



Seattle Campus Master Plan

CUCAC

May 9, 2017

UNIVERSITY of WASHINGTON



PRESENTATION ORDER

Overview of Key Changes to Seattle Campus Master Plan

- Public Realm
- Building Height and Massing

Questions and Input



Upcoming Milestones

- **Draft Plan and Draft EIS published – Oct 5, 2016**
- **Final Plan and Final EIS published – June 2017**
- **Hearing Examiner and City Council – Fall 2017**
- **City Council and Board of Regents approval – Winter 2018**

10 Year Conceptual Plan – October Draft CMP

Illustrative Representation



10 Year Conceptual Plan – June Final CMP

Illustrative Representation



Long Term Vision – October Draft CMP



Total Net New Development Capacity (GSF) – 12.9 million net new GSF
Growth Allowance Request – 6.0 million net new GSF

Long Term Vision – June Final CMP



Total Net New Development Capacity (GSF) – 11.6 million net new GSF
Growth Allowance Request – 6.0 million net new GSF

OVERVIEW OF CHANGES TO THE CMP

Overview of Changes to the CMP

Structural Changes to the Document

- Additional emphasis placed on 10-Year Conceptual Plan
- Added Inclusive Innovation Framework to Existing Conditions chapter
- Reorganization of Development Standards section for greater clarity and to focus on specific requirements
- Transportation Management Plan called out as a separate section

Items that Remain Unchanged

- Growth allowance request of 6.0 million net new GSF
- Enrollment projections

Public Realm

Significant Public Realm Modifications

- Removed vacation of Boat Street
- Added new unique and significant landscapes to preserve to the proposed section, that will include existing landscapes as well as the West Campus Green and South Campus Green
- East Campus Land Bridge has been removed from the 10 Year Conceptual Plan

Open Space Commitments – West Campus Green

- Design and Implementation Plan for the West Campus Green and West Campus section of the trail will align with the development of 1.0 million net new GSF
- West Campus Green will align with the 3.0 million net new gross square feet of development for the West Campus
- Within the 10-year conceptual plan for the West Campus
- Site preserved



Open Space Commitments – South Campus Green

- Design and Implementation Plan for the South Campus Green and South Campus section of the trail will align with the development of the first site listed below
- Lower section of South Campus Green will align with development of sites S52, S53, S54, and S55
- Upper section of South Campus Green will align with development of sites S43, S44, S47, S48
- In 10-year conceptual plan
- Site preserved



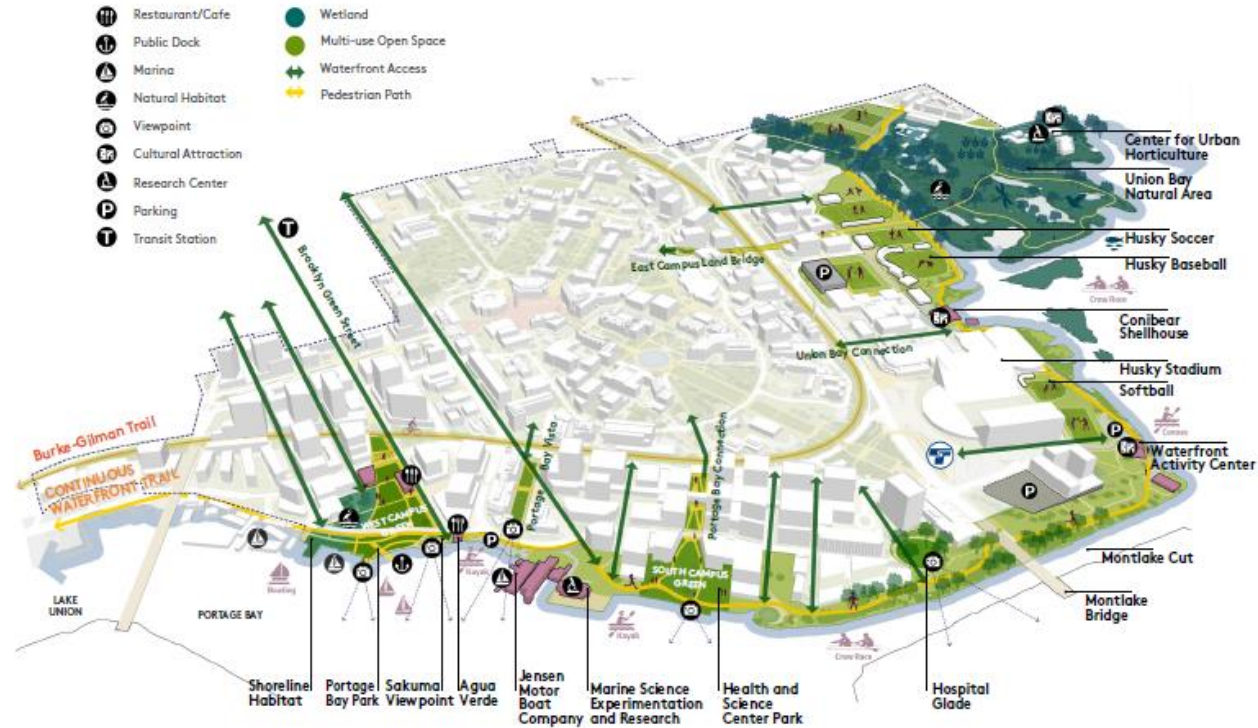
Open Space Commitments – East Campus Land Bridge

- Land bridge is not part of the 10-year conceptual plan
- Illustrates a long-term vision for East Campus
- Existing pedestrian overpasses in that area will be sufficient to accommodate the 750,000 gsf growth allowance identified for East Campus



Open Space Commitments – Continuous Waterfront Trail

- Design for the East Campus section of the trail will align with development of site E60
- Concept Plan for the Continuous Waterfront Trail (West, South, East) will align with the Design of the West Campus section of the trail
- Construction of the trail in each of those sectors will align with the construction of the West Campus Green, the South Campus Green, and development of 750,000 net new gsf in the East Campus
- Currently developing Public Access Plan that aligns with Continuous Waterfront Plan



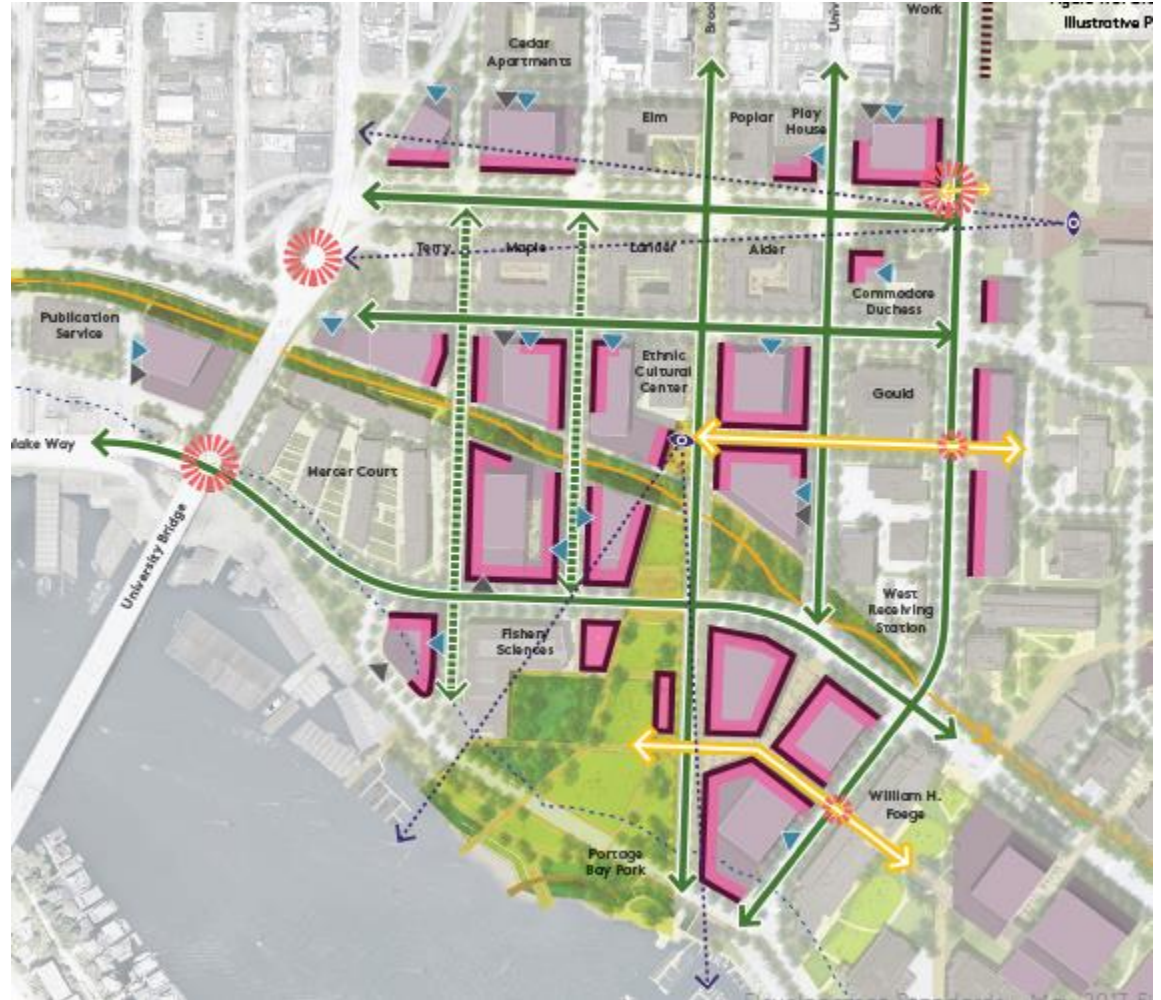
Open Space Commitments – Brooklyn Avenue

- The City of Seattle has designated Brooklyn Avenue NE, 43rd Street, and NE 42nd Street neighborhood green streets
- U District Green Streets Concept Plan articulates a voluntary design intention for each street
- The University will strive to follow the guidance provided in the Concept
- Street ROW will be preserved
- Public Realm Allowance has been increased by 1.5' to be consistent with U District Green Streets Concept Plan



Mid-Block Passages

- Draft CMP encouraged the use of mid-block passages, but did not require them
- Two mid-block passages will be required in the West Campus, and will be identified in the Final CMP document.
- A mid-block passage shall maintain a minimum width of 25'



Building Heights and Massing

West Campus

South Campus

East Campus

Central Campus

Building Heights and Massing

West Campus

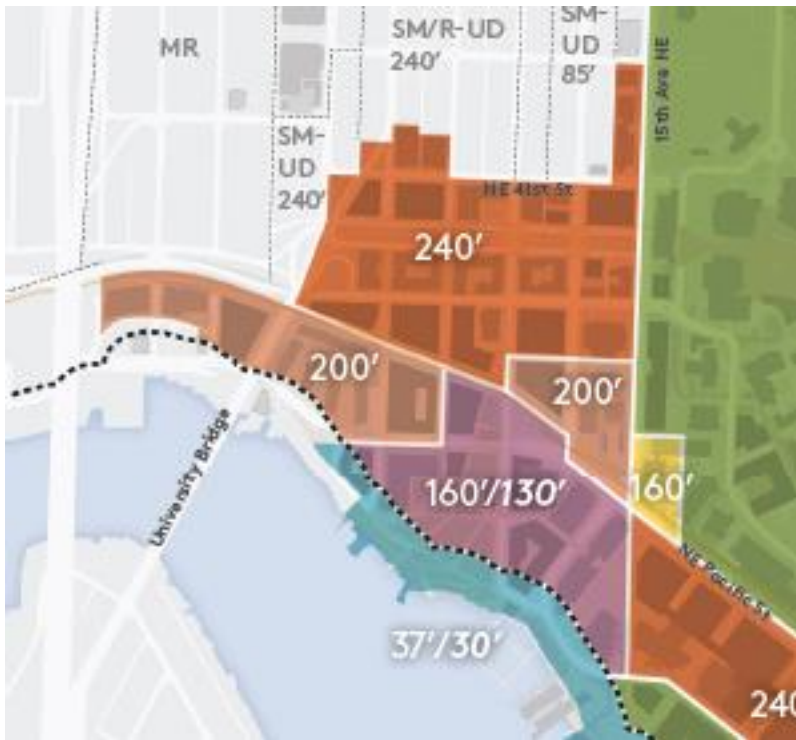
South Campus

East Campus

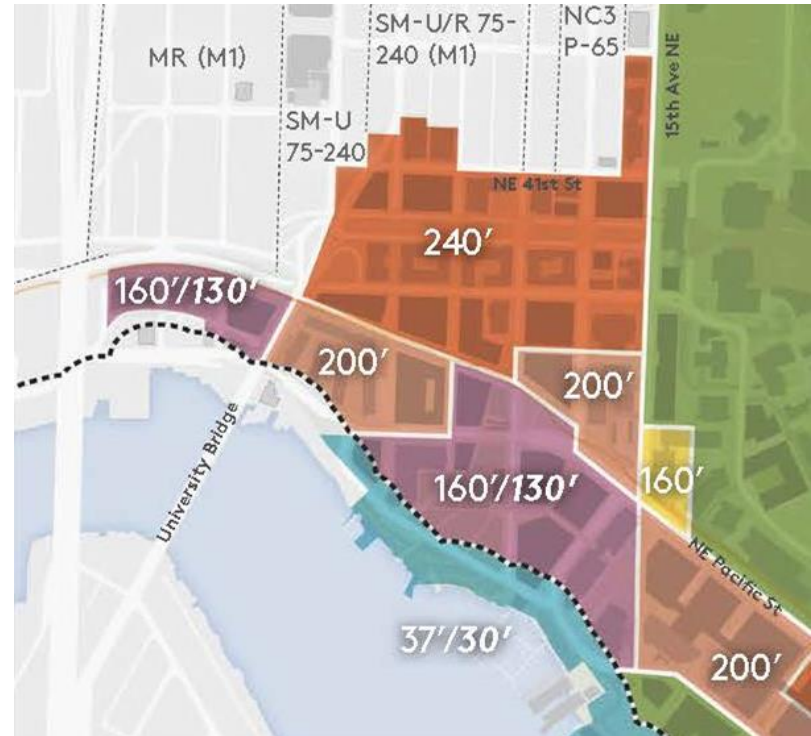
Central Campus

Allowable Building Heights

- Area west of University Bridge has been reduced from 200' to 130'
- Specific sites conditioned down to lower heights

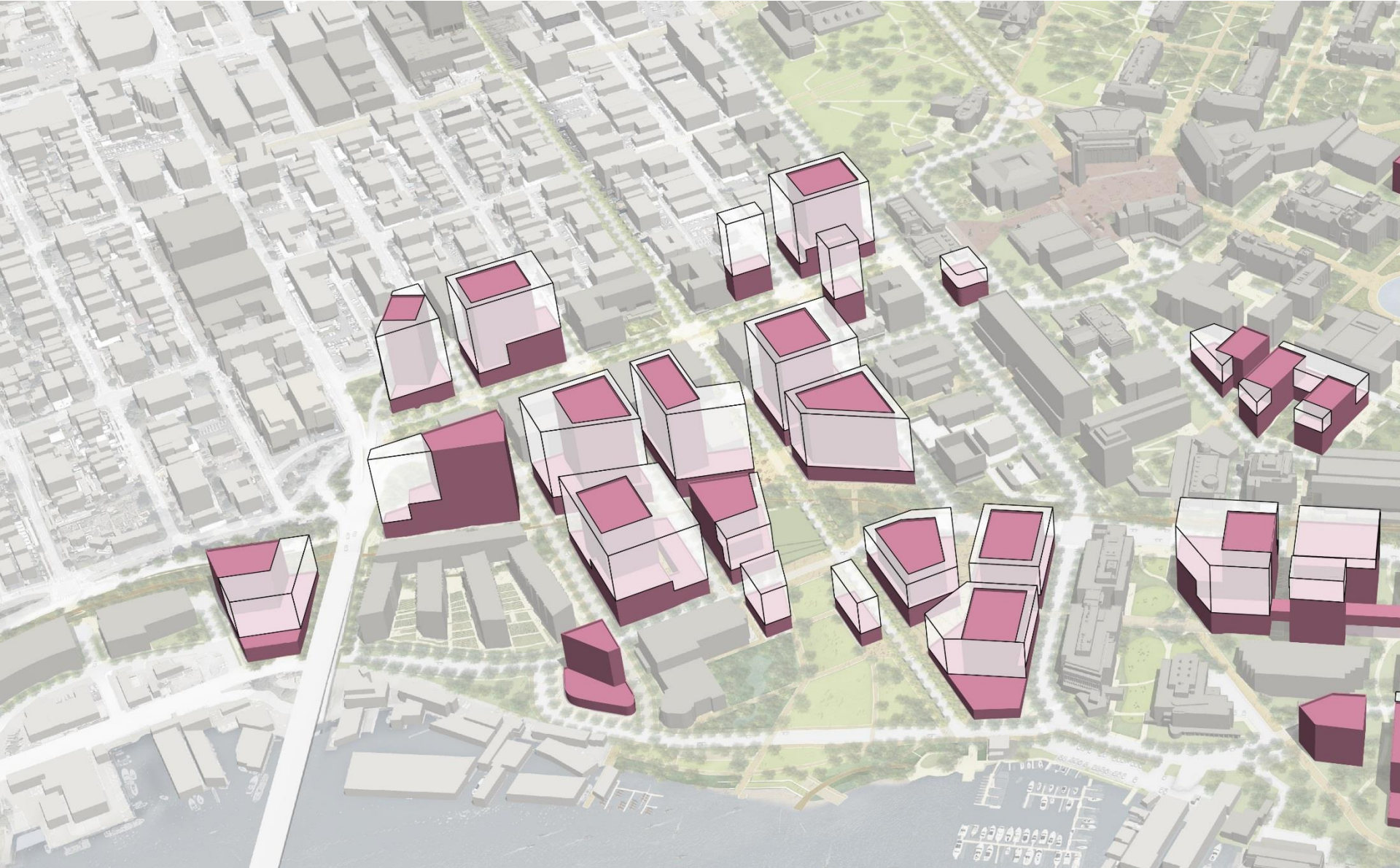


October - Draft CMP



June - Final CMP

Envelope Coverage – June Final CMP



Generates an overall average of 54% coverage for West Campus

Special Second Upper Level Setback – University Way & Campus Pkwy

- Sites with footprints that exceed 20,000 square feet and whose building height exceeds 160' that are located in the transition zone along University Way and Campus Parkway, will be required to step back an additional 20' at 90' in height.
- Required along a minimum of one façade, generally facing the more prominent edge.



University Way Looking South



W25 (W42 Parking Lot / Henderson Hall Site)

- More gradual transition from west to east



October – Draft CMP



June – Final CMP

W36, 37 (Portage Bay Parking Garage)

- Redevelops the Portage Bay Parking structure as two sites
- Maintains proposed allowable building height of 130'
- Introduces pedestrian path and plaza between buildings
- Provides a more direct connection between the Ave and the waterfront



October – Draft CMP



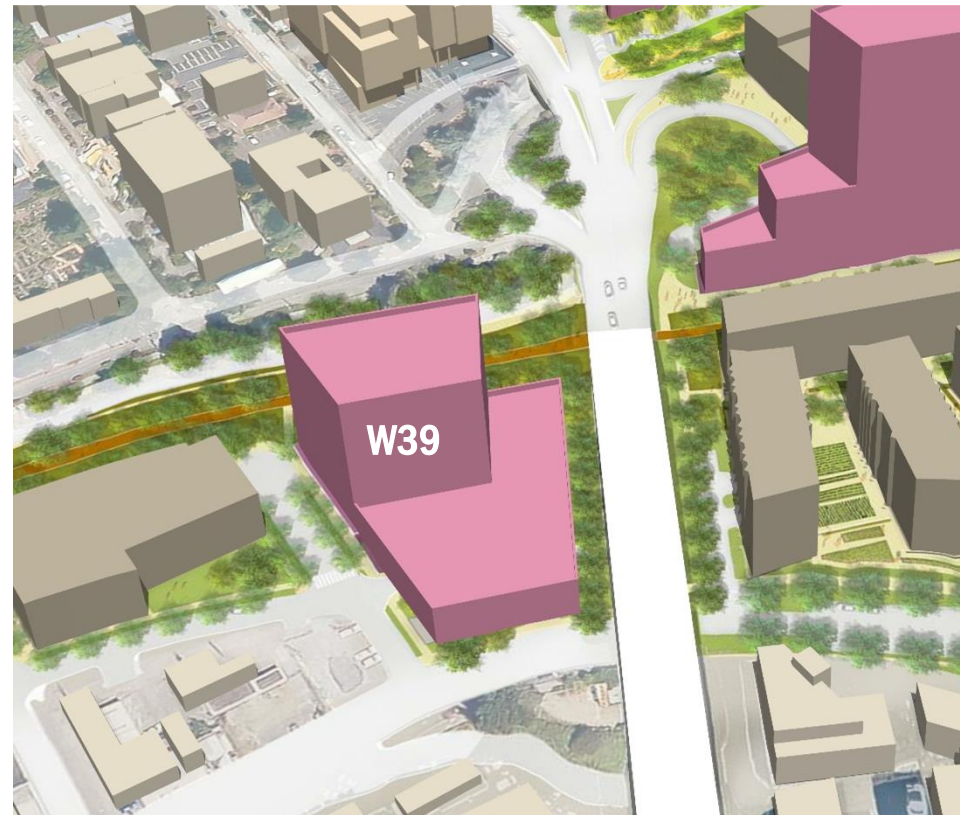
June – Final CMP

W39 (Former W38, Northlake Building / W40 Parking Lot Site)

- Reduced maximum allowable building height from 200' to 130'
- Modified the orientation of the building and massing to enhance view corridor along Eastlake
- Added the view corridor to the Development Standards Protected View Corridors



October – Draft CMP



June – Final CMP

West Campus – October Draft CMP



Total Net New Development Capacity (GSF) – 3.2 million net new GSF
Growth Allowance Request – 3.0 million net new GSF

West Campus – June Final CMP



Total Net New Development Capacity (GSF) – 3.36 million net new GSF
Growth Allowance Request – 3.0 million net new GSF

Building Heights and Massing

West Campus

South Campus

East Campus

Central Campus

Allowable Building Heights

- Modifies substantial portion of the 240' allowable building height zone to 200'
- Allowable building heights on S41, S48, S49, S50 have been reduced from 240' to 200'
- Introduces a more gradual transition in height between Pacific Street and the waterfront.

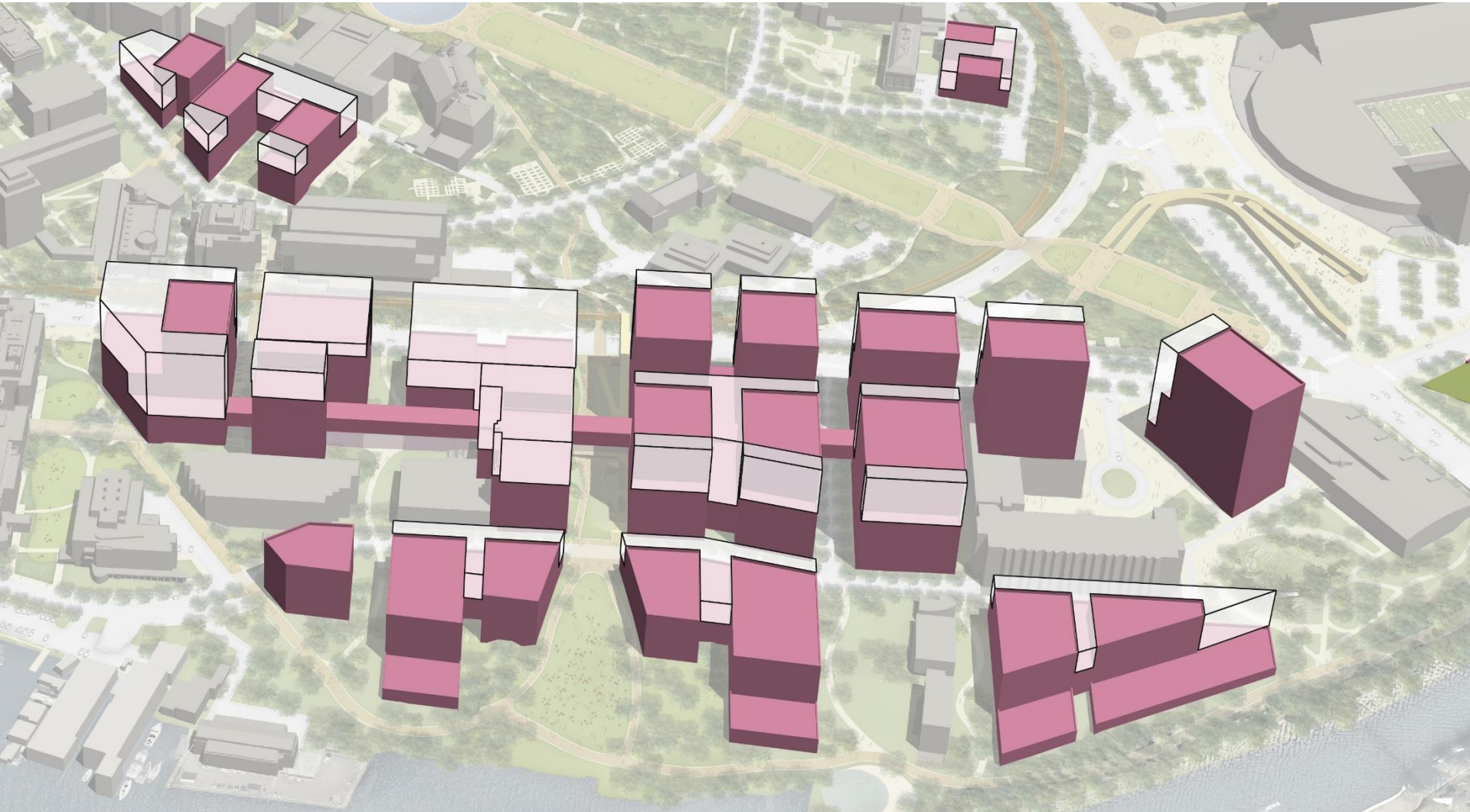


October – Draft CMP



June – Final CMP

Envelope Coverage – June Final CMP



Generates an overall average of 73% coverage for South Campus

Special Second Upper Level Setback – Pacific Street

- Sites with footprints that exceed 20,000 square feet and whose building height exceeds 160' that are located along Pacific Street, will be required to step back an additional 20' at 120' in height.
- Required along a minimum of one façade, generally facing the more prominent edge.



South Campus – October Draft CMP



Total Net New Development Capacity (GSF) – 2.9 million net new GSF
Growth Allowance Request – 1.35 million net new GSF

South Campus – June Final CMP



Total Net New Development Capacity (GSF) – 2.2 million net new GSF
Growth Allowance Request – 1.35 million net new GSF

Building Heights and Massing

West Campus

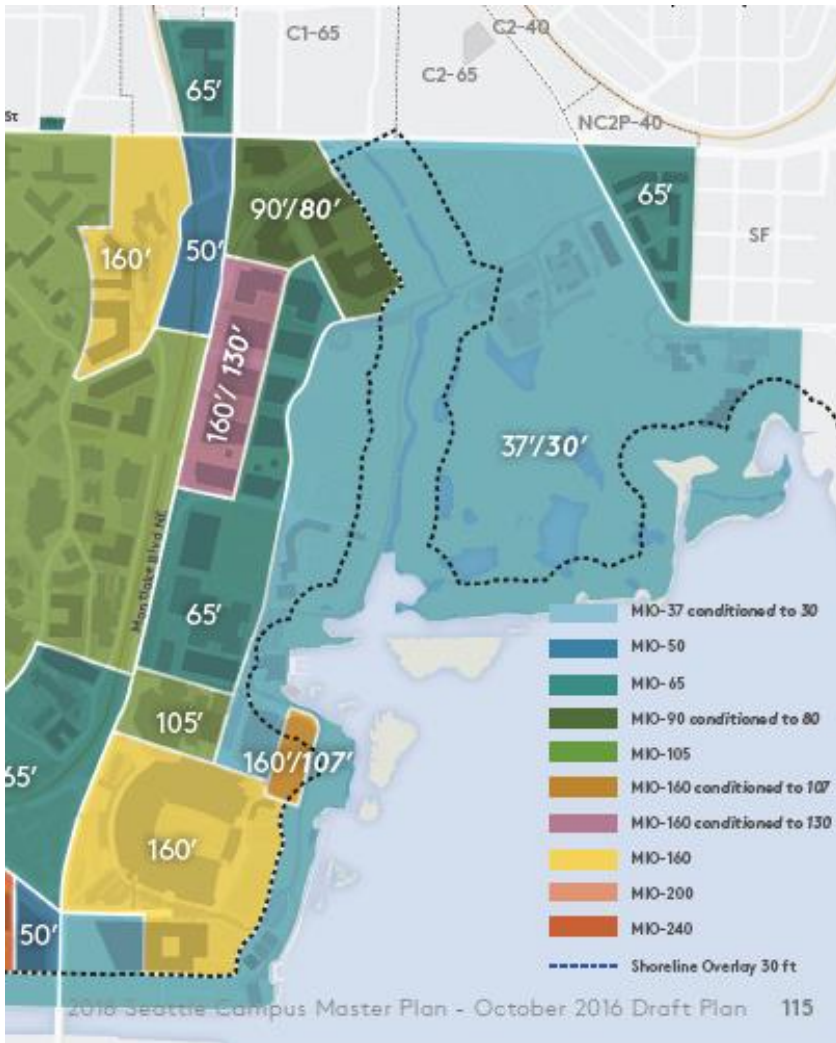
South Campus

East Campus

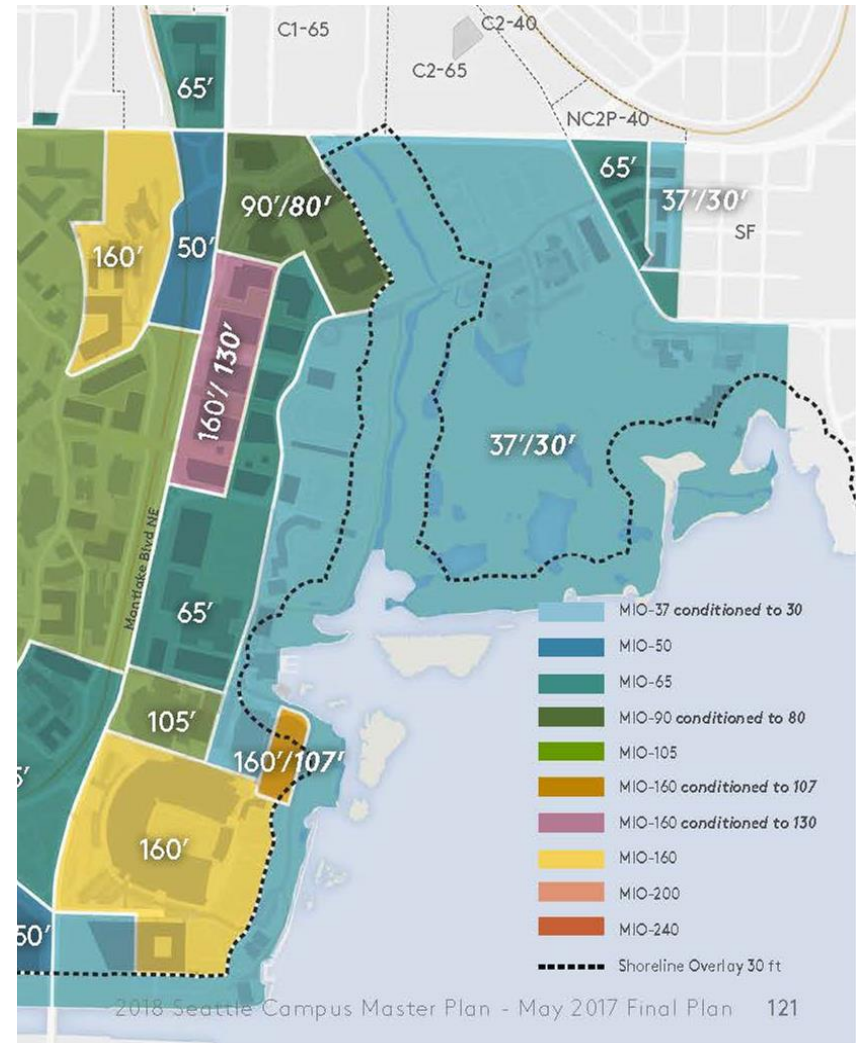
Central Campus

Allowable Building Heights

- Eastern portions of sites E86 and E87 reduced from 65' to 30'

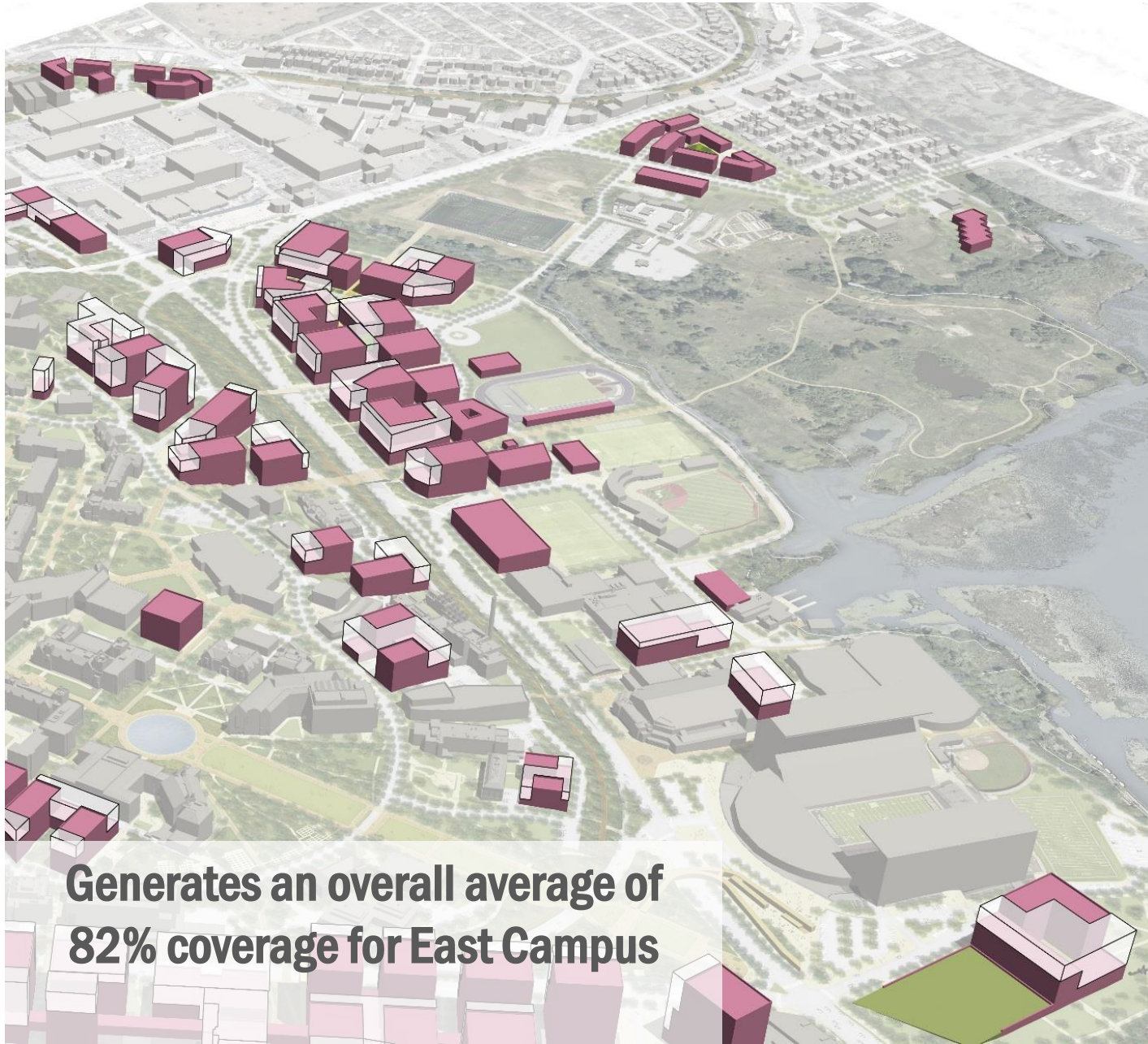


October – Draft CMP



June – Final CMP

Envelope Coverage – June Final CMP



**Generates an overall average of
82% coverage for East Campus**

E60 (Formerly E85, E12 Parking Lot South of Husky Stadium)

- Shifted the building further west to maintain current location of the UW Climbing Rock
- Preserved Rainier Vista view corridor



October – Draft CMP



June – Final CMP

Additional East Campus Sites

- Additional sites (~30,000 gsf or less) added to collocate athletics functions



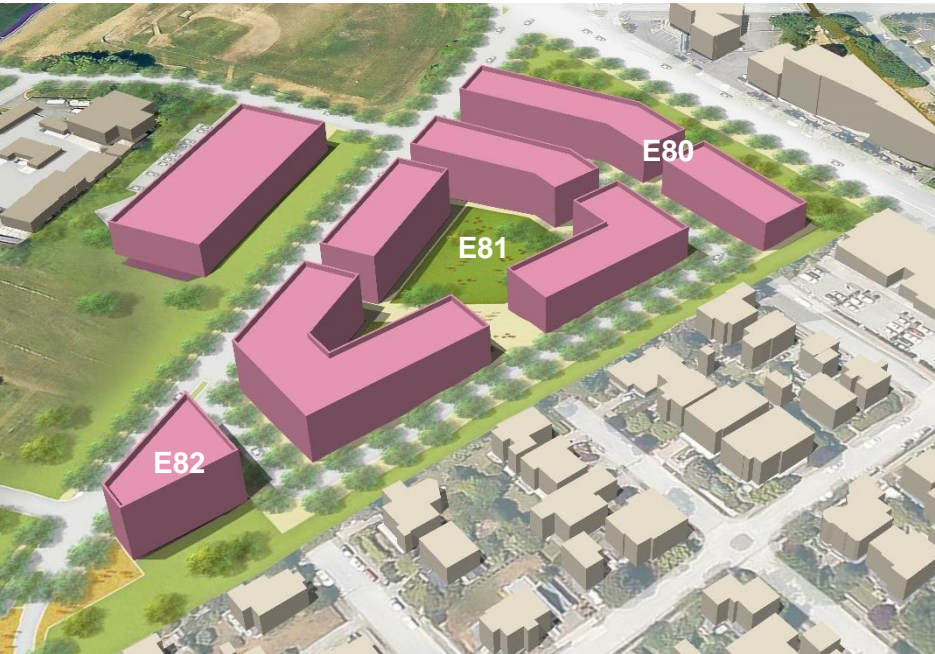
October – Draft CMP



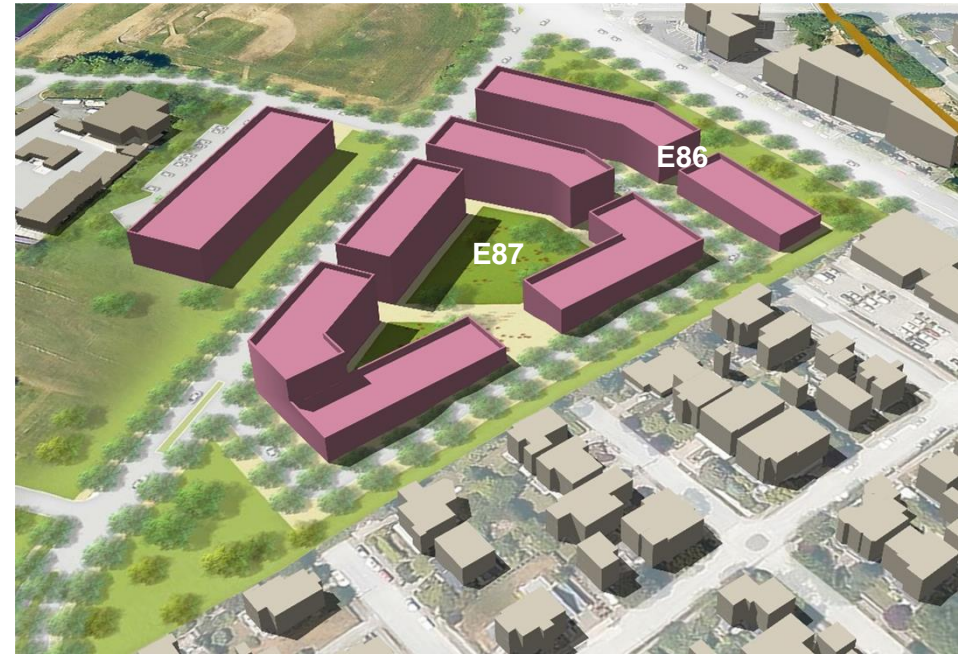
June – Final CMP

E87 (Formerly E80, 81, 82 Laurel Village)

- Removed the southern building proposed in the October Draft (former E82)
- Reduced the building height of the buildings that abut the neighborhood from 65' to 30'



October – Draft CMP



June – Final CMP

East Campus – October Draft CMP



Total Net New Development Capacity (GSF) – 4.7 million net new GSF
Growth Allowance Request – 750,000 net new GSF

East Campus – June Final CMP



Total Net New Development Capacity (GSF) – 4.35 million net new GSF
Growth Allowance Request – 750,000 net new GSF

Building Heights and Massing

West Campus

South Campus

East Campus

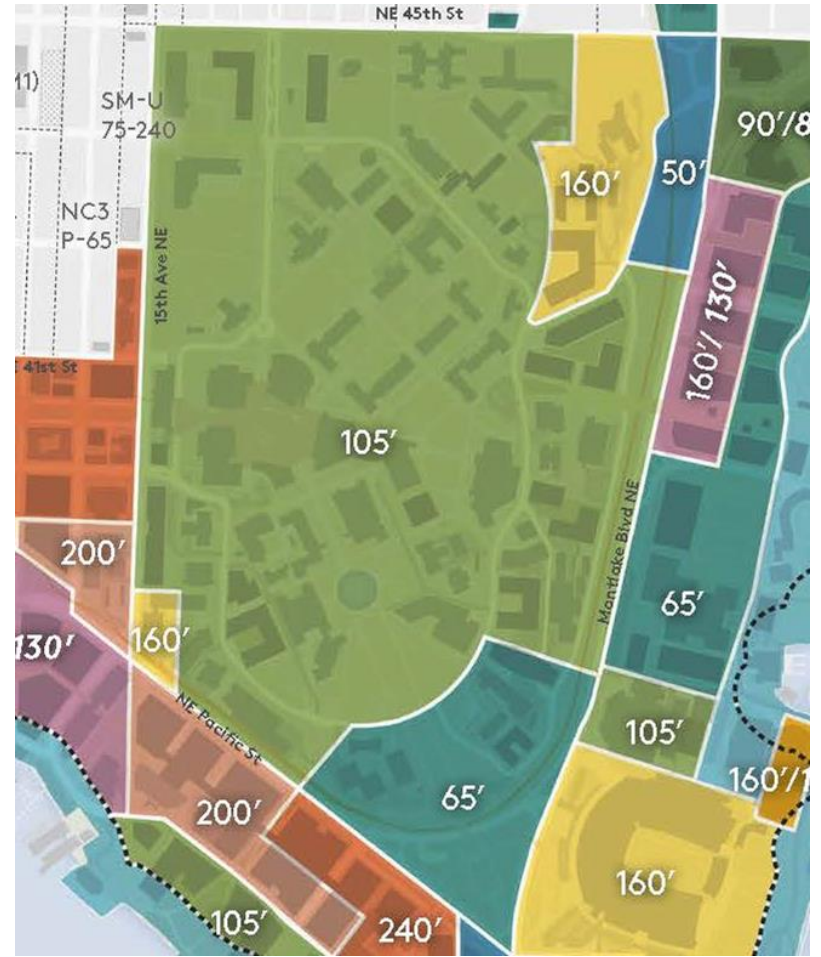
Central Campus

Allowable Building Heights

- Reflects 2003 CMP Allowable Building Heights
- No modifications proposed

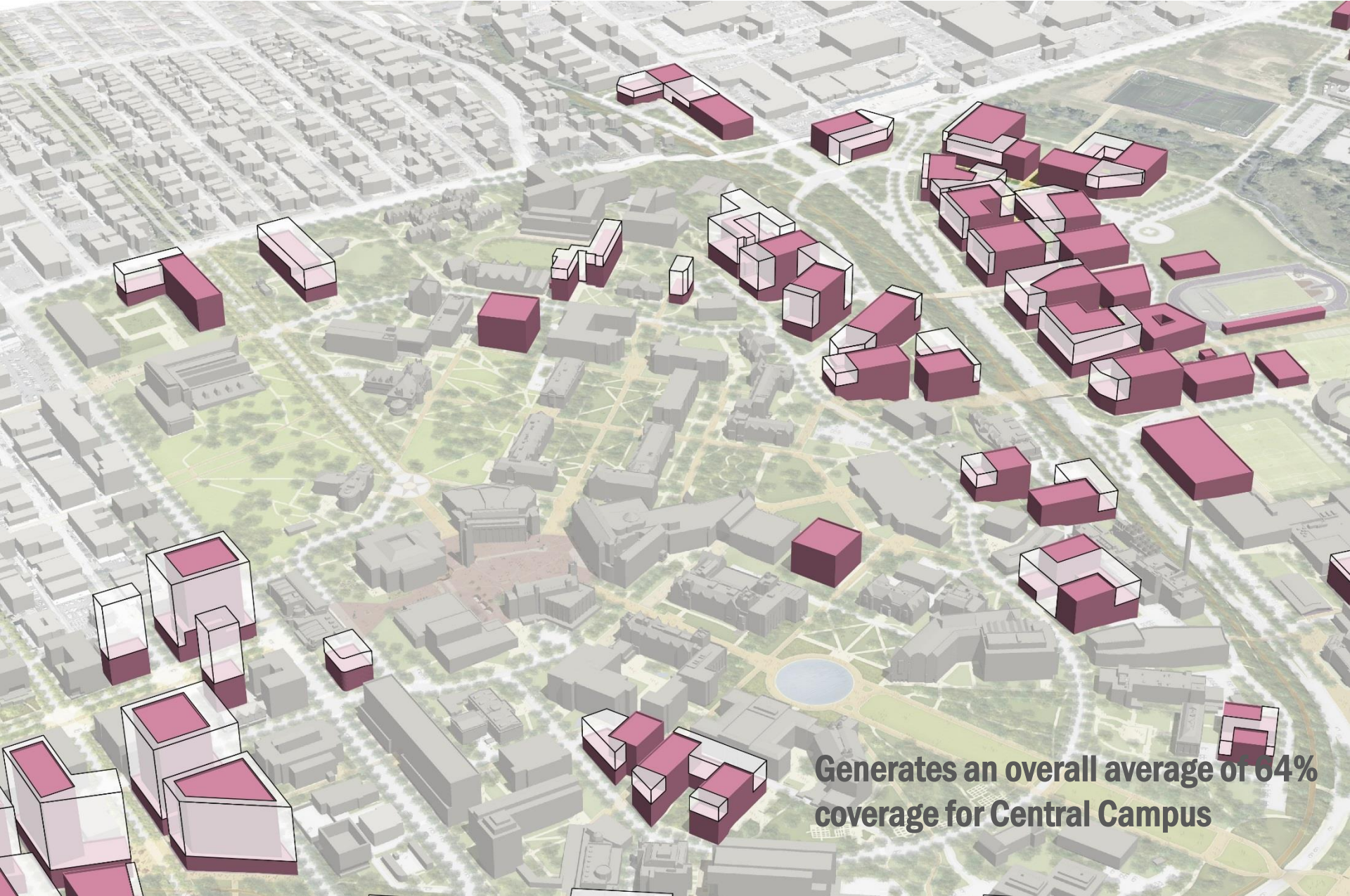


October - Draft CMP



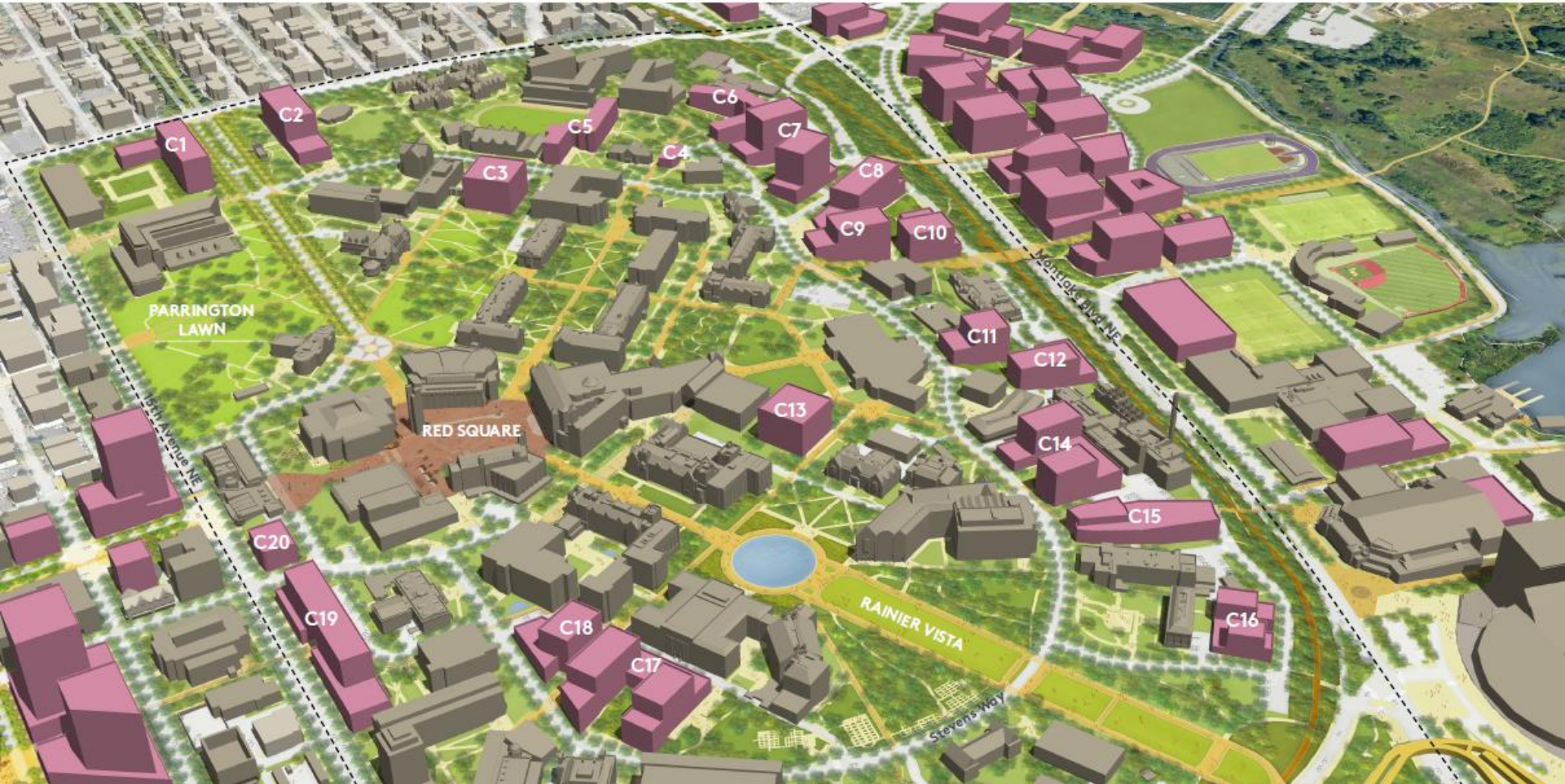
June - Final CMP

Envelope Coverage – June Final CMP



Generates an overall average of 64% coverage for Central Campus

Central Campus – October Draft CMP



Total Net New Development Capacity (GSF) – 2.0 million net new GSF
Growth Allowance Request – 900,000 net new GSF

Central Campus – June Final CMP



Total Net New Development Capacity (GSF) – 1.7 million net new GSF
Growth Allowance Request – 900,000 net new GSF

QUESTIONS AND INPUT

Thank you

Questions:

Theresa Doherty, Senior Project Director

cmpinfo@uw.edu

206-221-2603

<http://pm.uw.edu/campus-master-plan>

UW Campus Master Plan & Environmental Impact Statement

Transportation Briefing



CUCAC Meeting

May 9, 2017



Presentation Topics

- ❑ Transportation Management Plan GOAL
- ❑ Transportation Management Plan COMPONENTS
- ❑ How does the University Compare Transportation Measures and Results
- ❑ Questions



UW Transportation Management Plan

GOAL

- > UW is changing TMP goal to be consistent with other MI's
- > 2003 GOAL: Limit peak-period, peak-direction vehicle trips made by faculty, staff and students at or below the 1990 levels.
- > 2018 GOAL: 15% SOV by 2028.



UW Transportation Management Plan COMPONENTS

1. U-PASS program
2. Transit
3. Shared-Use Transportation
4. Parking Management and RPZ's
5. Bicycle
6. Pedestrian
7. Marketing and Education
8. Telecommuting
9. Institutional Policies

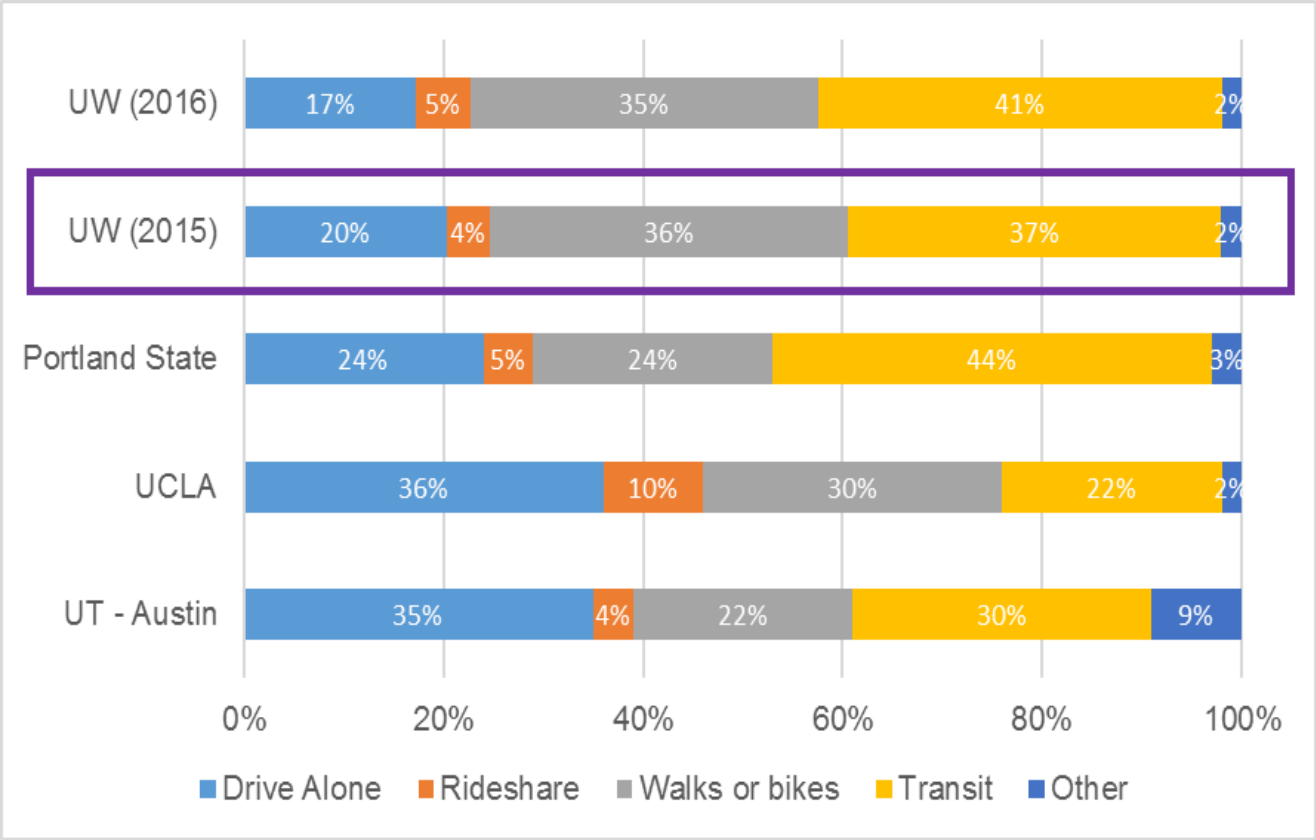


Background: *How does the UW SOV rate compare to other Major Institutions?*

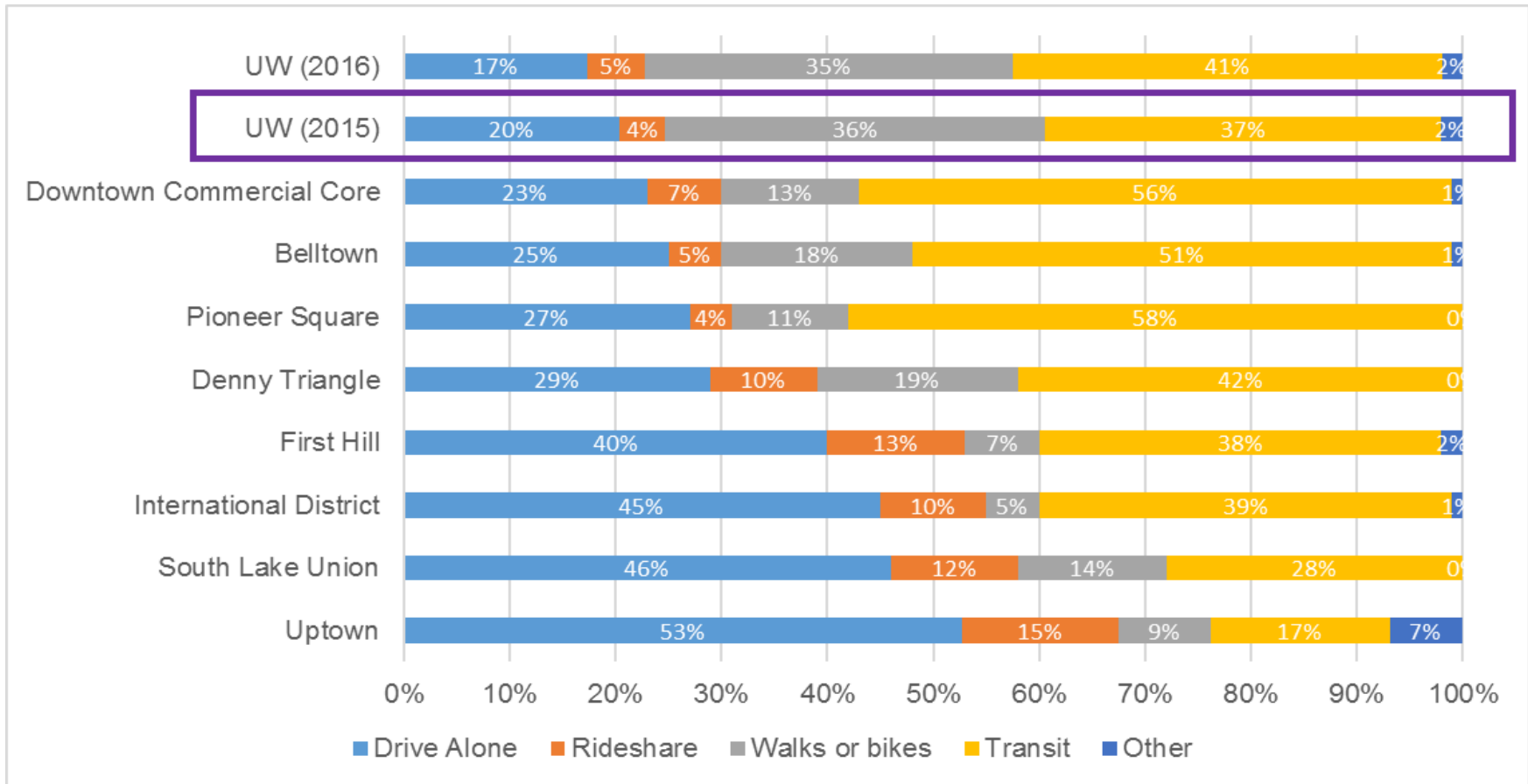
| INSTITUTION | TMP GOAL as listed in current CMP | SOV rate reported |
|--|-----------------------------------|-------------------|
| Group Health | 55% SOV rate | 55% |
| Virginia Mason | 30% SOV rate | 27% |
| Seattle Children's | 30% SOV rate | 38% |
| Northwest Hospital | 70% SOV rate | 31% |
| Harborview Medical Center | 45% SOV rate | 45% |
| Seattle Central College | 50% SOV rate | 35% |
| Seattle Pacific University | 50% SOV rate | 46% |
| Seattle University (student, faculty, staff) | 55%, 60%, 40% SOV rate | 50%,39%,39% |
| North Seattle College | 55% SOV rate | ? |
| Swedish Hospital | 50% SOV rate | 38% |
| Swedish Cherry Hill | 50% SOV rate | 56% |
| South Seattle College | 35% SOV rate | ? |
| University of Washington | AM / PM Vehicle Cap | 20% |



Background: *How does the UW SOV rate compare to other Universities?*



Background: How does UW SOV rate compare to Other Seattle Neighborhoods



UW Mode Split History:

Recent Changes with Link Light Rail

Increase in Transit Mode

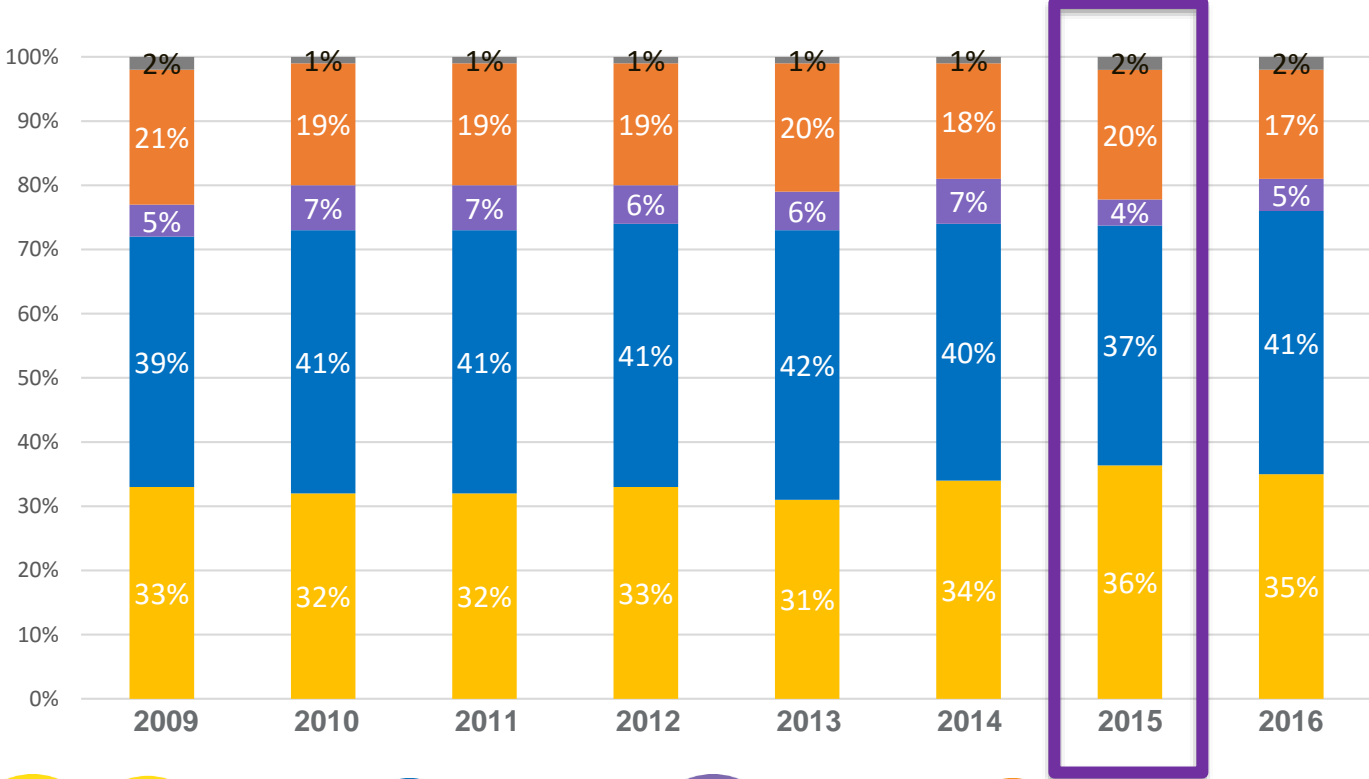
U Pass Influence on Mode Split Trends

- *AM peak hour*
- *PM peak hour*

*Comparison to other City
Neighborhoods*

Campus Mode Splits

Student, Faculty, Staff



Walks or bikes



Transit



Rideshare



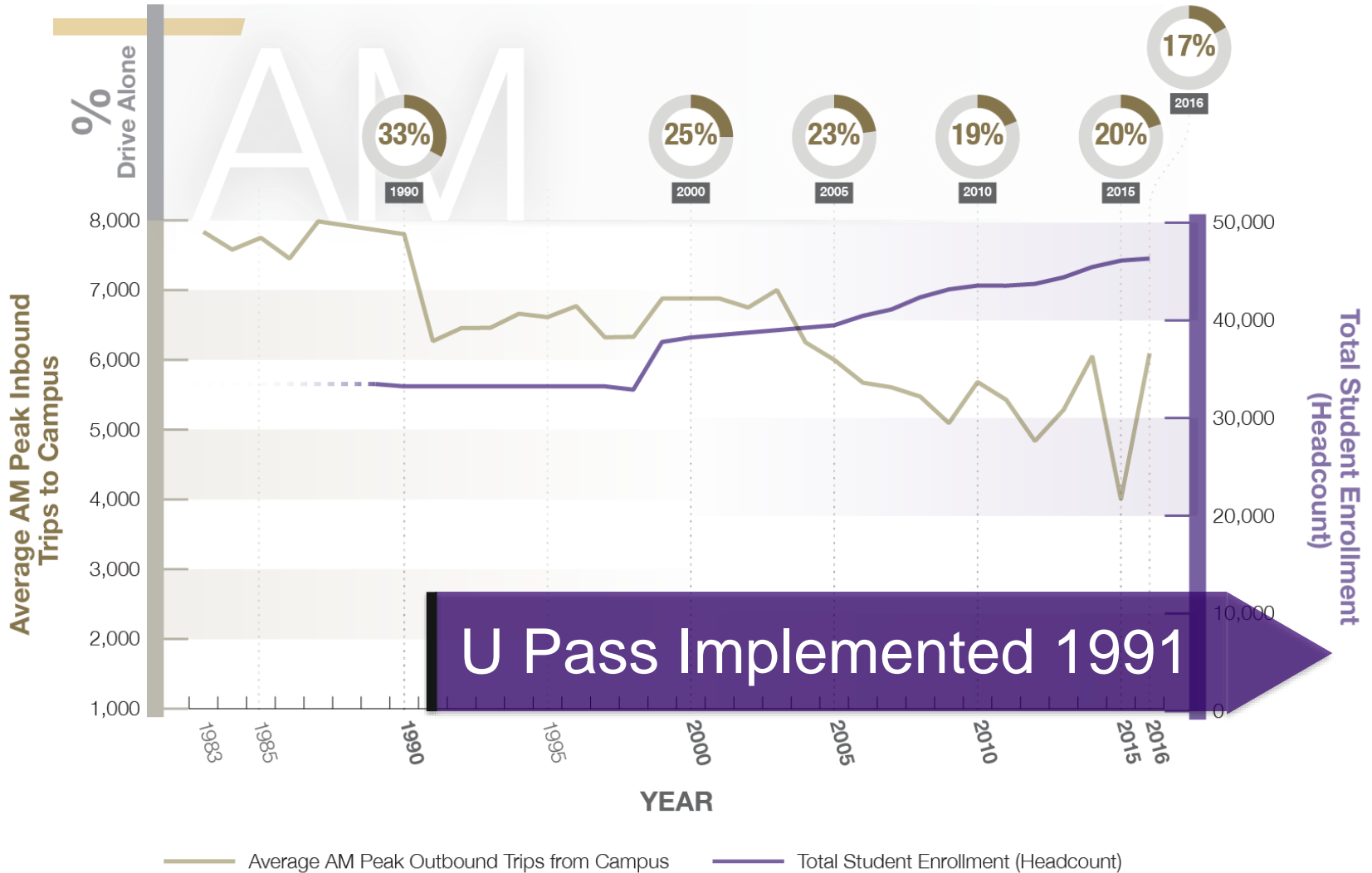
Drive Alone



Other

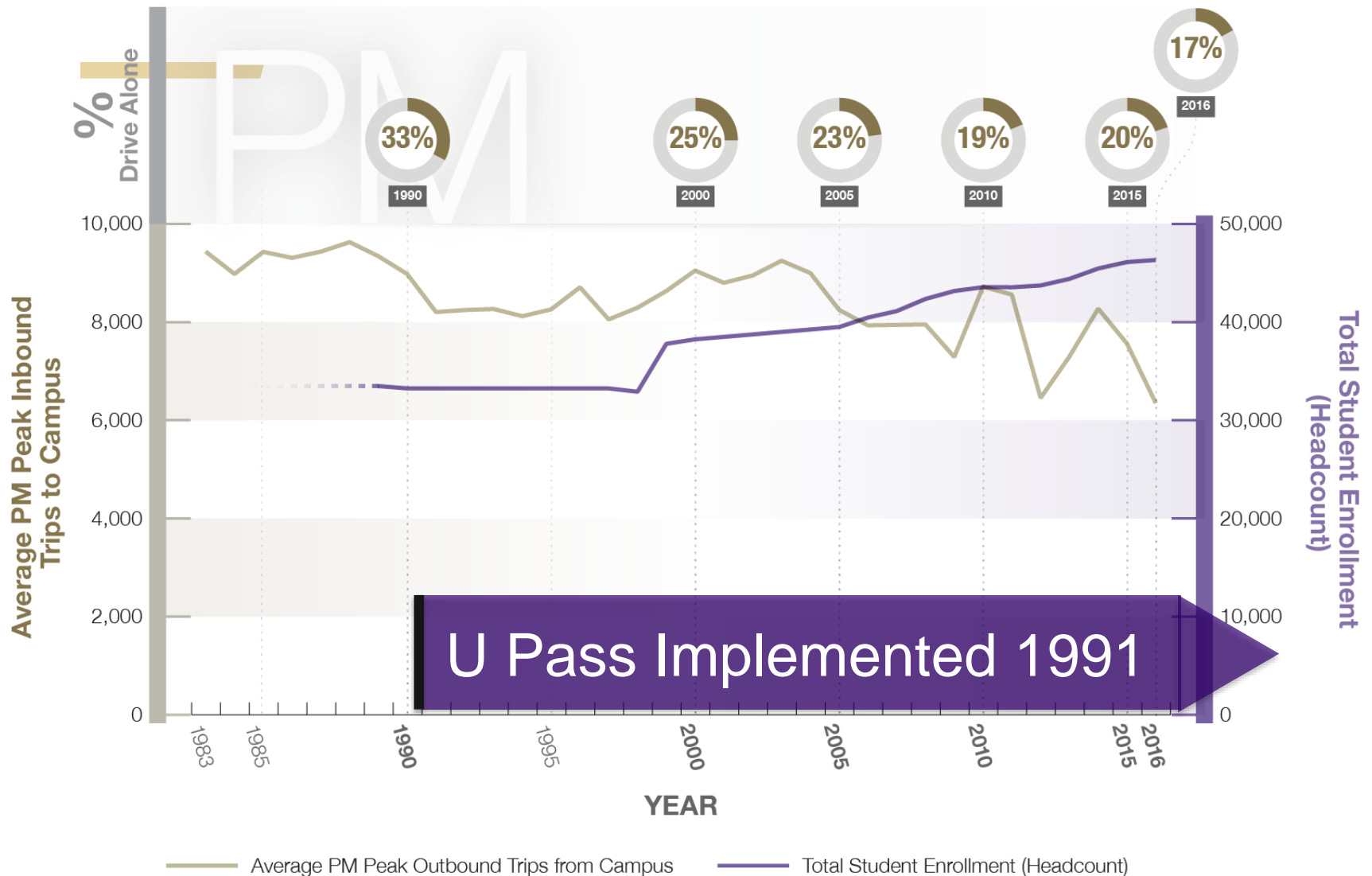


U Pass Influence



**To be supplemented with additional historical data as available*

U Pass Influence



**To be supplemented with additional historical data as available*

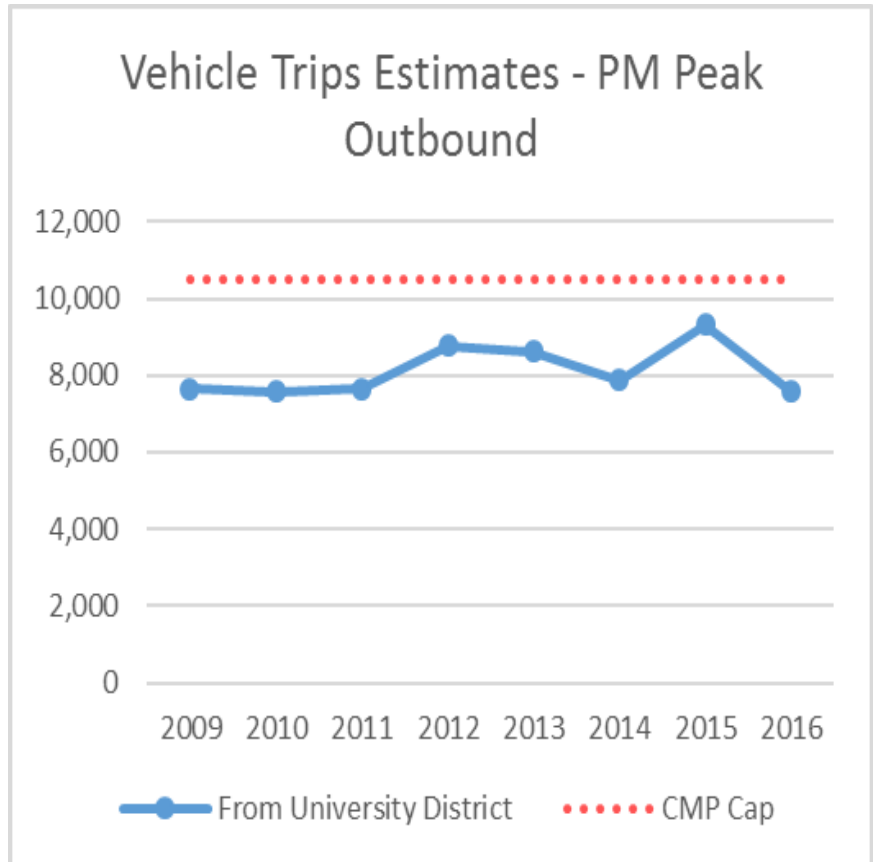
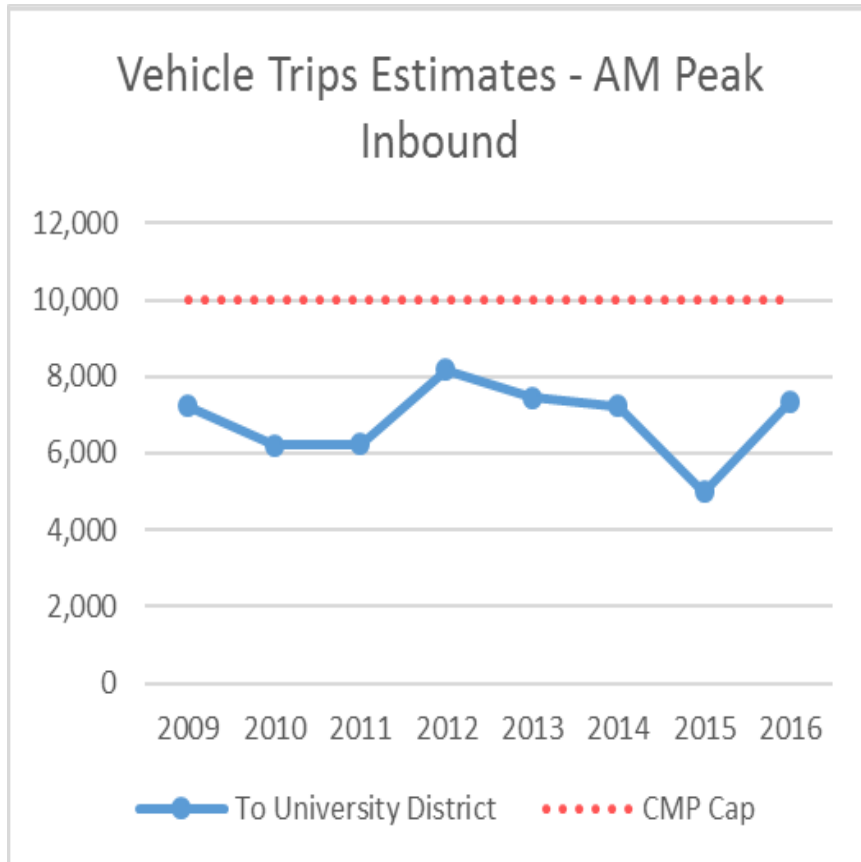
UW's TMP GOAL:

Single Occupancy Vehicle rate of 15% by 2028 monitored and reported in the CMP Annual Report



Additional Reported Measure: Campus Master Plan Trip Caps

 > Established at 1990 levels



Additional Reported Measure: Parking Cap

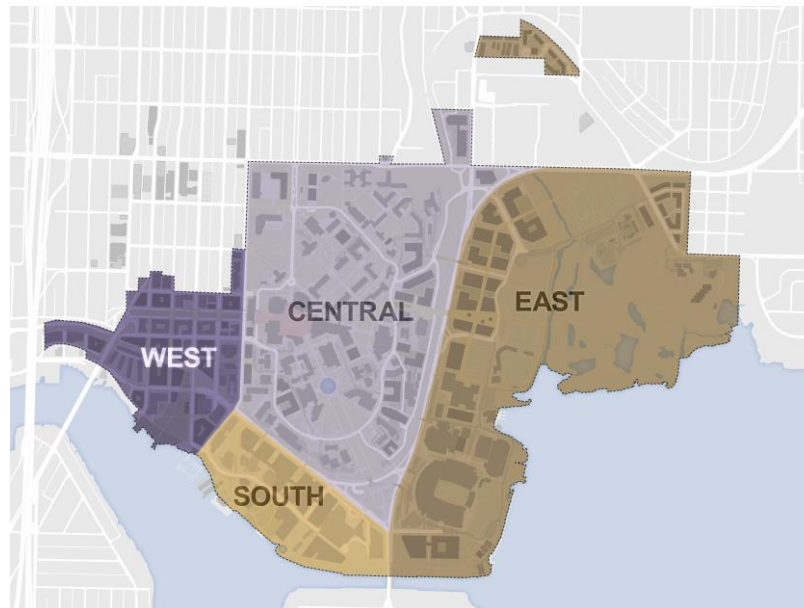
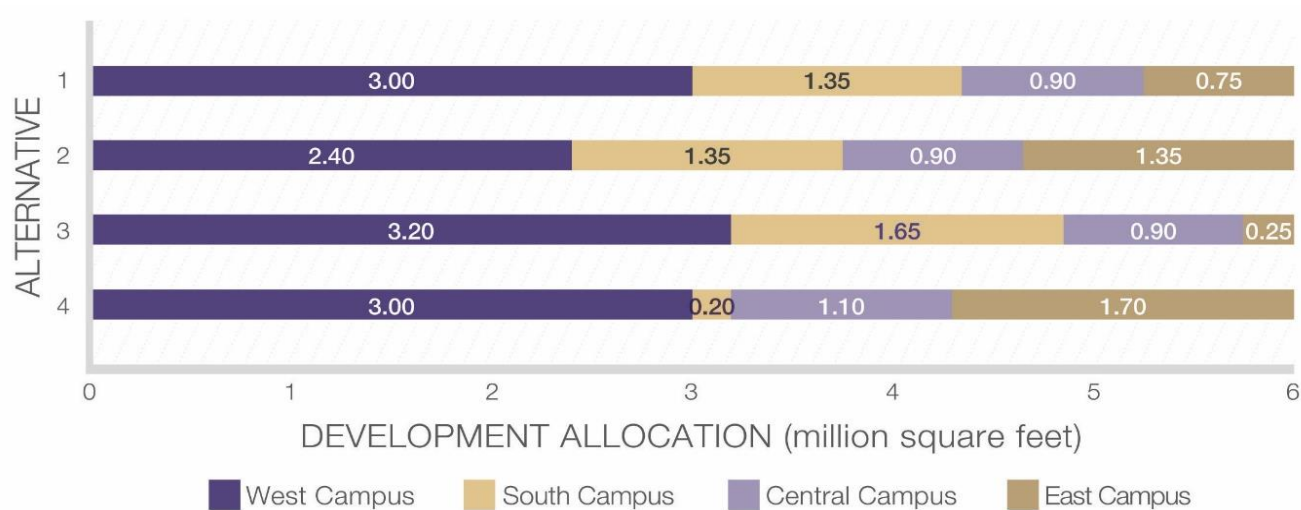
UW Peer Universities

Campus Parking Ratio Comparison

| University | Total Headcount | Total Parking Spaces | Spaces to Person Ratio |
|---------------------------------------|------------------------|-----------------------------|-------------------------------|
| Rutgers University | 58,378 | 24,407 | 0.42 |
| University of Virginia | 43,694 | 17,251 | 0.39 |
| University of Maryland | 47,964 | 18,373 | 0.38 |
| University of California LA | 76,386 | 23,948 | 0.31 |
| University of Colorado Boulder | 40,000 | 11,600 | 0.29 |
| University of Washington | 70,500 | 12,300 (Cap) | 0.17 |

Campus Master Plan Alternatives:

Alternatives Development Allocation by Campus Sector



Estimated 2028 All Action Daily Trips by Mode

| Trip Type | Transit | Walk | Bicycle | Other |
|----------------------------|---------------|---------------|--------------|------------|
| No Action | | | | |
| Student | 34,890 | 14,270 | 2,775 | 240 |
| Faculty | 3,280 | 460 | 920 | 140 |
| Staff | 12,450 | 595 | 1,110 | 350 |
| Total No Action | 50,620 | 15,325 | 4,805 | 730 |
| Future 2028 | | | | |
| Student | 40,960 | 16,755 | 3,260 | 280 |
| Faculty | 3,850 | 540 | 1,080 | 165 |
| Staff | 15,810 | 755 | 1,410 | 445 |
| Total Future | 60,620 | 18,050 | 5,750 | 890 |
| Net New Trips | | | | |
| Student | 6,290 | 2,570 | 500 | 45 |
| Faculty | 590 | 85 | 165 | 25 |
| Staff | 3,430 | 165 | 305 | 95 |
| Total Net New Trips | 10,310 | 2,820 | 970 | 165 |

Source: Transpo Group, 2016



All Action Alternatives Estimated Net New Future Vehicle Trips

| Trip Type | Daily Trips | AM Peak Hour | | | PM Peak Hour | | |
|----------------------------|--------------|--------------|------------|--------------|--------------|--------------|--------------|
| | | In | Out | Total | In | Out | Total |
| Net New Trips | | | | | | | |
| Student | 1,680 | 290 | 125 | 415 | 130 | 185 | 315 |
| Faculty | 1,350 | 285 | 120 | 405 | 205 | 295 | 500 |
| Staff | 2,600 | 670 | 285 | 955 | 395 | 565 | 960 |
| Total Net New Trips | 5,630 | 1,245 | 530 | 1,775 | 730 | 1,045 | 1,775 |
| Visitors (10%) | 565 | 125 | 55 | 180 | 75 | 105 | 180 |
| Total UW Trips | 6,195 | 1,370 | 585 | 1,955 | 805 | 1,150 | 1,955 |

Source: Transpo Group, 2016



Transportation Analysis Results: ***Methodology, Approach and*** ***Results***

Environmental Impact Study: Methodology & Assumptions

- Conservative Analysis Assumes 20% SOV
- 2018 Base Year to 2028 Future Year Build out of 6 MSF
- Considered Multimodal Measures
- Assumes U District Upzone as it was approved in March 2017
- Assumes Regional and State Investments that have been approved and funded
 - Move Seattle Implementation Investments
 - Metro Connects 2025 Plan
 - Completion of ST 2 and ST 3 investments by 2028
 - WSDOT SR 520 Completion



Methodology

UW Transportation Demands



UW Transportation Demands

Peak Hour Commute Traffic Analysis.

The increased commute travel demand by mode and parking demands will be forecasted by calibrating a model to be consistent with the 2014 UW survey.

Peak Parking Demands Analysis.

The peak parking demands will be forecasted from the UW transportation demand model, calibrated to existing observed levels, and increased based on forecast campus population growth.



Methodology

Bicyclists/Pedestrian/Transit



Bicyclists

Identifying existing and planned bicycle facilities in the campus area and those routes used by bicyclists to access the campus will be used as a baseline assumption for impact analysis. Impacts will be based on the UW-added transportation demands identified above.



Pedestrians

Identify existing and planned pedestrian facilities in the campus area and those routes used by pedestrians to access the campus. The analysis will focus on general connectivity and quality of the route. Impacts to these routes will be based on the added UW demands in the multimodal transportation demand identified above.



Transit

Impacts of increased ridership due to UW growth will be reviewed relative to the overall capacity and planned service and facility changes of the transit system. The analysis will also consider the connectivity to the major transit centers in the area or local population.



Performance Measures

Bicyclists/Pedestrian/Transit



Pedestrian

- Proportion of development within ½-mile of multi-family housing
- Proportion of development within ½-mile of University of Washington residence halls
- Pedestrian crossings of edge arterials
- Standing areas at Transit Stops
- Quality of pedestrian environment
- Burke-Gilman Trail capacity



Bicycle

- Bicycle parking & utilization
- Quality of bicycle environment
- Burke-Gilman Trail capacity



Transit

- Proportion of development within ¼ -mile of RapidRide
- Proportion of development within ½ -mile of Light Rail
- Transit travel times/speeds
- Transit loads / bus and train crowding
- Transit stop capacity



Methodology

Traffic Volumes/Forecasts



Traffic Volumes

2028 forecast baseline PM Peak hour traffic volumes will be developed based on the City of Seattle preferred alternative for the Comprehensive Plan. UW growth traffic will be added and allocated to parking proportional to the anticipated supply of parking on campus. Adherence to the vehicle trip caps will be reported.

The added area density associated with the proposed U-District Height and Density study will also be considered as a potential baseline traffic condition under Cumulative Impacts.



Performance Measures Vehicles



Vehicles

- Peak Hour Arterial Operations
- Peak Hour Intersection Operations
- Peak Hour Comp Plan Screenlines
- Peak Hour Cordon Screenlines
- AM and PM Peak University Trip Cap
- AM and PM Peak University District Trip Cap
- Mid-day Parking Supply & Utilization
- Mid-day Parking Cap



Methodology

Parking/Traffic Safety



Parking

Changes to the overall forecasted parking demand and supply will be evaluated with the proposed UW growth and Campus Master Plan alternative-specific growth allocation. This will include consideration of impacts both within and outside the MIO boundaries. Forecast parking demands will be reported relative to the identified parking cap 12,300 spaces.



Traffic Safety

Impacts of increased traffic and pedestrians on safety in the area will be assessed. This assessment will consider existing high accident locations, frequency of collisions, and any current trends at an intersection level.



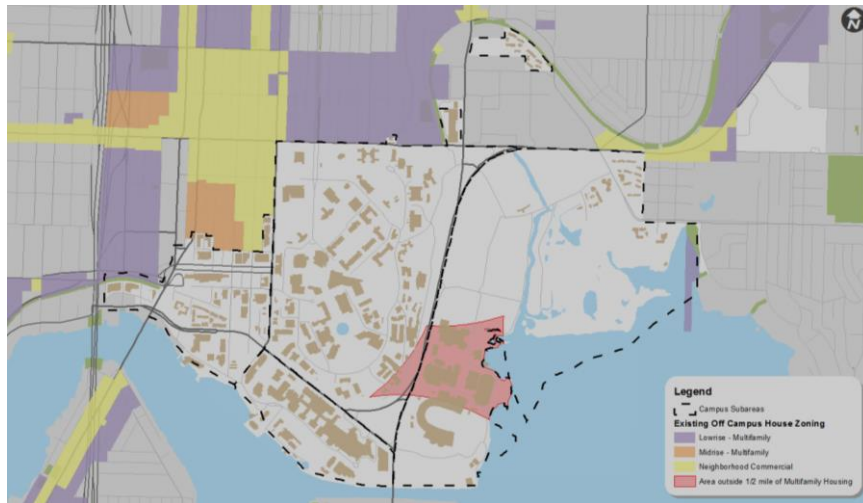
Transportation Analysis in the EIS: *Findings*



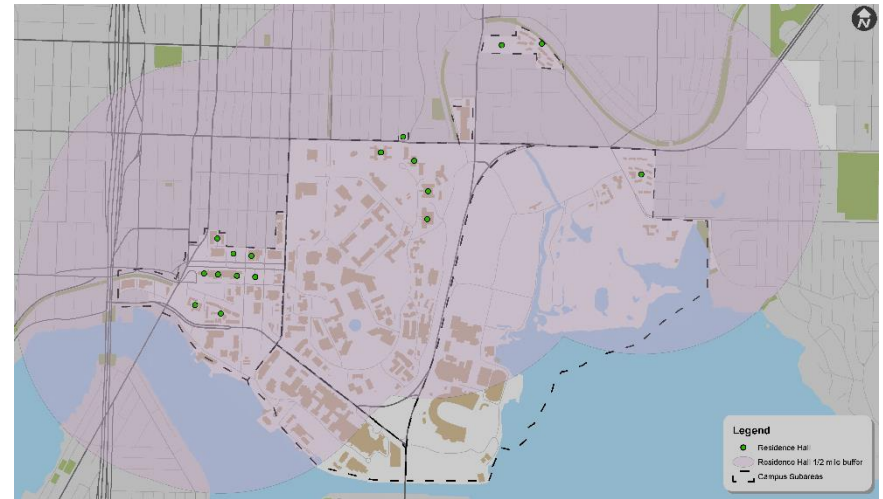
Proportion of development proximate to housing

35% Walk or Bike

With the exception of development in the East, most new development is within walking distance to Dorms and U District Housing



Proportion of development proximate to off-campus housing



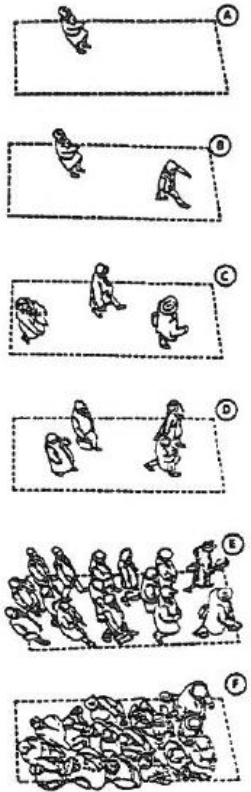
Proportion of development proximate to residence halls





Pedestrians crossings of edge arterials

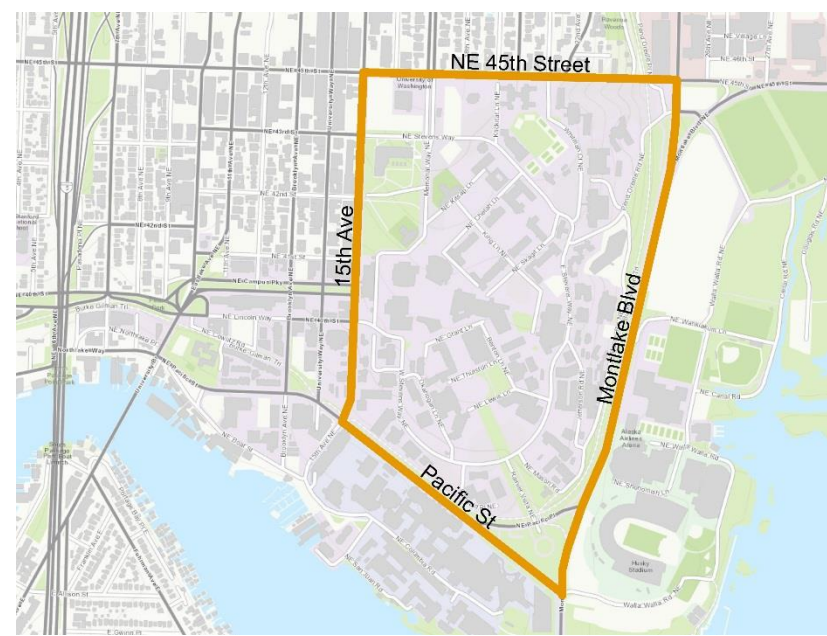
35% Walk or Bike



> **Level of Service A** Walking speeds freely selected and conflicts unlikely

> **Level of Service F** Walking speeds restricted, frequent unavoidable contact flow is unstable

Source: HCM 2000 (17).





Results

35% Walk or Bike

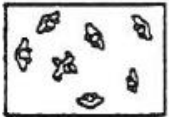
Pedestrians crossing of edge arterials





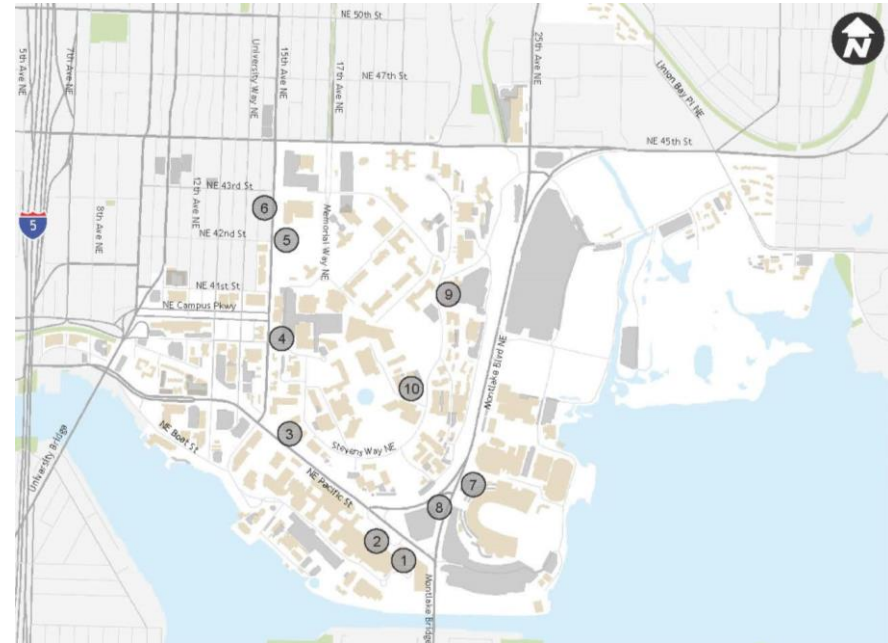
Standing areas at transit stops

35% Walk or Bike



> **Level of Service A**
Standing and free circulation through the queueing area

> **Level of Service F** Virtually all persons within the queue are standing in direct physical contact with others





Results

Pedestrian Transit Stop Space

35% Walk or Bike

| Location – Stop # | Existing | | No Action | | Alternative 1-4 | |
|--|-------------------|-----|-------------------|-----|-------------------|-----|
| | Space (sf/person) | LOS | Space (sf/person) | LOS | Space (sf/person) | LOS |
| Montlake at Pacific St, Bay 1 - 29247 | 49.5 | A | 45.0 | A | 10.9 | B |
| Montlake at Pacific St, Bay 2 - 29405 | 42.9 | A | 39.0 | A | 10.4 | B |
| Pacific, mid-block - 29240 | 8.3 | C | 7.5 | C | 1.7 | F |
| 15 th at Campus Parkway - 29440 | 109.3 | A | 62.4 | A | 8.3 | C |
| 15 th at 42 nd - 11352 | 88.5 | A | 50.5 | A | 6.5 | D |
| 15 th at 43 rd – 10912 | 48.7 | A | 27.8 | A | 7.1 | C |
| Montlake at Pacific Pl, Bay 4 - 25240 | 42.9 | A | 39.0 | A | 24.3 | A |
| Montlake at Pacific Pl, Bay 3 – 25765 | 119.6 | A | 108.7 | A | 67.9 | A |
| Stevens Way at Pend Oreille Rd – 75410 | 20.9 | A | 19.0 | A | 12.2 | B |
| Stevens Way at Benton Ln - 75403 | 40.1 | A | 36.4 | A | 23.7 | A |



Bike Ped Trail Capacity

35% Walk or Bike





Results

Bike Ped Trail Capacity

35% Walk or Bike

- > Recently widened segments meet future capacity
- > University plan for the Trail continues separation
- > Currently seeking funding



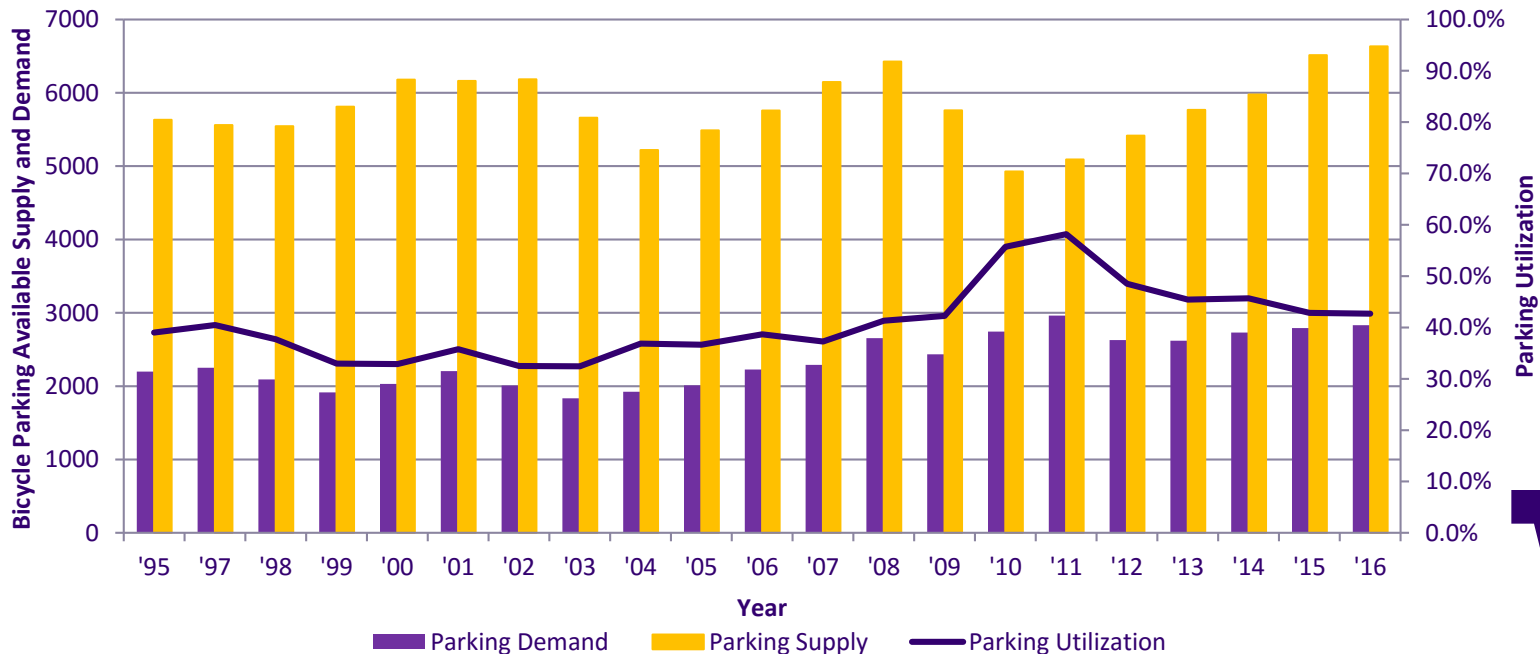


Bike Parking

35% Walk or Bike

- UWTS collects utilization data
- Current bike racks have adequate capacity (Under 60%)

Campus trends in bicycle parking and rack utilization (1995 - 2016)





Results

Bike Ped Parking

35% Walk or Bike

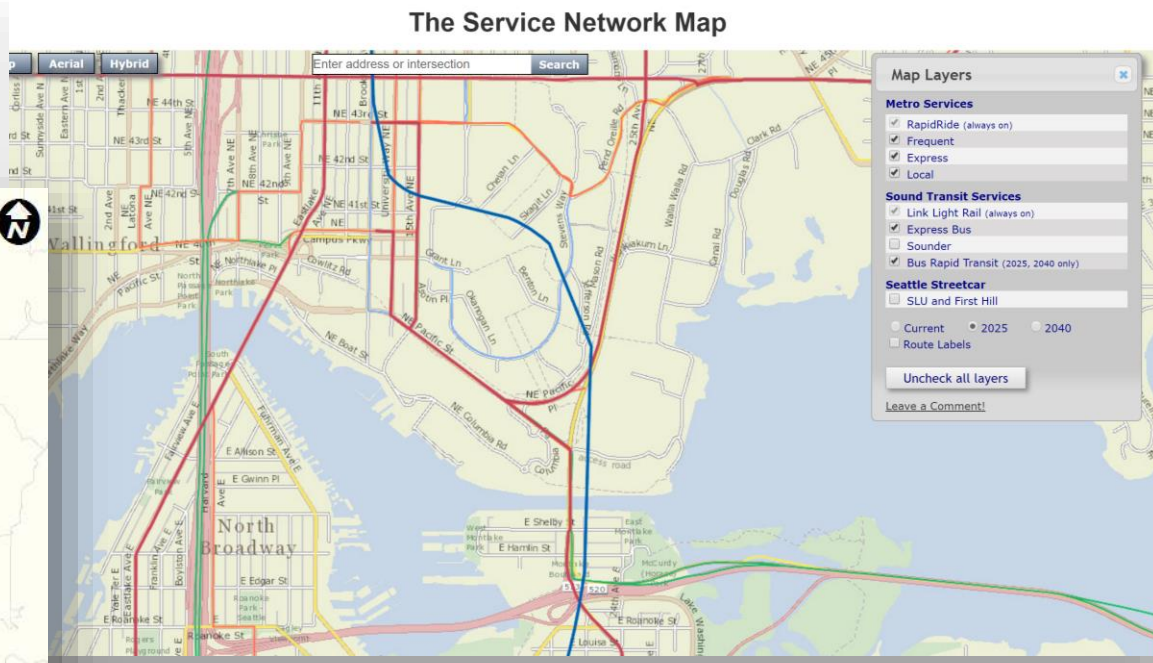
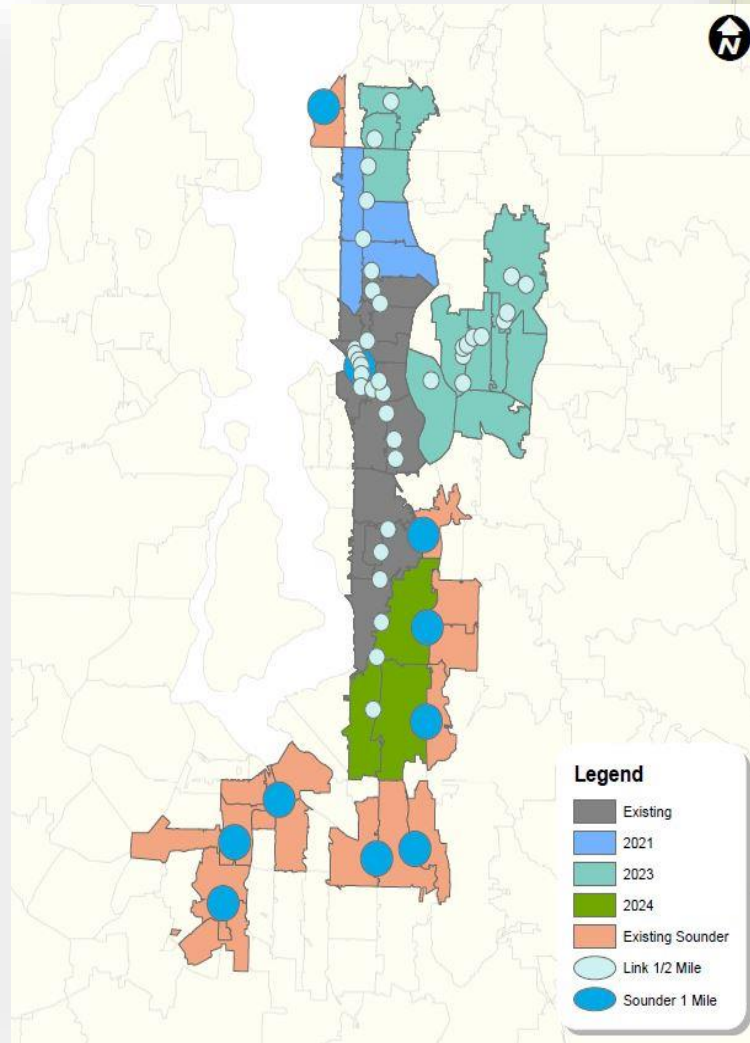
- UWTS is developing secure bike parking
- New development will have adequate racks consistent with current accommodations



37% Transit



Proportion of Development Proximate to Transit



- > Metro service plan for 2025 with RapidRide
- > ST Light Rail Extensions increases access for University Faculty and Staff to rapid and reliable transit
- > Conservative assumption that drive alone stays at 20%

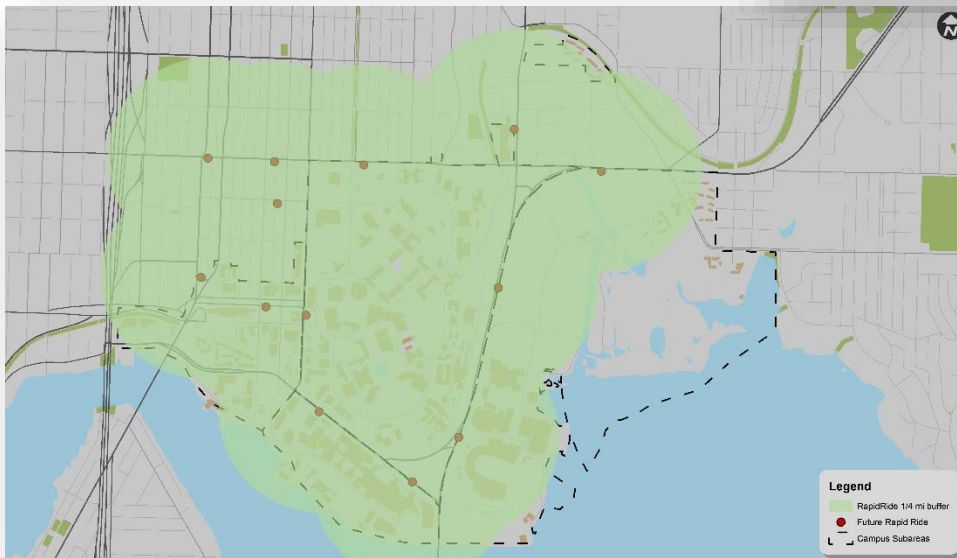
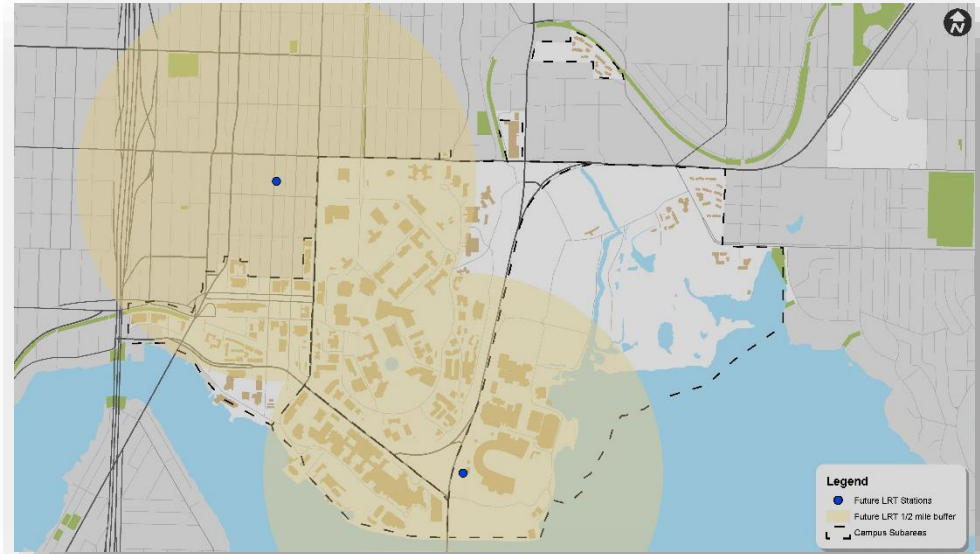




Results

Proportion of Development Proximate to Transit

Proportion of development proximate to Light Rail

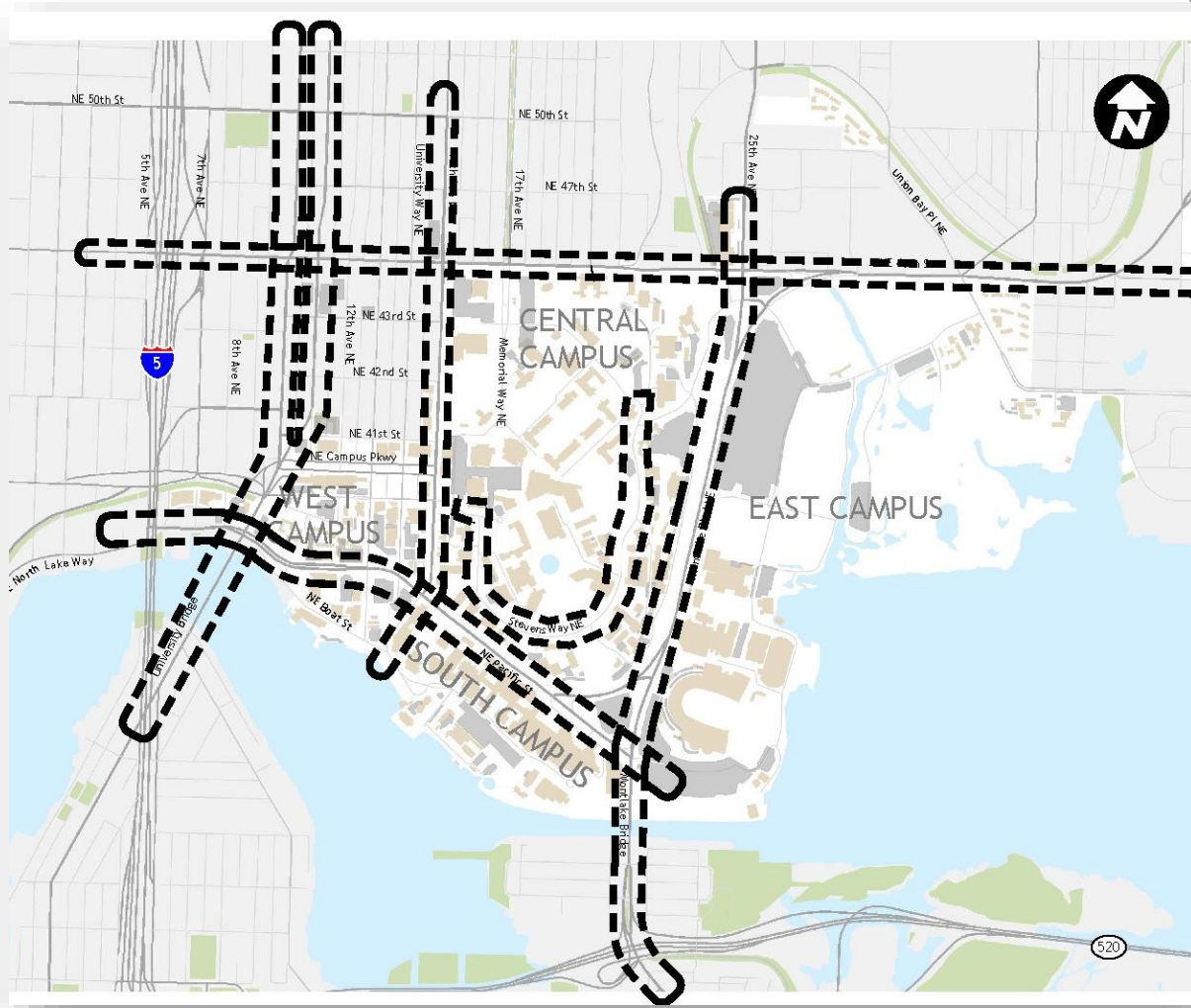


Proportion of development proximate to RapidRide





Transit speeds



- > Metro service plan for 2025 with RapidRide
- Increased dwell times for increased passengers



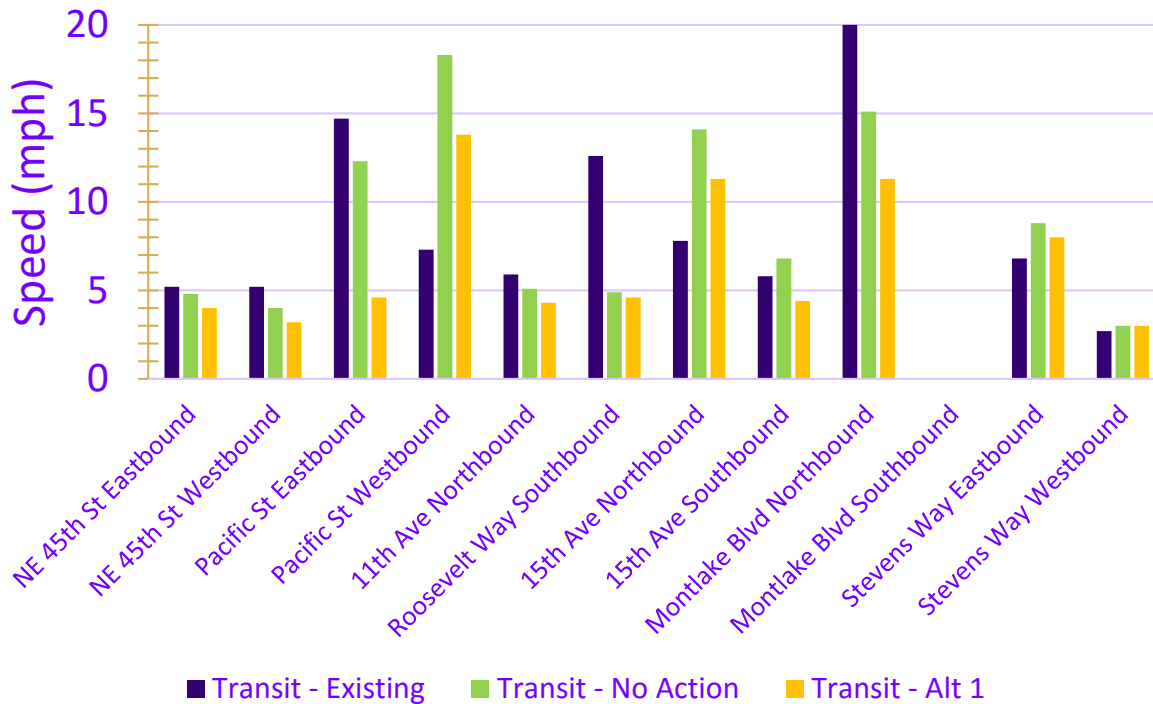


Results

Transit Speeds

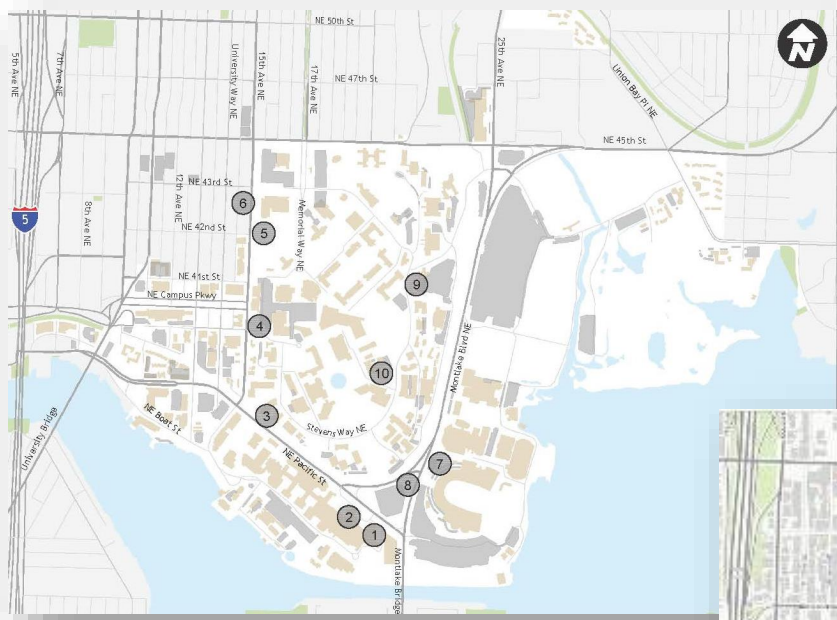
- > Pacific Eastbound
- > Montlake Northbound

Transit Speed Comparison by Scenario



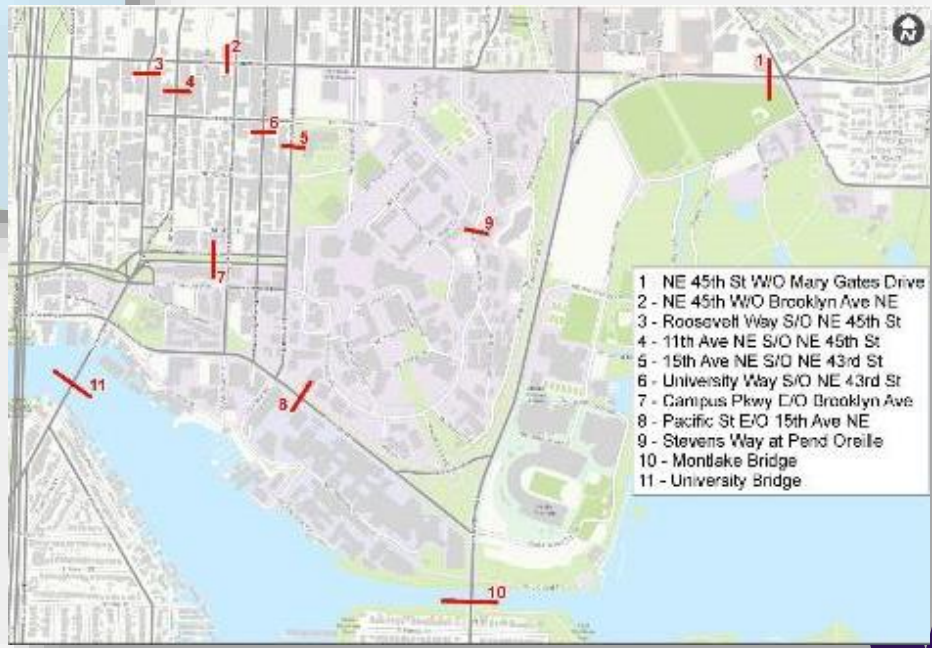


Transit loads / crowding



- > Metro service plan for 2025 with RapidRide
- > 10 Key campus stops

> 12 Screenlines and Light Rail





Results

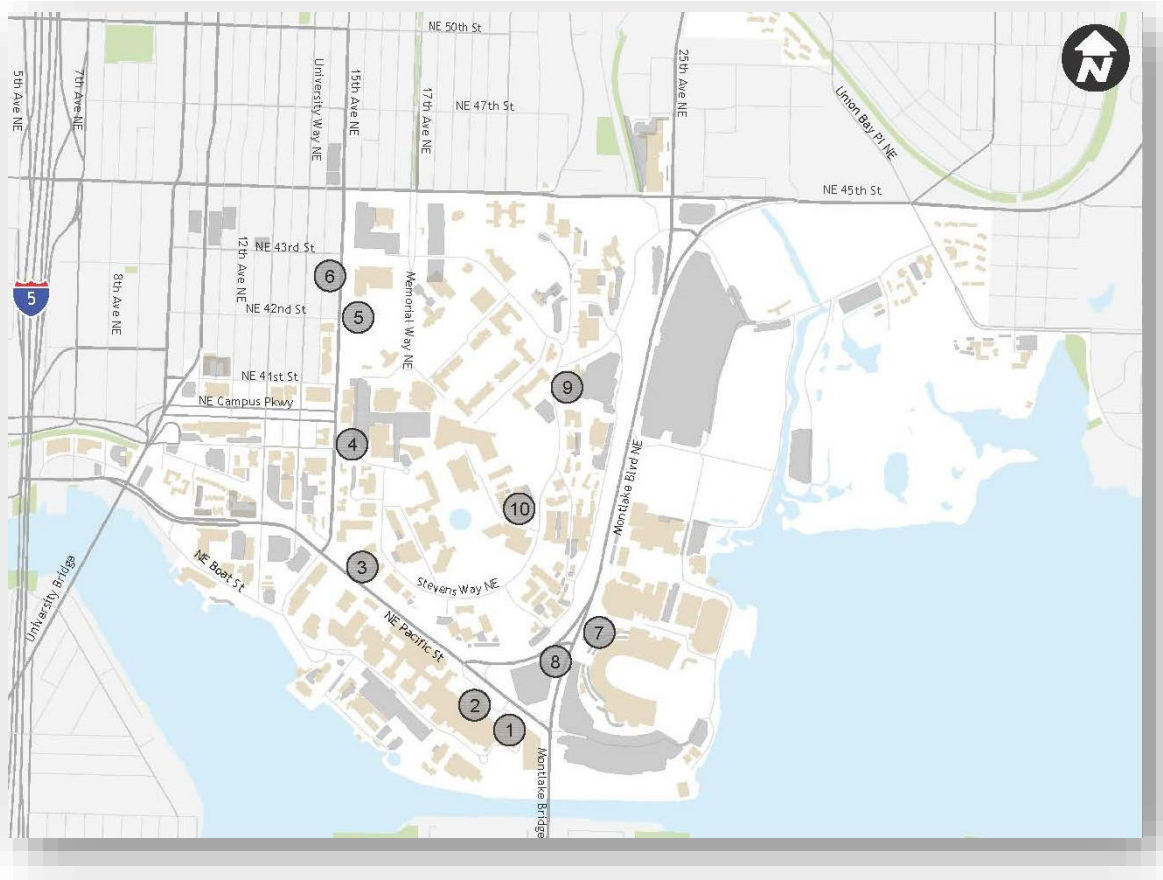
| Screenline # | Location | Alt 1 Capacity | Alt 1 Demand | Change from No Action | Alt 1 D/C |
|--------------------|---------------------------------|----------------|--------------|-----------------------|-----------|
| 1 | NE 45th St W/O Mary Gates Drive | 2,430 | 991 | 176 | 41% |
| 2 | NE 45th W/O Brooklyn Ave NE | 1,040 | 837 | - | 80% |
| 3 | Roosevelt Way S/O NE 45th St | 325 | 121 | - | 37% |
| 4 | 11th Ave NE S/O NE 45th St | 325 | 216 | - | 67% |
| 5 | 15th Ave NE S/O NE 43rd St | 4,200 | 1,604 | 402 | 38% |
| 6 | University Way S/O NE 43rd St | 650 | 518 | - | 80% |
| 7 | Campus Pkwy E/O Brooklyn Ave | 1,210 | 1,163 | 168 | 96% |
| 8 | Pacific St E/O 15th Ave NE | 4,140 | 1,363 | 511 | 33% |
| 9 | Stevens Way at Pend Oreille | 1,860 | 1,217 | 42 | 65% |
| 10 | Montlake Bridge | 2,270 | 1,457 | 235 | 64% |
| 11 | University Bridge | 1,380 | 758 | 134 | 55% |
| Bus Total | | 730 | 576 | 1,667 | 79% |
| Link A | U-District Station | 19,830 | 10,245 | 1,056 | 52% |
| Link B | UW/Stadium Station | 23,400 | 17,331 | 603 | 74% |
| Link Total | | 23,400 | 16,879 | 1,659 | 72% |
| Grand Total | | 46,800 | 34,209 | 3,326 | 73% |

an





Transit Stops



- > Metro service plan for 2025 with RapidRide
- > 10 Key campus stops





Results

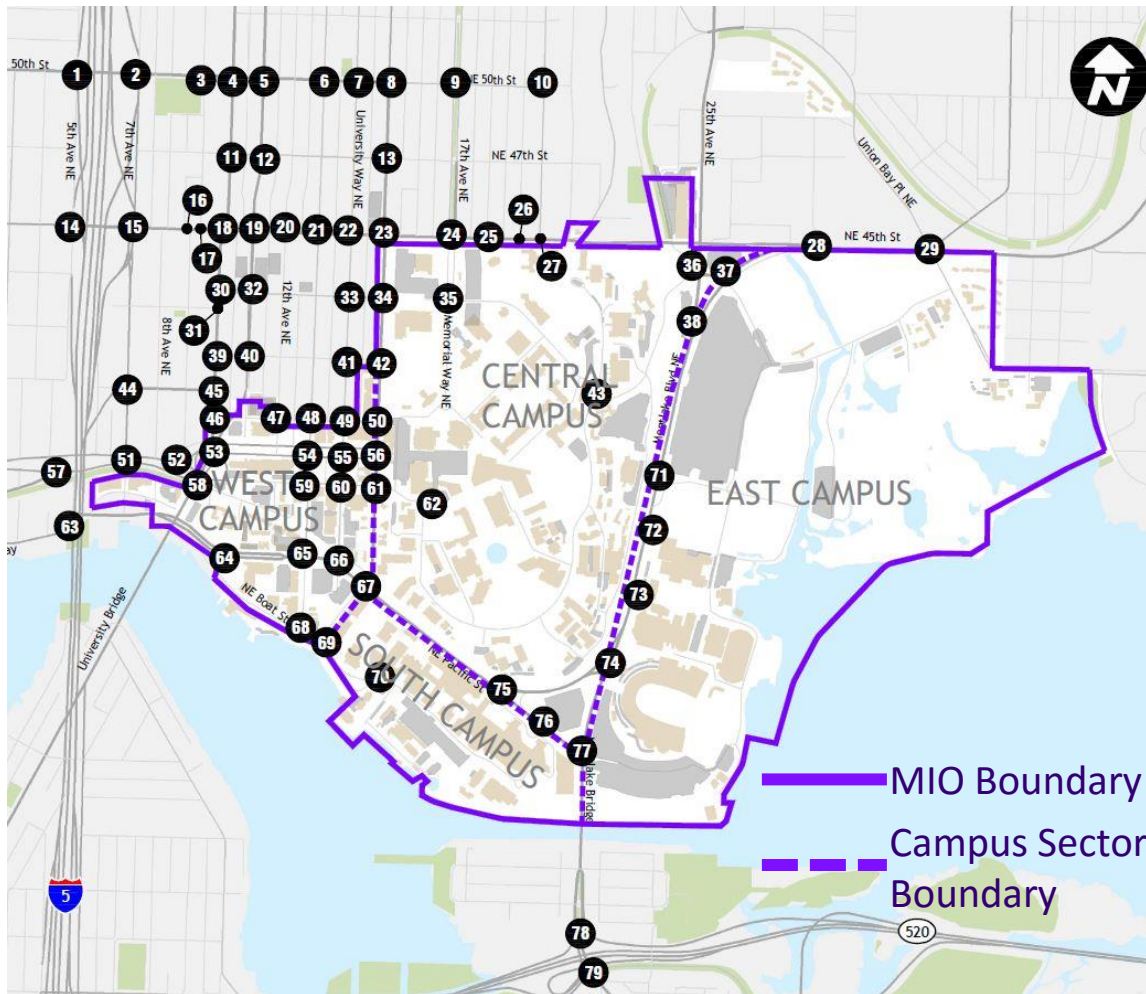
Transit Stops

Existing

- > Current stop locations Pacific, Montlake, 15th
- > Data from Metro

| Stop | Capacity (buses/hour) | Existing Demand (buses/hour) | Forecast Demand (buses/hour) |
|---------------------------------|--------------------------|---------------------------------|---------------------------------|
| 15th Ave at 42nd St (NB) | 68 | 30 | 35 |
| 15th Ave at 43rd St (SB) | 69 | 30 | 35 |
| 45th St & University Way (EB) | 56 | 18 | 8 |
| 45th St & Brooklyn Ave (WB) | 39 | 18 | 8 |
| Pacific St & 15th Ave (SEB) | 70 | 35 | 33 |
| Pacific St & 15th Ave (NWB) | 82 | 35 | 33 |
| Montlake Blvd & Pacific Pl (NB) | 28 | 18 | 19 |
| Montlake Blvd & Pacific Pl (SB) | 67 | 18 | 19 |

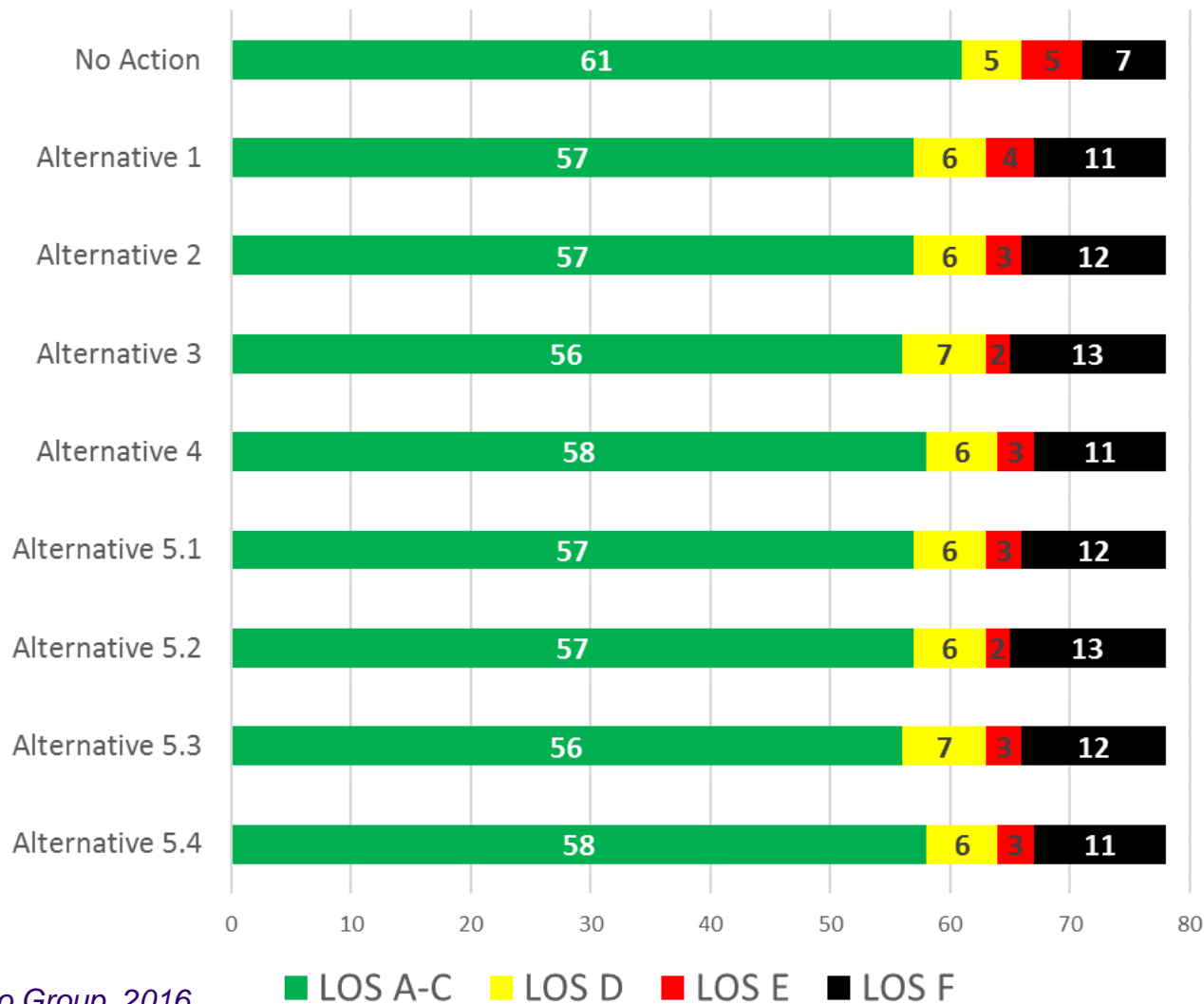
Study Area Intersections and Analysis Periods



- 79 Intersections
- Weekday PM Peak Hour
- 2028 Horizon Year

Findings

Summary Intersection Level of Service

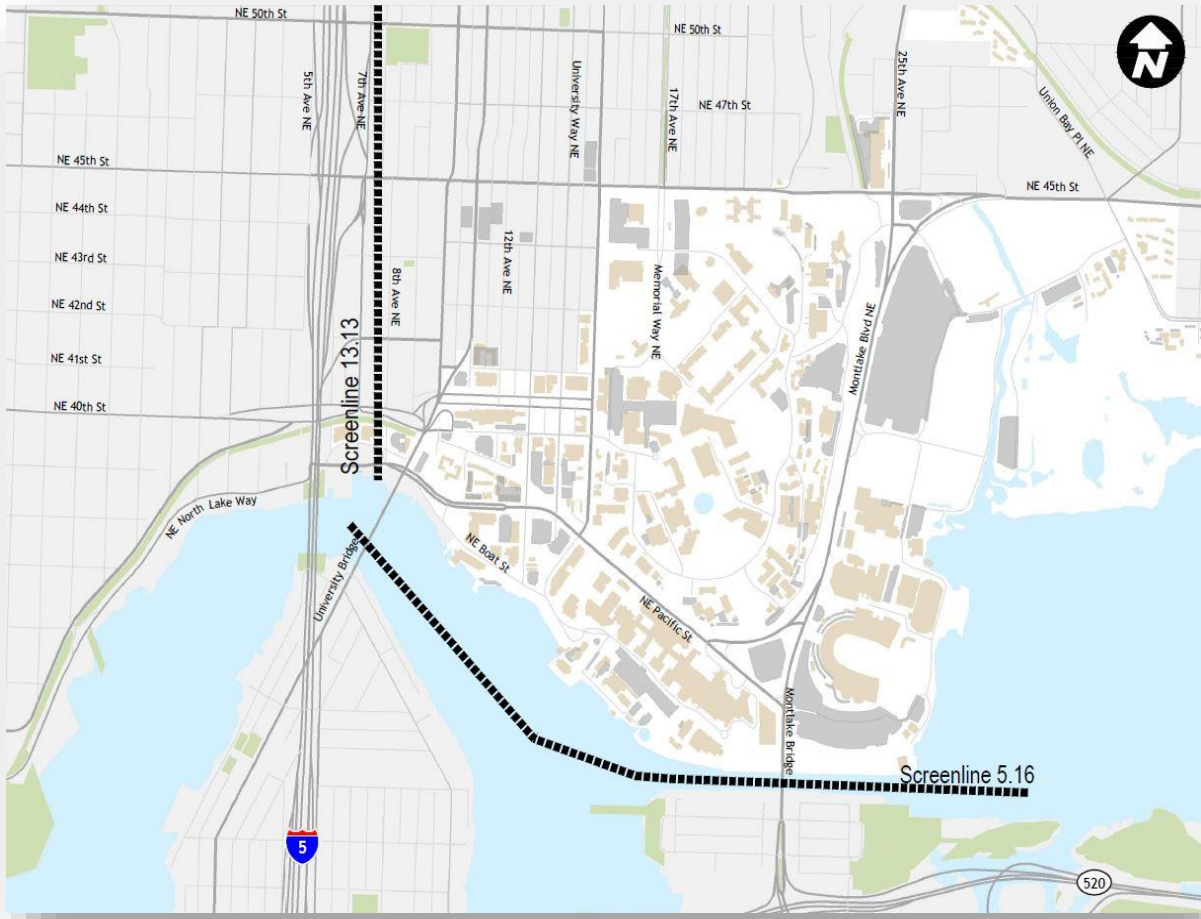


Source: Transpo Group, 2016



Study Area Screenlines

Screenline 13.13 and 5.16



Future Alternative Screenline Volume and Volume to Capacity (V/C) Analysis

| Screenline | No Action | Alternative 1 | Alternative 2 | Alternative 3 | Alternative 4 | Capacity V/C LOS Standard |
|---|-----------|---------------|---------------|---------------|---------------|---------------------------|
| 5.16 – Ship Canal, University and Montlake Bridges | | | | | | |
| NB Volume | 3,805 | 4,015 | 4,022 | 4,066 | 4,028 | 4,210 |
| NB V/C | 0.90 | 0.95 | 0.96 | 0.95 | 0.96 | 1.20 |
| SB Volume | 3,775 | 4,097 | 4,107 | 4,094 | 4,095 | 4,210 |
| SB V/C | 0.90 | 0.97 | 0.98 | 0.97 | 0.97 | 1.20 |
| 13.13 – East of I-5, NE Pacific Street to NE Ravenna Boulevard | | | | | | |
| EB Volume | 3,510 | 3,915 | 3,839 | 3,925 | 3,902 | 6,119 |
| EB V/C | 0.57 | 0.64 | 0.63 | 0.64 | 0.64 | 1.00 |
| WB Volume | 3,780 | 4,339 | 4,064 | 4,343 | 4,342 | 6,119 |
| WB V/C | 0.62 | 0.71 | 0.75 | 0.71 | 0.71 | 1.00 |

Source: NACTO

Note: Alternative 5 would be the same as the related Action Alternative



Questions?