

DEPARTMENT: Public Works

By: Jim Petropulos

Phone: 966-5356

RECOMMENDED ACTION AND JUSTIFICATION: (Policy Item: Yes ___ No X)

Public Works is requesting authorization to expend \$9,990 from General Fund Contingency in order to contract with Kleinfelder Inc., a geotechnical firm, to conduct a soils investigation to determine the extent and cause of recent cracking of the old Mariposa Jail (10th Street and Old Highway) structure.

To determine the exact cause of the structural cracking will require a subsurface investigation of the soil conditions at the site. This will require some excavation, soils testing and observation of the underlying foundation of which only a qualified geotechnical firm such as Kleinfelder Inc. should undertake.

BACKGROUND AND HISTORY OF BOARD ACTIONS:

The settling problem became evident this month and appears to be worsening. The Building Official and the Public Works Director inspected the structure and determined that a soils investigation should be considered. Kleinfelder Inc. inspected the structure at no cost and subsequently submitted a proposal (attached) for a geotechnical investigation. The completed investigation will provide recommendations for remedial approaches.

LIST ALTERNATIVES AND CONSEQUENCES OF NEGATIVE ACTION:

It is unknown what the consequences will be as a result of negative or no action. Staff can only guess as to what additional structural damage may occur. The geotechnical investigation should provide the information needed as to how to proceed to remediate this problem.

COSTS: () Not Applicable	
A. Budgeted current FY>	\$ 0
B. Total anticipated Costs>	\$ 9,990
C. Required additional funding>	\$ 9,990
D. Internal transfers>	\$ 0

SOURCE: (X) 4/5th Vote Required	
A. Unanticipated revenues>	\$
B. Reserve for contingencies>	\$ 9,990
C. Source description: >	

Balance in Reserve Contingencies, If Approved:
\$ Current Balance: \$364,287
if approved: \$354,297

SPECIAL INSTRUCTIONS:
List the attachments and number the pages consecutively:
1. Budget Action Form
2. Petropulos memo to Richards and Davies
3. Proposal submitted by Kleinfelder Inc.

CLERK'S USE ONLY

Res. No.: 01-309 Ord. No.: _____

Vote - Ayes: 4 Noes: _____

Absent: Reilly Abstained: _____

Approved Denied
 Minute Order Attached No Action Necessary

The foregoing instrument is a correct copy of the original on file in this office

Date: _____

ATTEST: _____
MARGIE WILLIAMS, Clerk of the Board

By: _____
Deputy

ADMINISTRATIVE OFFICER'S RECOMMENDATION:

This item on agenda as:

- _____ Recommended
- _____ Not Recommended
- _____ For Policy Determination
- _____ Submitted with Comment
- _____ Returned for Further Action

Comment: _____

C.A.O. Initials: JP

BUDGET ACTION FORM

FUND	DEPT/DIV	ACCOUNT	DESCRIPTION	PROJECT	INCREASE	DECREASE
001	0128	473-0413	Maintenance Buildings		9,900	
001	0104	414-1090	GENERAL CONTINGENCY			9,900
TRANSFER BETWEEN FUNDS						
TOTAL					9,900	9,900

ACTION REQUESTED: (Check all that apply)
 (X) Budget appropriation by Board of Supervisors (4/5ths Vote Required): Amending the total amount available in the county budget, or in any one fund of the budget, or appropriating Reserve for Contingencies;
 () Transfer by Board of Supervisors (3/5ths Vote Required): Moving existing appropriations from one budget to another, or between categories within a budget unit;

JUSTIFICATION: See attached Board item.

DEPT HEAD SIGNATURE *[Signature]* DATE 10/23/01
 APPROVED BY RES NO. 01-309 CLERK *[Signature]* DATE 11-6-01

0128-FACILITIES

AUDITOR'S USE ONLY
 BA#

**DEPARTMENT OF
PUBLIC WORKS**

Divisions of:

- Design & Construction
- Administration
- Operations

COUNTY of MARIPOSA

4639 Ben Hur Road
Mariposa, CA 95338
(209) 966-5356



James J. Petropulos
Director

October 18, 2001

M E M O

TO: Sheriff Pelk Richards
Assistant Sheriff Howard Davies

FROM: James J. Petropulos, Public Works Director

SUBJECT: Old Mariposa Jail Geotechnical Investigation

Attached for your review is the proposal received from Kleinfelder Inc. for geotechnical engineering for the possible settling of the old jail structure. The estimated cost is \$9,990. However, if we provide the personnel necessary to excavate the test pits, the estimated would be \$7,300.

If you would like to proceed, I would be willing to present this to the Board of Supervisors and possibly request funding from the General Fund Contingency.

Should you have any questions or comments relative to this proposal or the project, please do not hesitate to contact me.

dp

Attachment as noted



October 16, 2001
File No.: 21-YP5-111

Mr. Jim Petropulos
Mariposa County
4639 Ben Hur Road
Mariposa, California 95338

**SUBJECT: Proposal for Distress Study/Geotechnical Investigation
Old Mariposa County Jail
Mariposa, California**

Dear Mr. Petropulos:

Kleinfelder is pleased to present this proposal for performing a distress study/geotechnical investigation for the Old Mariposa County Jail located in Mariposa, California. The purpose of our investigation is to explore and evaluate the subsurface conditions, to evaluate pad properties, and make visual observations of the distress in order to assist in the formulation of opinions regarding the mechanism of the distress and possible remediation approaches.

Kleinfelder is committed to providing quality service to its clients, commensurate with their requirements and desired level of risk. If a portion of this proposal does not meet the needs of Mariposa County, or if those needs change, Kleinfelder will consider appropriate modifications, subject to the standards of care to which we adhere as professionals. Modifications such as changes in scope, methodology, and contract terms may result in changes to the risks assumed by Mariposa County, as well as adjustments to our fees.

GENERAL INFORMATION

This proposal is based on conversations with Jim Petropulos, a site visit and review of plans for the old Mariposa County Jail dated May 5, 1996, November 5, 1973, January 2, 1976, May 25, 1976, August 23, 1976 and July 27, 1979. Based on review of the provided plans, it appears that separate recommendations/details regarding foundation depths were provided. The plans

indicate the jail is mostly supported on fill soil. Plans dated May 5, 1996 for the original construction indicate spread foundations embedded into native soils. Details for a squad room, records room and three offices, dated November 5, 1973, indicate 18-inch concrete caissons. The plans for the final addition, dated January 2, 1976, indicates footings supported by lean concrete that extends a minimum of 15 inches into original grade (1.75 feet to 7.5 feet). A plan dated May 25, 1976 is an addendum to the Foundation Plans dated January 2, 1976, and indicates footings supported by lean concrete that extends a minimum of 6 inches into original grade. A second revised foundation detail, dated August 23, 1976, indicates footings supported by lean concrete that extend down to original grade.

We understand that distress was recently noticed at the old Mariposa County Jail. The distress was in the form of a three-quarter to one-inch wide crack. The distress appears to be isolated to the exterior walls and ceiling at the junction between the latest addition and the original construction.

SCOPE OF SERVICES

We propose to conduct a floor level survey using a monometer to indicate a pattern of relative movement. Readings obtained will be corrected for changes in slab elevations (i.e., steps, floor coverings) so readings reflected a common datum. If the floor level survey indicates movement, we propose to explore the subsurface conditions at the site by performing three (3) exploratory test pits along the exterior of the building. Due to limited access, we anticipate the excavations will require two people to dig the test pits. We may sample fill and native materials as deemed necessary. An engineer from our firm will maintain a log of the soils encountered and obtain samples for visual examination, classification, and laboratory testing. If the floor level survey indicates no relative movement, we may suggest that a structural engineer be contacted to investigate the structural integrity of the structure.

Laboratory tests may be performed on selected soil samples retrieved from the test pits to evaluate the strength and compressive characteristics of the materials encountered. Tests that may be performed include moisture content, dry unit weight, direct shear, and collapse potential.

Results of our field exploration, laboratory testing and distress analysis will be summarized in an engineering report prepared under the direction of our registered civil engineer containing at least the following:

- Results of applicable field and laboratory tests
- Discussions with the County about construction information and utility performance
- Vicinity map and site plan with test pit locations and floor level survey contour lines
- Laboratory testing
- Evaluation of probable distress mechanism
- Recommendations for remediation approaches

Kleinfelder will perform its services in a manner consistent with the standards of care and skill ordinarily exercised by members of the profession practicing under similar conditions in the geographic vicinity and at the time the services will be performed. No warranty or guarantee, expressed or implied, is part of the services offered by this proposal.

FEES AND AUTHORIZATION

For the scope of work outlined above, we will charge on a time and materials basis with an estimated fee of \$9,990.00. If our scope of work requires changes due to changed/unforeseen conditions, we will contact you regarding any additional fees necessary to complete our geotechnical investigation. However, we will not exceed \$9,990.00 without your prior authorization. If the County wishes to provide personel to excavate the test pits, our estimated fee may be reduced to \$7,300.00.

Reciept of your standard contract will serve as our formal authorization to proceed on this work.

COPIES OF REPORT

We will provide five (5) bound copies of our report. If additional copies are required, we can provide copies at an additional cost (in accordance with our current fee schedule) and after receipt of a written request from Mariposa County.

Under no circumstances will we provide a copy of the report to other design consultants or contractors without written permission from Mariposa County. Information gathered by Kleinfelder will be considered confidential and will be disclosed to third parties only upon Mariposa County written authorization or as required by law. California state law requires Kleinfelder to inform appropriate government agencies if a situation is encountered which may immediately endanger the public's health or welfare and/or the environment.

CONDITIONS

We require the right of entry to conduct the investigation. Our estimated fee is based on the assumption that any necessary permits will be provided by the County.

PERFORMANCE SCHEDULE

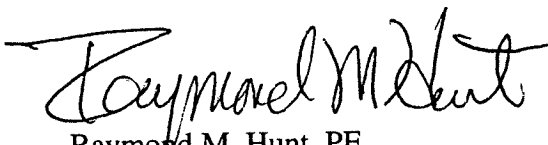
We anticipate scheduling and completing our floor level survey and field investigation within three weeks of your notice to proceed. We anticipate sending out a completed report within three weeks after our field investigation has been completed. Verbal recommendations can be provided sooner in order to facilitate any repair or mitigation design process.

CLOSING

We are very interested in serving as consultants for this project and appreciate your consideration of our firm. If you have any questions concerning our proposal or require additional information, please call Ray Hunt at (559) 486-0750.

Respectfully submitted,

KLEINFELDER, INC.



Raymond M. Hunt, PE
Project Engineer

RMH:tjg