

Seattle Center Arena Renovation

C3 meeting

8/1/2019



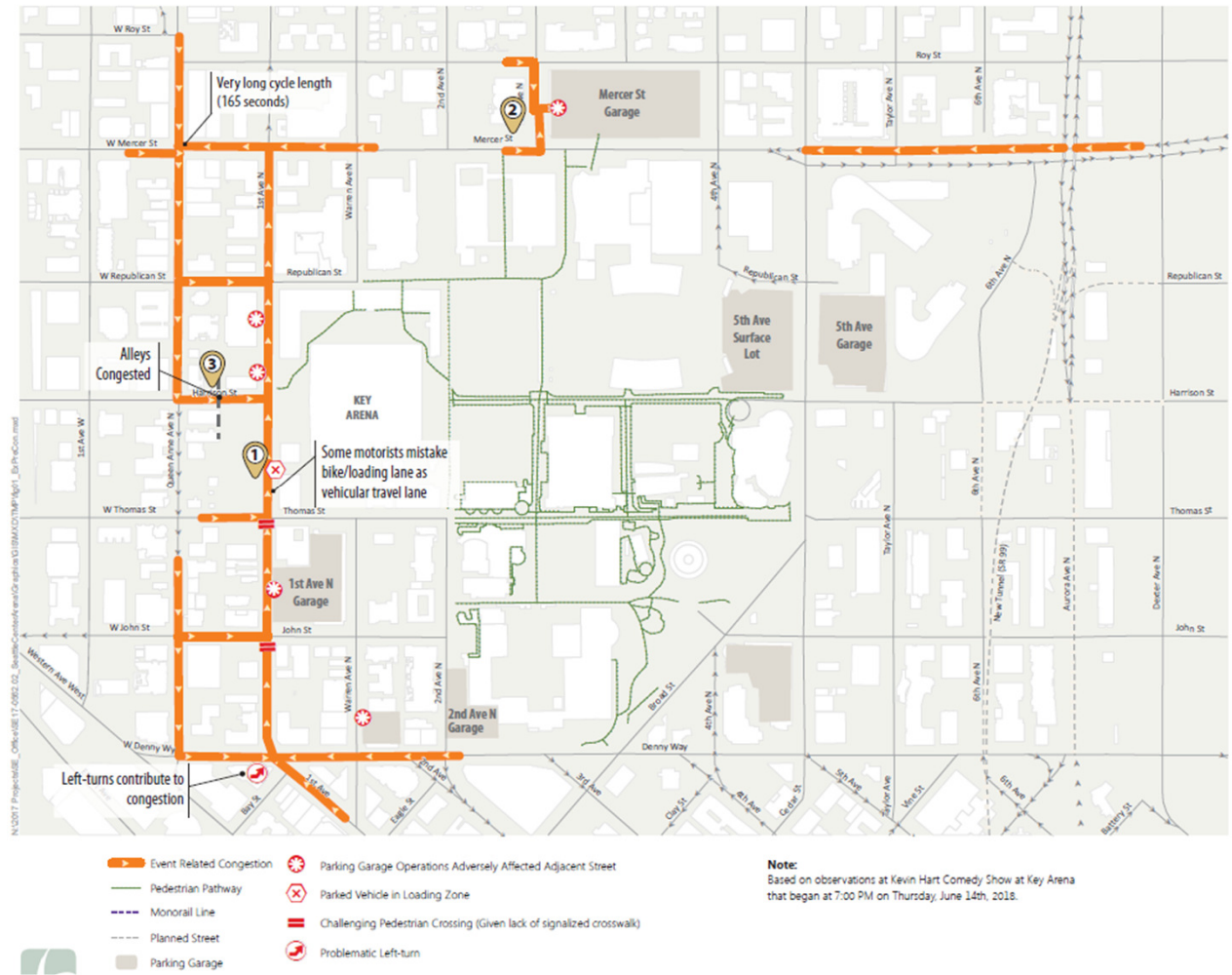
City of Seattle

Presentation Overview

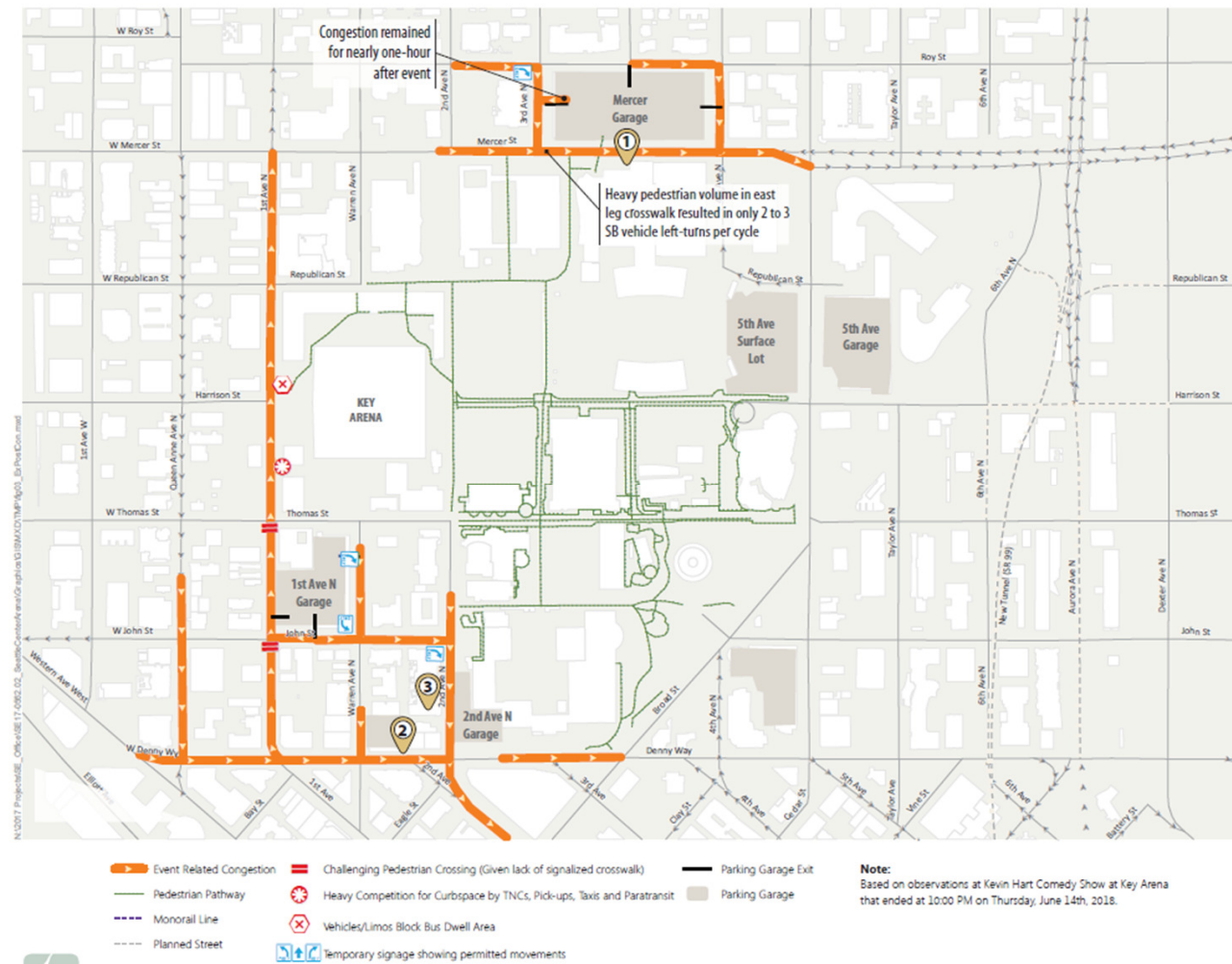
- Problem we are trying to solve
- Project Impacts and Mitigation
- Arena Access Management Plan
- Master Use Permit (MUP) decision
 - QA Ave N and 1st Ave N design details



Problem: Pre-event existing conditions



Problem: Post-event existing conditions



Project Impacts and Mitigation

Package #1: Ensure mobility and safety for all travelers during construction

Impact	Mitigation
a. Safety and congestion on 1 st Ave N	Relocate flex zone uses <ul style="list-style-type: none">- Bus stop and layover, school bus parking, and passenger load zones
	Ensure pedestrian access and a controlled crossing <ul style="list-style-type: none">- Full signal at 1st Ave N / Thomas St
	Relocate pedestrian access <ul style="list-style-type: none">- Detour routes
	Relocate bicycle facility <ul style="list-style-type: none">- Install PBL on west side of street from Denny Way to Roy St
b. Overall construction concerns	Construction Management Plan (CMP) <ul style="list-style-type: none">- Construction worker parking- Construction communication to nearby entities- Haul routes
c. Heavy truck/equipment degradation	Repair any pavement damage/degradation on designated haul routes

Project Impacts and Mitigation

Package #2: Redesign 1st Ave N and Queen Anne Ave N

Impact	Mitigation
a. Transit delay on 1 st Ave N and Queen Anne Ave N	Transit-only lanes: <ul style="list-style-type: none"> - 1st Ave N between Denny Way and Republican St - Queen Anne Ave N between Mercer St and John St Transit queue jump at 1 st Ave N / Republican St
b. Pedestrian access	New signal at 1 st Ave N / Thomas St New signal at Queen Anne Ave N / Thomas St
c. More space for people at intersections (pedestrian crowd surge)	Curb bulb outs (on non-arterial streets): <ul style="list-style-type: none"> - 1st Ave N / Harrison St and 1st Ave N / Republican St Widen crosswalks: <ul style="list-style-type: none"> - 1st Ave N / Harrison St and 1st Ave N / Republican St
d. Relocation of bike facility	2-way Protected Bicycle Lane (PBL) on QA Ave N: Mercer St to Thomas St 2-way Protected Bicycle Lane (PBL) on 1 st Ave N: Denny Way to Thomas St Neighborhood greenway or PBL on Thomas St: 1 st Ave N to Queen Anne Ave N

Project Impacts and Mitigation

Package #3: Ensure pre- and post-event traffic congestion is minimized

Impact	Mitigation
a. Congestion and corridor speed and reliability degradation	Adaptive signal system (SCOOT): <ul style="list-style-type: none"> - Denny Way (15 intersections) - Six other intersections: Queen Anne Ave N/Harrison St, Queen Anne Ave N/Republican St, 1st Ave N/Harrison St, 1st Ave N/Republican St, 5th Ave N/Harrison St, Dexter Ave N/Harrison St
	Pre- and post-event transportation management plans (within AAMP)
b. Motorists circulating for parking	Parking reservation and best practices systems
c. Post-event garage flush	Modification of 2 nd Ave PBL: to allow for 2-thru lanes on 2 nd Ave for garage flush
	Post-event transportation management plan (within AAMP) <ul style="list-style-type: none"> - Traffic Control Officers (TCO) - Special event signal timing - Special event intersection modifications



Project impacts and mitigation

Package #4: Set mode share goals and encourage non-auto trips

Impact	Mitigation
a. Reduce the number of vehicles in the project vicinity	Arena Access Management Plan (AAMP) <ul style="list-style-type: none">- Trip Reduction for Event Attendees<ul style="list-style-type: none">o Reduce number of private auto and ridehailing trips- Trip Reduction for Arena Employees
b. Post-event pedestrian surge across Seattle Center campus	Widen crosswalks: <ul style="list-style-type: none">- 5th Ave N / Harrison St
c. Overcapacity transit buses and delay to access	Extra service on post-event crowding and delay of access to transit users on buses

MUP decision – summary

- Construction Management Plan (CMP) and construction mitigation
- Physical improvements
 - 1st Ave N and Queen Anne Ave N
 - AAA bike facility
 - Bus-only lanes
 - Transit queue jump
 - Two new signals
 - Curb bulb outs and crosswalk widening
 - Adaptive signal system payment
 - 2nd Ave lane reconfiguration at Denny Way
 - Monetary payment to King County Metro for additional post-event bus service
- Arena Access Management Plan (AAMP)



MUP decision - summary



Draft AAMP Elements

For the Arena project to achieve their mode share goals, rethinking 1st Ave N and QA Ave N operations and how space is allocated had to be reevaluated due to the impacts of the project.

Attendee mode share baseline assumptions (for EIS analysis) and goals (NHL/NBA)

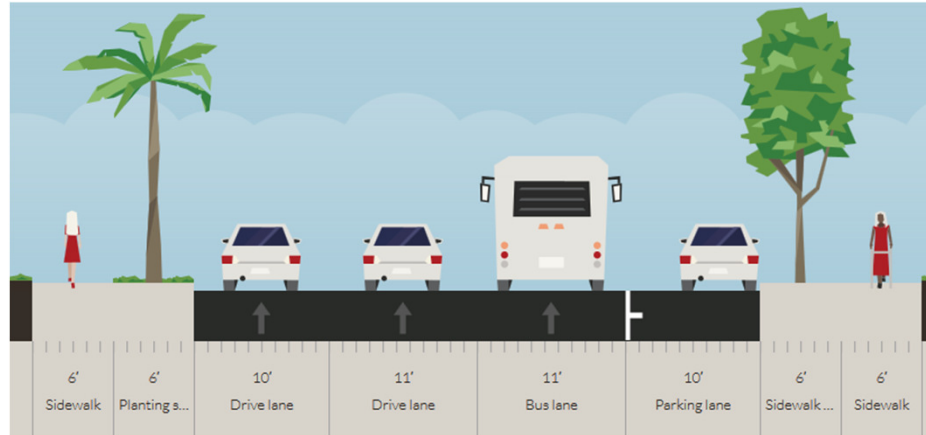
	Baseline Assumptions		Project goals	
	2020	2035	2020	2035
Travel mode				
Private vehicle	63%	35%	55%	31%
Transit	8%	6%	15%	30%
Ridehailing	15%	25%	15%	20%
Walk	10%	8%	10%	12%
Monorail	3%	2%	5%	5%
Bicycle	1%	1%	1%	2%

MUP decision - QA Ave N and 1st Ave N

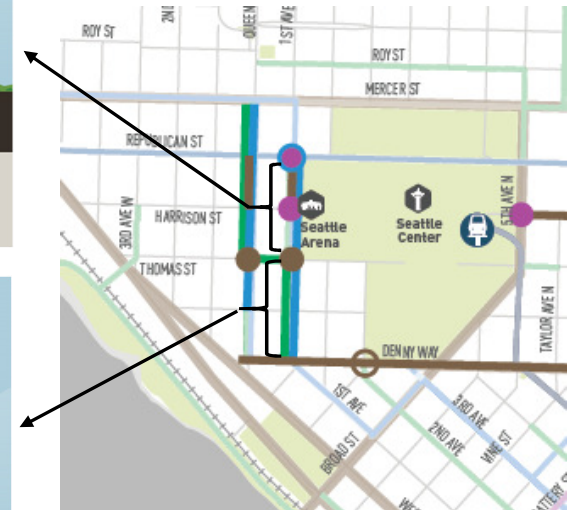
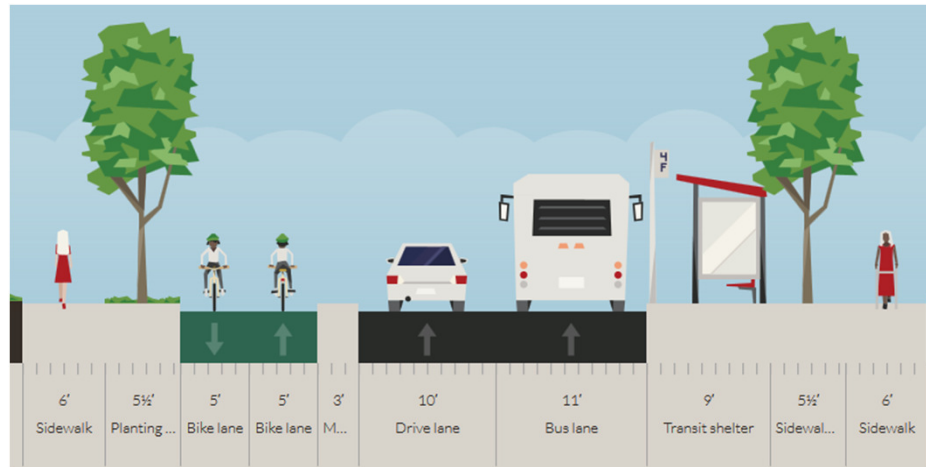


1st Ave N

Thomas St to Republican St



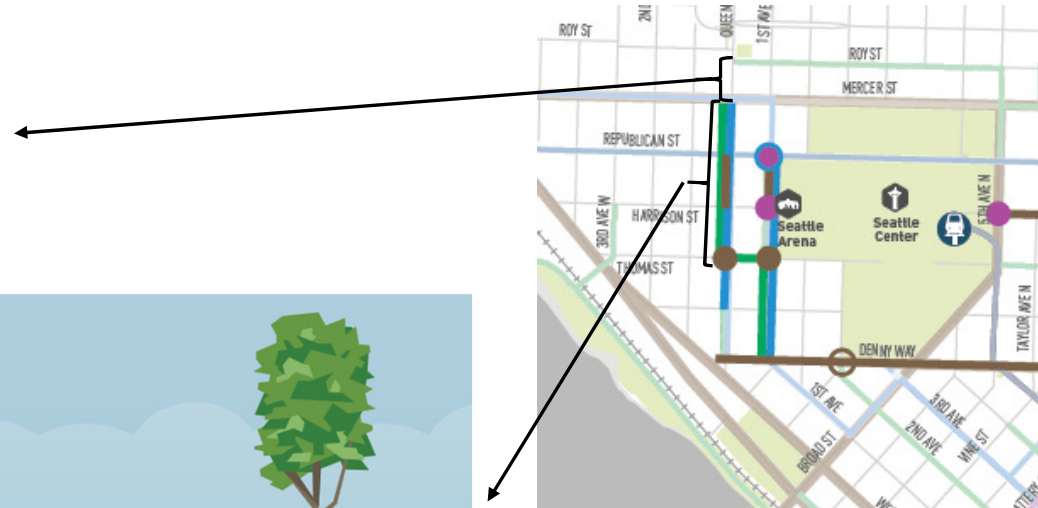
Denny Way to Thomas St



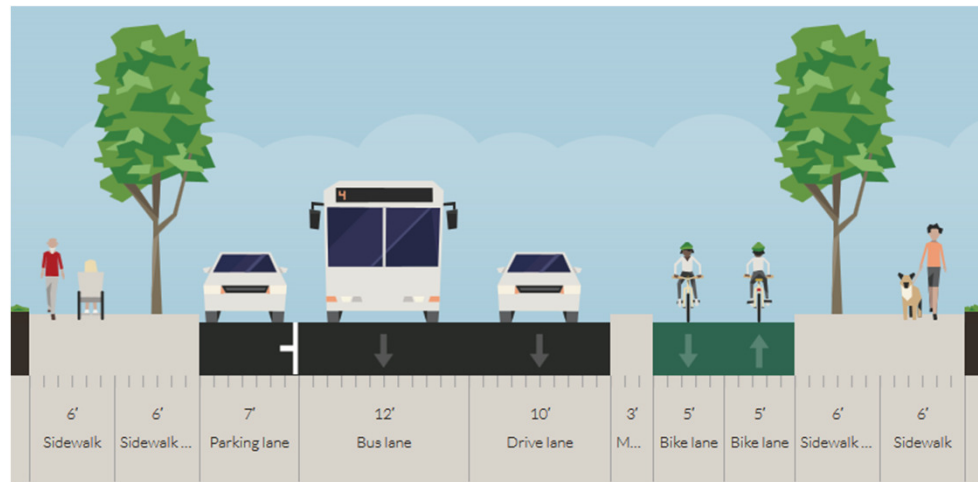
QA Ave N

Mercer St to Roy St

TBD



Thomas St to Mercer St

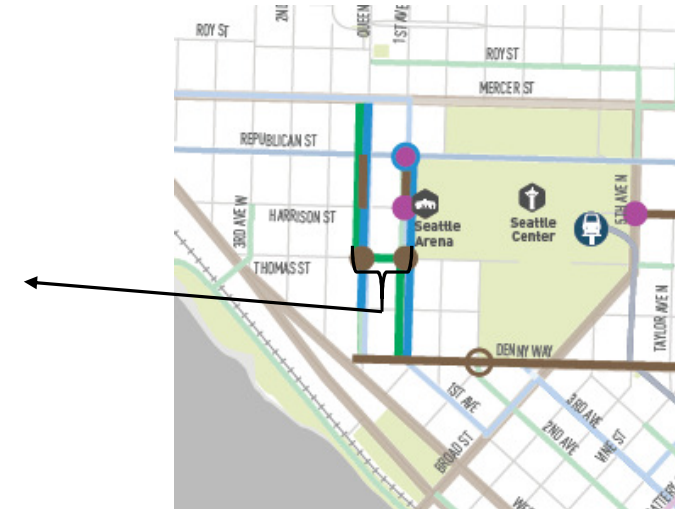


Thomas St

1st Ave N to QA Ave N

TBD

Design details being worked out:
Neighborhood greenway or protected bicycle
lane



Design process

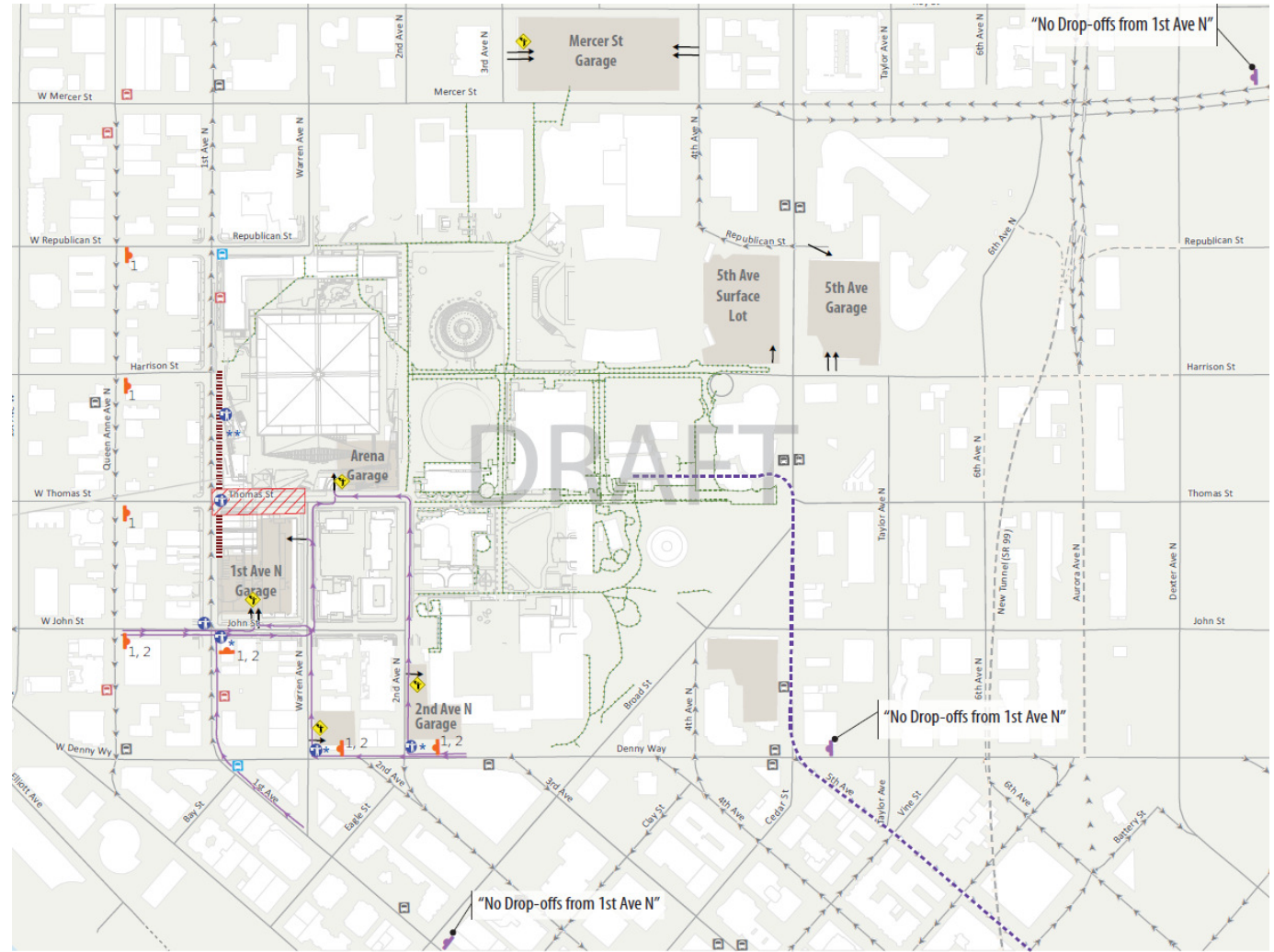
Arena team is documenting the design evolution via the Street Improvement Permit (SIP) – at 60% SIP

Design elements still in process:

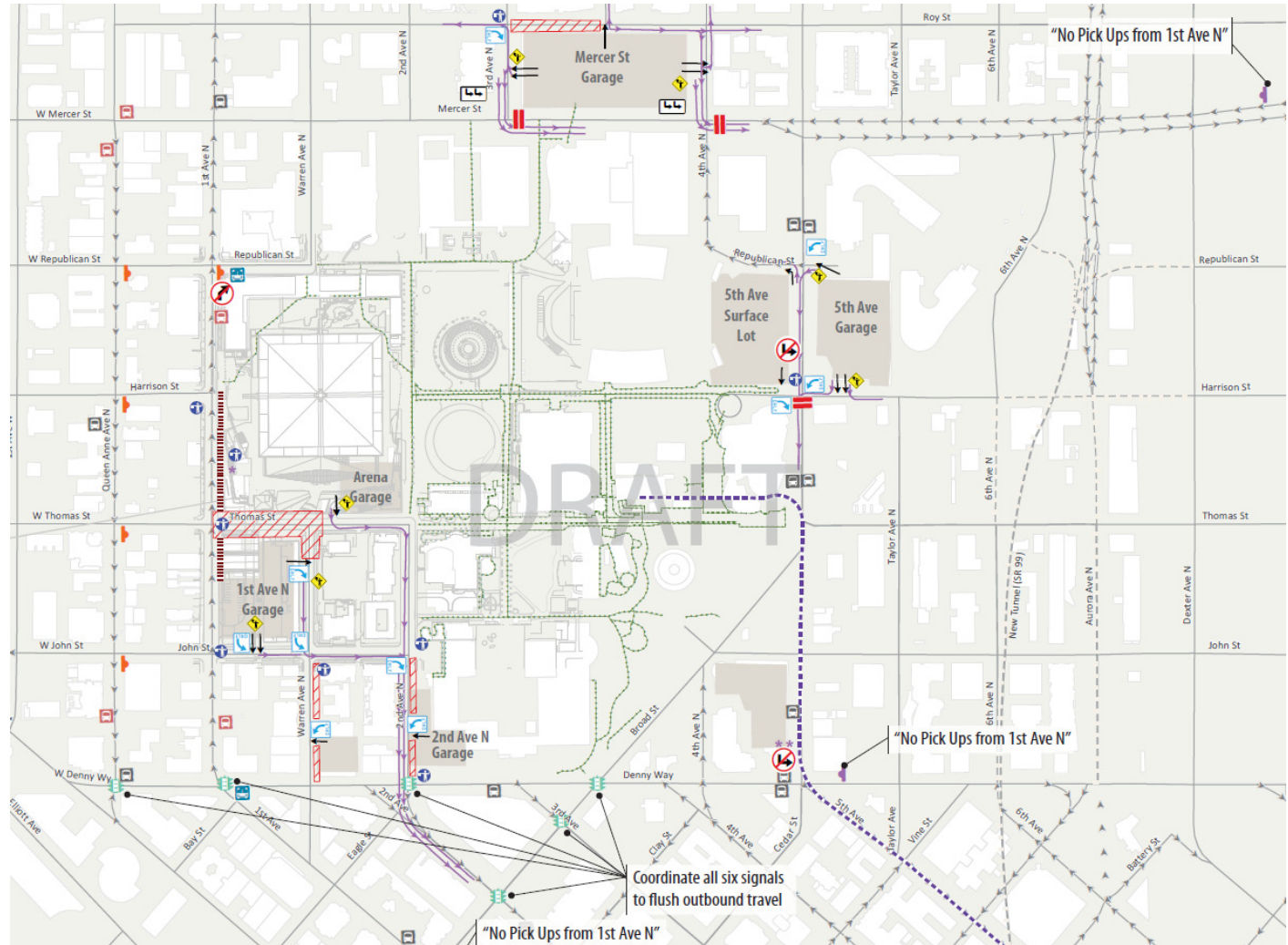
- Restricting left turns at QA Ave N and Republican St, Harrison St, and Thomas St (except for buses)
- Raised driveway crossings along QA Ave N
- Thomas St bicycle facility transition
- QA Ave N bicycle connection between Mercer St to Roy St
- Operations of new QA Ave N/Thomas St and 1st Ave N/Thomas St full signals



Draft AAMP Pre-Event Transportation Management Plan



Draft AAMP Post-Event Transportation Management Plan



Projected benefits

Transit speed and reliability

Corridor	Pre-event peak hour	
	No mitigation	With AAMP and physical improvements
	Average travel time	Average travel time
NB 1 st Ave N	6.8 minutes	5.8 minutes
SB QA Ave N	11.8 minutes	6.3 minutes

Intersection Level Of Service (LOS)

	No Action		No Mitigation		With AAMP and improvements	
	Pre-event peak hr	Post-event peak hr	Pre-event peak hr	Post-event peak hr	Pre-event peak hr	Post-event peak hr
LOS F	24	0	23	22	17	13
LOS E	6	0	8	7	11	6
Average intersection delay (sec/veh)	117	12	122	123	78	73



Projected benefits

People walking (qualitative benefits)

- Two new signals
- Wider crosswalks
- New curb bulbs
- New pedestrian crossing at Denny Way / 1st Ave N

People biking (qualitative benefits)

- Two new signals
- Protected bicycle lane couplet
- New bike crossing at Denny Way / 1st Ave N



Questions?

To download the draft AAMP, use the link below:

<https://www.seattle.gov/Documents/Departments/economicDevelopment/arena%20evaluation%20docs/Draft%20AAMP%208%2030%2018%20v3.pdf>

www.seattle.gov

