NORTHGATE Revitalization

Northgate Coordinated Transportation Investment Plan

Final Report

September 2006

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and

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Table of Contents

Table of Contents

Table of Contents

List of Tables

Executive Summary

Chapter 1. Background

Chapter 2. Assumptions

Chapter 3. Existing Conditions

Chapter 4. Forecasts

Table of Contents

List of Tables - continued

Chapter 6. Evaluation

Chapter 7. Recommendations

Chapter 8. Financing & Implementation Plan

Table of Contents

List of Figures

Executive Summary

Chapter 1. Background

Chapter 2. Assumptions

Chapter 3. Existing Conditions

Table of Contents

List of Figures - continued

Chapter 4. Forecasts

Chapter 5. Transportation Improvement Concepts

Table of Contents

List of Figures - continued

Chapter 6. Evaluation

Table of Contents

List of Figures - continued

Chapter 7. Recommendations

Chapter 8. Financing & Implementation Plan

Table of Contents

Appendices

Chapter 1. Background

Chapter 3. Existing Conditions

Chapter 4. Forecasts

Chapter 5. Transportation Improvement Concepts

Chapter 6. Evaluation

Executive Summary

Transforming Northgate

Northgate's future promises a vital urban center providing new jobs, housing, open spaces, and valued public places surrounded by healthy single-family neighborhoods. A suburban, low-density, auto-oriented landscape will be transformed to a more walkable, bikeable, transit-oriented place where people live, work, shop, play, and go to school.

Realizing this vision requires a simultaneous transformation of both the urban form and transportation choices. The Northgate Coordinated Transportation Investment Plan (CTIP) is a blueprint to guide public and private transportation investments through 2030. These investments will make better land use and transportation choices possible, helping to transform the Northgate Urban Center and linking it to healthy surrounding neighborhoods and the region.

Northgate Gets Moving

The City worked closely with Northgate's citizens and developers to create the Northgate CTIP to get Northgate moving again in new and better ways. As new development brings more urban density to the Northgate Urban Center, this CTIP will bring a more balanced transportation system that improves nonmotorized options, begins to reconnect Northgate's neighborhoods, and yet keeps autos, freight, and bus transit moving safely.

Key CTIP Elements

- **More sidewalks, crosswalks, and bike lanes**
- **Safer and better-moving roadways that ensure local access**
- **Coordination with developers to provide system improvements**
- **Enhanced access to transit, including the future light rail station**

Chapter 1. Background
Seattle's Comprehensive Plan goals for Northgate; Northgate Open Space and Pedestrian Connections Plan; Northgate Stakeholders Group

Chapter 2. Assumptions
Pipeline developments; system performance measures and benchmarks

Chapter 3. Existing Conditions
Sidewalks, bike facilities, transit service and facilities, traffic levels of service

Chapter 4. Forecasts
Traffic conditions in 2010 and 2030

Chapter 5. Transportation Improvement Concepts
Meeting CTIP performance measures

Chapter 6. Evaluation
Evaluation criteria; project scoring; cost estimates

Chapter 7. Recommendations
High, mid-level, and long-range priorities; future system performance

Chapter 8. Financing and Implementation Plan
Potential revenue sources; next steps

The recommended projects in the CTIP tackle existing transportation deficiencies and anticipate future needs:

- Pedestrians will be able to cross N/NE Northgate Way and other arterials more easily.
- Pedestrians will have more walking routes available between the Urban Center and surrounding areas, with sidewalks on arterials increasing by 22%.
- Residents will enjoy better walking environments in their neighborhoods (sidewalks and/or paths on school walk routes will increase by 15%).
- Bicyclists will see improved facilities on north-south corridors, including 1st Avenue NE and College Way N.
- Northgate transit riders will gain added service to local destinations and more frequent service to Bitter Lake, Aurora Avenue N, and Greenlake.
- Traffic in the year 2030 will still meet or exceed CTIP's level of service objective (LOS E), even with new development and increased pass-through traffic.

The good news is that progress is already under way. Redevelopment of the vacant lot south of the mall starts this summer with public- and private-sector investments. This development brings major new pedestrian opportunities, public open spaces, a new street, housing, jobs, and retail services.

The Fifth Avenue NE streetscape improvements were completed in late spring 2006. Residents and visitors are enjoying improved safety for pedestrians and cars. New, inviting entrances connect Northgate Mall and the new civic center, with added landscaping and artwork.

Greater Balance, More Choices, Making the Community Whole

Seattle Mayor Greg Nickels proposed the Northgate CTIP in 2003 as part of his Action Agenda. The Seattle City Council then added the following guidance for preparing this CTIP:

- Facilitate public and private investment
- Reflect the long-term goals of the Northgate Area Comprehensive Plan (now contained within the Seattle Comprehensive Plan)
- Reduce traffic-related impacts on arterials

- Protect neighborhood streets
- Provide pedestrian improvements and connections, including safety improvements for seniors
- Balance all modes of transportation
- Build upon prior transportation work
- Assist property owners in meeting environmental review requirements

Throughout the development of the plan, the City worked closely with Northgate property owners and the Northgate Stakeholders Group, a broadly representative body of community and business representatives that advises the City on the development of the CTIP and other important Northgate issues. The Northgate Stakeholders Group reviewed products at key milestones, and a subcommittee met frequently to review and comment on work products in detail. Representatives from the Stakeholders Group solicited public feedback at six Northgate community forums. CTIP's **Chapter 1** describes this history and the CTIP's policy context in additional detail.

Northgate Stakeholders Group

King County Metro
Simon Properties
Maple Leaf Community Council
Licton Springs Community Council
Haller Lake Community Club
Pinehurst Community Council
Victory Heights Community Council
Northgate Chamber of Commerce
Thornton Creek Alliance
Thornton Creek Legal Defense Fund
North Seattle Community College
Northwest Hospital
Owners of Three or More Acres
Senior Housing
Renters/Condominium Owners
Multi-family Housing Developers
Businesses Inside the Mall
Businesses Outside the Mall
Youth
Labor
At-large (two seats)

CTIP Plan Development

Step 1. Identify CTIP Assumptions
Define success; create performance measures and benchmarks

Step 2. Forecast Future Conditions
Analyze output from 2010 and 2030 transportation models

Step 3. Identify Transportation Improvement Concepts
Describe projects and programs to improve transportation system performance

Step 4. Apply Evaluation Criteria and Prioritize Recommendations
Identify high, mid-level, and long-range priorities

CTIP Step 1. Assumptions and Performance Measures

CTIP builds upon explicit planning, financing, and technical assumptions described in **Chapter 2.** CTIP defines performance measures and benchmarks to help identify improvement concepts in the following ten geographic and program categories:

- Residential/non-arterial streets
- Transit services, transportation demand management, and parking programs
- Transit Center/light rail station area
- NE 130th/125th Street corridor
- NE 92nd Street corridor
- NE Northgate Way corridor
- West of I-5
- 15th Avenue NE corridor
- Roosevelt Way corridor
- 5th Avenue NE corridor

CTIP uses detailed performance benchmarks that provide clear study objectives for an effective and efficient transportation system:

- Mode share: How can we make it easier for Northgate residents and workers to shift their travel choices away from driving alone?
- Transportation system for pedestrians: Where does Northgate need improved pedestrian connections?
- Transportation system for bicyclists: Where does Northgate need better bicycle facilities?
- Transit system: What additional transit service will benefit Northgate residents and workers?
- Transportation system for vehicles: How to best maintain arterial and intersection traffic flows and safety, and protect neighborhood streets from cut-through traffic?

CTIP Step 2: Forecast Future Conditions

Guided by the City Council's legislative direction and SDOT's Transportation Strategic Plan, the City analyzed existing and future traffic conditions forecast for the years 2010 and 2030. **Chapters 3 and 4** describe these findings in more detail.

CTIP Step 3: Identify Transportation Improvement Concepts

Travel forecasts for the year 2030 showed that without significant new transportation infrastructure investments, there will be a significant increase in heavy congestion at many intersections and on N/NE Northgate Way between Meridian Avenue N and Roosevelt Way NE, as well as slower average travel speeds in most corridors. CTIP used these findings and applied performance measures to help identify prospective project and program recommendations described in **Chapter 5.**

CTIP Step 4: Apply Evaluation Criteria and Prioritize Recommendations

CTIP Evaluation Criteria (in priority order)

- **Safety**
- **Neighborhood livability**
- **Pedestrian mobility**
- **Bicycling mobility**
- **Transit rider mobility**
- **Auto driver mobility**
- **Cost effectiveness and implementation feasibility**
- **New housing and economic development**
- **Infrastructure preservation/ maintenance**
- **Environmental sustainability**

The CTIP systematically evaluated each potential improvement concept using evaluation criteria, and developed weighted scores to rank them in priority order, as described in **Chapter 6.** The evaluation criteria reflect the CTIP performance measures and benchmarks, and are consistent with the following principles:

- Support the policies in the Transportation Element of the Seattle Comprehensive Plan and the Transportation Strategic Plan.
- Support the Northgate transportation goals and policies included in the Seattle Comprehensive Plan.
- Be consistent with the SDOT Capital Improvement Program project prioritization process.

The following recommendations identify the City's high, mid-level, and long-range priorities for transportation investments to create a more livable Northgate. **Chapter 7** provides more detailed descriptions of the recommended projects.

(Note: Project numbers refer to geographic and/or programmatic improvement categories.)

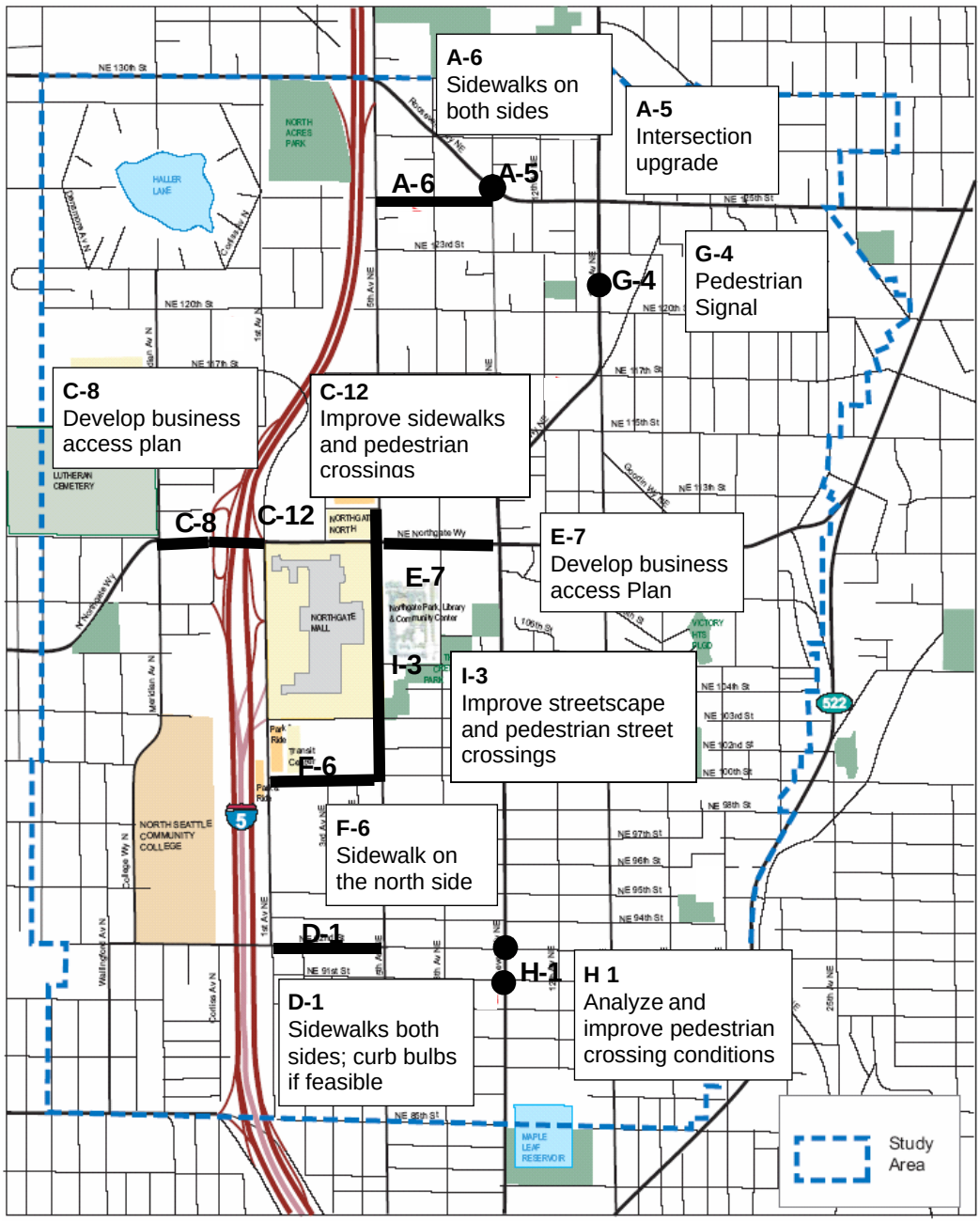
Recommendation: Implement transportation projects and programs to *Move People Safely and Efficiently*

The recommendations supporting the priority to *Move People Safely and Efficiently* will improve pedestrian connections within the Urban Center, between the Urban Center and neighborhoods, and throughout neighborhoods. The high priority projects shown in **Figure ES-1,** plus several of the mid-priority and long-range projects in **Figures ES-5** and **ES-6,** will enable people to walk more safely between the new civic center and Northgate Mall, and within the thriving retail district. There will be more crosswalks, better street design so pedestrians and drivers can see each other, and more comfortable walking conditions. In addition to more sidewalks in the commercial area, there will be 2.5 more miles of sidewalks along school routes.

Recommendation: Implement transportation projects and programs to *Reduce Drive-Alone Travel*

To encourage Northgate residents to move around their neighborhood by transit, on foot, and via bicycle, these recommendations will fill in the missing links along the existing 1st Avenue NE and College Way N/Meridian Avenue N bicycle lanes. These projects also eliminate pedestrian and bicycle conflicts along existing sidewalks. The parking recommendations will encourage more efficient use of existing parking space and evaluation of parking requirements for new developments. **Figure ES-2** shows the locations of the recommended high priority projects, with the mid-priority and long-range projects shown in **Figures ES-5** and **ES-6**.

Figure ES-1. High Priority Projects to Move People Safely and Efficiently



Notes:

F-6. Project is fully funded.

H-1. Install crossing improvements that meet SDOT guidelines and practices, such as curb bulbs and crosswalk signs and markings.

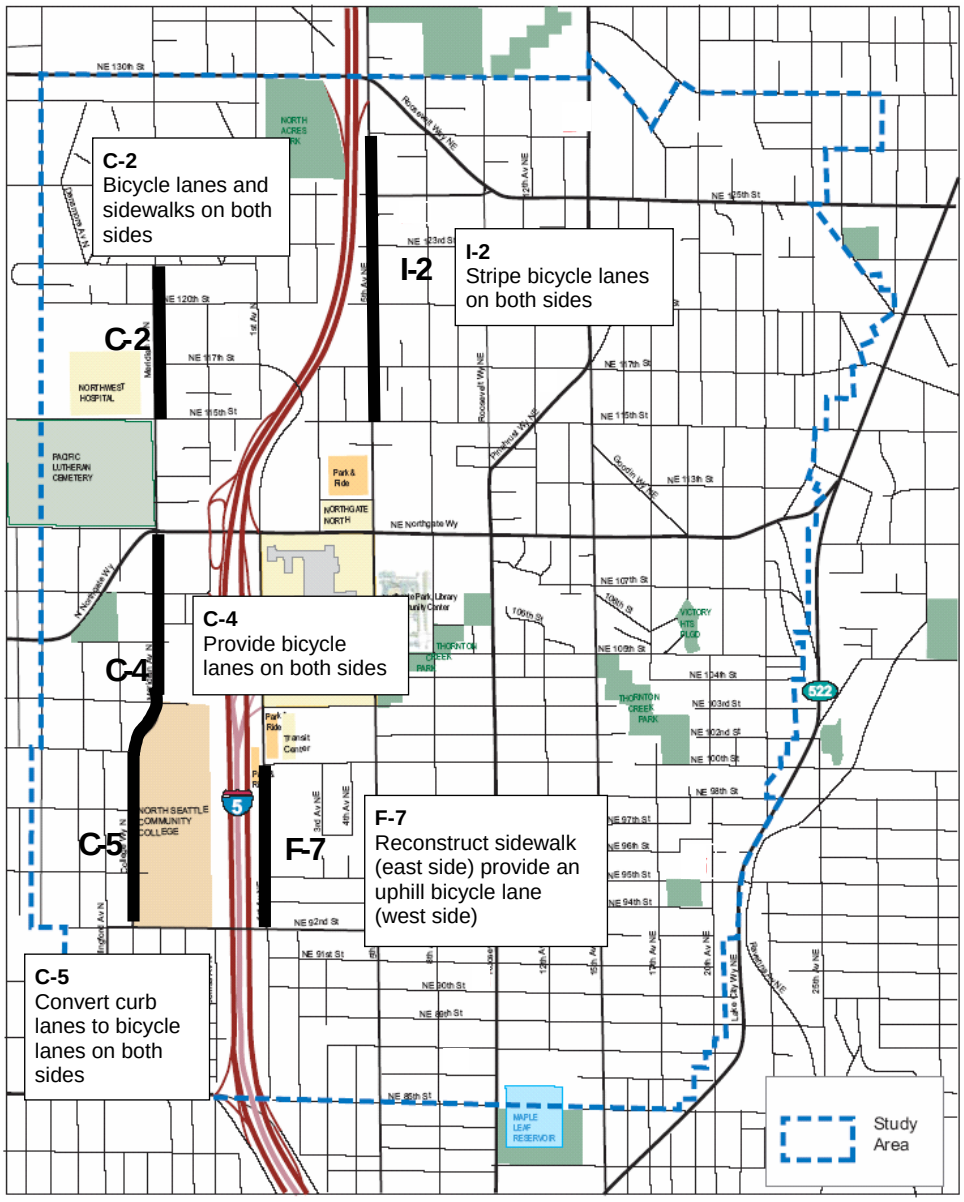
C-8. Business access plan will include construction of a median, restriction of mid-block left turns, and a potential business access street south of N Northgate Way or a break in the median.

E-7. Business access plan will include construction of a median, restriction of mid-block left turns, and U-turns at intersections or a potential break in the median.

C-12. Consistent with Northgate Open Space and Pedestrian Connections Plan.

I-3. Consistent with the 5th Avenue NE Streetscape Design Plan.

Figure ES-2. High Priority Projects to Reduce Drive-Alone Travel



Notes:

C-5. Work with King County Metro to maintain and improve transit speed and reliability.

Recommended improvements not shown on the above map:

J-4. Create a "parking brokerage" to promote shared parking space.

J-6. Amend land use code to allow shared parking between retail stores and other uses.

J-7. Reduce minimum parking requirements for commercial uses and possibly for residential uses.

J-8. Make the Northgate Overlay District mode split goals consistent with the Seattle's Comprehensive Plan goals for Northgate.

J-9. Allow residential uses to meet their parking requirements off site.

J-10. Continue researching parking requirements for parking maximums, discouraging SOV use and improving short-term parking accessibility.

Recommendation: Implement transportation projects and programs to *Support New Housing and Economic Development*

These recommendations will help city streets and intersections operate efficiently as new development occurs in Northgate. All signalized intersections (with one exception) and all corridors will operate at a Level of Service E (CTIP's performance benchmark) or better. These high priority projects, shown in **Figures ES-3, ES-5,** and **ES-6,** show the high, mid-range, and long-range projects described in Chapter 7.

Recommendation: Implement transportation projects and programs to *Protect Neighborhoods*

The high priority projects shown in **Figure ES-4** and the parking concepts described in **Figures ES-5 and ES-6** will add sidewalks, pedestrian crossing improvements, traffic calming measures, and parking management programs to help Northgate residents move safely around their neighborhoods.

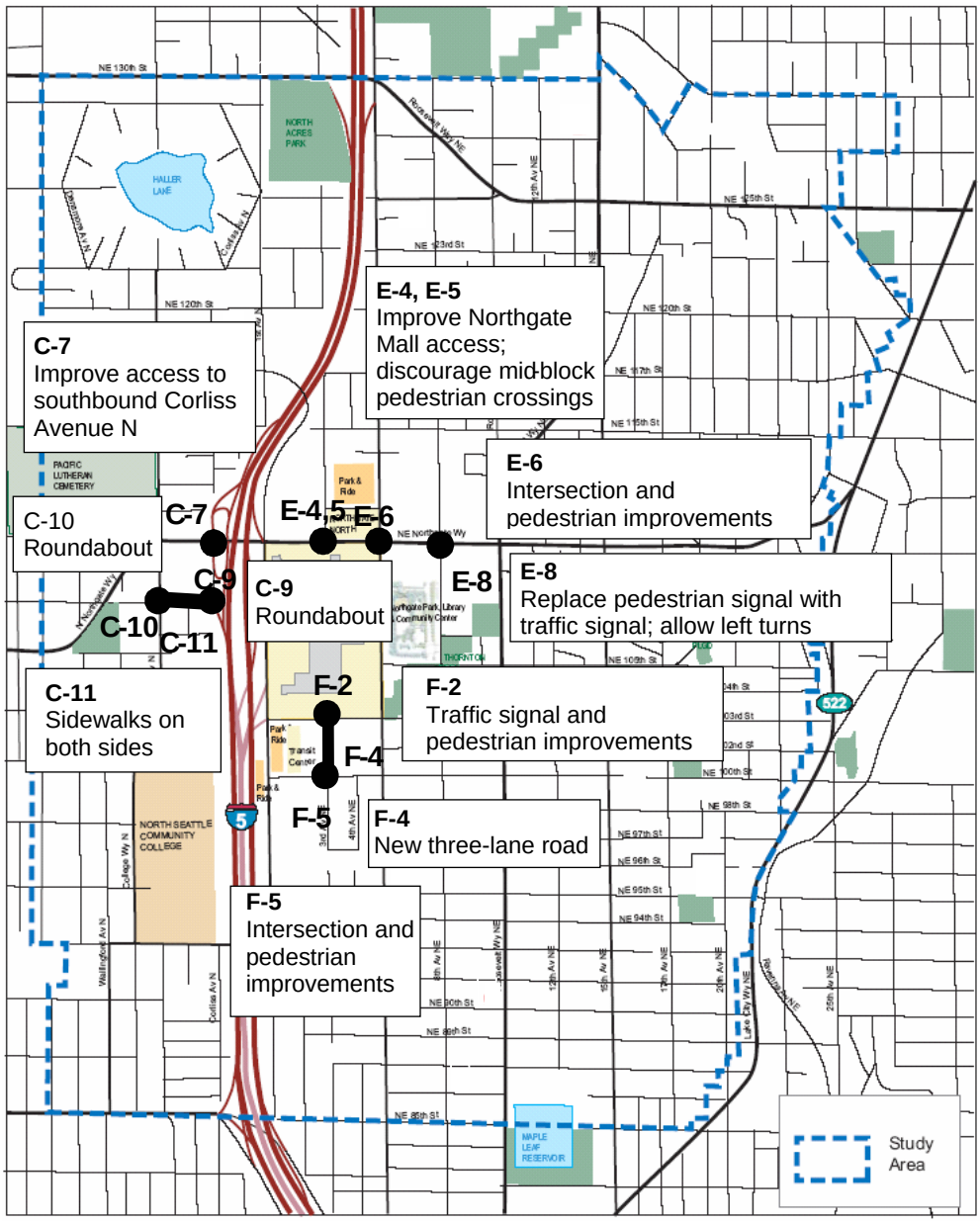
What is the Cross-Freeway Connection?

The Northgate Stakeholders Group expressed its strong support for a pedestrian and bicycle overpass crossing the freeway from North Seattle Community College to the Northgate Transit Center and future Sound Transit North Link Light Rail Station.

The crossing would make it easier for College faculty and students to use bus transit and the future light rail, reducing single-occupant vehicle trips. It would connect neighborhoods west of I-5 to the commercial area and neighborhoods east of I-5, particularly the new Northgate Civic Center and South Lot developments envisioned for Northgate.

The project could cost $7–10 million and might come about through collaboration between the City of Seattle, King County, WSDOT, Sound Transit, North Seattle Community College, private property owners, neighborhoods, and others.

Figure ES-3. High Priority Projects to Support New Housing and Economic Development



Note: Projects C-9, C-10, C-11, and J-5 work together to form an alternative westbound route to Meridian Avenue.

E-6. Add a second westbound left turn lane; change the southbound curb lane to right turn only.

F-5. When warranted, add four-way stop control and, ultimately, install a traffic signal.

Recommended improvements not shown on the above map:

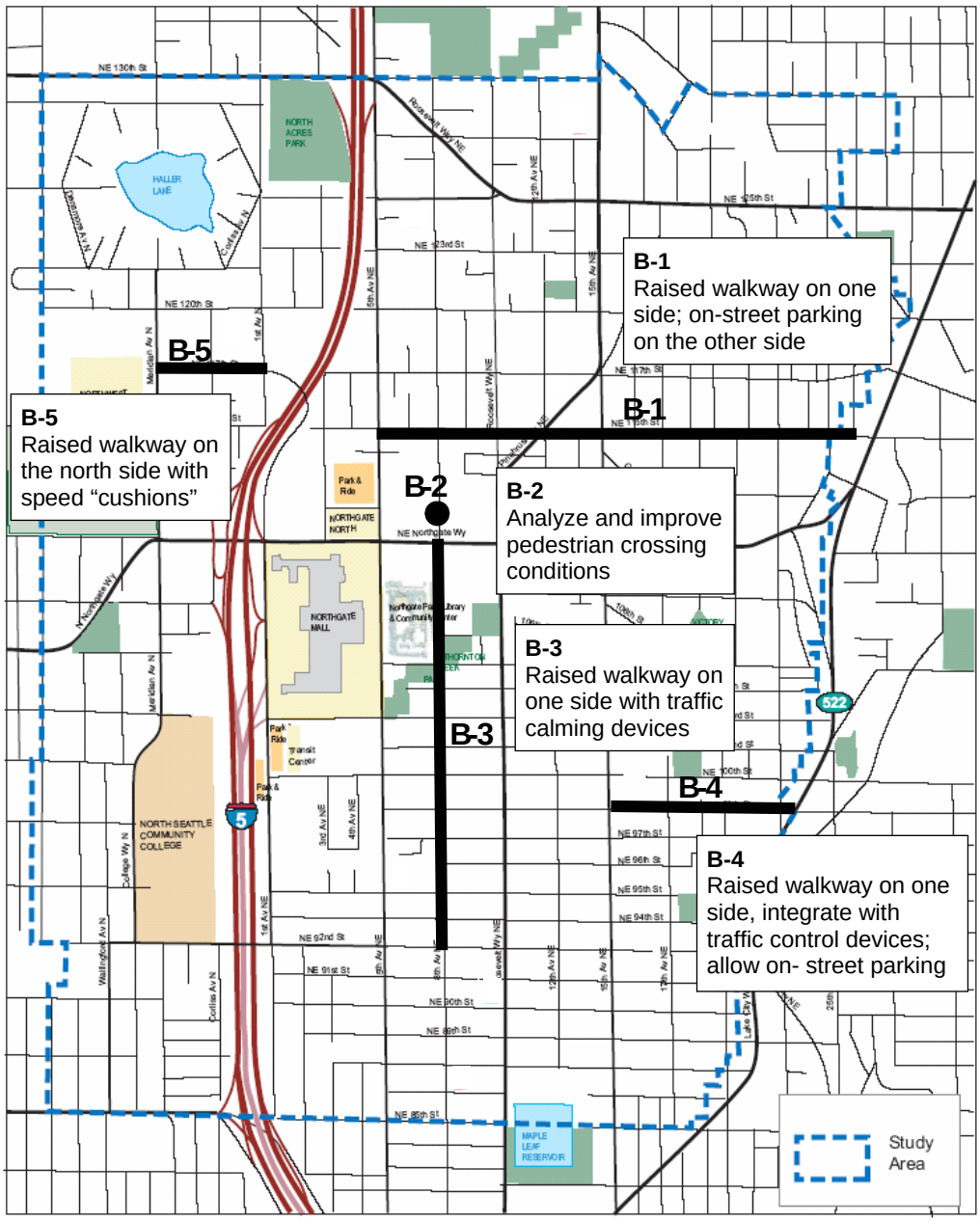
E-1. Coordinate all signals and optimize 24-hour signal operation on N/NE Northgate Way.

E-3. Monitor safety performance of westbound traffic on NE Northgate Way approaching the 1st Avenue intersection to determine if future road channelization improvements become warranted.

J-5. Re-classify Corliss Avenue from NE Northgate Way to N 107th Street and N 107th Street from Corliss Avenue N to Meridian Avenue N from local streets to collector arterials.

J-11. Give on-street parking priority to short-term customer parking within the commercial core.

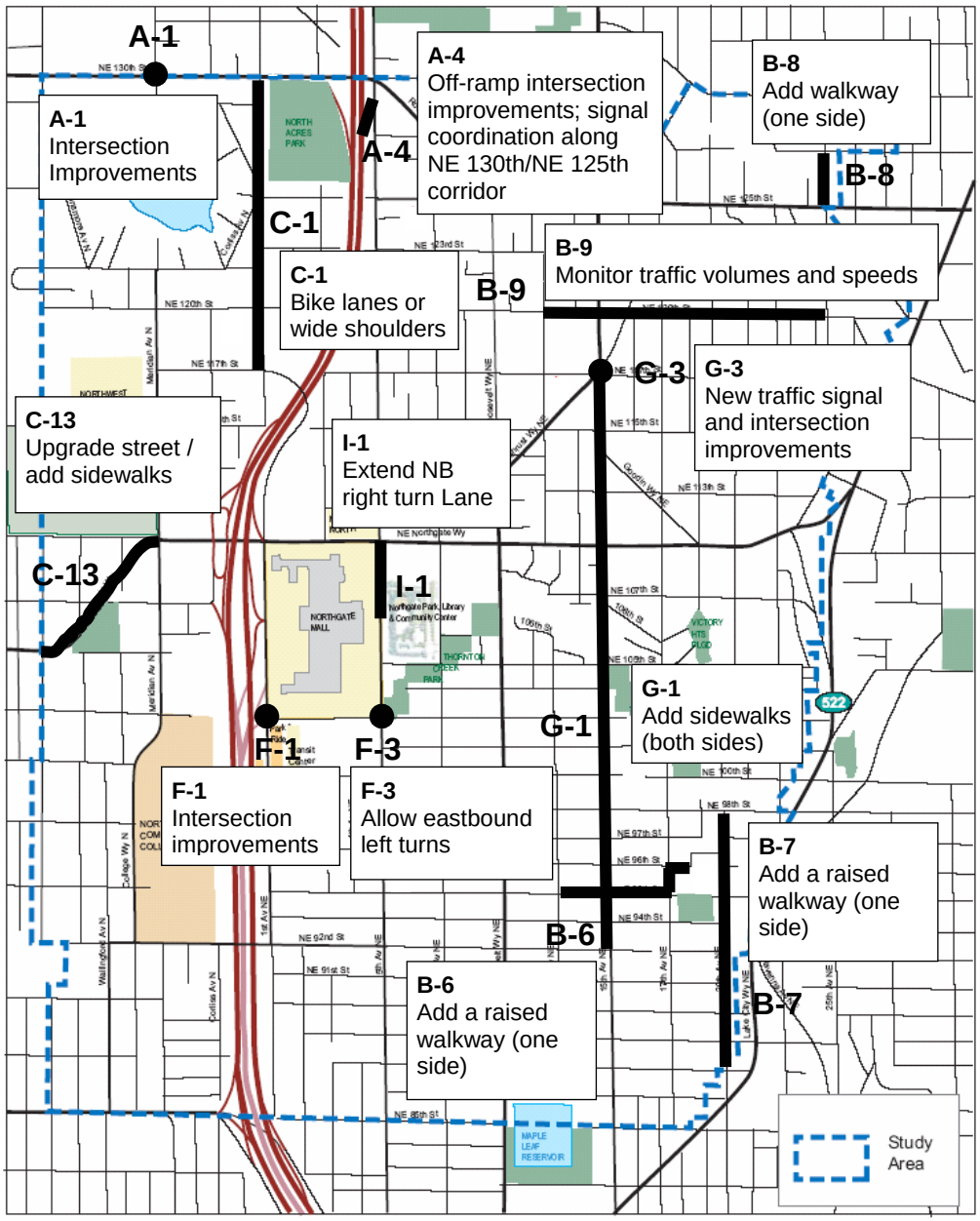
Figure ES-4. High Priority Projects to Protect Neighborhoods



Notes:

B-2. Install crossing improvements that meet SDOT guidelines and practices, such as curb bulbs and related signs and markings

Figure ES-5. Mid-Level Priority Improvements



Recommended Improvements not shown on the above map:

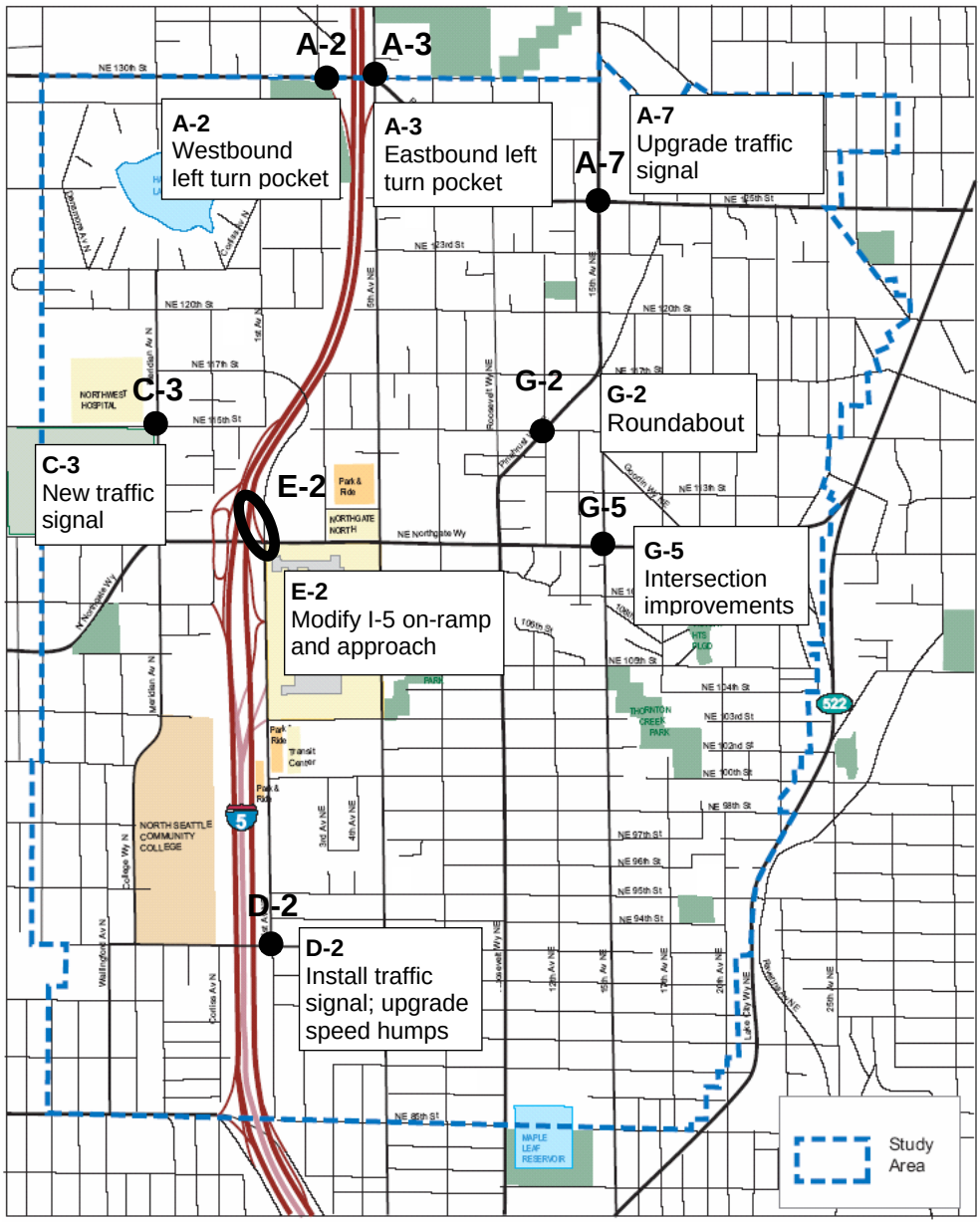
J-2. Provide improved transit service with average of 15-minute frequencies during off-peak hours from Northgate to the University District, consistent with the Seattle Transit Plan.

J-3. Improve transit service with average of 15-minute frequencies during peak periods and 30-minute frequencies during off-peak periods to other Urban Villages, such as Bitter Lake and Aurora–Licton Springs. This service improvement recommendation is consistent with the SDOT Urban Village Transit Network plan, prepared in collaboration with Metro.

J-12. Conduct a neighborhood parking management assessment for Northgate to ensure that the neighborhood's limited supply of on-street parking adequately serves surrounding land uses in the mid-term (2008–2010).

J-14. Add 10 bus shelters within the study area at locations with 40 or more daily boardings. King County Metro should provide seven of the shelters to meet their standard of providing shelters at locations with 50 or more daily boardings; the City should provide funds for the additional 3 shelters through the Northgate Mitigation Program.

Figure ES-6. Long-Range Priority Improvements



Recommended Improvements not shown on the above map

J-1. Following the extension of light rail to Northgate, provide transit feeder services from nearby neighborhoods to the transit center.

J-13. Work with Sound Transit and stakeholders to study and implement proactive parking management techniques around the station to prevent use of neighborhood streets for park-and-ride purposes, prior to the opening of the light rail station.

Recommendation: Establish a Transportation Mitigation Payment Program

CTIP recommends a Northgate Transportation Mitigation Payment Program as an alternative way for developers to make direct payments to mitigate the transportation impacts of new development. This option has several benefits over the status quo mitigation method: it is more efficient and will produce better mitigation outcomes.

Under the State Environmental Policy Act (SEPA), the City assesses the environmental impacts of development proposals to determine what mitigation is required to prevent adverse environmental impacts. Depending on the type and size of a given development project, impacts on the transportation system may typically include increased traffic, causing transportation facilities to become less efficient, decreasing safety, or increasing air pollution.

To mitigate such impacts, the developer is usually required to provide capital or programmatic improvements to the street system, or to pay the City for the cost of facilities or programs that are needed to serve new development.

Transportation Mitigation Payment Program Benefits

- **System-wide transportation improvements**
- **Reduced need for additional traffic studies**
- **Funding applied to all travel modes, including pedestrian, bicycle, and transit capital improvements**
- **Faster permit review process and increased efficiency and predictability**

As a result, this status quo SEPA mitigation approach addresses transportation impacts and mitigation on a case-by-case basis. Improvements are limited to roadway capacity and do not include other transportation modes.

A promising alternative is the proposed Northgate Transportation Mitigation Payment Program, which allows developers to make a direct payment in proportion to the estimated level of impacts to the transportation system by new Northgate development projects. This Transportation Mitigation Payment Program would be an alternative way for developers to meet their transportation mitigation obligations.

The payments would be based on a formula using the estimated cost of CTIP projects and the development's proportional transportation impact. The payments would be applied to the CTIP projects, which include all travel modes, not just roadway capacity improvements.

In summary, the proposed Transportation Mitigation Payment Program provides significant benefits over the current system to determine impacts and identify mitigation.

SDOT will integrate CTIP projects into ongoing programs to ensure progress.

- **The SDOT Capital Improvement Program (CIP) will evaluate, prioritize, and assemble the funding needed to design and construct the larger CTIP projects, such as Northgate Way improvements.**
- **Traffic Engineering Programs and Services will analyze and refine the safety and operational improvements described in the CTIP, such as pedestrian crossing improvements and new bicycle lanes.**
- **Policy and Planning will work with outside agencies on joint projects, including transit service improvements; this division will also evaluate parking demand and support a "parking brokerage" and/or other transportation-related services.**
- **Neighborhood Plan Implementation staff will help Northgate residents use neighborhood-directed funds for CTIP improvement projects. These may include the 15th Avenue NE or 8th Avenue NE sidewalks.**

Next Steps

To make transportation investments in Northgate a reality, CTIP defines a financing and implementation plan. Potential funding is provided within the following four categories: 1) local funds from the City of Seattle tax base, 2) federal and state grants, 3) funding from other government agencies (such as King County or Sound Transit), and 4) investments by private developers to mitigate traffic impacts.

Projects included in the CTIP must be considered alongside other neighborhoods' needs, non-discretionary projects, and interagency projects (such as street improvements to support King County Metro transit service). Through the City's budget process, eligible projects are added to the City's Capital Improvement Program (CIP), which includes capital projects, operational improvements, inter-agency projects, and developer mitigation projects.

CTIP recognizes that the total costs of the recommended improvements exceed available resources, and that new funding alternatives need to be considered. **Table ES-1** below shows the total project costs by priority level. The range of local revenue for Northgate area transportation projects range is estimated at $12.5 million to $36.2 million over the next 25 years. The projected cost for CTIP's high priority projects is $18.8 million. Additional funding may come from federal and state grants, other government funding, and private developers.

Funding for transportation projects is on the upswing:

- The City dedicated an additional $25 million of local funds to citywide transportation projects in 2006.
- In May 2006, Mayor Greg Nickels proposed a long-term transportation package to generate dedicated funding for maintenance and other projects, helping to sustain improvements already underway in Northgate. The City Council voted in September to put a $545 million package before voters in November 2006.

- The Regional Transportation Investment District and Sound Transit are working together to prepare a regional transportation package for voter consideration in November 2007. Candidate projects include extending light rail to Northgate and expanding Sound Transit express routes.

- However, the demand for dollars will continue to be high as the City begins to make up for years of unmet needs.

- New private developments will make financial contributions to Northgate transportation projects proportionate to their transportation impacts. Development will be further guided by the City's code requirements for pedestrian improvements and the strong Northgate neighborhood design guidelines.

- Once CTIP's recommendations are fully funded and completed over the next 25 years, Northgate will realize its full potential as a vibrant Urban Center served by an effective transportation system. With continued strong community input, public sector partnerships and private sector investment, the Northgate Urban Center will be a model of civic success.

- SDOT will report annually to the Northgate community on progress made in implementing the CTIP, the status of upcoming projects, and the overall financing picture in transportation. This discussion with stakeholders will also be an opportunity for the community to alert SDOT to emerging issues and challenges.

Table ES-1. Summary of Recommended Transportation Improvement Costs by Priority

CTIP Costs by Priority	
Priority	**Cost**
High	**$18,826,000**
Mid-Level	**$13,719,000**
Long-Range	**$8,576,000**
Sub-Total	**$41,121,000**
Cross-Freeway Connection	**$7,000,000–$10,000,000**
Total	**$48,000,000–$51,000,000**

Note: Costs shown in Table ES-1 are based upon typical unit costs in 2005 drawn from previous SDOT and WSDOT projects. Right-of-way costs are based upon the 2005 King County property assessment database. Construction and engineering costs are assumed to be 15 percent of the project's subtotal cost; pre-construction and design costs are assumed to be 20 percent; and contingency costs are assumed to be 30 percent.

1. Background

Northgate Transformation

Northgate's future is a vital urban center providing new jobs, housing, open spaces and valued public places surrounded by healthy single-family neighborhoods. A suburban, low-density, auto-oriented landscape will be transformed to a more walkable, bikeable, transit-oriented place where people live, work, shop, play, and go to school.

Realizing this vision requires a simultaneous transformation of both the urban form and transportation choices. This Northgate Comprehensive Transportation Investment Plan (CTIP) is a blueprint to guide public and private transportation investments through 2030. These investments will make better land use and transportation choices possible, helping to transform the urban center and linking it to healthy surrounding neighborhoods and the region.

Northgate's current auto-oriented land use was defined in the middle of the 20th century by the building of Northgate Mall, innovative during post–World War II years as a retail auto-destination for the Seattle area. Then, in 1965, Interstate 5 was built, providing a greater automotive linkage between Northgate and the region. During the following decades, commercial development surrounding the mall continued in this low-density suburban form.

By the late 1980s, the communities surrounding Northgate had identified a need for a new vision and direction, responding to the pressures of increased traffic and a desire for a more pedestrian-oriented urban center. In 1990, the Washington Growth Management Act provided the policy direction for Northgate to be designated as an Urban Center and to transform its land use character and transportation system.

For more than a decade, Northgate has been locked in community controversy and indecision about how to realize this vision. In December 2003, Seattle embraced a strategy for action with the passage of new legislation.

Today, Northgate sees progress toward its vision with a new Northgate Civic Center and a wave of public and private redevelopment investment. The Northgate Urban Center holds magnificent promise with a revitalized commercial center, new

housing that will bring thousands of Northgate residents, more pedestrian-oriented streets, stronger connections to North Seattle Community College, new parks and open spaces, and the hope for a future light rail connection.

Policy Context

The CTIP was developed within the context of the land use and transportation planning and implementation policies described below. These include a number of recommended projects and programs listed and mapped in **Appendix 1-1. Figure 1-1** illustrates the project vicinity, and **Figure 1-2** shows the CTIP study area boundaries and Northgate Urban Center boundaries. The CTIP's recommendations focus on four main goals:

- Move people safely and efficiently
- Reduce drive-alone travel
- Support new housing and economic development
- Protect neighborhoods

Figure 1-1. CTIP Project Vicinity

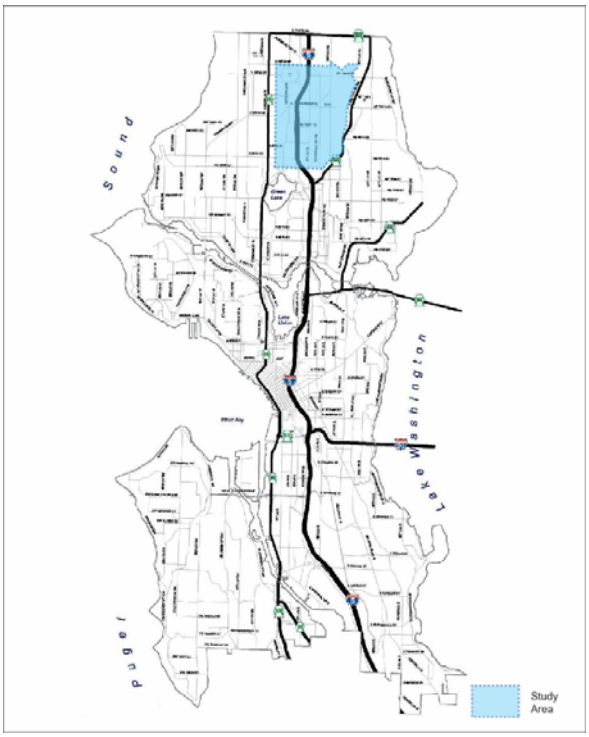
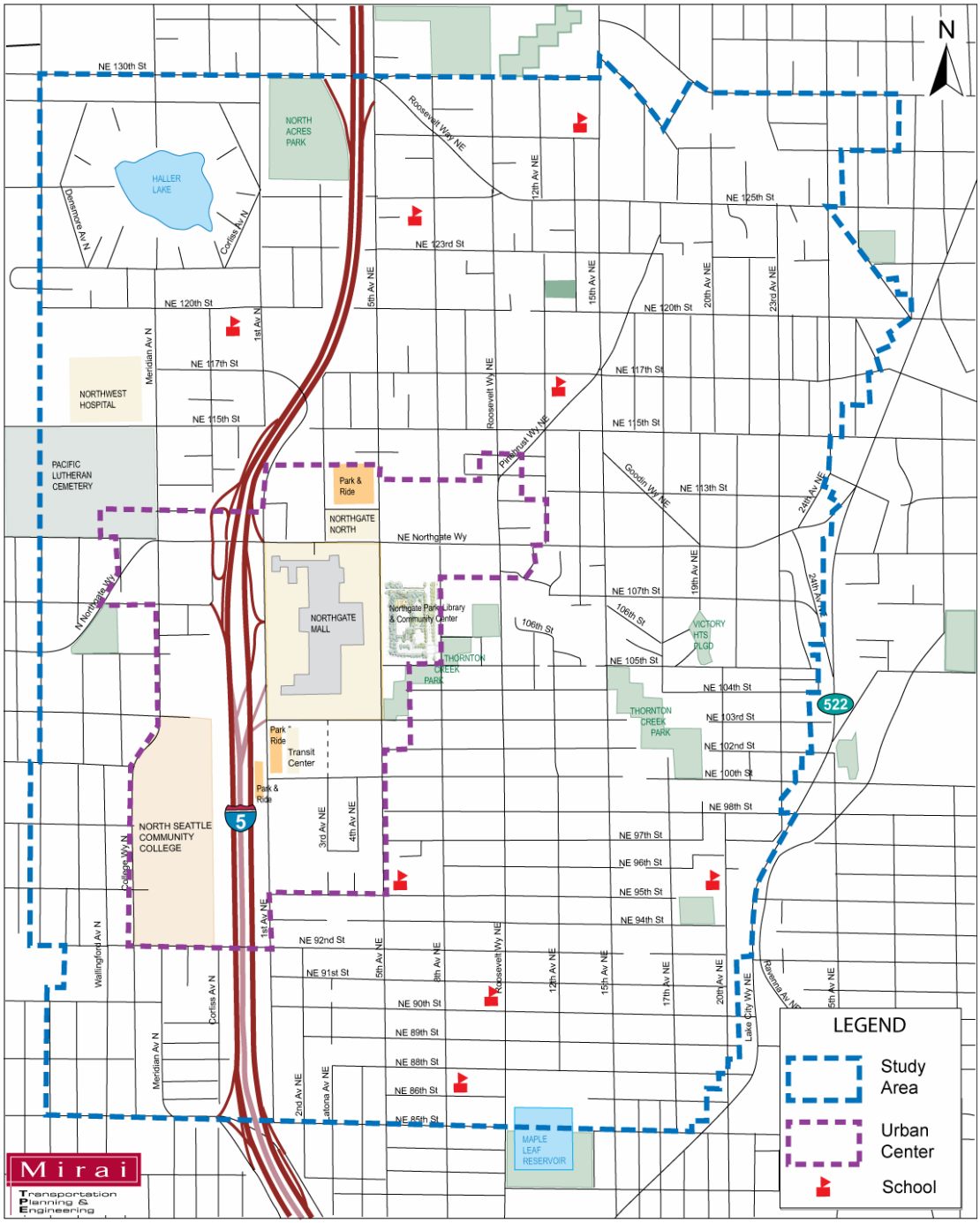


Figure 1-2. CTIP Study Area Boundaries and Northgate Urban Center



Northgate Area Comprehensive Plan (1993) and Plan Review and Evaluation (2000)

The Northgate Area Comprehensive Plan (NACP) was completed in 1993 after a two-year planning process. The NACP contained policies and implementation guidelines reflecting the community's vision for the Northgate area. In June 2000, the City's Strategic Planning Office published a review and evaluation of the NACP to help prioritize next steps.

Northgate Action Agenda

Seattle Mayor Greg Nickels initiated a Northgate Action Agenda in March 2003, calling for a package of economic, community, and environmental benefits to begin to revitalize Northgate. The Agenda encouraged new public and private investment to create housing and jobs at Northgate, obtain new open space for the City, enhance the Thornton Creek Watershed, improve transportation choices, and develop the CTIP.

Through voter-approved levies, plans were already under way for a new park, library, and community center. The first phase of the 5th Avenue NE streetscape project was funded to provide wider sidewalks and a better pedestrian environment. In December 2003, the Mayor and City Council improved development regulations for the area and set the policy direction to realize the Northgate vision.

Seattle City Council Resolutions

The City Council adopted Resolution 30641 (see **Appendix 1-2**), providing a framework for actions to encourage progress toward the NACP vision and Resolution 30642, directing the Seattle Department of Transportation to develop a Coordinated Transportation Investment Plan (CTIP).

Based on the City Council resolutions, the Seattle Department of Transportation (SDOT) developed a CTIP work program. The City Council, with the endorsement of the Northgate Stakeholders Group, approved the work program in September 2004, leading to creation of this plan.

Resolution 30641, adopted on December 8, 2003, called for creation of the CTIP with the following provisions:

- facilitate public and private investment in Northgate area transportation projects and services
- build upon prior transportation work
- balance all modes of transportation
- produce a list of improvements to address existing and future transportation needs
- assist property owners in meeting environmental review requirements
- include public and agency involvement
- pursue public and private cost sharing agreements for CTIP development

Resolution 30642, also adopted on December 8, 2003, provided the framework for a broad set of actions to implement the established NACP vision, to "transform a thriving, but underutilized, auto-oriented office/retail area into a vital, mixed-use center of concentrated development surrounded by healthy single-family neighborhoods." Key provisions for the CTIP's transportation planning and traffic analysis included the following:

- facilitate public and private investment
- identify coordinated transportation investments that best reflect the long-term goals of the Northgate Area Comprehensive Plan, especially
- reducing traffic related impacts on arterials
- protecting neighborhood streets
- providing pedestrian improvements and connections, including safety improvements for seniors

Resolution 30642 also established the Northgate Stakeholders Group, a broadly representative body of community and business representatives advising the City on the development of this CTIP and other important Northgate issues.

Seattle Comprehensive Plan: Toward a Sustainable Seattle

The City Council adopted the Seattle Comprehensive Plan in 1994 and significantly updated it in 2004. A key feature of the Seattle Comprehensive Plan is the urban village strategy that strengthens the relationship between the city's land uses and available

transportation infrastructure. Northgate is one of six designated Urban Centers (others are Downtown, Capitol Hill/First Hill, Uptown/Seattle Center, South Lake Union, and the University District). Within Urban Centers, transportation investments are directed to (1) provide more opportunities for transit, walking, and biking and (2) link pedestrian-oriented activity centers.

The 2004 update incorporated goals and policies from the NACP into the Neighborhood Planning Element. (See **Table 1-1** for the Seattle Comprehensive Plan Neighborhood Planning Element transportation goals and policies for Northgate and **Appendix 1-3** for the entire list of Northgate goals and policies in the Neighborhood Planning Element.) These policies and implementation guidelines helped formulate and frame the CTIP recommendations.

Table 1-1. Seattle Comprehensive Plan Neighborhood Element Transportation Policies for Northgate

Seattle Comprehensive Plan Transportation Goals
Goal NG-G6: An economically viable commercial core with improved alternative means of access, good vehicular and pedestrian circulation, and an enhanced, interesting environment that attracts customers, visitors, and employers.
Goal NG-G7: Medium- to high-density residential and employment uses are concentrated within a 10-minute walk of the transit center, reducing the number and length of vehicle trips and making travel by foot and bicycle more attractive.
Seattle Comprehensive Plan Transportation Policies
Policy NG-P9: The efficiency of the transportation system shall be maximized by accommodating more person trips rather than more vehicle trips.
Policy NG-P10: Enhance transit service and facilities to make it a more attractive travel mode for persons living and working in the Northgate area.
Policy NG-P11: Increase pedestrian circulation with an improved street level environment by creating pedestrian connections that are safe, interesting, and pleasant.
Policy NG-P12: Manage parking supply, location, and demand to discourage the use of single-occupant vehicles, and to improve short-term parking accessibility for retail customers, patients, and visitors, without undermining transit or HOV usage, or detracting from the creation of an attractive pedestrian environment.
Policy NG-P13: Reduce the impact of increases in traffic volume by minimizing conflicts with local access streets, and improving traffic flow, circulation, and safety without increasing vehicular capacity.
Policy NG-P14: Development of a high-capacity transit station shall be designed to minimize impacts on surrounding neighborhoods by emphasizing non-motorized access, transit-supportive land uses, and an attractive pedestrian environment at and near the station.

Northgate Open Space & Pedestrian Connections Draft Plan (2004)

Intersection of Northgate Way and 1st Avenue looking west

The Seattle Planning Commission initiated the Northgate Open Space and Pedestrian Connections Plan in March 2004, building on earlier workshops from the NACP that focused on town center concepts, the South Lot, and 5th Avenue NE as a pedestrian corridor. The following recommendations from the Northgate Open Space and Pedestrian Connections Plan were developed contemporaneously with the first stages of the CTIP, with the intent that they would guide the CTIP:

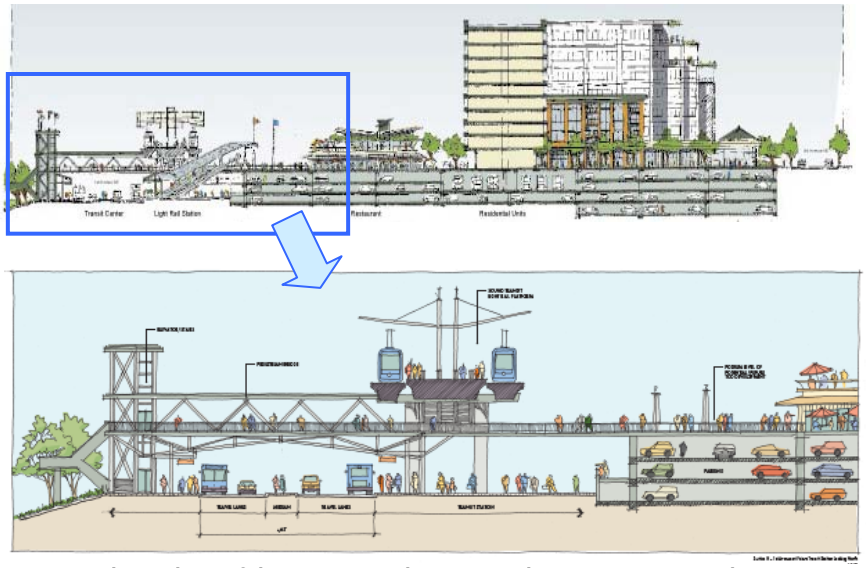
1. The City and in particular the Seattle Department of Transportation must make pedestrians as high a priority as vehicles in framing and carrying out the CTIP. If this is not a clear foundation for the CTIP, the community and City will lose the opportunity to really change Northgate from an auto-oriented to a pedestrian-oriented community.

2. The CTIP should make a strong statement about creating a pedestrian-friendly environment —not about which mode is most important, but rather elevating the pedestrian mode as an important means of mobility throughout this developing Urban Center. CTIP efforts should involve carrying out a detailed analysis of pedestrian movements in the key subareas of Northgate—NE quadrant (North of NE Northgate Way from I-5 to Roosevelt Avenue NE); SE quadrant (South of NE Northgate Way from 5th to 15th Avenues NE); west of I-5; and the crossovers of I-5 (NE 92nd Street and NE Northgate Way).

3. The CTIP analysis should consider alleys, parking lots, spaces between buildings, and the riparian corridor along I-5 as opportunities for pedestrian pathways.

Sound Move

Adopted by voters in 1996, Sound Move is Sound Transit's regional transit plan for the urban portions of King, Snohomish, and Pierce counties. Funding constraints precluded completing the



Conceptual Drawings of the Future Northgate Transit Center at NE 103rd

Northgate extension in Phase 1, but in October 2005, the Sound Transit Board issued a draft Supplemental Environmental Impact Statement (SEIS) to the 2003 North Link draft SEIS that identifies a preferred route to Northgate. The North Link light rail project anticipates the northern terminus to occur next to the Northgate Transit Center on the southwest side of the Northgate Mall. In addition, preliminary engineering to extend light rail service from Northgate to the King County line remains a candidate project at this time for "ST 2," the regional plan for the next set of investments.

Six-Year Transit Development Plan for 2002–2007, King County Metro (2002)

King County Metro's Six Year Transit Development Plan establishes near-term operating and capital plans transit service in King County. Subject to available revenue, Urban Centers and activity centers will receive higher bus service levels, as will jurisdictions that aggressively implement transit-friendly land use strategies. The Plan sets out a range of criteria to qualify for additional service, including promoting higher-density development and strong ridership demand. Capital improvements that will enhance speed and reliability will be directed to corridors with the highest bus and passenger volumes with an emphasis on finding effective, low-cost solutions.

Seattle Transit Plan (2005)

The City of Seattle's Transit Plan identifies a long-term (2030) vision of Seattle's future transit network. The Plan is the basis for transit strategies in the City's Transportation Strategic Plan, which was adopted in August 2005. The Transit Plan identifies Seattle's regional high-capacity and intermediate-capacity transit corridors as well as key multimodal hubs and transportation centers. The Plan incorporates six main elements:

- the Urban Village Transit Network, including associated funding needs
- major transfer points - multimodal hubs and transportation centers
- criteria for evaluating technologies
- transit street classifications
- transit quality of service measures
- transit priority treatment tools

The City identified an "Urban Village Transit Network" (UVTN) to carry the highest concentration of the city's transit trips, supported by local circulation and UVTN feeder service in a "secondary transit network." The UVTN consists of all transit lines (regardless of mode or operating agency) that operate every 15 minutes all day for at least 18 hours every day in two directions. For example, the North Link Light Rail line is considered part of the UVTN in Northgate. UVTN performance standards will be incorporated into the Transportation Strategic Plan's chapter on performance measures and play an important role in the City's new Right-of-Way Improvement Manual.

Many arterials in the study area are anticipated to be part of the UVTN. Streets include the following:

- Northgate Way
- Roosevelt Way NE/Pinehurst Way NE/15th Avenue NE north of Northgate Way
- 1st Avenue NE between Northgate Way and NE 92nd Street
- NE 103rd Street between 1st Avenue NE and 5th Avenue NE
- 5th Avenue NE south of NE 103rd Street
- N 92nd Street between Wallingford Avenue and 1st Avenue NE
- Wallingford Avenue N/Campus Way N/Meridian Avenue N south of N 115th Street
- N 115th Street west of Meridian Avenue N

Transportation Strategic Plan (2005)

The Transportation Strategic Plan (TSP) is the Seattle Department of Transportation's 20-year work plan. It describes the actions that SDOT will take over the next 20 years to establish the goals

and policies in the Seattle Comprehensive Plan. The TSP defines day-to-day operational and long-term transportation strategies and the projects, programs, and services to implement them. It also includes SDOT's financial plan and defines a process for determining funding priorities.

The TSP establishes a multi-step process to prioritize discretionary programs and projects. Projects that rate highly through the evaluation process are considered the top candidates when seeking additional transportation funds. Evaluation criteria to rank a program or project high, medium or low priority are as follows:

- Safety
- Preserving and maintaining infrastructure
- Cost effectiveness or cost avoidance
- Mobility improvement.
- Economic development.
- Comprehensive Plan/Urban Village land use strategy
- Improving the environment

Potential programs and projects are further evaluated to determine their readiness for implementation. Four criteria are used to make this determination:

- Funding availability
- Interagency coordination
- Geographic balance
- Constituent balance

Public Involvement

Northgate Stakeholders Group and CTIP Subcommittee

City Council Resolution 30642 directed the formation of a stakeholders group to advise the City on future planning and strategies for implementing the Northgate vision. The 22-member Northgate Stakeholders Group (and 22 alternates) is broadly representative of community and business interests, as shown in **Table 1-2** below (see **Appendix 1-4** for a list of representatives). The Stakeholders have provided important input to the development of this Coordinated Transportation Investment Plan.

The CTIP Subcommittee of the Stakeholders Group provided input on the CTIP's planning

assumptions, methodologies, performance measures, evaluation criteria, preliminary improvement concepts, project prioritization and draft recommendations. The subcommittee made recommendations as part of that group's formal Northgate Stakeholder advice memos to the City Council (see **Appendix 1-5** for the advice memos).

The City will continue to provide information and involve the Northgate community as public improvements and private development projects go forward.

Table 1-2. Northgate Stakeholders Group Representation

Northgate Stakeholders Group	
King County Metro	Northwest Hospital
Simon Properties	Owners of Three or More Acres
Maple Leaf Community Council	Senior Housing
Licton Springs Community Council	Renters/Condominium Owners
Haller Lake Community Club	Multi-family Housing Developers
Pinehurst Community Council	Businesses Inside the Mall
Victory Heights Community Council	Businesses Outside the Mall
Northgate Chamber of Commerce	Youth
Thornton Creek Alliance	Labor
Thornton Creek Legal Defense Fund	At-large (two seats)
North Seattle Community College	

Community Outreach

The Northgate Stakeholders Group sponsored quarterly Northgate Community Forums to keep the public informed of the Northgate-area progress and to solicit comments and feedback. Representatives of the CTIP subcommittee participated in each of these well-attended forums. In addition, city staff met with a number of organizations and community groups throughout the planning process, including the Northgate Chamber of Commerce, North Seattle Community College, Northwest District Council, Northeast District Council, North District Council, North District Stewardship Committee, Maple Leaf Community Council, and the Northgate Mosque.

Two project newsletters were mailed to 1,800 addresses and delivered to schools, service centers, community centers, and libraries (see **Appendix 1-6**). A third Newsletter is planned upon project completion. In addition, the city maintained an active Web site for the project, including a discussion board and resource library.

Agency Coordination

Staff from other agencies (King County Metro, the Washington State Department of Transportation, and Sound Transit) and affected departments within the City participated in a Technical Advisory Group for the project (see **Appendix 1-7** for membership). In addition, project staff provided several briefings to and received comments from the Seattle Planning Commission, the Pedestrian Advisory Board, and the Bicycle Advisory Board.

Future Involvement of Public Agencies and Developers

Other government agencies and private property owners provided information about their future development plans to help the CTIP address long-term land use and transportation conditions and needs. Also, three transportation agencies that play important roles in Northgate's transportation system provided technical planning support.

The CTIP forecasts of future development were informed by the involvement of these affected agencies and property owners. With more detailed forecasts, the CTIP became a more comprehensive planning document. The CTIP and its Environmental Impact Statement (EIS) identify impacts and possible mitigation, which will help transportation agencies and affected developers plan their projects and transportation mitigation. Developers will be able to adopt the EIS to satisfy, in part, the City's State Environmental Policy Act (SEPA) requirements, although project-level information will need to be disclosed and analyzed as part of the Master Use Permit and SEPA processes.

King County, North Seattle Community College, Sound Transit, Washington State Department of Transportation, Kauri Investments, and Mullally Development Company contributed funds toward the Northgate CTIP to support the analysis of future development. Lorig Associates and Wallace Development Company contributed transportation analyses for their projects that were prepared by Mirai and incorporated into the CTIP analysis.

2. Assumptions

Introduction

The CTIP builds upon an explicit set of planning, financing, and technical assumptions. The assumptions fall into the following categories:

- Planning assumptions
- Financing assumptions
- System performance measures and benchmarks

Planning Assumptions

Existing Plans

The CTIP builds upon previous plans and studies, with particular attention to the following plans:

- The Northgate goals and policies in the Seattle Comprehensive Plan (2004)
- The Northgate Open Space and Pedestrian Connections Plan (2004)
- The 5th Avenue NE Streetscape Final Design Report (2002)

In addition, known or anticipated new developments were evaluated as “pipeline projects.”

Assumptions

1. CTIP recommendations will be consistent with existing plans for the Northgate area.
2. Anticipated new development and land uses will be included as part of CTIP traffic forecasts.

Study Area

The CTIP uses the same study area boundaries as the 1993 NACP study (see **Figure 1-2**).

Assumptions

1. The study area of the CTIP will be consistent with the NACP (see **Figure 2-1**). The study area boundaries, as designated in the NACP EIS, are defined by Ashworth Avenue N on the west, N/NE 130th Street on the north, N/NE 85th Street on the south, and the west side of Lake City Way NE on the east, excluding Lake City Way.

2. The analysis will include traffic that may travel through the study area from access points on Lake City Way.

Study Area Growth Assumptions

The CTIP assumes the City's land use growth forecasts for the study area. The future growth assumptions used the Seattle Transportation Demand Forecasting Model (Seattle Model) for the following three areas: 1) Northgate CTIP study area; 2) the entire City of Seattle area; and 3) the four-county Puget Sound Regional Council planning area outside the City (King, Kitsap, Pierce, and Snohomish counties).

Assumptions

1. The CTIP will review the Seattle Model's assumptions for existing land use, and 2010 and 2030 growth projections.
2. The CTIP will refine land use projections for 2010 and 2030 based on the anticipated development proposals.

Interstate 5

While the City does not have land use or transportation planning responsibility within the State right-of-way, State facilities significantly affect the operation of the City's transportation system. WSDOT's planning activities for I-5 may provide a vehicle by which to implement recommendations.

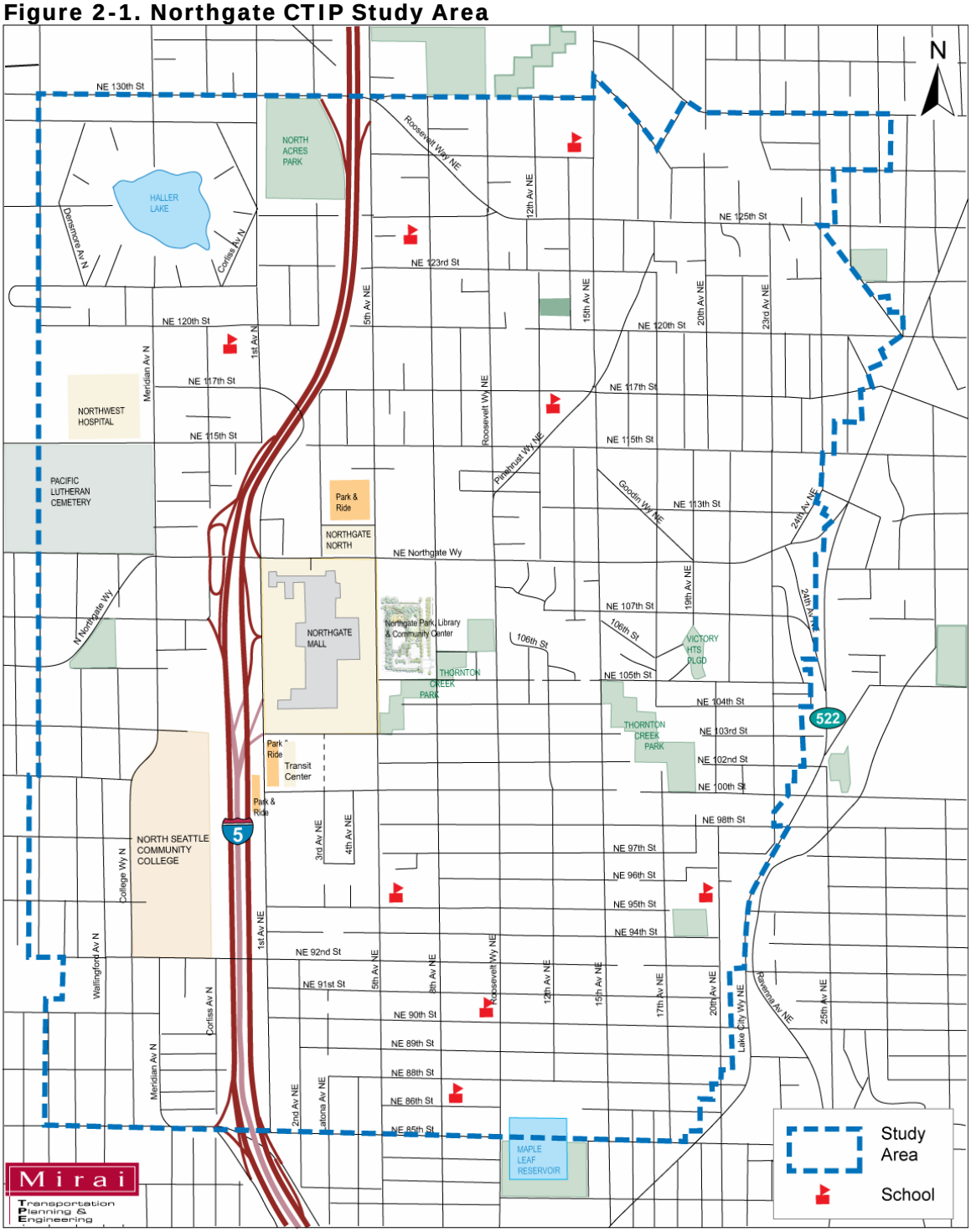
Assumptions

1. The CTIP will develop and evaluate concepts to improve east-west pedestrian circulation across I-5.
2. The CTIP will evaluate intersection operations on City arterials at existing I-5 ramps.
3. The CTIP will coordinate with WSDOT on the I-5 Pavement Reconstruction and Bottleneck Improvement Projects. (WSDOT is planning to replace 16 miles of concrete on I-5 from Tukwila through downtown Seattle to Northgate.)

Sound Transit

The Sound Transit Board affirmed its plan to build a light rail system from Downtown Seattle to Northgate, but full funding and project timing remained uncertain during the CTIP study. At the time of this report, Sound Transit had initiated planning for Sound Move Phase 2, including extension of light rail from Northgate into Snohomish County.

Figure 2-1. Northgate CTIP Study Area



The elevated Northgate light rail station is proposed for east of 1st Avenue NE, spanning NE 103rd Street, with a station entrance on the Northgate mall property north of NE 103rd Street and an entrance south of NE 103rd Street near the Metro Transit Center. This station would provide a connection to the regional and local transit systems with access to Northgate Mall, allow for bus transfers at the Northgate Transit Center, and serve adjacent park-and ride facilities. Pedestrian and transit circulation throughout the station area would be well integrated. Light rail service would offer an alternative to the region's congested roadways, with significant travel time savings over existing bus travel times between Northgate and downtown Seattle.

While Sound Transit has identified Northgate as a temporary terminus for the light rail line, a decision to extend light rail beyond Northgate has not been made. When that decision is made, Sound Transit will prepare environmental documents and analyze impacts of such action to the Northgate communities. Therefore, the following assumptions were used for the CTIP.

Assumptions

1. Link Light Rail will be extended to the University District by 2020.
2. Link Light Rail will serve Northgate by 2030.

Financing Sources

The CTIP balances new, innovative ideas with financial constraint. The list of full transportation needs nevertheless outstrips the City's available funding. Potential revenue sources include the following:

- Local Improvement District financing;
- Transportation Benefit District financing;
- employee tax for transportation improvements;
- additional general fund allocation to transportation;
- grants and loans;
- partnership opportunities involving the use of street rights-of-way, including street vacations;
- partnership opportunities via neighborhood grant allocations;
- development mitigation under SEPA; and
- the City's Transportation Mitigation Payment Program.

The CTIP's financing plan estimated possible revenue sources from the City; agencies such as King County Metro, Sound Transit, and WSDOT; and private development.

Assumptions

1. The City's current financial capability will be described early in the CTIP planning process.
2. The City's current financial capability will define the initial investment level for CTIP recommendations.
3. The CTIP will identify other potential funding sources and steps.

System Performance Measures

Recommended Performance Measures and Benchmarks

System performance measures, indicators, and benchmarks make explicit the assumptions about what constitutes an effective and efficient transportation system. Using the performance measures, indicators, and benchmarks defined below, the CTIP identified system deficiencies and corresponding improvements for each transportation mode, as well as for residential and arterial roadways.

Performance measures provide measurement or evaluation of how a system is performing to meet its goals and objectives.

Performance indicators comprise the components and/or characteristics of a system. Generally, a performance measure consists of several indicators.

Benchmarks establish acceptable conditions for each transportation system.

Note: the City's adopted level-of-service standards in the Seattle Comprehensive Plan Transportation Element direct the City's concurrency management system under the Growth Management Act. However, the CTIP uses a more detailed set of performance measures and benchmarks to evaluate the benefits of potential CTIP improvements at a subarea level.

The following key components of Northgate's transportation system were evaluated using the recommended measures and benchmarks:

- Mode share
- Transportation system for pedestrians
- Transportation system for bicyclists
- Transit system
- Transportation system for vehicles

Mode Share Performance Measures

Travel mode share for single-occupant vehicle (SOV), transit, carpool, pedestrian, and bicycle trips indicates how efficiently the transportation system is used. The Transportation Element of the Seattle Comprehensive Plan recommends travel mode choice goals for 2010 and 2020.

The Northgate Overlay District in the Land Use Code (SMC 23.71) includes the maximum PM peak hour SOV mode use for commercial and residential trips generated by development projects above a certain trip generation threshold. After year 2000, the maximum SOV use goal is set at 55% for both commercial and residential trips. However, the mode share goals recommended in the Seattle Comprehensive Plan Transportation Element (see **Table 2-1**) appeared more useful for the CTIP's analysis, insofar as they are based on information available from the 2000 Census survey data.

Table 2-1. Mode Share Performance Measures

Indicator	Benchmark
Work trips by workers within the Urban Center	2010: 70% or less drive alone
	2020: 60% or less drive alone
All trips by residents within the Urban Center	2010: 45% or less drive alone
	2020: 40% or less drive alone

Pedestrian System Performance Measures

The CTIP's performance measures for the Northgate area pedestrian system describe conditions at arterial crossings, as well as the presence and quality of connections between major destinations, connections between neighborhoods and the Northgate Urban Center, and connections within neighborhoods to local schools, parks, the Civic Center, the transit center, and neighborhood commercial districts. The Open Space and Pedestrian Connections Plan identified a number of important pedestrian linkages in the study area.

The study team documented existing conditions through field observations, public comment, and feedback from the Northgate Stakeholders.

Measurement of key indicators at intersections and mid-block crossings (**Table 2-2**) included the following locations:

- Northgate Way Corridor
  - I-5 southbound ramps
  - 1st Avenue NE
  - 3rd Avenue NE
  - 5th Avenue NE
  - 8th Avenue NE
  - Roosevelt Way
- 5th Avenue NE Corridor
  - Northgate Way
  - NE 106th Street (Civic Center)
  - NE 105th Street
  - NE 103rd Street
  - NE 100th Street
  - NE 92nd Street
  - NE 85th Street
- 8th Avenue NE Corridor
  - North of Northgate Way NE to Post Office
- Roosevelt Way Corridor
  - Street sections between NE 112th Street and Northgate Way
  - Street sections between NE 88th Street and NE 92nd Street
- 15th Avenue NE Corridor
  - North of NE 94th Street
  - Access to Sacajawea Elementary School
  - Access to NW Puppet Center
  - NE 117th Street —NE 125th Street
- 3rd Avenue NE Corridor between NE 100th Street and NE 103rd Street (new 3rd Avenue NE extension)
  - NE 100th Street
  - NE 103rd Street
- College Way/Meridian Avenue N Corridor between N 92nd Street and N 122nd Street

Table 2-2. Pedestrian System Performance Measures for Intersections and Mid-Block Crossings

Indicator	Benchmark
Pedestrian Crashes Crossing Width Conflicting Turning Volumes Refuge Space Average Speed Activated Pedestrian Signals ADA-Compliant Ramps Streetlights	Quantitative and qualitative analysis to determine adequacy

Table 2-3 identifies key indicators for areas within the Urban Center, from neighborhoods to the Urban Center, and within neighborhoods.

Table 2-3. Pedestrian System Performance Measures for Areas within the Urban Center, Neighborhoods to the Urban Center and within Neighborhoods

Connections within the Urban Center	
Between North Seattle Community College and Northgate Transit Center Between the new Civic Center and Transit Center Between Northgate Mall and Northgate Transit Center Between Northgate Mall and the future Link Light Rail station Between Northgate Mall and Northgate Civic Center Between Northgate Mall and Northgate North Center Between the office center south of NE 100th Street and Northgate Mall Pedestrian Access to QFC at Roosevelt Way and NE 112th Street 8th Avenue NE between Northgate Way to NE 92nd Street	
Indicator	**Benchmark**
Connectivity (pedestrian facilities that may include sidewalks, trails, etc.)	Acceptable when equals 90% of total arterial linear distance times two (2)*
Quality of pedestrian connection	Qualitative assessment of pedestrian facilities to determine adequacy

Neighborhoods to Urban Center (arterials including trail segments through public open space)	
Indicator	**Benchmark**
Connectivity (sidewalks) and characteristics of pedestrian facilities such as street lights, sidewalk space, pavement conditions (such as tree grate displacement, lack of maintenance, need, etc)	Acceptable when equals 90% of total linear arterial distance times two (2)*, and qualitative assessment of pedestrian facilities to determine adequacy

Neighborhoods to Parks, Schools, Local Businesses and Transit Center (arterials and local streets)	
Indicator	**Benchmark**
Obstacles (minimum space necessary for two persons to walk continuously)	None within ½ mile radius of parks, Civic Center, and neighborhood commercial districts
Connectivity (sidewalks) and quality of sidewalks	90% of total arterial linear distance times two (2)* and qualitative assessment of pedestrian facilities to determine adequacy
School walk routes	90% have sidewalks on one side within each school walk zone

** Sidewalks to be assessed on both sides of a street*

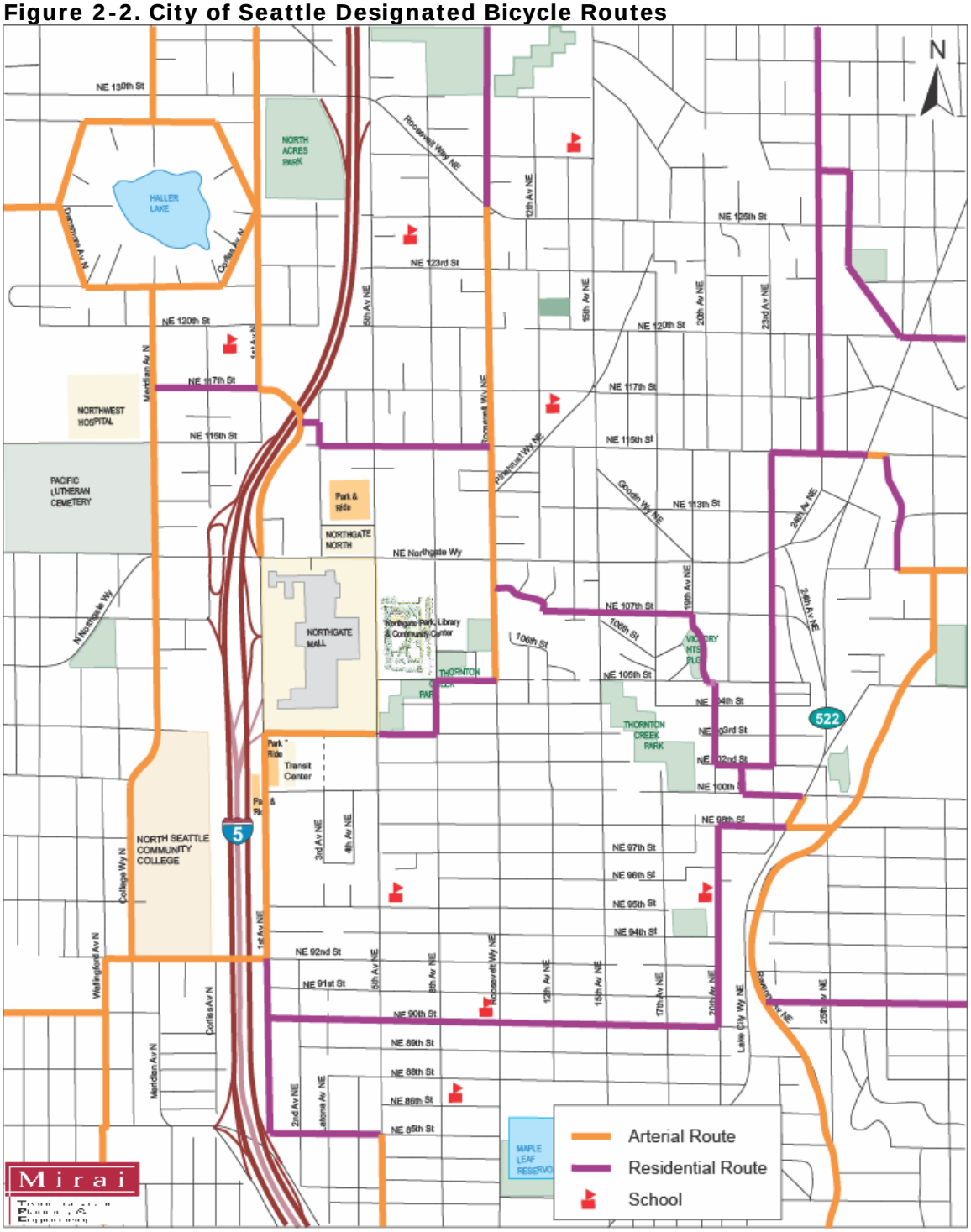
Bicycle System Performance Measures

The CTIP rated the designed bicycle routes and other arterials in the study area against a bicycle performance index (BPI) benchmark that indicates bicyclist comfort in terms of specific roadway design and traffic conditions (see **Figure 2-2** for the City's designated bike routes). **Table 2-4** lists the specific performance indicators, each of which was weighted and added together according to a mathematical equation to arrive at a given score. The resulting scores equate to a BPI that ranges from an "A" through "F," with "A" being the best conditions. The target BPI along arterials in the study area was set at "C"; it was set at "B" for residential routes. In addition, routes within ½ mile of a recreational facility or school were assigned a target BPI of "B."

Table 2-4. Bicycle System Performance Measures

Indicator	Benchmark
Traffic conditions (average daily trips, percent of heavy vehicles)	Bike routes within ½ mile of a recreational facility or schools: BPI **B**
Roadway design (number of lanes, speed limit, width of outside lane)	Bike routes along non-arterials: BPI **B**
Roadway surface conditions	Bike routes along arterials: BPI **C**
(FHWA's Bicycle Compatibility Index and Updates)	

Figure 2-2. City of Seattle Designated Bicycle Routes



Transit System Performance Measures

The CTIP defined transit performance indicators within three major service categories: the Urban Village Transit Network (UVTN), senior households, and other households served by the Secondary Transit Network (see Chapter 1 for transit network descriptions and **Table 2-5** for performance measures). Benchmarks for UVTN service match those in the adopted Seattle Transit Plan; others include service frequencies and coverage. The bus routes were grouped based on Northgate residents' travel destinations. For example, one set of the routes served local/neighborhood facilities such as the Northgate Mall, Civic Center, Northgate Community College, etc., and others served major destinations such as downtown Seattle and the University of Washington.

Table 2-5. Transit System Performance Measures

Urban Village Transit Network	
Indicator	**Benchmark**
Frequency (per UVTN Report)	7–15 minutes
Span of service (per UVTN Report)	16–18 hours
Loading	< 100% capacity
Reliability (per UVTN Report)	> 60% services running < 1 minute late
Transit vehicle speed	> 30% of the speed limits

Senior Households (residents in multi-family senior facilities)	
Indicator	**Benchmark**
Transit service for 90% of senior households within 1/8 mile of routes serving these destinations:	
Downtown Seattle and University District	< 15 minute peak and midday
Other Urban Centers	< 30 minute peak and midday
Local destinations	< 30 minute peak and midday

Households (Secondary Transit Network)	
Indicator	**Benchmark**
Transit service for 60% of all other households within ¼ mile of routes serving these destinations:	
Downtown Seattle and University District	< 15 minute peak and midday
Other Urban Centers and nearby urban villages	< 15 minute peak and 30 minute midday
Transit service for 70% of all other households within ¼ mile of routes serving local destinations	< 30 minute peak and midday

Roadway System Performance Measures

Performance of the transportation system for vehicles was evaluated according to traffic safety, non-arterial/residential streets, arterial corridor level of service, and arterial signalized intersection level of service.

Traffic Safety

The CTIP measured traffic safety in terms of the number of crashes and traffic crash rates within the study area. The rates were defined by average annual accidents per million vehicles at intersections, and mid-block locations were derived from the last five years of traffic crash records maintained by the City (see **Table 2-6**).

Table 2-6. Traffic Safety Performance Measures

Indicator	Benchmark
Average number of crashes for signalized intersections	10 per year
Average number of crashes for unsignalized intersections and mid-block locations	5 per year
Crash rates for signalized intersections	Intersections within the top one-quarter (ranked highest to lowest rates)
Crash rates for unsignalized intersections	Intersections within the top one-quarter (ranked highest to lowest rates)
Crash rates for mid-block locations	Mid-block locations within the top one-quarter (ranked highest to lowest rates)

Non-Arterial/Residential Streets

The Seattle Comprehensive Plan calls for protecting neighborhood streets from through traffic (policy T-G7). The NACP identified the following streets as appropriate for reducing traffic, speeds, and pedestrian vehicular conflicts:

- Ashworth Avenue N
- NE 115th Street between Lake City Way and 5th Avenue NE
- NE 107th Street between 15th Avenue NE and 23rd Avenue NE
- 23rd Avenue NE
- Pinehurst Way between NE 120th Street and NE 125th Street
- Maple Leaf local access streets
- NE 98th Street between Lake City Way and 15th Avenue NE

This study also evaluated streets identified as school walk routes for elementary schools in the study area.

The CTIP evaluated non-arterial/residential streets in terms of the following indicators: traffic volumes, vehicle speeds, crash history, school walkway designations, pedestrian routes identified in the

Open Space and Pedestrian Connections Report (2004) and elsewhere, bicycle routes, presence of sidewalks/walkways, and street characteristics such as street width, sight distance, and on-street parking (see **Table 2-7**).

Table 2-7. Non-Arterial/Residential Performance Measures

Indicator	Benchmark
Traffic volume, traffic speed, crash history, school walkway, pedestrian facilities, bicycle routes, and street characteristics	Points will be assigned to each indicator. Individual residential streets will be ranked by total score. This ranking of streets will be used at the initial stage of identifying deficiencies.

Key residential streets received points for each performance indicator and were then ranked by total points given to each street (see **Table 2-8**).

Table 2-8. Non-Arterial/Residential Indicator Scoring

Indicator	Maximum Points
Vehicle volume (1.5 point per 100 vehicles per day)	30
Vehicle speed (1.5 point per each mph above an 85th % speed of 20 mph)	30
Pedestrian facilities	13
Crash history	7
School walk route	7
Primary pedestrian route	7
Bicycle route	3
Street characteristics	3

Arterial Corridor Level of Service

Arterial corridor level of service (LOS) was measured by average speed on a minimum 1-mile segment during the PM peak period. As shown in **Table 2-9**, the target levels of service were set at LOS D for transit streets and LOS E for other arterials. LOS D is defined as average speed in a range of 14 to 18 miles per hour, and LOS E average speed ranges from 10 to 14 miles per hour during the PM peak hour. The following arterials were analyzed using the methodology in the Highway Capacity Manual 2000:

- NE 130th Street/NE 125th Street between Ashworth Ave and 25th Ave NE
- Northgate Way between Meridian Avenue and Lake City Way
- Meridian Avenue N/College Way/Wallingford Avenue N between NE 122nd Street and NE 85th Street
- 1st Avenue NE between Northgate Way and NE 92nd Street, and between Northgate Way and NE 130th Street
- 5th Avenue NE between NE 130th Street and Northgate Way, and between Northgate Way and NE 85th Street

- Roosevelt Way NE/Pinehurst Way NW between NE 117th Street (15th Avenue) and NE 85th Street
- 15th Avenue NE between NE 125th Street and Northgate Way and between Northgate Way and NE 85th Street

Table 2-9. Arterial Corridor Level of Service Performance Measures

Indicator	Benchmark
Travel speed	Level of service E Level of service D along transit corridors (principal and major transit streets shown in Figure 3-15)

Arterial Signalized Intersection Level of Service

The level of service at a signalized intersection is the average of the vehicle wait times at each leg of the intersection. Following the HCM 2000 methodology, this study calculated average vehicle delay at each arterial intersection during the PM peak hour using Synchro 6 traffic simulation software.[1] The intersection level of service for an arterial corridor averages the delay at each intersection along that corridor, with a CTIP target benchmark of LOS E, representing an average of 55 to 80 seconds of delay per intersection (see **Table 2-10**).

Table 2-10. Arterial Signalized Intersection Level of Service Performance Measures

Indicator	Benchmark
Intersection delay at each intersection	Level of service at each arterial intersection will be reported.
Average delay among intersections	LOS E

[1] "Delay" is a measure of free-flow traffic speed minus the actual time waiting to get through the intersection(s).

3. Existing Conditions

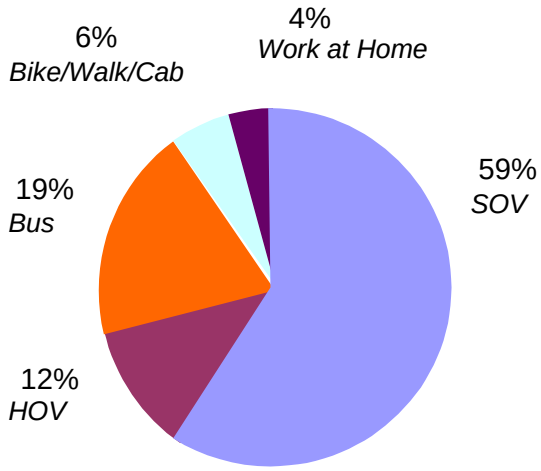
Travel Mode Choices

Traffic in the CTIP study area benefits from the relatively high proportion of both residents and workers who travel by means other than driving alone. The Seattle Comprehensive Plan establishes rigorous goals for reducing single-occupant vehicle travel in all Urban Centers, including Northgate. The Seattle Comprehensive Plan goals for Northgate are to increase transit and carpool trips to 30% by 2010 and to 40% by 2020. For Northgate residents, the combined carpool and transit trip goals are 55% by 2010 and 60% by 2020.

Northgate Residents' Mode Choice

According to the 2000 census, over 42% of Northgate residents travel to work by means other than driving alone (see **Figure 3-1**). Nearly 20% take the bus, 12% carpool, 6% walk, bike or take a cab, and 4% work at home.

Figure 3-1. Northgate Residents' Means of Transportation to Work

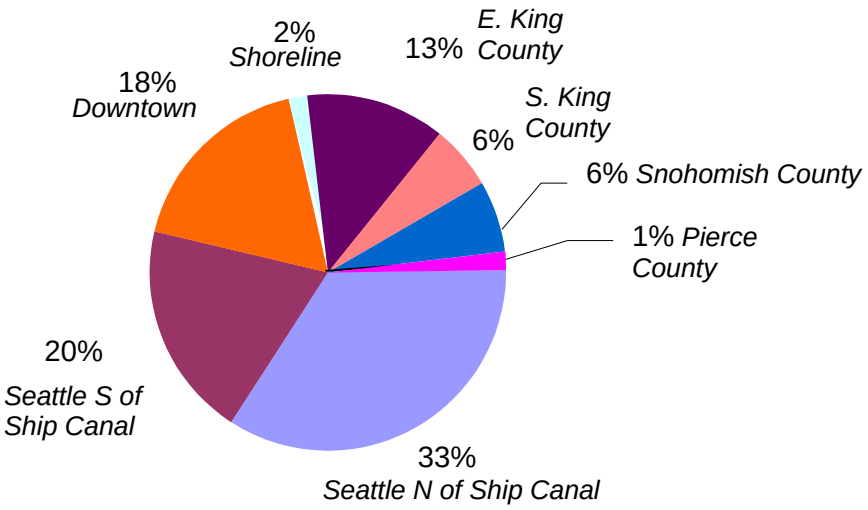


Source: 2000 Census

SOV - single occupant vehicle
HOV - high occupancy vehicles (carpools/ vanpools)

Among the various destinations, most Northgate area residents (71%) work in the City of Seattle, with just over half working in downtown Seattle or north of the ship canal (see **Figure 3-2**). Just over 13% work in East King County. Six percent of Northgate area residents work in South King County and another 6% percent work in Snohomish County.

Figure 3-2. Northgate Residents' Work Trip by Destination



Source: 2000 Census

Table 3-1 further defines Northgate residents' travel mode choice for each destination. Highlights include the following:

- Nearly half of those working in downtown Seattle take transit, while only 6% of those working in Shoreline do.
- Over 10% of Northgate commuters destined for Seattle north of the ship canal or Shoreline bike or walk to work.
- More Northgate residents carpool than take transit to Shoreline and South King County.

Table 3-1. Northgate Residents' Work Trip by Destination

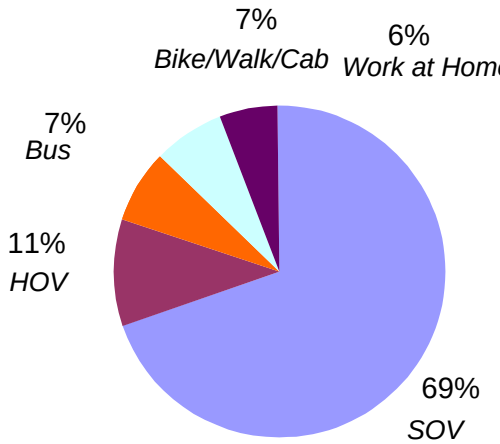
Destination	Transit	HOV	SOV	Bike / Walk
Seattle north of ship canal	14%	9%	51%	13%
Seattle south of ship canal	16%	14%	68%	2%
Downtown Seattle	47%	14%	38%	1%
Shoreline	6%	21%	61%	12%
East King County	11%	10%	77%	2%
South King County	14%	17%	67%	2%

Source: 2000 Census

Northgate Workers' Mode Choice

Figure 3-3 shows that almost 70% of those working in the Northgate area drive alone. Of the remainder, 11% carpool; 7% bus; another 7% walk, bike, or take a cab; and 6% work at home.

Figure 3-3. Means of Transportation to Work in the Northgate Area

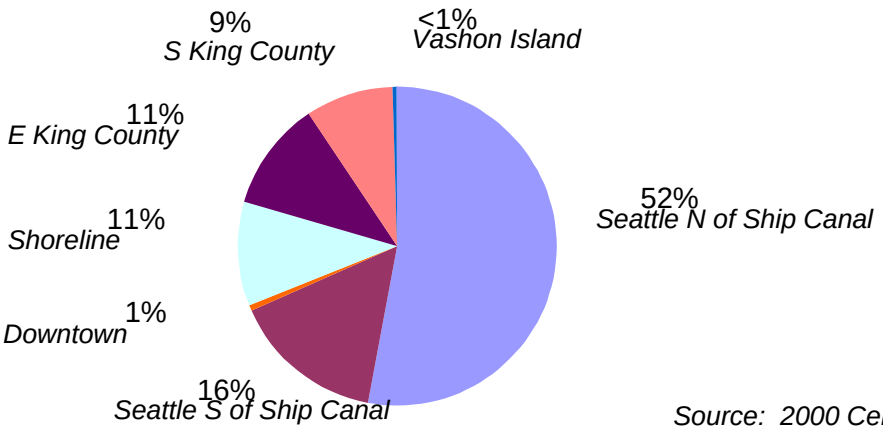


Source: 2000 Census

SOV - single occupant vehicle
HOV - high occupancy vehicles (carpools/ vanpools)

As shown in **Figure 3-4** below, most (52%) of the 7,300 Northgate area workers come from Seattle north of the ship canal. The next larger group (16%) comes from Seattle south of the ship canal, with similar shares (9 -11%) coming from South King County, East King County and the City of Shoreline.

Figure 3-4. Northgate Workers' Work Trip by Origin



Source: 2000 Census

Table 3-2 below summarizes travel mode choices by place of origin for Northgate workers. Key findings include the following:

- Over 40% of workers from Seattle north of the ship canal bike, walk, take transit, carpool, or work at home.
- Carpooling or vanpooling has much higher usage than transit for workers coming from East or South King County.
- Bicycling and walking to work has a notable share (11%) among Northgate workers coming from Seattle north of the ship canal, with other areas reporting much lower numbers. (Note: the 25% bike/walk share of Northgate workers who live in downtown represents only 10 people; fewer than 1% of Northgate workers live in downtown Seattle.)

Table 3-2. Northgate Workers' Travel Mode Choice by Point of Origin

Northgate Workers' Travel Mode Choice by Point of Origin	Transit	HOV	SOV	Bike / Walk	Work at Home
Seattle north of ship canal	9%	10%	59%	11%	10%
Seattle south of ship canal	6%	8%	83%	3%	0%
Downtown Seattle	0%	0%	75%	25%	0%
Shoreline	9%	7%	83%	1%	0%
East King County	1%	12%	85%	2%	0%
South King County	5%	19%	76%	0%	0%

Source: 2000 Census

Pedestrian System

This section reports on the existing pedestrian system within the CTIP study area. Key performance indicators were identified for four categories of pedestrian facilities: 1) arterial crossings; 2) connections between neighborhoods and the Northgate Urban Center; 3) connections within the Urban Center; and 4) connections within neighborhoods to local schools, parks, the library, community center, the transit center, and neighborhood commercial districts. **Appendix 3-1** contains detailed data from field visits to each intersection; **Appendix 3-2** contains detailed data on arterial sidewalks and school walk routes.

Arterial Crossings

The Seattle Planning Commission's 2005 Open Space and Pedestrian Connections plan, public comments at Northgate Community Forums, and Northgate Stakeholders' input all helped identify arterial intersections and mid-block crossings for project review. Existing conditions at these locations are described below.

Pedestrian and Bicycle Crashes

Figure 3-5 shows the number of reported crashes from 1999 to 2003 involving vehicles and either pedestrians or bicyclists. A number of pedestrian and bicycle crashes are concentrated on Northgate Way between Meridian Avenue N and 15th Avenue NE.

NE Northgate Way & 3rd Avenue NE (looking east)

Two intersections had the highest number of pedestrian crashes (three within five years): Northgate Way at the southbound I-5 off-ramp/Corliss Avenue N, and Northgate Way at 5th Avenue NE. The mid-block crossing at Northgate Way N between Meridian Avenue N and the southbound I-5 off ramp/Corliss Avenue N shows the highest number of reported pedestrian crashes. Many people commented during the study about pedestrians crossing illegally on Northgate Way between 3rd Avenue N and 5th Avenue N (between Northgate North and Northgate Mall), but only one pedestrian crash has been reported within the last five years.

NE Northgate Way Pedestrian Crossings

Within the study area, NE Northgate Way has ten signalized intersections, two of which are pedestrian-activated signals:

- Meridian Avenue N
- Corliss Avenue N/I-5 Southbound Ramps
- 1st Avenue NE/Northbound on-ramps
- 3rd Avenue NE
- 5thAvenue NE
- 8thAvenue NE (pedestrian activated)
- Roosevelt Way NE
- 15th Avenue NE
- 19th Avenue NE (pedestrian activated)
- 24th Avenue NE

All signalized intersections provide pedestrian crosswalks. However, for pedestrian safety and traffic operation, not all legs of each signalized intersection provide a pedestrian crossing. For example, at the Corliss Avenue southbound I-5 off-ramp, the east leg of the intersection with Northgate Way N does not provide a crosswalk. Similarly, the west leg of the 1st Avenue N/Northgate Way intersection does not provide a crosswalk.

Figure 3-5. Total Number of Pedestrian and Bicycle Crashes 1999–2003

The 3rd Avenue NE intersection serves pedestrians crossing between Northgate North and the Northgate Mall. However, the crossing does not serve either location particularly well. This intersection involves three driveways in close proximity: the entry and exit into Northgate Mall, and 3rd Avenue NE itself. Pedestrians in this vicinity seeking to cross from north to south must walk eastbound across 3rd Avenue NE to the crosswalk. Once at the south side of NE Northgate Way, the Mall entryway landscaping and bus layover zone present barricades around which pedestrians must travel to enter the Mall.

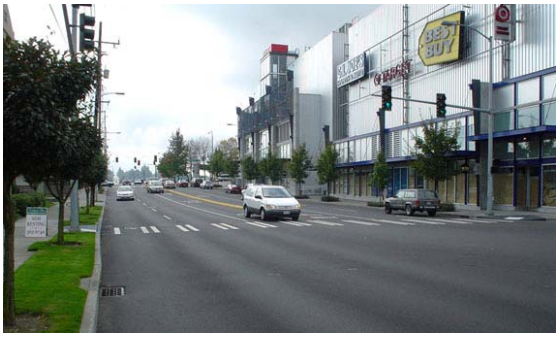
Pedestrians crossing NE Northgate Way elsewhere face a substantial number of turning vehicles, with the highest volumes at 5th Avenue NE, Roosevelt Way and the I-5 ramps. Medians at the I-5/Corliss Avenue N southbound ramps, at 3rd Street NE and at 8th Street NE Northgate Way provide some pedestrian refuge. Only the east/west crossing at the 1st Avenue NE/Interstate-5 ramp has an audible crossing signal.

5th Avenue NE

The following intersections along 5thAvenue NE are signalized:

- NE 130th Street
- NE 112th Street (including behind Northgate North)
- NE Northgate Way
- NE 106th Street
- NE 103rd Street
- NE 100th Street
- NE 95th Street (pedestrian activated)
- NE 92nd Street

None of the intersections provide audible pedestrian crossing signals or refuge space. Conflicting turning volumes are particularly high at NE Northgate Way. This intersection also serves a relatively high volume of pedestrians and is in close proximity to several senior housing complexes. Curb and ADA ramps are in poor condition at the intersections of 5th Avenue NE and NE 103rd Street and NE 100th Street. NE 105th Street presents pedestrian challenges as it approaches the unsignalized intersection with 5th Avenue NE from the east. The road has a very steep grade and lacks sidewalks or a pedestrian pathway. In 2006, the 5th Avenue NE Streetscape Project will construct a sidewalk on the north side of NE 105th adjacent to the Civic Center, and it will also provide a new intersection at 106th



5th Avenue NE & NE 112th Street (looking southwest)

Street on 5th Avenue NE, which will be aligned with the Northgate Mall entrance. Pedestrians on 5th Avenue NE from NE 105th Street will be able to safely use this crossing location.

8th Avenue NE

In addition to other traffic controls, the intersection of 8th Avenue NE and NE Northgate Way provides a pedestrian signal that stops traffic on NE Northgate Way. This also allows north-to-east turning traffic from 8th Avenue NE to proceed at the same time, which can present pedestrian/vehicle conflicts.

NE Northgate Way & 8th Avenue NE (looking northeast)

Midblock on 8th Avenue NE just north of NE Northgate Way, pedestrians often cross to access the U.S. Post Office. The street is 40 feet wide at this location with heavily used on-street parking on both sides. Parking is restricted for approximately 47 feet south of the U.S. Post Office driveway, but visibility for drivers exiting business and retail establishments on 8th Avenue NE is reduced. Northbound traffic on 8th Avenue NE has limited sight distance due to the grade at this location.

Roosevelt Way NE

The following intersections along Roosevelt Way NE within the study area are signalized:

- NE 112th Street
- NE Northgate Way
- NE 95th Street (pedestrian activated)

Roosevelt Way NE north of NE Northgate Way (looking west)

None of the intersections provide audible pedestrian crossing signals or refuge space. Many pedestrians bypass the signal at NE 112th Street and cut across the TJ Maxx Plaza to QFC and the adjacent bus stop from nearby residential areas. There is a channelized left turn lane at this location with an island. Many pedestrians also choose to cross just north of NE 112th Street near the intersection of Roosevelt Way NE and Pinehurst Way NE. Vehicle speeds and restricted driver sight distance present an increased risk for pedestrians crossing at these unmarked crossings.

Vehicles traveling Roosevelt Way NE between NE Northgate Way and NE 80th Street do not encounter any signalized intersections. There is a pedestrian signal at NE 95th Street, but no signalized crossings serving the restaurants and businesses between NE 92nd Street to NE 88th Street. An unlit overhead crosswalk sign hangs across Roosevelt Way NE at NE 90th Street, but pedestrians must be very vigilant to cross the often steady stream of traffic along this busy roadway.

15th Avenue NE

Crossings at the following locations on 15th Avenue NE were identified for review:

- NE 117th Street to NE 125th Street
- NE 94th Street to NE Northgate Way
- Access to Sacajawea School via NE 94th, 95th and 96th streets
- The NW Puppet Center

15th Avenue NE & NE Pinehurst Way (looking south)

The roadway between NE 117th and NE 125th serves several small businesses and a grocery store, as well as a number of apartment and condominium buildings. A pedestrian crosswalk is provided across 15th Avenue NE at NE 120th Street. Moving farther to the south on 15th Avenue NE, there is a marked pedestrian crossing at NE 95th Street. The Northwest Puppet Center at the corner of 15th Avenue NE and NE 92nd generates pedestrian traffic.

3rd Avenue NE: NE 100th to NE 103rd Street

King County is currently designing a new, pedestrian-oriented three-lane minor arterial to connect NE 103rd Street to NE 100th Street. It will bisect the South Lot superblock that now stretches from 1st Avenue NE to 5th Avenue NE. When the 3rd Avenue NE extension is constructed, a signal at NE 103rd Street will provide pedestrian crossings, connecting the business and medical complexes south of NE 100th Street and Northgate Mall, east of the 3rd Avenue NE exit.

Today an undeveloped parking lot, the South Lot provides great opportunity for transit-oriented development, with its proximity to Metro's Northgate Transit Center and the future Sound Transit link light rail. A proposed mixed-use development will be built east of 3rd Avenue NE to provide housing, commercial development, open

spaces, and pedestrian connections to the Transit Center and surrounding neighborhoods. It will coincide with construction of 3rd Avenue NE. West of 3rd Avenue NE, King County also plans a future transit-oriented-development that will provide additional synergy for a walkable community with great transit access and pedestrian amenities.

The Thornton Creek Water Quality Channel Project, under design by Seattle Public Utilities at the time of this report, will be located east of the new 3rd Avenue NE roadway, abutting the Northgate Commons and ERA Care Community development projects. The Channel Project will provide an extensive network of pedestrian walkways, including a connection between the new 3rd Avenue NE roadway and 5th Avenue NE.

Meridian Avenue N/College Way N

NE 115th Avenue. The four-way stop intersection at NE 115th Street provides access from NE Northgate Way to residential neighborhoods, Northwest Hospital and adjacent medical offices on NE 115th Street.

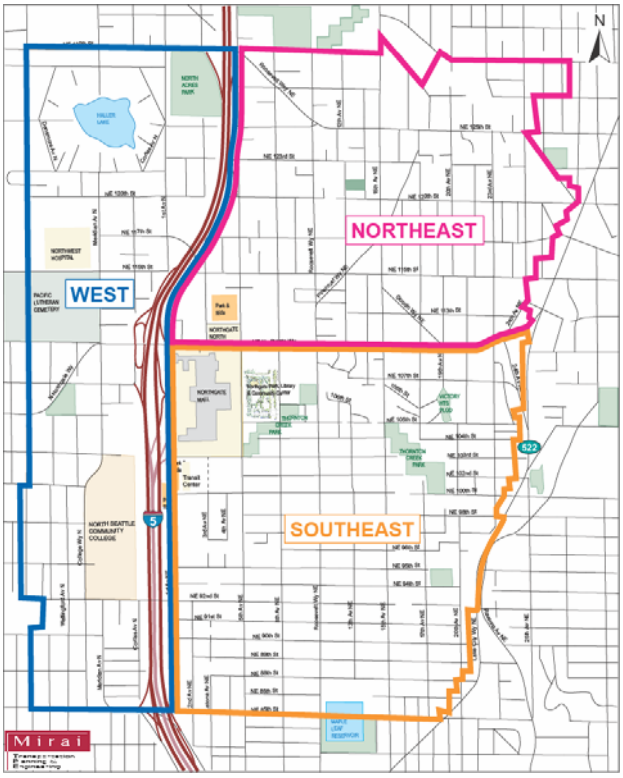
N 103rd and N 105th streets. South of Northgate Way, pedestrians from the neighborhood and office buildings have two marked crossings: a pedestrian signal and crosswalk at N 105th Street, and a marked crosswalk at N 103rd Street. Meridian Avenue N is a three-lane arterial at this location (two lanes with a center two-way turn-lane).

College Way N. South of N 103rd, Meridian Avenue N becomes College Way N and expands to a four-lane roadway with separate turn-pockets at major intersections. The only marked crosswalk is a signalized intersection at N 95th Street. Pedestrian improvements across College Way N have been requested near North Seattle Community College, at N 97th Street and N 100th Street.

Pedestrian Facilities: Neighborhoods to Urban Center, and Within Neighborhoods

To identify pedestrian connections between neighborhoods and the Urban Center, the CTIP study area was divided into three sectors: west, north, and south (see **Figure 3-6**). The west sector falls between North 130th and NE 85th streets to the north and south, and Ashworth Avenue N and 1st Avenue NE to the west and east. First Avenue NE north of Northgate Way is included in the west sector. The north sector runs from NE 130th/NE 125th Street to NE Northgate Way, and I-5 to Lake City Way. The south sector is bounded by NE Northgate Way, NE 85th Street, I-5, and Lake City Way.

Figure 3-6. Urban Center Sector Boundaries



The CTIP study looked at connectivity and quality when evaluating pedestrian linkages from neighborhoods (as defined by sector) to the Urban Center. The benchmark for "connectivity" calls for the total length of sidewalks on arterials to equal 90% of the total arterial linear distance times two. The "quality" of the facilities included assessment of streetlights, and thresholds for sidewalk width and condition, as defined in **Table 3-3**.

Note: Performance measures for non-arterial streets also captured elements of the pedestrian system (see **Table 3-11** on page 3-43), since these roadways are frequently used as pedestrian routes.

Table 3-3. Pedestrian Connections Performance Thresholds

Sidewalks	At least five feet wide; length equal to 90% of total arterial linear distance times two (to represent both sides of the street)
Condition	No tree grate displacement, broken concrete, obstruction or other maintenance issues
Lighting	Excellent = More than one lamppost on every block. Very Good = Unobstructed lighting every block. Fair = Lampposts up to three blocks apart or obstructed lighting Poor = Lampposts three or more blocks apart.

Table 3-4 summarizes the analysis results, with detailed data contained in **Appendix 3-2**. Key areawide findings include the following:

- 81% of the sidewalk miles in the study area meet the benchmark for coverage (90% of arterial length times two).
- 49% of the sidewalk miles in the study area meet the benchmark for coverage, if only 5-foot-wide sidewalks are counted.
- The south sector has the highest percentage (70%) of sidewalks meeting the width benchmark.
- The north sector has the highest percentage (90%) of sidewalks meeting the coverage benchmark.

Table 3-4. Neighborhood to Urban Center Pedestrian Connections

Sector	Total Arterial Miles	Total Sidewalk Miles	Benchmark Miles (90% of sidewalk)	Total Sidewalk/ Path	≥ 5-Foot Sidewalk	≤ 4-Foot Sidewalk	Paved Paths*
West	5.50	11.00	9.90	7.89 mi 72%	3.67 mi 33%	3.73 mi 34%	0.49 mi 4%
North	4.74	9.48	8.53	8.54 mi 90%	3.67 mi 39%	4.56 mi 48%	0.31 mi 3%
South	6.76	13.52	12.17	11.20 mi 83%	9.44 mi 70%	1.76 mi 13%	0.00 mi 0%
TOTAL	*17.01*	*34.02*	*30.62*	*27.63 mi* *81%*	*16.78 mi* *49%*	*10.05 mi* *30%*	*0.80 mi* *2%*

**Paved paths include asphalt paths and sidewalks without curbs*

West Sector

This sector has the lowest percentage of sidewalks or paved paths on both sides of arterials. Out of a possible 11 sidewalk miles in this sector (two times the arterial miles in the sector, representing the potential for sidewalks on both sides of the arterial), 3.67 miles (33%) are 5 feet wide or greater. However, if all sidewalks and paved paths are included, regardless of width, the sector has 7.89 miles (72%) of pedestrian facilities.

Meridian Avenue N has a pathway on the east side from NE 115th to Haller Lake, but lacks concrete curb, gutter, and sidewalks from NE 115th to NE 130th Street. However, it should be noted that NE 128th Street, NE 125th Street, NE 122nd Street, Corliss Avenue N, and Densmore Avenue N all have sidewalks on one side of the street, facilitating pedestrian movement. Pedestrian facilities on 1st Avenue NE change from the west to the east side of the street at NE 117th Street, forcing pedestrians to cross the street.

North Sector

The north sector meets the CTIP benchmark for sidewalk distance, if all sidewalks and paved paths are counted regardless of width. That figure drops to 39% for those meeting the 5-foot width threshold. Fifth Avenue NE from NE 130th Street to NE 125th Street, and 15th Avenue NE From Pinehurst Way NE to NE Northgate Way, are missing sidewalks on the west side of the street.

1st Avenue NE at NE 94th Street (looking north)

South Sector

Seventy percent of arterials in the south sector have 5-foot-wide sidewalks. If all sidewalks and paths are considered, regardless of width, the sector has sidewalks covering 83% of the target distance. First Avenue NE between NE 92nd and NE 100th has a partial sidewalk on the east side, some of which is in disrepair, and no sidewalk on the west side. Roosevelt Way NE from NE 95th Street to NE 85th Street has 10-foot sidewalks, unobstructed lampposts on every block, and on-street parking. There are many local businesses and restaurants located in this area.

NE 100th Street looking west to 1st Avenue NE

Pedestrian Facilities: Within the Urban Center

The Northgate Open Space and Pedestrian Connections Plan (2004) identified a series of connectivity targets within the Urban Center. The CTIP connectivity benchmark is the presence of sidewalks on arterials within the Urban Center. Connectivity is acceptable when the total length sidewalks on arterials equal 90% of the total arterial linear distance times two. The quality of the facilities includes assessment of streetlights, sidewalk width, and condition.

Thirty percent of the arterials (4.78 roadway miles, or 9.56 total sidewalk miles) in the study area are within the Urban Center. **Table 3-5** shows that the Urban Center has sidewalks totaling 8.15 miles, putting this sector at 95% of the distance benchmark. If only those sidewalks that are 5 feet or wider are counted, the Urban Center is at 65% of the benchmark.

All arterials within the Urban Center have sidewalks on both sides, except 1st Avenue NE and NE 100th Street, which have sidewalks on only one side. Most of the area has unobstructed lampposts on every block.

Table 3-5. Urban Center Pedestrian Facilities

Sector	Total Arterial Miles	Total Sidewalk Miles	Benchmark Miles (90% of sidewalk)	Total Sidewalk / Path	≥ 5-Foot Sidewalk	≤ 4-Foot Sidewalk	Paved Paths*
Total	*4.78*	*9.56*	*8.60*	*8.15 mi 85%*	*6.18 mi 65%*	*1.97 mi 21%*	*0.00 mi 0%*

**Paved paths include asphalt paths and sidewalks without curbs*

The following section reviews the existing conditions of specific pedestrian linkages within the Urban Center.

Between North Seattle Community College and Northgate Transit Center

Currently I-5 divides North Seattle Community College and the Northgate Transit Center. Although served by a bus route, the existing freeway crossing at NE 92nd provides a circuitous walking route and a longer walking distance than is typical for bus riders. This situation discourages those students and faculty from North Seattle Community College who might otherwise use the transit center.

Between the new Civic Center and Northgate Transit Center

The new Civic Center (park, library and community center) will have good connectivity to the Transit Center. The area is well lit and has sidewalks that will be improved in the first project of the 5th Avenue NE Streetscape Design Plan. Additional developments and City sidewalk projects, including Northgate Commons and the 3rd Avenue NE Extension, will complete the connections to the Transit Center.

Between Northgate Mall and Northgate Transit Center

103rd Street NE & Northgate Transit Center (looking west)

Pedestrians use a marked crosswalk to cross NE 103rd Street at 3rd Avenue NE. The 3rd Avenue NE Extension will provide a signalized crossing at 3rd Avenue NE.

Between Northgate Mall and new Civic Center

This linkage was analyzed in the previous "arterial crossings" section. The City will relocate the entry to the Mall on 5th Avenue and NE 106th to link to the new Civic Center. Signalized crossings are located at NE 106th Street and NE 103rd Street.

Between Northgate Mall and Northgate North Center

This linkage was also analyzed in the previous "arterial crossings" section. The proximity of three driveways in the vicinity of 3rd Avenue NE, a circuitous crossing route, and the south side barrier of landscaping and the bus layover zone discourage easy pedestrian access.

Between Northwest Hospital and Northgate Mall

Pedestrians who walk between Northgate Mall and Northwest Hospital have two routes to cross I-5. One route uses the N 117th overpass; the other includes NE Northgate Way. Traffic on the N 117th route is much lighter than on NE Northgate Way, but N 117th does not have a sidewalk between Meridian Avenue N and 1st Avenue N. A trail connects this overpass from the east side of I-5 to 3rd Avenue NE at NE 116th Street. Pedestrians can walk on 3rd Avenue NE to get to the Mall.

The NE Northgate Way route provides sidewalks on Meridian Avenue N and NE Northgate Way. Between Meridian Avenue N and the Mall, NE Northgate Way has many driveways, and pedestrians also must cross freeway on- and off-ramps. The I-5 undercrossing is dark with narrow sidewalks adjacent to the heaviest concentration of traffic in the study area.

Between NE 100th Street Offices and Northgate Mall

Looking south across NE 100th Street from Northgate south lot

Although well lit, NE 100th Street currently lacks sidewalks on the north side, and pedestrians must either cross a very large empty parking lot or walk a significant distance around it. The new 3rd Avenue NE roadway under design will connect NE 103rd Street to NE 100th Street. Private development, the City, and King County will construct a continuous sidewalk from 1st Avenue NE to 5th Avenue NE. (Please see the "3rd Avenue NE" analysis in the previous arterial crossings section.)

Pedestrian Access to QFC at Roosevelt Way and NE 112th Street

Some pedestrians choose to walk across the TJ Maxx Plaza to QFC instead of crossing at either NE 112th Street or NE Northgate Way. This location is too close to the NE Northgate Way intersection for a safe mid-block crossing.

8th Avenue NE between NE Northgate Way and NE 92nd Street

Neighborhood residents use 8th Avenue NE as an alternate north-south pedestrian route to 5th Avenue NE. However, 8th Avenue NE does not have a sidewalk, and some sections of the roadway are narrow. This street connects several key activity areas, such as Olympic View Elementary School, Thornton Creek Park, and retail businesses along NE Northgate Way. Vehicles parked on the shoulders of 8th Avenue NE south of NE Northgate Way force pedestrians to walk on the roadway.

School Walk Route Connectivity

Five public elementary schools have school walk routes within the Northgate CTIP area. The Seattle School District has designated many of the local streets in the area as school walk routes.

- Alternative School #1 at Pinehurst Way NE and NE 115th Street
- Northgate Elementary School at 1st Avenue NE and NE 117th Street
- Olympic Hills Elementary School at 20thAvenue NE and 130th Street

- Olympic View Elementary School at 5th Avenue NE and NE 95th Street
- Sacajawea Elementary School at 20th Avenue NE and NE 95th Street

For this performance indicator, acceptable connectivity is defined as sidewalks on at least one side of 90% of all streets designated as school walk routes.

Table 3-6 summarizes the analysis results. Just less than 50 miles of roadway within the study area have been designated as school walk routes. Of these, 49% have some type of paved path or sidewalk on one side; only 27% of them have sidewalks meeting the 5-foot width benchmark. However, the majority of the roads without sidewalks have shoulders exceeding 10 feet in width and very low traffic volumes. These factors help to minimize safety risks for children traveling to and from school. **Appendix 3-2** provides details by school area.

Table 3-6. School Walk Route Existing Conditions (in alphabetical order)

School	Total School Walk Route Miles	Total Sidewalk Miles	Benchmark Miles (90% of sidewalk)	Total Sidewalk /Path	≥ 5-Foot Sidewalk	≤ 4-Foot Sidewalk	Paved Paths*
Alternative School #1	12.29	12.29	11.06	5.90 mi 48%	3.07 mi 25%	2.46 mi 20%	0.37 mi 3%
Northgate Elementary	11.10	11.10	9.99	4.50 mi 41%	2.00 mi 18%	1.78 mi 16%	2.17 mi 20%
Olympic Hills Elementary	5.89	5.89	5.30	2.85 mi 48%	1.71 mi 29%	0.64 mi 11%	0.50 mi 8%
Olympic View Elementary	10.84	10.84	9.76	6.50 mi 57%	3.94 mi 36%	1.95 mi 18%	0.61 mi 6%
Sacajawea Elementary	8.28	8.28	7.45	4.42 mi 53%	2.42 mi 29%	1.61 mi 19%	0.39 mi 5%
TOTAL	*48.45*	*48.45*	*43.61*	*24.17 mi 49%*	*13.14 mi 27%*	*8.44 mi 18%*	*4.04 mi 8%*

**Paved paths include asphalt paths and sidewalks without curbs*

Bicycle System

This study evaluated the bicycle system using a bicycle performance index (BPI) based upon bicycle level of service expert Bruce Landis' methodology for assessing bicycle "rideability." This index relates significant bicycling factors into an equation that factors in traffic conditions, roadway design, and surface conditions.

The resulting score equates to a bicycle performance index (BPI) that ranges from an "A" through "F." The target BPI along arterials in the study area was set at a "C" and residential routes was set at "B." In addition, routes that are within ½ mile of a recreational facility or school were assigned a target BPI of "B." **Figure 3-7** identifies commonly used and suggested bicycle routes that were evaluated.

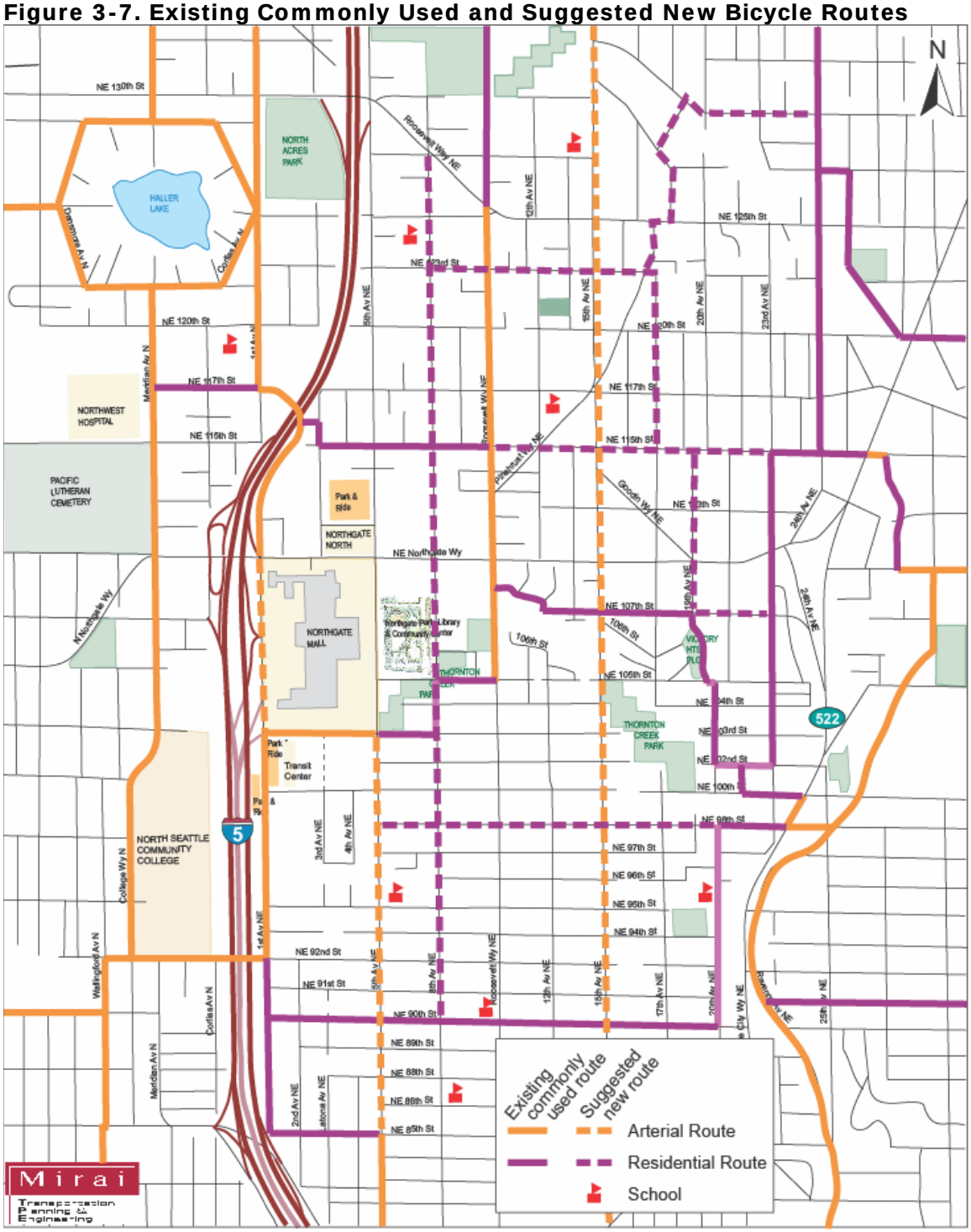
Designated Bicycle Routes

The City of Seattle's Bicycling Guide Map identifies "bicycle facilities" and "commonly used bike routes." "Bicycle facilities" include separate trails and on-street lanes. "Commonly used bike routes" are classified as arterials or residential streets. In the Northgate study area, there are no off-street bicycle facilities. The closest trail in the vicinity is the Burke-Gilman Trail, roughly one mile to the east. On-street bike lanes are located to the south and east of the area, around Green Lake and Ravenna Boulevard. Most of the "commonly used bike routes" run north-south. A few routes, primarily on residential streets, run east-west, and these include some steep hills.

N 92nd Street near Meridian Avenue N (looking west)

Roadway space for bicyclists varies from a shoulder or parking lane to a soft shoulder or sidewalk. Space for cyclists on residential streets is undefined, typically without curbs, gutters or sidewalks. Vehicles often park on the edge of the pavement or on the grass.

Figure 3-7. Existing Commonly Used and Suggested New Bicycle Routes



Bicycle Usage

Within the Northgate study area, residents can bike to many destinations, including Northgate Mall, North Seattle Community College, Northwest Hospital, the post office, park-and-ride lots, local businesses and shops, offices, and schools. In addition to playgrounds and parks in the Northgate area, cyclists can bike to Green Lake to the south or the Burke-Gilman Trail to the east, which connects to the regional trail system. Residents can ride around their own neighborhood or do long-distance riding to areas outside of the study area such as downtown Seattle or the University District.

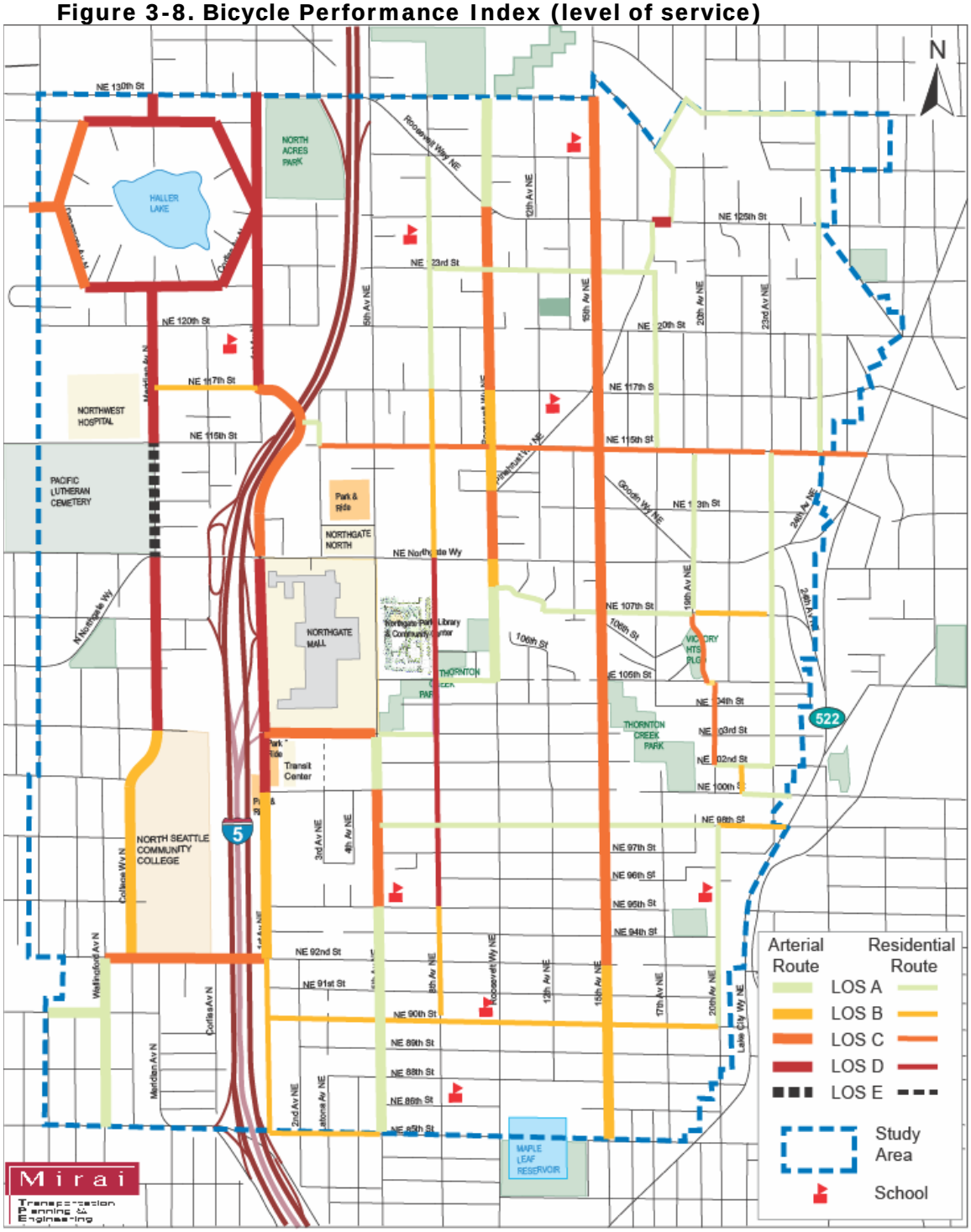
Bicycle System Performance

Figure 3-8 shows the rating of commonly used bicycle routes in the study area. Most residential bike routes in the study area have a BPI of "B" or higher, with only a few segments receiving a "C" or "D." Considering both City-designated and proposed residential routes, nearly 50% of the segments received an "A." Only 28% of the residential routes received a "C" or "D," primarily along NE 115th Street. The only "D" segment was noted at NE 125th Street near 19th Avenue NE. The remaining 12% of the routes had a BPI of "B."

Meridian Avenue NE near NE 107th Street (looking south)

For all arterial routes, the BPI was lower overall; "C" and "D" were more common, with 29% of the routes receiving a "D" and 31% receiving a "C." Fewer than 3% of the routes received a BPI of "E." Areas not meeting the BPI target included Meridian Avenue N north of North Seattle Community College and 1st Avenue NE adjacent to the Northgate Mall and north of NE 117th Street.

Figure 3-8. Bicycle Performance Index (level of service)



Transit

The CTIP study defined transit performance measures for local as well as regional service, and specifically identified separate measures for senior households to recognize what is often a more limited ability to walk long distances. These are summarized in **Table 3-7** below. This section also reports on existing conditions relative to the quality-of-service measures established in the Seattle Transit Plan.

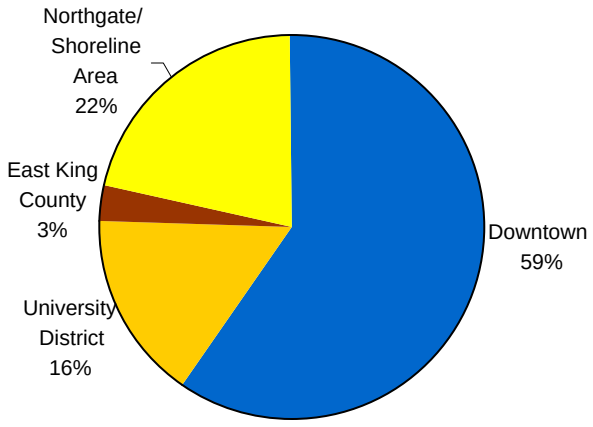
Table 3-7. Transit Performance Benchmarks

Indicator	Senior Households	All Other Households
Coverage	90% within 1/8 mile of a route	60% within ¼ mile of a route with 15-minute headways 70% within ¼ mile of a route with 30-minute headways
Frequency	15-minute headways to downtown and U-District 30-minute headways to other Urban Centers/nearby urban villages 30-minute headways to all local destinations	15-minute headways to downtown and U-District 15-minute headways to other Urban Centers/nearby urban villages

Transit Coverage and Frequency

King County Metro Transit provides most of the transit service in the Northgate area. **Figure 3-9** shows that transit in the CTIP study area primarily serves urban villages and Urban Centers within Seattle. Routes cover most arterial streets within the study area. Disabled riders who cannot take accessible fixed-route service can take Metro's paratransit van service. Metro also owns, operates, and coordinates several park-and-ride lots.

Figure 3-9. Transit Destinations



Sound Transit operates one route connecting Northgate with Issaquah, providing express service to the University District, downtown Bellevue, Eastgate, and Issaquah.

The North Link light-rail project's northern terminus will be next to the Northgate Transit Center on the west side of the Northgate Mall.

Figure 3-10. Transit Operation

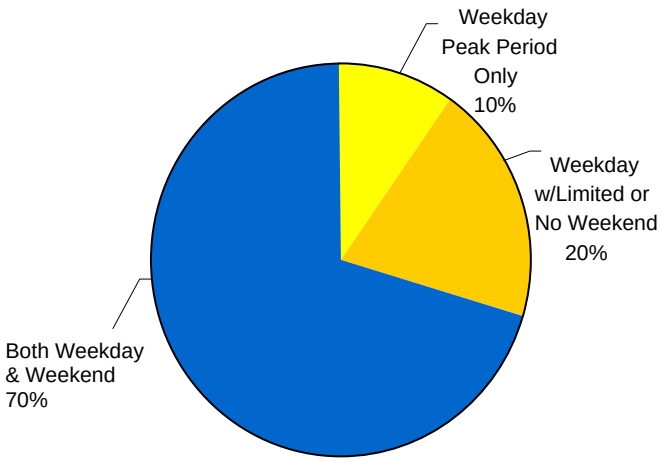


Figure 3-10 shows that as of the autumn 2004 schedule, 70% of all transit routes operate seven days a week. Ten percent of Northgate's transit service operates only during the peak period. The remainder operates weekdays with limited or no weekend service. All peak-period-only routes offer regional connections. Outside of peak periods, most bus service operates on 30-minute headways.

Northgate Area Senior Housing

Aegis at Northgate
11039 17th Ave NE

Cedarvale House/Village
11050 8th Ave NE

Foundation House at Northgate
11301 3rd Ave NE

Jackson Park House/Village
14396 30th Ave NE

Lake City House
12546 33rd Ave NE

Merrill Gardens at Northgate
11501 15th Ave NE

Northaven
11045 8th NE

Northgate Plaza
11030 5th Ave NE

Pinehurst Court
12702 15th Ave NE

Pinehurst Park Terrace
2818 NE 145th Street

Remington Place Retirement Inn
3027 NE 137th

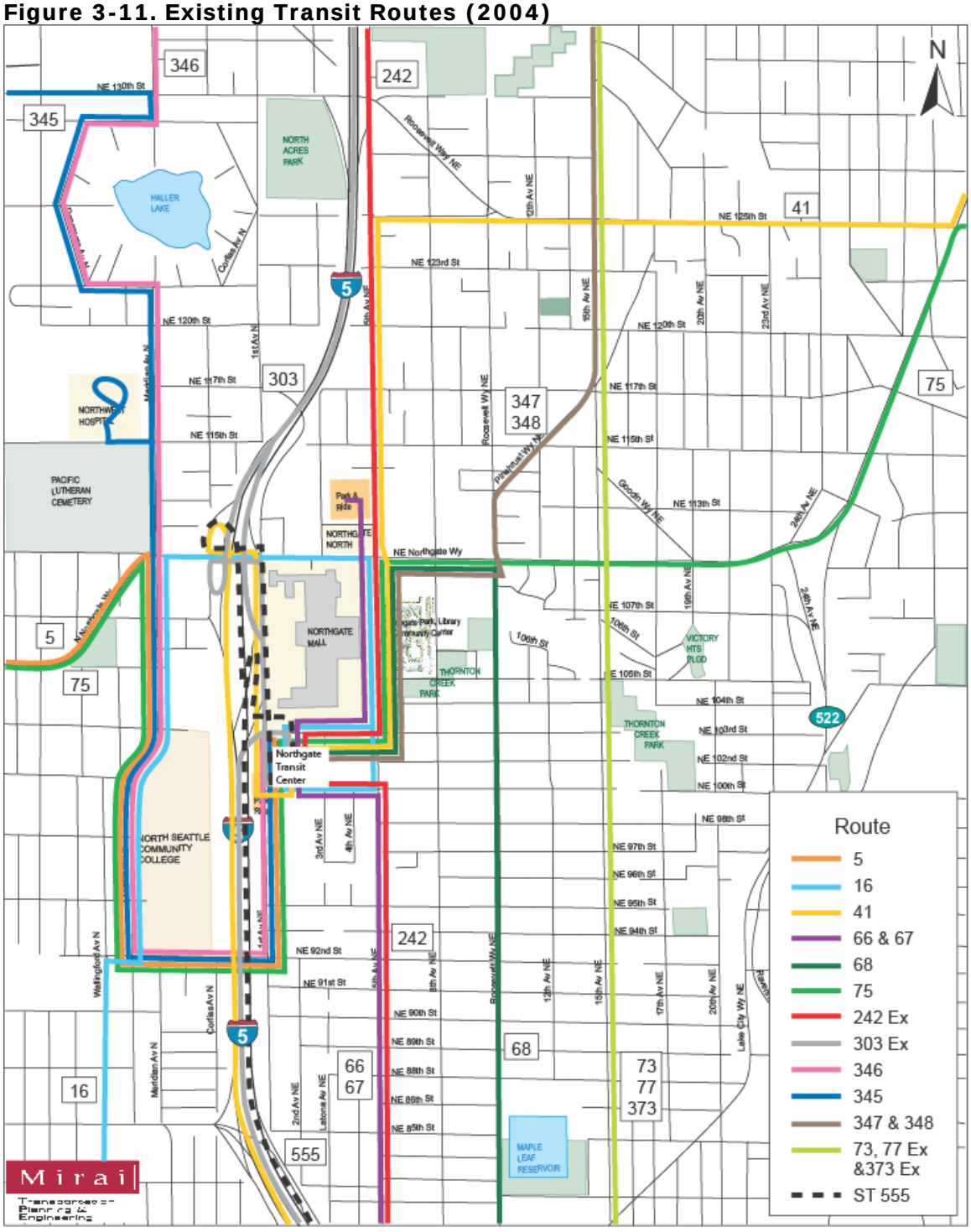
During evenings and Sundays, most routes operate at 60-minute headways. For peak period service, headways range from 15 to 20 minutes. Route 41 operates at a higher frequency throughout the week: 5-minute headways during peak periods and 15 minutes during the daytime, except on Sundays. **Figure 3-11** maps the transit routes in the CTIP study area.

Transit Serving Senior Housing

Currently, all senior housing facilities are located within 1/8 mile of a transit stop. However, depending upon the location of the senior housing facility and transit routes, frequencies to certain destinations do not meet the CTIP benchmark.

King County Metro route 41 provides adequate headways during the peak and midday periods to downtown Seattle, but two senior housing facilities are over 1/8 mile away from the route. These same two facilities are located next to routes that provide connections to downtown with 30-minute headways during the midday and 15-minute headways during peak periods only in the peak direction.

Figure 3-11. Existing Transit Routes (2004)



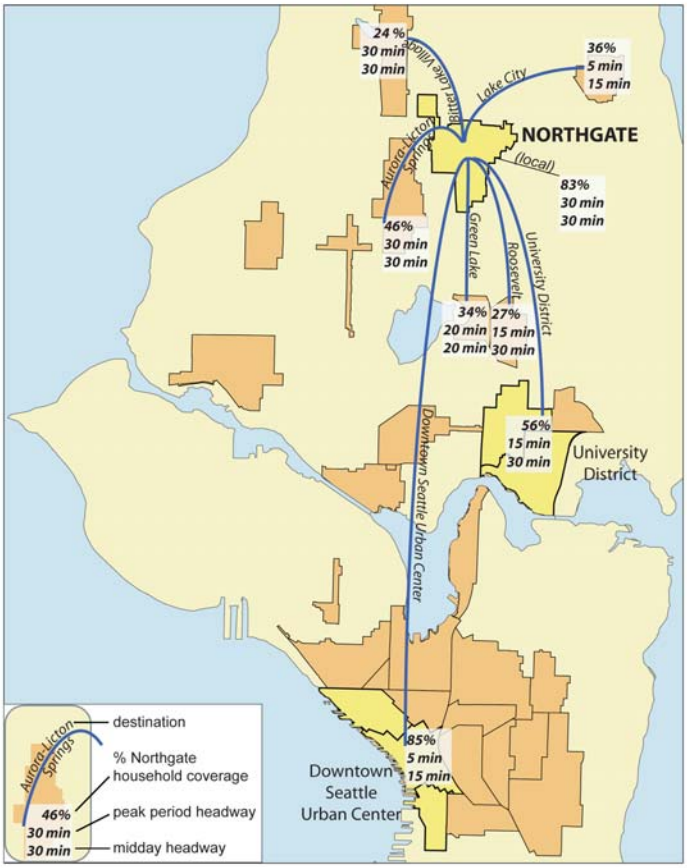
Note: all routes except 73, 77 Ex and 373 Ex serve the Northgate Transit Center

Service coverage to the University District and areas to the northwest is not uniform for all senior housing facilities. Serving four out of the seven senior facilities in the area, the combination of route 67 and 68 provides adequate headways for both the peak hour and midday periods. For the other three senior facilities, route 73 and 373 provide enough service during the peak hour in the peak direction, but not during the midday period or in the off-peak direction.

All other services to other Urban Centers and nearby urban villages are operating at adequate levels with headways at 30 minutes. However, not all senior housing facilities have the same access. Discounting transfer connections, current accessible destinations include Aurora-Licton Springs, Green Lake, Lake City, Ravenna, and Roosevelt. Please see **Figure 3-13** (next page) for transit coverage in the service area.

Transit Serving All Other (Non-Senior) Households

Figure 3-12. Transit Frequency by Destination

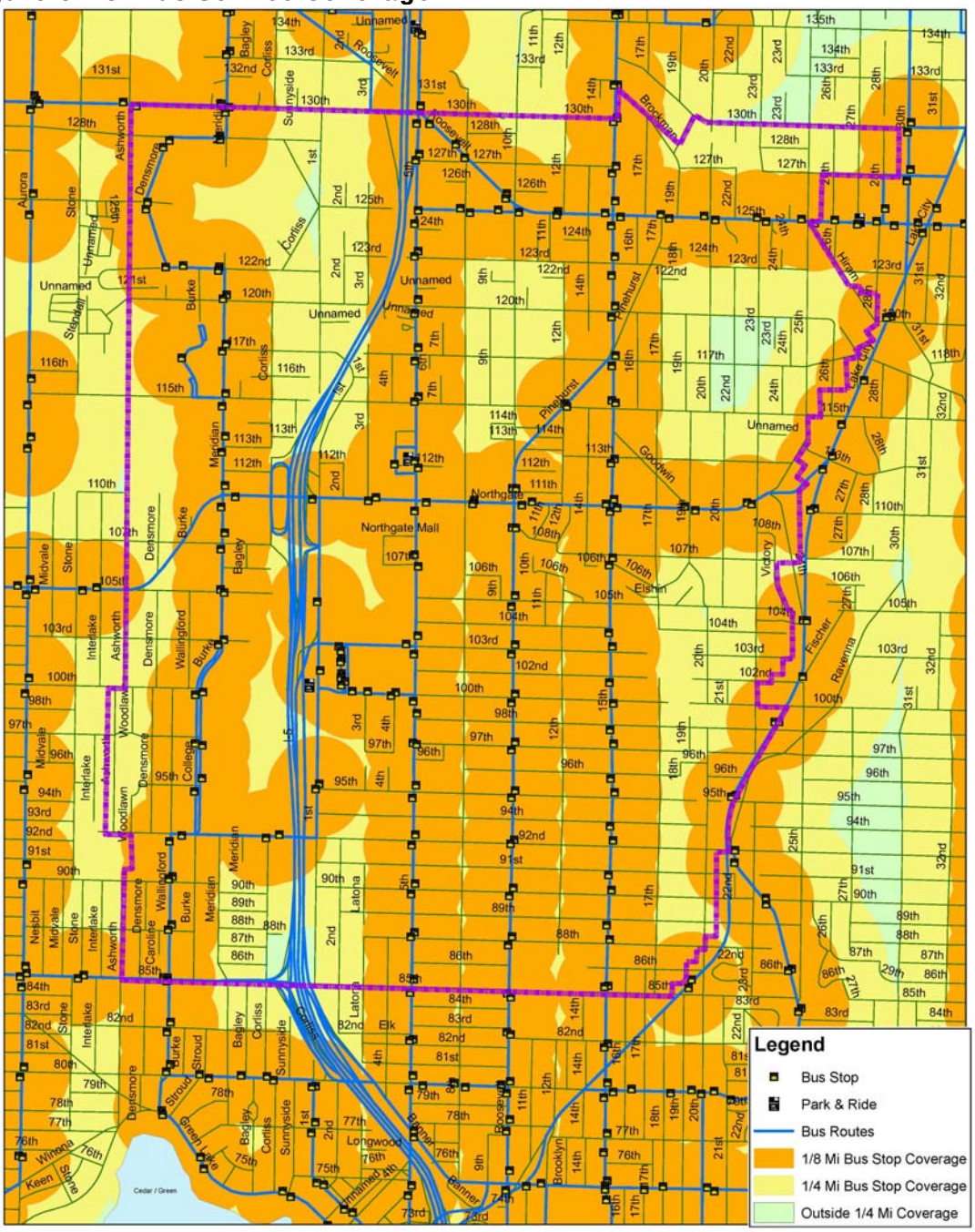


As of the 2000 U.S. Census, there are roughly 13,200 households within the Northgate study area. Over 98% of these households are within ¼ mile of a transit stop. However, not all households receive transit services to all Urban Centers or nearby urban village destinations at the same frequencies, as shown in **Figure 3-12**.

University District or Downtown Seattle

For all-day service, roughly 55% of households are within ¼ mile of University District service, and 85% of households are within ¼ mile of downtown Seattle service. Only route 41, covering 36% of all households in the area, provides 15-minute headways for both peak and midday.

Figure 3-13. Bus Service Coverage



However, route frequencies to downtown Seattle and the University District from the Northgate Transit Center are under 15 minutes, especially during peak periods. See **Appendix 3-6** for details.

Other Urban Centers and Urban Villages

For other Urban Centers and urban villages, service coverage falls short of 50% of households for any one destination. These include the following destinations: Aurora-Licton Springs, Bitter Lake Village, Green Lake, Lake City, Ravenna, Roosevelt, Metro, and First Hill (peak period, peak direction). Only service to Lake City via route 41 and to downtown and/or the University District via routes 66/67 (taken together) meets the desired frequency of service.

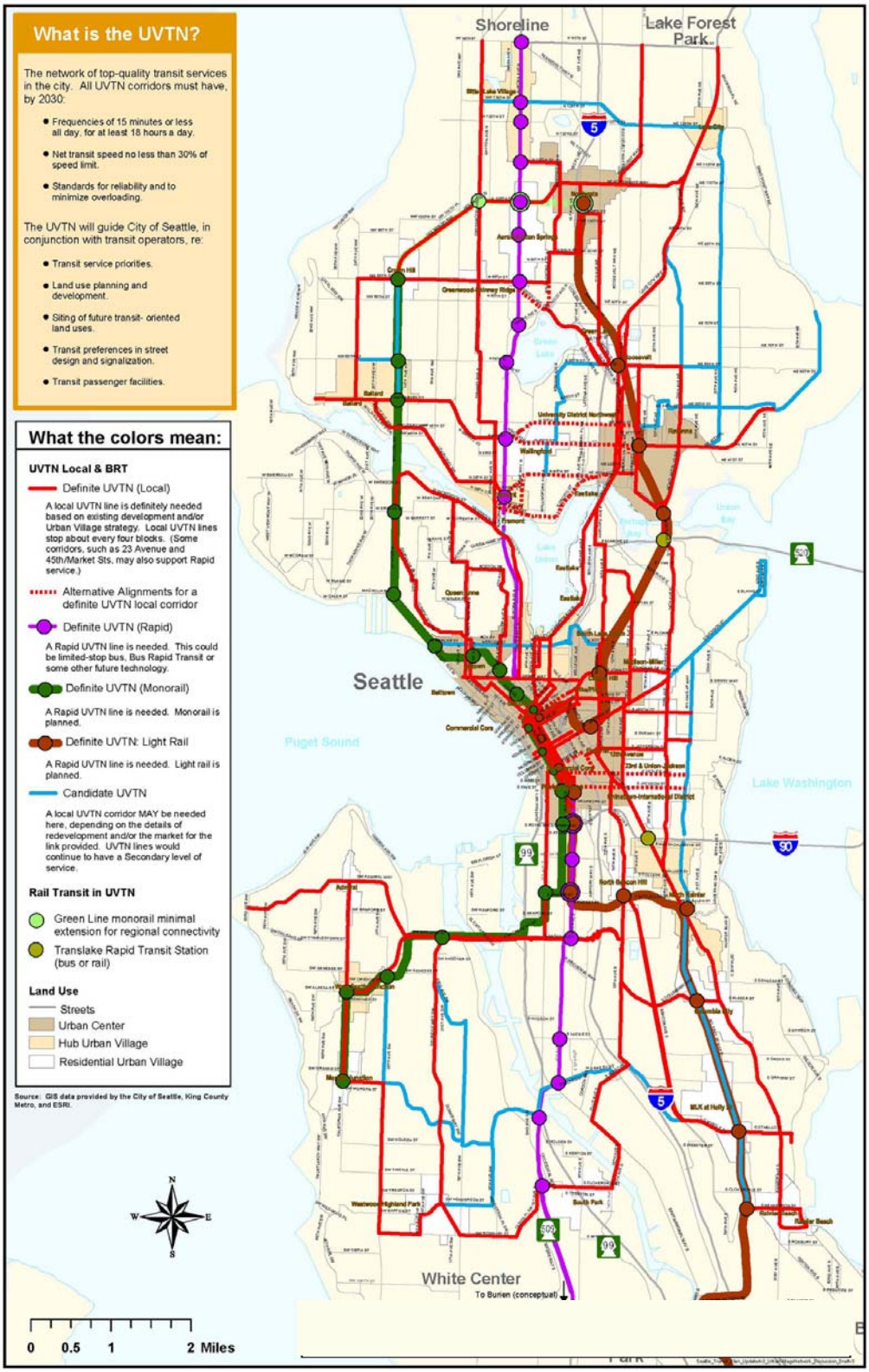
Local Service

For local service within the Northgate study area, over 83% of all households are within 1/8 mile of a bus stop. All routes have headways with 30 minutes or less for peak and midway periods. This does not include any express or peak-hour-only bus service. A more complete breakdown of transit service is provided in **Appendix 3-3**.

Seattle Transit Plan: Urban Village Transit Network

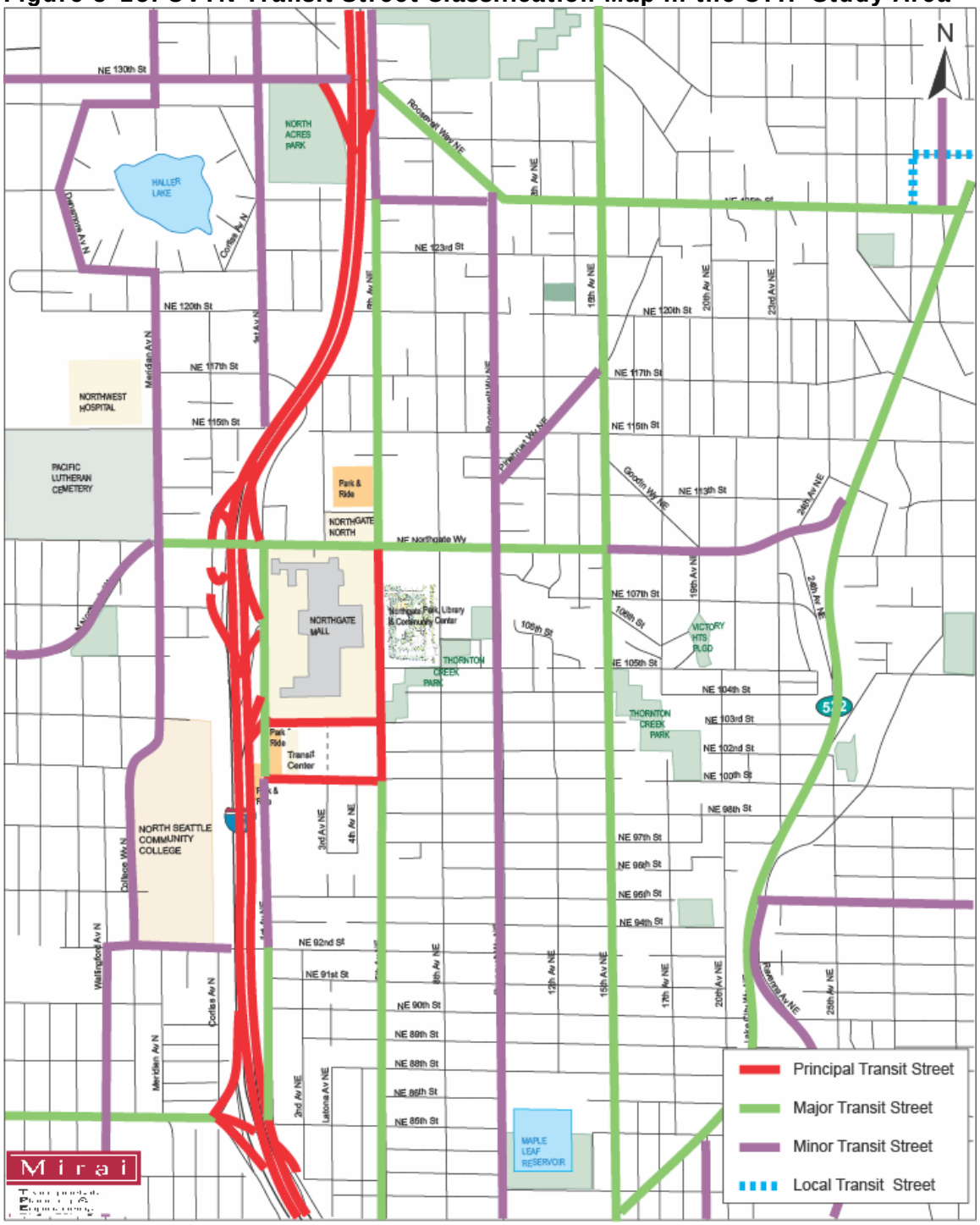
The City of Seattle has identified a hierarchy of transit service and infrastructure needs that corresponds to current and desired future land uses. The Urban Village Transit Network (UVTN) will become the backbone of the City's transit system with a supportive Secondary Transit Network (STN). Service on the UVTN will be fast and reliable, and will operate over 18 hours a day, 7 days a week with high frequency. The STN will provide basic coverage to all neighborhoods not covered by the UVTN. The UVTN will connect to designated Urban Centers; while the STN will make connections to other Urban Centers and villages (see **Figure 3-14** below). The designated rapid transit within the Northgate planning area is the planned North Link Light Rail. The UVTN and STN will operate on a transit street classification system, which identifies types of transit corridors (see **Figure 3-15**). Policies related to land use and transportation priorities are to be shaped by these transit street classifications. Each classification is associated with a specific land use and allowed density. The only principal transit streets are I-5 and streets connecting to the Northgate Transit Center via 5th Avenue NE.

Figure 3-14. Urban Village Transit Network (UVTN)



Source: City of Seattle

Figure 3-15. UVTN Transit Street Classification Map in the CTIP Study Area



The following streets in the study area are designated as principal, major, and minor transit streets:

Principal

- Interstate 5
- 5th Avenue NE: NE Northgate Way to NE 100th Street
- NE 103rd Street: 1st Avenue NE to 5th Avenue NE
- NE 100th Street: 1st Avenue NE to 5th Avenue NE

Major

- Roosevelt Way/NE 125th Street: I-5 to Lake City Way
- NE Northgate Way: Meridian Avenue N to 15th Avenue NE
- NE 85th Street: Ashworth Avenue N to I-5
- 1st Avenue NE: NE 85th Street to NE 92nd Street; NE 100th Street to NE Northgate Way
- 5th Avenue NE: NE 85th Street to NE 100th Street; NE Northgate Way to NE 125th Street
- 15th Avenue NE: NE 85th Street to NE 130th Street
- NE Lake City Way: NE 85th Street to NE 130th Street

Minor

- NE 130th Street: Ashworth Avenue N to I-5
- NE 125th Street: 1st Avenue NE to Roosevelt Way NE
- NE Northgate Way: Ashworth Avenue N to Meridian Avenue N; 15th Avenue NE to NE Lake City Way
- Pinehurst Avenue NE: Roosevelt Way NE to 15th Avenue NE
- Wallingford Avenue N: NE 85th Street to NE 92nd Street
- College Way N/Meridian Avenue N: NE 92nd Street to NE 130th Street (by way of Denmore Avenue N around Haller Lake)
- 1st Avenue N: NE 92nd Street to NE 103rd Street; I-5 to NE 130th Street
- 5th Avenue NE: NE 125th Street to NE 130th Street
- Roosevelt Way NE: NE 85th Street to NE 125th Street

Urban Village Transit Network Quality-of-Service Measures within the CTIP Study Area

The UVTN establishes quality of service measures for frequency, hours of service, reliability, passenger loading, and bus travel speed. Ideally, service headways should be below 7 minutes with 20 to 24 hours of service. Vehicles would have a capacity of 55–70%. In addition, a very high proportion of transit vehicles would run at speeds that would make it attractive compared to driving.

Currently, most segments of the UVTN that cross the Northgate planning area satisfy the span of service criterion. Frequency on all segments almost meets the frequency criterion.

However, frequency and span on all segments need improvement during evenings and on weekends. The Seattle Transit Plan reports that existing travel speeds along the UVTN during the base period are generally over 40% of the speed limit (the UVTN standard is 30%). Only short stretches of the UVTN within the study area fall below 35%, including these:

- Roosevelt Way NE/ Pinehurst Way NE between 15th Avenue NE and NE Northgate Way
- 5th Avenue NE south of NE 100th Street
- Meridian Avenue N between N Northgate Way and N 115th Street

The UVTN segment along Meridian Avenue N had observed travel speeds between 25.1% and 30%. These slower speeds can be attributed to many factors, including high volumes of vehicles, signal timing, turning movements, and/or a high number of transit riders boarding and exiting at bus stops.

Transit Center Operations

The Northgate Transit Center, located south of Northgate Mall, is a major transfer point. It has six bus bays, with monitors displaying real-time bus information for corresponding bus routes. On a typical weekday, over 700 buses stop at the transit center. The current schedule routes 10 lines through the transit center. The surrounding park-and-ride lots have a capacity for 931 vehicles; 75 lot spaces are reserved for carpools.

Park-and-Ride Lots

The Northgate neighborhood area has park-and-ride lots in two main areas. The “Northgate Transit Center” lots are east of 1st Avenue NE between NE 103rd Street and NE 100th Street. One of the four Transit Center lots is exclusively for carpools. The largest lot has a capacity of 417 vehicles, while the smallest can hold 75 vehicles. The ownership of these lots falls under WSDOT and/or King County Metro.

The second area of concentration has two park-and-ride lots. The “Northgate Park and Ride” lot is west of 5th Avenue NE just north of NE Northgate Way, with a capacity of 418 vehicles. Two bus bays are located in the center of this park-and-ride lot. The City of Seattle has committed to purchase this lot for a park when King County Metro can accommodate the stalls at the Transit Center. The other park-and-ride lot is located within the parking garage for Northgate North. Sixty-three spots within the parking garage are reserved for park-and-ride use during the weekdays from 6 AM to 6 PM. These spots are located on the bottom levels of the garage. King County Metro has jurisdiction over both of these lots.

Just outside of the Northgate study area, King County Metro leases a parking lot for park-and-ride use. Located at 12509 27th Avenue NE, Our Savior Lutheran Church provides 21 spaces during the weekday. **Appendix 3-4** summarizes the characteristics of the Northgate area park-and-ride lots.

In the spring of 2002, King County Metro performed a license plate survey for the users of the Northgate Transit Center Park-and-Ride. The results revealed that 80% of the users lived in Northgate or areas to the immediate north, such as Shoreline and Lake Forest Park. This suggests that most users are making trips to points south, which includes the University District and downtown Seattle. A plot of the car registration locations is provided in **Appendix 3-5**.

The 4th quarter 2004 park-and-ride utilization rates indicate that most of the Northgate lots are heavily used and in some cases are at or over capacity. Lots surrounding the transit center are at capacity. The Northgate Park-and-Ride lot at NE 112th Street and 5th Avenue NE is at 75% capacity. See **Figure 3-16** for more details on rates and locations.

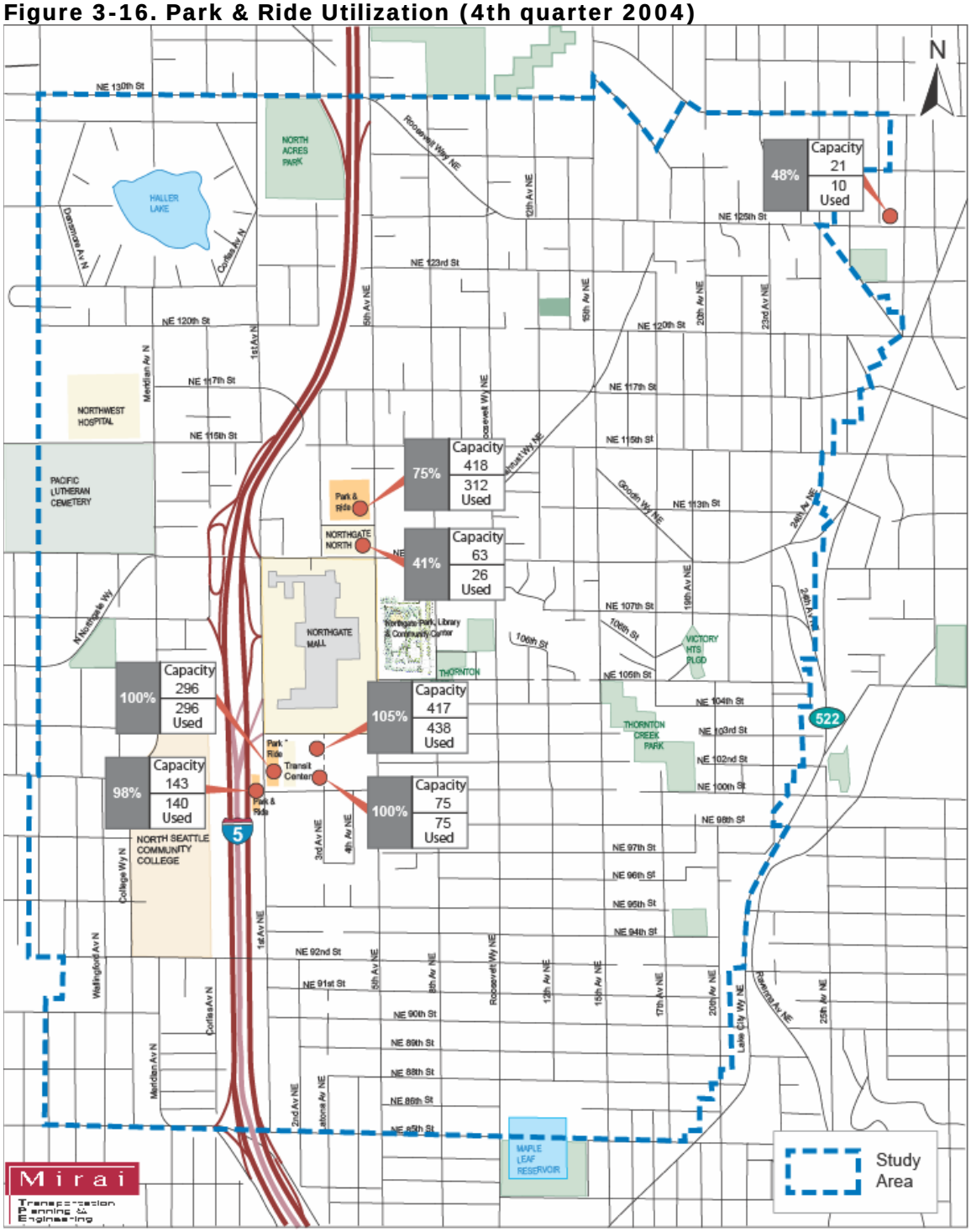
Bus Layover Space

Because of the high number of routes that originate and/or terminate at the Northgate Transit Center, bus layover space is an important aspect of on-street parking management for the Northgate area. A bus layover is a location at which buses wait between trips. Within the study area, there are two areas that King County Metro and Sound Transit buses use for layovers. Off-street layovers are limited to the bus bays within the Northgate Transit Center and the Northgate Park-and-Ride lot at NE 112th Street and 5th Avenue NE.

Adjacent to the Northgate Transit Center, buses use the unrestricted north side of NE 100th Street between the park-and-ride driveway and 5th Avenue NE as layover space.

Designated bus layover space is currently limited to a block–and-a-half section of 5th Avenue NE. During the weekday between the hours of 5 AM and 9 AM, the west side of 5th Avenue NE between NE 123rd and just north of NE 125th Street is reserved for Metro buses.

Figure 3-16. Park & Ride Utilization (4th quarter 2004)



In 2005, the City agreed to work with King County to jointly evaluate options for bus layover spaces in the Northgate area for near- and long-term needs. The City plans to implement the following actions:

- Allow the two bus layover spaces currently located on the north side of NE 100th Street between 2nd Avenue NE and 3rd Avenue NE.
- Permit four new bus layover spaces and one bus zone on NE 100th Street between 3rd Avenue NE and 5th Avenue NE.
- Annually review the permitted layover spaces, and renegotiate an agreement with the County if any spaces need to be relocated.

Ridership

The 2000 U.S. Census reported that roughly 20% of Northgate residents traveled to work by transit while only 7% of Northgate workers arrived by transit. Since the last Census, ridership has steadily increased due to improvements in bus service, new housing and commercial developments and an improving economy. Ridership within the study area is highest on King County Metro routes 16, 41, and 75. The Shoreline bus routes that were initiated in 2003 show a slow but steady growth in ridership. See **Appendix 3-6** for the ridership breakdown for all routes serving Northgate.

Transit Shelters

King County Metro's current standards call for the agency to provide transit shelters at bus stops that have 50 boardings per day. Table **3-8** shows the bus stops without a shelter within the study that have 30 or more daily weekday boardings.

Table 3-8. Study Area Bus Stops without a Shelter with 30 or More Daily Weekday Boardings

Zone #	On Street (Direction)	Cross Street	Daily Weekday Boardings
35820	NE Northgate Way (S)	3rd Avenue NE	122
17000	5th Avenue NE (S)	Entrance to Northgate Mall	90
39110	Roosevelt Way NE (N)	NE 108th Street	74
5610	15th Avenue NE (S)	NE 89th Street	64
25160	Meridian Avenue N (S)	N 107th Street	64
36950	NE Northgate Way (W)	8th Avenue NE (far side)	58
16990	5th Avenue NE (S)	NE 103rd Street	54
36930	NE Northgate Way (W)	8th Avenue NE (near side)	44
38980	Roosevelt Way NE (S)	NE 111th Street	43
16913	5th Avenue NE (W)	NE 85th Street	40
18070	College Way N (S)	N 100th Street	35
16800	5th Avenue NE (S)	NE 117th Street	34
18110	College Way N (E)	N 95th Street	34
16570	5th Avenue NE (N)	NE 120th Street	34
28335	NE 125th Street (E)	26th Avenue NE	31

Source: King County Metro

Roadway Network

The CTIP study established four categories of performance measures for the roadway network: arterial corridor level of service, arterial signalized intersection level of service, non-arterial/residential streets, and traffic safety. The City of Seattle's streets are classified based on the definitions in **Table 3-9**. **Figure 3-17** illustrates the classified streets and traffic signal locations within the study area.

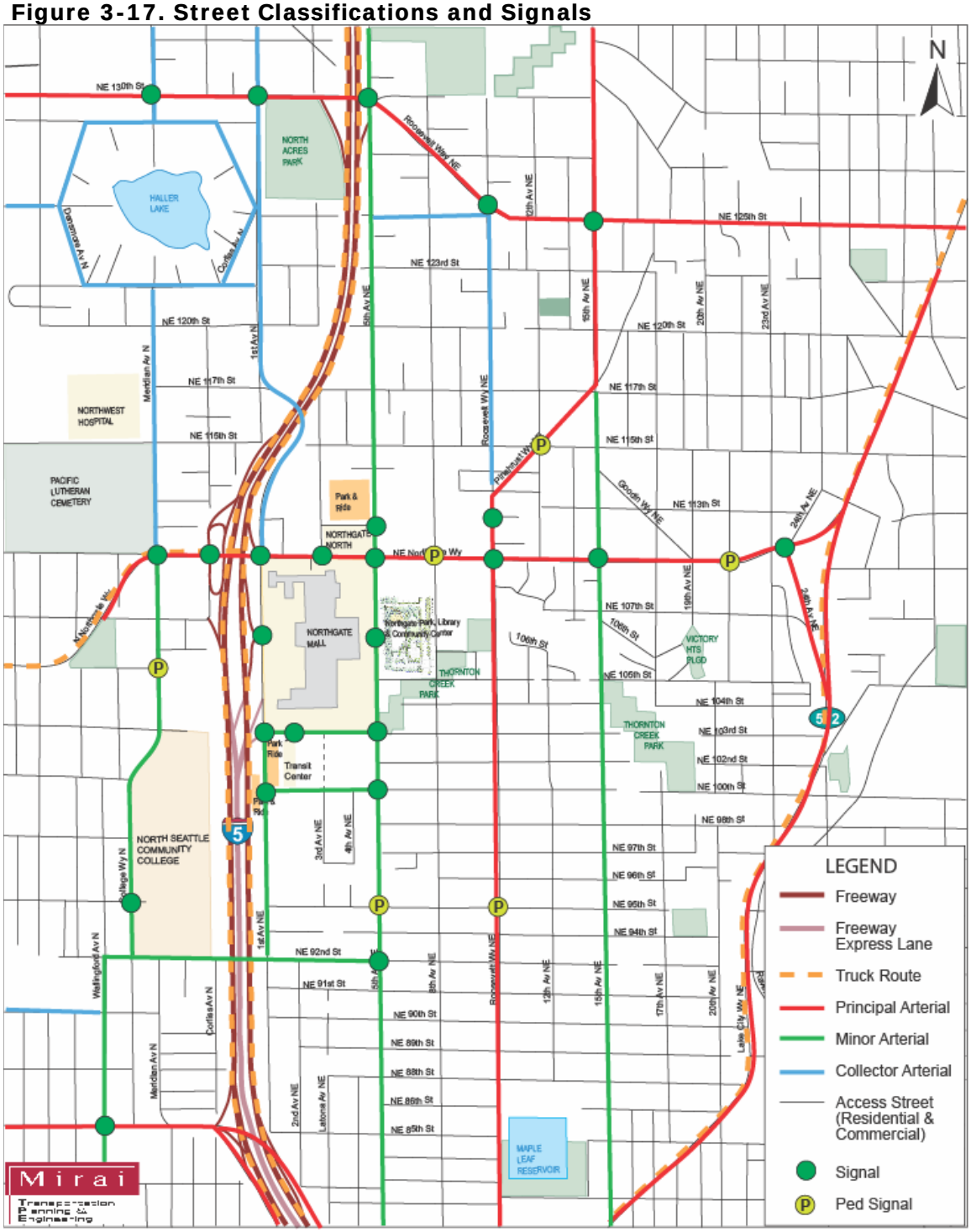
Arterials

The Northgate study area's arterials are primarily oriented toward north/south streets, but east/west through-street access is limited to two principal arterials: NE 125th/130th Street and Northgate Way. These two principal arterials, together with NE 92nd, a minor arterial, are the only roadways providing an east/west crossing of Interstate 5 within the study area. At NE 85th Street, westbound vehicles can cross Interstate-5 from Banner Way NE to N 85th Street, but eastbound vehicles crossing Interstate 5 are routed to NE 80th Street by way of Corliss Way N. Meridian Avenue N, 1st Avenue N, 5th Avenue NE, Roosevelt Avenue NE, 15th Avenue NE, and Lake City Way NE all provide north/south arterial linkages.

Table 3-9. City of Seattle Street Classification Definitions

Classification	Definition
Interstate Freeways	Limited-access roadways that provide the highest capacity and least impeded traffic flow for longer vehicle trips (5 miles or more).
Principal Arterials	Streets that are intended to serve as the principal route for the movement of traffic through the city. They connect Urban Centers and urban villages to one another, or to the regional transportation network.
Minor Arterials	Streets that distribute traffic from principal arterials to collector arterials and commercial and residential access streets.
Collector Arterials	Streets that collect and distribute traffic from principal and minor arterials to local access streets or provide direct access to destinations.
Commercial Access Streets (Non-Arterial)	Streets that provide access to commercial and industrial land uses and provide localized traffic circulation.
Residential Access Streets (Non-Arterial)	Streets that provide access to neighborhood land uses and access to higher-level traffic streets.
Alleys	Travel ways that provide access to the rear of residences and businesses and are not intended for the movement of through trips. Where a continuous alley network exists, it is the preferred corridor for utility facilities.

Figure 3-17. Street Classifications and Signals



State Facilities and Access

Interstate 5 runs north/south through the study area, with general-purpose north and south on-ramps at Northgate Way. The northbound on-ramp to Interstate 5 draws traffic from 1st Avenue at Northeast 107th and 1st Avenue at Northgate Way. Improvements at both locations have been completed as recommended in the 1993 NACP. N 107th provides access to southbound Interstate 5 from Corliss Avenue, just east of Meridian Avenue N. Northbound general-purpose traffic on Interstate 5 exits to 1st Avenue at NE 107th Street, and southbound general purpose traffic exits to NE Northgate Way at Corliss Avenue. Southbound general-purpose traffic can also exit Interstate 5 to westbound N 85th Street, but not to eastbound NE 85th Street. Carpools and transit may enter and exit the reversible lanes on Interstate 5 from the intersection of 1st Avenue NE and NE 103rd Street.

Major Truck Streets

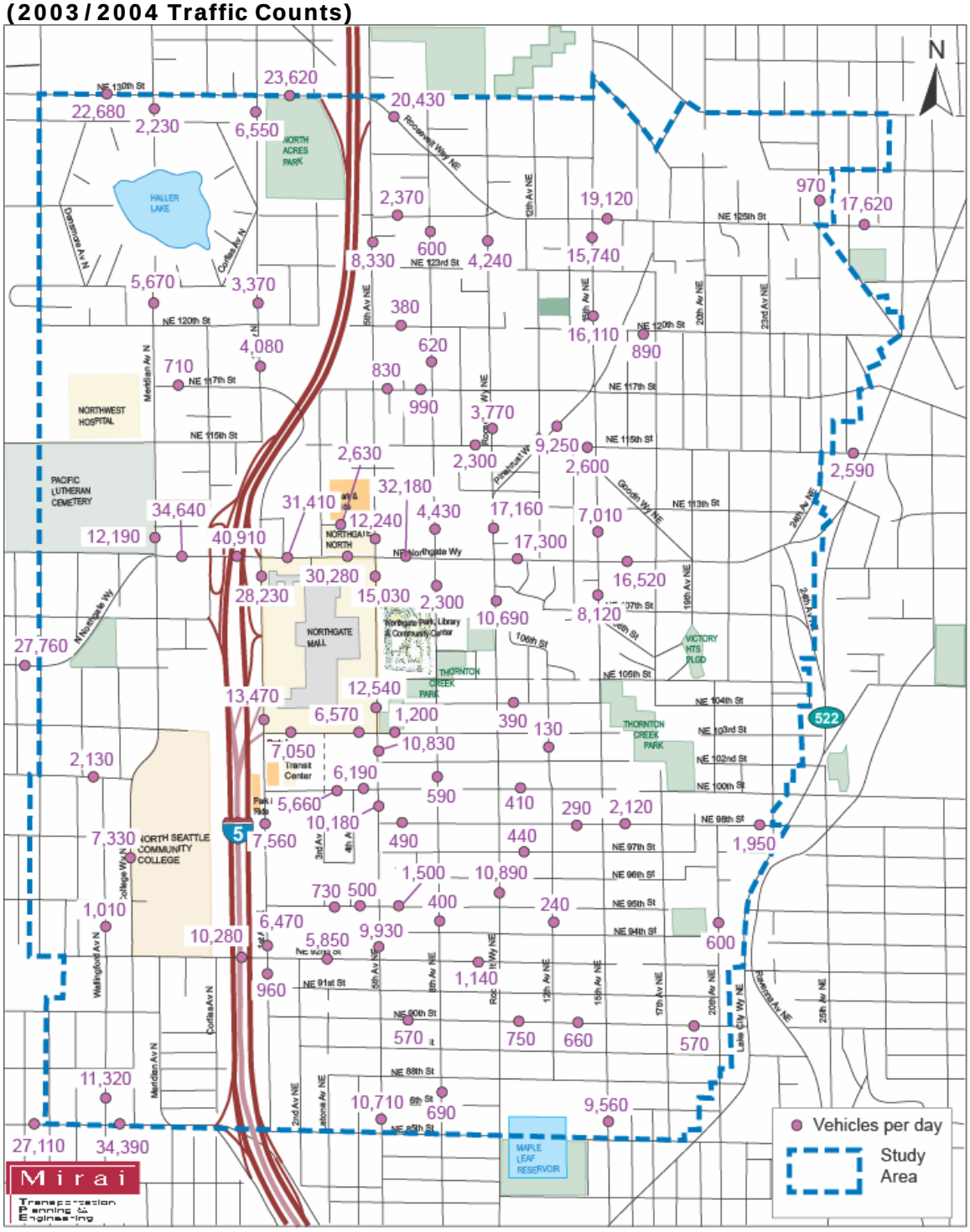
The Seattle Comprehensive Plan defines "major truck streets" as arterial streets that accommodate significant freight movement through the city and to and from major freight traffic generators. These streets are regularly evaluated as part of the City's Freight Mobility Strategic Action Plan, the third edition of which was issued in June 2005. Major Truck Streets generally carry heavier loads and higher truck volumes than other arterials. Within the CTIP study area, I-5, Lake City Way, and N/NE Northgate Way west of I-5 are designated as major truck streets.

The 1993 Northgate Comprehensive Plan required that "substantial development in the core area" provide internal circulation to reduce the use of the arterial street system to access various parts of the site. In addition, that plan identified a set of specific turning restrictions and intersection improvements to manage vehicular access to core area arterials.

Traffic Volumes

Figure 3-18 displays 2003–2004 average weekday traffic volumes at select locations within the study area. **Appendix 3-7** illustrates traffic volumes for each PM peak hour turning movement of selected intersections within the study area.

Figure 3-18. Existing Average Weekday Traffic Volumes (2003/2004 Traffic Counts)



Arterials in Excess of 20,000 Vehicles per Day

The major east/west corridors in the study area, NE 130th/NE 125th streets, NE Northgate Way, and NE 85th Street west of I-5, experience the highest average weekday traffic volumes among the arterials in the study area, with NE Northgate Way carrying over 31,000 vehicles between Meridian Avenue N and 8th Avenue NE. The volume at I-5 on NE Northgate Way is almost 41,000 vehicles per day. NE 85th Street near Wallingford Avenue N carries over 34,000 vehicles and NE 130th Street near Interstate 5 carries over 20,000 vehicles. First Avenue N just south of NE Northgate Way carries over 28,000 vehicles, but that volume drops significantly south of the mall to over 13,000 vehicles, and then drops again south of the park-and-ride lot to 7,500 vehicles.

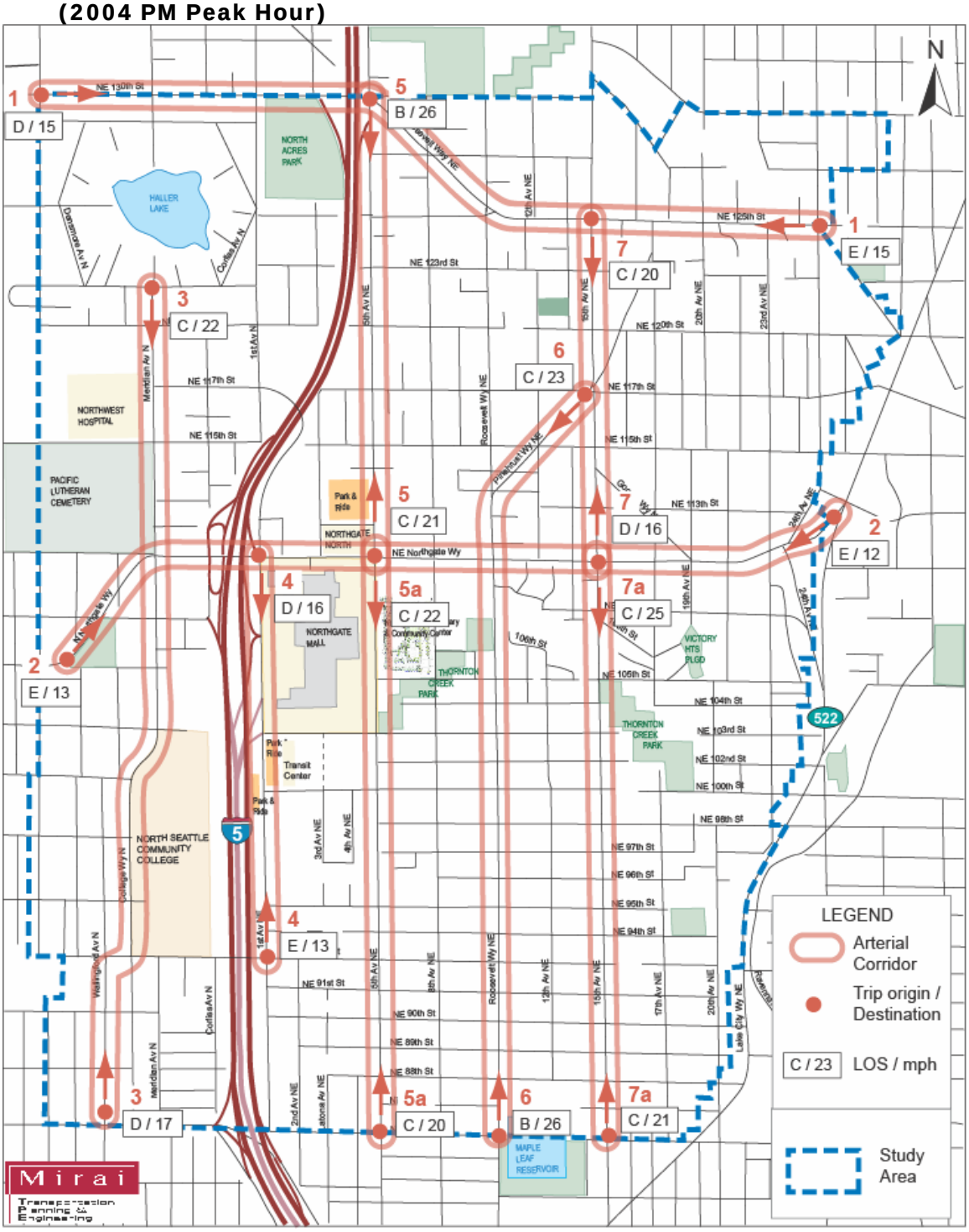
Arterials Carrying between 10,000 and 20,000 Vehicles per Day

Most of the arterials within the study area that carry between 10,000 and 20,000 vehicles are in the vicinity of or south of NE Northgate Way. The exceptions are 15th Avenue NE north of NE 120th Street and NE 125th Street just east of 25th Avenue NE (just outside the study area boundaries). Roosevelt Way NE south of Pinehurst carries 17,000 vehicles, but that volume drops substantially to about 11,000 vehicles south of NE Northgate Way. Fifth Avenue NE carries 11,000–12,000 vehicles from just north of NE Northgate Way to NE 85th Street, with the exception of a higher volume (15,000) just south of NE Northgate Way. Northeast 92nd Street at Interstate 5 carries over 10,000 vehicles, but that figure drops to 6,000 east of 1st Avenue N.

Arterial Corridor Levels of Service

An arterial corridor's level of service (LOS) is a measure of the average travel speed for through vehicles along an urban street. The travel speed along a segment is influenced by the average travel speed between signalized intersections and the amount of delay incurred at the signalized intersections. **Table 3-10** shows urban arterial corridor LOS definitions for the arterials in the study area. **Figure 3-19** illustrates the existing conditions for arterial corridor PM peak hour levels of service. Within the study area, the lowest average speeds are observed along Northgate Way in both directions, NE 125th Street in the westbound direction and 1st Avenue NE in the northbound direction.

Figure 3-19. Existing Arterial Corridor Levels of Service, Delay and Trip Time (2004 PM Peak Hour)



Arterial corridors in the study area appear to perform reasonably well in terms of vehicle travel time and average intersection delay. Fifth Avenue NE, Roosevelt Way NE, and 15th Avenue NE all achieve LOS C both northbound and southbound during the PM peak hour. Eastbound NE Northgate Way performs somewhat worse at LOS D, and westbound NE Northgate Way is one of the most congested corridors in the study area, showing LOS E during the PM peak hour. The NE 130th/NE 125th Street corridor performs at LOS D traveling eastbound and at LOS E traveling westbound. Southbound Meridian Avenue North also performs at LOS D, due to congestion at the Meridian Avenue N/NE Northgate Way intersection. First Avenue NE between NE 92nd Street and NE Northgate Way performs at LOS D both north- and southbound, in large part due to congestion at the Interstate 5 express lanes off-ramp at NE 103rd Street.

Table 3-10. Arterial Corridor Level of Service Definitions

LOS	Average Travel Speed (mph)
A	> 30
B	> 24–30
C	> 18–24
D	> 14–18
E	> 10–14
F	< 10

Source: Highway Capacity Manual 2000

Signalized Intersection Levels of Service

The most recent Highway Capacity Manual 2000 defines urban area levels of service in terms of seconds of delay at an intersection. The scale ranges from A at the best performing level to F at the worst performing level (see **Table 3-11**).

Table 3-11. Intersection Level of Service Definitions

LOS	Average Signalized Intersection Delay Per Vehicle (seconds)	Descriptions of Level of Service Operations
A	< 10	Highest driver comfort. Little delay. Free flow.
B	< 10–20	High degree of driver comfort. Little delay.
C	< 20–35	Some delays. Acceptable level of driver comfort. Efficient traffic operation.
D	< 35–55	Long cycle length. Some driver frustration. Efficient traffic operation.
E	< 55–80	Approaching capacity. Notable delays. High level of driver frustration.
F	> 80	Flow breaks down. Excessive delays.

Source: Highway Capacity Manual 2000

As shown in **Figure 3-20** below, all of the signalized intersections in the study area operate at LOS D or better, with a significant majority performing at LOS C or better.

Signalized Intersections at LOS D

- NE 130th/1st Ave NE
- NE 125th/15th Ave NE
- NE Northgate Way/Meridian Ave N
- NE Northgate Way/5th Ave NE
- NE Northgate Way/Roosevelt Way NE
- NE 103rd/1st Ave NE

Non-Arterial/Residential Streets

The CTIP study developed criteria against which to evaluate residential streets, as shown in **Table 3-12**. Using this rating system, streets with higher scores are more in need of attention than those with lower scores. **Figure 3-21** maps the results. **Appendix 3-8** provides additional detail about the street scores. In addition, **Figure 3-22** shows the current location of traffic control devices throughout the study area.

Table 3-12. Residential Street Performance Criteria

Indicator	Points	Point Allocation
Vehicle Volume (Weekday, 24-hour)	0 to 30	1.5 points for every 100 vehicles per day
Speed (85th percentile)	0 to 30	1.5 points for every 1 mph over 20 mph
Pedestrian Facility (sidewalks or walkways)	0 to 13	13 points = no curb, gutter or sidewalk/walkway on either side 10 points = walkway on 1 side 7 points = curb, gutter, sidewalk on 1 side 3 points = curb, gutter, sidewalk on 1 side and walkway on other side 0 points = curb, gutter, sidewalk on both sides
Crashes	0 to 7	1.4 points for each reported collision over past 3 years
School Walkway Route	0 or 7	7 points for designated school route
Pedestrian Route	0 or 7	7 points for key pedestrian connector per Open Space & Pedestrian Plan (draft 2004)
Bicycle Route	0 or 3	3 points for designated bike route
Street Features	0 to 3	Up to 3 points for potential safety issues, e.g. poor sight distance, sharp curbs, wide street width

Figure 3-20. Existing Intersection Levels of Service (2004 PM Peak Hour)

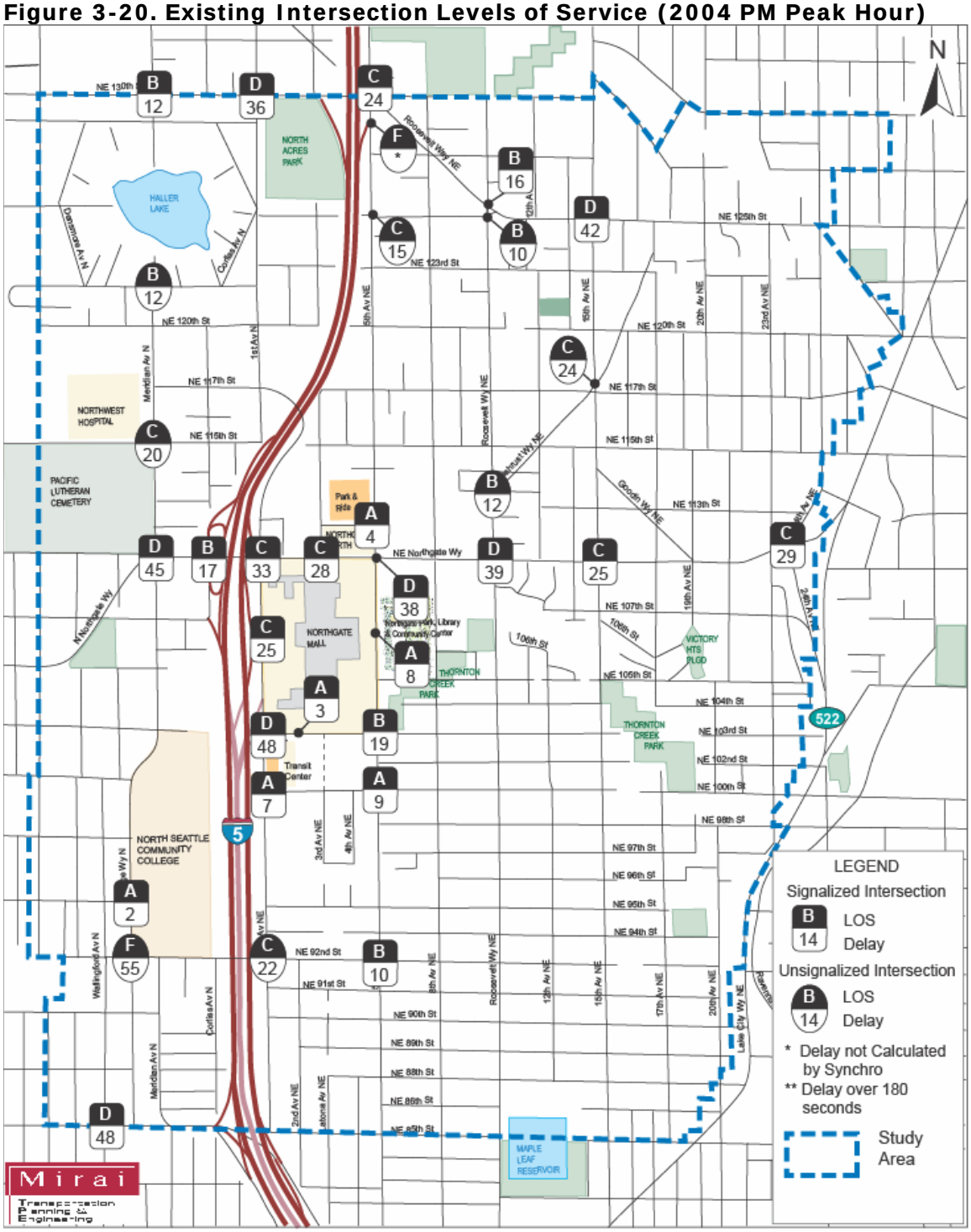


Figure 3-21. Non-Arterial/Residential Street Scores
(lower scores indicate better performance)

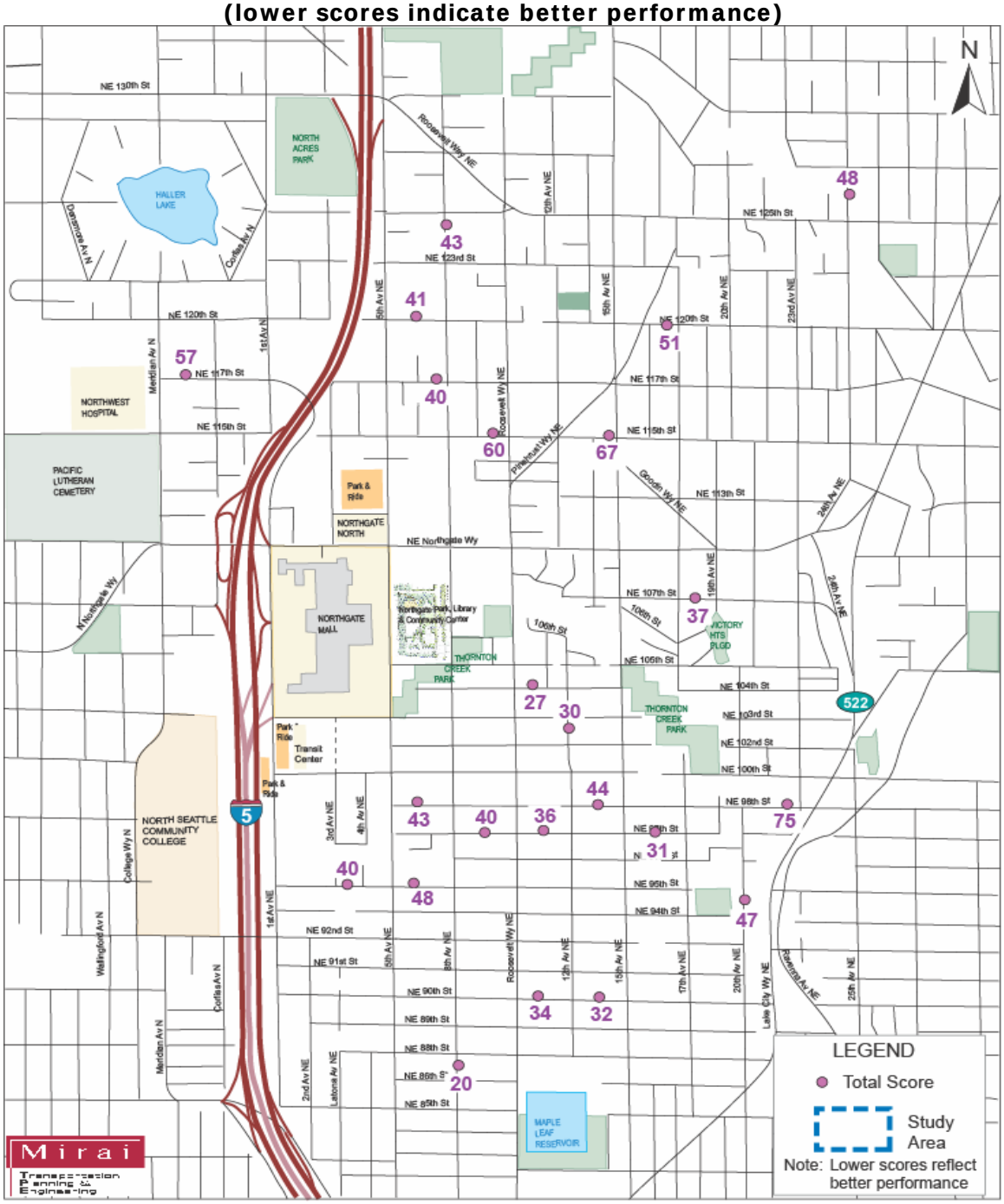
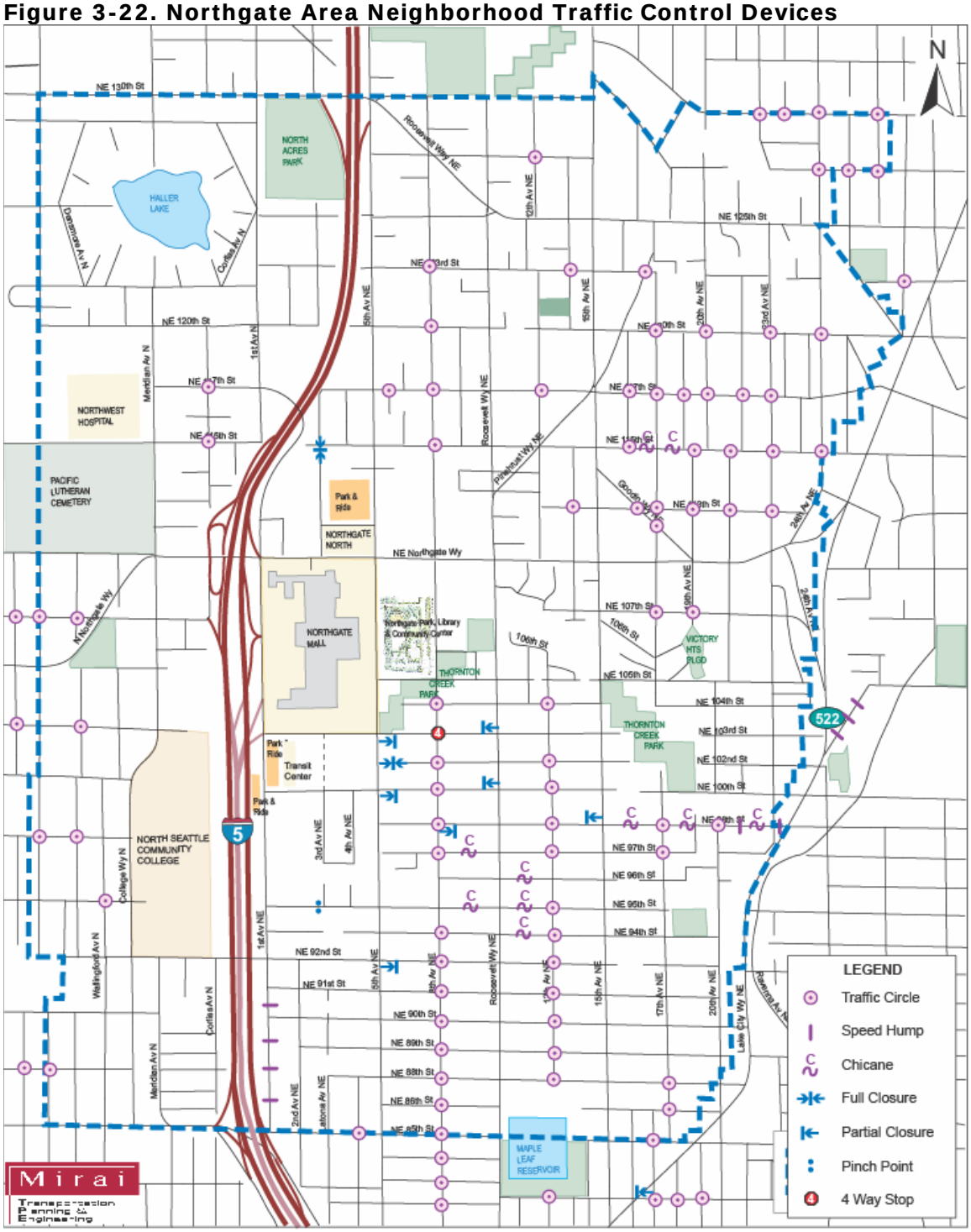


Figure 3-22. Northgate Area Neighborhood Traffic Control Devices



Crash History

The CTIP study used SDOT's intersection safety standard of ten crashes per year for signalized intersections and five crashes per year for mid-block locations as its performance measures. For unsignalized intersections, the CTIP study used five crashes per year as its standard. SDOT provided crash data from 1999 to 2003. **Figure 3-23** shows numbers of crashes from 1999 to 2003 within the study area.

Signalized Intersections

Only the signalized intersection of Meridian Avenue N and N 130th Street exceeds the safety standard of 10 crashes per year set by SDOT. Two intersections have crash frequencies approaching SDOT's safety standard: I-5 Corliss North Ramp/N Northgate Way (8 per year) and 15th Avenue NE/NE Northgate Way (7.2 per year).

Mid-Block Locations

Ten unsignalized intersections and/or mid-block locations currently exceed the CTIP benchmark and SDOT standard of 5 crashes per year, as listed in **3-13**.

Table 3-13. Unsignalized Intersections and Mid-Block Locations at or greater than the CTIP Crash Benchmark

Mid-Block Location	Between		5-Year Total (1999–2003)	Annual Average
N Northgate Way	Meridian Avenue N	I-5 Corliss NR RP	132	26.4
NE Northgate Way	3rd Avenue NE	5th Avenue NE	75	15
NE Northgate Way	5th Avenue NE	8th Avenue NE	73	14.6
N Northgate Way	I-5 Corliss NR RP	1st Avenue NE	66	13.2
NE Northgate Way	8th Avenue NE	Roosevelt Way NE	48	9.6
NE Northgate Way	Roosevelt Way NE	11th Avenue NE	42	8.4
NE Northgate Way	1st Avenue NE	NE Northgate Drive	34	6.8
15th Avenue NE	NE 123rd Street	NE 125th Street	29	5.8
NE 125th Street	14th Avenue NE	15th Avenue NE	28	5.6
N 85th Street	Corliss Way N	Banner Way NE	27	5.4

Highest Crash Rates

Among the locations evaluated in the study area, those with crash rates in the top 25% (crashes per million annual vehicles entering for intersections and crashes per million annual vehicles for mid-block sections) over the years 1999–2003 are shown in **Figure 3-24**. The top crash rates are concentrated on or near Northgate Way. In addition, the intersections of Meridian Avenue N and N 130th Street and Meridian Avenue N and N 107th Street have high rates. Wallingford Avenue just north of N 85th Street also has a high mid-block crash rate.

Parking

Off-Street Parking Requirements

Existing Parking Regulations

Off-street parking regulations are found in Seattle Municipal Code (SMC) Chapter 23.54 (the main parking chapter of the City's Land Use Code) and in SMC Chapter 23.71 (regulations specifically affecting the Northgate Overlay District.)

In general, parking requirements in Chapter 23.54 are expressed as a certain number of parking spaces per residential unit, or per square footage of commercial projects, or through other ratios that differ by land use. Commercial zoning provisions also set standards for parking location, access, screening, and landscaping requirements and parking space requirements.

The citywide parking requirements for general retail sales and services is a minimum of 1 space for every 350 square feet, or approximately 2.9 spaces per 1,000 square feet. By contrast, the Northgate Overlay District sets a lower minimum (0.93 spaces per 1,000 square feet) as well as a maximum parking requirement that is also lower (2.4 spaces per 1,000 square feet.)

Chapter 23.71, the Northgate Overlay District, has particular parking regulations that supersede any conflicting provisions of the underlying zone. These provisions include minimum and maximum parking requirements for certain commercial uses, shared parking restrictions, submittal of a Transportation Management Program with a permit application, parking location, access, screening standards, and parking space standards. The Northgate Overlay District also has specific mode-split goals.

Figure 3-23. Crash Data: Signalized Intersections (Annual Average between 1999 and 2003)

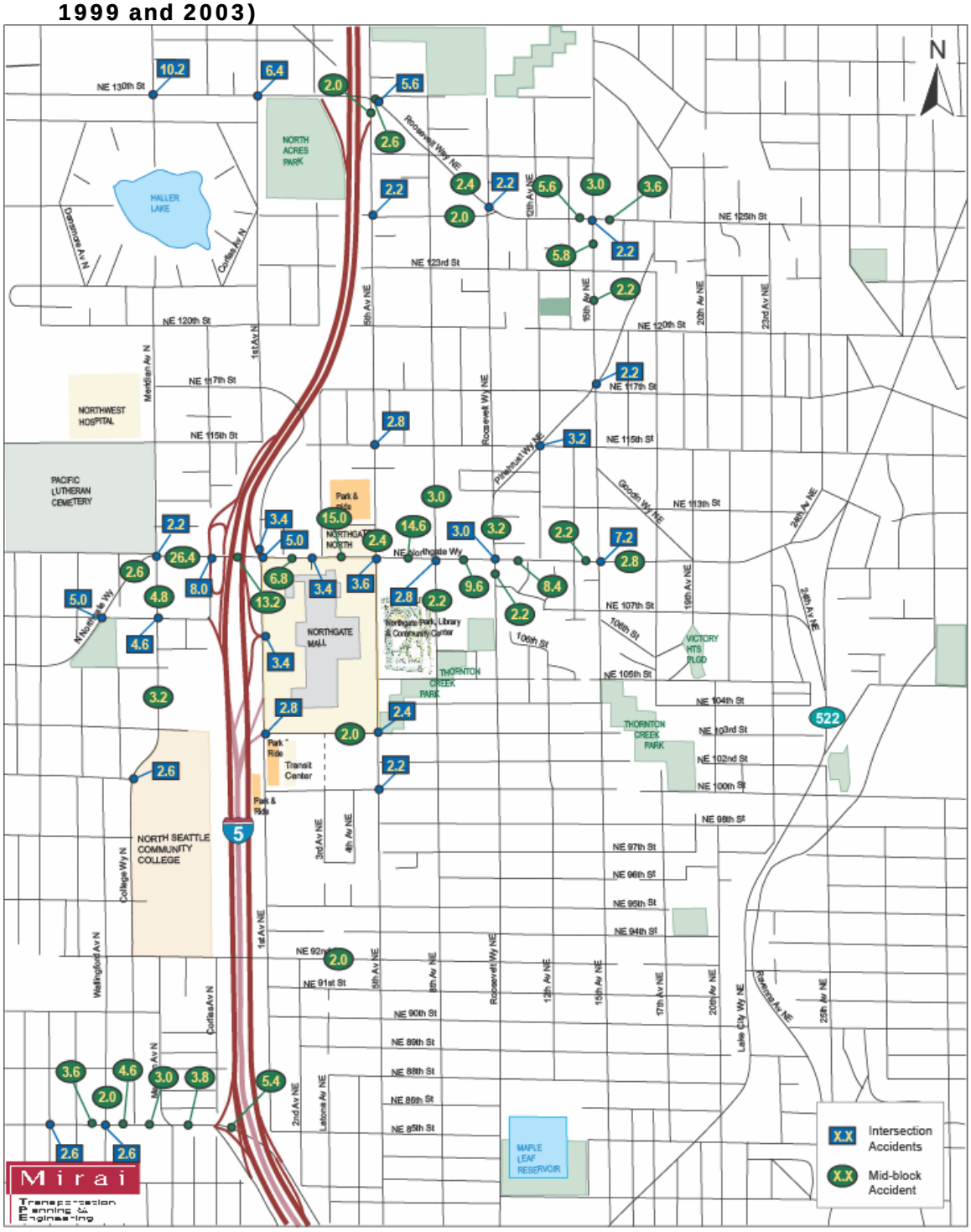
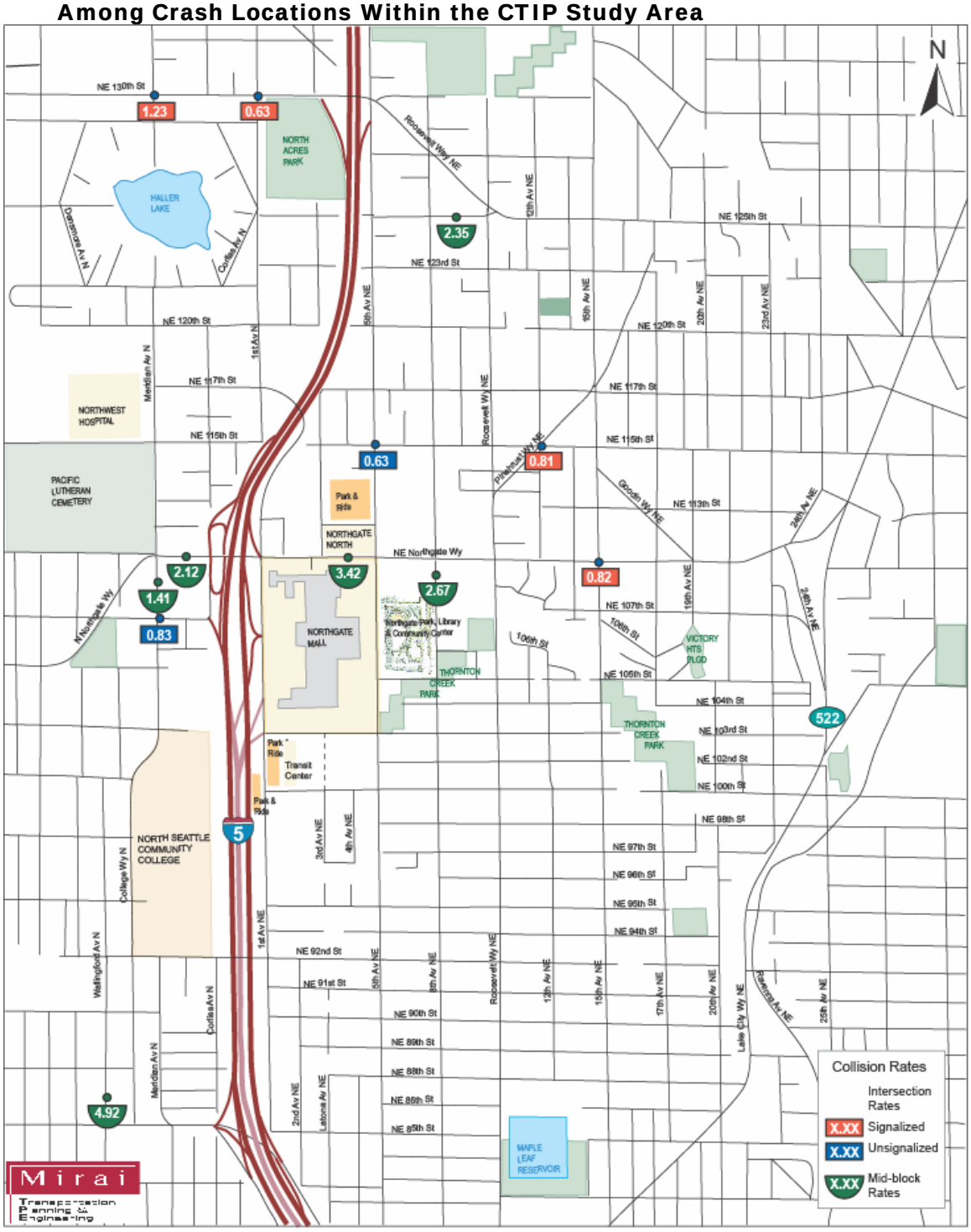


Figure 3-24. High Crash Rates: Top 25% over 5 Years (1999–2003) Among Crash Locations Within the CTIP Study Area



The City also has regulatory authority over parking based on the State Environmental Protection Act (SEPA). SMC 25.05.675(M) provides specific SEPA authority to condition a project to mitigate a development's effects on parking in an area. SEPA mitigation can include transportation management programs, parking management and allocation plans, incentives for the use of alternatives to single-occupancy vehicles, increased parking ratios, and reduced development densities, except for multi-family developments.

In addition to existing parking regulations, changes have been proposed to the Commercial Code (the Executive's Neighborhood Business District Strategy) that affect off-street parking. These will be considered by the City Council in 2006, and include eliminating parking requirements for development on commercially zoned parcels. In the Northgate Overlay District, the minimum and maximum parking requirements for office, retail, and motion-picture uses would remain in effect, but single-purpose residential developments and residential portions of mixed-use structures on commercially zoned parcels would no longer have parking requirements. The Neighborhood Business District Strategy proposal also sets maximums on surface parking of one acre in commercial zones within Urban Centers.

Existing Off-Street Parking Supply

In May 2004, Northgate's off-street parking supply was inventoried using an aerial photograph of the study area, data from King County, and field data. According to this methodology, there are approximately 21,500 off-street parking spaces within the study area. These spaces are both public and private and serve residential, commercial and institutional uses, including North Seattle Community College (1,829 spaces), Northgate Mall (4,125 spaces), and the Northgate Park and Ride lots (1,400 spaces).

In 1999, the Seattle Comprehensive Neighborhood Parking Study analyzed on- and off-street parking demand within sample areas of 39 Seattle neighborhoods, including Northgate. The analysis area for Northgate included the blocks along NE Northgate Way between Roosevelt Way NE and 1st Ave NE. The survey included approximately 800 off-street spaces in primarily private, non-residential lots. The average utilization for the non-residential lots during the daytime study period was 57%. During the peak period, utilization of non-residential lots was 78%.

On-Street Parking Conditions

City Curb Space Policies

Priority

Given the challenge of managing parking to provide enough to meet mobility and economic needs while limiting supply to encourage transit and carpool modes of transportation, the City has established priorities for on-street parking spaces in commercial and in residential zones. In commercial districts, SDOT prioritizes curb space first for transit stops and layover; then for passenger and commercial vehicle loading; short-term customer parking (time limit signs and paid parking); parking for shared vehicles, such as Flexcar; and finally for general vehicles.

In residential districts, curb space is also prioritized, with transit stops and layovers receiving the highest priority, and, in descending order of priority, passenger and commercial vehicle loading, parking for local residents and for shared vehicles, and general vehicles.

Curb Space Regulation Implementation

SDOT typically responds to adjacent property-owner or business manager requests to install curb space regulations such as time-limit signs or loading zones. Changes to these regulations can be made through several procedures, including business manager request, petition signatures gathered from adjoining property owners, and City Traffic Engineer decisions.

Paid Parking Implementation

Under the City's existing parking management policies, paid on-street parking would be considered if and when the time limits were not effective at encouraging parking turnover. High utilization, a high percentage of vehicles overstaying the time limit, and low turnover are typical indications that time-limit signs should be converted to paid parking to achieve the desired turnover for short-term customers and visitors. Starting in 2004, SDOT began a three-year pay station installation program to replace the City's aging single-space parking meters. In each neighborhood, SDOT conducts a parking study and public outreach process, using information from these processes to make neighborhood-wide parking management improvements.

The City is also studying potential implementation of a new parking management strategy for neighborhoods that are residential and commercial. This strategy would expand paid parking throughout a neighborhood and use pricing instead of time limits to achieve desired occupancy and parking turnover.

This system would allow for some spaces to be used for all-day paid employee or visitor parking in areas with lower short-term parking demand. If implemented, this system will likely decrease SOV parking rates in neighborhoods that currently have a large reservoir of unrestricted parking.

Residential Parking Zone (RPZ) Implementation

Residential parking zones are established on blocks that have adjacent residential uses, such as houses, apartments, or condominiums, to discourage long-term parking by non-residents. An RPZ may be appropriate where parking congestion is caused by proximity to a business district with limited parking (e.g. Capitol Hill), or by parking generated by visitors or employees of a hospital, school, or factory.

Certain on-street parking conditions must be present for a neighborhood to qualify for an RPZ. These conditions include streets that are at least 75% full during the time period when the problem is occurring (day or night) by at least 25% non-residents. To create an RPZ, a neighborhood must undertake a petition process where 60% of all households on each participating block agree to have the signs installed that limit parking.

Light Rail Station Preparation

The City of Seattle and Sound Transit have created a plan to proactively manage on-street parking around the Central Link initial segment stations. The purpose is to prioritize on-street parking for customer or residential use before commuters attempt to use neighborhood streets for park-and-ride purposes. Prior to the station opening, Sound Transit will conduct an inventory of on-street parking spaces and work with the City to install time-limit signs, RPZs, or paid parking as necessary. A public outreach process will accompany the curb space regulation changes.

On-Street Parking Supply

A May 2005 inventory of on-street parking spaces used aerial photographs and field checks to estimate the on-street supply of parking on Northgate's arterials (see **Figure 3-25**). Approximately 3,000 spaces were identified, including spaces classified by existing parking management designations, such as time-limit signs, transit layover, and an RPZ to the west of North Seattle Community College.

North Sector Parking

The north sector contains the on-street parking supply north of NE Northgate Way and east of I-5. The majority of the arterials, including 5th Avenue NE, NE 125th Street, and 15th Avenue NE, are restricted to four-hour time limits. Sections of Roosevelt Way NE (south of NE 125th Street) and 15th Avenue NE are unrestricted. All of NE 125th Street and Roosevelt Way NE (north of NE 125th Street), Pinehurst Way NE, and portions of 5th Avenue NW, Roosevelt Way NE, and 15th Avenue NE are designated no-parking zones.

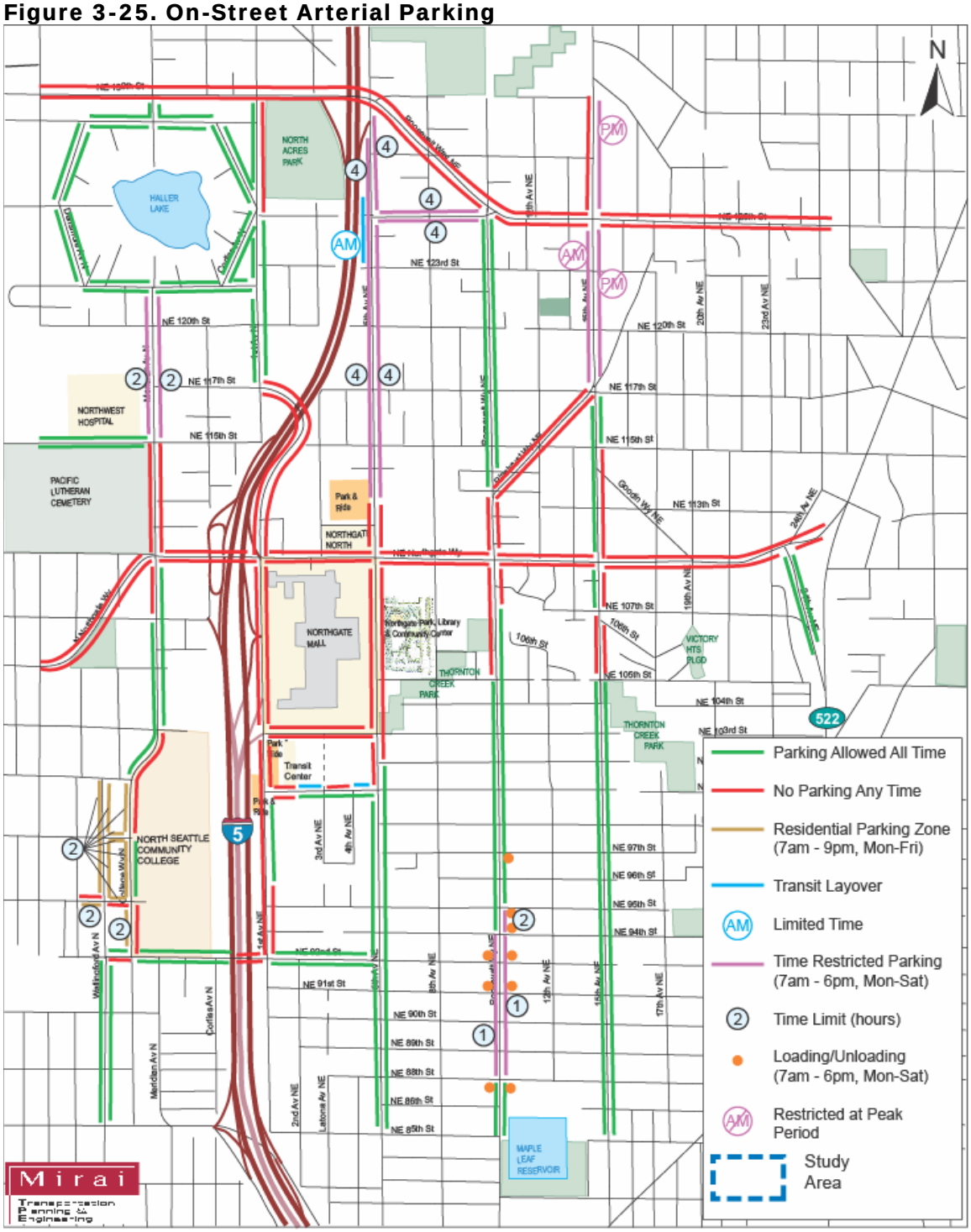
The 1999 Comprehensive Neighborhood Parking Survey collected data for peak and average on-street utilization on 1st Avenue NE, 2nd Avenue NE, 3rd Avenue NE, and 8th Avenue NE between NE Northgate Way and NE 112th Street. This survey area included 109 on-street parking spaces. All were unrestricted at the time, and the majority of those spaces were on streets fronting the multi-family residential development between 1st Avenue NE and 3rd Avenue NE on the north side of NE Northgate Way. Utilization of all on-street spaces in the study area averaged 63%.

Major uses in this area include the Northgate North development and the park-and-ride at NE 112th Street. Outside of the concentration of business and high-density residential uses along NE Northgate Way and 5th Ave NE, Roosevelt Ave NE and 15th Ave NE, there is a large concentration of single-family residential neighborhoods.

South Sector Parking

The south sector includes the on-street parking supply south of NE Northgate Way, east of I-5, north of NE 85th Street, and west of Lake City Way NE. The arterials within the commercial core of the Urban Center typically do not permit on-street parking at any time. Parking is prohibited on all of the streets around Northgate Mall; around the Northgate Park and Ride lot and south lot (Northgate Commons site); along 5th Ave NE adjacent to the Northgate Park, Library, and Community Center; and on the majority of block faces of Roosevelt Way NE and 15th Avenue NE south of NE Northgate Way. The City plans to allow on-street parking on the new 3rd Avenue NE between NE 100th Street and NE 103rd Street, and limited, off-peak parking on the east side of 5th Avenue NE in front of the Civic Center. Where parking is allowed in this area, it is typically unrestricted. However, there are 11 block faces of Roosevelt Way NE in the small neighborhood business district located between NE 88th Street and NE 95th Street with one- and two-hour parking restrictions.

Figure 3-25. On-Street Arterial Parking



West Sector Parking

This sector includes the on-street parking supply west of I-5 and between NE 85th Street, Ashworth Avenue N, and NE 130th Street. Parking is prohibited around the intersection of NE Northgate Way and Meridian Ave N. With the exception of the portion of Meridian Ave N between NE 115th and NE 122nd Streets, which has two-hour time-limits, the remaining arterial parking is unrestricted. The two-hour signs on Meridian are part of a group of restrictions that extend into the single-family neighborhood located between Meridian Ave N and I-5. These signs were installed in 1998 to minimize the spillover impact from employees of Northwest Hospital.

An RPZ is designated west of North Seattle Community College. This zone was established as part of the College's Transportation Management Plan. On the participating blocks of College Way N and Wallingford Avenue N, the zone limits parking between 7 AM and 9 PM to two hours for vehicles not displaying a Zone 18 permit. Vehicles with a Zone 18 permit may park for up to 72 hours before they are required to move from their parking spaces.

Existing On-Street Demand

The City's standard for on-street occupancy is 85% parking utilization. Above the 85% standard, it becomes difficult to find a parking space. Based on the most recent utilization data for Northgate (1999 Comprehensive Neighborhood Parking Study), customers looking for an off-street or an on-street space had a high likelihood of finding one. On-street parking on the side streets around NE Northgate Way had a peak utilization of 83% and an average utilization of 63%. Given that non-residential off-street parking spaces had a peak utilization of 77%, most customers and visitors can easily find an off-street space closer to the door of their destination than on-street spaces. Unlike Downtown Seattle and some of the City's denser Urban Centers, most land uses in Northgate provide off-street parking. Therefore, in commercial areas, on-street parking spaces are most likely used by area employees, customers, and visitors choosing a convenient on-street space.

Existing Transportation Demand Management (TDM) Strategies

The City's TDM programs employ various planning tools that encourage reduction in SOV travel, including pricing and managing parking supply for new development through Transportation Management Plans (TMP). A TMP is often a requirement of a building permit or Master Use Permit.

Development within Northgate must meet the requirements of the Northgate Overlay District Transportation Management Program (SMC 23.71.018), which specifies mode-split goals for the area and different techniques developers may use to achieve those goals.

Another Northgate-specific TDM measure, the Northgate Employer Network, provides King County Metro staff assistance to help member businesses reduce parking demand by encouraging transit use, van- and carpooling, walking, and bicycling. In addition, Northgate currently has one of the City's "Flexcars" parked on the south side of NE 100th Street adjacent to the Northgate Executive Center at 155 NE 100th Street. This car is available to program participants for midday errands.

Finally, employers with over 100 employees at a single site are required by the state to meet Commute Trip Reduction Act goals. In the Northgate area, the following employers meet this criterion: Northwest Hospital, Qualis Health, North Seattle Community College, the University of Washington Northgate, and Washington Dental Service. As part of the Northgate Employer Network described above, King County Metro coordinates regular meetings of the Employee Transportation Coordinators (ETCs) of each of these organizations to share strategies to help each organization meet its Commute Trip Reduction Act goals.

4. Traffic Forecasts

Traffic forecasts for the CTIP projected traffic conditions for the years 2010 and 2030 with and without the CTIP's recommended transportation improvements. The City of Seattle provided the travel demand forecasting model, which includes assumptions for future land use and roadway network configurations. King County Metro and Sound Transit provided information on anticipated modifications to the transit network. The model was also adjusted to reflect anticipated development projects and associated trip generation and distribution patterns. It was then tested for accuracy using actual 2004 traffic counts.

Household and Employment Assumptions

The City's travel demand forecast model includes household and employment forecasts derived from anticipated land uses for the study area. **Table 4-1** shows a summary of the 2000 and the forecast 2010 and 2030 household, employment, and student demographics. This information, divided into a series of transportation analysis zones, forms the foundation for projecting future travel demand. The traffic analysis zones pertaining to the study area and land use forecast details are located in **Appendix 4-1.**

Table 4-1. 2010 and 2030 Household, Employment, and Student Forecasts for the CTIP Study Area

Year	Household	Percent Increase	Employment	Percent Increase	Full-time Equivalent Student	Percent Increase
2000	14,233	-	17,092	-	4,035	-
2010	15,717	10.4%	19,906	16.5%	4,405	9.2%
2030	20,572	44.5%	27,271	59.6%	5,152	27.7%

Source: City of Seattle

Roadway, Transit, and Land Use Assumptions

2010 and 2030 Land Use

The 2010 and 2030 travel demand forecasts assume that eight new development projects ("pipeline" projects) will be completed, with several developments phased in over time (see **Figure 4-1**). **Table 4-2** provides a summary of the assumed land use changes associated with each pipeline project for 2010 and 2030.

Table 4-2. Northgate CTIP Traffic Analysis: 2010 and 2030 Pipeline Development Project Assumptions

Pipeline Projects	Analysis Year	Use	Area (SF)	Units	
Northgate Civic Center	2010	Community Center	20,000		
		Library	10,000		
Northgate Mall Expansion	2010	Retail	100,000		
Northgate Commons	2010	Residential (rental)		250	units
		Residential (condo)		110	units
		Residential (senior)		129	units
		Retail	20,000		
		Restaurant (sit-down)	15,000		
		Restaurant (eateries)	15,000		
		Theater		3,260	seats
		KC Metro Park and Ride		400	stalls
King County Northgate TOD	2010	NE 112th Street Park & Ride Removal		-296	stalls
		Residential		120	units
		Restaurants	25,000		
		Retail Shops	40,000		
	2020	Hotel	46,000	170	units
		Restaurants	15,000		
		Retail Shops	30,000		
		Residential	75,000		
	2030	Retail	16,000		
		Residential	327,000	340	units
		Health Club	24,000		
		Daycare	16,000		
Wallace Development	CURRENT	Retail	50,609		
	2010	Retail Removal	-50,609		
		Retail New	100,000		
		Residential New		350	units
Mullally Development	CURRENT	Residential		200	units
	2010	Residential Removal		-100	units
		Residential Addition		500	units
		Hotel		135	rooms
		Commercial	100,000		
	2030	Residential Removal		-100	units
		Residential Addition		500	units
		Commercial	9,000		
Kauri Investments	CURRENT	Residential		144	units
	2010	Residential Addition		200	units
Northgate Medical Pavilion	2010	Medical Office	67,937		

Source: City of Seattle

The growth forecasts shown in **Appendix 4-2** include all currently identified "pipeline" development projects and the City of Seattle's 2030 growth projections.

Figure 4-1. Pipeline Development Projects in the Study Area

2010 Arterial/Transit Network

The 2010 forecasts assumed completion of the following roadway and transit improvements by 2010:

- New 3rd Avenue NE between NE 100th Street and NE 103rd Street with three lanes.
- King County Metro Park and Ride's 296 spaces located at 5th Avenue NE north of NE 112th Street will be removed. These spaces will be transferred to the new garage that is being built for the Northgate Commons project at the southwest corner of the NE 103rd Street and 5th Avenue NE intersection.

2030 Arterial/Transit Network

In addition to the 2010 changes, the 2030 baseline network assumed that the following transit improvements would occur by 2030:

- Sound Transit North Link Light Rail station on 1st Avenue NE and NE 103rd Street will be constructed.
- King County Metro's Transit Center will be moved to 1st Avenue NE. The transit center will occupy parts of 1st Avenue NE.
- As part of the new light rail station and reconfigured transit center operations, one general-purpose lane in each direction on 1st Avenue NE between NE 100th Street and NE 103rd Street will be converted to bus bays for the transit station.
- King County Metro's 1,400 park-and-ride spaces in the analysis area will be consolidated at the current Northgate Transit Center.
- The signals on Northgate Way between Meridian Avenue N and Roosevelt Way NE will be optimized for maximum throughput.

2010 and 2030 Traffic Volumes (PM Peak Hour)

The forecast traffic volumes for 2010 from the City of Seattle's model were adjusted against existing traffic counts and checked for consistency through the traffic corridors within the study area. **Figure 4-2** shows the existing, 2010, and 2030 PM peak hour approach volumes at key arterial intersections for the Northgate Area. **Figure 4-3** shows this information for the Northgate core area.

2010 and 2030 Levels of Service (PM Peak Hour)

CTIP used the 2010 and 2030 traffic volumes to calculate future levels of service. [1] **Figure 4-4** shows the results for each intersection in terms of level of service (LOS) and average

[1] Signal operations at intersections were individually "optimized" except for the signals around the Transit Center and along the commercialized portion of Northgate Way, which operate independently and cannot be optimized as part of a system. The remaining signals were interconnected and coordinated. Optimization of signals consists of minimizing the average overall intersection delay experienced by a driver through adjustments in the signal timing for each movement and/or changing the overall cycle length.

intersection delay for 2010.[2] **Figure 4-5** shows the 2010 arterial corridor LOS and average speeds by direction for each selected segment. **Figure 4-6** shows the results for each intersection in terms of LOS and average intersection delay for 2030.[3] **Figure 4-7** shows the 2030 arterial LOS and average speeds by direction for each selected segment. **Appendix 4-3** provides more detail above the intersection delay by movement and approach.[4]

2010 Key Findings

- Two signalized intersections along Northgate Way will operate at LOS F during the PM peak hour:
  - N Northgate Way and Meridian Avenue N (average PM peak hour delay of about 100 seconds)
  - NE Northgate Way and 5th Avenue NE (average PM peak hour delay of about 90 seconds)
- Several unsignalized intersections will operate at LOS F on one of the stop approaches in 2010:
  - I-5 northbound off-ramp and 5th Avenue NE
  - Pinehurst Way NE and 15th Avenue NE
  - New 3rd Avenue NE and NE 100th Street
  - College Way N and N 92nd Street
  - 1st Avenue NE and NE 92nd Street
- Average speeds on most arterials will decrease from existing levels. However, the only arterial segment that will operate at LOS F is 15th Avenue NE between Northgate Way and NE 125th Street in the northbound direction. The greatest contribution to the LOS F condition is the increased delays at the unsignalized intersection at 15th Avenue NE and Pinehurst Way NE. All other corridors will operate at LOS E or better in 2010.
- Northgate Way between Meridian Avenue N and Lake City Way will operate at LOS E despite a few intersections operating at LOS F.

[2] This analysis assumed the new intersection at 3rd Avenue NE and NE 103rd Street was signalized. The intersection at 3rd Avenue NE and NE 100th Street was kept as an unsignalized intersection with stop control in the north-south movements.
[3] For this analysis, 1st Avenue NE between NE 100th Street and NE 103rd Street will only have one general-purpose through lane in the southbound direction. See **Figure 5-8**, page 5-12, for the 1st Avenue NE lane configuration details. At 1st Avenue NE and NE 100th Street, the west leg of the intersection will be eliminated as part of the park-and-ride consolidation at the Northgate Transit Center.
[4] For unsignalized intersections, LOS and delay was provided for the worst movement.

2030 Key Findings

By 2030, Northgate Way will be heavily congested between Meridian Avenue N and Roosevelt Way NE, even if all intersections in this segment are interconnected and optimized for signal operations. In addition,

- The average travel speeds in most corridors in the study area will be slower, especially along N 130th/Roosevelt Way NE/NE 125th Street and Northgate Way, in both directions.
- Northgate Way between Meridian Avenue N and Lake City Way will operate at LOS F in both directions down from LOS E in 2010. Among the six intersections along this segment,
  - two will operate at LOS F
  - three will operate at LOS E
- In addition to the Northgate Way intersections, three other signalized intersections will operate at LOS E in 2030:
  - NE 125th Street and 15th Avenue NE
  - N 130th Street and 1st Avenue N
  - NE 92nd Street and 5th Avenue NE

Those unsignalized intersections operating at LOS F in 2010 will operate with even higher delays in 2030. The following unsignalized intersections will operate at LOS F:

- 1st Avenue NE and NE 92nd Street
- New 3rd Avenue NE and NE 100th Street
- 1st Avenue NE and I-5 off-ramp
- 15th Avenue NE and Pinehurst Way NE
- Meridian Avenue N and N 115th Street
- College Way N and N 92nd Street

Figure 4-2. PM Peak Hour Intersection Approach Volumes (Existing, 2010, 2030 Forecasts) outside the Core Area

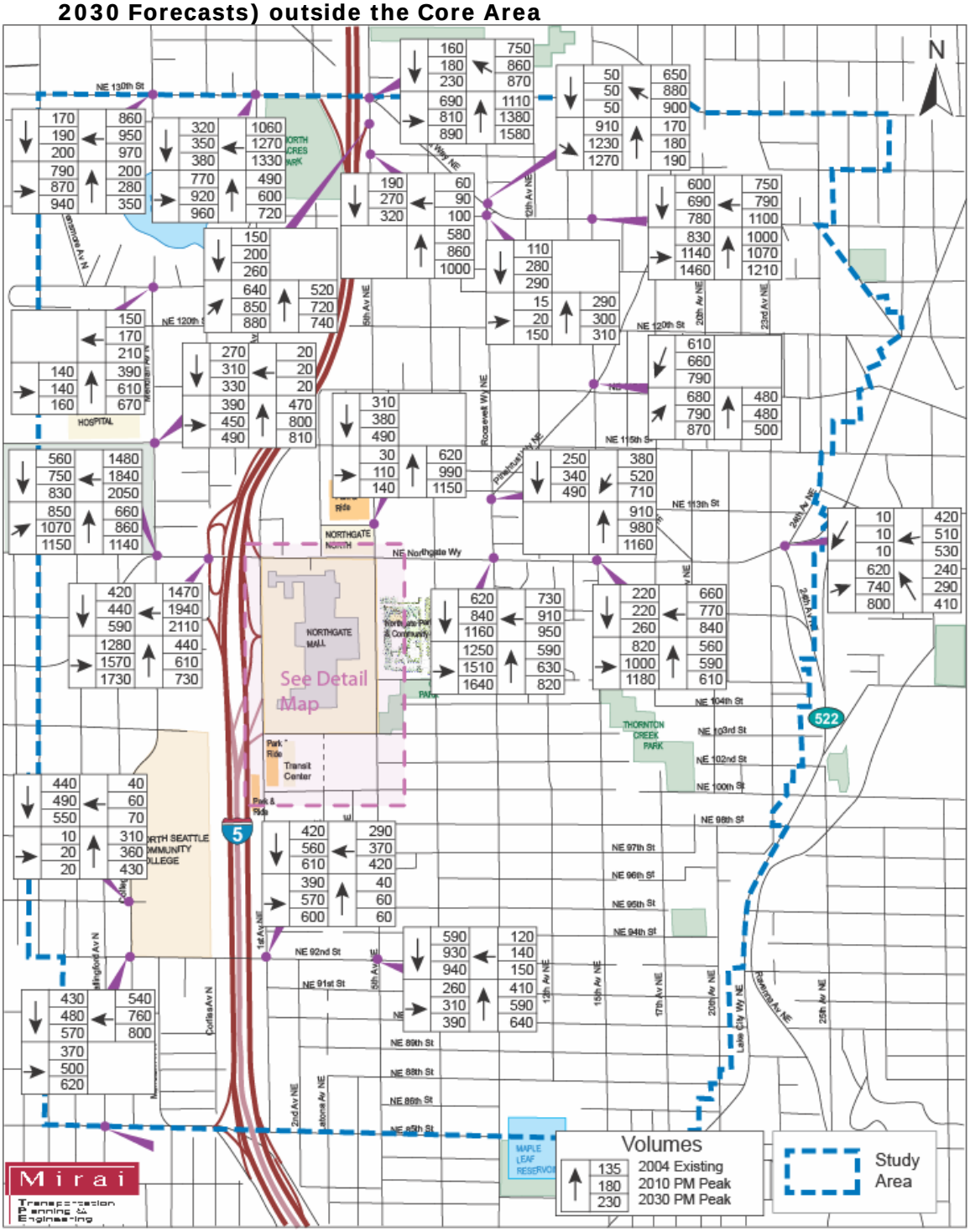


Figure 4-3. PM Peak Hour Intersection Approach Volumes (Existing, 2010, 2030 forecasts)—Northgate Core Area

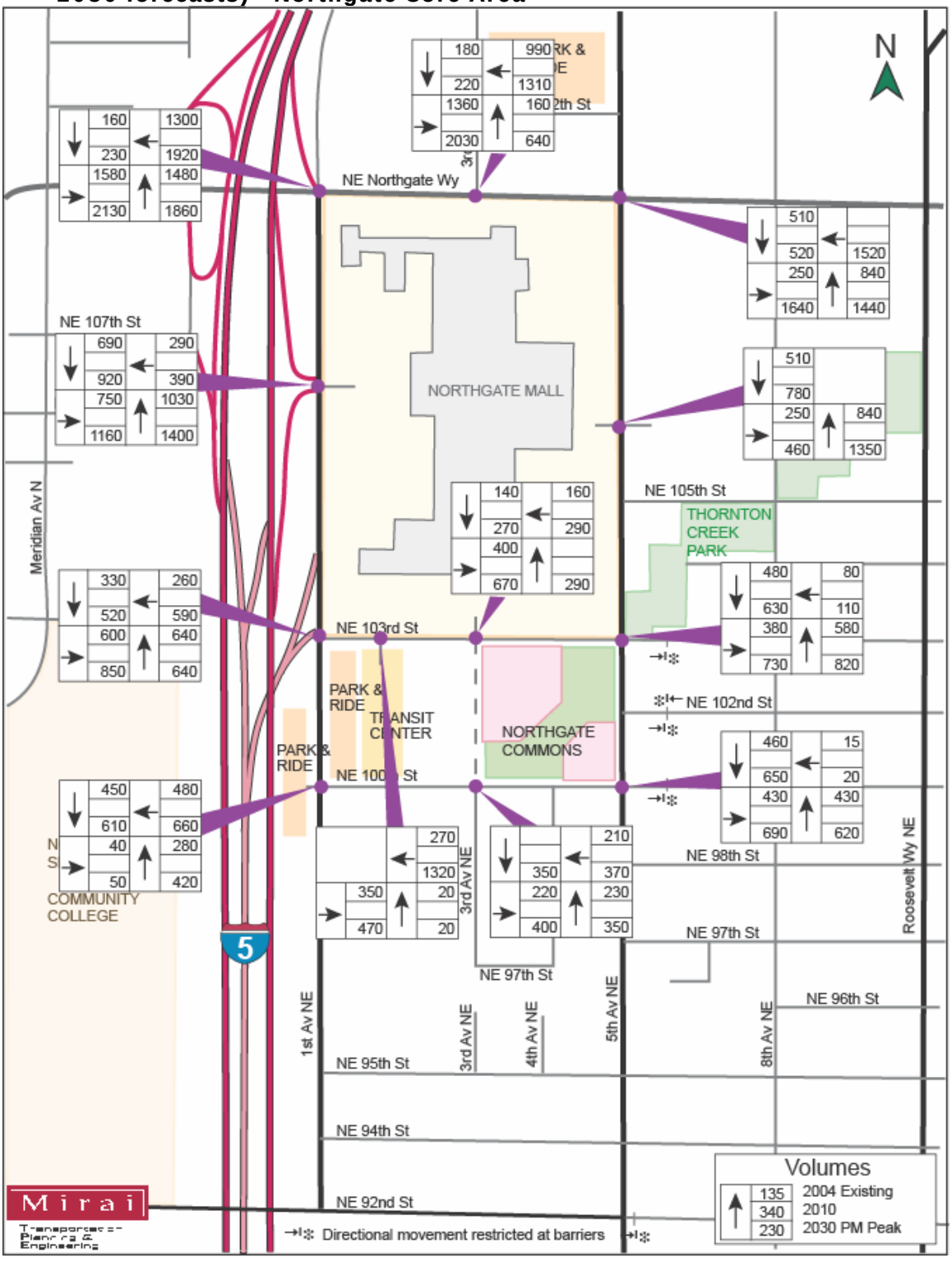


Figure 4-4. PM Peak Hour 2010 Baseline Intersection Level of Service and Delay

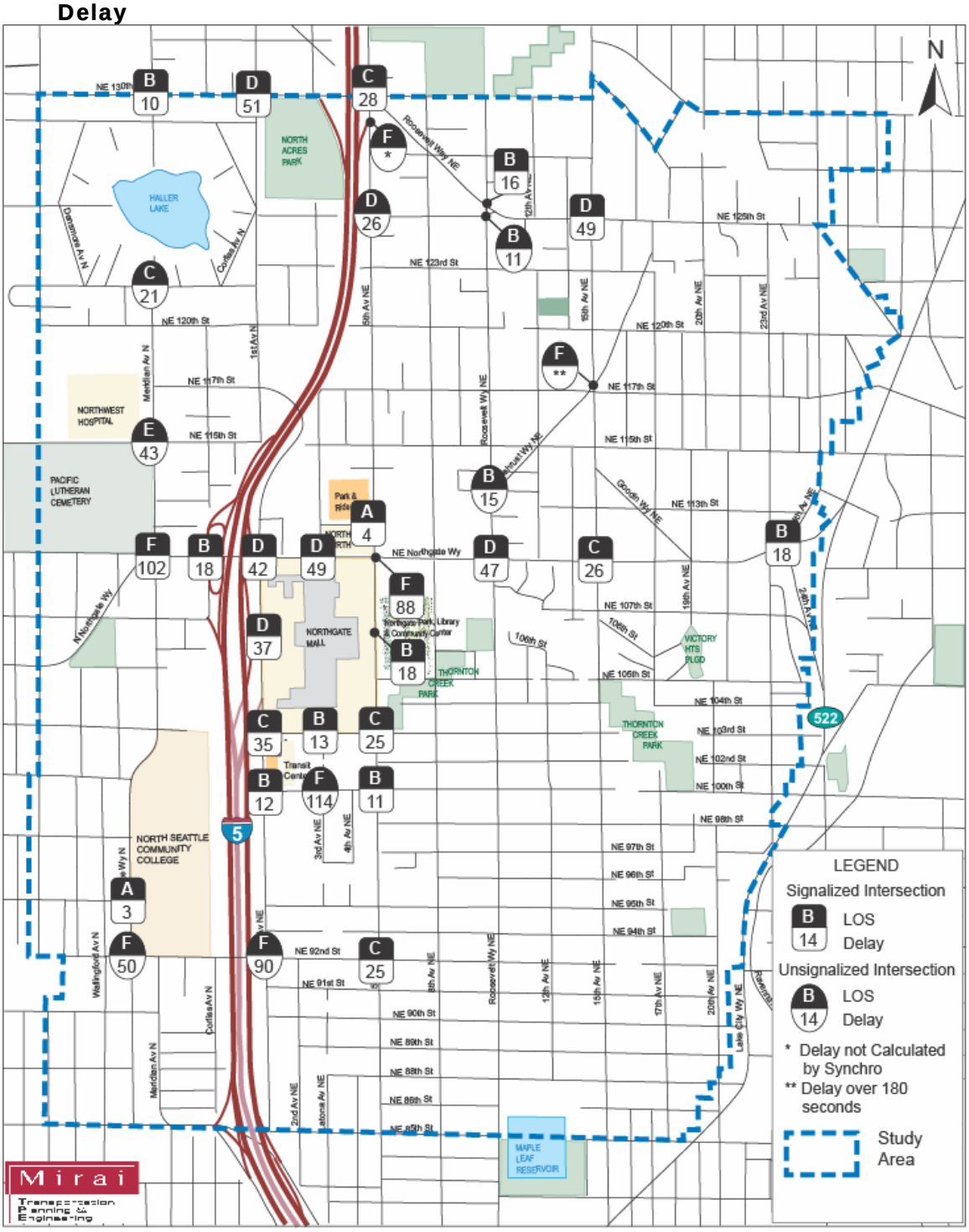


Figure 4-5. 2010 PM Peak Hour Baseline Arterial Corridor Level of Service and Average Speed

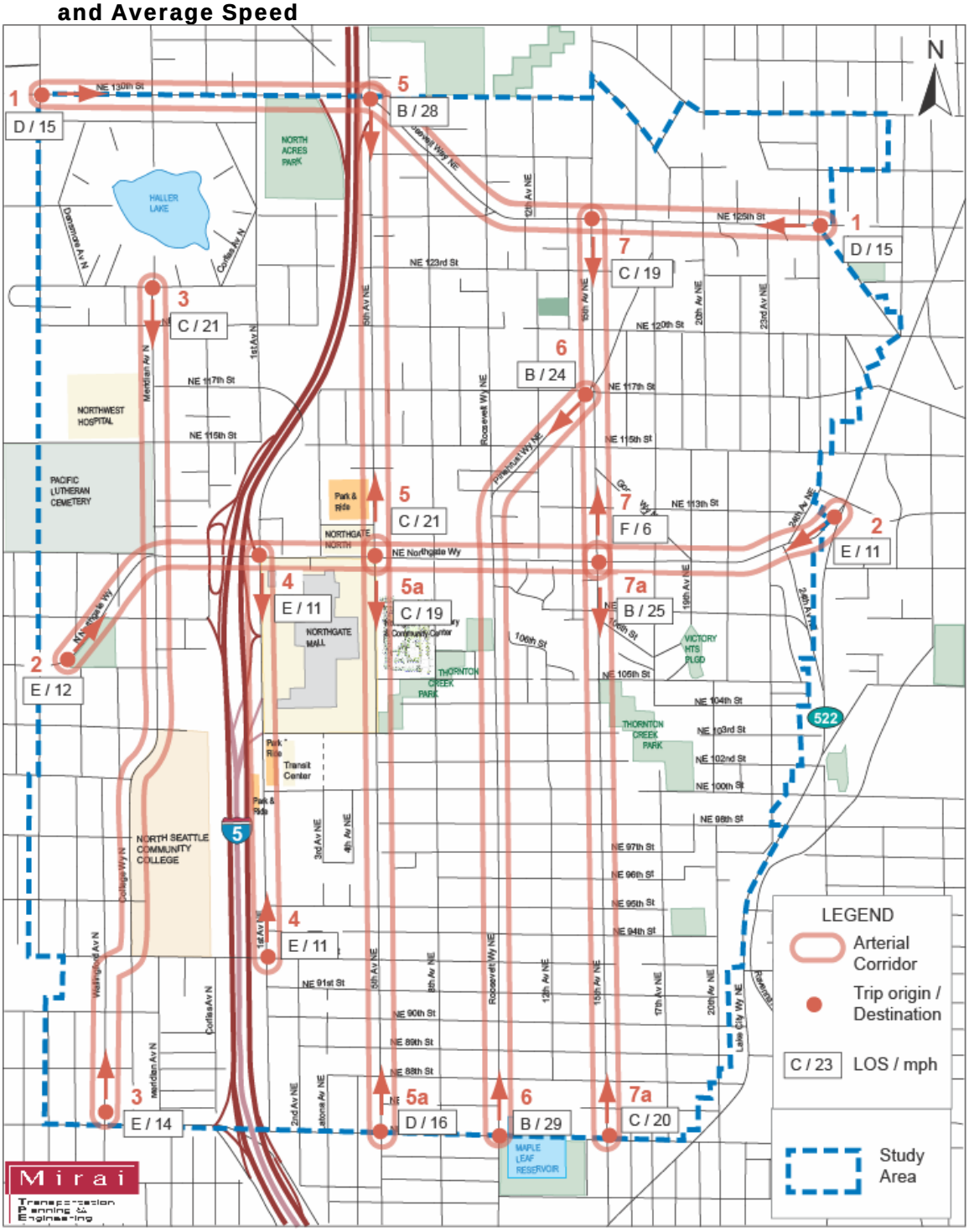


Figure 4-6. PM Peak Hour 2030 Baseline Intersection Level of Service and Delay

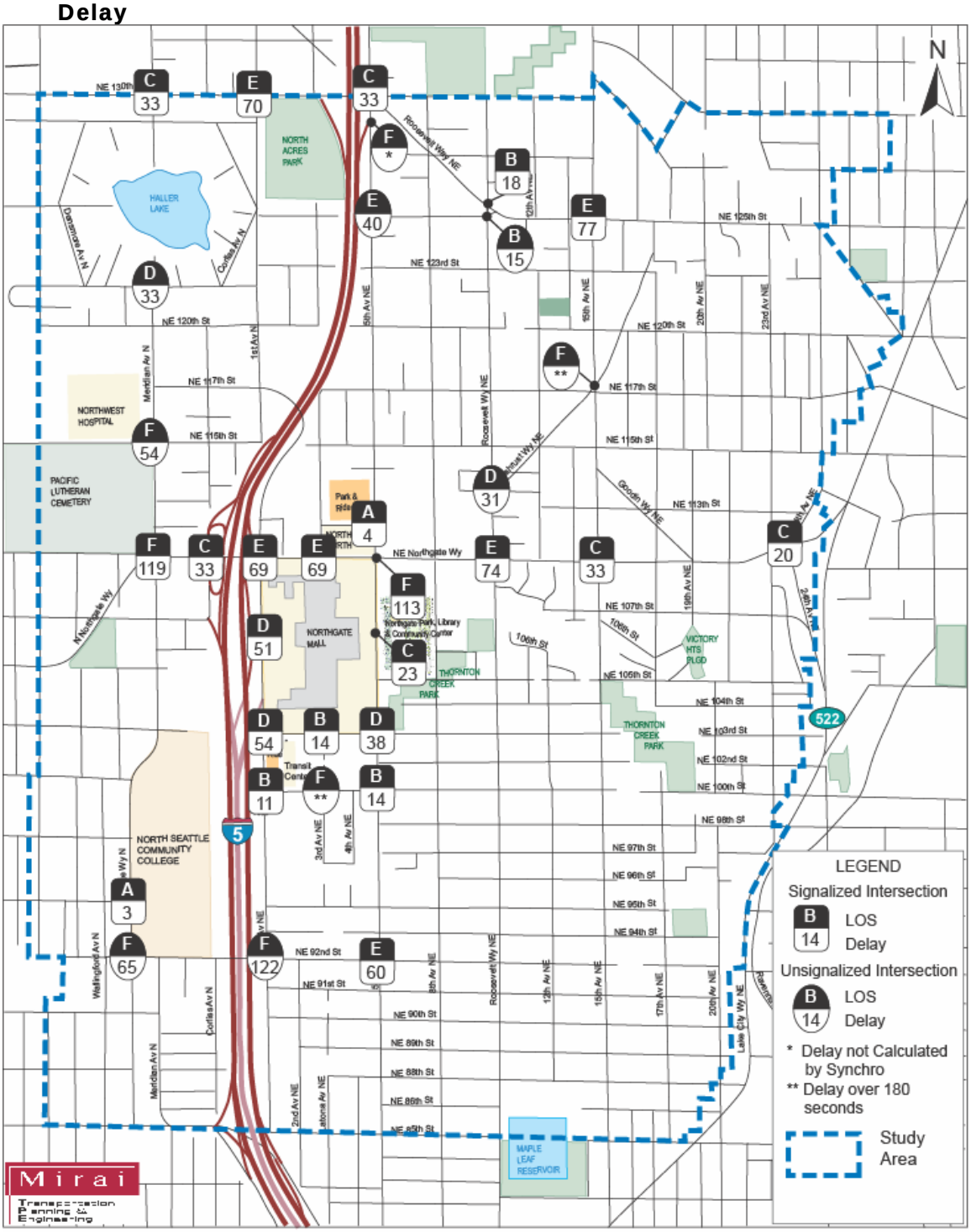
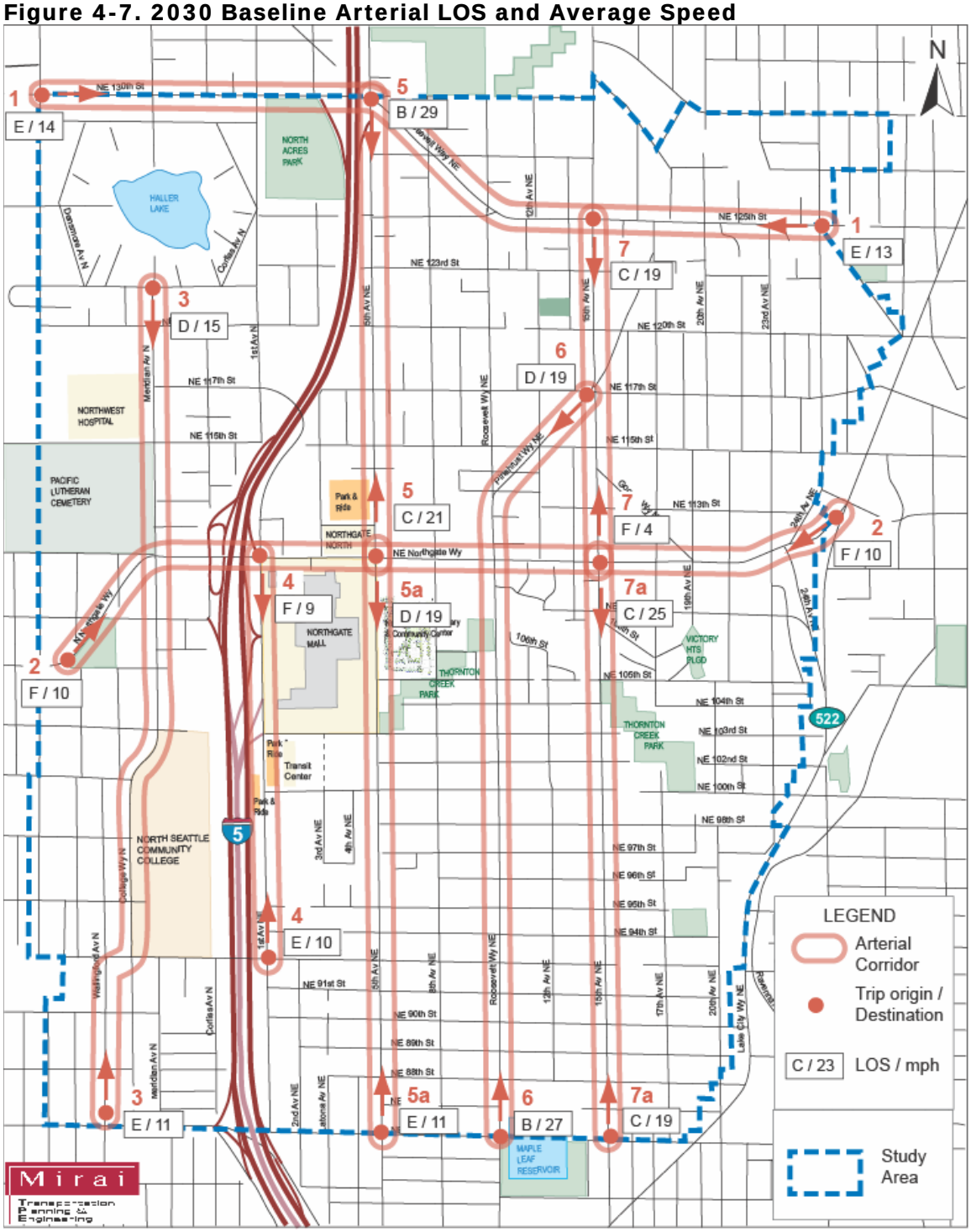


Figure 4-7. 2030 Baseline Arterial LOS and Average Speed



5. Transportation Improvement Concepts

The CTIP reviewed the existing and future condition of the Northgate Area's transportation system (see Chapters 3 and 4) in relation to a series of performance measures that describe acceptable thresholds for roadway, pedestrian, bicycle, and transit facilities (see **Appendix 5-1**). This section of the CTIP report describes key transportation issues and associated candidate transportation improvement concepts identified during this stage of the planning process. The following groups provided input during development of the improvement concepts:

- SDOT and other City staff
- Northgate Stakeholder Group
- King County
- Sound Transit
- WSDOT
- Seattle Planning Commission
- Seattle Pedestrian and Bicycle Advisory Board

The proposed concepts are grouped as shown below. (Note: Project numbers reflect the geographic and/or programmatic improvement categories listed in **Appendix 5-2**.)

- Areawide residential/non-arterial streets
- Areawide transit services, transportation demand management and parking programs
- Transit Center/light rail station area
- NE 130th/125th Street corridor
- NE 92nd Street corridor
- NE Northgate Way corridor
- West of I-5
- 15th Avenue NE corridor
- Roosevelt Way corridor
- 5th Avenue NE corridor

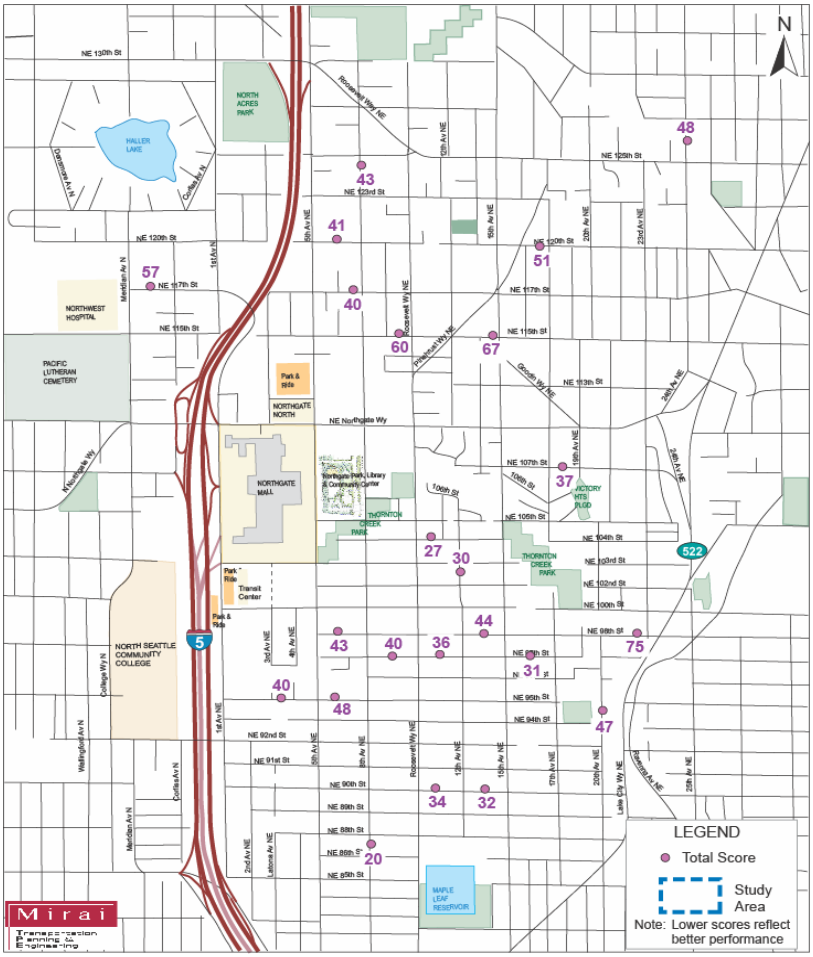
Residential/Non Arterial Streets

The CTIP study developed specific performance measures for non-arterials, which are intended to carry less traffic than arterials and at lower speeds. They frequently serve as pedestrian and bicycle routes. The performance measures considered the following indicators:

- vehicle volumes
- vehicle speed
- presence of pedestrian facility (sidewalks and/or walkways)
- crash history
- school walkway routes
- pedestrian routes as described in the Northgate Open Space and Pedestrian Plan
- bicycle routes
- street features, including sharp curves, barriers to pedestrian travel, and roadway width

Figure 5-1 shows the performance "scores" of the local streets selected for CTIP analysis based on local knowledge of traffic conditions in the study area and community input. Streets most in need of attention, ranked by the highest scores, include NE 98th Street west of Lake City Way NE, NE 117th Street east of Meridian Avenue N, and NE 115th Street east of Pinehurst Way NE.

Figure 5-1. Local Streets Performance Scores



Key Transportation Issues

Using the performance measures as a guide, the study identified the following transportation issues associated with local streets in the study area:

- NE 98th Street between 15th Avenue NE and Lake City Way NE received the poorest performance score among the local streets in the study area.
- NE 115th Street between Pinehurst Way NE and Lake City Way NE and NE 117th Street between Meridian Avenue N and 1st Avenue N received the second and third poorest scores.
- Pedestrians, particularly senior citizens residing on the west side of 8th Avenue NE, north of NE Northgate Way, experience difficulties in crossing to the post office and retail businesses on the east side of 8th Avenue NE.
- The Open Space and Pedestrian Plan found a need for clear and safe pedestrian connections to neighborhood-serving businesses such as the post office, Northgate Plaza and QFC, and pedestrian pathways off the major streets to create a more fine-grained pedestrian network (e.g. 8th Avenue NE, north of NE Northgate Way).

Transportation Improvement Concepts

The study identified the following improvement concepts for the residential streets (project designations, e.g. B-1, B-2, are for internal identification purposes throughout this report):

B-1. Provide a raised walkway on one side of NE 115th Street from 5th Avenue NE to Lake City Way NE. Restrict on-street parking to one side. Consider phased implementation of this project. The location of this improvement concept is shown in **Figure 5-2.**

B-2. Analyze pedestrian crossing conditions on 8th Avenue NE between NE Northgate Way and NE 115th Street. If consistent with SDOT guidelines and practices, install pedestrian crossing improvements such as curb bulbs and related signs and markings. Crossing improvements at this location would enhance the connection between the senior housing developments on the west side of 8th Avenue NE with a post office on the east side. The pictures in **Figure 5-3** shows the possible pedestrian crossing locations on 8th Avenue NE.

Figure 5-2. Raised Walkway on NE 115th: 5th Avenue NE to Lake City Way NE (B-1)

Figure 5-3. Possible Pedestrian Crossing Locations on 8th Avenue NE (B-2)

8th Avenue NE in the vicinity of the proposed mid-block pedestrian crossing

B-3. Provide a raised walkway on one side of 8th Avenue NE from NE Northgate Way to NE 92nd Street. Install appropriate traffic calming devices to discourage excessive traffic speeds. Consider phased implementation of this project. The location of this project is shown in **Figure 5-4.**

Figure 5-4. Raised Walkway on 8th Avenue NE: NE Northgate Way to NE 92nd Street (B-3)

B-4. Provide a raised walkway on one side of NE 98th Street from 15th Avenue NE to Lake City Way NE. Allow on-street parking. Integrate traffic control devices with the sidewalk improvements. Consider phased implementation of this project. The location of this project and pictures are shown in **Figure 5-5.**

B-5. Add a raised walkway on the north side of N 117th Street from 1st Avenue N to Meridian Ave N and install speed "cushion" for traffic calming. Consider phased implementation of this project. The location of this project is shown in **Figure 5-6.**

Figure 5-5. Raised Walkway on NE 98th Street: 15th Avenue NE to Lake City Way NE, and Existing Traffic Calming Facilities (B-4)

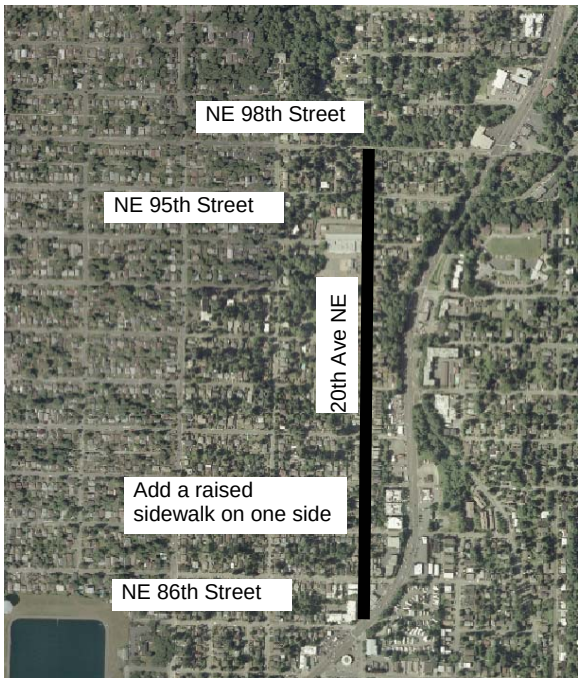
Figure 5-6. Raised Walkway on N 117th Street: 1st Avenue N to Meridian Avenue N (B-5)

B-6. Add a raised walkway on one side of NE 95th Street from 12th Avenue NE to 17th Avenue NE; on 17th Avenue NE from NE 95th Street to NE 96th Street, and on NE 96th Street from 17th Avenue NE to 19th Avenue NE. The location of this project and pictures are shown in **Figure 5-7.**

B-7. Add a raised walkway on one side of 20th Avenue NE from NE 86th Street to NE 98th Street. The location of this project is shown in **Figure 5-8.**

Figure 5-7. Raised Walkway on NE 95th Street to Scajawea Elementary School (B-6)

Figure 5-8. Raised Walkway on 20th Avenue NE: NE 86th Street to NE 98th Street (B-7)

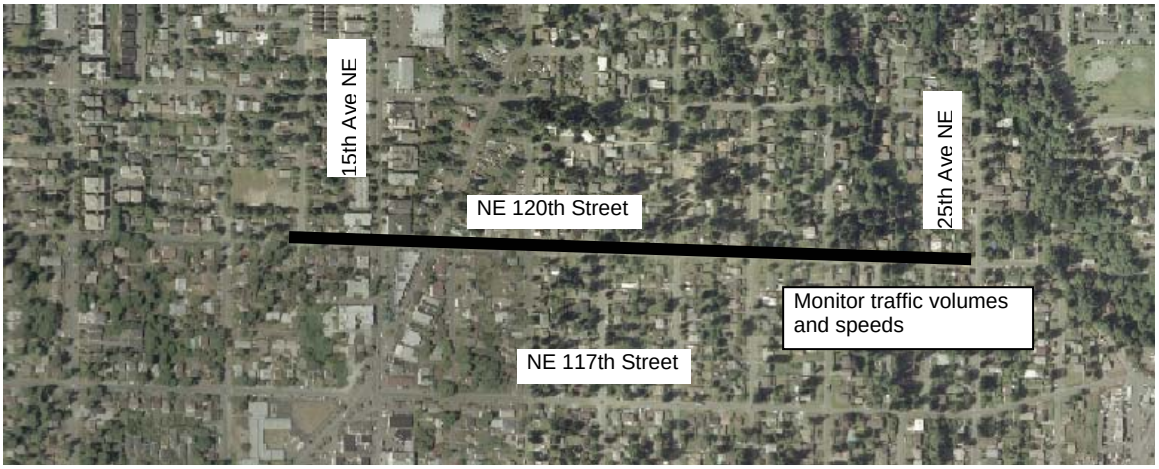


B-8. Add an at-grade walkway on one side of 25th Avenue NE from NE 125th Street to NE 127th Street. The location of this project is shown in **Figure 5-9.**

B-9. Monitor traffic volumes and vehicle speeds on NE 120th Street between 17th Avenue NE and 25th Avenue NE. Work with residents to implement traffic calming measures, including community education, if the need occurs. The location of this project is shown in **Figure 5-10.**

Figure 5-9. At-grade Walkway on 25th Avenue NE: NE 125th Street to NE 127th Street (B-8)

Figure 5-10. NE 120th Street Traffic Monitoring: 17th Avenue NE to 25th Avenue NE (B-9)



Transit Service, Transportation Demand Management, and Parking Program Improvement Concepts

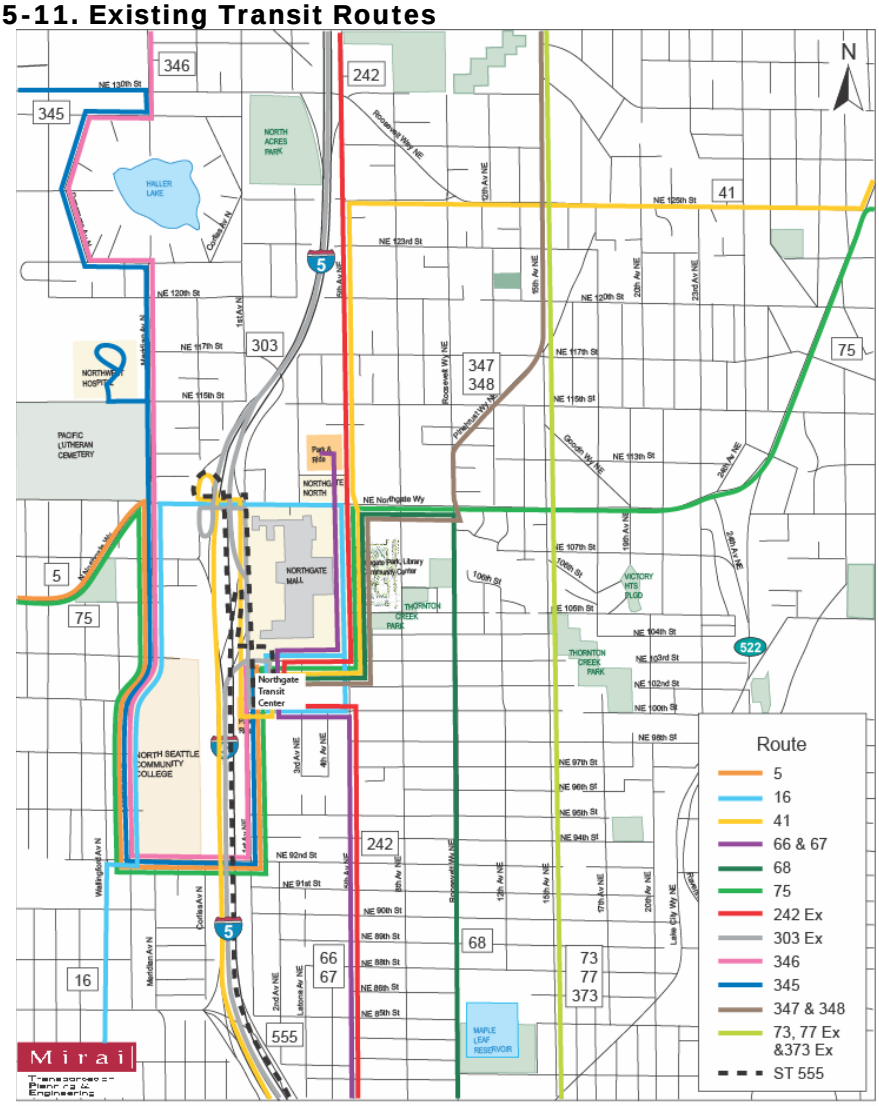
Key Transportation Issues

When the North Link Light Rail is extended to Northgate from downtown Seattle, transit service from Northgate to the University of Washington and downtown Seattle will greatly improve, with added capacity and shorter travel time. Many of the current bus riders will switch to rail, and the current express bus system will need to be restructured.

Existing transit service from Northgate to the University of Washington and downtown Seattle is well used. The 2000 census data shows that ridership for morning trips that originate in the Northgate area (the residents working in locations outside Northgate) is very high. But ridership for workers traveling to the Northgate area is not meeting the CTIP's mode split goal (which is the same as that described in the Transportation Element of the Seattle Comprehensive Plan). Transit service to other urban villages such as Bitter Lake and Aurora–Licton Springs should also be improved to meet the CTIP's transit performance benchmarks, especially for midday service. During the midday period, transit service to the University District should have increased frequencies to meet the CTIP benchmarks. **Figure 5-11** shows existing transit routes.

Finally, as Northgate continues to grow, new development will continue to need some parking, but the cost of creating new parking structures will increase along with land values. Property owners and developers may want to meet their parking needs by selling or leasing parking spaces from each other. While such arrangements may currently be in place between some property owners, a "parking brokerage" that acts as a central clearinghouse for parking, enforcement and other transportation services could create efficiencies and added value. These functions could be managed by a new or existing association of employers and property owners, a Chamber of Commerce, or a Transportation Management Association (TMA). (See **Appendix 5-3** for examples of TMAs.)

Figure 5-11. Existing Transit Routes



Transportation Improvement Concepts

J-1. Following the extension of light rail to Northgate, provide transit feeder services from nearby neighborhoods to the transit center.

J-2. Provide improved transit service with average of 15 minutes frequencies during off-peak hours from Northgate to the University District. This service improvement recommendation should be consistent with the Seattle Transit Plan's Urban Village Transit Network, prepared in collaboration with Metro. (Cost estimate: not prepared).

J-3. Improve transit service with average of 15 minutes frequencies during peak periods and 30 minutes frequencies during off-peak period to other urban villages, such as Bitter Lake and Aurora–Licton Springs.

J-4. Facilitate development of a "parking brokerage" function to efficiently allocate parking needs through shared use of parking spaces. This function could be managed by a new or existing association of employers and property owners, a Chamber of Commerce, or a Transportation Management Association (TMA). These organizations may also be able to provide other services related to improving public transportation and promoting alternatives to drive-alone commutes.

J-6. Amend SMC 23.71.016 to allow shared parking between retail stores and other uses. The Northgate Overlay District is the only zone in the city where retail is prohibited from sharing parking with other uses. Shared parking between uses increases the efficiency with which parking supply is used. Parking impacts of a project can be addressed through SEPA mitigation.

J-7. Amend SMC 23.71.016(C) to allow for reductions to minimum parking requirements for commercial uses, and consider expanding 23.71.016 to allow for these reductions to apply to residential uses as well as commercial uses. 23.54.020(F) applies in other commercial zones in the City, and allows for parking reductions for proximity to transit and provision of alternative transportation strategies, such as vanpools and bicycle racks. This reduction should apply in the Northgate Overlay District as well.

J-8. Amend SMC 23.71.018 to make the Northgate Overlay District mode split goals consistent with the goals for Northgate in the Seattle Comprehensive Plan. The Seattle Comprehensive Plan has mode split goals for each urban center. Mode split goals are an indicator of how many people are driving alone as opposed to using alternative means of transportation.

J-9. Allow residential uses to meet their parking requirements off-site. Under current Code, commercial uses may meet their parking requirements off-site. Allowing off-site residential parking can encourage adjacent property owners to more efficiently meet their respective parking needs.

J-10. Continue researching appropriate parking requirements to achieve Seattle Comprehensive Plan goals LU50 (parking maximums) and NGP12 (discourage SOV use, improve short-term parking accessibility). Through the process, acknowledge stakeholder concerns, including the following comments:

- Retail parking maximums may be appropriate to review with respect to current lending practices.
- Reduced parking requirements should be considered by the City contingent on increased transit service.
- Benefits to developers from reduced parking requirements should be matched by their commitment to alternative travel as demonstrated by provision of transit passes, bicycle facilities, and car-share vehicles.

J-11. Manage on-street parking supply within the commercial core of the Northgate Urban Center to give priority to short-term customer use.

J-12. Conduct a neighborhood parking management assessment for Northgate to ensure that the neighborhood's limited supply of on-street parking adequately serves surrounding land uses, in the mid-term (2008–2010).

J-13. Work with Sound Transit and stakeholders to study and implement proactive parking management techniques around the station to prevent use of neighborhood streets for park-and-ride purposes, prior to the opening of the light rail station.

J-14. Add 10 bus shelters within the study area at locations with 40 or more daily boardings. King County Metro should provide seven of the shelters to meet their standard of providing shelters at locations with 50 or more daily boardings; the City should provide funds for the additional 3 shelters through the Northgate Mitigation Program.

Transit Center / North Link Light Rail Station Area

King County Metro's Northgate Transit Center is a focal point of transportation activities south of the Northgate Mall between NE 103rd Street and NE 100th Street. Sound Transit plans to extend the North Link Light Rail line from the University of Washington to Northgate. The aerial rail station at Northgate will be constructed along the east side of 1st Avenue over NE 103rd Street.

The new light rail station and bus facility will be structurally integrated to help maximize transit use. Mixed-use developments adjacent to the station, and high-quality pedestrian facilities, will generate and support significant pedestrian activity in the area.

Buses, passenger cars, and pedestrians share the transportation facilities in this area. It is therefore important for the City to

provide adequate transportation facilities that support King County Metro's speed and reliability goals for bus operations.

Key Transportation Issues

The CTIP study identified the following transportation issues for the transit station area:

- The efficient and safe operation of key intersections in the vicinity of the transit center, such as 5th Avenue NE and NE 103rd Street, are vital to the maintenance of efficient and reliable transit service.
- Some arterials, including the north side of NE 100th Street, do not have sidewalks, and sidewalks on other arterials, such as 1st Avenue NE between NE 92nd Street and the Transit Center, are in poor condition. Note: Sidewalks are currently programmed for NE 100th as part of public and private redevelopment of the South lot.
- Interstate 5 divides the Northgate urban center. North Seattle Community College and the medical offices on the west side of I-5 generate significant transit ridership, yet because of I-5, transit riders arriving at the Transit Center cannot walk directly to the college or to the medical offices north of the College.

Transportation Improvement Concepts

The following transportation improvement concepts address the issues identified above:

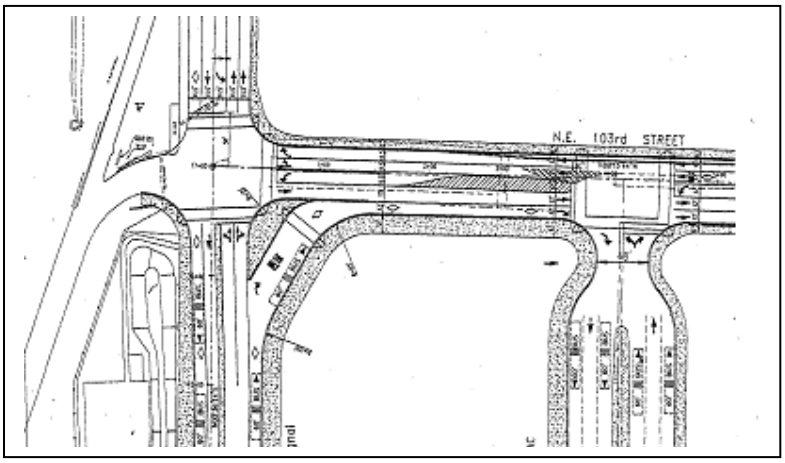
F-1. Add a westbound right turn lane and implement the intersection improvement concept, including marked crosswalks on all legs, prepared by King County Metro and SDOT at the NE 103rd Street/1st Avenue NE intersection as shown in **Figure 5-12**.

F-2. Install a traffic signal at the NE 103rd Street /3rd Avenue NE intersection. Provide urban design treatments for accommodating pedestrians.

F-3. Allow eastbound left turns from the existing curb lane at the NE 103rd Street/5th Avenue NE intersection.

F-4. Construct a three-lane roadway on 3rd Avenue NE from NE 100th Street to NE 103rd Street. This project and the related signal project at 3rd Avenue NE and NE 103rd Street (F-2) are currently under design. These projects are scheduled to be completed in 2007.

Figure 5-12. Proposed Improvement at NE 103rd Street / 1st Avenue NE (F-1)



F-5. When warranted, add four-way stop control and, ultimately, install a traffic signal at the NE 100th Street /3rd Avenue NE intersection. Provide marked crosswalks and urban design treatments to accommodate pedestrians. Note: Upon opening, the 3rd Avenue NE extension will have two-way stop controls on the 3rd Avenue NE approaches.

Figure 5-13 shows the locations of concepts F-1, F-2, F-3, F-4, and F-5.

Figure 5-13. Transportation Improvement Concepts in the Vicinity of King County Metro's Northgate Transit Center (F-1 through F-5)

F-6. Provide sidewalks on the north side of NE 100th Street from 1st Avenue NE to 5th Avenue NE. Note: This project is fully funded. Over time, the City, King County and private development (ERA Care) will construct a continuous sidewalk from 1st Avenue NE to 5th Avenue NE.

F-7. Reconstruct the existing sidewalk on the east side of 1st Avenue NE from NE 92nd Street to NE 97th Street and provide a bicycle lane on the west side of 1st Avenue (by extending the shoulder by 4 feet) between NE 103rd Street and NE 92nd Street. The sidewalk improvement on NE 100th Street and the sidewalk and bicycle improvement projects on 1st Avenue NE are shown in **Figure 5-14**.

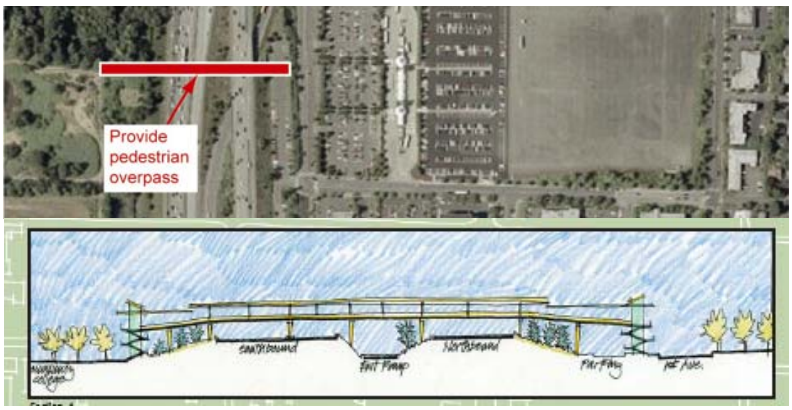
Figure 5-14. Sidewalk Projects on NE 100th Street and Sidewalk and Bicycle Projects on 1st Avenue NE (F-6 and F-7)

Cross-Freeway Connection. Construct a pedestrian and bicycle bridge over I-5 to connect the community west of I-5 (and particularly North Seattle Community College) with the Metro Transit Center and future light rail station. The bridge should be located between NE 100th Street and NE 103rd Street. A sketch of the pedestrian overpass is shown in the Planning Commission's Open Space and Pedestrian Plan, which is copied as **Figure 5-15.**

This project poses considerable design, construction, and funding challenges. Meeting drainage requirements and accommodating elevation differences are two of the critical issues that would need to be addressed. In addition, implementing the project would require a long-term partnership involving the City, Washington State DOT, North Seattle Community College, King County/Metro,

Sound Transit, and the neighborhood residents and businesses adjacent to this new bridge.

Figure 5-15. Pedestrian and Bicycle Bridge Over I-5



Source: Northgate Open Space & Pedestrian Connections, 2004

NE 130th/125th Street Corridor

This east-west principal arterial provides I-5 access to and from the south and connects with Aurora Avenue N on the west and Lake City Way NE on the east. Located at the northern boundaries of the CTIP study area, it is one of only three east-west arterial corridors that cross I-5; the others are NE Northgate Way and NE 92nd Street.

Key Transportation Issues

Reviewing the existing and future traffic data and comments received from the public, the CTIP study identified the following transportation issues within this corridor:

- Since this is one of the three arterial corridors that provide east-west arterial services for vehicles to cross I-5, adequate road capacity over I-5 is needed. The intersections of the I-5 on-ramp and NE 130th Street, and NE 130th Street and 5th Avenue NE, do not have left turn pockets that would allow continuous two-lane operation for the east-west traffic movements in this corridor.
- The intersection of N 130th Street and Meridian Avenue N has a high traffic crash rate: an average of 10 collisions per year and 1.23 crashes per million entering vehicles annually.
- The mid-block traffic collision rate on NE 125th Street between 8th Avenue NE and Roosevelt Way NE is high: an average of 2.35 per million annual vehicles.

- The unsignalized intersection of the I-5 northbound off-ramp and 5th Avenue NE operates at a low level of service. The I-5 off-ramp movement was LOS F in 2004, which will worsen in future years. During the PM peak hour, vehicles getting off I-5 are blocked from making right turns at the 5th Avenue NE and Roosevelt Way (NE 130th Street) intersection by long vehicle queues on 5th Avenue NE.
- King County Metro Route 41 travels on NE 125th Street between 5th Avenue NE and Roosevelt Way NE, including the unsignalized intersection at NE 125th/Roosevelt Way NE and the signalized intersection at Roosevelt Way NE/10th Avenue NE. The narrow roadway and absence of sidewalks on NE 125th Street and the unusual intersection geometry makes this a difficult corridor for pedestrians as well as transit operators and other drivers.

Transportation Improvement Concepts

The following transportation improvement concepts address the transportation issues identified above:

A-1. Add left turn pockets on all approaches at the N 130th Street/Meridian Avenue N intersection (see **Figure 5-16)**.

Figure 5-16. Intersection of N 130th Street and Meridian Avenue N (A-1)

A-2. Add a westbound left turn pocket at the I-5 southbound on-ramp and NE 130th Street intersection.

A-3. Add an eastbound left turn pocket at the 5th Avenue NE and NE 130th Street intersection.

A-4. Signalize the I-5 northbound off-ramp and 5th Avenue NE intersection, coordinate this signal with the 5th Avenue NE/NE 130th Street intersection signal, and connect/coordinate all signals

along NE 130th Street/NE 125th Street corridor. The A-2, A-3, and A-4 projects are in the same vicinity. These projects would require collaboration with WSDOT and widening of the overpass over I-5.

Figure 5-17 shows the locations of the three intersection improvement concepts.

Figure 5-17. N 130th Street / I-5 Vicinity (A-2, A-3, A-4)

A-5. Upgrade the intersection of NE 125th Street/Roosevelt Way NE/10th Avenue NE and include the stop-controlled NE 125th Street intersection as part of one signal-controlled intersection (see **Figure 5-18**).

A-6. Provide curbs, gutters, and sidewalks on both sides of NE 125th Street from 5th Avenue NE to Roosevelt Way NE. The location of this improvement concept is shown in **Figure 5-19**.

A-7. Upgrade the existing traffic signal at the NE 125th Street /15th Avenue NE intersection to include poles/mast arms and vehicle detection.

Figure 5-18. Intersection of NE 125th Street and Roosevelt Way (A-5)

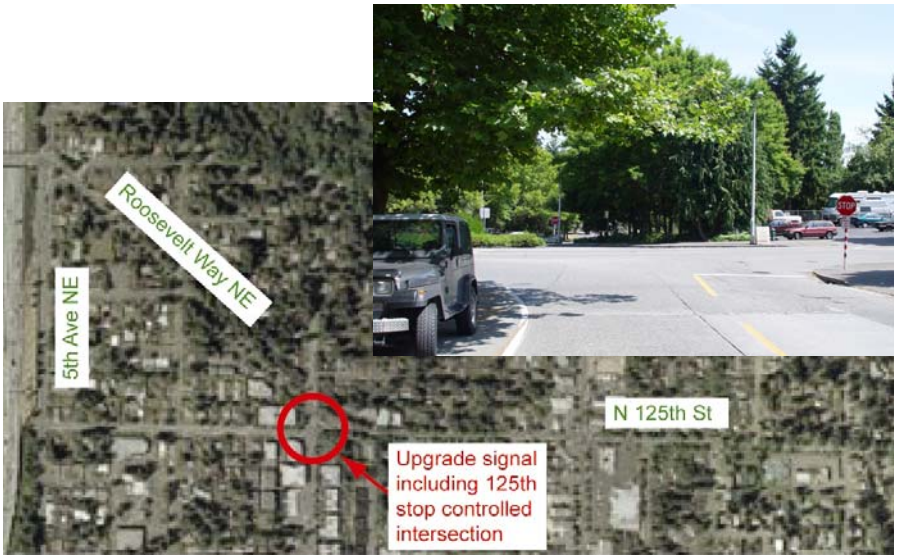


Figure 5-19. Sidewalk on NE 125th Street: 5th Avenue NE to Roosevelt Way (A-6)

NE 92nd Street Corridor (West of 5th Avenue NE)

NE 92nd Street west of 5th Avenue NE is one of the three arterials in the study area that cross I-5. It connects North Seattle Community College with the communities east of I-5 and the Transit Center.

Key Transportation Issues

The CTIP study identified the following transportation issues in this corridor:

- While NE 92nd Street between 1st Avenue N and 5th Avenue NE is a collector arterial, it carries relatively high volumes of traffic: 5,900 vehicles per day. This section of NE 92nd Street abuts single-family houses.
- The intersection of N 92nd Street and 1st Avenue NE, which is unsignalized, will operate at LOS F before 2010.

Transportation Improvement Concepts

The CTIP study identified the following improvement concepts for this corridor, shown in **Figure 5-20**:

D-1. Provide curbs, gutters, and sidewalks on both sides of NE 92nd Street from 1st Avenue NE to 5th Avenue NE. Provide curb bulbs as appropriate to assist pedestrian crossings.

D-2. Install a traffic signal after adopted warrants have been met at the NE 92nd Street and 1st Avenue NE intersection. When traffic signal is installed, replace existing speed humps with humps that are consistent with the most current SDOT design and construction standards.

Figure 5-20. NE 92nd Street: Sidewalks and Signal Locations (D-1, D-2)

N/NE Northgate Way Corridor (East of I-5)

N/NE Northgate Way is a principal east-west arterial. (Northgate Way becomes "N Northgate Way at 1st Avenue NE and westward; it is NE Northgate Way east of 1st Avenue NE). This five-lane street carries high volumes of traffic in the vicinity of I-5 and the Northgate commercial areas between Meridian Avenue N and Roosevelt Way NE. The Seattle Land Use Code (SMC 23.71.004) designates the section of NE Northgate Way from 3rd Avenue NE to 11th Avenue NE a "Major Pedestrian Street," requiring future development to provide ground-level streetfront uses geared toward pedestrians.

However, high traffic volumes and the I-5 interchange ramps make pedestrian crossings difficult along this corridor. The NACP recommended a sky bridge across NE Northgate Way somewhere between 3rd Avenue NE and 5th Avenue NE. The CTIP does not recommend a sky bridge because it would depress pedestrian activity at the street level. Many pedestrians are reluctant to use sky bridges because of the extended walking distance and concerns about personal safety. A sky bridge is very costly to construct and may be difficult to build in a tight urban space. The CTIP's recommendations will ease street-level pedestrian crossings and encourage safe crossings at the intersections.

Transportation Issues

The CTIP study identified the following transportation issues in this corridor:

NE Northgate Way carries high traffic volumes, shown in **Figure 5-21:** the highest section is under I-5 at 40,900 vehicles per day. The sections of N/NE Northgate Way between Meridian Avenue N and Roosevelt Way carry 30,000 to 35,000 vehicles per day.

Several mid-block sections of NE Northgate Way have a high incidence of traffic crashes over the past 5 years, ranging from 9.6 to 26.4 crashes per year (1999–2003). **Figure 5-22** highlights the mid-block crashes on N/NE Northgate Way.

Increasing through traffic and redevelopment within the study area will increase future traffic volumes on N/NE Northgate Way. As shown on **Figure 5-23** two intersections on N/NE Northgate Way, one at Meridian Avenue N and the other at 5th Avenue NE, will operate at LOS F in 2010, which represents long vehicle delay.

Figure 5-21. 2004 N/NE Northgate Way Daily Traffic Volumes (Average Weekday Traffic)

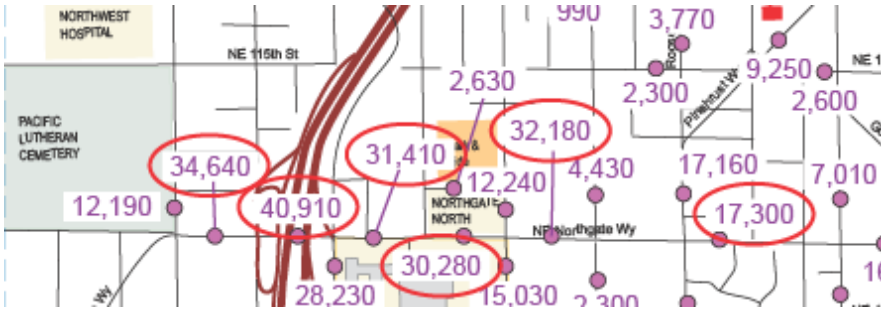


Figure 5-22. N/NE Northgate Way Mid-Block Crashes (Annual Average Collisions, 1999–2003)

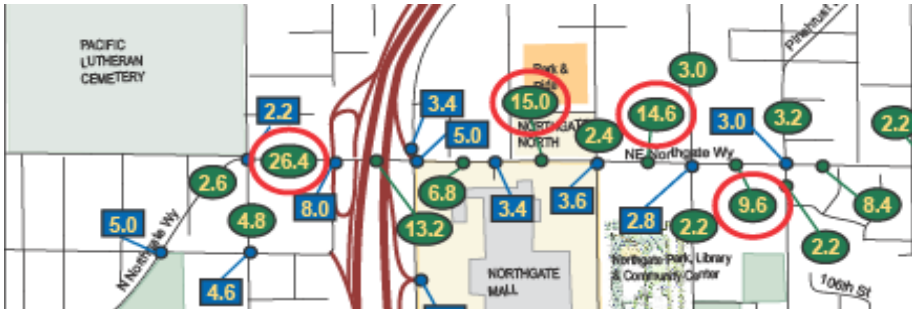
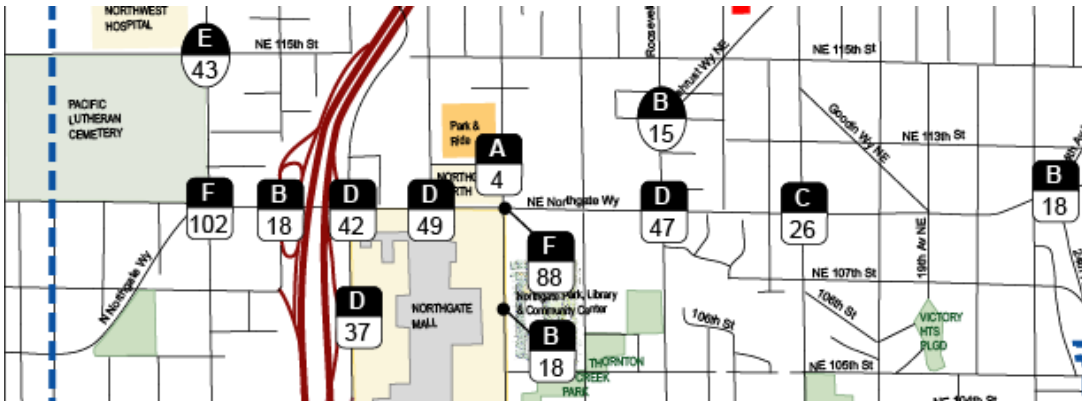
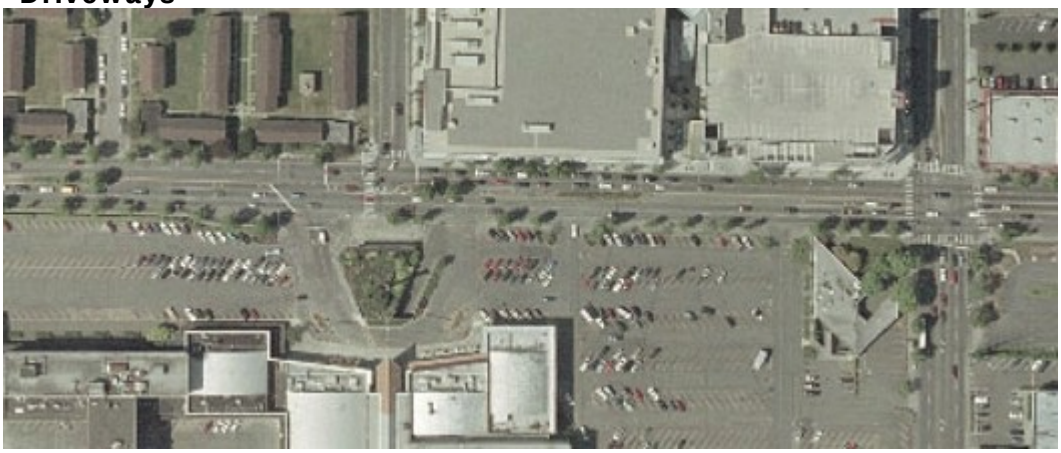


Figure 5-23. 2010 Intersection Levels of Service along N/NE Northgate Way



The Northgate Open Space and Pedestrian Connections Plan (2004) identified this location as needing improvement for pedestrian crossings. While it appears that the number is not large, some pedestrians are crossing illegally at busy mid-block locations between 3rd Avenue NE and 5th Avenue NE. Part of this may be attributed to the confusing and ill-defined pathways at this location. The existing intersection with 3rd Avenue NE, the semi-circular Northgate Mall driveways and placement of landscaping on the Northgate Mall side, and the unused bus shelter discourage pedestrians from using the crosswalks at this important location (see **Figure 5-24**).

Figure 5-24. Existing NE Northgate Way / 3rd Avenue NE and Northgate Mall Driveways



Transportation Improvement Concepts

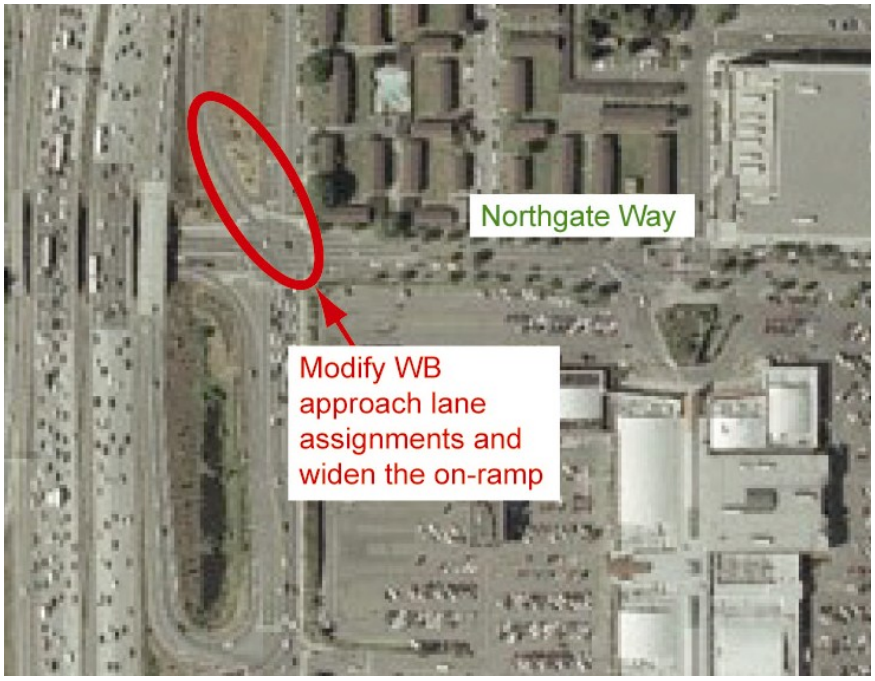
The proposed improvement concepts on N/NE Northgate Way between I-5 and Meridian Avenue N are discussed in the upcoming "West of I-5" section. This section identifies transportation improvement concepts for the sections of NE Northgate Way between I-5 and 15th Avenue NE:

E-1. Coordinate all signals and optimize signal operation for peak/non-peak weekdays and weekend days based on vehicle volumes on N/NE Northgate Way.

E-2. Modify the westbound approach at the NE Northgate Way/1st Avenue NE/I-5 on-ramp intersection to achieve the following configuration: Curb lane: right and I-5 on-ramp, 2nd lane: I-5 on-ramp and through, and 3rd lane: through only. Widen the I-5 northbound on-ramp to two lanes (see **Figure 5-25**).

E- 3. Monitor safety performance of westbound traffic on NE Northgate Way approaching 1st Avenue intersection to determine whether future channelization improvements are warranted.

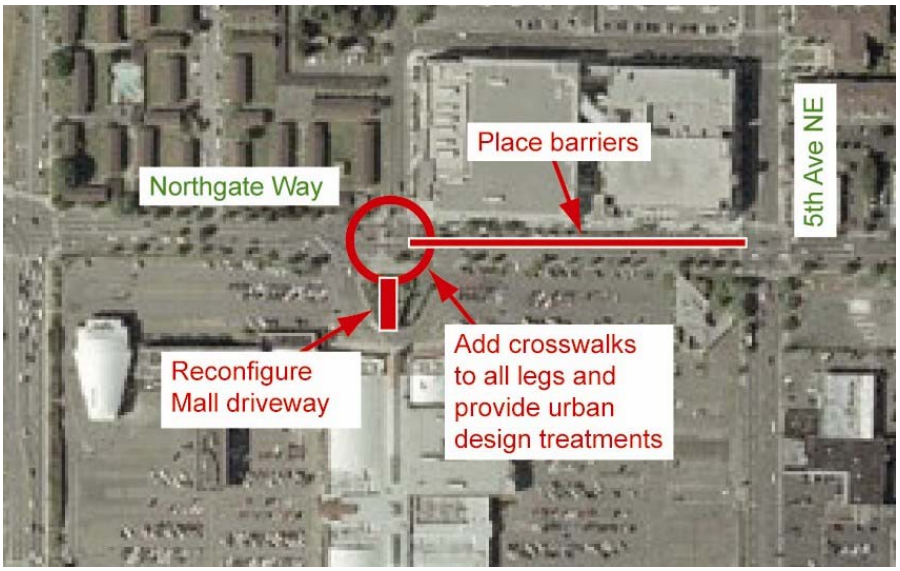
Figure 5-25. NE Northgate Way and 1st Avenue NE (E-2)

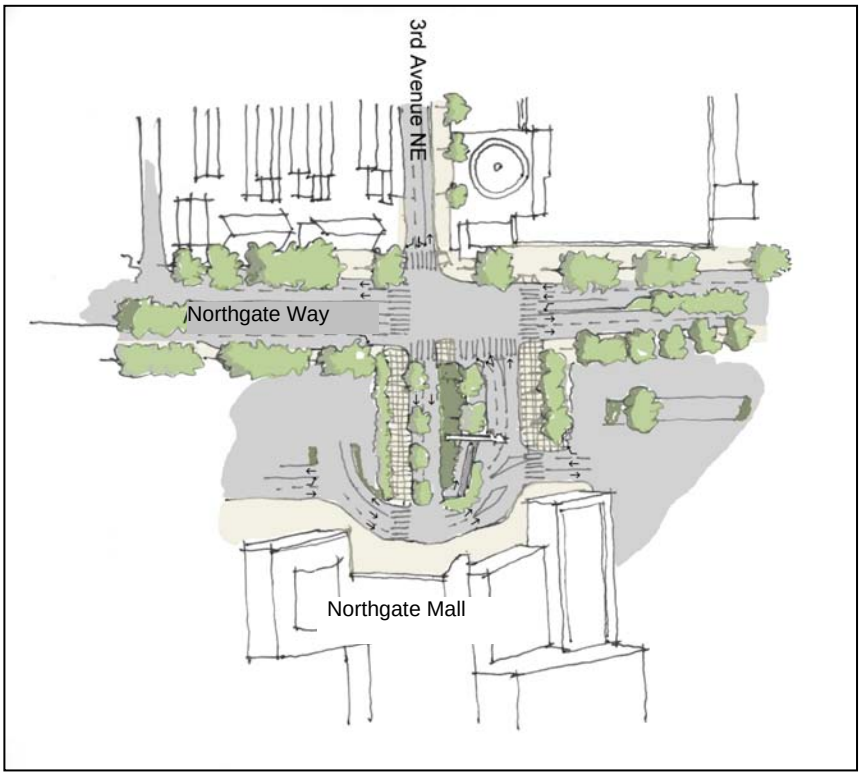


E-4 and E-5. Working with the Northgate Mall owner, add a new access driveway to the 3rd Avenue NE alignment at the NE Northgate Way/3rd Avenue NE intersection and eliminate the existing semi-circular, two-intersection Northgate Mall driveway. It may require widening of 3rd Avenue north of NE Northgate Way to align the approach lane with the Northgate Mall side. Provide crosswalks on all legs at the NE Northgate Way/3rd Avenue NE intersection. Place barriers at the edge of the north sidewalk or in the median (possibly landscaping) between 3rd Avenue NE and 5th Avenue NE to discourage mid-block street crossings by pedestrians.

Figure 5-26 illustrates the E-4 and E-5 concepts.

Figure 5-26. NE Northgate Way: 3rd Avenue NE to 5th Avenue NE (E-4, E-5)

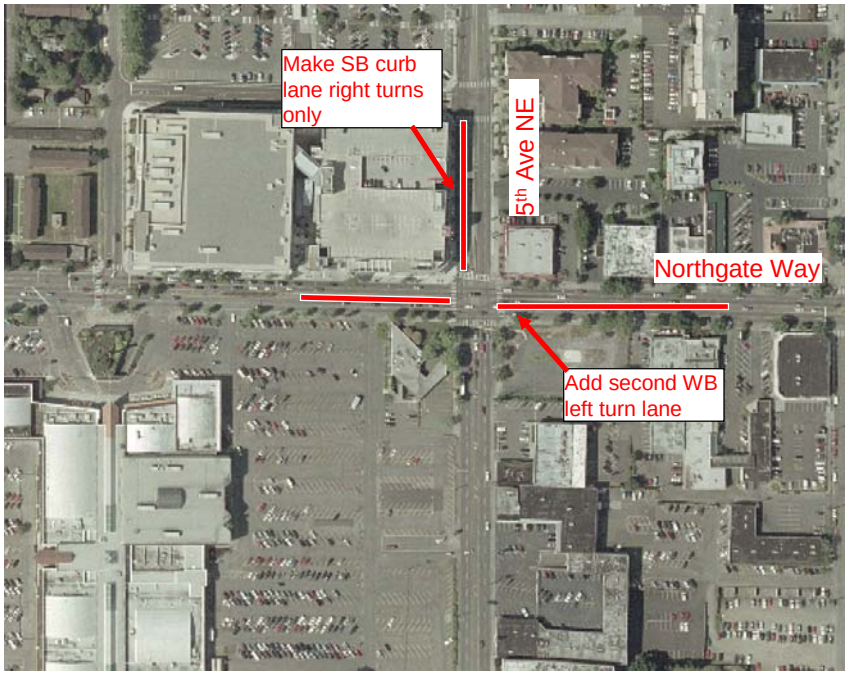




E-6. Add a second westbound left turn lane on NE Northgate Way at 5th Avenue by widening the south side of NE Northgate Way from approximately 8th Avenue to 3rd Avenue. Assign southbound curb lane to right turns only. Realign the southbound through lane to eliminate the "offset" condition. Provide urban design treatments to enhance pedestrian crossings at the NE Northgate Way/5th Ave NE intersection. These improvement concepts are shown in **Figure 5-27.**

E-7. Work with the businesses along NE Northgate Way to develop an access management plan that includes construction of medians and limitation of mid-block left turns from 5th Avenue NE to Roosevelt Way NE. Consider where breaks in the medians may be allowed for access, or U-turns at intersections. These improvements are shown in **Figure 5-28**.

Figure 5-27. NE Northgate Way/5th Avenue NE Intersection with Urban Design Concept (E-6)



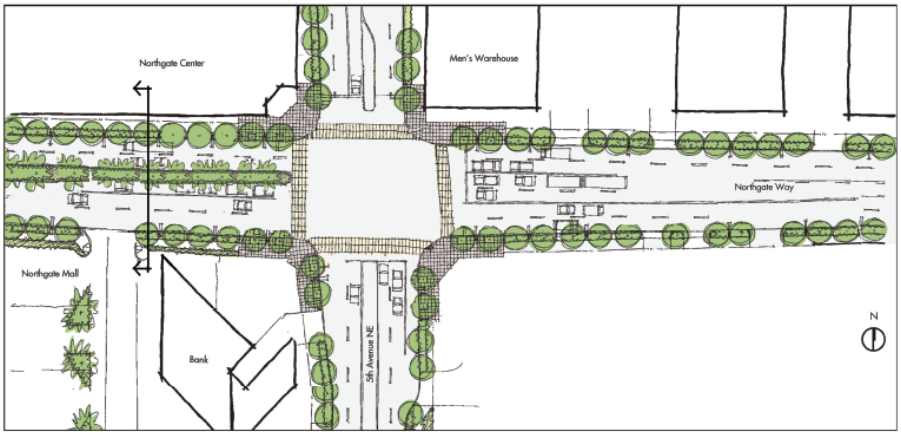
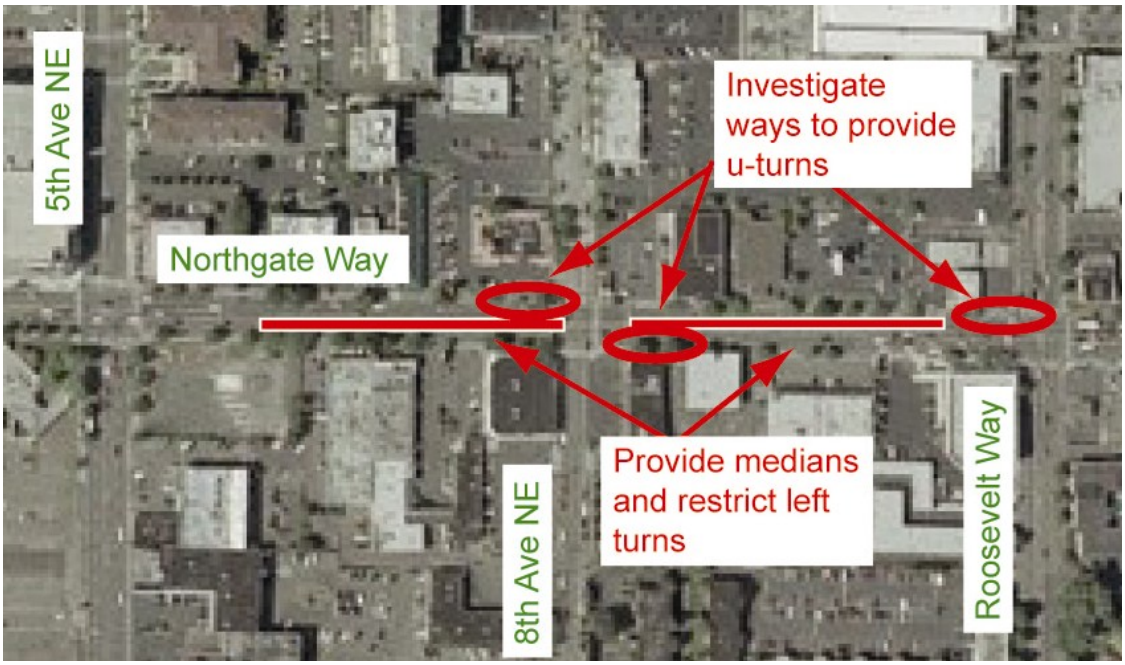


Figure 5-28. NE Northgate Way: 5th Ave NE -Roosevelt Way NE (E-7)



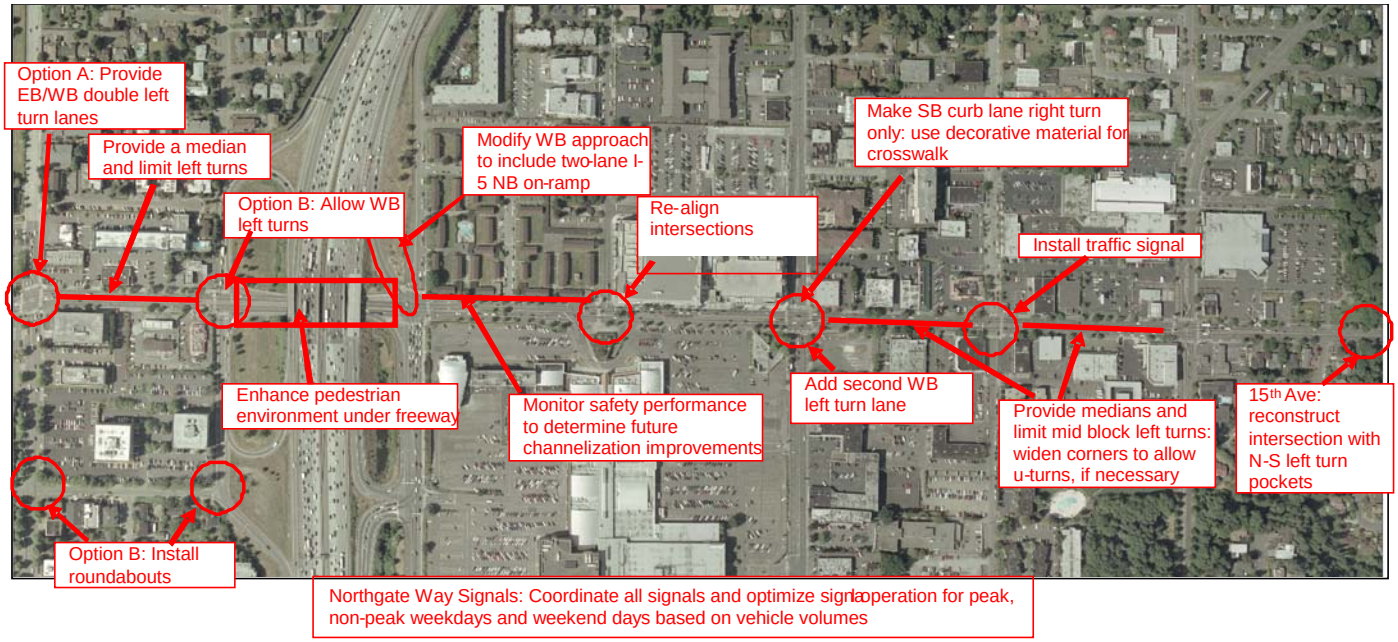
E-8. Replace the existing pedestrian signal with a traffic signal and allow left turns on all approaches at the NE Northgate Way/8th Ave NE intersection. **Figure 5-29** shows the location of this proposed signal.

Figure 5-29. NE Northgate Way / 8th Avenue NE (E-8)

Summary of N/NE Northgate Way Improvement Concepts

Figure 5-30 shows all improvement concepts proposed for the N/NE Northgate Way corridor within the CTIP study area. Improvements on NE Northgate Way east of I-5 are discussed in the previous section; those west of I-5 are in the following section.

Figure 5-30. N/NE Northgate Way Corridor Improvement Concepts



CTIP Study Area West of I-5

The study area west of I-5 includes major institutions such as Northwest Hospital, North Seattle Community College, and many medical offices along Meridian Avenue N. This area also includes N/NE Northgate Way between Meridian Avenue N and I-5.

Key Transportation Issues

The CTIP study identified the following transportation issues in this area:

- Limited bicycle riding space and high traffic speeds on Meridian Avenue N and 1st Avenue N west of I-5, resulting in low bicycle level of service.

- The highest number of mid-block traffic crashes between 1999 and 2003 was recorded on N/NE Northgate Way between Meridian Avenue N and the I-5 southbound off-ramp/Corliss Avenue N: an average of 26 crashes per year. The crash rate (accidents per million vehicles) on this road segment was also high during that same time period.
- High vehicle crash rates on Meridian Avenue N between N Northgate Way and N 107th Street, and at the intersection of Meridian Avenue N and N 107th Street (1999–2003).
- The signalized intersection of Meridian Avenue N and N Northgate Way will operate at LOS F by 2010.
- The unsignalized intersection of Meridian Avenue N and N 115th Street will operate at LOS E in 2010. Although the unsignalized intersection of College Way N and N 92nd Street is projected to operate at LOS F, it appears that this intersection will nevertheless function adequately because it is a three-legged intersection.

Transportation Improvement Concepts

The following transportation improvement concepts would address the issues listed above:

C-1. Add bicycle lanes or widen shoulders to accommodate bike traffic on 1st Avenue NE from N 117th Street to N 130th Street.

C-2. Add bike lanes and sidewalks on Meridian Avenue N from N 115th Street to N 122nd Street.

Figure 5-31 shows the locations of C-1 and C-2 on an aerial photo.

C-3. Install a traffic signal after adopted warrants have been met at the N 115th Street/Meridian Avenue N intersection.

C-4. Provide bicycle lanes on both sides of Meridian Avenue N from N 100th Street to N Northgate Way.

C-5. Provide bicycle lanes on both sides of College Way N from N 92nd Street to N 100th Street by converting the curb lanes to bicycle lanes. Work with Metro to ensure that transit service standards for speed and reliability of service are maintained. **Figure 5-32** shows the locations of the C-4 and C-5 bicycle lane improvement concepts.

Figure 5-31. Sidewalk & Bicycle Improvements on 1st Avenue N and Meridian Avenue N (C-1, C-2)

Figure 5-32. Meridian Avenue N/College Way N Bicycle Improvements (C-4, C-5)

C-6. Add double left turn lanes on westbound N Northgate Way at the intersection with Meridian Avenue N. (Note: This improvement conflicts with the location of an existing four-story building at the southeast corner of the intersection. To implement this project would require purchase of this building. This project received a low evaluation score due to high cost, particularly in relation to the greater safety benefit and the lower cost of the alternative approach {i.e. the Corliss Avenue N "bypass" concept described in C-9, C-10 and C-11}).

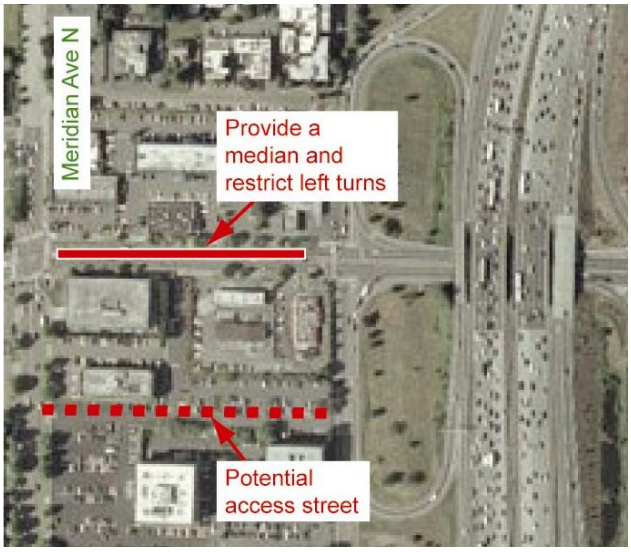
C-7. Allow westbound left turns from NE Northgate Way to southbound Corliss Avenue at the southbound I-5 off-ramp/Corliss Ave/NE Northgate Way intersection. Extend the westbound left turn lane on NE Northgate Way under the I-5 overpass by placing sidewalks behind the columns. This improvement is tied with C-9 and C-10 described below, which should be implemented together.

Figure 5-33 shows the locations of C-7, C-9, and C-10.

Figure 5-33. Meridian Avenue N, Corliss Avenue N Roundabouts and I-5/Corliss Avenue N Left-Turn Pocket (C-7, C-9, C-10)

C-8. Provide a median and limit mid-block left turns on N Northgate Way from Meridian Ave N to the Corliss Ave N/I-5 off-ramp. Consider where a break in the median may be allowed. Investigate feasibility of providing a business access street south of N Northgate Way. This access is illustrated in **Figure 5-34**.

Figure 5-34. N/NE Northgate Way Access Management West of I-5 (C-8)



C-9. Provide a roundabout at the southbound I-5 On Ramp/Corliss Avenue N/N 107th Street intersection. C-9, C-10, C-11 and J-5 work together to form an alternative westbound route to Meridian Avenue (see **Figure 5-33**).

What are Roundabouts?

Modern roundabouts can provide safe and cost-effective traffic control at some intersections. A roundabout separates through and turning traffic into designated lanes with "splitter islands" to minimize traffic weaving. Well-designed and appropriately placed roundabouts also provide safer pedestrian crossings and can accommodate large turning radii required by trucks and emergency vehicles.

Hilton Head, South Carolina, courtesy of Kansas State University Center for Transportation Research & Training

Today's roundabouts do not function like the large, high-speed traffic circles found in Washington, D.C., (Dupont Circle) and Paris (Arc de Triomphe). These large traffic circles have high crash rates, largely due to high volumes, high speeds, and a considerable amount of weaving between entries and exits. Roundabouts are not the small circles used primarily for neighborhood speed control.

Studies of modern roundabouts show a reduction in serious crashes, as well as reduced delay and queue length compared to other forms of traffic control, such as four-way stops and traffic signals. However, engineering analysis will not always support a roundabout over a traffic signal or other traffic control measure. Consideration must be given to traffic volumes, capacity requirements, available right of way, and cost.

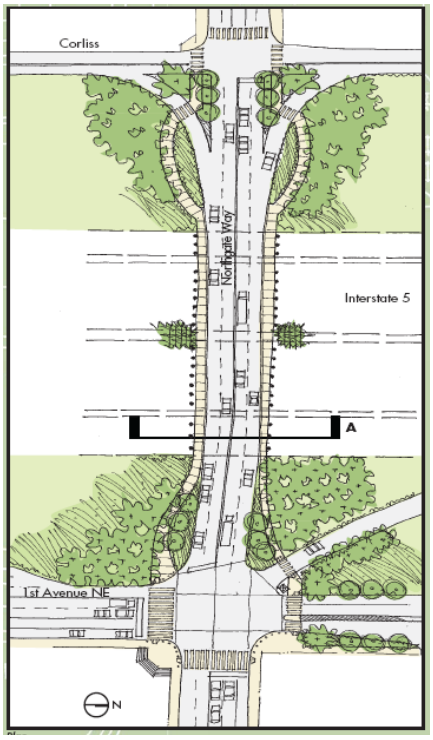
C-10. Provide a roundabout at the Meridian Ave N/N 107th Street intersection (see **Figure 5-33**).

J-5. Re-classify Corliss Avenue from NE Northgate Way to N 107th Street and N 107th Street from Corliss Avenue N to Meridian Avenue N from a local street to a collector arterial.

C-11. Provide curbs, gutters, and sidewalks on N 107th Street from Meridian Ave N to Corliss Ave N/SB I-5 on ramp.

C-12. Apply the DPD Open Space/Pedestrian Connections Plan for design treatments that enhance the pedestrian connection on NE Northgate Way between Corliss Avenue N and 1st Avenue NE particularly under I-5. A key CTIP recommendation is to place the sidewalks behind the I-5 bridge columns. This project should be implemented together with C-7, C-9 and C-10 as a package. **Figure 5-35** shows the design concept for this improvement.

Figure 5-35. NE Northgate Way Pedestrian Walkway under I-5 (C-12)



Source: Open Space & Pedestrian Connections Plan, 2004

C-13. Upgrade N Northgate Way from Meridian Avenue N to Aurora Avenue N to meet the City's principal arterial roadway design standards. Key improvements needed within this corridor are adding sidewalks along the north edge of North Seattle Park, improving substandard sidewalks, adding urban design treatments, and expanding vehicular capacity at the N Northgate Way/Aurora Avenue intersection.

5th Avenue NE Corridor

Artists' Rendition of Library, 5th Avenue Streetscape Plan 2002

The 5th Avenue NE corridor is a north-south arterial, located in the center of the CTIP study area. This street is a two-lane roadway except for the section within the Urban Center between NE 100th Street and NE 112th Street, which is a four- and sometimes five-lane roadway. The Seattle Land Use Code (SMC 23.71.004) designates the section of 5th Avenue NE from NE 113th to NE 105th Street a "Major Pedestrian Street," requiring future development to provide ground-level streetfront uses geared toward pedestrians. Fifth Avenue NE carries about 10,000 vehicles per day on the sections south of NE 100th Street. However, the section just south of NE Northgate Way carries about 15,000 vehicles per day.

As part of the 5th Avenue NE Streetscape Design Plan (2003), the City will improve 5th Avenue between NE 105th Street and NE Northgate Way with wider sidewalks and improved urban design treatments. A traffic signal will be installed at a new intersection between the driveway to Northgate Mall and the driveway to the new Northgate Civic Center.

Key Transportation Issues

The CTIP study identified the following issues associated with this corridor:

- Unrestricted street parking on 5th Avenue NE between NE 103rd Street and NE 106th Street may negatively impact transit speed and reliability on this key transit corridor. Note: The City plans to allow limited off-peak parking on the east side of 5th Avenue NE in front of the Civic Center.
- Fifth Avenue NE from NE 115th to NE 125th Street is a wide roadway that is currently striped for two lanes of traffic and on-street parking; it may provide sufficient width to accommodate bike lanes.
- There is heavy right turn traffic demand on northbound 5th Avenue NE approaching NE Northgate Way. The existing right turn pocket is not long enough to accommodate the demand.

Transportation Improvement Concepts

I-1. Extend the northbound right turn lane on 5th Ave NE south of NE Northgate Way. This concept is shown in **Figure 5-36.**

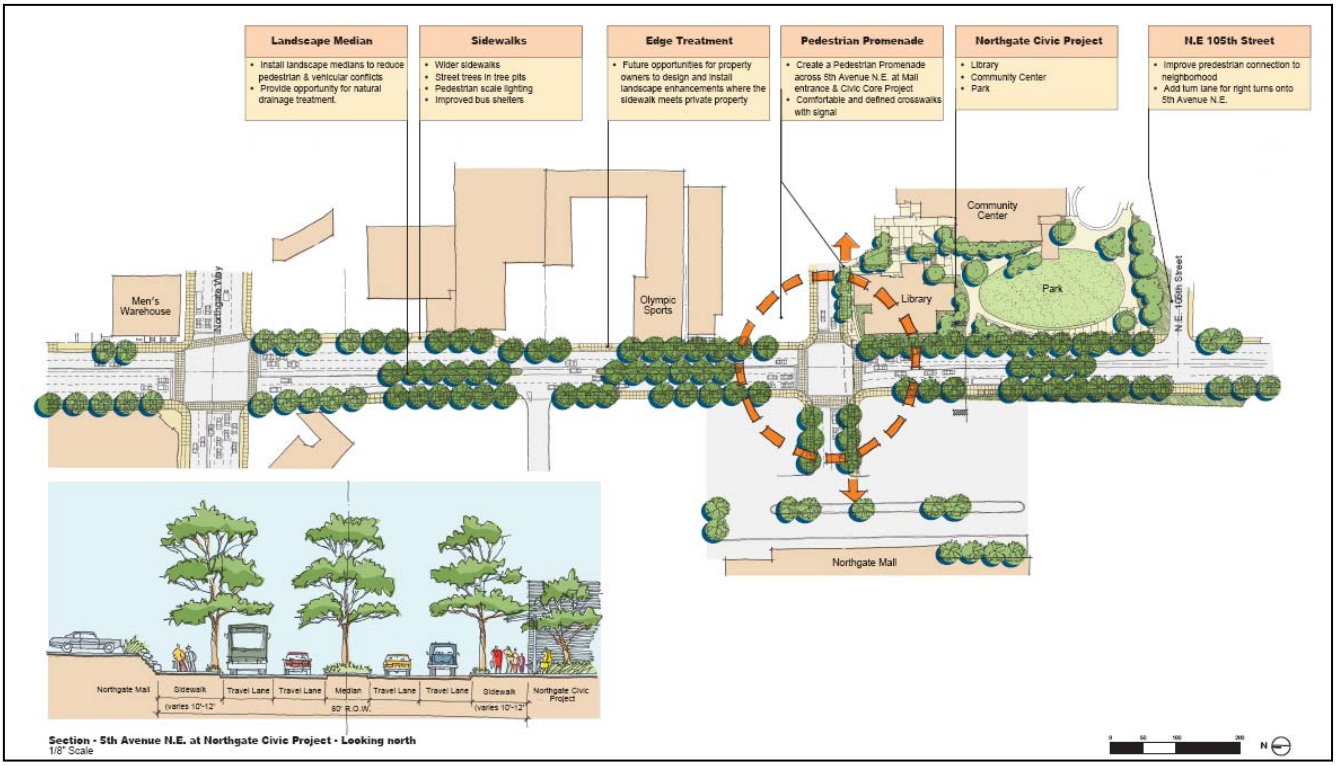
I-2. Stripe bicycle lanes on 5th Avenue NE from NE 115th Street to NE 125th Street. The location of this improvement concept is shown in **Figure 5-37.**

I-3. Improve the streetscape and pedestrian street crossings at major intersections on 5th Avenue NE from NE 100th Street to NE 112th Street consistent with the 5th Avenue NE Streetscape Design Plan Final Report (2002). The design concept is shown in **Figure 5-38.**

Figure 5-36. Extension of Northbound Right Turn Lane on 5th Avenue NE at NE Northgate Way (I-1)

Figure 5-37. Bicycle Lanes on 5th Avenue NE: NE 115th Street to NE 125th Street (I-2)

Figure 5-38. Fifth Avenue NE Improvement Concept, Phase 1 (I-3)



Roosevelt Way NE Corridor

Roosevelt Way NE is a north-south two-lane arterial, carrying 10,800 vehicles per day, which is slightly more than 15th Avenue NE. It travels though a neighborhood commercial district between NE 95th Street and NE 88th Street. A pedestrian-activated signal is provided at NE 95th Street. However, because no east-west arterial crosses Roosevelt Way NE between NE Northgate Way and NE 80th Street, no traffic signal is provided for this section of Roosevelt Way NE. Transit service on Roosevelt Way NE connects Northgate, Maple Leaf, University Village, and the University of Washington.

Key Transportation Issues

Given the relatively large traffic volumes on Roosevelt Way NE, the existing pedestrian-activated signal at NE 95th Street and Roosevelt Way NE may not be sufficient for pedestrian crossings in the vicinity of the neighborhood commercial district between NE 95th Street and NE 88th Street. Access to transit stops also requires pedestrians to cross Roosevelt Way NE. Pedestrians who want to cross Roosevelt Way have difficulty finding breaks in the traffic flow.

Transportation Improvement Concepts

H-1. Analyze pedestrian crossing conditions, including pedestrian demand and adjacent land uses, on Roosevelt Avenue NE between NE 90th Street and NE 94th Street through the neighborhood business district. If consistent with SDOT guidelines and practices, install pedestrian crossing improvements such as curb bulbs and crosswalk signs and markings. **Figure 5-39** shows the generalized location of potential new pedestrian crossings.

Figure 5-39. Roosevelt Way NE Pedestrian Crossings: NE 90th-NE 94th (H-1)

15th Avenue NE Corridor

The 15th Avenue NE corridor is a two-lane north-south arterial that carries a range of 8,200–9,600 vehicles per day. This is also a transit corridor connecting the Maple Leaf community with the Victory Heights and Roosevelt communities as well as the University District and Downtown Seattle.

Key Transportation Issues

The CTIP study identified the following transportation issues for this corridor:

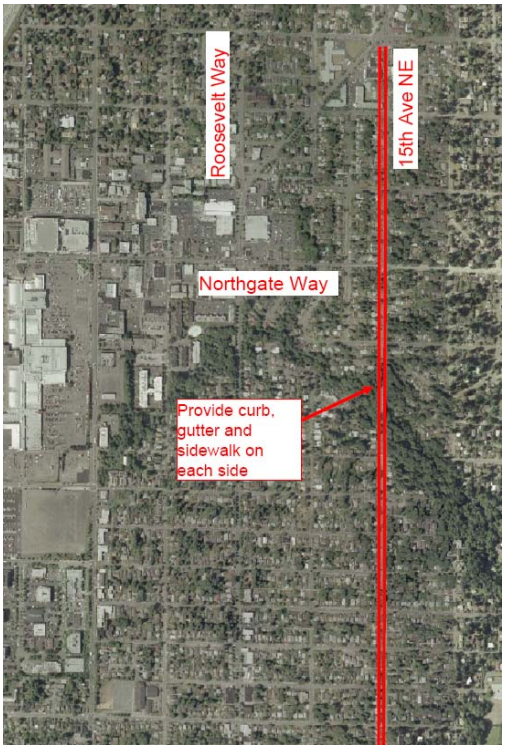
- A high intersection collision rate (1999–2003) at the intersection of NE Northgate Way and 15th Avenue NE. It appears that the high collision rate is due to the intersection geometry of 15th Avenue NE. Through traffic uses left turn queue bypass lanes, but left-turning vehicles may not be able to see the oncoming through vehicles. This intersection needs to be upgraded to include traditional north-south left turn pockets.
- Low level of service for vehicles approaching the unsignalized NE 117th Street/ Pinehurst Way NE intersection. Three streets come together at this intersection: 15th Avenue NE, Pinehurst Way NE, and NE 117th Street. Vehicles on Pinehurst Way travel at relatively high speeds.
- Difficult pedestrian crossing in the vicinity of NE 120th Street and 122nd Street. (The proposed signal at NE 117th Street and 15th Avenue NE/ Pinehurst Way should help ease this problem.)
- Pedestrians on 15th Avenue NE between NE 92nd Street and NE 117th Street walk on unpaved gravel shoulders.
- A high crash rate at the intersection of Pinehurst Way NE and NE 115th Street.

Transportation Improvement Concepts

The CTIP study identified the following improvement concepts:

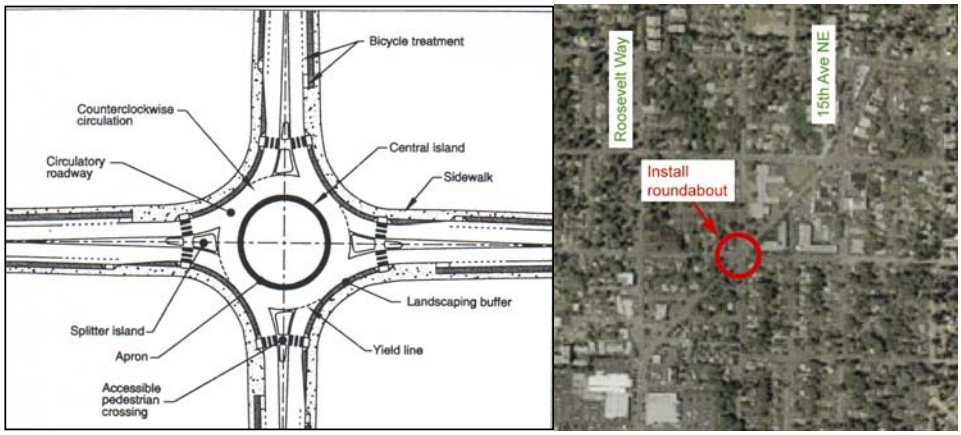
G-1. Add curbs, gutters, and sidewalks on both sides of 15th Avenue NE from NE 92nd Street to NE 117th Street. (This project may require phasing due to its high cost. Neighborhood-based funds have been allocated for a raised walkway for approximately four blocks {NE 92nd to NE 96th Street}. In 2006 and prior to the execution of this project, SDOT should work with the community to define the permanent design and construction technology to be utilized for the entire 15th Avenue NE pedestrian facility; and phasing and funding options to achieve maximum leverage.) **Figure 5-40** shows the location of the sidewalk improvement concept.

Figure 5-40. 15th Avenue NE Sidewalk Improvements (G-1)



G-2. Construct a roundabout at the Pinehurst Way NE/NE 115th Street /12th Avenue NE intersection. A typical two-lane roundabout layout is shown in **Figure 5-41**. Note that this roundabout would be designed with six street legs, instead of the four legs shown in the typical design layout.

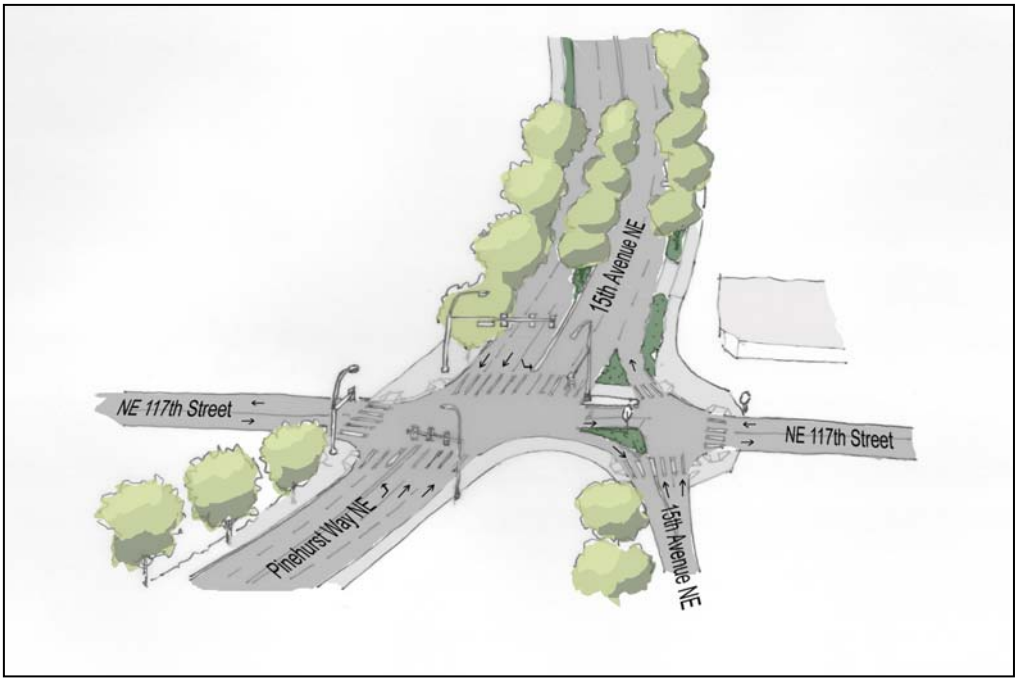
Figure 5-41. Typical Roundabout Design and Recommended Pinehurst Way NE Improvements (G-2)



G-3. Install a traffic signal after adopted warrants have been met and modify the intersection geometry at the 15th Avenue NE/NE

117th Street/Pinehurst Way NE intersection. **Figure 5-42** shows the proposed concept.

Figure 5-42. Intersection Location at 15th Avenue NE/NE 117th/Pinehurst Way (G-3)



G-4. Install a pedestrian signal, consistent with SDOT signal warrant criteria at 15th Avenue NE and NE 120th Street. SDOT is currently evaluating the pedestrian need at this location and considering a pedestrian-actuated signal.

G-5. Reconstruct the NE Northgate Way/15th Ave NE intersection. The location of this improvement is shown in **Figure 5-43**.

Figure 5-43. NE Northgate Way/15th Avenue NE Intersection (G-5)

6. Evaluation

The CTIP established a systematic process by which to evaluate each potential improvement concept. The process identified of a set of evaluation criteria and weighted scores to reflect the relative importance of each criterion, ranking the concepts by score, and prioritizing the results. The Northgate Stakeholder Group endorsed the following evaluation criteria, definitions, and weights. The evaluation criteria reflect the CTIP performance measures and benchmarks, consistent with the following guiding principles:

- Support the policies in the Transportation Element of the Seattle Comprehensive Plan and the Transportation Strategic Plan.
- Support the Northgate transportation goals and policies included in the Seattle Comprehensive Plan.
- Be consistent with SDOT Capital Improvement Program project prioritization process.

Appendix 6-1 is a memo outlining the similarities and differences between the CTIP's evaluation criteria and those developed for the City's Capital Improvement Program (CIP).

Evaluation Criteria

CTIP Evaluation Criteria (in priority order)

- **Safety**
- **Neighborhood livability**
- **Pedestrian mobility**
- **Bicycling mobility**
- **Transit rider mobility**
- **Auto driver mobility**
- **Cost-effectiveness and implementation feasibility**
- **New housing and economic development**
- **Infrastructure preservation / maintenance**
- **Environmental sustainability**

The following criteria were applied to evaluate each proposed improvement concept:

Safety

The evaluation criterion for safety identified whether the proposed improvement would reduce or eliminate conflicts and unsafe conditions between vehicles, between vehicles and pedestrians, and between bicycle riders and vehicles. Proposed improvement concepts were evaluated against the following outcomes under this criterion:

- Improved safety for pedestrian travel
- Reduced bicycle/vehicle and bicycle/pedestrian conflicts
- Improved safety at locations with significant pedestrian and bicycle crash history
- Improved safety at locations with a high number of vehicle crashes and high crash rates

Neighborhood Livability

Proposed improvement concepts were evaluated against the following neighborhood livability outcomes under this criterion:

- Reduced through-traffic volumes on residential streets
- Minimized increased traffic volumes on adjacent streets as a result of any action that is proposed
- Vehicle speeds maintained at 25 mph or less on residential streets
- Reduced risks of pedestrian and bicycle collisions with vehicles on arterials and residential streets
- Aesthetic and other design enhancements

Pedestrian Mobility

Projects that scored well under the pedestrian mobility criterion would make it more comfortable and convenient to travel by foot. Proposed improvement concepts were evaluated against the following outcomes under this criterion:

- Enhanced pedestrian travel (Examples: wider sidewalks and buffers between walkways and moving vehicles, minimized conflicts with turning vehicles, pedestrian activated signals, reduced pedestrian wait times, etc.)
- Improved pedestrian access to key activity centers, such as transit facilities, commercial centers, schools, parks, and community facilities
- Improved pedestrian connectivity between the neighborhoods and the urban center
- Reduced barriers to pedestrian travel, such as barriers posed by drainage and other infrastructure deficiencies

Bicycling Mobility

This criterion focused on enhanced bicycle travel as a more convenient travel option in Northgate. Proposed improvement concepts were evaluated against the following outcomes under this criterion:

- Enhanced bicycle travel (Example: reduced conflicts with moving and parked vehicles, etc.)
- Improved bicycle access to key activity centers such as transit facilities, schools and community facilities
- Improved bicycle access to regional activity areas such as the Burke-Gilman Trail and Green Lake area
- Improved bicycle facilities for both commuters and recreational uses (Examples: designated bike lanes, paved shoulders, shared lane)

Transit Rider Mobility

The transit rider mobility criterion indicates how a proposed improvement would enhance transit use for residents and other users. Proposed improvement concepts were evaluated against the following outcomes under this criterion:

- Improved transit speed and/or reliability
- Improved coverage and transit service frequency to key destinations for residents, particularly seniors
- Improved transit service for Northgate-area employees

Auto Driver Mobility

Reduced traffic congestion would improve auto driver mobility. Proposed improvement concepts were therefore evaluated against the following outcomes under this criterion:

- Reduced arterial and intersection traffic congestion
- Satisfactory corridor level of service (travel time) and intersection level of service, as defined by CTIP benchmarks

Cost-Effectiveness and Implementation Feasibility

The criteria of cost-effectiveness and implementation feasibility were defined in terms of whether potential improvements would meet the following objectives:

- A high return of benefits vs. cost (The CTIP used a qualitative assessment of each project's relative cost and effectiveness at meeting identified needs rather than a detailed cost-benefit ratio for each project.)
- A high probability of outside funding sources such as federal and state grants, and private contributions
- A high probability of implementation by other agencies such as King County Metro, Sound Transit, or WSDOT in the next 10 years
- A high probability of qualifying for developer mitigation
- A high probability of project financing with existing City funding resources
- A high probability for project funding from new funding sources

New Housing and Economic Development

One of the CTIP goals is to support new housing and economic development for Northgate. Proposed improvement concepts were evaluated against the following outcomes under this criterion:

- Support new housing growth and businesses by providing improved transportation mobility and access (pedestrians, transit and vehicles) for customers, employees and residents.
- Minimize right-of-way impacts on businesses.
- Avoid displacement of residences or businesses.

Infrastructure Preservation / Maintenance

The infrastructure preservation and maintenance criterion was defined in terms of whether a project would address street and sidewalk maintenance needs and reduce the backlog of deferred maintenance. Proposed improvement concepts were evaluated against the following outcomes under this criterion:

- Improve the condition of the sidewalks and streets designated for improvements, including related drainage improvements.
- Reduce the backlog of deferred maintenance of sidewalks and streets.

Environmental Sustainability

The environmental sustainability criterion addressed the question of how the proposed improvement concept would benefit the natural environment. Proposed improvement concepts were evaluated against the following outcomes under this criterion:

- Improved air quality
- Reduced noise
- Positive impacts to critical areas
- Sustainable design features such as natural drainage systems

Scoring of Improvement Concepts

Table 6-1 shows the relative weight of each of the evaluation criteria. A higher number means greater importance. For each criterion, a proposed improvement concept could receive a base score between minus 5 and plus 5. (A score of zero means no change from the existing condition for that particular criterion.) The base score was multiplied by the weight to arrive at the points for each criterion. The ten criteria were totaled to give a maximum possible score of 100 for each improvement concept.

Table 6-1. Evaluation Criteria and Weights

Evaluation Criteria	Score	Weight	Maximum Points
Safety	-5 to +5	4	20
Neighborhood Livability	-5 to +5	3	15
Pedestrian Mobility	-5 to +5	2	10
Bicycling Mobility	-5 to +5	2	10
Transit Rider Mobility	-5 to +5	2	10
Auto Driver Mobility	-5 to +5	2	10
Cost-Effectiveness and Implementation Feasibility	-5 to +5	2	10
New Housing and Economic Development	-5 to +5	1	5
Infrastructure Preservation/Maintenance	-5 to +5	1	5
Environmental Sustainability	-5 to +5	1	5
Total Maximum Points			100

Appendix 6-2 shows the detailed scoring results. Projects not scored include those currently under design, such as the new 3rd Avenue NE road and signal at the intersection of NE 103rd Street and 3rd Avenue NE, and programmatic improvements, such as areawide transit service, parking programs, and formation of a parking brokerage.

Table 6-2 shows the summary results of the improvement concept scoring. The top-ranked project received 55 points and the lowest-ranked project received 1 point. Projects and programs not scored are listed at the bottom of the table. Project numbers reflect geographic and/or programmatic improvement categories as shown in **Appendix 6-1**.

Table 6-2. Ranking of the Improvement Concepts Based on Raw Scores

Evaluation Score	Project Description	Project #
55	Add bike lanes and sidewalks on both sides of Meridian Avenue N from N 115th Street to N 122nd Street.	C-2
51	N 117th Street from 1st Avenue N to Meridian Avenue N: Add a raised walkway on the north side of the street and speed humps.	B-5
47	Provide curb, gutter, and sidewalk on both sides of NE 125th Street from 5th Avenue NE to Roosevelt Way.	A-6
46	Upgrade the intersection of NE 125th Street/Roosevelt Way/10th Avenue NE to include the stop-controlled 125th Street intersection as part of the signal-controlled intersection.	A-5
45	Add a second westbound left turn lane on Northgate Way at 5th Avenue by widening the south side of Northgate Way from approximately 8th Avenue to 3rd Avenue. Assign southbound curb lane to right turns only. Realign the southbound through lane and eliminate the "offset" condition. Provide urban design treatments for pedestrian crossings at the Northgate Way/5th Avenue NE intersection.	E-6
45	NE 115th Street from 5th Avenue NE to Lake City Way: Provide raised walkway on one side of the street. Restrict on-street parking to one side.	B-1
45	Provide a raised walkway on one side of the street on 8th Avenue NE from Northgate Way to NE 92nd Street and install traffic calming.	B-3
44	Analyze pedestrian crossing conditions on 8th Avenue NE between Northgate Way and NE 115th Street. If consistent with SDOT guidelines and practices, install pedestrian crossing improvements, such as curb bulbs and related signs and markings. Crossing improvements at this location would enhance the connection between the senior housing developments on the west side of 8th Avenue NE with a post office on the east side.	B-2
43	Provide raised walkway on one side of NE 98th Street from 15th Avenue NE to Lake City Way. Allow on-street parking. Integrate traffic control devices with the sidewalk improvements.	B-4
42	Provide curb, gutter, and sidewalk on both sides of NE 92nd Street from 1st Avenue NE to 5th Avenue NE. Provide curb bulbs as appropriate to assist pedestrian crossings.	D-1
42	Working with the Northgate Mall owner, add a new access driveway to the 3rd Avenue NE alignment at the Northgate Way/3rd Avenue NE intersection and eliminate the existing semicircular, two-intersection Northgate Mall driveway. It may require widening of 3rd Avenue north of Northgate Way to align the approach lane with the Northgate Mall side. Provide crosswalks on all legs at the Northgate Way/3rd Avenue NE intersection. Place barriers at the edge of the north sidewalk or in the median (possibly landscaping) between 3rd Avenue NE and 5th Avenue NE to discourage mid-block street crossings by pedestrians.	E-4, E-5
39	Analyze pedestrian crossing conditions, including pedestrian demand and adjacent land uses, on Roosevelt Avenue NE between NE 90th Street and NE 94th Street through the neighborhood business district. If consistent with SDOT guidelines and practices, install pedestrian crossing improvements, such as curb bulbs and crosswalk signs and markings.	H-1
39	Reconstruct the existing sidewalk on the east side of 1st Avenue NE from NE 92nd Street to NE 97th Street and provide a bicycle lane on the west side of 1st Avenue (by extending the shoulder by 4 feet) between NE 103rd Street and NE 92nd Street.	F-7

Table 6-2 Continued. (Ranking of the Improvement Concepts Based on Raw Scores)

Evaluation Score	Project Description	Project #
35	Allow westbound left turns from Northgate Way to southbound Corliss Avenue at the southbound I-5 off-ramp/Corliss Avenue/Northgate Way intersection. Extend the westbound left turn lane on Northgate Way under the I-5 overpass. Place new sidewalks behind the columns under I-5.	C-7
35	Provide a roundabout at the southbound I-5 on-ramp/Corliss Avenue N/N 107th Street intersection. C-9, C-10, C-11 and J-5 work together to form an alternative westbound route to Meridian Avenue.	C-9
35	Provide a roundabout at the Meridian Avenue N/N 107th Street intersection.	C-10
35	Provide curb, gutter, and sidewalk on N 107th Street from Meridian Avenue N to Corliss Avenue N/southbound I-5 on-ramp.	C-11
34	Add left turn pockets on all approaches at the N 130th Street/Meridian Avenue N intersection.	A-1
33	Add curbs, gutters, and sidewalks on both sides of the street on 15th Avenue NE from NE 92nd Street to NE 117th Street.	G-1
32	Provide a median and limit mid-block left turns on Northgate Way N from Meridian Ave N to Corliss Avenue N/I-5 off-ramp. Consider where a break in the median may be allowed. Investigate feasibility of providing a business access street south of Northgate Way.	C-8
32	Add bike lanes or widen shoulders to accommodate bike traffic on 1st Avenue NE from N 117th Street to N 130th Street.	C-1
32	Provide medians and limit mid-block left turns on Northgate Way from 5th Avenue NE to Roosevelt Way NE. Accommodate U-turns at intersections if needed.	E-7
32	Stripe bike lanes on 5th Avenue NE from NE 115th Street to NE 125th Street.	I-2
31	Signalize the I-5 northbound off-ramp and 5th Avenue NE intersection and coordinate this signal with the 5th Avenue NE/NE 130th Street intersection signal.	A-4
31	Provide a roundabout at the Pinehurst Way NE/NE 115th Street/12th Avenue NE intersection.	G-2
28	Install a mid-block or intersection pedestrian crossing with pedestrian signal on 15th Avenue NE between NE 120th Street and NE 122nd Street.	G-4
28	Install a signal and modify the intersection geometry at the 15th Avenue NE/NE 117th Street/Pinehurst Way NE intersection.	G-3
26	Reconstruct intersection with north-south left turn pockets at the Northgate Way/15th Avenue NE intersection.	G-5
26	Provide bicycle lanes on both sides of Meridian Avenue N from N 100th Street to Northgate Way.	C-4
26	Provide bicycle lanes on both sides of College Way from N 92nd Street to N 100th Street by converting the curb lanes to bicycle lanes. Work with Metro to ensure that transit service standards for speed and reliability of service are maintained.	C-5
25	Install a traffic signal at the N 115th Street/Meridian Avenue N intersection.	C-3
23	Add an eastbound left turn pocket at the 5th Avenue NE/NE 130th Street intersection.	A-3
23	Coordinate all signals and optimize signal operation on N/NE Northgate Way	E-1

Table 6-2 Continued. (Ranking of the Improvement Concepts Based on Raw Scores)

Evaluation Score	Project Description	Project #
22	Add a westbound right turn lane and implement the intersection improvement concept prepared by King County Metro at the NE 103rd Street/1st Avenue NE intersection.	F-1
21	Allow eastbound left turns from the existing curb lane at the NE 103rd Street/5th Avenue NE intersection.	F-3
19	Add a westbound left turn pocket at the I-5 southbound on-ramp and NE 130th Street intersection.	A-2
19	Apply the DPD Open Space/Pedestrian Connections Plan for design treatments that enhance the pedestrian connection on Northgate Way between Corliss Avenue N and 1st Avenue NE, particularly under I-5. A key CTIP recommendation is to place the sidewalks behind the I-5 bridge columns. This project should be implemented together with C-7, C-9, and C-10 as a package.	C-12
19	Replace the existing pedestrian signal with a traffic signal and allow left turns on all approaches at the NE Northgate Way/8th Avenue NE intersection.	E-8
17	Extend northbound right turn lane on 5th Avenue NE south of Northgate Way to NE 106th Street.	I-1
16	Upgrade the existing signal at the NE 125th Street/15th Avenue NE intersection.	A-7
15	Install a signal at the NE 92nd Street and 1st Ave NE intersection.	D-2
7	Modify westbound approach. Curb lane: right and I-5 on-ramp, 2nd lane: I-5 on-ramp and through, and 3rd lane: through only at the Northgate Way/1st Avenue NE/I-5 on-ramp intersection. Widen the on-ramp to two lanes on northbound I-5 on-ramp from Northgate Way.	E-2
1	Add double left turn lanes on westbound Northgate Way at the intersection with Meridian Avenue N.	C-6
*	Provide a raised walkway on one side of NE 95th Street from 12th Avenue NE to 17th Avenue NE; on 17th Avenue NE from NE 95th Street to NE 96th Street, and on NE 96th Street from 17th Avenue NE to 19th Avenue NE.	B-6
*	Add a raised walkway on one side of 20th Avenue NE from NE 86th Street to NE 98th Street.	B-7
*	Fill in missing sections of sidewalk on 25th Avenue NE from NE 125th Street to NE 127th Street.	B-8
*	NE 120th Street traffic monitoring	B-9
Not Scored	Upgrade Northgate Way from Meridian Avenue N to Aurora Avenue N to meet the City's principal arterial roadway design standards. Key improvements needed within this corridor are adding sidewalks along the north edge of North Seattle Park, improving substandard sidewalks, adding urban design treatments, and expanding vehicular capacity at the Northgate Way/Aurora Avenue intersection.	C-13

Table 6-2 Continued. (Ranking of the Improvement Concepts Based on Raw Scores)

Evaluation Score	Project Description	Project #
Not Scored	Monitor safety performance of westbound traffic on NE Northgate Way approaching 1st Avenue intersection to determine whether future channelization improvements are warranted.	E-3
Not Scored	Install a signal at the NE 103rd Street/3rd Avenue NE intersection.	F-2
Not Scored	Construct a three-lane roadway on 3rd Avenue NE from NE 100th Street to NE 103rd Street.	F-4
Not Scored	When warranted, add four-way stop control and, ultimately, install a traffic signal at the NE 100th Street/3rd Avenue NE intersection.	F-5
Not Scored	Improve the streetscape and pedestrian street crossings at major intersections on 5th Avenue NE from NE 100th Street to NE 112th Street consistent with the 5th Avenue NE Streetscape Design Plan (2003).	I-3
Not Scored	Amend SMC 23.71.016 to allow shared parking between retail stores and other uses.	J-6
Not Scored	Amend SMC 23.72.016(C) to allow for reductions to minimum parking requirements for commercial uses, and consider expanding 23.71.016 to allow for these reductions.	J-7
Not Scored	Amend SMC 23.71.018 to make the Northgate Overlay District mode split goals consistent with the goals for Northgate in the Seattle Comprehensive Plan.	J-8
Not Scored	Allow residential uses to meet their parking requirements off-site.	J-9
Not Scored	Continue researching appropriate parking requirements to achieve Seattle Comprehensive Plan goals LU50 (parking maximums) and NGP12 (discourage SOV use, improve short-term parking accessibility).	J-10
Not Scored	Manage on-street parking supply within the commercial core of the Northgate Urban Center to give priority to short-term customer use.	J-11
Not Scored	Conduct a neighborhood parking management assessment for Northgate to ensure that the neighborhood's limited supply of on-street parking adequately serves surrounding land uses in the mid-term (2008–2010).	J-12
Not Scored	Work with Sound Transit and stakeholders to study and implement proactive parking management techniques around the station to prevent use of neighborhood streets for park-and-ride purposes, prior to the opening of the light rail station.	J-13
Not Scored	Add ten bus shelters within the study area at locations with 40 or more daily boardings. King County Metro should provide seven of the shelters in keeping with their standard of providing shelters at locations with 50 or more daily boardings; the City of Seattle should provide funds for the additional three shelters through the Northgate Mitigation Program.	J-14
Not Scored	Construct a pedestrian and bicycle bridge over I-5 to connect the community west of I-5 (North Seattle Community College) with Metro Transit Center. The bridge should be located between NE 100th St and NE 103rd Street and connect to the anticipated light rail station.	N/A

✱ Note: These Projects were only ranked by non-arterial performance measures.

Cost Estimates

A planning level cost was estimated for each potential improvement concept. The cost estimate was based on construction cost, including cost for drainage treatment, contingency, construction engineering, engineering design, and right-of-way acquisition.

The drainage cost was based on the most current City, State, and Federal regulations. The construction cost was estimated primarily on a unit cost basis. A 30% contingency was added to construction costs. The cost of right-of-way acquisition was estimated to be in the range of $30 to $50 per square foot. Engineering design was estimated at 20% of construction costs. **Table 6-3** shows costs for the transportation improvement concepts; endnotes following the table explain asterisked projects, several of which do not include cost estimates.

Table 6-3. Planning Level Cost Estimates for Improvement Concepts

	Improvement Concepts	Construction	Contingency	Construction Engineering	Engineering Design	R-O-W	Total
A-1	Add left turn pockets on all approaches at the N 130th/Meridian Avenue N intersection.	$1,200,000	$360,000	$180,000	$240,000	$0	$1,980,000
A-2	Add a westbound left turn pocket at the I-5 southbound on-ramp and NE 130th Street intersection.	$54,000	$16,000	$8,000	$11,000	$0	$89,000
A-3	Add an eastbound left turn pocket at the 5th Avenue NE/NE 130th Street intersection.	$2,070,000	$621,000	$311,000	$414,000	$0	$3,416,000
A-4	Signalize the I-5 northbound off-ramp and 5th Avenue NE intersection and coordinate this signal with the 5th Avenue NE/NE 130th Street intersection signal.	$405,000	$122,000	$61,000	$81,000	$0	$669,000
A-5	Upgrade the intersection of NE 125th Street/Roosevelt Way/10th Avenue NE to include the stop-controlled 125th Street intersection as part of the signal-controlled intersection.	$1,550,000	$465,000	$233,000	$310,000	$0	$2,558,000
A-6	Provide curb, gutter, and sidewalk on both sides of NE 125th Street from 5th Avenue NE to Roosevelt Way.	$521,000	$156,000	$78,000	$104,000	$0	$859,000
A-7	Upgrade the existing signal at the NE 125th Street/15th Avenue NE intersection.	$140,000	$42,000	$21,000	$28,000	$0	$231,000
B-1	Provide raised walkways on one side of NE 115th St from 5th Ave NE to Lake City Way.	$697,000	$209,000	$104,000	$139,000	$0	$1,149,000
B-2	Analyze pedestrian crossing conditions on 8th Avenue NE between Northgate Way and NE 115th Street. If consistent with SDOT guidelines and practices, install pedestrian crossing improvements, such as curb bulbs and related signs and markings.	$50,000	$15,000	$8,000	$10,000	$0	$83,000
B-3	Provide a raised walkway on one side of the street on 8th Ave NE from Northgate Way to NE 92nd St.	$235,000	$71,000	$35,000	$47,000	$0	$388,000
B-4	Provide a raised walkway on one side of NE 98th St from 15th Ave NE to Lake City Way. Allow on-street parking. Integrate traffic control devices with the sidewalk improvements.	$205,000	$61,000	$31,000	$41,000	$0	$399,000

Table 6-3 Continued. (Planning Level Cost Estimates for Improvement Concepts)

	Improvement Concepts	Construction	Contingency	Construction Engineering	Engineering Design	R-O-W	Total
B-5	N 117th Street from 1st Avenue N to Meridian Avenue N: Add a raised walkway on the north side of the street and speed humps.	$75,000	$23,000	$11,000	$15,000	$0	$124,000
B-6	Provide a raised walkway along NE 95th Street from 12th Avenue NE to Sacajawea Elementary school	$167,884	$50,365	$25,183	$33,577	$0	$277,000
B-7	Add a raised walkway on one side of 20th Avenue NE from NE 86th Street to NE 98th Street.	$282,752	$84,825	$42,413	$56,550	$0	$467,000
B-8	Fill in missing sections of sidewalk on 25th Avenue NE from NE 125th Street to NE 127th Street.	$57,434	$17,230	$8,615	$11,487	$0	$95,000
B-9	NE 120th Street traffic monitoring			See notes			
C-1	Add bike lanes or widen shoulders to accommodate bike traffic on 1st Avenue NE from N 117th Street to N 130th Street.	$605,000	$182,000	$91,000	$121,000	$0	$999,000
C-2	Add bike lanes and sidewalks on both sides of Meridian Avenue N from N 115th Street to N 122nd Street.	$773,000	$232,000	$116,000	$155,000	$0	$1,276,000
C-3	Install a traffic signal at the N 115th Street/Meridian Avenue N intersection.	$250,000	$75,000	$38,000	$50,000	$0	$413,000
C-4	Provide bicycle lanes on both sides of Meridian Avenue N from N 100th Street to Northgate Way.	$85,000	$26,000	$13,000	$17,000	$0	$141,000
C-5	Provide bicycle lanes on both sides of College Way from N 92nd Street to N 100th Street by converting the curb lanes to bicycle lanes. Work with Metro to ensure that transit service standards for speed and reliability of service are maintained.	$58,000	$18,000	$9,000	$12,000	$0	$97,000
C-6	Add double left turn lanes on westbound Northgate Way at the intersection with Meridian Avenue N.	$1,200,000	$360,000	$180,000	$240,000	$6,591,000	$8,571,000
C-7	Allow westbound left turns from Northgate Way to southbound Corliss Avenue at the southbound I-5 off-ramp/Corliss Avenue/ Northgate Way intersection. Extend the westbound left turn lane on Northgate Way under the I-5 overpass. Place new sidewalks behind the columns under I-5.	$80,000	$24,000	$12,000	$16,000	$0	$132,000

Table 6-3 Continued. (Planning Level Cost Estimates for Improvement Concepts)

	Improvement Concepts	Construction	Contingency	Construction Engineering	Engineering Design	R-O-W	Total
C-8	Provide a median and limit mid-block left turns on Northgate Way N from Meridian Ave N to Corliss Avenue N/I-5 off-ramp. Consider where a break in the median may be allowed. Investigate feasibility of providing a business access street south of Northgate Way.	$132,000	$40,000	$20,000	$26,000	$0	$218,000
C-9	Provide a roundabout at the southbound I-5 on-ramp/Corliss Avenue N/N 107th Street intersection. C-9, C-10, C-11 and J-5 work together to form an alternative westbound route to Meridian Avenue.	$1,400,000	$420,000	$210,000	$280,000	$23,000	$2,333,000
C-10	Provide a roundabout at the Meridian Avenue N/N 107th Street intersection.	$1,400,000	$420,000	$210,000	$280,000	$35,000	$2,345,000
C-11	Provide curb, gutter, and sidewalk on N 107th Street from Meridian Avenue N to Corliss Avenue N/southbound I-5 on-ramp.	$134,000	$40,000	$20,000	$27,000	$0	$221,000
C-12	Apply the DPD Open Space/Pedestrian Connections Plan for design treatments that enhance the pedestrian connection on Northgate Way between Corliss Avenue N and 1st Avenue NE, particularly under I-5. A key CTIP recommendation is to place the sidewalks behind the I-5 bridge columns. This project should be implemented together with C-7, C-9, and C-10 as a package.	$153,000	$46,000	$23,000	$31,000	$0	$253,000
C-13	Upgrade Northgate Way from Meridian Avenue N to Aurora Avenue N to meet the City's principal arterial roadway design standards. Key improvements needed within this corridor are adding sidewalks along the north edge of North Seattle Park, improving substandard sidewalks, adding urban design treatments, and expanding vehicular capacity at the Northgate Way/Aurora Avenue intersection.*	$670,000	$214,000	$101,000	$134,000	$0	$1,119,000
D-1	Provide curbs, gutters, and side-walks on both sides of NE 92nd St from 1st Ave NE to 5th Ave NE.	$333,000	$100,000	$50,000	$67,000	$0	$550,000
D-2	Install a signal at the NE 92nd St and 1st Ave NE intersection.	$300,000	$90,000	$45,000	$60,000	$0	$495,000

Table 6-3 Continued. (Planning Level Cost Estimates for Improvement Concepts)

	Improvement Concepts	Construction	Contingency	Construction Engineering	Engineering Design	R-O-W	Total
E-1	Coordinate all signals and optimize signal operation on N/NE Northgate Way.	$630,000	$189,000	$95,000	$126,000	$0	$1,040,000
E-2	Modify westbound approach. Curb lane: right and I-5 on-ramp, 2nd lane: I-5 on-ramp and through, and 3rd lane: through only at the Northgate Way/1st Avenue NE/I-5 on-ramp intersection. Widen the on-ramp to two lanes on northbound I-5 on-ramp from Northgate Way.	See notes					
E-3	Monitor safety performance of westbound traffic on NE Northgate Way approaching 1st Avenue intersection to determine whether future channelization improvements are warranted.	See notes					
E-4	Working with the Northgate Mall owner, add a new access driveway to the 3rd Avenue NE alignment at the Northgate Way/3rd Avenue NE intersection and eliminate the existing semicircular, two-intersection Northgate Mall driveway. It may require widening of 3rd Avenue north of Northgate Way to align the approach lane with the Northgate Mall side. Provide crosswalks on all legs at the Northgate Way/3rd Avenue NE intersection.	$1,200,000	$360,000	$180,000	240,000	to be determined*	$1,980,000
E-5	Place barriers at the edge of the north sidewalk or in the median (possibly landscaping) between 3rd Avenue NE and 5th Avenue NE to discourage mid-block street crossings by pedestrians.*	See notes					
E-6	Add a second westbound left turn lane on Northgate Way at 5th Avenue by widening the south side of Northgate Way from approximately 8th Avenue to 3rd Avenue. Assign southbound curb lane to right turns only. Realign the southbound through lane and eliminate the "offset" condition. Provide urban design treatments for pedestrian crossings at the Northgate Way/5th Avenue NE intersection.	$400,000	$120,000	$60,000	$80,000	to be determined *	$660,000

Table 6-3 Continued. (Planning Level Cost Estimates for Improvement Concepts)

	Improvement Concepts	Construction	Contingency	Construction Engineering	Engineering Design	R-O-W	Total
E-7	Provide medians and limit mid-block left turns on Northgate Way from 5th Avenue NE to Roosevelt Way NE. Accommodate U-turns at intersections if needed.	$19,000	$6,000	$3,000	$4,000	$49,000*	$81,000
E-8	Replace the existing pedestrian signal with a traffic signal and allow left turns on all approaches at the NE Northgate Way/8th Avenue NE intersection.	$300,000	$90,000	$45,000	$60,000	$0	$495,000
F-1	Add a westbound right turn lane and implement the intersection improvement concept prepared by King County Metro at the NE 103rd Street/1st Avenue NE intersection.	$1,200,000	$360,000	$180,000	$240,000	$0	$1,980,000
F-2	Install a signal at the NE 103rd St/3rd Ave NE intersection.*	See notes					
F-3	Allow eastbound left turns from the existing curb lane at the NE 103rd Street/5th Avenue NE intersection.	$50,000	$15,000	$8,000	$10,000	$0	$83,000
F-4	Construct a three-lane roadway on 3rd Avenue NE from NE 100th Street to NE 103rd Street.	See notes					
F-5	Add four-way stops and install a signal at the NE 100th St/3rd Ave NE intersection, if needed in the future.	$300,000	$90,000	$45,000	$60,000	$0	$495,000
F-6	Provide sidewalks on the north side of the street on NE 100th St from 1st Ave NE to 5th Ave NE.	See notes					
F-7	Reconstruct the existing sidewalk on the east side of 1st Avenue NE from NE 92nd Street to NE 97th Street and provide a bicycle lane on the west side of 1st Avenue (by extending the shoulder by 4 feet) between NE 103rd Street and NE 92nd Street.	$294,000	$88,000	$44,000	$59,000	$0	$485,000
G-1	Add curbs, gutters, and sidewalks on both sides of the street on 15th Avenue NE from NE 92nd Street to NE 117th Street.	$2,145,000	$643,000	$322,000	$429,000	$0	$3,539,000
G-2	Provide a roundabout at the Pinehurst Way NE/NE 115th Street/12th Avenue NE intersection.	$1,883,000	$565,000	$282,000	$377,000	$0	$3,107,000
G-3	Install a signal and modify the intersection geometry at the 15th Avenue NE/NE 117th Street/Pinehurst Way NE intersection.	$1,200,000	$360,000	$180,000	$240,000	$0	$1,980,000

Table 6-3 Continued. (Planning Level Cost Estimates for Improvement Concepts)

	Improvement Concepts	Construction	Contingency	Construction Engineering	Engineering Design	R-O-W	Total
G-4	Install a pedestrian signal on 15th Ave NE and either NE 120th St or NE 122nd St.	$180,000	$54,000	$27,000	$36,000	$0	$297,000
G-5	Reconstruct intersection with north-south left turn pockets at the Northgate Way/15th Avenue NE intersection.	$500,000	$150,000	$75,000	$100,000	$0	$825,000
H-1	Analyze pedestrian crossing conditions, including pedestrian demand and adjacent land uses, on Roosevelt Avenue NE between NE 90th Street and NE 94th Street through the neighborhood business district. If consistent with SDOT guidelines and practices, install pedestrian crossing improvements, such as curb bulbs and crosswalk signs and markings.	$60,000	$18,000	$9,000	$12,000	$0	$99,000
I-1	Extend northbound right turn lane on 5th Avenue NE south of Northgate Way to NE 106th Street.	$52,000	$16,000	$8,000	$10,000	$87,000	$173,000
I-2	Stripe bike lanes on 5th Avenue NE from NE 115th Street to NE 125th Street.	$78,000	$23,000	$12,000	$16,000	$0	$129,000
I-3	Improve the streetscape and pedestrian street crossings at major intersections on 5th Avenue NE from NE 100th Street to NE 112th Street consistent with the 5th Avenue NE Streetscape Design Plan (2003).*	See notes					
J-1	Following the extension of light rail to Northgate, provide transit feeder services from nearby neighborhoods to the transit center.*	See notes					
J-2	Increase transit services from Northgate to University District for midday period.*	See notes					
J-3	Improve all-day transit services to urban villages such as Bitter Lake and Aurora–Licton Springs.*	See notes					
J-4	Facilitate development of a “parking brokerage” function to efficiently allocate parking needs through shared use of parking spaces.*	See notes					

Table 6-3 Continued. (Planning Level Cost Estimates for Improvement Concepts)

	Improvement Concepts	Construction	Contingency	Construction Engineering	Engineering Design	R-O-W	Total
J-5	Re-classify Corliss Avenue from NE Northgate Way to N 107th Street and N 107th Street from Corliss Avenue N to Meridian Avenue N from local streets to collector arterials.*	See notes					
J-6 thru J-13	Parking management*						
J-14	Transit shelters (three)*						$78,000
N/A	Construct a pedestrian bridge over I-5 to connect the community west of I-5 (North Seattle Community College) with Metro Transit Center. The bridge should be located somewhere between NE 100th St and NE 103rd St.*	$4,300,000	$1,290,000	$645,000	$860,000	to be determined	$7,095,000
	Total	$25,165,000	$7,533,000	$3,769,000	$5,023,000	$6,785,000	$49,740,000

**NOTES:*

B-9 (NE 120th Street traffic monitoring). It is assumed that monitoring can be done with existing City resources.

C-7 (Allow WB left turns from Northgate Way to southbound Corliss). This project involves a WSDOT controlled traffic signal and would include striping and signal phasing modifications. The cost to implement this project is relatively minor. However, the City and WSDOT must negotiate the implementation of this project in the context of related improvements to adjacent intersections.

C-13 (Improve Northgate Way from Meridian Avenue N to Aurora Avenue N). Additional project definition is required to determine the extent of pedestrian, vehicular, and urban design improvements within this corridor. Costs shown are for sidewalks on both sides from Meridian Avenue N to Ashworth Avenue N within the study area.

E-2 (Modify westbound approach at the Northgate Way/1st Ave NE/I-5 on-ramp intersection—2nd lane: I-5 on-ramp and through. Widen the on-ramp to have two lanes on northbound I-5 on-ramp from Northgate Way). This project falls under the scope of WSDOT's "I-5—Pavement Reconstruction and Bottleneck Improvement Projects." The City and WSDOT must negotiate the implementation of this project in the context of related improvements.

E-3 (Monitor safety performance of WB traffic on NE Northgate Way at 1st Avenue NE). It is assumed that monitoring can be done with existing City resources.

E-4 (Northgate Mall driveway at 3rd Avenue NE). Right of way estimate to be determined during pre-design.

E-5 (Place barrier on the edge of the sidewalk or in the median on NE Northgate Way). The cost of this project is included in E-4: 3rd Ave/Northgate Way intersection improvement.

E-6. (Second westbound left turn lane on NE Northgate Way at 5th Avenue NE). Right-of-way estimate to be determined during pre-design.

E-7 (NE Northgate Way medians). Right of way cost may increase due to u-turn configuration.

F-2, F-4 (3rd Ave NE Extension). Funded jointly by the City and King County Metro.

F-6 (Sidewalk on north side of NE 100th St from 1st to 5th Avenue NE). This sidewalk is fully funded and will be constructed in stages as part of projects built by the City of Seattle, King County Metro and private development.

I-3 (5th Ave streetscape). The project cost was not included in the cumulative CTIP totals because $2.5 million for Phase 1 has already been programmed in the City's Capital Improvement Program, and Phase 2 costs are subject to further project definition.

J-1, J-2, and J-3 (Increase transit service). Increased transit service coverage, frequency, speed, and reliability would be implemented by King County Metro in consultation with the City and consistent with the objectives, performance measures, and partnership commitments contained within the Seattle Transit Plan. The extension of light rail to Northgate may offer an opportunity to relocate service hours to more local service.

J-4 (Facilitate parking brokerage). The CTIP recommends development of a "parking brokerage" function that could be managed by a new or existing association of employers and property owners, a Chamber of Commerce, or a Transportation Management Association (TMA). At this time, it is premature to estimate the cost structure and financing requirements to develop and operate such a function. A next step would be to work with potential partners to develop a business plan.

J-5 (Reclassification of Corliss Avenue N and N 107th St). This action can be completed within existing City resources.

J-6 through J-13 (Parking management). These actions are expected to be completed within existing City resources.

J-14 (Transit shelters). Costs shown are for City expenditures for three transit shelters at locations with between 40 and 50 boardings per day; King County Metro is responsible for providing shelters at locations with greater than 50 boardings per day.

Improvement Concepts Sorted by CTIP Goals

The improvement concepts are sorted by the CTIP's four major goals:

CTIP Goal: Move people safely and efficiently

The improvement concepts in this group are intended to improve pedestrian safety on arterials as well as vehicle mobility. These projects are primarily located in the study area outside the Northgate Urban Center area; and include pedestrian and bicycle improvement projects on arterial streets.

CTIP Goal: Reduce drive-alone travel

The improvement concepts in this group improve transit operation through capital improvements and service enhancements and recommend new bicycle facilities.

CTIP Goal: Support new housing and economic development

The improvement concepts in this group are primarily to support economic activities in the Northgate Urban Center. The majority of these projects focus on vehicle mobility and access.

CTIP Goal: Protect neighborhoods

The improvement concepts in this group are aimed at reducing cut-through traffic and excessive speeds, and at protecting pedestrians on neighborhood streets. The improvements provide traffic calming devices and pedestrian facilities.

Tables 6-4, 6-5, 6-6, and **6-7** show the transportation improvement concepts grouped by CTIP goal and ranked by evaluation score in each group. **Figures 6-1, 6-2, 6-3,** and **6-4** show the locations of the improvement concepts with the project numbers.

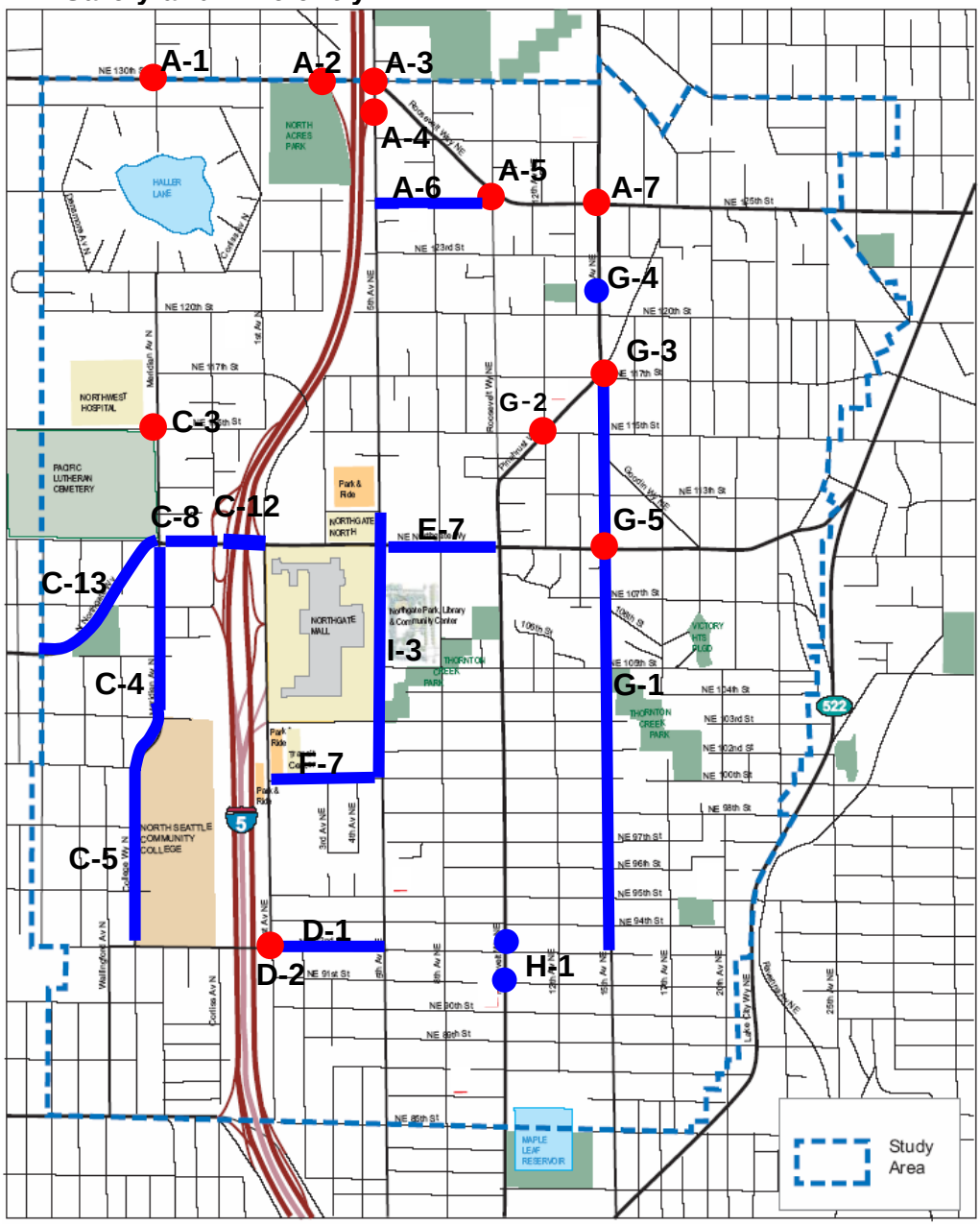
Table 6-4. Transportation Improvement Concepts to Move People Safely and Efficiently

Evaluation Score	Project Description	Project #
47	Provide curbs, gutters, and sidewalks on both sides of NE 125th Street from 5th Ave NE to Roosevelt Way.	A-6
46	Upgrade the intersection of NE 125th St/Roosevelt Way/10th Ave NE and include the stop-controlled 125th St intersection to be a part of the signal-controlled intersection.	A-5
42	Provide curbs, gutters, and sidewalks on both sides of NE 92nd Street from 1st Ave NE to 5th Ave NE. Provide curb bulbs as appropriate to assist pedestrian crossings.	D-1
39	Analyze pedestrian crossing conditions, including pedestrian demand and adjacent land uses, on Roosevelt Avenue NE between NE 90th Street and NE 94th Street through the neighborhood business district. If consistent with SDOT guidelines and practices, install pedestrian crossing improvements, such as curb bulbs and crosswalk signs and markings.	H-1
34	Add left turn pockets on all approaches at the N 130th/Meridian Ave N intersection.	A-1
33	Add curbs, gutters, and sidewalks on both side of the street on 15th Ave NE from NE 92nd St to NE 117th St.	G-1
32	Provide a median and restrict mid-block left turns on Northgate Way N from Meridian Ave N to Corliss Ave N/I-5 off-ramp where a break in the median may be allowed. Investigate feasibility of providing a business access street south of Northgate Way.	C-8
32	Provide medians and restrict mid-block left turns on Northgate Way from 5th Ave NE to Roosevelt Way NE. Accommodate U-turns at intersections.	E-7
31	Signalize the I-5 northbound off-ramp and 5th Ave NE intersection and coordinate this signal with the 5th Ave NE/NE 130th St intersection signal.	A-4
31	Provide a roundabout at the Pinehurst Way NE/NE 115th St/12th Ave NE intersection.	G-2
28	Install a signal and modify the intersection geometry at the 15th Ave NE/NE 117th St/Pinehurst Way NE intersection.	G-3
28	Install a mid-block or intersection pedestrian crossing with pedestrian signal on 15th Ave NE between NE 120th St and NE 122nd St.	G-4
26	Reconstruct intersection with north-south left turn pockets at the Northgate Way and 15th Ave NE intersection.	G-5
25	Install a traffic signal at the N 115th St/Meridian Ave N intersection.	C-3
23	Add a eastbound left turn pocket at the 5th Ave NE and NE 130th St intersection.	A-3
19	Add a westbound left turn pocket at the I-5 southbound on-ramp and NE 130th St intersection.	A-2
19	Apply the DPD Open Space/Pedestrian Connections Plan for design treatments that enhance the pedestrian connection on Northgate Way between Corliss Avenue N and 1st Avenue NE, particularly under I-5. A key CTIP recommendation is to place the sidewalks behind the I-5 bridge columns. This project should be implemented together with C-7, C-9, and C-10 as a package.	C-12
16	Upgrade the existing signal at the NE 125th St/15th Ave NE intersection.	A-7
15	Install a signal at the NE 92nd Street and 1st Ave NE intersection.	D-2

Table 6-4 Continued. Transportation Improvement Concepts to Move People Safely and Efficiently

Evaluation Score	Project Description	Project #
Not Scored	Upgrade Northgate Way from Meridian Avenue N to Aurora Avenue N to meet the City's principal arterial roadway design standards. Key improvements needed within this corridor are adding sidewalks along the north edge of North Seattle Park, improving substandard sidewalks, adding urban design treatments, and expanding vehicular capacity at the Northgate Way/Aurora Avenue intersection.	C-13
Not Scored	Provide sidewalks on the north side of NE 100th St from 1st Ave NE to 5th Ave NE.	F-6
Not Scored	Improve the streetscape and pedestrian street crossings at major intersections on 5th Avenue NE from NE 100th Street to NE 112th Street consistent with the 5th Avenue NE Streetscape Design Plan (2003).	I-3
Not Scored	Reclassify Corliss Avenue from NE Northgate Way to N 107th Street and N 107th Street from Corliss Avenue N to Meridian Avenue N from local streets to collector arterials.	J-5

Figure 6-1. Locations of Transportation Improvement Concepts to Move People Safely and Efficiently

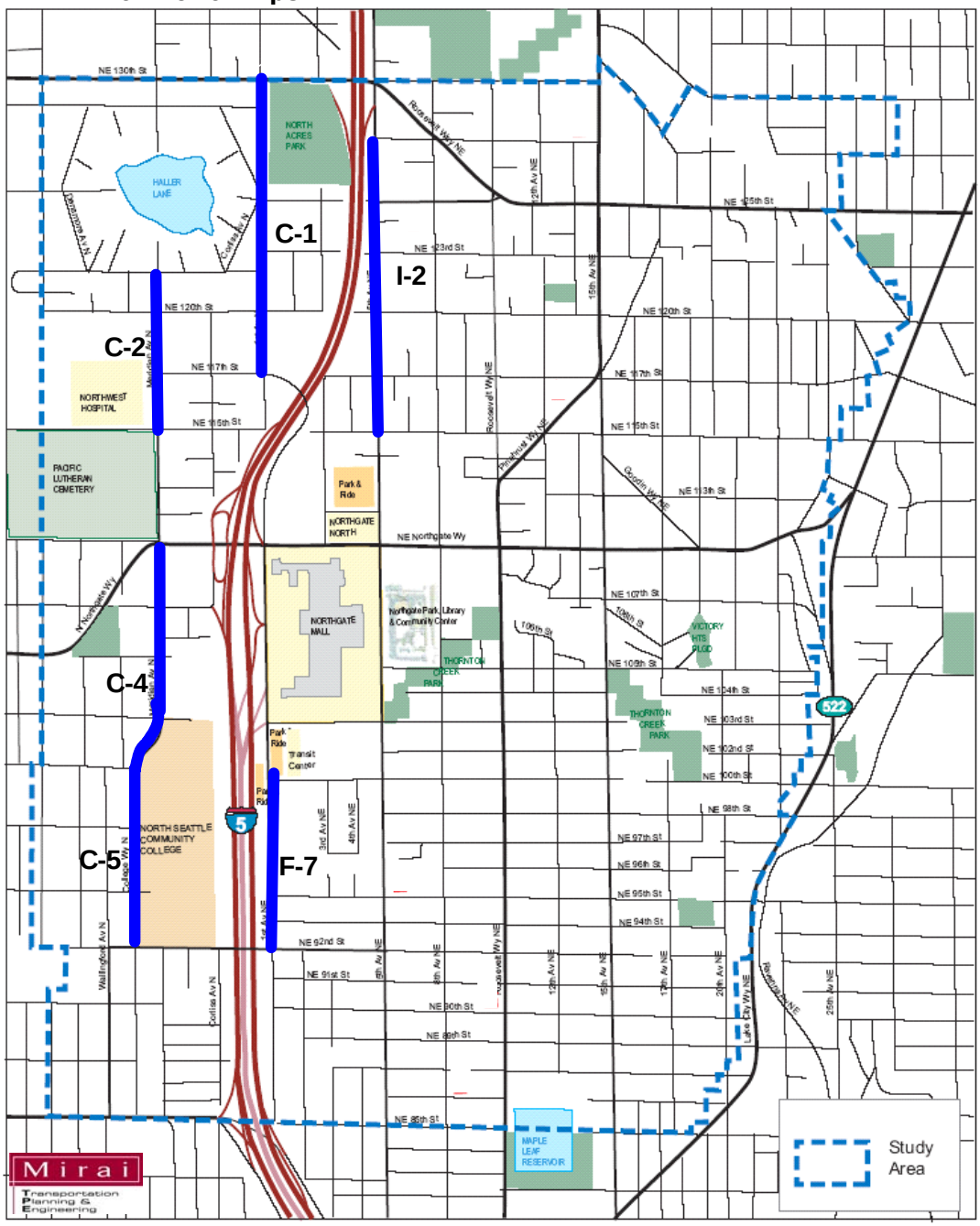


Note: Improvement concept project J-5 is not shown.

Table 6-5. Transportation Improvement Concepts to Reduce Drive-Alone Travel

Evaluation Score	Project Description	Project #
55	Add bike lanes and sidewalks on both sides of Meridian Avenue N from N 115th Street to N 122nd Street.	C-2
39	Reconstruct the existing sidewalk on the east side of 1st Avenue NE from NE 92nd Street to NE 97th Street and provide a bicycle lane on the west side of 1st Avenue (by extending the shoulder by 4 feet) between NE 103rd Street and NE 92nd Street.	F-7
32	Add bike lanes or widen shoulders to accommodate bike traffic on 1st Ave NE from N 117th St to N 130th St.	C-1
32	Stripe bike lanes on 5th Ave NE from NE 115th St to NE 125th St.	I-2
26	Provide bicycle lanes on both sides of Meridian Avenue N from N 100th Street to Northgate Way.	C-4
26	Provide bicycle lanes on both sides of College Way from N 92nd Street to N 100th Street by converting the curb lanes to bicycle lanes. Work with Metro to ensure that transit service standards for speed and reliability of service are maintained.	C-5
Not Scored	Following the extension of light rail to Northgate, provide transit feeder services from nearby neighborhoods to the transit center.	J-1
Not Scored	Increase transit services from Northgate to University District for midday period.	J-2
Not Scored	Improve transit services all day to urban villages such as Bitter Lake and Aurora-Licton Springs areas.	J-3
Not Scored	Facilitate development of a “parking brokerage” function to efficiently allocate parking needs through shared use of parking spaces. This function could be managed by a new or existing association of employers and property owners, a Chamber of Commerce, or a Transportation Management Association (TMA). These organizations may also be able to provide other services related to improving public transportation and promoting alternatives to drive-alone commutes.	J-4
Not Scored	Amend SMC 23.71.016 to allow shared parking between retail stores and other uses.	J-6
Not Scored	Amend SMC 23.72.016(C) to allow for reductions to minimum parking requirements for commercial uses, and consider expanding 23.71.016 to allow for these reductions.	J-7
Not Scored	Amend SMC 23.71.018 to make the Northgate Overlay District mode split goals consistent with the goals for Northgate in the Seattle Comprehensive Plan.	J-8
Not Scored	Allow residential uses to meet their parking requirements off-site.	J-9
Not Scored	Continue researching appropriate parking requirements to achieve Seattle Comprehensive Plan goals LU50 (parking maximums) and NGP12 (discourage SOV use, improve short-term parking accessibility).	J-10
Not Scored	Add ten bus shelters within the study area at locations with 40 or more daily boardings. King County Metro should provide seven of the shelters in keeping with their standard of providing shelters at locations with 50 or more daily boardings; the City of Seattle should provide funds for the additional three shelters through the Northgate Mitigation Program.	J-14
Not Scored	Construct a pedestrian bridge over I-5 to connect the community west of I-5 (North Seattle Community College) with Metro Transit Center. The bridge should be located somewhere between NE 100th St and NE 103rd Street.	N/A

Figure 6-2. Locations of Transportation Improvement Concepts to Reduce Drive-Alone Trips

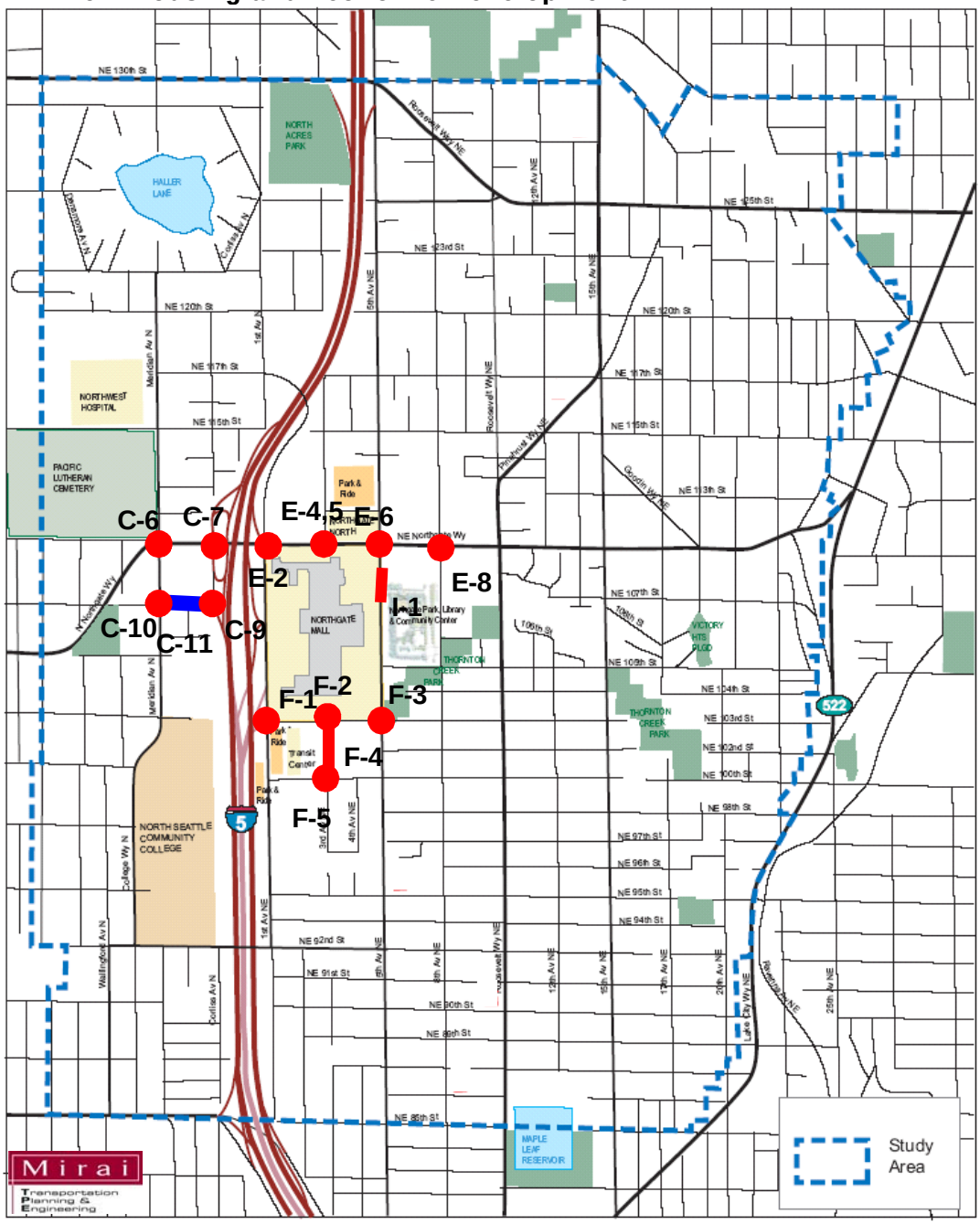


Note: Transit service improvement concepts, J-1, J-2, J-3; parking concepts J-4, J-6, J-7, J-8, J-9, and J-10; transit shelter improvements J-14; and the cross-freeway connection concept are not shown.

Table 6-6. Transportation Improvement Concepts to Support New Housing and Economic Development

Evaluation Score	Project Description	Project #
45	Add a second westbound left turn lane on Northgate Way at 5th Avenue by widening the south side of Northgate Way from approximately 8th Avenue to 3rd Avenue. Assign southbound curb lane to right turns only. Realign the southbound through lane and eliminate the "offset" condition. Provide urban design treatments for pedestrian crossings at the Northgate Way/5th Ave NE intersection.	E-6
42	Working with the Northgate Mall owner, add a new access driveway to the 3rd Avenue NE alignment at the Northgate Way/3rd Avenue NE intersection and eliminate the existing semi-circular, two-intersection Northgate Mall driveway. It may require widening of 3rd Avenue north of Northgate Way to align the approach lane with the Northgate Mall side. Provide crosswalks on all legs at the Northgate Way/3rd Avenue NE intersection. Place barriers at the edge of the north sidewalk or in the median (possibly landscaping) between 3rd Avenue NE and 5th Avenue NE to discourage mid-block street crossings by pedestrians.	E-4, E-5
35	Allow westbound left turns from Northgate Way to southbound Corliss Avenue at the southbound I-5 off-ramp/Corliss Ave/Northgate Way intersection. Extend the westbound left turn lane on Northgate Way under I-5 overpass by placing sidewalks behind the columns.	C-7
35	Provide a roundabout at the southbound I-5 on-ramp/Corliss Avenue N/N 107th Street intersection. C-9, C-10, C-11 and J-5 work together to form an alternative westbound route to Meridian Avenue.	C-9
35	Provide a roundabout at the Meridian Ave N/N 107th St intersection.	C-10
35	Provide curbs, gutters, and sidewalks on N 107th Street from Meridian Ave N to Corliss Ave N/southbound I-5 on-ramp.	C-11
23	Coordinate all signals and optimize signal operation on N/NE Northgate Way.	E-1
22	Add an westbound right turn lane and implement the intersection improvement concept prepared by King County Metro at the NE 103rd Street/1st Ave NE intersection.	F-1
21	Allow eastbound left turns from the existing curb lane at the NE 103rd St/5th Ave NE intersection.	F-3
19	Replace the existing pedestrian signal with a traffic signal and allow left turns on all approaches at the NE Northgate Way/8th Ave NE intersection.	E-8
17	Extend NB right turn lane on 5th Ave NE south of Northgate Way to NE 106th St.	I-1
7	Modify westbound approach—curb lane: right and I-5 on-ramp, 2nd lane: I-5 on-ramp and through, and 3rd lane: through only at the Northgate Way/1st Ave NE/I-5 on-ramp intersection. Widen the on-ramp to have two lanes on Northbound I-5 on-ramp from Northgate Way.	E-2
1	Add double left turn lanes on westbound Northgate Way at the intersection with Meridian Avenue N.	C-6
Not Scored	Monitor safety performance of westbound traffic on NE Northgate Way approaching 1st Ave intersection to determine the future channelization improvements.	E-3
Not Scored	Install a signal at the NE 103rd St/3rd Ave NE intersection. Consider urban design treatments for accommodating pedestrians such as crosswalks.	F-2
Not Scored	Construct a three-lane roadway on 3rd Ave NE from NE 100th St to NE 103rd St.	F-4
Not Scored	Add four-way stops and install a signal at the NE 100th St/3rd Ave NE intersection, if needed in the future. Consider urban design treatments for accommodating pedestrians such as crosswalks.	F-5
Not Scored	Manage on-street parking supply within the commercial core of the Northgate Urban Center to give priority to short-term customer use.	J-11

Figure 6-3. Locations of Transportation Improvement Concepts to Support New Housing and Economic Development

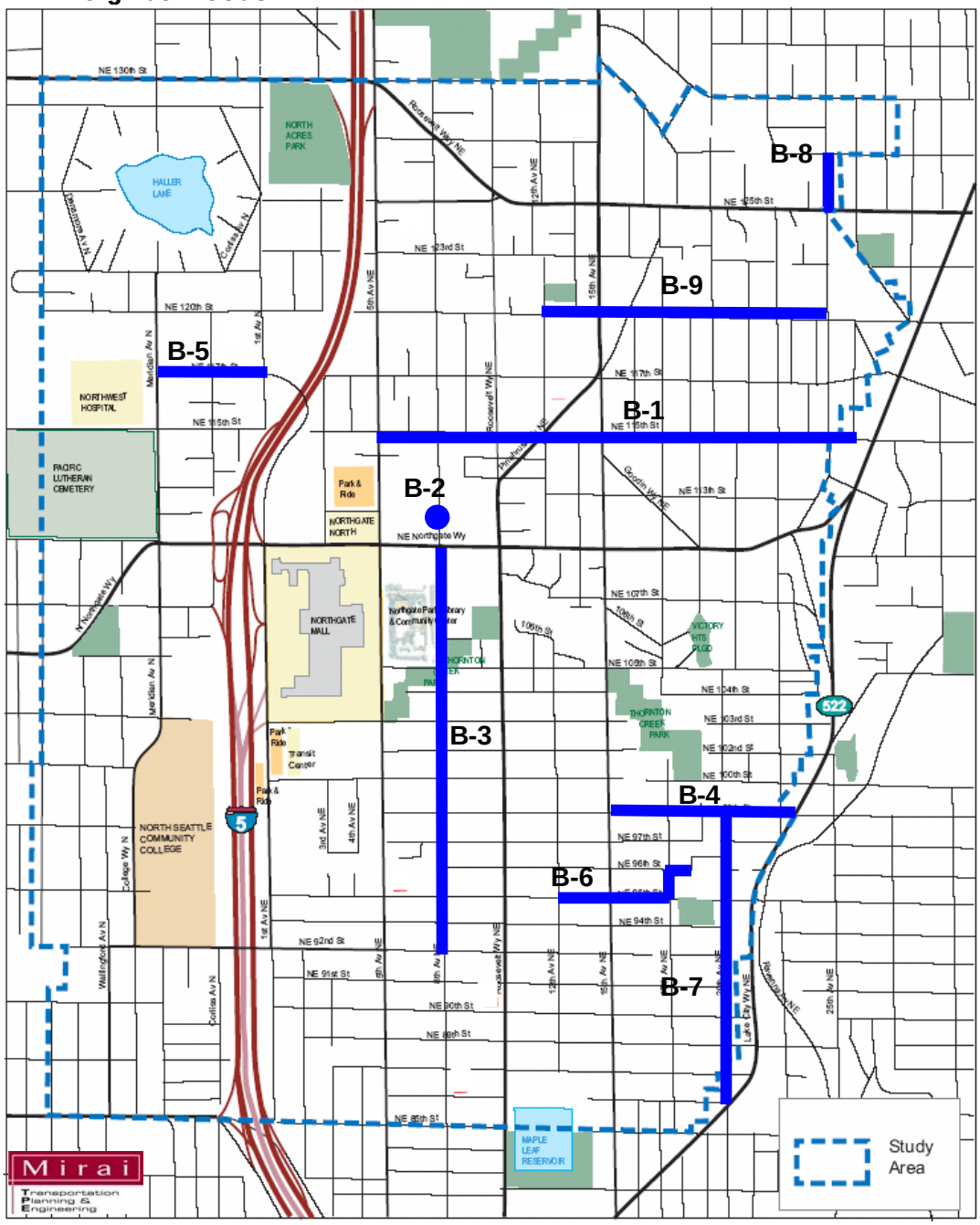


Note: Transportation improvement concepts E-1, E-3 and parking concept J-11 are not shown.

Table 6-7. Transportation Improvement Concepts to Protect Neighborhoods

Evaluation Score	Project Description	Project
51	Add a raised walkway on the north side of N 117th St from 1st Ave N to Meridian Ave N and place speed humps (cushion).	B-5
45	Provide raised walkway on one side of NE 115th St from 5th Ave NE to Lake City Way. Restrict on-street parking to one side.	B-1
45	Provide a raised walkway on one side of the street on 8th Ave NE from Northgate Way to NE 92nd Street.	B-3
44	Analyze pedestrian crossing conditions on 8th Avenue NE between Northgate Way and NE 115th Street. If consistent with SDOT guidelines and practices, install pedestrian crossing improvements, such as curb bulbs and related signs and markings. Crossing improvements at this location would enhance the connection between the senior housing developments on the west side of 8th Avenue NE with a post office on the east side.	B-2
43	Provide raised walkway on one side of NE 98th St from 15th Ave NE to Lake City Way. Allow on-street parking. Integrate traffic control devices with the sidewalk improvements.	B-4
Not Scored	Provide a raised walkway on one side of NE 95th Street from 12th Avenue NE to 17th Avenue NE; on 17th Avenue NE from NE 95th Street to NE 96th Street, and on NE 96th Street from 17th Avenue NE to 19th Avenue NE.	B-6
Not Scored	Add a raised walkway on one side of 20th Avenue NE from NE 86th Street to NE 98th Street.	B-7
Not Scored	Fill in missing sections of sidewalk on 25th Avenue NE from NE 125th Street to NE 127th Street.	B-8
Not Scored	NE 120th Street traffic monitoring	B-9
Not Scored	Conduct a neighborhood parking management assessment for Northgate to ensure that the neighborhood's limited supply of on-street parking adequately serves surrounding land uses, in the mid-term (2008–2010).	J-12
Not Scored	Work with Sound Transit and stakeholders to study and implement proactive parking management techniques around the station to prevent use of neighborhood streets for park-and-ride purposes, prior to the opening of the light rail station.	J-13

Figure 6-4. Locations of Transportation Improvement Concepts to Protect Neighborhoods



Note: Parking concepts J-12 and J-13 are not shown.

7. Recommendations

Prioritization Process

The CTIP employed the following four steps to prioritize the transportation improvement concepts within the study area.

Step 1: Assign Each Improvement Concept to a Particular Goal

Potential improvement concepts were grouped by the CTIP goals, according to each project and program's primary objective, to ensure that similar projects would be evaluated against the same criteria.

- Move people safely and efficiently
- Reduce drive alone travel
- Protect the residential neighborhoods
- Support new housing and economic development

Step 2: Score Improvements using Evaluation Criteria

Chapter 6 describes the evaluation criteria in detail and shows the scores for each improvement project and program. Projects that were not scored included improvements already programmed for implementation or part of SDOT ongoing operations; transit service improvements that require further SDOT/Metro planning and decisions; and Transportation Management Association–related recommendations. In addition, the I-5 crossing (I-3) was addressed separately due to high cost and the need to involve multiple partners.

Step 3: Establish Implementation Priority

The following prioritization categories were established:

- High-Priority recommendations are those that should be implemented first. They provide significant transportation benefits related to costs and are needed to address critical needs.
- Mid-Level recommendations are those that should be implemented after the High-Priority improvements have been completed. They provide important benefits in relation to costs, responding to less immediate needs.

- Long-Range recommendations provide desirable benefits and should be implemented after higher-priority recommendations are implemented.
- Improvement concepts that were evaluated but found infeasible were not recommended for implementation.

Step 4: Apply Final Screening Criteria

The following issues were considered to assign each concept to a prioritization category:

Policy Direction—Improvements that would achieve CTIP goals and are consistent with the policy objectives found in the Seattle Comprehensive Plan, the Transportation Strategic Plan, the Mayor's Northgate Strategy (*Get Northgate Moving*) and Council Ordinances No. 30641 and No. 30642, which established a broad framework for future steps for Northgate and establishment of the CTIP.

Scores—Evaluation of benefits and possible drawbacks.

Time Sensitivity—Improvements that would address high-priority emerging demand such as "failing" intersections, ongoing safety problems, new public/private development.

Opportunity—such as potential partners and funding availability.

Recommendations

The CTIP recommendations were developed in consultation with outside transportation agencies and the Northgate Stakeholder Group, particularly the Stakeholders CTIP Subcommittee.

Recommendation: Implement transportation projects and programs to *Move People Safely and Efficiently.*

The locations of the recommended improvement concepts for this goal are shown in **Figure 7-1**.

High-Priority Improvements

F-6. Provide sidewalks on the north side of NE 100th Street from 1st Avenue NE to 5th Avenue NE. Note: This project is fully funded. Over time, the City, King County and private development (ERA Care) will construct a continuous sidewalk from 1st Avenue NE to 5th Avenue NE. (Cost estimate: not prepared)

A-6. Provide curbs, gutters, and sidewalks on both sides of NE 125th Street from 5th Avenue NE to Roosevelt Way NE. (Cost estimate: $859,000)

A-5. Upgrade the intersection of NE 125th Street/Roosevelt Way NE/10th Avenue NE and include the existing stop-controlled 125th Street intersection as part of one new signal-controlled intersection. (Cost estimate: $2,557,000)

D-1. Provide curbs, gutters, and sidewalks on both sides of NE 92nd Street from 1st Avenue NE to 5th Avenue NE. Provide curb bulbs as appropriate to assist pedestrian crossings. (Cost estimate: $550,000)

H-1. Analyze pedestrian crossing conditions, including pedestrian demand and adjacent land uses, on Roosevelt Avenue NE between NE 90th Street and NE 94th Street through the neighborhood business district. If consistent with SDOT guidelines and practices, install pedestrian crossing improvements, such as curb bulbs and crosswalk signs and markings. (Cost estimate: $99,000)

G-4. Install a pedestrian signal, consistent with SDOT signal warrant criteria, at the 15th Avenue NE/NE 120th Street intersection. SDOT is currently evaluating the pedestrian need at this location and considering a pedestrian-actuated signal. (Cost estimate: $297,000)

C-8. Work with businesses along N Northgate Way to develop an access management plan that includes construction of a median and restriction of mid-block left turns from Meridian Avenue N to the Corliss Ave N/I-5 off-ramp. Consider where a break in the median may be allowed for access. Investigate the feasibility of providing a business access street south of N Northgate Way. (Cost estimate: $218,000, which does *not* include cost of the business access street)

E-7. Work with the businesses along NE Northgate Way from 5th Avenue NE to Roosevelt Way NE to develop an access management plan that includes construction of medians and restriction of mid-block left turns. Consider where breaks in the medians may be allowed for access, or U-turns at intersections. (Cost estimate: $81,000; cost of developing U-turn capacity is not included.)

C-12. Apply the DPD Open Space/Pedestrian Connections Plan for design treatments that enhance the pedestrian connection on N Northgate Way between Corliss Avenue N and 1st Avenue NE particularly under I-5. A key CTIP recommendation is to place the sidewalks behind the I-5 bridge columns. This project should be implemented together with C-7, C-9, and C-10 as a package. (Cost estimate: $253,000)

I-3. Improve the streetscape and pedestrian street crossings at major intersections on 5th Avenue NE from NE 100th Street to NE 112th Street consistent with the 5th Avenue NE Streetscape Design Plan (2003) (Preliminary cost estimate: $2.5 million. Not included in CTIP costs, as $2.5 million for Phase 1 has already been programmed in the City's Capital Improvement Program, and Phase 2 costs are subject to further project definition.)

Mid-Level Priority Improvements

A-1. Add left turn pockets on all approaches at the N 130th Street/Meridian Avenue N intersection. (Cost estimate: $1,980,000)

G-1. Add curbs, gutters, and sidewalks on both sides of 15th Avenue NE from NE 92nd Street to NE 117th Street. This project may require phasing due to its high cost. Neighborhood-based funds have been allocated for a raised walkway for approximately four blocks (NE 92nd to NE 96th Street). In 2006 and prior to the execution of this project, SDOT should work with the community to decide upon the permanent design and construction technology to be utilized for the entire 15th Avenue NE pedestrian facility, and phasing and funding options identified to achieve maximum leverage. (Cost estimate: $3,539,000)

C-13. Upgrade N Northgate Way from Meridian Avenue N to Aurora Avenue N to meet the City's principal arterial roadway design standards. Key improvements needed within this corridor are adding sidewalks along the north edge of North Seattle Park, improving substandard sidewalks, adding urban design treatments and expanding vehicular capacity at the N Northgate Way/Aurora Avenue N intersection. (Cost estimate: $1.4 million for sidewalks on both sides from Meridian Avenue N to Ashworth Avenue N; no other improvements have been estimated)

A-4. Signalize the I-5 northbound off-ramp and 5th Avenue NE intersection and coordinate this signal with the 5th Avenue NE/NE 130th Street intersection signal and connect/coordinate all signals along NE 130th Street/NE 125th Street corridor. (Cost estimate: $669,000)

G-3. Install a traffic signal after adopted warrants have been met and modify the intersection geometry at the 15th Avenue NE/NE 117th Street/Pinehurst Way NE intersection. (Cost estimate: $1,980,000)

Long-Range Priority Improvements

G-2. Construct a roundabout at the Pinehurst Way NE/NE 115th Street/12th Avenue NE intersection. (Cost estimate: $3,107,000)

G-5. Reconstruct the NE Northgate Way/15th Avenue NE intersection to provide north-south left turn pockets. (Cost estimate: $825,000)

C-3. Install a traffic signal after adopted warrants have been met at the N 115th Street/Meridian Avenue N intersection. (Cost estimate: $413,000)

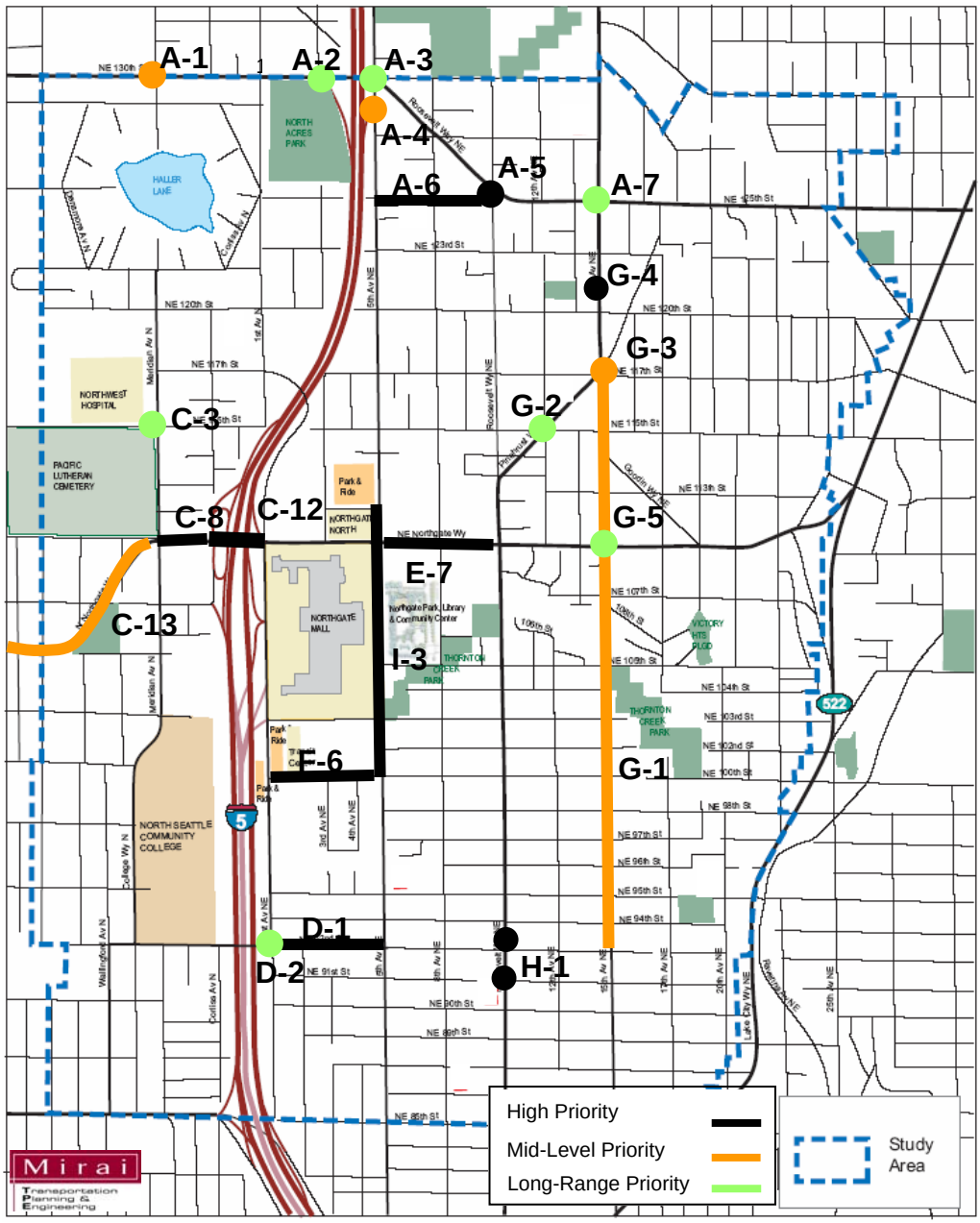
A-3. Add an eastbound left turn pocket at the 5th Avenue NE and NE 130th Street intersection. (Cost estimate: $3,416,000)

A-2. Add a westbound left turn pocket at the I-5 southbound on-ramp and NE 130th Street intersection. (Cost estimate: $89,000)

A-7. Upgrade the traffic existing signal at the NE 125th Street/15th Avenue NE intersection to include poles/mast arms and vehicle detection. (Cost estimate: $231,000)

D-2. Install a traffic signal after adopted warrants have been met at the NE 92nd Street and 1st Avenue NE intersection. When the traffic signal is installed, replace existing speed humps with humps that are consistent with the most current SDOT design and construction standards. (Cost estimate: $495,000)

Figure 7-1. Priority Ranking of Recommended Improvements under the CTIP Goal: Move People Safely and Efficiently



Recommendation: Implement transportation projects and programs to *Reduce Drive-Alone Travel*

The locations of the recommended improvement concepts for this goal are shown in **Figure 7-2**.

High-Priority Improvements

C-2. Add bicycle lanes and sidewalks on both sides of Meridian Avenue N from N 115th Street to N 122nd Street. (Cost estimate: $1,276,000)

F-7. Reconstruct the existing sidewalk on the east side of 1st Avenue NE from NE 92nd Street to NE 97th Street and provide a bicycle lane on the west side of 1st Avenue (by extending the shoulder by 4 feet) between NE 103rd Street and NE 92nd Street. (Cost estimate: $485,000)

I-2. Stripe bicycle lanes on 5th Avenue NE from NE 115th Street to NE 125th Street. (Cost estimate: $129,000)

C-4. Provide bicycle lanes on both sides of Meridian Avenue N from N 100th Street to N Northgate Way. (Cost estimate: $141,000)

C-5. Provide bicycle lanes on both sides of College Way from N 92nd Street to N 100th Street by converting the curb lanes to bicycle lanes. Work with Metro to ensure that transit service standards for speed and reliability of service are maintained. (Cost estimate: $97,000)

J-4. Facilitate development of a “parking brokerage” function to efficiently allocate parking needs through shared use of parking spaces. This function could be managed by a new or existing association of employers and property owners, a Chamber of Commerce, or a Transportation Management Association (TMA). These organizations may also be able to provide other services related to improving public transportation and promoting alternatives to drive-alone commutes. (Cost estimate: not prepared) See **Appendix 5-2** for information about TMA models.

J-6. Amend SMC 23.71.016 to allow shared parking between retail stores and other uses. The Northgate Overlay District is the only zone in the city where retail is prohibited from sharing parking with other uses. Shared parking between uses increases the efficiency with which parking supply is used. Parking impacts of a project can be addressed through SEPA mitigation.

J-7. Amend SMC 23.71.016(C) to allow for reductions to minimum parking requirements for commercial uses, and consider expanding 23.71.016 to allow for these reductions to apply to residential uses as well as commercial uses. 23.54.020 (F) applies in other commercial zones in the City, and allows for parking reductions for proximity to transit and provision of alternative transportation strategies such as vanpools and bicycle racks. This reduction should apply in the Northgate Overlay District as well.

J-8. Amend SMC 23.71.018 to make the Northgate Overlay District mode split goals consistent with the goals for Northgate in the Seattle Comprehensive Plan. The Seattle Comprehensive Plan has mode split goals for each Urban Center. Mode split goals are an indicator of how many people are driving alone as opposed to using alternative means of transportation.

J-9. Allow residential uses to meet their parking requirements off-site. Under current Code, commercial uses may meet their parking requirements off-site. Allowing off-site residential parking can encourage adjacent property owners to more efficiently meet their respective parking needs.

J-10. Continue researching appropriate parking requirements to achieve Seattle Comprehensive Plan goals LU50 (parking maximums) and NGP12 (discourage SOV use, improve short-term parking accessibility). Through the process, acknowledge stakeholder concerns, including the following comments:

- Retail parking maximums may be appropriate to review with respect to current lending practices.
- Reduced parking requirements should be considered by the City contingent on increased transit service.
- Benefits to developers from reduced parking requirements should be matched by their commitment to alternative travel as demonstrated by provision of transit passes, bicycle facilities, and car-share vehicles.

Mid-Level Priority Improvements

C-1. Add bike lanes or widen shoulders to accommodate bike traffic on 1st Avenue N from N 117th Street to N 130th Street. (Cost estimate: $999,000)

J-2. Provide improved transit service with average of 15-minute frequencies during off-peak hours from Northgate to the University District. This service improvement recommendation should be consistent with the Seattle Transit Plan. (Cost estimate: not prepared)

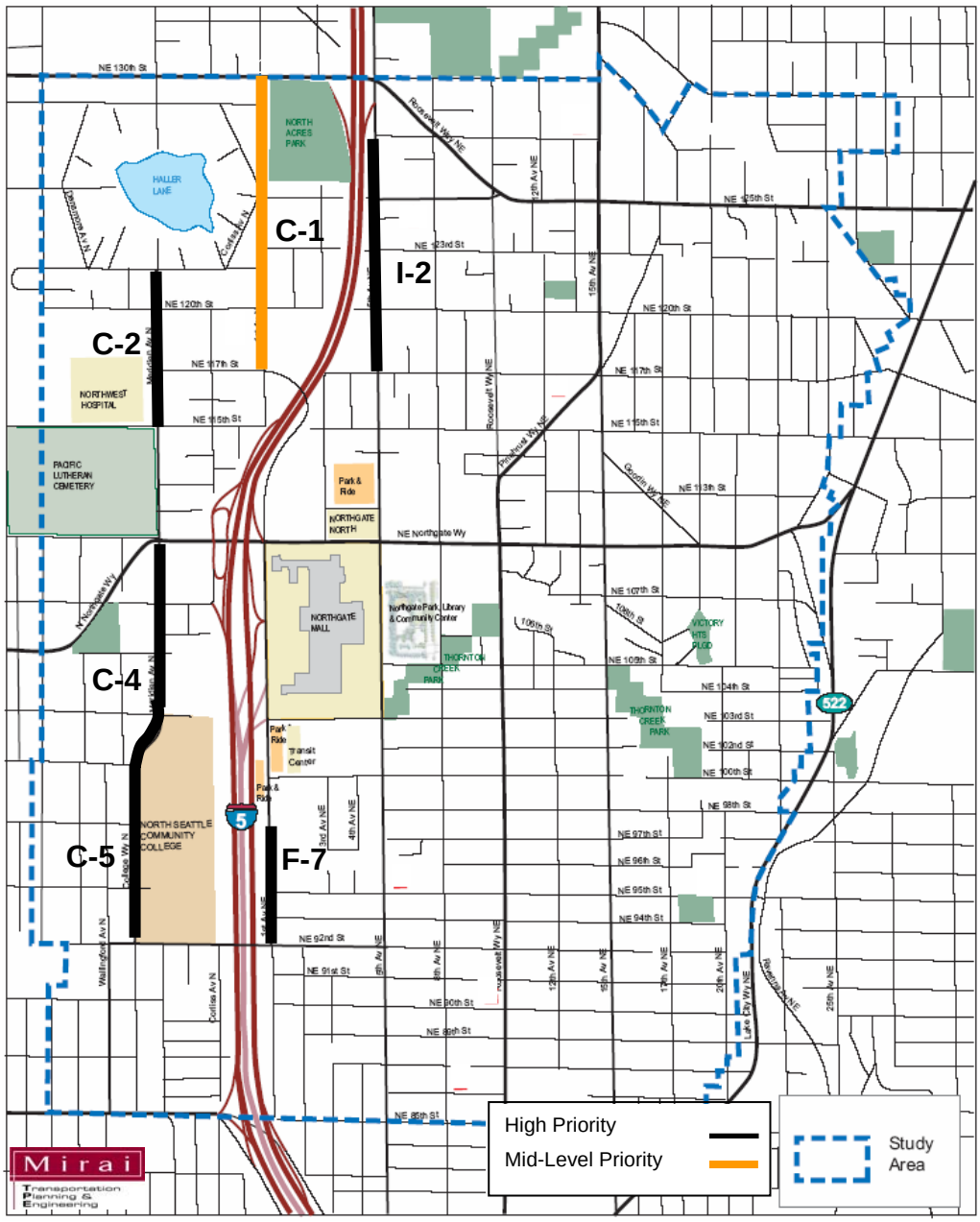
J-3. Improve transit service with average of 15-minute frequencies during peak periods and 30-minute frequencies during off peak periods to other Urban Villages such as Bitter Lake and Aurora Licton Springs. This service improvement recommendation is consistent with the SDOT Urban Village Transit Network plan, prepared in collaboration with Metro. (Cost estimate: not prepared)

J-14. Add ten bus shelters within the study area at locations with 40 or more daily boardings. King County Metro should provide seven of the shelters in keeping with their standard of providing shelters at locations with 50 or more daily boardings; the City of Seattle should provide funds for the additional three shelters through the Northgate Mitigation Program. (Cost estimate: $78,000 for three shelters)

Long-Range Priority Improvements

J-1. Following the extension of light rail to Northgate, provide transit feeder services from nearby neighborhoods to the transit center. (Cost estimate: not prepared)

Figure 7-2. Priority Ranking of Recommended Improvements under the CTIP Goal: Reduce Drive-Alone Travel



Note: Transit service improvement concepts J-1, J-2, J-3; parking improvement concepts J-4, J-6, J-7, J-8, J-9, and J-10; and transit shelter improvements J-14 are not shown.

Recommendation: Implement transportation projects and programs to *Support New Housing and Economic Development*

The locations of the recommended improvement concepts for this goal are shown in **Figure 7-3.**

High-Priority Improvements

F-4. Construct a three-lane roadway on 3rd Avenue NE from NE 100th Street to NE 103rd Street. (Cost estimate: not prepared, as project has already been programmed by SDOT and Metro for design and construction)

F-2. Install a traffic signal at the NE 103rd Street /3rd Avenue NE intersection. Provide urban design treatments for accommodating pedestrians. (Cost estimate: not prepared, as this project has already been programmed by SDOT)

F-5. When warranted, add four-way stop control and, ultimately, install a traffic signal at the NE 100th Street /3rd Avenue NE intersection. Provide marked crosswalks and urban design treatments to accommodate pedestrians. Note: upon opening, the 3rd Avenue NE extension will have two-way stop controls on the 3rd Avenue NE approaches. (Cost estimate: $495,000 for traffic signal)

E-6. Add a second westbound left turn lane on NE Northgate Way at 5th Avenue NE by widening the south side of NE Northgate Way from approximately 8th Avenue NE to 3rd Avenue NE. Assign southbound curb lane to right turns only. Re-align the southbound through lane to eliminate the existing “offset” condition. Provide urban design treatment to enhance the pedestrian crossings at the NE Northgate Way/5th Avenue NE intersection. (Cost estimate: $660,000 not including right of way costs)

E-4, E-5. Working with the Northgate Mall owner, add a new access driveway to the 3rd Avenue NE alignment at the NE Northgate Way/3rd Avenue NE intersection and eliminate the existing semicircular, two-intersection Northgate Mall driveway. It may require widening of 3rd Avenue north of NE Northgate Way to align the approach lane with the Northgate Mall side. Provide crosswalks on all legs at the NE Northgate Way/3rd Avenue NE intersection. Place barriers at the edge of the north sidewalk or in the median (possibly landscaping) between 3rd Avenue NE and 5th Avenue NE to discourage mid-block street crossings by pedestrians. (Cost estimate: public costs $1,980,000)

C-7. Allow left turns from westbound N Northgate Way to southbound Corliss Avenue at the southbound I-5 off-ramp/Corliss Ave/N Northgate Way intersection. Extend the westbound left turn lane on N Northgate Way under the I-5 overpass by placing the new sidewalks behind the support columns. (Cost estimate for lane extension only: $132,000)

C-9. Provide a roundabout at the southbound I-5 on-ramp/Corliss Avenue N/N 107th Street intersection. C-9, C-10, C-11 and J-5 work together to form an alternative westbound route to Meridian Avenue. (Cost estimate: $2,333,000) *Note: Roundabout design would accommodate vehicles that typically use the intersection, including large trucks and fire trucks.*

C-10. Provide a roundabout at the Meridian Ave N/N 107th Street intersection. (Cost estimate: $2,345,000) *Note: Roundabout design would accommodate vehicles that typically use the intersection, including buses and fire trucks.*

C-11. Provide curbs, gutters, and sidewalks on N 107th Street from Meridian Avenue N to Corliss Avenue N/southbound I-5 on-ramp. (Cost estimate: $221,000)

J-5. Re-classify Corliss Avenue from NE Northgate Way to N 107th Street and N 107th Street from Corliss Avenue N to Meridian Avenue N from local streets to collector arterials. (Cost estimate: staff time)

E-1. Coordinate all signals and optimize signal operation for peak/non-peak weekdays and weekend days based on vehicle volumes on N/NE Northgate Way. (Cost estimate: $1,040,000)

E-8. Replace the existing pedestrian signal with a full traffic signal and allow left turns on all approaches at the NE Northgate Way/8th Avenue NE intersection. Utilize urban design treatments consistent with the theme established at other key intersections within the Urban Center (e.g. NE Northgate Way/5th Avenue NE). The full traffic signal should not be installed until the second turn lane and pedestrian improvements are added to the Northgate Way and 5th Avenue NE intersection (E-6). By relieving traffic congestion at Northgate Way/5th Avenue, traffic will be more likely to use 5th Avenue NE rather than seek an alternative by using 8th Avenue NE, which is a local street. In addition, traffic from the proposed developments at the southeast corner of the 5th Avenue NE/Northgate Way intersection exiting onto 8th Avenue NE would be able to reach 5th Avenue via the new signal, also avoiding 8th Avenue NE. (Cost estimate: $495,000) *Note: See also CTIP Goal of "Protect Neighborhoods" (project B-3).*

E-3. Monitor safety performance of westbound traffic on NE Northgate Way approaching 1st Avenue intersection to determine the future channelization improvements. (Cost estimate: not prepared, as this is an ongoing SDOT function)

J-11. Manage on-street parking supply within the commercial core of the Northgate Urban Center to give priority to short-term customer use.

Mid-Level Priority Improvements

F-1. Add a westbound right turn lane and implement the intersection improvement concept prepared by King County Metro and SDOT at the NE 103rd Street/1st Avenue NE intersection. (Cost estimate: $1,980,000)

F-3. Allow eastbound left turns from the existing curb lane at the NE 103rd Street /5th Avenue NE intersection. (Cost estimate: $83,000)

I-1. Extend northbound right turn lane on 5th Avenue NE south of NE Northgate Way to NE 106th Street. (Cost estimate: $173,000)

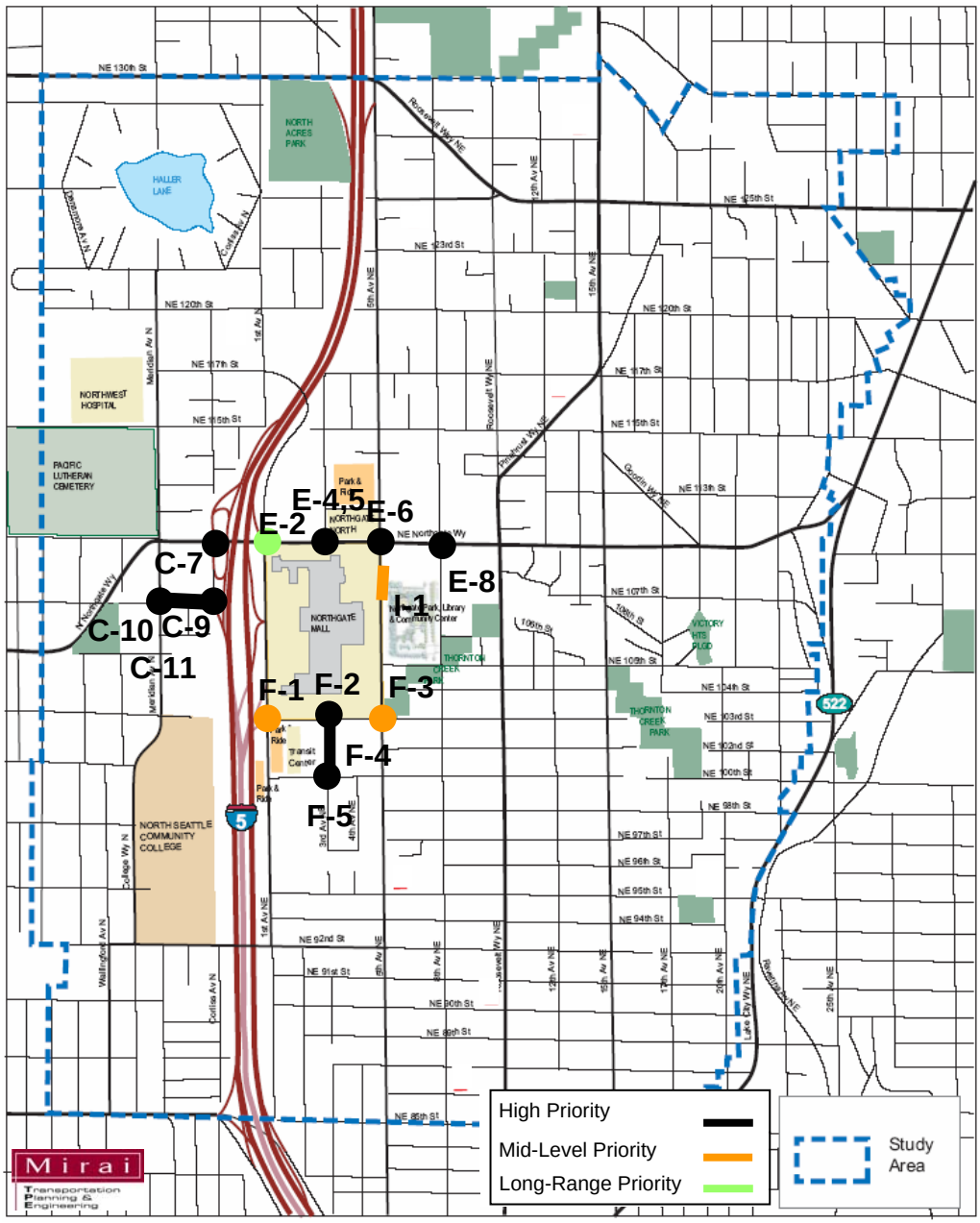
Long-Range Priority Improvements

E-2. Modify westbound approach—curb lane: right and I-5 on-ramp, 2nd lane: I-5 on-ramp and through, and 3rd lane: through only at the N Northgate Way/1st Avenue NE/I-5 on-ramp intersection. Widen the on-ramp to have two lanes on Northbound I-5 on-ramp from N Northgate Way. (Cost estimate: to be determined in conjunction with WSDOT)

Evaluated But Not Recommended

C-6. Add double left turn lanes on westbound N Northgate Way at the intersection with Meridian Avenue N. (Note: This improvement conflicts with the location of an existing four-story building at the southeast corner of the intersection. To implement this project would require purchase of this building. This project received a low evaluation score due to high cost, particularly in relation to the greater safety benefit and the lower cost of the alternative approach {i.e. the Corliss Avenue N “bypass” concept described in C-9, C-10 and C-11}). (Cost estimate: $8,571,000)

Figure 7-3. Priority Ranking of Recommended Improvements under the CTIP Goal: Support New Housing and Economic Development



Note: Transportation improvement concepts E-1, E-3, J-5, and parking concept J-11 are not shown.

Recommendation: Implement transportation projects and programs to *Protect Neighborhoods*

The locations of the recommended improvement concepts for this goal are shown in **Figure 7-4.** [1]

High-Priority Improvements

B-1. Provide a raised walkway on one side of NE 115th Street from 5th Avenue NE to Lake City Way NE. Restrict on-street parking to one side. Consider phased implementation of this project. (Cost estimate: $1,149,000)

B-2. Analyze pedestrian crossing conditions on 8th Avenue NE between NE Northgate Way and NE 115th Street. If consistent with SDOT guidelines and practices, install pedestrian crossing improvements such as curb bulbs and related signs and markings. Crossing improvements at this location would enhance the connection between the senior housing developments on the west side of 8th Avenue NE with a post office on the east side. (Cost estimate: $83,000)

B-3. Provide a raised walkway on one side of 8th Avenue NE from NE Northgate Way to NE 92nd Street. Install appropriate traffic calming devices to discourage excessive traffic speeds. Consider phased implementation of this project. (Cost estimate: $388,000)

B-4. Provide a raised walkway on one side of NE 98th Street from 15th Avenue NE to Lake City Way NE. Allow on-street parking. Integrate traffic control devices with the sidewalk improvements. Consider phased implementation. (Cost estimate: $338,000)

B-5. Add a raised walkway on the north side of N 117th Street from 1st Avenue N to Meridian Ave N and install speed "cushion" for traffic calming. Consider phased implementation of this project. (Cost estimate: $124,000)

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[1] **Note:** While all of the improvement concepts in the CTIP goal of "Protect Neighborhoods" are prioritized as high priority projects, it is anticipated that project phasing will be required. It should also be noted that there are additional pedestrian improvements recommended for arterial (residential) streets that meet the CTIP goal of "Move People Safely and Efficiently." CTIP has evaluated transportation conditions on 22 local streets using special criteria designed especially for the purpose of helping to determine which, if any, of these streets may warrant future traffic calming measures and/or other improvements. For streets not identified at this time for improvements, SDOT should utilize the CTIP baseline analysis to work with affected residents to monitor conditions and determine if future improvements become necessary. Any required traffic volume and speed studies on these streets should use SDOT program funding. (See **Appendix 7-1** for list of streets and evaluation results).

Mid-Level Priority Improvements

B-6. Provide a raised walkway on one side of NE 95th Street from 12th Avenue NE to 17th Avenue NE; on 17th Avenue NE from NE 95th Street to NE 96th Street, and on NE 96th Street from 17th Avenue NE to 19th Avenue NE.

B-7. Add a raised walkway on one side of 20th Avenue NE from NE 86th Street to NE 98th Street.

B-8. Fill in missing sections of sidewalk on 25th Avenue NE from NE 125th Street to NE 127th Street.

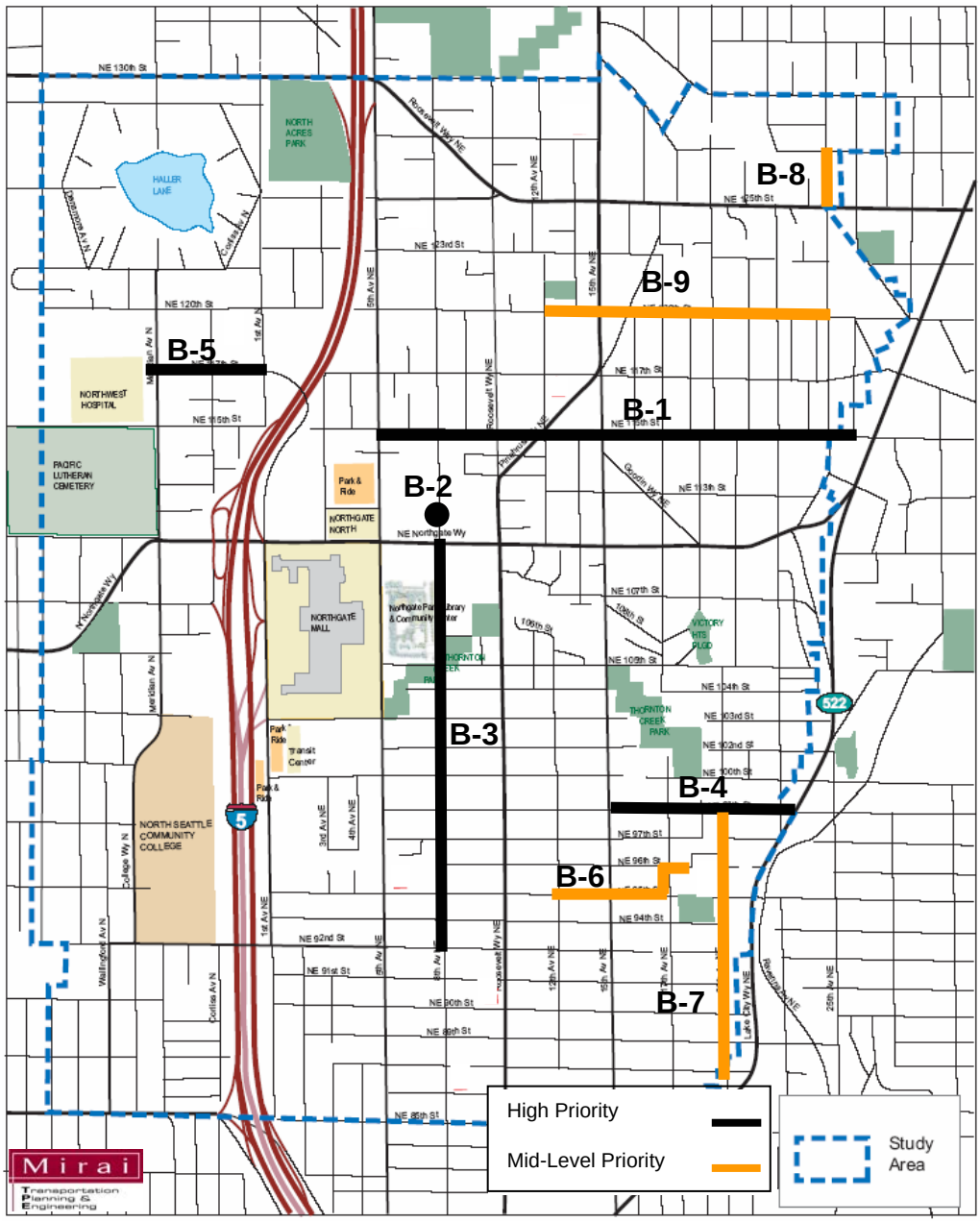
B-9. Monitor traffic volumes and speeds on NE 120th Street between 17th Avenue NE and 25th Avenue NE. Work with residents, as the need occurs, to implement traffic calming measures, including community education.

J-12. Conduct a neighborhood parking management assessment for Northgate to ensure that the neighborhood's limited supply of on-street parking adequately serves surrounding land uses, in the mid-term (2008–2010).

Long-Range Priority Improvements

J-13. Work with Sound Transit and stakeholders to study and implement proactive parking management techniques around the station to prevent use of neighborhood streets for park-and-ride purposes, prior to the opening of the light rail station.

Figure 7-4. Priority Ranking of Recommended Improvements under the CTIP Goal: Protect Neighborhoods



Note: Parking concepts J-12 and J-13 are not shown.

Recommendation: To help fund CTIP improvement projects, establish a Transportation Mitigation Payment Program. The payments would be based on the cost of transportation improvements identified in the CTIP and the development's impact. The payments would be applied to the comprehensive set of transportation improvements identified in the CTIP, which include all travel modes. For developers choosing to participate, this program would serve as an alternative to directly providing mitigation required by project permit conditions.

CTIP recommends a Northgate Transportation Mitigation Payment Program as an alternative way for developers to make direct payments to mitigate the transportation impacts of new development. This option has several benefits over the status quo mitigation method: it is more efficient and will produce better mitigation outcomes.

Under the State Environmental Policy Act (SEPA), the City assesses the environmental impacts of development proposals to determine what mitigation is required to prevent adverse environmental impacts. Depending on the type and size of a given development project, impacts on the transportation system may typically include increased traffic, causing transportation facilities to become less efficient, decreasing safety, or increasing air pollution.

To mitigate such impacts, the developer is usually required to provide capital or programmatic improvements to the street system, or to pay the City for the cost of facilities or programs that are needed to serve new development.

As a result, this status quo SEPA mitigation approach addresses transportation impacts and mitigation on a case-by-case basis. Improvements are limited to roadway capacity and do not include other transportation modes.

A promising alternative is the proposed Northgate Transportation Mitigation Payment Program, which allows developers to make a direct payment in proportion to the estimated level of impacts to the transportation system by new Northgate development projects. This Transportation Mitigation Payment Program would be an alternative way for developers to meet their transportation mitigation obligations.

The payments would be based on a formula using the estimated cost of CTIP projects and the development's proportional transportation impact. The payments would be applied to the CTIP projects, which include all travel modes, not just roadway capacity improvements.

The recommended Transportation Mitigation Payment Program would contain a number of significant improvements to the current system to determine impacts and identify mitigation. They include the following:

- Use of neighborhood-wide rather than piecemeal project-by-project transportation improvements
- Funding for transportation project improvements rather than additional traffic studies
- Funding for transportation projects that improve conditions for all travel modes, including pedestrian, bicycle, and transit capital improvements
- Faster permit review process and increased predictability for development

Under either the traditional SEPA-based impact fee approach or the alternative Transportation Mitigation Payment Program, the City will review each development proposal to make sure the mitigation is appropriately related to the anticipated impacts.

Cross-Freeway Connection

The Northgate Stakeholders Group expressed its strong support for a pedestrian and bicycle overpass crossing the freeway from North Seattle Community College to the Northgate Transit Center and future Sound Transit North Link Light Rail Station.

The crossing would make it easier for College faculty and students to use bus transit and the future light rail, reducing single-occupant vehicle trips. It would connect neighborhoods west of I-5 to the commercial area and neighborhoods east of I-5, particularly the new Northgate Civic Center and South Lot developments envisioned for Northgate.

The project could cost $7–10 million and might come about through collaboration between the City of Seattle, King County, WSDOT, Sound Transit, North Seattle Community College, private property owners, neighborhoods, and others.

Total Cost of Recommended Improvements

Table 7-1 summarizes planning-level costs for the recommended transportation improvements.[2] Cost estimates are based upon typical unit costs in 2005 from previous SDOT and WSDOT projects. Right-of-way costs are based upon King County's property assessment database as of 2005. Construction and engineering costs are assumed to be 15% of the project's subtotal cost. Pre-construction and design costs are assumed to be 20%. Contingency costs are assumed to be 30%.

Table 7-1. Summary of Recommended Transportation Improvement Costs by Priority

CTIP Costs by Priority	
Priority	**Cost**
High	**$18,826,000**
Mid-Level	**$13,719,000**
Long-Range	**$8,576,000**
Sub-Total	**$41,121,000**
Cross-Freeway Connection	**$7,000,000–$10,000,000**
Total	**$48,000,000–$51,000,000**

[2] These totals are lower than those in Table 6-3 because project C-6 (improvements to the intersection of N Northgate Way and Meridian Avenue N for $8.5 million) is not recommended due to high right of way acquisition costs.

Performance with Recommended Transportation Improvements

The recommended projects in the CTIP will make a positive difference for Northgate residents, businesses, and developers. When implemented, these improvements will move Northgate's transportation system closer to achieving the performance benchmarks defined early in the CTIP's planning process. This section summarizes how the transportation system would perform if all of the recommendations were implemented. It follows the order of the performance measures described in Chapter 2.

Pedestrian Crossings at Intersections and Mid-Block Locations

Several recommended projects address difficult crossing locations:

- NE Northgate Way: more direct pedestrian crossing at 3rd Avenue NE; reduced pedestrian and vehicle conflicts at 5th Avenue NE and 8th Avenue NE
- 3rd Avenue NE: improved and more visible pedestrian access between offices on NE 100th Street and Northgate Mall
- 5th Avenue NE: safer and more direct crossing between the new Civic Center and Northgate Mall, consistent with the 5th Avenue Streetscape Design Plan
- 8th Avenue NE: improved pedestrian access between the Northgate commercial area and the residential neighborhood to the south
- Meridian Avenue N: safer pedestrian crossing at NE 115th Street

Pedestrian Connections from Neighborhoods to the Urban Center

With the CTIP's recommended improvements, 87% of the arterials connecting neighborhoods to the Urban Center will have sidewalks on both sides, as shown in **Table 7-2.** The recommended improvements include reconstruction and/or installation of sidewalks at the following locations:

- NE 125th Street between 5th Avenue NE and Roosevelt Way NE
- NE 100th Street between 1st Avenue NE and 5th Avenue NE
- NE 92nd Street between 1st Avenue NE and 5th Avenue NE
- Meridian Avenue N between N 115th Street and N 122nd Street
- 1st Avenue NE between NE 92nd Street and NE 97th Street
- 15th Avenue NE between NE 92nd Street and NE 117th Street

Table 7-2. Neighborhood to Urban Center Pedestrian Connections: Performance with CTIP Improvements

Sector	Total Sidewalk Miles	Benchmark Miles (90% of sidewalk)	Existing Conditions	Total with Recommended Improvements
West	11.00	9.90	7.89 mi (72%)	**8.22 mi (75%)**
North	9.48	8.53	8.54 mi (90%)	**9.23 mi (97%)**
South	13.52	12.17	11.20 mi (83%)	**12.46 mi (92%)**
Total	34.02	30.62	27.63 mi (81%)	**29.76 mi (87%)**

Pedestrian Connections within the Urban Center

Several of the recommended improvements would enhance major connections between destinations within the Northgate Urban Center. With the CTIP improvements, 88% of the arterials within the Urban Center will have sidewalks on both sides, as shown in **Table 7-3.** The recommended improvements include better pedestrian facilities at the following locations:

- Northgate Transit Center/Northgate Commons to Northgate Mall/Northgate Civic Center: Safer pedestrian crossings and new sidewalks on 3rd and 5th Avenues NE and NE 100th and NE 103rd Streets
- Northgate Mall to Northgate North Center: more direct and visible crossing at 3rd Avenue NE, and greater visibility of the pedestrian crossings at the intersection of 5th Avenue NE and NE Northgate Way
- Northwest Hospital to Northgate Mall: more protected walkway under I-5, with better lighting
- Northgate Mall to the Office Center south of NE 100th Street: direct pedestrian linkage with safer pedestrian crossings by way of the 3rd Avenue NE extension
- 8th Avenue NE between NE Northgate Way and NE 92nd Street: new sidewalk and traffic calming devices, providing a safer place to walk on 8th Avenue NE

Table 7-3. Urban Center Pedestrian Connections: Performance with CTIP Improvements

Sector	Total Sidewalk Miles	Benchmark Miles (90% of sidewalk)	Existing Conditions	Total with Recommended Improvements
Total	9.56	8.60	8.15 (85%)	**8.40 mi (88%)**

Pedestrian Connections within Neighborhoods to Parks, Schools, Local Businesses, and the Transit Center

The CTIP study area includes an extensive network of school district-designated school walk routes for five elementary schools. Many of these routes lack sidewalks or walkways. These routes cover arterials and many non-arterials that link neighborhoods to local parks and businesses and to the transit center, as well as to the schools. Improvements to the school walk routes will therefore enhance all pedestrian circulation within neighborhoods. With the CTIP improvements, 55% of the school walk routes within the Urban Center will have sidewalks on one side, as shown on **Table 7-4**. The recommended improvements include new sidewalks at the following locations:

- 15th Avenue NE from NE 92nd Street to NE 117th Street
- N 117th Street from 1st Avenue N to Meridian Avenue N
- NE 115th Street between 5th Avenue NE and Lake City Way NE
- 8th Avenue NE between NE 92nd Street and NE Northgate Way
- NE 98th Street between 15th Avenue NE and Lake City Way NE

Bicycle System Performance

The CTIP's recommended bicycle facility improvements would improve bicycle levels of service and bicycle safety by adding separate bike lanes and separating bicycle and pedestrian traffic along several roadways:

- 1st Avenue NE, NE 92nd Street to NE 100th Street NE: safer bicycling conditions on new bike lanes
- College Way N/Meridian Avenue N, N 92nd Way to N Northgate Way and N 115th Street to N 122nd Street: safer bicycling conditions on new bike lanes
- NE 115th Street, 5th Avenue NE to Lake City Way NE: safer bicycling conditions by moving pedestrians onto a new raised walkway
- 8th Avenue NE, NE Northgate Way to NE 92nd Street: safer bicycling conditions by moving pedestrians onto a new raised walkway

- NE 98th Street, 15th Avenue NE to Lake City Way NE: safer bicycling conditions by moving pedestrians onto a new raised walkway

Table 7-4. School Walk Route Pedestrian Connections: Performance with CTIP Improvements

School Walk Route	Total Sidewalk Miles	Benchmark Miles (90% of sidewalk)	Existing Conditions	Total with Recommended Improvements
Alternative School #1	12.29	11.06	5.90 mi (48%)	**6.50 mi (53%)**
Northgate Elementary	11.10	9.99	4.50 mi (41%)	**6.28 mi (56%)**
Olympic Hills Elementary	5.89	5.30	2.85 mi (48%)	**3.32 mi (56%)**
Olympic View Elementary	10.84	9.76	6.50 mi (57%)	**7.56 mi (70%)**
Sacajawea Elementary	8.28	7.45	4.42 (53%)	**6.02 mi (73%)**
Total	48.45	43.61	24.17 mi (49%)	**29.68 mi (61%)**

Note: Since the school district has identified most local streets as school walking routes, the CTIP pedestrian projects would provide a relatively modest improvement, in terms of the performance measures, to the overall school walk route network.

Transit System Performance

Recommended improvements in transit service in the Urban Village Transit Network (UVTN) between the University District and Northgate would have the following results:

- service frequency of 15 minutes or less
- span of service at least 16 hours a day

Along the secondary transit network, service to the Urban Villages of Bitter Lake, Aurora–Licton Springs, and Green Lake would improve as follows:

- 15-minute average headways during peak periods
- 30-minute average headways during off-peak periods

With the anticipated light rail service to Northgate, existing bus service hours could be shifted to community feeder services. As a result, local service to local destinations and coverage of senior households could be increased.

Traffic Safety (Vehicle-Only and Vehicle/Pedestrian or Bicycle Crashes)

The CTIP's recommendations would improve safety at intersections and mid-block locations that exceed the SDOT crash benchmarks and/or are within the highest 25% crash rate for the five-year period of 1999–2003.[3]

Sites of the recommended improvements that are not currently meeting the SDOT benchmark:

- N/NE Way: Meridian Avenue N to 15th Avenue NE (seven locations)
- 15th Avenue NE: NE 123rd to 125th streets
- N Northgate Way: Corliss Avenue N to 1st Avenue NE
- Meridian Avenue N: N 107th Street to N Northgate Way
- N 130th/Meridian Avenue N

Sites of the recommended improvements where the cash rates are within the highest 25 percent:

- NE Northgate Way between 3rd Avenue NE and 5th Avenue NE
- NE 125th between 8th Avenue NE and Roosevelt Way NE
- 8th Avenue NE between NE Northgate Way and NE 107th
- N Northgate Way between Meridian Avenue N and Corliss Avenue N
- Meridian Avenue N between N Northgate Way and N 107th
- NE 130th Street/Meridian Avenue N
- Meridian Avenue N/N 107th
- NE Northgate Way/15th Avenue NE
- NE 115th/Pinehurst Way NE
- NE 115th Street/5th Avenue NE

Non-Arterial/Residential Streets

The CTIP's recommendations will provide increased pedestrian safety through major investments along the following three

[3] Two sites were not specifically addressed: modifications at one of the sites, at N 130th and 1st Avenue North, were recently completed, such that the five years of data do not represent existing conditions. Crashes noted at the other site, on Wallingford Avenue N between NE 85th and NE 88th streets are related to the intersection operation at Wallingford Avenue N and NE 85th, which is just outside the study area boundaries.

corridors that demonstrated the poorest performance against the CTIP's benchmarks:

- NE 98th Street: 15th Avenue NE to Lake City Way NE
- NE 115th Street: 12th Avenue NE to 15th Avenue NE
- N 117th Street: Meridian Avenue N to 1st Avenue N

Arterial Levels of Service

Implementation of all CTIP improvements would enable the transportation system to successfully manage the traffic impacts of the considerable new growth forecast for Northgate. By 2030, all arterial corridors and all intersections but two will be maintained or improved to operate at LOS E, the CTIP performance measure for roadway operations. The CTIP considers LOS E the appropriate performance measure for an Urban Center where non-motorized and transit trips are emphasized.

Implementation of the CTIP improvements would achieve the following levels of service in the years 2010 and 2030, as noted:

- All arterial corridors but one will operate at LOS E or above by 2010
- All arterial intersections but four will operate at LOS E or above by 2010
- All arterial corridors will operate at level of service E or above by 2030
- All arterial intersections but two will operate at LOS E or above by 2030

The two intersections forecast to operate at LOS F in 2030 are Meridian Avenue N/N Northgate Way and College Way N/N 92nd Street. Significant right-of-way costs are part of any major improvements to the intersection at Meridian Avenue N and N Northgate Way. As an alternative, the CTIP's recommended westbound left turn lane at the Corliss Avenue N and N Northgate Way intersection and roundabouts at N Northgate Way/Corliss Avenue N and Meridian Avenue N/N 107th Street would improve the level of service at the Meridian Avenue N and N Northgate Way intersection.

The second intersection projected to operate at LOS F in 2030 was College Way N and N 92nd Street. However, the modeling analysis of this unsignalized intersection appears to have overemphasized future congestion. More detailed operational analysis through the North Seattle Community College's Master Plan process should consider current and future traffic demand before deciding upon the most suitable improvements.

Figure 7-5. 2010 PM Peak Hour Arterial Level of Service and Average Speed with the CTIP Recommended High-Priority Improvements

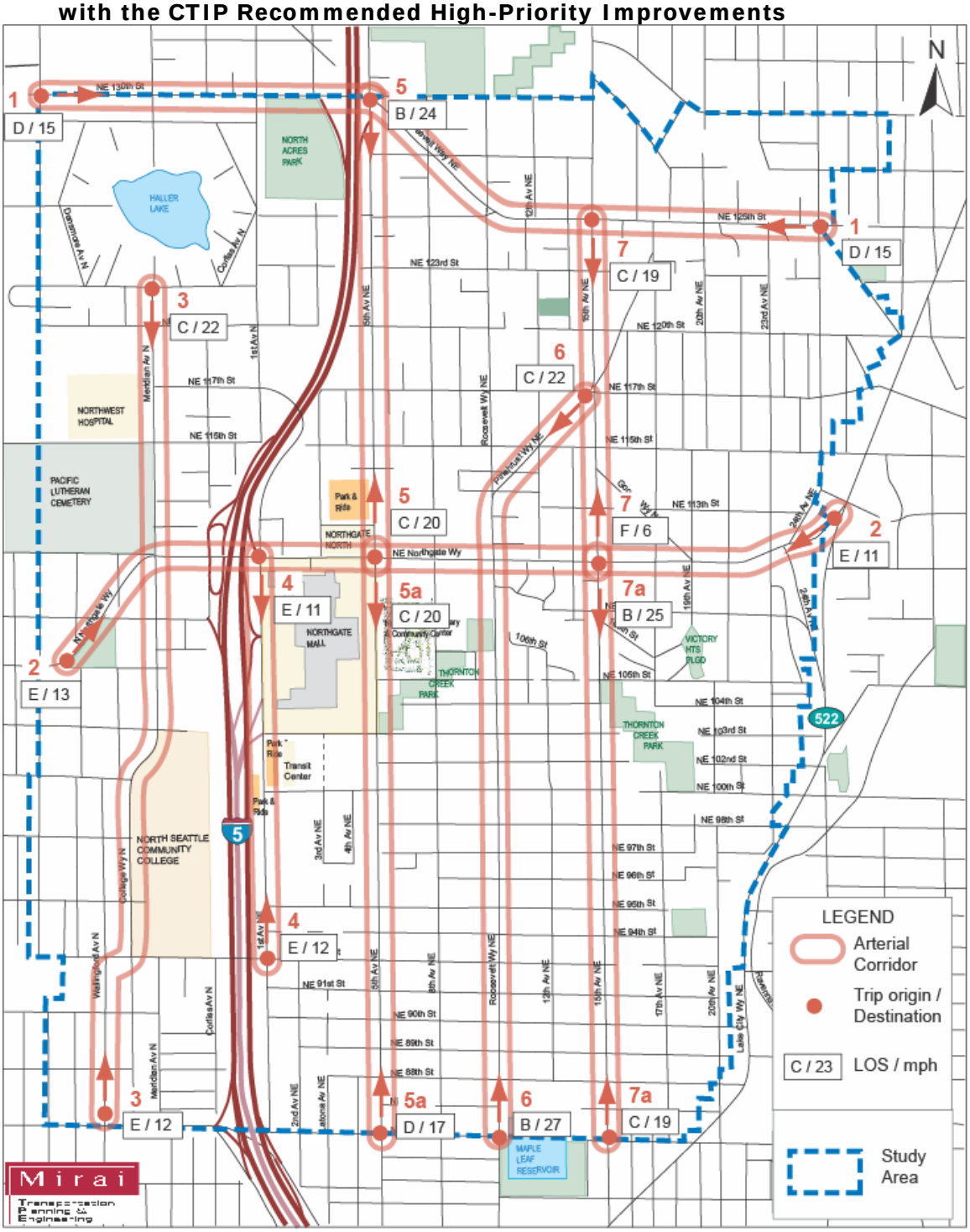


Figure 7-6. 2030 PM Peak Hour Arterial Level of Service and Average Speed with the CTIP Recommended Improvements

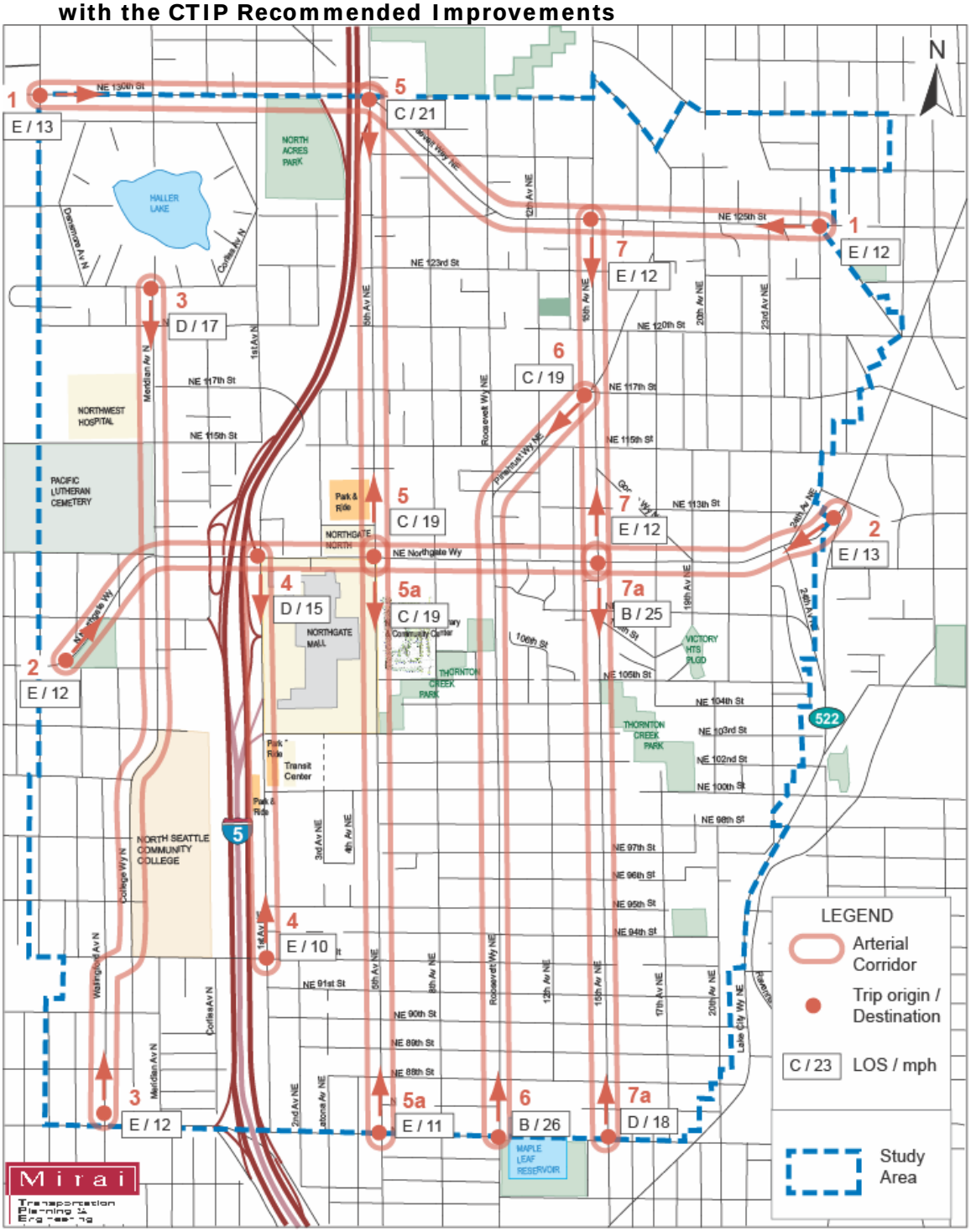


Figure 7-7. 2010 PM Peak Hour Intersection Level of Service with the CTIP Recommended High-Priority Improvements

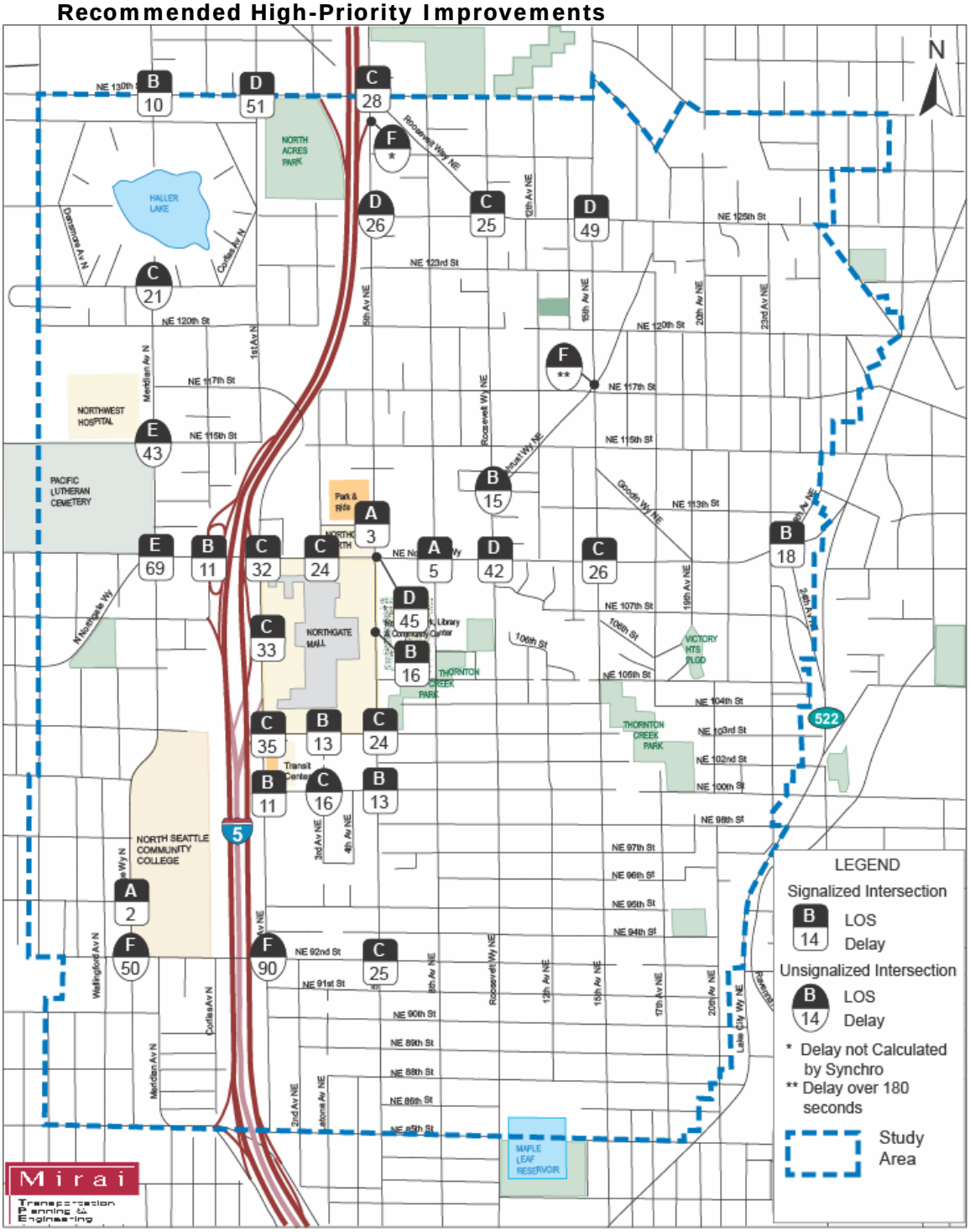
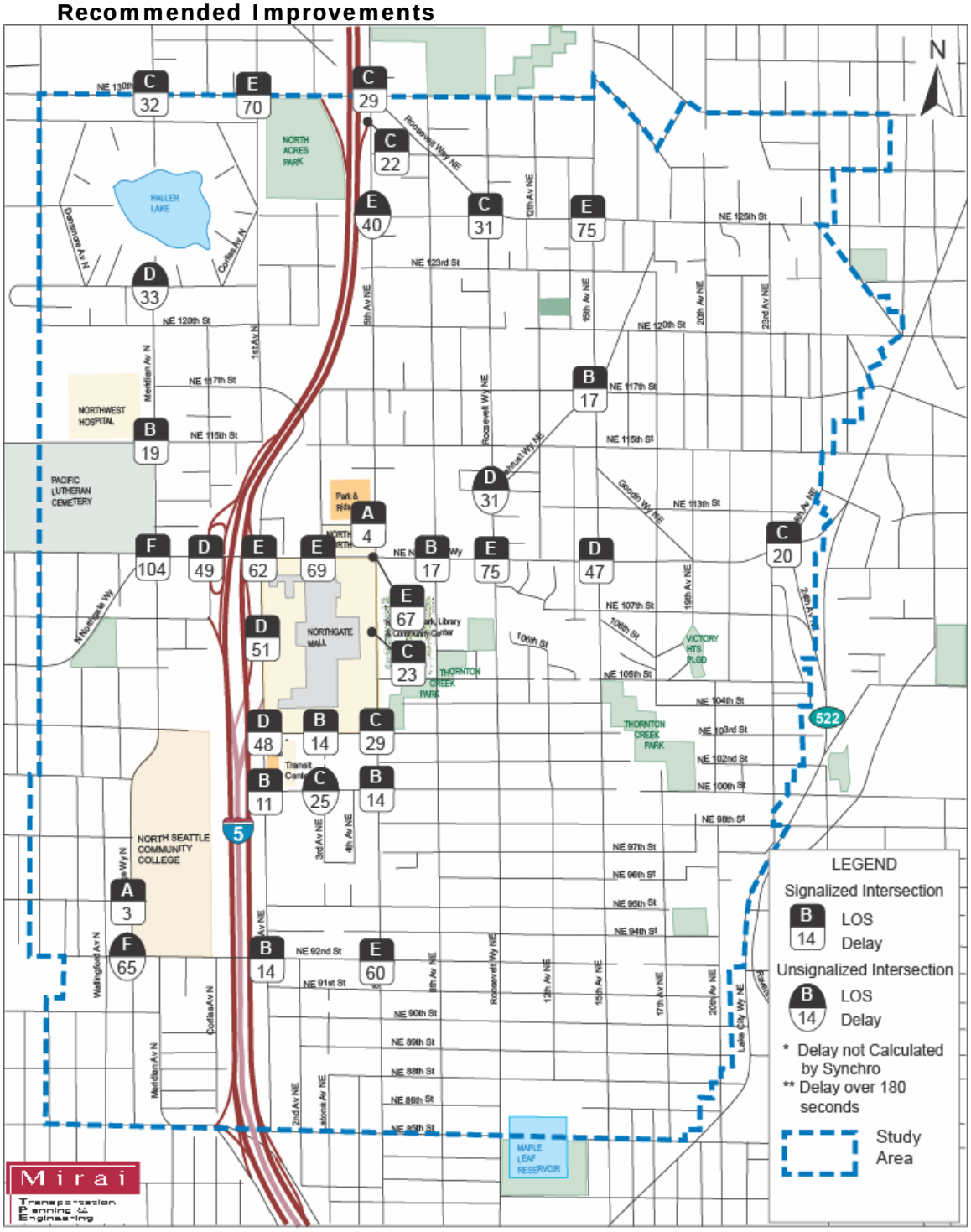


Figure 7-8. 2030 PM Peak Hour Intersection Level of Service with the CTIP Recommended Improvements



8. Financing & Implementation Plan

To make transportation investments in Northgate a reality, SDOT has developed a financing and implementation plan outlined in this chapter. Funding for transportation projects is on the upswing, with a $25 million increase to City projects in 2006 and the potential for the public to approve a regional transportation investment district in 2006 or 2007. The current health of the economy is generating additional tax revenues for transportation improvements. However, the demand for dollars continues to be high as the City begins to make up for years of unmet needs.

As new private development occurs, developers will make financial contributions to CTIP projects proportionate to the share of their transportation impacts. Developers will also make significant pedestrian improvements guided by the strong pedestrian requirements of code and the Northgate neighborhood design guidelines.

Projects included in the CTIP must be considered alongside other neighborhoods' needs, non-discretionary projects, and interagency projects (such as street improvements to support Metro transit service). Through the City's budget process, eligible projects are added to the City's Capital Improvement Program (CIP), which includes capital projects, operational improvements, inter-agency projects, and developer mitigation projects.

In order for CTIP projects to become part of the CIP, potential funding sources must be identified and committed. Once a project is funded, project design and implementation will begin. Some projects may be a collaboration between SDOT and another city department.

The list of existing and future revenue sources is detailed below, followed by an overview of how SDOT implements projects.

Existing Revenue Sources

The City of Seattle currently funds its transportation program through gas tax revenue, the general fund, grants, loans, impact fees, and the cumulative reserve fund. The City has also recently begun collecting revenues under the Transportation Mitigation Payment Program in the South Lake Union Urban Center and intends to offer this option to Northgate developers. This report

excludes consideration of funding for special "mega projects" that tend not to depend on local revenue decisions and far exceed SDOT's capacity to accomplish within its normal revenues, such as the Alaskan Way Viaduct and Seawall Replacement, Magnolia Bridge, and South Spokane Street Viaduct.

Figure 8-1 depicts SDOT's historical and anticipated revenue for the twelve years from 1995 to 2006, in terms of local revenues and grants/loans/other sources.

Local Revenues

"Local revenues" in **Figure 8-1** are those funds, such as gas tax and developer contributions, allocated to SDOT and over which the City can exercise discretion.

Current local revenues include the City's general fund, which includes sales and property taxes, the cumulative reserve fund, and the City's share of the state gas tax. After the City's street utility was declared unconstitutional in the mid-1990s, the City significantly increased general fund contributions to transportation. The 2006 budget for SDOT is $25.5 million more than 2005, ending a three-year trend of level general fund contributions to transportation. **Figure 8-2** shows SDOT's local revenues (grants and loans are not included) by source for the period from 1995 to 2005.

Through the authority of the State Environmental Policy Act (SEPA), the City assesses the environmental impacts of development proposals to determine whether mitigation measures are required to prevent adverse environmental impacts. Development impacts on the transportation system typically include increased use of the system by the added traffic generated by the development project. This additional use may cause transportation facilities to become less efficient, decrease safety, or increase air pollution.

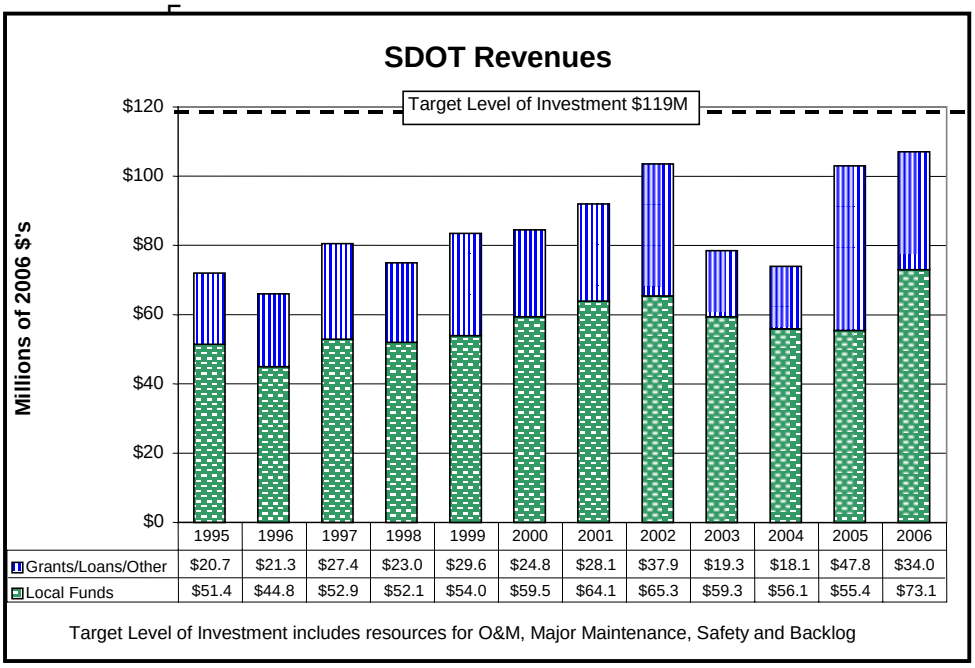
Under the city's current regulatory framework, developers prepare their own transportation study of a proposed project's impacts and develop mitigation proposals for the City's consideration. Mitigation is generally a one-time requirement by the development to provide capital or programmatic improvements to the transportation system, or to pay the City for the cost of facilities or programs that are needed to serve new development.

Grants/Loans/Other

Revenues under "Grants/Loans/Other" in **Figure 8-1** are generally associated with and earmarked for specific capital projects and programs.

Figure 8-1 shows that the City's local and grant/loan revenue for transportation has ranged from $80 million to $100 million (in 2006 dollars) per year since 1995, of which 30–35% has been grant funds.

Figure 8-1. SDOT Revenues

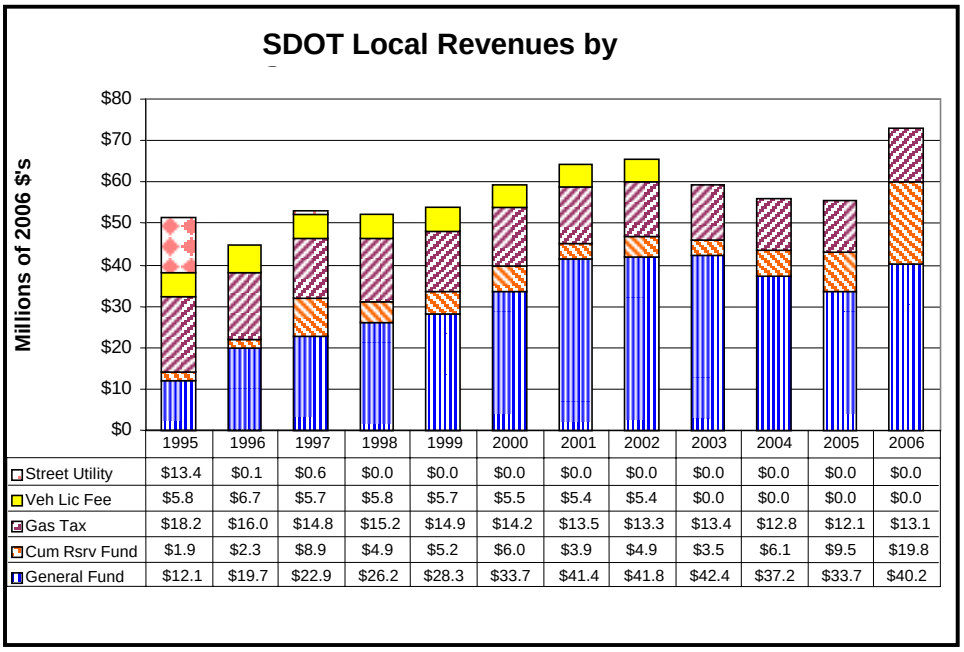


	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Grants/Loans/Other	$20.7	$21.3	$27.4	$23.0	$29.6	$24.8	$28.1	$37.9	$19.3	$18.1	$47.8	$34.0
Local Funds	$51.4	$44.8	$52.9	$52.1	$54.0	$59.5	$64.1	$65.3	$59.3	$56.1	$55.4	$73.1

Target Level of Investment includes resources for O&M, Major Maintenance, Safety and Backlog

Source: SDOT, 2006, originally titled SDOT Revenues w/o "Mega" Projects

Figure 8-2. Local Revenues by Source



	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Street Utility	$13.4	$0.1	$0.6	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
Veh Lic Fee	$5.8	$6.7	$5.7	$5.8	$5.7	$5.5	$5.4	$5.4	$0.0	$0.0	$0.0	$0.0
Gas Tax	$18.2	$16.0	$14.8	$15.2	$14.9	$14.2	$13.5	$13.3	$13.4	$12.8	$12.1	$13.1
Cum Rsrv Fund	$1.9	$2.3	$8.9	$4.9	$5.2	$6.0	$3.9	$4.9	$3.5	$6.1	$9.5	$19.8
General Fund	$12.1	$19.7	$22.9	$26.2	$28.3	$33.7	$41.4	$41.8	$42.4	$37.2	$33.7	$40.2

Source: SDOT, 2006

Transportation Mitigation Payment Program

As an alternative to the City's current SEPA-based mitigation program, Northgate-area developers will have the option to participate in Seattle's new transportation mitigation payment program. This option allows developers to make a financial payment proportionate to the transportation impacts of their project. Participation in the mitigation program would be an alternative to directly providing the mitigation required by permit conditions. The fee program uses subarea rather than project-specific transportation improvements. It also allows payments to be made for improvements to all modes of travel. Payments would apply to the comprehensive set of transportation improvements identified in the CTIP, based on a development's impact. Permit applicants would have the option of making use of the CTIP and its Environmental Impact Statement and making the mitigation payment, or of preparing their own traffic impact study and calculating the amount of their mitigation payment for the City's consideration.

Available Grant Programs

Federal Programs

In August 2005, the U.S. Congress passed a new transportation funding bill known as SAFETEA-LU, the Safe Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users. The majority of funds, 75%, go to highways; 18.5% go to transit; and approximately 6% go to primary safety projects. Infrastructure-related and educational projects are both eligible, including public awareness campaigns that promote non-motorized travel.

One of the new federal programs that could be helpful to Northgate area projects is titled **Safe Routes to Schools.** The law authorizes $612 million nationwide over 5 years to support projects to improve walking and biking access to schools. The goal of this program is to enable and encourage primary and secondary school children to walk and bicycle to school by making it a safer and more appealing alternative, and also to facilitate planning, development, and implementation of projects and activities that will improve safety and reduce traffic, fuel consumption, and air pollution in the vicinity of schools (see **Figure 1-2** for school locations within the study area).

In addition, the **Federal Enhancement Program** was reauthorized, with $42 million in grants over five years available nationwide to public agencies and nonprofit organizations. The purpose of the transportation enhancement program is to fund projects that allow communities to strengthen the local economy,

improve the quality of life, enhance the travel experience for people traveling by all modes, and protect the environment.

State Programs

The Motor Vehicle Fuel Tax and Motor Vehicle Excise Tax (MVET) continue to serve as the two major state revenue sources for highway maintenance and arterial construction funds. Projects in the Northgate area could potentially compete successfully for the state's two major programs. The **Transportation Improvement Board's Urban Corridor Program** funds projects to improve the mobility of people and goods in urbanized areas. It specifically encourages projects that are coordinated among government agencies and provide for public/private participation. A second program, the **Urban Arterials Program,** funds projects that reduce congestion, strengthen the structural ability to carry traffic loads, and make improvements to reduce accident rates. The funds can also be used to implement traffic management to maximize mobility of people and goods.

Potential Revenue Sources

The revenue sources described in this section are transportation programs, approved by the Washington State Legislature, which authorize jurisdictions to impose fees at the local level for specific transportation infrastructure categories with voter approval. Most of these programs have not been instituted in this region, but represent the universe of possible funding sources identified by the Mayor's Citizen Transportation Advisory Committee. Some of these funding options require a public vote or legislative action by King County. Other funding options are within the City's discretionary authority, however, the City has not yet made decisions to use any of these funding sources.

Regional Transportation Investment District

The Regional Transportation Investment District may seek voter approval for funding transportation improvements in King, Pierce, and Snohomish counties. Some projects being considered by the City of Seattle may be eligible for funding through this district. The current RTID proposal considers raising the following taxes:

- sales tax of 0.1% to 0.2%
- vehicle license fee of $1 to $100
- motor vehicle excise tax (MVET) of 0.1% to 0.3%
- local option gas tax of 0 to 2.8¢ per gallon
- tolls on specific roads or bridges

Revenue from the RTID cannot be used for operations, maintenance, or preservation projects or programs.

Local Option Fuel Tax

The local option fuel tax is imposed at the county level and constitutes up to 10% of the statewide motor vehicle fuel tax. Funds from this tax can be used for highway purposes only, including construction and maintenance of city streets, county and state roads, and related activities.

Local Option Vehicle License Fee

The Legislature recently granted authority to cities and counties to form a Transportation Benefit District for the purpose of acquiring, constructing, improving, providing, and funding transportation improvements, including major maintenance and investments in public transportation. Subject to voter approval, the local government assessing the tax may collect up to $100 per vehicle.

Transportation Impact Fees

Local governments may collect transportation impact fees authorized by the Growth Management Act to address the impact of development activity on transportation facilities. The impact fees can be collected only for roadway projects. Pedestrian, bicycle, and transit improvements are excluded under this option.

Commercial Parking Tax

Commercial parking taxes may be imposed by cities or counties based on gross proceeds or number of stalls, or on the customer. This tax is subject to exclusive referendum procedure and can be used for general transportation purposes.

Levy Lid Lift (Property Tax)

A levy lid lift, or property tax, was authorized by the State in 2003 (RCW 84.55.050). A simple majority of voters may approve a levy lid lift; 60% approval is needed if general obligation bond issues are tied to the ballot measure. This revenue can be used for general transportation purposes.

Employment Tax

Employment taxes may be authorized in the form of a business and occupation tax, but may require state authorization. These taxes can be used for general transportation purposes.

Estimated City Transportation Revenue for Facility Improvements

The following analysis identifies a range of potential SDOT transportation revenue for the next 25 years. The basis for this range of potential revenues is (1) an estimate of City revenues for transportation for the next 20 years; and (2) an analysis of Northgate's housing units, employment, and land area in proportion to the City as a whole.

This analysis of revenue uses conservative estimating practices, meaning that the results are likely to be understated.

- All revenues are estimated in 2005 dollars, with no adjustment for growth in any source of revenue.
- The adjustment factor for facility improvements is conservative, such that estimates for CIP Improved Facilities and Grants & Appropriations are at the low end of probable ranges.
- The percent of revenue that might be distributed to specific projects, as opposed to citywide programs, is only 3/4 of the revenue available for improvements and new facilities.
- No new sources of transportation revenue are considered.

Citywide Estimated Potential Revenues for Transportation Facilities

The 25-year total of all transportation revenue that may be available for adding improvements and new facilities to the transportation network is estimated to be $693 million.

This analysis assumes that approximately 25% of the transportation revenue will be used for programs of a citywide nature, such as the bridge seismic program. Thus, no more than 75% of the City transportation revenue available for improvements and new facilities would be distributed to discrete projects (as opposed to citywide programs).

Therefore, the 25-year citywide total of all transportation revenue that may be available for discrete projects and new transportation facilities throughout the City is approximately $519.8 million.

Table 8-1 provides a 25-year estimate of transportation revenue. The CIP revenues are estimated based upon the 2005–2009 CIP, excluding unspecified federal and state revenues. The grants and appropriations estimates are based on receipts during the past six years.

The 25-year revenues are then adjusted to reflect the estimated percent of each category that would be available for transportation improvements and new facilities. None of the "maintenance" funds identified in **Table 8-1** would be available for projects; however, 100% of the "new facilities" funds would be available for projects. Approximately 40% of the "improved facilities" funds would be available because approximately 60% of this category of funds is dedicated to maintenance projects.

Northgate Portion of Citywide Factors

Several variables were considered as predictors of the range of transportation revenues that Northgate might receive over a 25-year period. These include land area, current and future housing units, future employment, and growth in housing units and employment. **Table 8-2** shows the results of this analysis.

Note: SDOT prioritizes projects using the process described on the following pages. SDOT does not distribute transportation funding using formulas or factors; Table 8-2 is designed to give a sense of the Northgate area's size and projected growth in jobs and housing relative to the rest of the City.

This analysis estimates that Northgate would likely receive funding within a range of 2.4% (based on Northgate's proportion of the citywide land area) to 6.95% (based on Northgate's expected proportion of employment growth). Although it's not guaranteed, it is reasonable to assume that over a 25-year period Northgate will receive between 2.5% and 7% of citywide transportation revenues for facility improvements.

Table 8-1. Estimated Potential Revenue Available for New Facilities and Transportation Improvement Projects (in millions of 2005 dollars)*

CIP Category	Estimated 25-Year Total Revenue	Estimated Percent Available for Improvements	Estimated Revenue Available for Improvements over 25 years
Maintenance	$225.0	0%	$0
New Facilities	$385.0	100%	$385.0
Improved Facilities	$207.5	40%	$83.0
Grants & Appropriations	$375.0	60%	$225.0
Citywide Total	$1,192.5		$693.0
Less 25% Reserved for Citywide Programs			($173.2)
Total Available for Transportation Improvement Projects			**$519.8**

** "Maintenance" funds go toward preservation of existing facilities; "New Facilities" funds go toward new infrastructure; and "Improved Facilities" funds go toward significant upgrades to an existing facility.*

Table 8-2. Northgate Proportion of Citywide Factors

	Northgate	Citywide	Northgate Percent	25-Year Revenue for added facility improvements (millions)
Current (2000)				
Land Area (acres)	1,291	53,760	2.40%	$12.5
Employment (persons)	13,995	536,471	2.61%	$13.7
Housing (units)	8,779	258,481	3.40%	$17.7
Future (2030)				
Employment (persons)	25,614	703,561	3.64%	$19.0
Housing (units)	14,671	353,718	4.15%	$21.6
Growth (2000-2030)				
30-Year Housing Units Growth	5,892	95,237	6.19%	$32.2
30-Year Employment Growth	11,619	167,090	6.95%	$36.2

This range assumes that citywide revenue for added facility improvement and new facility projects is the $519.8 million from the initial estimates described above. Using the factors identified in Table 8.2, the 25-year revenue available for CTIP projects is estimated to range from $12.5 million to $36.2 million. The total cost of the CTIP's recommended high-priority projects is approximately $20 million; the total for all recommended projects, excluding the pedestrian/bicycle bridge over I-5, is approximately $40 million.

Project & Program Implementation

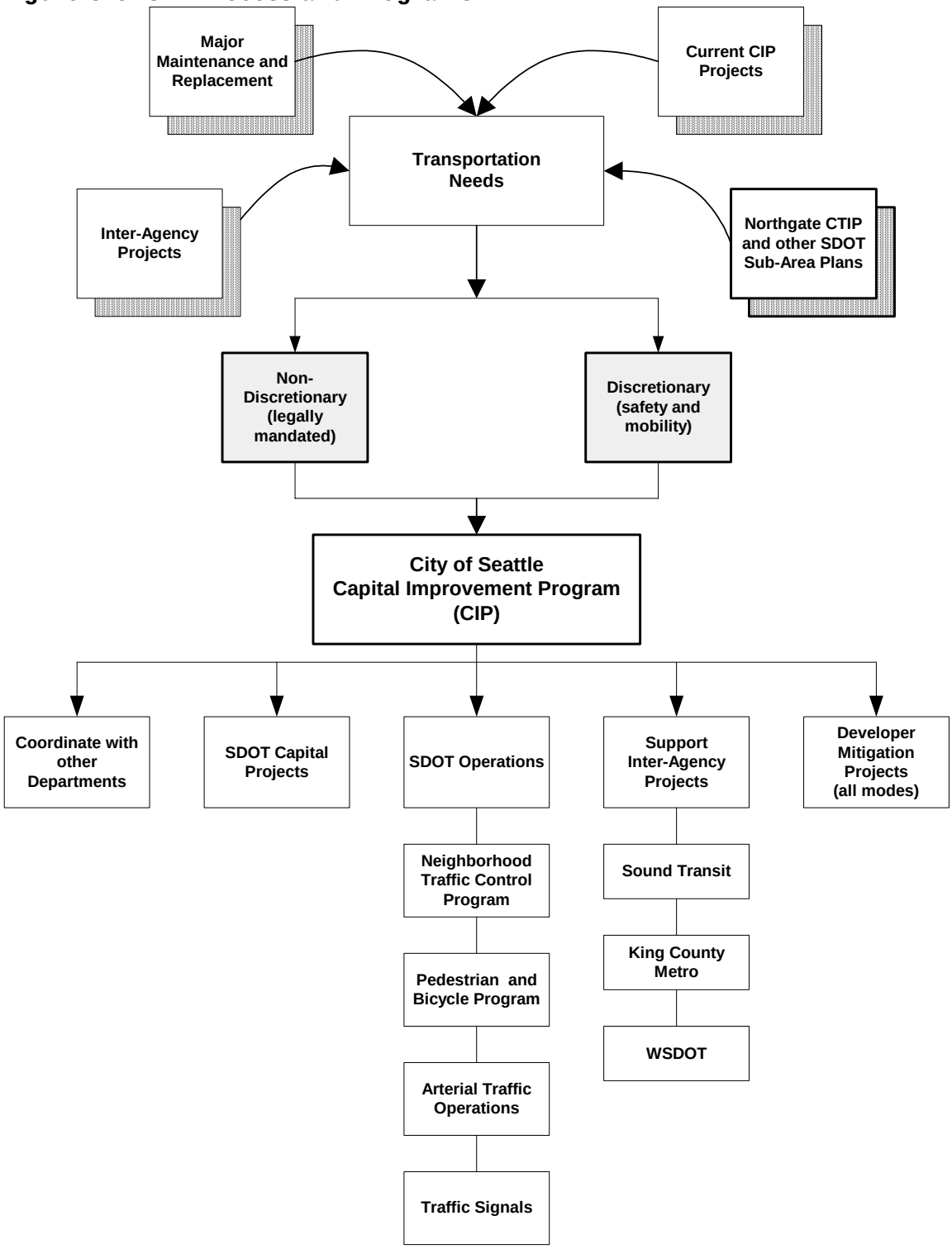
The recommendations in this plan will become part of SDOT's work program through the CIP adoption process, ongoing departmental operations and programs, inter-agency projects, and developer project mitigation. **Figure 8-3** illustrates the process by which SDOT develops its CIP recommendations and the existing tools and resources available to assist in CTIP project implementation.

Project Funding

Projects must compete against other citywide needs within tight funding constraints, either as a separate line item in the City's capital budget (the CIP) or as part of an ongoing program of transportation improvements, such as the pedestrian and bicycle program or neighborhood traffic control. These programs are described in more detail below.

Funding may include existing or future funding sources as described previously in this chapter. SDOT will leverage City resources by collaborating on CTIP recommendations that would be coordinated with other departments' Northgate-area projects. For example, the Department of Neighborhoods and the Neighborhood District Councils can choose to allocate neighborhood-directed funds in support of CTIP and community priorities. In addition, the Parks Department and Seattle Public Utilities may have trail projects or underground utility work that may tie directly to potential CTIP projects.

Figure 8-3. CIP Process and Programs



Capital Improvement Program

Each year, the City updates its six-year capital budget (CIP) to fund the highest priority projects within available revenue. Seattle's Transportation CIP includes a grant match reserve opportunity fund to provide a local match for potential new grants, appropriations, and partnership opportunities. Grant candidates must be competitive against the granting agency's criteria, which have specific areas of emphasis, such as accident reduction, pedestrian safety, etc.

Potential CTIP Capital Improvement Program projects:

- New signal at N 115th Meridian Avenue N, with bike lanes and sidewalks
- NE Northgate Way/5th Avenue NE intersection improvements
- New signal at 5th Avenue NE and NE 130th Street

As described in the Transportation Strategic Plan, SDOT's Policy Planning and Major Projects division uses the following four-step process to prioritize programs and projects for inclusion in the CIP.

Step 1. Identification of Transportation Needs

The CTIP will be one of many sources of programs and projects to address existing and future needs. Extensive technical analyses of Northgate's transportation system identified area-wide needs and necessary improvements. This plan prioritizes these improvements in order to provide additional clarity to SDOT and the community. Other sources include SDOT's existing backlog of major maintenance and replacement projects, projects in the current CIP that require additional funding, projects from other planning studies, and project coordination with partner agencies, such as WSDOT, Sound Transit, and King County Metro.

Step 2. Identification of Non-Discretionary Programs and Projects

Projects that must be completed fall into several categories: 1) required by law or contract, including debt service, judgment and claims payments, Metro "Ride-Free Zone" payment, City Commute Trip Reductions payment, and federal or state law mandates; 2) urgent safety needs to prevent personal injury or property damage, such as a landslide or sinkhole; 3) reimbursable services to other City departments or outside agencies, such as street use permitting or repairing utility cuts; 4) restricted funds (support for Sound Transit, Metro, Alaskan Way Viaduct, and Seawall Replacement); 5) services that generate revenue for the General Fund, such as parking; and 6) currently in construction, such that stopping a project would be more costly than completing it.

Step 3. Prioritization of Discretionary Programs and Projects

Each program and project that remains after Step 2 is evaluated on its merits using the following criteria:

- Safety
- Preserving and maintaining infrastructure
- Cost effectiveness or cost avoidance
- Mobility improvement
- Economic development
- Comprehensive Plan/Urban Village land use strategy
- Improving the environment

Step 4. Ranking Projects and Programs for Implementation

Project readiness is assessed using the following criteria. The results of steps 3 and 4 are used together to identify discretionary projects for which funding will be sought.

- Funding availability
- Interagency coordination
- Geographic balance
- Constituent balance

Project Design

The actual configuration of CIP projects is determined during project design. During the design phase, each project undergoes an environmental assessment, design review, and considerable public involvement. In some instances, engineering feasibility or cost constraints might require tradeoffs to balance desirable project objectives.

Seattle's land use code, particularly the Northgate Overlay District chapter, sets specific development standards for design improvements in the public rights of way on key arterial streets in the CTIP study area. These include NE Northgate Way, 5th Avenue NE, NE 100th Street, and NE 103rd Street. These standards specify such features as minimum sidewalk width and the provision of landscaping and must be met by all developments taking place adjacent to these streets. The Northgate Urban Center and Overlay District Guidelines also provide strong pedestrian design guidance.

In addition to the land use code development standards, design principles are articulated in the 5th Avenue NE Streetscape Design Plan, the Northgate Open Space & Pedestrian Connections Plan, and this document. Through the processes described below, good

urban design principles will help guide Northgate's public and private projects.

Design Commission Review

The City Design Commission reviews the design of publicly funded projects and projects in the public right-of-way. The Commission takes into account the community vision as demonstrated by current and prior planning and design efforts, such as the plans identified above and this document. The Commission also draws heavily on overarching City urban design principles that identify design qualities appropriate for the mixed-use nature of an Urban Center such as Northgate. Several examples can be taken from the adopted City-wide guidelines, such as "a strong pedestrian orientation is expected in the relationship of buildings to street-level activity," and "transportation facilities should contribute to a vigorous pedestrian environment."

Design Review Board: Project Review

The Design Review Board plays a similar role to the Design Commission with respect to projects on private property. Adopted City-wide guidelines and neighborhood-specific guidelines, the Northgate Urban Center & Overlay District Design Guidelines, are applied to Northgate projects by the Northeast Design Review Board. The Northgate neighborhood design guidelines have very strong pedestrian and urban design emphasis. In addition, the Board can weigh plans such as those identified above and the guidance in this document.

Collaborative City-Community Review

The City will continue to involve the Northgate community during project review to seek public input on design issues, and will encourage public participation in design review processes by the Design Commission and Northeast Design Review Board. During the design phase of transportation projects, the Department of Planning and Design (DPD) works closely with SDOT in developing the conceptual-level drawings of capital projects, such as pedestrian and roadway improvements. This partnership includes joint activities such as collaborative design workshops, where such issues as achieving balance between desired design features and traffic operation and safety standards can be reconciled.

The evolution of the 5th Avenue Streetscape project from conceptual design stage through highly detailed engineering drawings is an example of how DPD and SDOT collaborated to shape the final "look" of a major transportation improvement in a way that is consistent with the Northgate vision. In addition, citizen representatives were actively engaged in this multi-year collaborative planning and design process.

The coordinated design of the South Lot projects adjacent to Northgate Mall is an additional example of the collaboration between City departments, with private developers, and the public. The Northgate Commons, Thornton Creek Water Quality Channel, new 3rd Avenue NE extension, and new transit center pedestrian improvements are implementing the Pedestrian and Open Space Plan through its realization of several pedestrian "desire lines" identified in that plan and in the execution of design details, such as pedestrian lighting, following the guidelines in the 2006 Technical Urban Design Guidance document.

Departmental Operations

The following operational divisions within SDOT will implement many of the CTIP's safety and operational improvements.

Traffic Management Division

The City Traffic Engineer is responsible for Neighborhood Traffic Control, the Pedestrian and Bicycle Program, Arterial Traffic Operations, and Traffic Signals. These programs receive funding from a variety of CIP line items. CTIP projects will compete with citywide needs against an array of program-specific criteria, and those that rank high and can be completed within available revenue will be constructed.

Potential CTIP safety and operations projects:

- Roosevelt Way NE pedestrian crossing
- College Way N bicycle lanes
- NE 98th Street traffic calming
- NE 120th Street traffic calming

Capital Project/Roadway Structures

This division will design and construct CTIP projects identified in the CIP or the Traffic Management Division's work programs. Projects costing over $100,000 are generally contracted out for design, under the supervision of an internal project manager. The project manager is responsible for the project budget and schedule, as well as for resolving any issues associated with design features. SDOT project managers will also integrate urban design elements identified by DPD. For example, several projects included in the CTIP originated in the Northgate Open Space and Pedestrian Connections Plan.

Inter-Agency Projects

SDOT's Policy Planning and Major Projects Division will work closely with other agencies on CTIP projects of mutual interest. For example, SDOT will work with King County Metro and Sound Transit on transit service improvements and transit facilities consistent with the CTIP's recommendations. These recommendations will be integrated into and balanced against the citywide and other subarea interests documented in the Seattle Transit Plan.

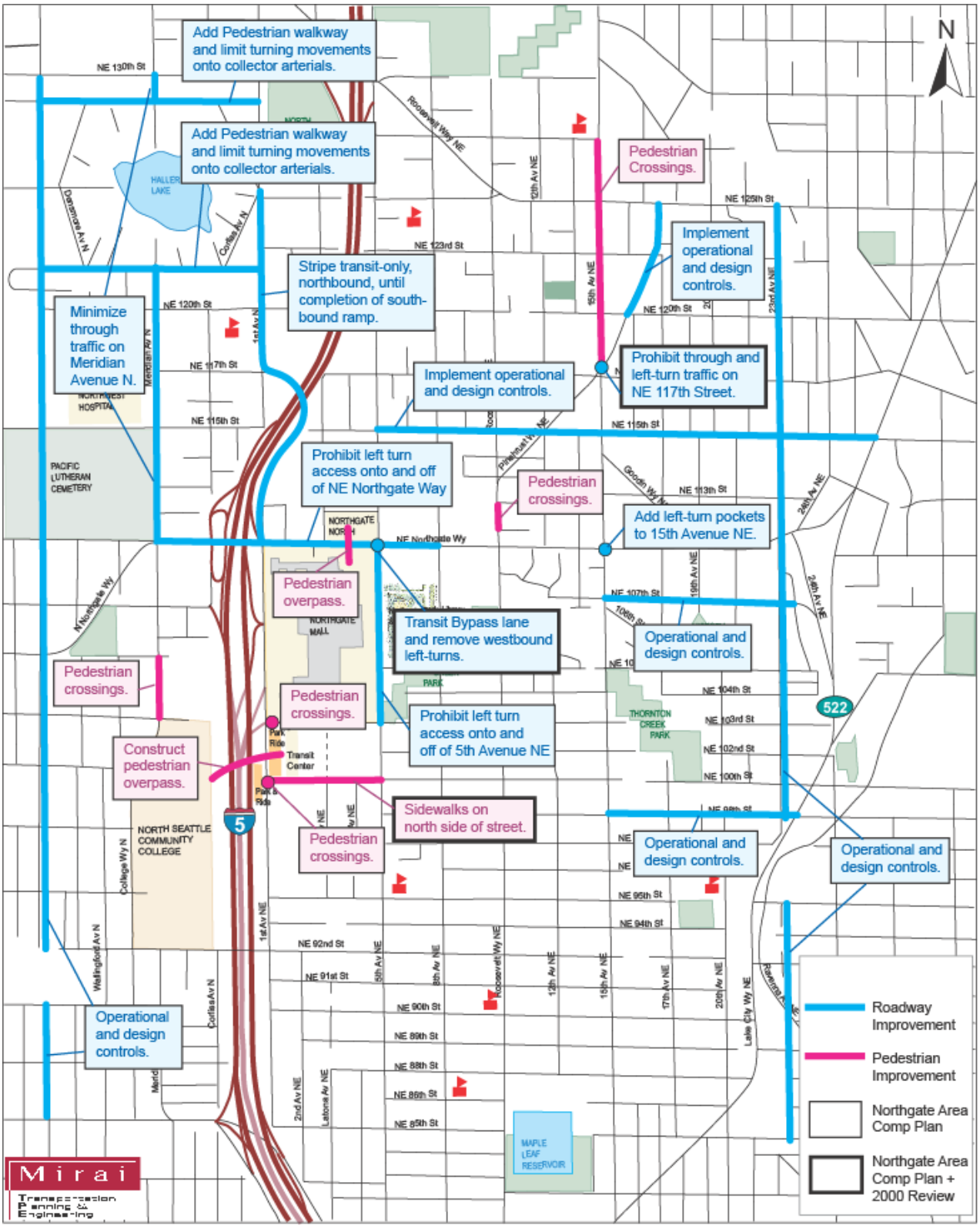
Potential CTIP inter-agency projects:

- King County Metro transit service
- Roadway on 3rd Ave NE: NE 100th - NE 103rd
- Transit shelters
- Sound Transit link light rail and transit station
- I-5 cross freeway connection

Appendix 1-1.

Roadway and Pedestrian Improvements Recommended by Previous Plans

Appendix 1-1. Roadway and Pedestrian Improvements Recommended by Previous Plans



Appendix 1-2.

Seattle City Council Resolution Numbers: 30641 and 30642

Appendix 1-2. Seattle City Council Resolution Numbers: 30641 and 30642

Resolution Number: 30641

A RESOLUTION directing Seattle Transportation to develop a Northgate Coordinated Transportation Investment Plan, cost sharing agreements, and a project scope, schedule, budget, and public involvement approach.

Date introduced/referred: November 17, 2003 **Date adopted:** December 8, 2003
Status: Adopted as Amended **Vote:** 5-0 (Excused: Compton, Wills; Absent: Pageler, Nicastro)

Committee: Committee of the Whole **Sponsor:** CONLIN

References/Related Documents: Related: Res. 30642, CB 114767, 114553

Text

A RESOLUTION directing Seattle Transportation to develop a Northgate Coordinated Transportation Investment Plan, cost sharing agreements, and a project scope, schedule, budget, and public involvement approach.

WHEREAS, the Seattle Comprehensive Plan designated Northgate as an urban center, and as Northgate is significantly underperforming its jobs and housing targets, it is the City's goal to stimulate community and economic revitalization; and

WHEREAS, the Northgate Area Comprehensive Plan (NACP) addresses interrelated land use and transportation issues that are unique to Northgate; and

WHEREAS the vision of the NACP is to concentrate new office, retail and multifamily development in the core of the Northgate area surrounded by lower density residential neighborhoods, and to create a transit-supportive environment that emphasizes multi-modal transportation solutions including improved pedestrian, bicycle, bus transit, and high-capacity transit facilities and services; and

WHEREAS, Northgate currently plays major local and regional transportation roles that will become increasingly significant as proposed projects for King County Transit-Oriented Development, Sound Transit light rail service, and a potential future monorail line are realized; NOW THEREFORE,

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF SEATTLE, THE MAYOR CONCURRING, THAT:

Section 1. Seattle Transportation (SDOT) is directed to lead

development of the Northgate Coordinated Transportation Investment Plan (CTIP). The CTIP is essentially an area-wide transportation analysis for the Northgate area that will facilitate public and private investment in Northgate area transportation projects and services, and coordinate transportation investments that best reflect the long-term goals of the Northgate Area Comprehensive Plan (NACP). The CTIP will build on the extensive body of prior transportation planning work and be updated to reflect current conditions and projected future needs.

The CTIP will include a technical review of planned and potential projects in the area and cover all modes of transportation. The technical review will include an evaluation of existing and future transportation infrastructure and service needs and deficiencies (basing future needs on a future year scenario defined by projected growth in the Northgate area and the region, and existing or short-term needs on known or projected specific projects). The technical review will focus on converting the existing transportation network from one that is primarily auto-oriented to one that strives toward more balance across all transportation modes. The technical review will also identify measures to calm traffic where appropriate throughout the surrounding area while providing safe and efficient corridors for people and vehicles moving to and through the Northgate area.

As a result of the technical review, the City expects to produce a list of transportation infrastructure improvements to address existing and future transportation needs within the Northgate area, along with cost estimates, priorities, and potential funding sources. The CTIP shall identify and evaluate least-cost / maximum-benefit strategies and projects. It will also identify and evaluate project opportunities that would otherwise be foreclosed for the foreseeable future.

The CTIP will also analyze the direct and cumulative impacts of projects (project-level for known specific projects and planning level for other sites based on general growth forecasts) and their associated transportation improvements. The City expects thatproperty owners will then be able to use the CTIP transportation analysis to fulfill much of the environmental review requirements for potential transportation impacts and mitigation for those projects. The CTIP may include an EIS or other appropriate environmental review and analysis of the impacts of the transportation impacts of predicted growth and known specific development projects in the Northgate area. It is possible that the Executive will propose future amendments to the Land Use Code and State Environmental Policy Act (SEPA) Policies to enable the City to use the CTIP in reviewing specific projects, so that mitigation for transportation impacts can better address area- wide transportation needs for the neighborhood. To the extent feasible, the transportation analysis will facilitate project-level planning and compliance with SEPA requirements for review of transportation impacts. The City expects that property owners will be able to use the CTIP transportation analysis to fulfill much of the environmental review requirements for potential transportation impacts and mitigation for those projects. The CTIP shall be scoped and developed in such a manner that it can serve as a basis for the transportation component of a possible later Planned Action Environmental Impact Statement (EIS) for the Northgate area.

Section 2. SDOT is directed to develop and implement a public and agency involvement plan to seek community and agency input throughout all phases of the CTIP including consultant selection and project scoping. Agencies are to include, but not be limited to City of Seattle departments (Seattle Public Utilities, Department of Planning and Development, Seattle City Light, Fire, Police, etc.), King County, Sound Transit, Seattle Popular Monorail Authority, and Washington State Department of Transportation.

Section 3. By April 15, 2004, SDOT is directed to complete a CTIP scope, schedule, budget, and public involvement plan for Council review. Within 30 days of the effective date of this resolution, SDOT is directed to begin negotiating cost sharing agreements with public and private participants that may benefit from the CTIP.

Adopted by the City Council the ____ day of _____, 2003, and signed by me in open session in authentication of its adoption this _____ day of _____, 2003.

President _____of the City Council

THE MAYOR CONCURRING:

Gregory J. Nickels, Mayor

Filed by me this ____ day of _____, 2003.

City Clerk

11/22/03version #8 ta

Appendix 1-2. Seattle City Council Resolution Numbers 30641 and 30642

Resolution Number: 30642

A RESOLUTION establishing a framework for actions to accomplish future steps for Northgate to encourage progress toward the Northgate Area Comprehensive Plan vision, specifically for economic development efforts, multifamily housing incentives, multi-modal transportation, pedestrian and open space improvements, integrated natural drainage strategies, sustainable design and green building, public art, planning for major commercial and multifamily residential development, and meaningful community involvement in these actions.

Date introduced/referred: November 17, 2003 **Date adopted:** December 8, 2003
Status: Adopted as Amended **Vote:** 5-0 (Excused: Compton, McIver; Absent: Pageler, Nicastro)

Committee: Committee of the Whole **Sponsor:** CONLIN, LICATA, NICASTRO, STEINBRUECK AND WILLS

Text

A RESOLUTION establishing a framework for actions to accomplish future steps for Northgate to encourage progress toward the Northgate Area Comprehensive Plan vision, specifically for economic development efforts, multifamily housing incentives, multi-modal transportation, pedestrian and open space improvements, integrated natural drainage strategies, sustainable design and green building, public art, planning for major commercial and multifamily residential development, and meaningful community involvement in these actions.

WHEREAS, the Seattle Comprehensive Plan designates Northgate as an Urban Center intended to provide significant new growth of housing and jobs; and

WHEREAS, the Northgate Area Comprehensive Plan (NACP) adopted in 1993 identifies a community vision and implementation policies for the projected growth of Northgate; and

WHEREAS, the NACP vision is to concentrate new office, retail and multifamily development in the core of the Northgate area surrounded by lower density residential neighborhoods, and to create a transit-supportive environment that emphasizes multi-modal transportation solutions including improved pedestrian, bicycle, bus transit, and high-capacity transit facilities and services; and

WHEREAS, the Northgate area has substantial unbuilt development capacity and, therefore, provides one of the best opportunities in Seattle to create a vibrant Urban Center that integrates well with

being a major regional transportation hub; and

WHEREAS, Northgate has not progressed substantially toward realizing the Comprehensive Plan housing and job targets, therefore, it is the City's goal to stimulate community and economic revitalization; and

WHEREAS, the City continues to strive to balance the interests of businesses, land owners and developers, and neighborhood residents in ways that contribute positively to neighborhood vitality and livability as growth and development occurs in the Northgate Urban Center; and

WHEREAS, the issues and opportunities facing the Northgate area are complex, and the City should take a strong role in guiding development towards the Urban Center vision; and

WHEREAS, City initiatives should reflect community priorities that are embodied in Resolution 30327 adopted by the City Council in 2001 which approved the City's Work Plan Matrix to aid in implementing the NACP, as well as the recommendations of the Northgate Community Workshops and Northgate Town Center Visioning Charrette conducted in 2000 as contained in "Understanding Northgate" and Refining Our Choices"; and

WHEREAS, new housing development is vital to achieve the NACP vision and Northgate's success an as urban center; and

WHEREAS, Northgate currently plays major local and regional transportation roles that will become increasingly significant if proposed projects for King County Transit-Oriented Development, Sound Transit light rail service, and a potential future monorail line are realized; and

WHEREAS, transportation and traffic problems currently exist in the Northgate area, and traffic analysis and planning are key to successfully accommodating future development and managing growth; and

WHEREAS, many important community projects including the City funded community center, library, and park are now underway to support the Northgate vision; however, there remains a need to continue to enhance and increase public open spaces and provide pedestrian improvements and connections; and

WHEREAS, the City recently accepted a 5th Avenue NE Streetscape Design Plan and approved Northgate Design Guidelines, and has taken other steps to implement the vision expressed in the NACP and the Seattle Comprehensive Plan; and

WHEREAS, stormwater issues such as water quality, detention and infiltration need to be approached holistically within the context of the watershed and can be addressed by both City actions and as properties develop over time with appropriate, innovative, and integrative solutions; and

WHEREAS, daylighting Thornton Creek on the South Lot could provide open space and an amenity to future development on the South Lot;

NOW THEREFORE,

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF SEATTLE, THE MAYOR CONCURRING:

Section 1. Framework. This resolution provides the framework for actions that the City intends to develop and implement to realize the vision of the Northgate Area Comprehensive Plan (NACP) to "transform a thriving, but underutilized, auto-oriented office/retail area into a vital, mixed-use center of concentrated development surrounded by healthy single family neighborhoods". These actions include fostering growth management, economic development, housing incentives, transportation, pedestrian and open space improvements, integrated natural drainage strategies, sustainable development and green building, public art, and planning for major commercial and multifamily residential development.

Section 2. Comprehensive Plan Policies. The Office of Policy and Management (OPM) and the Department of Planning and Development (DPD) (formerly DCLU) are hereby directed to work with the City Council and Law Department to determine how to incorporate the relevant policies of the NACP into the Seattle Comprehensive Plan, as appropriate, to recognize the Northgate community vision as other Urban Center neighborhood plans have been recognized in the City's Comprehensive Plan. This shall be done initially as part of the 2004 Comprehensive Plan update process.

Section 3. Economic Development. By April 1, 2004, OPM and DPD, shall provide the Council with a work program for preparing additional economic or market analysis that can be used to identify appropriate tools to encourage development consistent with the NACP and Town Center planning efforts and that support a diversity of business types and sizes. The work program shall include identification of funding from public and or private sources, if needed.

Section 4. Housing Incentives. The Office of Housing (OH) and DPD are hereby directed to develop long-term strategies and incentives to stimulate the production of multifamily housing. Strategies to be considered include, but are not limited to: (1) revising zoning and development regulations such as parking requirements, maximum density limits, minimum density requirements, or height for mixed-use projects, as well as the potential for legislative remapping of zoning classifications of large parcels, (2) policy and program initiatives that encourage the development of housing as part of transit-oriented development, and (3) targeting of housing incentives such as the Multifamily Tax Exemption Program. Incentive strategies should include ways to achieve diversity of housing type and affordability levels. By July 1, 2004, OH and DPD shall transmit a report with recommendations, along with any proposed legislation, to the Council for its consideration.

Section 5. Transportation Planning and Traffic Analysis. Seattle Transportation is directed to lead development of the Northgate Coordinated Transportation Investment Plan (CTIP) pursuant to Resolution 30641. The CTIP shall facilitate public and private investment in Northgate area transportation projects and services, and

identify coordinated transportation investments that best reflect the long-term goals of the NACP, in particular reducing traffic- related impacts on arterials, protecting neighborhood streets, and providing pedestrian improvements and connections including safety improvements for seniors. The CTIP shall be scoped and developed in such a manner that it can serve as the transportation component of a possible later Planned Action EIS for the Northgate area.

Section 6. Open Space and Pedestrian Connections. By July 1, 2004, DPD in conjunction with Seattle Transportation, the Department of Parks and Recreation (DPR), and the Seattle Planning Commission, is hereby directed to develop and transmit a plan for Council consideration to increase public open spaces, create and enhance pedestrian connections, and improve the pedestrian and bicycling environment in the Northgate Urban Center. The plan should be used in design review as a supplement to the neighborhood specific design guidelines. The planmay also result in proposed amendments to the neighborhood specific design guidelines and/or the overlay district development standards, as appropriate.

Section 7. Natural Drainage Strategies. The Council encourages the development of innovative approaches to stormwater management, water quality treatment, and habitat protection. The Council recommends implementing the Thornton Creek Five-Year Action Agenda, in particular the Natural Systems Program items in the Agenda. In coordination with the development of the 2004 Seattle Comprehensive Drainage Plan, the Seattle Public Utilities Department (SPU), in conjunction with the Office of Sustainability and Environment (OSE), is hereby directed to identify any existing natural drainage strategies that are part of the Thornton Creek Five-Year Action Agenda and "Refining Our Choices" and other natural drainage strategies that can be incorporated into development projects in the Northgate area. Opportunities for partnerships among private development, state and county agencies, and the City for using natural drainage in rights-of-way should also be identified. By July 1, 2004, SPU shall transmit a report of the identified strategies for Council consideration, and after the Council review is completed shall make a description of these strategies available to developers.

Section 8. Sustainable Design and Green Building. In coordination with the Economic Development work item in Section 3 above, by September 1, 2004, OSE shall prepare and transmit for Council consideration a strategy and work program to promote the use of sustainable design and green building principles in both public and private developments in the Northgate area, including recommendations for additional programs, incentives, and assistance.

Section 9. Public Art. By June 1, 2004, the Seattle Office of Arts and Cultural Affairs shall work with other appropriate City departments to provide a report with recommendations for Council consideration for enhancing the Northgate Urban Center with public art. It is the Council's intent that a Northgate neighborhood arts council be established, with one goal to develop by June 1, 2005 a public art proposal for Northgate Way from Interstate 5 to 15th Avenue Northeast

and for 5th Avenue Northeast from Northgate Way to NE 103rd Street.

Section 10. Areawide Development Impact and Mitigation Analysis. The City wishes to foster a vibrant Urban Center and stimulate development potential in the Northgate area by providing alternative means to the General Development Plan process to promote coordinated development and to address the impacts of such development in a coordinated fashion. To accomplish this, the Council directs OPM in conjunction with DPD and the Planning Commission to submit to the Council by April 15, 2004 a report with recommendations on next steps to help ensure that areawide development impacts are effectively analyzed and mitigated, including consideration of developing a SEPA Planned Action for the Northgate Overlay District (pursuant to SMC Chapter 25.05). The report should include a scope of work, timeline, cost, and source of funds for various options.

Section 11. Development Agreements. The City may wish to use Development Agreements as an optional means to accomplish development that furthers the goals of the NACP. The City shall establish a public comment process that ensures appropriate opportunities for public comment on the elements of any proposed Development Agreement. In determining whether to approve a Development Agreement in the Northgate Overlay District, the Council shall consider the extent to which the proposed development or redevelopment:

a. Contributes toward meeting the Northgate Urban Center housing targets;
b. Is coordinated with approaches to transportation planning and traffic analysis with surrounding properties and the City, such as the CTIP or a Planned Action EIS, with the goal of reducing use of single-occupant vehicles and reducing or minimizing pedestrian and vehicular conflicts and other potential negative traffic impacts on neighborhoods;
c. Proposes improvements to the street level environment and circulation for pedestrians, including coordination with area-wide pedestrian circulation and open space plans such as the 5th Avenue Streetscape Design Plan;
d. Includes natural drainage strategies such as those described in the Thornton Creek Five-Year Action Agenda and "Refining Our Choices" for Northgate; and
e. Incorporates sustainable design and green building practices in the proposed development.

Section 12. South Lot Planning and Acquisition. In its Development Agreement with Simon Properties, the City has negotiated a one-year option to purchase 2.7 acres on the eastern portion of the South Lot for $375,000 to be used for open space and natural drainage strategies, including preserving the option for the possibility of current or future daylighting of Thornton Creek. LorigAssociates (Lorig) will be obtaining an option to purchase the middle 5.9 acres of the South Lot from Simon Properties. Therefore, the Council directs OPM and DPD to engage in coordinated planning with Lorig, King County (which will be developing a transit-oriented project on the western portion of the South Lot), and citizens and interest groups within the Northgate community on coordinated site design and planning for the South Lot.

Issues requiring coordination include transportation, open space, and pedestrian improvements (as well as any required mitigation), and the potential for a contiguous open space that allows for future potential daylighting of Thornton Creek. The Council envisions that Lorig shall provide the City with a proposed site plan for the eastern and middle portions of the South Lot that identifies the area equivalent to 2.7 acres that will be used by the City as open space and natural drainage, as well as the components of the private development by Lorig. The Council directs that SPU and DPR shall collaborate with Lorig in the development of the site plan. As part of the site plan process, Lorig shall provide the City with at least three alternative schemes for integrating development with open space and natural drainage. Lorig shall continue to involve the community in development of these schemes. The schemes will consist of the following: (1) a methodwhich daylights existing flows; (2) keeping existing storm and detention pipes buried and developing a natural drainage system to help clean stormwater runoff located at elevations closer to the surface grade; and (3) a combination of both concepts. After receipt of the proposed site plan and schemes, SPU and DPR shall develop detailed analysis of the alternative schemes together with recommendations for Council consideration, including a fiscal note addressing development costs and long-term operations and maintenance costs. In addition, OPM is directed to negotiate with Lorig a proposed Development Agreement for the South Lot, that at a minimum provides for the following:

a. No fewer than 300 units of multifamily housing, which may be developed in phases, with the goal of providing housing that is affordable to households with a range of incomes;
b. Agreement to participate in the proposed CTIP and possibly in a later Planned Action;
c. Coordination with areawide pedestrian circulation and open space plans, including but not limited to the 5th Avenue Streetscape Design Plan;
d. Consideration of natural drainage strategies; and
e. Consideration of the use of sustainable design and green building techniques in the development.

The site plan and schemes, SPU/DPR natural drainage and open space analysis and recommendations, a report on the status of South Lot coordinated planning (including efforts with citizens and King County), and a draft of a proposed Development Agreement with Lorig shall be submitted to the Council for is consideration by March 1, 2004. After receiving these items, the Council shall then consider the merits of acting on the City's option to purchase a portion of the South Lot and on the Development Agreement with Lorig. If Lorig does not pursue its option to purchase the property from Simon Property Group, the City will continue to consider the merits of purchasing the 2.7 acres.

Section 13. Open Public Process. The City commits to maintaining transparency and open discussion with the community in order to ensure the health and vitality of the Northgate area. The City is committed to providing meaningful opportunities for public input as the actions described in this resolution are developed and implemented. In addition to providing opportunities for general public involvement, the City intends to facilitate the creation of a Northgate Urban Center stakeholders group. DPD in conjunction with the Seattle Planning

Commission and the Department of Neighborhoods is directed to facilitate the formation of the stakeholders group by February 1, 2004 to advise the City on future planning and strategies for implementing the NACP vision. The purpose ofthe stakeholders group shall be to promote discussion and information sharing among representatives of interest groups and to provide advice to the City on activities related to implementing the goals of the NACP for a vibrant Urban Center. The Executive is directed to commit adequate funds to retain an independent professional facilitator consultant whose job will be to assist in the initial formation of the stakeholders group and to assist in the design and facilitation of its meetings on an ongoing basis. The Executive is also directed to dedicate staff within DPD to assist the stakeholders group in its formation and function.

a. The stakeholders group shall focus initially on advising the City on coordinating, developing, and implementing the following efforts: (1) an UrbanCenter plan for open space and pedestrian connections including bicycle and pedestrian circulation and streetscape improvements, (2) the Coordinated Transportation Investment Plan, (3) implementation of the 5th Ave NE Streetscape Design, and (4) planning for large lot developments (particularly early input on conceptual site planning), including but not limited to the Northgate Mall, the South Lot, and King County's transit-oriented development project. On items 1 and 2 above, the stakeholders group should be consulted on the scoping and design of work programs, consultant selection, and review of conceptual plans and draft planning products. The Executive will also provide the stakeholders group with briefings and updates and solicit advice at key junctures on implementation of the other work program items in this Resolution, which will further implement the NACP.
b. The stakeholders group shall include representatives of the following groups or categories: (1) King County/Metro, (2) Simon Properties, (3) Maple Leaf Community Council, (4) Licton Springs Community Council, (5) Haller Lake Community Council, (6) Pinehurst Community Council, (7) Victory Heights Community Council, (8) Northgate Chamber of Commerce, (9) Thornton Creek Alliance, (10) Thornton Creek Legal Defense Fund, (11) North Seattle Community College, (12) Northwest Hospital, (13) property owners of 3 acres or more, (14) residents in senior housing (resident or staff), (15) residents in apartments/condominiums, (16) multi-family housing developers, (17) businesses inside of Mall, (18) businesses outside of Mall, (19) youth groups; and (20) organized labor in the Northgate area. There will also be 2 at-large members. Each group (see 1 through 12 above) may designate its representative and one alternate to serve on the stakeholders group. The facilitator shall work with existing community groups and City staff to: (l) conduct outreach to the other categories (see 13 through 20 and the at-large members above) in order to solicit nominees for the stakeholders group and (2) organize a forum for members of the categories to elect one representative and an alternate to serve on the stakeholders group. The stakeholders group will strive to incorporate new stakeholder categories or groups that emerge over time. Once designated, the members of the stakeholders group should select their chairperson and a name. The group shall establish terms and rules of order. The stakeholders group should be organized to promote open dialogue. All meetings shall be open to the public.
c. The stakeholders group shall work with the City to co-sponsor a series of community forums to be held at least quarterly throughout development of initiatives to obtain widespread citizen input and

comments. The stakeholders group shall report to the City Council by March 1, 2004 on its community outreach and formation, and by September 1, 2004 on its activities as a group and with the community, as well as the successes and problems associated with its organization and functioning. Thereafter, the stakeholders group shall report to the City Council annually by June 1st.

Section 14. Expeditious Action. The Council desires to see expeditious implementation of this Resolution. Exhibit A - Work Program attached hereto is a chronology of actions called for in this Resolution.

Adopted by the City Council the _____ day of _____, 2003, and signed by me in open session in authentication of its adoption this _____ day of _____, 2003.

President _____ of the City Council

THE MAYOR CONCURRING:

Mayor

Filed by me this _____ day of _____, 2003.

City Clerk

Appendix 1-3.

Seattle Comprehensive Plan Neighborhood Element for the Northgate Area

B-23 Northgate

goals

NG-G1 A place where people live, work, shop, plan and go to school—all within walking distance.

NG-G2 A thriving, vital, mixed-use center of concentrated development surrounded by healthy single-family neighborhoods transformed from an underutilized, auto-oriented office/retail area.

land use & housing goals

NG-G3 The surrounding single-family neighborhoods are buffered from intense development in the core, but have ready access to the goods, services, and employment located in the core via a range of transportation alternatives including walking, bicycling, transit, and automobile (the core area is shown on Map G3).

NG-G4 The most intense and dense development activity is concentrated within the core.

NG-G5 Commercial activity outside the core is smaller in scale and allows for a mix of uses that serve the adjacent residential neighborhoods.

land use & housing policies

NG-P1 Encourage development of the core as a major regional activity center for retail, commercial, office, multifamily residential, and educational uses with densities sufficient to support transit.

NG-P2 Use land use regulation to cause new development to locate close to transit stops and provide good pedestrian and bicycle connections throughout the area so that intra-area vehicular trips and locally generated traffic are reduced.

NG-P3 Use a Northgate Overlay District to address the special characteristics of development in the area.

NG-P4 Concentrate employment activity where the infrastructure and transportation system can best accommodate it.

NG-P5 Promote a mixture of activities including commercial and residential uses in areas that have Neighborhood Commercial and Residential Commercial zoning designations.

NG-P6 Promote additional multifamily housing opportunities for households of all income levels to the extent that a compatible scale and intensity of development can be maintained with adjacent single-family areas.

NG-P7 Reduce conflicts between activities and promote a compatible relationship between different scales of development by maintaining a transition between zones where significantly different intensities of development are allowed.

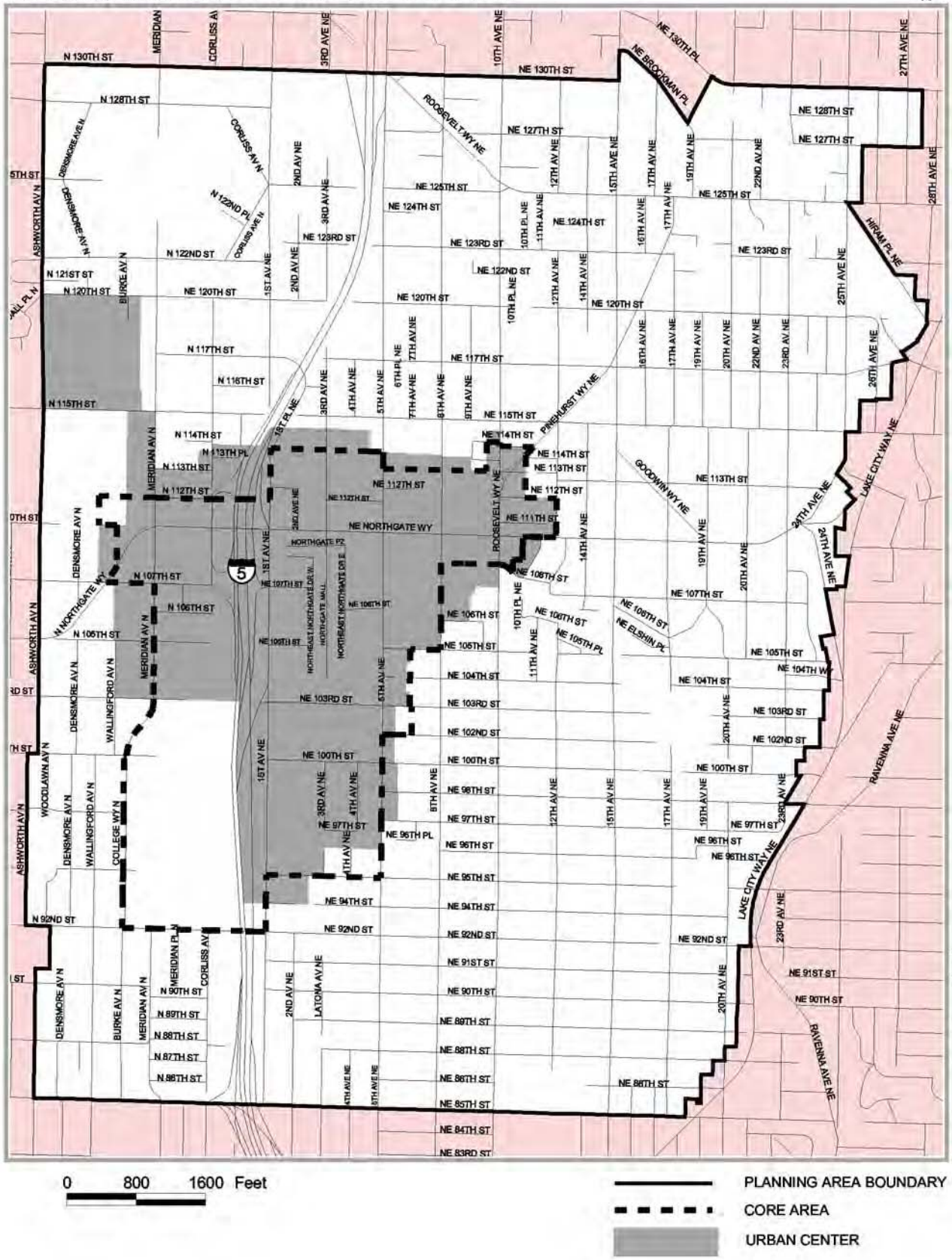
NG-P8 Maintain the character and integrity of the existing single-family zoned areas by maintaining current single family-zoning on properties meeting the locational criteria for single-family zones.

transportation goals

NG-G6 An economically viable commercial core with improved alternative means of access, good vehicular and pedestrian circulation, and an enhanced, interesting environment that attracts customers, visitors, and employers.

NG-G7 Medium to high density residential and employment uses are concentrated within a 10-minute walk of the transit center, reducing the number and length of vehicle trips and making travel by foot and bicycle more attractive.

NORTHGATE
Planning Area, Urban Center and Core Area



transportation policies

NG-P9 Promote the efficiency of the transportation system by accommodating more person trips rather than vehicle trips.

NG-P10 Enhance transit service and facilities to make it a more attractive travel mode for persons living and working in the Northgate Area.

NG-P11 Promote pedestrian circulation with an improved street level environment by striving to create pedestrian connections that are safe, interesting and pleasant.

NG-P12 Manage parking supply, location and demand to discourage the use of single occupant vehicles, and to improve short-term parking accessibility for retail customers, patients, and visitors, without undermining transit or high occupancy vehicle (HOV) usage, or detracting from the creation of an attractive pedestrian environment.

NG-P13 Seek to reduce the impact of increases in traffic volume by limiting conflicts with local access streets, and improving traffic flow, circulation and safety, without increasing vehicular capacity.

NG-P14 Seek to control impacts of a high capacity transit station on surrounding neighborhoods by emphasizing non-motorized access, transit supportive land uses, and an attractive pedestrian environment at and near the station.

open space goal

NG-G8 Quality open space exists in sufficient quantity and variety to meet the needs of workers, shoppers, students, and visitors, as well as recreational and natural spaces for the growing residential population.

open space policy

NG-P15 Promote a system of open spaces and pedestrian connections, to guide acquisition, location, and development of future open space and to establish priorities for related public improvements.

drainage policy

NG-P16 Promote reduction of potential runoff into Thornton Creek, and encourage restoration of the Creek to enhance aquatic habitat and absorb more runoff.

human services & community facilities policy

NG-P17 Encourage quality human services for all segments of the population.

financing goal

NG-P18 Explore and seek to develop a variety of strategies for financing implementation of these goals and policies.

Appendix 1-4.

Northgate Stakeholders Group

Appendix 1-4. Northgate Stakeholders Group

Northgate Stakeholder Roster

Updated January 24, 2006

*** Member of CTIP Subcommittee**
Italics indicates former member

Seat #1 – King County.Metro Ron Posthuma* Assistant Director, Transit Oriented Development	**Alternate:** Jim Jacobson Deputy General Manager, Metro Transit
Seat #2 – Simon Properties Gary Weber* Regional Leasing Manager	**Alternate:** Sam Stalin Manager, Northgate Mall
Seat #3 – Maple Leaf Community Council Janice Camp*	**Alternate:** Mel Vannice
Seat #4 – Licton Springs Community Council Jerry Owens	**Alternate:** Shannon Snider
Seat #5 – Haller Lake Community Club Velva Maye	**Alternate:** Sue Geving
Seat #6 – Pinehurst Community Council Lorna Mrachek	**Alternate:** Garth Ferber, *Scott Grohusky*
Seat #7 – Victory Heights Community Council Brad Cummings*	**Alternate:** Molly Burke
Seat #8 – Northgate Chamber of Commerce Shaiza Damji* Ramada Inn	**Alternate:** Scott Greer Seattle Athletic Club
Seat #9 – Thornton Creek Alliance John Lombard	**Alternate:** Cheryl Klinker, *Erik Davido*
Seat #10 – Thornton Creek Legal Defense Fund Janet Way	**Alternate:** Jan Brucker, *Bob Vreeland*
Seat #11 – North Seattle Community College Ron LaFayette, President	**Alternate:** Bruce Kieser*, Director of Facilities and Plant Operations
Seat #12 – Northwest Hospital Chris Roth*, Vice-President of Operations	**Alternate:** Rose Dammrose, Director of Facilities, Property & Construction Management
Seat #13 – Owners of Three or More Acres Kevin Wallace*	**Alternate:** Rodney Russell
Seat #14 – Senior Housing Jeanne Hayden*	**Alternate:** Sandra Morgan The Foundation House at Northgate
Seat #15 – Renters/Condominium Owners Brad Mason	**Alternate:** Rick Kosterman, *Debra Fulton*
Seat #16 – Multi-family Housing Developers Colleen Mills Mullally Development Company	**Alternate:** *Tom Donnelly*

Appendix 1-4. Northgate Stakeholders Group

Seat #17 – Businesses Inside the Mall Jeff Coate JC Penney *Kurt Schauermann* *Centerfoods Management*	**Alternate:** Tamara Storie B. Dalton Books *Regina Aiello* *Ben Bridge Jewelers*
Seat #18 – Businesses Outside the Mall Michelle Rupp* Nowogroski Rupp Insurance Group	**Alternate:** Jody Westfall Key Bank *Dallas Carleton* *Display & Costume Supply*
Seat #19 – Youth Devin Nilsen, *Amanda Doty, Diana Medina*	**Alternate:** *Alexia Dorsch*
Seat #20 – Labor David Hellene, Rebound, AFL-CIO *Brad Larssen, Pacific Northwest Regional Council of Carpenters*	**Alternate:**
Seat #21 – At-large Shawn Olesen*	**Alternate:** Barbara Maxwell*
Seat #22 – At-large Marilyn Firlotte*	**Alternate:** Mike Vincent*

Coordinated Transportation Investment Plan Subcommittee:

Janice Camp
Shaiza Damji
Jeanne Hayden
Barbara Maxwell
Jerry Owens
Chris Roth
Mike Vincent
Gary Weber
Brad Cummings
Marilyn Firlotte
Bruce Kieser
Shawn Olesen
Ron Posthuma
Michelle Rupp
Kevin Wallace

Appendix 1-5.

Northgate Stakeholders Group CTIP Advice Letters

Northgate Framework Resolution
Advice #3

Date: June 28, 2004

To: Mayor Greg Nickels and Members of the Seattle City Council

From: Ron LaFayette, Chair, on Behalf of the Northgate Stakeholders Group

Subject: STAKEHOLDERS ADVICE #3: DEVELOPMENT OF THE NORTHGATE COORDINATED TRANSPORTATION IMPROVEMENT PLAN

The resolution establishing the Northgate Stakeholders Group assigned the Stakeholders the task of reviewing and commenting upon the proposed Coordinated Transportation Improvement Plan (CTIP), the process through which the City will determine future transportation investments in the Northgate area. The Stakeholders Group has participated in the design of the planning process, and several Stakeholder comments have already been incorporated into the City's revised scope of work.

At its June 24 meeting, the Stakeholders Group reviewed, discussed and voted unanimously in favor of Advice #3.

Advice #3 indicates that the Stakeholders Group accepts the process that has been defined in the scope of work; underscores a number of policy issues which the Stakeholders expect that the process will address as the CTIP emerges; and outlines a plan for participation of the Stakeholders Group at each stage in development of the CTIP. The Stakeholders Group would like the timeline for completion of the CTIP to be speeded up, to the extent possible and it urges the City to implement the recommendations that result from the Plan.

The Review Process

The Stakeholders reviewed CTIP issues through the following steps.

1) March 18: Seattle Department of Transportation Director Grace Crunican introduced the CTIP process to the Stakeholders Group.
2) April 20: Tony Mazzella of SDOT and Tom Noguchi of Mirai Associates presented "CTIP 101". Group members outlined the additional information that would be needed in order for advice to be offered. Emphasized was the identification of decision points in the process for Stakeholder participation.
3) May 11: SDOT responded to April 20 inquiries and distributed results of the Stakeholder transportation questionnaire. Stakeholders asked additional questions regarding the

integration of transportation planning under CTIP with the Northgate Area Comprehensive Plan. (NACP)

4) May 20: Stakeholders Barbara Maxwell, Shawn Olesen and Ron Posthuma briefed the group on comments raised at the Community Forum and multiple transportation issues which would be confronted during the CTIP process. Stakeholders commented on the draft CTIP scope of work, noting that the process should focus on all transportation modes and that the Stakeholders should be provided the opportunity to review criteria and assumptions used in transportation modeling.
5) May 28: A working group meeting participated in by 16 Stakeholders enabled more detailed discussion of multiple elements of the scope of work.
6) June 3: The Stakeholders Group reviewed the May 28 meeting and summarized major comments regarding the scope of work, including the relationship between the CTIP and NACP; the need for focus on all modes; and the need for clarity regarding the nature of Stakeholder participation in the CTIP process.
7) June 16: A Subcommittee of eight Stakeholders met to review the revised scope of work presented by Tony Mazzella of SDOT and Tom Noguchi of Mirai Associates. They discussed elements that should go into the Draft Advice #3 for consideration by the Stakeholders Group on June 24.

Substantive Transportation Issues for Consideration

The Northgate Stakeholders Group recognizes that at this stage the Coordinated Transportation Improvement Plan is a process which enables the orderly and informed consideration of transportation priorities for the Northgate area. The scope of work is intended not to immediately resolve competing approaches, but to make possible their resolution over time. Our judgment is that the CTIP process as currently defined will allow the consideration of these key transportation issues which we have outlined during our meetings. We see part of our role as monitoring the ways in which the CTIP process deals with these issues:

- Consideration of all actions that impact transportation, not just major capital improvements
- Further information on multiple aspects of system performance, including assumptions behind reviews of traffic patterns and volumes, when and where traffic counts are conducted, and criteria for determining appropriate modal shares.
- Inclusion of safety concerns
- Consideration of all possible transportation modes
- Assurances that traffic will not be pushed into neighborhoods, and review of how Northgate Way congestion and responses to it will impact neighborhoods
- Improved flow of arterials
- Significant improvements in the pedestrian system, including incorporation of Planning Commission work on pedestrians
- Understanding of the implications of Park and Ride capacity
- Overall increased improvements to keep pace with projected growth
- Clear definition of the targeted area for planning
- Response to parking and traffic issues related to development of the Lorig property

- Integration between the CTIP scope of work and NACP; clarity regarding the related goals for the Northgate area (transit center, urban center, shopping center, living center) and their implications for transportation planning
- Analysis of parking inventory, the role of the Northgate Employers Network in encouraging use of transit, and the remaining development potential in zoned capacity
- Current and future I-5 access points and need for smooth freeway access
- Connection of the east and west sides of the Northgate area (bifurcated by I-5) by car, bicycle, transit and pedestrian modes of transport, including along Northgate Way
- Development of alternate forms of transportation (e.g. area shuttle service) where existing modes of transport (both vehicular and pedestrian) may be inadequate

The Role of the Northgate Stakeholders Group in the CTIP Process

The Stakeholders Group has identified these keys ways that Stakeholders can be helpful as the planning process is conducted by SDOT staff and consultants. The Stakeholders can:

1) Help prioritize the transportation project list.
2) Identify the relative priority of pedestrians, bikes, autos, and buses.
3) Identify others who should participate in CTIP.
4) Help set and prioritize values.
5) Help balance competing interests.

The scope of work clearly delineates opportunities for the Stakeholders Group to participate in the process. **The Stakeholders Group endorses the CTIP Development Process Chart prepared by SDOT, which provides for five separate review opportunities during the planning process.** That process would begin in August of 2004 and end in December of 2005. It would provide for the participation of the Stakeholder CTIP subcommittee and the full Northgate Stakeholder Group at each of these five stages, which will take place roughly three months apart.

- Assemble Baseline Policies and Technical Assumptions
- Identify Current and Future Needs and Opportunities
- Develop Evaluation Criteria
- Identify Potential Improvements and Prioritize Project/Program Action List
- Develop Implementation Strategies and Recommendations for the Final Report

Early issues that must be confronted with the assistance of the Stakeholders include the extent to which any list of proposed transportation projects should assume financial constraints; the establishment of the concurrency standard which determines how much transportation investment is required in conjunction with development; and the definition of the project area and sub-areas.

In addition to participation in the above five stages, individual Stakeholders will continue to offer their knowledge and technical expertise. Stakeholders will also advise SDOT on CTIP community outreach processes and will participate in those processes where possible.

Northgate Framework Resolution
Advice #5

Date: February 28, 2004

To: Mayor Greg Nickels and Members of the Seattle City Council

From: Ron LaFayette, Chair, and Michelle Rupp, Vice-Chair, on Behalf of the Northgate Stakeholders Group

Subject: STAKEHOLDERS ADVICE #5 Concerning the Northgate Coordinated Transportation Investment Plan (CTIP) Planning, Financing and Technical Assumptions

The resolution establishing the Northgate Stakeholders Group assigned the Stakeholders the task of reviewing and commenting upon the proposed Coordinated Transportation Improvement Plan (CTIP), the process through which the City will determine future transportation investments in the Northgate area. This Advice expands upon Stakeholder comments on the CTIP planning process contained in Advice #3 completed by the Stakeholders on June 24, 2005.

The CTIP process is now underway. The Stakeholders Group and its CTIP Subcommittee provide a principal means for the Seattle Department of Transportation (SDOT) to gain review of its work in progress. *At this stage, SDOT has sought detailed review of the Planning, Financing and Technical Assumptions to be utilized during the planning process.* At later stages, Stakeholders will provide further review of the CTIP's potential improvements, project priorities, and implementation strategies.

SDOT planners and consultants have responded positively to all Stakeholder recommendations on Planning, Financing and Technical Assumptions, as reflected in SDOT's final draft of February 24. Therefore the Stakeholder Group endorses the full utilization of these assumptions in all further stages of the CTIP process.

The Review Process:

The Stakeholders Group reviewed SDOT's development of CTIP Planning, Financing and Technical Assumptions through the following process:

1) SDOT Project Manager Tony Mazzella and consultants from Mirai Associates met with the Stakeholders CTIP Subcommittee on November 16, December 16, and January 11 to conduct detailed review of the draft Planning, Financing and Technical Assumptions document. At each stage, SDOT staff and consultants responded to specific concerns of Subcommittee members and incorporated their suggestions into improved versions of the draft document. At the January 11 Subcommittee meeting, this process was completed and all pending issues were resolved.

2) The Stakeholders Group discussed several CTIP issues and reviewed the progress of the Subcommittee at the November 18, 2004 meeting. At the February 1, 2005 meeting, the Group received a report on the Subcommittee's work and raised further questions regarding the assumptions the report contained. Those questions were responded to in a revised document that was provided to the Stakeholders on February 24.

Transportation Issues for Consideration:

In their review of Planning, Financing and Technical Assumptions, Stakeholders remained mindful of the following transportation issues emphasized at Stakeholders Group meetings. We see part of our role as monitoring the ways in which the CTIP process deals with these issues:

- A look on all actions that impact transportation and not just major capital improvements.
- Further information on multiple aspects of system performance, including assumptions behind reviews of traffic patterns and volumes, when and where traffic counts are conducted, and criteria for determining appropriate modal shares.
- Inclusion of safety concerns.
- Emphasis on all possible transportation modes.
- Assurances that traffic will not be pushed into neighborhoods and review of how Northgate Way congestion and responses to it will impact neighborhoods.
- Improved flow of arterials.
- Significant improvements in the pedestrian system, including incorporation of the Planning Commission work on pedestrian connections.
- Understanding of the implications of Park and Ride capacity.
- Overall increased improvements to keep pace with projected growth.
- Clear definition of the targeted area for planning.
- Response to parking issues related to development of the Lorig property.
- Integration between the CTIP scope of work and NACP; clarity regarding the related goals for the Northgate area (transit center, urban center, shopping center, living center) and their implications for transportation planning.
- Analysis of parking inventory, the role of the Northgate Employers Network in encouraging use of transit, and the remaining development potential in zoned capacity.

Special Issue Emphasis During this CTIP Phase:

Within the context of the above concerns, the Subcommittee discussed with SDOT literally scores of specific issues, including the appropriateness of selected benchmarks and the location of problem traffic areas and dangerous areas for pedestrians. Responses to these concerns have already been incorporated by SDOT into the Planning, Financing, and Technical Assumptions that will now guide the further stages of the CTIP process. Among the issues that have received the greatest attention and must continue to be monitored are:

1. **Future Financing -** The assumptions regarding the availability of financing for transportation improvements should be financially constrained, i.e., limited to amounts that can reasonably expected to be secured.

2. **Impact of Traffic on Residential Areas -** The approach takes into account the interaction of a range of street conditions that might affect livability. These conditions include traffic volume and speed, collision history, pedestrian facilities, school walk routes, pedestrian and bicycle connectivity and unique street features such as street width, sharp curves and parking. Using a weighted scoring system, non-arterial streets will be ranked to help indicate where improvements are warranted. More defined benchmarks may be established later.
3. **East-West Traffic -** The planning process must make possible the evaluation of traffic problems on multiple east-west routes, rather than being focused entirely on north-south issues that understandably receive the greatest attention. Also, although Lake City Way itself is not within the study area, traffic cutting through neighborhoods from Lake City Way will be evaluated.
4. **Monorail and Sound Transit-** The CTIP planning process will neither assume nor preclude the establishment of Monorail or Sound Transit service during the study period. Instead, it will provide the City the baseline information to evaluate impacts and negotiate traffic management investments with either Monorail or Sound Transit whenever these projects materialize.

Cc: Julie Matlick and Tony Mazzella, Seattle Department of Transportation

Northgate Framework Resolution
Advice #8

Date: September 9, 2005

To: Mayor Greg Nickels and Members of the Seattle City Council

From: Ron LaFayette, Chair, and Michelle Rupp, Vice-Chair, on Behalf of the Northgate Stakeholders Group

Subject: STAKEHOLDERS ADVICE #8 CONCERNING EVALUATION CRITERIA FOR THE COORDINATED TRANSPORTATION INVESTMENT PLAN (CTIP)

The resolution establishing the Northgate Stakeholders Group assigned the Stakeholders the task of reviewing and commenting upon the proposed Coordinated Transportation Improvement Plan (CTIP), the process through which the City will determine future transportation investments in the Northgate area. This Advice expands upon previous Stakeholder comments on the CTIP Planning Process (Advice #3, June 24, 2004) and on Planning, Financing and Technical Assistance Assumptions. (Advice #5, February 24, 2005) At a later stage, Stakeholders will provide further review of CTIP project priorities and implementation strategies.

SDOT planners and consultants have responded positively to all Stakeholder recommendations regarding Evaluation Criteria in their draft of June 7, 2005. Therefore the Stakeholder Group endorses the full utilization of these Evaluation Criteria in all further stages of the CTIP process.

The Review Process:

The Stakeholders Group reviewed SDOT's development of CTIP Planning, Financing and Technical Assumptions through several meetings between the Stakeholders CTIP Subcommittee, SDOT Project Manager Tony Mazzella, and consultants from Mirai Associates. Evaluation criteria draft were presented and discussed on March 22, April 26 and May 25. At each stage, Stakeholders provided counsel not only on the nature of the criteria but on issues related to the method of their application. The Subcommittee reported the progress of these discussions at the Stakeholders meeting on April 26.

On June 7, Tony Mazzella of SDOT provided a final draft responding to all Subcommittee concerns. In addition, he provided a memo detailing the differences between the draft CTIP Evaluation Criteria and the evaluation process developed for Seattle's Capital Improvement Program. After receipt and review of the draft and accompanying memo, the Stakeholders approved the Advice on Evaluation Criteria at their July 12 meeting, with 15 members in support and one member opposed. This member's minority opinion follows the advice.

Critical Elements of the Evaluation Criteria:

The CTIP Evaluation Criteria utilize a weighing system to determine the impact of proposed projects in the CTIP study area. As the Evaluation Criteria draft explains, these criteria include:

1. Safety
2. Neighborhood livability
3. Pedestrian mobility
4. Bicycling mobility
5. Transit rider mobility
6. Auto driver mobility
7. Cost-effectiveness and implementation feasibility
8. Housing and economic development
9. Infrastructure preservation/maintenance
10. Environmental sustainability

These criteria differ from those used in the City's Capital Improvement Program (CIP) in three critical ways.

- The CTIP Evaluation Criteria does not incorporate the Comprehensive Plan/ Urban Village land use strategy criteria, since the CTIP assumes that all potential improvements identified through the CTIP process would support this CIP criterion.
- The CTIP process adds a specific criteria for Neighborhood Livability, based upon such objectives as a) reduce excessive through-traffic volumes on residential streets; b) minimize increased traffic volumes on adjacent streets as a result of any action that is proposed; c) keep vehicle speeds at 25 mph or less on residential streets, and d) reduce risks of pedestrian and bicycle collisions with vehicles on arterials and residential streets.
- The CTIP Evaluation Criteria separates the mobility category among the transportation modes: auto, pedestrian, bicycle, and transit. The CIP evaluates mobility overall.

Minority Report

This Minority Report is submitted in response to the concerns expressed at the July, 2005 Stakeholder's Meeting with regard to the percentages assigned to various design elements identitifed by the Transportation Sub-Committee. Rather than relegating 5% of the design considerations to environmental factors, we believe it is appropriate to remove this percentage designation and instead, assess all built structures globally in terms of their net improvement or negative impact upon the Northgate environment.

In many citizen forums over the years, it has been repeatedly acknowledged that Northgate can be developed in a win-win fashion. That is, development can be designed which reflects the community's strong environmental values, and still yield economic return to the property owners. The same philosophy should be applied to the City's own developments or redevelopments at Northgate.

What we propose, rather than a "wink" at environmental sensitivity, is for each new project to be rated in terms of it's relative improvement to the environment. For example, when sidewalks are expanded or improved, there is a better pedestrian environment created. The encouragement to navigate the Northgate area on foot will result in fewer car trips for errands or destinations which can be linked in a more attractive and usable sidewalk system. The same can be said of drainage designs which incorporate the natural systems or enhance the environment for plants, animals and people alike. The Lorig development for the South Lot is the best example of this approach. As new developments come on line, or are evaluated for permitting, it would be better to make an effort to invite the respective developers to state HOW their proposal benefits the environment, rather than to give them the message that they need only make a 5% effort on environmental protection measures.

The benefit to this approach would be to encourage maximum environmental consciousness, and greater aggregate gains than we will see if every project is just relegated to the "groan - OK, how do we target the 5%" mentality.

We also believe that "Sustainability" applies to all the categories and one could easily make a logical point that the environment applies to every area and should be an overlying responsibility for all developments or project, not just an afterthought. For example considering the overall impact to our area from the high price of fuel (including new impacts from Hurricane Katrina), for instance, thought should be given to how each project proposes to operate efficiently. There are many areas that could be equally evaluated by the City when permitting or planning is done for the Norhtgate neighborhoods.

Janet Way, Thornton Creek Legal Defense Fund Representative, and Jan Brucker, Alternate

Date: July 5, 2006

To: Mayor Greg Nickels and Members of the Seattle City Council

From: Ron LaFayette, Chair, and Michelle Rupp, Vice-Chair, on Behalf of the Northgate Stakeholders Group

Subject: STAKEHOLDERS ADVICE #9 CONCERNING THE COORDINATED TRANSPORTATION INVESTMENT PLAN (CTIP)

The resolution establishing the Northgate Stakeholders Group assigned the Stakeholders the task of reviewing and commenting upon the proposed Coordinated Transportation Investment Plan (CTIP). The CTIP represents the framework through which the City will carry out future transportation investments in the Northgate area.

Because of the critical role transportation investment plays in Northgate area redevelopment, Stakeholders have devoted a considerable amount of time to responding to CTIP proposals and drafts presented by the Seattle Department of Transportation (SDOT). Formal Advice has been provided to SDOT, the Mayor and City Council in three separate instances:

- On June 24, 2004, Stakeholders accepted the CTIP scope of work, including a plan for Stakeholder participation in the planning process.
- On February 28, 2005, Stakeholders recognized SDOT's response to Stakeholder recommendations and endorsed CTIP Planning, Financing and Technical Assumptions.
- On September 9, 2005, Stakeholders again recognized SDOT responses and endorsed the full utilization of the Department's Evaluation Criteria in all further stages of the CTIP process. The application of these criteria would subsequently aid in determining which possible street, bicycle and pedestrian improvements would be given highest priority.

The Stakeholders did not complete discussion on point-triggers for residential streets and welcome continued discussions with SDOT on this issue.

SDOT has now completed the draft Coordinated Transportation Improvement Plan and an accompanying Environmental Impact Statement.

Having reviewed the plan at each stage, the Stakeholders endorse it as the next major step in guaranteeing appropriate and sufficient transportation investment in the Northgate area. Directed by this plan, the City now must take these critical steps to guarantee that transportation priorities are achieved:

(1) Secure the necessary financial resources

(2)Recognize and respond to the impacts of new development

(3) Lower the thresholds for remedial actions for residential streets by re-examining the weighted-point system, providing greater weight for traffic volumes and speeds

(4) Ensure that implementation on residential streets at the thresholds will be a high priority within SDOT and the CTIP

(5) Ensure that the mitigations for residential streets will be of sufficient and serious nature to overcome the specific traffic related problems which the thresholds identify and that they are a part of the annual CTIP report and monitoring

(6) Separate the enforcement issue of speed violations from traffic volumes; specifically, put more officers on the problem streets. Ensure that the Seattle Police Department and SDOT will coordinate actions to address speed and parking problems on residential streets

The Stakeholders reviewed this draft CTIP plan at CTIP Subcommittee meetings on May 18, 2006 and May 30, 2006 and at a Stakeholders Group meeting on May 9, 2006. Stakeholders completed deliberation at their June 27, 2006 meeting.

Throughout the CTIP development process, the Stakeholders and our CTIP Subcommittee have emphasized several major points with regard to our goals for multimodal transportation in Northgate. All of these were addressed to some extent in the draft plan; however, they deserve further discussion and consideration before implementation of the CTIP. These include:

- Response to the impact of traffic on both commercial and residential areas in a way that will advance both economic vitality and quality of life
- The need to improve pedestrian safety and mobility through the area
- The need to improve East-West connections (including walkability of the Northgate Way I-5 underpass) as well as the improvements in North-South arterials
- Emphasize not just investment in major capital improvements but in all transportation modes
- The need to construct an expanded walkway connecting the Northgate shopping areas, Transit Center and transportation options with North Seattle Community College

Stakeholder review of the draft CTIP has underscored the nature of this Plan as a blueprint requiring future actions to make it come alive. Prior to CTIP's completion, however, the following specific steps must be addressed:

1) Responding to Unforeseen Impacts
CTIP calls for improvements in arterials and signalization in order to anticipate traffic increases generated by new commercial projects. The impact of these improvements on all commercial and residential areas must be monitored. It is, however, impossible to predict all of the impacts of new development on residential streets, because traffic on those streets is monitored less frequently. Thus, Stakeholders call for SDOT to adopt as a standard operating procedure a more proactive system to identify and respond to residential streets that are experiencing problematic traffic volume increases.

2) Guaranteeing Sufficient Funding
The draft CTIP has identified a number of funding sources that must be drawn upon in order to realize the transportation investment priorities identified by the Plan. Thus, the order of projects pursued will depend in part on the availability of special funding and is not fully predictable. The Stakeholders call upon the City to increase its own levels of transportation investment and aggressively seek regional, state, and federal funding to make certain all high priority projects are completed.

3) Building Sidewalks
SDOT has noted that sidewalk projects are often difficult to fund without related improvements to arterials. Stakeholders call for the CTIP to increase the dedicated fund SDOT now draws upon for these improvements.

4) Monitoring Progress
Because the success of CTIP is wholly dependent on its effective implementation, the Stakeholders call for the formulation of an annual progress report process whereby SDOT and the City report their CTIP-related actions to the Stakeholders and thus the community. This process should be used to review the extent to which each element of the CTIP is being fully attended to and to gain comment on any major actions that were not anticipated in the Plan. The creation of such a process will also provide executive and legislative officials with information on the extent to which progress has been made that they can use in subsequent decision making, including transportation funding decisions.

The monitoring process should include these steps:

- The SDOT director should designate the person who will carry out the annual assignment to prepare the report on behalf of the agency and the City.

- The report should detail the specific actions taken during the previous year on the projects prioritized in the CTIP; the actions expected to be taken in the upcoming year; and what is anticipated in ensuing years. This would enable the Stakeholders and Northgate community to formally assess the extent to which the plan has been implemented.

- The report should also evaluate the funding streams currently available for CTIP projects; identify any changes in levels of anticipated funding; and describe the steps being taken to secure sufficient funding.

- The report should be provided to the Stakeholders in advance of the scheduled Stakeholder meeting for review by the CTIP subcommittee and ultimate review of the Stakeholder group.

- The results of the Stakeholder review should be communicated to SDOT, the Mayor and the City Council.

5) Managing Parking

The CTIP includes a number of proposals developed by the Department of Planning and Development and SDOT to adjust parking regulations to match requirements in other commercial zones of the city. Stakeholders object to any modifications to parking requirements that could potentially lead to spillover parking in residential neighborhoods and continue to support modifications that facilitate innovative parking solutions. CTIP also provides for ongoing review of on-street parking restrictions developed by SDOT in conjunction with residential neighborhoods. The Stakeholders have been assured that such reviews will continue to incorporate the neighborhoods' views about maintaining or strengthening restrictions to ensure the spaces are available for use by adjacent residential properties.

6) Meeting Bicyclists' Needs

The CTIP is just the beginning of an important effort to identify and attend to the transportation needs of Northgate area bicyclists. Because bicyclists' needs are often distinct from those of pedestrians and motorized vehicles, CTIP should focus on the development of a Bike Master Plan by SDOT.

Appendix 1-6.

CTIP Newsletters

NORTHGATE
Revitalization
Good things are happening at Northgate.

"Great things are happening at Northgate. And we're working hard to improve transportation that serves this great neighborhood."

-Mayor Greg Nickels

City of Seattle
Seattle Department of Transportation
700 Fifth Avenue, Suite 3900
Seattle, WA 98104-5043

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Winter 2004
Volume 1, Issue 1

NORTHGATE Revitalization

Good things are happening at Northgate.

What can a plan do for you?

Northgate Benefits
CTIP recommendations improve the Northgate area and make the neighborhood a more appealing regional destination.

Get Seattle moving
Creates a more balanced transportation network between all travel modes

Keep streets safe
Identifies traffic calming measures

Help build strong, healthy communities
Follows the Northgate Area Comprehensive Plan's overarching goals of enhanced access and prioritizing the movement of people and goods

Investing in Transportation for Northgate

The City of Seattle is investing in Northgate to revitalize one of Seattle's major Urban Centers. Work is already underway on the Northgate Coordinated Transportation Investment Plan (CTIP)—a plan to implement improvements for walking, bicycling, transit and automobiles. Enhanced access combined with good vehicle and pedestrian circulation will contribute to the economic viability of the commercial core, attracting customers, visitors and employers. The results of the CTIP will recommend projects and programs that support the creation of a dynamic regional shopping and commercial center with dense multifamily development surrounded by a low density residential base. This is the first of a series of newsletters you will receive over the next year updating you on progress and opportunities to participate.

An Action Plan

Northgate is an urban center with a lot of growth potential. The City of Seattle wants to help make sure transportation supports this growth. The CTIP is a tool to guide the Mayor and City Council when investing transportation dollars in Northgate. The plan will also steer transportation solutions as new development occurs. SDOT is working closely with the Northgate Stakeholder Group to prepare solutions to accommodate new development. The Stakeholder Group consists of 22 members and is made up of a variety of interests including: neighborhoods, property owners, businesses, labor and environmental/recreational organizations. Currently the team is reviewing past studies and collecting data on existing conditions. SDOT and the planning team are working with the community to identify existing opportunities and analyze future needs. An Environmental Impact Statement evaluating impacts of projected growth and transportation improvement proposals will be prepared once specific alternatives have been developed.

Setting Priorities

The investment plan will lay out a prioritized transportation project list, costs and funding strategy for the City and community. Consideration will be given to future planned Monorail and Link Light Rail extensions to Northgate. Recommended projects may be implemented by the City of Seattle, other regional transportation agencies, or other public agencies and private developers. The project list may include:

- Intersection improvements
- Pedestrian and bicycle routes
- Neighborhood traffic calming projects
- Demand Management Strategies such as carpooling incentives
- Delivery truck and transit access and mobility improvements

Stay Involved

The plan can't be a success without your input. There are many ways to get involved.

- Visit our Web site for updates or join the project e-mail listserve at http://www.seattle.gov/transportation/nctip.htm
- Watch your mail for newsletters
- Attend community forums
- Invite city staff to give a briefing

Doing Our Homework

	Fall 2004	Winter 2005	Spring 2005	Summer 2005	Fall 2005
Technical Work	• Identify existing and future needs	• Develop evaluation criteria • Identify potential projects	• Prioritize project list	• Prepare environmental documentation	• Finalize plan
Listening to You	• Newsletter • Community group briefings • Community forum (Nov. 9) • Coordinated transportation	• Stakeholders group meeting • Speakers bureau	• Stakeholders group meeting • Newsletter • Community forum	• Stakeholders group meeting • EIS hearing • Speakers bureau	• Newsletter

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Need More Information?

I would like a project speaker to address my group

Name _____

Address _____

City _____ Zip _____

Day phone _____ Evening _____

E-mail _____

OR, contact Tony Mazzella at 206.684.0811 or e-mail tony.mazzella@seattle.gov

Please cut along the dotted lines and put in envelope with postage and mail to:

Tony Mazzella
SDOT Project Manager
700 Fifth Avenue, Suite 3900
P.O. Box 34996
Seattle, Washington 98124-4996

cut along dotted line

NORTHGATE Revitalization

Good things are happening at Northgate.

Interested in reading more?

To learn more about these projects,

visit our Web site at
http://www.seattle.gov/transportation/nctip.htm

To ask questions or make comments on the proposed projects and EIS:

- Attend the upcoming community forum on October 20 from 7:00 to 8:30 p.m. at the North Seattle Community College Cafeteria. This meeting will also be a scoping meeting for the EIS on the plan's proposed alternatives, potential environmental impacts and mitigation measures.
- E-mail your comments to: tony.mazzella@seattle.gov or in writing to: Tony Mazzella, City of Seattle Department of Transportation, P.O. Box 34996, Seattle, WA 98124-4996. E-mails must be received by and written comments must be postmarked by Friday, November 4, 2005.
- If you would like City staff to present to your group, call Tony Mazzella, Project Manager at 206-684-0811.

City of Seattle
Seattle Department of Transportation
P.O. Box 34996
Seattle, WA 98124-4996

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Fall 2005
Volume 1, Issue 2

NORTHGATE Revitalization

Good things are happening at Northgate.

Choosing the Right Projects

Northgate Benefits

The Northgate Coordinated Transportation Investment Plan project team worked with the community to identify important transportation issues, and then developed potential projects to address them. These projects meet the plan's goals, which are:

- Improve safety for all users of the transportation system
- Keep people moving to and through the neighborhood
- Support neighborhood livability
- Improve transit service
- Help business development
- Relieve congestion

Choices to Keep People Moving in Northgate

Northgate is in an exciting period of change. New retail space, a cinema and an enhanced Thornton Creek means more jobs for the community, more housing, and more public open space. The new civic center – including library, community center and park – and changes to the parking lot south of Northgate Mall are helping create a dynamic urban center surrounded by a thriving residential community.

Growth and change generate new transportation needs. To address these issues, we must make improvements for all types of travel – walking, riding bikes, taking the bus, and driving – to ensure Northgate residents and visitors can safely move around now and in the future. Look inside for more information.

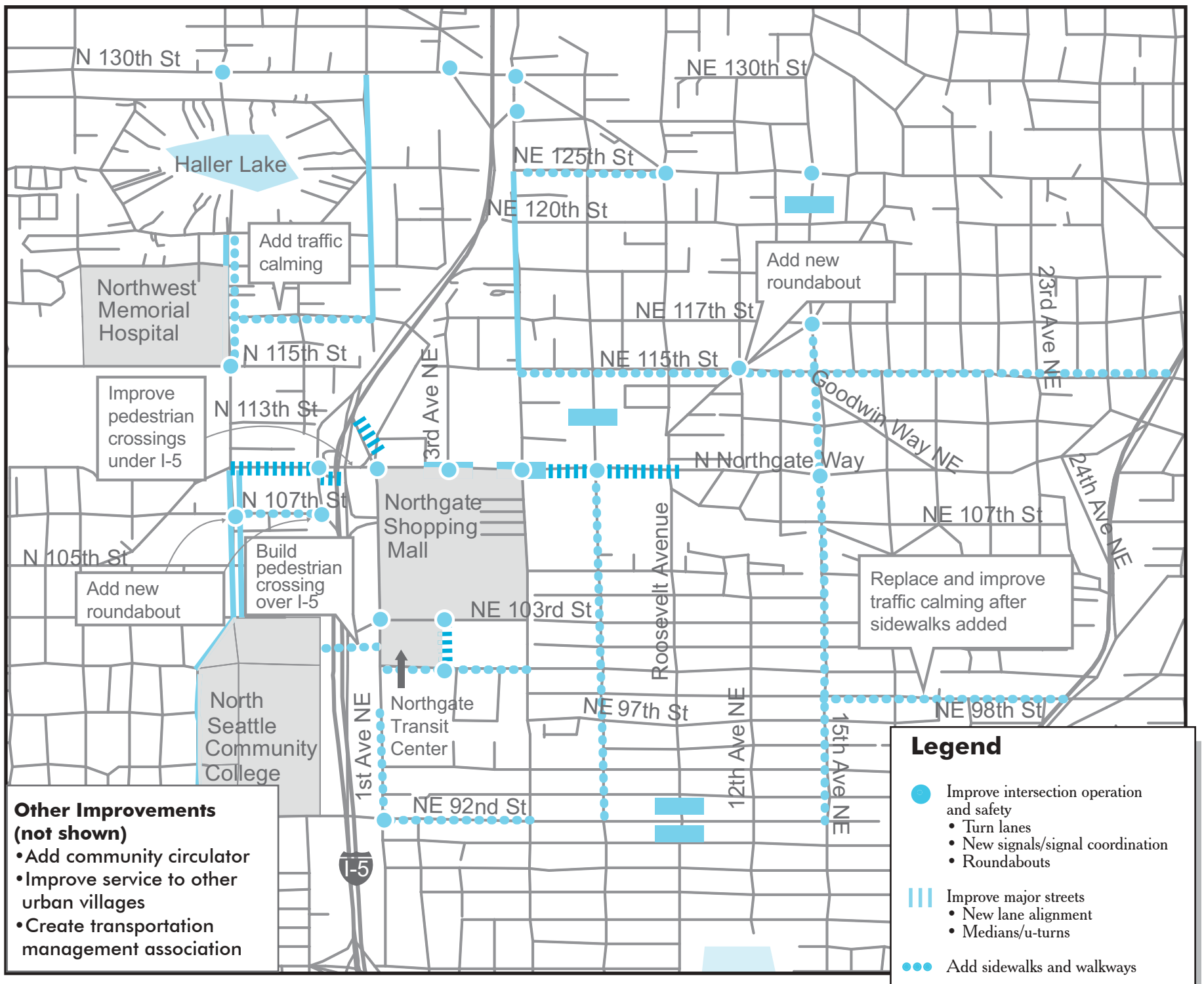
Proposed Northgate Commons seen from NE 103rd St.

Help Us Make Decisions

After conducting a thorough analysis of current conditions and future growth demands in the year 2030 and reaching out to the community, SDOT developed a draft list of transportation improvements. These projects reflect community priorities and City policies and goals. We want to hear what you think about these potential projects and help us choose which ones should be a part of the plan. Selection of priority projects will be based on your input, as well as factors such as feasibility, safety, and cost.

A draft Environmental Impact Statement and Coordinated Transportation Investment Plan will be available early next year. A community forum meeting on October 20 will serve as the official scoping meeting for the EIS. More information about the meeting and how to provide comments on the plan's proposed alternatives, potential environmental impacts, and mitigation measures are on the back of this newsletter. The final plan will be produced in Spring 2006. With your help, the end result will meet the community's needs and make way for a brighter future for Northgate. For now, please take a look at the map below to see where the improvements are proposed.

Pedestrian and vehicles share Northgate Way.



Moving Forward With Your Help

	Fall 2004	Winter 2005	Spring 2005	Fall 2005	Winter 2006	Spring 2006
Technical Work	• Identify existing needs	• Identify future needs	• Develope evaluation criteria	• Identify potential projects • Evaluate and prioritize preliminary project list • Begin EIS scoping	• Produce draft EIS and CTIP	• Final CTIP and EIS released
Listening to You	• Newsletter • Community group briefings • Community forum • Comment sheet	• Stakeholders group meeting • Speakers' bureau	• Stakeholders group meeting • Newsletter • Community forum	• Newsletter • Stakeholder group meeting • Community forum/ scoping meeting (October 20) • Speakers' bureau	• Community forum • Speakers' bureau	• Community forum

Appendix 1-7.

CTIP Technical Advisory Team

Appendix 1-7. CTIP Technical Advisory Group

CTIP PROJECT ADVISORY TEAM

(in alphabetical order)

Matt Aho, King County/Metro
Mark Bandy, Washington State Department of Transportation
Jeff Bender, City of Seattle, Department of Transportation
Lyle Bicknell, City of Seattle, Department of Planning and Development
Ron Borowski, City of Seattle, Department of Transportation
Dorinda Costa, City of Seattle, Department of Transportation
Ron Endlich, Sound Transit
Bill Gilchrist, King County/Metro
Sandy Gurkewitz, City of Seattle, Department of Transportation
Phil Harrision, Sound Transit
Megan Hoyt, City of Seattle, Department of Transportation
Carol Hunter, Washington State Department of Transportation
Mike Johnson, City of Seattle, Department of Transportation
Brian Kemper, City of Seattle, Department of Transportation
Jackie Kirn, City of Seattle, Office of Policy and Management
Kristian Kofoed, City of Seattle, Department of Planning and Development
Gary Kriedt, King County/Metro
Peter Lagerwey, City of Seattle, Department of Transportation
Irin Limargo, King County/Metro
Tony Mazzella, City of Seattle, Seattle Department of Transportation
Julie Mercer Matlick, City of Seattle, Department of Transportation
Mike Podowski, City of Seattle, Department of Planning and Development
Ron Posthuma, King County/Metro
Susan Sanchez, City of Seattle, Department of Transportation
Dawn Schellenberg, City of Seattle, Department of Transportation
John Shaw, City of Seattle, Department of Planning and Development
Bob Tobin, City of Seattle, Law Department
Pauh Wang, City of Seattle, Department of Transportation
Wayne Wentz, City of Seattle Department of Transportation

Appendix 3-1.

Intersection and Midblock Crossing Existing Conditions

Appendix 3-1. Intersection and Midblock Crossing Existing Conditions

Intersections

NE Northgate Way	Corliss Ave N/I-5 S Ramps		1st Ave NE/I-5 Ramp		NE 3rd St/ Northgate Dr		NE 5th St		8th Avenue NE	
	N/S	E/W	N/S	E/W	N/S	E/W	N/S	E/W	N/S	E/W
Crossing Width (ft)	43	57	72	68	39	65	71	59	45	58
Refuge Space	Y	N	N	N	N	Y	N	N	N	Y
On-Street Parking	N	N	N	N	N	N	N	N	N	Y
Audible Crossing	N	N	N	Y	N	N	N	N	N	N
Lighting	4	4	4	4	4	4	4	4	4	4
Pedestrian Accidents (5 Yr Annual Average)	0.6		0		0.2		0.6		0.4	
Average Daily Volumes	45,000		56,063		33,500		45,313		33,775	
Conflicting Turning Volumes (PM Peak Hour)	475	380	475	380	305	10	620	755	110	312
Conflicting Turning Volumns(Average Daily Traffic)	5,938	4,750	5,938	4,750	3,813	125	7,750	9,438	1,375	3,900
Percent of Average Daily Traffic	13%	11%	11%	8%	11%	0%	17%	21%	4%	12%

5th Avenue NE	NE 112th St		NE Northgate Way		NE 106th St		NE 103rd St		NE 100th St	
	N/S	E/W	N/S	E/W	N/S	E/W	N/S	E/W	N/S	E/W
Crossing Width (ft)	68	44	71	59	62	77	55	52	41	45
Refuge Space	N	N	N	N	N	N	N	N	N	N
On-Street Parking	N	N	N	N	N	N	N	N	Y	Y
Audible Crossing	N	N	N	N	N	N	N	N	N	N
Lighting	4	4	4	4	4	4	4	4	4	4
Pedestrian Accidents (5 Yr Annual Average)	0.2		0.6		0		0		0.2	
Average Daily Volumes	9,600		45,312		16,000		14,500		13,280	
Conflicting Turning Volumes (PM Peak Hour)	280	30	620	755	245	225	415	155	163	435
Conflicting Turning Volumns(Average Daily Traffic)	3,500	375	7,750	9,438	3,063	2,813	5,188	1,938	2,038	5,438
Percent of Average Daily Traffic	36%	4%	17%	21%	19%	18%	36%	13%	15%	41%

Roosevelt Way NE	NE 112th St		NE Northgate Way		NE 95th Street	
	N/S	E/W	N/S	E/W	N/S	E/W
Crossing Width (ft)	68	44	71	59	47	30
Refuge Space	N	N	N	N	N	N
On-Street Parking	N	N	N	N	Y	Y
Audible Crossing	N	N	N	N	N	N
Lighting	4	4	4	4	3	3
Pedestrian Accidents (5 Yr Annual Average)	0		0.4		0	
Average Daily Volumes	15,890		39,938		12,310	
Conflicting Turning Volumes (PM Peak Hour)	106	82	635	458	67	74
Conflicting Turning Volumns(Average Daily Traffic)	1,325	1,025	7,938	5,725	838	925
Percent of Average Daily Traffic	8%	6%	20%	14%	7%	8%

Key to Lighting Ratings	4. Excellent = More than one lamppost on every block. 3. Very Good = Unobstructed lighting every block. 2. Fair = Lampposts up to three blocks apart or obstructed lighting 1. Poor = Lampposts three or more blocks apart.

Appendix 3-1. Intersection and Midblock Crossing Existing Conditions

Midblock Crossings

Location	Roosevelt Way NE		Roosevelt Way NE		15th Avenue NE		15th Avenue NE	
to/from	NE 112th St	NE Northgate Way	NE 92nd St	NE 88th St	NE 125th St	NE 117th St	NE Northgate Way	NE 92nd
crossing width (ft)	36		44					
refuge space	Y		N		N		N	
on-street parking	N		Y		Y		Y	
lighting	4		4		4		4	
pedestrian accidents (5 yr annual average)	0		0		2		1	
average daily volume	17,160		10,890		16,110		10,890	

Location	Meridian Avenue N		8th Avenue NE		NE Northgate Way	
to/from	N 105th St	N 103rd St	Post Office	NE Northgate Way	7th Ave NE	5th Ave NE
crossing width (ft)	44		40		58	
refuge space	N		N		N	
on-street parking	Y		Y		N	
lighting	4		3		4	
pedestrian accidents (5 yr annual average)	0		0		0.2	
average daily volume	9,760		4,430		32,180	

Key to Lighting Ratings	4. Excellent = More than one lamppost on every block. 3. Very Good = Unobstructed lighting every block. 2. Fair = Lampposts up to three blocks apart or obstructed lighting 1. Poor = Lampposts three or more blocks apart.

Appendix 3-2.

Arterial Sidewalks and School Walk Routes Existing Conditions

Appendix 3-2. Arterial Sidewalks and School Walk Routes Existing Conditions

Analysis of Pedestrian Connections from Neighborhoods to the Urban Center

Street	Boundaries		Street	Sidewalks					Comments
	N/E	S/W	Length (mi)	Width (ft)	% Coverage	Side	Lighting	Side	
15th Avenue NE	Pinehurst Way NE	NE Northgate Way	0.41	4	50%	East	4	Both	Partial narrow sidewalk on both sides, no west side sidewalk, south of 115th
15th Avenue NE	NE Northgate Way	NE 104th Street	0.31	4	50%	East	4	East	
15th Avenue NE	NE 91st Street	NE 85th Street	0.31	4	100%	Both	4	West	
15th Avenue NE	NE 130th Street	Pinehurst Way NE	0.59	10+	100%	Both	4	Both	West side smaller with trees, both sides high quality
15th Avenue NE	NE 104th Street	NE 91st Street	0.63	4	25%	Both	4	East	Sidewalks barely visible, nonexistent in parts.
1st Place NE	NE 117th Street	NE 113th St	0.20	5	50%	East	4	Both	
1st Avenue NE	NE 130th Street	NE 117th Street	0.63	4	50%	West	4	East	
5th Avenue NE	NE 95th Street	NE 85th Street	0.50	5+	100%	Both	4	Both	Eastside narrower, grown over, westside pretty good
5th Avenue NE	NE 130th Street	NE 125th Street	0.25	4	50%	East	2	Both	
5th Avenue NE	NE 125th Street	NE 112th Street	0.66	4	100%	Both	2	Both	West side overgrown.
Corliss Avenue N	NE 128th St	NE 122nd St	0.39	5	50%	West	4	East	Wide area, but paved sidewalk is uneven
Densmore Avenue N	NE 128th St	NE 122nd St	0.36	5	50%	West	4	East	and warped, barely visible. Improves north of 125th.
Meridian Avenue N	NE 130th Street	N 128th St	0.16	4	50%	West	2	East	4 foot wide paved path on west side. Lighting obstructed by trees.
Meridian Avenue N	NE 122nd Street	NE 115th Street	0.33	4	50%	East	4	East	4 foot wide paved path on east side.
Meridian Avenue N	NE 115th Street	NE 111th Street	0.19	5	100%	Both	4	Both	North sidewalk is cracked from roots. Near
N Northgate Way	Ashworth Avenue NE	N 107th Street	0.20	5	100%	Both	3	Both	Ashworth sidewalk becomes narow and unrecognizable.
NE 122nd Street	Densmore Avenue N	Corliss Avenue N	0.30	5	50%	North	4	North	Good quality, parking room on southside, eastern 200ft narrower with guardrail.
NE 125th Street	Roosevelt Way NE	Lake City Way NE	1.05	10 & 5	100%	Both	4	Both	Cracked in places. Trees and light poles impede path.
NE 125th Street	Ashworth Avenue NE	Densmore Avenue N	0.29	4	50%	South	4	North	
NE 128th Street	Densmore Avenue N	Corliss Avenue N	0.30	4+	50%	Both	4	North	Narrow at times, large parking area, fairly flat.

Appendix 3-2. Arterial Sidewalks and School Walk Routes Existing Conditions

Analysis of Pedestrian Connections from Neighborhoods to the Urban Center (Continued)

	Boundaries		Street	Sidewalks					
Street	N/E	S/W	Length (mi)	Width (ft)	% Coverage	Side	Lighting	Side	Comments
NE 92nd Street	CollegeWay NE	Wallingford Avenue N	0.07	4	100%	Both	4	South	Northside has over grown foliage, car park on path bothsides.
NE 92nd Street	1st Avenue NE	3rd Avenue Ne	0.25	4	100%	Both	4	Both	
NE Northgate Way	24th Avenue NE	Lake City Way NE	0.19	6	50%	North	4	Both	
NE Northgate Way	12th Avenue NE	24th Avenue NE	0.77	5+	100%	Both	4	Both	North side uneven, cracked roots
Pinehurst Way NE	NE 117th Street	15th Avenue NE	0.35	4	100%	Both	4	Both	Very narrow in parts, trees overgrown, east side better.
Roosevelt Way NE	NE 95th Street	NE 85th Street	0.57	10	100%	Both	4	East	
Roosevelt Way NE	NE 130th Street	NE 114th Street	0.91	4	100%	Both	4	Both	
Wallingford Avenue N	NE 92nd Street	NE 85th Street	0.38	4	100%	Both	4	East	Sidewalks have a few small segments missing.

Lighting	4: Excellent = More than one lamppost on every block. 3: Very Good = Unobstructed lighting every block. 2: Fair = Lampposts up to three blocks apart or obstructed lighting 1: Poor = Lampposts three or more blocks apart.

Appendix 3-2. Arterial Sidewalks and School Walk Routes Existing Conditions

West Sector Analysis of Pedestrian Connections

Street	Boundaries		Street		Sidewalks					Comment
	N/E	S/W	Length (ft)	Length (mi)	Width (ft)	% Coverage	Side	Lighting	Side	
NE 128th Street	Densmore Avenue N	Corliss Avenue N	1561	0.30	4+	50%	Both	4	North	Narrow at times, large parking area, fairly flat
NE 125th Street	Ashworth Avenue NE	Densmore Avenue N	1555	0.29	4	50%	South	4	North	Wide area, but paved sidewalk is uneven, barely visible. Improves north of 125th
Densmore Avenue N	NE 128th St	NE 122nd St	1898	0.36	5	50%	West	4	East	
Corliss Avenue N	NE 128th St	NE 122nd St	2039	0.39	5	50%	West	4	East	
NE 122nd Street	Densmore Avenue N	Corliss Avenue N	1560	0.30	5	50%	North	4	North	Good quality, parking room on eastern 200ft; guardrail.
Meridian Avenue N	NE 130th Street	N 128th St	843	0.16		0%		2	East	4 foot wide paved path on west side. obstructed by trees
Meridian Avenue N	NE 122nd Street	NE 115th Street	1763	0.33		0%		4	East	4 foot wide paved path on east side.
Meridian Avenue N	NE 115th Street	NE Northgate Way	1323	0.25	5	100%	Both	4	Both	
Meridian Avenue N	NE Northgate Way	College Way N/100th	1986	0.38	4	100%	Both	4	Both	Trees and utility poles block passage.
College Way N	Meridian Avenue /100th	NE 92nd Street	2738	0.52	8	50%		4	Both	Westside lacks sidewalk, only dir trail.
Wallingford Avenue N	NE 92nd	NE 85th Street	1991	0.38	4	100%	Both	4	East	Sidewalks have a few small segments missing
NE 92nd Street	1st Avenue N	College Way NE	962	0.18	4	100%	Both	4	South	North side has over grown foliage, cars park on path
NE 92nd Street	College Way NE	Wallingford Avenue N	363	0.07	4	100%	Both	4	South	North side has over grown foliage, cars park on path
1st Avenue NE	NE 130th Street	NE 117th Street	3317	0.63	4	50%	West	3	East	
1st Avenue NE	NE 117th Street	NE Northgate Way	1235	0.23	5	50%	East	4	Both	North sidewalk is cracked from roots.
N Northgate Way	Ashworth Avenue NE	1st Avenue NE	3923	0.74	5	100%	Both	3	Both	Ashworth sidewalk becomes narrow and unrecognizable

Lighting	4: Excellent = More than one lamppost on every block. 3: Very Good = Unobstructed lighting every block. 2: Fair = Lampposts up to three blocks apart or obstructed lighting 1: Poor = Lampposts three or more blocks apart.

Appendix 3-2. Arterial Sidewalks and School Walk Routes Existing Conditions

North Sector Analysis of Pedestrian Connections

	Boundaries		Street		Sidewalks					
Street	N/E	S/W	Length (ft)	Length (mi)	Width (ft)	% Coverage	Side	Lighting	Side	Comment
5th Avenue NE	NE 130th Street	NE 125th Street	1325	0.25	4	50%	East	2	Both	
5th Avenue NE	NE 125th Street	NE Northgate Way	3974	0.75	4	100%	Both	2	Both	West side overgrown.
Roosevelt Way NE	NE 130th Street	NE 113th Street	4875	0.92	4	100%	Both	4	Both	
Roosevelt Way NE	NE 113th Street	NE Northgate Way	704	0.13	10	100%	Both	4	Both	
Pinehurst Way NE	Roosevelt Way NE	15th Avenue NE	1990	0.38	4	100%	Both	4	Both	Very narrow in parts, trees overgrown, east side better.
15th Avenue NE	NE 130th Street	Pinehurst Way NE	3123	0.59	10+	100%	Both	4	Both	Partial sidewalk with trees on both sides, very narrow
15th Avenue NE	Pinehurst Way NE	NE Northgate Way	2168	0.41	4	50%	East	4	Both	South of 115th no west sidewalk East sidewalk very narrow
NE 125th Street	Roosevelt Way NE	Lake City Way NE	5534	1.05	10 & 5	100%	Both	4	Both	Cracked in places. Trees and light poles impede path.

Lighting	4: Excellent = More than one lamppost on every block. 3: Very Good = Unobstructed lighting every block. 2: Fair = Lampposts up to three blocks apart or obstructed lighting 1: Poor = Lampposts three or more blocks apart.

Appendix 3-2. Arterial Sidewalks and School Walk Routes Existing Conditions

South Sector Analysis of Pedestrian Connections

	Boundaries		Street		Sidewalks					
Street	N/E	S/W	Length (ft)	Length (mi)	Width (ft)	% Coverage	Side	Lighting	Side	Comments
1st Avenue NE	NE Northgate Way	NE 92nd Street	4640	0.88	10	50%	East	3	Both	Widens near Northgate
5th Avenue NE	NE Northgate Way	NE 85th Street	6638	1.26	5+	100%	Both	4	Both	Eastside narrower, grown over, westside pretty good
Roosevelt Way NE	NE Northgate Way	NE 95th Street	3647	0.69	8	100%	Both	4	West	Lots of trees make it very narrow in parts; roots, cracks
Roosevelt Way NE	NE 95th Street	NE 85th Street	2989	0.57	10	100%	Both	4	East	
15th Avenue NE	NE Northgate Way	NE 104th Street	1661	0.31	4	50%	East	4	East	
15th Avenue NE	NE 104th Street	NE 91st Street	3316	0.63	4	25%	Both	4	East	Sidewalks barely visible, nonexistent in parts.
15th Avenue NE	NE 91st Street	NE 85th Street	1659	0.31	4	100%	Both	4	West	
NE Northgate Way	1st Avenue NE	24th Avenue NE	6183	1.17	5+	100%	Both	4	Both	North side uneven, cracked roots
NE Northgate Way	24th Avenue NE	Lake City Way NE	999	0.19	6	50%	North	4	Both	
NE 103rd Street	1st Avenue NE	3rd Avenue NE	1324	0.25	5	100%	Both	4	Both	
NE 100th Street	1st Avenue NE	3rd Avenue NE	1324	0.25	5	100%	Both	4	Both	Dirt trail on north side.
NE 92nd Street	1st Avenue NE	3rd Avenue NE	1323	0.25	4	100%	Both	4	Both	

Lighting	4: Excellent = More than one lamppost on every block. 3: Very Good = Unobstructed lighting every block. 2: Fair = Lampposts up to three blocks apart or obstructed lighting 1: Poor = Lampposts three or more blocks apart.

Appendix 3-2. Arterial Sidewalks and School Walk Routes Existing Conditions

Urban Center Analysis of Pedestrian Connections

Street	Boundaries		Street	Sidewalks					Comments
	N/E	S/W	Length (mi)	Width (ft)	% Coverage	Side	Lighting	Side	
1st Avenue NE	NE 113th Street	NE 92nd Street	0.96	10	60%	East	3	Both	Widens near northgate
5th Avenue NE	NE 112th Street	NE 95th Street	0.85	5+	100%	Both	4	Both	Eastside narrower, grown over, westside pretty good
College Way N	Meridian Avenue N/100th	NE 92nd Street	0.52	8	50%	East	4	Both	Westside lacks sidewalk, only dirt trail.
Meridian Avenue N	NE 112th Street	College Way N/100th	0.44	4	100%	Both	4	Both	Trees and utlity poles block passage.
N Northgate Way	N 107th Street	1st Avenue NE	0.42	5	100%	Both	3	Both	Ashworth sidewalk becomes narrow and unrecognizable.
NE 100th Street	1st Avenue NE	3rd Avenue Ne	0.25	5	100%	Both	4	Both	Dirt trail on north side.
NE 103rd Street	1st Avenue NE	3rd Avenue Ne	0.25	5	100%	Both	4	Both	
NE 92nd Street	1st Avenue N	College Way NE	0.18	4	100%	Both	4	South	Northside has over grown foliage, car park on path bothsides.
NE Northgate Way	1st Avenue NE	12th Avenue NE	0.59	5+	100%	Both	4	Both	North side uneven, cracked roots
Pinehurst Way NE	Roosevelt Way NE	NE 112th Street	0.06	4	100%	Both	4	Both	Very narrow in parts, trees overgrown, east side better.
Roosevelt Way NE	NE 114th Street	NE 108th Street	0.28	8	100%	Both	4	West	Lots of trees make it very narrow in parts, roots, cracks

Lighting	4: Excellent = More than one lamppost on every block. 3: Very Good = Unobstructed lighting every block. 2: Fair = Lampposts up to three blocks apart or obstructed lighting 1: Poor = Lampposts three or more blocks apart.

Appendix 3-2. Arterial Sidewalks and School Walk Routes Existing Conditions

Olympic Hills Elementary

	Boundaries		Street	Sidewalks					
Street	N/E	S/W	Length (mi)	Width (ft)	% Coverage	Side	Lighting	Side	Comments
10th Avenue NE	NE 130th Street	NE 127th Street	0.36	5	30%	Both	4	East	10-15 ft shoulder heavy parking.
15th Avenue NE	NE 130th Street	NE 117th Street	0.69	10+	95%	Both	4	Both	Busy, difficult to cross. West side smaller with trees, both sides high quality
17th Avenue NE	NE 130th Street	NE125th Street	0.26	0	0%	None	4	East	15-20 ft shoulder width with moderate parking.
19th Avenue NE	NE Brockman Place	NE 125th Street	0.17	0	0%	None	3	East	15-20 ft shoulder width with moderate parking.
23rd Avenue NE	NE 130th Street	NE 127th Street	0.13	0	0%	None	4	West	Paved path both sides with 10-15 ft of parking. Poor visibility around corner to NE 127th St.
25th Avenue NE	NE 130th Street	NE 125th Street	0.13	0	0%	None	4	West	10-15 ft shoulder heavy parking. Paved path on east side.
26th Aveneu NE	NE 127th Street	NE 125th Street	0.13	4	50%	Both	4	West	10-15 ft wide shoulder. Sidewalks both side from NE 126th St to NE 125th St.
27th Avenue NE	NE 127th Street	NE 125th Street	0.13	0	0%	None	4	West	
30th Avenue NE	NE 130th Street	NE 125th Street	0.25	4	50%	West	4	West	Sidewalk north of NE 125th St on west side.
8th Avenue NE	NE 130th Street	NE 127th Street	0.11	0	0%	None	4	West	Less than 10ft shoulder.
NE 117th Street	15th Avenue NE	16th Avenue NE	0.13	0	0%	None	4	South	15-20 ft shoulders with low to moderate parking utilizatio Heavy parking.
NE 120th Street	Roosevelt Way NE	20th Avenue NE	0.44	0	0%	None	4	South	Poor visibility and shoulder width from corner to 26th Avenue NE. Steep hill to 21st Avenue. Shoulder less than 10ft wide in most places.
NE 123rd Street	Roosevelt Way NE	16th Avenue NE	0.35	5	36%	Both	4	South	Full sidewalks both sides west of 12th Avenue NE.
NE 125th Street	Roosevelt Way NE	19th Avenue NE	0.45	5+	100%	Both	4	Both	Trees and utility poles create obstructions.
NE 127th Street	23rd Avenue NE	27th Avenue NE	0.25	0	0%	None	4	South	Paved path in addition to 10-15 ft wide shoulders with lo parking utilization.
NE 130th Place	17th Avenue NE	20th Avenue NE	0.21	0	0%	None	4	North	10-15 ft shoulders with low to moderate parking utilizatio
NE 130th Street	20th Avenue NE	Lake City Way NE	0.65	5	15%	Both	4	North	10-15 ft wide shoulders with low parking utilization. Sidewalks from 28th Avenue to Lake City Way.
NE Brokman Place	15th Avenue NE	19th Avenue NE	0.22	0	0%	None	4	South	10-15 ft wide shoulders with low parking utilization.
Pinehurst Way NE	12th Avenue NE	13th Avenue	0.13	0	0%	None	4	Both	Very narrow in parts, trees overgrown, east side better.
Roosevelt Way NE	NE 130th Street	NE 117th Street	0.72	5+	100%	Both	4	Both	

Appendix 3-2. Arterial Sidewalks and School Walk Routes Existing Conditions

Olympic View Elementary

Street	Boundaries		Street	Sidewalks					Comments
	N/E	S/W	Length (mi)	Width (ft)	% Coverage	Side	Lighting	Side	
12th Avenue NE	NE 108th Street	NE 86th Street	1.00	5	38%	West/Both	4	West	Sidewalk west side from NE 96th St to NE 97th St and from NE 95th St to NE 92nd St. Sidewalk both sides NE 92nd St to NE 88th St.
15th Avenue NE	NE 110th Street	NE 85th Street	1.26	5+	35%	Both	4	West	Sidewalk both sides from NE 110th St to NE 107th St and from NE 85th St to NE 94th St.
18th Avenue NE	NE 97th Street	NE 98th Street	0.03	0	0%	None	4	West	
1st Avenue NE	NE 100th Street	NE 85th Street	0.75	5	50%	East	4	Both	No curb and gutter from NE 95th to NE 92nd and NE 90th St to NE 85th St.
20th Avenue NE	NE 97th Street	NE 90th Street	0.38	5	33%	Both	4	West	Sidewalks both sides from NE 92nd St to NE 90th St.
4th Avenue NE	NE 87th Street	NE 85th Street	0.13	5	100%	Both	4	West	No Side walk for one property length south of NE 88th St.
5th Avenue NE	NE 103rd Street	NE 85th Street	0.88	5	64%	Both	4	East	Sidewalks both sides from NE 103rd St to NE 100th St, and from NE 95th St to NE 86th St. Two foot planting strip between sidewalk and curb. Utility poles, shrubs and plantings reduce effective walkway.
8th Avenue NE	NE 110th Street	NE 85th Street	1.26	5	50%	West/Both	4	West	Sidewalks west side from NE 97th St to NE 95th St, and both sides from NE 95th St to NE 85th St. West side lacks curb and gutter from NE 95th St to NE 92nd St. Narrow shoulder where sidewalks do not exist.
Latona Avenue NE	NE 90th Street	NE 89th Street	0.11	0	0%	None	4	West	
Latona Avenue NE	NE 88th Street	NE 85th Street	0.11	5	100%	Both	4	West	Ten foot planting strip between sidewalk and curb.
NE 107th Street	14th Avenue NE	12th Avenue NE	0.08	0	0%	None	4	North	Better non-sidewalk conditions. 10-20ft shoulder.
NE 108th Street	NE 112th Street	NE 100th Street	0.12	0	0%	None	4	North	Little to no shoulder.
NE 86th Street	17th Avenue NE	15th Avenue NE	0.13	5	100%	None	4	North	
NE 88th Street	17th Avenue NE	15th Avenue NE	0.12	5	100%	Both	4	South	
NE 88th Street	4th Avenue NE	5th Avenue NE	0.06	5	100%	Both	4	South	Ten foot planting strip between sidewalk and curb.
NE 89th Street	17th Avenue NE	15th Avenue NE	0.12	5+	100%	Both	4	North	On-street parking both sides with high utilization from 15th Avenue to Roosevelt. Only one car can pass in most places.
NE 90th Street	20th Avenue NE	3rd Avenue NE	0.37	5+	100%	Both	4	North	A few paving block displaced on north side, overall good condition. On-street parking both sides with high utilization from 15th Avenue to Roosevelt. Only one car can pass in most places.
NE 91st Street	20th Avenue NE	15th Avenue NE	0.25	5*	100%	Both	4	South	Steep hill with little to no shoulder and low parking utilization.
NE 92nd Street	20th Avenue NE	1st Avenue NE	0.47	5+	50%	Both	4	South	Sidewalks, at grade without curb and gutter, both sides from 5th Avenue NE to 1st Avenue NE. 10-15 ft gravel parking strip both sides. Steep hill without shoulder from 17th Avenue NE to 20th Avenue NE.
NE 94th Street	20th Avenue NE	15th Avenue NE	0.25	0	0%	None	4	South	Steep hill.
NE 94th Street	5th Avenue NE	2nd Avenue NE	0.15	0	0%	None	4	South	
NE 95th Street	17th Avenue NE	1st Avenue NE	0.89	5+	29%	Both	4	South/ North	Sidewalks both sides from 10th Avenue NE to 5th Avenue NE, and partial sidewalks both sides from 12th Avenue NE to 10th Avenue NE.
NE 96th Street	20th Avenue NE	15th Avenue NE	0.24	0	0%	None	4	South	20st Avenue to 17th Avenue: Little to no shoulder low parking utilization.
NE 97th Street	19th Avenue NE	15th Avenue NE	0.25	0	0%	None	4	North	Little to no shouldeer on narrow road. Stairs lead down hill after 19th Avenue. Steep hill.
NE Northgate Way	14th Avenue NE	Roosevelt Way NE	0.19	5+	100%	Both	4	Both	Slightly uneven. Trees and utility poles create obstacles.
Roosevelt Way NE	NE Northgate Way	NE 85th Street	1.26	5+	100%	Both	4	East	Trees create obstruction in places. From NE 105th St to NE 95th St: Lots of trees make it very narrow in parts, roots, cracks.

Appendix 3-2. Arterial Sidewalks and School Walk Routes Existing Conditions

Northgate Elementary

Street	Boundaries		Street	Sidewalks					Comments
	N/E	S/W	Length (mi)	Width (ft)	% Coverage	Side	Lighting	Side	
12th Avenue NE	NE 121st Street	NE 115th Street	0.37	0	0%	None	4	West	10-15ft shoulders with low parking.
14th Avenue NE	NE 123rd Street	NE 120th Street	0.13	0	0%	None	4	East	10 ft or less shoulder width. Diagonal on-street parking for 1 block near park.
15th Avenue NE	NE 123rd Street	NE 117th Street	0.22	12	100%	Both	4	Both	
1st Avenue NE	NE 130th Street	NE Norrthgate Way	0.76	5	13%	East	3	Both	Paved path on west side from NE 117th to NE 130th, and on east side just south of NE 120th St.
1st Place NE	NE 117th Street	NE 112th Street	0.20	5	100%	East	4	Both	Good condition.
3rd Avenue NE	NE 125th Street	NE 115th Street	0.37	0	0%	None	4	East	Narrow road, little to no shoulder.
5th Avenue NE	NE 128th Street	NE Norrthgate Way	0.93	4	88%	Both	3	East	West side is overgrown. Ends just north of NE 125th St.
8th Avenue NE	NE 127th Street	NE Norrthgate Way	0.89	5	28%	West/Both	4	West	Less than 10ft shoulder.
9th Avenue NE	NE 120th Street	NE 115th Street	0.25	0	0%	None	4	East	Little to no shoulder room for walking.
Ashworth Avenue N	NE 123rd Street	NE 120th Street	0.17	0	0%	None	4	East	15 ft in front of fence lines.
Corliss Avenue N	NE 128th Street	NE 125th Street	0.19	5	100%	West	4	East	Sidewalk uneven in parts.
Corliss Avenue N	NE 117th Street	NE 113th Street	0.22	0	0%	None	4	East	10 ft shoulder in most places.
Densmore Avenue N	NE 128th Street	NE 122nd Street	0.36	5	100%	West	4	East	Wide area, but paved sidewalk is uneven and warped, barely visible. Improves north of 125th.
Meridian Avenue N	NE 130th Street	N 128th Street	0.16	4	50%	West	2	East	4 foot wide paved path on west side. Lighting obstructed by trees.
Meridian Avenue N	NE 122nd Street	NE Norrthgate Way	0.59	5	64%	East/Both	4	East	Sidewalks both sides from NE 115th St to NE 110th St. 4 foot wide paved path on east side north of NE 112th St.
N 112th Street	Meridian Avenue N	Corliss Avenue N	0.11	0	0%	None	4	North	Heavy parking near apartments, no shoulder.
N 113th Street	Meridian Avenue N	Corliss Avenue N	0.12	0	0%	None	3	South	Sidewalk on corner at Corliss Avenue N. No shoulder for walking. 10 ft shoulder with heavy parking. Narrow road, two cars can barely pass.
N 115th Street	Ashworth Avenue N	Meridian Avenue N	0.49	5	27%	Both	4	North	No curb and gutter.
N 117th Street	Meridian Avenue N	1st Avenue NE	0.25	0	0%	None	4	North	Less than 10 ft of shoulder space.
N 120th Street	Ashworth Avenue N	Meridian Avenue N	0.50	0	0%	None	4	North	15-20ft shoulders in most places, gravel parking strip.
N 121st Street	N 122nd Street	Densmore Avenue N	0.18	0	0%	None	4	North	No Shoulder.
N 122nd Street	Ashworth Avenue N	1st Avenue NE	0.50	0	0%	None	4	South	Paved Path south side from Densmore Avenue N to 1st Avenue NE.
N 125th Street	Densmore Avenue N	Corliss Avenue N	0.04	5	100%	North	4	North	
N 128th Street	Ashworth Avenue N	Corliss Avenue N	0.40	0	0%	None	4	North	Paved path on south side from Corliss Avenue N to Meridian Avenue N. 10-15 ft shoulders in most places where sidewalks are not present.
N 130th Street	Ashworth Avenue N	1st Avenue NE	0.50	5+	100%	Both	4	South**	No curb and gutter.
N Northgate Way	Corliss Avenue N	Meridian Avenue N	0.13	5+	100%	Both	3	Both	
NE 115th Street	5th Avenue NE	3rd Avenue NE	0.12	0	0%	None	4	South	Little to no shoulder.
NE 117th Street	3rd Avenue NE	Roosevelt Way NE	0.74	5	10%	South	3	South	15-20 ft shoulders with low to moderate parking utilization
NE 120th Street	Meridian Avenue N	3rd Avenue NE	0.19	0	0%	None	4	North	15-20ft shoulders in most places, gravel parking strip.
Pinehurst Way NE	NE 117th Street	NE 118th Street	0.38	4	100%	Both	4	Both	Trees create obstruction. Displaced paving stones.
Roosevelt Way NE	NE 125th Street	NE 112th Street	0.66	5	100%	Both	4	Both	Cossings difficult, on-street parking both sides.

Appendix 3-2. Arterial Sidewalks and School Walk Routes Existing Conditions

Sacajawea Elementary

Street	Boundaries		Street	Sidewalks					Comments
	N/E	S/W	Length (mi)	Width (ft)	% Coverage	Side	Lighting	Side	
12th Avenue NE	NE 96th Street	NE 95th Street	0.06	0	0%	None	4	West	No cars parked at time of inventory. 15-20ft gravel/grass shoulder.
15th Avenue NE	NE Northgate Way	NE 85th Street	1.26	4	45%	Both	4	East	Northgate Way to NE 105th St: No sidewalk on west, or cars park over sidewalk. Eastside slanted, narrow in parts.
17th Avenue NE	NE Northgate Way	NE 85th Street	0.88	5+	43%	Both	4	West	Northgate Way to NE 107th St: Excellent non-sidewalk conditions. 10-20ft shoulder. Road ends. NE 98th St to NE 90th St: Little to no shoulder most places. NE 90th St to NE 85th St: Sidewalks and heavy on-street parking.
18th Avenue NE	NE 97th Street	NE 96th Street	0.03	0	0%	None	4	West	
19th Avenue NE	NE Northgate Way	NE 107th Street	0.13	0	0%	None	4	West	Good walk conditions. 10-15ft shoulder.
20th Avenue NE	NE Northgate Way	NE 100th Street	0.35	0	0%	None	4	West	10-15ft shoulders. Street ends just past NE 102nd St. Pathway leads to 100th St where there is a steep flight of stairs.
20th Avenue NE	NE 97th Street	NE 86th Street	0.63	0	0%	None	4	West	10-15 ft wide parking with moderate parking utilization and obstacles.
23rd Avenue NE	NE 107th Street	NE 104th Street	0.19	0	0%	None	4	West	10-15ft shoulders with heavy parking/other obstacles. Ditch on west side.
NE 100th Street	15th Avenue NE	5th Avenue NE	0.51	0	0%	None	4	South	15th Avenue to Roosevelt: 10-20 ft wide shoulders with moderate to heavy parking. Roosevelt to 5th Avenue: Vehicle entry restricted from Roosevelt. 10-15 Ft shoulder east of 8th Avenue, less than 10 ft shoulders west of 8th Avenue.
NE 102nd Street	24th Avenue NE	8th Avenue NE	0.70	0	0%	None	4	South	10-15ft shoulder on most of the street. Narrow road and heavy parking from 8th Avenue NE to 15th Avenue NE. Road ends just past 15th Avenue NE.
NE 103rd Street	25th Avenue NE	8th Avenue NE	0.52	0	0%	None	4	South	From 23rd-20th Avenue NE: 10-20ft shoulder with moderate to heavy parking. Road ends past 20th Avenue. From Roosevelt to 8th Avenue NE: Narrow street.
NE 104th Street	25th Avenue NE	8th Avenue NE	0.53	4*	17%	Both	4	West	From 15th Avenue to 8th Avenue: 10-15ft shoulders with high parking utilization.
NE 107th Street	23rd Avenue NE	15th Avenue NE	0.38	0	0%	None	4	North	Better non-sidewalk conditions. 10-20ft shoulder.
NE 85th Street	18th Avenue NE	16th Avenue NE	0.08	4	100%	Both	4	South	
NE 89th Street	15th Avenue NE	8th Avenue NE	0.38	5+	100%	Both	4	North	On-street parking both sides with high utilization from 15th Avenue to Roosevelt. Only one car can pass in most places.
NE 90th Street	15th Avenue NE	8th Avenue NE	0.38	5+	100%	Both	4	North	On-street parking both sides with high utilization from 15th Avenue to Roosevelt. Only one car can pass in most places.
NE 91st Street	15th Avenue NE	5th Avenue NE	0.51	5+	100%	Both	5	North	On-street parking both sides with high utilization from 15th Avenue to Roosevelt. Only one car can pass in most places.
NE 92nd Street	15th Avenue NE	5th Avenue NE	0.51	5+	100%	Both	5	South	On-street parking both sides with high utilization. Only one car can pass in most places.
NE 94th Street	15th Avenue NE	5th Avenue NE	0.51	5	50%	Both	4	South	15th Avenue to 12th Avenue: 10-15 ft shoulder with high parking utilization. 12th Avenue to Roosevelt: paved path on northside. 10-15ft shoulder with high parking utilization. Roosevelt to 5th Avenue: Narrow road with high parking utilization. Sidewalks both sides without curb, gutter or parking strip.
NE 95th Street	22nd Avenue NE	20th Avenue NE	0.06	0	0%	None	4	South	Little to no shoulder moderate parking utilization.
NE 95th Street	15th Avenue NE	5th Avenue NE	0.51	5+	50%	Both	4	South	15th Avenue to Roosevelt: 10-15 ft shoulder with paved path near Roosevelt. Roosevelt to 8th Avenue: Sidewalks with planting strip both sides. Parking restricted to south side. 8th Avenue to 5th Avenue: Sidewalks both sides. Parking on south side and school loading zone on north side.
NE 96th Street	21st Avenue NE	10th Avenue NE	0.59	5	22%	Both	4	South	21st Avenue to 17th Avenue: Little to no shoulder low parking utilization. 15th Avenue to Roosevelt: 10-15 ft shoulder with high parking utilization. Roosevelt to 10th Avenue: 15-20 ft parking with paved path.

Appendix 3-2. Arterial Sidewalks and School Walk Routes Existing Conditions

Alt School #1

Street	Boundaries		Street	Sidewalks					Comments
	N/E	S/W	Length (mi)	Width (ft)	% Coverage	Side	Lighting	Side	
12th Avenue NE	NE 121st Street	NE 115th Street	0.37	0	0%	None	4	West	Very narrow road with heavy parking and minimal shoulder width.
14th Avenue NE	NE 115th Street	NE Norrthgate Way	0.25	5	50%	Both	4	West	Paved path and additional 10-15 ft shoulders with low to moderate parking utilization.
15th Avenue NE	NE 125th Street	NE Norrthgate Way	0.75	5+	79%	Both	4	East	Sidewalks barely visible, nonexistent in parts, cars parked on sidewalk.
16th Avenue NE	NE 120th Street	NE 115th Street	0.25	0	0%	None	4	West	Conditions worse than most. Little to no shoulder with high parking utilization.
17th Avenue NE	NE 125th Street	NE Norrthgate Way	0.68	0	0%	None	4	West	10-15 ft wide shoulder with minimal parking utilization.
19th Avenue NE	NE 120th Street	NE Norrthgate Way	0.38	0	0%	None	4	West	Conditions worse than most. Little to no shoulder with high parking utilization. Near Northgate Way
20th Avenue NE	NE 125th Street	NE Norrthgate Way	0.63	0	0%	None	4	West	10-15 ft of walk space with low to moderate parking utilization.
22nd Avenue	NE 120th Street	NE 115th Street	0.25	0	0%	None			
23rd Avenue NE	NE 125th Street	NE 120th Street	0.25	0	0%	None	4	West	10-15 ft wide shoulder with minimal parking utilization. Steep hill and road narrows from NE 122nd St to NE 125th St.
25th Avenue NE	NE 125th Street	NE 115th Street	0.50	0	0%	None	4	East	10-15 ft shoulder with moderate parking utilization. No path over bridge just south of NE 125th St.
26th Avenue NE	NE 125th Street	NE 115th Street	0.35	0	0%	None	4	East	10-15 ft shoulder with moderate parking utilization.
28th Aveneu NE	NE 125th Street	NE 120th Street	0.25	0	0%	None	4	East	
30th Avenue NE	NE 125th Street	NE 123rd Street	0.11	0	0%	None	4	East	
3rd Avenue NE	NE 117th Street	NE Norrthgate Way	0.38	5	18%	Both	4	East	Paved path or sidewalk both sides. Street closed at NE 115th St. North of NE 115th St: ditch and worn path on west side of street.
5th Avenue NE	NE 120th Street	NE Norrthgate Way	0.50	4	100%	Both	4	East	Side walks both sides, west side has grass growing into the sidewalk. Parking on both sides of street.
8th Avenue NE	NE 117th Street	NE Norrthgate Way	0.38	5	67%	Both	4	West	Less than 10 ft of shoulder space from NE 117th St to NE 115th St.
Goodwin Way NE	NE 114th Street	NE Norrthgate Way	0.28	0	0%	None	2	South	10-15 ft of walk space with low to heavy parking utilization. Lots of trees block lighting.
Hiram Place NE	NE 124th Street	NE 120th Street	0.19	0	0%	None			
NE 115th Street	Lake City Way NE	10th Avenue NE	0.86	4	52%	South	4	South	Sidewalk on south side from 25th Avenue to 17th Avenue.
NE 117th Street	24th Avenue NE	20th Avenue NE	0.19	5	33%	South	3	South	15-20 ft shoulders with low to moderate parking utilization. Heavy parking east of Pinehurst Way.
NE 120th Street	10th Avenue NE	5th Avenue NE	0.25	0	0%	None	3	South	Narrow road, 10-15 ft shoulders with moderate to high parking utilization
NE 123rd Street	17th Avenue NE	5th Avenue NE	0.38	0	0%	None	4	South	Poor visibility around corner from 17th Avenue NE. No crossing at 15th Avenue. Sidewalk along one block east of 15th Avenue.
NE 125th Street	Lake City Way NE	5th Avenue NE	1.35	5+	74%	Both	3	South	Sidewalks from Lake City Way to Roosevelt. Street to busy to cross where there aren't signals. No sidewalks from Roosevelt to 5th Avenue NE; 10-15 ft shoulder with high parking volumes.
NE Northgate Way	24th Avenue NE	1st Avenue NE	0.98	5+	100%	Both	4	Both	
Pinehurst Way NE	NE 124th Street	NE 112th Street	0.46	4	89%	Both	4	Both	Trees create obstruction. Displaced paving stones.
Roosevelt Way NE	NE 130th Street	NE Norrthgate Way	1.07	5	100%	Both	4	Both	Crossings difficult, on-street parking both sides.

Appendix 3-3.

Northgate Area Transit Service

Appendix 3-3. Northgate Area Transit Service

Table 1: Northgate Service to Downtown and University District Northwest

Route	Operation Times	Weekday Headways *Peak: Directional*	*Peak: Both/ Reverse*	*Midday*	Destination	Coverage *Household # - % Northgate*
KCM 5	6:45 AM – 7:15 PM	-	30	30	Downtown	2274 – 17%
KCM 16	4:43 AM – 1:54 AM	-	20	20	Downtown	4522 – 34%
KCM 41	4:57 AM – 1:39 AM	5	15	15	Downtown	4720 – 36%
KCM 66	5:20 AM – 1:59 AM	20	30	30	Both	3531 – 27%
KCM 67	6:41 AM – 10:03 PM	15	30	30	Univ. District	3531 – 27%
KCM 68	5:58 AM – 6:32 PM	-	30	30	Univ. District	4030 – 31%
KCM 73	4:46 AM – 1:08 AM[2]	-	30	30	Both	3830 – 29%
KCM 77	5:46 AM – 8:20 AM; 4:05 PM – 6:44 PM[2]	30	-	-	Downtown	3830 – 29%
KCM 316	6:18 AM – 8:35 AM; 4:06 PM – 6:38 PM[3]	20	-	-	Downtown	2979 – 23%
KCM 373	6:29 AM – 9:15; 2:04 PM – 7:03 PM[2]	20	-	-	Univ. District	3830 – 29%

Table 2: Northgate Service to Other Urban Centers and Nearby Urban Villages

Route	Operation Times	Weekday Headways *Peak: Directional*	*Peak: Both/ Reverse*	*Midday*	Destination	Coverage *Household # - % Northgate*
KCM 5	6:45 AM – 7:15 PM	-	30	30	Aurora-Licton Springs	2274 – 17%
KCM 16	4:43 AM – 1:54 AM	-	20	20	Green Lake	4522 – 34%
KCM 41	4:57 AM – 1:39 AM	5	15	15	Lake City	4720 – 36%
KCM 66	5:20 AM – 1:59 AM	20	30	30	Roosevelt	3531 – 27%
KCM 67	6:41 AM – 10:03 PM	15	30	30	Roosevelt	3531 – 27%
KCM 68	5:58 AM – 6:32 PM	-	30	30	Ravenna	4030 – 31%
KCM 75	5:28 AM – 12:05 AM	15	30	30	Aurora-Licton Springs, Lake City	6046 – 46%
KCM 242	6:06 AM – 8:56 AM; 4:27 PM – 7:55 PM	30	-	-	Green Lake	4305 – 33%
KCM 303	6:00 AM – 8:25 AM; 4:14 PM – 6:35 PM	20	-	-	First Hill	453 – 3%
KCM 316	6:18 AM – 8:35 AM; 4:06 PM – 6:38 PM[3]	20	-	-	Green Lake	2979 – 23%
KCM 345	6:20 AM – 11:35 PM	-	30	30	Bitter Lake Village	3144 – 24%
KCM 373	6:29 AM – 9:15; 2:04 PM – 7:03 PM[2]	20	-	-	Ravenna	3830 – 29%

Table 3: Northgate Transit Center Weekday Transit Service[1]

Route	Operation Times	Weekday Headways *Peak: Directional*	*Peak: Both/ Reverse*	*Midday*	*Early Evening*	*Late Evening*	Stations *Urban Center/ Village*[4]
KCM 5	6:45 AM – 7:15 PM	-	30	30	-	-	DS, A-LS
KCM 16	4:43 AM – 1:54 AM	-	20	20	30	30	DS, GL
KCM 41	4:57 AM – 1:39 AM	5	15	15	30	60	DS, LC
KCM 66	5:20 AM – 1:59 AM	20	30	30	30	60	DS, UD, Rs
KCM 67	6:41 AM – 10:03 PM	15	30	30	30	-	UD, Rs
KCM 68	5:58 AM – 6:32 PM	-	30	30	-	-	UD, Rv
KCM 73	4:46 AM – 1:08 AM[2]	-	30	30	60	60	DS, UD
KCM 75	5:28 AM – 12:05 AM	15	30	30	60	60	A-LS, LC
KCM 77	5:46 AM – 8:20 AM; 4:05 PM – 6:44 PM[2]	30	-	-	-	-	DS
KCM 242	6:06 AM – 8:56 AM; 4:27 PM – 7:55 PM	30	-	-	-	-	GL
KCM 303	6:00 AM – 8:25 AM; 4:14 PM – 6:35 PM	20	-	-	-	-	FH
KCM 316	6:18 AM – 8:35 AM; 4:06 PM – 6:38 PM[3]	20	-	-	-	-	DS, GL
KCM 345	6:20 AM – 11:35 PM	-	30	30	60	60	BLV
KCM 346	5:15 AM – 11:30 PM	-	30	30	60	60	
KCM 347	5:55 AM – 11:05 PM	-	30	30	60	60	
KCM 348	5:50 AM – 11:35 PM	-	30	30	60	60	
KCM 373	6:29 AM – 9:15; 2:04 PM – 7:03 PM[2]	20	-	-	-	-	UD, Rv
ST 555	5:52 – 9:09 AM; 3:22 PM – 6:56 PM	-	30	-	-	-	

Table 4: Northgate Transit Center Saturday Transit Service[1]

Route	Operation Times	Saturday Headways *Morning*	*Midday*	*Early Evening*	*Late Evening*	Stations *Urban Center/ Village*[4]
KCM 5	5:36 AM – 7:18 PM	30	30	30	-	DS, A-LS
KCM 16	5:42 AM – 1:49 AM	20	20	30	30	DS, GL
KCM 41	6:04 AM – 1:30 AM	15	15	30	60	DS, LC
KCM 66	5:50 AM – 1:57 AM	30	30	30	60	DS, UD, Rs
KCM 68	9:14 AM – 6:19 PM	30	30	-	-	UD, Rv
KCM 73	6:02 AM – 1:07 AM[2]	30	30	60	60	DS, UD
KCM 75	7:42 AM – 12:55 AM[2]	30	30	60	60	A-LS, LC
KCM 345	7:00 AM – 10:05 PM	60	30	60	-	BLV
KCM 346	6:30 AM – 11:35 PM	60	30	60	60	
KCM 347	7:05 AM – 10:05 PM	60	30	60	-	
KCM 348	6:30 AM – 11:35 PM	60	30	60	60	

Table 5: Northgate Transit Center Sunday Transit Service[1]

Route	Operation Times	Sunday Headways *Morning*	*Midday*	*Early Evening*	*Late Evening*	Stations *Urban Center/ Village[4]*
KCM 16	5:42 AM – 1:49 AM	30	30	30	30	DS, GL
KCM 41	6:34 AM – 1:31 AM	30	30	30	60	DS, LC
KCM 66	6:56 AM – 1:56 AM	30	30	30	60	DS, UD, Rs
KCM 73	5:46 AM – 12:59 AM[2]	60	60	60	60	DS, UD
KCM 75	7:47 AM – 12:34 AM	60	60	60	60	A-LS, LC
KCM 345	6:05 AM – 10:30 PM	60	60	60	-	BLV
KCM 346	6:35 AM – 12:00 AM	60	60	60	60	
KCM 347	7:00 AM – 10:05 PM	60	60	60	-	
KCM 348	6:30 AM – 11:35 PM	60	60	60	60	

[1] Times of operation based upon autumn 2004 schedule.
[2] Timepoint at NE 125th Street and 15th Avenue NE
[3] Timepoint at North Seattle Community College
[4] Urban Center/Village Key:

A-LS: Aurora-Licton Springs **BLV: Bitter Lake Village** **DS: Downtown Seattle**
FH: First Hill **GL: Green Lake** **LC: Lake City**
UD: University District Northwest **Rs: Roosevelt** **Rv: Ravenna**

Appendix 3-4.

Northgate Park & Ride Utilization Rates

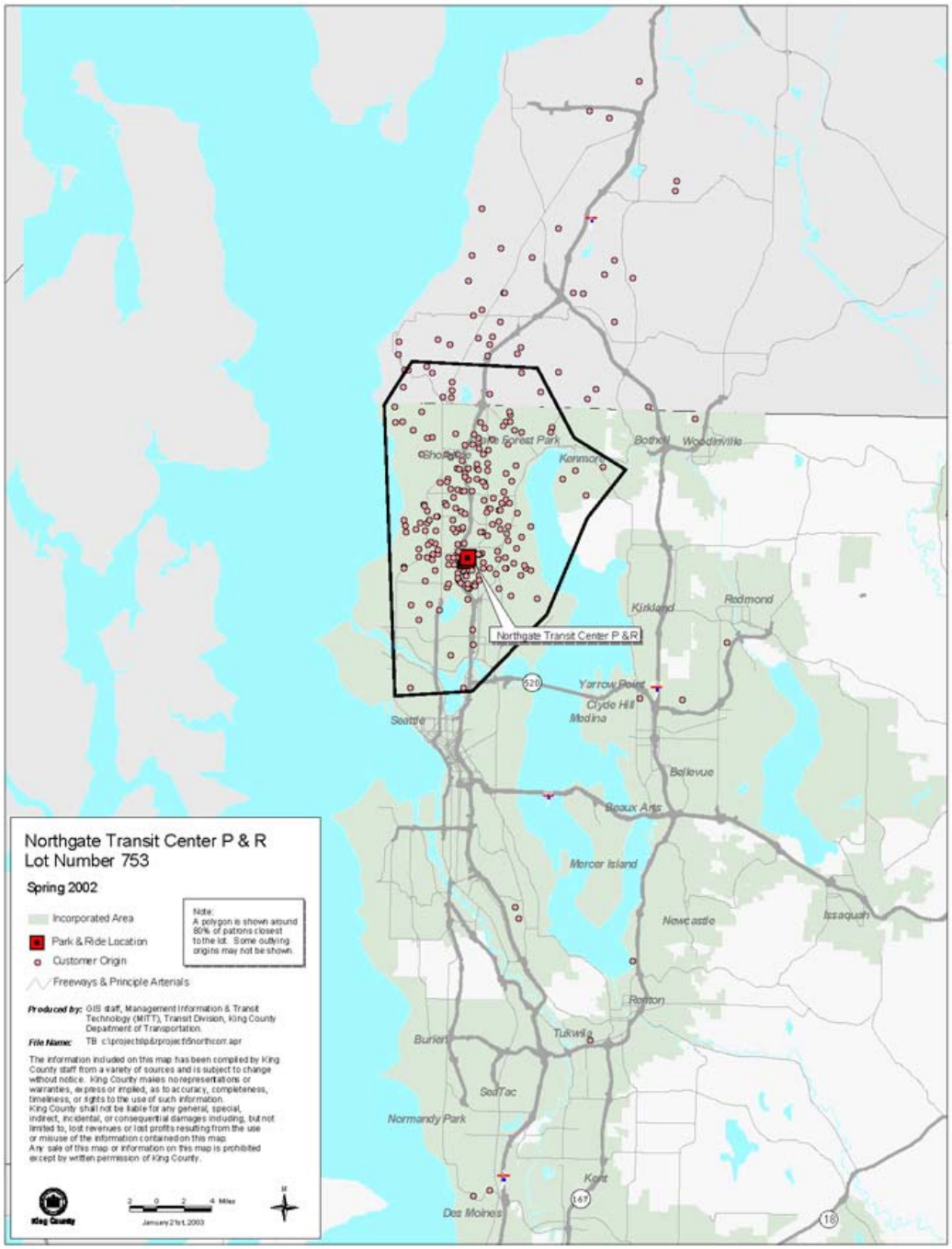
Appendix 3-4. Northgate Park & Ride Utilization Rates

Lot	Location	Jurisdiction	Bicycle Lockers	Capacity	Filled ≥ 90% by 9 AM, weekdays	Bus Route Service
North Seattle P&R	10001 1st Ave NE, 98133	WSDOT	No	143	Yes	KCM 5, KCM 16, KCM 41, KCM 66, KCM 67, KCM 68, KCM 75, KCM 242, KCM 303, KCM 345, KCM 346, KCM 347, KCM 348, ST 555
Northgate TC	10200 1st Ave NE, 98125	King County/ WSDOT	Yes	296	Yes	KCM 5, KCM 16, KCM 41, KCM 66, KCM 67, KCM 68, KCM 75, KCM 242, KCM 303, KCM 345, KCM 346, KCM 347, KCM 348, ST 555
Northgate TC Extension (east)	3rd Ave NE, 98125	King County	No	417	Yes	KCM 5, KCM 16, KCM 41, KCM 66, KCM 67, KCM 68, KCM 75, KCM 242, KCM 303, KCM 345, KCM 346, KCM 347, KCM 348, ST 555
Northgate UC Extension, Carpool (east)	3rd Ave NE, 98125	**King County**	No	75	Yes	KCM 5, KCM 16, KCM 41, KCM 66, KCM 67, KCM 68, KCM 75, KCM 242, KCM 303, KCM 345, KCM 346, KCM 347, KCM 348, ST 555
Northgate P&R (P&R and garage)	11203 5th Ave NE, 98125	King County	No	418	No	KCM 41, KCM 66, KCM 67, KCM 242
Northgate N Garage (P&R and garage)	300 NE Northgate Way, 98125	King County	No	63	No	KCM 41, KCM 66, KCM 67, KCM 242
Our Savior Lutheran Church	12509 27th Ave NE, 98125	Leased	No	21	No	KCM 41, KCM 243

Appendix 3-5.

Northgate Transit Center Park & Ride Lot Car Registration Locations

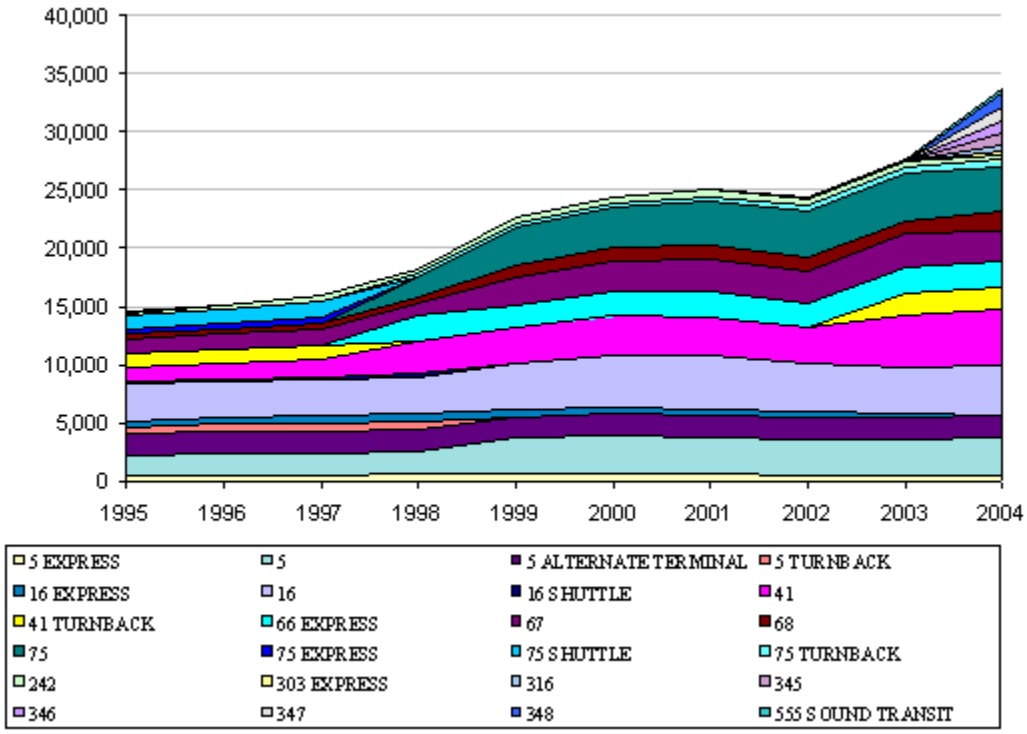
Appendix 3-5. Northgate Transit Center Park and Ride Car License Plate Registration Locations



Appendix 3-6.

Average Daily Ridership on Transit Routes Serving Northgate

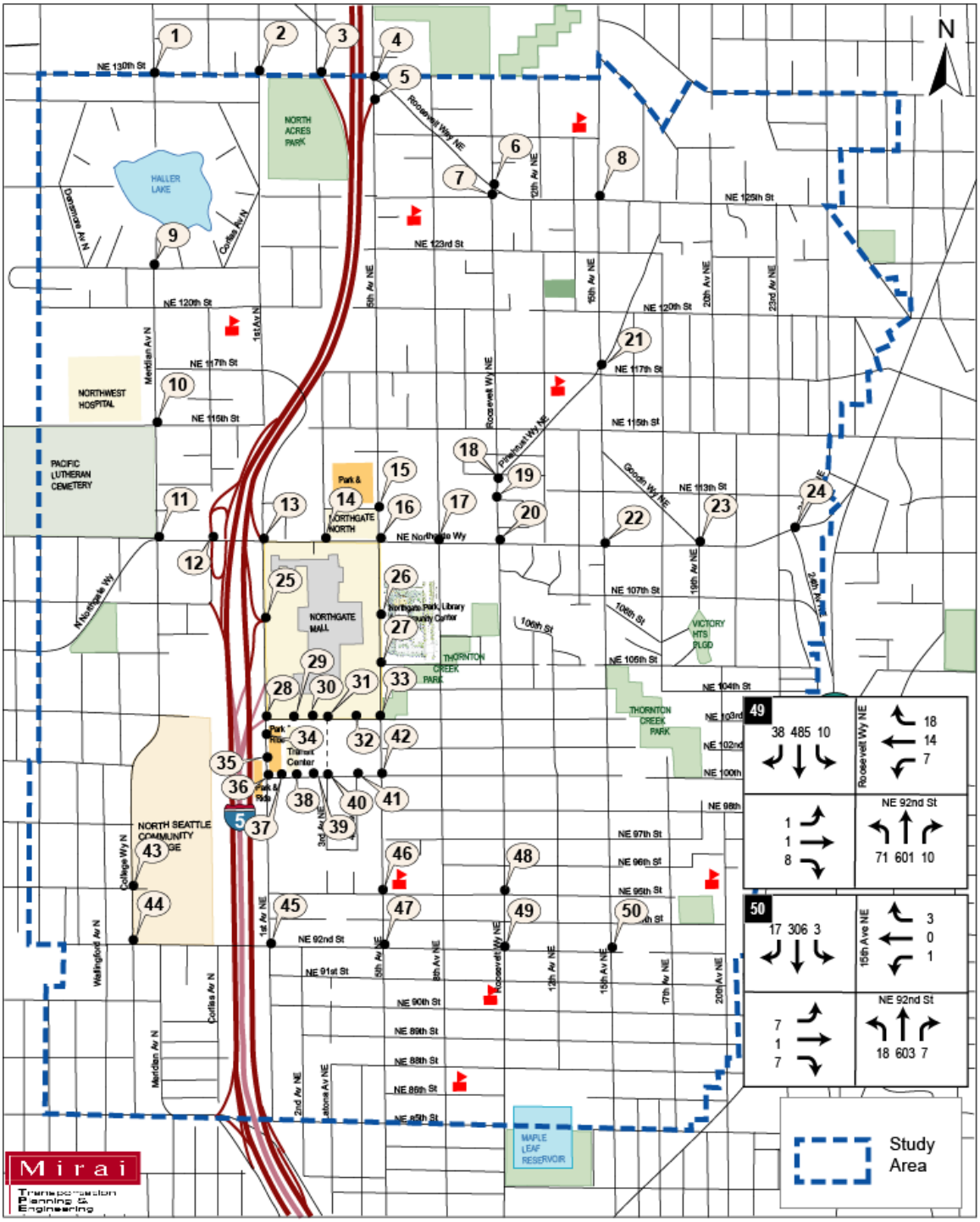
Appendix 3-6. Average Daily Ridership on Transit Routes Serving Northgate

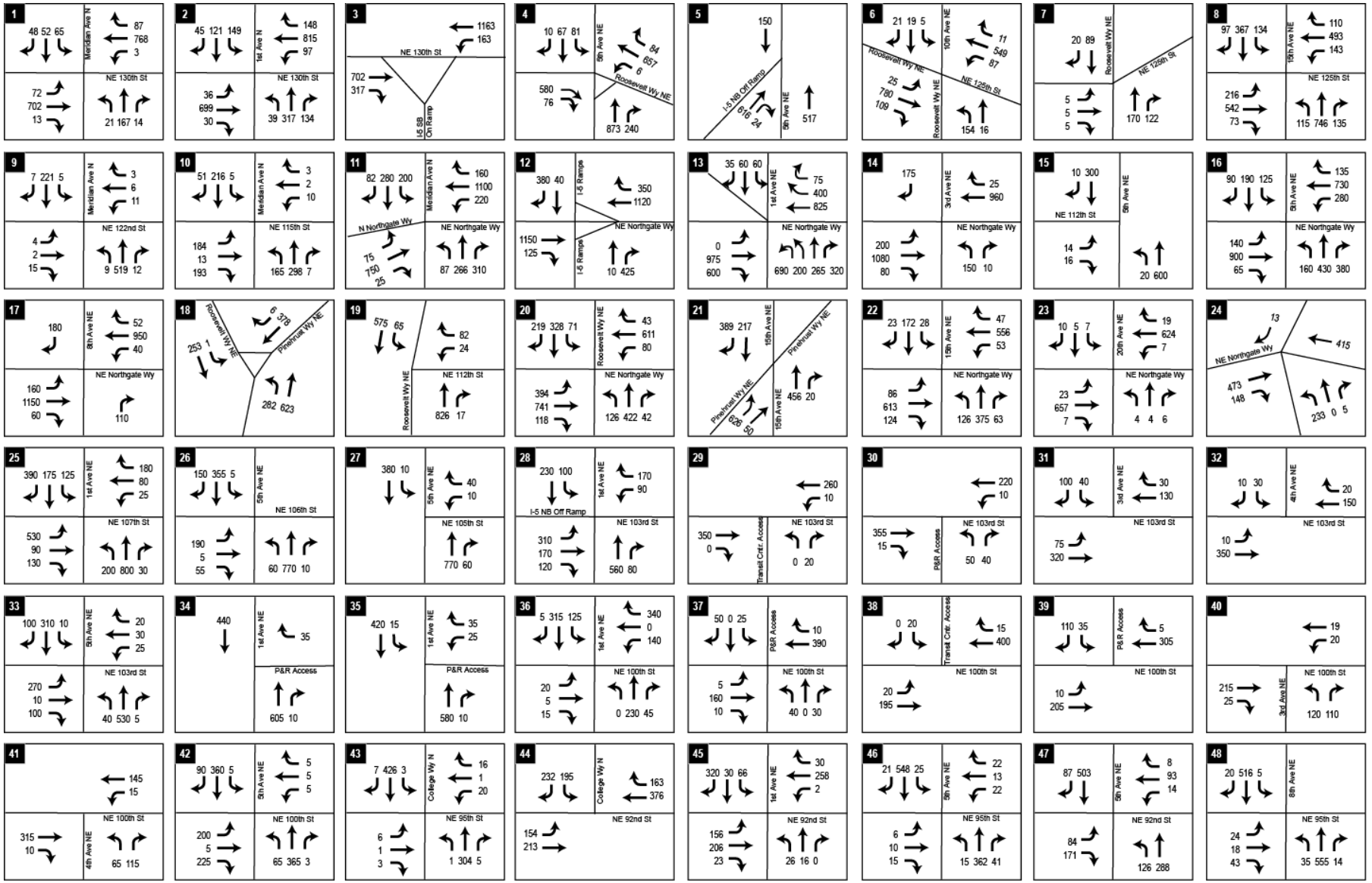


Appendix 3-7.

Traffic Volumes by Turning Movement

Appendix 3-7. Traffic Volumes by Turning Movement




1
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Meridian Ave N
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768
3
NE 130th St
72
702
13
21 167 14
2
45 121 149
1st Ave N
148
815
97
NE 130th St
36
699
30
39 317 134
3
1163
163
NE 130th St
702
317
I-5 SB On Ramp
4
10 67 81
5th Ave NE
84
857
6
Roosevelt Wy NE
580
76
873 240
5
150
I-5 NB Off Ramp
616
24
5th Ave NE
517
6
21 19 5
10th Ave NE
Roosevelt Wy NE
11
549
87
NE 125th St
25
780
109
Roosevelt Wy NE
154 16
7
20 89
Roosevelt Wy NE
NE 125th St
5
5
5
170 122
8
97 367 134
15th Ave NE
110
493
143
NE 125th St
216
542
73
115 746 135
9
7 221 5
Meridian Ave N
3
6
11
NE 122nd St
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2
15
9 519 12
10
51 216 5
Meridian Ave N
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2
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NE 115th St
184
13
193
165 298 7
11
82 280 200
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160
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87 266 310
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I-5 Ramps
350
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35 60 60
1st Ave NE
75
400
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0
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690 200 265 320
14
175
3rd Ave NE
25
960
NE Northgate Wy
200
1080
80
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NE 112th St
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20 600
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90 190 125
5th Ave NE
135
730
280
NE Northgate Wy
140
900
65
160 430 380
17
180
8th Ave NE
52
950
40
NE Northgate Wy
160
1150
60
110
18
Roosevelt Wy NE
6
378
Pinehurst Wy NE
253
1
282 623
19
575 65
82
24
NE 112th St
Roosevelt Wy NE
826 17
20
219 328 71
Roosevelt Wy NE
43
611
80
NE Northgate Wy
394
741
118
126 422 42
21
389 217
15th Ave NE
Pinehurst Wy NE
Pinehurst Wy NE
15th Ave NE
626
50
456 20
22
23 172 28
15th Ave NE
47
556
53
NE Northgate Wy
86
613
124
126 375 63
23
10 5 7
20th Ave NE
19
624
7
NE Northgate Wy
23
657
7
4 4 6
24
13
NE Northgate Wy
415
473
148
233 0 5
25
390 175 125
1st Ave NE
180
80
25
NE 107th St
530
90
130
200 800 30
26
150 355 5
5th Ave NE
NE 106th St
190
5
55
60 770 10
27
380 10
5th Ave NE
40
10
NE 105th St
770 60
28
230 100
1st Ave NE
170
90
I-5 NB Off Ramp
NE 103rd St
310
170
120
560 80
29
260
10
NE 103rd St
350
0
Transit Cntr Access
0 20
30
220
10
NE 103rd St
355
15
P&R Access
50 40
31
100 40
3rd Ave NE
30
130
NE 103rd St
75
320
32
10 30
4th Ave NE
20
150
NE 103rd St
10
350
33
100 310 10
5th Ave NE
20
30
25
NE 103rd St
270
10
100
40 530 5
34
440
1st Ave NE
35
P&R Access
605 10
35
420 15
1st Ave NE
35
25
P&R Access
580 10
36
5 315 125
1st Ave NE
340
0
140
NE 100th St
20
5
15
0 230 45
37
50 0 25
P&R Access
10
390
NE 100th St
5
160
10
40 0 30
38
0 20
Transit Cntr Access
15
400
NE 100th St
20
195
39
110 35
P&R Access
5
305
NE 100th St
10
205
40
19
20
NE 100th St
215
25
3rd Ave NE
120 110
41
145
15
NE 100th St
315
10
4th Ave NE
65 115
42
90 360 5
5th Ave NE
5
5
5
NE 100th St
200
5
225
65 365 3
43
7 426 3
College Wy N
16
1
20
NE 95th St
6
1
3
1 304 5
44
232 195
College Wy N
163
376
NE 92nd St
154
213
45
320 30 66
1st Ave NE
30
258
2
NE 92nd St
156
206
23
26 16 0
46
21 548 25
5th Ave NE
22
13
22
NE 95th St
6
10
15
15 362 41
47
87 503
5th Ave NE
8
93
14
NE 92nd St
84
171
126 288
48
20 516 5
8th Ave NE
NE 95th St
24
18
43
35 555 14

Appendix 3-8.

Residential Street Scores

Appendix 3-8. Residential Street Scores

Residential Street Evaluation Measure (Draft CTIP Report)

Category	NE 98th Street W/O 23rd Avenue NE	NE 115th Street E/O 14th Avenue NE	N 117th Street W/O Corliss Avenue N	NE 115th Street E/O 9th Avenue NE	20th Avenue NE S/O NE 95th Street	NE 120th Street E/O 16th Avenue NE	NE 98th Street E/O 12th Avenue NE	NE 98th Street W/O 8th Avenue NE	25th Avenue NE S/O NE 127th Street	NE 120th Street E/O 5th Avenue NE	8th Avenue NE N/O NE 123rd Street	NE 97th Street W/O Roosevelt Way NE	NE 95th Street W/O 8th Avenue NE	NE 117th Street W/O 8th Avenue NE	NE 95th Street W/O 4th Avenue NE	12th Avenue NE N/O NE 102nd Street	NE 97th Street W/O 12th Avenue NE	NE 107th Street E/O 17th Avenue NE	NE 97th Street E/O 15th Avenue NE	NE 90th Street W/O 12th Avenue NE	NE 90th Street W/O 15th Avenue NE	NE 104th Street E/O Roosevelt Way NE	8th Avenue NE S/O NE 88th Street
Speed (85%)	13	9	11	9	8	9	10	8	9	9	10	6	8	8	10	5	11	8	7	9	8	9	1
Vehicles /Day	20	20	7	20	6	9	3	5	10	4	6	7	15	10	7	1	4	7	4	7	7	4	7
Ped Facility	20	20	20	20	20	20	20	20	20	20	20	20	0	20	0	20	20	20	20	0	0	0	0
Collision	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
School Walkway	10	10	10	0	10	10	10	10	10	10	0	10	10	0	10	10	0	0	0	10	10	10	0
Pedestrian Route	0	0	10	0	0	0	0	0	0	0	0	0	10	0	10	0	0	0	0	0	0	0	0
Bicycle Route	5	5	5	5	5	0	5	5	0	0	5	0	0	0	0	0	0	0	0	5	5	0	0
Street Features	4	2	1	2	5	5	3	3	2	3	4	2	1	1	2	2	2	2	2	1	1	3	2
TOTAL	**72**	**66**	**64**	**56**	**54**	**53**	**51**	**51**	**51**	**46**	**45**	**45**	**44**	**39**	**39**	**38**	**37**	**37**	**33**	**31**	**30**	**26**	**22**

Adjusted Residential Street Evaluation Measure (Final CTIP Report)

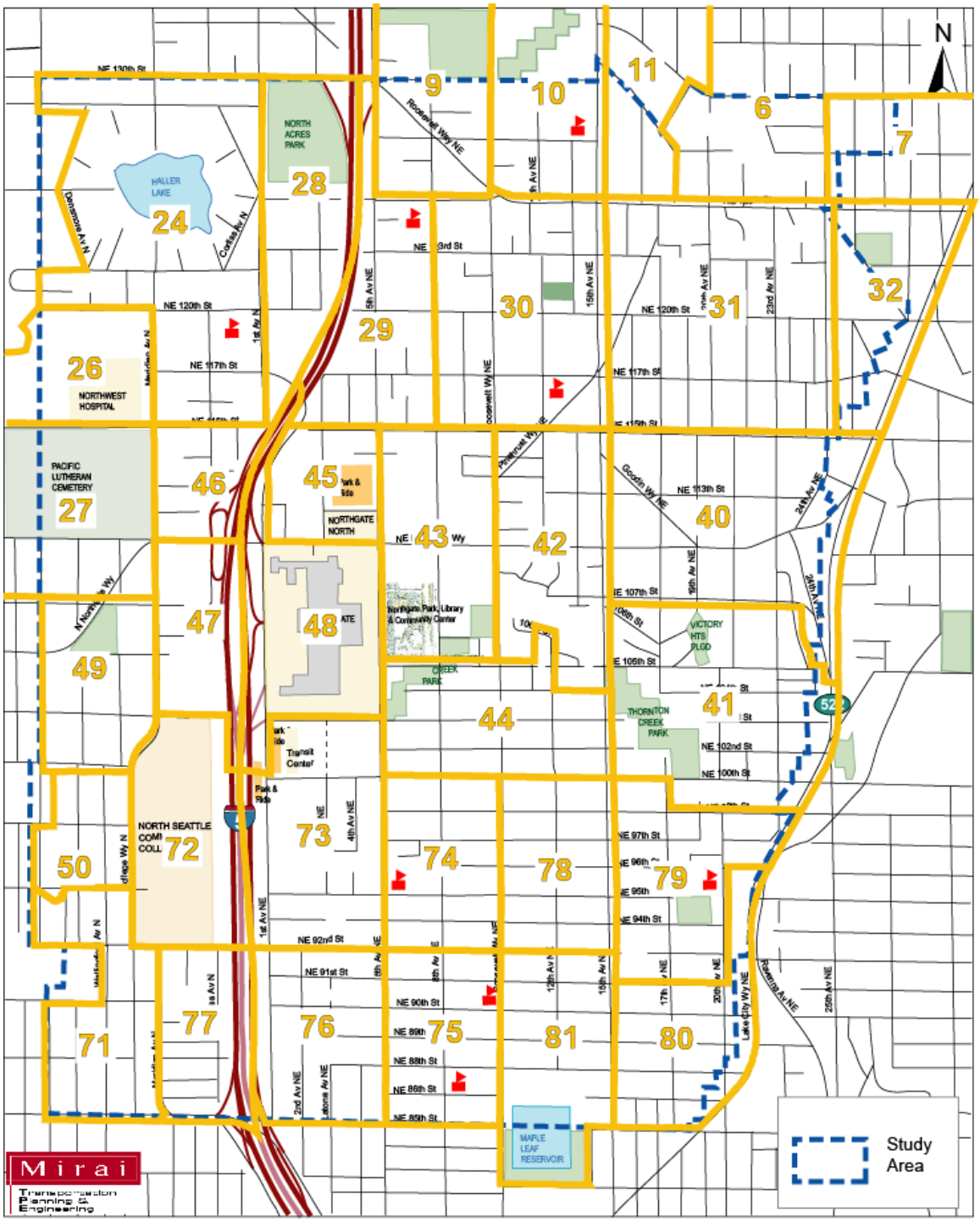
Category	NE 98th Street W/O 23rd Avenue NE	NE 115th Street E/O 14th Avenue NE	NE 115th Street E/O 9th Avenue NE	N 117th Street W/O Corliss Avenue N	NE 120th Street E/O 16th Avenue NE	25th Avenue NE S/O NE 127th Street	NE 95th Street W/O 8th Avenue NE	20th Avenue NE S/O NE 95th Street	NE 98th Street E/O 12th Avenue NE	8th Avenue NE N/O NE 123rd Street	NE 98th Street W/O 8th Avenue NE	NE 120th Street E/O 5th Avenue NE	NE 97th Street W/O Roosevelt Way NE	NE 117th Street W/O 8th Avenue NE	NE 95th Street W/O 4th Avenue NE	NE 107th Street E/O 17th Avenue NE	NE 97th Street W/O 12th Avenue NE	NE 90th Street W/O 12th Avenue NE	NE 90th Street W/O 15th Avenue NE	NE 97th Street E/O 15th Avenue NE	12th Avenue NE N/O NE 102nd Street	NE 104th Street E/O Roosevelt Way NE	8th Avenue NE S/O NE 88th Street
Speed (85%)	20	13	13	17	14	14	12	11	15	15	11	14	8	12	15	12	16	13	12	11	8	13	1
Vehicles /Day	29	30	30	11	13	15	23	9	4	9	7	6	11	15	11	11	7	11	10	6	2	6	10
Ped Facility	13	13	13	13	13	13	0	13	13	13	13	13	13	13	0	13	13	0	0	13	13	0	0
Collision	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
School Walkway	7	7	0	7	7	7	7	7	7	0	7	7	7	0	7	0	0	7	7	0	7	7	0
Pedestrian Route	0	0	0	7	0	0	7	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0
Bicycle Route	3	3	3	3	0	0	0	3	3	3	3	0	0	0	0	0	0	3	3	0	0	0	0
Street Features	2	0	0	0	3	0	0	3	1	2	1	1	0	0	0	0	0	0	0	0	0	1	0
TOTAL	**75**	**67**	**60**	**57**	**51**	**48**	**48**	**47**	**44**	**43**	**43**	**41**	**40**	**40**	**40**	**37**	**36**	**34**	**32**	**31**	**30**	**27**	**20**

1) Added weights on the Speed and Vehicles measures by applying a factor of 1.5 to each to make both measures comprise a maximum of 60 points.
2) Reduced the scores of other measures proportionately to make 40 points combined.

Appendix 4-1.

Traffic Analysis Zones

Appendix 4-1. Traffic Analysis Zones



Appendix 4-2.

Northgate Area Pipeline Development Projects

Appendix 4-2. Northgate "Pipeline" Development Projects

Pipeline Projects	Analysis Horizon Year	Use	Area (SF)	Units
Northgate Community Center and Library	2010	Community Center	20,000	
		Library	10,000	
Northgate Mall Expansion	2010	Retail	100,000	
Northgate Commons	2010	Residential (rental)		250 units
		Residential (condo)		110 units
		Residential (senior)		129 units
		Retail	20,000	
		Restaurant (sit-down)	15,000	
		Restaurant (eateries)	15,000	
		Theater		3,260 seats
		KC Metro Park and Ride		400 stalls
King County Northgate TOD	2010	Residential		120 units
		Restaurants	25,000	
		Retail shops	40,000	
		Northgate TC Park and Ride Removal		-296 Stalls
	2020	Hotel	46,000	170 rooms
		Restaurants	15,000	
		Retail shops	30,000	
		Residential	75,000	80 units
	2030	Retail	16,000	
		Residential	327,000	340 units
		Health club	24,000	
		Daycare	16,000	
Wallace Development	CURRENT	Retail	50,609	
	2010	Retail Removal	-50,609	
		Retail New	100,000	
		Residential New		350 units
Mullally Development	CURRENT	Residential		200 units
	2010	Residential Removal		-100 units
		Residential Addition		500 units
		Hotel		135 units
		Commercial New	100,000	
	2030	Commercial New	9,000	
		Residential Removal		-100 units
		Residential Addition		500 units
Kauri Investments	CURRENT	Residential		144 units
	2010	Residential Addition		200 units
Northgate Medical Pavilion	2010	Medical office	67,937	

Appendix 4-3.

Intersection LOS: 2010 and 2030

Appendix 4-3. Intersection LOS: 2010 and 2030

Table A8-1: 2010 PM Peak Hour Intersection Performance Measures

No.	N-S Street	E-W Street	EB			WB			NB			SB			Int.
			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
1	Meridian Ave N	NE 130th St	-	A	-	-	A	-	-	C	-	-	B	-	
			-	8	-	-	7	-	-	23	-	-	16	-	
				A			A			C			B		B
				8			7			23			16		10
2	1st Ave NE	NE 130th St	E	D	-	E	D	-	E	D	-	F	B	-	
			76	48	-	69	52	-	57	50	-	84	20	-	
				D			D			D			D		D
				50			54			50			50		51
3	5th Ave NE	NE 130th St	-	C	-	-	C	A	D	C	-	C	C	-	
			-	27	-	-	23	5	41	27	-	35	28		
				C			C			C			C		C
				27			21			32			32		28
4	*5th Ave NE*	*I-5 NB off ramp*	*F*	-	*F*	-	-	-	-	*A*	-	-	*A*	-	*EBL/R*
			*	-	*	-	-	-	-	*0*	-	-	*0*	-	
				-			-			-			-		*F*
				-			-			-			-		*
5	*5th Ave NE*	*NE 125th St*	-	-	-	*D*	-	*D*	-	*A*	*A*	*A*	*A*	-	*WBL/R*
			-	-	-	*26*	-	*26*	-	*0*	*0*	*0.4*	*1.3*	-	
				-			-			-			-		*D*
				-			-			-			-		*26*
6	10th Ave NE	Roosevelt Way	D	C	-	D	C	-	A	B	-	E	A	-	
			45	31	-	37	27	-	8	10	-	74	8	-	
				D			C			B			B		B
				44			28			10			17		16
7	15th Ave NE	NE 125th St	E	D	-	E	D	-	E	E	-	F	C	-	
			66	35	-	67	41	-	68	57	-	107	33	-	
				D			D			E			D		D
				43			46			58			49		49
8	*Meridian Ave N*	*NE 122nd St*	-	*B*	*B*	*B*	*B*	-	*D*	-	*D*	-	-	-	*NBL/R*
			-	*10*	*10*	*11*	*11*	-	*26*	-	*26*	-	-	-	
				-			-			-			-		*C*
				-			-			-			-		*21*

(See key at the end of the table for clarification)

Appendix 4-3. Intersection LOS: 2010 and 2030

No.	N-S Street	E-W Street	EB			WB			NB			SB			Int.
			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
9	*15th Ave NE*	*Pinehurst Way NE*	*A*	-	-	-	-	-	-	*F*	-	-	*B*	*A*	*NBT*
			0	-	-	-	-	-	-	**	-	-	*12*	*0*	
				-			-			-			-		*F*
				-			-			-			-		**
10	*Meridian Ave N*	*NE 115th St*	*E*	*E*	*E*	*B*	*B*	*B*	*C*	*F*	*F*	*C*	*C*	*C*	*NBT/R*
			35	*35*	*35*	*12*	*12*	*12*	*22*	*77*	*77*	*20*	*20*	*20*	
				-			-			-			-		*E*
				-			-			-			-		*43*
11	*Roosevelt Way*	*Pinehurst Way*	-	-	-	*A*	-	-	-	*B*	*A*	-	*B*	-	*SBT*
			-	-	-	*0*	-	-	-	*10*	*0*	-	*15*	-	
				-			-			-			-		*B*
				-			-			-			-		*15*
12	5th Ave NE	NE 112th St	B	-	A	-	-	-	A	A	-	-	A	-	
			18	-	8	-	-	-	2	3	-	-	4	-	
				A			-			A			A		A
				10			-			3			4		4
13	Meridian Ave N	N Northgate Way	F	D	-	D	F	-	E	D	A	F	E	-	
			108	13	-	54	89	-	59	47	7	**	65	-	
				E			F			C			F		F
				66			84			30			**		102
14	Corliss Ave N	N Northgate Way	-	B	-	-	B	-	-	B	-	-	D	-	
			-	16	-	-	15	-	-	16	-	-	39	-	
				B			B			B			D		B
				16			45			16			39		18
15	1st Ave NE	NE Northgate Way	-	C	A	-	C	D	F	C	B	F	D	-	
			-	33	2	-	24	53	101	30	14	83	49	-	
				C			C			E			E		D
				21			35			69			56		42
16	3rd Ave NE	NE Northgate Way	F	A	A	-	F	-	C	-	A	-	-	A	
			154	5	1	-	83	-	20	-	9	-	-	1	
				C			F			B			A		C
				33			83			20			1		49

(See key at the end of the table for clarification)

Appendix 4-3. Intersection LOS: 2010 and 2030

No.	N-S Street	E-W Street	EB			WB			NB			SB			Int.
			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
17	5th Ave NE	NE Northgate Way	D	F	-	F	C	-	F	D	E	F	C	-	
			52	118	-	**	27	-	**	36	59	154	26	-	
				F			E			F			E		F
				110			78			80			69		88
18	*Roosevelt Way NE*	*NE 125th St*	*B*	*B*	*B*	-	-	-	*A*	*A*	*A*	-	*A*	*A*	*EB*
			11	*11*	*11*	-	-	-	*0*	*0*	*0*	-	*0*	*0*	
				-			-			-			-		
				-			-			-			-		*11*
19	Roosevelt Way NE	NE Northgate Way	F	C	-	E	F	-	D	C	-	E	C	-	
			83	22	-	55	84	-	49	20	-	58	32	-	
				D			F			C			C		D
				41			81			27			35		47
20	15th Ave NE	NE Northgate Way	D	B	A	D	C	-	-	D	-	-	C	-	
			41	20	2	46	26	-	-	37	-	-	22	-	
				B			B			C			C		C
				19			28			37			22		26
21	1st Ave NE	I-5 NB ramps	E	E	A	D	D	D	C	D	-	D	C	A	
			57	61	5	43	49	48	24	41	-	51	32	3	
				D			D			D			C		D
				48			48			38			20		37
22	5th Ave NE	NE 106th St	C	C	-	-	B	-	C	B	-	D	B	-	
			29	22	-	-	18	-	33	17	-	38	15	-	
				C			B			B			B		B
				26			18			18			16		18
23	*5th Ave NE*	*NE 105th St*	-	-	-	*D*	-	*D*	-	*A*	*A*	*B*	*A*	-	*WBL/R*
			-	-	-	*34*	-	*34*	-	*0*	*0*	*13*	*0*	-	
				-			-			-			-		*D*
				-			-			-			-		*34*
24	1st Ave NE	NE 103rd St	D	D	-	E	-	B	-	D	B	C	B	-	
			54	49	-	56	-	16	-	38	12	35	12	-	
				D			C			C			C		C
				51			27			34			23		35

(See key at the end of the table for clarification)

Appendix 4-3. Intersection LOS: 2010 and 2030

No.	N-S Street	E-W Street	EB			WB			NB			SB			Int.
			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
25	3rd Ave NE	NE 103rd St	A	B	-	A	A	-	B	A	-	B	A	-	
			8	19	-	9	7	-	14	4	-	12	4	-	
				B			A			B			A		B
				18			7			10			6		13
26	5th Ave NE	NE 103rd St	C	A	-	-	C	-	E	C	-	B	C	-	
			35	5	-	-	27	-	65	21	-	19	22	-	
				C			C			C			C		C
				27			27			26			21		25
27	1st Ave NE	NE 100th St	-	A	-	-	B	A	-	B	-	C	B	-	
			-	7	-	-	16	6	-	12	-	32	10	-	
				A			A			B			B		B
				7			10			12			16		12
28	*3rd Ave NE*	*NE 100th St*	*A*	*A*	*A*	*A*	*A*	*A*	*F*	*B*	*B*	*F*	*B*	*B*	*SBL*
			8	*0*	*0*	*8*	*0*	*0*	*71*	*14*	*14*	*114*	*11*	*11*	
				-			-			-			-		*F*
				-			-			-			-		*114*
29	5th Ave NE	NE 100th St	-	C	A	-	A	-	B	B	-	-	B	A	
			-	21	7	-	8	-	13	11	-	-	11	2	
				B			A			B			A		B
				13			8			11			9		11
30	College Way N	N 95th St	-	A	-	-	A	-	-	A	-	A	A	-	
			-	6	-	-	8	-	-	2	-	3	2	-	
				A			A			A			A		A
				6			8			2			2		3
31	*College Way N*	*N 92nd Way*	*C*	*C*	-	-	*F*	*B*	-	-	-	*C*	-	*C*	*WBT*
			15	*23*	-	-	*120*	*13*	-	-	-	*20*	-	*15*	
				-			-			-			-		*F*
				-			-			-			-		*50*
32	*1st Ave NE*	*NE 92nd Way*	*F*	*F*	*F*	*D*	*D*	*D*	*B*	*B*	*B*	*F*	*F*	*F*	*EB*
			132	*132*	*132*	*34*	*34*	*34*	*14*	*14*	*14*	*94*	*94*	*94*	
				-			-			-			-		*F*
				-			-			-			-		*90*

(See key at the end of the table for clarification)

Appendix 4-3. Intersection LOS: 2010 and 2030

No.	N-S Street	E-W Street	EB			WB			NB			SB			Int.
			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
33	5th Ave NE	NE 92nd Way	E	-	A	-	D	-	-	D	-	-	B	-	
			60	-	9	-	36	-	-	43	-	-	11	-	
			C			D			D			B			C
			28			36			43			11			25
34	24th Ave NE	NE Northgate Way	-	C	-	-	B	-	-	B	-	-	A	-	
			-	22	-	-	13	-	-	16	-	-	0	-	
			C			B			B			A			B
			22			13			16			0			18

Notes:

NB		
NBL	NBT	NBR
B	A	B
15	3	11
A		
5		

← by turning movement

← by approach

NB: Northbound SB: Southbound L: Left
EB: Eastbound WB: Westbound T: Through
Int.: Intersection R: Right
Unsignalized / Signalized Intersection
* not calculated by Synchro
** over 180 seconds

Appendix 4-3. Intersection LOS: 2010 and 2030

Table A8-2: 2030 PM Peak Hour Intersection Performance Measures

No.	N-S Street	E-W Street	EB			WB			NB			SB			Int.
			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
1	Meridian Ave N	NE 130th St	-	B	-	-	A	-	-	C	-	-	B	-	
			-	10	-	-	8	-	-	26	-	-	17	-	
				B			A			C			B		B
				10			8			26			17		12
2	1st Ave NE	NE 130th St	F	E	-	E	E	-	E	E	-	F	B	-	
			84	61	-	76	75	-	61	74	-	115	20	-	
				E			E			E			E		E
				62			75			73			65		70
3	5th Ave NE	NE 130th St	-	C	-	-	C	A	D	C	-	D	C	-	
			-	35	-	-	24	5	53	31	-	37	27	-	
				C			C			C			C		C
				35			22			39			32		33
4	*5th Ave NE*	*I-5 NB off ramp*	*F*	-	*F*	-	-	-	-	*A*	-	-	*A*	-	*EBL/R*
			*	-	*	-	-	-	-	*0*	-	-	*0*	-	
				-			-			-			-		*F*
				-			-			-			-		*
5	*5th Ave NE*	*NE 125th St*	-	-	-	*E*	-	*E*	-	*A*	*A*	*A*	*A*	-	*WBL/R*
			-	-	-	*40*	-	*40*	-	*0*	*0*	*1*	*2*	-	
				-			-			-			-		*E*
				-			-			-			-		*40*
6	10th Ave NE	Roosevelt Way	D	C	-	D	C	-	A	B	-	F	A	-	
			46	31	-	37	27	-	8	11	-	107	8	-	
				D			C			B			C		B
				44			28			11			22		18
7	15TH Ave NE	NE 125th St	F	D	-	F	F	-	E	F	-	F	C	-	
			108	51	-	114	85	-	76	91	-	138	35	-	
				E			F			F			E		E
				66			90			89			58		77
8	*Meridian Ave N*	*NE 122nd St*	-	*B*	*B*	*B*	*B*	-	*E*	-	*E*	-	-	-	*NBL/R*
			-	11	11	13	13	-	44	-	44	-	-	-	
				-			-			-			-		*D*
				-			-			-			-		*33*

Appendix 4-3. Intersection LOS: 2010 and 2030

No.	N-S Street	E-W Street	EB			WB			NB			SB			Int.
			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
9	*15th Ave NE*	*Pinehurst Way NE*	*A*	-	-	-	-	-	-	*F*	-	-	*B*	*A*	*NBT*
			0	-	-	-	-	-	-	**	-	-	*13*	*0*	
				-			-			-			-		*F*
				-			-			-			-		**
10	*Meridian Ave N*	*NE 115th St*	*E*	*E*	*E*	*B*	*B*	*B*	*C*	*F*	*F*	*C*	*C*	*C*	*NBT/R*
			46	*46*	*46*	*12*	*12*	*12*	*22*	*99*	*99*	*23*	*23*	*23*	
				-			-			-			-		*F*
				-			-			-			-		*54*
11	*Roosevelt Way*	*Pinehurst Way*	-	-	-	*A*	-	-	-	*B*	*A*	-	*D*	-	*SBT*
			-		-	*0*	-	-	-	*12*	*0*	-	*31*	-	
				-			-			-			-		*D*
				-			-			-			-		*31*
12	5th Ave NE	NE 112th St	B	-	A	-	-	-	A	A	-	-	A	-	
			18	-	8	-	-	-	3	4	-	-	5	-	
				A			-			A			A		A
				10			-			4			5		4
13	Meridian Ave N	N Northgate Way	F	E	-	E	F	-	F	F	E	F	F	-	
			122	56	-	76	138	-	89	113	62	**	156	-	
				E			F			F			F		F
				62			129			86			**		119
14	Corliss Ave N	N Northgate Way	-	D	-	-	C	-	-	B	-	-	D	-	
			-	38	-	-	23	-	-	18	-	-	48	-	
				D			C			B			D		C
				38			23			18			48		33
15	1st Ave NE	NE Northgate Way	-	E	A	-	C	F	F	C	C	F	E	-	
			-	78	2	-	26	156	121	33	21	145	61	-	
				D			E			F			F		E
				50			75			82			83		69
16	3rd Ave NE	NE Northgate Way	F	A	A	-	F	-	F	-	A	-	-	A	
			**	8	1	-	105	-	88	-	9	-	-	2	
				D			F			F			A		E
				46			105			86			2		69

(See key at the end of the table for clarification)

Appendix 4-3. Intersection LOS: 2010 and 2030

No.	N-S Street	E-W Street	EB			WB			NB			SB			Int.
			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
17	5th Ave NE	NE Northgate Way	E	F	-	F	D	-	F	D	F	F	C	-	
			68	162	-	**	47	-	**	44	88	**	26	-	
				F			F			F			F		F
				150			90			104			87		113
18	*Roosevelt Way NE*	*NE 125th St*	*B*	*B*	*B*	-	-	-	*A*	*A*	*A*	-	*A*	*A*	*EB*
			15	*15*	*15*	-	-	-	*0*	*0*	*0*	-	*0*	*0*	
				-			-			-			-		*B*
				-			-			-			-		*15*
19	Roosevelt Way NE	NE Northgate Way	F	B	-	E	F	-	F	C	-	F	F	-	
			105	18	-	62	96	-	**	29	-	96	104	-	
				D			F			E			F		E
				45			93			67			103		74
20	15th Ave NE	NE Northgate Way	D	C	A	D	C	-	-	D	-	-	C	-	
			52	31	2	54	26	-	-	51	-	-	24	-	
				C			C			D			C		C
				29			28			51			24		33
21	1st Ave NE	I-5 NB ramps	E	F	A	D	D	E	C	E	-	F	C	A	
			74	83	6	42	49	65	25	57	-	92	33	4	
				E			E			D			C		D
				66			59			51			27		51
22	5th Ave NE	NE 106th St	D	D	-	C	B	-	D	B	-	D	B	-	
			43	36	-	35	15	-	48	20	-	45	16	-	
				D			C			C			B		C
				39			22			22			17		23
23	*5th Ave NE*	*NE 105th St*	-	-	-	*C*	-	*C*	-	*A*	*A*	*B*	*A*	-	*WBL/R*
			-	-	-	*23*	-	*23*	-	*0*	*0*	*14*	*0*	-	
				-			-			-			-		*C*
				-			-			-			-		*23*
24	1st Ave NE	NE 103rd St	F	E	-	F	-	D	-	D	-	D	B	-	
			82	58	-	98	-	54	-	50	-	42	11	-	
				E			E			D			C		D
				71			65			50			26		54

(See key at the end of the table for clarification)

Appendix 4-3. Intersection LOS: 2010 and 2030

No.	N-S Street	E-W Street	EB			WB			NB			SB			Int.
			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
25	3rd Ave NE	NE 103rd St	A	B	-	D	A	-	B	A	-	B	A	-	
			5	17	-	40	7	-	18	5	-	13	5	-	
				B			B			B			A		B
				15			17			13			7		14
26	5th Ave NE	NE 103rd St	E	A	-	-	D	-	F	C	-	C	C	-	
			61	5	-	-	41	-	123	28	-	25	26	-	
				D			D			D			C		D
				47			41			40			26		38
27	1st Ave NE	NE 100th St	-	-	-	B	-	B	-	A	A	B	A	-	
			-	-	-	18	-	12	-	9	3	14	9	-	
				-			B			A			B		B
				-			14			8			11		11
28	*3rd Ave NE*	*NE 100th St*	*A*	*A*	*A*	*A*	*A*	*A*	*F*	*C*	*C*	*F*	*C*	*C*	*SBL*
			8	*0*	*0*	*8*	*0*	*0*	**	*23*	*23*	**	*19*	*19*	
				-			-			-			-		*F*
				-			-			-			-		**
29	5th Ave NE	NE 100th St	-	C	A	-	A	-	C	B	-	-	B	A	
			-	28	9	-	9	-	24	12	-	-	13	2	
				B			A			B			B		B
				18			9			15			10		14
30	College Way N	N 95th St	-	A	-	-	A	-	-	A	-	A	A	-	
			-	7	-	-	7	-	-	3	-	3	3	-	
				A			A			A			A		A
				7			7			3			3		3
31	*College Way N*	*N 92nd Way*		*E*	-	-	*F*	*C*	-	-	-	*C*	-	*C*	*WBT*
			22	*37*	-	-	*166*	*16*	-	-	-	*25*	-	*22*	
				-			-			-			-		*F*
				-			-			-			-		*65*
32	*1st Ave NE*	*NE 92nd Way*	*F*	*F*	*F*	*E*	*E*	*E*	*B*	*B*	*B*	*F*	*F*	*F*	*EB*
			169	*169*	*169*	*48*	*48*	*48*	*14*	*14*	*14*	*137*	*137*	*137*	
				-			-			-			-		*F*
				-			-			-			-		*122*

(See key at the end of the table for clarification)

Appendix 4-3. Intersection LOS: 2010 and 2030

No.	N-S Street	E-W Street	EB			WB			NB			SB			Int.
			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
33	5th Ave NE	NE 92nd Way	E	-	B	-	D	-	-	F	-	-	B	-	
			70	-	12	-	36	-	-	155	-	-	12	-	
			C			D			F			B			E
			31			36			155			12			60
34	24th Ave NE	NE Northgate Way	-	C	-	-	B	-	-	C	-	-	A	-	
			-	26	-	-	12	-	-	22	-	-	0	-	
			C			B			B			A			C
			26			12			22			0			20

Notes:

NB		
NBL	NBT	NBR
B	A	B
15	3	11
A		
5		

← by turning movement

← by approach

NB: Northbound SB: Southbound L: Left
EB: Eastbound WB: Westbound T: Through
Int.: Intersection R: Right
Unsignalized / Signalized Intersection
* not calculated by Synchro
** over 180 seconds

Appendix 5-1.

CTIP Planning, Financing and Technical Assumptions

Northgate Coordinated Transportation Plan

Planning, Financing and Technical Assumptions

Prepared for

Northgate Stakeholder Group

Prepared by

Seattle Department of Transportation and Mirai Associates

February 24, 2005

Northgate Coordinated Transportation Investment Plan (CTIP)

Planning, Financing and Technical Assumptions

This report establishes planning, financing and technical assumptions for the Northgate Coordinated Transportation Investment Plan (CTIP).
The assumptions are grouped into the following categories:

- Planning assumptions
- Financing sources
- System performance measures and benchmarks

1. Planning Assumptions

To proceed with the development of a transportation plan for the Northgate area, several assumptions should be clarified at an early stage of the planning process. The consultant and City staff team has identified several key assumptions as follows:

A. Existing Plans

The CTIP will be developed based partially on previous plans and studies. It is particularly important to review and evaluate the policies and recommendations in the following plans:

- Northgate Area Comprehensive Plan (1993)
- Open Space and Pedestrian Connections Plan (2004)
- 5th Avenue NE Streetscape Final Design Report

In addition, known or anticipated new developments will be evaluated as "pipeline projects".

Assumption:

1) Develop CTIP recommendations that will be consistent with previously prepared plans for the Northgate area.
2) Include known or anticipated new development as part of CTIP traffic forecasts.

B. Study area

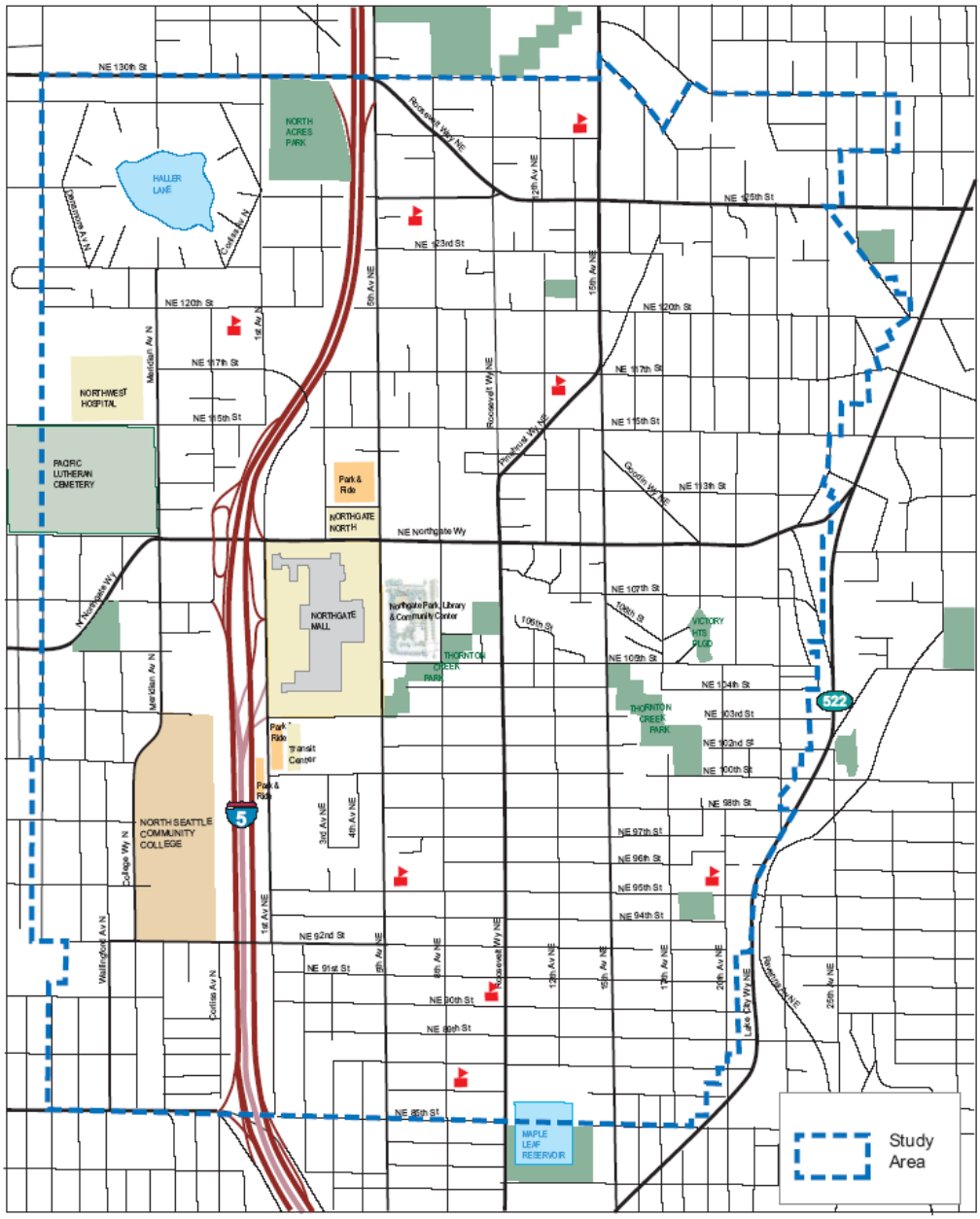
The study area adopted in the 1993 Northgate Area Comprehensive Plan (NACP) study is shown in Figure 1. The boundaries of the Core Overlay Area within the NACP and the Northgate Urban Center were also considered as the potential CTIP study area.

Appendix 5-1. CTIP Planning, Financing and Technical Assumptions

Assumption:

1) The study area of the CTIP should be consistent with the Northgate Comprehensive Plan. The study area boundaries, as designated in the Comprehensive Plan EIS, are defined by Ashworth Avenue N on the west, N 130th Street/125th Street on the north, NE 85th Street on the south, and the west side of Lake City Way on the east, excluding Lake City Way. However, we would analyze traffic that may travel through the study area from access points on Lake City Way.

Figure 1. CTIP Study Area



C. Study Area Growth Assumptions

The CTIP will be developed to support the planned future (2010 and 2030) land use growth in the study area. It is therefore important to clarify the growth assumptions to be used for this study. These assumptions involve use of the Seattle Transportation Demand Forecasting Model ("Seattle Model") for the following three areas: 1) Northgate CTIP study area, 2) the entire City of Seattle area, and 3) the region outside the City.

Assumptions:

1) Review the Seattle Model's assumptions for existing land use, and 2010 and 2030 growth projections.
2) Refine land use projections that the CTIP will use for 2010 and 2030 based on the existing development proposals.

D. Interstate 5

While the City does not have land use or transportation planning responsibility within the State right-of-way, State facilities significantly affect the operation of the City's transportation system. In particular, the current planning activities for I-5 may provide a vehicle by which to implement CTIP recommendations. At the same time, an analysis of I-5's function and operations would be resource-intensive, may duplicate Washington State Department of Transportation (WSDOT) efforts and may distract from higher priority interests in the Northgate area. Therefore, it is important to clarify the City's direction with respect to the consultant's work related to I-5.

Assumptions:

1) Develop and evaluate concepts that would improve east-west pedestrian circulation across I-5
2) Evaluate intersection operations on City arterials at existing I-5 ramps.
3) Coordinate with WSDOT I-5 study.

E. Sound Transit

The Sound Transit Board affirmed its plan to build a light rail system from Downtown Seattle to Northgate, but full funding and project timing remain uncertain.

Sound Transit has initiated planning for Sound Move Phase II, and it is possible that an extension of light rail from Northgate into Snohomish County may be discussed in the near future. Given these uncertain conditions about the future of the North Link light rail extensions, CTIP should assume light rail implementation consistent with City of Seattle policy. The implications of the light rail assumption for the Northgate are mostly related to park and ride demand and parking supply, potential parking spillover, traffic impacts, and pedestrian/bicycle facilities connecting the neighborhoods to the station.

While Sound Transit has identified Northgate as a temporary terminus of the light rail line, it is too speculative to precisely define whether and when the light rail line would be extended to the north from Northgate. The CTIP will not make any statement about how long the Northgate station would remain the temporary terminus. When a decision is made to extend North Link Light Rail, Sound Transit will prepare environmental documents and analyze impacts of such action to the Northgate communities. Therefore, the following is the assumptions that will be used for the CTIP.

Assumptions:

1) Link Light Rail would be extended to the University District by 2020.
2) Link Light Rail would serve Northgate by 2030

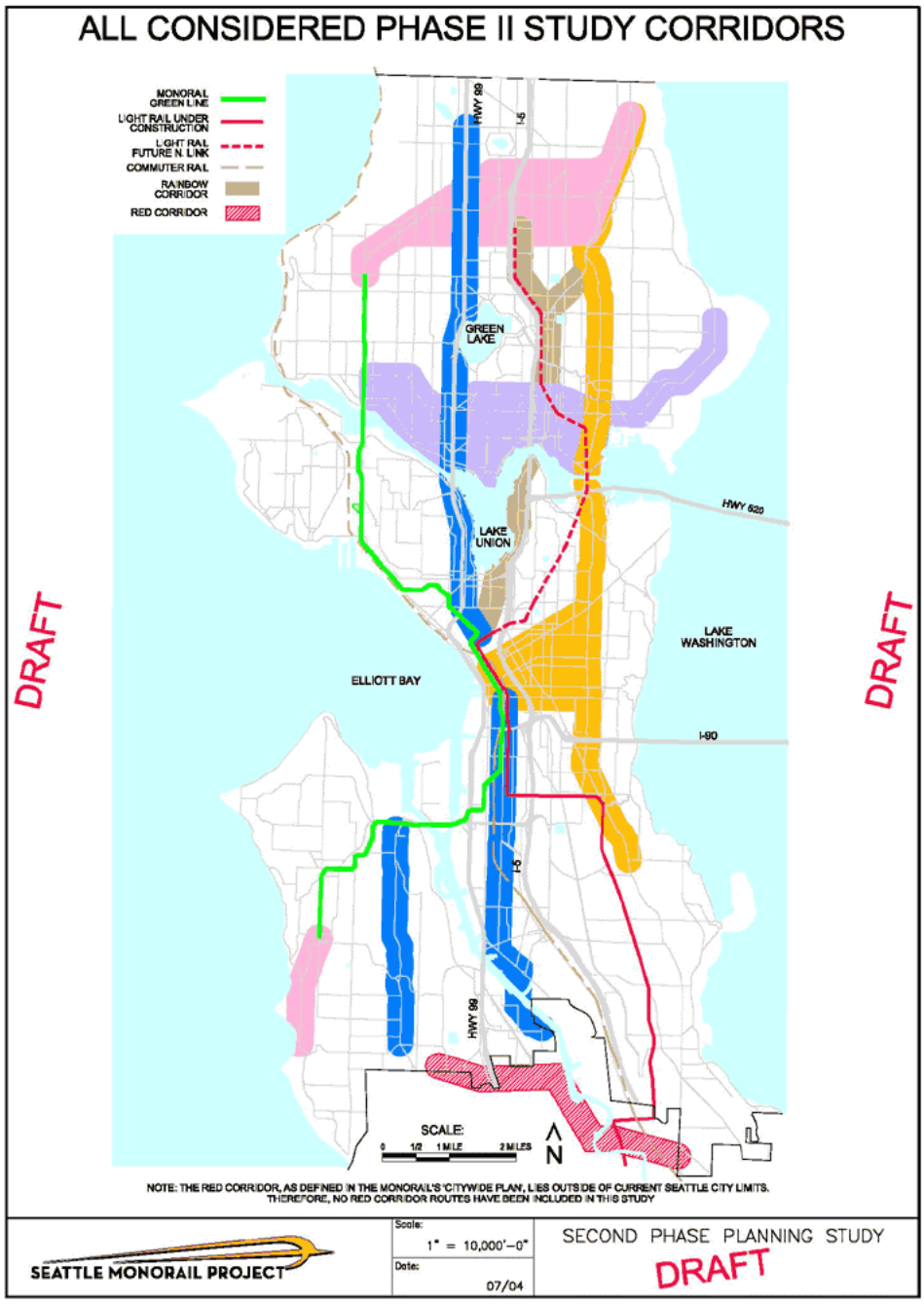
F. Seattle Monorail

The Seattle Monorail Project has initiated planning for Phase II of the Monorail system. Several possible extensions from the current Green Line or new lines have been identified. One of the Phase II options is to extend the Green Line from Crown Hill to Northgate. At this time, it is uncertain which Phase II corridor will be selected. While many uncertainties exist for this project, CTIP needs to make some planning assumptions. A map (Figure 2) showing the corridors for possible extensions in Phase II of the Monorail Project is attached.

Assumptions:

1) Identify the range of issues that would be related to a potential Green Line extension to Northgate.
2) Develop policy recommendations in CTIP regarding a Green Line extension. However, we would not expend major effort to evaluate and formulate recommendations on a Green Line Northgate alignment or supporting infrastructure.

Figure 2: Map of the Seattle Monorail Project Extension Corridors



2. Financing Sources

One of the important issues that will influence the direction of the Northgate CTIP is if, and at what point in the planning process, the CTIP should be financially constrained within current funding levels.

If the CTIP is financially constrained at the outset, new, bold or innovative ideas, which may be funded through regional grants or other financing possibilities, might not be considered and evaluated in this study. On the other hand, if financial reality is not introduced early in the plan development process, we may waste resources defining unlikely investments and unduly raising expectations.

The issues of potential transportation financing resources may impact more than just the CTIP and the Northgate area. City leadership may wish to consider some or all of these possible revenue sources in light of city-wide impacts:

- Development impact fees;
- Local Improvement District financing;
- Transportation Benefit District financing;
- Employee tax for transportation improvements;
- Additional general fund allocation to transportation;
- Partnership opportunities involving the use of street rights-of-way, including street vacations;
- Partnership opportunities via neighborhood grant allocations.

The study team would look for City guidance in determining how much the communities and agencies may be willing to pay, who should pay, and through what mechanisms.

Assumptions:

1) Clarify the potential investment level that the City may make under the City's current financial capability early in the CTIP planning process.
2) Develop CTIP recommendations that can be funded within the City's current financial capability as a starting point.
3) Identify other potential funding sources and identify steps needed to implement each funding source.

3. System Performance Measures

One of the key tasks in the CTIP process is to identify deficiencies in the transportation system. At issue is how the system deficiencies should be defined, particularly related to 1) pedestrian facilities, 2) bike facilities, 3) transit facilities, 4) residential streets and 5) arterial roadways and intersections. While the level of service standards in the City's Comprehensive Plan Transportation Element are important for the City's concurrency management system, they may not be a sufficient performance indicator for subarea transportation planning such as CTIP. A more detailed set of performance measures and benchmarks may better illustrate the potential benefits of recommended improvements.

Performance measures are defined as:

> "Measurement or evaluation of how a system is performing to meet its goals and objectives".

Indicators are defined as:

> "components and/or characteristics of a system. Generally, a performance measure consists of several indicators."

Benchmarks are defined as:

> "Acceptable conditions for each transportation system".

Recommended Performance Measures and Benchmarks

The performance measures, consisting of indicators and benchmarks should be regarded as an initial set to prepare for the development of CTIP. As more information is assembled throughout the duration of the study, the benchmarks may potentially be adjusted.

The following key components of Northgate's transportation system will be evaluated using the recommended measures and benchmarks.

- Mode share
- Transportation system for pedestrians
- Transportation system for bicyclists
- Transit system
- Transportation system for vehicles

Mode Share

Travel mode share by transit, carpool, pedestrian and bicycle (non-single occupant vehicles) modes indicates how efficiently the transportation system is used. The Transportation Element of the Comprehensive Plan recommends mode choice goals for 2010 and 2020 as does the Northgate Area Comprehensive Plan.

Appendix 5-1. CTIP Planning, Financing and Technical Assumptions

The Northgate Area Comprehensive Plan and Northgate Overlay District in the Land Use Code (SMC 23.71) includes the maximum PM peak hour SOV mode use for commercial and residential trips generated by projects above a certain trip generation threshold. After year 2000, the maximum SOV use goal is set at 55 percent for both commercial and residential trips. However, the mode share goals recommended in the Transportation Element (shown below) appear to be more useful, considering the 2000 Census survey data.

Mode Share Performance Measures:

Indicator	Benchmark
Work Trips by workers within the Urban Center	2010: 70% or less drive alone 2020: 60% or less drive alone
All Trips by Residents within the Urban Center	2010: 45% or less drive alone 2020: 40% or less drive alone

Transportation System for Pedestrians

Key indicators for a safe and effective pedestrian system for the Northgate area will include arterial crossings, connections between major destinations, connections between neighborhoods and the Northgate Urban Center, and connections within neighborhoods to local schools, parks, the transit center, and neighborhood commercial districts. The performance of these indicators will be measured through field observations and comments the consultant team receives at public meetings and those made by the Northgate Stakeholders.

Pedestrian System Performance Measure:

Indicator	Benchmark
Intersections and Mid-Block Crossings (including those defined in Open Space/Pedestrian Plan) Northgate Way Corridor I-5 Southbound ramps, 1st Avenue NE, 3rd Avenue NE, 5th Avenue NE, 8th Avenue NE, Roosevelt Way, and a section between 5th Avenue and 7th Avenue 5th Avenue NE Corridor Northgate Way, NE 106th Street (Community Center), NE 103rd Street, NE 100th Street, NE 92nd Street, NE 105th Street, NE 112th Street, NE 85th Street 8th Avenue NE Corridor North of Northgate Way NE to Post Office Roosevelt Way Corridor Street sections between NE 112th Street and Northgate Way, and between NE 88th Street and NE 92nd Street 15th Ave NE Corridor North of NE 94th Street, access to Sacajawea Elementary School, NW Puppet Center, NE 117th Street – NE 125th Street 3rd Avenue Corridor between NE 100th Street and NE 103rd Street (New Street) NE 100th Street, NE 103rd Street College Way/Meridian Avenue N Corridor From N 92nd Street to N 122nd Street	
Pedestrian Accidents Crossing Width Conflicting Turning Volumes Average Daily Volumes Refuge Space Average Speed Pedestrian Signals Activated Pedestrian Signals ADA-Compliant Ramps Streetlights	Quantitative and qualitative analysis to determine adequacy
Indicator	Benchmark
Neighborhoods to urban center (arterials including trail segments through public open space)	
Connectivity (Sidewalks) Characteristics of pedestrian facilities such as street lights, sidewalk space, pavement conditions (such as tree grate displacement, lack of maintenance, etc)	Acceptable when equals 90% of total arterial linear arterial distance times two(2)*, and qualitative assessment of pedestrian facilities to determine adequacy
* Sidewalks on both sides of a street will be evaluated.	

Indicator	Benchmark
Within Urban Center (connectivity targets defined in open space and pedestrian plan) Between North Seattle Community College and Northgate Transit Center Between new Civic Center and Transit Center Between Northgate Mall and Northgate Transit Center Between Northgate Mall and future Link Light Rail station Between Northgate Mall and Northgate Community Center/Library Between Northgate Mall and Northgate North Center Between Northwest Hospital and Northgate Mall Between Office center south of NE 100th Street and Northgate Mall Pedestrian Access to QFC at Roosevelt Way and NE 112th Street 8th Avenue NE between Northgate Way to NE 92nd Street	
Connectivity (Pedestrian facilities that may include sidewalks, trails, etc.) Quality of pedestrian connection	Acceptable when equals 90% of total linear street distance of all connections combined times two(2)* and qualitative assessment of pedestrian facilities to determine adequacy
* Sidewalks on both sides of a street will be evaluated.	

Indicator	Benchmark
Neighborhoods to Parks, Library, Schools, Local Businesses and Transit Center (arterials and local streets)	
Obstacles (minimum space necessary for two persons to walk continuously)	None within 1/2 mile radius of parks, library and neighborhood commercial districts
Connectivity (sidewalks) and quality of sidewalks	90% of total arterial linear distance times two(2)* and qualitative assessment of pedestrian facilities to determine adequacy
School Walk Routes	90% have sidewalks on one side within each school walk zone
* Sidewalks on both sides of a street will be evaluated.	

Transportation System for Bicyclists

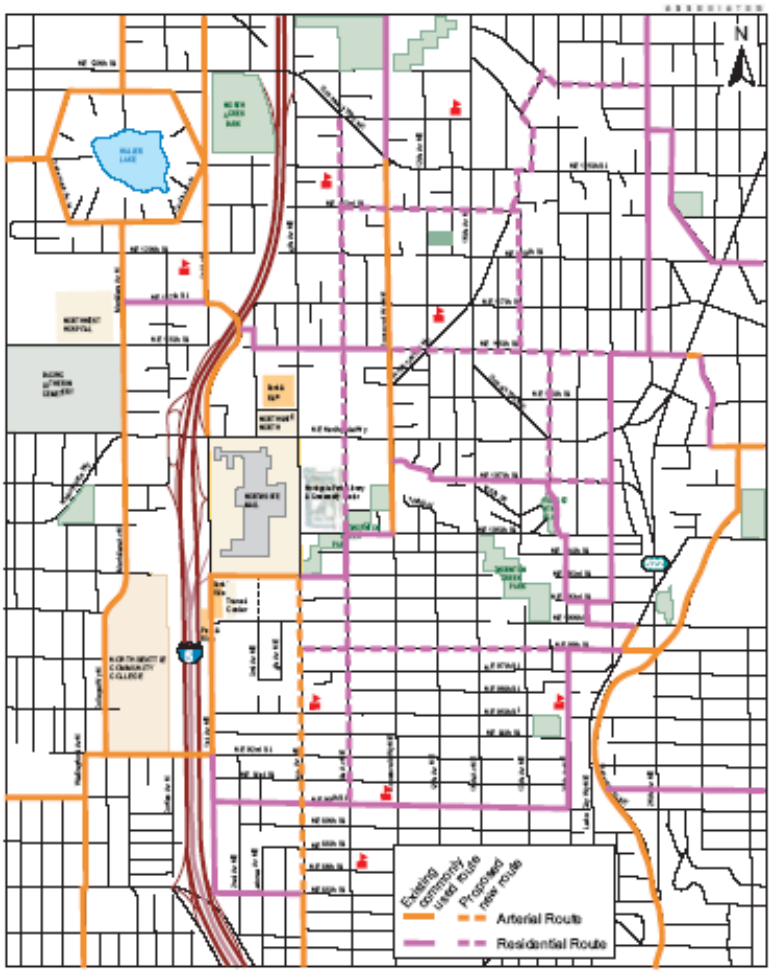
The measure for bicycle facilities on designated bicycle routes (Figure 3) will assess whether adequate bicycle facilities are provided on the City's designated bicycle routes in the CTIP study area. The bicycle facilities for this purpose are bicycle lanes, shared use lanes (wider curb lanes), and multi-purpose trails. The City's designated bike routes and all arterials will be evaluated using the indicators shown below, from which an level of service score, which is called the Bicycle Performance Index (BPI), will be derived. BPI benchmarks will vary according to roadway type and area as follows.

The proposed bicycle level of service attempts to indicate bicyclist comfort level for specific roadway geometries and traffic conditions. Each of the indicators listed in the recommended benchmark table are weighted according to a mathematical equation.

From this computation, the scores can be obtained. Bicycle Performance Index is defined with ranges of the score. For example, BPI **B** is defined with the score between 1.51 and 2.50, and BPI **C** is a range of the score between 2.51 and 3.5.

Bicycle System Performance Measure:

Indicator	Benchmark
Traffic Conditions (Average Daily Trips, Percent of Heavy Vehicles)	Bike routes within 1/2 mile of a recreational facility or schools: BPI **B** Bike routes along non-arterials: BPI **B** Bike routes along arterials: BPI **C** (FHWA's Bicycle Compatibility Index and Updates)
Roadway Design (Number of Lanes, Speed Limit, Width of Outside Lane)	
Roadway Surface Conditions	



Appendix 5-1. CTIP Planning, Financing and Technical Assumptions

Transit System

Key indicators for convenient and effective transit service for Northgate residents and employers will include transit services provided in the Seattle's Urban Village Transit Network, and transit services in the Secondary Network for Northgate households, with specific measures for senior households. The bus routes will be grouped based on Northgate residents' travel destinations. For example, one set of the routes will serve local/neighborhood facilities such as the Northgate mall, community center, Northgate Community College, etc. and others will serve major destinations such as downtown Seattle and University of Washington.

Transit System Performance Measure:

Indicator	Benchmark
Urban Village Transit Network	
Frequency (per UVTN Report)	7-15 minutes
Span of Service (per UVTN Report)	16 – 18 hours
Loading	<100% capacity
Reliability (per UVTN Report)	> 60% services running < 1 minute late
Transit Vehicle Speed	> 30% of the speed limits
Senior Households (Residents in multi family senior facilities)	
Transit Service for 90% of Senior Households within 1/8 mile of Routes Serving the Destinations Below:	
Downtown Seattle and University District	<15 minute peak and midday
Other Urban Centers	<30 minute peak and midday
Local Destinations	<30 minute peak and midday
Households (Secondary Transit Network)	
Transit Service for 60% of All Other Households within 1/4 mile of Routes Serving the Destinations Below:	
Downtown Seattle and University District	<15 minute peak and midday
Other Urban Centers and Nearby Urban Villages	<15 minute peak and 30 minute midday
Transit Service for 70% of All Other Households within 1/4 mile of Routes Serving the Destinations Below:	
Local Destinations	<30 minute peak and midday

Transportation System for Vehicles

Appendix 5-1. CTIP Planning, Financing and Technical Assumptions

Performance of the transportation system for vehicles will be evaluated according to Traffic Safety, Non-Arterial/Residential Street, Arterial Corridor Level of Service, and Arterial Signalized Intersection Level of Service.

Traffic Safety

Traffic safety will be measured with the number of accidents and traffic accident rates. The rates will be defined by average annual accidents per million vehicles at intersections and mid-block locations will be derived from the last 5-years of traffic collision records maintained by the City.

Traffic Safety Performance Measure:

Indicator	Benchmark
Averaged number of Crashes for Signalized Intersections	10 per year
Averaged number of Crashes for Unsignalized Intersections and Mid-block Locations	5 per year
Accident Rates for Signalized Intersections	Intersections within the top one-quarter (ranked highest to lowest rates)
Accident Rates for Unsignalized Intersections	Intersections within the top one-quarter (ranked highest to lowest rates)
Accident Rates for Mid-block Locations	Mid-block locations within the top one-quarter (ranked highest to lowest rates)

Non-Arterial/Residential Street

The performance of non-arterial/ residential streets will be evaluated using the following indicators: traffic volumes, vehicle speeds, collision history, school walkway designations, pedestrian routes, which are identified in the Open Space and Pedestrian Connections Report (2004) and elsewhere, bicycle routes, presence of sidewalks/walkways and street characteristics such as street width, sight distance and on street parking.

CTIP recognizes that the residential/non-arterial streets should be comprehensively evaluated using not only traffic volumes and speeds but also other important street features such as curbs, sidewalks, street width, street trees and parking. Conditions will be inventoried for the residential street system, but benchmarks will not be established initially. For each performance indicator, we will assign points based on the maximum points described below, and key residential streets will be ranked by the total points given to each street. A benchmark may be established after the range of scores has been identified.

Indicator	Maximum Points

Vehicle Volume (1 point per 100 vpd)	20
Vehicle Speed (1 point per each mph above an 85th% speed of 20 mph)	20
Pedestrian Facilities	20
Collision History	10
School Walk Route	10
Primary Pedestrian Route	10
Bicycle Route	5
Street Characteristics	5

The Northgate Area Comprehensive Plan includes a policy stating that traffic circulation will be directed onto arterials to protect the neighborhood from avoidable intrusion of through traffic. It specifically lists the following streets for aiming at reducing traffic, speeds, and pedestrian vehicular conflicts with operational and design controls, including sidewalks:

- Ashworth Avenue N
- NE 115th Street between Lake City Way and 5th Avenue NE
- NE 107th Street between 15th Avenue NE and 23rd Avenue NE
- 23rd Avenue NE
- Pinehurst Way between NE 120th Street and NE 125th Street
- Maple Leaf local access streets
- NE 98th Street between Lake City Way and 15th Avenue NE

Additional streets have been suggested for analysis by SDOT staff, Stakeholders and other community members.

Non-arterial/Residential Street Performance Measure:

Indicator	Benchmark
Traffic Volume, Traffic Speed, Collision History, School Walkway, Pedestrian Facilities, Bicycle Routes, and Street Characteristics	Points will be assigned to each indicator. Individual residential streets will be ranked total score. This ranking of streets will be used at the initial stage of action identification.

Arterial Corridor Level of Service

Arterial corridor level of service (LOS) will be measured in terms of average speeds during the PM peak period. The Highway Capacity Manual (HCM) 2000 method will be applied. The HCM 2000 recommends that the length of the streets selected for the arterial corridor LOS should be at least one mile. The following arterials will be selected for this analysis based on the one-mile minimum criteria:

NE 130th Street/ NE 125th Street between Ashworth Ave and 25th Ave NE

Northgate Way between Meridian Avenue and Lake City Way

Meridian Avenue N/College Way/Wallingford Avenue N between NE 122th Street and NE 85th Street

1st Avenue NE between Northgate Way and NE 92nd Street, and between Northgate Way and NE 130th Street

5th Avenue NE between NE 130th Street and Northgate Way, and between Northgate Way and NE 85th Street

Roosevelt Way NE/Pinehurst Way NW between NE 117th Street (15th Avenue) and NE 85th Street

15th Avenue NE between NE 125th Street and Northgate Way and between Northgate way and NE 85th Street

LOS E is defined with average speeds in a range of 7 to 13 miles per hour, depending on the Street Class. Arterials will be classified for the purpose of the roadway corridor LOS analysis based on free-flow speeds.

Arterial Corridor Level of Service Performance Measure:

Indicator	Benchmark*
Travel Speed	Level of Service E
* The benchmarks for the arterial corridors will be reviewed when the future baseline forecasts become available. *It is possible that changes to the benchmarks may be needed.*	

Arterial Signalized Intersection Level of Service

Arterial signalized intersection level of service will be using the HCM 2000 intersection delay method. Average vehicle delay at each arterial intersection will be calculated with Synchro 6 for the PM peak hour. Instead of focusing on the individual intersections, the performance of the intersections may be evaluated based on averaged intersection delay within key arterial corridors, including those intersections identified in the Northgate Area Comprehensive Plan.

Arterial Signalized Intersection Level of Service Performance Measure:

Indicator	Benchmark*
Intersection Delay at	Level of service at each arterial intersection will be

Each Intersection	reported. (Specific benchmark will not be established because it would be more meaningful to evaluate the performance of the aggregated intersections than the performance of individual intersections for an Urban Center area.)
Averaged Delay Among Intersections	LOS E within a key arterial corridor
* The benchmarks for the arterial intersections will be reviewed when the future baseline forecasts become available. *It is possible that changes to the benchmarks may be needed.*	

Appendix 5-2.

CTIP Geographic and Programmatic Improvement Categories

Appendix 5-2. CTIP Geographic and Programmatic Improvement Categories

A: NE 130th/125th Street Corridor
B: Residential/Non-Arterial Streets
C: West of I-5
D: NE 92nd Street Corridor
E: NE Northgate Way Corridor
F: Transit Service at the Northgate Transit Center and proposed Link Light Rail Station on 1st Avenue NE
G: 15th Avenue NE Corridor
H: Roosevelt Way Corridor
I: 5th Avenue NE Corridor
J: Transit Services and Programs

Appendix 5-3.

Transportation Management Associations

Appendix 5-3. Transportation Management Associations

MEMORANDUM

Date: January 17, 2006
To: Northgate Stakeholders Group CTIP Subcommittee
From: Lise Northey, Mirai Transportation Planning & Engineering
Re: Transportation Management Associations

In response to the Subcommittee's interest in Transportation Management Associations, below please find a brief discussion of Transportation Management Associations (TMAs), potential TMA services, TMAs relative to parking management, and examples of existing TMAs.

What is a TMA?

A Transportation Management Association (TMA) is a private, non-profit organization providing various transportation services to a specific area. More than 140 TMAs exist nationwide, serving many different constituencies. TMAs cover regional, suburban, corridor-wide, city-wide, and central business district service areas.

Initiative to form a TMA often comes from local or regional governments, chambers of commerce, or major facilities in the area; any of which can provide seed funding. Developers or facility managers may be required to form a TMA as mitigation for local congestion and parking impacts. Additional stakeholders may include transit providers, businesses and other business organizations, employees, nearby residents and customers. TMAs receive funding primarily from membership fees and grants. Grant sources typically include federal and state transportation or clean-air programs; transit agencies and local governments also contribute to some TMAs.

Successful TMAs demonstrate a clear mission and goals, diversified funding, a professional image, collaboration and facilitation of diverse stakeholders, strong leadership, and an active board. TMAs can help develop and maintain cooperation between stakeholders affected by their programs. Many TMAs publish an annual report describing travel demand management programs and resources, travel trends and comparisons with other communities.

TMA Services

TMAs offer a diversity of transportation planning services, travel options and incentives. Services sometimes include efforts to create additional pedestrian and transit oriented land uses and/or parking brokerage services to help businesses share and trade parking resources. TMAs can promote both incentives and disincentives, with many TMAs providing financial incentives (such as subsidized transit passes) for trip reduction. One way that TMAs attract participation from small employers is to promote access to public policy decision-makers through networking events, such as Seattle's Duwamish TMA web-page declaration that

> *"members of the Duwamish TMA take the initiative by interacting with key government decision makers on transportation at various events."*

Alternatively, the TMA of Delaware advertises that

> *"TMA members qualify for intensive and customized assistance with their transportation needs. Employee Expos, workshops, surveys, advocacy, and GIS maps of employee locations are only a few of the TMA's special services."*

TMAs often focus on educating employees about commute options, providing discounted transit passes, and carpool/vanpool services. Many act as consultants to assist businesses in developing commute trip reduction programs based on available regional resources. A few TMAs provide parking management and brokerage services, but these services are less frequent due to divergent membership interests and funding constraints. TMAs do not typically raise funds for infrastructure improvements, although TMA parent organizations, such as business or economic improvement districts may do so through annual assessments.

TMAs and Parking Management

The role of a TMA in parking management can range from political advocacy and educational materials to providing management and brokerage services. For example, the Lloyd District TMA in Portland, Oregon advocated in the early 1990s for installation of parking meters. TMAs may seek to reduce parking demand by advocating for transit and pedestrian-supportive land use policies, shared parking, parking taxes, and improved pedestrians and bike facilities. Some TMAs provide printed and on-line user guides that provide the public information about parking facilities and pricing, as well as how to reach destinations by alternative modes.

TMAs also address parking issues by promoting commuter financial incentives, such as subsidized transit passes, to reduce parking demand where spaces are limited. TransManage in Bellevue, Washington has helped supplement transit benefits by managing a "free park day" program. The program allows regular transit user free parking in a garage one day a month. TransManage also sells parking permits to off-site workers for local parking facilities and receives a percentage of the revenue. It also monitors the parking facilities by marking tires and issuing tickets.

Other Parking Management Options

Washington State allows cities and counties to form Parking and Business Improvement Areas under RCW 35.87A. This legislation permits several activities, including provision of parking and maintenance of parking structures and lots. The Seattle City Council adopted Resolution 30389 in 2001 to encourage and support the establishment of BIAs, six of which currently exist in the City, as noted below.

- Broadway BIA (created 1986)
- Chinatown/International District BIA (created 1995)
- Metropolitan Improvement District (created 1999)
- Pioneer Square BIA (created 1983)
- University District BIA (created 1996)
- West Seattle Junction BIA (created 1987)

Some TMAs serve as parking brokers. Parking brokerage services help businesses sell, lease, share, or trade available parking. A TMA can match businesses with parking shortages with others in the vicinity that have extra parking. The Gresham Regional Center TMA in Gresham, Oregon has developed a voluntary "Customer First Policy" that includes shared parking and mandatory off-site employee parking.

Appendix 5-3. Transportation Management Associations

Existing TMAs

The greater Puget Sound Region has four organizations that function as Transportation Management Associations: the **Duwamish Transportation Management Association** (South Seattle), the **Greater Redmond Transportation Management Association**, the **Urban Mobility Group** (downtown Seattle), and **TransManage** (downtown Bellevue). Additional TMAs described below demonstrate a range of potential parking services: the Missoula Ravalli Transportation Management Association (Montana), the Lloyd District Transportation Management Association (Oregon), the Gresham Regional Center Transportation Management Association (Oregon), and Smart Commute - North Toronto, Vaughan (Toronto, Canada).

Duwamish Transportation Management Association

http://www.seattleindustry.org/duamish_tma/duamish_tma.html

The Duwamish TMA is a non-profit group working to improve transportation services in, to, and through the Duwamish business community. Its service area extends from the professional sports stadiums in the north to the King County International Airport in the south. It deals with the movement of employees in and out of the area, as well as freight movement, and stadium event impacts. The Duwamish TMA assists business owners and managers access financial incentives to help encourage employees to carpool and vanpool through a partnership between the TMA and Metro.

The Duwamish TMA is affiliated with Seattle's Manufacturing and Industrial Council. The TMA and the Manufacturing and Industrial Council share employees, with one full-time employee solely dedicated to the TMA. The Duwamish TMA and the Manufacturing and Industrial Council cosponsor the Seattle Freight Mobility Advisory Committee, which is the first committee of its type in the City's history. The Duwamish TMA has its own board, comprised of members from local industries and the Port of Seattle. Funding comes primarily from board members and grants from the South Downtown Foundation and the Washington State Department of Transportation.

Greater Redmond Transportation Management Association

http://www.grtma.org/

The Greater Redmond Transportation Management Association (GRTMA) provides members with tools to ensure compliance with state and local regulations while keeping their commuters aware of commute options throughout the Puget Sound. The GRTMA represents 283 organizations and 58,000 commuters. Its board of directors includes employers, property owners and managers, and City of Redmond staff. Funding of the GRTMA comes from membership dues (57%), contract services (28%), grants (6%), and other sources (8%). GRTMA services include marketing and printed products to sustain awareness and educate employees, commuter motivation promotions, transportation fairs at member sites, and member network meetings. It also provides member consultations, plan development, survey assistance, commuter self-serve internet tools, and grant assistance.

The Urban Mobility Group

http://www.urbanmobilitygroup.com/

The Urban Mobility Group is an alliance of the Downtown Seattle Association, King County Metro and the City of Seattle. It was formed partially in anticipation of downtown Seattle's projected growth in jobs and housing. The Urban Mobility Group provides products, services and resources to businesses and commuters located in or commuting to Seattle's Central Business District. It customizes member programs and identifies opportunities for building managers to support all commute options. Programs offered by the Urban Mobility Group include FlexPass broker, S.T.A.R. (Simply Take Along a Rider) Carpool, consultations, and updates about key infrastructure changes.

TransManage

http://www.bellevuedowntown.org/maps/transmanage.html

As part of the Bellevue Downtown Association, TransManage provides commuting information to over 12,000 downtown Bellevue employees by conducting on-site transportation promotions at client locations, planning transportation fairs, and offering individual commuting assistance to employees. TransManage also helps manage a "free park day" program. This program provides two to four days a month of free garage parking for carpool/vanpool riders, bus riders, and those who bike or walk to work. In addition, TransManage contracts with a number of property managers to monitor their parking lots, marking tires after three to four hours and issuing tickets to vehicles without permits. TransManage also coordinates the sale of parking permits for various lots to off-site workers based on availability. Revenues are split between TransManage and the property owner.

Missoula Ravalli Transportation Management Association

http://www.mrtma.org/

The Cities of Missoula and Ravalli, Montana formed the non-profit Missoula Ravalli Transportation Management Association (MRTMA). The MRTMA, in collaboration with the Montana Department of Transportation, provides transportation options for the citizens of Lake County, as well as the Cities of Missoula and Ravalli. Funding comes from grants from the member cities and county and the Montana State Department of Transportation. The MRTMA provides services and vehicles for carpools and vanpools. It also establishes Park & Ride sites and works with businesses to manage priority parking for carpools and vanpools.

Lloyd District Transportation Management Association

http://www.ldtma.com

The Lloyd District Transportation Management Association (LDTMA) is a voluntary partnership involving the City of Portland, Tri-Met, the regional transit authority, and 35 businesses in the Lloyd District, one of Portland's most concentrated business districts. The LDTMA promotes transit, carpooling/vanpooling, bicycling, telecommuting, and compressed work weeks, guaranteed rides home, and reserved parking spaces for carpool and vanpool vehicles at a reduced fee. It also advocates for transportation

improvements. Members of the LDTMA include representatives of over 50 public and private organizations, including the Bonneville Power Administration, US Department of the Interior Bureau of Indian Affairs, Kaiser Permanente, hotels, the Oregon Convention Center and the Lloyd Center Mall. Funding for the LDTMA comes from parking meters (41%), the Lloyd Business Improvements District (28%), grants (14%), and commissions from PASSport sales (17%).

Memberhip in the TMA includes businesses seeking to comply with the Oregon Department of Environmental Quality's Employee Commute Option (ECO) Rule. The ECO Rule requires employers in the Lloyd District which have a total of 50 or more people at any one work site to implement programs which will encourage their employees to use alternatives to driving alone in order to reduce the number of auto trips taken to the work site. Stage agencies also have an interest in joining the TMA as a result of a 1998 Executive Order for state agencies, requiring each agency to reduce the number of vehicle miles travelled by state employees. Many state agencies decided to participate in the PASSPort program, which provides an annual transit pass at a discounted rate (and an Energy Tax Credit for private sector participants).

The LDTMA in not directly involved in parking management, but it played a significant role in working towards the installation of parking meters in 1994 to increase parking space turnover for merchants, thereby reducing the need to create more parking. Initially the parking meters were publicly funded. Today parking meters are completely funded by sources that include parking meter fees and commissions from transit pass sales. Thirty percent of the fees collected from the parking meters provide funding for the LDTMA.

Gresham Regional Center Transportation Management Association

http://www.gdda.org/transit.htm

The Gresham Regional Center Transportation Management Association (GRCTMA) in Oregon is managed by the Gresham Downtown Development Association (GDDA). It is funded by the GDDA, the City of Gresham and local transit agencies and serves *"to bring together a coalition of local businesses, public agencies and citizens dedicated to improving access options for employees and customers of the Gresham Regional Center and enhancing the Gresham Regional Center as the economic engine of East Multnomah County."*

The GRCTMA helped establish the "Customer First" policy for the Gresham Regional Center. The GRCTMA identified under-utilized parking supply outside of the downtown core area that could be used for shared parking. Employees in the downtown area are encouraged to use the shared parking areas and leave prime parking for customers. Shared parking is currently operated on a voluntary basis. The GRCTMA is also working with property owners to require off-site employee parking in leases. The GRCTMA also provides businesses educational

materials on the benefits of off-site parking and alternative commute modes.

Smart Commute - North Toronto, Vaughan (formerly Smart Commute Association of Black Creek)

www.bcrtma.org/

Smart Commute - North Toronto, Vaughan is a private, non-profit membership organization in Canada supported by the Cities of Toronto and Vaughan, York Region, EcoAction, Toronto Atmospheric Fund, York University and other partners. Together they work to alleviate smog and congestion in the Black Creek region and reduce the impacts to local businesses, communities, and the environment. It is the first independent TMA in Ontario and one of the first in Canada.

The Smart Commute Association advocates improved transit service and other transportation management enhancements and infrastructure programs that will benefit the Black Creek Region, including improved transit service, improving the network of cycling paths, and the promotion of alternative transportation modes. Services offered include a carpool program, guaranteed ride home, a shuttle service, vanpooling, and consulting on parking management and commute reduction, as well as support services for member business.

Appendix 6-1.

Evaluation Criteria Comparisons

Appendix 6-1. Evaluation Criteria Comparisons

Memorandum

Date: June 7, 2005
To: Tony Mazzella, Senior Planner, SDOT
From: Tom Noguchi, Mirai Transportation Planning and Engineering
Subject: Evaluation Criteria Comparisons

This memo summarizes the similarities and differences between the evaluation criteria that have been developed for the CTIP and those developed for the City's Capital Improvement Program (CIP). The memo also reports the results of evaluating a sample list of CTIP projects against both sets of criteria.

Proposed CTIP Evaluation Criteria

The CTIP has developed the following set of evaluation criteria to screen and prioritize the potential improvement projects in the CTIP study area. These criteria have been recommended by the CTIP consultant and were reviewed by the Northgate Stakeholder Transportation Subcommittee:

1. **Safety**
2. **Neighborhood livability**
3. **Pedestrian mobility**
4. **Bicycling mobility**
5. **Transit rider mobility**
6. **Auto driver mobility**
7. **Cost-effectiveness and implementation feasibility**
8. **Housing and economic development**
9. **Infrastructure preservation/maintenance**
10. **Environmental sustainability**

The CTIP consultant also recommended that the evaluation criteria be weighted based on the relative importance among them. The recommended relative weights among the evaluation criteria, totaling 100 points, are shown below:

Appendix 6-1. Evaluation Criteria Comparisons

Evaluation Criteria	Weight	Maximum Point
Safety	4	20
Neighborhood Livability	3	15
Pedestrian Mobility	2	10
Bicycling Mobility	2	10
Transit Rider Mobility	2	10
Auto Driver Mobility	2	10
Cost-effectiveness and Implementation Feasibility	2	10
Housing and Economic Development	1	5
Infrastructure Preservation/Maintenance	1	5
Environmental Sustainability	1	5
Total Maximum Point		100

Proposed CIP Project Prioritization Criteria

In February 2005, the SDOT developed draft evaluation criteria that would be applied to potential CIP projects. Those proposed evaluation criteria, which are listed below, include seven categories that total 100 points.

1. **Safety** – 20 points
2. **Mobility improvements** – 15 points
3. **Preserving/maintaining infrastructure** – 15 points
4. **Cost effectiveness** – 15 points
5. **Comprehensive Plan/ Urban Village land use strategy** – 15 points
6. **Improving the environment** – 10 points
7. **Economic development** – 10 points

Major Differences

The CIP criteria include the Comprehensive Plan/Urban Village land use strategy criterion, not included as part of the CTIP evaluation criteria. For the CTIP, this is not an issue since by definition the CTIP is intended to implement the Comprehensive Plan/ Urban Center land use vision within the Northgate area. Therefore, the CTIP assumes that all potential improvements identified through the CTIP process would support this CIP criterion.

Conversely, the CTIP includes the Neighborhood Livability criterion where the CIP does not. This criterion reflects the concerns and desires expressed by the Northgate Stakeholder Group. This criterion will be evaluated based on the following performance objectives:

- Reduce excessive through-traffic volumes on residential streets.
- Minimize increased traffic volumes on adjacent streets as a result of any action that is proposed.
- Keep vehicle speeds at 25 mph or less on residential streets.
- Reduce risks of pedestrian and bicycle collisions with vehicles on arterials and residential streets.

An additional difference between the sets of criteria is that the CTIP separates the mobility category among the transportation modes: auto, pedestrian, bicycle and transit, where the CIP allocates 15 points for mobility. Under the CIP, a high score is given to a project where it reduces congestion, improves the flow of traffic and provides access and mobility benefits to multiple modes, including transit, pedestrians, bicyclists and freight. CTIP improvement projects are initially evaluated with a single mode focus. After the CTIP projects are evaluated and screened, the CTIP projects located within an adjacent location may be packaged so that the improvement project package would provide benefits to the multiple modes. Generally, the CTIP criteria would provide higher score to a project that provide a high degree of benefit to the multiple modes.

Example Evaluation with CTIP and CIP Criteria

The CTIP consultant selected following four potential improvement projects and rated them with the CTIP evaluation criteria and the CIP project selection criteria:

- Add left turn pockets on all approaches at the NE 130th Street/ Meridian Avenue NE intersection
- Provide walkways on both sides of 115th Street between 5th Avenue NE and Lake City Way
- Add an additional westbound-to-southbound left turn lane at the Northgate Way and 5th Avenue NE intersection
- Stripe bicycle lanes on the existing curb lanes on both sides of College Way between N 105th Street and N 92nd Street

Tony Mazzella and Tom Noguchi rated these four potential projects using the CTIP and CIP criteria definitions. The results are shown in **Table 1**.

Conclusion

1. It appears that the total score with the CTIP criteria and their weights are similar to that with the CIP criteria.

2. It is possible that major roadway projects that aimed at reducing traffic congestion in the CTIP area might gain slightly more points through the CIP process than

with the CTIP criteria, if they support the Comprehensive Plan/ Urban Village visions.

3. The pedestrian facility improvements located in the residential neighborhoods within the CTIP area might gain slightly more points with the CTIP criteria due to the neighborhood livability criteria.

Appendix 6-1. Evaluation Criteria Comparisons

Table 1. Example Results Scored with CTIP and CIP Criteria

	Add left turn pockets on all approaches at the NE 130th Street/ Meridian Avenue NE intersection		Provide walkways on both sides of 115th Street between 5th Avenue NE and Lake City Way		Add an additional westbound-to-southbound left turn lane at the Northgate Way and 5th Avenue NE		Stripe bicycle lanes on the existing curb lanes on both sides of College Way between N 105th Street and N 92nd Street	
	CTIP	**CIP**	**CTIP**	**CIP**	**CTIP**	**CIP**	**CTIP**	**CIP**
Safety	20	20	20	20	0	0	20	20
Neighborhood livability	0		9		0		0	
Pedestrian mobility	4	5	8	3	0	7	4	7
Bicycling mobility	0		0		0		10	
Transit rider mobility	0		0		2		-4	
Auto driver mobility	2		0		8		0	
Cost-effectiveness and implementation feasibility	4	7	4	7	-2	0	10	15
Comprehensive Plan/ Urban Village land use strategy		0		9		7		0
Housing and economic development	0	0	0	0	2	4	0	0
Infrastructure preservation/ maintenance	0	0	0	0	0	0	0	0
Environmental sustainability	0	0	-1	0	0	0	2	2
Total	**30**	**32**	**40**	**39**	**10**	**18**	**42**	**44**

Appendix 6-2.

CTIP Proposed Improvement Concept Scores

Appendix 6-2. CTIP Proposed Improvement Concept Scores

Project #	Project Description	Evaluation Score
C-2	Add bike lanes and sidewalks on both sides of Meridian Avenue N from N 115th Street to N 122nd Street.	55
B-5	N 117th St from 1st Ave N to Meridian Ave N: Add a raised walkway on the north side of the street and place speed humps (cushion)	51
A-6	Provide curbs, gutters and sidewalks on both sides of NE 125th Street from 5th Ave NE to Roosevelt Way	47
A-5	Upgrade the intersection of NE 125th St./ Roosevelt Way/ 10th Ave NE and include the stop controlled 125th St intersection to be a part of the signal controlled intersection	46
B-1	NE 115th St from 5th Ave NE to Lake City Way: Provide raised walkway on one side of the street. Restrict on-street parking to one side.	45
B-3	Provide a walkway on one side of the street on 8th Ave NE from Northgate Way to NE 92nd Street. Install appropriate traffic calming devices.	45
B-2	Analyze pedestrian crossing conditions on 8th Avenue NE between NE Northgate Way and NE 115th Street. If consistent with SDOT guidelines and practices, install pedestrian crossing improvements….	44
B-4	Provide raised walkway on one side of NE 98th St from 15th Ave NE to Lake City Way. Allow on-street parking. Integrate traffic control devices with the sidewalk improvements.	43
D-1	Provide curbs, gutters and sidewalks on both sides of NE 92nd Street from 1st Ave NE to 5th Ave NE	42
E-4 E-5	Add a new access driveway to the 3rd Avenue NE alignment at the Northgate Way/3rd Avenue NE intersection and eliminate the existing semi-circular, two-intersection Northgate Mall driveway. It may require widening of 3rd Avenue north of Northgate Way to align the approach lane with the Northgate Mall side. Provide crosswalks on all legs at the Northgate Way/3rd Avenue NE intersection. Place barriers at the edge of the north sidewalk or in the median (possibly landscaping) between 3rd Avenue NE and 5th Avenue NE to discourage mid-block street crossings by pedestrians.	42
H-1	Analyze pedestrian crossing conditions, including pedestrian demand and adjacent land uses, on Roosevelt Avenue NE between NE 90th Street and NE 94th Street through the neighborhood business district. If consistent with SDOT guidelines and practices, install pedestrian crossing improvements….	39
F-7	Reconstruct the existing sidewalk on the east side of 1st Avenue NE from NE 92nd Street to NE 97th Street and provide a bicycle lane on the west side of 1st Avenue (by extending the shoulder by 4 feet) between NE 103rd Street and NE 92nd Street.	39
C-7	Allow westbound left turns from Northgate Way to southbound Corliss Avenue at the SB I-5 Off Ramp/Corliss Ave/ Northgate Way intersection. Extend the westbound left turn lane on Northgate Way under I-5 Overpass by placing sidewalks behind the columns	35

Appendix 6-2. CTIP Proposed Improvement Concept Scores

Project #	Project Description	Evaluation Score
C-9	Provide a roundabout at the southbound I-5 On Ramp/Corliss Avenue N/ N 107th Street intersection. C-9, C-10, C-11 and J-5 work together to form an alternative westbound route to Meridian Avenue.	35
C-10	Provide a roundabout at the Meridian Ave N/ N 107th St intersection	35
C-11	Provide curbs, gutters and sidewalks on N 107th Street from Meridian Ave N to Corliss Ave N/ SB I-5 On Ramp	35
E-6	Add a second westbound left turn lane on NE Northgate Way at 5th Avenue by widening the south side of Northgate Way from approximately 8th Avenue to 3rd Avenue. Assign southbound curb lane to right turns only. Re-align the southbound through lane and eliminate the "offset" condition Provide urban design treatments for pedestrian crossings at the Northgate Way/5th Ave NE intersection	35
A-1	Add left turn pockets on all approaches at the N 130th/Meridian Ave N intersection	34
G-1	Add curbs, gutters and sidewalks on both side of the street on 15th Ave NE from NE 92nd St to NE 117th St	33
C-8	Provide a median and restrict mid-block left turns on Northgate Way N from Meridian Ave N to Corliss Ave N/I-5 Off Ramp where a break in the median may be allowed. Investigate feasibility of providing a business access street south of Northgate Way.	32
C-1	Add bike lanes or widen shoulders to accommodate bike traffic on 1st Ave NE from N 117th St to N 130th St	32
E-7	Provide medians and restrict mid-block left turns on Northgate Way from 5th Ave NE to Roosevelt Way NE. Accommodate U-turns at intersections.	32
I-2	Stripe bike lanes on 5th Ave NE from NE 115th St to NE 125th St	32
A-4	Signalize the I-5 northbound off ramp and 5th Ave NE intersection and coordinate this signal with the 5th Ave NE/NE 130th St intersection signal	31
G-2	Provide a roundabout at the Pinehurst Way NE/ NE 115th St/ 12th Ave NE intersection	31
G-4	Install a mid-block or intersection pedestrian crossing with pedestrian signal on 15th Ave NE between NE 120th St and NE 122nd St	28
G-3	Install a signal and modify the intersection geometry at the 15th Ave NE/NE 117th St/ Pinehurst Way NE intersection	28

Appendix 6-2. CTIP Proposed Improvement Concept Scores

Project #	Project Description	Evaluation Score
G-5	Reconstruct intersection with north-south left turn pockets at the Northgate Way and 15th Ave NE intersection	26
C-4	Provide bicycle lanes on both sides of Meridian Avenue N from N 100th Street to N Northgate Way.	26
C-5	Provide bicycle lanes on both sides of College Way from N 92nd Street to N 100th Street by converting the curb lanes to bicycle lanes. Work with Metro to ensure that transit service standards for speed and reliability of service are maintained.	26
C-3	Install a traffic signal at the N 115th St/ Meridian Ave N intersection	25
A-3	Add a eastbound left turn pocket at the 5th Ave NE and NE 130th St intersection	23
E-1	Coordinate all signals and optimize signal operation for peak, non-peak weekdays and weekend days based on vehicle volumes on Northgate Way	23
F-1	Add an westbound right turn lane and implement the intersection improvement concept prepared by King County Metro at the NE 103rd Street/ 1st Ave NE intersection	22
F-3	Allow eastbound left turns from the existing curb lane at the NE 103rd St/ 5th Ave NE intersection	21
A-2	Add a westbound left turn pocket at the I-5 southbound on-ramp and NE 130th St intersection	19
C-12	Utilize the DPD Open Space/Pedestrian Plan for design treatments that enhance the pedestrian connection on Northgate Way between Corliss Avenue N and 1st Avenue NE particularly under I-5. A key CTIP recommendation is to place the sidewalks behind the I-5 bridge columns. This project should be implemented together with C-7, C-9 and C-10 as a package.	19
E-8	Replace the existing pedestrian signal with a traffic signal and allow left turns on all approaches at the Northgate Way/8th Ave NE intersection	19
I-1	Extend NB right turn lane on 5th Ave NE south of Northgate Way to NE 106th St	17
A-7	Upgrade the existing signal at the NE 125th St / 15th Ave NE intersection	16
D-2	Install a signal at the NE 92nd Street and 1st Ave NE intersection	15

Appendix 6-2. CTIP Proposed Improvement Concept Scores

Project #	Project Description	Evaluation Score
E-2	Modify westbound approach – curb lane: right and I-5 on-ramp, 2nd lane: I-5 on-ramp and through, and 3rd lane: through only at the Northgate Way/1st Ave NE/ I-5 On Ramp intersection. Widen the on-ramp to have two lanes on Northbound I-5 On Ramp from Northgate Way	7
C-6	Add double left turn lanes on westbound Northgate Way at the intersection with Meridian Avenue N	1
E-3	Monitor safety performance of westbound traffic on Northgate Way approaching 1st Ave intersection to determine the future channelization improvements.	Not Scored
F-2	Install a signal at the NE 103rd St/ 3rd Ave NE intersection	Not Scored
F-4	Construct a three-lane roadway on 3rd Ave NE from NE 100th St to NE 103rd St	Not Scored
F-5	Add four-way stops and install a signal at the NE 100th St/ 3rd Ave NE intersection, if needed in the future	Not Scored
F-6	Provide sidewalks on the north side of the street on NE 100th St from 1st Ave NE to 5th Ave NE	Not Scored
J-1	Increase transit services from the neighborhoods to Transit Center/ Link Light Rail Station by providing Community Circulator	Not Scored
J-2	Increase mid-day transit services from Northgate to University District.	Not Scored
J-3	Improve transit services all day to Urban Villages such as Bitter Lake, and Aurora-Licton Springs areas.	Not Scored
J-4	Facilitate development of a “parking brokerage” function to efficiently allocate parking needs through shared use of parking spaces. This function could be managed by a new or existing association of employers and property owners, a Chamber of Commerce, or a Transportation Management Association (TMA).	Not Scored
J-5	Re-classify Corliss Avenue from Northgate Way to N 107th Street and N 107th Street from Corliss Avenue N to Meridian Avenue N as collector arterials.	Not Scored