

Campground Cabin Abstract

Project Sponsor A is the head pastor at Church A, located in City A. He is leading a board of church and community members to develop land in City B, which contains nearly 1,000 acres of partially developed campgrounds, including minor facilities and some cabins. Not currently used to its full potential, the sponsor seeks to turn the land into a year-round campground hosting people of all backgrounds and ages. The first phase of this project includes designing cabins for camp users, of which the majority architectural, structural, mechanical, electrical, and plumbing elements of the cabin have been assigned to students at University O, with the help of initial architectural sketches by Architect A.

The designed cabin will be copied multiple times as more cabins are built, intended to be built in sets of four cabins with an accompanying shower house. Each cabin must be twenty-four feet wide by thirty-two feet long with an eight-foot porch off the front entrance. The cabin must sleep twelve to sixteen campers, including space for camp counselors, be “rustic” in appearance, and be durable to withstand varying weather conditions. As the cabins will be used year-round, sufficient air conditioning and heating systems will also be needed. Finally, in order to accommodate various users, there must be some ADA compliant cabins. The campground will be developed purely by the church and community’s generous donations and fundraising. As such, all of this criteria will need to be met with a preliminary budget of \$125,000 per cabin.

The final design of the cabin includes eight bunk beds, seven in the main sleeping area and one in a partitioned counselor’s room. The purpose of the counselor’s room is to provide privacy while still allowing the counselor(s) to hear and monitor the campers as needed. Although shower houses are provided, basic hygienic needs shall be met with one ADA compliant bathroom in each cabin, which includes a toilet and heated sink, and an additional sink immediately outside of the bathroom so other campers are able to brush their teeth or carry on other necessary functions while the bathroom is in use. To create a comfortable, temperature-controlled space, the cabins will feature a PTAC unit both in the front and back of the cabin, with further air circulation supplied by ceiling fans and natural ventilation. As trusses will be implemented to create a forty-five-degree roof system, lights will be mounted to each of the trusses in the main room, and wall sconces will be installed in the bathroom and counselor’s room. Further calculations and design decisions have been made in accordance with Sponsor A’s needs to ensure a safe and reliable living space for future campers.