

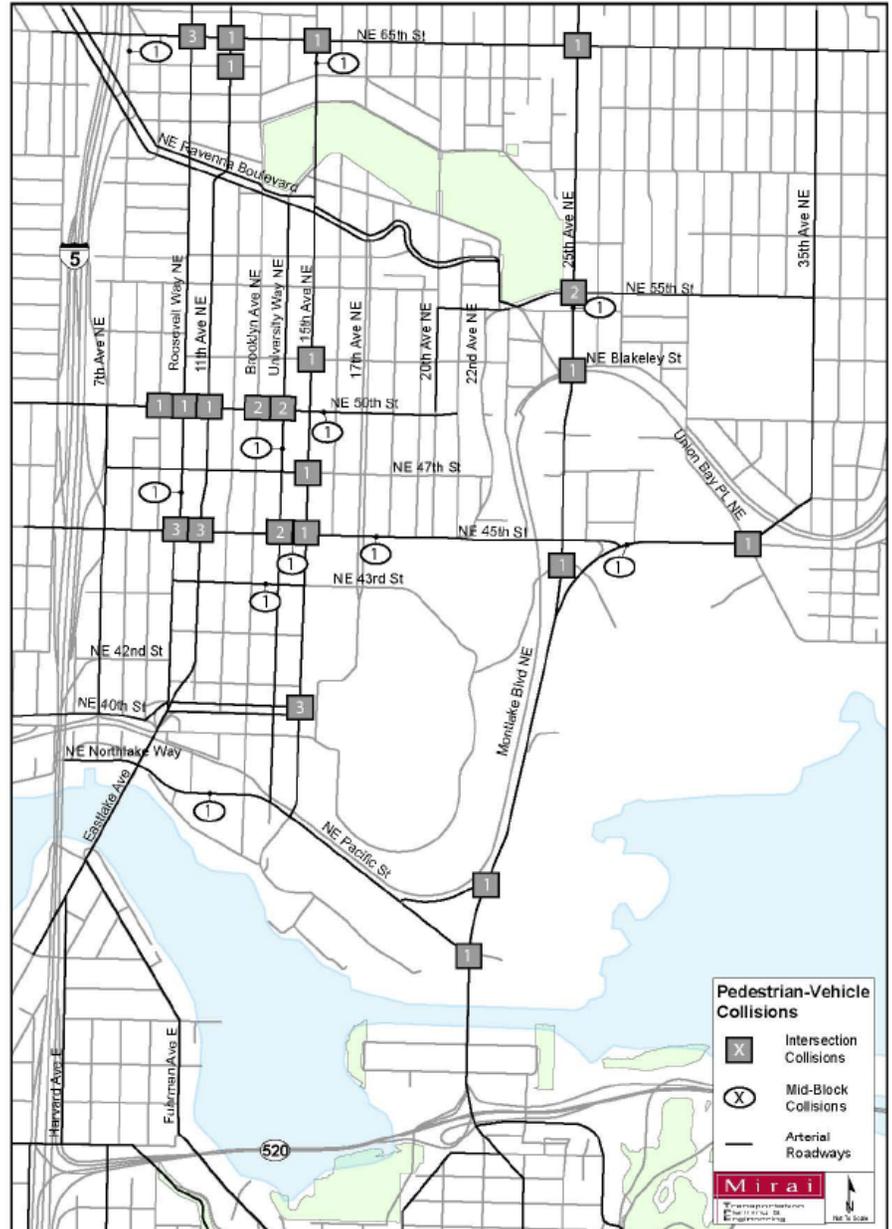
University Area Transportation Action Strategy

Additional Background Information

Technical Team Meeting
June 15, 2007

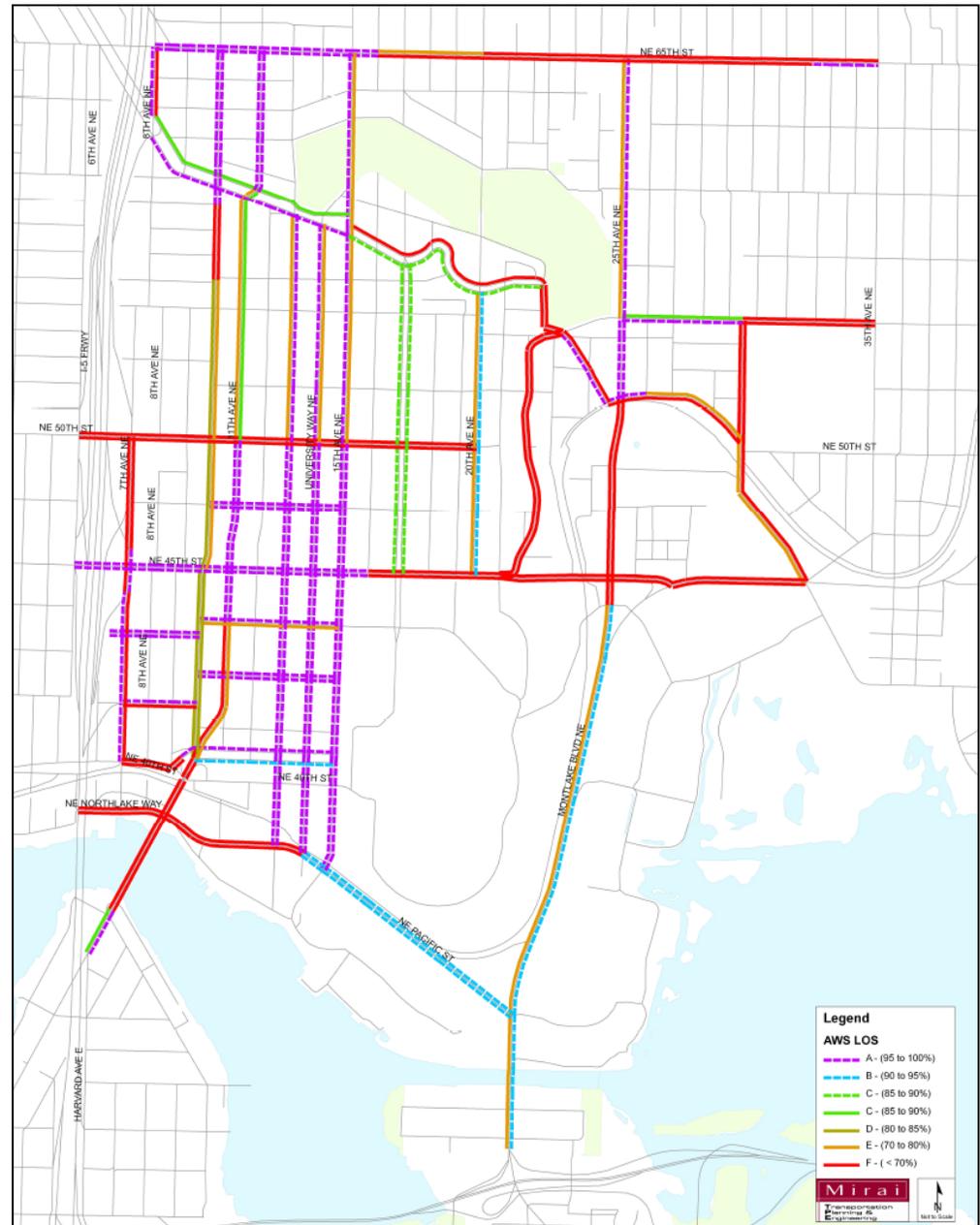
Pedestrian Collisions

- 46 pedestrians were hit by vehicles in the last three years.
- One pedestrian was killed.
- Two intersections, 15th Avenue NE/NE Campus Parkway (westbound) and Roosevelt Way NE/NE 65th Street, had three pedestrian/vehicle collisions in the last three years.
- About one of every four pedestrian collisions occurred at mid-block locations.



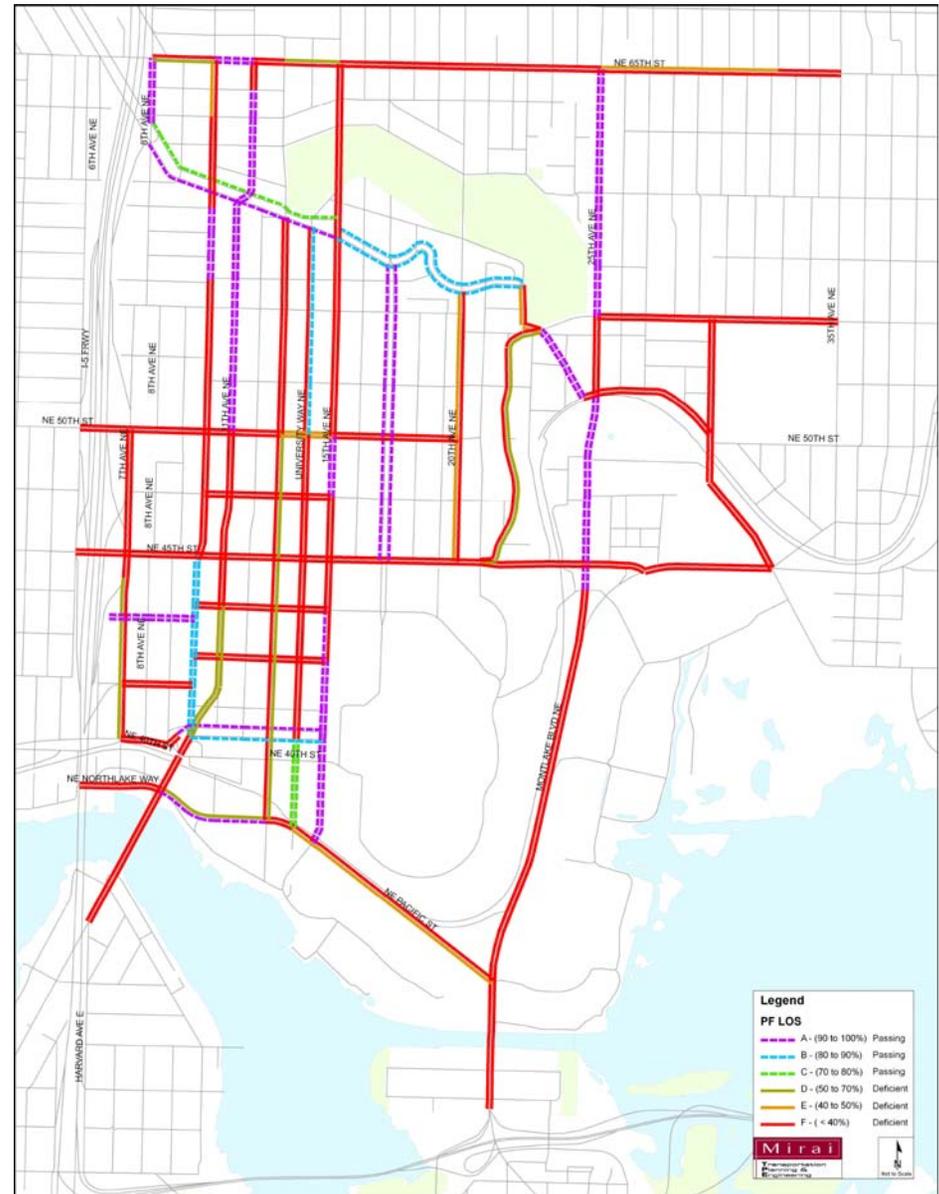
Pedestrian Clear Space

- Almost all the walking spaces within the University District commercial area provide adequate unobstructed walking space (6' min standard).
- Portions of seven streets in the study area have walking spaces that are inadequate.
 - NE 50th St between 5th Ave NE and Roosevelt Way NE
 - NE Northlake Way (south side) between 6th Ave NE and the University Bridge
 - University Bridge (west side) from Furhman Ave E to NE 40th St
 - Montlake Blvd (west side) from SR 520 to NE 44th St
 - NE 45th Street (both sides) east of 16th Ave NE
 - 25th Ave NE (both sides) from NE 45th St to NE Blakely St



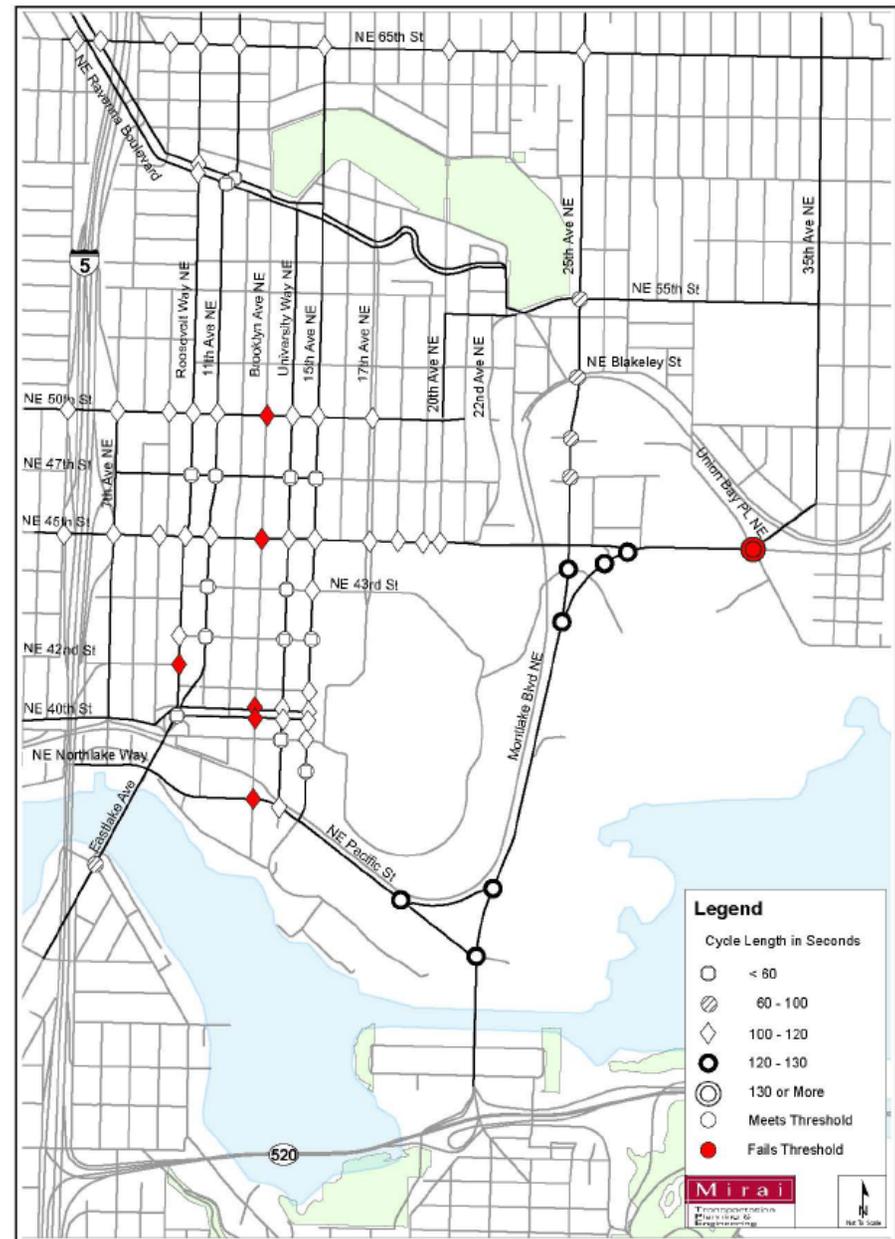
Pedestrian Walking Spaces with Buffers

- Most of the streets in the study area do not provide adequate space between pedestrians and moving traffic as identified by ROWIM design guidelines
- Calculation of parked cars as buffer space was taken at midday, so peak period restrictions would exacerbate the lack of buffers for pedestrians.



Pedestrian Intersection Crossing Delays

- Most intersections within the University area have cycle lengths at 120 seconds or less.
- Seven intersections fail to meet the signal cycle length thresholds for their street type.
- Five of the seven are on Brooklyn Ave (because Brooklyn is a Green Street, the threshold for delay was more stringent than other streets, which plays a factor).
- The thresholds standard for intersection delay may be revised to better accommodate pedestrians depending on further analysis.



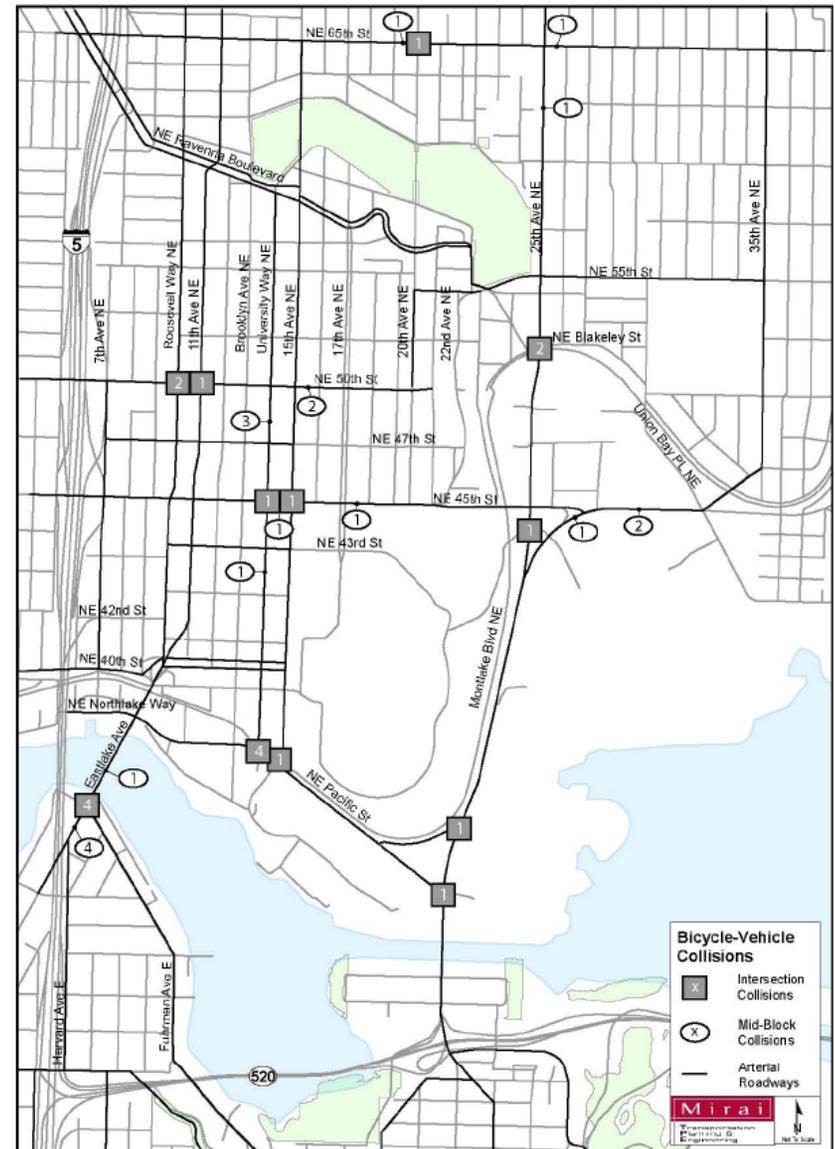
Intersection Vehicle-Pedestrian Conflicts

- 12 intersections fails to meet the vehicle-pedestrian conflict level of service thresholds.
- The level of service thresholds differ among the Street Type. A large unprotected vehicle turning volumes do not automatically fail the thresholds.



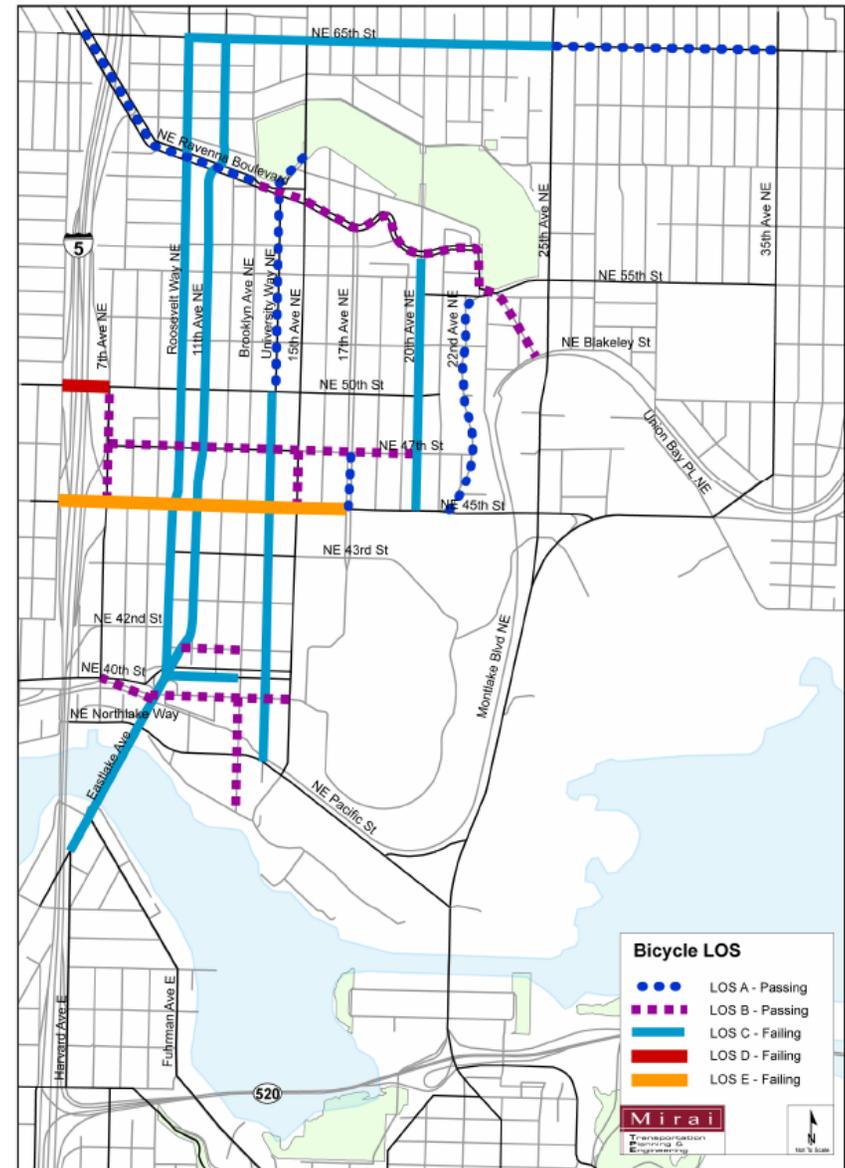
Bicycle Collisions

- 39 collisions occurred between bicycles and vehicles in the last three years.
- Three locations had four collisions each:
 - Eastlake Avenue E and Fuhrman Avenue E intersection
 - Half a block south on Eastlake, midblock between Fuhrman Avenue E and Harvard Avenue E (vehicles turning into driveways)
 - University Way NE/NE Pacific Street at the Burke-Gilman Trail; all four involved cyclists using the trail and turning vehicles



Bike LOS

- More than half of the bicycle corridors fail to meet BLOS threshold.
- The worst location in the study area for cyclists is NE 45th Street.
- The second worst location is NE 50th St crossing I-5.
- Additional major corridors that fail to meet the BLOS threshold are:
 - The University Bridge
 - Roosevelt Way NE / 11th Ave NE couplet
 - Campus Parkway (south side) from the University Bridge to Brooklyn Ave
 - 20th Ave NE from NE 45th St to Ravenna Blvd.
 - NE 65th St between Roosevelt Way and 25th Ave NE.

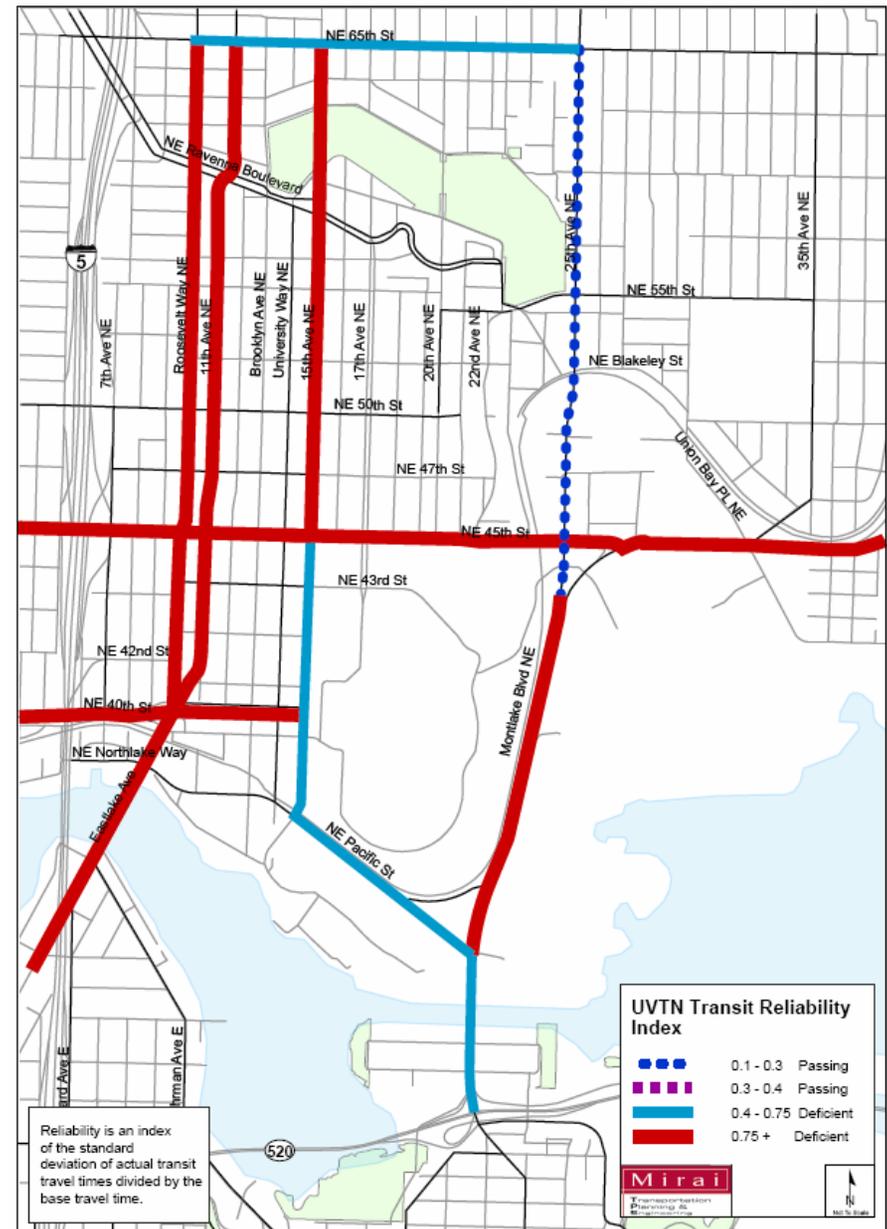


Transit System – UVTN Performance Measures

UVTN Criteria	Definition	Threshold
Frequency of Service	The length of time in minutes between scheduled transit arrivals	15 minutes or less
Span of Service	The number of hours that service operates at 15 minutes or less headways	18 hours a day or more
Speed	The percent of the average operating speed is to the posted speed limit	30% of the posted speed limit
Reliability	The actual travel time compared to the base travel time using an index	0.4 or less
Loading	The passenger load as a percent of seat capacity	90% of seated capacity

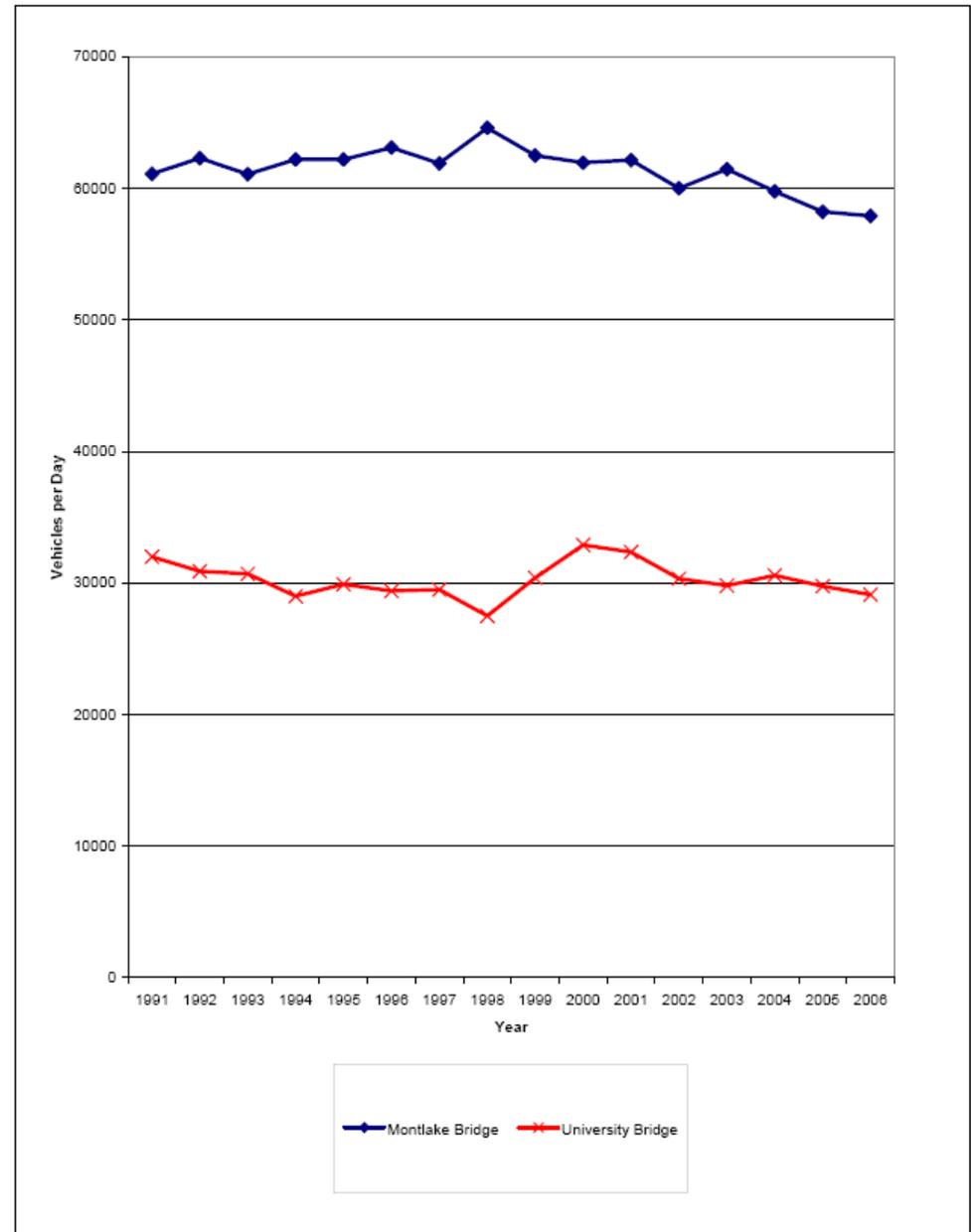
Bus Travel Reliability

- 9 out of 10 transit corridors do not meet the transit reliability performance threshold.



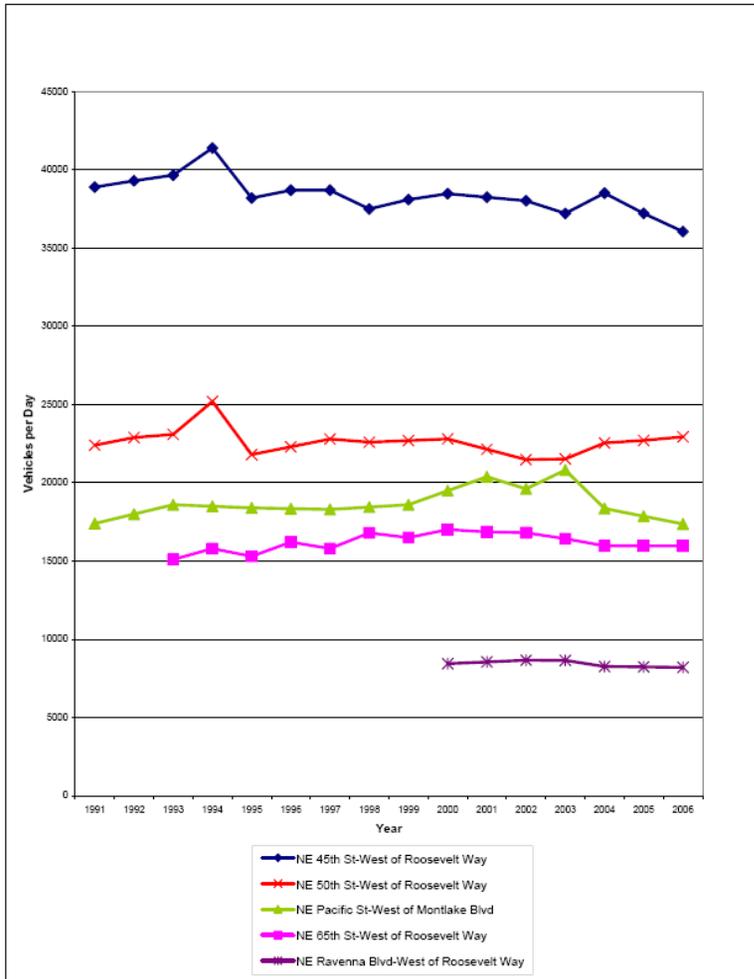
AWDT Trends

- Montlake Bridge:
 - Daily traffic on the Montlake Bridge has decreased slightly since 1999.
- University Bridge:
 - Daily traffic on the University Bridge has not been changed.

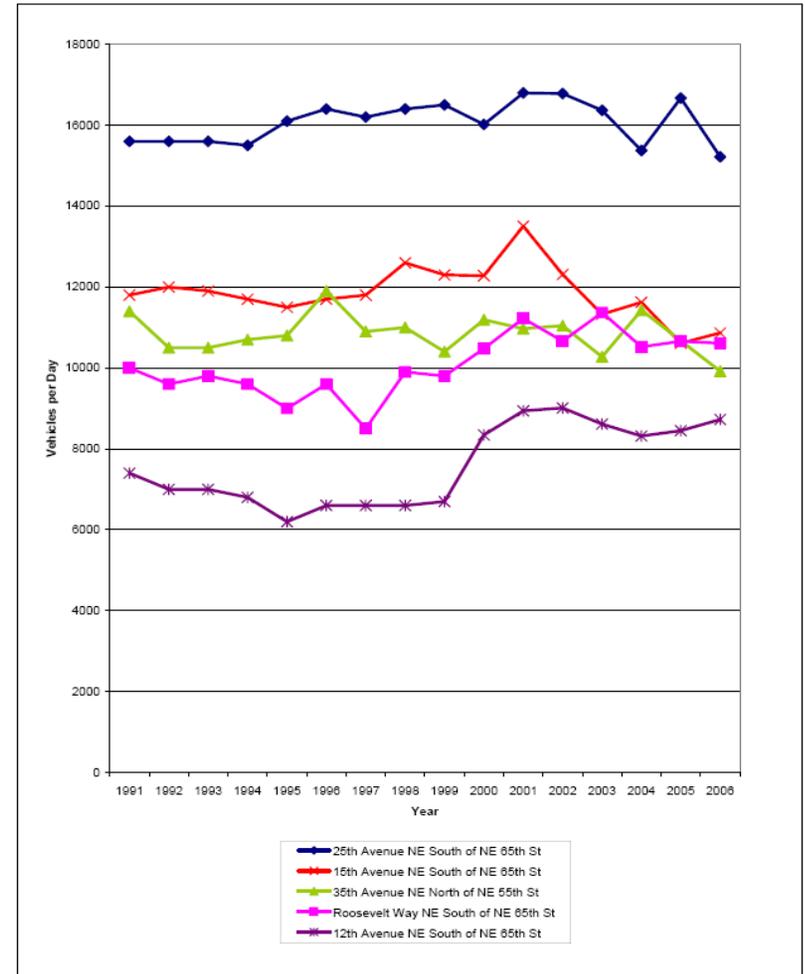


AWDT Trends

East-West Streets

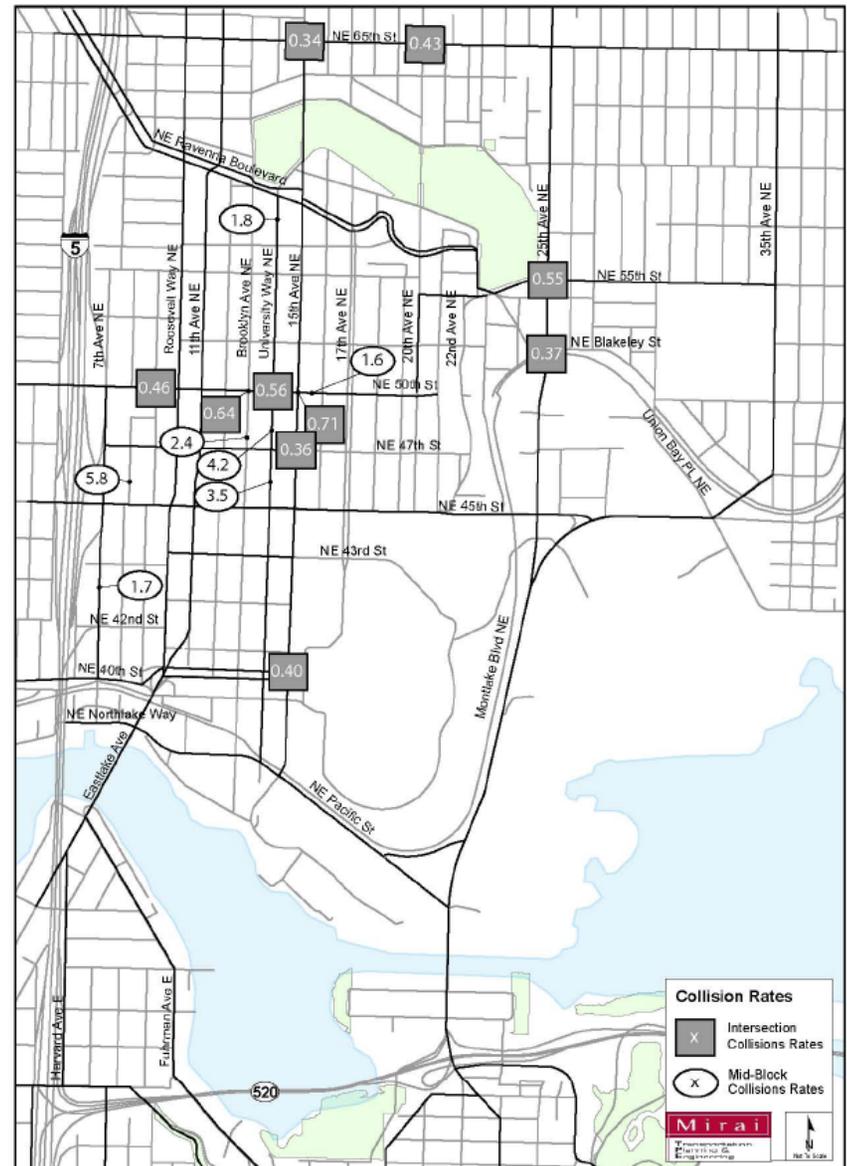


North-South Streets



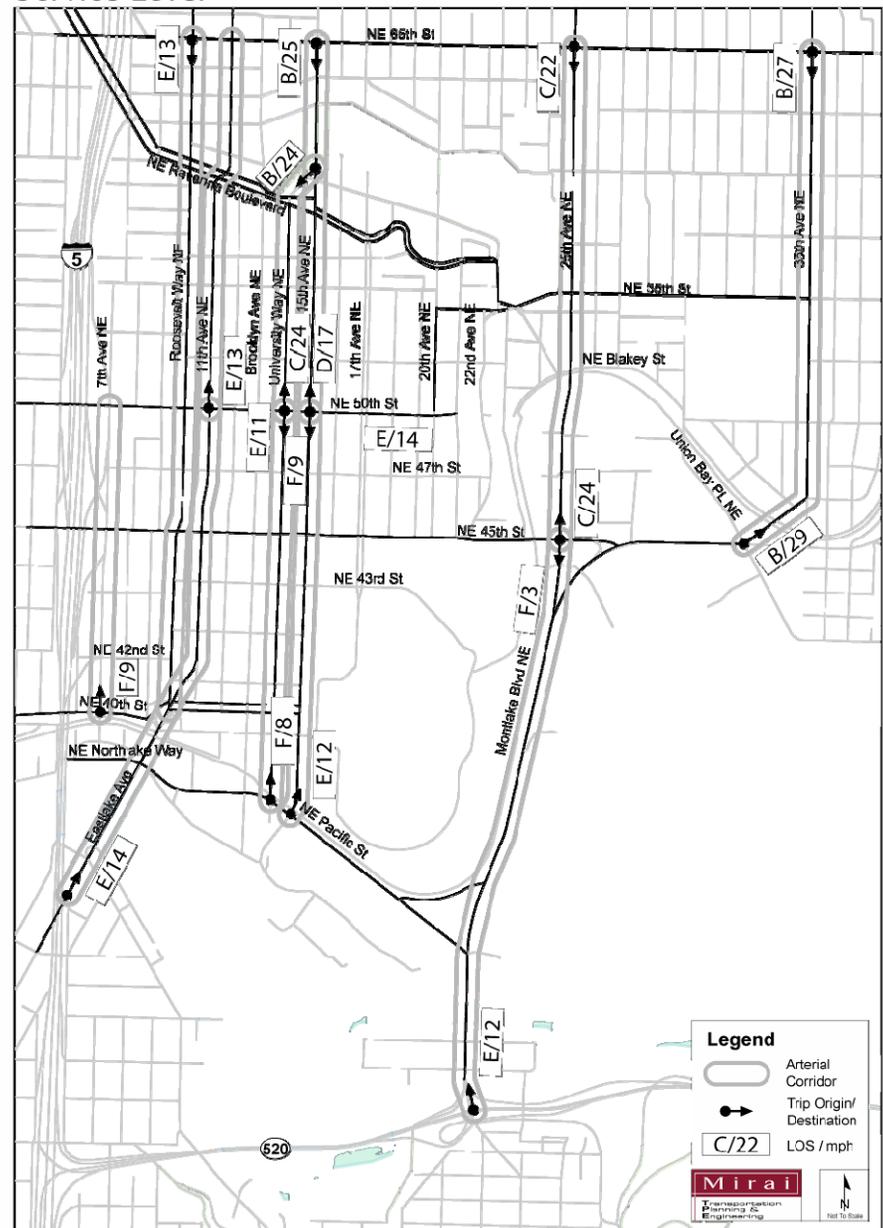
Vehicle Collision Rates

- Intersection collision rates:
 - 4 intersections on NE 50th St had high collision rates at:
 - 15th Ave NE
 - University Way
 - Brooklyn Ave
 - Roosevelt Way
 - Other 6 intersections
 - 15th Ave NE
 - 25th Ave NE
 - NE 65th St
- Mid block collision rates:
 - Highest was on 8th Ave NE between NE 45th and 47th St



Arterial Corridor Speeds and LOS

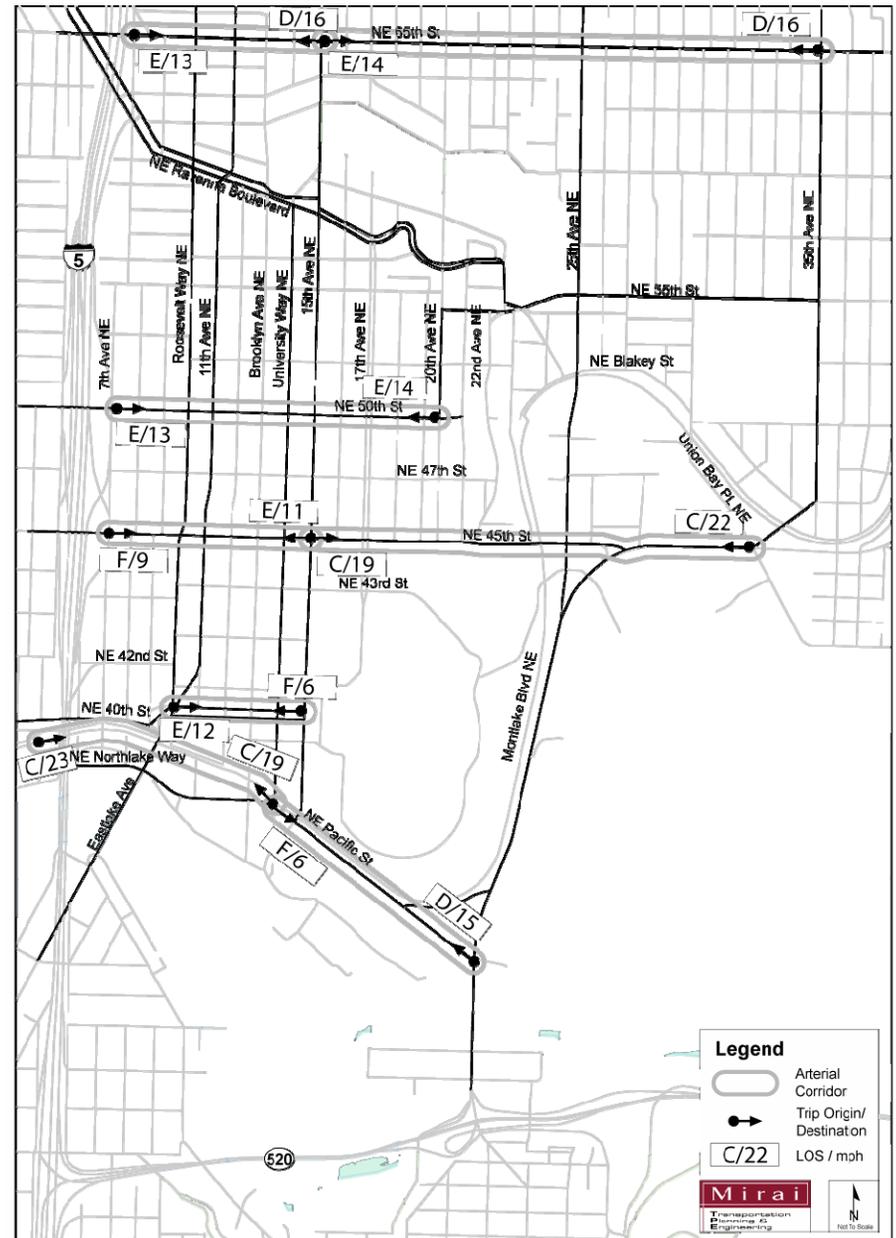
- 7 corridors operate below 10 mph in one or both direction in the PM peak hour.
 - Montlake Blvd (3 mph – below walking speed)
 - NE 40th St (6 mph)
 - Pacific St (6 mph)
 - University Way (8 mph)
 - 7th Ave NE (9 mph)
 - 15th Ave NE (9 mph)
 - NE 45th St (9 mph)



East-West Streets

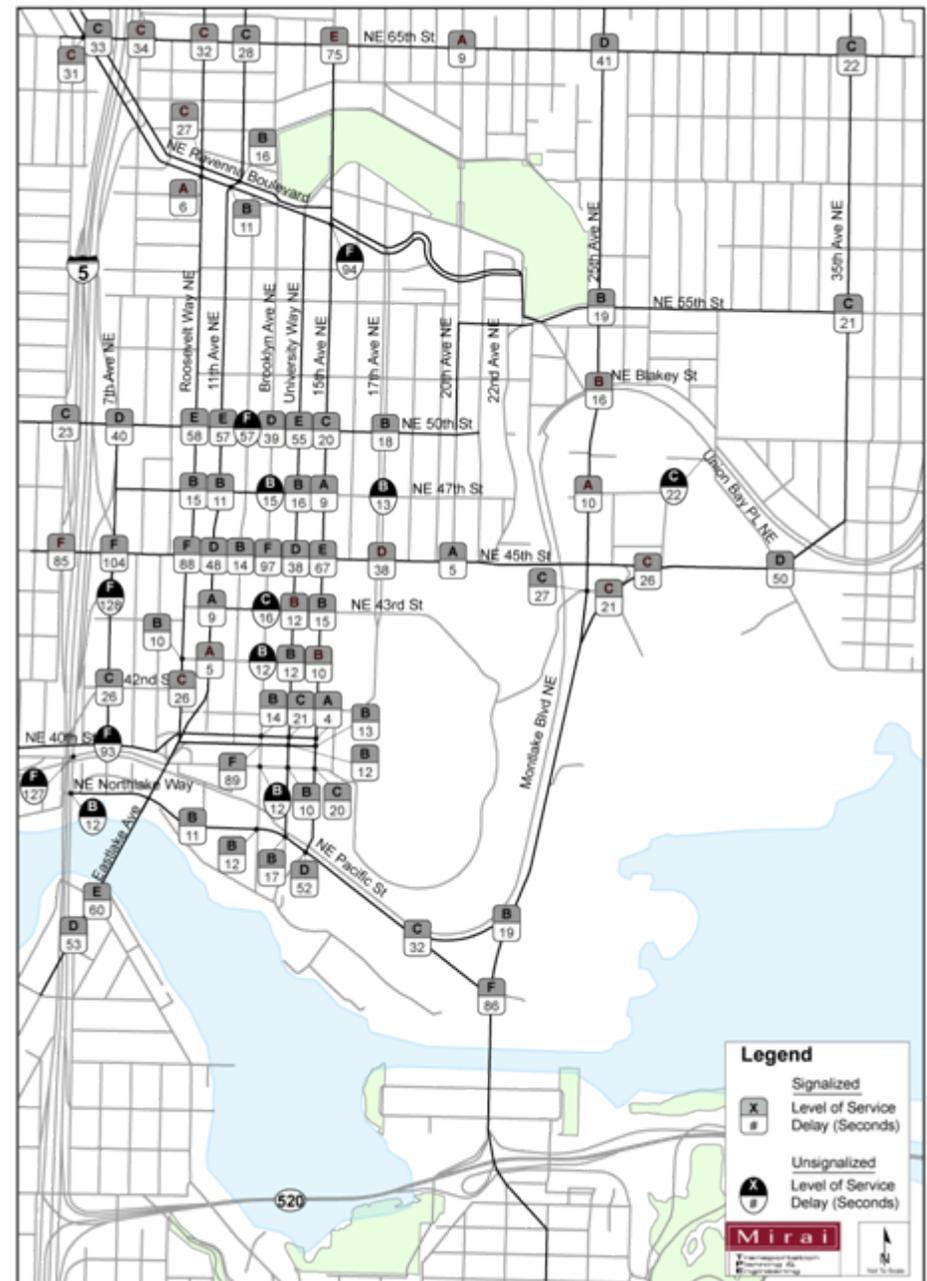
Arterial Corridor Speeds and LOS

- 11 additional corridors operate between 10 and 14 mph in the PM peak hour.



Intersection Delay and LOS (2006 PM Peak Hour)

- 6 signalized intersection operate at LOS F:
 - 4 of these are on NE 45th St
 - Other two are Montlake/Pacific and Campus Parkway/Brooklyn
- 5 of the 13 unsignalized intersections evaluated operate at LOS F:
 - I-5 Off-ramp/ 7th Ave NE
 - 15th Ave NE/ Ravenna Blvd
 - NE 40th St/ 6th Ave NE
 - NE 40th St/ 7th Ave NE
 - NE 50th St/ 12th Ave NE



2030 Intersection Delay and LOS (PM Peak Hour)

- 12 signalized intersection operate at LOS F:
 - 7th Ave NE/NE 42nd St/I-5 Off ramp intersection would have significant delay (269 seconds)
 - Delay will increase at the intersections on NE 50th St
 - No significant changes on NE 45th St.

- 6 of the 13 unsignalized intersections evaluated operate at LOS F:
 - I-5 Off-ramp/ 7th Ave NE
 - NE 40th St/ 6th Ave NE
 - NE 40th St/ 7th Ave NE
 - NE 50th St/ 12th Ave NE
 - Ravenna Blvd/ 15th Ave NE
 - NE Blakely St/ 30th Ave NE

