

Palm Drive District - Shade Sail Installation - Progress Report

Email

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Project Manager Name

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Requested Metrics

of Students involved - We have added 3 students to our team bringing our total to 6 students involved in our projects with 2 faculty and 2 alumni design engineers

of estimated cumulative hours spent on this project (broken up by students/ staff)

This Palm Drive District has involved many students over many semesters. In January and February, we estimate the following number of hours. Faculty (100 hours), students (225 hours), alumni (30 hours).

Experience of students working on the project - Students continue to be highly motivated on this project due to the sustainability aspects and the concrete contributions they can make. Students continue to stay involved with only 1 earning course credit and other receiving no course credit or no financial compensation.

of photos published - we provided several photos to our contact at a recent meeting. We will post on the CAEM department website and linkedin site.

of news articles published - none to date

of attendees at our open 'tents' - to be scheduled

Project Accomplishments

Our project will install a 20 ft x 12 ft shade sail adjacent to the ECE building and place sensors in air conditioning ducts to monitor the length of time that the air conditioning is active in offices impacted and not impacted by the shade structure.

Prior to this reporting period, an architectural engineering student finalized the size and angle of the sail based on an assessment of sun movement using CAD software. With support from a civil engineering consulting firm, HDR, we have completed the design of foundations and posts. Our new students will be responsible for (a) sail construction management (CE student) and (b) data collection and website development (ECE student). Others have been involved in site work and coordinating structural design.

An Honors student on our team submitting a proposal and was approved to purchase a weather station to be installed in the ECE/CE corridor and supplement the indoor monitoring. The equipment has arrived and our new ECE student is collaborating to prepare data collection and website presentation.

During this period, we have shifted to an inclusive shade sail vendor for the design and construction. We met today (5/3) with the vendor and will receive a bid within 2 weeks that will include a lower cost/less conservative design. We also met with university landscape architects and with FM to discuss installation requirement, plant removal, and sail colors.

The weather station is installed on the CE building roof and we are working on a hard wire connection for data collection. Currently, students will visit the station to download data from the station on a regular basis.

We requested an granted a PAR to continue the project into next fiscal year.

Next Steps

The contractor design will be passed to risk management for permitting. Scheduling of installation is TBD based on design and permitting timelines. We will remove plants and perform some grading prior to installation as well as bluestaking for utilities. We understand that only irrigation lines are located within the impacted site.

Other materials (path access materials, picnic table, signage and sensors) will be order in the fall after students return to campus.

Challenges Faced

Design and cost have been most challenging. We have shifted to the vendor to reduce costs. Their preliminary cost estimates from the vendor should be within budget plus contingency donations.

Project Support

CSF was supportive in identifying sail vendors and we greatly appreciate the time extension for implementation.

Photo Link

Media/Links