

# Getting to CPP: Mobility in a New Era

February 27, 2019

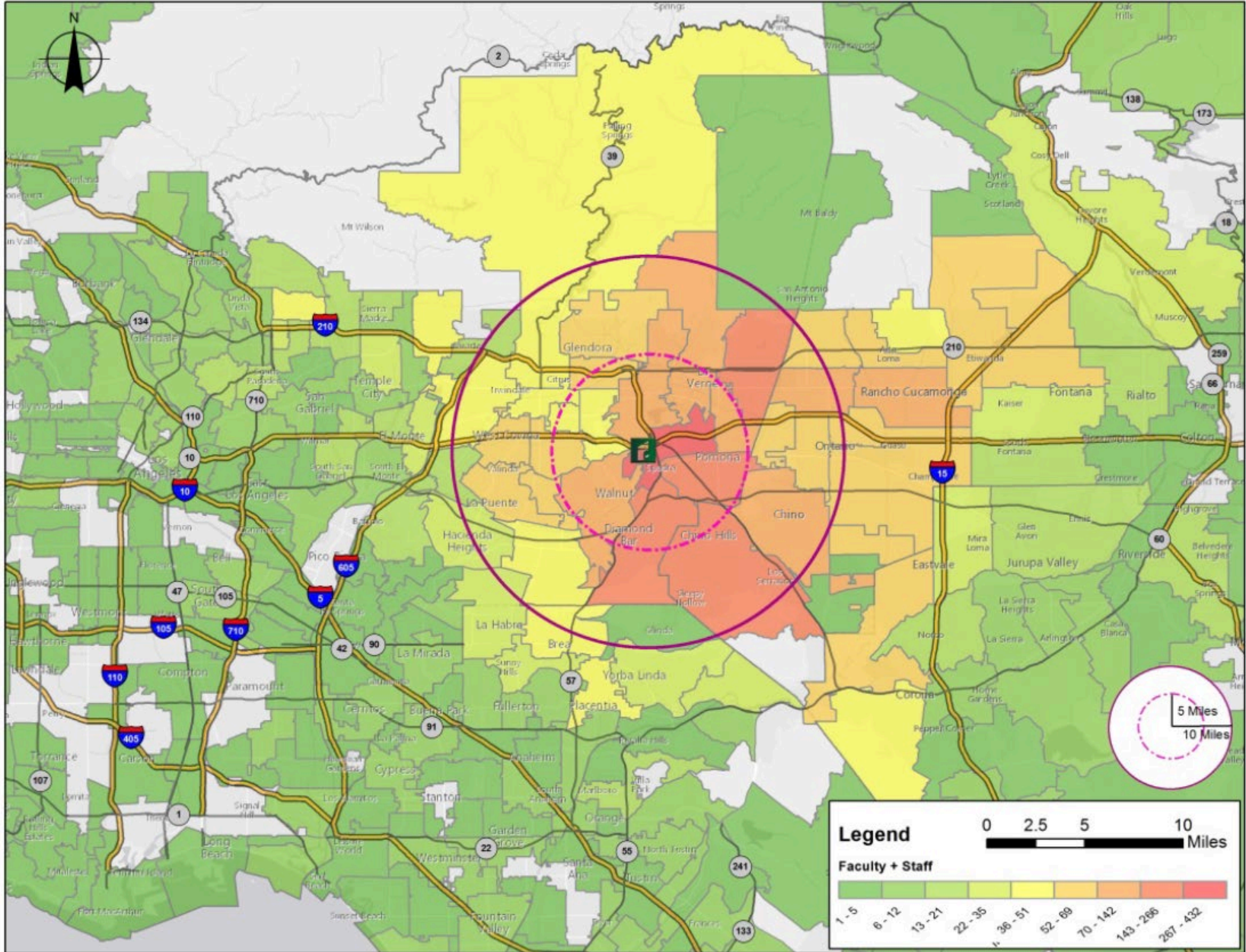
Briefing to Academic Senate

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# Faculty/staff commuting patterns

*Even more potential for bus/bike/walk*



Source: The Foothill Gold Line and Cal Poly Pomona: Travel patterns, millennials' preferences, and transit advocacy.  
Prepared for the Foothill Gold Line Construction Authority  
October 31, 2016  
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# How people get here...

Commute Mode	Faculty	Staff	Students
Drive alone	83.2%	70.9%	78.5%
Carpool	<i>9.7%</i>	<i>15.2%</i>	5.7%
Public transit	0.7%	2.8%	<i>9.2%</i>
Bicycle	1.0%	0.8%	1.8%
Walk	0.7%	7.8%	0.9%
Telecommute	2.7%	0.3%	-
Other	2.0%	2.2%	3.9%

# Then... and now, campus and transport

	1986	2019
Campus concept	<ul style="list-style-type: none"><li>• Degrees granted: 2,856</li><li>• Spread out buildings</li><li>• Commuter campus</li><li>• Campus as “secret garden”</li></ul>	<ul style="list-style-type: none"><li>• Degrees granted: 6,307 (AY 17/18)</li><li>• Intensification and clustering</li><li>• More student housing, Lanterman</li><li>• Strategically managed use of buildings and parking</li><li>• Campus in relation to its neighbors</li></ul>
Transportation concept	<ul style="list-style-type: none"><li>• Everybody drives</li><li>• Roadway, parking expansion</li><li>• Transit as last resort</li><li>• Regular daily travel patterns</li></ul>	<ul style="list-style-type: none"><li>• Multimodal transportation</li><li>• Traffic and parking management</li><li>• Transit incentives: eco-pass, better service, 1<sup>st</sup>-mile connections</li><li>• Commuters use a menu of modes</li><li>• Bikes and scooters</li></ul>

# Then... and now, technology

	1986	2019
Technology context	<p>Focus on facilities: roads, buses, etc.</p> <p>Static information (OK, spreadsheets <i>were</i> cool...)</p>	<ul style="list-style-type: none"><li>• Big picture: focus on mobility as a service</li><li>• Telecommunication substitution of trips (student services, staff work, hybrid and on-line classes)</li><li>• Real-time transit information (GoLA, Moovit, transit, NextBus)</li><li>• Real-time trip planning and parking information (aggregator apps)</li><li>• Real-time ridematching (Bosch, Carma)</li><li>• Self-parking vehicles allow vehicle stacking</li><li>• Carshare (e.g., Zip car or peer-to-peer Getaround)</li><li>• Microtransit - small demand responsive buses (Bridj, Leap, Chariot)</li><li>• Electric busses (Foothill is making the switch)</li><li>• Bikeshare, docked or dockless</li><li>• Electric bicycles and bikeshare</li><li>• Scootershare (Bird, Lime, etc.)</li><li>• Electronic payment (pay-by-cell, smart card, bundling)</li><li>• Dynamic pricing of road use and parking (I-10, DTLA on-street parking)</li><li>• High Occupancy Toll lanes (single occupants can buy in)</li><li>• Transportation Network Companies, sequential and concurrent sharing (Uber/Lift)</li><li>• Autonomous shuttles (Bosch)</li><li>• Autonomous private vehicles (Waymo, Cruise)</li></ul>

# Campus transportation in a broader context

- *Social justice* – students without a car should be able to make timely progress toward their degree
- *Environmental sustainability* – reduce pollution and greenhouse gas emissions (CPP pledge carbon neutrality by 2030)
- *Efficient land use* – surface parking is a poor use of land
- *Sense of community* – the cultural core of campus should not be a parking lot

# The narrative about parking

*“I can’t find a space.” There is always a space in the overflow lots in Innovation Village, but...*

- May not be feasible for adjuncts*
- Those teaching evening classes*
- Those needing to carry equipment, books*

*Shuttle time to Building 7: (including waiting): 15 – 35 minutes*

*Walk time to Building 7: 20 – 30 minutes*

*Bronco Shuttle Route D*



# Cal Poly Pomona's multimodal transportation movement and the TAC



*Note: Foothill has pledged an all-electric fleet by 2030, charged with renewable energy sources*



# Parking complaints $\neq$ automatically build parking

1. Programs that improve transit, carpool and active transportation, reducing parking demand

*AND*

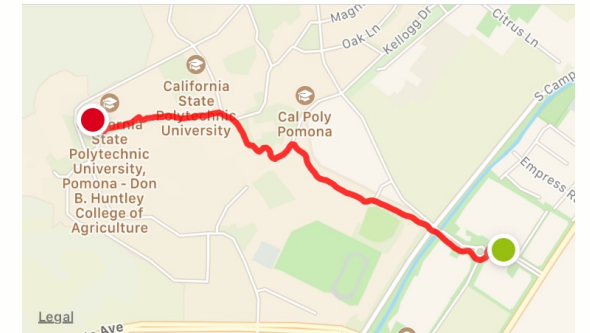
1. Parking use efficiency

*Assess results...then*

2. Temporary/shared parking

*Assess results...then*

3. Parking construction (if benefits justify the cost)



**A**  
**1.16**  
DISTANCE  
(MI)

**20:35**  
DURATION

**17:43**  
AVG PACE  
(MIN/MI)

**99**  
CALORIES

**147**  
EL. GAIN  
(FT)

# Step 1. Programs that improve transit, carpool and active transportation, reducing parking demand

- Transit pass program
- Foothill Silverstreak campus bus stop
- Transit center and bike hub on campus
- Campus connectivity – scooters, shuttles, electric bikes, sidewalks
- Program enhancement: education, Bronco Bucks, adjust incentives
- Real-time ridematching app
- Parking pay-by-use vs. “all you can eat”



**RIDESOURCING/TNCs**  
**Lyft expands its “ditch your car” challenge to 35 new cities.** The program incentivizes users to give up their personal vehicles for one month. The program gives participants credit for Lyft shared rides, bikesharing and carsharing services, and public transit. The amount of the credit will vary by city. Lyft will launch the challenge in New York, San Francisco, Boston, and Washington, D.C., among other cities in October 2018.

**RIDESHARING**  
**Klaxit, a carpooling platform, and Uber partner to guarantee rides home from work.** Klaxit connects drivers with riders to facilitate carpooling for people with similar commutes. For the commute at the end of the work day, a passenger must request a ride with two separate drivers. If both decline the request, Klaxit will book the passenger an Uber ride and pay for the cost of the ride directly.

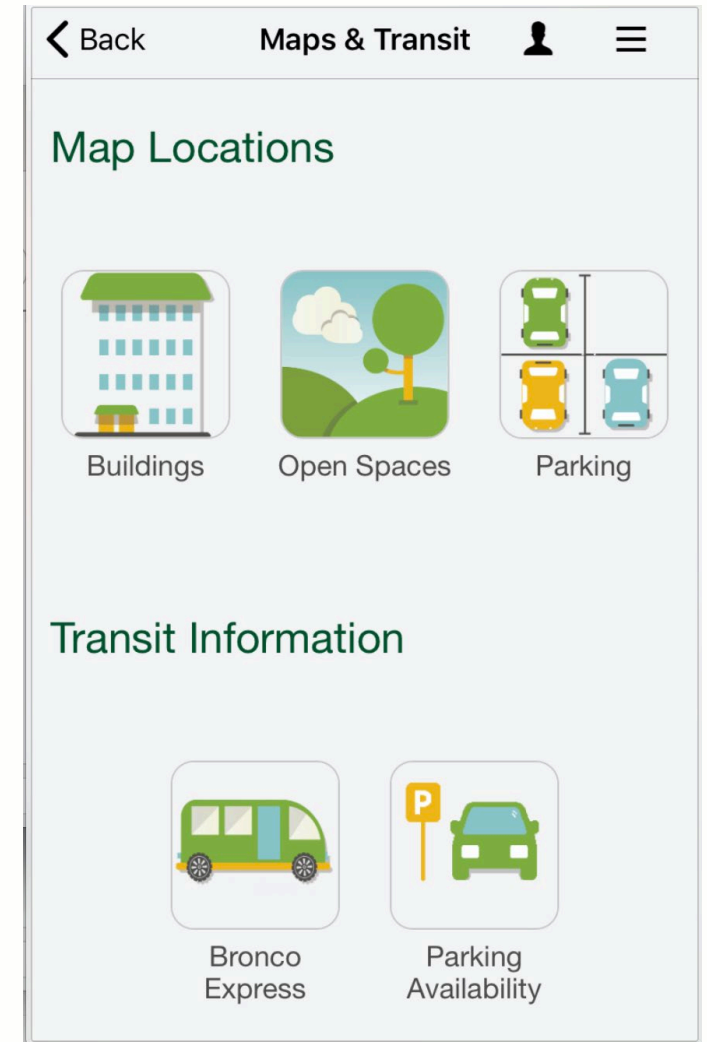
**DATA SHARING**  
**Uber, Lyft, and Ford Motor Company announce a data sharing public-private partnership through SharedStreets, a non-profit data sharing platform.** Uber and Lyft will provide vehicle driving speed data and collaborate on a model for curb usage data. Ford will develop a data standard for curb demand and availability.

**SHARED AUTOMATED VEHICLES**  
**May Mobility expands to Grand Rapids, Michigan.** May Mobility will deploy four electric automated shuttles on existing bus routes in March 2019. The shuttles will run on three-mile loops in downtown Grand Rapids on weekdays. The shuttles will be free to the general public.

**BIKESHARING**  
**Uber announces plans to implement public charging stations for JUMP electric bikesharing.** Uber will first deploy charging stations in Sacramento. The company stated that charging stations will be located in places where users are likely to end their rides. Uber is investing in public charging stations as part of its new \$10 million sustainable mobility fund.

# The *Other* Step 1. Efficient use of existing parking

- Space allocations in faculty/staff parking lots
  - Enforcement so no student poaching
  - Monitor fill times and adjust allocations
  - Review policy regarding teaching and student assistants
- Other ideas
  - Real-time information on fill times via CPP App
  - Restripe spaces
  - Smart space allocation
  - Attended/stacked parking during peaks
  - Differential pricing, e.g., discount for remote lot use
  - Connections to remote lots: faster shuttle, pedestrian, bike, scooter
  - Student housing long-term parking
  - On-campus car-sharing
  - Hybrid and on-line offerings
  - Class schedule/class location efficiency
    - Days/times, trips per week, teaching space consolidation



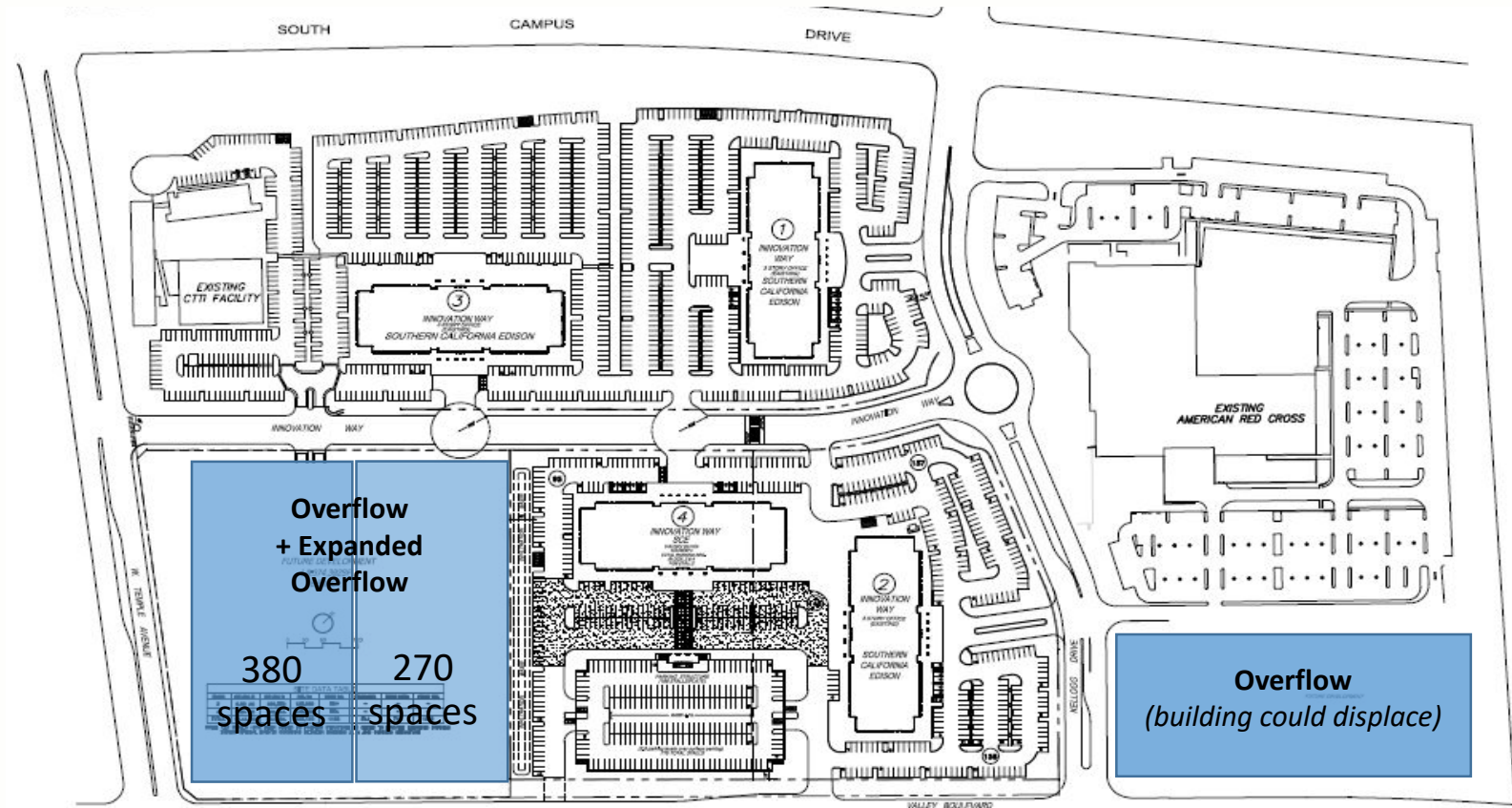
# Class Time Heat Map

# sections | #students  
 Spring Semester 2019  
 Source: Academic Affairs

Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
<b>Spring 2019</b> 6:00 - 7:00 A.M.	1   0	0   0	1   0	0   0	0   0	0   0	0   0
7:00 - 8:00 A.M.	7   158	21   599	7   137	21   598	4   46	0   0	0   0
8:00 - 9:00 A.M.	123   3,552	197   6,035	148   3,947	199   6,038	97   2,606	7   94	2   27
9:00 - 10:00 A.M.	176   5,247	213   6,393	201   5,662	211   6,438	138   4,018	15   332	2   27
10:00 - 11:00 A.M.	206   5,914	268   8,291	234   6,396	268   8,348	159   4,571	16   391	2   27
11:00 A.M. - 12:00 P.M.	186   6,312	213   7,184	185   6,272	215   7,223	84   2,699	18   436	1   12
12:00 - 1:00 P.M.	217   6,212	6   112	235   6,570	6   102	110   2,781	15   244	0   0
1:00 - 2:00 P.M.	255   7,972	277   8,590	276   8,238	268   8,375	127   2,659	14   218	1   16
2:00 - 3:00 P.M.	242   7,735	275   8,452	254   7,842	268   8,312	116   2,465	7   93	1   16
3:00 - 4:00 P.M.	254   6,830	272   7,959	254   6,833	264   7,809	105   1,982	7   107	1   16
4:00 - 5:00 P.M.	255   6,747	234   6,832	255   6,808	230   6,763	76   1,380	4   72	1   16
5:00 - 6:00 P.M.	238   6,296	220   6,442	247   6,558	213   6,307	70   1,181	4   72	0   0
6:00 - 7:00 P.M.	173   4,910	200   5,820	194   5,312	192   5,561	20   353	0   0	0   0
7:00 - 8:00 P.M.	154   4,036	144   4,362	164   4,187	134   3,866	16   221	0   0	0   0
8:00 - 9:00 P.M.	131   3,567	132   4,063	145   3,853	122   3,602	10   164	0   0	0   0
9:00 - 10:00 P.M.	36   1,038	55   1,474	38   1,027	50   1,214	6   107	0   0	0   0
10:00 - 11:00 P.M.	0   0	1   11	0   0	1   11	0   0	0   0	0   0

# Step 2. Temporary/shared parking

- Temporary lots
- Shared parking with nearby property owners
- Assess spaces lost because of construction



# Step 3. New parking facilities

- New parking, constructed so that it can be converted to other uses
  - Draft campus master plan identifies two sites

*Note: parking is self-funded – any new facility will obligate future students to higher parking fees for length of bond*

*Building new structure would almost double semester pass fee (3 structure bonds being repaid at once)*



# Programs at other universities and colleges

- Mount Sac: Foothill transit pass
- CSU Long Beach: discount pass for remote lot
- San Jose State: scooter share
- MIT: daily parking pricing instead of semester pass
- U of M: Mcity driverless shuttle
- Berkeley: parking pass rebate for days not driven
- UCLA: graduated parking pricing (price goes up as hours parked increases)



Students at Mt. San Antonio College get **FREE RIDES** on Foothill Transit buses all semester long!



# Next steps

- Briefing/listening tour ongoing
- Review of existing procedures
- Regular campus communications
- Campus mobility manager
- Bronco Shuttle D





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## *Near-term ideas:*

- Engage faculty, staff, and students in solutions
- Adjust parking allocations and rules
- App enhancements
- Overflow lot expansion
- Shuttle service pilot project from overflow lots
- Foothill Class Pass + Silverstreak stop
- Real-time ridesharing app
- Scooters/bikeshare
- Optimize class scheduling/parking link

