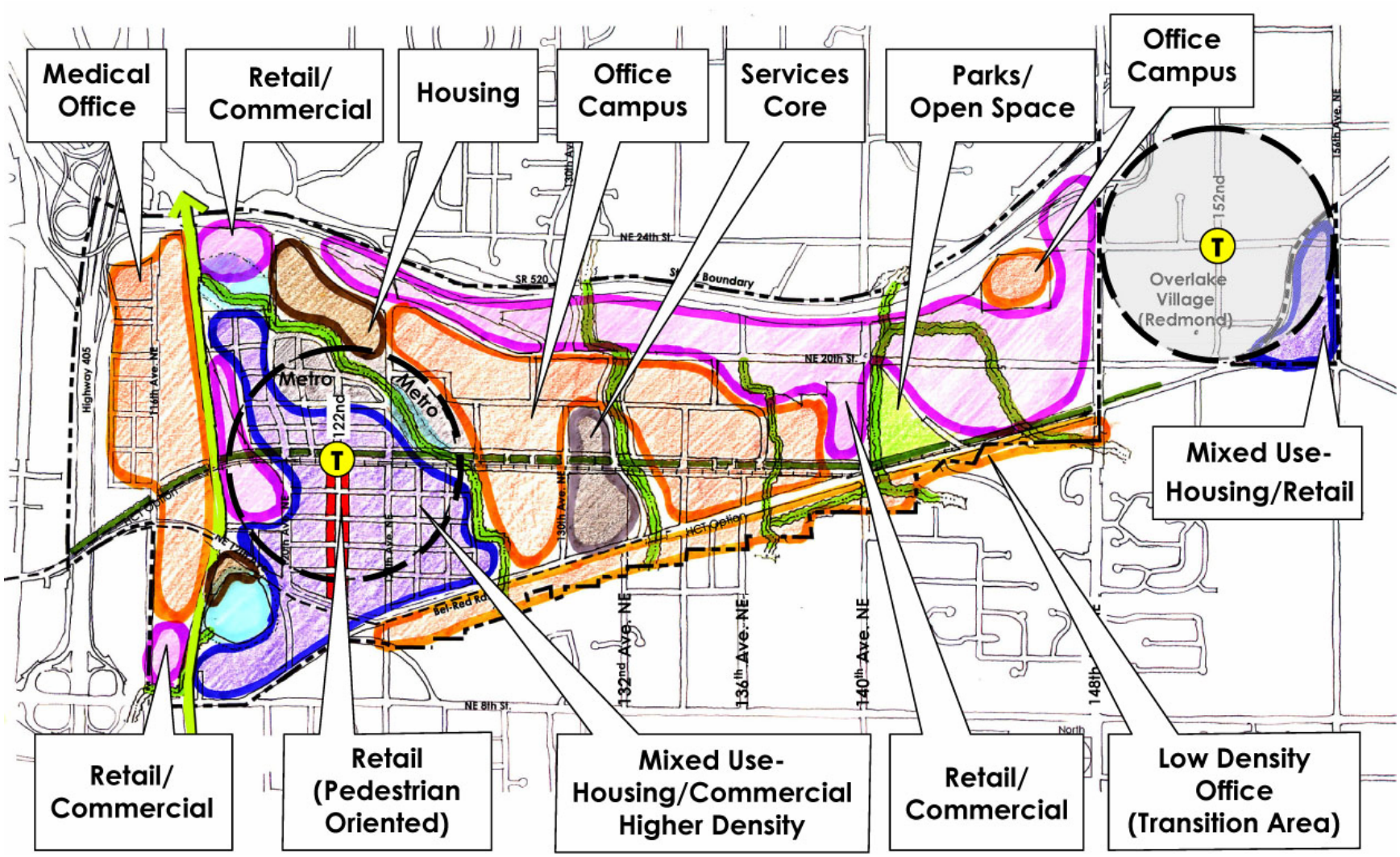

FIGURE 2-3
Alternative 1: Midrange Employment and Midrange Housing (Nodes at 122nd and 152nd Avenues NE)
Bel-Red Corridor Draft Environmental Impact Statement

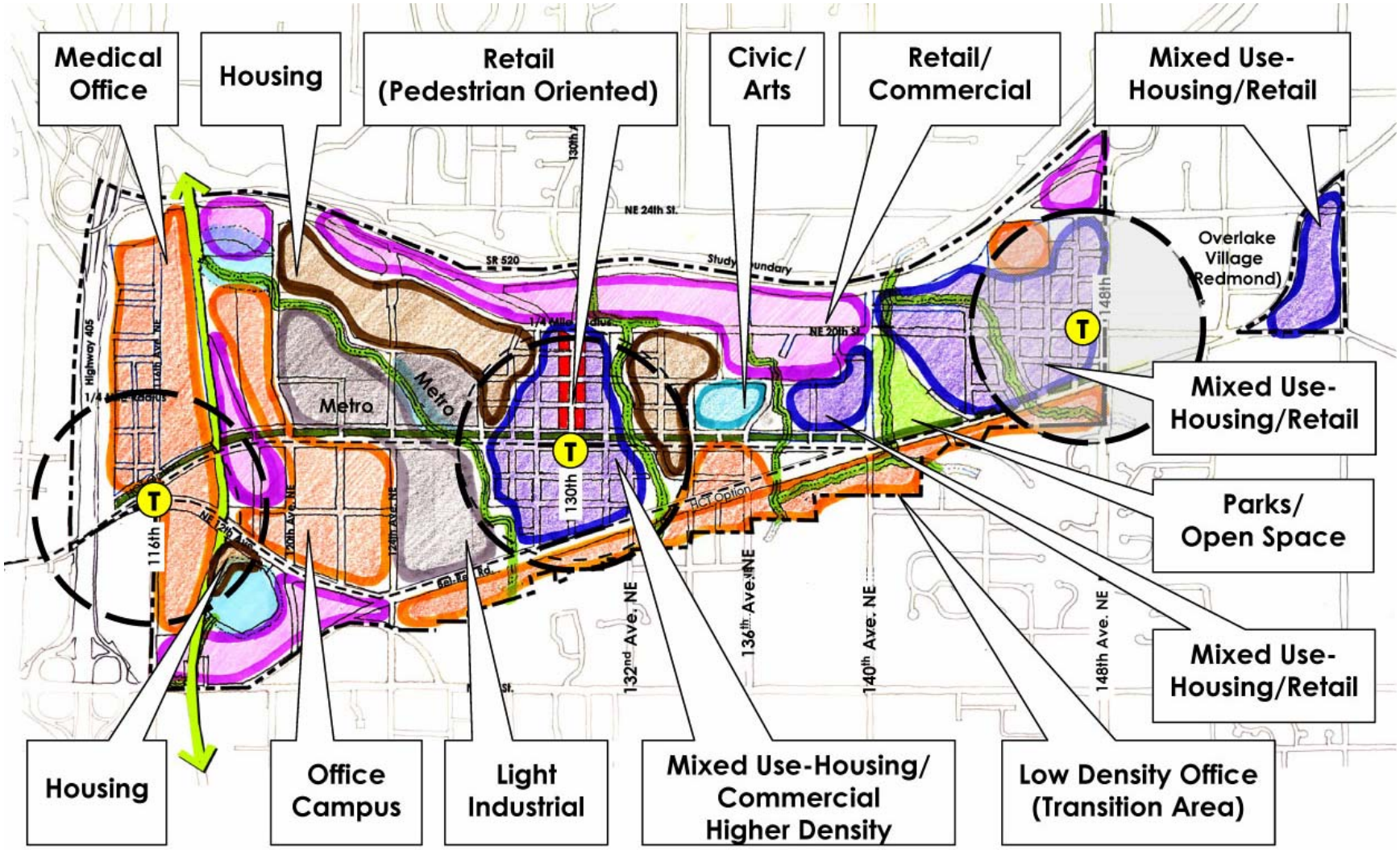

FIGURE 2-4
Alternative 2: Low Employment and High Housing (Nodes at 116th and 130th Avenues NE and near 148th Avenue NE)
Bel-Red Corridor Draft Environmental Impact Statement

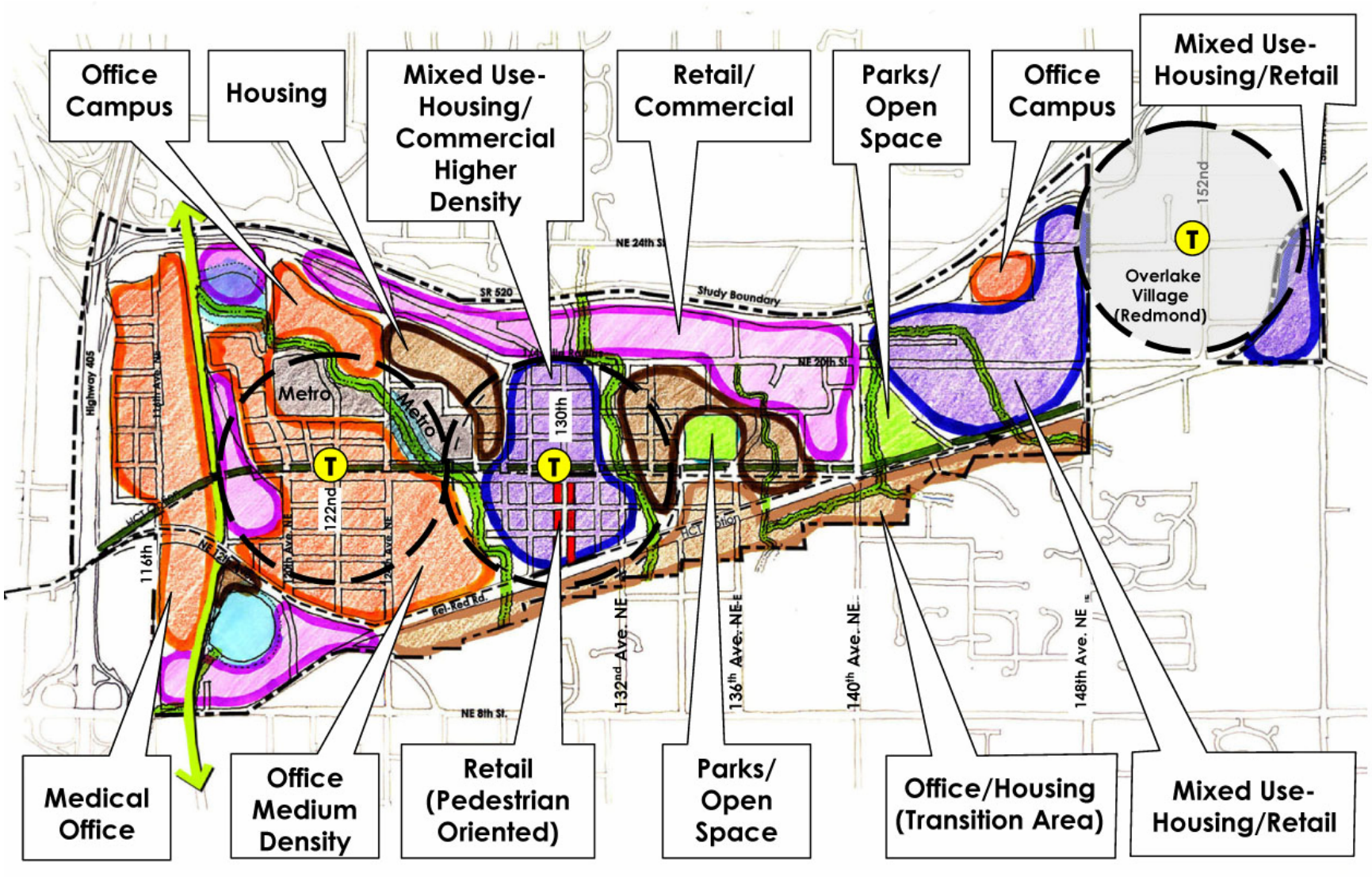

FIGURE 2-5
Alternative 3: High Employment and High Housing (Nodes at 122nd, 130th, and 152nd Avenues NE)
Bel-Red Corridor Draft Environmental Impact Statement

Land Use

Improvements Common to the Action Alternatives

Common to all action alternatives is the location of the medical office area along 116th Avenue NE. The medical office area would include offices to support the OHMC and the Group Health Ambulatory Care Center. Development intensities would vary, with the highest intensities in areas closest to OHMC.

Also common to all alternatives are the parks and open space retained in the area east of 140th Avenue NE encompassing Highland Community Center. As new neighborhoods are developed, additional parks and open space amenities would be created that respond to the anticipated needs of the new residents and the natural features of the area.

Another common feature would be a mixed-use housing and retail area near 156th Avenue NE, which would provide for the vertical or horizontal mix of commercial, retail, and residential uses in the same building or site. Housing would be located above ground-floor retail, and depending on the proximity to an LRT station, housing densities would vary from 45 to 80 units per acre. Under this alternative, higher housing densities would be supported by the LRT station at 152nd Avenue NE in Redmond.

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

Alternative 1 (Figure 2-3) proposes a land development scenario that is in the middle range of housing and employment forecast in the market conditions analysis. There would be a net increase of 3.5 million square feet of new commercial space and roughly 3,500 new housing units. Approximately 2.69 million square feet of existing industrial development would transition to other uses by 2030. Two LRT stations are assumed: one at 122nd Avenue NE and one in Redmond at 152nd Avenue NE.

A mixed-use housing and commercial development node would be centered at 122nd Avenue NE and the new westward extension of NE 16th Street (at the LRT station). This designation would be located in development nodes within the vicinity of LRT stations and could include all components of mixed-use housing/retail and also might include a general commercial or office component. It is envisioned that these areas could contain commercial and services uses and residential uses in proximity to one another and often in the same building. Neighborhood development would be oriented to support transit by providing high density residential land uses and generous pedestrian amenities within walking distance (generally one-quarter mile or less) of an LRT station. Housing density would be greatest in the vicinity of LRT stations, where densities of 75 to 80 units per acre could be achieved. Mixed-use buildings in this area are currently contemplated to be around five stories high, with residential units located over ground-floor commercial.

A pedestrian-oriented shopping street would be located on 122nd Avenue NE between the new NE 16th Street and NE 12th Street. This street would have wide sidewalks and be lined with small shops, restaurants, services, and other amenities that are accessed primarily by those arriving on foot from nearby housing or offices. This area would serve the Bel-Red Corridor and nearby neighborhoods.

A large office campus area would be centrally located in the study area. This area would be designated primarily for office use, with limited retail and services integrated within the office development to support the daytime working population. Building heights would typically be up to six stories; greater heights could be allowed if open space and/or sustainability features were incorporated into the project.

Unique to this alternative is the Services Core located between 130th and 132nd Avenues NE just north of Bel-Red Road. While services could be accommodated in several parts of the area, this designation would favor service uses with zoning and other implementation strategies and would reflect an expressed community interest in preserving the existing types of service uses, such as automobile repair shops. Maintaining existing land use intensity and the current range of uses would restrict the freedom of land owners to redevelop their properties in the future, which would result in little change over time.

A retail/commercial area would dominate the northern border (abutting SR 520) and east end (to 148th Avenue NE) of the study area. This area—which is not in the vicinity of an LRT station or surrounded by proposed higher-intensity development—would continue to provide a mix of retail and service uses in lower-scale structures ranging from approximately one to three stories. Development intensity would not be greater than what exists under the current zoning, particularly along the northern edge of the study area. Urban design and character likely could be improved as redevelopment occurs.

Low-intensity office development located on the south side of Bel-Red Road would continue to provide transition between the corridor and the residential areas to the south. This area would retain the character that currently exists.

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

Compared with Alternative 1, Alternative 2 (Figure 2-4) proposes lower employment and higher housing; this would result in roughly 2.5 million square feet of new commercial space and 5,000 new housing units. Approximately 1.98 million square feet of existing industrial development would transition to other uses by 2030. This alternative would provide several areas for housing of varied densities. Three LRT stations are assumed: one each at 116th Avenue NE, 130th Avenue NE, and one near 148th Avenue NE.

In the medical office area along the western edge of the corridor, a station is assumed at 116th Avenue NE and NE 12th Street, thus creating the potential for higher office intensities than the other alternatives. Building heights within the development node would typically be around six stories, while outside the node building heights would be approximately four stories. Within the adjacent Medical Institution overlay district (which is just south of the study area and includes the OHMC campus), medical office buildings can be as much as 140 feet in height.

Unique to this alternative is the light industrial designation between the two proposed LRT stations and associated development nodes at 116th and 130th Avenues NE. While light industrial uses could remain under any alternative, this designation would favor light industrial uses as the preferred long-term land use, with zoning and other implementation strategies established to accomplish this. Land use intensity and the range of uses would essentially focus on maintaining existing types of uses, recognizing the limited supply of

industrial land in the city. Little transition over time of land use form and function would be anticipated.

A mixed-use housing and commercial development node would be centered at 130th Avenue NE and the new NE 16th Street (at the LRT station). Two housing-focused areas, on the east and northwest sides of the development node, are proposed. Within the development node, housing densities would be approximately 75 to 80 units per acre and would transition to as few as 12 units per acre further from the node.

A pedestrian-oriented shopping street would be located on 130th Avenue NE between the new NE 16th Street and NE 20th Street. This street would have wide sidewalks and be lined with small shops, restaurants, services, and other amenities that are easily accessed by those arriving on foot from nearby housing or offices.

Another LRT station and associated development node is assumed at the eastern end of the study area, west of 148th Avenue NE. This area would comprise mixed-use housing and retail, with expected higher housing densities (retail on the ground floor) at approximately 45 to 80 units per acre.

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

Alternative 3 (Figure 2-5) proposes to accommodate the highest levels of both employment and housing that are anticipated in the market conditions analysis. This would result in the greatest amount of new commercial space (roughly 4.5 million square feet), along with 5,000 new housing units. Approximately 2.49 million square feet of existing industrial development would transition to other uses by 2030. Three LRT stations are assumed: one each at 122nd Avenue NE and 130th Avenue NE in Bellevue and one at 152nd Avenue NE in Redmond.

Two closely spaced development nodes—at 122nd and 130th Avenues NE—are unique to this alternative. The western node would include a large area of medium-intensity office use; this area would be designated primarily for office uses, with some supportive retail and service uses. Medium-intensity office would be developed at a higher intensity than the office campus designation due to its proximity to an LRT station. Building heights are currently contemplated to be around six stories. The 130th Avenue NE node would be similar in nature to that proposed under Alternative 2, but it would have the pedestrian-oriented shopping extending south from the new NE 16th Street to Bel-Red Road.

Along the south side of Bel-Red Road, a housing component would be added to the existing low-intensity office uses. This would preserve the area's built character while continuing to provide a smooth transition to the existing residential area to the south.

Transportation Improvements

The three action alternatives include many common transportation system improvements. However, as the land use alternatives were analyzed during the course of the project, unique transportation variations were identified for each land use alternative. The transportation capacity assumptions were varied somewhat in order to match the amount of land use development included in each alternative. Table 2-2 lists the transportation system improvements for all three alternatives, and Figure 2-2 illustrates their locations.

TABLE 2-2
Transportation System Improvement Matrix by Land Use Alternative
Bel-Red Corridor Draft Environmental Impact Statement

Transportation Improvement	Alternative			
	No-Action	1	2	3
Light-Rail Transit				
Two LRT Stations between I-405 and 156th Avenue NE	■	■		
Three LRT Stations between I-405 and 156th Avenue NE			■	■
Nonmotorized Transportation				
Sidewalks on all new streets and street improvements	■	■	■	■
Bicycle facilities on all arterials (shared lanes or bicycle lanes)		■	■	■
Off-street paths, including BNSF right-of-way	■	■	■	■
Neighborhood Protection				
Traffic-calming or diverting measures designed to discourage thru traffic		■	■	■
Parking restrictions and enforcement		■	■	■
Roadway				
Northup Way, two-way left-turn lane west of 120th Avenue NE	■	■	■	■
Northup Way, add eastbound through lane between 120th and 124th Avenues NE	■	■	■	■
NE 4th or NE 6th Street Extension, 116th to 120th Avenues NE, four lanes		■	■	■
116th Avenue NE, widen to two lanes in each direction		■	■	■
120th Avenue NE, widen to five lanes between Northup Way and NE 8th Street		■	■	■
124th Avenue NE, widen to five lanes between Northup Way and Bel-Red Road		■	■	■
130th Avenue NE, widen to four lanes with turn pockets between NE 16th Street and NE 20th Street	■	■	■	■
NE 16th Street				
Five-lane roadway, linking to Downtown Bellevue via NE 12th Street		■		■
Three-lane roadway, west terminus at 116th Avenue NE			■	
NE 16th Street east end treatment with terminus at NE 20th Street.				
Five-lane to three-lane reduction following along 136th Avenue NE		■	■	■
Continue three-lane section to NE 20th Street along 136th Avenue NE		■	■	■
Two-lane nonarterial connection between 136th Avenue NE and Bel-Red Road		■	■	■
NE 10th Street I-405 overcrossing	■	■	■	■
NE 10th Street extension, 116th to 124th Avenues NE				
Three-lane roadway		■	■	
Four-lane roadway				■
NE 12th Street				
Widen to six lanes between 112th Avenue NE and new NE 16th Street connection		■	■	■
Reduce functional class and capacity between new NE 16th Street and 124th Avenue NE				■
SR 520 and 124th Avenue NE interchange, construct ramps to and from the east		■	■	■
NE 12th St and 116th Avenue NE, intersection turn pockets[1]	■	■	■	■
Northup Way and 124th Avenue NE, intersection turn pockets[1]	■	■	■	■

TABLE 2-2
Transportation System Improvement Matrix by Land Use Alternative
Bel-Red Corridor Draft Environmental Impact Statement

Transportation Improvement	Alternative			
	No-Action	1	2	3
Bel-Red Road and 124th Avenue NE				
Intersection turn pockets	■			
Realign 124th Avenue NE to the west and under NE 12th Street		■		
North approach channelization revisions			■	
Five-leg intersection				■
NE 8th Street and 124th Avenue NE, intersection turn pockets[1]		■	■	■
NE 20th Street and 136th Avenue NE, intersection turn pockets[1]		■	■	■
NE16th Street and Bel-Red Road, right-in and right-out access only		■	■	■
NE 24th Street and 140th Avenue NE, intersection turn pockets[1]	■	■	■	■
NE 20th Street and 140th Avenue NE, intersection turn pockets[1]	■	■	■	■
Bel-Red Road and 140th Avenue NE, intersection turn pockets[1]	■	■	■	■
NE 8th Street and 140th Avenue NE, intersection turn pockets[1]				■
NE 29th Place and 148th Avenue NE, intersection turn pockets[1]	■	■	■	■
NE 20th Street and 148th Avenue NE, intersection turn pockets	■	■	■	■
Bel-Red Road/148th Avenue NE, intersection turn pockets	■	■	■	■
NE 24th Street and 156th Avenue NE, intersection turn pockets[1]	■	■	■	■
NE 20th Street and 156th Avenue NE, intersection turn pockets[1]	■	■	■	■

[1]See Appendix G for specific intersection improvements.
BNSF Burlington Northern Santa Fe
LRT light-rail transit
SR State Route

The range of improvements includes all applicable modes of transportation, including pedestrian, bicycle, bus, LRT, and private vehicle modes. In addition, each alternative provides several general measures to protect the neighborhoods surrounding the Bel-Red Corridor, including Bridle Trails and Wilburton, from cut-through traffic and spillover parking.

With respect to LRT, Sound Transit is currently evaluating several route alternatives through the Bel-Red Corridor as part of a separate environmental review process; the Sound Transit Board will make the final decision on a preferred route. For purposes of the Bel-Red traffic analysis, all action alternatives were modeled as if the LRT corridor followed an alignment through the center of the corridor. Alternative 1 includes two LRT stations between I-405 and 156th Avenue NE, although only one station is within Bellevue city limits; the eastern station at 152nd Avenue NE is in Redmond. The other two alternatives include three LRT stations between I-405 and 156th Avenue NE. In Alternative 2, all three stations are within Bellevue city limits, and in Alternative 3 two stations are in Bellevue and one is in Redmond.

In all action alternatives, it is assumed that any new roadways and any improved or widened roadways will include sidewalks on both sides of the road. Near LRT stations, it is anticipated that wide sidewalks and other pedestrian facilities would be designed to accommodate the

expected high volume of pedestrian travel to and from the LRT station and within the higher-density neighborhood. Bicycle facilities will be constructed on arterials within the study area. In addition, local, off-street, nonmotorized paths will be implemented with public investment or as properties redevelop to better create a nonmotorized infrastructure within the study area. The Burlington Northern Santa Fe (BNSF) Railroad corridor is one example of a potential regional off-street nonmotorized facility.

Several roadway capacity projects will also be incorporated into all action alternatives, as shown in Table 2-2. In addition to the improvements included in the No-Action Alternative, existing roadways such as 116th, 120th, 124th, and 130th Avenues NE, will be widened to accommodate additional through-lanes, a center and/or two-way left-turn lane, or a landscaped median. In addition, some new roadways or existing roadway extensions are included in the action alternatives, such as the NE 4th or NE 6th Street, NE 10th Street, and NE 16th Street extensions. Finally, at the existing SR 520 half interchange at 124th Avenue NE, ramps to and from the east will be included in all action alternatives.

Environmental Sustainability

One Bel-Red Corridor Planning Principle that informs potential land use changes under all alternatives is the Bellevue City Council's principle of sustainability. The objective of the sustainability principle is for construction and redevelopment to be sensitive to issues of natural resource protection, energy and resource conservation, and transportation choices. In addition to providing community benefits and enhanced quality of life, a sustainable approach to development in accordance with the sustainability principle also can help to differentiate economic centers, making them desirable in the marketplace. Thus, following the sustainability principle can create both environmental and economic benefits. Because sustainability applies to so many different environmental elements, it is discussed comprehensively in this chapter to provide context for the analysis contained in subsequent chapters.

Protecting and enhancing natural resources has the potential to improve aesthetics, provide recreation and open space opportunities, and optimize stormwater management, in addition to allowing fish, birds, and other wildlife to coexist with urban development. Although the corridor streams are degraded from many years of urbanization, preserving and enhancing riparian buffers could help to increase the amount of aquatic life while improving water quality and creating wildlife corridors. Enhanced stream corridors could become focal points for development, affording views and places to relax and observe nature for both residents and employees. Low-impact development techniques that minimize impervious surface and infiltrate stormwater runoff into the soil can reduce erosion, improve water quality, and provide better stream flow to support fish and other species.

Energy and resource conservation is what people often think of as sustainable development. "Green buildings" designed for energy and water efficiency might incorporate recycled materials, solar energy use, "green roofs" with rainfall-absorbing vegetation, and water-conserving features, such as tanks that collect rainwater for nonpotable uses. Site design and development patterns can also facilitate conservation; for example, developing a given area more densely minimizes the need for utility and transportation infrastructure, while well-planned, mixed-use development reduces the need to drive by placing service uses within walking distance of homes and/or offices. Some developers have begun using this approach to

sustainability as a differentiator in the marketplace. The scale and nature of redevelopment proposed for the Bel-Red Corridor makes it a natural location for compact, efficient, mixed-use development that conserves energy and resources.

Transportation choice is another key aspect of sustainability. Modes of transportation other than single-occupancy vehicles (SOVs) reduce energy use, air emissions, and noise; they also require less impervious surface for roads and parking, which in turn reduces stormwater runoff. The Bel-Red Corridor is uniquely located to capitalize on the LRT system planned for the study area and to foster development that encourages walking and transit use while accommodating automobile use. Because existing development in the area is strongly automobile-dependent, much new infrastructure will be needed to create a walkable street grid suitable for smaller-scale, mixed-use development.

The City has several possible mechanisms—which are listed below—for implementing sustainable development in the corridor:

- **Regulations** that govern development standards—for example, requirements for energy efficiency, landscaping, stormwater management, infrastructure development that favors non-SOV travel, and innovative building materials and construction types
- **Programs** that enhance sustainability through City actions—for example, by acquiring land along stream corridors to preserve as habitat and public open space
- **Incentives** that provide benefits to developers for sustainable approaches—for example, allowing greater building height or higher floor-area ratios (FARs) for development that provide on-site infiltration of stormwater

Without these measures, intensified growth in the Bel-Red Corridor could adversely affect the natural environment, resource use, and transportation. Hence, the City staff are proposing sustainable development measures as mitigation for the proposed action. These measures, however, will ultimately become integrated into the project description as they become part of the overall plan for corridor redevelopment.