## Ground-penetrating radar maps buried structures on Mission Hill

By JENNY DUSHECK Sentinel Correspondent

SANTA CRUZ — A score of archaeologists and historians gathered to examine structures under the parking lot of the Holy Cross Church on Mission Hill Wednesday, but not a pick was lifted.

Instead, one man rolled what looked like a large lawnmower across the parking lot while the others peered intently at a video screen, all the while crying out excitedly whenever a blip passed down the edge of the screen.

As part of the Santa Cruz Parks and Recreation Department's \$1.5 million restoration of the School Street Adobe, Stanford Research Institute scientists Lambert Dolphin and Tom Yetter used ground-penetrating radar to map such buried structures as foundations, fire pits, and courtyard walls at the old mission building.

While he was here, Dolphin agreed to map the parking lot for a related project. Cabrillo College instructor Rob Edwards and his students are studying the remains of a similar but larger mission building which runs under the Tefertiller property, and quite possibly, under the Holy Cross parking lot.

Historical archives indicate the existence of 29-room building on the site. Edwards doesn't want to dig up the whole building, but can't be sure he has the right building until he's counted all the rooms, he said. Dolphin's radar map will probably solve his problem.

Similarly, the old adobe mission-building standing across the street may be a 17-room building described in 18th century mission records, but nowadays the building only has seven rooms. Is it the same building?

Parks and Recreation Department archaeologist Larry Felton hired Dolphin

and Yetter not only to answer this question, but to help archaeologists decide what other structures may lie under the historical site. Next fall, state archaeologists will begin reconstructing the 200-year-old building to its original condition.

To do that, they need to know as much about it as possible, said Emily Abbink, who, along with Karen Hildebrand, is a full-time archaeologist at the site. Under the guidance of Felton, Abbink and Hildebrand, they have documented what amounts to remodeling, by the Indian oc-

cupants, in the adobe style; and two major wood-frame changes in 1850 and 1856.

The two archaeologists are able to judge the ages of various improvements by looking to see if lumber was cut with a saw or an axe, or whether the nails are square or round.

Also under the parking lot is an old cemetery. Historians have known about this for some time, partly because bones were unearthed when the area was bull-dozed, but Dolphin said that the radar appeared to pick up the actual gravesites beneath the pavement.



Stanford Research Institute scientist Lambert Dolphin follows radar.

Bill Lovejoy/Sentine