



Coordinated Transportation Investment Plan
(CTIP)
Existing Conditions

Northgate Stakeholders
Transportation Subcommittee

March 22, 2005



Existing Transportation Conditions

- Mode Split
- Arterials
- Neighborhood Streets
- Pedestrian Facilities
- Bicycle Facilities
- Transit Service
- Parking



Travel Mode

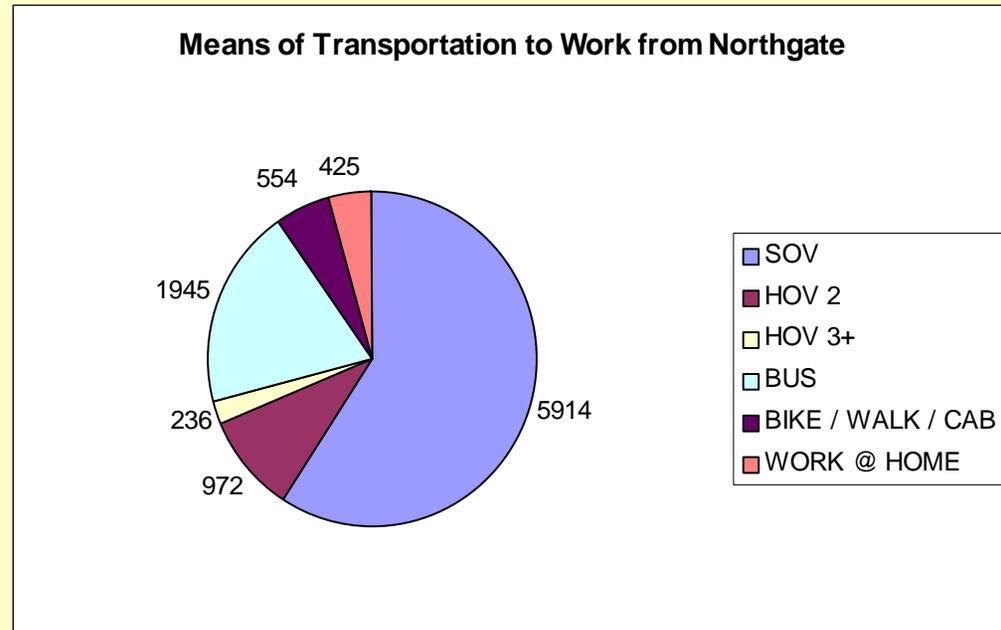
➤ Northgate Residents to Work*

- 59% SOV
- 19% Bus
- 12% Carpool
- 6% Walk, Bike, Cab
- 4% Work at Home

Benchmark is "all trips"

2010: 45% or less drive alone

2020: 40% or less drive alone

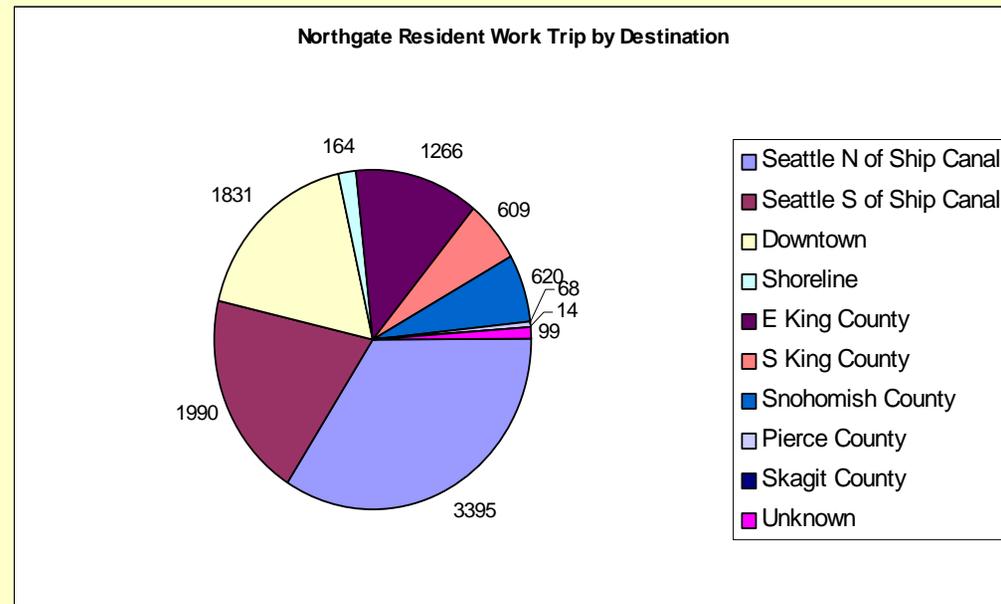




Residents' Destination

➤ Northgate Residents' Work Destinations

- 33% Seattle North of Ship Canal
- 20% Seattle South of Ship Canal
- 18% Downtown Seattle
- 13% E. King County
- 6% South King County
- 6% Snohomish County
- 2% Shoreline





Travel Mode

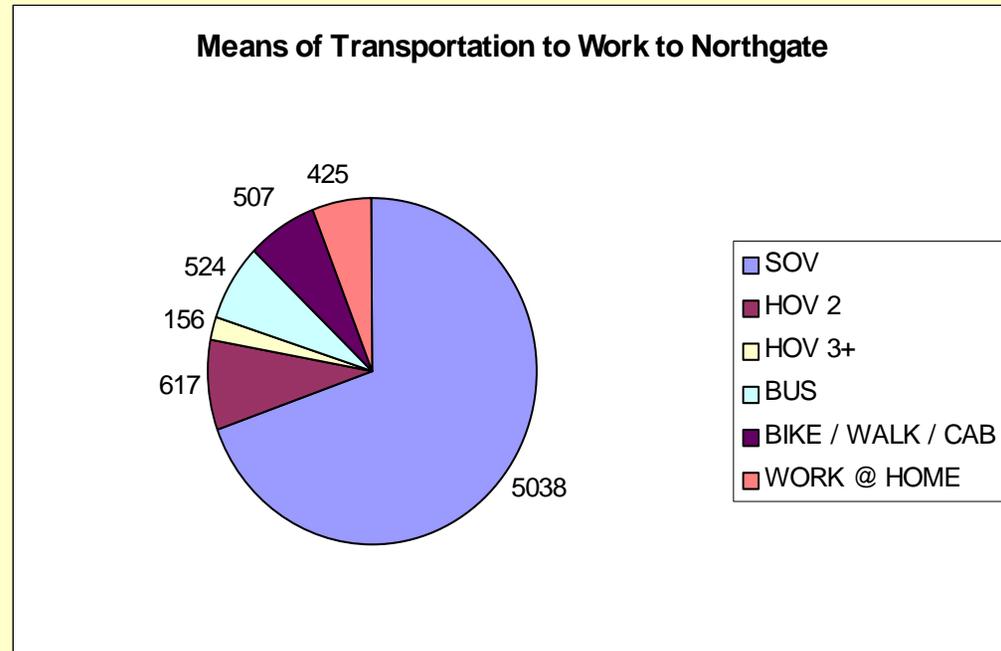
➤ Workers to Northgate

- 70% SOV
- 10% Carpool
- 7% Bus
- 7% Walk, Bike, Cab
- 6% Work at Home

Benchmark is

2010: 70% or less drive alone

2020: 60% or less drive alone



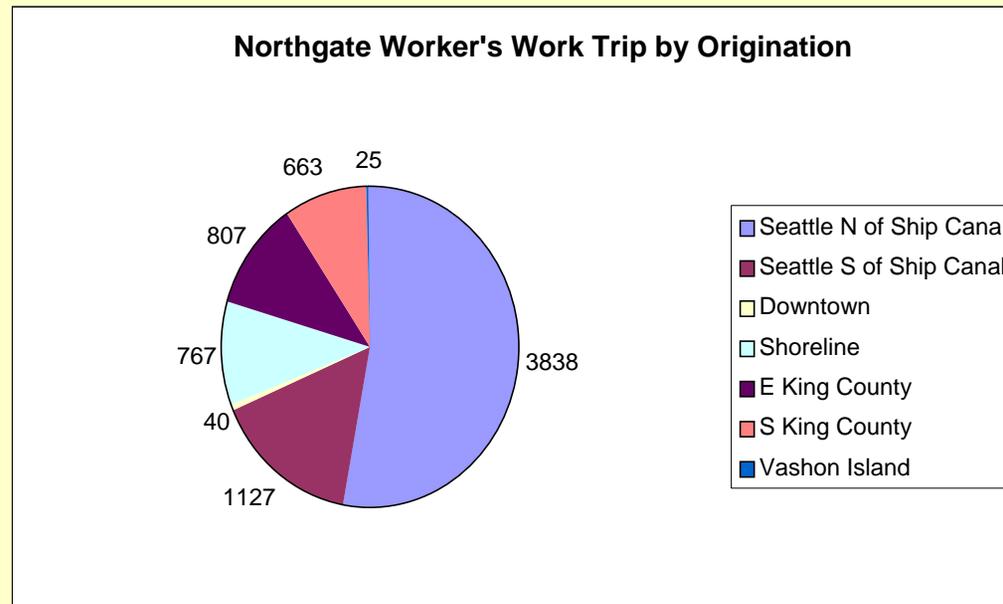


Workers' Origination

Revitalization

➤ Northgate Workers' Originations

- 52% Seattle North of Ship Canal
- 16% Seattle South of Ship Canal
- 11% Shoreline
- 11% E. King County
- 9% South King County
- 1% Downtown Seattle



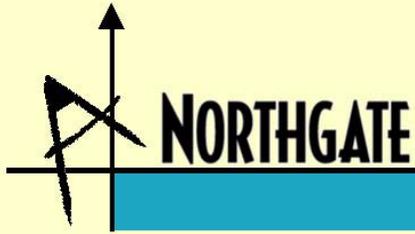


Arterial LOS

Revitalization

LOS	Average Travel Speed (mi/h)
A	> 30
B	> 24 – 30
C	> 18 – 24
D	> 14 – 18
E	>10 – 14
F	≤ 10

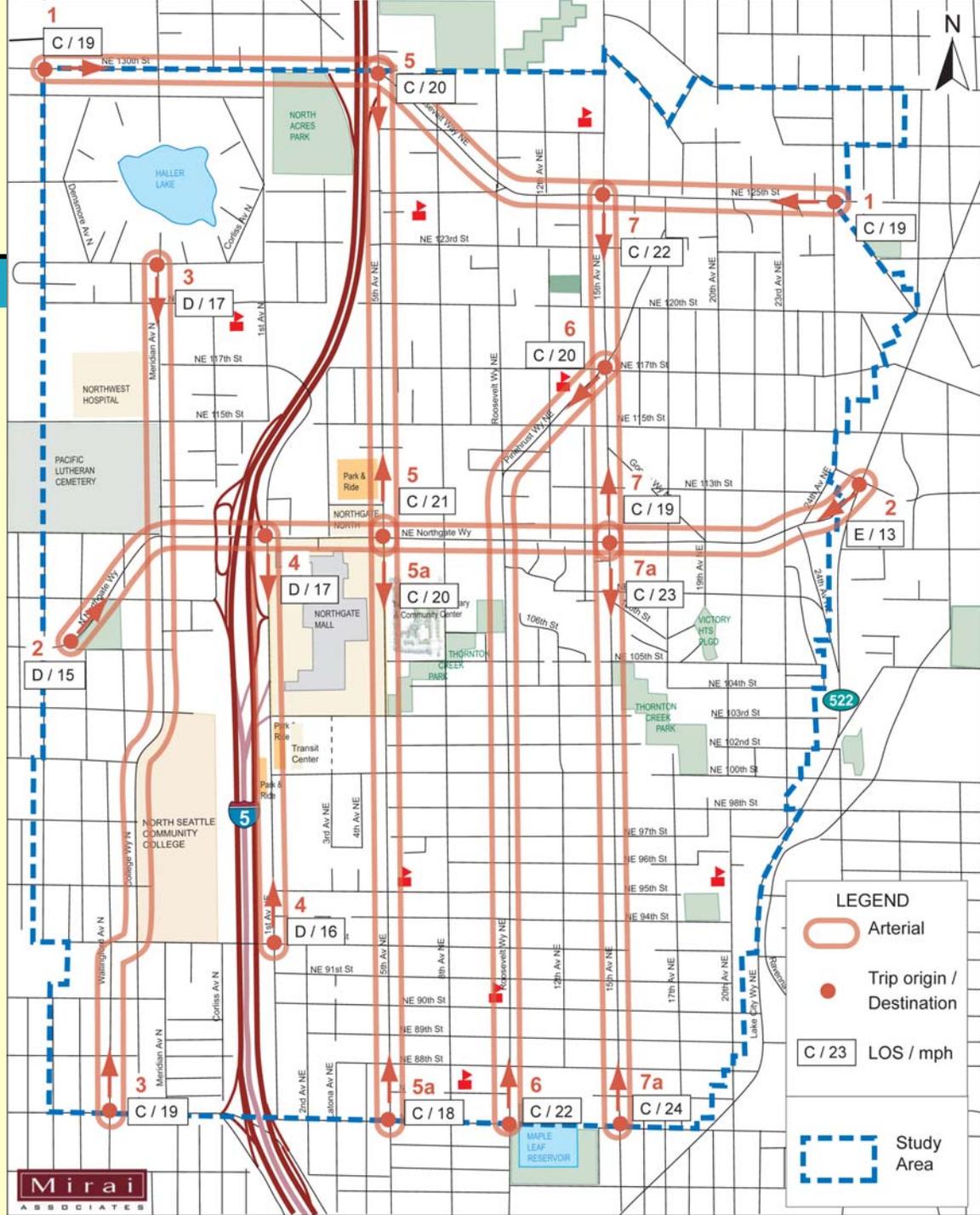
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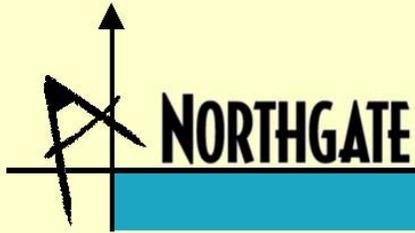


Arterials: PM Peak Corridor Level of Service (LOS) & Average Speed

- Overall corridor LOS is performing well
- LOS E – westbound Northgate Way

Benchmark is LOS E





Intersection LOS

Revitalization

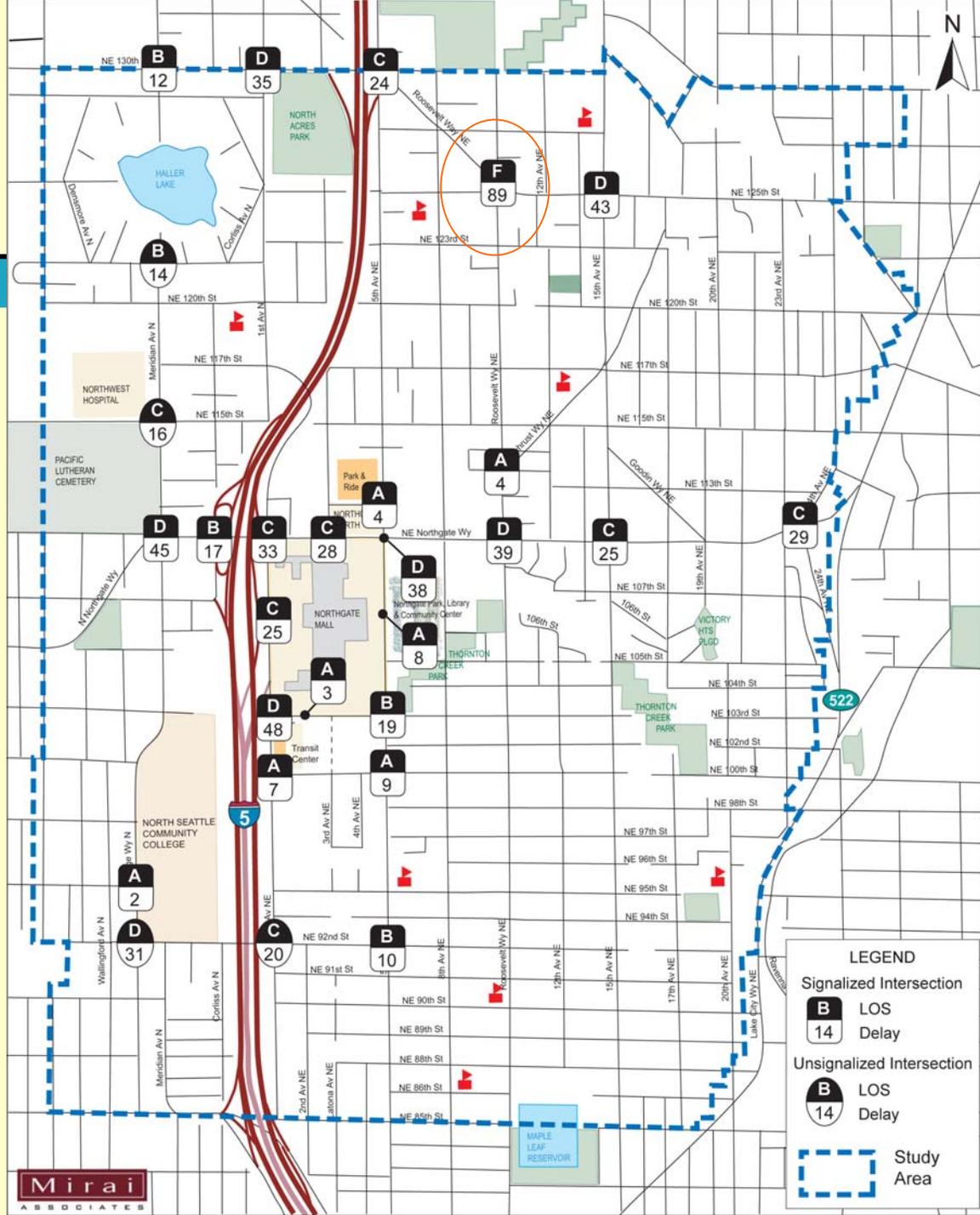
	<i>SIGNALIZED</i>	<i>UNSIGNALIZED</i>
LOS	Seconds of Delay (s/veh)	Seconds of Delay (s/veh)
A	≤ 10	≤ 10
B	$> 10 - 20$	$> 10 - 15$
C	$> 20 - 35$	$> 15 - 25$
D	$> 35 - 55$	$> 25 - 35$
E	$> 55 - 80$	$> 35 - 50$
F	> 80	> 50



Arterials: PM Peak Intersection LOS and Delay

- All intersections but one operate at LOS D or better
- Exception: 120th Street & Roosevelt Way

Benchmark is average delay of LOS E per corridor

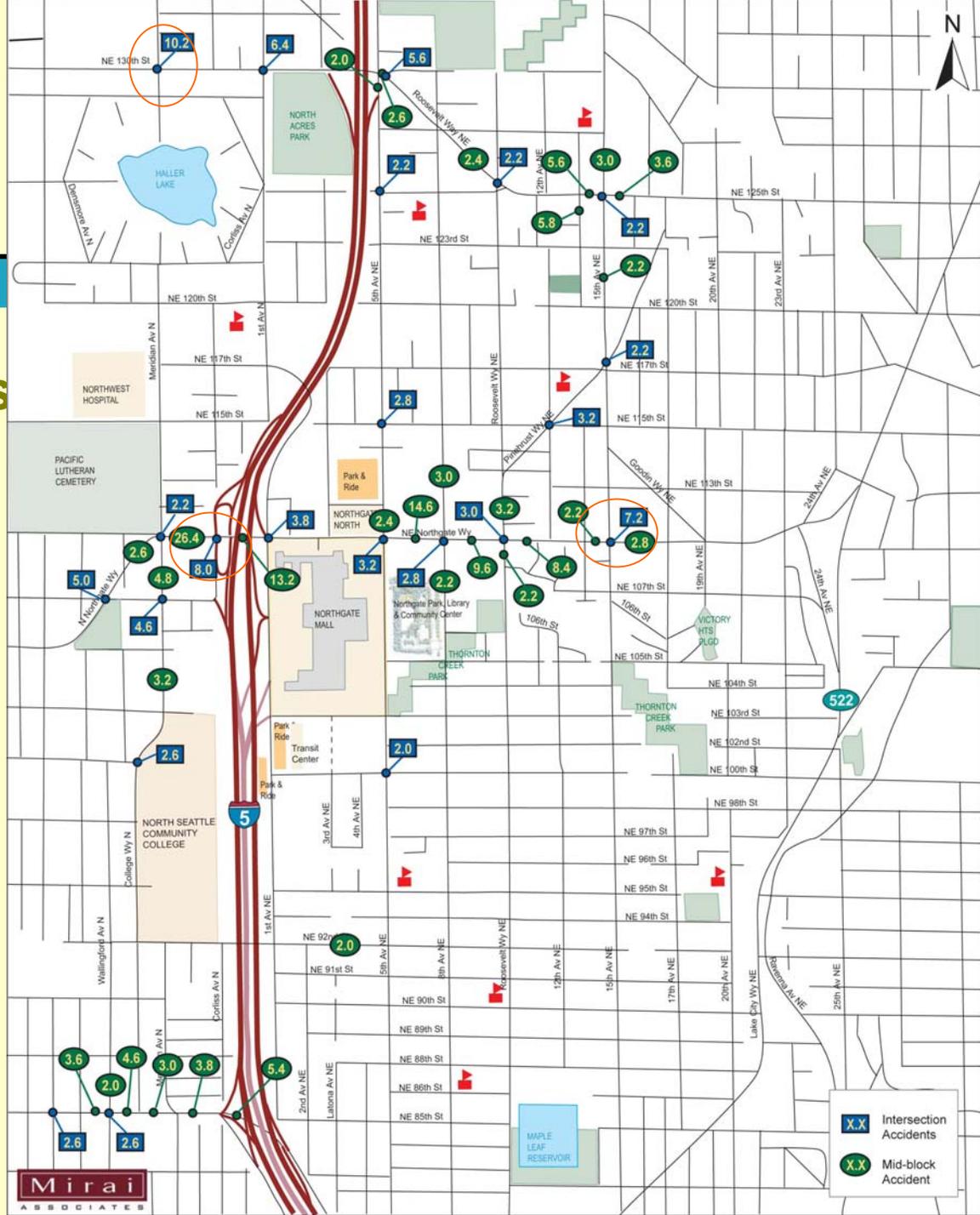




Collision Data: Signalized Intersections

- Over CTIP benchmark
 - Meridian Ave N/N 130th Street
- Near CTIP benchmark
 - I-5 Corliss North Ramp and N Northgate Way
 - 15th Ave NE/NE Northgate Way

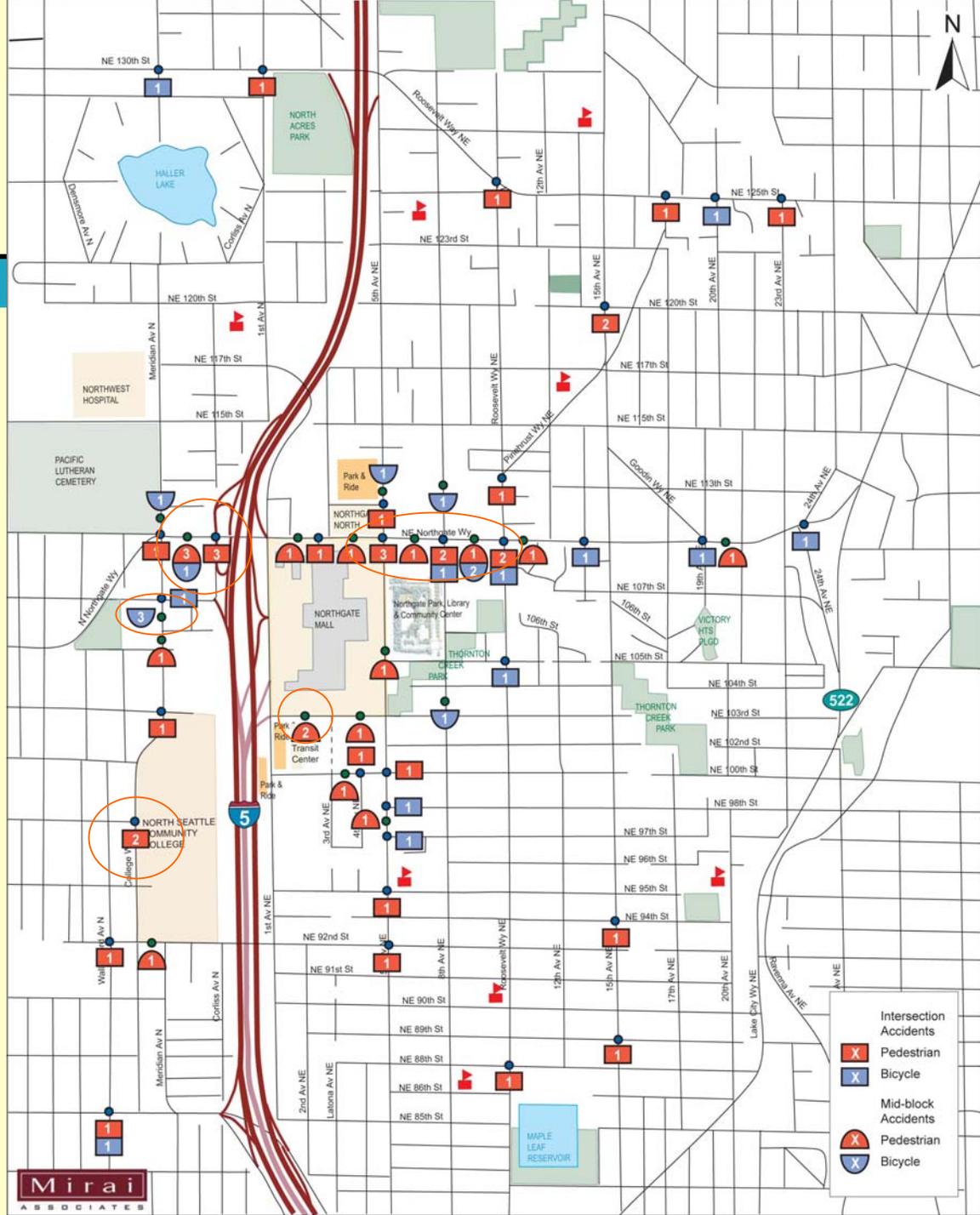
Benchmark is 10 per year

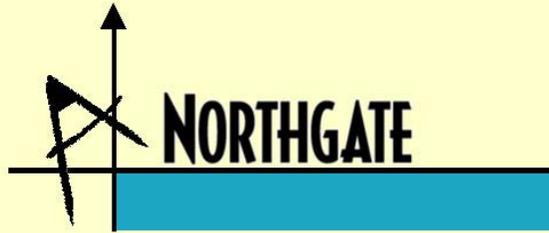




Collisions Involving Ped & Bike (5 years)

- Locations with 2 or more collisions:
 - NE 103rd Street (Transit Center)
 - 6 Northgate Way locations
 - 2 College Way / Meridian Avenue N locations
- More than half of all bike collisions occurred at intersections (54%).





Neighborhood Streets

➤ Major Issues

- Speed
- Traffic volumes
- Lack of pedestrian facilities
- 50% of school walk routes lack sidewalks

Indicator	Minimum and Maximum Points	Definition of Point Allocation
Vehicle Volume (Weekday 24 hour)	0 to 20	1 point assigned for every 100 vpd
Speed (85 percentile)	0 to 20	1 point assigned for every one mph over 20 mph
Pedestrian Facility (Sidewalks and walkways)	0 to 20	No curb, gutter & sidewalk or walkway on both sides = 20 points A walkway on one side = 15 points A curb, gutter & sidewalk on one side = 10 points A curb, gutter & sidewalk on one side and a walkway on the other side = 5 points Curbs, gutters and sidewalks on both sides = 0 points
Collision	0 to 10	2 points assigned for each reported collision over past three years
School Walkway Route	0 or 10	10 points assigned for the designated school route
Pedestrian Route	0 or 10	10 points assigned for the key pedestrian connector designated by Northgate Open Space & Pedestrian Connections
Bicycle Route	0 or 5	5 points assigned for the bike route
Street Feature	0 or 5	Up to 5 points assigned for features that might negatively impact safety of pedestrians such as poor sight distance, sharp curbs and wide street width

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Examples of Non-Arterial Street Performance

Revitalization

	NE 98 th St W/O 23 rd Ave NE	NE 115 th St E/O 9 th Ave NE	12 th Ave NE N/O NE 102 nd St	NE 90 th St W/O 12 th Ave NE
85% Speed	13	9	5	8
Vehicles/day	20	20	1	7
Pedestrian facility	20	20	20	0
Collision	0	0	0	0
School walkway	10	0	10	10
Pedestrian route	0	0	0	0
Bicycle route	5	5	0	5
Street feature	4	2	2	1
TOTAL	72	56	38	31



Higher scores

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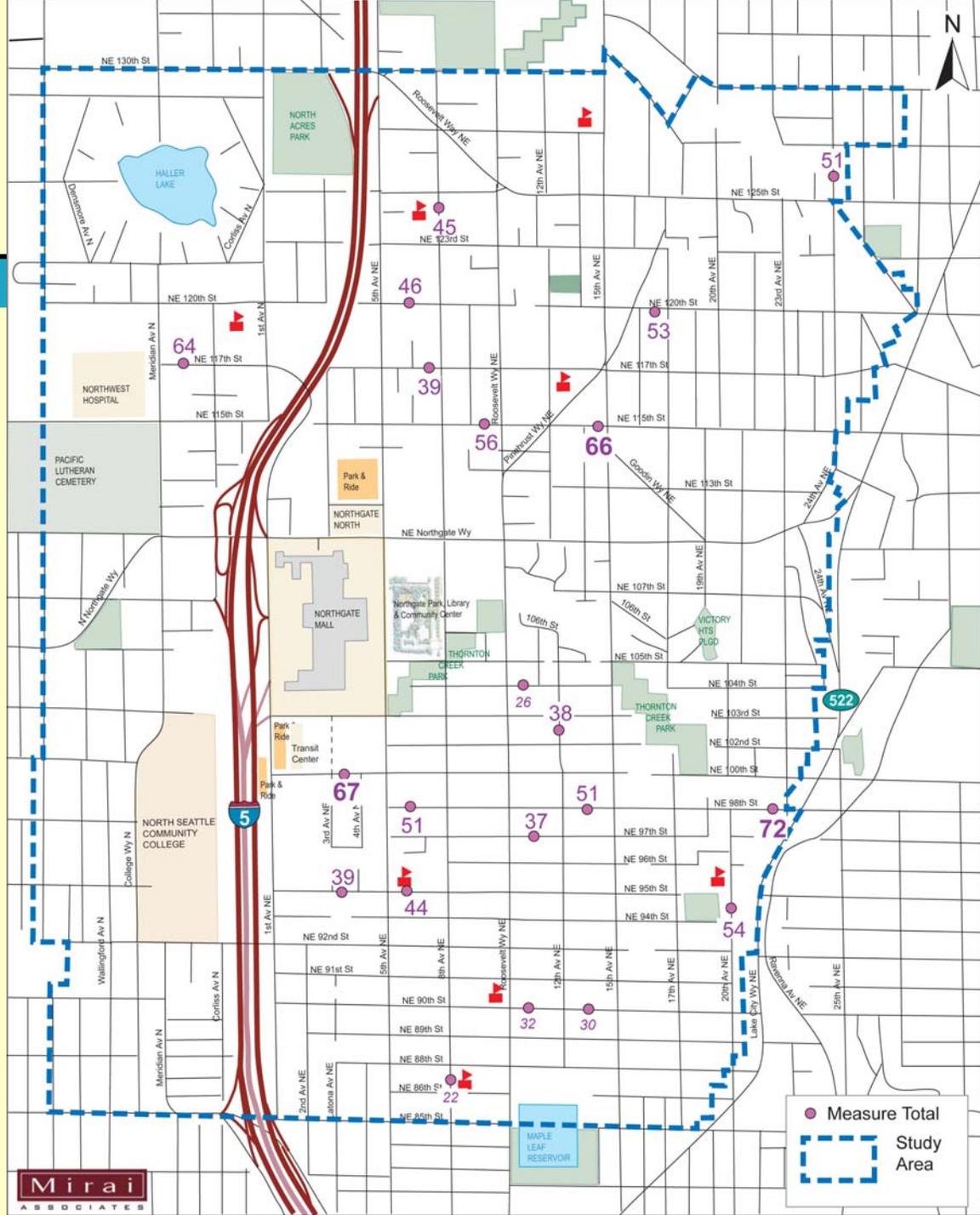
Lower scores



Neighborhood Streets

Score distribution for 21 locations (lower is better):

< 30	2
30 – 40	6
40 – 50	3
50 – 60	7
> 60	3





Pedestrian System: Arterial Crossings

Northgate Way

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

- High mid-block collisions
 - Corliss vicinity
 - 5th and 8th Ave NE
 - 8th and Roosevelt Way NE
 - Roosevelt and 15th NE
- High collision rates
 - Corliss
 - 3rd Ave NE
- High conflicting turn volumes
 - 5th Ave NE
 - I-5 Ramps
 - Roosevelt Way





Pedestrian System: Arterial Crossings

➤ Meridian Ave N

- High collision rates
 - N 130th
 - N 107th
- Marked pedestrian crossings near Hospital and NSCC
- S. of Northgate Way residents, office workers must cross busy arterial

N 130th and Meridian Ave N
(looking W)



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Pedestrian System: Arterial Crossings

➤ 5th Avenue NE

- High conflicting turn volumes
 - NE Northgate Way
 - NE 112th
 - NE 103rd
 - NE 100th
- No pedestrian refuge space

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





Pedestrian System: Arterial Crossings

➤ 8th Avenue NE

- Long waits for pedestrian signal at NE Northgate Way
- Busy mid-block crossing at US Post Office
- Senior citizen crossing location; moderate incline

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



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Pedestrian System: Arterial Crossings

Roosevelt Way NE N of NE Northgate Way
(looking W)

- Roosevelt Way NE
 - Mid-block between Pinehurst and NE Northgate Way
 - Frequent illegal mid-block crossings at QFC
 - Average of 3 mid-block collisions per year; 1 pedestrian collision per year
 - NE 88th to NE 92nd
 - Overhead ped signage at NE 90th
 - Multiple pedestrian destinations



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Pedestrian System: Arterial Crossings

➤ 15th Avenue NE

- NE 117th – 125th Street
 - Average of 5.8 mid-block collisions between NE 123rd and 125th
 - Average of 2 pedestrian or bicycle collisions per year at NE 120th
- N. of NE 94th
 - One marked crossing (NE 96th)
 - Average of 1 pedestrian or bicycle collision per year at NE 94th
- NW Puppet Center (corner of 15th NE and NE 92nd)
 - Pedestrian signage

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





Pedestrian System: Within Residential Neighborhoods

1st Avenue N near Northgate Elementary
(looking S)

➤ Neighborhood Arterials

- 40% outside of urban center meet benchmark (90% of distance times two)
- 78%, if paved pathways are considered
- Most arterials have sidewalk on one side



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Pedestrian System: Within Residential Neighborhoods

➤ School Walk Routes

- 30% of non-arterial roadways meet the benchmark (90% have s/w on one sidewalk)
- Pedestrians, bicyclists and parked vehicles compete for shoulder.

School	Total Walk Route Distance	% Meeting CTIP Benchmark	% with Path
Alternative School #1	12.29 miles	29%	45%
Northgate Elementary	11.02 miles	23%	40%
Olympic Hills Elementary	5.89 miles	37%	45%
Olympic View Elementary	12.73 miles	32%	58%
Sacajawea Elementary	8.28 miles	34%	53%
Total	50.21 miles	30%	48%

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Pedestrian System: Within the Urban Center

Revitalization

- 77% within urban center meet benchmark (90% distance times two)
- Sidewalk on one side.
 - 1st Ave NE
 - NE 100th
- Narrow sidewalks, roots, cracks, some obstacles.

1st Avenue NE @ NE 94th Street
(looking N)



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Pedestrian System: Within the Urban Center

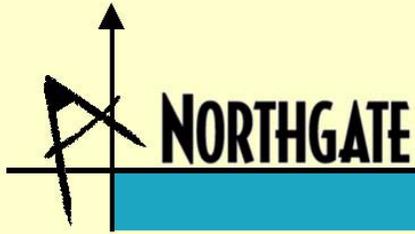
Revitalization

- Difficult connectivity
 - NSCC to Transit Center
 - Northgate Mall to Northgate North
 - Access to QFC

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



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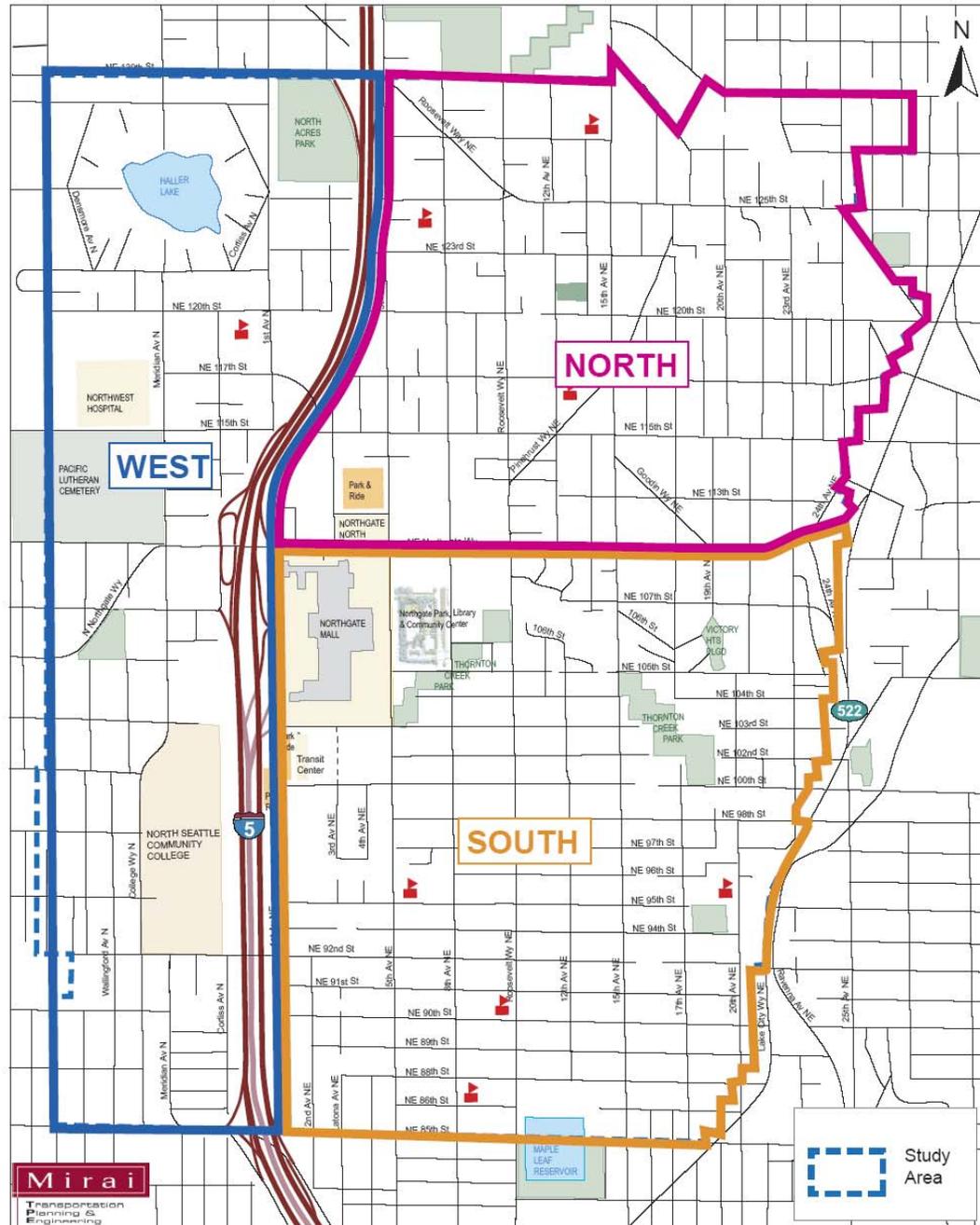
Pedestrian System: Neighborhood to Urban Center

➤ Arterials

- 51% meet benchmark (90% distance times two)
- South sector scores highest
- East sector scores lowest



Sector Boundaries





Pedestrian System: Neighborhoods to Urban Center

➤ Arterials

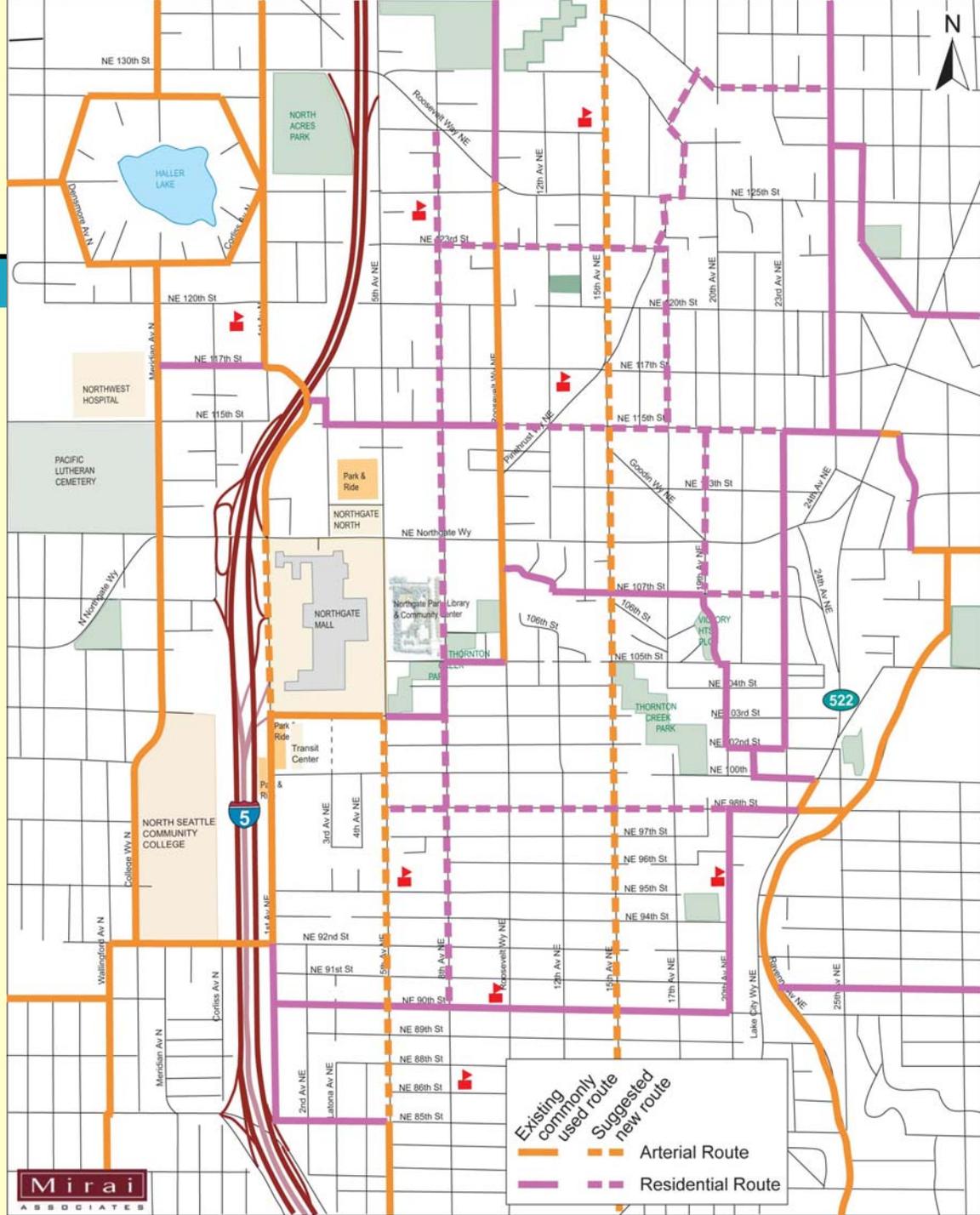
- 50% meet benchmark if paved paths are included (90% of distance x 2)
- Many overgrown areas

Sector	Total Arterial Distance	% Meeting CTIP Benchmark	% with Path
West	5.5 miles	38%	67%
Northeast	4.49 miles	40%	93%
Southeast	6.76 miles	70%	83%
Total	16.75 miles	51%	80%

NORTHGATE

Bike Facilities

- Solid Lines: “commonly used” routes in Bike Guide.
- Dashed Lines: suggested additional bike routes.





Bike Facilities

➤ Satisfactory Elements

- Lower traffic volumes (residential areas)
- Wider shoulder lanes (College Way, N 92nd Street, and some local streets)
- Flat topography towards the east

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



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Bike Facilities

➤ Unsatisfactory Elements

- On-street parking
- Many mid-block driveways
- High traffic volumes (arterials)
- Soft shoulder where curb & gutter does not exist

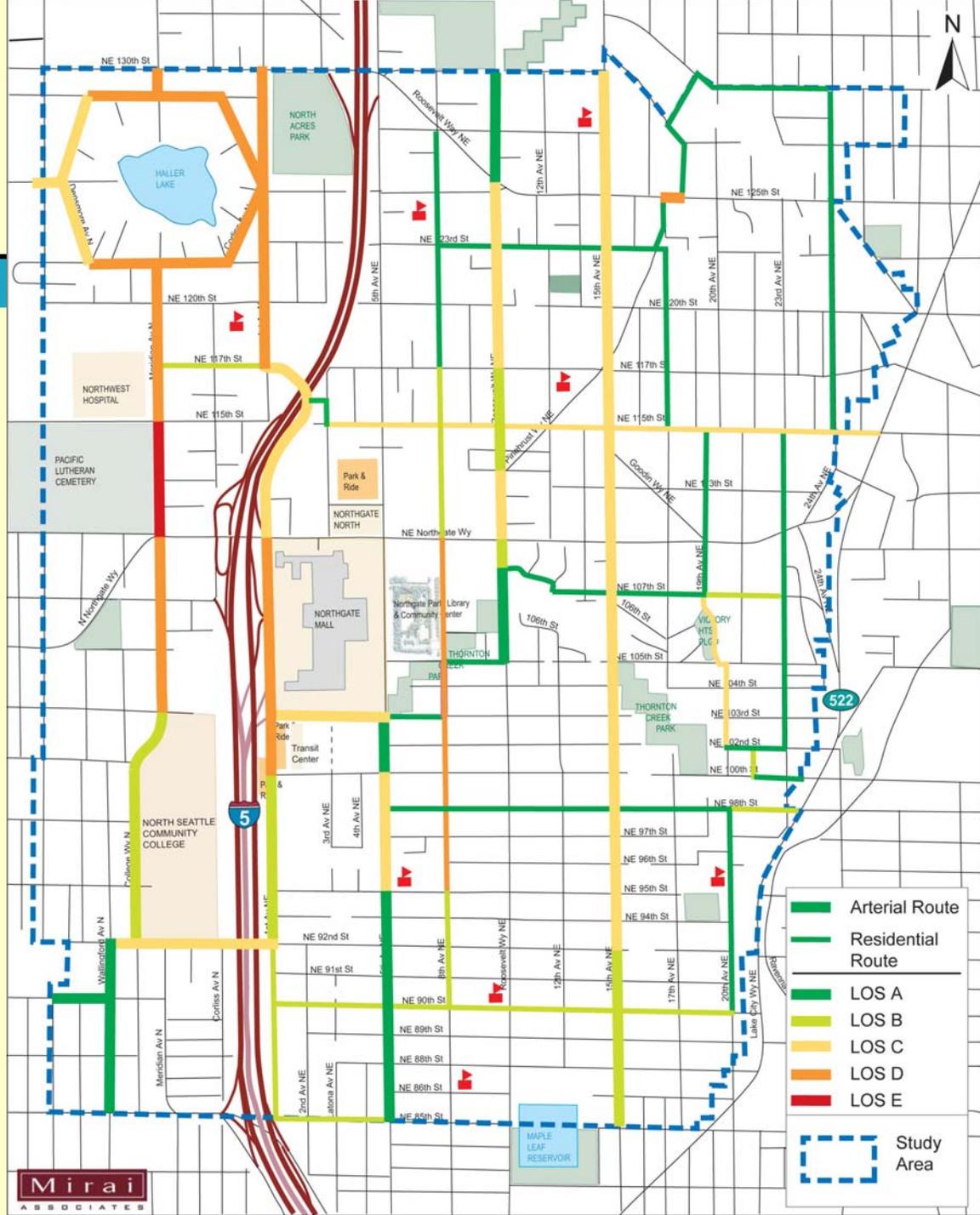
Meridian Avenue NE near NE 107th Street
(looking S)





Bike Index

- Most Arterial Routes at LOS C or lower.
 - Meridian Avenue scored poorly.
 - Factors:
 - Limited riding space
 - Higher traffic & speeds
- Majority of Residential Routes are LOS A & B
 - Factors:
 - Lower traffic volumes
 - Lower speeds

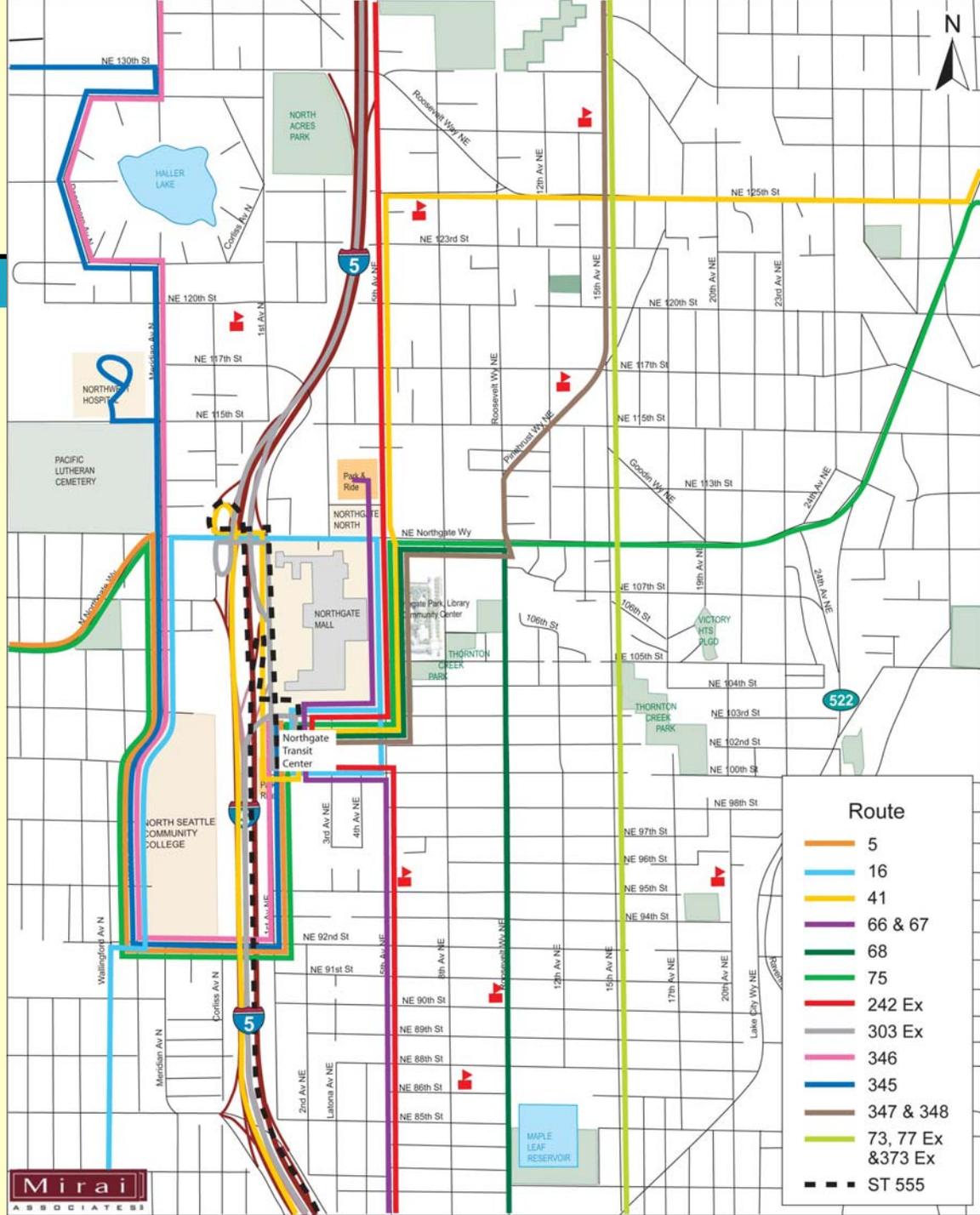




NORTHGATE

Transit Service

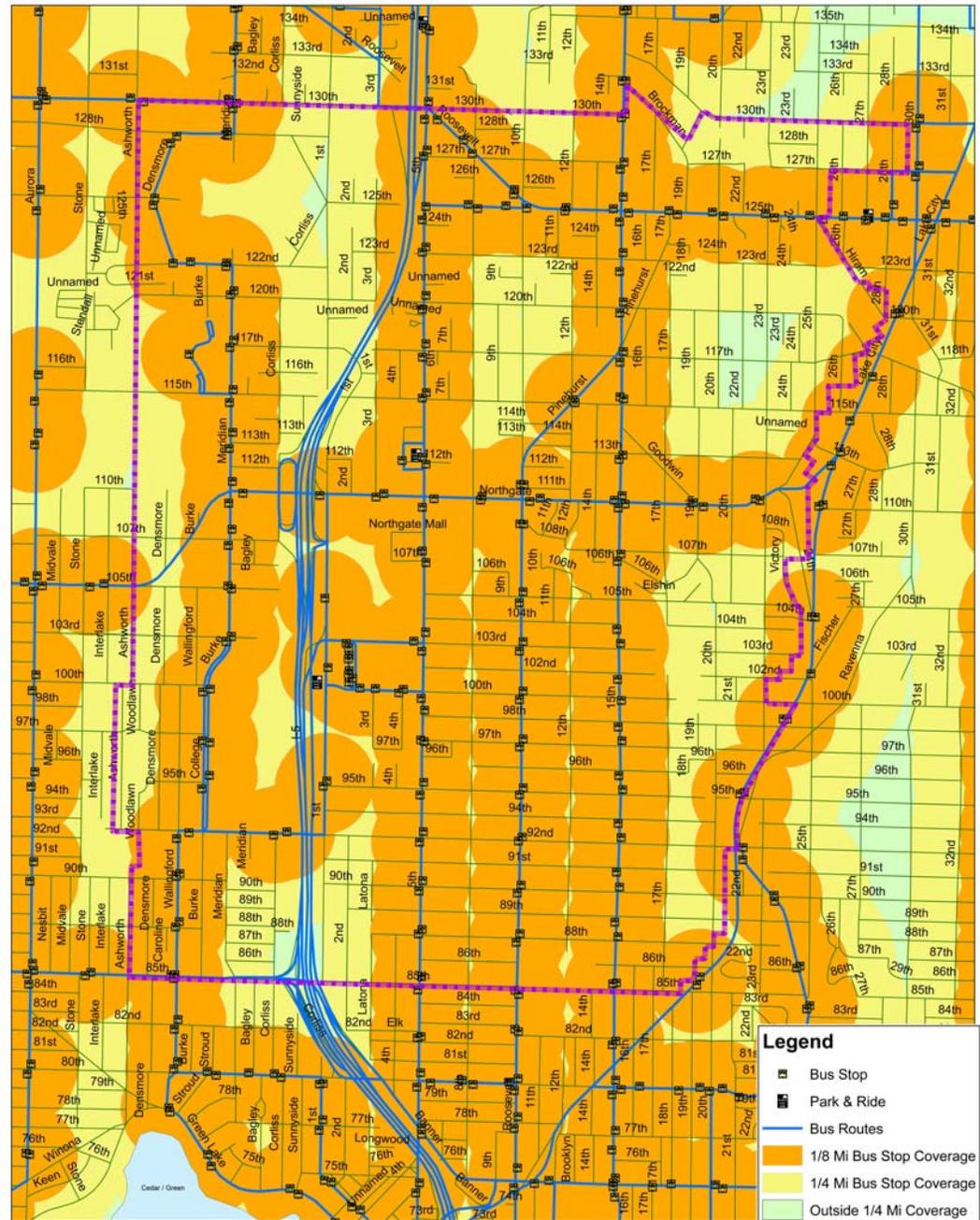
- 15 Routes.
- Transit Center oriented routes (except 73, 77 Express, 373 Express).
- Strong north-south orientation.

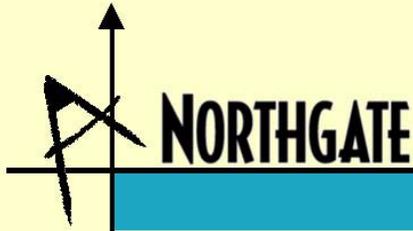




Bus Stop Coverage

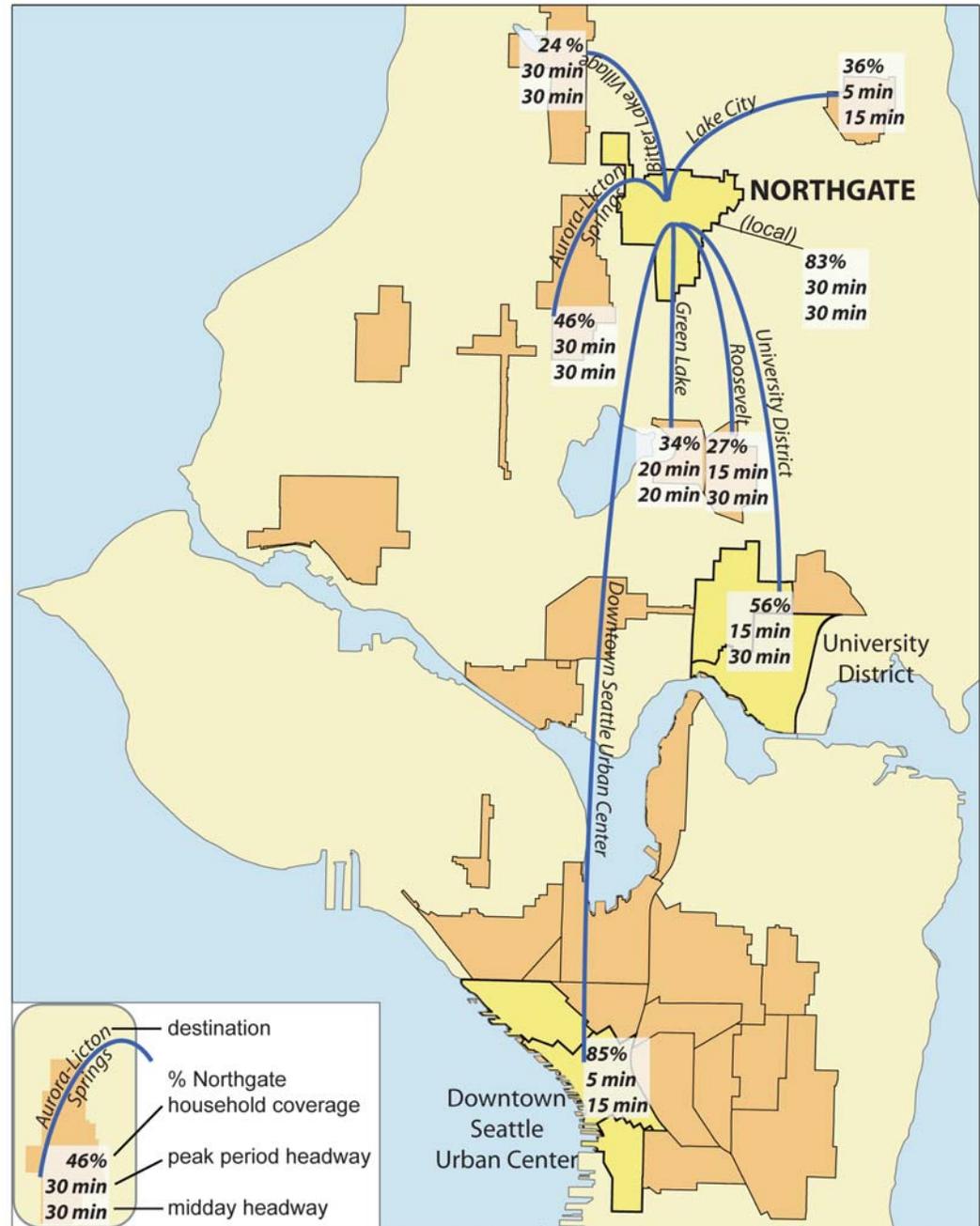
- All senior housing developments are within 1/8 mile of a bus stop.
- Over 83% of all households are within 1/4 mile of a bus stop.
- Coverage is spotty in the NE & NW





Transit Service

- Urban Centers (60%/15/15)
 - Midday service & coverage for U District needs improvement.
 - Service & coverage adequate for downtown.
- Neighboring Areas (60%/15/30)
 - Adequate service and coverage for Lake City.
 - Remaining neighboring destinations needs an increase in coverage and/or service.
- Local (70%/30/30)
 - Adequate service & coverage.

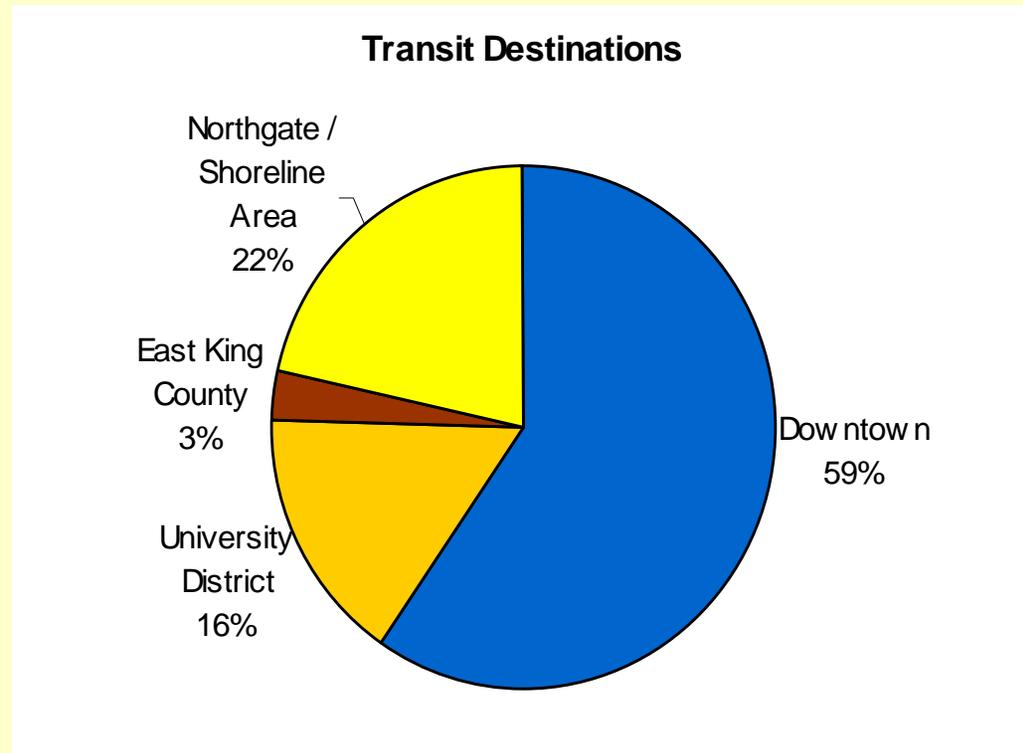




Transit Service

➤ Transit destinations

- 59% of service to downtown Seattle
- 22% to Northgate/Shoreline area
- 16% to U-District
- 3% to East King County



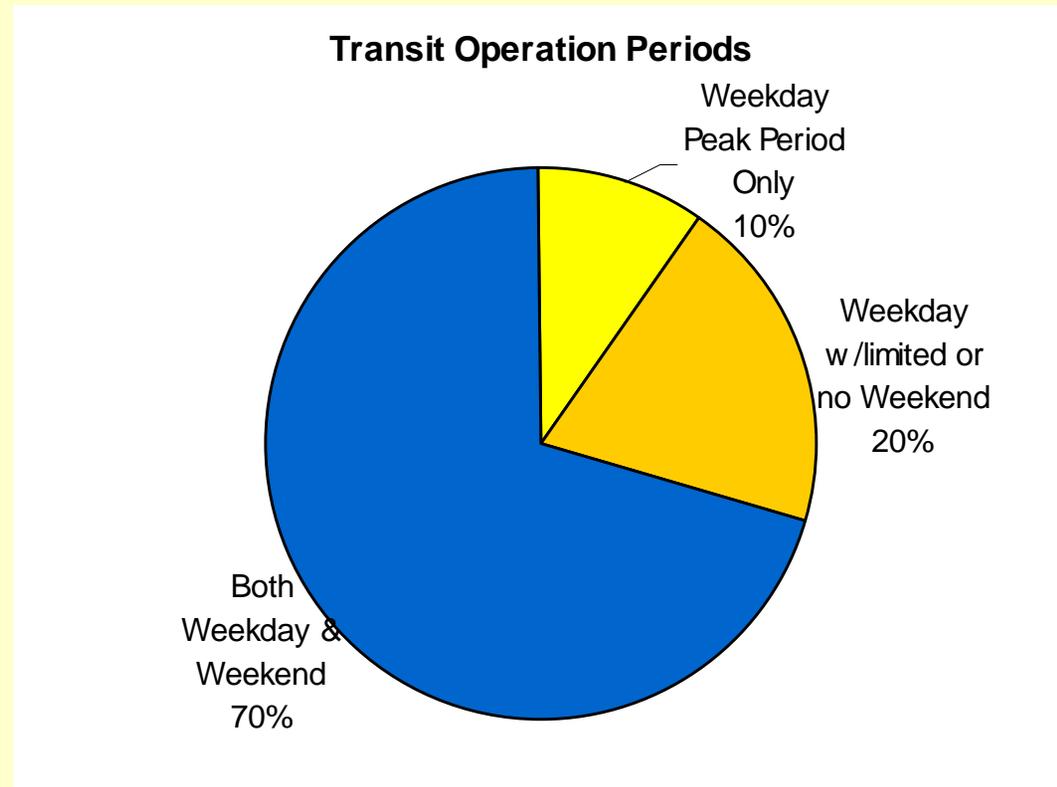


Transit Service

Revitalization

➤ Operation Times

- 70% of routes operate 7 days/week
- 20% weekday with limited or no weekend
- 10% weekday peak period only





Park & Ride Lots

- Majority are at capacity on weekdays
- 5th NE/NE 112th and Northgate North have excess capacity

