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Complete Streets at CalPoly San Luis Obispo

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Complete Streets
at Cal Poly San Luis Obispo

A project by CRP 470 with Dr. William Riggs

What are *Complete Streets*?

"***Complete Streets*** is a **transportation policy** and **design approach** that requires streets to be planned, designed, operated, and maintained to enable **safe**, **convenient** and **comfortable** travel and access for users of **all ages and abilities regardless of their mode of transportation**. Complete Streets allow for safe travel by those walking, bicycling, driving automobiles, riding public transportation, or delivering goods."

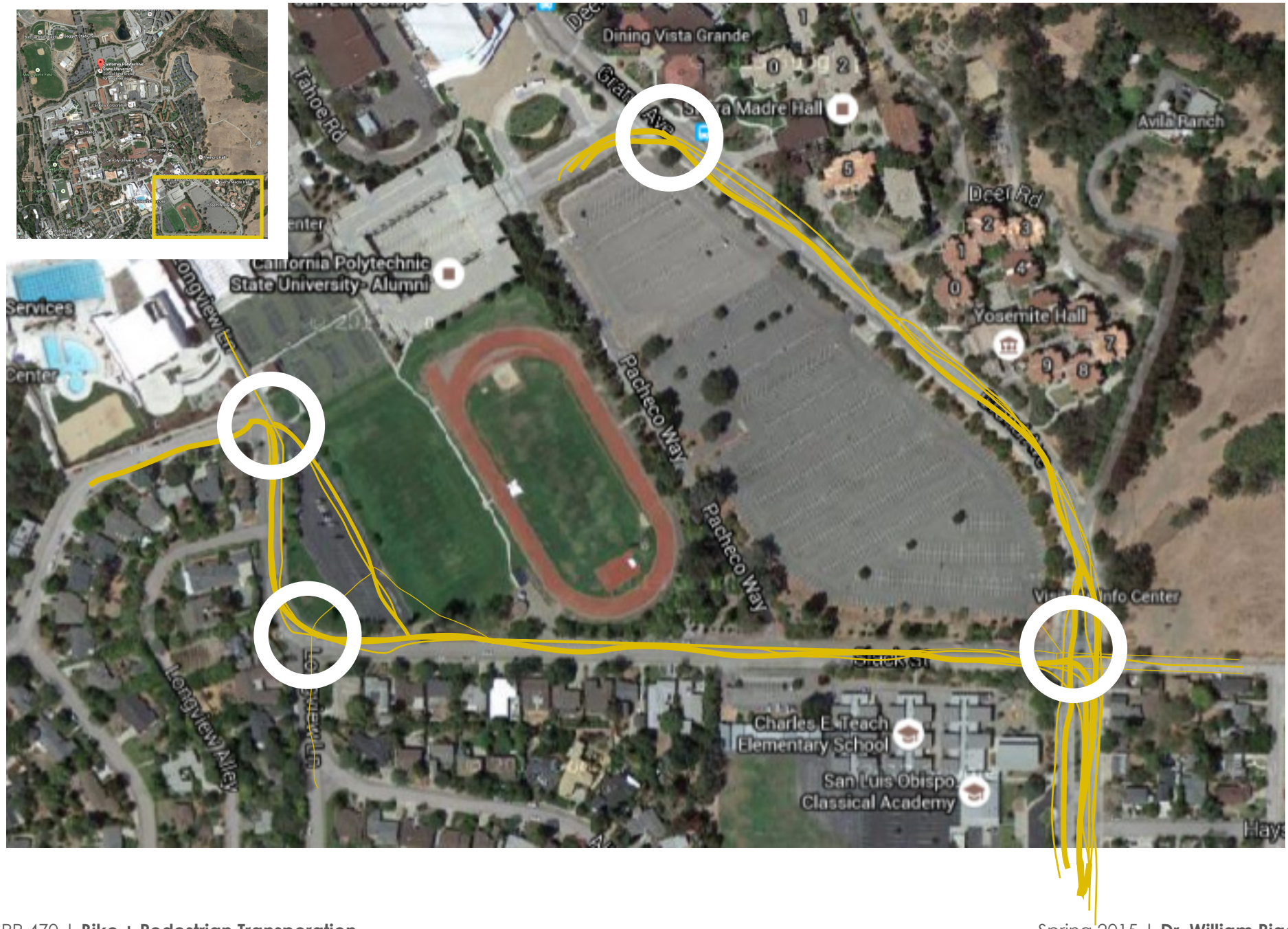
Where could Cal Poly Implement *Complete Streets*?

The objective of this task was to find a problematic area(s) of campus to remedy poor circulation and enhance safety and active transportation appeal.

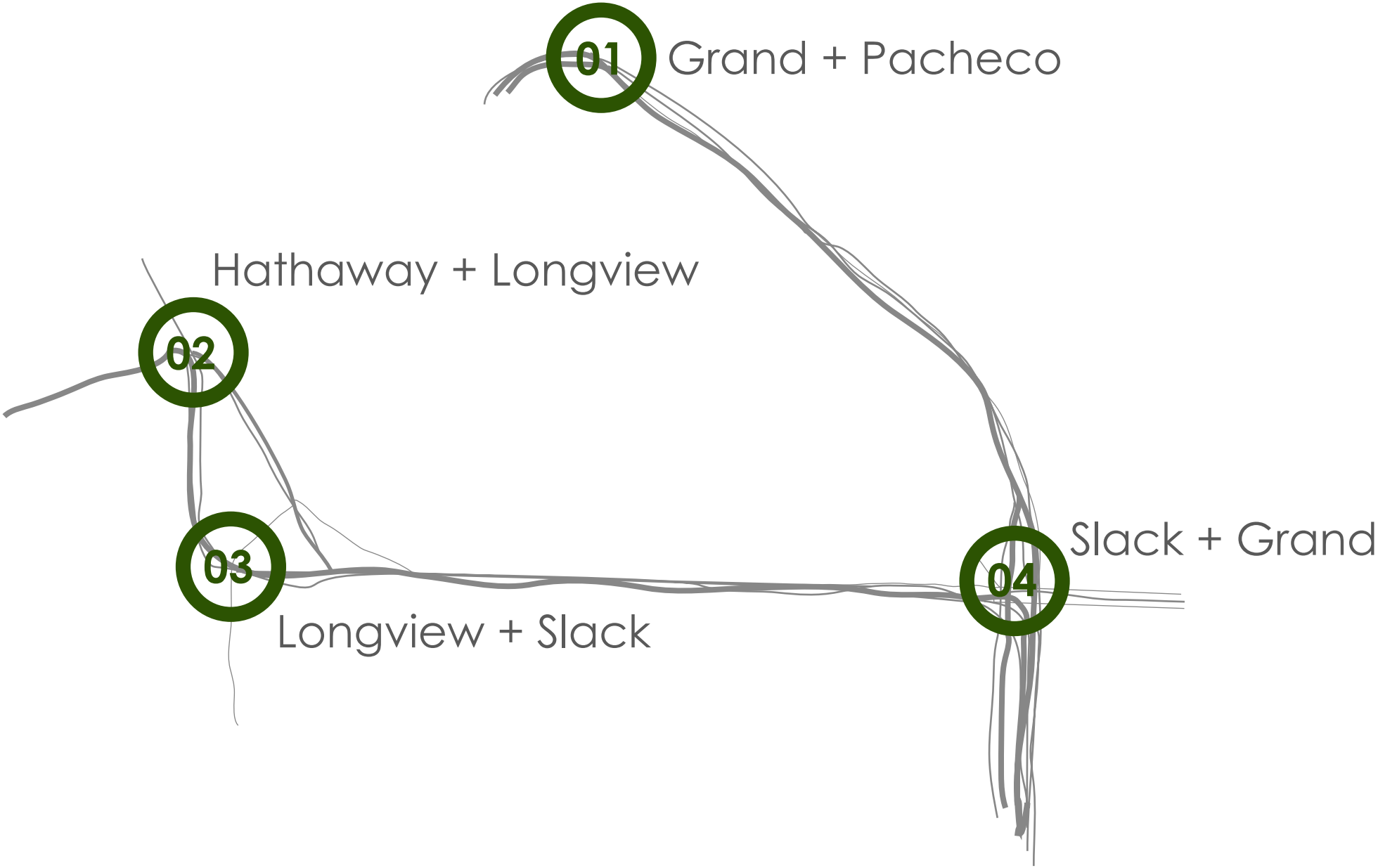
Travelers include:
Automobile drivers
Bicyclists/Cyclists
Pedestrians
Skateboarders/Scooterists

Problems to be solved:
Pedestrian Safety
Bicyclists Safety
Road Calming (vehicular speed reduction)

Four Focus Areas on the Cal Poly Campus



Four Focus Areas on the Cal Poly Campus



Overview + Proposed Solutions

(01) Grand + Pacheco

(02) Hathaway + Longview

(03) Longview + Slack

(04) Grand + Slack

(01) Grand + Pacheco

Existing Conditions | Site Overview

T-intersection

Pedestrian, Bike, Transit, Auto travel modes

Pedestrian Crossings

Class II Bike Lanes

Transit and Auto Travel Lanes

Existing Conditions | Traffic Counts

am

7:00 am - 9:00 am
Pedestrian - 332
Bike - 55
Automobile - 1,082

pm

5:00 pm - 7:00 pm
Pedestrian - 610
Bike - 143
Automobile - 1,518

Most students who live in the freshman dorms would not use the cross-walks and would cross in a diagonal line between grand onto Pacheco as a short cut.

The use of the grand and Pacheco intersection increases when there is an event occurring at the P.A.C

Case Study | Seattle

An example of Seattle's bike lanes painted in green

An example of Seattle's new intersection with bulb outs and shorter pedestrian crosswalks

Conceptual Design Elements | Vision

Proposed pedestrian beacon/ crossing signals

Proposed painted class 2 bike lanes

Proposed pedestrian crosswalks with table top design

Conceptual Design Elements | Design Guidelines

Speed tables will be incorporated to provide pedestrians with a safer access and slow down traffic in the area.

The **class two bike lanes** in the area will continue to be used and will be connected with surrounding bike lanes to achieve continuity.

A **diagonal crosswalk** will be added to the intersection to continue the pedestrian habit of using the existing short cut.

A **pedestrian beacon** will be installed in order to stop ongoing traffic at the intersection and allow pedestrians to cross the intersection safely.

(02) Hathaway + Longview

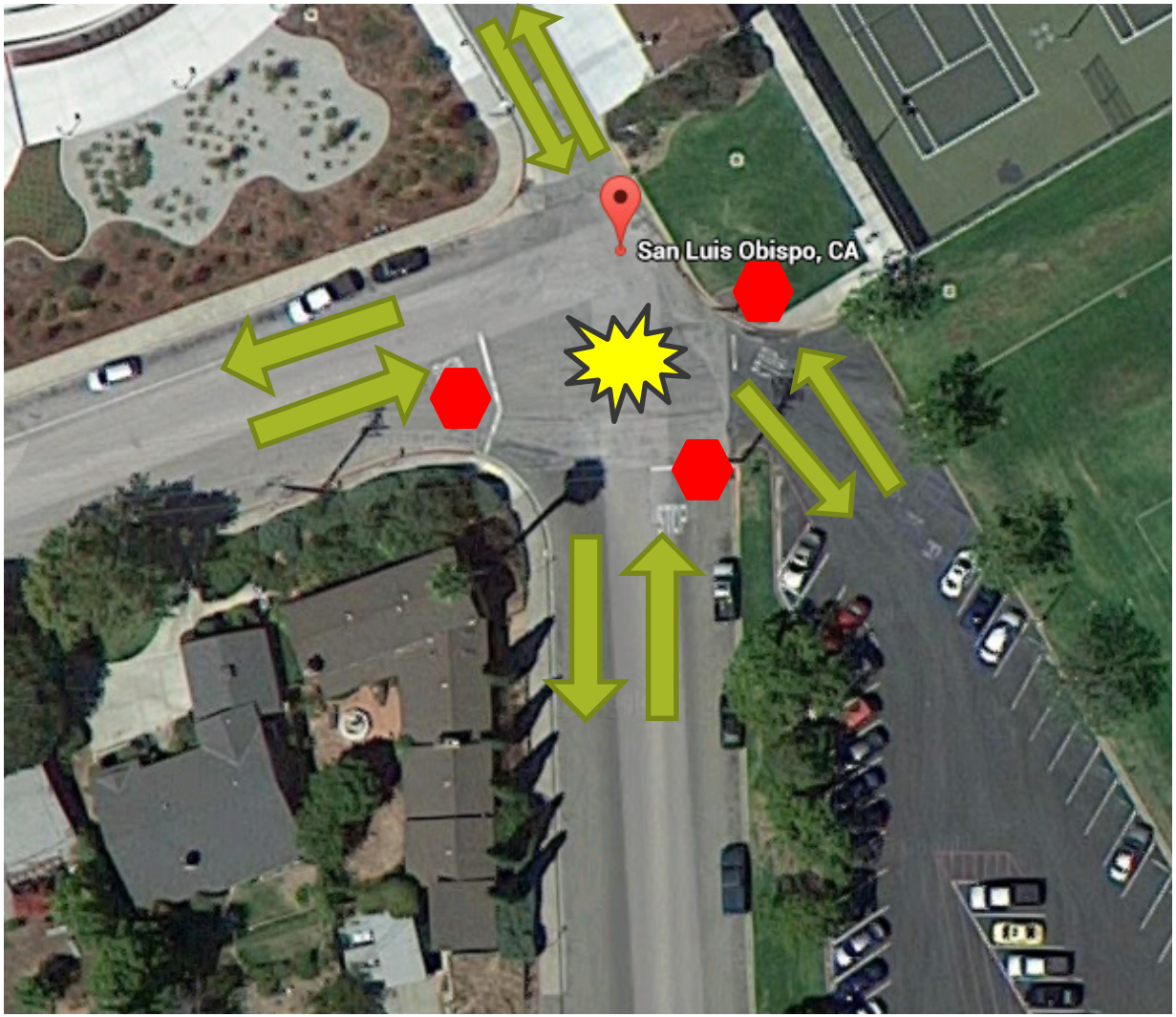
Existing Conditions | Site Overview

Three-way stop

Four-way intersection

Diversity of users

Existing Conditions | Conflict Areas + Traffic Flow



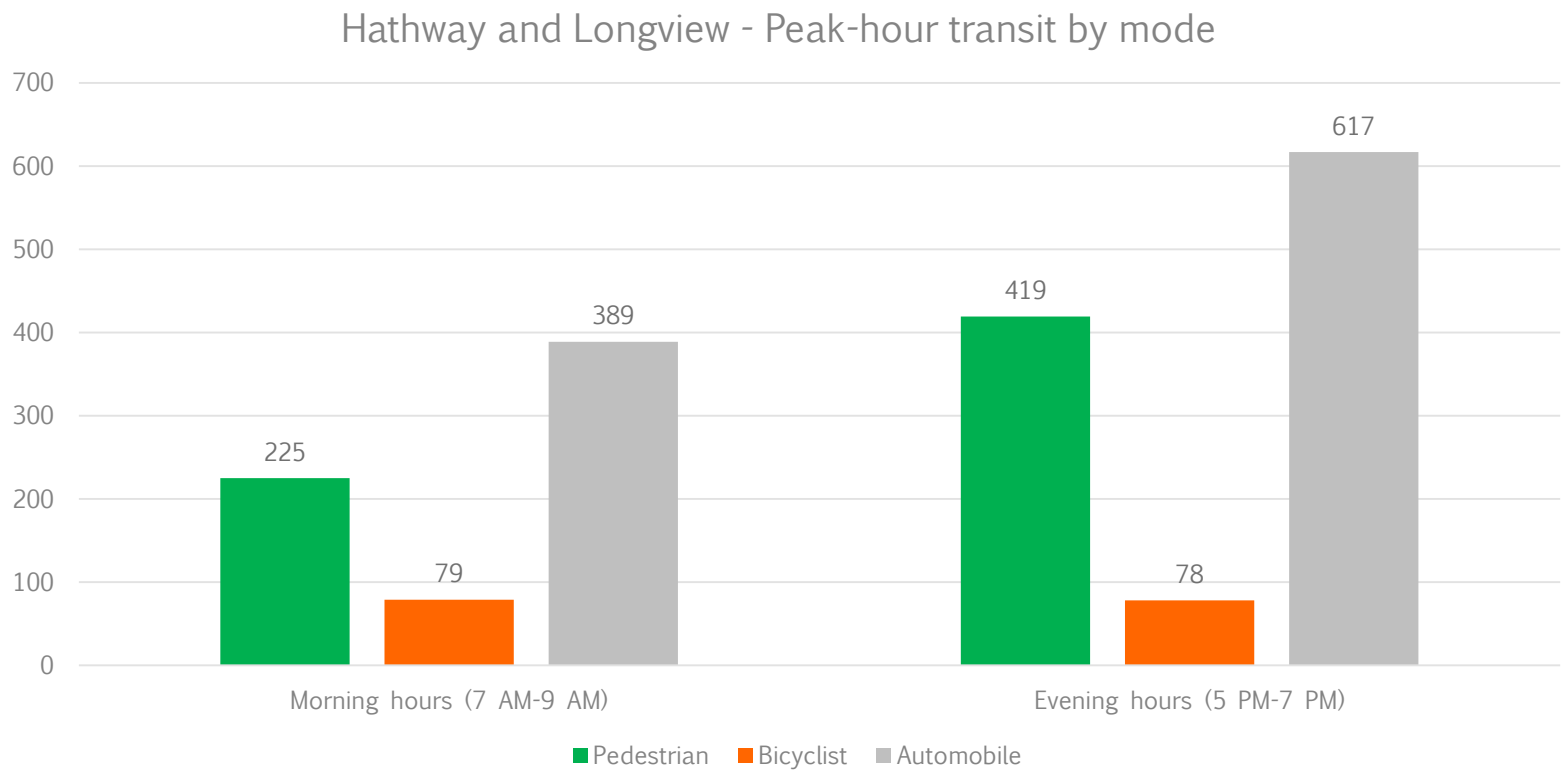
Existing Conditions | Traffic Counts

am

7:00 am - 9:00 am
Pedestrian - 225
Bike - 79
Automobile - 389

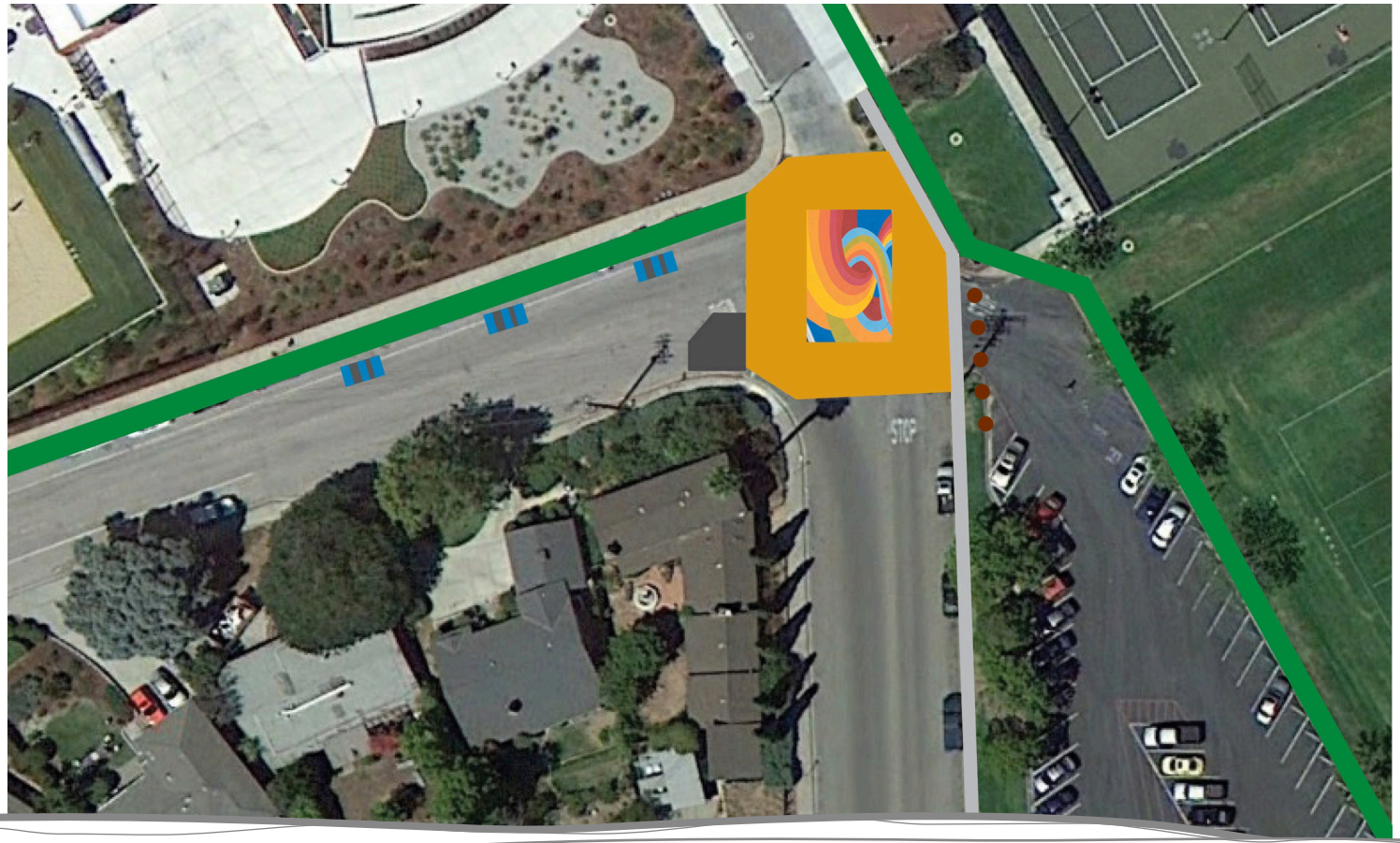
pm

5:00 pm - 7:00 pm
Pedestrian - 419
Bike - 78
Automobile - 617



Conceptual Design Elements | Vision

Painted intersection/crosswalk
Bulb-out for shorter crosswalk
Pedestrian scramble
Class II bike lanes
Bollards blocking parking lot access at intersection



Conceptual Design Elements | Inspiration


Houston, TX


San Francisco, CA


Winchester, England


Portland, OR


Winchester, England

Oakland, CA

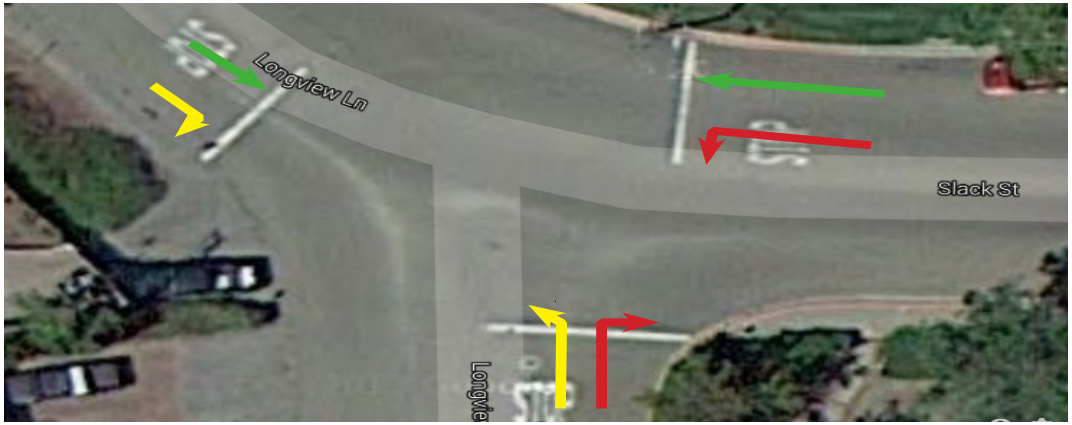
(03) Longview + Slack

Existing Conditions | Site Overview

Sidewalks and Bicycle lanes not present
Crosswalk not present
Busy intersections
Sidewalks and bicycle lanes not present
Unsafe design for pedestrians and bicyclist
Down hill grade Increases vehicular speed
Sidewalks and Bicycle lanes not present
Pedestrian traffic crossing through parking lot
Traffic Calming measures should be implemented to reduce vehicular speeds
Sidewalks and Bicycle lanes not present
Visibility restrictions turning right on slack street

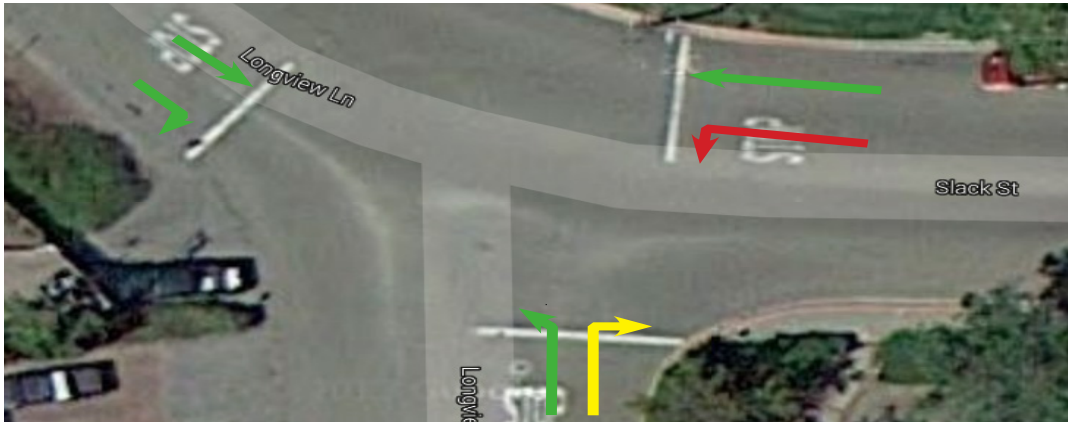
Existing Conditions | Traffic Flow

Red = Low Activity-----Yellow = Moderate Activity-----Green = High Activity



Vehicular Usage

Pedestrian Usage



Bicyclist Usage

Existing Conditions | Traffic Counts

am

7:00 am - 9:00 am
Pedestrian - 27
Bike - 14
Automobile - 348

pm

5:00 pm - 7:00 pm
Pedestrian - 85
Bike - 0
Automobile - 584

Desired Features | Design Concepts

Incorporate bicycle lanes on Slack and Longview

Incorporate a protected bicycle lane along Slack street closest to Cal Poly

Incorporate a wide sidewalk along Slack street

Conceptual Design Elements | Vision 1

Design 1 incorporates bicycle lanes, sidewalks, and a crosswalk.
Design 1 focuses more on the connectivity for pedestrians, bicyclist, and automobiles and less on a design of the site.

Conceptual Design Elements | Vision 2

The Performance center can include weight lifting machines, specially designed for Cal Poly Athletes, a speed training track, and a smoothie bar.

(04) Slack + Grand

Existing Conditions | Site Overview

4-way stop

2 main stops are on Grand Ave.

Most bikers made a left from Grand Ave. to Slack Street

High volumes of traffic near the top of the hour

Existing Conditions | Traffic Counts

am

7:00 am - 9:00 am
Pedestrian - 124
Bike - 85
Automobile - 1,775

pm

5:00 pm - 7:00 pm
Pedestrian - 105
Bike - 107
Automobile - 2,274

Key Elements | Observation

Increase bicycle and pedestrian safety
Traffic calming methods: traffic circle with protected bike lane
Highly visible raised center island
Grand primary street - need for equitable use between modes and streets

Case Study | La Jolla Boulevard

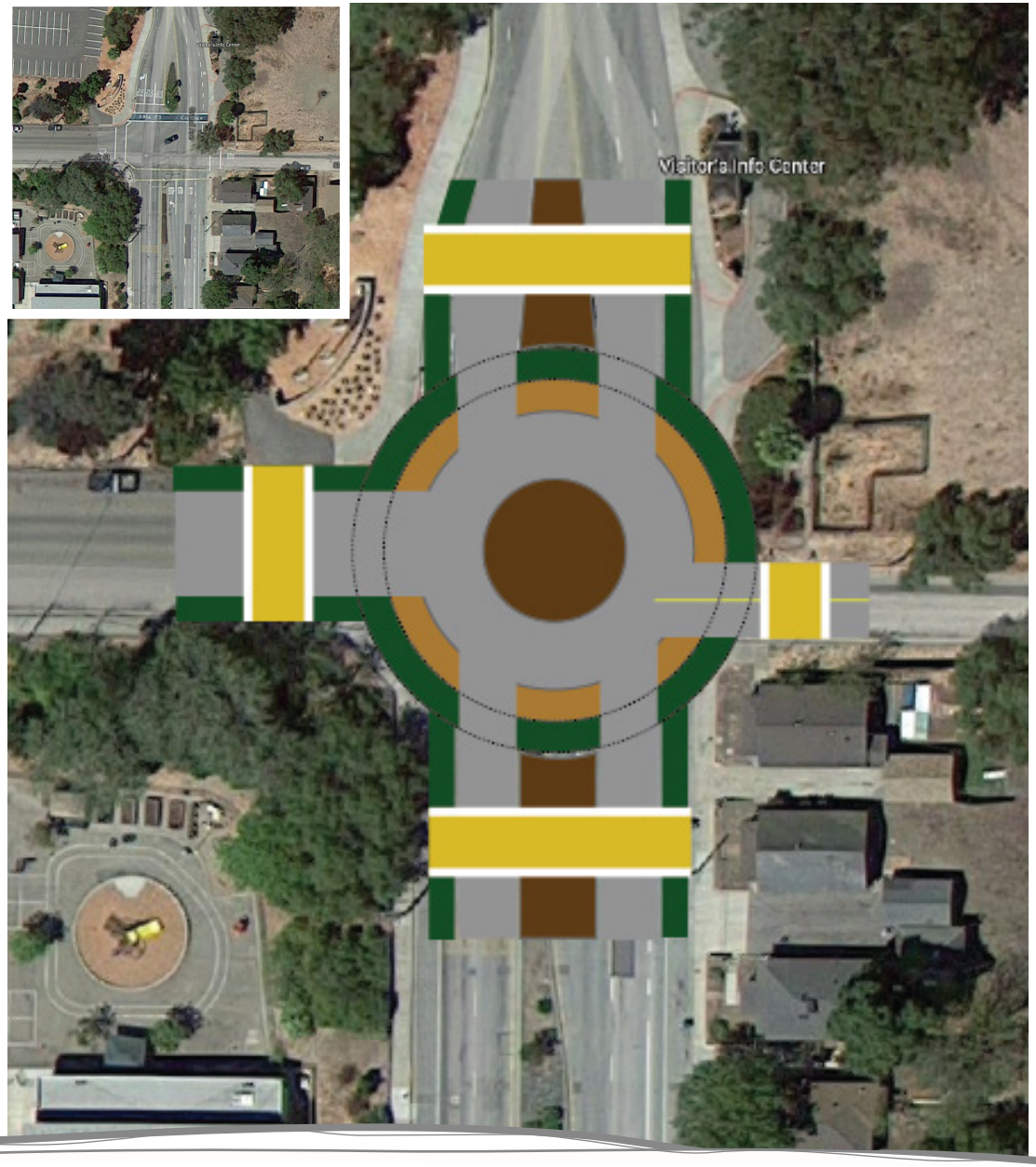
Conceptual Design Elements | Vision

Vegetated roundabout

Bike path separate from car traffic

Barrier separating bike from vehicular traffic

Ped crosswalks with planter buffers
Visitor Center moved



Conceptual Design Elements | Vision Perspective

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For more information | A link to the class video on *Complete Streets* can be found here
https://youtu.be/NKW9-CPcVys

For more information | A link to our data counts can be found here
https://docs.google.com/spreadsheets/d/1cuh01Z9pJUFpmDEMlDGwgOWFpGgih4PU6-4zvBeyXGY/pubhtml