

CITY OF CLAYTON

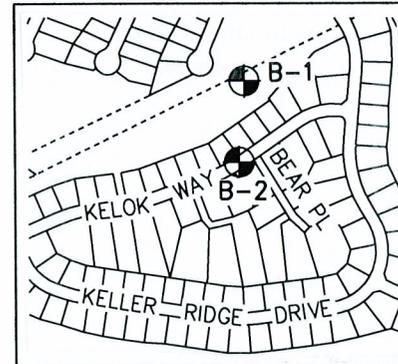
OAKHURST GEOLOGIC HAZARD ABATEMENT DISTRICT

**GHAD NEWSLETTER
AUGUST 2006**

(Note: The five (5) previous Newsletters (dated March 1999; May 1, 2000; March 21, 2001; August 2002; and May 2004 may be viewed on the City's Website at www.ci.clayton.ca.us under "City Council" → Geologic Hazard Abatement tabs)

The District's last Newsletter was issued in May of 2004. The primary topic of that Newsletter was the investigation into a possible landslide that was beginning to evidence itself in the large open space slope between Golden Eagle Place and Kelok Way.

The GHAD paid for two slope inclinometers to be installed: one in the open space slope and the other in the Kelok Way pavement. GHAD's consultant, Berlogar Geotechnical Consultants, issued a report in April 2004 stating the readings taken in the slope area inclinometer (B-1) indicated the existence of a slow moving landslide at a depth of approximately 30 feet below the surface of Golden Eagle Place.



Obligations of the GHAD

Any development of hillside areas brings with it potential problems far beyond those normally associated with residential subdivisions. In order to offset any citywide responsibility for future geotechnical problems in this hillside development, the Clayton City Council required the developer, Presley Homes, to form the GHAD covering all of the lots and open spaces within the Oakhurst development. The GHAD was assigned the responsibility for the maintenance of certain facilities, e.g., concrete v-ditches and open space storm drains. In addition, the GHAD has the authority, **but not the obligation**, to perform repairs to public and private properties caused by certain geologic hazards such as landslides, provided GHAD is given assessment revenues.

At the time of the 2004 report, there was no evidence in the Kelok Way inclinometer (B-2) or in Kelok Way itself of any movement or ground displacement. It was estimated that as many as six houses were possibly in danger of some damage due to the continued movement of the landslide. With the proximity of the houses to the slope, the only practical way to stabilize the slope is to install large diameter, deep drilled concrete piers into the bedrock below the slide plane. Berlogar estimated the cost of this work to be between \$8 - \$12 Million.

Since May 2004, the GHAD has paid for the continued monitoring of the inclinometers and inspection of surface conditions in the vicinity of Kelok Way. The most recent letter report from Berlogar, dated March 3, 2006, states the landslide has continued to move at an annual rate of 1 inch at a depth of 60 feet. In addition, between January 2003 and March 2006, a movement of approximately 1 inch was noted at a depth of

28 feet first revealing a secondary slide plane that has developed near the surface elevation of Golden Eagle Place.

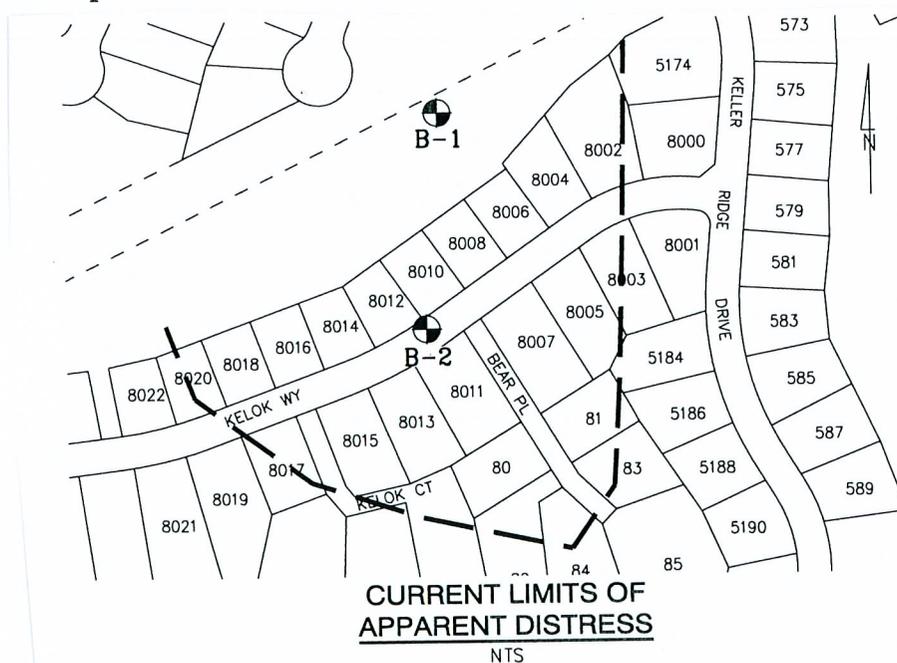
During the first week of August 2006, the GHAD District Manager fielded a call from the property owner at 8020 Kelok Way stating that he had been informed by the home inspector of a potential purchaser of his property that the house appears to have settled by 3.5 inches in one corner. Further inspection will be necessary to confirm the accuracy of this statement. However, if it is true and if it is attributed to this slide movement, it will significantly expand the area thought to be potentially affected by the landslide.

On August 3, 2006, Berlogar performed a cursory visual inspection of the Kelok Way and Bear Place street areas. Berlogar reports that separations between the sidewalks and driveways and garages are now noticeable on the south side of Kelok Way and at the first house on the east side of Bear Place (see map attached). It is likely this movement is associated with the inclinometer readings and indicates the impact area of the landslide may be more extensive than originally anticipated.

Consultant's Conclusions

The March 3, 2006, Berlogar report noted that, at a minimum, several homes on Kelok Way were being impacted by the movement and that it was possible that more houses could be impacted if the movement continues. Further, Berlogar believes the asphalt cracking that has developed in Kelok Way over the past two years is likely associated with this slide movement. If this is true, underground utilities could also be affected which could lead to even more significant problems (e.g., a water line break saturating and further destabilizing the hillside, a sanitary sewer break contaminating the soils, and/or breakage in natural gas distribution lines).

With movement being observed on the south side of Kelok Way, it is becoming more evident the area being endangered by this landslide may be much larger than originally anticipated and could affect 15 or more houses in the area.



Stabilization Options

According to the expert consultant, there are generally two methods for landslide stabilization. The first is an earthwork solution that involves removing the landslide material, installing an extensive subdrainage system, and replacing the material as engineered fill. However, the presence of the existing houses along the top of the slope precludes this type of solution. The second method involves a structural solution, such as the installation of large diameter, deep-drilled, reinforced concrete piers. The cost of the structural solution is substantially more costly than an earthwork solution. Berlogar believes the construction-alone cost of this structural solution would likely be in the \$8 to \$12 Million range.

Latent Defects

Home builders are legally responsible for latent defects in their product (lot and house construction) for a period of ten (10) years from when its construction is substantially complete.

Latent defects are those defects which are not visible or obvious to a home buyer. Such defects can include, but are not limited to, inadequate electrical wiring, improper foundation materials or construction, any materials or construction methods that do not satisfy the requirements of the various Uniform Building Codes, and even the improper grading of a lot such that the lot does not drain properly or the lot fails to provide proper support for the house and other improvements.

In order to protect one's interests, a homeowner who suspects that a latent defect exists **MUST** file a lawsuit against the homebuilder within that ten (10) year period. Missing the ten (10) year period by even one day can leave the homeowner without any protection from any problems or costs associated with the latent defect. This deadline is even more important when the defect concerns something that is not covered by homeowner's insurance, such as earth movement or landslides.

If you believe your property is at risk, it is strongly suggested that you promptly consult an attorney.

Financing Options

It now appears a catastrophic movement of the Kelok Way landslide could destroy or damage as many as fifteen or more houses. Such an occurrence would likely have ramifications to the residents and the property values of the Oakhurst development far beyond the Kelok Way area.

Obviously, the estimated cost for the structural solution is well beyond the abilities of any individual property owner as well as the GHAD's current financial condition. The only avenue open to the GHAD to raise funds for such an undertaking would be the sale of special revenue bonds which must then be repaid over 20 to 40 years through annual real property assessments on **ALL** of the real properties within the Oakhurst District (1,484 dwellings).

In order to raise \$12 Million for construction, it is necessary to sell approximately \$14 Million in bonds. The \$2 Million in additional funds are required for such items as Debt Service and Interest Reserve Funds, bond Insurance, Underwriter's Discount and the costs of bond issuance. It is estimated the annual assessments for a 30-year repayment period would have to range from approximately \$675 per year for a single family residence to \$338 per year for a multifamily unit. Fortunately, the GHAD has this capability provided a majority of the Oakhurst property owners vote to authorize such an assessment.

This year's GHAD annual assessments range from \$8.36 to \$53.76 per real property parcel. Any increase above that amount requires by law the approval of a majority of the property owners participating in a ballot election. Within the next month, the GHAD will undertake an opinion survey of the Oakhurst property owners to determine if there is enough interest to warrant the holding of such an election to perform the structural solution to the Kelok Way landslide.

For questions regarding this Newsletter or to receive a copy of the Berlogar Report, please contact GHAD District Manager, Rick Angrisani at 925.672-9700. The latest Berlogar Report may also be viewed on the City's website under the "City Council" tab → Agendas & Minutes, for the GHAD Board meeting of August 15, 2006.

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