

Section

1

Neighborhood & Planning Context



Neighborhood & Planning Context

The University Area is composed of the University Community Urban Center, which includes the University of Washington and University District, as well as all or parts of the Roosevelt, Ravenna/Bryant, and Montlake neighborhoods. Containing an especially wide variety of land uses, this area also has a diverse array of transportation users and system demands. As housing and jobs continue to grow over the next several decades, it will take smart investments at a range of scales – from neighborhood sidewalks to regional connections – to meet these diverse needs.

There are major improvements to the University Area's transportation system that are in the works. Sound Transit is bringing light rail service from downtown to the University of Washington campus by 2016, with the expectation of additional stations extending north as funding becomes available. Meanwhile, the Washington Department of Transportation (WSDOT) has been working with regional and community stakeholders to design and construct a replacement for the SR 520 bridge, which is set to include additional HOV lanes and significant new bicycle/pedestrian connections. At the City of Seattle, proposals for improved transit service, new bicycle facilities, pedestrian safety enhancements, and major road maintenance are funded and have begun to hit the ground in 2008.

The *University Area Transportation Action Strategy* (or *Action Strategy*) is a set of project recommendations that build upon these improvements to meet the diverse and growing needs of the area. Guided by the principles of *mobility, sustainability, safety, access, and choice*, the *Action Strategy's* aim is to sharpen the vision for a highly-functioning and responsible transportation network:

- Mobility** The *Action Strategy* focuses on efficiently moving people and goods, of which improving “vehicle capacity” is only one of many potential approaches.
- Sustainability** The *Action Strategy* considers today's needs as well as the needs and constraints of future residents, businesses, and institutions. All of the projects proposed are in support of Seattle's goals for improving the environment and building strong communities.
- Safety** The *Action Strategy* analyzes safety issues and promotes improvements that reduce potential for conflict and injury.

Access The *Action Strategy* recognizes that a good transportation network is not an end in itself, but a means for conducting one's daily life. Retaining and improving access to employment centers, neighborhood services, and recreational facilities plays an important role in this report's recommendations.

Choice The *Action Strategy* works to reduce the historic imbalance in transportation investment by strengthening options for bicycling, walking, and transit to create "real" alternatives to driving alone.

The principle goals of the Action Strategy have been carried over from the 2002 University Area Transportation Study (UATS):

- **Build upon prior planning to provide a comprehensive, multi-modal plan for the area's transportation system**
- **Serve as a blueprint for financing and prioritizing SDOT's capital investments in the University Area for the next several decades**

Updating the 2002 Plan



In 2005, SDOT developed the Seattle Transit Plan, which provides a decision-making framework to help prioritize and evaluate transit investments that connect the City's urban centers and urban villages. These prioritization and evaluation measures were not available in the 2002 UATS report but are included in the Action Strategy.

The *Action Strategy* is an update to the University Area Transportation Study (UATS) completed in 2002. The UATS plan was developed to guide transportation decisions in the University Area to the year 2010 and beyond. It included 47 project recommendations that built on past planning efforts and was designed to implement the vision and goals of the Seattle's Comprehensive Plan, the Transportation Strategic Plan and the University Community Urban Center Plan.

Most of the UATS project recommendations have not been implemented, primarily due to lack of funding from local and state sources. In an attempt to reinvigorate and refine the 2002 study, and to improve the likelihood of implementing key projects, the *Action Strategy* set out the following objectives:

- Update "existing conditions" to the year 2007
- Extend the land use and transportation forecasts to the year 2030
- Respond to new location decisions for future light rail stations and to the ongoing planning for the SR 520 Replacement Project
- Incorporate new SDOT planning tools and funding projections

- Establish a set of prioritized projects that meet City objectives and are supported by the community

Changes since 2002

In November 2006, Seattle voters approved a new levy to help finance **Bridging the Gap**, a nine-year package of transportation projects totaling more than half a billion dollars. Bridging the Gap will allow SDOT to catch up on deferred maintenance, such as paving city streets and repairing old bridges, and to fund new pedestrian, bicycle and transit projects. The levy proceeds, combined with a commercial parking tax and an “employee hours” tax, dramatically increase the potential for SDOT to fund and maintain projects associated with the new *Action Strategy*.

In addition to an improved financial picture, there have been a number of changes in the University Area since the completion of the UATS work. These include:



In addition to major increases in funding for bicycle and pedestrian improvements that were not available in 2002, Bridging the Gap also provides funding now for key maintenance projects such as repaving streets and replacing aging bridges.

- Changes in location and advancements in design of Sound Transit's three stations planned for the study area
- Completion of the 2005 **Seattle Transit Plan**, which designates priority transit arterials throughout the City and develops specific targets for improving transit speed, frequency, reliability, and span of service
- Advancement towards a Preferred Alternative for the SR 520 Replacement Project
- Lifting of the University of Washington's lease 'lid' in the University District, which had restricted the purchase of land for long-term facilities off-campus. An early result of the new agreement was the sale of the Safeco Insurance tower to UW in 2006
- Completion of the **Seattle Bicycle Master Plan** which will add over 380 miles of new bicycle facilities city-wide, and the launching of the **Seattle Pedestrian Master Plan**, intended to make Seattle the most walkable city in the nation.

The new *Action Strategy* incorporates or anticipates these changes, which are reflected in project recommendations.

Planning horizon now 2030

Since the original study was completed in 2002, the Puget Sound Regional Council has prepared new demographic and transportation forecasts for the year 2030. The 2010 traffic forecasts prepared for UATS were updated to 2030, and recommended projects were evaluated based on projected traffic conditions in 2030.

Transportation Mitigation Program

Seattle has recently utilized a voluntary Transportation Mitigation Payment program as a means to help off-set the added strain placed by new development on the City's transportation system. Currently in place in South Lake Union and planned for the Northgate area, this program is intended to strategically pool contributions from developers to help fund previously identified transportation projects. By extending the transportation analysis and updating the recommended project list, the *Action Strategy* provides the planning framework needed to create such a program. For more information on the developer mitigation program, a Client Assistance Memo (CAM) is available at the Department of Planning & Development's website: www.seattle.gov/dpd/publications/cam/CAM243.pdf

The University Area Today

At the heart of the University Area is the University Community Urban Center, one of only five “urban center villages” designated by Seattle’s Comprehensive Plan. Urban centers are intended to attract the the greatest share of Seattle’s commercial and residential growth, which is reflected in their intense commercial zoning and relative lack of single-family housing. In the case of the University Urban Center, a large institution (the University of Washington) and a regional shopping mall (the University Village Shopping Center) play critical roles in supporting this capacity for urban growth. Two residential neighborhoods, however - University Park and University Heights - are also within the urban center and add significant housing variety and pockets of lower intensity uses.

Neighborhoods & Urban Villages

In addition to the urban center, the University Area also includes the southern portion of the Roosevelt Residential Urban Village, a neighborhood with a compact mix of land uses supporting transit and pedestrian activity but that is primarily residential in overall character. Together with the Ravenna/Bryant neighborhood to the east, this northern portion of the study area is predominantly single-family with small-scale retail along key arterial streets.



Mixed-use developments with housing above retail are increasingly common in the University Area, in large part to policies that direct growth to urban centers and urban villages.

There are three mixed-use ‘residential urban villages’ that lie just outside the study area: Green Lake to the northwest, Wallingford across I-5 to the west, and the Eastlake neighborhood to the south - all influential contributors to University Area traffic patterns and home to many University students and employees.

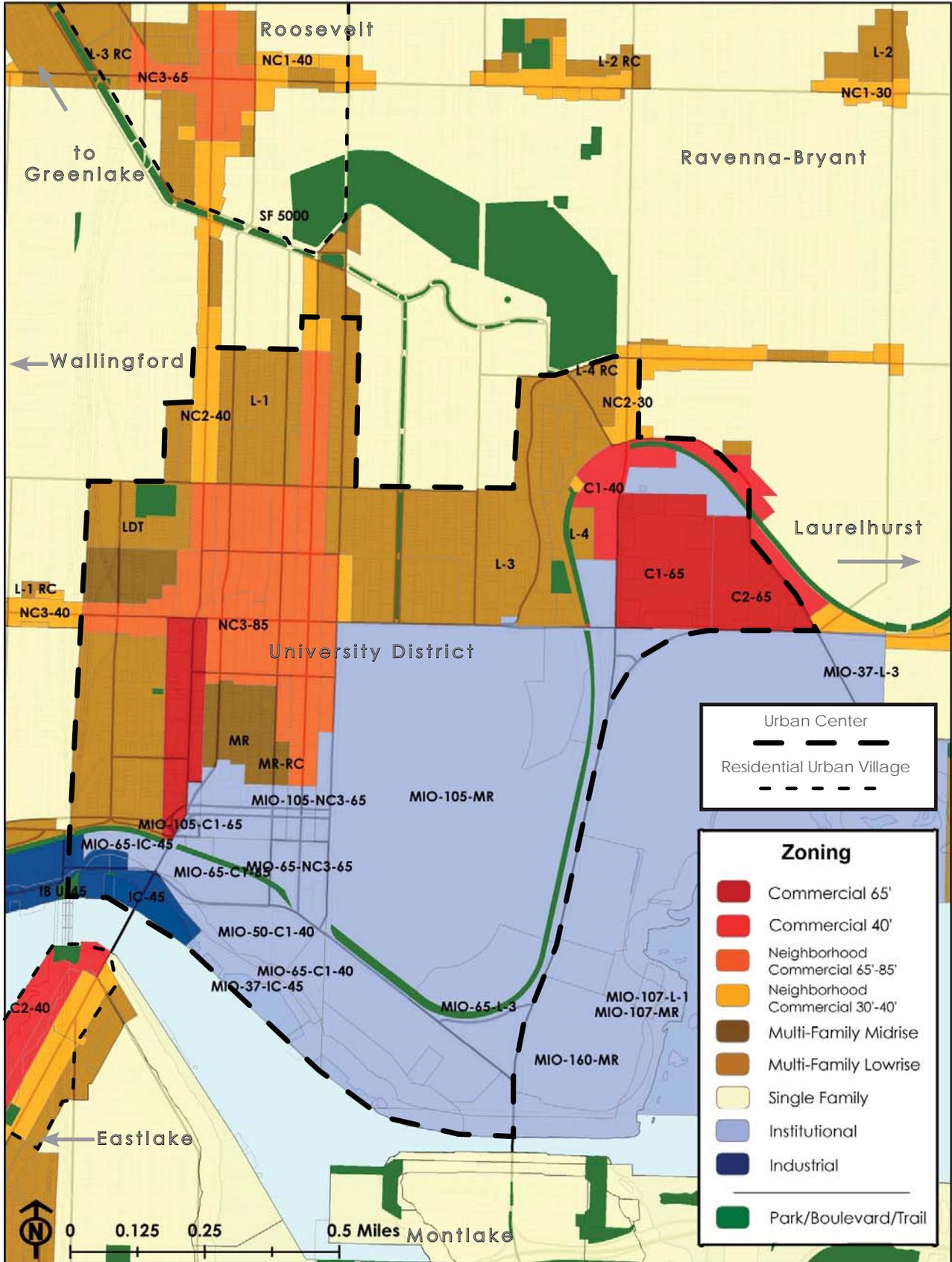
To the south and east of the study area are the single-family neighborhoods of Montlake and Laurelhurst. Both include small pockets of local retail and community services, while Laurelhurst is also home to another major institution: Children’s Hospital Medical Center. With 220,000 patient visits per year, 3,600 staff, and plans for significant expansion, Children’s Hospital contributes significantly to University Area traffic and activity.

Figure 1 provides a map of the study area’s zoning, urban village classifications, and neighborhood locations.

Land Uses

University of Washington. Approximately one-third of the study area is taken up by the University of Washington, with 17,000 staff and an enrollment of 39,000 students. The “UW” strongly influences transportation demand throughout the study area. The City and University have worked together closely to address University-related traffic issues while ensuring that the University can grow to meet its needs. In 1983, the City and the University signed an agreement to allow development in the southeast portion of campus, with the

Figure 1: Zoning, Urban Villages and Neighborhoods



condition that no additional 'peak hour' trips crossed the Montlake Bridge. In 1992, the City's condition for approval of the University's 2001-2010 General Physical Development Plan changed the peak-hour trip requirement from a single location to address University Area-wide transportation issues.



Small-scale businesses in older 1-2 story buildings are common in the University Area, such as along Roosevelt Way at NE 64th St (above). From a transportation perspective, these buildings are notable in that most do not have parking garages or require 'curb cuts' along sidewalks - important factors in providing transit and pedestrian-friendly environments.

Business Districts are well-defined and range from regional (University Village), to local (University District), to neighborhood (Ravenna and Roosevelt), each providing a variety of retail and commercial services. Many stores and restaurants are locally-owned, with unique and diverse products and foods that attract patrons from throughout the City. The bulk of these commercial establishments are in older 1-2 story buildings that do not contain housing, although newer buildings are predominantly mixed-use and take fuller advantage of zoning and height allowances.

Open Spaces. The Seattle Parks Department operates 10 parks in the study area, dominated by Cowen and Ravenna Park to the north. In the heart of the University District, the University Heights Center (a former school) provides indoor meeting facilities, a community garden, and is the venue for the weekly Farmers' Market, while the University Playground (9th Ave NE/NE 50th St) provides much needed recreation space west of campus. There are a number of smaller "pocket parks" in the study area, including those at 24th Avenue NE/NE 62nd Street, 43rd Avenue NE/NE 9th Street and along the waterfront at the south edge of University campus property. In the eastern portion of the study area is the Calvary Cemetery, a 25-block open space bounded by 30th Avenue NE, NE 55th Street, 35th Avenue NE and NE 55th Street.

People

The **2000 Census** provides a "window in time" to look at the characteristics of the residents & employees of the University Area. The following is a quick summary of some of those characteristics for the University Community Urban Center:

- The University District is one of the densest in the Puget Sound region with 35 persons/acre and over 70 people & jobs/acre, while the larger University Area averages more than 18 persons/acre
- One-third (36%) of households do not own a vehicle
- People walk. More than one in three people walk to work or school while fewer than 30% drive alone
- Transit is an important component of the transportation system with about 23% of commuters traveling by bus

Figure 2: SDOT-Designated Street Types in University Area



Street "types" are an official designation within SDOT's Right-of-Way Improvements Manual that help identify the functions and performance criteria for all arterials in Seattle. By combining official arterial designations (major, minor, collector, local) with the adjacent zoning categories, street types are a good tool to help take into account the important interactions between transportation and land use. Please refer to **Appendix A** for more detail on how the Action Strategy incorporates street types into its transportation analysis.

- Students account for 71% of the residents within the University District Urban Center, with 18 to 29 year-olds comprising 80% of the overall population
- About 10% of residents are disabled within the University Urban Center, and approximately 45% of those are 65 years and older

Transportation

Getting around by vehicle in Seattle can be a challenge during commute times - and travelling through the University Area is no exception. Not only do vehicles accessing I-5 and SR 520 create significant traffic congestion at ramp locations, but the area's arterial roadway system is restricted on all sides: by I-5 to the west, the Montlake Cut and SR 520 to the south, Portage Bay to the east, and Ravenna Creek to the north. Vehicular traffic funnels to bridges and underpasses that connect across these boundaries, resulting in greater congestion and delays than if the street grid was less-restricted and could more evenly distribute traffic.

Outside of the major arterials that connect to highways and bridges,, however, the University Area transportation system works quite well. Most local streets have relatively low volumes at all times,

while some arterials - such as 15th Avenue NE, 35th Avenue NE, NE 65th Street and NE Northlake Way - can operate quite well even during peak commute hours.

Seven bridges in the University Area help overcome the barriers presented by water, steep slopes, and freeways:

- **University and Montlake Bridges**
- **NE 45th St Viaduct**
- **I-5 overpasses at NE 45th and 50th St**
- **Bridge spans over Ravenna Creek on 15th Ave & 20th Ave NE**

The University Area's transportation system works for non-auto users as well. Most pedestrians can walk throughout the University

District in relative comfort with few barriers, while many bicyclists and joggers travel along the Burke-Gilman Trail and Ravenna Boulevard for both commuting and recreation. Transit is also a viable alternative to driving a car, with frequent service to downtown. Some 51 transit routes serve the University Area, including Sound Transit and Community Transit regional bus service.

The Montlake Blvd/25th Ave NE corridor is somewhat of a dividing line between the transit and pedestrian-friendly core of the University District to the west and the more auto-oriented University Village shopping mall and single-family neighborhoods to the east. Steep

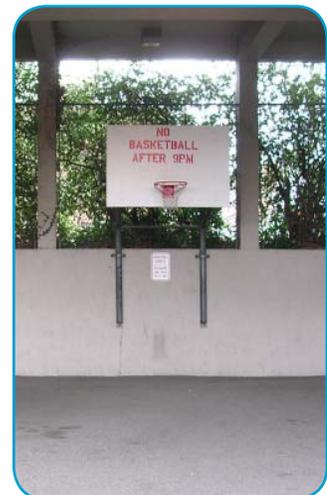
grade changes limit east-west pedestrian connections between these two areas, while large reservoirs of parking and severe traffic congestion on Montlake Blvd/25th Ave NE severely limit transit service levels.

U-Pass Program

Vital to the general success of the University Area's transportation system has been the University's "U-Pass" program - which provides education, steep discounts and other incentives for transit, van-pooling, and non-motorized transportation options. The program is largely responsible for the fact that only 23% of University students and employees drive alone for their commute, and roughly 40% commute by bus. While the *Action Strategy's* recommendations will go a long way towards improving transportation facilities for all modes, the continued success and influence of the U-Pass program will be critical to offering real transportation choice and effective congestion management in the University Area well into the future.



One of the many positive effects of the U-Pass program - and of offering true transportation alternatives in general - is the reduction in parking demand (which in turn helps make those alternatives more attractive). This University dormitory located along Brooklyn Ave NE and Campus Parkway is one telling example: what was designed as a parking lot for a few vehicles is now home to dozens of bicycles as well as needed recreation space.



Developing the Action Strategy

The *Action Strategy* includes 47 individual projects in the University Area. While many of the projects have been carried over from the 2002 UATS plan, the *Action Strategy* also took a new look at existing and future transportation needs. Study tasks included:

- Reviewing past and current plans and the UATS recommendations
- Working with the community and key stakeholders
- Updating data on existing conditions to 2007
- Establishing performance measures and thresholds for each mode of travel
- Forecasting 2030 traffic conditions
- Identifying and evaluating system improvements
- Prioritizing recommended projects
- Estimating costs and identifying potential sources of funding

Relevant plans & studies

The 2002 UATS study built upon a host of prior planning related to land use and transportation in the University Area. The *Action Strategy* reviewed these previous efforts and incorporated the latest information from more recent and on-going planning efforts. The studies and plans that are key to the development of the *Action Strategy* include:

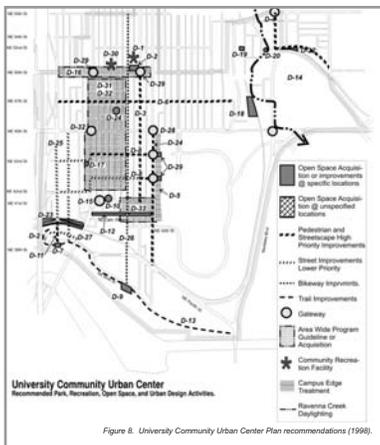


Figure 8. University Community Urban Center Plan recommendations (1998).

The Action Strategy incorporates and builds upon many recommendations from past planning efforts, including the University Community neighborhood plan

University District Transportation Planning Program (1998) includes a set of recommendations for improving vehicle and transit operations along congested corridors.

Montlake/Pacific Circulation Study (1992) has recommendations for improvements on NE Pacific Street.

University Community Urban Center Plan (1997-1998), developed through the City's Neighborhood Planning Office, recommends improvements to serve pedestrians, bicyclists and transit users.

Roosevelt Neighborhood Plan (2006), calls for the development of a compact, active, pedestrian-friendly mixed core around the light rail station, establishment of a residential parking zone, and other transportation improvements to support the neighborhood business district.

University of Washington Master Plan – Transportation Analysis (2000), analyzed the transportation impacts associated with the University's projected growth out to 2012.

Transportation Strategic Plan (TSP) (updated 2004). The City adopted the TSP in 1998 as a guide for managing the City's transportation system and for implementing the vision of the Seattle Comprehensive Plan. The TSP includes street classifications, travel data, and dozens of specific strategies for prioritizing improvements to Seattle's transportation network.

Seattle Transit Plan (2005) designates a set of arterial roadways as the Urban Village Transit Network (UVTN), which is intended to prioritize investments for providing a fast, frequent and reliable transit system between the city's urban villages and within its urban centers.

University Parks Plan (2005) highlights the character of existing parks and identifies new locations and strategies for expanding the open space system, including recommendations related to the Brooklyn Ave Neighborhood Green Street concept.

Freight Mobility Strategic Action Plan (2005) contains short and long-term recommendations for maintaining freight mobility and meeting the goals of the City's Comprehensive Plan and the TSP. In the University Area, NE Pacific Street and the Montlake Bridge are identified as part of the major truck street network.

SR 520 Bridge Replacement and HOV Project (on-going). The design of a replacement for the current SR 520 bridge and freeway connections is still in flux, particularly with regards to the location and nature of the bridge approaches. The current Preferred Alternative is a six lane facility with two general-purpose lanes and one HOV lane in each direction, plus a shared bicycle and pedestrian trail.

Sound Transit University Link & North Link. Sound Transit is fully-funded to extend its light rail transit system from downtown Seattle to the University Area with an underground station at Husky Stadium. Called the University Link, the extension is scheduled to begin service in 2016. Together with a station on Capitol Hill, the University Link is expected to increase light rail ridership by 70,000, and reduce transit times between the University of Washington and downtown to 9 minutes. As part of Sound Transit 2, the North Link phase of light rail is planning additional underground stations for Brooklyn Ave NE at NE 45th St and 12th Ave NE at NE 65th St. While not currently funded, the preferred alignment analysis, preliminary station designs, and ridership forecasts exist as part of the North Link Final Supplemental Environmental Impact Statement (FSEIS).

Seattle Streetcar Network Plan (2008). SDOT's 2008 Seattle Streetcar Network Plan includes a potential option to extend the South Lake Union Streetcar along Eastlake Ave into the University Area. From the University Bridge to Campus Parkway, the conceptual alternative includes heading south along Brooklyn Ave to the UW Medical Center area along NE Pacific St, and then back north along University Way through the heart of the University District to NE 50th St. This most recent planning effort updated earlier streetcar network planning from 2004, and a more technical analysis of route options from 2006.

Seattle Bicycle Master Plan (2007) will greatly expand bike facilities throughout the city, to increase bicycling and improve safety. A number of the plan's recommendations were considered and refined and have been included in the *Action Strategy*.

Seattle Pedestrian Master Plan (ongoing, expected final 2009). The *Action Strategy* includes a number of pedestrian improvements and pedestrian level-of-service analysis which can be rolled into the Pedestrian Master Plan's project recommendations.

Public Outreach

The original University Area Transportation Study (UATS), completed in 2002, was prepared with the help of a broad range of stakeholders representing resident, business and institutional interests, who assisted in identifying issues, and proposing and prioritizing projects. The *Action Strategy* update effort continued this public outreach, from the earliest stages of the project through to the final report, once again engaging people in identifying issues, developing project recommendations and establishing priorities.

The **goals** of the public outreach efforts were to:

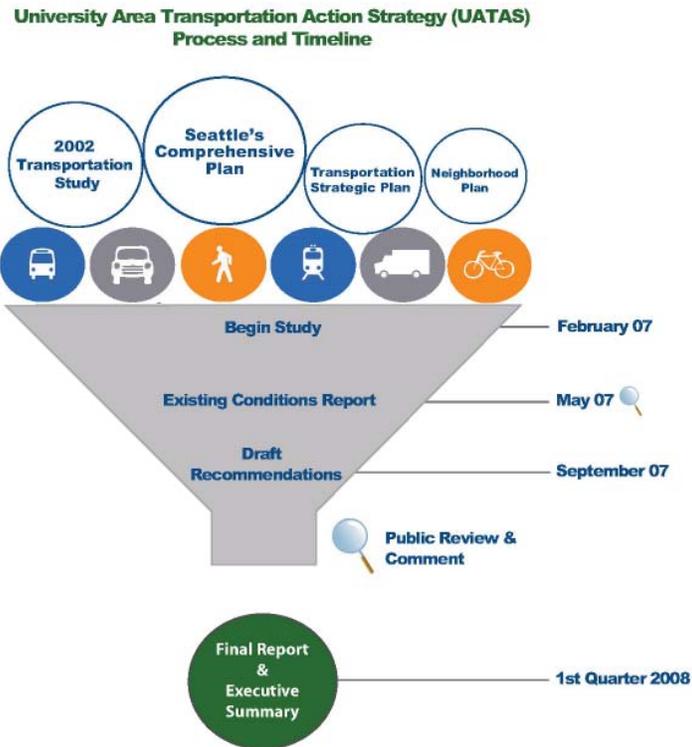
- Inform stakeholders about the study update
- Obtain input regarding key issues and proposed strategies, focusing on changes since the 2002 plan
- Build consensus for strategy recommendations.
- Manage expectations by building on the previous study and focusing on transportation projects needed to accommodate expected growth and meet the City's planning, transportation and climate change goals.



As part of *Action Strategy* outreach efforts, SDOT staff hosted a booth and solicited public comments for two days at the annual University District Street Fair

Given that the *Action Strategy* is an update, rather than a new study, outreach focused on existing, organized stakeholder groups. These included: neighborhood councils, associations and chambers of commerce; partner transportation agencies; and the

University of Washington. In addition, the general public and students in particular (most of whom would not have been living in the area five years ago) were encouraged to review and comment on proposed plans through articles in the UW Daily and North Seattle Herald, the project's website, a booth at the University Street Fair, and a public open house.



Public outreach was organized around 4 project milestones:

1. Project Kick-Off
2. Production of an Existing and Future Conditions Report
3. Draft List of Project Improvement Concepts
4. Final Report

At each of these milestones, SDOT staff and consultants contacted and/or met with community stakeholders to provide project information and solicit feedback. Refer to **Appendix J** for more details.

Existing & Future Conditions

The project team updated the UATAS information about existing traffic, collisions, bus operations and transportation issues to ensure that the *Action Strategy* reflects the existing needs of the University Area. The analysis assembled a variety of available data that identified existing problem areas and changes in the transportation network that have occurred since the 2002 plan. The project team did extensive field verification from confirming sidewalk widths to

reviewing vehicle queuing at particular intersections. The intent of this effort was to gain a strong understanding of the transportation system as it currently functions.

Once the City's travel demand model was updated to reflect current conditions, household and employment growth forecasts - as well as assumptions of specific future transportation investments - were added to this model to forecast future traffic conditions for 2030. In forecasting future conditions, the City assumes a SR 520 bridge replacement with two lanes of additional HOV traffic capacity but does not assume changes to the "interchange" location south of the Montlake Bridge. Model assumptions also include a 520 bridge toll and direct access ramps for HOV's. Light rail service is also assumed with three new stations at Husky Stadium, NE 43rd Street/Brooklyn Avenue and NE 65th Street/12th Avenue.

Details on the land use and employment growth forecasts, future transportation investment assumptions, and specific travel model outputs can be found in **Appendix C and G**.

**Performance Measures/
Thresholds**

Performance measures and thresholds were developed for pedestrians, bicyclists, transit and vehicles. These performance measures were used to evaluate existing problem areas and identify future needs. For each performance measure, an 'acceptable' threshold was defined. Where conditions fell below the threshold they were mapped by mode to highlight problem areas. A more detailed discussion of performance measures and thresholds by each mode is included in **Appendix A**.

Project Proposals

In addition to the detailed performance analyses for each mode, ideas for transportation projects were developed from a variety of sources, including suggestions from stakeholders and past planning efforts. Not all of the ideas the project team considered moved forward to become recommendations; each project was assessed with regards to costs, benefits, feasibility and partnership requirements and opportunities. Projects that were too costly, difficult to implement, or provided too little benefit fell by the wayside. The final set of recommended projects had to meet several criteria:

- Improve mobility, sustainability, safety, access and choice
- Improve a significant problem that benefits a significant number of users
- Can realistically be implemented within the constraints of available right-of-way, adjacent land uses, and the need for coordination and cooperation with other public and private interests

Project Prioritization

Recommended projects were prioritized depending on how well the project met seven evaluation criteria, consistent with the method used by SDOT to prioritize projects citywide. The criteria are:

- Safety
- Mobility
- Preserving or Maintaining Infrastructure
- Cost Effectiveness or Cost Avoidance
- Supports Comprehensive Plan Urban Village Strategy
- Improving Environment
- Economic Development

Once scored, project staff grouped projects into 4 categories:

- **Low Cost/Early Implementation** projects that may be implemented relatively easily due to modest cost and low levels of complexity.
- **High Priority** projects that address major transportation issues and have a high benefit to the study area, but will require effort to obtain necessary funding & coordination.
- **Medium Priority** projects, that while beneficial to the area's transportation system, may not be able to compete with citywide priorities at this time or may address an anticipated - rather than existing - transportation need.
- **Partnership** projects that require coordination and cooperation with a partner agency. Many of these projects will likely need to be associated with larger actions, such as the SR 520 bridge replacement or improvements to the I-5 corridor, if they are to be implemented.

Identifying Potential Funding

The final step in developing the *Action Strategy* was to identify costs and funding sources that will be available for University Area projects. The project team looked at the amounts and types of funds that may be available citywide between now and 2030 and estimated a range of revenues that could potentially fund University *Action Strategy* project recommendations.