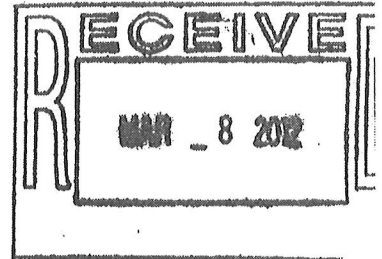


Job # 1112



Smitho Engineering and DY Calison

2201 Francisco Dr., Ste. 140-167

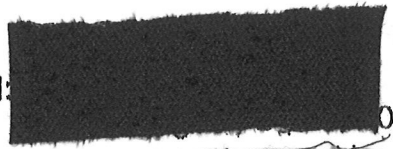
El Dorado Hills, CA 95762

Phone: (916) 941-1500

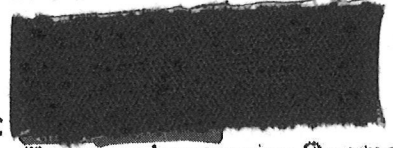
Fax: (916) 941-9133

***** Privileged and Confidential *****

INSURED:
LOSS LOCATION:



JOB NUMBER:
CLAIM NUMBER:



Insurance
ADJUSTER:

Farmers Insurance Company



Report Date: Sept. 29, 2011

THIS REPORT FURNISHED AS PRIVILEGED AND CONFIDENTIAL TO
ADDRESSEE. RELEASE TO ANY OTHER COMPANY, CONCERN, OR
INDIVIDUAL IS SOLELY THE RESPONSIBILITY OF THE ADDRESSEE.

ASSIGNMENT

Farmers Insurance assigned Smitho Engineering and DY Calison to perform an inspection of the Llopis residence in Citrus Heights, California. The purpose of this inspection was to evaluate the property for its structural stability / soundness on the date of the observation; in particular, to determine the cause of the driveway failure.

This letter is to serve as my report for the structural observation made on September 27, 2011.

DESCRIPTION

The property is a one-story wood framed residential home with composition roofing. The residence sits on a relatively flat lot. All pictures referenced in this report can be found attached in figures 1-2. The home owner was present at the time of the inspection. According to the owner the home was built roughly 30-40 years ago.

OBSERVATIONS

The driveway at the residence is approximately 29 ft long and 16ft wide; The thickness is approximately 4". The driveway is severely cracked, lifted up, and sunk. The driveway is lifted up on the left side where it meets the garage. There is a liquid amber tree on the right side of the driveway (see photo #4). There is a drain line under the driveway approximately 8' from the garage door (see photo #5). This area is severely sunk. The drain in the driveway collects water from the right side of the home and from the driveway, and drains out on the left side of the home approximately 60 ft from the collection point in the driveway to the street. Tree roots from the liquid amber tree are visible on the right side of the driveway. The concrete is lifted in several locations. The owner stated that there was a leak in the water line on the city side of the meter and the meter box was full of water as was the drain line in the driveway. A pressure test was done on the water lines and they did not hold pressure. The leak was found to be in the hall bathroom toilet. There were no other leaks found in the water lines.

DISCUSSION

Cracking in the concrete is normal in large driveways. However lifting and sinking of the concrete is normally caused from a condition not related to the concrete itself. Liquid Amber trees are known for their root system to come to the surface especially in hardpan soil. The drain line in this driveway appears to have been put in after the driveway was installed. It appears the drain line was properly installed. Constant running water in an existing ditch will erode the soil. Over a short period of time the eroding can cause the

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top service to collapse. In a condition where there is already cracking in the concrete, the process will take a shorter period of time to collapse. The owner stated that the driveway has been cracked for a period of time, but when the water leak occurred the sinking of the driveway was immediate.

CONCLUSIONS

Based on a thorough review of the evidence from the site inspection, statements from the owner, and photographs, the following conclusions appear warranted.

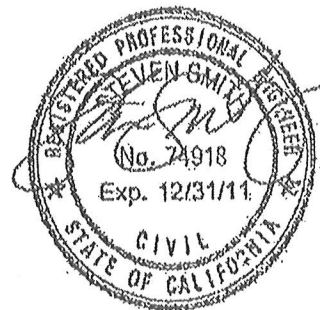
1. It is of my opinion that the severe lifting of the concrete is due to the roots of the liquid amber tree. The cracking in the driveway has become progressively worse over time due to the tree roots. The sinking of the concrete especially in the drainage line area is due to the water leak that had occurred in the water main.

SMITH ENGINEERING reserves the right to amend or revise this report if additional information is discovered that was not available at the time of the inspection. If additional information is discovered it should be forwarded to our office for review and comment.

If you have any questions regarding this inspection report, please call Steve Smith at



STEVEN SMITH
LICENSED CIVIL ENGINEER No. 74918



9-30-2011

PHOTO #1

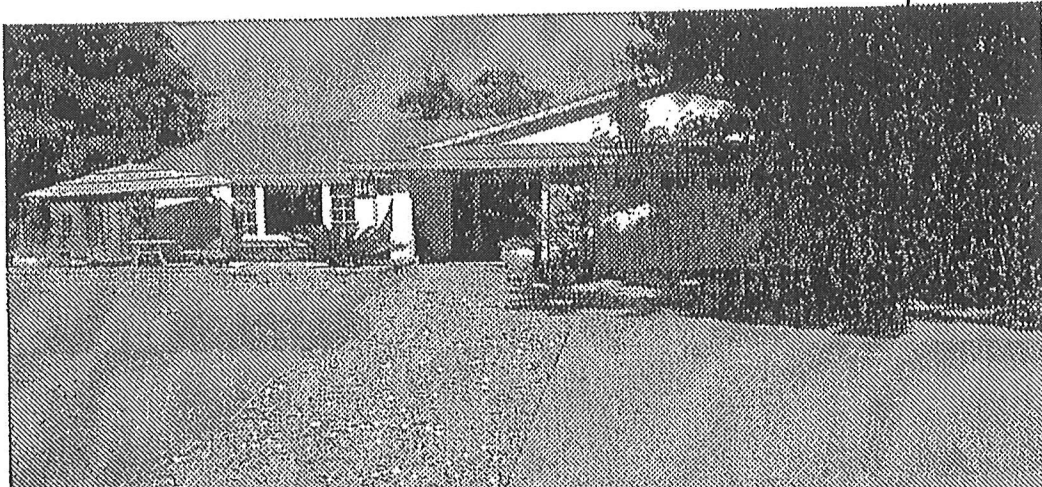


PHOTO #2



PHOTO #3



PHOTOS 1-3

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FIGURE

1

PHOTO #4

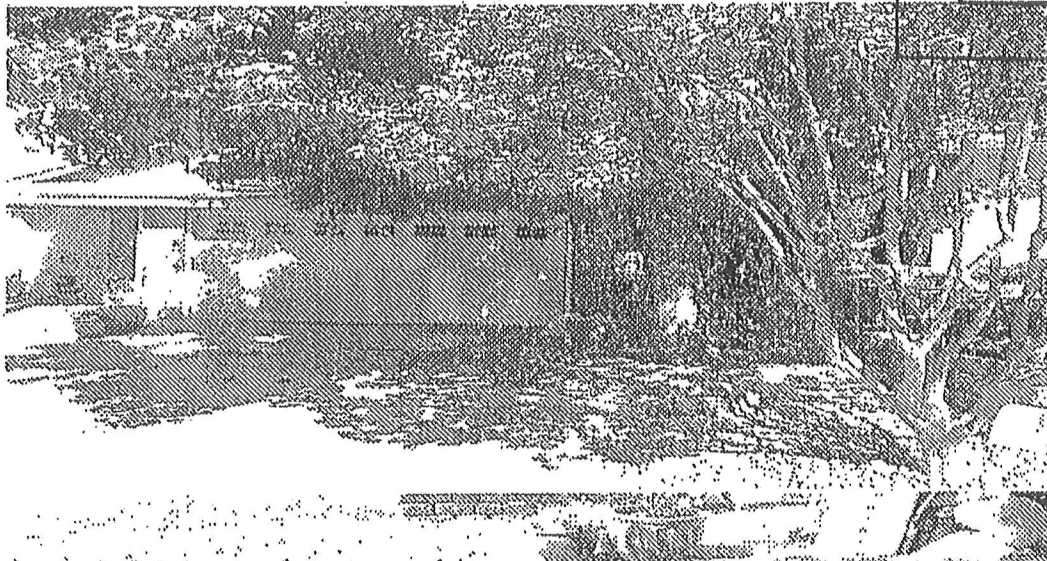


PHOTO #5

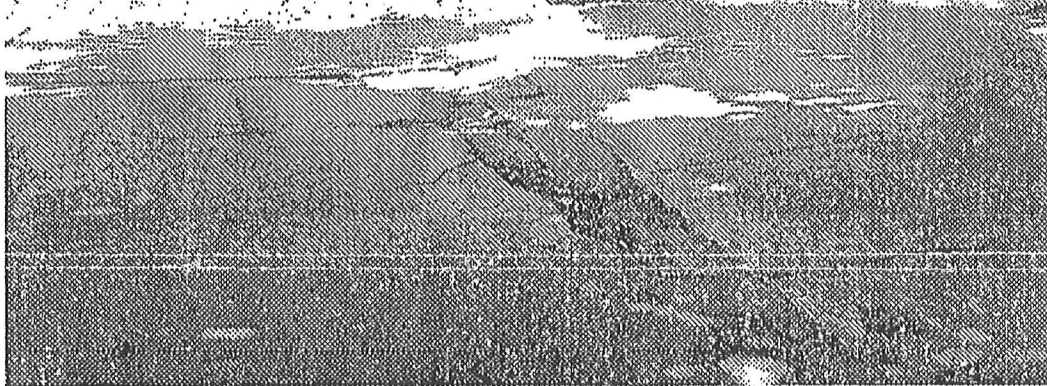


PHOTO #6



PHOTOS 4-6

FIGURE

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2