

Claremont College Dormitory

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Claremont College Uses bioPCmat in Dormitory Retrofit

Claremont College will spend about \$25 million in a two-phase renovation of the mid-quad residence halls, including the Phillips, Beckett and Berger Halls seen here. Among the challenges for these beautiful buildings, constructed in the 1950's, were the lack of air-conditioning or appropriate lighting and optimal window design. "The goal for all the Mid-Quad buildings is to improve the comfort level and also attain Leed Silver designation," said Stephanie Kingsnorth, the architect from Pfeiffer Partners responsible for the design.

According to Stephanie, one of the major design challenges with the renovation was how best to introduce air conditioning without wasting energy or compromising the overall space. With help from Buro Happold. Stephanie and her team introduced a low velocity HVAC valence system which they complemented with bioPCmat in the western walls, dorm ceilings and corridors.

"Covering the interior of the west walls was very important. The buildings are long and have a north-south orientation so the long west walls get almost full sun, all day," said Kingsnorth. The bioPCmat placed in the west walls minimizes the solar load and ensures higher comfort levels especially in the parts of the building that are not easily served by the low ventilation air conditioning. It had been decided to add a furring on the outside the walls to allow space for the pipes serving the valence conditioning system. The compact and light weight bioPCmat fit comfortably in the same space with the pipes and provided an abundance of thermal storage capacity.

As for the bioPCmat in the halls, it was added to improve the quality of the transfer ventilation.

The net of all these changes will be a great improvement in student comfort with little or no overall gain in energy usage or sacrificed of living space.

Students on campus were happy to see the Mid-Quad buildings preserved. This corner of the campus was always home to a unique culture within the campus. And the renovation will bring new attention to this special corner of the campus and the community.

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