

NE 45th Street Corridor

Transit Speed & Reliability and Vehicle Congestion



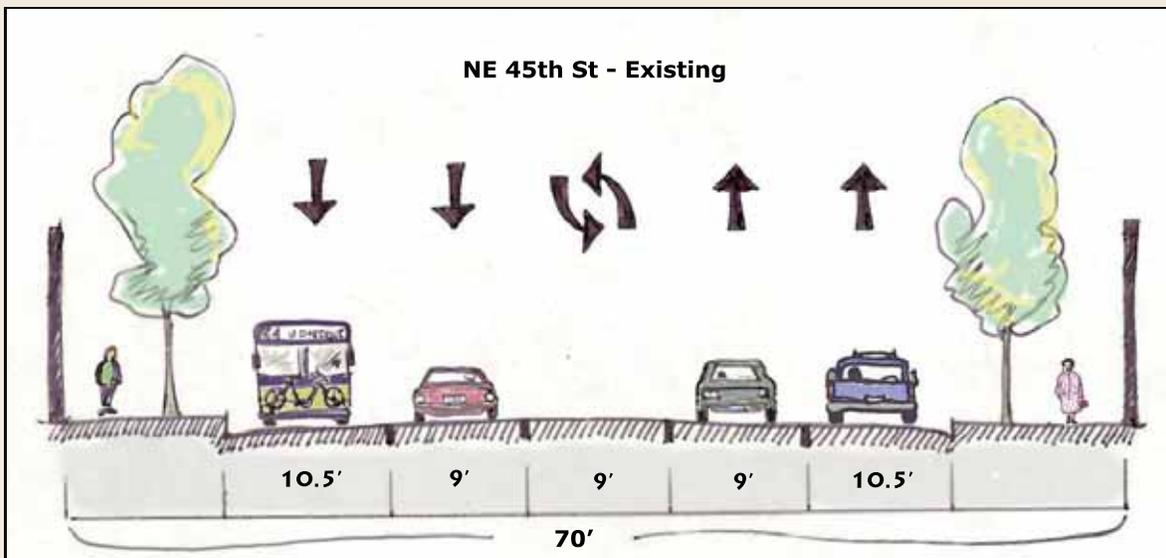
Add westbound Business Access and Transit-only (BAT) lane by restricting left-turns to improve transit speed & reliability and reduce congestion.

Priority Rating: High
 Cost Estimate: \$1.04 million

Problems and Issues

- NE 45th St is a key segment of Seattle's Urban Village Transit Network, providing the primary transit (including electric trolley) route from the University District to the Wallingford, Fremont, and Ballard urban villages. This roadway experiences severe traffic congestion during most times of day, and is one of the corridors where the City can receive additional service hours from King County Metro if transit speeds are improved by 10%.
- During the PM peak period, average vehicle speeds are 9-11 miles per hour (LOS E and F) between I-5 and 15th Ave NE. Transit vehicle speeds are substantially slower (~6 mph) due to passenger loading and operation in mixed traffic.
- Excessive vehicle queues are preventing buses from easily accessing the 6 bus stops along this corridor, which together average nearly 3400 boardings and alightings each weekday.
- 288 buses per weekday (66 during PM peak) travel westbound, and 221 buses per day (44 PM peak) travel eastbound along this corridor.

Existing PM Peak Travel Speeds	
Vehicle	MPH
Auto- Westbound	11.1
Auto- Eastbound	9.4
Transit - Westbound	6.5
Transit - Eastbound	5.8



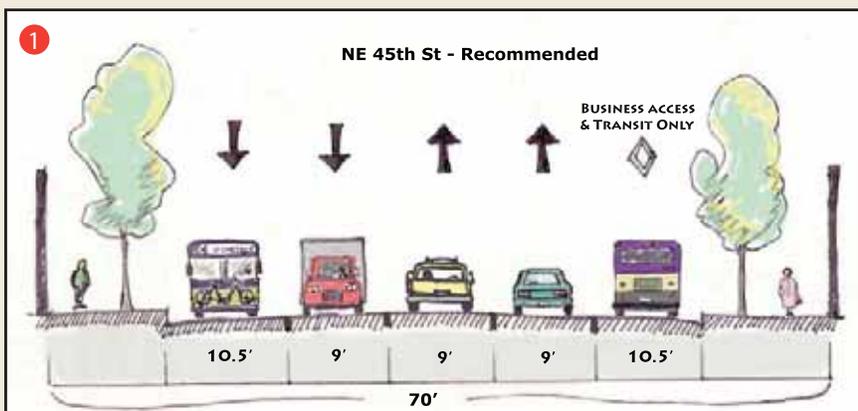
University Area Transportation Action Strategy

NE 45th Street Corridor (Continued)

Recommended Actions

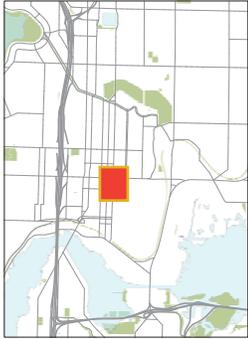
- 1 Convert center left-turn lane to westbound general purpose travel lane between 7th Ave NE and University Way NE. Prohibit left-turns off of NE 45th St.
- 1 Provide a westbound transit and business-access only (BAT) lane from University Way NE to 7th Ave NE along the north curb lane. An extension of the BAT lane to 15th Ave NE should also be considered if additional transit time savings is needed to “trigger” an increase in service hours from Metro’s speed & reliability program (a program funded through Metro’s 2006 *Transit Now* levy).
- 2 Accommodate key turning movements that would be restricted with implementation of the BAT lane. For example, traffic currently going westbound on 45th St to southbound on Roosevelt Way (the most common turning movement along this roadway segment) could be routed north onto 11th Ave, west on 47th St, and south onto Roosevelt Way; or could make a left at 15th Ave NE and access the University Bridge via Campus Parkway. Potential changes to consider include traffic signal re-timing, lengthening of certain turn pockets (e.g. left-turn to 15th Ave from NE 45th St), and conversion of some one-way streets (8th/9th Ave) to two-way.
- Prioritize pedestrian and bicycle improvements on NE 43rd St and NE 47th St (such as UATAS project #6) to help mitigate potential impacts of additional traffic displaced by BAT lane. (Note: UATAS traffic demand model analysis and past experience from other cities indicate that many drivers will anticipate the turn restrictions and utilize the street grid to adjust their trip accordingly - i.e. the impact of the turn restrictions will likely be dispersed broadly across the study area.)

NE 45th St from 7th to 15th	Travel Time in Seconds		Travel Time Change	
	Existing	With BAT	Seconds	Percent
Auto – Westbound	166	98	- 68	- 41%
Auto – Eastbound	196	172	- 25	- 13%
Auto – Westbound to Southbound on Roosevelt	68	130	61	90%
Transit – Westbound	286	159	-127	- 44%
Transit – Eastbound	316	292	- 25	- 8%



15th Ave NE/NE 45th St

Transit Speed & Reliability; Congestion Management



Extend left-turn lane pocket and modify signal to move more buses through each signal cycle and increase transit speeds.

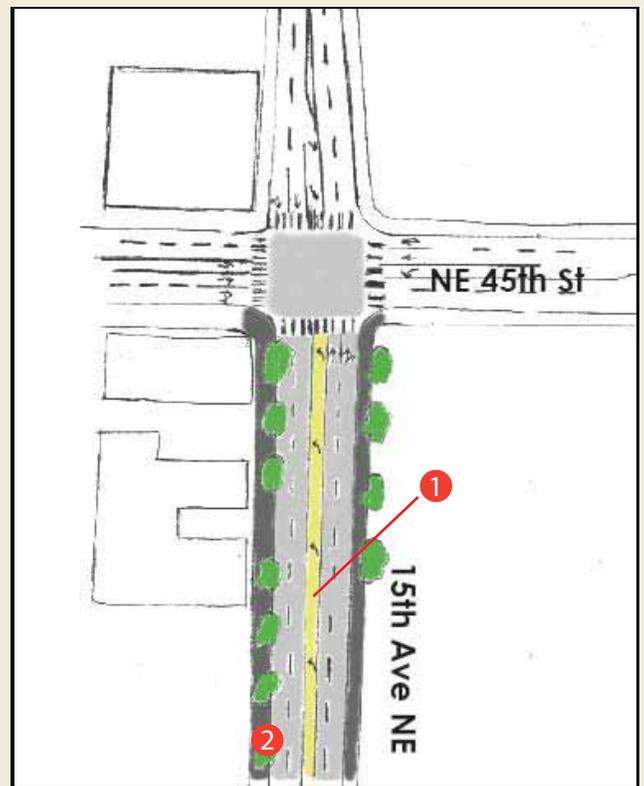
Priority Rating: High
Cost Estimate: \$97,000

Problems and Issues

- This intersection includes an important turning movement of a primary Urban Village Transit Network (UVTN) corridor (with electric trolley service to and from Wallingford and Ballard).
- There are excessive delays at this intersection. Many northbound buses on 15th Ave turning onto NE 45th St (westbound) can't fit in the left-turn lane and/or can't make it through the intersection in one signal cycle. Buses are getting unnecessarily delayed, while northbound general purpose traffic can get blocked by vehicles waiting to enter the turn lane.
- Increased traffic volumes are projected to further reduce intersection level-of-service (and transit speed & reliability) if no action is taken.

Recommended Actions

- 1 Increase length of the northbound-to-westbound left turn pocket to accommodate more buses.
 - 2 Remove several on-street parking spaces on 15th Ave near 43rd St to install longer turn lane. Maintain 2 southbound through lanes during peak periods, and work with the adjacent Malloy Apartments to accommodate their loading space needs.
- Lengthen the northbound left-turn phase to clear more buses in one signal cycle.
 - Coordinate signal timing with NE 45th St/University Way intersection to minimize westbound turning queues from 15th Ave.



Roosevelt Way NE/11th Avenue NE Corridor
Bicycle and Pedestrian Mobility & Safety



Restore all-day parking and add bicycle lanes to increase bicycle and pedestrian safety & mobility.

Priority Rating: High
Cost Estimate: \$480,000

Problems and Issues

- The right-side curb lanes on Roosevelt Way NE and 11th/12th Ave NE allow parking most of the day, except during the peak periods when parking is restricted to accommodate an additional general purpose lane. These restrictions force pedestrians to cross three lanes of traffic (substantially decreasing safety and comfort) and encourage high speeds through several growing neighborhood business districts.
- ① Due to its gentle grades, directness between business districts and downtown, and relative lack of signals, this one-way couplet is a major north-south bicycle route. No bicycle facilities are provided, however, and the existing configuration (with narrow curb lanes) exposes cyclists to the “door zone” of parked cars and deters all but the hardest of riders. The Seattle Bicycle Master Plan recommends several improvement options, although curb extensions on the left side of these streets limit feasible bike improvements to the right-side of the roadways.
- The corridor is part of the Urban Village Transit Network (UVTN), with 22 buses on Roosevelt during the AM peak period and up to 59 buses on 11th Ave during the PM peak.
- The Roosevelt Neighborhood Plan calls for the City to consider returning Roosevelt Way NE and 11th Ave NE to two-way streets. UATAS analysis indicates that such a revision is not warranted at this time.



Typical lane widths for Roosevelt and 11th/12th Ave



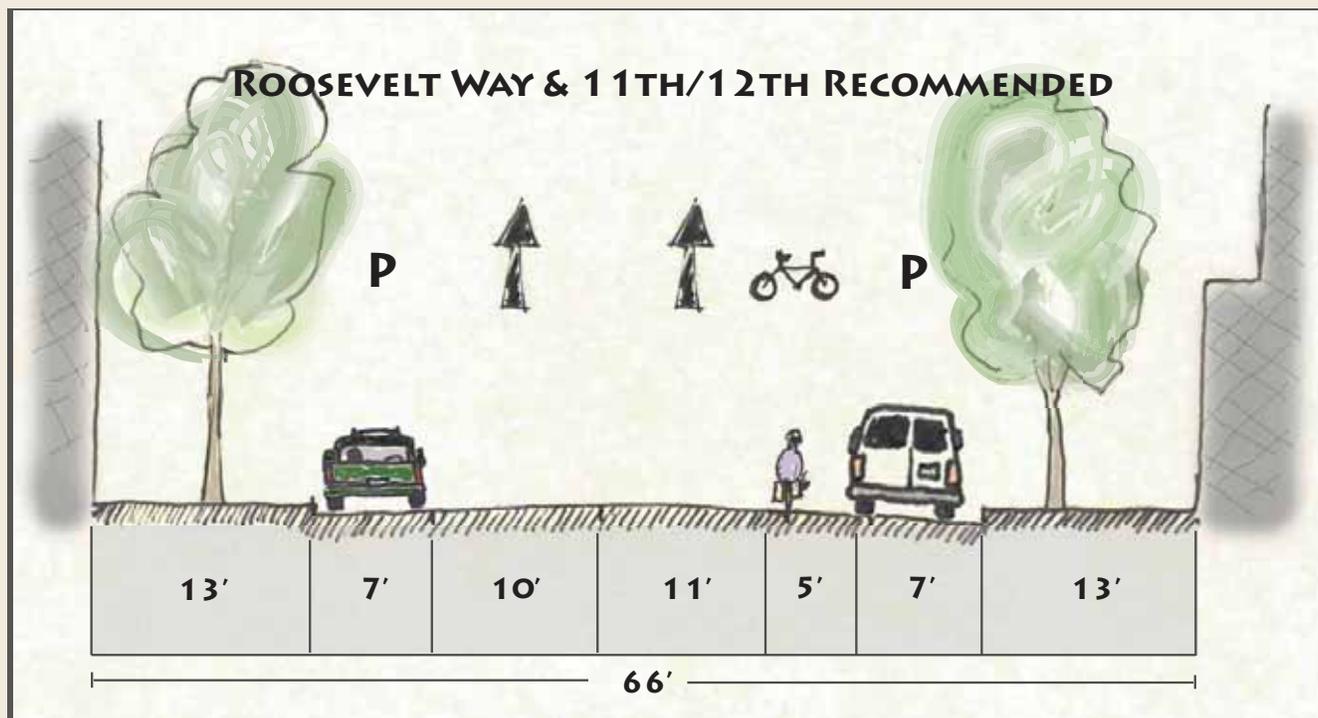
Parking not only provides access to local businesses along Roosevelt Way and 11th/12th Ave, but a buffer for pedestrians travelling on narrow sidewalks.

University Area Transportation Action Strategy

Roosevelt Way NE/11th Avenue NE Corridor (Continued)

Recommended Actions

- Restore all-day parking on both sides of the street by removing peak hour restrictions on the right-side curb lanes.
- Restripe roadway to provide a southbound bicycle lane on Roosevelt Way and a northbound bicycle lane on 11th/12th Ave. Work with SDOT's Ped/Bike Program to design transitions from bicycle lanes to vehicle right-turn lanes at the intersections of NE 50th St, NE 45th St, and other locations with heavy turning movements.
- Begin to allow pedestrian curb-bulbs on both sides of the street (in feasible locations) to decrease crossing distances and improve pedestrian safety and comfort. Areas of particular benefit would include the Roosevelt business district and at key crossings in the University District where pedestrian volumes are high.
- Work with King County Metro on street design concepts that include bicycle lanes and in-lane bus stops. Coordinate in-lane stops with potential increases in transit service, such as when light rail operation to Roosevelt begins.



Burke Gilman Trail/25th Ave NE

Pedestrian and Bicycle Safety



Modify signal timing and intersection design, and upgrade crossing to improve safety for pedestrians and bicyclists.

Priority Rating: High
 Cost Estimate: \$102,000

Problems and Issues

- 1 High volumes of pedestrians and bicycles cross this intersection as a part of the Burke Gilman Trail.
- This intersection has one of the highest rates of turning vehicle/pedestrian conflicts in the study area.
- 2 bicycle collisions were reported at this intersection between 2004-2006, and historically the intersection has been considered a high collision location.
- The Bicycle Master Plan identified a need to “further study” this intersection for necessary improvements, which the UATAS study has done.



Recommended Actions

- 1 Provide a raised, colored crosswalk on the south leg of the intersection where the Burke Gilman Trail crosses 25th Ave NE.
- 2 Provide a tighter turning radius for the eastbound-to-southbound movement from Ravenna Place NE onto 25th Ave.
- Provide a 5-10 sec “lead phase” for the pedestrians and bicyclists crossing the trail.



NE 43rd St Corridor

Pedestrian Mobility & Safety; Transit Connections



Widen sidewalks and add curb extensions to improve pedestrian capacity & safety and encourage transit use.

Priority Rating: High
 Cost Estimate: \$930,000

Problems and Issues

- 1 NE 43rd St will be the major east-west pedestrian corridor linking the University campus and neighborhood with Sound Transit's light rail station at Brooklyn Ave.
- In anticipation of light rail, the City has given a pedestrian priority designation to NE 43rd St. This street is also designated a Neighborhood Green Street by the University District Neighborhood Plan.
- All or portions of the sidewalk fail to meet both the pedestrian clear space and the pedestrian buffer space performance measures as established by UATAS analysis.
- There is currently more than enough right-of-way to widen sidewalks while maintaining adequate roadway width for vehicles.



Recommended Actions

- Widen sidewalks and place curb extensions on NE 43rd St between Roosevelt Way NE and 15th Ave NE.

Eastlake Avenue E

Bicycle Mobility and Safety



Add bicycle signal queue jump and upgrade sidewalk access to improve bicycle safety and comfort

Priority Rating: High
Cost Estimate: \$496,000

Problems and Issues

- Eastlake Ave E (University Bridge) to Harvard Ave E is a critical path for many cyclists traveling between Capitol Hill and the University District.
- 1 Experienced cyclists use the southbound Eastlake Ave left-turn lane to access Harvard Ave E, merging from the Fuhrman Ave intersection across 2 lanes of heavy traffic.
- 2 Less confident cyclists continue straight through the Fuhrman intersection and access Harvard Ave E from a signalized crosswalk farther south on Eastlake Ave, although raised curbing and sidewalk clutter (large utility and Metro poles, overgrown vegetation) make it difficult to reach the pedestrian-actuated push button on the sidewalk.
- 4 bicycle-vehicle crashes were reported on Eastlake Ave between Harvard Ave E and Fuhrman Ave E between 2004-2006.



Recommended Actions

- 1 Provide a southbound bicycle queue jump at Fuhrman Ave signal to allow lead time for cyclists to merge across Eastlake before general purpose southbound traffic gets the green light. This movement could be coordinated with the left-turn only signal phase for southbound vehicles turning onto Fuhrman Ave E.
- Upgrade curb ramps on west side of Eastlake to improve bicycle access to sidewalk and the pedestrian push button farther south. Look to consolidate utility and transit poles, and widen sidewalks, when opportunities allow.



Bicycle-only signals have been effectively implemented in other cities, such as Portland and Berkeley.

Eastlake Ave and Campus Parkway

Bicycle and Pedestrian Safety & Mobility



Reconfigure intersection, and add bicycle lanes and sidewalks, to reduce conflicts between modes and improve safety.

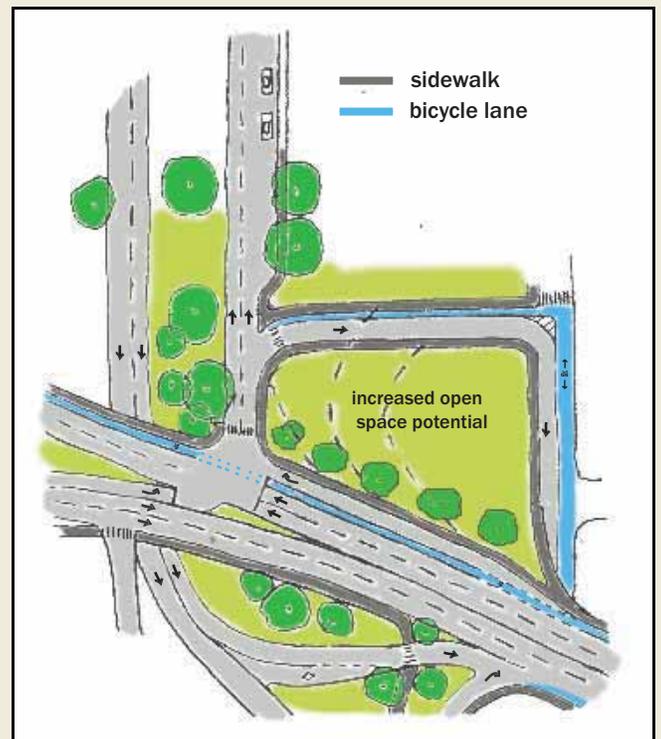
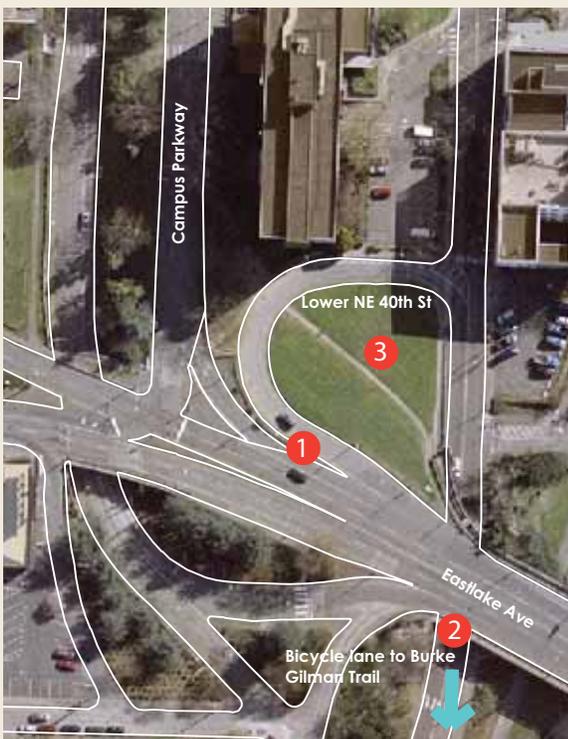
Priority Rating: High
 Cost Estimate: \$1.17 million

Problems and Issues

- 1 Multiple conflict points between right-turning vehicles and cyclists are a significant problem at the north end of the University Bridge:
 - Northbound to westbound vehicles turning onto the NE 40th St loop ramp travelling at excessive speeds.
 - Eastbound vehicles turning onto Campus Parkway.
 - Heavy bicycle demand for both right-turn movements as well as for continuation northbound.
- 2 No bicycle facilities currently exist along Eastlake, even though this segment is critical to the Urban Trails and Bikeways System and the planned South Lake Union Loop Trail, and is a heavily-utilized connector to the Burke Gilman Trail.
- 3 Sidewalks are generally in poor condition throughout the project area, and an informal trail across the grass between the bridge and Campus Parkway indicates demand for improved facilities.

Recommended Actions

- Consolidate right-turns by relocating the westbound loop ramp from Eastlake Ave to Campus Parkway. Create a single right-turn pocket for vehicles and cyclists travelling to Campus Parkway and the loop ramp.
- Add/improve sidewalks along Eastlake Ave and the NE 40th St ramp.
- Add solid-colored northbound bike lanes on Eastlake Ave E between the University Bridge and 11th Ave NE.
- This action implements a “key corridor recommendation” in the Bicycle Master Plan and a “gateway treatment” recommendation from the neighborhood plan.



University Way NE from NE 50th St to 15th Ave NE

Pedestrian & Bicycle Mobility, Urban Design

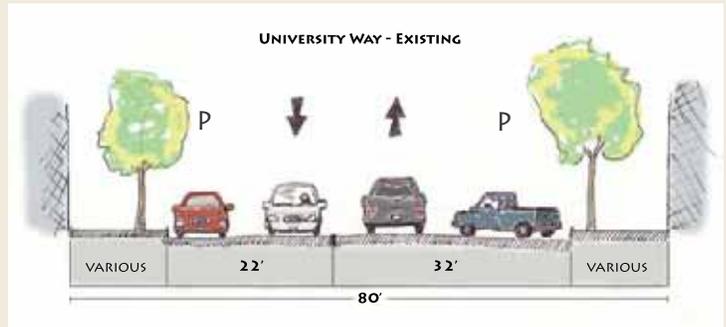


Reconfigure University Way to provide dedicated bicycle facilities, wider sidewalks, and improved urban design.

Priority Rating: High
Cost Estimate: \$27 million

Problems and Issues

- University Way is the “main street” of the University District and Urban Center, and a designated bicycle route. Several years ago it was upgraded south of NE 50th St.
- North of 50th St the roadway is wider, although sidewalk widths and pedestrian “buffer” spaces are inadequate and no bicycle facility is provided. The Bicycle Master Plan recommends full bicycle lanes along this segment.
- University Way is a major transit route, with direct service to downtown. Access to bus waiting areas and their general quality should be improved as housing density and commercial activity increase over time.



Recommended Actions - Phase 1

- In the near term, repair broken sidewalk segments and tree pits, and install pedestrian lighting and banner poles, to improve the pedestrian environment of “The Ave” north of NE 50th St.
- As the area redevelops, prohibit new curb cuts and prioritize vehicular access from the alleys in order to maintain and/or improve the pedestrian environment.
- By 2012, undertake a parking analysis to identify parking needs and key issues.



Increased road width and the University Heights Center/Farmers’ Market (above) provide many urban design opportunities for University Way north of NE 50th St.

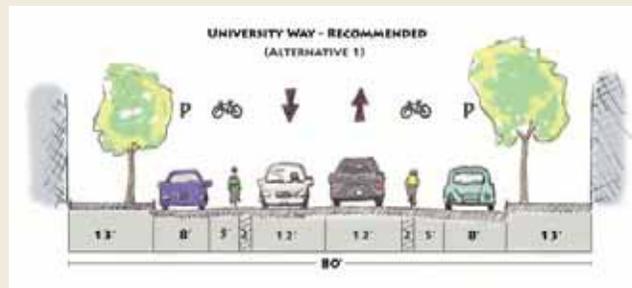
University Area Transportation Action Strategy

University Way NE (Continued)

Recommended Actions - Phase 2

- Reconstruct University Way NE from NE 50th St to 15th Ave NE with the following elements:

- Wider sidewalks at key locations
- Pedestrian-scaled lighting
- Dedicated bicycle facilities
- Bicycle parking
- Additional street trees & landscaping
- High-amenity transit stops



Phase 2 - Alternative 1

● Street Design - Alternative 1

Install extra-wide, or “buffered,” bicycle lanes to encourage bicycling and improve bicycle safety. Where feasible, install in-lane transit stops to improve transit speed and transit waiting areas.

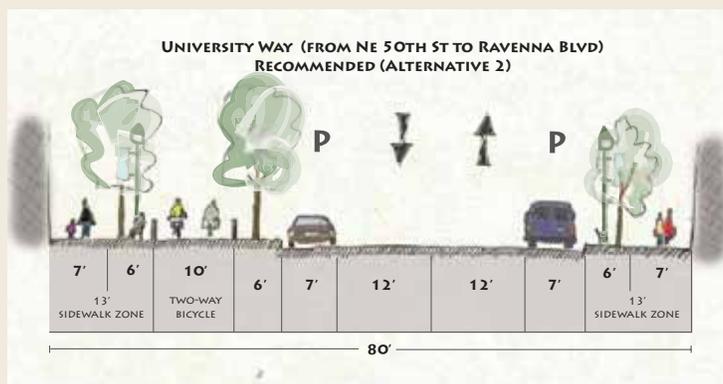
(This alternative would allow the existing curb-to-curb roadway width to remain as it is.)

● Street Design - Alternative 2

Reconstruct University Way NE from NE 50th St to 15th Ave NE to provide a dedicated two-way, 10-ft wide bicycle “sidepath” in addition to wider sidewalks, pedestrian lighting, and improved urban design. The “sidepath” would be on the west side of NE 50th St from the University Heights Center to Ravenna Blvd, which would provide a high-quality, dedicated bicycle facility from the heart of the University District to Greenlake without forcing users into mixed traffic.

Provide in-lane transit stops to improve transit speed, reliability and comfort. With this alternative, there would be no conflict with bicycles and buses.

(This alternative would require significant reconstruction of University Way due to the reconfiguration of roadway width.)



Phase 2 - Alternative 2

Ravenna Ave NE/NE 55th St Corridor

Traffic, Pedestrian & Bicycle Safety



Reconfigure corridor to provide curbs, gutters and sidewalks, and to delineate street corners to improve safety

Priority Rating: High
Cost Estimate: \$1.2 million

Problems and Issues

- Where Ravenna Ave NE, NE 55th St, NE 54th St, 22nd Ave NE, and Ravenna Place NE come together is an awkward and confusing series of intersections.
- Poorly-defined street corners confuse some drivers and encourage others to speed.
- Long crossing distances and a lack of sidewalks create an extremely poor pedestrian environment and a gap in the bicycle network. The Bicycle Master Plan calls for improved connections to the adjacent off-street trail within Ravenna Park.



- NE Ravenna Place is designated as a Neighborhood Green Street.

Recommended Actions

- Reconstruct the geometries of the Ravenna Ave NE, NE 54th/55th St, 22nd Ave NE, & Ravenna Pl NE corridor with more regularized intersections and tighter corners, while maintaining sufficient curb radii for turning buses.
- Add new curbs, sidewalks, landscaping, and crosswalks to improve and delineate pedestrian facilities, and improve access for cyclists to and from the off-street, multi-use park trail at Ravenna Park.
- 1 If phasing is needed, prioritize the narrowing/landscaping of NE Ravenna Pl at 55th St to help reduce the speeds and volume of right-turning vehicles headed southbound for 25th Ave. Consider angled back-in parking on Ravenna Place as an additional traffic calming measure.



NE 45th St Corridor & Burke Gilman Trail

Pedestrian and Bicycle Mobility & Safety



Construct a pedestrian and bicycle trail connection between NE 45th St and the Burke Gilman Trail to improve mobility and safety.

Priority Rating:	High
Cost Estimate:	\$2.26 million

Problems and Issues

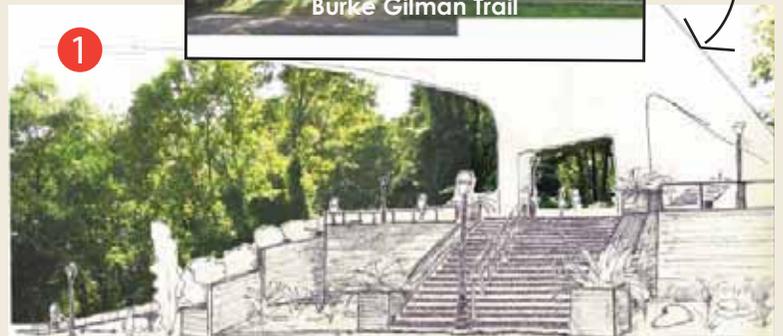
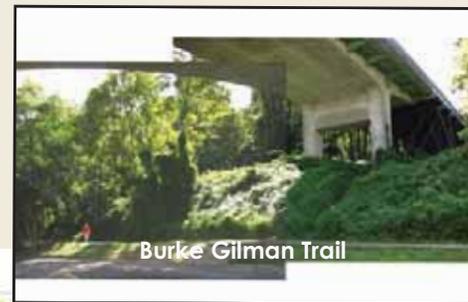
- The extremely long, narrow and uncomfortable environment along the NE 45th St viaduct is the only direct pedestrian or bicycle connection from the University campus and the heart of the University District to the University Village area.
- ① An informal pedestrian trail currently exists under the viaduct, hinting there is a “latent demand” for improving pedestrian and neighborhood connections. Thick vegetation, steep grades, and public safety concerns, however, limit the widespread use and functionality of this area.
- Visual access to the natural area known as Kincaid Ravine and the potential for natural drainage enhancements make this area a “place-making” opportunity as well as a transportation opportunity.



Looking east towards the NE 45th St viaduct with Kincaid Ravine on the right.

Recommended Actions

- ① Construct a pedestrian path and bicycle trail under the NE 45th St viaduct to provide a direct connection between the UW Campus and business district along 45th St with the Burke Gilman Trail.
- Work with Seattle Public Utilities, the University of Washington, and perhaps the Parks Department on the design and funding of this project.
- Seek partnership with SDOT's partial replacement of the NE 45th St viaduct set for 2010 as a way to meet SDOT's adopted “Complete Streets” policy.



Draft concept of what an improved pedestrian and bicycle connection might look like.

**Burke-Gilman Trail Crossing
at Brooklyn Avenue NE**
Pedestrian and Bicycle Safety



Realign trail and add a raised, colored crosswalk to improve safety.

Priority Rating: High
Cost Estimate: \$340,000

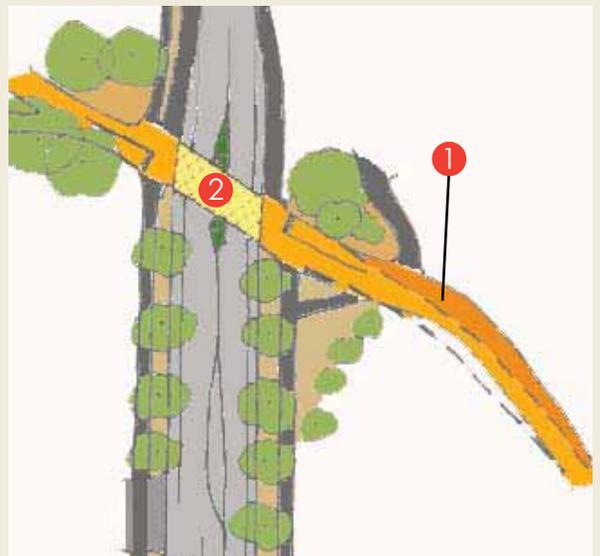
Problems and Issues

- The Burke Gilman Trail approaches Brooklyn Ave midblock at an angle, limiting sight distances and increasing the potential for bicycle/vehicle conflicts.
- Current safety warnings consist of a pedestrian crossing sign and a regularly striped crosswalk, which do not adequately indicate to drivers the importance of this is a heavily-used trail crossing.
- Brooklyn Ave is designated as a Neighborhood Green Street, which means that pedestrians and bicycles are given higher priority in street design and operations.



Recommended Actions

- 1 Modify the angle of the Burke Gilman Trail crossing and square off to Brooklyn Ave as much as possible to improve visibility and reduce crossing distances.
- 2 Add raised and colored crosswalk, roadway medians, specialized trail crossing signs, and pedestrian-scaled lighting to properly distinguish and improve the trail crossing.
- This project should be considered in conjunction with UATAS Project F, which could reprioritize traffic control to give trail users the right-of-way at the crossing with Brooklyn Ave.



Roosevelt Way/11th Ave NE & NE 55th St
Pedestrian Mobility & Safety

Install curb extensions to improve pedestrian safety.

Priority Rating: High
Cost Estimate: \$43,000

Problems and Issues

- Traffic speeds and volumes are high for most of the day along the Roosevelt way NE and 11th Ave NE one-way couplet.
- ① In order to cross safely, many pedestrians walk along the side of the road and jaywalk when a gap in traffic presents itself, or have to walk out of their way to reach a fully signalized intersection.
- Pedestrians must cross 3 lanes of traffic during the peak periods, when parking restrictions add a curbside lane for traffic. These uncomfortable crossings limit pedestrian accessibility to a growing set of businesses along Roosevelt Way near NE 55th St.

**Recommended Actions**

- ① Install curb extensions along the left-sides of Roosevelt Way NE and 11th Ave NE at NE 55th St to shorten pedestrian crossing distances and improve safety.



Burke Gilman Trail/NE 40th St to University Bridge

Bicycle Mobility & Safety



Improve connection from Burke Gilman Trail to the University Bridge by constructing bicycle lanes along Upper NE 40th St.

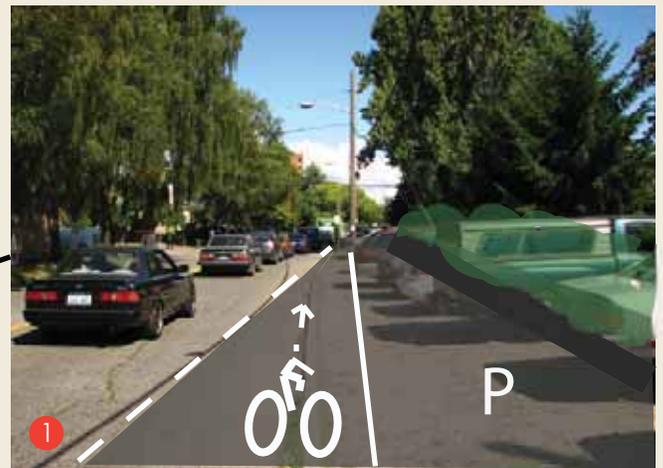
Priority Rating: High
Cost Estimate: \$437,000

Problems and Issues

- The Burke Gilman Trail and the University Bridge are two of the most heavily utilized corridors for bicyclists, and critical components of the Urban Trails and Bikeways Network and the Lake Union Loop Trail.
- A poorly defined path of travel, various curbed barriers, and gravel shoulders with 90 degree parking on Upper NE 40th St create significant gaps in these trail systems.
- Eastbound to southbound bicyclists using the BG Trail and University Bridge must first mix with traffic along Upper 40th St and are then required to make an unprotected merge onto the bridge. The bicycle lane doesn't begin until much farther south on the bridge.

Recommended Actions

- 1 Add eastbound bike lane on NE 40th between University Bridge (Eastlake Avenue E) and 7th Avenue NE by reconfiguring 90-degree parking to parallel.
- Extend bicycle lane on west side of University Bridge northward to the intersection with NE 40th St to improve the safety and comfort of eastbound cyclists merging southbound onto the bridge.
- Reconstruct the crosswalk on lower NE 40th St to the east of the 7th Ave intersection; provide curb ramps with wide flares and improved geometries from the Burke Gilman Trail to upper NE 40th St.



Upper NE 40th St to University Bridge with bike lane concept.

Montlake Boulevard NE

Transit and HOV Speed & Reliability

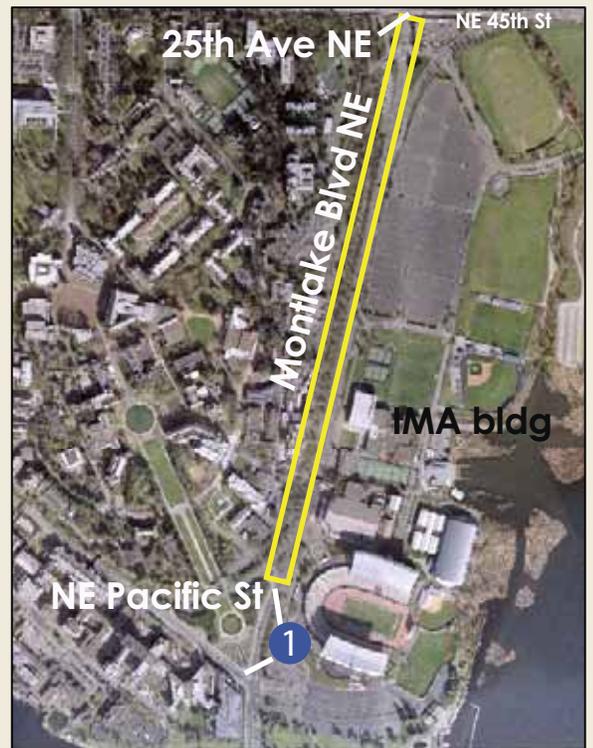


Extend HOV lane on southbound Montlake Blvd from NE Pacific PI to 25th Ave NE to increase speeds of high-occupancy vehicles and encourage new transit service.

Partnership Project
Cost Estimate: \$11.5 million

Problems and Issues

- 1 An HOV lane on Montlake Blvd southbound is provided for the short block between NE Pacific PI and NE Pacific St to facilitate bus turns around the Rainier Vista triangle.
- Montlake Blvd (a state roadway) is highly congested; **the average speed for southbound vehicles during the PM peak period is 3 miles per hour.**
- Due to traffic congestion, King County Metro cannot provide adequate transit service. Poor transit access to the University's Intramural Activities Building and the University Village was one of the most common complaints during the UATAS outreach process.
- Adding an HOV lane would require reconstruction of the existing pedestrian overpasses on Montlake Blvd, although at least one has been flagged as structurally deficient and needs replacement.
- Sound Transit's Husky Stadium Station and the planned HOV improvements to the SR 520 Bridge will only increase the value of HOV facilities in this area.



Recommended Actions

- Work with WSDOT and the UW to construct a southbound HOV lane from Pacific PI. to 25th Ave NE to allow transit and high-occupancy vehicles to bypass general purpose congestion. Convert the existing short HOV segment to "Transit Only" to ensure HOV traffic does not impede bus turn-arounds.
- Reconstruct pedestrian overpasses connecting the main campus with the east side of Montlake Blvd.
- Work with Metro and the UW to introduce transit service along the Montlake Blvd corridor. Ensure additional service enhances, not degrades, transit access to the University's main campus.



Constructing an HOV lane on Montlake Blvd would be an opportunity to replace aging infrastructure like this pedestrian bridge to the UW's IMA.

8th Ave NE between NE 64th and 65th St Pedestrian Safety; Congestion Management



Construct curb extension, widen sidewalk, and provide northbound right-turn pocket to improve safety for pedestrians and vehicles.

Priority Rating: High
Cost Estimate: \$154,000

Problems and Issues

- 8th Ave NE is a wide two-lane arterial connecting the I-5 off ramp with NE 65th St. Pedestrians must cross the equivalent of 3 lanes of traffic.
- There is a large park-n-ride lot west of 8th Ave that generates a significant number of pedestrian crossings. This pedestrian connection will increase in volume and importance when Sound Transit's Roosevelt light rail station begins operation.
- Narrow sidewalks on the east side of 8th Ave limit pedestrian mobility and access to an adjacent bus stop.
- The lack of a delineated turning lane on 8th Ave may be hindering its full utilization by vehicles.



Recommended Actions

- 1 Construct a curb bulb at the 8th Ave NE /NE 64th St intersection.
- 2 Widen sidewalks on the east side of NE 8th Ave between NE 64th St and NE 65th St.
- 3 Re-stripe 8th Ave approach to NE 65th St to provide a northbound right-turn pocket.



NE Pacific St Corridor

Transit Speed & Reliability; Corridor Planning



Extend existing eastbound HOV lane to 15th Avenue NE and widen Burke-Gilman Trail.

Partnership Project
Cost Estimate: \$4.9 million

Problems and Issues

- Pacific Street is a major east-west transit corridor serving the University of Washington's south campus and health sciences facilities. About 92 buses travel eastbound on NE Pacific Street during the PM peak in the existing HOV lane.
- When Sound Transit completes the light rail station at Husky Stadium, and when additional HOV facilities are provided on the SR 520 Bridge, bus volumes and transfers on this street will increase.
- **Vehicles on eastbound NE Pacific Street travel at an average of 6 mph during the PM peak hour, which is LOS F.**
- This project would provide an opportunity to widen and improve the Burke Gilman Trail, which may need additional person capacity with the opening of Sound Transit's Husky Stadium light rail station.



Recommended Actions

- Extend the HOV lane on eastbound NE Pacific Street from the existing end of the HOV lane at Pacific Place to 15th Avenue NE.
- 1 Pacific Street needs to be widened toward the north side to add the HOV lane. This will require the reconstruction of retaining walls and several small bridge spans related to the Burke Gilman Trail, providing an opportunity to widen and significantly improve both facilities.



Weedin Pl/8th Ave NE/NE 65th St

Pedestrian Mobility; Open Space & Urban Design



Close north end of Weedin Place to traffic and provide landscaping and other pedestrian amenities to encourage walking.

Priority Rating:	High
Cost Estimate:	\$178,000

Problems and Issues

- This section of Weedin Place is a stop-controlled, diagonal street that connects NE 65th St to NE 66th St. It's function is somewhat redundant as turns from NE 65th St to 8th Ave are possible.
- ① The City has discouraged use of Weedin Place by painting a wide curb bulb at the NE 66th St corner and limiting traffic to one lane.
- Weedin Place creates extra gaps in the sidewalk network along NE 65th and NE 66th St, & slices through several commercially-zoned parcels limiting their potential to redevelop. It is also a cost-effective opportunity to implement recommendations from the Roosevelt Neighborhood Plan, including R-EDS3: "Coordinate and support the creation and maintenance of consistent, signature street treatments within the commercial core and at gateway entry points to the neighborhood."



Recommended Actions

- ② Close Weedin Place to vehicles where it meets 8th Ave NE at NE 66th St. Provide new sidewalks, landscaping, benches, and public art to create a pocket park and neighborhood gateway.
- Consider vacating the remaining portion of Weedin Pl between 65th and 66th St if neighborhood support exists; maintain property and service access by developing a new alley off of 8th Ave NE.
- If partial closure cannot be supported, construct a landscaped curb bulb to replace the pedestrian striping at 66th St.

NE 50th St/15th Ave NE Vehicle Safety



Provide left-turn pockets and/or modify signal operations, and restrict parking to improve safety.

Priority Rating:	High
Cost Estimate:	\$172,000

Problems and Issues

- This intersection has the highest collision rate in the study area,* based on number of collisions vs. traffic volumes over a 3-year period.
- Left-turning vehicles from NE 50th St do not have a “protected” signal phase, and due to the steep slope of the roadway drivers may be failing to see on-coming vehicles.
- Because parking is allowed close to the 15th Ave intersection, drivers trying to bypass left-turning vehicles are potentially making unsafe maneuvers through tight spaces.

* While the highest in the study area, the overall number of crashes and rate remain relatively low compared to numbers citywide.



Recommended Actions

- 1 Add left-turn pockets, provide exclusive left-turn phase, or eliminate left-turns for eastbound and westbound vehicles on NE 50th St.
- 2 Extend no parking zones for longer distances from the corners of the 15th Ave NE/ NE 50th St intersection.



36th Ave NE/Burke Gilman Trail Bicycle & Pedestrian Mobility



Create new ramp connection between 36th Ave NE at NE 45th St with Burke Gilman Trail to improve bicycle mobility.

Priority Rating: High
Cost Estimate: \$82,000

Problems and Issues

- The Bicycle Master Plan's Recommendations for Key Corridor and Focus Areas includes the following (#5): "Identify best connection between trail on east side of UW Campus and Burke-Gilman Trail (across Union Bay Place NE)." This connection will improve access to and from the waterfront/Ship Canal Trail and will be increasingly important as the area continues to grow.
- The elevation of the trail adjacent to Union Bay Place NE and the long signal cycle at the 5-way intersection with NE 45th St limit the feasibility of a worthwhile trail connection at Union Bay Place NE.
- NE 36th Ave at NE 45th St is a signalized intersection and has enough surplus right-of-way to construct a bicycle ramp adjacent to the existing set of stairs.



Recommended Actions

- 1 Provide a new bicycle ramp with access to the Burke Gilman Trail from the 36th Ave NE street end.
- Include signage connecting the Burke Gilman Trail to the Ship Canal Trail via NE 36th Ave and NE 41st St.



University Area Transportation Action Strategy

Burke Gilman Trail/NE 47th St/University Village

Project #
22

Bicycle and Pedestrian Mobility & Safety



Create new pedestrian connections along the NE 47th St right-of-way, and realign intersections along 25th Ave, to improve mobility for all modes.

Priority Rating: High
Cost Estimate: \$895,000

Problems and Issues

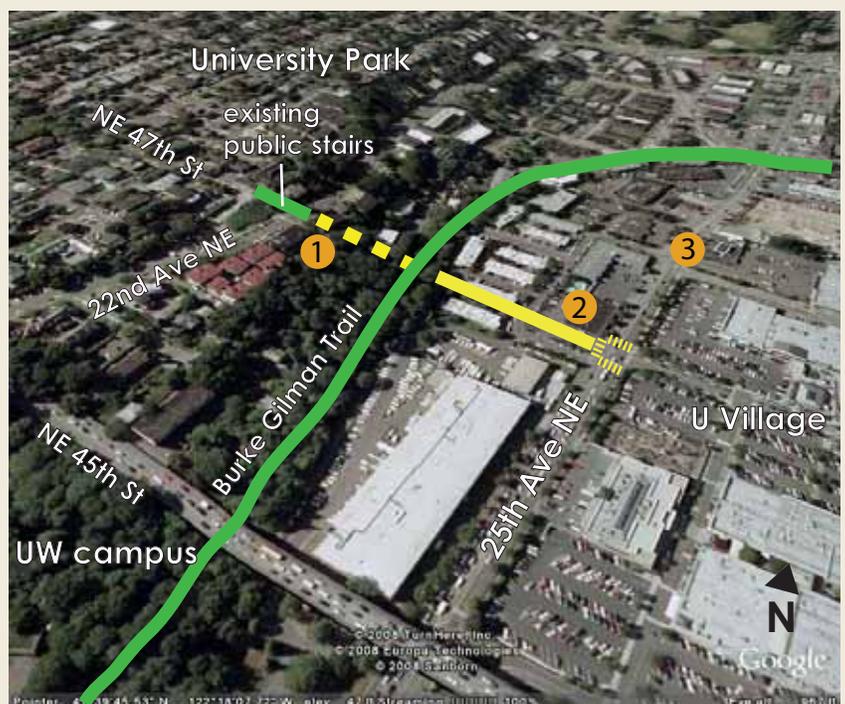
- A steep hillside separates the University Park neighborhood from the University Village shopping area. Neither the Burke Gilman Trail nor existing public stairs provide a direct pedestrian connection.
- The major access 'roads' to/from the University Village are not aligned with NE 47th and NE 49th Streets across from 25th Ave NE. This increases traffic congestion and reduces pedestrian comfort and safety.
- The area between the Burke Gilman Trail and 25th Ave NE is projected to intensely redevelop by 2030. A plan that improves trail connections and simplifies vehicle circulation patterns is needed.



Currently, trail users cannot directly access NE 47th St and the University Village due to a guardrail, University parking facilities, and the lack of a paved connection.

Recommended Actions

- 1 Create a new pedestrian connection from 22nd Ave NE to the Burke Gilman Trail. Upgrade the existing public stairs along NE 47th St to provide a direct pedestrian connection from University Park to the Burke Gilman Trail.
- 2 Work with the University and other adjacent property owners to realign NE 47th St with the University Village entrance on 25th Ave NE; create a 4-way signalized intersection with crosswalks.
- 3 Pursue additional opportunities to consolidate curb cuts and simplify intersections along 25th Ave NE, such as at NE 49th St where there are multiple retail entrances.



7th Ave NE and NE 40th St

Congestion Management & Safety for All Modes

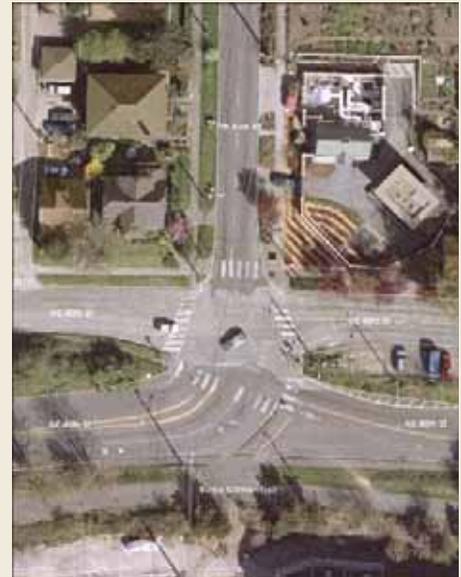


Construct a roundabout to improve traffic flow and reduce conflicts for all modes.

Priority Rating: Medium
Cost Estimate: \$1.13 million

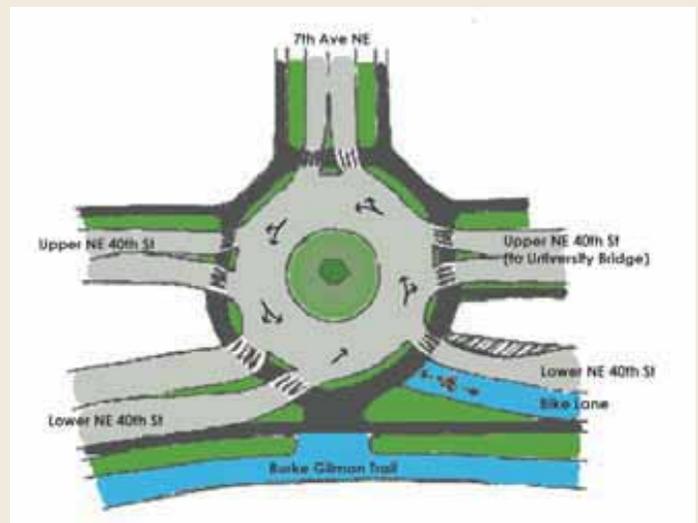
Problems and Issues

- This is a 5-legged intersection with all-way stops for traffic control. Lower NE 40th St is one-way westbound, with the other lane a dedicated two-way bicycle facility.
- During the PM peak, this intersection is operating at level of service (LOS) F with an average 93 sec delay. Vehicles from westbound lower NE 40th St experience the longest delays.
- It is projected that this intersection without improvements would operate at LOS F with an average 152 seconds of delay in 2030.
- At a juncture between the University Bridge and Burke Gilman Trail, bicycle and pedestrian improvements at this intersection would greatly contribute to the Urban Trails and Bikeways Network.



Recommended Actions

- Construct a roundabout and improve the approach roadways at the 7th Ave NE/NE 40th St intersection. Ensure that the design accommodates bus turning movements.
- Together with UATAS project #14, which focuses on improved connections between the Burke Gilman Trail and the University Bridge, this project would provide a comprehensive, multi-modal upgrade to the west University Bridge approach.



11th Ave NE/Eastlake Ave and NE 41st St
Pedestrian Safety



Install pedestrian-actuated signal, and upgrade sidewalks and crosswalks to improve safety.

Priority Rating: Medium
Cost Estimate: \$242,000

Problems and Issues

- 1 A marked crosswalk without traffic control is provided at the crossing of 11th Ave NE/Eastlake Ave at NE 41st St.
- Many pedestrians do not feel safe crossing this unsignalized intersection due to high speeds and volumes of northbound traffic. The curving of the road which marks the transition from Eastlake Ave E to 11th Ave NE also reduces the visibility for pedestrians.
- 2 Full pedestrian crossing of the Roosevelt Way/11th Ave NE couplet includes use of the NE 42nd St/Roosevelt Way crosswalk, which is a signalized "T" intersection.



Recommended Actions

- Install a pedestrian-actuated signal at the intersection of 11th Ave NE and NE 41st St to stop traffic for crossing pedestrians.
- Provide upgrades to adjacent sidewalks and wayfinding to help navigate the full crossing of the Roosevelt Way/11th Ave couplet.

