

**The final grant narrative and expense report of:**

**The CSU Campus as a Living Lab support program at the Civil Engineering Department at Cal Poly Pomona**

The CSU Campus as a Living Lab support program was successively implemented by creating and offering an upper-division technical elective course entitled *Sustainability in Transportation* within the Civil Engineering Department at CPP dedicated to the campus transportation safety and efficiency.

The new course introduced methods and procedures in planning, designing, building, operating, and maintaining transportation infrastructure in order to achieve the triple bottom line of sustainability (economy, environment, and equity) as recommended by US Department of Transportation (USDOT) and helped students understand the current practice in maintaining the campus' transportation infrastructure in sustainable way. The campus' transportation system was used as the living lab for this course.

The students within the course were divided into teams to take on specific projects for the campus. These projects were based on sustainable transportation, safe transportation, and equitable transportation. All three topics encourage sustainability on campus by providing the infrastructure to be developed upon. It is critical for students to understand the connection between sustainable practice and policy and the role that infrastructure plays in providing the campus an opportunity to achieve the triple bottom line of sustainability.

The benefits from the new course most directly affected the users of the campus, which includes students, faculty, and administrators. This then in turn had an impact on the surrounding community and businesses due to the nature of how transportation systems interact in a region. The City of Pomona's Master Plan and proposed improvements to traffic flow, growth in transit availability, as well as the construction and implementation of new bicycle and pedestrian facilities was tied into the campus. Students enrolled in this new course gained their understanding of sustainable transportation through learn-by-doing projects.

In specific, the CSU Campus as a Living Lab support program yielded the following outputs:

- 1) Developing a bicycle and skateboarder policy for the campus,
- 2) Implementing a method to better accommodate the different modes of transportation through our campus
- 3) Improving the campus parking structure, thereby reducing carbon emissions from idling vehicles;
- 4) Improving the access and operation of the campus roundabout
- 5) Improving the safety of pedestrians walking at campus.

The expense summary is shown in the following table:

<b>Expenses</b>	<b>Funds Expended</b>	<b>Description</b>
Salaries/Benefits	\$7,000.00	Support the instructor(s) in developing and offering the proposed course.
Stipend	\$2,469.30	Support the guest Speaker in developing and offering the proposed course.
Equipment/Supplies Services	\$2,000.00	Purchase two laptops used by students to collect the traffic data and simulate the transportation system on campus.
Total	\$11,469.30	