

# SANTA BARBARA COUNTY BOARD AGENDA LETTER



Clerk of the Board of Supervisors  
105 E. Anapamu Street, Suite 407  
Santa Barbara, CA 93101  
(805) 568-2240

**Agenda Number:**  
**Prepared on:** 11/24/03  
**Department Name:** General Services  
**Department No.:** 063  
**Agenda Date:** 12/9/03  
**Placement:** Administrative  
**Estimate Time:** N/A  
**Continued Item:** No  
**If Yes, date from:**

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**TO:** Board of Supervisors

**FROM:** Ronald S. Cortez, Director  
General Services Department

**STAFF CONTACT:** Robert Ooley, AIA, County Architect (x3085)  
General Services Department

**SUBJECT:** SBCH Hall of Records Restoration  
Site # F02001; Project # 8644  
1st Supervisorial District

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## Recommendations:

That the Board of Supervisors:

- A. Approve the plans and specifications for the installation of a geothermal loop field.
- B. Authorize the General Services Department to advertise the project for public bidding.

## Alignment with Board Strategic Plan:

*The recommendations are primarily aligned with Goal No. 2 Ensure the Public Health and Safety and Provide Essential Infrastructure.*

## Executive Summary and Discussion:

The project is the installation of a geothermal loop field system, consisting of 31 boreholes to a depth of 400 feet. The loop field will be installed under the lawn area at the corner of Anacapa and Anapamu Streets. The Hall of Records is one of four buildings location on the city block known as the Santa Barbara County Courthouse, bound by Anacapa, Figueroa, Santa Barbara and Anapamu Streets.

A geothermal system uses a renewable energy source, the earth, to heat and cool buildings. In early 2002, a test bore at a depth of 300 feet was placed on the site of the new District Attorney's office building. That test demonstrated that the constant temperature of the earth under the general area is 69°. When buildings are

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designed, an indoor temperature of 72° is used to model energy loads. In a typical Heating, Ventilation and Air Conditioning (HVAC) system, outside air is used to regulate the heating and cooling equipment. In a geothermal loop system, the earth is used to regulate the heating and cooling equipment. This is important in terms of energy consumption. The less the heating and cooling system has to work to reach the desired indoor temperature, the less energy the system consumes. Because the geothermal system is at 69°, it requires very little natural resources to reach 72°, a 3° difference. Whereas in the conventional system, which begins at a 50° outside temperature, the system has a much greater reach to 72°; some 22° difference. The cooling cycle, or air conditioning, works the same way.

There are two primary reasons for the installation of the geothermal loop system over a conventional air coil system. First, the installation of an air-coiled system would require the placement of mechanical equipment on the roof or on the ground near the Hall of Records. While the Santa Barbara County Courthouse is a State Historic Landmark, the placement of such equipment would compromise the historic building and landscape. Second, in order to provide better working conditions for the staff of the Hall of Records AND not compromise the historic interior of the Hall of Records; a ductless system must be used. The Mechanical Engineer and Restoration Architect have solved this requirement by placing the mechanical equipment inside the furniture. The furniture will become the duct used to move hot or cool air throughout the space.

Timing for the installation of the geothermal loop field has been set around the re-planting of the courthouse lawn, which occurs in March 2004. Bid opening is scheduled for January 10, 2004 and construction is planned to begin in February 2004, with completion anticipated for March 2004.

**Mandates and Service Levels:**

No change in service levels.

**Fiscal and Facilities Impacts:**

This project is estimated to cost \$210,000. It is being funded with funds from the Clerk-Recorder-Assessor. Funds for the current fiscal year have been appropriated and are available in Fund 0030 Department 063, Account 8200, Program 1930, Project 8644. It is shown in the Department Summary as *Capital Improvements* in the Santa Barbara County Budget for FY 2003-2004.

**Special Instructions:**

Upon approval and execution, the Clerk should distribute as follows:

Minute Order - to the County Architect