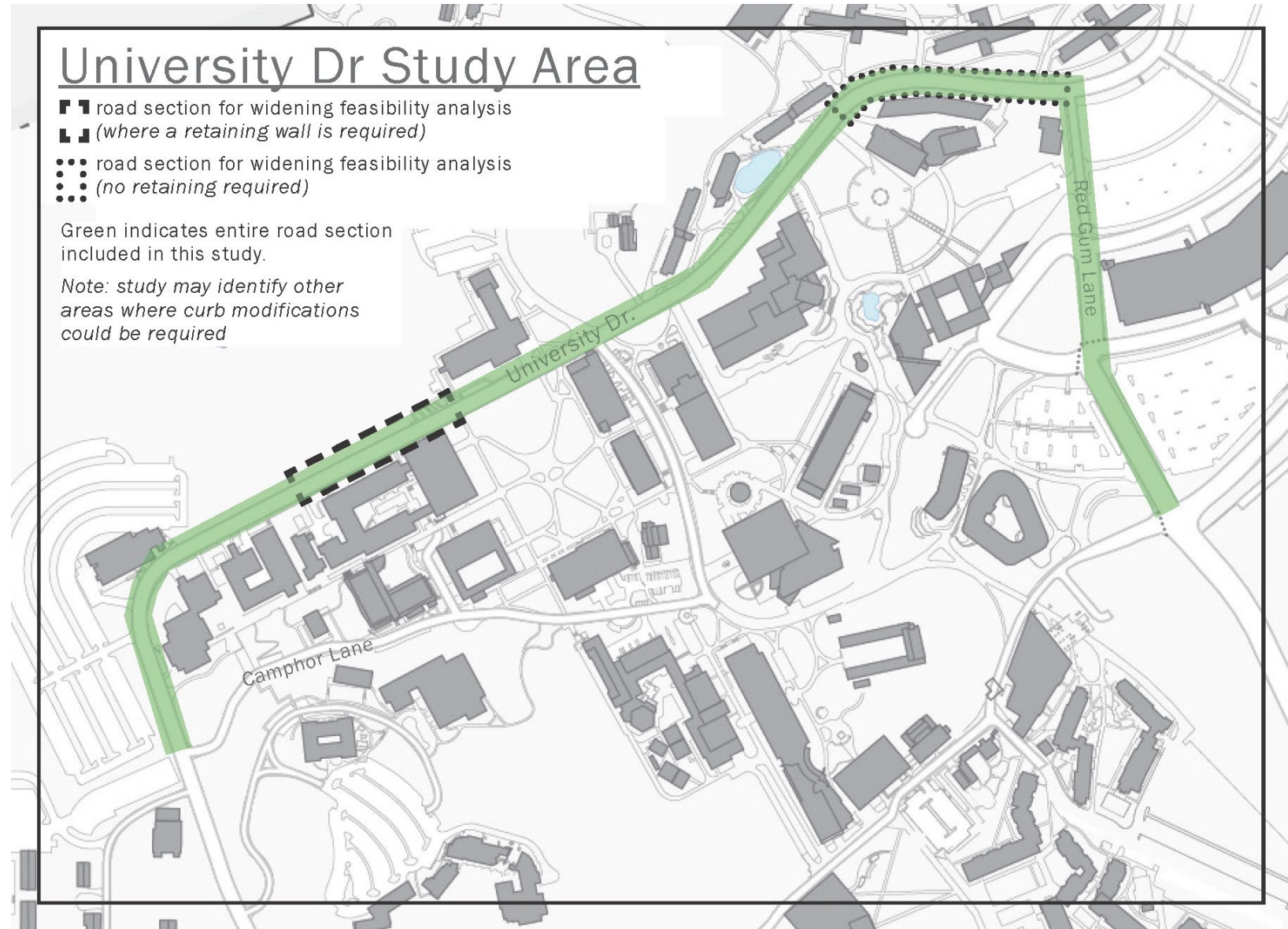


CAL POLY POMONA TRANSIT LANE DESIGN CONCEPTS

PAUL HERRMANN, PE
FEHR & PEERS

PROJECT GOALS

- What will design look like?
- How will buffers/vertical delineation look?
- How do we approach sections that are currently too narrow?
- How do we open and close transit lane?
- How do we handle bicyclists?
- What do we do with on-street parking?



CROSS SECTIONS

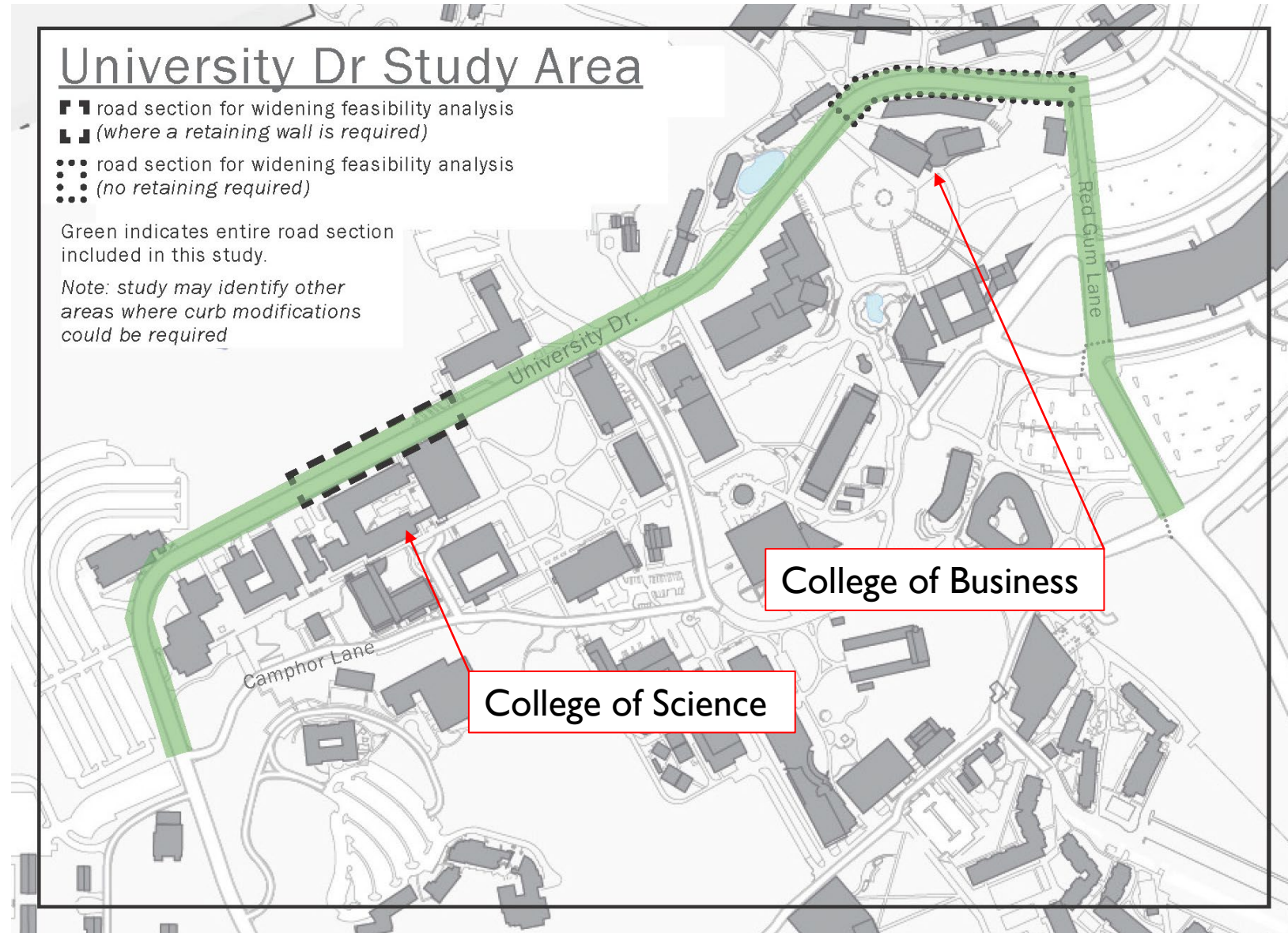
- Vertical Delineation Options
- Typical / Ideal Cross Sections
- Constrained at College of Science Cross Section
- Constrained at College of Business Cross Section

University Dr Study Area

- road section for widening feasibility analysis (where a retaining wall is required)
- road section for widening feasibility analysis (no retaining required)

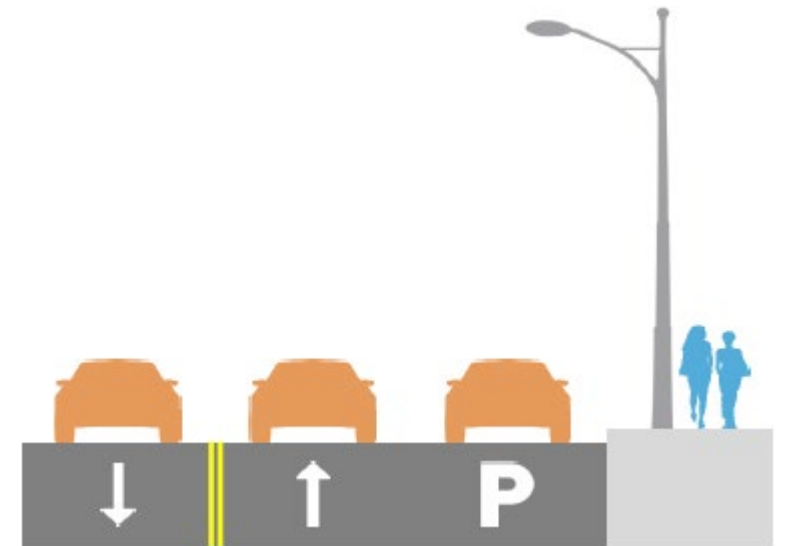
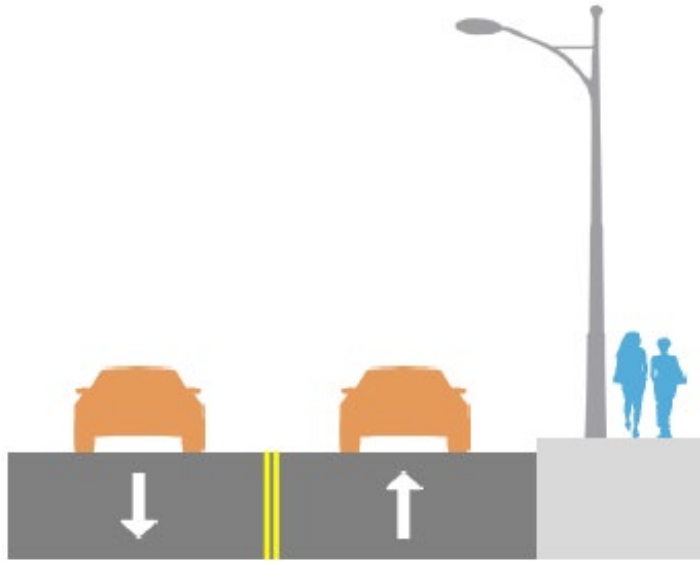
Green indicates entire road section included in this study.

Note: study may identify other areas where curb modifications could be required



EXISTING CROSS SECTIONS

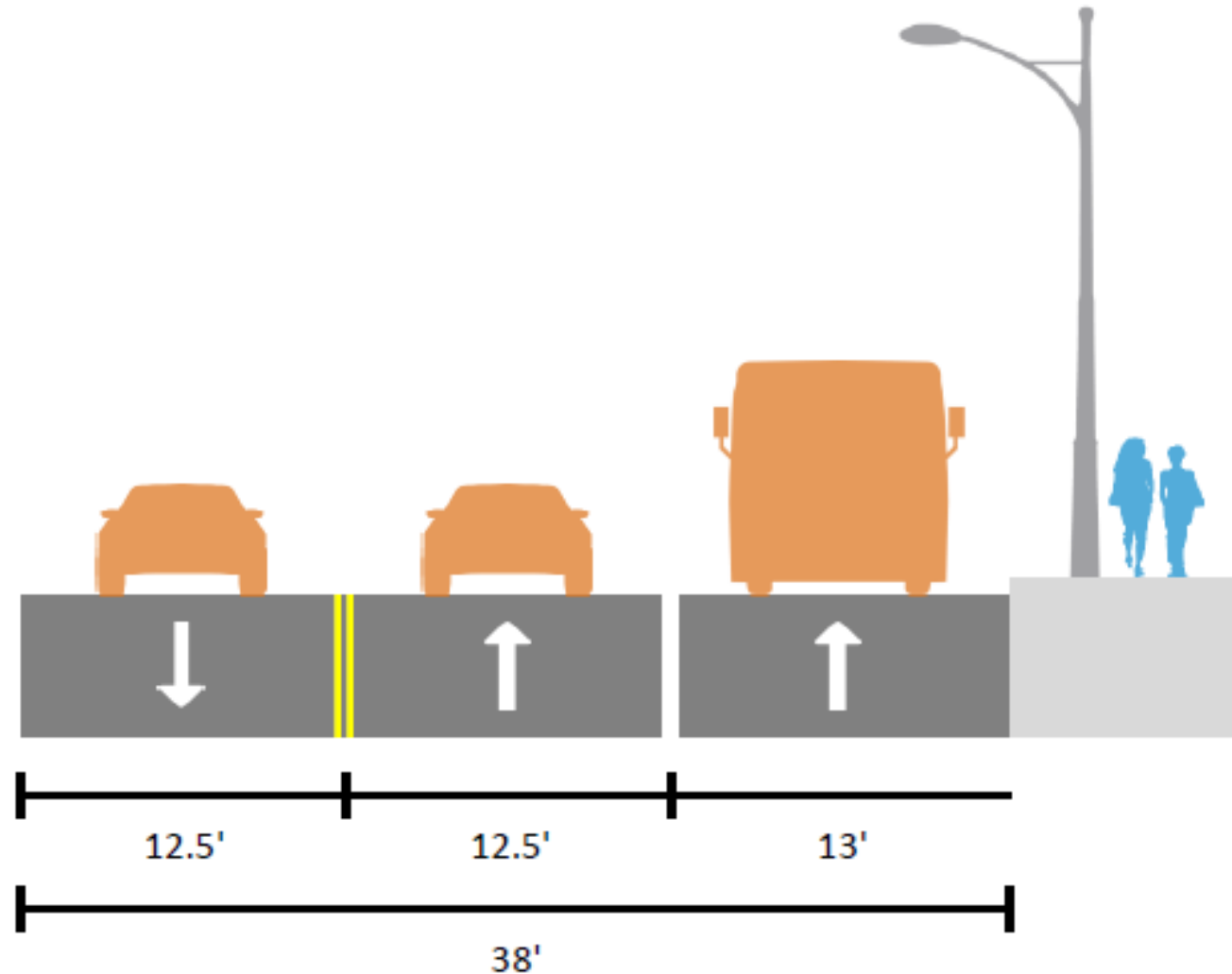
- Typical ROW 38'
- Ranges from 27'-30' in constrained sections
- Bikes allowed in travel lanes
- Shuttles use travel lanes



TYPICAL TRANSIT LANE CROSS SECTION

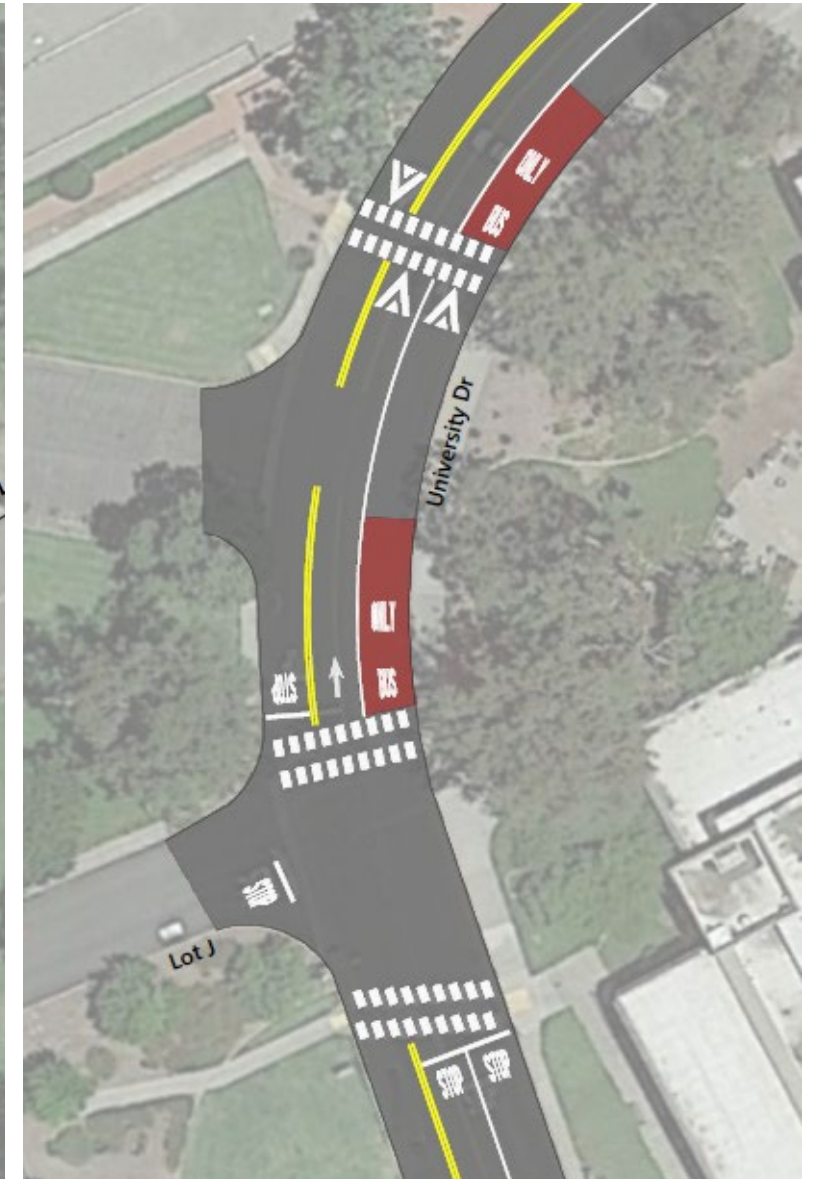
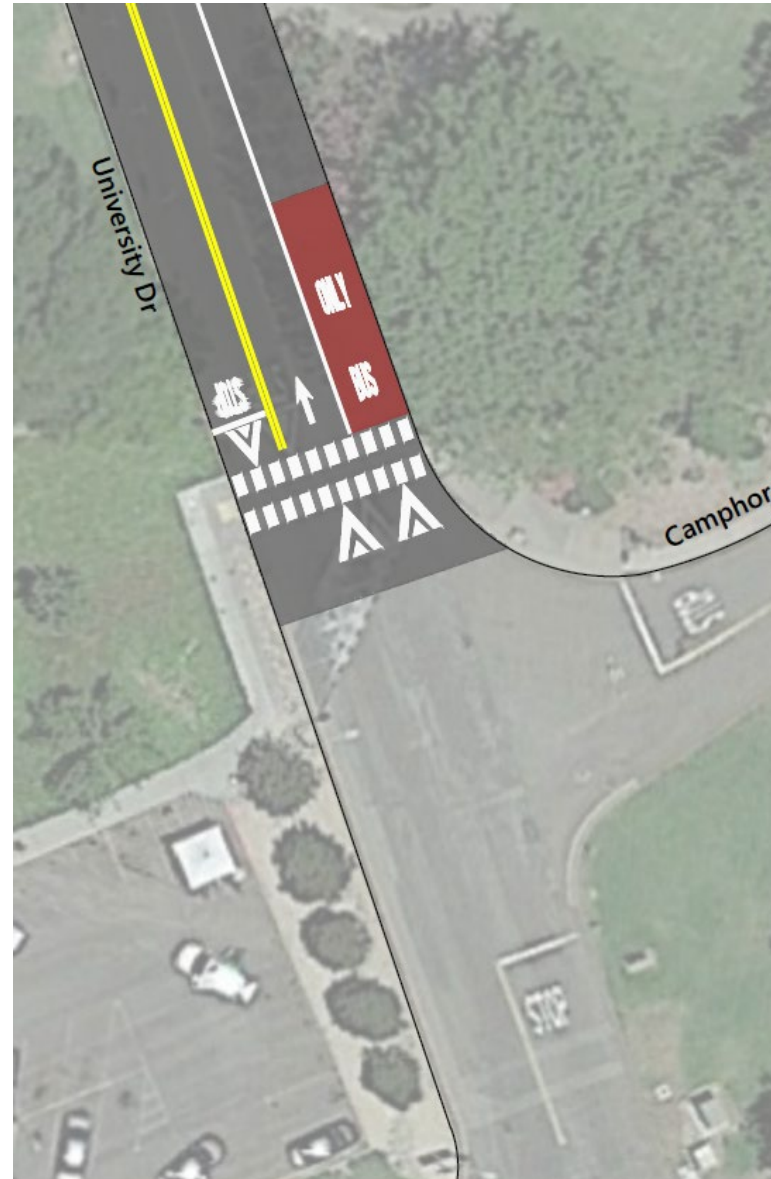
CONCEPT I

- University Drive (typical section, 38 feet wide)
- Striping only
- Bikes ride in outside lanes with vehicles (Class III)



DESIGN CONCEPTS

- Transit Lane Openings
- Typical Transit Lane Layout



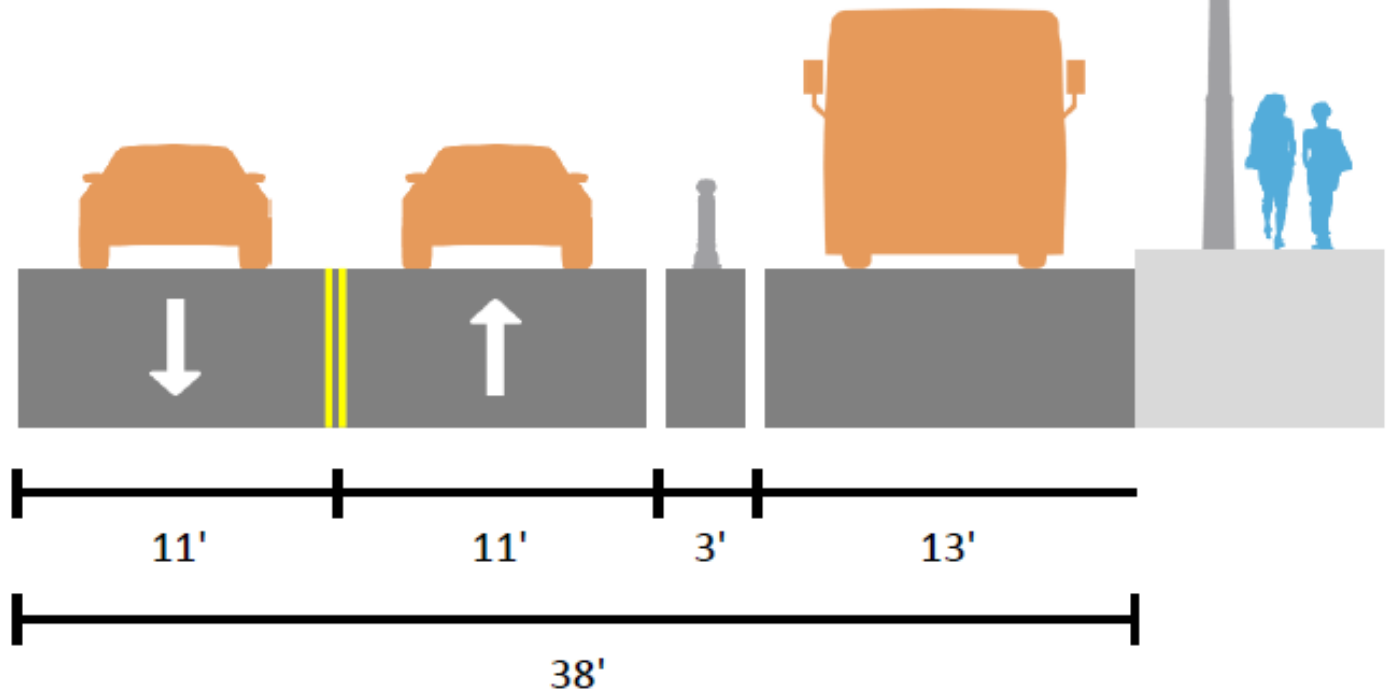


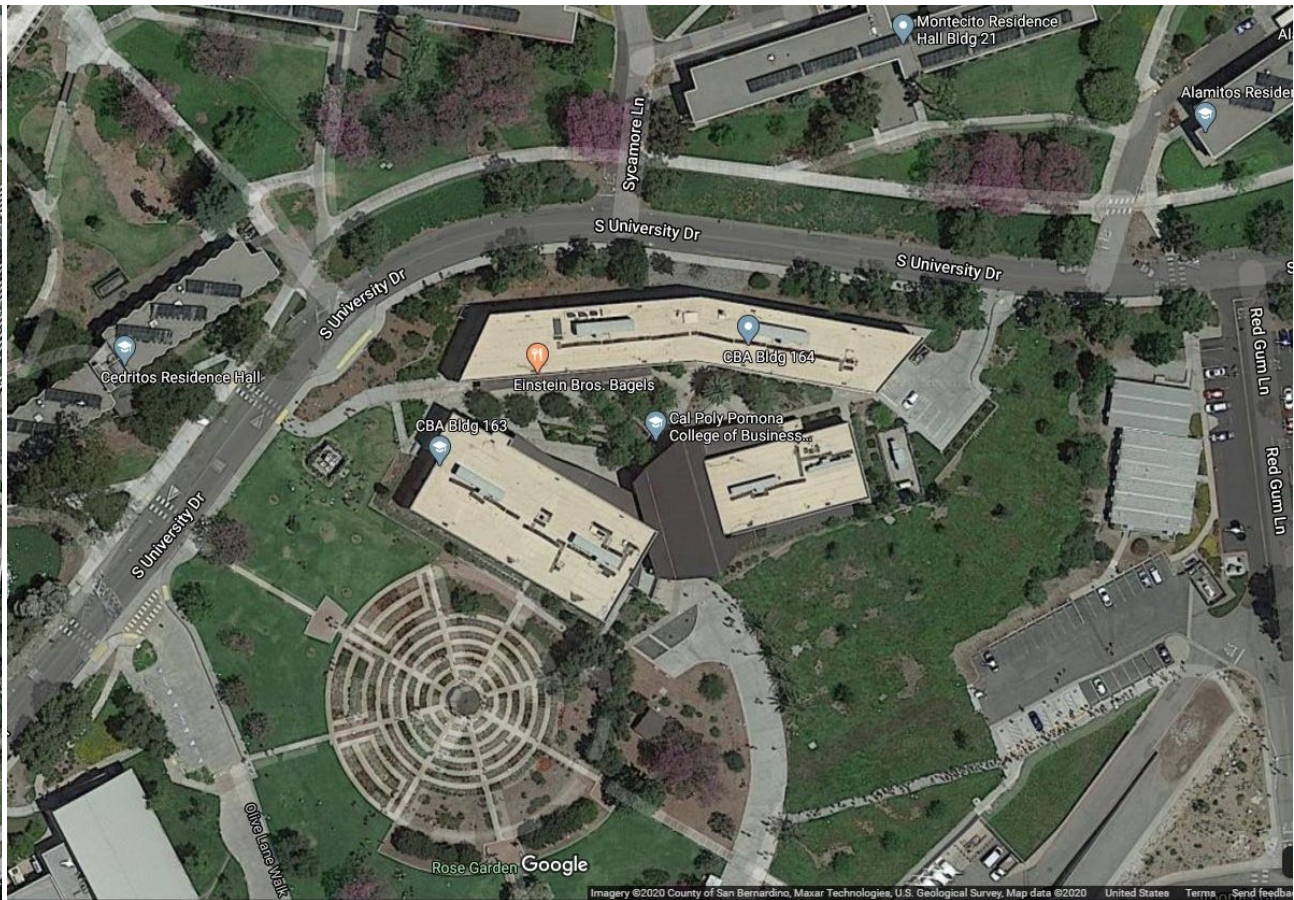
VERTICAL DELINEATION

TYPICAL TRANSIT LANE CROSS SECTION

CONCEPT 2

- University Drive (typical section, 38 feet wide)
- With vertical delineation
- Bikes ride in outside lanes with vehicles (Class III)





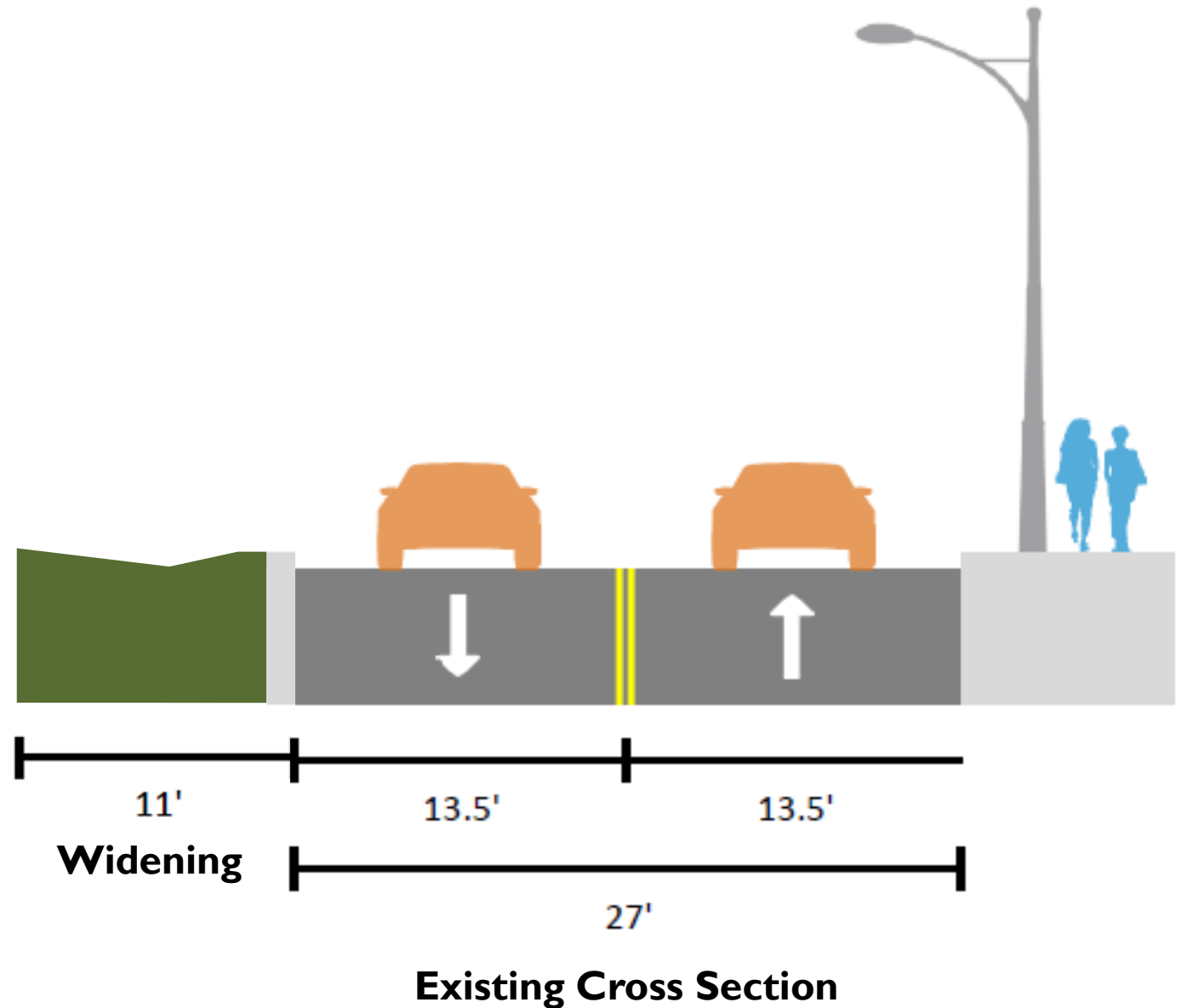
CONSTRAINED ROADWAY AREAS

CONSTRAINED SECTION: UNIVERSITY DR NEAR COLLEGE OF BUSINESS



CONSTRAINED CROSS SECTION

- University Drive near College of Business Building Constrained Section
- Buses could merge with general purpose flow
- Ideal to widen by 11' to fit transit lane
- ROW constraints include curb, gutter, land scaping, light poles, utilities

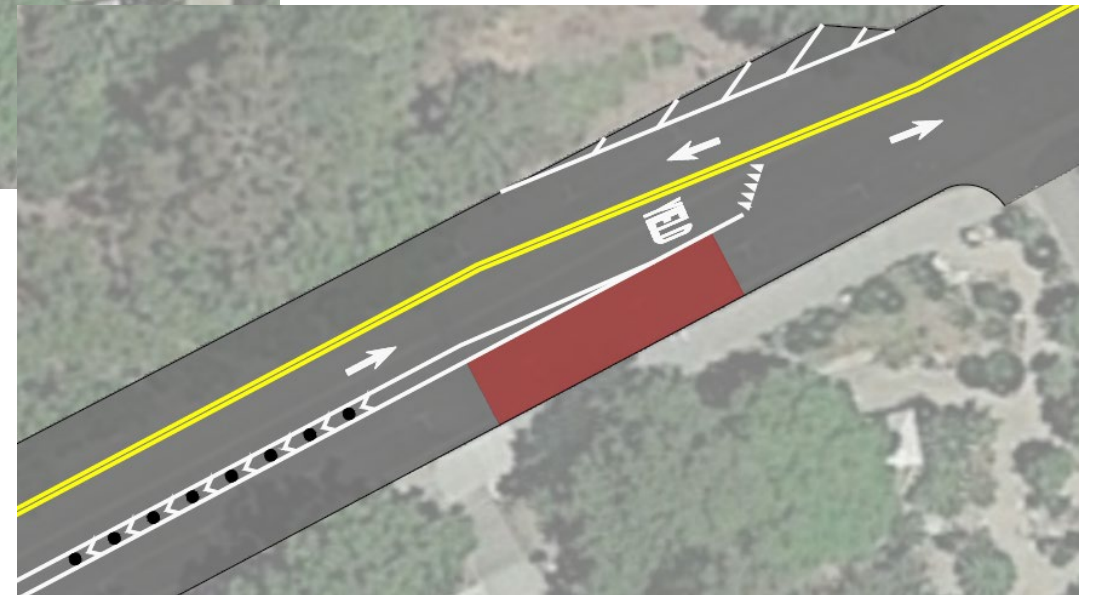
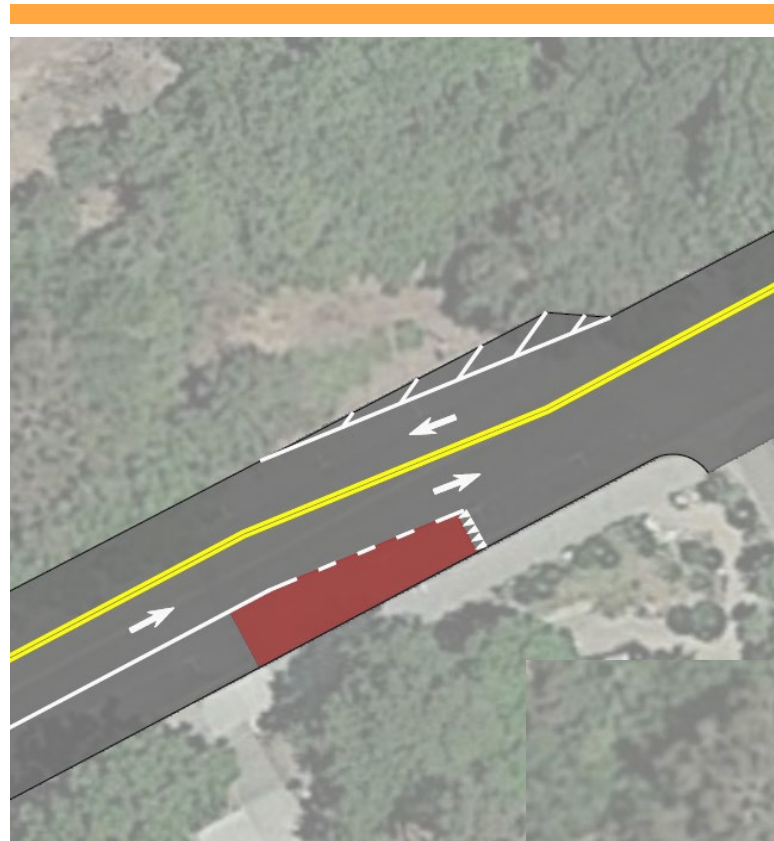


CONSTRAINED SECTION: **AREA OF PROPOSED WIDENING**
UNIVERSITY DR NEAR COLLEGE OF BUSINESS



DESIGN CONCEPTS

- **Concept 1:** Transit lane yields to general purpose lane
- **Concept 2:** General purpose lane yields to transit lane – recommended

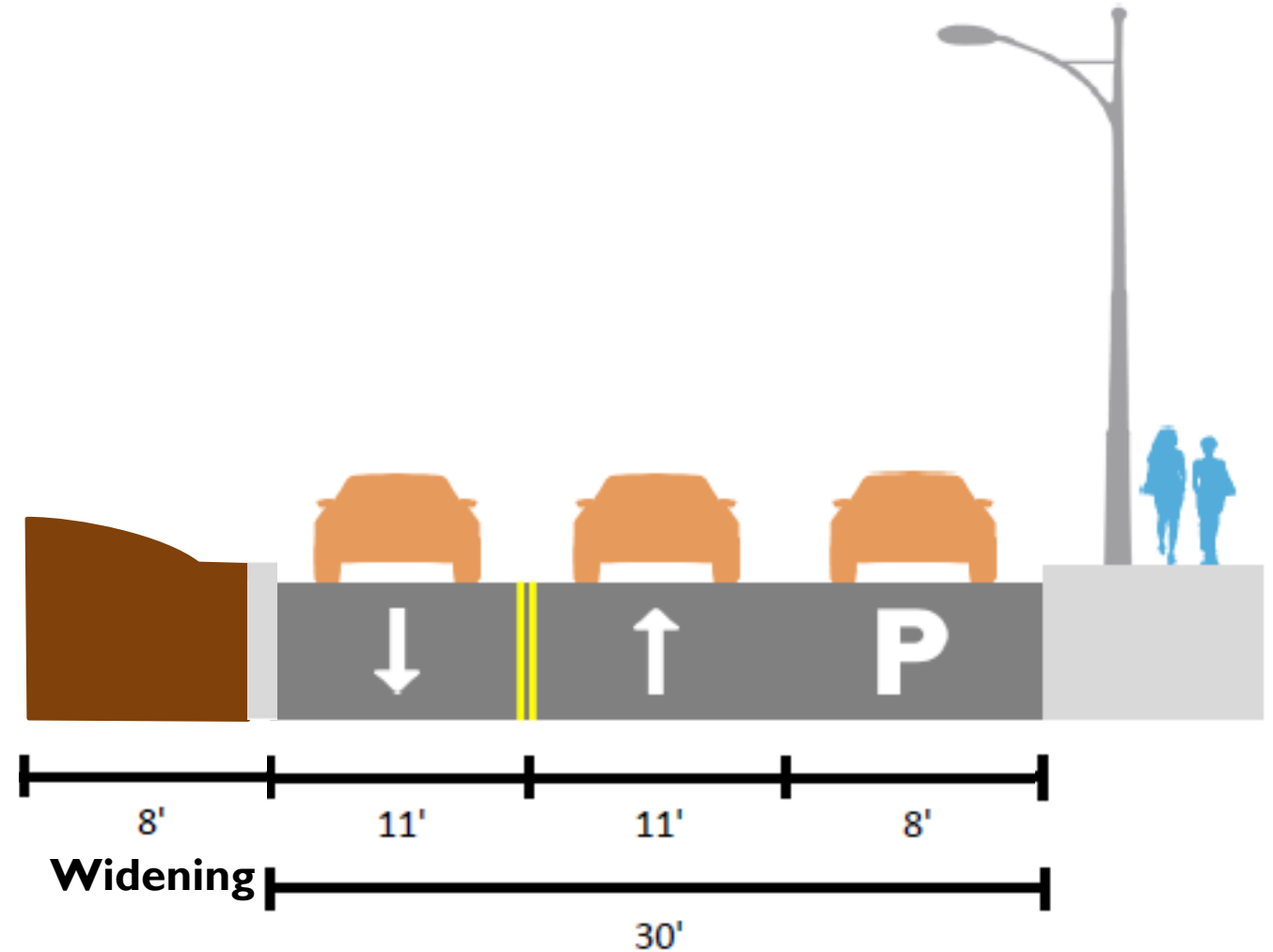


CONSTRAINED SECTION: UNIVERSITY DR NEAR COLLEGE OF SCIENCE



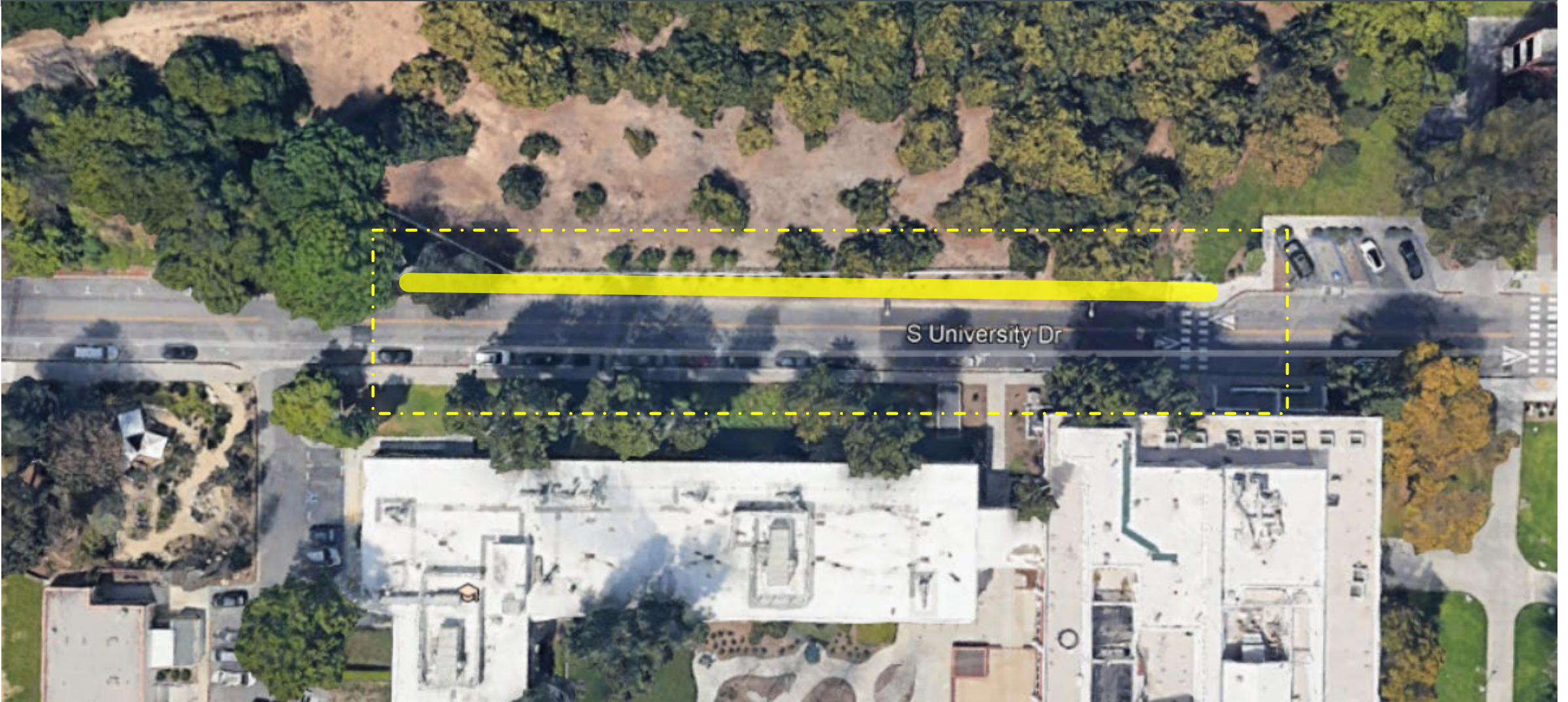
CONSTRAINED CROSS SECTION

- University Drive near College of Science Building Constrained Section adjacent to hill
- Buses could merge with general purpose flow
- Project goals remove parking
- Ideal to widen by 8' to fit transit lane, requires retaining wall



Existing Cross Section

CONSTRAINED SECTION: **AREA OF PROPOSED WIDENING**
UNIVERSITY DR NEAR COLLEGE OF SCIENCE



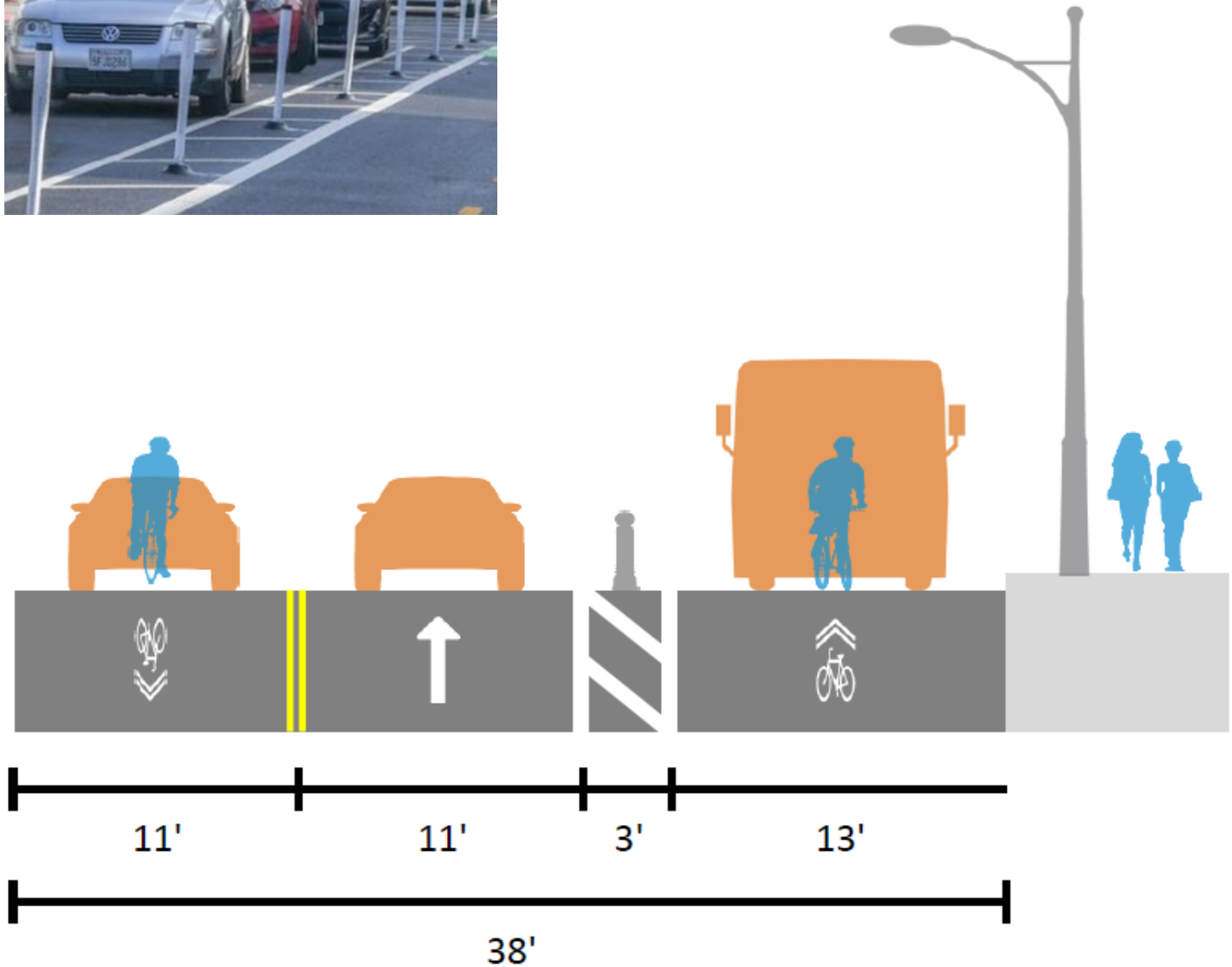


ACCOMMODATING BIKES



TYPICAL TRANSIT LANE CROSS SECTION

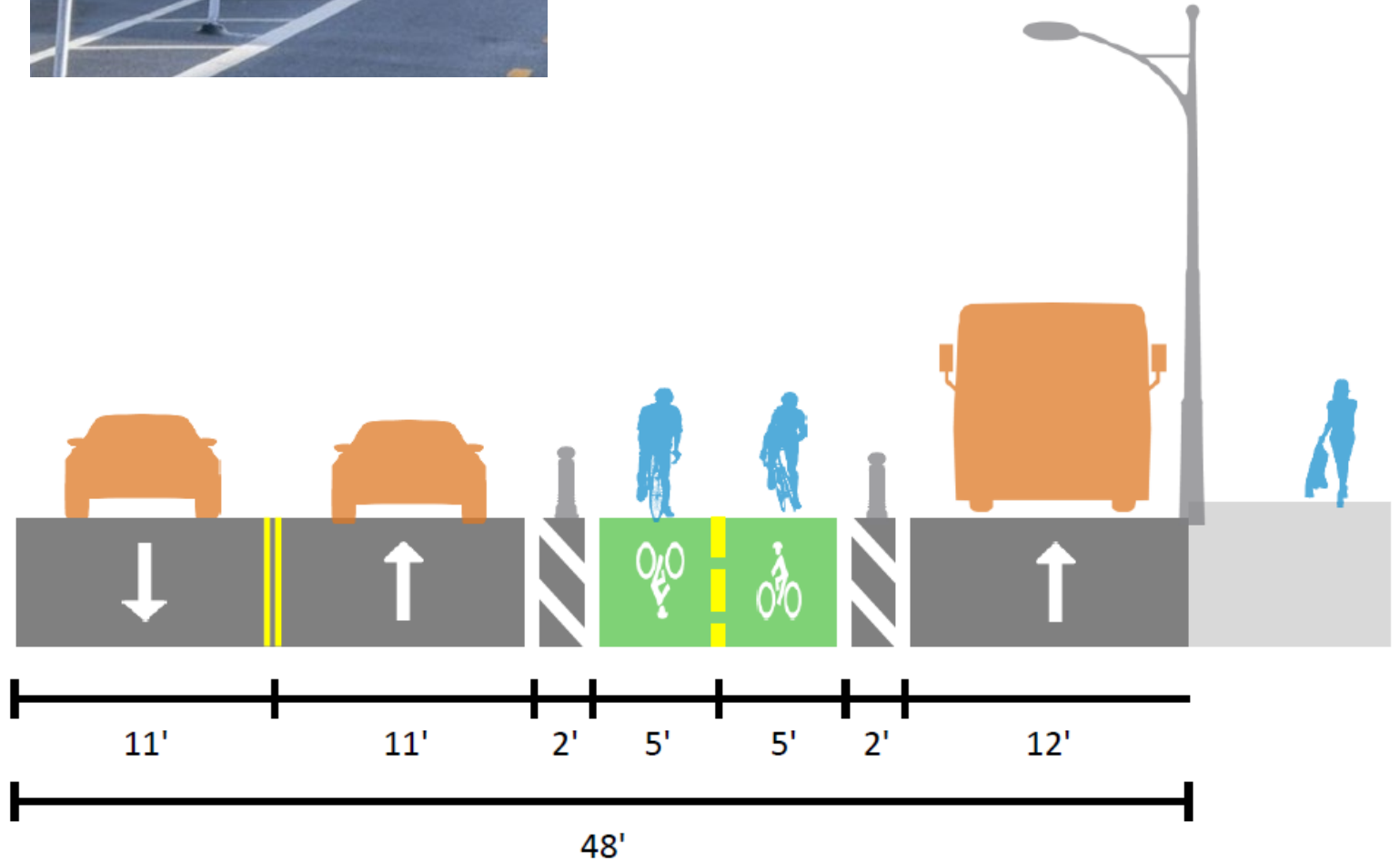
- University Drive (typical section, 38 feet wide)
- With vertical delineation for bus lane and one direction of bikes
 - This is the more likely direction of regional bike travel
- Bikes ride in outside lanes with vehicles (Class III)



ALL-MODES CROSS SECTION

CONCEPT I

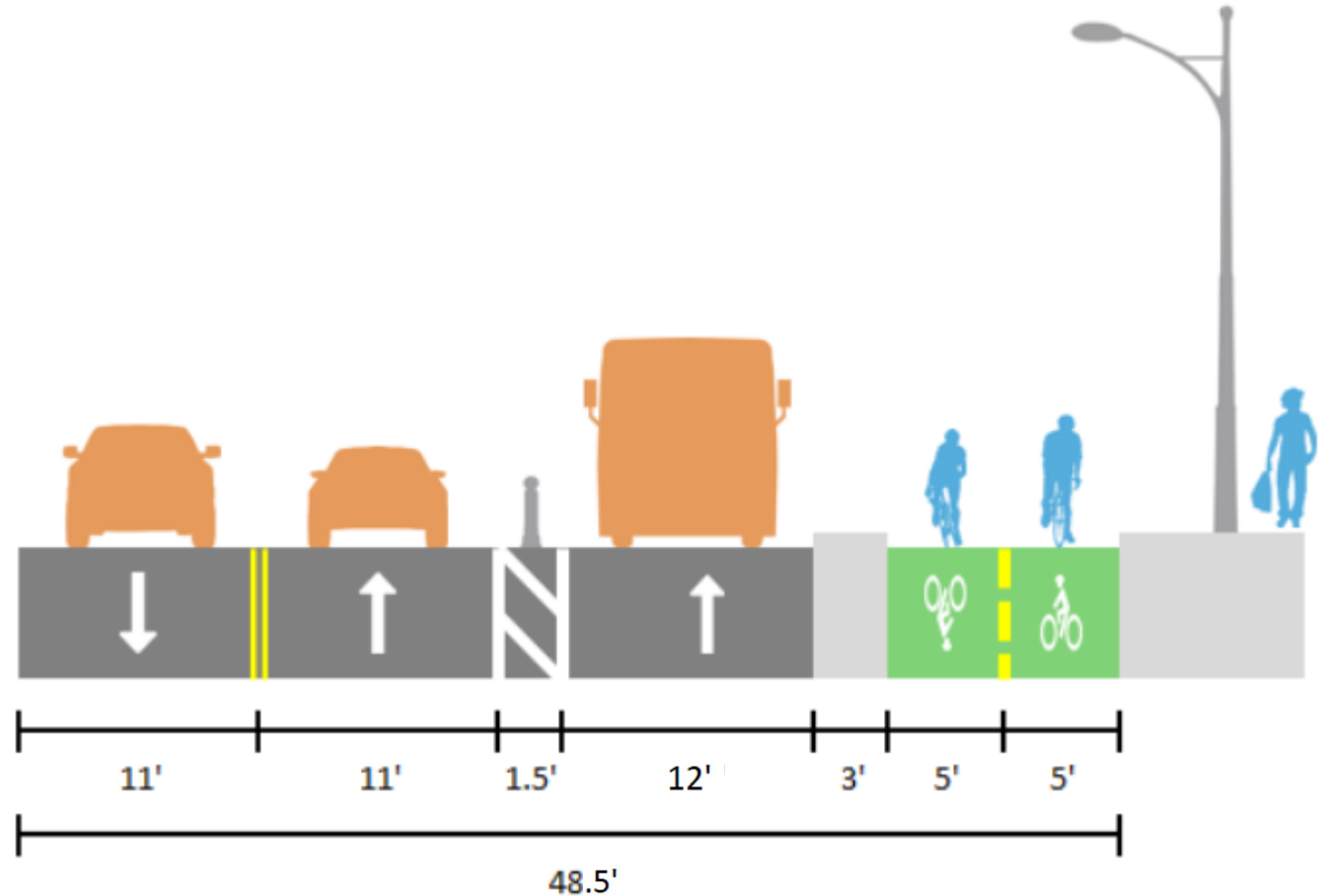
- Includes protected paths for all modes
- Requires at least 10' in ROW width
- Includes vertical delineation buffer



ALL-MODES CROSS SECTION

CONCEPT II

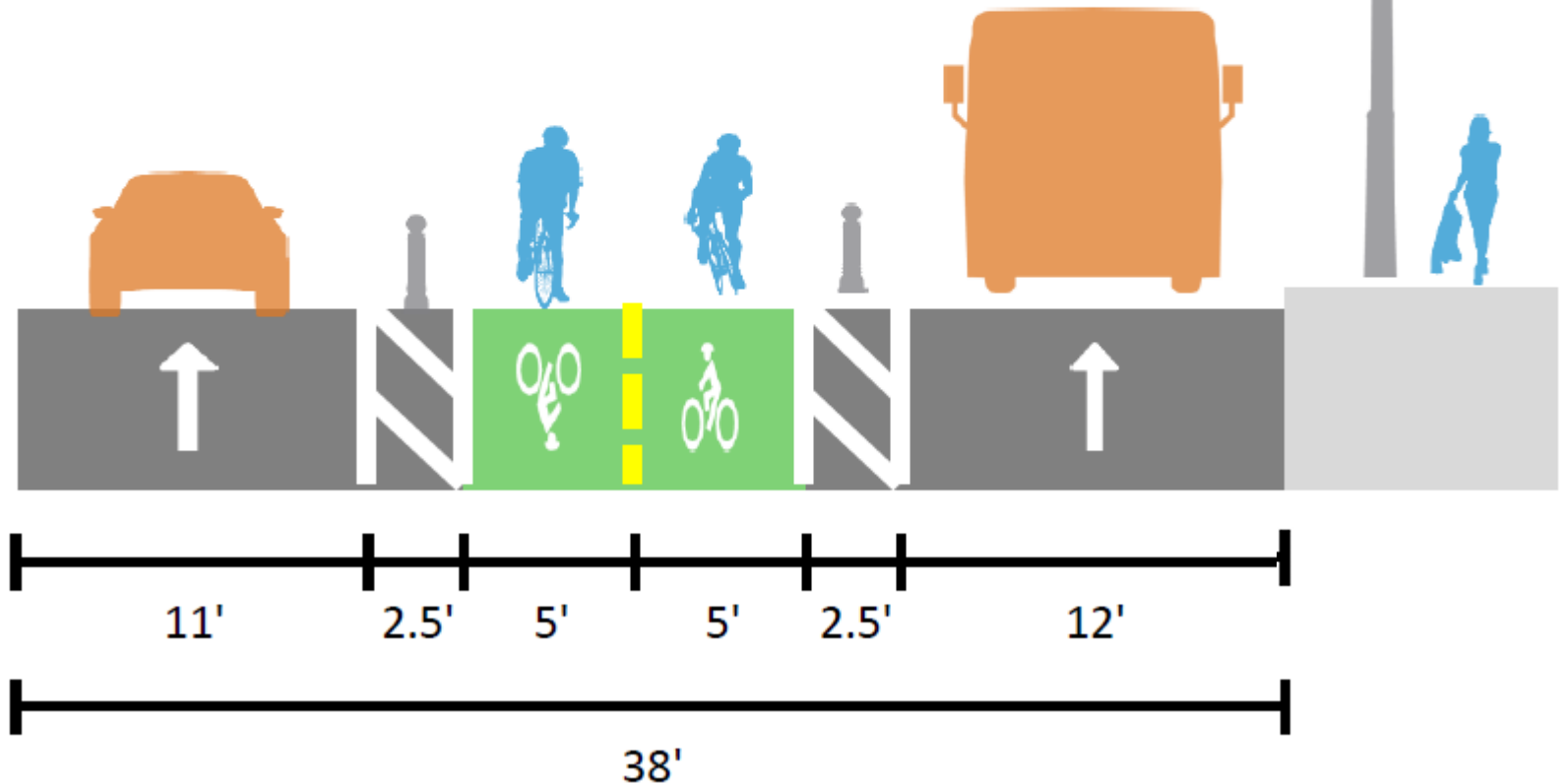
- Includes protected paths for all modes
- Requires at least 10' in ROW width
- Includes vertical delineation buffer



CLOCKWISE CROSS SECTION

CONCEPT I

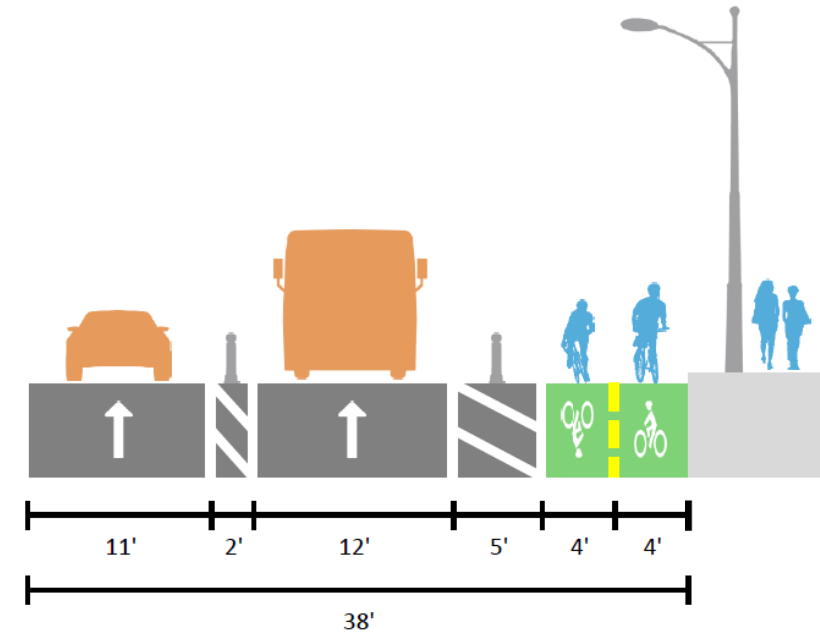
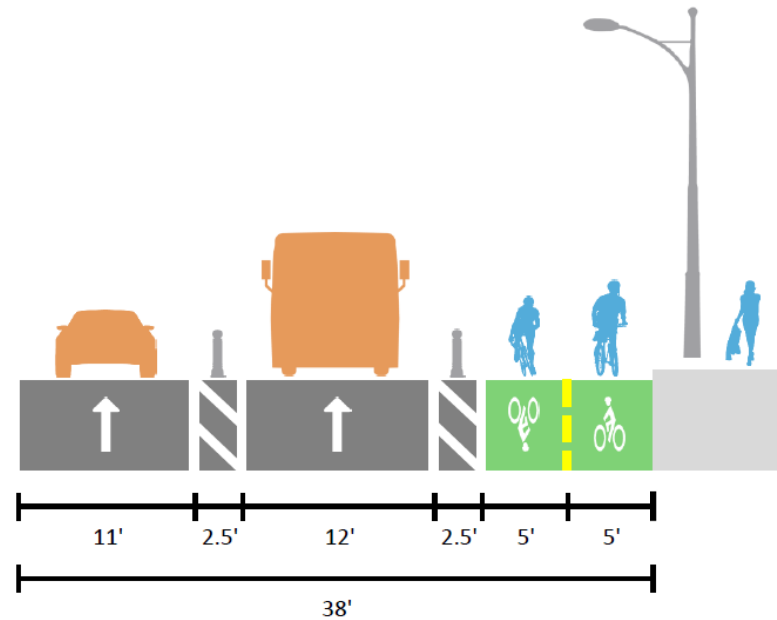
- Includes lanes for all modes – only in clockwise direction for vehicles
- Fits within the typical ROW
- Vertical delineation buffer



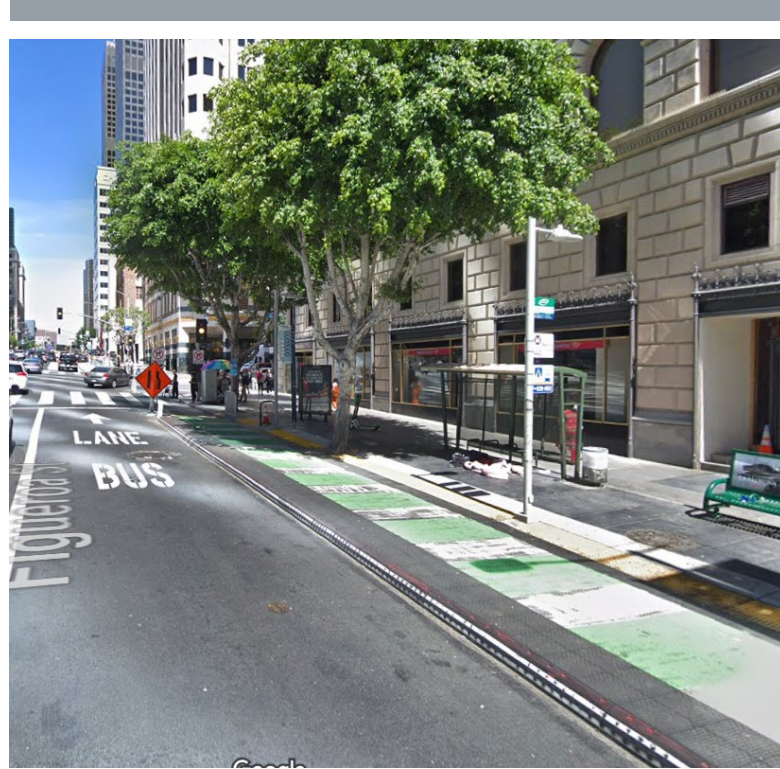
CLOCKWISE CROSS SECTION

CONCEPT 2

- Includes lanes for all modes – only in clockwise direction for vehicles
- Fits within the typical ROW
- Vertical delineation buffer
- Treatment for bus loading zone



Bus loading zone



EXAMPLE BUS STOPS WITH CYCLE TRACK LOADING

