

Home Owners at Siena Hill
79 Siena Hill Dr.
Oakland, Ca 94605

9/18/13

Scott Miller
250 Frank H. Ogawa Plaza
Oakland, CA 94612

Dear Scott Miller,

We are in receipt of your letter dated February 28, 2013 addressing our request of removal from the Oakland Area GHAD. Below is a list of reasons as to why all of us presently living at the Siena Hills development would like for either the Oakland Hills GHAD to be abolished altogether or to have the Siena Hill development extricated from the Oakland Hills GHAD.

First and foremost, as per the geological study performed on the properties to date, it indicates that any and all geological hazards are very low or non-existent. Interestingly enough, the only two geological hazards identified by the ENGEO GHAD consultants were slope instability and seismically induced ground shaking as per page 6 of the GHAD Plan of Control dated May 9, 2006. It is our understanding, that ENGEO never performed their own independent geological study, and therefore based all of their conclusions on the only study done to date by Gary Underdahl. This being the case, we find it interesting that within the Underdahl study it indicates these two geological hazards are actually non-existent. So from a geological and engineering perspective there are no geological hazards that need abatement. Please read through the attached exhibits that clearly attest to these conditions. The exhibits are as follows. Exhibit A. The ENGEO letter dated November 14, 2005, on page 1 ENGEO indicates that it based its geological findings on the Gary E. Underdahl report from 2001. Exhibit B. The Gary Underdahl geotechnical investigation dated September 10, 2001 indicates on page 4 paragraph 4 that the risks of earthquake induced landsliding and lurch cracking are essentially non-existent on the site, because of the hard rock at shallow depths. The risks of earthquake induced liquefaction or lateral spreading are also non-existent, because the lack of saturated clean silts or sands. So at risk of being redundant we repeat, from the standpoint of earth science, there are no geological hazards that need abatement.

Second, upon review of the Agenda Report dated May 26, 2006, it is noted in that report under KEY ISSUES AND IMPACTS that a slide took place at the north-western edge of the property. We have reviewed the Gary Underdahl geotechnical report and there is no mention of such a slide. The Agenda Report is the report given to city council informing them about the project. This being the case, it appears as though both the city council and the planning commission were given incorrect information upon which they based their vote that created the GHAD. The City of Oakland Agenda Report attached and is labeled Exhibit E.

ATTACHMENT H

Third, in the ENGEO SLOPE MAINTENANCE OVERSIGHT ENTITY ALTERNATIVES ANALYSIS dated November 14, 2005 alternatives to a GHAD are studied and no strong conclusion warranting a separate GHAD is made. In fact, located within the DISCUSSION section of the paper, ENGEO actually recommends that the Siena Hill development be annexed into an existing GHAD not to have a separate independent GHAD created. The paper goes on to point out the several advantages of a GHAD when there are several contributing properties. The homeowners within the Siena Hill development benefit from none of the mentioned advantages because of the small size of the subdivision. We have attached the ENGEO letter and highlighted the bullet points where benefits are noted and are not bestowed upon us or our development. Please review the attached document labeled Exhibit A, and you will see that the true intention of the GHAD is not realized in the case of the Siena Hill development, and that the creation of the individual GHAD for the Siena Hills development is actually contrary to the consulting GHAD geologist's advice.

Fourth, in the ENGEO PLAN OF CONTROL dated May 9, 2006, labeled Exhibit C, several gaping holes in the coverage are found. On page 11, the last paragraph it states that at the sole discretion of the GHAD general manager the GHAD may elect to not prevent, mitigate, abate or control a geological hazard where, in the general manager's sole discretion, the anticipated expenditure required to be funded by the GHAD to prevent, mitigate, abate or control the geological hazard will exceed the value of the structure(s) and improvement(s) threatened with damage or loss. This clause allows the managers of the GHAD to administer the plan inequitably favoring homes of greater value. One of the first GHAD's to be formed in the state of California was a GHAD in Blackhawk. Homeowners in Blackhawk do not have to worry about a slide that may cost more to repair than the value of their home. Homes in Blackhawk consistently sell in the \$3 million to \$15 million price range. Slides with such high costs are rare. However, slides that cost \$500,000 - \$600,000 to mitigate are not so terribly uncommon. For this reason, we take special prejudice to this one clause within the plan of control. Why would the Oakland City Planning Commission want to saddle its taxpayers with such a disproportionate tax burden that denies them the same benefits as the wealthy? Furthermore, the clause states that at the general manager's sole discretion it may be decided that no action is taken. As the ENGEO papers indicate, a GHAD is analogous to an insurance policy. As we see this, the city of Oakland obligates us as homeowners to purchase an insurance policy for which we must pay. We can't fathom how anyone in their right mind would purchase an insurance policy with a clause such as this one. This begs the question. Why would the planning commission expect us to pay for an insurance policy with such gaping holes in coverage and treats us inequitably relative to the more wealthy?

Review Exhibit C

Fifth, as per the letter dated February 28, 2013 from Scott Miller it states that the Siena Hill homes have not been officially accepted into the Oakland Hills GHAD. This will only take place upon completion of the remaining 22 homes within the subdivision. GHAD fees are still being levied and collected for services that are not rendered or even available to the taxpayers of the subdivision. It may be 10 to 15 years before the remaining 22 homes are completed due to the

present economic conditions nationally and locally, and yet as taxpayers we are still obligated to pay the special GHAD assessment.

Sixth, in accounting documents sent to us from the GHAD, we see that in excess of \$45,000 has been spent on attorney and management fees. We see this as gross mismanagement. The Oakland Hills GHAD has not officially accepted members and yet the organizers of the GHAD see it fit to spend \$46,882 upon themselves to administer no tangible benefits. For this reason alone, we see the GHAD as an inefficient government boondoggle for which we foot the bill.

Seventh, we believe that the tax obligation created by the GHAD is unconstitutional. Interestingly enough, a similar case was recently heard by the Supreme Court. The National Federation of Independent Business v. Sebelius and Florida v. Health and Human Services were two cases brought before the Supreme Court in 2012. These were two of the cases brought to the Supreme Court in an effort to repeal Obamacare. The Supreme Court upheld Obamacare and the individual mandate within the law. However, Obamacare has one key difference when compared to the GHAD. Obamacare gives all Americans a choice to purchase any type of healthcare insurance that they please. Furthermore, if they don't purchase healthcare insurance, then they pay a small penalty. With the GHAD, we have no choice at all. We believe that if Obamacare obligated all citizens to purchase their healthcare insurance from one government selected provider, then surely the Supreme Court would have ruled differently.

Seventh, we have hired Kevin Ryan, a licensed geologist to consult us who is an RG, a registered geologist, a CEG, an engineering geologist, and a California Certified Hydrogeologist, a CHG. Kevin has put together a bid for the Siena Hills HOA to cover the responsibilities of the current Plan of Control. See Exhibit D. Kevin's fee for the yearly monitoring service comes to a total of \$1,500 per year. This correlates to \$150.00 per year per house. Presently, all of us cumulatively pay over \$30,000 per year for the same services that are supposed to be rendered to us annually, but are not. This gross difference in fees indicates to us that the GHAD is not efficiently well run. It is plagued with inefficient high priced professionals, who have by their own admission no oversight whatsoever as well as some legal immunity. GHAD's have been created with no oversight so as to avoid the political problems that may arise if oversight is provided. However, it appears on every level in this case that the lack of oversight has created several unwanted symptoms. We are victims of several of these unwanted symptoms.

We ask cordially that you review our request with true fervor and interest. It has taken us 5 years to get to this point. So, please don't simply glance over this letter and decide that something that was decided a long time ago during different economic times can simply go forward without reversal. Several of us asked city staff just how to abolish the GHAD over the last several years and were responded to with a no at every turn. It was not until March 2012 that a meeting with Eric Angstadt was scheduled during which Eric stated, like a true professional, that this is the United States, and there is due process. There is a way to get into something; and therefore there must be a way to get out of it.

We all thank Eric for his kind consideration, and insight into the real issue at hand here. Yes, this is the United States. And in the United States, citizens have the right to be heard, and they have the right of due process. By granting us this chance you are honoring our due process rights. Weigh all of the issues here. If you really take the time to understand all of the issues here from the standpoint of good geological science, the economic impacts of the GHAD has on our development and each and every one of us who lives here and calls this home to the non-existent protection that this GHAD affords us, then you will see that this GHAD really has no real reason to continue. Abolish it and render us happier taxpaying Oakland citizens.

Thank you for your consideration.

Sincerely,

HOA President,
All residents, &
Land owners

Siena Hill Directory

Address	Name	Home	Office	Mobile	E-mail
64 Siena	Bank Owned				
67 Siena	Minnie Lin and John Laforga			Minnie (415) 999-0013 John (510) 825-1138	twosmrt@gmail.com
68 Siena	Mark and Nicola Schoneman		510.318.4876		mschonem@starbucks.com
71 Siena	Ronald Johnson			510-812-8686	K60508@a4.net
72 Siena	Jessica Lai		(415) 362-5990	(925) 640-6297	jesslai6@yahoo.com
75 Siena	Tracy Preston	(510) 638-1076	(415) 501-3970	(415) 637-5852	tpreston@levi.com
76 Siena	David Newton			510.689.9886	BlissSaam2@gmail.com
79 Siena	Sonya & David Simril	(510) 878-2684	Sonya (510) 654-7828	Sonya (510) 684-7178 David (510) 684-7185	ssimril@aol.com QStorm59@aol.com
80 Siena	Rachel Lozano	(510) 777-9681	(510) 667-4374	(510) 377-5181	mssereno@yahoo.com
84 Siena	Golden Venters Shevette Swayze-Venters			Golden (925) 305-0857 Shevette (510) 543-6812	golden@sourceleadership.org shevette_swayze@hotmail.com
hases 2 & 3	Oakland Siena LLC Kevin Kwok/David Eckert/George Mak		Kevin (415) 725-1287 David (510) 339-4720		KKwok02@gmail.com georgemak@yahoo.com

DocuSigned by:

Min Hui Lin

5506FD85BD6947D...

DocuSigned by:

John Lafor

28243CD08CBE4

DocuSigned by:

Mark Schoneman

2F5F70F155F34BA...

Ronald Johnson

DocuSigned by:

3A26AFD2376E4B7...

DocuSigned by:

Tracy Pru

F862E4DED5D...

DocuSigned by:

Sonya Simril

B23827B0A0C488...

DocuSigned by:

David Simril

DocuSigned by:

AC2730A40121466...

DocuSigned by:

Golden Venters III

DocuSigned by:

98B8CD5013BF479...

DocuSigned by:

Kevin Kwok

DocuSigned by:

E578A28CD4B141D...

12/20/13

Heather Klein

1 Frank Ogawa Plaza

Oakland, CA 94612

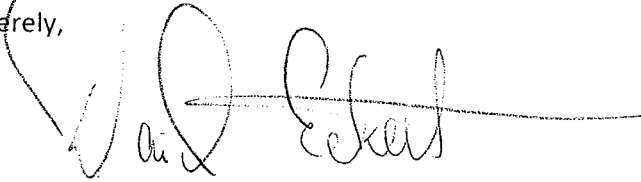
Dear Heather,

Our group would like to make an amendment to our letter that accompanied the application submitted 10/7/13 for the de-annexation of the Siena Hills subdivision from the Oakland Area GHAD.

Please find that attached copy of the statute which allows for the dissolution of the GHAD provided 51% or more of the owners are in favor of such a motion.

Thank you for your cooperation.

Sincerely,

A handwritten signature in black ink, appearing to read "David Eckert", with a long horizontal flourish extending to the right.

David Eckert

Date: 1/10/15

To: Heather Klein

From: Siena Hill subdivision

RE: Amendments to GHAD removal of condition of approval

In reviewing our GHAD assessment, it becomes obvious that the fee is high relative to other GHAD fees. We have randomly selected 3 other well known local GHAD's and in an attempt to compare their fees on a more equal basis, we have looked at each GHAD, its fees, and the total square footage for which each GHAD district is responsible and divided its total fees by each GHAD's acreage. The GHAD's selected were the Blackhawk GHAD, the Leona Quarry GHAD, and the Wilder GHAD in Orinda. When one completes these calculations, it becomes very obvious that the GHAD fee paid by Siena Hill homeowners is not only excessive, but jaw dropping high. We have included each POC for each GHAD for your review as well a tax bill from a randomly selected property within each GHAD. The Blackhawk GHAD collects fees a little differently than the other 3. The Blackhawk GHAD fee is approximately 6.8% of the 1% ad valorem tax on Blackhawk property tax bills. An email from the Blackhawk GHAD administrator is included to attest to this feature. The Blackhawk GHAD budget has been included as well.

The disparity between the Siena Hill fees and the others is truly astounding. With Siena Hill residents paying \$27,214.68 per acre per year and Blackhawk residents paying about \$350 per acre per year, there is almost an 8,000% difference between the two. In order for the fees at Siena Hill to be on par with Blackhawk's, the Siena Hill fee would have to be brought down to \$41.02 per year. The Siena Hill fee is now \$3,189.22. Even when compared to the Leona Quarry GHAD, which has the third highest GHAD fee, the Siena Hill GHAD fee would have to be \$485.85.

As each site is different, a true comparison is difficult to make. However, just like school districts come up with a per pupil cost of education with great varying costs based on dozens of factors, a per acre cost of each GHAD should be a tool used in determining whether or not a particular group of homes would be a candidate for a GHAD or not. When comparing one site's conditions to another a general conclusion can usually be made and when comparing the selected sites geological conditions one can quickly conclude that the Siena Hill site has the most innocuous conditions of all of the sites. With this knowledge, one would think that the Siena Hill GHAD should be collecting less per acre than the other GHAD's not more.

Please find the attached graph and property tax bills for your convenience.

In addition to the aforementioned, we recently received an accounting of the Siena Hill GHAD funds indicating that in 2014 alone attorney's fees added up to \$36,959.55. This is the largest expense, but please don't skip over the fee from Francisco and Associates for the CPI adjustment which annually bills \$1,925.00 for raising the assessment. This is particularly difficult to understand. The GHAD fees are attached to a 3% inflationary index. Why is it so expensive for the firm taking care of this to simply

multiply the assessment by 3%, fill the county assessor's form out, send it in to the assessor, and the change be made? We can't imagine this takes more than an hour or so of work. Are we being billed at \$1,925.00 per hour? This again points to the expensive nature of GHAD's and the poor placement of the Siena Hill subdivision within a GHAD. A small subdivision is simply an improper placement. The GHAD consultant even points this out in the Alternative Analysis study that is in staff's possession.

We reviewed the agenda of the March 10, 2014 meeting, see attached, and refute each one of the arguments supporting the continuation of the GHAD. The arguments in favor of the GHAD are labeled A through E.

Item A. states that there are slopes on the site steeper than 2 to 1. **This is not true.** The statement does not quantify if the slopes considered are post development or predevelopment, but in both cases slopes of this steepness are not encountered on the site. Under Surface Features, Page 2 of the Gary Undedahl report it states that the slopes range from 2H:1V to 3H:1V in the site's predevelopment stages. To determine the slopes post development slope conditions, simply review the final grades located within the plans, or review the Gary Underdahl final grading report sent to the city July 26, 2006. Located on the last page, Underdahl indicates that all of the grading was done per his recommendations which require that all slopes be equal to or less than 2H:1V.

Item B. states that a landslide is identified on the property. This was discussed at the meeting and staff responded to this in a letter dated June 30, 2013 recanting previous definitive statements about a slide. To date, there is no definitive evidence of a slide ever occurring on the property.

Item C. is subjective at best and does necessitate a GHAD.

Item D. is subjective as well and is not a good argument for a GHAD.

Item E. is somewhat ridiculous. Yes, the GHAD is public policy by virtue of its existence. However, simply stating as such is not a good reason to allow the condition of approval to continue as a condition of approval for the subdivision. If simply stating that something is public policy is a reason for not changing public policy than laws would never change once created. Slavery was public policy until President Lincoln passed the emancipation proclamation. Jus primae noctis was the law of the land for thousands of years and had the people successful in outlawing such a law taken the stance that since the law stands therefore it should not be changed, then the world would be a very odd place indeed. Our point being, simply stating that something is public policy and using this as a reason to continue as such is a very bad reason in and of itself to have such public policy continue.

Date: 1/11/15

To: Heather Klein

From: Siena Hill subdivision

RE: 2nd Amendment to GHAD removal of condition of approval

1. One more item to add at this time. We do not find a sufficient nexus between why the city created this GHAD and the Siena Hill subdivision. The GHAD was created because the city of Oakland has numerous properties that contain geological hazards and the city wanted an instrument to protect itself from liability associated with the various improvements. There is no nexus between other properties located within the city of Oakland and this one.

Step 1 implementation

Project No.
6964.1.001.01

November 14, 2005

Mr. Ed Patmont
Hillside Homes Group, Inc.
184 Rudgear Drive
Walnut Creek, CA 94596

Subject: Siena Hill
Oakland, California

SLOPE MAINTENANCE OVERSIGHT ENTITY ALTERNATIVES ANALYSIS

Dear Mr. Patmont:

ENGEO Incorporated is pleased to provide this organizational structure alternatives analysis for a slope maintenance oversight entity associated with the proposed project located in Oakland, California. We understand that as a Condition of Approval for your proposed 32-lot development, the City of Oakland has required the formation of a Geologic Hazard Abatement District (GHAD) or the annexation of the project into an existing GHAD. The purpose of this study is to present the advantages and disadvantages, including the proposed responsibilities, of various entity structure alternatives, as well as a preliminary estimate of homeowner assessments that will be necessary to finance future maintenance and corrective activities.

GEOTECHNICAL CONDITIONS (GARY E. UNDERDAHL, 2001)

A Geotechnical Investigation was completed for the site in 2001 by Gary E. Underdahl (Underdahl). The scope of the investigation included the following:

- A review of pertinent available geologic maps, soil maps, and reports.
- Exploration of the site, including a reconnaissance and excavation of three test pits.
- Laboratory testing on selected samples to assess pertinent soil properties.
- Development of conclusions and recommendations regarding potential geologic hazards, slope stability, site preparation, foundation design, and drainage design.
- Preparation of a written report presenting findings, conclusions, and recommendations.

ATTACHMENT H
EXHIBIT A

Although a comprehensive assessment of geologic hazards was beyond the scope of Underdahl, the report indicated that although strong shaking could be expected to occur at the site due to a major Bay Area earthquake, the risk of surface rupture during an earthquake was determined to be very low. Cut and fill slopes at the site were considered satisfactory; however, the risk of slope failure would increase if soils became saturated or in the event of a large proximate earthquake. To lessen the risk of slope instability, it was recommended to use rock-bearing foundations and limit graded slopes to a maximum gradient of 2:1 (horizontal to vertical). - done as per soils engineer recommendations

SCOPE OF PROPOSED ENTITY

Based on a review of the previous geotechnical investigation, the following maintenance items would likely be incorporated into the proposed slope maintenance entity. This list is preliminary and may change if further data associated with a more detailed investigation would dictate additional concerns.

- Inspection and maintenance of lined ditches.
- Monitoring and maintenance of measurement devices, such as piezometers, inclinometers, and tiltmeters, if any.
- Inspection and maintenance of retaining walls.
- Maintenance of designated trails or fences, if any.
- Inspection and maintenance of surface water quality treatment and detention facilities within the development, if any.

GEOLOGIC HAZARD ABATEMENT DISTRICTS (GHADS)

Geologic Hazard Abatement Districts, or GHADs, were created in California in 1979 by the Beverly Act to enable local residents to collectively mitigate geological hazards which pose a threat to their properties. GHADs are designed to handle long-term abatement and maintenance of real property potentially threatened by earth movement.

When established, a GHAD is an independent political subdivision of the State. It is not an agency or instrument of a local agency, and therefore is not subjected to control by a local agency. It is granted similar authority as other local agencies, including the following:

- Taxing ability
- Bonding ability
- Certain legal immunity
- Can sue and/or be sued
- May exercise eminent domain

A GHAD is designed to address the prevention, mitigation, abatement, and control of geologic hazards on all land within its boundaries. For the purposes of a GHAD, a "geologic hazard" is defined as any actual/threatened landslide, land subsidence, soil erosion, earthquake, fault movement, or natural/unnatural movement of earth. Further, as a prudent landowner, a GHAD is able to acquire, construct, operate, manage, or maintain improvements on any land it specifically owns. There are no limits or requirements pertaining to size, number of units, or contiguous boundaries (i.e. a GHAD may contain numerous non-contiguous parcels).

As required by the Beverly Act, a GHAD is governed by a Plan of Control (POC). The Beverly Act requires that a California Certified Engineering Geologist (CEG) prepare the POC. A typical POC may address the following:

- Boundary description, geotechnical data base.
- Plans (including drainage and corrective grading).
- Criteria for GHAD involvement.
- Maintenance and monitoring plan.
- Prioritization of expenditures.
- Identification of Board structure (note: often the BOD is the legislative body which forms the GHAD).

In order to develop a POC, the CEG reviews previous or current data pertaining to site history, historic performance, inspections, surveys, engineering analyses, and conclusions with regard to geologic or geotechnical issues that may affect the site. Once reviewed, and after appropriate input from project team consultants, landowner(s), local agencies, and other project stakeholders, the report will be completed.

Once a GHAD is formed, it is typically financed through the collection of supplemental tax assessments. The revenue is typically split between an ongoing operations/maintenance fund and the accumulation of a reserve for less frequent major repair items. To meet the requirements of Proposition 218, the assessments are typically applied and collected in a uniform manner. A separate Engineer's Report is developed and serves as the basis for the operating budget.

The following is a list of steps necessary to form a GHAD:

- The Applicant or agency prepares a POC (this is used throughout the process; attached to the formation petition).

- Legislative body adopts a resolution declaring it will be subject to the GHAD law (this has already occurred in the City of Oakland).
- Proceedings for formation are initiated by either a signed petition of at least 10 real property owners or by resolution.
- The petition of formation is formally accepted by legislative body at noticed public hearing.
- Legislative body conducts a hearing after 20-day notice to all property owners; proceed if absence of majority protest (by assessed value).
- Legislative body then decides within 60 days of meeting whether to form.
- If formation is ordered, must select Board (typically legislative body).
- POC is developed; acts as governing document.
- Prop 218 process (roughly 60 days).
 - ◆ Engineer's report with budget; discusses special benefit.
 - ◆ Authorizes assessment.
 - ◆ Vote (following 45-day notice); majority based on assessed value needed; public protest allowed at hearing.
 - ◆ Authorization to levy (typically 1 year).
 - ◆ Levy imposed typically 1 to 3 years after; often triggered by Final Map or building permits.
- Property is eligible for acceptance (all conditions have been met); often 30 to 60 days; developer addresses punch list, then accepted.

Advantages of GHADs

- GHADs increase long-term security of property values. They provide a means of documenting property conditions, maintenance and repairs. *except in this case*
- GHADs can carry out any activity typical of a prudent landowner on property owned by the GHAD.

- GHADs act as a form of insurance to provide a reserve for significant probable, yet unforeseen geologic issues.

- GHADs are also looked upon very favorably by lenders and governmental agencies. *insurance policies have language that does not leave it up to an administrator*

- Activities are exempt from LAFCO and CEQA. *not true*

- GHADs enjoy significant liability protection (immunity typical of other state political subdivisions).

- GHADs are typically administered in an independent, objective manner.

- POC minimizes cost uncertainty and protects budget line items.

Disadvantages of GHADs

- Once formed, GHADs cannot be easily dissolved. *we agree*
- GHADs are relatively new in numerous jurisdictions, leading to a necessary education process for public agencies.

HOMEOWNERS ASSOCIATIONS (HOAS)

Homeowners associations (HOAs) are organizations composed of local property owners within a residential development, neighborhood, or other self-designated entity. The HOA is a chartered organization that requires membership of all homeowners; the organization is subject to governing bylaws. HOAs are typically formed at the time of development by Codes, Covenants and Restrictions (CCRs) and are included with property deeds associated with the parcels within the development. The typical scope of the HOA is associated with routine maintenance of common areas of the development, including streets, recreation areas, open space, lighting, and other privately-owned improvements. California law stipulates that HOAs elect officers and carry out responsibilities as outlined by the HOA charter.

In the absence of a GHAD, HOAs established in hillside residential communities will often incorporate maintenance of slopes, emergency vehicle access roads (EVAs), drainage improvements, subdrain systems, and other geologic-related issues into the scope of the governing charter. HOA Maintenance Plans work similar to GHAD plans of control; short-term and long-term maintenance responsibilities and associated estimated costs must be detailed when the plan is developed.

SLOPE MAINTENANCE OVERSIGHT ENTITY ALTERNATIVES ANALYSIS

Advantages of HOAs

- Offers an entity/mechanism through which owners can jointly share in long-term maintenance activities that jointly benefit the entire development.
- The HOA acts as a mechanism that implores the owners to proactively address routine maintenance on items covered by its charter.
- A financial reserve may be developed through the collection of regular fees to help defer the cost associated with less frequent but more substantial maintenance activities.
- HOAs tend to highlight the need for routine maintenance, imploring residents to be better caretakers of common area improvements.

Disadvantages of HOAs

- HOA maintenance plans usually only address common area improvements. Soil movement, due to expansion, settlement or creep on an individual's property, are often exempt from consideration for upkeep and repair by HOA.
- The HOA budget typically does not include line items for regularly scheduled maintenance activities. Funds that should be used for geologic-related maintenance may be diverted to other projects or items.
- HOAs are often subject to personality conflicts among residents, and therefore, typically do not function as an independent or objective entity. This can be detrimental to the function of the HOA, often resulting in substantial litigation.
- A developer of real property may be culpable for the HOAs' inaction and/or negligence.
- HOA is NOT a public agency.
- HOAs may have significant liability issues and do not have an ability to tax or issue bonds. *have the ability to*

HYBRID ENTITY

While either GHADs or HOAs have been used at developments similar to the proposed project, it is conceivable that a "hybrid" entity could be developed to take the place of a GHAD or an HOA. Such an entity would function like an HOA and could be defined in the CC&Rs associated with the development. A specific oversight board could be elected from among the residents, or function oversight could be vested within HOA board itself. In order to function correctly, a budget incorporating both routine operations and, if desired, a financial reserve for less frequent but more

costly activities, would have to be established at the time of the formation. Assurances would have to be established to prevent a reallocation of funds from the geologic reserve into other maintenance items pertaining to development common space. Additionally, a mechanism would have to be put in place to assure regular dues are collected from residents. While (in theory) HOA dues are binding and may be subject to litigation in the case of delinquency, a GHAD assessment is extremely safe, as delinquency could be counteracted with a lien or other action similarly applied to delinquent tax bills.

150 can HOA dues

Hybrid Entity Advantages

- Relatively easy to form; could be handled at the time of CC&R development.
- Similar in function to an HOA; could be easily comprehended by residents of the development.

Hybrid Entity Disadvantages

- Despite intent, may be difficult to assure revenue stream through collections. - not true
- Despite intent of the language of the charter, may not be able to prevent "pilfering" of the geologic reserve (if applicable).
- Significant liability issues for the HOA or governing board.
- As in the case of the HOA, significant liability inherent for the developer.

DISCUSSION

While all three options discussed above are conceivable for your proposed development, based on a review of the advantages and the disadvantages associated with each of the options, we recommend annexation into an existing GHAD. This option provides the most attractive alternative for both short-term and long-term maintenance and expenditures. Although there has been a desire expressed to not provide a long-term reserve, given our experience with similar projects as well as the regional geology in the vicinity of the site, it would be prudent from a financial and a legal standpoint to develop a reserve. Additionally, while several action items need to be addressed to facilitate an annexation, the effort would provide a significant benefit for the development. Some of these include the following:

- Independence – Once formed, the GHAD is a separate state political subdivision; it is no longer an extension of the residents or the developer.

- Significant acceptance in Northern California – Similar projects have been subjected to GHADs, and numerous public agencies have embraced their use. We understand that your project has a GHAD stipulated as a Condition of Approval; this is further evidence of their acceptance.
- Relative assurance of function and revenue certainty – Given the prospect of tax delinquency, collections are relatively assured, providing revenue certainty for operations and long-term reserves. Also, given their independent function, there is little chance that funds would be diverted for non-GHAD-related open space expenditures. *not true in the leas d.*
- Similar assessment rates to the HOA/Hybrid option – It is unlikely that assessments would range widely between the three options discussed. Through annexation, however, there is an economy of scale that may be realized that would not be attained through an HOA or Hybrid entity. *10x the difference*
- Exemption from CEQA – In the event of a mitigative action, the functions of a GHAD are typically exempt from CEQA processes. This allows for a far nimbler, timely response when action is needed.

Although these benefits are realized whether or not a property is annexed into an existing GHAD, several additional advantages may be realized for this project through annexation into the existing Leona Quarry GHAD. As a result, annexation into the Leona Quarry GHAD offers a significantly better alternative for the future landowners of Siena Hill than any other alternative. Further, several benefits may be realized by the future landowners of Leona Quarry. Some of the additional benefits are as follows:

- Relative Simplicity of Annexation Compared to New Formation – Generally speaking, it is easier from a procedural and legal standpoint to annex a project into an existing GHAD as compared to the formation of a new GHAD. The annexation process is somewhat streamlined as compared to the new GHAD formation process and therefore typically offers a savings of both time and money.
- Economies of Scale – A GHAD is, in many ways, analogous to an insurance company. For a typical insurance company, as additional parties with similar risk profiles are accepted into the insurer's portfolio, the risk of claims is mitigated by the additional premiums collected from policy holders. This allows the insurer to offer more attractive premiums as well as provide a cost effective means to protect against insolvency that could result from an appreciable number of catastrophic claims. A GHAD is afforded similar benefit; the more units (assuming similar ratio of geologic risk to annual levy) that are accepted into a GHAD, the greater the reserve, financial protection, and flexibility for lower assessments realized by the GHAD. The economy of scale would provide significant benefit to homeowners of both Leona Quarry and Siena Hill. *does not apply*

Why would you cheat the Siena GHAD of these benefits

SLOPE MAINTENANCE OVERSIGHT ENTITY ALTERNATIVES ANALYSIS

- Operational Efficiencies – Through annexation, operational and administrative efficiencies may be realized. The same Board of Directors may be used, eliminating the need for an additional or redundant executive body. Additionally, efficiencies are realized for all administrative functions, allowing for an attractive savings of financial resources that would otherwise need to be expended in the event of two stand-alone entities.
- Similar Geologic Setting – Although Leona Quarry and Siena Hill each present unique geologic and geotechnical challenges, both are located in geographic proximity to each other. Because of the geographic proximity and similar geologic settings, technical expertise and administrative resources may be optimized, leading to a savings of financial and administrative resources.
- Unique Annexation Opportunity – The Leona Quarry GHAD has recently been formed; however, because the project is under construction, no homes have been built and consequently no assessments have been collected for the financial reserve. Therefore, a unique opportunity exists for annexation of the Siena Hill project into the Leona Quarry GHAD. Typically during an annexation, property owners that are joining the established GHAD must pay an additional assessment portion to match the existing financial reserve. This will often place a substantial financial burden onto potential landowners. In this case, since no financial reserve exists, Siena Hill homeowners need only be assessed based on their proportional contribution to the GHAD. As a result, both Siena Hill and Leona Quarry would be able to realize all of the benefits described above, especially the resulting economies of scale and likely resulting lower assessments.

We look forward to our ongoing involvement with you on this project. If you have any questions regarding the contents of this letter, please do not hesitate to contact us.

Very truly yours,

ENGEO INCORPORATED

Reviewed by:

Jeffrey A. Adams, PhD
jaa/jb:slope

Uri Eliahu

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Council delivers death blow to GHAD

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Posted: Thursday, September 16, 1999 12:00 am

By Katie Cooper/Staff Writer | 0 comments

After a long and tortuous road of lawsuits and legislative appeals, the City Council on a 4-1 vote, with Councilwoman Joan House voting no, finally dissolved the Las Tunas Geological Hazardous Abatement District.

The city originally attempted to dissolve the GHAD in 1993 after the district produced a plan for preventing erosion on Las Tunas Beach that the city deemed unacceptable. Challenging the city's right to dissolve it, the GHAD sued the city in 1994. The trial court ruled in the city's favor, but a court of appeal said the state law on GHADs did not permit the city to undertake the dissolution.

The city then turned to Assemblywoman Sheila Kuehl, who won passage of a bill that granted cities the dissolution power. But that law inadvertently breathed new life into the GHAD, at least temporarily, because of a loophole in the law that made the city assume responsibility for the district's financial obligations.

Shortly before a council meeting during which the district would have been dissolved, the GHAD board of directors voted to treat all of the district's expenses as loans that must be repaid. Theoretically, that meant that if the council dissolved the district, the city would have to repay members for their expenses. More than \$2 million was originally set aside for the formation and the functioning of the GHAD.

The city then filed suit to force the GHAD board to rescind the resolution. Board member Lloyd Ahern said Monday that the board had recently done so.

But there may be more GHAD story to tell.

As part of the dissolution, the council ordered the GHAD to disperse funds under a lawsuit settlement with TICOR Insurance Company. Those funds were originally provided to pay for an erosion plan for Las Tunas Beach and to remove the groins that used to sit along the beach.

But Ahern said the GHAD board has no jurisdiction over the funds that remain under the settlement agreement.

"Our lawyers say we have no jurisdiction, but [the council] ordered us to do it anyway," said



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Ahern.

In other matters, the council voted unanimously to install a storm water treatment facility at the Malibu Road drain, commonly known as the "mystery drain."

The 24-inch diameter storm drain carries runoff from Malibu Road, Malibu Colony Plaza and a private golf course into Malibu Lagoon, and is considered one of the major sources of the lagoon's pollution. The facility will treat dry-weather flows and disinfect the water before it discharges into the lagoon.

Also unanimously, the council named Harold Greene and Carl Rimple to the Native American Cultural Resources Advisory Committee.

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Posted in News on Thursday, September 16, 1999 12:00 am.

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Posted: Thursday, April 15, 1999 12:00 am

By Katie Cooper/Staff Writer | 0 comments

Despite a new state law empowering the City Council to dissolve the Las Tunas Geological Hazardous Abatement District, the GHAD has cheated death once again.

Using what the city calls a "sham transaction," the district has tied the city's hands and is forcing it, for the time being at least, not to dissolve the district.

The city originally attempted to dissolve the GHAD in 1993 after the district produced a plan for preventing erosion on Las Tunas Beach that the city deemed unacceptable. Challenging the city's right to dissolve it, the GHAD sued the city in 1994. The trial court ruled in the city's favor, but a court of appeal said the state law on GHADs did not permit the city to undertake the dissolution.

The city then turned to Assemblywoman Sheila Kuehl, who won passage of a bill that granted cities the dissolution power. Now, the law that was specifically meant to bring the district to an end has inadvertently breathed new life into it. Under the law, the city must assume responsibility for the district's obligations.

Shortly before a council meeting during which the district would have been dissolved, the GHAD board of directors voted to treat all of the district's expenses as loans that must be repaid. Theoretically, this means if the council dissolved the district, the city would have to repay members for their expenses. More than \$2 million was originally set aside for the formation and functioning of the GHAD.

Faced with uncertainty about its financial obligations, the city filed suit late last month against the GHAD board, claiming that the resolution converting the expenses to loans was a "sham transaction and a fraud." The city is seeking an order from the court declaring the resolution null and void.

In her complaint filed jointly with outside counsel, City Attorney Christi Hogin argued, "Unless restrained by an order of this court, defendants . . . will have created sham transactions benefiting no one other than its attorneys and/or consultants, which . . . the city will be compelled to assume [responsibility for] should it approve a resolution dissolving the GHAD."

The city also claims board members violated state law by approving the resolution because they had a financial interest in it.

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A hearing is set on the matter in November. Representatives of the GHAD could not be reached for comment.

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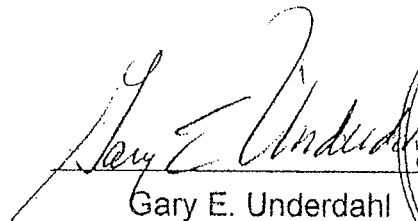
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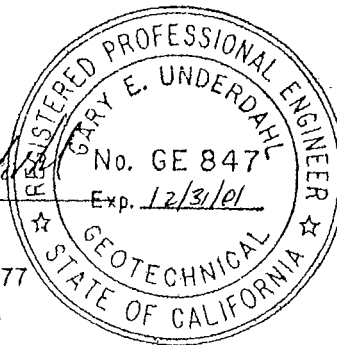
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prepared for
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TABLE OF CONTENTS

INTRODUCTION.....	1
SCOPE.....	1
BACKGROUND.....	1
PLANNED CONSTRUCTION.....	1
EXPLORATION AND TESTING.....	1
SITE CONDITIONS.....	2
SURFACE FEATURES.....	2
SUBSURFACE FINDINGS.....	2
GEOLOGY.....	3
BEDROCK MAPPING.....	3
SEISMICITY.....	3
CONCLUSIONS AND RECOMMENDATIONS.....	4
GEOLOGIC HAZARDS.....	4
SLOPE STABILITY.....	4
SITE PREPARATION.....	4
FOUNDATIONS DESIGN.....	5
RETAINING WALLS.....	6
SURFACE AND SUBSURFACE DRAINAGE.....	7
CONCRETE SLABS-ON-GRADE.....	7
PAVEMENT.....	7
LIMITATIONS AND ADDITIONAL SERVICES.....	7
REFERENCES.....	7
DISTRIBUTION.....	8

ILLUSTRATIONS

FIGURE 1 - VICINITY MAP.....	9
FIGURE 2 - SITE MAP.....	10
FIGURES 3-5 - LOGS OF TEST PITS 1 through 3.....	11,12
FIGURE 6 - UNIFIED SOIL CLASSIFICATION SYSTEM.....	12
FIGURE 7 - BEDROCK SYMBOLS.....	12
FIGURE 8 - ROCK HARDNESS CRITERIA.....	13
FIGURE 9 - ROCK WEATHERING CRITERIA.....	13
FIGURE 10 - PLASTICITY CHART.....	14
FIGURE 11 - CRANE GEOLOGIC MAP.....	15
FIGURE 12 - NILSEN LANDSLIDE MAP.....	16
FIGURE 13 - EQ FAULT ZONE MAP.....	17
FIGURE 14 - SEISMIC HAZARD ZONES MAP.....	18
FIGURE 15 - BAY AREA FAULT MAP.....	19
FIGURE 16 - TYPICAL RETAINING WALL DRAINAGE DETAIL.....	20
FIGURE 17 - TYPICAL PIER FOUNDATION DRAINAGE DETAIL.....	20

INTRODUCTION

This report presents the results of an investigation to evaluate the geotechnical conditions for a planned townhouse residential development along Keller Avenue, Oakland, Alameda County, California.

This investigation was requested by Mr. Ed Patmont following discussions, and a site visit on March 28, 2001.

The site is located in the southeastern part of Oakland as shown on the Vicinity Map, Figure 1. A plan view of the lot is shown on the Site Plan, Figure 2.

SCOPE

The scope of this investigation, as outlined in the proposal dated March 29, 2001, and revised during the investigation is to:

- review pertinent available geologic and soil maps and reports
- explore the site with a surface reconnaissance and 3 test pits in the soil filled swale using a backhoe, to explore the soil, rock and ground water conditions and obtain samples
- perform laboratory tests on selected samples to measure the soil moisture content, plasticity and gradation
- develop conclusions and recommendations regarding potential geologic hazards, slope stability, site preparation, foundation design and drainage design
- prepare a written report presenting the findings, conclusions and recommendations

BACKGROUND

The site is a steeply sloping, mostly cut, slope on the east side Keller Avenue, between Greenridge Drive and Rilea Way. The lot is mostly a 2H:1V, horizontal to vertical units, slope cut for the construction of Keller Avenue. The upper part of the slope is cut by 2 swales which were filled, possibly as part of the upslope subdivision(s). A search by Hillside Homes of the City of Oakland files found no geotechnical information about the Keller Road construction. No geotechnical reports for the upslope subdivision(s) is known to be available. There is no report of significant recent movement or erosion of any site soils. There is no known contamination on the site.

PLANNED CONSTRUCTION

The site is to be developed with 43 townhouses, up to three-story in height, with garages. The buildings will be mostly of wood frame construction. Foundation loads are expected to be relatively light, typical of residential construction. Extensive grading will be needed for the construction, primarily to develop an access road, driveways and building pads. Retaining walls will be used throughout the development.

EXPLORATION AND TESTING

Three test pits were dug in the centrally located swale, at the locations shown on Figure 2. The pits were dug and sampled on June 14, 2001, to depths of 1.5 to 6 feet with a 36 inch wide bucket on a track backhoe. The logs of the pits are shown on Figures 3 through 5. The pits were logged during the excavation by the engineer based on the excavation resistance and the samples obtained.

Samples representative of the soils encountered were obtained for testing as loose, or disturbed, samples.

The field classifications, based on the Unified Soil Classification System, shown on Figure 6, were modified after further examination. The soil and rock layers encountered are shown graphically on the logs in accordance with the Symbols shown on Figures 6 and 7. The bedrock descriptions include evaluations based on the criteria shown as Rock Hardness and Rock Weathering Criteria, on Figures 8 and 9.

In the laboratory the samples were tested for in-place moisture content, gradation and plasticity, generally in conformance with the procedures of the American Society for Testing Materials. The sample locations and the laboratory test results are shown on the logs, in accordance with the Key following the Log of Test Pit 1. Plasticity test results are also shown on the Plasticity Chart, Figure 10.

No ground water was found in the pits. The pits were backfilled with the excavated soils as soon as the logging and sampling were finished.

SITE CONDITIONS

SURFACE FEATURES — The site is an irregularly shaped parcel, with approximately 950 feet of frontage on Keller Avenue and a depth of up to 250 feet. Most of the lot is cut, with slopes of approximately 2H:1V. Above the cut slope, along the upper end, or eastern side, of the site, the slope is gentler. The gentler slopes are filled or natural, with gradients ranging from 2H:1V to 3H:1V. Elevations range from 350 to 460 feet. Drainage is sheet flow down the slope to the street.

The lot vegetation consists of grasses on the cut slope, with some brush on the fill and the natural slope above the cut and fill.

Average annual rainfall in the vicinity of the lot is 21 inches per year, with most of the rain falling during the fall and winter months (Rantz 1971). Large variation from the historic average occurs frequently. The area is outside of the 100 year flood hazard zones, based on the topography.

According to the Soil Survey, the natural soil is Xerorthents-Millsholm complex, found on 50 to 75 percent slopes. Xerorthents is on the cut and fill urban development area and is therefore has quite variable characteristics. It is generally a loamy soil making up approximately 60 percent of the area. The Millsholm is a loam, making up 20 percent of the area. Included in the mapping and making up 20 percent of the complex are small areas of Maymen loam, Los Gatos loam, and Los Osos silty clay loam. The Xerorthents fill is typically a loam, silt loam or light silty clay loam with up to 50 percent angular fragments of shale and sandstone. Xerorthents cut is typically interbedded shale and fine-grained sandstone. The Millsholm is typically shallow, and formed in the residuum of weathered shale or fine-grained sandstone. It is typically composed of 2 layers, an 7 inch thick silt loam topsoil and a 20 inch thick silt loam subsoil, underlain by shale. Both soils typically have a low shrink-swell potential, with a Plasticity Index of NP, non-plastic, to 10 and silt and clay fines (soil finer than a number 200 sieve) content of 50 to 75 percent; in contrast with test results of sample 3-1, which shows a higher plasticity index of 21, with a fines content of 53.6 percent. The sample is from the buried topsoil.

SUBSURFACE FINDINGS — In general, the test pits found fill over natural clay topsoil and bedrock. Test pit locations are shown on the Site Plan, Figure 2. The conditions found in the test pits can be grouped as follows:

- **FILL** – The upper soil layer in the central swale is a well-compacted fill. The fill is composed of a gravelly silt or clay or silty gravel, with the gravel consisting of sandstone and shale rock fragments.
- **TOPSOIL** – The natural layer, under the fill, is a firm and dry sandy clay topsoil, ranging from 6 inches to 18 inches in thickness. The topsoil is moderately to highly plastic and probably highly expansive. Sand and gravel content is relatively high, 46 percent in the sample from Test Pit 3.
- **BEDROCK** – The bedrock is a hard and strong volcanic.
- **GROUNDWATER** – No ground water was found in any of the test pits. Depth to ground water is unknown. No ground water is likely to be found in the fill or natural soils on the site.

GEOLOGY

BEDROCK MAPPING — The cited geologic maps indicate that the site is on geologically young volcanics, labeled the Leona Rhyolite by Radbruch. (Crane 1988, Dibblee 1980, Radbruch 1969). The bedrock of this formation varies considerably in strength and hardness. A portion of the mapping by Crane is shown on Figure 11. The Nilsen map shows the site to be on rock and colluvial filled swales. The mapping identifies colluvium and numerous landslides on the adjacent hillsides and swales. A portion of the Nilsen map is reproduced as the Nilsen Landslide Map, Figure 12.

SEISMICITY — The San Francisco Bay Area includes this site and is a very seismically active region. Alquist-Priolo (A-P) Earthquake Fault Zones are created by the State Geologist for faults which are considered to be potentially active (Davis 1982). Active faults are those which show evidence of movement within the last 11,000 years. The lot is not within an Earthquake Fault Zone, as shown on the EQ Fault Zone Map, Figure 13; however, it is in a large area of soils with a potential for permanent ground displacement in an earthquake. A portion of the Seismic Hazard Zones map and legend is shown as Figure 14. There are several mapped faults in the vicinity. None of the nearby faults, other than the nearby northwest-trending Hayward fault (approximately 100 meters to the southwest), is mapped as potentially active, and no surface ruptures are shown to cross the lot. The following tabulated fault data are derived from state maps and publications.

<i>Fault</i>	<i>Type</i>	<i>Closest Distance</i>	<i>Maximum Moment Magnitude</i>	<i>Slip Rate</i>	<i>Recurrence Interval</i>
Hayward	A	<1 km	7.1	9.0 mm/yr	167 yr
Concord	B	21 km	6.9	6.0 mm/yr	176 yr
Calaveras	B	14 km	6.8	6.0 mm/yr	146 yr
San Andreas	A	31 km	7.1	17.0 mm/yr	400 yr

Other regional active faults have a similar probability of generating earthquakes in the near future. Therefore, there is a high risk of potentially damaging intensities of ground shaking at the site during the useful life of the planned structures. On-going seismic studies may refine or change the foregoing information. The locations of the San Andreas, Concord, Calaveras and Hayward Faults and other regional faults relative to the site are shown on Figure 15.

CONCLUSIONS AND RECOMMENDATIONS

GEOLOGIC HAZARDS — A comprehensive assessment of geologic hazards on and adjacent to the lot is beyond the scope of this investigation. However, information presented in the Geology and Seismicity sections of the report allows some general conclusions to be drawn.

The risk of surface fault rupture is very low because no faults are known to cross the lot. Ground ruptures commonly occur on existing fault traces with evidence of movement because they represent existing planes of weakness. A search for any possible faults on the lot is beyond the scope of this investigation.

A large magnitude earthquake on any of several Bay Area faults is capable of producing damaging levels of ground shaking on the site. Obviously, the highest ground shaking intensities on the site would be associated with a high magnitude earthquake on the Hayward fault. In addition, the Concord, Calaveras, San Andreas faults are all relatively close to the site and can be expected to cause moderate to strong ground shaking at the site in the event of a large earthquake. A strong earthquake originating on these or other known or unmapped faults in the greater San Francisco Bay region can be expected to damage structures over a broad area. Damage from strong ground shaking caused by earthquakes on other active faults is likely to be less severe than ground shaking caused by earthquakes on the Hayward fault for the same magnitude event. This is due to the effect of distance in attenuating ground motion, although other factors are also involved in the severity of ground shaking at any location. Seismic response of the site will not be affected by the planned structures and is expected to be similar to that of other nearby developed lots. Therefore, the structures should be designed in accordance with current codes by competent professional engineers.

The risks of earthquake induced landsliding and lurch cracking are essentially non-existent on the site, because of the hard rock at shallow depths. The risks of earthquake induced liquefaction or lateral spreading are also non-existent, because the lack of saturated clean silts or sands.

SLOPE STABILITY — The cut and fill slopes are very steep and composed of rock, strong fill and firm natural soils. The stability of these slopes is satisfactory under the existing conditions; however, the risk of failure increases to unsatisfactory if the soils become saturated, and in the event of a large nearby earthquake. Mitigation of the risk of damage from the possible failure, or creep, of the slopes next to the planned buildings should consist of the use of foundations bearing on rock, and grading of the slopes to a maximum gradient of 2H:1V. The new retaining walls will allow the slopes to remain no steeper than the recommended maximum gradient. Drainage on the site should be designed and maintained to minimize ponding of surface water and/or saturation of the soils.

SITE PREPARATION — All fill areas should be stripped of vegetation and the upper few inches of soil containing roots and other organic debris. Any loose or soft material should be excavated to expose firm soil. Keying and benching are needed on slopes steeper than 6H:1V. Keyways should be at least 10 feet wide, level or sloping down into the slope, and bottomed on rock. The key should be provided with a subdrain, consisting of a 4 inch diameter perforated, rigid wall pipe encased in fabric wrapped gravel or CALTRANS Class 2 Permeable Material. The pipe should be placed with perforations down. The surface

soils encountered in the test pits are gravels, sands, silts and clays which are estimated to be easily excavated with normal construction equipment; the bedrock is hard and will require strong equipment to cut and drill.

On-site soil, free of organic debris and rocks or lumps over 6 inches in largest dimension, should be spread in loose layers no thicker than 8 inches, dried or moistened to achieve a content slightly above optimum, and compacted to at least 90% relative compaction. Any imported fill soil should be of low expansion potential and should be free of detrimental amounts of organics and any rocks or lumps larger than 4 inches in diameter.

Final cut and fill slopes should be no steeper than 2H:1V on soil. Gentler slopes should be constructed where possible to minimize the potential for creep and sliding. Surface drainage should be provided as recommended in the Drainage section.

FOUNDATIONS DESIGN — The planned townhouses will be placed on slightly to moderately expansive soil and non-expansive bedrock and on steep slopes. Therefore, foundations should be drilled piers and grade beams.

The piers should be designed to gain support with allowable skin friction values of 500 pounds per square foot, psf, in firm soil and rock, neglecting all soil above the lowest elevation within 10 feet of each pier. The skin friction values are for dead plus long term live loads. The allowable bearing capacity should be increased 50% for total loads, including wind or seismic forces. All piers should be at least 12 inches in diameter and bottomed at least 10 feet below final grade, measured as the lowest elevation on unrestrained ground within 10 feet of the pier. On 2H:1V slopes the minimum pier depth is 15 feet.

Piers should be designed to resist creep forces based on an active pressure design, acting over 2 pier diameters, using an equivalent fluid of 75 pounds per cubic foot, pcf. Design creep forces extend to the full depth of the soil above the lowest elevation within 10 feet of the pier on any unrestrained slope.

Passive resistance of the firm soil and rock surrounding the piers should be based on an equivalent fluid of 350 pounds per cubic foot, pcf, neglecting unrestrained soil above the lowest elevation within 10 feet of each pier. Passive resistance acts over 2 pier diameters.

The foundations should be designed to resist 1000 psf uplift on the grade beams and 1000 psf skin friction on the upper 3 feet of each pier. A gap of at least 2 inches should be provided below all grade beams on soil to minimize the risk of soil uplift pressure. Uplift capacity of the piers should be based on 2/3 of the bearing capacity. Any overpour, or 'mushrooming', on the pier tops should be removed.

Based upon the seismic design from the 1997 Uniform Building Code, the following values apply.

- Seismic Zone.....4
- Soil Profile (very dense soil and soft rock)...Sc
- Seismic Source Type (Hayward fault).....A
- Closest Distance to Seismic Source.....<1 km

Post-construction differential settlement of foundations designed and installed as recommended should be negligible, less than ½ inch. Total post-construction settlement of the foundations should also be less than ½ inch.

RETAINING WALLS — New retaining walls should be designed using the following criteria, developed for soil backfill, plus the design criteria for foundations presented in the preceding section:

ACTIVE PRESSURE

Type of wall	cantilever	restrained
basis of distribution	equivalent fluid	uniform
level backfill	60 pcf	36H psf
steep (between 2:1 and 3:1)	75 pcf	45H psf

PASSIVE PRESSURE - EQUIVALENT FLUID BASIS.....350 pcf
calculate pressure based on depth below the lowest adjacent final grade, neglecting resistance in the upper 3 feet of unrestrained fill and natural soil.

BACKFILL DENSITY, SOIL	130 PCF
ANGLE OF INTERNAL FRICTION	20°
COEFFICIENT OF FRICTION on base of footing	0.4

Types of retaining walls that should be considered as part of the structure are reinforced concrete, CMU, drilled pier and lagging (using steel beams and concrete lagging), and crib walls (walls composed of interlocking concrete beams to form cells which are filled with gravel). All 3 types can be designed using the criteria presented in this report. Gabions (rock filled wire baskets) and wood walls are not recommended as part of the structures because the later replacement (wood which rots and wire which corrodes) that would probably be needed would be difficult.

All retaining walls should be designed to prevent the buildup of hydrostatic pressures. Lagging should be gapped ½ inch between planks to allow water to drain through the wall, or backdrainage should be provided if seepage on the planks and at the base of the wall is undesirable. Crib walls are normally free-draining; however, subdrains are needed if seepage at the base of the wall is undesirable. Backdrainage, where needed, should consist of one of the following: 1) commercial soil drainage mats, or 2) Caltrans Class 2 Permeable Material or fabric filter wrapped drain rock placed behind the wall in a layer at least one foot thick and drained with a 4 inch perforated, smooth-walled PVC pipe, essentially in conformance with the details shown on the Typical Retaining Wall Drainage Detail, Figure 16. To minimize seepage on grade or subgrade on the downslope side of walls, the backdrain should be deepened to at least 6 inches below the soil grade (subgrade of slabs). The pipe should be placed 2 inches above the bottom of the Permeable Material with the perforations down. The Permeable Material should be covered with a 6 inch to one foot thick layer of soil to minimize the flow of surface water into the backdrain. The backdrain should be provided with clean-outs. Backdrain pipes should be cleaned of silt and roots annually as part of normal maintenance. Where seepage through concrete walls and the associated staining is undesirable, the wall should be waterproofed. Any desired substitutions for this recommended backdrainage should be discussed with the engineer.

The ground surface on the backfill behind the walls should be drained to prevent ponding. There should be no surface drain inlets to the backdrain. The surface drain should consist of a sloping surface, lined V-ditch or a buried solid pipe with drain inlets. The surface drain and the backdrain can be connected to the same pipe at a point below the level of the backdrain pipe for discharge to the street drainage below the planned structure.

SURFACE AND SUBSURFACE DRAINAGE — The final grades around the planned structures should be sloped to provide positive surface drainage away from the foundations. A combination surface and subdrain should be placed adjacent to the perimeter foundations where the soil does not slope positively away from the foundation or where there is a risk the slope may be changed adversely in the future, similar to the details shown on Figure 17.

CONCRETE SLABS-ON-GRADE — The existing soil is possibly expansive and capable of heaving and cracking of any concrete slabs-on-grade. Therefore, the on-site soil should be saturated to expand the soils prior to placement of the concrete. Compaction of the supporting soil to include significant voids should be considered to minimize soil heave. Voids can be created in the soil by scarifying the soil and compacting to densities of approximately 85 percent relative compaction. Slab thickness and other design criteria should conform to the applicable codes. Slabs should be reinforced, preferably with rebar, spaced as recommended by the structural engineer. A small amount of heaving and cracking of concrete slabs-on-grade is generally unavoidable on soils typically found in this area.

PAVEMENT — The pavement subgrade should be scarified to a depth of at least 6 inches, moisture conditioned to slightly in excess of optimum, and compacted to at least 95 percent relative compaction, based on the ASTM Test Method D1557-78. The surface soils may be plastic and could have low R-values. Pavement thicknesses can be designed from testing of the subgrade soil sampled during the site grading and a traffic index. For preliminary design, pavement on plastic soil should be at least 3.0 inches of asphaltic concrete over at least 10 inches of Caltrans Class 2 aggregate base. The base material should be compacted to at least 95 percent relative compaction.

LIMITATIONS AND ADDITIONAL SERVICES

The investigation has been performed in accordance with the generally accepted standards of geotechnical engineering practice. The recommendations are necessarily preliminary to the final design of the grading and structures. Therefore, the final plans should be reviewed for conformance with the recommendations and supplemental recommendations developed if needed. The report recommendations should be updated for any design completed after a building or grading code revision. The Uniform Building Code is revised every 3 years (ICBO 1997). The building code for 2000, now called the International Building Code, is yet to be adopted by most building departments.

Deviations from the findings are possible because of limitations inherent in the methods of exploration. Variation in the soils and rock may require changes in the recommended design of grading, foundations and drainage. Therefore, the geotechnical engineer should be retained to observe the conditions encountered in any subsequent construction to:

- modify the recommendations, if needed
- observe and test the earthwork and foundation excavation for conformance with the recommendations

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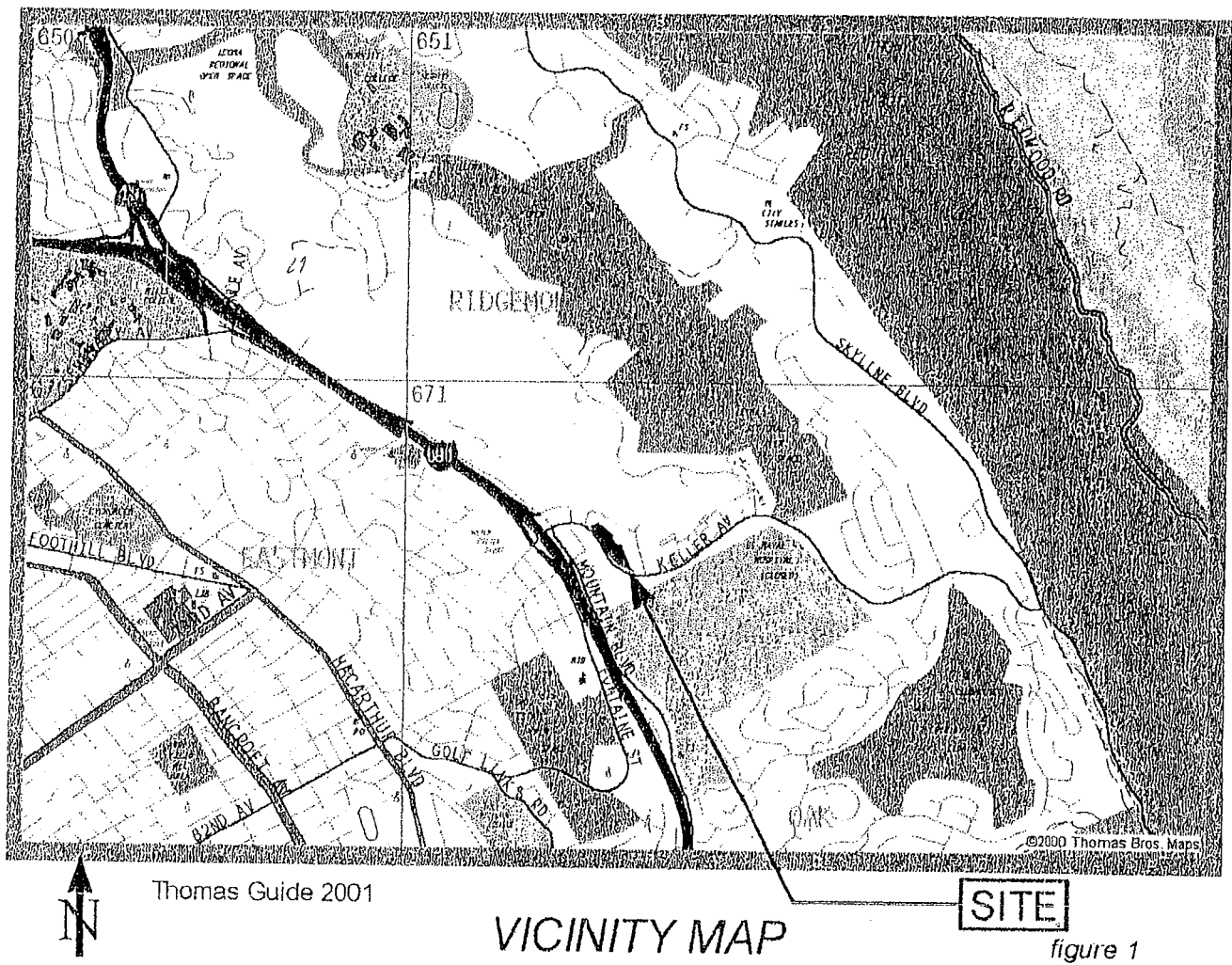
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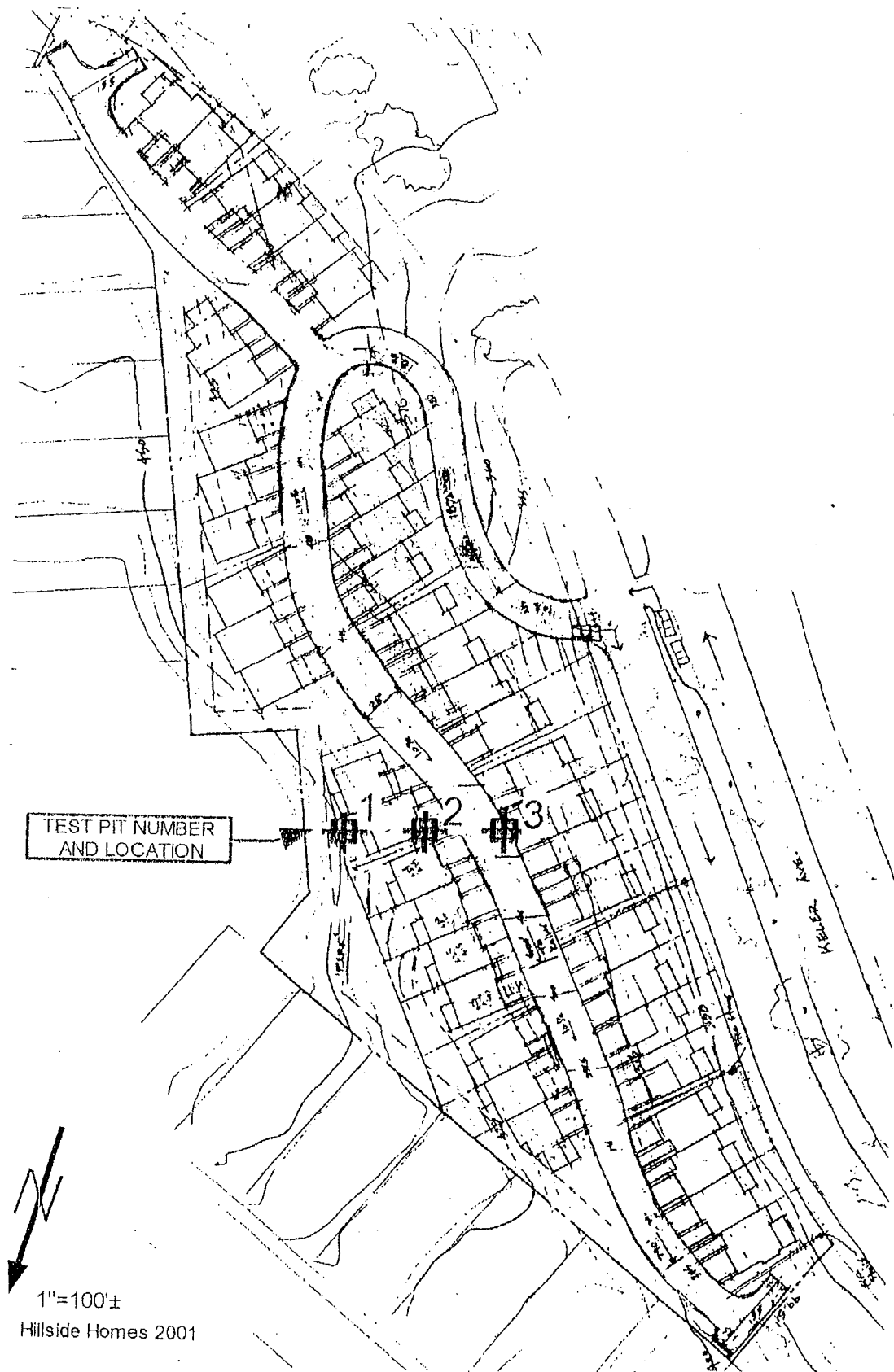
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DISTRIBUTION

4 copies submitted

Mr. Ed Patmont
Hillside Homes
184 Rudgear Drive
Walnut Creek, California 94596





SITE PLAN

figure 2

Log of Test Pit 1												
UC	-200	WD	DD	MC	SN	BPF	SD	D	GS	S	DESCRIPTION AND CLASSIFICATION	
											brown GRAVELLY CLAY (CL)	FILL
								1			stiff, dry, numerous rock fragments	
				8.3	1-1					X	dark brown SANDY CLAY (CL)	TOPSOIL
								2			stiff, dry, no root zone -- probably stripped	
											orange & dark brown RHYOLITE	BEDROCK
											hard, strong, moderately weathered, dry, small clay seams	
											[Pit, 1.5' deep, backfilled with cuttings after sampling.]	

UC=unconfined compressive strength in ksf, -200=portion passing through #200 mesh screen in % of dry weight, WD=wet density in pcf, DD=dry density in pcf, MC=moisture content as % of dry weight, SN=sample number, BPF=blows per foot to drive sampler, SD=sampler outside diameter, inches, D=depth below ground surface, feet, GS=graphical symbol of soil/rock, S=sampler drive and sample locations, O=undisturbed sample, X=disturbed sample

dug on 6/14/01 with 3' bucket, Elev.=445', plan topo

TEST PIT 1

figure 3

Log of Test Pit 2												
UC	-200	WD	DD	MC	SN	BPF	SD	D	GS	S	DESCRIPTION AND CLASSIFICATION	
											brown GRAVELLY CLAY (CL)	
								1			stiff, dry, numerous rock fragments	
												FILL
								2				
								3				
								4				
								5				
	53.6			20.7	2-1			6		X	dark brown SANDY CLAY (CL)	TOPSOIL
								7			stiff, dry, no root zone -- probably stripped	
											orange & dark brown RHYOLITE	BEDROCK
								8			hard, strong, moderately weathered, dry, small clay seams	
											[Pit, 7.5' deep, backfilled with cuttings after sampling.]	

2-1, Atterberg limits
Liquid limit = 43
Plastic limit = 22
Plasticity Index = 21

dug on 6/14/01 with 3' bucket, Elev.=420', plan topo

TEST PIT 2

figure 4

Log of Test Pit 3												
UC	-200	WD	DD	MC	SN	BPF	SD	D	GS	S	DESCRIPTION AND CLASSIFICATION	
											brown GRAVELLY CLAY (CL)	
								1			stiff, dry, numerous rock fragments	
												FILL
								2				
								3				
								4				
	55.1			11.7	3-1			5			dark brown SANDY CLAY (CL)	TOPSOIL
								6			stiff, dry, no root zone – probably stripped	
											orange & dark brown RHYOLITE	BEDROCK
								7			hard, strong, moderately weathered, dry, small clay seams	
											Pit, 6' deep, backfilled with cuttings after sampling.	

dug on 6/14/01 with 3' bucket, Elev.=390', plan topo

TEST PIT 3

figure 5

UNIFIED SOIL CLASSIFICATION SYSTEM							
MAJOR DIVISIONS			SYMBOLS		TYPICAL NAMES		
COARSE GRAINED SOILS MORE THAN HALF IS LARGER THAN NO. 200 SIEVE SIZE	GRAVELS MORE THAN HALF COARSE FRACTION IS LARGER THAN NO. 4 SIEVE SIZE	CLEAN GRAVEL WITH LITTLE OR NO FINES	GW		WELL GRADED GRAVELS, GRAVEL-SAND MIXTURES		
		GRAVELS WITH OVER 12% FINES	GP		POORLY GRADED GRAVELS, GRAVEL-SAND MIXTURES		
			GM		SILTY GRAVELS, POORLY GRADED GRAVEL-SAND-SILT MIXTURES		
			GC		CLAYEY GRAVELS, POORLY GRADED GRAVEL-SAND-CLAY MIXTURES		
	SANDS MORE THAN HALF COARSE FRACTION IS SMALLER THAN NO. 4 SIEVE SIZE	CLEAN SANDS WITH LITTLE OR NO FINES	SW		WELL GRADED SANDS, GRAVELLY SANDS		
		SANDS WITH OVER 12% FINES	SP		POORLY GRADED SANDS, GRAVELLY SANDS		
			SM		SILTY SANDS, POORLY GRADED SAND-SILT MIXTURES		
			SC		CLAYEY SANDS, POORLY GRADED SAND-CLAY MIXTURES		
FINE GRAINED SOILS MORE THAN HALF IS SMALLER THAN NO. 200 SIEVE SIZE	SILTS AND CLAYS LIQUID LIMIT LESS THAN 50		ML		INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS, OR CLAYEY SILTS WITH SLIGHT PLASTICITY		
			CL		INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS		
			OL		ORGANIC CLAYS AND ORGANIC SILTY CLAYS OF MEDIUM PLASTICITY		
	SILTS AND CLAYS LIQUID LIMIT GREATER THAN 50		MH		INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS, ELASTIC SILTS		
			CH		INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS		
			OH		ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS		
			HIGHLY ORGANIC SOILS		PI		PEAT AND OTHER HIGHLY ORGANIC SOILS

figure 6

BEDROCK SYMBOLS				
	CONGLOMERATE		FRACTURED SANDSTONE	
	TUFF		CHERT	
	BASALT, RHYOLITE		SERPENTINE	

figure 7

ROCK HARDNESS CRITERIA	
VERY HARD	Cannot be scratched with knife or sharp pick. Breaking of hand specimen requires several hard blows of geologist's pick.
HARD	Can be scratched with knife or pick only with difficulty. Hard blow of hammer required to detach hand specimen.
MODERATELY HARD	Can be scratched with knife or pick. Gouges or grooves to 1/4 inch moderate can be excavated by hard blow of point of a geologist's pick. Hand specimens can be detached by moderate blow.
LOW	Can be grooved or gouged 1/16 inch deep by firm pressure on knife or pick point. Can be excavated in small chips to pieces about 1 inch maximum size by hard blows of the point of a geologist's pick.
SOFT	Can be gouged or grooved readily with knife or pick point. Can be chipped to pieces several inches in size by moderate blows of a pick point. Small thin pieces can be broken by finger pressure.
VERY SOFT	Can be carved with knife. Can be excavated readily with point of pick. Pieces 1 inch or more in thickness can be broken with finger pressure. Can be scratched readily by fingernail.

figure 8

ROCK WEATHERING CRITERIA	
FRESH	Rock fresh, crystals bright, few joints may show staining. Rock rings under hammer if crystalline.
VERY SLIGHT	Rock generally fresh, joints stained, some joints may show thin clay coatings, crystals in broken face show bright. Rock rings under hammer if crystalline.
SLIGHT	Rock generally fresh, joints stained, and discoloration extends into rock up to 1 inch. Joints may contain clay. In granitoid rocks some occasional feldspar crystals are dull and discolored. Crystalline rocks ring under hammer.
MODERATE	Significant portions of rock show discoloration and weathering effects. In granitoid rocks, most feldspars are dull and discolored; some show clayey. Rock has dull sound under hammer and shows significant loss of strength as compared with fresh rock.
MODERATELY SEVERE	All rock except quartz discolored or stained. In granitoid rocks, all feldspars dull and discolored and majority show kaolinization. Rock shows severe loss of strength and can be excavated with geologist's pick. Rock goes "clunk" when struck.
SEVERE	All rock except quartz discolored or stained. Rock "fabric" clear and evident, but reduced in strength to strong soil. In granitoid rocks, all feldspars kaolinized to some extent. Some fragments of strong rock usually left.
VERY SEVERE	All rock except quartz discolored or stained. Rock "fabric" discernible, but mass effectively reduced to "soil" with only fragments of strong rock remaining.
COMPLETE	Rock reduced to "soil". Rock "fabric" not discernible or discernible only in small scattered locations. Quartz may be present as dikes or stringers.

figure 9

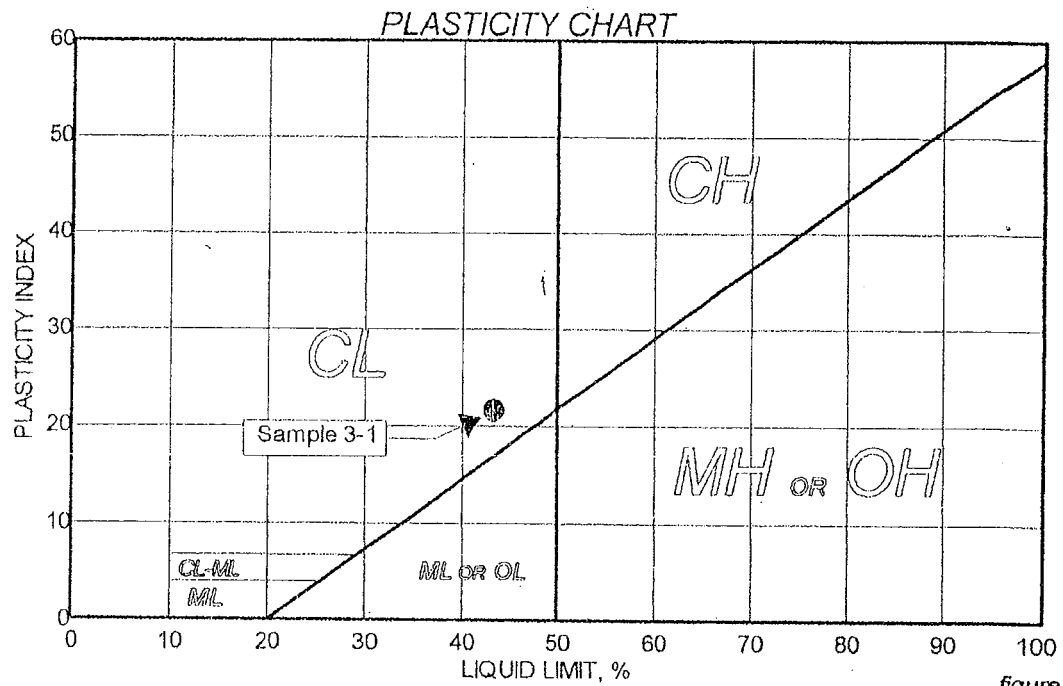
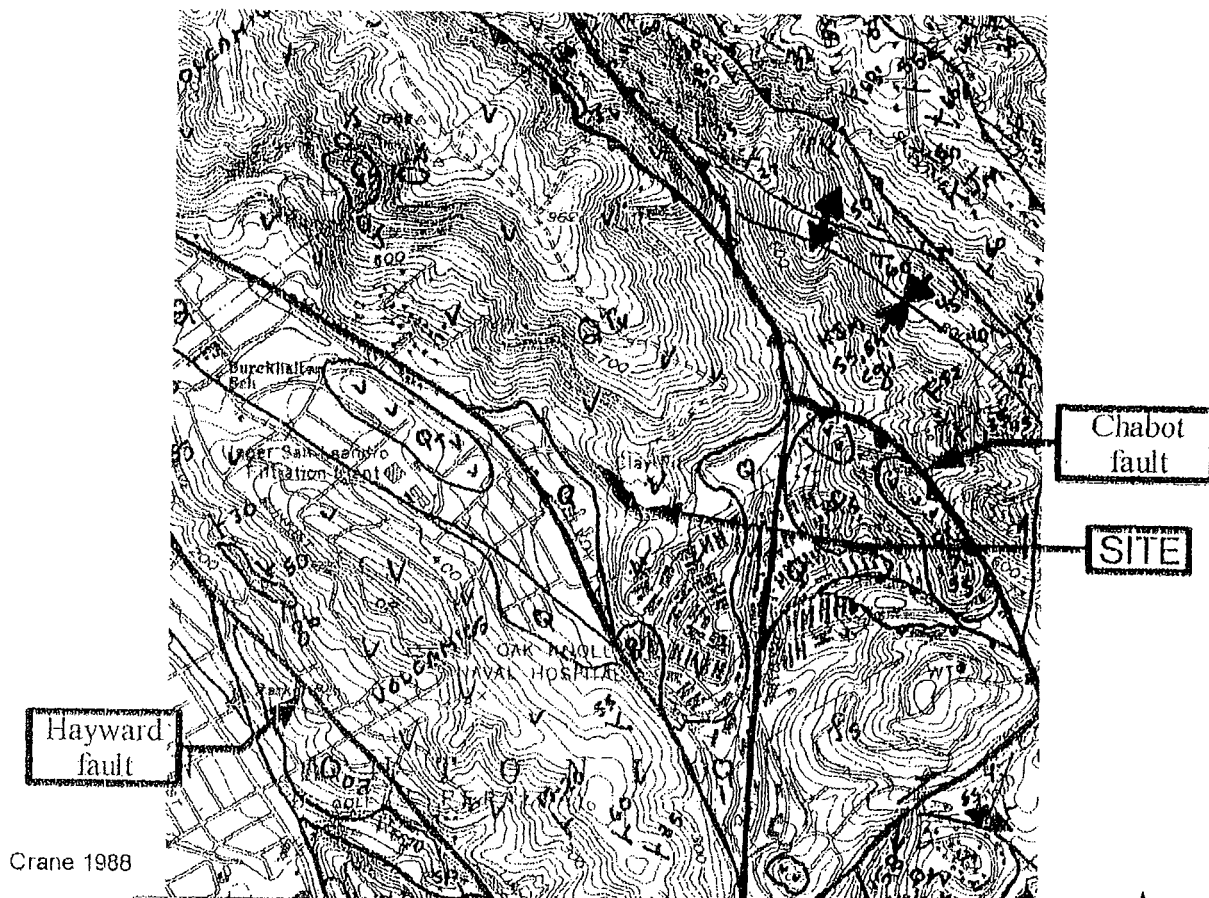


figure 10



LEGEND

	Holocene - 0 MYA	Tcl	Claremont	ct	Chert
Qa	Alluvium	Tso	Sobranite Sand	fs	Sediments
Qaf	Alluvial Fan	Tmz	Martinez Fm.	m	Melange/Olistostrome
	Pleistocene - 0.1 MYA	Krc	Redwood Canyon Fm.	gn	Greenstone
Qoa	Older Alluvium	Ksc	Shepard Creek Fm.	sp	Serpentine
QTv	Volcanics	Ko	Oakland Conglomerate	gb	Gabbro
TP	Pliocene beds	Kjm	Joaquin Miller Fm.	MYA=million years ago	
TM	Upper Miocene	K	Cretaceous Units		
TMM	Monterey Group	J-K	Jurassic-Cretaceous		
Tt	Tice Shale	J	Jurassic		

1:24,000

CRANE GEOLOGIC MAP

figure 11



EXPLANATION

NOTE: See U. S. Geological Survey Misc. Field Studies Map MF 493 (Preliminary Photointerpretation Map of Landslide and Other Surficial Deposits of the Concord 15-minute quadrangle and the Oakland West, Richmond, and part of the San Quentin 7.5-minute quadrangles, Contra Costa and Alameda Counties, California, by Tor H. Nilsen, 1973) for a more detailed explanation of map symbols.

Landslide deposit



Arrows indicate general direction of downslope movement. Queried where uncertain.

Qal

Alluvial deposit

Qt

Alluvial terrace deposit. Queried where uncertain

Qaf

Colluvial deposit and/or small alluvial fan deposit

Qaf

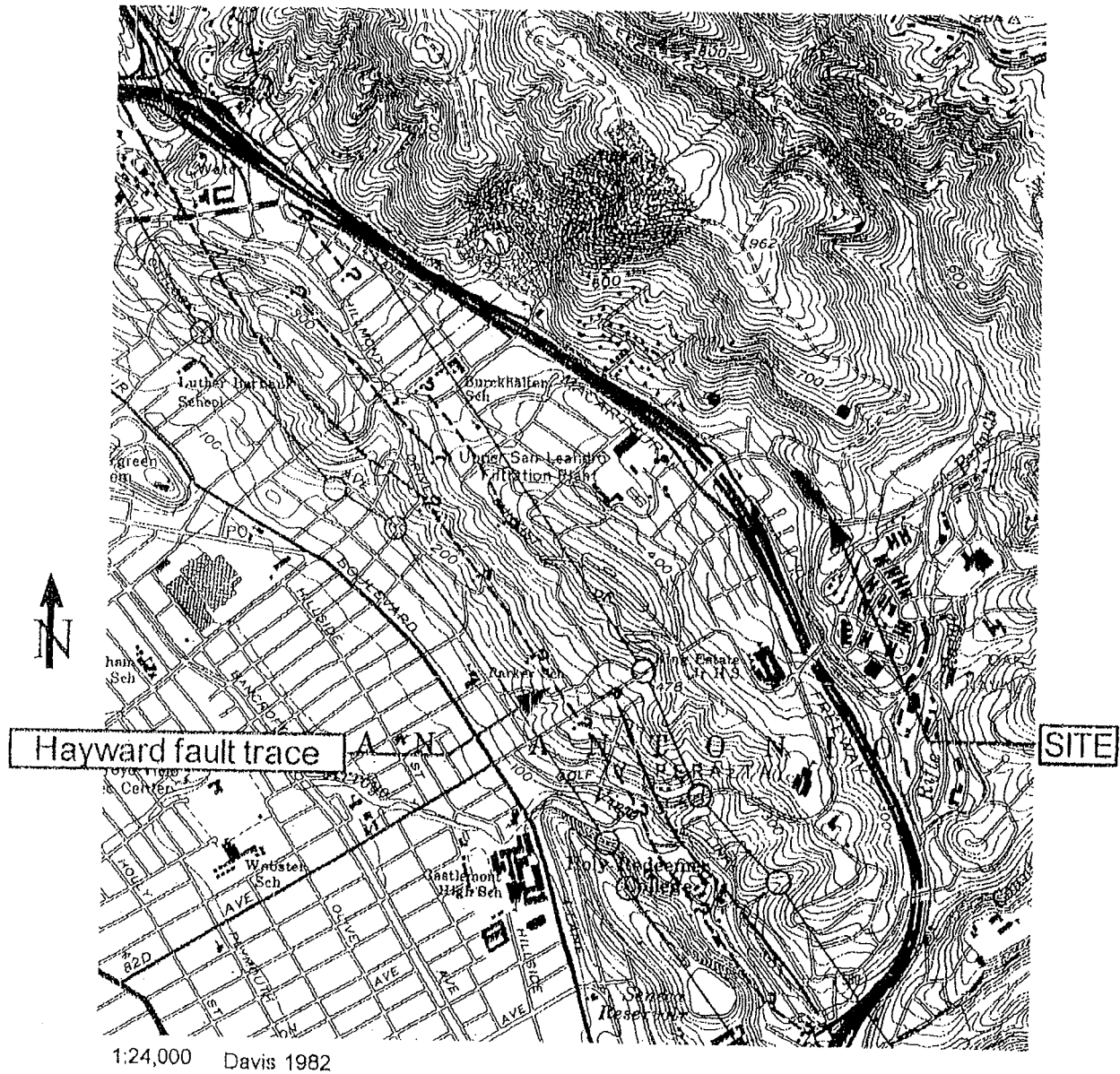
Artificial fill

Bedrock. Queried where identification uncertain

Quarry or gravel pit

NILSEN LANDSLIDE MAP

figure 12



EQ FAULT ZONE MAP

figure 13

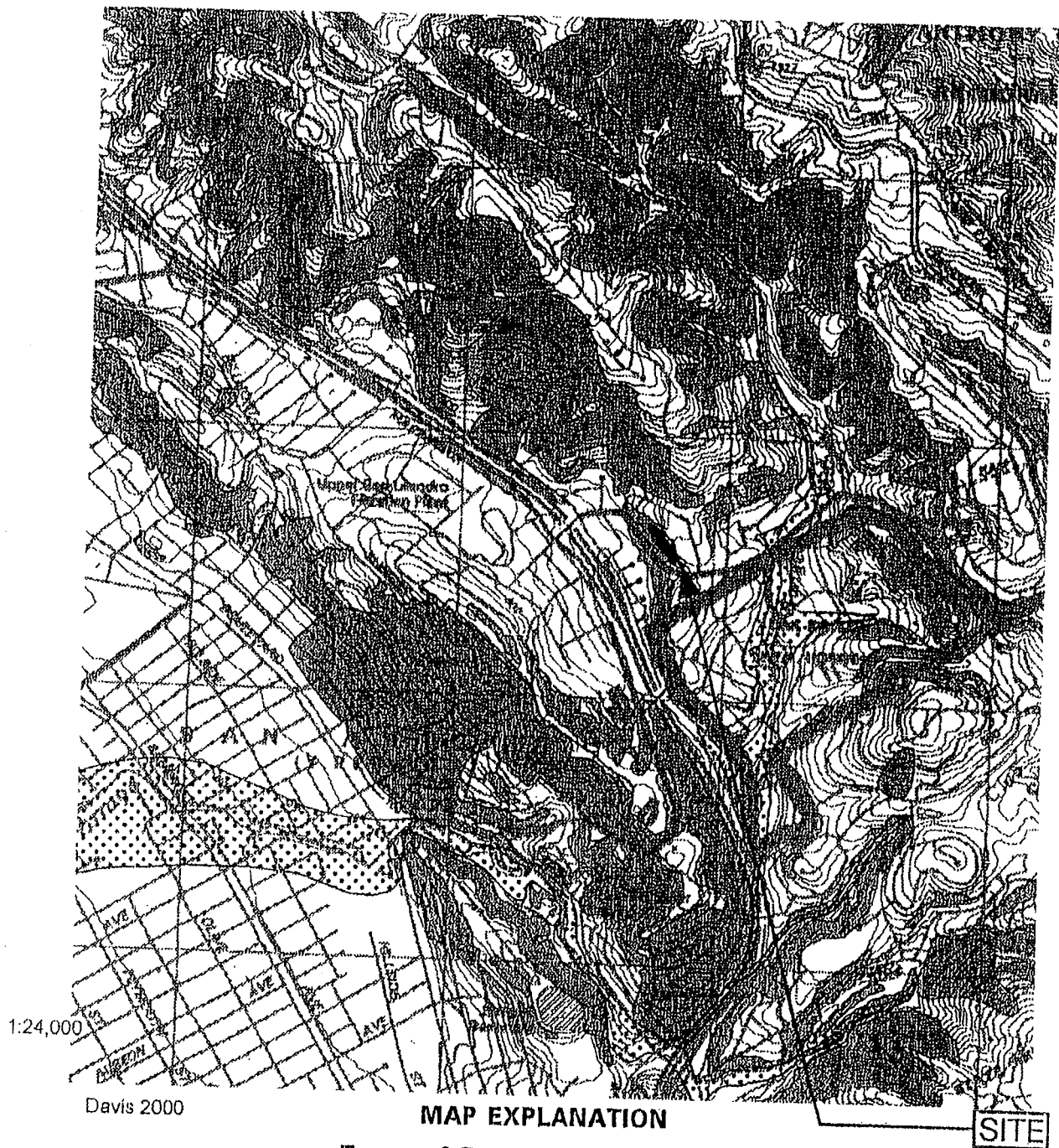
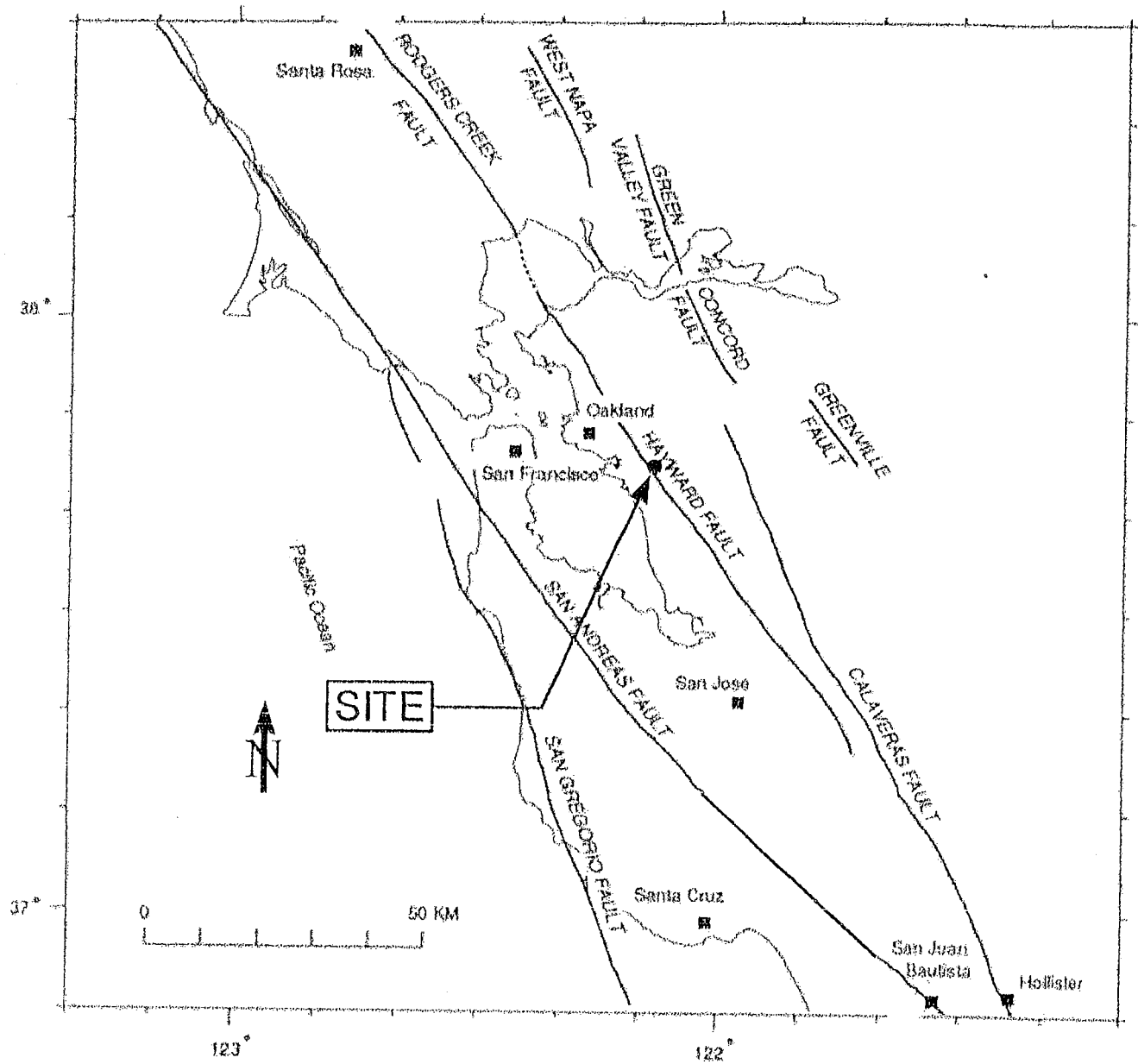


figure 14



BAY AREA FAULT MAP

figure 15

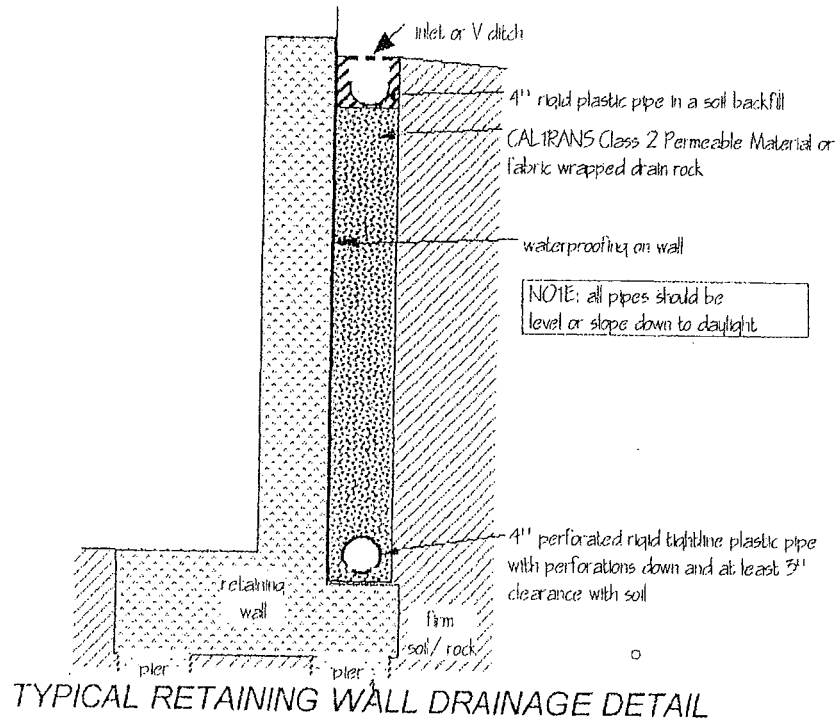


figure 16

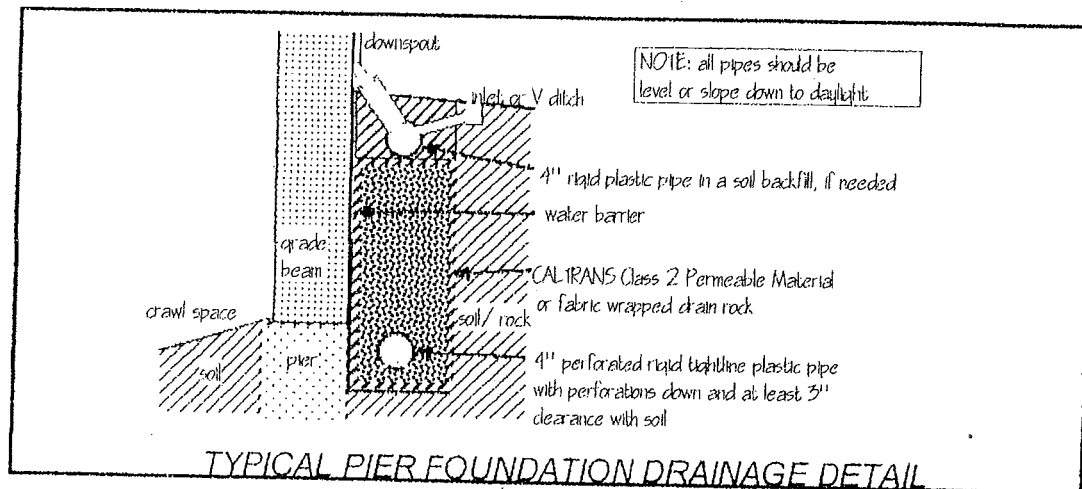


figure 17

Project No.
6964.1.001.01

May 9, 2006

Mr. Ed Patmont
Hillside Homes Group, Inc.
184 Rudgear Drive
Walnut Creek, CA 94596

Subject: Oakland Area Geologic Hazard Abatement District (GHAD)
Oakland, California

**GEOLOGIC HAZARD ABATEMENT DISTRICT (GHAD)
PLAN OF CONTROL**

Dear Mr. Patmont:

ENGEO Incorporated is pleased to present this Oakland Area Geologic Hazard Abatement District (GHAD) Plan of Control.

We are pleased to be of service to you on this project. If you have any questions concerning the contents of our report, please do not hesitate to contact us.

Very truly yours,

ENGEO INCORPORATED

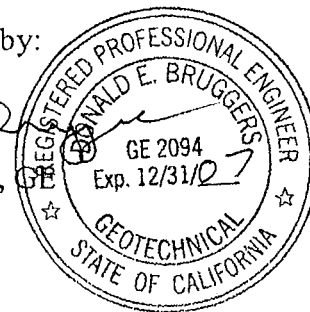
Eric Harrell, CEG



Reviewed by:

D. B.

Uri Eliahu, GE



Mary Tye
Jeffrey A. Adams, PhD
eh/jaa/jf:poc

**ATTACHMENT H
EXHIBIT D**

**GEOLOGIC HAZARD
ABATEMENT DISTRICT (GHAD)
PLAN OF CONTROL**

**OAKLAND AREA GHAD
OAKLAND, CALIFORNIA**

SUBMITTED

TO

HILLSIDE HOMES GROUP, INC.

WALNUT CREEK, CALIFORNIA

PREPARED

BY

ENGEO INCORPORATED

PROJECT NO. 6964.1.001.01

MAY 9, 2006

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TABLE OF CONTENTS

	<u>Page</u>
Letter of Transmittal	
I. AUTHORITY AND SCOPE	1
Property Identification	1
II. BACKGROUND	2
Proposed Development	2
Easement and Keller Avenue Right of Way	2
III. SITE GEOLOGY	4
Geologic Setting	4
Geologic Units	4
Artificial Fill	4
Topsoil	4
Colluvium	5
Groundwater	5
Seismic Sources	5
IV. GEOLOGIC HAZARDS	6
Slope Instability	6
Seismically-Induced Ground Shaking	9
V. CRITERIA FOR GHAD RESPONSIBILITY	10
Isolated or Remote Feature Requiring Mitigation	10
Single Property	10
Geologic Hazards Resulting From Negligence of Property Owner	11
Property Not Accepted	11
Geologic Hazard Which Requires Expenditure in Amount Exceeding the Value of the Threatened or Damaged Improvement	11
GHAD Funding or Reimbursement for Damaged or Destroyed Structures or Site Improvements	12
No Reimbursement of Expenses Incurred by Property Owners	12
VI. ACCEPTANCE	13
Activation of Assessment	13
Responsibility for GHAD Activities	13
Process for Transferring Responsibility for GHAD Activities	13
VII. SIENA HILL GHAD PLAN OF CONTROL	15
General Landslide and Erosion Hazard Mitigation	15
VIII. PRIORITY OF GHAD EXPENDITURES	17
IX. MAINTENANCE AND MONITORING SCHEDULE	18

TABLE OF CONTENTS (Continued)

SELECTED REFERENCES

APPENDIX A - Figure 1	GHAD Boundary
Exhibit A	Legal Description of Siena Hill Property
Exhibit B	Legal Description of Siena Hill Easement Area
Exhibit C	Retaining Walls Outside of Project Area

I. AUTHORITY AND SCOPE

The Oakland Area Geologic Hazard Abatement District ("GHAD" or "District") is proposed to be formed under authority of the California Public Resources Code (Division 17, commencing with Section 26500).

Section 26509 of the Public Resources Code requires a Plan of Control, prepared by a State-Certified Engineering Geologist, as a prerequisite to formation of a GHAD. Pursuant to Section 26509, this Plan of Control was prepared by an Engineering Geologist certified pursuant to Section 7822 of the Business and Professions Code and describes, in detail, the geologic hazards, their location, and the area affected by them. It also provides a plan for the prevention, mitigation, abatement, or control thereof.

As used in this Plan of Control, and as provided in Section 26507, "geologic hazard" means an actual or threatened landslide, land subsidence, soil erosion, earthquake, fault movement, or any other natural or unnatural movement of land or earth.

Property Identification

The proposed GHAD boundary is shown in Figure 1. The GHAD area includes the areas within the proposed Siena Hill project. The legal description of the land to be included within the Siena Hill GHAD is included in Exhibit A.

II. BACKGROUND

The Siena Hill property is located at Keller Avenue and Greenridge Drive in Oakland, California. The irregularly shaped site has approximately 950 feet of frontage on Keller Avenue and extends approximately 250 feet in width. Prior to the grading activities, elevations ranged from a low of about 340 feet above mean sea level (msl) near Keller Avenue to a high of about 450 feet above msl in the most elevated portion of the site.

Proposed Development

A Geotechnical Investigation was completed by Gary E. Underdahl (2001) for the Siena Hill site. Geotechnical corrective recommendations provided in this report have presumably been incorporated into plans prepared by A.C.K. Engineering and Surveying dated March 3, 2005. Current grading plans for the Siena Hill project show a total of 32 multi-family residential lots. The building pads and streets will be developed with cuts of up to about 30 feet, and placement of engineered fill up to approximately 15 feet thick from the original grade. To establish building pads, a number of retaining walls are planned for the site. Final grading work at the site will have been completed prior to acceptance of the property by the GHAD.

Easement and Keller Avenue Right of Way

As part of the proposed development, retaining walls and appurtenant drainage facilities are to be constructed within an off-site easement (Easement) and within the Keller Avenue right-of-way (Right-of-Way). Although these areas are located outside of the property boundary, the GHAD will be responsible for the maintenance of the retaining walls and appurtenant drainage facilities, as they directly benefit the Sienna Hill project. The legal description of the Easement and a depiction of the retaining walls outside of the property are presented in Exhibits B and C, respectively.

The GHAD is charged with responsibilities that relate to the prevention, mitigation, abatement, or control of geologic hazards, which includes the maintenance of facilities that enhance geologic as well as hydrogeologic stability such as drainage facilities and associated improvements. This may include the monitoring and maintenance of drainage facilities which, if subject to improper care, could result in decreased slope stability, the prime concern of the GHAD. As currently planned, the drainage facilities to be maintained by the GHAD include Best Management Practice (BMP) water quality treatment facilities and filter systems, concrete-lined drainage ditches, storm drain facilities, and drain inlets.

The GHAD will mitigate or abate landslide or erosion hazards that could directly affect improved, developed, and accepted properties (as defined in Section VII) within the project, in accordance with Section VI. The GHAD will also perform maintenance of water control and conveyance facilities.

III. SITE GEOLOGY

Geologic Setting

The Siena Hill property is located within the Coast Ranges geologic province of California, a series of northwest-trending ridges and valleys. Bedrock in the province has been folded and faulted during regional uplift beginning in the Pliocene period, roughly 4 million years before present. According to a geotechnical investigation report prepared by Gary E. Underdahl (2001), the Siena Hill property is situated on geologically young volcanics, labeled as Leona Rhyolite (Radbruch (1969), Dibblee (1980) and Crane (1988)). The bedrock strength of the formation reportedly varies considerably in strength and hardness. Nilsen (1975) has mapped the site as rock and colluvial-filled swales. The Nilsen map reportedly identifies colluvium and numerous landslides on adjacent hillsides and swales.

Geologic Units

The geologic units mapped on the site include bedrock and surficial deposits consisting of artificial fill, topsoil, and colluvium that are described below. The fill and topsoil geologic units were described in the Underdahl (2001) geotechnical investigation report.

Artificial Fill. The upper soil in the central swale is a well-compacted fill. The fill is composed of a gravelly silt or clay or silty gravel, with the gravel consisting of sandstone and shale rock fragments.

Topsoil. The natural layer, under the fill, is a firm and dry sandy clay topsoil, ranging from 6 to 18 inches in thickness. The topsoil is moderately to highly plastic and probably highly expansive. Sand and gravel content is relatively high.

Colluvium. Mantling the unquarried bedrock and filling swales are colluvial deposits. These sediments are derived from weathering of the underlying bedrock and consist mostly of silty clay. This material generally is moderately expansive and has low strength. Where colluvium is located on sloping ground, it may be characteristically unstable. Within swales, the colluvial deposits tend to be relatively thicker and may be subject to flow or slip downslope.

Groundwater

Groundwater was not encountered during the field investigation performed by Underdahl. Fluctuations in groundwater levels may occur seasonally and over a period of years because of precipitation, changes in drainage patterns, irrigation and other factors. Future irrigation may cause an overall rise in groundwater levels.

Seismic Sources

No faults are have been mapped as crossing the site (Underdahl, 2001). The nearest State of California-zoned, active¹ fault is the Hayward fault located about 350 feet southwest of the site. As discussed in the geotechnical investigation, there is a high probability that the site and any improvements will be subject to strong ground shaking and some deformation of the site slopes during the lifetime of the project.

¹ An active fault is defined by the State Mining and Geology Board as one that has had surface displacement within Holocene time (about the last 10,000 years) (Hart, 1994). The State of California has prepared maps designating zones for special studies that contain these active earthquake faults.

IV. GEOLOGIC HAZARDS

The following geologic hazards were identified for the Property in the previous site studies and are expected to remain to some extent after site grading has been completed.

- Slope instability
- Seismically induced ground shaking

Slope Instability

Earth stability is the GHAD's prime geotechnical concern at this site. This is not unique to this project, but is of importance for hillside projects in the San Francisco Bay Area. This section describes several types of slope instability which are within the GHAD's responsibility, subject to the provisions of Sections VI and VII.

Landslides are a common geologic phenomenon and are part of the process of mass wasting. Weathered or fractured bedrock and soil are transported downslope over geologic time as a result of gravitational and hydrostatic forces. Landslides and earth movement in this bedrock formation are typically rotational slumps and earthflows. Depth of movement is typically about 10 to 30 feet below the ground surface. Earthflows are confined to the upper 3- to 5-foot-thick clayey soil mantle. In the winter rainy season, these earthflows can move at a rate of several feet per day.

A landslide is a deposit of soil and/or bedrock moving downward from its original position under the influence of gravity. Landslides include a variety of morphologies and are further defined by type of materials, wetness, and mode of movement. They can consist of mass movements of earth materials that are primarily intact, and occur along discrete shear surfaces. These surfaces (shear or slip planes) can be rotational (conchoidal or concave), such as for earth slumps, or planar, as for translational earth slide or bedrock block slides. Most landslides are truly

“complex landslides”, sliding, falling and flowing with more than one type of movement and/or material. According to the Underdahl report, numerous landslides have been mapped on hillsides and within swales adjacent to the Siena Hill property. Additionally, a small landslide area is mapped by Nielsen (1975) near the north boundary of the property (DMA, 2006).

Falls are an abrupt free-fall of earth materials off cliffs, steep cuts, or steep stream banks while earthflows are mass movements of earth materials in which the type of movement is one of flowing. When composed of soil finer than gravel size, the flowing material is commonly called a mudflow. A debris flow/debris avalanche is composed of natural earth materials, artificial fill, and/or organic debris which flow downslope with speed. Most of the material is transported away from the area of initial ground failure.

Slope failures are also often triggered by increased pore water pressure due to the infiltration of rainwater. The resulting decrease of shear resistance (internal resistance to deformation by shearing) can cause the slope to move. The level of groundwater table varies with the amount of rainfall for the area. If rainfall is higher than average during the winter season, the water table will become higher than average on a hillslope and groundwater pressures may become sufficiently high to activate the hillside.

Soil creep is the slow, often imperceptible, deformation of slope materials under low stress levels, which normally affects the shallow portion of the slopes, but can be deep seated where a weak zone of soil or bedrock exists. It results from gravitational and seepage forces, and may be indicative of conditions favorable for landsliding. Creep can be caused by wetting and drying of clays, by solution and crystallization of salts, by the growth of roots, by burrowing animals and by downslope movement of saturated ground. Colluvium refers to the mantle of loose soil and weathered bedrock debris that progresses down hillsides by creep.

The District shall also be concerned with erosion and sedimentation affecting developed lots or improvements. Erosion is defined as the process by which earth materials are loosened and removed by running water on the ground surface or in the subsurface. Sedimentation is the depositing or settling of soil or rock particles from a state of suspension in a liquid.

Hilly terrain in a natural condition or particularly on excavated slopes can be subject to erosion. Landslide deposits which are sometimes in a loosened condition are particularly prone to erosion. Earth flow-, debris flow- and mud flow-type landslides typically have an area of deposition or accumulation (sedimentation area) at their base. Graded slopes in the District, particularly those not sufficiently vegetated, can be subject to erosion, and therefore, a source of transported sediment.

It is necessary that field-verified geologic field mapping will be prepared during mass grading operations. The detailed maps showing bedrock structure, springs, and landslide limits and repairs should be provided to the GHAD when available. The cuts should be viewed by the project geologist during grading to provide mitigation schemes for unsuspected slope conditions which could decrease the slope stability. Such conditions include unfavorable bedrock attitudes and seepage conditions.

In repaired or buttressed landslide areas, the landslide debris should be overexcavated to firm undisturbed materials below the landslide plane as determined by the Geotechnical Engineer or Engineering Geologist at the time of grading. In the case of the complete removal of a landslide, systems of surface and subsurface drains should be installed to collect the subsurface waters which may have initially caused the landslide. The configuration of each subdrainage system should be tailored to the individual landslide at the time of grading. The Geotechnical Engineer and/or the Engineering Geologist should determine the location and depths of subdrains at that time. The location and elevation of subdrains and outlets should be recorded by survey. Each

landslide subexcavation then would be reconstructed to final grade by keying and benching below the landslide plane with compacted, drained, engineered fill.

Seismically Induced Ground Shaking

As identified in the geologic and geotechnical reports pertaining to the project, an earthquake of moderate to high magnitude generated within the San Francisco Bay Region could cause considerable ground shaking at the Property, similar to that which has occurred in the past. To mitigate the shaking effects, all structures should be designed using sound engineering judgment and the latest building code requirements, as a minimum.

Seismic slope stability analysis has presumably been incorporated in the corrective grading plans for the graded portions of the Property; however, seismically generated slope failures could occur in open space areas outside of the development limits.

V. CRITERIA FOR GHAD RESPONSIBILITY

In forming the GHAD and establishing the assessment levels and budgets for the District, it is important to clearly define the limits of the GHAD's responsibilities. The GHAD will accept responsibility for property and retaining walls and appurtenant drainage facilities within the Easement and the Right-of-Way as described in Section VI of this Plan of Control. However, the intent of this Plan of Control is not to extend the GHAD's responsibilities to every potential situation of instability; rather, the following are exclusions from GHAD responsibility.

Isolated or Remote Feature Requiring Mitigation

The GHAD shall not have responsibility to monitor, abate, mitigate or control slope instability that does not involve damage to or pose a significant threat to damage site improvements or retaining walls and appurtenant drainage facilities within the Easement and/or the Right-of-Way.

Single Property

The GHAD will not prevent, mitigate, abate or control geologic hazards which are limited in area to a single parcel of property unless the geologic hazard has damaged, or poses a significant threat of damage to site improvements located on other property within the GHAD boundaries. As used herein, the term "site improvements" means buildings, roads, sidewalks, utilities, improved trails, swimming pools, tennis courts, gazebos, cabanas, geologic stabilization features, or similar improvements. This exclusion does not apply to geologic hazards existing on commercial property, recreational property, and open space property owned by any homeowner's associations or within the GHAD-owned property.

Geologic Hazards Resulting From Negligence of Property Owner

The GHAD may, in the general manager's sole discretion, decline to prevent, mitigate, abate or control geologic hazards which occurred or resulted from any negligence of the homeowner and/or the homeowner's contractors, agents or employees in developing, investigating, grading, constructing, maintaining or performing or not performing any post-development work on the subject property as long as the geologic hazard is limited to a single lot, pursuant to exclusions described herein.

Property Not Accepted

The GHAD shall not have responsibility to repair damage, which is situated on a parcel of real property, which the GHAD has not accepted in accordance with Section VI, below. The GHAD, however, may monitor, abate, mitigate or control geologic or hydrogeologic hazards on a parcel of real property which the GHAD has not accepted in accordance with Section VI, below, and is not excluded from GHAD responsibility by Paragraphs 1, 2 and 3; provided, however, that GHAD responsibility on such parcel shall be limited to the extent necessary to address damage or a significant threat to damage site improvements which are within a parcel of real property which the GHAD has accepted in accordance with Section VI, below.

Geologic Hazard Which Requires Expenditure in Amount Exceeding the Value of the Threatened or Damaged Improvement

The GHAD may elect not to prevent, mitigate, abate or control a geologic hazard where, in the general manager's sole discretion, the anticipated expenditure required to be funded by the GHAD to prevent, mitigate, abate or control the geologic hazard will exceed the value of the structure(s) and site improvement(s) threatened with damage or loss.

GHAD Funding or Reimbursement for Damaged or Destroyed Structures or Site Improvements

In the event a residence or any other structure, site improvement or landscaping is damaged or destroyed due to, or as a result of, a geologic hazard, the GHAD may fund or reimburse the property owner for the expenses necessary to repair or replace the damaged or destroyed structure, site improvement or landscaping. Unless authorized by the Board of Directors, the dollar amount of the GHAD funding or reimbursement may not exceed ten percent (10%) of the costs incurred by the GHAD in preventing, mitigating, abating or controlling the geologic hazard responsible for the damage. In the event the geologic hazard damaged or destroyed a structure, site improvement or landscaping which violated any provisions of the City Building Code or City Ordinance Code at the time of its installation or improvement, the GHAD may decline to provide any funding, or reimbursement to the property owner, for repair or replacement of the damaged structure, improvement or landscaping.

No Reimbursement of Expenses Incurred by Property Owners

The GHAD will not be obligated to reimburse a property owner for expenses incurred for the prevention, mitigation, abatement, or control of a geologic hazard absent a written agreement between the property owner and the GHAD to that effect, which agreement has been executed prior to the property owner incurring said expenses, and following an investigation conducted by the GHAD.

VI. ACCEPTANCE

Activation of Assessment

An annual assessment shall be promptly authorized on all residential parcels in the GHAD. The assessment shall be levied by the GHAD on each individual parcel beginning the first fiscal year following issuance of a building permit for that parcel.

Responsibility for GHAD Activities

The party that, on the date the Final Map within the boundaries of the GHAD is approved by the City of Oakland, owns the developable parcels shown on that Final Map shall have the responsibility to perform all the activities of the GHAD on property within that Final Map. Such responsibility shall become eligible for transfer to the GHAD on the day exactly three years after the first residential building permit is issued by the City of Oakland, two years following final approval of all retaining wall construction, or two years following final approval of site grading, whichever is later. This turn-over date may be extended at the sole discretion of the project developer provided that the assessments shall continue to be levied during the extension period and that notice of such extension is delivered to the District Manager at least 30 days prior to the turn-over date. The Board of the GHAD intends that the period between the levying of the GHAD assessment and the GHAD becoming responsible to perform activities on property within the Final Map will allow the District to accumulate reserve funds without incurring significant expenses.

Process for Transferring Responsibility for GHAD Activities

After the Transfer Eligibility Date for parcel(s), the process for transferring responsibility for performing GHAD activities on such parcel(s) shall be as follows:

- A. In the calendar year of the Transfer Eligibility Date or in any subsequent year, at its discretion, the developer may apply to the GHAD ("Transfer Application") to transfer the responsibility for performing GHAD Activities for parcel(s) to the District.
- B. Within 30 days of receiving such notice, a representative of the GHAD shall verify that all the facilities for which the GHAD will have maintenance responsibility have been constructed and maintained according to the city-approved plans and specifications for the individual improvements, and that such facilities are operational and in good working order.
- C. Within 15 days of such inspection, the GHAD will send the developer a list ("Punch list") of all of the items that need to be constructed, repaired or otherwise modified in order to comply with the city-approved plans and specifications.
- D. The developer may notify the GHAD when it has completed the items identified on the Punch list.
- E. Within 30 days of receipt of such notice, the GHAD shall verify that all Punch list items have been completed and notify the developer that the District accepts responsibility for performing all future GHAD Activities on the parcel(s).

VII. SIENA HILL GHAD PLAN OF CONTROL

The GHAD shall be responsible for the maintenance of geologic stabilization and hydrogeologic features within the GHAD boundaries and retaining walls and appurtenant drainage facilities within the Easement and the Right-of-Way. The GHAD's maintenance responsibilities include prevention, abatement, vegetation control, and control of landslide and erosion hazards within the project as applicable, as provided in this Plan of Control.

General maintenance of the surface drainage improvements in the open space will be the GHAD's responsibility. Additionally, the GHAD will have the following maintenance responsibilities as outlined below:

- Inspection and maintenance of lined ditches.
- Monitoring and maintenance of measurement devices, such as piezometers, inclinometers, and tiltmeters, if any.
- Inspection and maintenance of retaining walls.
- Maintenance of designated trails or fences, if any.
- Inspection and maintenance of surface water quality treatment and detention facilities within the development, if any.

General Landslide and Erosion Hazard Mitigation

The techniques which may be employed by the GHAD to prevent, mitigate, abate, or control geologic hazards include, but are not limited to, the following.

- A. Removal of the unstable earth mass.
- B. Stabilization (either partial or total) of the landslide by removal and replacement with compacted, drained fill.

- C. Construction of structures to retain or divert landslide material or sediment.
- D. Construction of erosion control devices such as gabions, riprap, geotextiles, or lined ditches.
- E. Placement of drained engineered buttress fill.
- F. Placement of subsurface drainage devices (e.g. underdrains, or horizontal drilled drains).
- G. Slope correction (e.g. gradient change, biotechnical stabilization, slope trimming or contouring).
- H. Construction of additional surface ditches and/or detention basins, silt fences, sediment traps, or backfill or erosion channels.

Potential landslide and erosion hazards can be mitigated best by controlling soil saturation and water runoff and by maintaining the surface and subsurface drainage system. Maintenance shall be provided for lined surface drainage ditches and drainage terraces including debris benches or drop inlets.

VIII. PRIORITY OF GHAD EXPENDITURES

Emergency response and scheduled repair expenditures by the GHAD are to be prioritized by the General Manager, utilizing his or her discretion, based upon available funds and the approved operating budget. When available funds are not sufficient to undertake all of the identified remedial and preventive stabilization measures, the expenditures are to be prioritized as follows in descending order of priority:

- A. Prevention, mitigation, abatement or control of geologic hazards that have either damaged or pose a significant threat of damage to residences, critical underground utilities or paved streets.
- B. Prevention, mitigation, abatement or control of geologic hazards which have either damaged or pose a significant threat of damage to ancillary structures, including but not limited to water quality facilities, pool cabanas or restroom buildings.
- C. Prevention, mitigation, abatement or control of geologic hazards which have either damaged or pose a significant threat of damage to open space amenities.
- D. Prevention, mitigation, abatement or control of geologic hazards which have either damaged or pose a significant threat of damage limited to loss of landscaping or other similar non-essential amenities.
- E. Prevention, mitigation, abatement or control of geologic hazards existing entirely on open-space property and which have neither damaged nor pose a significant threat of damage to any site improvements.

In performing its duties as described above, the GHAD may seek reimbursements from public and private entities including, but not limited to, FEMA, City and County agencies, insurance companies, etc.

IX. MAINTENANCE AND MONITORING SCHEDULE

Geologic features and GHAD-maintained facilities should be inspected by GHAD staff or GHAD-assigned consultants as presented below. The site inspections should be undertaken at appropriate intervals as determined by the GHAD manager using supporting documents prepared for the site and its improvements. The GHAD budget should provide for four or more inspections in years of heavy rainfall. Generally, the inspections should take place in October, prior to the first significant rainfall; mid-winter as necessary during heavy rainfall years; and in early April at the end of the rainy season. The frequency of the inspections should increase depending upon the intensity and recurrence of rainfall. Site inspections should increase sufficiently to provide for mitigation of potential hazards.

The GHAD shall obtain copies of geologic or geotechnical exploration reports related to site development and keep these reports on file in the records of the GHAD. In addition, copies of any earthwork-related testing and observation reports that will be finalized at the completion of grading, when as-built drawings are available, shall be maintained as part of the GHAD records.

Following are guidelines for a monitoring plan. The actual timing, scope, frequency and other details regarding such maintenance, inspection and similar activities shall be at the discretion of the GHAD manager.

- The engineer and/or geologist retained by the District should carry out an inspection of lined surface ditches at least twice a year, budget permitting. One inspection should be in the fall prior to the onset of winter rains. The inspection shall check for sedimentation and cracking or shifting of the concrete lined ditches. Repairs and maintenance, as needed, should be undertaken including removal of excess silt or sediment in ditches and patching or replacement of cracked or broken ditches, prior to the beginning of the next rainy season.

- Subsurface drain outlets and horizontal drilled drain outlets, if any, should be checked. Water flowing from these outlets should be measured and recorded during each inspection. The inspections should take place at least twice annually, preferably in the fall and spring. Any suspicious interruption in flow should signal a need to unplug or clean by flushing the affected drain.
- Piezometers to measure groundwater levels, or instruments such as inclinometers or tiltmeters measuring potential slope instability should be monitored quarterly, if installed.
- Settlement monitoring devices, if any, should be measured annually and tracked. In the event of anomalous readings or excessive settlement, the monitoring frequency should be increased to once per quarter.
- Inlets, outfalls or trash racks, if used, must be kept free of debris and spillways maintained. It is anticipated that initially at least once every two (2) years, cleanup of vegetation and removal of silt would be in order. Attention should be given to plantings or other obstructions which may interfere with access by power equipment.
- An annual inspection shall be made by the engineer and/or engineering geologist to assess the effectiveness of the preventive maintenance program and to make recommendations as to which landslide or erosion measures should be undertaken in the next fiscal year. Any appropriate site-specific study of landslide or erosion conditions shall be determined at that time. Consultants, if necessary, will be retained to undertake the needed studies. An annual inspection report to the GHAD shall be prepared by the District Engineer and/or Engineering Geologist.

SELECTED REFERENCES

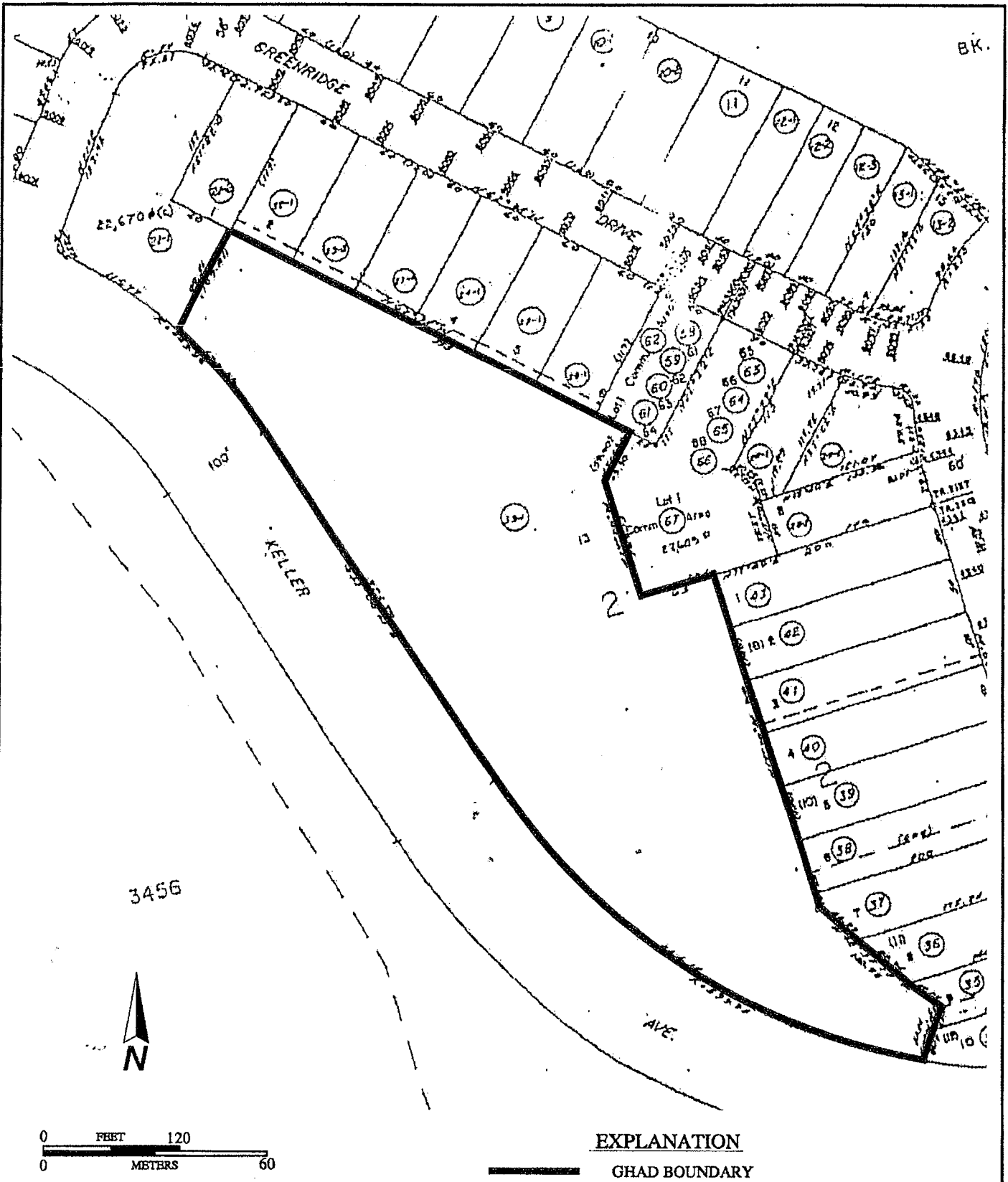
- A.C.K. Engineering and Surveying, Siena Hill Subdivision, Oakland, California, dated March 3, 2005.
- California Division of Mines and Geology, January 1, 1982, State of California Earthquake Fault Zones, Oakland East 7-½' Quadrangle.
- Darwin Myers Associates, April 7, 2006, Engineering Geology Peer Review, Proposed Siena Hill GHAD, Keller Avenue at Greenridge Drive, Oakland, California; Project Number 2002.06.
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- Radbruch, D.H., 1969, Areal and Engineering Geology of the Oakland East Quadrangle, Alameda and Contra Costa Counties, California; USGS GQ769.
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APPENDIX A

Figure and Exhibits

Figure 1	GHAD Boundary
Exhibit A	Legal Description of Siena Hill Property
Exhibit B	Legal Description of Siena Hill Easement Area
Exhibit C	Retaining Walls Outside of Project Area

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BASE MAP SOURCE: OAKLAND ASSESSOR DEPT.



GHAD BOUNDARY
OAKLAND AREA GEOLOGIC HAZARD ABATEMENT DISTRICT
OAKLAND, CALIFORNIA

PROJECT NO.: 6964.1.001.01
DATE: MAY 2006
DRAWN BY: JMG CHECKED BY: MS

FIGURE NO.
1

EXHIBIT A - I

SIENA HILL PROPERTY

The land referred to is situated in the County of Alameda, City of Oakland, State of California, and is described as follows:

Lot 13 in Block 2, as said lot and block are shown on the Map of "Tract 2127, Oakland, Alameda County, California", filed July 28, 1960, in Book 42 of Maps, Page 27, Alameda County Records.

EXCEPTING THEREFROM: Those portions thereof described in Parcels 2, 3, 4, 5, 6, 7 and 8, as described in the Deed by Sterling Development Company to Oddstead Homes, dated February 12, 1962, recorded February 19, 1962, Reel 518, Image 315, Instrument No. AT/22269, Alameda County Records.

(BEING APN 040A-3457-033-01)

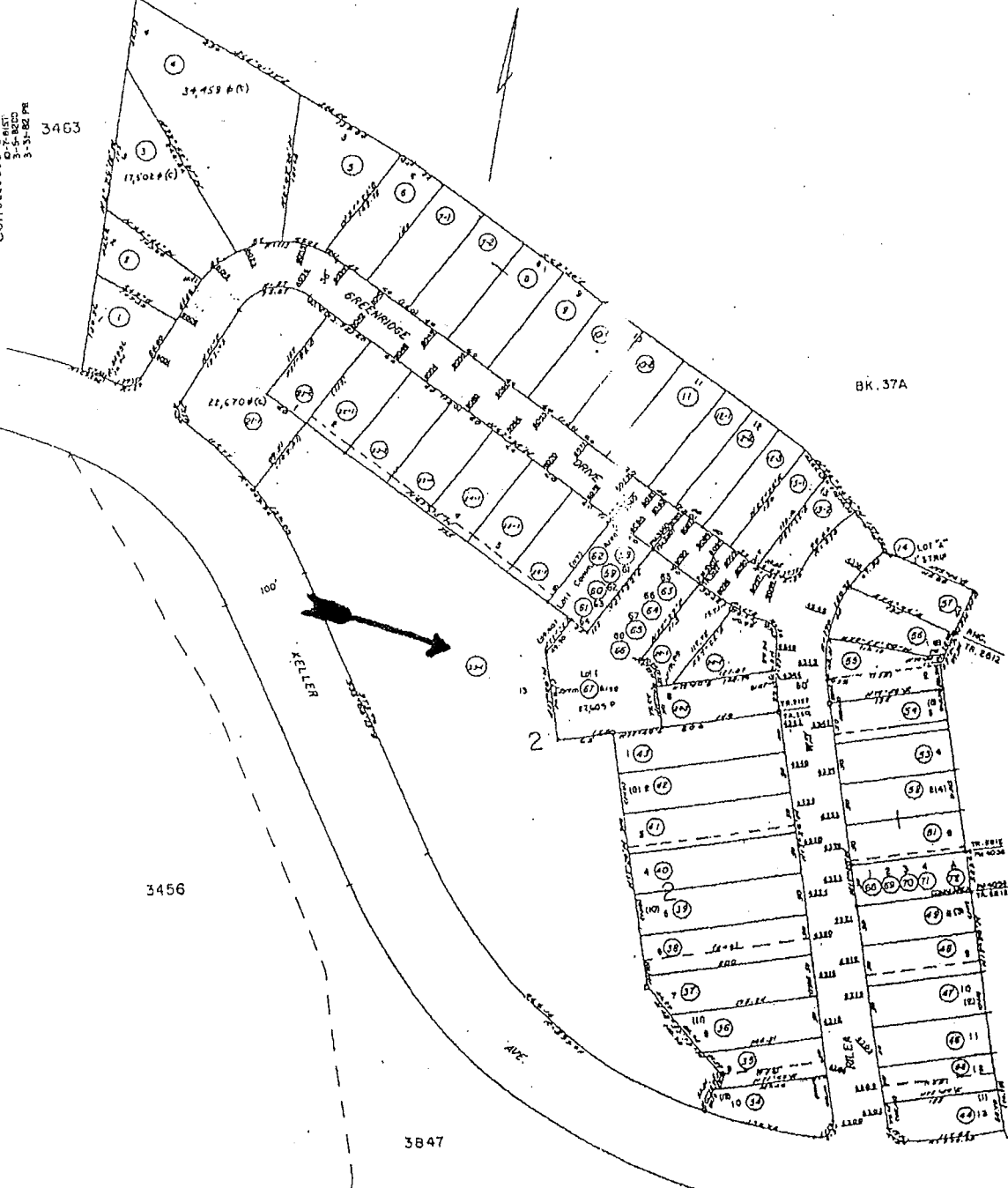
3457

SIENA HILL PROPERTY

Scale 1" = 100'

DN 12-4-60 H.N.
Corrected: 8-23-71
3-5-82 CD
3-31-82 PE

Per City For Bkx 34558 3847



"Notice: This is neither a plat nor a survey. It is furnished merely as a convenience to aid you in locating the land indicated hereon with reference to streets and other Land. No liability is assumed by reason of any reliance hereon."

HPN 72

EXHIBIT B - I

ROADWAY EASEMENT ON ADJACENT PROPERTY

EASEMENT FOR INGRESS & EGRESS

AN EASEMENT FOR INGRESS & EGRESS AND PUBLIC UTILITIES INCLUDING STORM DRAINAGE IN THE CITY OF OAKLAND, COUNTY OF ALAMEDA, STATE OF CALIFORNIA BEING DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHWEST CORNER OF LOT 13 IN BLOCK 2 AS SHOWN ON THE MAP OF "TRACT 2127, OAKLAND, ALAMEDA COUNTY, CALIFORNIA", FILED JULY 28, 1960 IN BOOK 42 OF MAPS, PAGE 27, ALAMEDA COUNTY RECORDS, SAID POINT ALSO BEING ON THE NORTHERLY RIGHT-OF-WAY LINE OF KELLER AVENUE; THENCE ALONG THE WESTERLY LINE OF SAID LOT 13, NORTH 27° 22' 00" EAST, 100.16 FEET, MORE OR LESS TO THE SOUTHWEST CORNER OF LOT 1 AS SHOWN ON SAID MAP OF "TRACT 2127"; THENCE ALONG SAID SOUTHERLY LINE OF SAID LOT 1, NORTH 62° 38' 00" WEST, 60 FEET TO THE SOUTHWEST CORNER OF SAID LOT 1; THENCE SOUTH 28° 13' 00" WEST, 4.17 FEET; THENCE NORTH 61° 51' 07" WEST, 44.48 FEET, THENCE ALONG A CURVE TO THE RIGHT HAVING A RADIUS OF 5 FEET, AN ARC LENGTH OF 5.93 FEET AND A CENTRAL ANGLE OF 67° 57' 10"; THENCE ALONG A LINE TANGENT TO THE CURVE NORTH 06° 04' 38" EAST, 70.36 FEET; THENCE NORTH 66° 45' 47" WEST, 15.52 FEET TO A POINT ON THE EASTERLY RIGHT-OF-WAY LINE OF GREENRIDGE DRIVE; THENCE ALONG THE SAID RIGHT-OF-WAY LINE SOUTH 20° 45' 21" WEST, 133.26 FEET; THENCE ALONG A CURVE TO THE LEFT THROUGH A CENTRAL ANGLE OF 84° 08' 20", AN ARC LENGTH OF 29.37 FEET AND A RADIUS OF 20.00 FEET TO POINT ON THE NORTHERLY RIGHT-OF-WAY LINE OF KELLER AVENUE; THENCE ALONG THE SAID NORTHERLY RIGHT-OF-WAY LINE, BEING A CURVE TO THE RIGHT HAVING A RADIUS OF 449.96 FEET, AN ARC LENGTH OF 115.77 FEET AND THROUGH A CENTRAL ANGLE OF 14° 44' 31" TO THE POINT OF BEGINNING.

CONTAINING 13,713 SQUARE FEET.

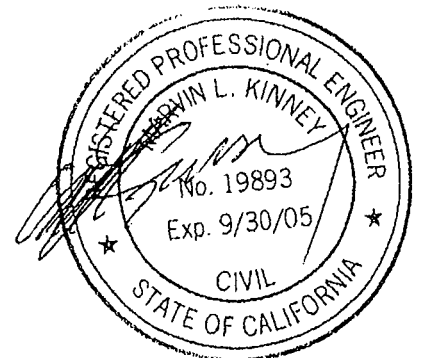
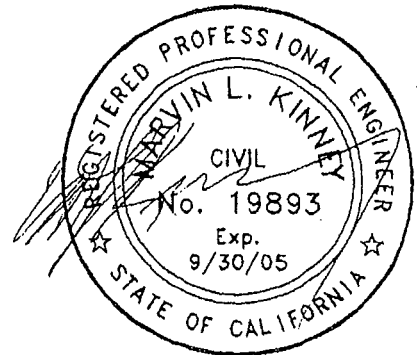
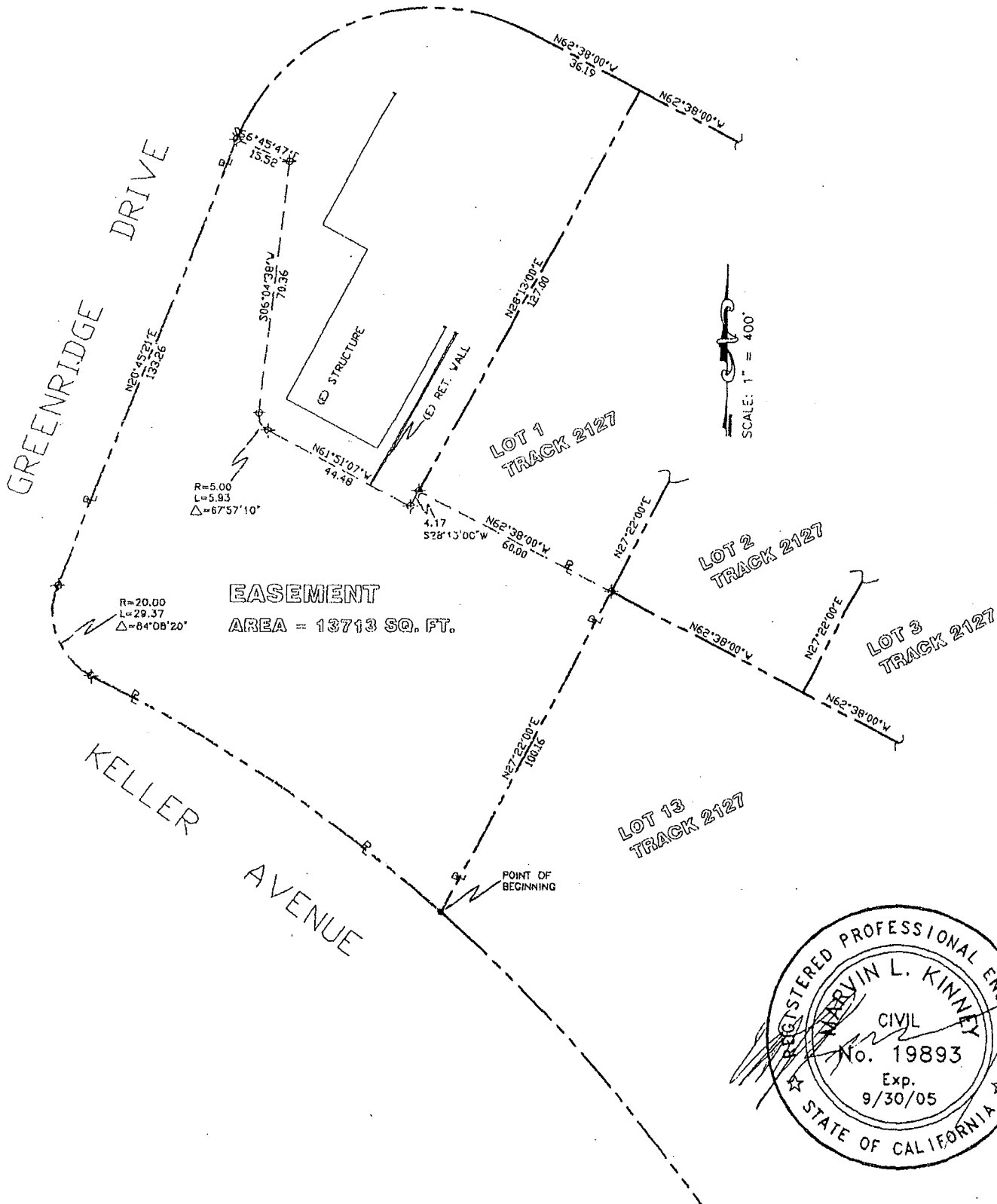


EXHIBIT B -2

ROADWAY EASEMENT ON ADJACENT PROPERTY



KELLER AVENUE
R.O.W.

RETAINING WALLS
IN KELLER AVENUE R.O.W.

EXHIBIT C-1

RETAINING WALLS NOT ON
SIENA HILL PROPERTY

SCALE: 1"=60'-0"

EXHIBIT C-1

**RETAINING WALLS NOT ON
SIENA HILL PROPERTY**

SCALF. $1'' = 60' - 0''$

September 5, 2013

Job No. 1138.000(P)

Siena Hills HOA

7655 Redwood Blvd., Ste. 100

Novato, California 94945

Subject: Proposal for Consultation
GHAD Responsibilities
Sienna Hills
Keller Drive
Oakland, California

Dear Board Members:

INTRODUCTION

We are glad to present this proposal for providing consultation services regarding responsibilities the HOA has regarding the Oakland Area Geologic Hazard Abatement District (GHAD) at the Siena Hills site located on the northwest side of Keller Drive in Oakland, California. We were provided the soils report and plan of control for the GHAD which pertains to the Siena Hills site. Based on our discussion with your representative, we understand that there is a need to conduct the routine site evaluations called for in the GHAD plan of control and there is a need for consultation moving forward.

PURPOSE AND SCOPE OF SERVICES

The purposes of our services are satisfying the immediate responsibilities of routine observations for the purpose of identifying areas in need of preventative maintenance or further evaluation and providing consultation services regarding your options moving forward with GHAD scope. We propose the following scope of services:

1. Review existing geotechnical information in your files.
2. Review readily available geologic and geotechnical maps and literature covering the site vicinity.
3. Conduct a site reconnaissance by a licensed engineering geologist to evaluate site and slope conditions. The reconnaissance will be performed prior to October 15th and will check all features noted in the GHAD plan of control. Conduct an engineering geology evaluation of the information collected. We would prepare a letter summarizing the findings from the tasks above and providing recommendations preventative maintenance (if-needed) to be performed prior to the rainy season.
4. Follow-up reconnaissance evaluation after winter to check for erosion or changes in conditions, and letter.
5. Consultation with you regarding options for moving forward with GHAD responsibilities.

FEE AND TERMS

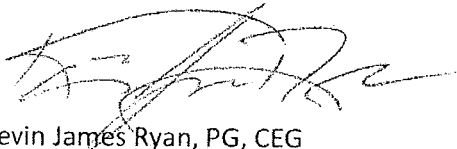
We propose to provide the above-mentioned scope of services, in accordance with the attached *Fee Schedule – 2013* and *Terms for Professional Services*, both of which are made a part hereof by reference.

Our fees for each phase of the project are provided in the following table. The routine GHAD inspections are provided as a FIXED FEE as noted below. Consultation services are hard to determine based on the feedback from the City of Oakland. We are providing a Time & Materials estimate for consultation with a preliminary budget to exceed amount as shown below. The consultation services may be needed beyond that point based on City input and your requests. Additional budget authorization will be requested in writing at that time based on our discussions.

TASK	ESTIMATED FEE
TASKS 1 THROUGH 3 – Review geotechnical information, conduct pre-winter evaluation, provide letter summary of findings and recommendations for preventative maintenance.	FIXED FEE \$1,750.00
TASK 4 – Follow-up Reconnaissance and letter	FIXED FEE \$750.00
TASK 5 – Consultation Preliminary Estimate	NOT TO EXCEED \$2,500
TOTAL COSTS	\$5,000.00

If the proposed work scope and associated fees are acceptable to you, please return one signed copy of the Terms for Professional Services as our formal authorization to proceed. If you have any questions regarding this proposal, please feel free to contact Kevin Ryan at 510-520-5592.

Respectfully submitted,
RYAN GEOLOGICAL CONSULTING, INC.



Kevin James Ryan, PG, CEG
President/Principal Engineering Geologist

Attachments:

Fee Schedule - 2013
Terms for Professional Services

FEE SCHEDULE – 2013

	Billing Rate/Hour (USD)
Consultation	
Principal Geologist/Engineer	\$150.00
Senior Geologist/Engineer.....	\$125.00
Project Geologist/Engineer (licensed professional).....	\$118.00
Staff Geologist (Geologist in training).....	\$105.00
Field Technician	\$90.00
Trench/field support	\$50.00
Drafting and Clerical	\$75.00
Clerical/Administrative.....	\$55.00
Specialized Field Investigation	
Certified Engineering Geologist	\$150/hour
Professional Geologist	\$125/hour
Construction Observation (CEG).....	\$125/hour
Senior Field Engineer.....	\$105/Hour
Field Technician	\$90/Hour
Trench/field support	\$50/Hour
Down-Hole Logging (in hole time)	\$350/hour
Bedrock Core Review (offsite, depth of hole).....	\$3.50/ft
Miscellaneous	
Vehicle Mileage	\$0.58/mile
Toll Fees	COST
Total Station	\$250/day
	\$125/half day
Slope Inclinator Probe	\$200/hole
Equipment & Supplies	Cost + 15%
Outside Services	Cost + 15%
Oversized Prints	Cost +15%
Extra Report Copies	\$0.22/page B&W
	\$0.58/page Color

Expert witness testimony/deposition minimum charges: \$2,250/day, \$1,250/half day.
 Preparation at applicable hourly rates.

Four (4) hour minimum charge for field investigation services.
 Three (3) hour minimum charge for on-site consultation services.

Billing issued on the last day of the month or at project completion. Invoices are due upon receipt and subject to penalties if not paid within 30 days.

TERMS FOR PROFESSIONAL SERVICES

THE AGREEMENT

This agreement is made by and between: RYAN GEOLOGICAL CONSULTING, INC. hereinafter referred to as CONSULTANT, and the Sienna Hills HOA hereinafter referred to as CLIENT.

The AGREEMENT between the parties consists of these TERMS, the attached PROPOSAL identified as Job No. 1138.000(P) dated September 5, 2013, and any exhibits or attachments noted in the PROPOSAL. Together, these elements will constitute the entire AGREEMENT superseding any and all prior negotiations, correspondence, or agreements either written or oral. Any changes to this AGREEMENT must be mutually agreed to in writing.

STANDARD OF CARE

CLIENT recognizes that subsurface conditions may vary from those observed at locations where borings, surveys, or explorations are made, and that site conditions may change with time. Data, interpretations, and recommendations by CONSULTANT will be based solely on information available to CONSULTANT. CONSULTANT is responsible for those data, interpretations, and recommendations, but will not be responsible for other parties' interpretations or use of the information developed.

Services performed by CONSULTANT under this AGREEMENT are expected by CLIENT to be conducted in a manner consistent with the level of care and skill ordinarily exercised by members of the engineering geology profession practicing contemporaneously under similar conditions in the locality of the project. Under no circumstance is any warranty, expressed or implied, made in connection with the providing of engineering geology consulting services.

SITE ACCESS AND SITE CONDITIONS

CLIENT will grant or obtain free access to the site for all equipment and personnel necessary for CONSULTANT to perform the work set forth in this AGREEMENT. CLIENT will notify any and all possessors of the project site that CLIENT has granted CONSULTANT free access to the site. CONSULTANT will take reasonable precautions to minimize damage to the site, but is understood by CLIENT that, in the normal course of work, some damage may occur and the correction of such damage is not part of this AGREEMENT unless so specified in the PROPOSAL.

CLIENT is responsible for accurately delineating the locations of all subterranean structures and utilities. CONSULTANT will take reasonable precautions to avoid known subterranean structures, and CLIENT waives any claim against CONSULTANT, and agrees to defend, indemnify, and hold CONSULTANT harmless from any claim or liability for injury or loss, including costs of defense, arising from damage done to subterranean structures and utilities not identified or accurately located. In addition, CLIENT agrees to compensate CONSULTANT for any time spent or expenses incurred by CONSULTANT in defense of any such claim, with compensation to be based upon CONSULTANT's prevailing fee schedule and expense reimbursement policy.

MONITORING

If CONSULTANT is retained by CLIENT to provide a site representative for the purpose of monitoring specific portions of construction work or other field activities as set forth in the PROPOSAL, then this

phrase applies. For the specified assignment, CONSULTANT will report observations and professional opinions to CLIENT. No action of CONSULTANT or CONSULTANT's site representative can be construed as altering any AGREEMENT between CLIENT and others. CONSULTANT will report to CLIENT any observed geotechnically related work which, in CONSULTANT's professional opinion, does not conform with plans and specifications. The CONSULTANT has no right to reject or stop work of any agent of the CLIENT. Such rights are reserved solely for CLIENT. Furthermore, CONSULTANT's presence on site does not in any way guarantee the completion or quality of the performance of the work of any party retained by CLIENT to provide field or construction-related services.

CONSULTANT will not be responsible for and will not have control or charge of specific means, methods, techniques, sequences or procedures of construction or other field activities selected by any agent or agreement of CLIENT, or safety precautions and programs incident thereto.

BILLING AND PAYMENT

CLIENT will pay CONSULTANT in accordance with the procedures indicated in the PROPOSAL and its attachments. Invoices will be submitted to CLIENT by CONSULTANT, and will be due and payable upon presentation. Invoices will be submitted on the first day of the month for work conducted during the previous month, or at the completion of the project for any charges to date. If CLIENT objects to all or any portion of any invoice, CLIENT will so notify CONSULTANT in writing within fourteen (14) calendar days of the invoice date, identify the cause of disagreement, and pay when due that portion of the invoice not in dispute. The parties will immediately make every effort to settle the disputed portion of the invoice. In the absence of written notification described above, the balance as stated on the invoice will be paid.

Invoices are delinquent if payment has not been received within thirty (30) days from date of invoice. CLIENT will pay an additional charge of one-and-one-half (1.5) percent per month (or the maximum percentage allowed by law, whichever is lower) on any delinquent amount, excepting any portion of the invoiced amount in dispute and resolved in favor of CLIENT. Payment thereafter will first be applied to accrued interest and then to the principal unpaid amount. All time spent and expenses incurred (including any attorney's fees) in connection with collection of any delinquent amount will be paid by CLIENT to CONSULTANT per CONSULTANT's current fee schedules. In the event CLIENT fails to pay CONSULTANT within sixty (60) days after invoices are rendered, CLIENT agrees that CONSULTANT will have the right to consider the failure to pay the CONSULTANT's invoice as a breach of this AGREEMENT.

TERMINATION

This AGREEMENT may be terminated by either party fourteen (14) days after written notice in the event of any breach of any provision of this AGREEMENT or in the event of substantial failure of performance by the other party, or if CLIENT suspends the work for more than six (6) months. In the event of termination, CONSULTANT will be paid for services performed prior to the date of termination plus reasonable termination expenses, including, but not limited to the cost of completing analyses, records, and reports necessary to document job status at the time of termination.

RISK ALLOCATION

Many risks potentially affect CONSULTANT by virtue of entering into this AGREEMENT to perform

professional engineering geology services on behalf of CLIENT. The principal risk is the potential for human error by CONSULTANT. For CLIENT to obtain the benefit of a lower fee that includes a nominal allowance for dealing with CONSULTANT's liability, CLIENT agrees to limit CONSULTANT's liability to CLIENT and to all other parties for claims arising out of CONSULTANT's performance of the services described in this AGREEMENT. The aggregate liability of CONSULTANT for negligent professional acts, errors or omissions will not exceed \$25,000.00 (Twenty-Five-Thousand Dollars) or the fees charged for the project, whichever is greater, and CLIENT agrees to indemnify and hold harmless CONSULTANT from and against all liabilities in excess of the monetary limit established above.

Limitations on liability and indemnities in this AGREEMENT are business understandings between the parties voluntarily and knowingly entered into, and shall apply to all theories of recovery including, but not limited to, breach of contract, warranty, tort (including negligence), strict or statutory liability, or any other cause of action, except for willful misconduct or gross negligence. The parties also agree that CLIENT will not seek damages in excess of the limitations indirectly through suits with other parties who may join CONSULTANT as a third-party defendant. Parties mean CLIENT and CONSULTANT and their officers, employees, agents, affiliates, and subcontractors.

CONSEQUENTIAL DAMAGES

Notwithstanding any other provisions of this Agreement, both CLIENT and CONSULTANT agree that they will not be liable to each other, under any circumstances, for special, indirect, consequential, or punitive damages arising out of or related to this AGREEMENT, regardless of the nature of this fault or whether it was committed by the CLIENT or CONSULTANT, their employees, agents, subconsultants or subcontractors. Consequential damages include, but are not limited to, loss of use and loss of profit.

INDEMNIFICATION

Subject to the provisions and limitations of this Agreement, CONSULTANT agrees to indemnify and hold harmless CLIENT, its shareholders, officers, directors, employees, and agents from and against any and all claims, suits, liabilities, damages, expenses (including without limitation reasonable attorney's fees and costs of defense), or other losses (collectively "Losses") to the extent caused by CONSULTANT's negligent performance of its services under this Agreement.

CLIENT will indemnify and hold harmless CONSULTANT, its shareholders, officers, directors, employees, and agents from and against any Losses to the extent caused by the negligence of CLIENT, its employees, agents and contractors.

INSURANCE

CONSULTANT maintains Professional Liability Insurance and Commercial General Liability Insurance with limits of as a standard practice for the benefit of RYAN GEOLOGICAL CONSULTING, INC. Upon request, CONSULTANT will provide CLIENT with certificate(s) of insurance evidencing the existence of the policies required herein. The cost obtaining certificates will be added to the project at a rate of \$150.00.

DISPUTES RESOLUTION

All claims, disputes, and other matters in controversy between CONSULTANT and CLIENT arising out of or in any way related to this AGREEMENT will be submitted to "alternative dispute resolution" (ADR) before and as a condition precedent to other remedies provided by law. If and to the extent CLIENT and

CONSULTANT have agreed on methods for resolving such disputes, then such methods will be set forth in the "Alternative Dispute Resolution Agreement" which, if attached, is incorporated into and made a part of this AGREEMENT. If no specific ADR procedures are set forth in this AGREEMENT, then it shall be understood that the parties shall submit disputes to mediation as a condition precedent to litigation.

If a dispute at law arises from matters related to the services provided under this AGREEMENT and that dispute requires litigation instead of ADR as provided above, then:

- (1) the claim will be brought and tried in judicial jurisdiction of the court of the county where CONSULTANT's principal place of business is located and CLIENT waives the right to remove the action to any other county or judicial jurisdiction, and
- (2) the prevailing party will be entitled to recovery of all reasonable costs incurred, including staff time, court costs, attorneys' fees, and other claim related expenses.

GOVERNING LAW AND SURVIVAL

The law of the State of CALIFORNIA will govern the validity of these TERMS, their interpretation and performance.


If any of the provisions contained in this AGREEMENT are held illegal, invalid, or unenforceable, the enforceability of the remaining provisions will not be impaired. Limitations of liability and indemnities will survive termination of this AGREEMENT for any cause.

The parties have read the foregoing, understand completely the terms, and willingly enter into this AGREEMENT that will become effective on the date signed below by CLIENT.

SIENNA HILLS HOA
CLIENT

RYAN GEOLOGICAL CONSULTING, INC.
CONSULTANT

By


By: Kevin James Ryan, President

Position


Date

Date

CITY OF OAKLAND
AGENDA REPORT

OFFICE OF THE CITY CLERK
2006 MAY 11 PM 6:35

TO: Office of the City Administrator
ATTN: Deborah Edgerly
FROM: Community & Economic Development Agency
DATE: May 23, 2006

RE: **Adoption Of A Resolution To Initiate Formation Of The Oakland Area Geologic Hazard Abatement District (GHAD) And Setting A Public Hearing For July 18, 2006 To Consider Formation Of The GHAD.**

SUMMARY

The resolution before the City Council initiates formation of the Oakland Area Geologic Hazard Abatement District (GHAD pronounced "GAD"). On November 12, 2002 the City Council adopted Resolution No. 77524 C.M.S. declaring that the City is subject to the statutory provisions of the GHAD laws for initiating formation proceedings as required by Public Resources Code 26500 et seq. Agencies are required to adopt this type of resolution before a GHAD is created in their jurisdiction. Resolution No. 77524 C.M.S. was adopted to allow formation of the Leona Quarry GHAD.

GHADs are political subdivisions of the state and are formed in specific geographic areas to address potential geologic hazards. The purpose of a GHAD is to prevent, mitigate, control, or abate defined geologic hazards through maintenance, improvements, or other means. Financing of a GHAD is accomplished through an assessment of only those property owners who live within the boundaries of the designated district. Issuing and servicing of bonds, notes, or other debentures is also authorized under a GHAD.

The Oakland Area GHAD would initially include the Siena Hill project. This project is a 32-unit attached single-family development with a private driveway. On March 2, 2005, the Commission approved Preliminary and Final Planned Unit Development Permits and Minor Variances for the project. As recommended by the Planning Commission, the geologic conditions of the site warrant on-going specialized preventive maintenance by identifying and monitoring potential geologic hazards and undertaking improvements or other actions to address them.

In addition, Planning and Zoning staff requests that the City Council consider the formation of the Oakland Area GHAD to include future approved projects that are deemed to have potential geologic hazards as defined in GHAD law. Since GHADs are required to be self sustaining and require an assessment of the property owners who live within the boundaries of the district, it is economically challenging for small projects, 200 units or less, to establish a GHAD. In order to address the budget concerns as well as the geologic concerns, staff proposes the Oakland Area GHAD as an alternative to a "stand alone" GHAD like Leona Quarry. In this way, smaller approved projects with geologic conditions can be annexed into the Oakland Area GHAD.

ATTACHMENT H
EXHIBIT F

FISCAL IMPACTS

As proposed the GHAD would be a self-sustaining entity and costs for all related City staff and professional services to operate the GHAD would be recovered through the annual assessment of the property owners living within the district boundaries. No direct fiscal impacts on the City are therefore anticipated. In addition, the resolution now before the City Council merely establishes the legal basis required to consider the formation of a GHAD.

BACKGROUND

Initiation and Formation of the GHAD

Once an agency has determined that they are subject to the GHAD laws, a proposed GHAD can be initiated in one of two ways: 1) By a petition of not less than 10 percent of the property owners within the proposed district, or 2) By City Council resolution. City staff is requesting that the Oakland Area GHAD be initiated by resolution, absent a petition from the property owner. Additionally, this resolution sets a public hearing to consider the actual formation of the Oakland Area GHAD for July 18, 2006. The public hearing date must be set, pursuant to California Public Resources Code 26561, at least 20 days prior to the Council considering the actual formation of a GHAD.

Siena Hill Project

The Planning Commission approved a project with a total of 32 attached residential units and a private driveway off of Keller Avenue, between Rilea Way and Greenridge Drive. The Siena Hill project has been reviewed and considered by the Planning Commission during the past 12 months, including public review, technical review, and the preparation and certification of a comprehensive Environmental Impact Report (EIR).

On March 2, 2005, the Planning Commission approved Preliminary and Final Planned Unit Development Permits and Minor Variances for the project. In addition, the Commission also recommended that a GHAD be formed. The project was approved as a Preliminary and Final Planned Unit Development (PUD and FPUD) with Conditions of Approval, based on Mitigation Measures contained in the Final EIR and other City conditions and requirements. Design review of the project was also required, along with three variances from the Zoning Ordinance regulations that were not a part of the exceptions provided through the PUD, although they also directly relate to the planned and integrated development approach being proposed for the site. The variances are for retaining wall heights greater than six feet in certain locations, retaining walls with less than four feet of separation, and building length along side lot lines (greater than 35 feet).

On June 1, 2005, the Planning Commission approved a Tentative Tract Map (TTM) that allows the property to be subdivided into the residential lots proposed for the PUD. The TTM included

Item: _____
Community and Economic Development Committee
May 23, 2006

additional Conditions of Approval related to the formation of a GHAD. Staff received no appeals of the Planning Commission's approval of this project.

KEY ISSUES AND IMPACTS

Rational for Formation of the Oakland Area GHAD for the Siena Hill Project.

Both the Planning Commission and staff believe that the GHAD is an appropriate tool to use for this project for the following reasons:

- The project includes extensive grading of the hillside
- Construction of numerous retaining walls that retain earth and stabilize the site
- Construction of walls and improvements within the public right-of-way and in access easements
- Installation of drainage improvements that affect slope stability
- A landslide was previously noted at the north-western edge of the property - no report supports this statement

Rational for Formation of the Oakland Area GHAD for Future Development Projects

The City of Oakland has many geologic hazards within its jurisdiction. City Council has determined that it is prudent to require certain developments to be part of a GHAD. The Oakland Area GHAD will be available for the annexation of projects that are located in areas that meet the criteria as defined in GHAD law. Staff believes that the GHAD is an appropriate tool for future projects for the following reasons:

- The City is generally bisected by the Hayward Fault and many properties are located within the Seismic Hazard Zone as delineated by the California Geologic Survey.
- The City boundaries contain soils subject to liquefaction per the California Department of Conservation, Division of Mines and Geology.
- The City boundaries contain mapped and unmapped landslides.
- Many parcels within the City are hillside properties with slope grades of 20% or more and exhibit the potential for severe soil erosion.
- Many properties require a high level of care needed to maintain and monitor the site with regard to slope stability, vegetation and fire management.
- The City needs the ability to act immediately with adequate resources should a geologic problem occur.

PROJECT DESCRIPTION

As previously noted in the *Summary* section, GHADs are political subdivisions of the state and are formed in specific geographic areas to address potential geologic hazards. The purpose of a GHAD is to prevent, mitigate, control or abate defined geologic hazards through maintenance, improvements, or other means. As previously noted in the *Key Issues and Impacts* section, both

Item: _____
Community and Economic Development Committee
May 23, 2006

the Siena Hill project and the City of Oakland would benefit from the formation of a GHAD. The GHAD ensures that there are funds available to perform preventive inspections and maintenance on improvements within the GHAD boundaries. The GHAD also ensures that there are funds to address catastrophic failure of the improvements due to the defined geologic hazards. The key advantage here is that there is a documentation of the as-built conditions, a process to collect the assessments, and a GHAD Board of Directors formed with the technical and organizational resources to immediately respond to the potential or unforeseen geologic hazards.

Siena Hill Project

The Conditions of Approval for the Siena Hill project, as approved by the Planning Commission, require the formation of a GHAD in order to maintain and monitor the slope stabilization, drainage and other improvements required to mitigate potential geologic hazards. The proposed district boundaries include the lands within the Siena Hill subdivision. In addition, retaining walls, and appurtenant drainage facilities are to be constructed within an off-site access easement (the western edge of the project) and, if approved, within the Keller Avenue (City) right-of-way. The GHAD will have maintenance responsibilities both within the Siena Hill boundaries and within the access easement and right-of-way areas since these improvements are part of the proposed development.

Future Development in Oakland

Once the Oakland Area GHAD is formed, additional lands may be annexed to the GHAD if those properties meet the geologic hazard criteria as defined in GHAD law. Annexation proceedings are similar to the formation procedures except that the GHAD Board of Directors acts in place of the City Council. However, the annexation must also be approved by the City Council since it initially approved the formation of the GHAD. The City Council has been through a typical annexation process with respect to Leona Quarry. Several years after the City Council formed the Leona Quarry GHAD, the project applicant petitioned the Leona Quarry GHAD to annex additional properties to the GHAD. The Leona Quarry GHAD processed and approved this request and the City Council subsequently approved that annexation. A similar process would occur to annex additional properties into the Oakland Area GHAD.

GHAD Functions

The Plan of Control is the mechanism that lays out the actual on-going work, monitoring schedule, and priority of expenditures that would need to be accomplished through the GHAD. A Plan of Control is required per California Public Resource Code Section 26553 and 26558 when proceedings have been initiated to form a GHAD. This plan describes the geotechnical hazards, their location and provides measures to prevent, mitigate, abate and otherwise control those hazards. The Plan of Control attached to the report (Attachment A) describes the geologic hazards, monitoring, and mitigations for the Siena Hill project. As other developments are annexed into the Oakland Area GHAD, the Plan of Control would be amended to include the monitoring and mitigations for those projects with similar hazards.

Item: _____

Community and Economic Development Committee
May 23, 2006

Financing of a GHAD is accomplished through the assessment of property owners who live within the boundaries. Issuing and servicing of bonds, notes or other debentures is also authorized under a GHAD.

ENVIRONMENTAL DETERMINATION

GHAD formations are exempt from the environmental review requirements of the California Environmental Quality Act (CEQA) pursuant to California Public Resource Code Section 26559 (GHAD law that specifically exempts the application of CEQA to GHADs).

SUSTAINABLE OPPORTUNITIES

The consideration of a GHAD, in and of itself, does not present sustainable opportunities.

Economic: Economically, the GHAD will assure the appropriation of adequate resources to manage potential geotechnical, drainage, and other problems. Furthermore, the GHAD will ensure that the required services are provided in a responsible manner for those properties within the district.

Environmental: The GHAD's purpose is to prevent, mitigate, control or abate defined geologic hazards through maintenance, improvements, or other means. These geologic hazards include landslides, mudslides, steep slopes, and soil erosion all of which could impact Oakland's creeks, riparian corridors, native plant communities, wildlife habitat, and water quality. The GHAD ensures that there are adequate resources to address these problems.

Social Equity: All properties deemed to exhibit potential geologic hazards could request to annex into the GHAD. However, the GHAD requires field-verified geologic mapping, detailed as-built construction documents, and an assessment from the property owners that may discourage many economically disadvantaged properties from joining the GHAD.

However, the GHAD will mitigate or minimize environmental impacts on Oakland's creeks, plant and wildlife communities, and water quality, thereby serving to create a safer environment for all of Oakland.

DISABILITY AND SENIOR CITIZEN ACCESS

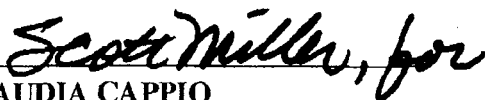
The formation of the GHAD will not directly affect accessibility for people with disabilities or senior citizens. Any new development in the area would be subject to the Americans with Disabilities Act (ADA), as provided for in the Uniform Building Code (UBC), and in Title 24 of the California State Code.

Item: _____
Community and Economic Development Committee
May 23, 2006

ACTION REQUESTED OF THE CITY COUNCIL

The Planning Commission recommends, and staff concurs, that the City Council adopt the resolution entitled: Resolution to Initiate Formation of the Oakland Area Geologic Hazard Abatement District (GHAD) and Setting a Public Hearing for July 18, 2006 to Consider Formation of the GHAD.

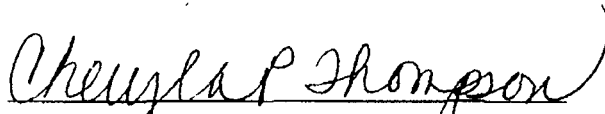
Respectfully submitted,


CLAUDIA CAPPIO
Development Director
Community & Economic Development Agency

Reviewed by:
Gary Patton, Deputy Director of Planning
Planning & Zoning Division

Prepared by:
Heather Klein, Planner III
Planning & Zoning Division

APPROVED AND FORWARDED TO THE
COMMUNITY AND ECONOMIC DEVELOPMENT COMMITTEE:


OFFICE OF THE CITY ADMINISTRATOR

ATTACHMENTS:

A. Oakland Area GHAD Plan of Control

Item: _____
Community and Economic Development Committee
May 23, 2006



California Geological Survey

Quick Hits

[Recent California Earthquakes \(http://earthquake.usgs.gov/earthquakes/map\)](http://earthquake.usgs.gov/earthquakes/map)

[CGS Information Warehouse \(http://www.quake.ca.gov/qmaps/WH/index.htm\)](http://www.quake.ca.gov/qmaps/WH/index.htm)

[CGS Publications](http://redirect.conservancy.ca.gov/CGS/information/publications/database/Publications_index.asp)

[\(http://redirect.conservancy.ca.gov/CGS/information/publications/database/Publications_index.asp\)](http://redirect.conservancy.ca.gov/CGS/information/publications/database/Publications_index.asp)

[CGS Library Catalog](http://redirect.conservancy.ca.gov/CGS/information/publications/library_catalog.htm)

[\(http://redirect.conservancy.ca.gov/CGS/information/publications/library_catalog.htm\)](http://redirect.conservancy.ca.gov/CGS/information/publications/library_catalog.htm)

[Gold! \(/cgs/geologic_resources/gold/Pages/Index.aspx\)](/cgs/geologic_resources/gold/Pages/Index.aspx)

[Contact Us \(/cgs/Pages/contactUs.aspx\)](/cgs/Pages/contactUs.aspx)

- [Public Resource Code-Chapter 7.8-Seismic Hazards Mapping \(/cgs/codes/prc/Pages/chap-7-8.aspx\)](/cgs/codes/prc/Pages/chap-7-8.aspx)
- [California Code of Regulations-Title 14 Article 10. Seismic Hazards Mapping \(/cgs/codes/ccr/t14/Pages/3720.aspx\)](/cgs/codes/ccr/t14/Pages/3720.aspx)
- [California Code of Regulations-Title 14 Article 3. Policies and Criteria of the State Mining and Geology Board \(/cgs/codes/ccr/t14/Pages/3600.aspx\)](/cgs/codes/ccr/t14/Pages/3600.aspx)

Related Documents and Links

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**ATTACHMENT H
EXHIBIT G**

Geologic Hazard Abatement Districts

NOTE:

- This information was current as of March 2000.
- For current information, please see <http://www.leginfo.ca.gov/calaw.html>
(<http://www.leginfo.ca.gov/calaw.html>)

Chapter 1. Definitions

26500. Unless the context otherwise requires, the definitions set forth in this chapter govern the construction of this division.

26501. "Board of directors" means the governing body of the district.

26502. "Bonds" means bonds, notes, or other evidence of indebtedness issued by a district pursuant to this division.

26503. "Local agency" means a city, a city and county, or a county.

26504. "Clerk", where not otherwise modified, means the clerk of the district.

26505. "Improvement" means any activity that is necessary or incidental to the prevention, mitigation, abatement, or control of a geologic hazard, including, but not limited to, all of the following:

- (a) Acquisition of property or any interest therein.
- (b) Construction.
- (c) Maintenance, repair, or operation of any improvement.
- (d) Preparation of geologic reports required pursuant to Section 2623 for multiple projects within an earthquake fault zone or zones.
- (e) Issuance and servicing of bonds, notes, or debentures issued to finance the costs of the improvements specified in subdivisions (a), (b), (c), and (d).

26506. "District" means a geologic hazard abatement district created pursuant to this division.

26507. "Geologic hazard" means an actual or threatened landslide, land subsidence, soil erosion, earthquake, fault movement, or any other natural or unnatural movement of land or earth.

26508. "Legislative body" means the legislative body of a local agency.

26509. "Plan of control" means a report prepared by an engineering geologist certificated pursuant to Section 7822 of the Business and Professions Code or a firm of engineering geologists which describes in detail a geologic hazard, its location and the area affected thereby, and a plan for the prevention, mitigation, abatement, or control thereof.

26510. "Section", unless otherwise modified, refers to a section of the Public Resources Code.

26511. "State" means the State of California and, where the context requires, any agency or instrumentality thereof.

26512. "Treasurer" means the treasurer of the district.

Chapter 2. District Formation

Article 1. Purpose

26525. A geologic hazard abatement district may be formed pursuant to this division for the following purposes:

- (a) Prevention, mitigation, abatement, or control of a geologic hazard.
- (b) Mitigation or abatement of structural hazards that are partly or wholly caused by geologic hazards.

Article 2. Lands Included

26530. The lands included within a district may be contiguous or noncontiguous.

26531. The lands included within a district may be situated in more than one local agency.

26532. The lands included within a district may be publicly or privately owned.

26533. No parcel of real property shall be divided by the boundaries of the proposed district.

26534. All lands included within a district shall be specially benefitted by construction proposed in a plan of control approved by the legislative body.

Article 3. Notice and Hearing

26530. The lands included within a district may be contiguous or noncontiguous.

26531. The lands included within a district may be situated in more than one local agency.

26532. The lands included within a district may be publicly or privately owned.

26533. No parcel of real property shall be divided by the boundaries of the proposed district.

26534. All lands included within a district shall be specially benefitted by construction proposed in a plan of control approved by the legislative body.

Article 4. Initiation of Proceedings

26550. The provisions of this chapter shall be inoperative as to a legislative body unless and until the legislative body adopts a resolution declaring that it is subject to its provisions and has forwarded a copy of such resolution to the State Controller.

26550.5. Proceedings for the formation of a district may be initiated by either of the following methods:

- (a) A petition signed by owners of not less than 10 percent of the real property to be included within the proposed district.
- (b) By resolution of the legislative body.

26551. If the territory proposed to be included within a district is located in more than one local agency, the legislative body of the local agency wherein lies the greater amount of assessed valuation of real property as shown on the assessment roll last equalized by the county, shall initiate and conduct the proceedings to form a district.

26552. A petition initiating proceedings for formation of a district may be presented to the clerk of the legislative body, and shall contain substantially all of the following:

- (a) A statement that the petition is made pursuant to this division.
- (b) An indication, opposite each signature, of the lot, tract, and map number or other legal description sufficient to identify such signature as that of the owner of land within the territory included within the proposed district.
- (c) An indication, opposite each signature, of the date each signature was affixed to the petition.
- (d) A legal description and map of the boundaries of the territory to be included within the proposed district.

26553. A plan of control shall be attached to the petition.

26554. Upon receipt of a petition in the form described in Sections 26550.5, 26551, and 26553, the clerk of the legislative body shall place such petition on the agenda for the regular meeting of the legislative body next following the clerk's determination that such petition is substantially in the form described in Sections 26551 and 26552 and upon verification that the signatures affixed to the petition represent owners of not less than 10 percent of the real property to be included within the proposed district.

26555. No petition shall be accepted by the clerk of the legislative body unless the signatures thereon shall have been secured within 120 days of the date on which the first signature on the petition was affixed and such petition is submitted to the clerk within 30 days after the last signature was affixed.

26556. The clerk of the legislative body shall notify the person whose signature first appears on the petition of any irregularity in the petition. Such notification shall be by certified mail with return receipt requested. Within 10 days of the date of such mailing, a supplemental petition curing any irregularity may be submitted to the clerk.

26557. Upon presentation to the legislative body of a petition in the form prescribed by Sections 26551 and 26552, the legislative body shall adopt a resolution setting a public hearing on such petition and directing notice thereof to be mailed to all owners of real property to be included within the proposed district as shown on the assessment roll last equalized by the county.

26558. A resolution of the legislative body initiating proceedings for the formation of a district shall contain substantially the following:

- (a) A statement that the resolution is made pursuant to this division.
- (b) A statement that the legislative body has been presented with and has reviewed a plan of control, and has determined that the health, safety, and welfare require formation of a district.
- (c) The setting of a public hearing on such determination and directing that notice be mailed to all owners of real property included within the proposed district.

26559. All activities of a local agency taken pursuant to this division for the formation of a district or the annexation of territory thereto are specific actions necessary to prevent or mitigate an emergency within the meaning of paragraph (4) of subdivision (b) of Section 21080.

26560. Notwithstanding any other provision of law, proceedings for the formation of a district pursuant to this division are exclusive.

Article 4. Notice and Hearing

26561. Notice of the hearing set pursuant to Section 26557 or subdivision (c) of Section 26558 shall be mailed first-class, postage prepaid, in the United States mail, at least 20 days preceding the date of the public hearing, to each owner of real property within the proposed district as shown on the last equalized county assessment roll, or the State Board of Equalization assessment roll, as the case may be.

26562. A copy of the petition described in Section 26552 or the resolution described in Section 26558 shall be attached to the notice.

26563. The notice shall set forth the time, date, and place of the hearing, briefly describe the purpose thereof, and indicate where the plan of control may be reviewed or duplicated, at a cost not to exceed the cost of duplication. The notice shall also set forth the address where objections to the proposed formation may be mailed or otherwise delivered up to and including the time of the hearing.

26564. At any time not later than the time set for hearing objections to the proposed formation, any owner of real property within the proposed district may make a written objection to the formation. Such objection shall be in writing, shall contain a description of the land by lot, tract, and map number, and shall be signed by such owner. Objections shall be mailed or delivered as specified in the notice described in Section 26561. If the person whose signature appears on such objection is not shown on the assessment roll last equalized by the county as the owner of the subject real property, the written objection shall be accompanied by evidence sufficient to indicate that such person is the owner of such property. The determination by the legislative body of ownership for purposes of this section shall be final and conclusive.

26565. At the time set for hearing objections, the legislative body shall be presented with all objections made pursuant to Section 26564. The legislative body may adjourn such hearing from time to time, but not to exceed 60 days from the date specified in the original notice.

26566. If it appears at the hearing that owners of more than 50 percent of the assessed valuation of the proposed district object to the formation thereof, the legislative body shall thereupon close the hearing and direct that proceedings for the formation of a district be abandoned.

26567. At the close of the hearing or within 60 days thereafter, the legislative body may proceed by resolution to order the formation of the proposed district. The resolution shall appoint five owners of real property within the district to the initial board of directors for terms not to exceed four years, or, as an alternative to the appointment of five owners of real

property within the district, the legislative body may appoint itself to act as the board of directors. If the legislative body appoints itself as the board of directors, Section 26583 shall not apply. If owners of real property within the district are appointed as the initial board of directors, then following the initial term, the board of directors shall be elected as provided by Section 26583. This section shall apply to all districts formed on or after January 1, 1980.

Chapter 2.3 District Dissolution

26567.1.

(a) The legislative body may, by resolution, order the dissolution of a district formed under this division. Any resolution ordering a dissolution is valid only if the legislative body, based on substantial evidence on the record, makes one or more of the following findings:

(1) The corporate powers have not been used, there is a reasonable probability that those powers will not be used in the future, and the district holds no significant liquid assets.

(2) The board of directors, by resolution passed by unanimous vote of the directors, or by a vote of the owners of more than 50 percent of the assessed valuation of the real property in the district, approved the dissolution of the district.

(3) The district has not levied or collected any assessments and holds no significant liquid assets.

(4) The district has not substantially complied with a material condition of the resolution of formation adopted by the legislative body.

(b) If the board of directors is comprised of members of the legislative body, the decision of the board to dissolve a district shall be approved by the owners of more than 50 percent of the assessed valuation of the real property in the district within 90 days after a valid resolution ordering dissolution.

(c) A legislative body or a board of directors shall adopt a resolution setting a public hearing on the proposed dissolution and directing that notice shall be sent to the last known address of each homeowner within the district. The notice shall include the date, time, and place of the hearing and include a copy of the proposed resolution ordering dissolution. The notice shall be mailed first-class, postage prepaid, in the United States mail and be postmarked no later than 30 days prior to the date of the hearing. The notice shall also set forth the address where written objections to the dissolution of the district may be mailed or otherwise delivered up to and including the time of the hearing.

Chapter 2.5. Emergency Formation

Article 1. Initiation of Proceedings

26568. The procedures for initiation of proceedings, notice, and hearing and formation of a district under this chapter shall be alternative to the procedures in Articles 3 (commencing with Section 26550) and 4 (commencing with Section 26561) of Chapter 2. Chapter 3 (commencing with Section 26570) does not apply to districts formed under this chapter.

26568.1. Proceedings for the formation of a district for any of the work specified in Section 26525 may be initiated by a petition signed by two-thirds of the property owners of the real property to be included within the proposed district.

26568.2. A petition initiating proceedings for the formation of a district under this chapter shall contain substantially all of the following:

- (a) A statement that the petition is made pursuant to this chapter.
- (b) An indication, opposite each signature, of the lot, tract, and map number, or other legal description sufficient to identify the signature as that of the owner of land within the proposed district.
- (c) The reasons necessitating the creation of the district under this chapter.
- (d) A request that the time set for hearings on the formation of the district be on short notice and the reason or reasons for the request.
- (e) A description of, or proposal for, work to be done, an estimate of the cost of the work, and proposed assessments.

26568.3.

- (a) Upon presentation to the legislative body of a petition in the form prescribed by Section 26568.2, the legislative body shall adopt a resolution setting a public hearing on short notice on the petition and directing that notice of the hearing be given as provided in Section 26569. However, notice of the hearing shall be omitted if the hearing of objections is not required as provided in subdivision (b). The hearing shall be set no earlier than 15 days after the adoption of the resolution under this subdivision.
- (b) The hearing of objections shall not be required if the legislative body, when considering the passage of a resolution of intention pursuant to a petition presented pursuant to Section 26568.1, finds and determines by a four-fifths vote of all members thereof, that all of the owners of lots or lands liable to be assessed have signed and filed a petition with the clerk on or before the day that the resolution of intention is to be considered for passage, waiving the hearing, declaring that they do not have any objections to the proposed work or the formation of the district, and requesting that the hearings of objections not be required.

Article 2. Notice and Hearing

26569. Notice of the hearing on short notice set pursuant to Section 26568.3 shall be as follows:

- (a) Published notice shall be made pursuant to Section 6061 of the Government Code and shall be completed at least 10 days prior to the date of the hearing. Published notice shall include a copy of the petition described in Section 26568. 2.
- (b) Mailed notice shall be sent by first-class mail, with return receipt requested, and postmarked not less than 10 days preceding the date of the public hearing. A copy of the petition described in Section 26568.2 shall be attached to the notice.

26569.1. At any time no later than the time set for hearing, any owner of real property within the proposed district may file with the clerk, a written protest to the formation of the district. A written protest shall contain a description of the land by lot, tract, and map number and shall be signed by the owner.

26569.2. At the time set for hearing objections, the legislative body shall be presented with all objections made pursuant to Section 26568.1.

26569.3. If it appears at the hearing that the owners of more than one-third of the real property to be included within the proposed district object to the formation thereof, the proceedings for the formation of the district shall be abandoned.

26569.4. If a protest by the owners of more than one-third of the real property to be included in the district has not been filed, the legislative body may adopt a resolution ordering the improvements and the formation of the assessment district. The adoption of the resolution constitutes the levy of an assessment for the fiscal year referred to in the assessment.

Article 3. Nature of the District

26569.5. A district formed under this chapter shall be comprised of an area within a local agency which is specially benefited by, and is subject to a special assessment to pay of the cost of, an improvement. The district is not an entity separate and distinct from the local agency within which it is formed.

26569.6. The legislative body shall appoint itself to act as board of directors of the district.

26569.7. This chapter is applicable only in a city or county which has adopted an ordinance providing that the chapter is applicable in its jurisdiction.

Chapter 3. Nature and Powers of the District

Article 1. Nature of the District

26570. A district is a political subdivision of the state. A district is not an agency or instrumentality of a local agency.

26571. A district is comprised of an area specially benefited by and subject to special assessment to pay the cost of an improvement. While a district performs certain governmental and proprietary functions as a political subdivision of the state, it is not a special district within the meaning of Section 56036 of the Government Code.

26573. The powers of a district are vested in the board of directors.

Article 2. Powers of a District

26574. A district may do all of the following:

- (a) Sue and be sued.
- (b) Make, amend, and repeal bylaws.
- (c) Have a seal.
- (d) Exercise all powers necessary or incidental to carry out the purposes of this division.

26575. A district may obtain, hire, purchase, or rent office space and equipment.

26576. Within the territorial limits of the district, or for the purposes set forth in this division, a district may acquire real property or any interest therein by eminent domain.

26577. A district may purchase, lease, obtain an option upon, acquire by gift, grant, bequest, or devise, or otherwise acquire any property or any interest in property.

26578. A district may sell, lease, exchange, assign, encumber, or otherwise dispose of property or any interest in property.

26579. The district may enter into contracts and agreements with the United States, any state or local unit of government, public agency, including any other geologic hazard abatement district or public district, private organization, or any person in furtherance of the purposes of the division.

26580. The district may:

(a) Acquire, construct, operate, manage, or maintain improvements on public or private lands. Such improvements shall be with the consent of the owner, unless effected by the exercise of eminent domain pursuant to Section 26576.

(b) Accept such improvements undertaken by anyone.

26580.1. The district may make improvements to existing public or private structures where the board of directors determines that it is in the public interest to do so.

26581. At any time following the adoption of the resolution pursuant to Section 26567, the board of directors may proceed to annex territory to the district. The proceedings for annexation shall follow the procedure contained in Article 3 (commencing with Section 26550) and Article 4 (commencing with Section 26561) of Chapter 2 of this division. In such instance, the board of directors shall assume the responsibilities of the legislative body. Annexation of territory to a district shall be subject to the approval of the legislative body which ordered formation of the district. Such approval shall be given by resolution, following the order by the board of directors for annexation of territory to the district.

Article 3. Meetings

26582. A district shall keep a record of the proceedings of its meetings. A district is subject to the provisions of the Ralph M. Brown Act (commencing with Section 54950 of the Government Code).

Article 4. Officers

26583. Following the four-year term of the initially appointed board of directors formed pursuant to Section 26567 and composed of owners of real property within the district, the board of directors shall be composed of five elected directors. The term of office of directors shall be four years. The expiration of the term of any director shall not constitute a vacancy and he or she shall hold office until his or her successor has qualified. Elections shall be called and conducted, and the results canvassed, returned, and declared pursuant to the Uniform District Election Law (Part 4 (commencing with Section 10500) of Division 10 of the Elections Code). This section shall not apply to a district where the legislative body has appointed itself as the board of directors.

26584. The board of directors shall appoint a clerk of the district.

26585. The board of directors shall appoint a treasurer of the district.

26586. The board of directors may appoint other officers of the district and delegate thereto such powers of the district as may be appropriate in the circumstances.

Chapter 4. Finances

Article 1. Improvement Act of 1911; Municipal Improvement Act of 1913; Improvement Bond Act of 1915

26587. A district may use the Improvement Act of 1911 (commencing with Section 5000 of the Streets and Highways Code) or the Municipal Improvement Act of 1913 (commencing with Section 10000 of the Streets and Highways Code) or the Improvement Bond Act of 1915 (commencing with Section 8500 of the Streets and Highways Code) to pay the costs of an improvement pursuant to this division.

26588. The powers and duties conferred by the Improvement Act of 1911 or the Municipal Improvement Act of 1913 or the Improvement Bond Act of 1915 on the various boards, officers, and agents of cities shall be exercised by the corresponding boards, officers, and agents of the district.

26589. In the application of the Improvement Act of 1911 or the Municipal Improvement Act of 1913 or the Improvement Bond Act of 1915 to proceedings instituted by a district, the terms used in the Improvement Act of 1911 or the Municipal Improvement Act of 1913 or the Improvement Bond Act of 1915 have the following meanings:

- (a) "City council" or "council" or "legislative body" means the board of directors of the district.
- (b) "Municipality" or "city" means the district.
- (c) "Clerk" or "city clerk" means the clerk of the district.
- (d) "Superintendent of streets," "street superintendent," or "city engineer" means any person appointed by the board to perform or effect an improvement.
- (e) "Tax collector" means the county tax collector.
- (f) "Treasurer" or "city treasurer" means the treasurer of the district.
- (g) "Mayor" means the board of directors or an officer of the district to whom such powers and duties are delegated by the board of directors.
- (h) "Right-of-way" means any parcel of land in, on, under, or through which a right-of-way or easement has been granted to the district for the purpose of performing or effecting an improvement.

26590. Any certificates or documents required by the Improvement Act of 1911 or the Municipal Improvement Act of 1913 or the Improvement Bond Act of 1915 to be filed or recorded in the office of the superintendent of streets or street superintendent shall be filed or recorded in the office of the clerk of the district.

Article 2. Financial Assistance

26591. A district may accept financial or other assistance from any public or private source and may expend any funds so accepted for any of the purposes of this division.

26592. Contributions by a local agency, the state, or any instrumentality or political subdivision thereof, are hereby declared to be for a public purpose.

26593. A district may borrow money from or otherwise incur an indebtedness to a local agency, the state, or any instrumentality or political subdivision thereof, or the federal government, and may comply with any conditions imposed upon the incurring of such indebtedness.

26594. A district may repay any financial assistance accepted pursuant to Section 26591.

26595. A district may reimburse the local agency for all or any part of the cost and expenses incurred by the local agency in formation of the district.

Chapter 5. Improvements

26600. The board of directors may negotiate improvement contracts or may award such contracts by competitive bidding pursuant to procedures approved by the board of directors.

26601. Improvement caused to be undertaken pursuant to this division, and all activities in furtherance thereof or in connection therewith, shall be deemed to be specific actions necessary to prevent or mitigate an emergency within the meaning of paragraph (4) of subdivision (b) of Section 21080.

Chapter 6. Maintenance

26650. A district may levy and collect assessments pursuant to this chapter to pay for the cost and expenses of the maintenance and operation of any improvements acquired or constructed pursuant to this division.

26651. The board of directors shall adopt a resolution declaring its intention to order that the cost and expenses of maintaining and operating an improvement acquired or constructed pursuant to this division shall be assessed against the property within the district benefited thereby. The resolution shall contain both of the following:

- (a) A report prepared by an officer of the district which sets forth the yearly estimated budget, the proposed estimated assessments to be levied each year against each parcel of property, and a description of the method used in formulating the estimated assessments.
- (b) The time, date, and place for the hearing of protests to the proposed assessments.

26652. The board of directors shall cause a notice of the adoption of the resolution described in Section 26651 to be mailed by first class mail to each owner of real property within the district as shown on the last equalized assessment roll of the county. The notice shall be mailed not less than 14 days prior to the date set for the hearing and shall contain all of the following:

- (a) A statement that the board of directors has adopted the resolution.
- (b) The time, date, and place set forth in the resolution for the hearing of protests on the proposed assessments.
- (c) A statement of the total yearly estimated budget for the maintenance and operation of the improvements.
- (d) A statement that the report described in Section 26651 is available for inspection at the office of the district.
- (e) The name and telephone number of a person designated by the board of directors to answer inquiries regarding the proposed assessment.

26653. At the hearing, the board of directors shall hear and consider all protests. At the conclusion of the hearing, the board of directors may adopt, revise, change, reduce, or modify any assessment and shall make its determination upon each assessment described in the report. Thereafter, by resolution, the board of directors may confirm the assessments and order the levy and collection thereof.

26654. Following the order by resolution of the levy and collection of assessments by the board of directors, the clerk shall cause to be recorded a notice of assessment, as provided for in Section 3114 of the Streets and Highways Code, whereupon the assessment shall attach as a lien upon the property, as provided in Section 3115 of the Streets and Highways Code.

Thereafter, the clerk shall collect the assessments as directed by the board of directors, or, in lieu of collection by the clerk, the board of directors may provide that the assessments are payable at the same time and in the same manner as general taxes on real property are payable.

A district board of directors shall reimburse the city or county, as the case may be, for any cost incurred pursuant to this section.

ENGINEER'S REPORT

for

GEOLOGIC HAZARD ABATEMENT DISTRICT

LEONA QUARRY

CITY OF OAKLAND, CALIFORNIA

AUGUST 13, 2004

LATEST REVISION FEBRUARY 23, 2005

ATTACHMENT H
EXHIBIT H

TABLE OF CONTENTS

	<u>Page</u>
CERTIFICATION OF FILING	1
I. INTRODUCTION	3
II. BACKGROUND	3
III. GEOLOGIC HAZARD ABATEMENT DISTRICT BOUNDARIES	3
IV. SERVICE LEVELS	3
V. DESCRIPTION OF THE GHAD IMPROVEMENTS.....	4
VI. ASSESSMENT METHOD	5
VII. ASSESSMENT LIMIT - BUDGET	5

FIGURE 1 – GHAD BOUNDARY

EXHIBIT A – LEONA QUARRY GHAD BUDGET

5188.1.001.02

August 13, 2004

Latest Revision February 23, 2005

ENGINEER'S REPORT

GEOLOGIC HAZARD ABATEMENT DISTRICT-LEONA QUARRY (Pursuant to the Public Resources Code of the State of California, Section 26500 et seq.)

CERTIFICATION OF FILING

ENGEO Incorporated makes this report as directed by the GHAD Board of Directors. The GHAD is intended to provide geologic hazard improvements within the Leona Quarry development and to levy and collect assessments sufficient to pay for those improvements.

The improvements which are the subject of this report are defined as any activity necessary or incidental to the prevention, mitigation, abatement, or control of a geologic hazard, construction, maintenance, repair, or operation of any improvement; or the issuance and servicing of bonds issued to finance any of the foregoing (Section 26505)

This report consists of seven parts, as follows:

- I. INTRODUCTION
- II. BACKGROUND
- III. GEOLOGIC HAZARD ABATEMENT DISTRICT DIAGRAM
- IV. SERVICE LEVELS
- V. DESCRIPTION OF GHAD IMPROVEMENTS
- VI. ASSESSMENT METHOD
- VII. ASSESSMENT LIMIT - BUDGET PROJECTION

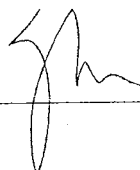
5188.1.001.02

August 13, 2004

Latest Revision February 23, 2005

The undersigned respectfully submits the enclosed Engineer's Report.

Date: 2/23/05 By: ENGEO Incorporated


_____, GE

I HEREBY CERTIFY that the enclosed Engineer's Report was filed on the ____ day of _____.

Clerk of the Board
Leona Quarry Geologic Hazard Abatement District
Oakland, California

I HEREBY CERTIFY that the enclosed Engineer's Report was approved and confirmed by the GHAD Board on the ____ day of _____.

President of the Board
Leona Quarry Geologic Hazard Abatement District
Oakland, California

APPROVED _____

ENGINEER'S REPORT

for

GEOLOGIC HAZARD ABATEMENT DISTRICT LEONA QUARRY

for the

ESTABLISHMENT OF AN ASSESSMENT LIMIT

I. INTRODUCTION

The Leona Quarry Geologic Hazard Abatement District (GHAD) was formed under the authority of the California Public Resources Code, Division 17, Section 26500 et seq.

II. BACKGROUND

The Oakland City Council formed the Leona Quarry Geologic Hazard Abatement District ("GHAD" or "District") on December 3, 2002 (Resolution 77544).

III. GEOLOGIC HAZARD ABATEMENT DISTRICT BOUNDARIES

The boundaries for the GHAD are shown in the diagram attached hereto as Figure 1.

IV. SERVICE LEVELS

The GHAD provides for activity that is necessary or incidental to the prevention, mitigation, abatement, or control of geologic hazards including construction, maintenance, repair, or operation of any improvement; and the issuance and servicing of bonds issued to finance any of the foregoing.

The GHAD provides for the administration and review of facilities within the budgeted limits, including the following services:

1. Oversight of GHAD activities.

5188.1.001.02

August 13, 2004

Latest Revision February 23, 2005

2. In conjunction with the County Assessor's Office, setting the annual levying of assessments on the property tax rolls.
3. Retention of geotechnical professionals to perform the monitoring duties as described in the GHAD Plan of Control.
4. Performance of GHAD maintenance activities in accordance with the GHAD Plan of Control. These maintenance activities include without limitation:
 - Detention pond on Parcel "C", including structures, vegetation and sediment removal
 - Concrete-lined drainage ditches
 - Storm drain inlets, outfalls and pipelines within the streets and open space areas
 - Subdrains
 - Debris bench maintenance
 - Piezometers and inclinometers
 - Settlement monuments
 - Street sweeping
 - Rock catchment fences
 - Trail maintenance including trash removal
 - Potential Alameda County Whipsnake habitat – fencing and sign maintenance
 - Emergency vehicle access and maintenance roads
 - Erosion management
5. Slope Reconstruction
6. Preparation of annual GHAD budgets.

V. DESCRIPTION OF THE GHAD IMPROVEMENTS

The GHAD Improvements are described in the Plan of Control prepared for Leona Quarry, dated August 13, 2004, and revised February 23, 2005, to be adopted by the GHAD Board. In general, improvements include a detention basin; debris benches; drainage systems, including concrete v-ditches in open space and on the hillsides; open-space storm drain inlets and outlets; subdrains in open space and creek corridors; and reconstructed slopes.

VI. ASSESSMENT METHOD

The improvements described in Section V are distributed within the GHAD boundaries. Maintenance and protection of these improvements provide a special benefit to all property owners within the GHAD. The District Engineer hereby finds that the properties within the District receive approximately equal special benefit from the work and improvements within the GHAD. As a result, the GHAD assessment is distributed among all property owners within the GHAD.

Single-family residences will be assessed as one unit. Multi-family buildings will be assessed based on the number of individual units within the building. Non-residential buildings are assessed per square foot of habitable area. The total number of residential units and non-residential area within the District is then divided into the annual District budget to develop the annual assessment amount.

A financial analysis was performed to provide a framework for an operating budget for the on-going abatement, mitigation, prevention and control of geologic hazards within the Leona Quarry. In preparation of the budget, several factors were considered including:

- Site Geology
- Proposed Remedial Grading
- Proximity of Geologic Hazards to Proposed Residences
- Site Access Considerations
- Elements Requiring Routine Maintenance Including Without Limitation:
 1. Surface Drainage Facilities
 2. Graded Slopes
 3. Detention Basin

VII. ASSESSMENT LIMIT - BUDGET

Based on the estimated expenses for on-going operations, and allowing for larger (approximately \$1,000,000) geologic events at 10-year intervals, a budget was prepared for the purpose of estimating initial assessment levels (Exhibit A). In order to establish a reasonable reserve in the early years following formation of the GHAD, there will be an initial deferral of GHAD expenses as described in the amended Plan of Control.

5188.1.001.02

August 13, 2004

Latest Revision February 23, 2005

The District Engineer recommends an annual assessment limit (2005 dollars) of \$983 per residential unit and \$0.25 per square foot of commercial space to be levied in conjunction with the issuance of building permits as described in the Amended Plan of Control. This limit will escalate annually based on the San Francisco-Oakland-San Jose Consumer Price Index plus an additional 0.5 percentage points.

EXHIBIT A

Leona Quarry GHAD Budget

5188.1.001.02
August 13, 2004
Latest Revision February 17, 2005

5188.1.001.02
August 13, 2004
Latest Revision February 17, 2005

EXHIBIT A
Leona Quarry Geologic Hazard Abatement District
Budget - August 13, 2004
Latest Revision February 23, 2005

ASSUMPTIONS

Total No. of Units	427
Annual Assessment per Unit	\$983
Total Non-Residential Building Area (square feet)	4,000
Annual Assessment per nonresidential (square feet)	\$0.25
Annual Adjustment in Assessment	3.5%
Inflation	3.0%
Investment Earnings	5.75%
Amount Financed	\$0
Borrowing Rate	5.0%
Term of Loan (years)	10
Frequency of Large-Scale Repair (years)	10
Cost of Large-Scale Repair (current \$)	\$1,010,000

ESTIMATED ANNUAL EXPENSES IN 2005 DOLLARS

Administration & Accounting	\$66,000
Technical Consultants	\$22,725
Creek Bank Monitoring & Maintenance	\$3,535
Detention Basin Maintenance	\$30,300
Subdrain Outfall Maintenance/Repair	\$505
Concrete Lined Drainage Ditch Maintenance	\$15,150
Emergency Vehicle Access Road Maintenance/Overlay	\$3,030
Storm Drain Pipeline Maintenance	\$2,020
Trail Maintenance Including Trash Removal	\$2,525
Mowing/Fire Suppression	\$15,150
Potential Alameda County Whipsnake Habitat -Fences/Signs	\$505
Insurance	\$8,080
Sediment Removal Storm Drain Inlets	\$9,090
Sediment Removal Public Streets	\$16,160
Slope Stabilization (incl. minor landsliding)	\$40,400
Catchment Fence Replacement	\$3,535
Erosion Repairs	\$20,200
Open Space Storm Drain Pipeline Replacement	\$10,100
Replacement/Repair, Concrete Lined Drainage Ditches	\$24,240
Major Repair – Reserve Item (Annualized)	\$101,000
Miscellaneous, Legal & Contingency (10%)	<u>\$38,785</u>
TOTAL	<u>\$427,635</u>

5188.1.001.02

August 13, 2004

Latest Revision February 17, 2005

5188.1.001.02
August 13, 2004
Latest Revision February 17, 2005

BLACKHAWK GEOLOGIC HAZARD
ABATEMENT DISTRICT

PLAN OF CONTROL

**ATTACHMENT H
EXHIBIT I**

EXHIBIT C
PLAN OF CONTROL

1. Description of Geologic Hazard. The proposed district (described by the map and legal description attached hereto as Exhibits A and B) largely encompasses the Orinda Formation which is composed of soft claystone and sandstone, and is prone to new landslides and reactivation of pre-existing landslide areas. Geotechnical studies for the various residential subdivisions within the proposed district located a large number of existing and possible landslide areas. These studies employed field reconnaissance, air photo interpretation and subsurface test borings. The majority of possible landslide areas are within the open areas of the proposed district which are to remain undeveloped in perpetuity.

The open areas of the proposed district contain a series of aligned natural ridges with scattered oak trees on the flanks. The side slopes are indented with natural ravines or swales which are filled with thickened colluvium (rock fragments and soil transported by gravity). The colluvium is an accumulation from past mass movements and active landslides are concentrated within these natural ravines.

Typically, rapid debris flows, or avalanches, can only occur on slopes steeper than ^{about RSP} twenty-five (25) degrees or about two (2) horizontal to one(1) vertical. The typical

slopes within the proposed district are less steep than those subject to avalanches and are therefore not usually subject to such rapid debris flows.

Past land movements identified within the proposed district are typically either deeper slides in the soil and weathered bedrock or shallow mud flows (mudslides) in the upper adobe (clay) soils near the surface. About one-half of all recent slides reported in the past four years were within open areas. The other recent slides were in areas of residential and/or golf course excavations or were induced by homeowner backyard enlargements at the base of the hillsides.

2. Plan for Prevention, Mitigation, Abatement or Control. The proposed district will retain geologic and engineering consultants to identify known and potential slides within the proposed district. Identification techniques may include field mapping, infra-red and other aerial photographs, slope stability analysis, logging borings and trenches, laboratory soils testing and continuous monitoring of surface, subsurface and ground-water conditions. Computer programs may be utilized to calculate volume and driving force of slides.

Earth movements within the proposed district may be monitored by the following techniques, among others:

(a) hydraugers (horizontally drilled drains) which drain the hills and allow measurement of water flow. The proposed district currently has many hydraugers with footage of 17,210 feet.

(b) piezometers (stand-pipes) which measure the fluctuation of ground water levels with time and in response to rainfall. The proposed district has existing piezometers in natural slopes, major fills and in the vicinity of hydraugers.

Slides and potential slides which are identified and which threaten or damage homes, or potential homesites, or which contribute large amounts of sediment to the riparian system may be repaired or controlled by the following techniques among others:

- (a) total slide removal;
- (b) removal and recompaction (engineered fill) with drainage and shear keys;
- (c) lime treatment;
- (d) debris walls to divert mudflows; and
- (e) buttressing by adding surcharge weight at the toe of a slide.

It is my understanding and intent that the Plan of Control, presented herein, will serve as a preliminary

document offering geotechnical guidelines which will be subject to revisions and modifications, as new data or investigations warrant.

March 1, 1985
Date

Richard J. Proctor
Richard J. Proctor, Consultant
California Engineering
Geologist #134
327 Fairview Avenue
Arcadia, California 91006

SAG:rd-O:6
EXC

APPENDIX A
GEOLOGIC CONDITIONS

ATTACHMENT H
EXHIBIT J

APPENDIX A

GEOLOGIC CONDITIONS

I. Geologic Setting

Blackhawk is located within the Diablo quadrangle, in the Sherburne Hills portion of northern Diablo Range of Central California. The bedrock is geologically young, and was deposited approximately two to nine million years ago. These Tertiary non-marine weakly consolidated sedimentary rocks have been folded and faulted due to the wrenching of the San Andreas fault system and the associated uplift of Mt. Diablo. Mt. Diablo is located approximately 4 miles to the north. The geologic structure of the area consists of a series of nearly parallel, northwest-trending synclines and anticlines, some of which have been overturned. Past geologic work in the area includes that of Whitney (1856), Turner (1891), Clarke (1915, 1935 and 1943), Axelrod (1944), Richey (1948), Kilmer (1953), Brabb and others (1971), Wagner (1978), Dibblee (1980), Hart (1981), Davenport (1986), Crane (1988), and Graymer et. Al. (1994). The two most pertinent of these are discussed below.

II. Bedrock and Geologic Structure

Dibblee (1980) maps the Blackhawk GHAD within a unit termed "Pliocene, nonmarine, sedimentary rocks (Tps)". The rocks are described as weakly indurated, greenish gray mudstone with thin beds of sandstone and pebble conglomerate. For the majority of the GHAD property the bedrock units are mapped with a variable dip of approximately 70 to 80 degrees to the southwest and northwesterly strike. A small section of bedrock in the southwestern portion of the site dips approximately 20 to 60 degrees to the north in this vicinity. The axis of the Tassajara Syncline is mapped through the southwestern portion of the site. Dibblee maps no faults within the Blackhawk GHAD.

Crane (1988) maps the site vicinity with greater structural detail. The Blackhawk GHAD is shown to be located within a northwesterly-trending zone of thrust faulting and overturned folds. The Sycamore Valley thrust fault is mapped along Camino Tassajara, generally south of the Blackhawk GHAD area. Two thrust faults are mapped crossing the Blackhawk GHAD area. The Diablo Valley thrust is mapped trending westerly to northwesterly along Blackhawk Road in

the vicinity of Subdivisions 5437 and 5438, the easterly along Fairway 18 of Subdivision 5441 and the Blackhawk Drive alignment in the vicinity of Subdivision 5443. In addition, an unnamed thrust fault is mapped trending northwesterly through the open space of Subdivisions.

III. Surficial Deposits

The area within the GHAD boundaries is covered primarily by relatively shallow soils. The Soil Survey of Contra Costa County shows the soil over the majority of the GHAD area as Diablo Clay. This soil typically forms on uplands, derived from sedimentary bedrock. Below the surficial dark gray clay, the soils generally become light gray or olive gray silty to sandy clay and extend to the undisturbed bedrock. Diablo Clays generally have a high expansion potential, resulting in surficial cracking during the summer and swelling during the winter. Soils with a high expansion potential are also susceptible to downhill soil creep on hillslopes.

IV. Groundwater

Groundwater has been encountered at variable depths during drilling explorations by various geotechnical firms. Groundwater can be expected to generally be 10 feet or more below the ground surface; however, areas of springs and seeps are common. Sandstone, siltstone and gravelly bedrock units can be expected to contain variable amounts of groundwater depending on location and underlying geologic structure. Springs, seeps and water-bearing bedrock units contribute to the landsliding hazard within the GHAD boundaries.

V. Seismic Sources

Blackhawk is located within the eastern portion of the San Andreas Fault System but is not located within a State of California designated Alquist-Priolo Earthquake Fault Zone. The nearest State of California zoned, active¹ faults are the Calaveras and Greenville faults located about 4 miles west and 5 miles east, respectively. The maximum moment magnitude for both the Calaveras and Greenville faults is M6.8-6.9 (CDMG, 2002). An earthquake of this magnitude could produce a ground acceleration of approximately 0.4g at the site according to attenuation relationships by Campbell and Bozorgnia (1994).

Distant seismic ground shaking sources include the major known active faults of the Bay Area; namely the San Andreas, Hayward, Rodgers Creek-Healdsburg, and the Concord-Green Valley faults. These sources are all at least 5 miles from Blackhawk and are known to be capable of producing moderate to large-scale seismic events. Other sources for design-basis ground shaking near the Blackhawk area include small local faults that may produce low-magnitude earthquakes (the thrust faults mapped within the GHAD boundaries by Crane (1988) are part of the current transpressional tectonic regime and will be incorporated into future tectonic studies of the area).

Another source of potential earthquake generation is from fault movements on deep wrenching in the lower crust (Weber-Band, 1998). This crustal scale wrenching is estimated by Blake (1998) to be capable of a maximum moment earthquake of M 6.7. The magnitude 6.7 Coalinga earthquake in 1983 is thought to have occurred on a blind (buried) thrust fault in the lower crust, often referred to as the Coast Ranges-Sierran Block (CRSB) or Great Valley boundary zone (Unruh and others, 1993). Earthquakes on blind thrust faults are not expected to cause surface ground rupture as might occur along a major strike slip fault; however, secondary seismic hazards could be expected from such an event. Based on the current state of knowledge, it appears likely that secondary seismic hazards from an earthquake on any of the seismic sources discussed above, including the Coast Ranges-Sierran Block boundary zone, would occur in all regional areas of localized weak soils, such as on unstable slopes.

2014-2015
For Fiscal Year Beginning July 1, 2014 and Ending June 30, 2015

ALAMEDA COUNTY SECURED PROPERTY TAX STATEMENT

Donald R. White, Treasurer and Tax Collector

1221 Oak Street
Oakland, California 94612-4285

Parcel Number	Tracer Number	Tax-Rate Area	Special Handling
37A-3166-45	07931900	17-001	

Location of Property
6317 ROCKY POINT CT, OAKLAND

Assessed to on January 1, 2014

ASSESSEE NAME AND ADDRESS ARE NOT AVAILABLE ONLINE
PER CA GOV CODE §6254.21

THIS IS NOT AN OFFICIAL BILL

Tax-Rate Breakdown		
Taxing Agency	Tax Rate	Tax Amount
COUNTYWIDE TAX	1.0000 %	5,777.42
VOTER APPROVED DEBT SERVICE:		
CITY OF OAKLAND 1	0.2042 %	1,179.73
SCHOOL UNIFIED	0.1745 %	1,008.16
SCHOOL COMM COLL	0.0412 %	238.03
BAY AREA RAPID TRANSIT	0.0045 %	26.00
EAST BAY REGIONAL PARK	0.0085 %	49.11
EBMUD SPEC DIST 1	0.0047 %	27.15
TOTAL	1.4376 %	8,305.60

Description	Phone	Amount
MOSQUITO ABATEMENT	800-273-5167	1.74
CSA PARAMEDIC	800-441-8280	29.04
CSA VECTOR CONTROL	800-273-5167	7.20
CITY EMERG MEDICAL	510-238-3704	13.26
CITY PARAMEDIC SRV	510-238-3704	10.56
GEOLOGIC HAZ-LEONA	925-866-9000	1,293.28
SCHOOL MEASURE G	510-879-8884	195.00
PERALTA CCD MEAS B	800-792-8021	48.00
VIOLENCE PREV TAX	510-238-3704	99.76
FLOOD BENEFIT 12	510-670-5762	16.00
CSA VECTOR CNTRL B	800-273-5167	4.08
MOSQUITO ASSESS 2	800-273-5167	2.50
AC TRANSIT MEAS VV	877-299-1190	96.00
CITY LIBRARY SERV	510-238-3704	93.54
EBMUD WETWEATHER	510-287-1852	89.34
EAST BAY TRAIL LLD	800-676-7516	5.44
EBRP PARK SAFETY/M	800-676-7516	12.00
CITY LANDSCP/LIGHT	510-238-3704	76.98
Total Fixed Charges and/or Special Assessments		2,093.72

Tax Computation Worksheet			
Description	Full Valuation	x Tax Rate	= Tax Amount
LAND	175,392		
IMPROVEMENTS	409,350		
FIXTURES			
TOTAL REAL PROPERTY	584,742		
PERSONAL PROPERTY			
GROSS ASSESSMENT & TAX	584,742	1.4376 %	8,406.23
HOMEOWNERS EXEMPTION	-7,000	1.4376 %	-100.63
OTHER EXEMPTION			
NET ASSESSMENT AND TAX	577,742	1.4376 %	8,305.60
			8,305.60
First Installment		Second Installment	Total Amount Due
PAID	\$ 5,199.66	\$ 5,199.66	\$ 10,399.32

Please Read Important Messages

A fee of \$61.00 will be imposed on all returned or dishonored payments.

SECOND INSTALLMENT PAYMENT, 2014-2015

PARCEL NO. 37A-3166-45

INTERNET COPY TRACER NO. 07931900

THIS AMOUNT DUE FEB 1, 2015 ==>

\$ 5,199.66

Pay this amount after APRIL 10, 2015
(This includes delinquent penalty of 10%
and \$10.00 cost)

\$ 5,729.62

Amounts Not Valid After
June 30, 2015

Make checks payable to: Donald R. White, Tax Collector, Alameda County

62015 6079319002 6000519966 00000000

ECheck accepted online @www.acgov.org through June 30, 2015.

Visa, Mastercard, Discover, or American Express credit cards accepted by phone (510)272-6800 or online @www.acgov.org, mobile @www.acgov.org/mobile/apps/ through June 30, 2015. A convenience fee equal to 2.5% of the tax amount due will be added to your total payment.

Subscribe to receive email alerts about important property tax dates online @www.acgov.org/propertytax.

This bill is as of December 29, 2014 2:59 PM and may not include pending payments and roll corrections.

Please See Reverse For More Information

Tax Collector's Office
Payment Questions/Credit Card Payments
(510) 272-6800

Assessor's Office
Valuation/Exemption
(510) 272-3787 (510) 272-3770

FIRST INSTALLMENT PAYMENT, 2014-2015

PARCEL NO. 37A-3166-45

INTERNET COPY TRACER NO. 07931900

THIS AMOUNT DUE NOV 1, 2014 ==>

PAID \$ 5,199.66

Pay this amount after DECEMBER 10, 2014
(This includes delinquent penalty of 10%)

PAID OCT 28, 2014

ATTACHMENT H
EXHIBIT K

Description

Total Additional Fixed Charges and/or Special Assessments		

IMPORTANT REMINDERS

1. Partial payments are not acceptable - payments made for less than the total installment due will be returned to the taxpayer.
2. Notices will not be mailed when the second installment is due. Mark your calendar or subscribe to e-mail alerts online @ www.acgov.org/propertytax.
3. Filing an application for reduced assessment does not relieve the applicant from the obligations to pay the taxes on the subject property before the applicable due date shown on the tax bill. If a reduction is granted, a proportionate refund of taxes will be made by the County Auditor's Office.
4. New owners and present owners with new construction may be required to pay a Supplemental tax bill. Supplemental tax bills are separate from and in addition to this annual bill and any previous or subsequent Supplemental bills.

SEND THIS STUB WITH YOUR 2nd INSTALLMENT PAYMENT

Due: FEBRUARY 1, 2015

Delinquent: 5 p.m., APRIL 10, 2015

Do Not Use This Stub After June 30, 2015
2nd INSTALLMENT PAYMENT CANNOT BE
ACCEPTED UNLESS 1st INSTALLMENT IS PAID

SEND THIS STUB WITH YOUR 1st INSTALLMENT PAYMENT

Due: NOVEMBER 1, 2014

Delinquent: 5 p.m., DECEMBER 10, 2014

Do Not Use This Stub After June 30, 2015
TO PAY BOTH INSTALLMENTS SEND **BOTH STUBS**

1. Property Assessment and Attachment of Tax Lien: The Assessor annually assesses all the property in the county, except state-assessed property, to the person owning, claiming, possessing, or controlling it at 12:01 a.m. January 1, and a lien for taxes attaches at that time preceding the fiscal year for which the taxes are levied.

(a) If you disagree with a change in the assessed value as shown on the tax bill, you may have the right to an informal assessment review by contacting the Assessor's Office. If you disagree with the results of the informal review, you have the right to file an application for reduction in assessment for the following year with the Alameda County Assessment Appeals Board from July 2 to September 15. The Assessment Appeals Board may be contacted at the County Administration Building, Room 536, 1221 Oak Street, Oakland, California 94612-4241 or by calling (510) 272-6352.

(b) Application for review and equalization of an assessment made outside of the regular assessment period must be filed with the Alameda County Assessment Appeals Board no later than 60 days from the first notification of that assessment.

2. Your Tax Collector does not determine the amount you pay in taxes. Tax amounts are computed by multiplying the property's full value by the tax rates of the various taxing agencies. Fixed charges and/or special assessments such as Flood Control Benefit Assessment, sewer service, special assessment improvement bond charges, delinquent garbage liens, etc. from cities and districts are added to the computed tax amounts to arrive at the total amount due on the bill.

3. The Total Amount Due is payable in two installments:

(a) The 1st installment is due on **NOVEMBER 1, 2014** and is delinquent at 5 p.m. **DECEMBER 10, 2014** after which a 10% penalty attaches.

(b) The 2nd installment is due on **FEBRUARY 1, 2015** and is delinquent at 5 p.m. **APRIL 10, 2015** after which a 10% penalty and \$10 cost attach.

(c) In order to pay both installments at the same time, remit the **TOTAL AMOUNT DUE** with both installment payment stubs by **DECEMBER 10, 2014**.

(d) If above delinquent due dates fall on a Saturday, Sunday, or legal holiday, no penalty is charged if payment is made by 5 p.m. on the next business day.

4. If the amount due is unpaid at 5 p.m. June 30, 2015, it will be necessary to pay (a) delinquent penalties, (b) costs, (c) redemption penalties, and (d) a redemption fee. If June 30 falls on a Saturday, Sunday, or legal holiday, no redemption penalties shall attach if payment is made by 5 p.m. on the next business day. Property delinquent for the first year shall be declared defaulted for non-payment of taxes. After 5 years, the Tax Collector has the power to sell tax-defaulted property that is not redeemed.

5. Full Value Exemption Legend:

C- Church	D- Welfare/Hospital
G- Cemetery	H- Homeowner
M- Miscellaneous	R- Religious
S- Public School	V- Veteran
W- Welfare/Others	X- Combination

6. Homeowners' Exemption. If your tax bill shows zero value on the Homeowners' Exemption line and you owned and occupied this property on January 1, 2014, you may be eligible for a partial (80%) homeowners' exemption if you file a claim with the Assessor on or before December 10, 2014. The homeowners' exemption tax reduction is attributable to the state-financed homeowners' tax relief program.

7. Questions about property valuation, exemptions, payments and fixed charges and/or special assessments should be directed to the telephone numbers indicated on the front of this bill.



RUSSELL V. WATTS
 CONTRA COSTA COUNTY TREASURER-TAX COLLECTOR
 ROOM 100, 625 COURT STREET, MARTINEZ, CA 94553
 TELEPHONE: (925) 957-5280 FAX: (925) 957-2898

2013-2014
 FISCAL YEAR JULY 1, 2013 TO JUNE 30, 2014
SECURED PROPERTY TAX BILL
INTERNET COPY

PROPERTY ADDRESS
 5224 BLACKHAWK DR, DANVILLE CA

ASSESSEE AS OF JANUARY 1, 2013

MAILING ADDRESS

APN 220-130-0171

ADDRESS INFORMATION NOT AVAILABLE ON LINE

THE ACCURACY OF THIS BILL MAY BE AFFECTED BY
 PENDING PAYMENTS AND CORRECTIONS

ASSESSMENT INFORMATION

LAND \$719,797
 IMPROVEMENTS \$870,941
 PERSONAL PROP \$0
 GROSS VALUE \$1,590,738
 EXEMPTIONS \$7,000

NET VALUE AS OF JAN 1, 2013 \$1,583,738

SPECIAL MESSAGES

PARCEL NUMBER	BILL NUMBER	CORTAC AGENCY	TAX RATE AREA	ISSUE DATE	TYPE
220-130-0171 0	2013-234569		66050	09/07/2013	ORIGINAL

SPECIAL TAXES & ASSESSMENTS				AD VALOREM TAXES & ASSESSMENTS		
DESCRIPTION	CODE	INFORMATION	AMOUNT	DESCRIPTION	RATE	AMOUNT
CC-FED STORMWATER FEE	DB	(925) 313-2023	\$51.00	1% COUNTYWIDE TAX	1.0000	\$15,837.38
MOSQUITO & VECTOR	DV	(925) 867-3400	\$4.74	BART	0.0075	\$118.78
EMERGENCY MED A	DX	(925) 646-4690	\$3.94	EAST BAY REG PK BD	0.0078	\$123.53
CCCSO SEWER CHG	GE	(925) 229-7115	\$405.00	SAN RAMON UNIF 98	0.0223	\$353.17
EASTBAY TRAILS LLD	KA	(800) 676-7516	\$5.44	SRVUSD BOND 2002	0.0340	\$538.47
SERV AREA PL 2 ZA	KU	(925) 335-1526	\$280.00	SRVUSD BOND 2012	0.0133	\$210.64
SERV AREA L-100	LO	(925) 313-2286	\$14.94	COMM COLL 2002 BND	0.0043	\$68.10
SRVUSD PCLTAX 09-C	NP	(925) 552-2905	\$144.00	COMM COLL 2006 BND	0.0090	\$142.54
TOTAL SPECIAL TAXES & ASSESSMENTS \$909.06				TOTAL AD VALOREM TAXES	1.0982	\$17,392.61
				ADD: SPECIAL TAXES & ASSESSMENTS		\$909.06
				DELINQUENT PENALTY		\$0.00
				DELINQUENT COST		\$0.00
				LESS: PAYMENTS RECEIVED		\$18,301.66
				TOTAL AMOUNT DUE		\$0.01

Cut Here

PARCEL NUMBER	BILL NUMBER	CORTAC AGENCY	TAX RATE AREA	ISSUE DATE	TYPE
220-130-0171 0	2013-234569 2		66050	09/07/2013	ORIGINAL

2ND INSTALLMENT CHECK THIS BOX IF REQUESTING CHANGE OF BILLING ADDRESS OR PRIMARY RESIDENCE ON THE BACKSIDE OF THIS COUPON ☐ **CHECK HERE**

To ensure proper credit, please write the parcel number on check

MAKE CHECK PAYABLE TO:

CONTRA COSTA COUNTY TAX COLLECTOR
 FINANCE BUILDING, ROOM 100
 625 COURT STREET
 P.O. BOX 631
 MARTINEZ, CA 94553-0063

2013-2014 SECURED PROPERTY TAXES

SEND COUPON WITH FULL PAYMENT. DO NOT STAPLE, TAPE OR WRITE ON COUPON.

DUE BY FEB 1, 2014 Delinquent after 5:00 PM April 10, 2014	PAID 01/21/2014 \$9,150.83
AFTER APR 10, 2014 Includes 10% Penalty Plus Cost	
TO PAY FULL TAX RETURN BOTH STUBS WITH THIS AMOUNT BY DEC 10, 2013	(\$0.00)

VISIT WWW.CCTAX.US OR CALL 925-957-5280 FOR CREDIT CARD AND E-CHECK PAYMENTS

THIS INSTALLMENT HAS BEEN PAID. THANK YOU!
 1220130017120132345692000009150830201404100000000000000

Cut Here

PARCEL NUMBER	BILL NUMBER	CORTAC AGENCY	TAX RATE AREA	ISSUE DATE	TYPE
220-130-0171 0	2013-234569 1		66050	09/07/2013	ORIGINAL

1ST INSTALLMENT CHECK THIS BOX IF REQUESTING CHANGE OF BILLING ADDRESS OR PRIMARY RESIDENCE ON THE BACKSIDE OF THIS COUPON ☐ **CHECK HERE**

To ensure proper credit, please write the parcel number on check

MAKE CHECK PAYABLE TO:

CONTRA COSTA COUNTY TAX COLLECTOR
 FINANCE BUILDING, ROOM 100
 625 COURT STREET
 P.O. BOX 631
 MARTINEZ, CA 94553-0063

2013-2014 SECURED PROPERTY TAXES

SEND COUPON WITH FULL PAYMENT. DO NOT STAPLE, TAPE OR WRITE ON COUPON.

DUE BY NOV 1, 2013 Delinquent after 5:00 PM Dec 10, 2013	PAID 11/27/2013 \$9,150.83
AFTER DEC 10, 2013 (Includes 10% Penalty)	

VISIT WWW.CCTAX.US OR CALL 925-957-5280

THIS INSTALLMENT HAS BEEN PAID. THANK YOU!
 12201300171201323456910000009150830201312100000000000000

ATTACHMENT H
EXHIBIT L

LIEN DATE: Taxes are levied and become a lien on both real and personal property as it exists at 12:01 a.m. on January 1st. Subsequent removal or change of ownership does not relieve the real estate of the personal property tax lien and the Tax Collector may not credit payment for real property taxes unless the personal property tax is paid.

APPLICATION FOR REDUCTION: If you disagree with the assessed value as shown on this tax bill, you have a right to an informal assessment review. To obtain such a review, contact the Assessor's Office at 2530 Arnold Dr., Suite 400, Martinez CA 94553, or at (925) 313-7400. If pursuant to the review, you and the Assessor do not agree on the property's assessed value, you have the right to file an application for reduction in assessment. The application must be filed with the Assessment Appeals Board at 651 Pine Street, Room 106, Martinez, CA 94553, (925) 335-1920, during the period from July 2 to November 30, inclusive.

NEW HOME OWNERS: Please check with your title or mortgage company first about who will send in the tax payments. Payments must be for the full amount on the stub, and the first stub must be used for payment before the second stub. Both stubs must be sent together if paying the entire bill at one time. If sending multiple checks, be sure the total equals the amount due and all checks are included with the coupon(s) in the same envelope. Your canceled check is your receipt. Never mail in cash. Return envelopes are provided for your convenience. Only U.S. Post Office cancellation mark is used as date for payment receipt. A penalty will be charged on all late postmarks.

PAYMENT DUE DATE: Taxpayers have the option of paying both installments when the first installment is due—both coupons are required when paying entire bill at one time. The first installment must be paid by 5:00 p.m. or postmarked by December 10 to avoid 10% penalty. The second installment must be paid by 5:00 p.m. or postmarked by April 10 to avoid 10% penalty and an administrative cost. If such dates fall on Saturday, Sunday, or legal holiday, the time of delinquency is 5:00 p.m. on the next business day. Payment must be for the full amount on the coupon and received by the due date regardless of pending adjustments. The first coupon must be paid before the second coupon.

CHECK PAYMENTS: Mail remittances must be by bank check, draft, express or post office money order and sent with payment coupon to P.O. Box 7002, San Francisco, CA 94120-7002. Do not mail cash. All checks must be drawn on a U.S. bank in U.S. dollars and made payable to Contra Costa County Tax Collector. Taxes are payable at the County Tax Collector's Office between the hours of 8:00 a.m. and 5:00 p.m., Saturdays, Sundays and holidays excluded. All checks returned by the bank, for any reason, will cause the record of payment to be canceled. An \$85 return-check fee will be assessed. Additionally, penalties will be charged if payment is not settled by the delinquency date.

ONLINE BANKING: Please enter the PARCEL NUMBER as the account number of the bill you wish to pay on line with your bank. On-line bill payment must occur no later than five business days prior to the due date shown on the coupon in order for the check payment mailed to our office to be postmarked no later than the due date.

REDEMPTION CHARGES: A redemption fee of \$15.00 per parcel will be charged to set up a default account for taxes unpaid after June 30th. A redemption penalty of 18% per annum will also be charged on the unpaid portion of the defaulted taxes until paid in full.

UNPAID PRIOR TAXES OWING: If shown, this means the property is Tax Defaulted for prior year delinquent taxes. It will be necessary, as provided by law, to pay the additional delinquent penalties and costs as well as the redemption penalties and fees. For more information, call the Tax Collector's Office at 1-925-957-5280.

PROPERTY TAX ASSISTANCE FOR SENIOR CITIZENS OR BLIND OR DISABLED PERSONS: The state budget does not include funding for the Gonsalves-Deukmejian-Petris Senior Citizens Property Tax Assistance Law. Therefore, the Franchise Tax Board (FTB) will not issue Homeowner and Renter Assistance (HRA) Program instruction booklets and will not accept HRA claims. For the most current information on the HRA program, go to www.ftb.ca.gov and search for HRA.

PROPERTY TAX POSTPONEMENT FOR SENIOR CITIZENS OR BLIND OR DISABLED PERSONS: Chapter 4, Statutes of 2009, suspended the Senior Citizens' Property Tax Deferral Program effective February 20, 2009. As a result of the program suspension, the Controller no longer accepts applications for property tax postponement. For the most current information on the Property Tax Postponement program please visit the Controller's website at www.sco.ca.gov (Public Services).



ELECTRONIC BILLING: Please support our effort toward a cleaner and healthier environment by taking advantage of paperless billing. The Tax Collector's Office currently offers SECURED PROPERTY TAX bill notification by e-mail. In addition to the annual e-mail notification, we will also send you a reminder notification prior to the delinquent date of each installment. To participate, visit our website at www.ccltax.us.



ELECTRONIC PAYMENTS can be made 24/7 by dialing 1-925-957-5280 or going to www.ccltax.us on the Internet. Enter the first nine digits of the Parcel Number for the taxes you wish to pay. Payments are accepted up until 11:59 p.m. Pacific time of the delinquent date. A small convenience fee is charged by the payment service provider for credit or debit card transactions. There is no convenience fee for e-check transactions.

2ND COUPON -- PAYABLE WITH OR AFTER 1ST COUPON

Payment must be for the full amount on the coupon. First coupon must be used for payment before second coupon. Both coupons must be sent together if paying the entire bill at one time.

CHANGE OF BILLING ADDRESS (PLEASE PRINT)

You must check mark the box on the front of this coupon to indicate change. Request must be sent by April 10 for change to appear on next year's bill.

Owner's Name		Care of (if applicable)	
Permanent Mailing Address		E-mail Address	
City • State • Zip		Phone Number	
Owner's Signature (Required)	Date	Change Of primary residence? Yes ___ No ___ When? ___/___/___	

CHECK CONVERSION: When you provide a paper check as payment, you authorize us either to use information from your check to make a one-time electronic fund transfer from your account or to process the payment as a check transaction. When we use information from your check to make an electronic fund transfer, funds may be withdrawn from your account as soon as the same day we receive your payment, and you will not receive your check back from your financial institution. Pursuant to regulatory rules (NACHA and Regulation E), we properly notify you of our intention to clear your check electronically. If you prefer not to have your check converted, you can opt out at www.ccltax.us > Look Up/Pay Taxes > Check Conversion Opt-Out.

1ST COUPON -- PAYABLE BEFORE 2ND COUPON

Payment must be for the full amount on the coupon. First coupon must be used for payment before second coupon. Both coupons must be sent together if paying the entire bill at one time.

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RUSSELL V. WATTS

CONTRA COSTA COUNTY TREASURER-TAX COLLECTOR
ROOM 100, 625 COURT STREET, MARTINEZ, CA 94553
TELEPHONE: (925) 957-5280 FAX: (925) 957-2898

2013-2014

FISCAL YEAR JULY 1, 2013 TO JUNE 30, 2014

SECURED PROPERTY TAX BILL

INTERNET COPY

PROPERTY ADDRESS

6 RABBLE RD, ORINDA CA

ASSESSEE AS OF JANUARY 1, 2013

MAILING ADDRESS

APN 273-300-0240

ASSESSMENT INFORMATION

LAND	\$840,000
IMPROVEMENTS	\$1,900,000
PERSONAL PROP	\$0
GROSS VALUE	\$2,740,000
EXEMPTIONS	\$7,000

ADDRESS INFORMATION NOT AVAILABLE ON LINE

THE ACCURACY OF THIS BILL MAY BE AFFECTED BY
PENDING PAYMENTS AND CORRECTIONS

NET VALUE AS OF JAN 1, 2013 \$2,733,000

SPECIAL MESSAGES

PARCEL NUMBER	BILL NUMBER	CORTAC AGENCY	TAX RATE AREA	ISSUE DATE	TYPE
273-300-0240 0	2013-264370		18001	09/07/2013	ORIGINAL

SPECIAL TAXES & ASSESSMENTS			
DESCRIPTION	CODE	INFORMATION	AMOUNT
WILDERGHAD ORINDA	AE	(925) 866-9000	\$27,196.88
MOSQUITO & VECTOR	DV	(925) 867-3400	\$4.74
EMERGENCY MED B	DY	(925) 646-4690	\$10.00
CCCSO SEWER CHG	GE	(925) 229-7115	\$405.00
ORINDA ELM PCLTX-B	H3	(925) 258-6210	\$124.00
ORINDA LIBRARY TAX	H4	(800) 676-7516	\$39.00
FED STORMWATER A10	IM	(925) 313-2023	\$35.00
ACL MEAS G&A PCLTX	JF	(925) 280-3908	\$301.00
ORINDA EL PCL TX	JI	(925) 258-6210	\$385.00
EBRPD ZB-6 GTWY VL	J6	(800) 676-7516	\$91.06
ORINDA ZN FIRE TAX	K4	(925) 258-4530	\$134.06
CA COM-ORIN CFD7-1	QR	(800) 969-4382	\$15,277.10

AD VALOREM TAXES & ASSESSMENTS			
DESCRIPTION	RATE	AMOUNT	
1% COUNTY WIDE TAX	1.0000	\$27,330.00	
BART	0.0075	\$204.97	
EAST BAY REG PK BD	0.0078	\$213.17	
ACALANES BOND 97	0.0138	\$377.16	
ACALANES BOND 88	0.0068	\$185.84	
ACALANES BOND 2002	0.0155	\$423.62	
ORINDA ELEM BOND	0.0255	\$696.91	
COMM COLL 2002 BND	0.0043	\$117.52	
COMM COLL 2006 BND	0.0090	\$245.97	
TOTAL AD VALOREM TAXES	1.0902	\$29,795.16	
ADD: SPECIAL TAXES & ASSESSMENTS		\$19,525.64	
DELINQUENT PENALTY		\$0.00	
DELINQUENT COST		\$0.00	
LESS: PAYMENTS RECEIVED		\$49,320.80	

TOTAL SPECIAL TAXES & ASSESSMENTS \$19,525.64

TOTAL AMOUNT DUE \$0.00

PARCEL NUMBER	BILL NUMBER	CORTAC AGENCY	TAX RATE AREA	ISSUE DATE	TYPE
273-300-0240 0	2013-264370 2		18001	09/07/2013	ORIGINAL

2ND
INSTALLMENT

CHECK THIS BOX IF REQUESTING
CHANGE OF BILLING ADDRESS OR
PRIMARY RESIDENCE ON THE
BACKSIDE OF THIS COUPON

CHECK HERE

To ensure proper credit, please write the parcel number on check

MAKE CHECK PAYABLE TO:

CONTRA COSTA COUNTY TAX COLLECTOR
FINANCE BUILDING, ROOM 100
625 COURT STREET
P.O. BOX 631
MARTINEZ, CA 94553-0063

2013-2014

SECURED PROPERTY TAXES

SEND COUPON WITH FULL PAYMENT. DO NOT STAPLE, TAPE OR WRITE ON COUPON.

DUE BY FEB 1, 2014 Delinquent after 5:00 PM April 10, 2014	PAID 10/29/2013 \$24,660.40
AFTER APR 10, 2014 Includes 10% Penalty Plus Cost	
TO PAY FULL TAX RETURN BOTH STUBS WITH THIS AMOUNT BY DEC 10, 2013	(\$0.00)

VISIT WWW.CCTAX.US OR CALL 925-957-5280 FOR CREDIT CARD AND E-CHECK PAYMENTS

THIS INSTALLMENT HAS BEEN PAID. THANK YOU!

12733000240201326437020000246604002014041000000000000000

PARCEL NUMBER	BILL NUMBER	CORTAC AGENCY	TAX RATE AREA	ISSUE DATE	TYPE
273-300-0240 0	2013-264370 1		18001	09/07/2013	ORIGINAL

1ST
INSTALLMENT

CHECK THIS BOX IF REQUESTING
CHANGE OF BILLING ADDRESS OR
PRIMARY RESIDENCE ON THE
BACKSIDE OF THIS COUPON

CHECK HERE

To ensure proper credit, please write the parcel number on check

MAKE CHECK PAYABLE TO:

CONTRA COSTA COUNTY TAX COLLECTOR
FINANCE BUILDING, ROOM 100
625 COURT STREET
P.O. BOX 631
MARTINEZ, CA 94553-0063

2013-2014

SECURED PROPERTY TAXES

SEND COUPON WITH FULL PAYMENT. DO NOT STAPLE, TAPE OR WRITE ON COUPON.

DUE BY NOV 1, 2013 Delinquent after 5:00 PM Dec 10, 2013	PAID 10/29/2013 \$24,660.40
AFTER DEC 10, 2013 (Includes 10% Penalty)	

VISIT WWW.CCTAX.US OR CALL 925-957-5280

THIS INSTALLMENT HAS BEEN PAID. THANK YOU!

12733000240201326437010000246604002013121000000000000000

ATTACHMENT H EXHIBIT M

IMPORTANT INFORMATION ABOUT YOUR 2013-2014 SECURED PROPERTY TAX BILL

LIEN DATE: Taxes are levied and become a lien on both real and personal property as it exists at 12:01 a.m. on January 1st. Subsequent removal or change of ownership does not relieve the real estate of the personal property tax lien and the Tax Collector may not credit payment for real property taxes unless the personal property tax is paid.

APPLICATION FOR REDUCTION: If you disagree with the assessed value as shown on this tax bill, you have a right to an informal assessment review. To obtain such a review, contact the Assessor's Office at 2530 Arnold Dr., Suite 400, Martinez CA 94553, or at (925) 313-7400. If pursuant to the review, you and the Assessor do not agree on the property's assessed value, you have the right to file an application for reduction in assessment. The application must be filed with the Assessment Appeals Board at 651 Pine Street, Room 106, Martinez, CA 94553, (925) 335-1920, during the period from July 2 to November 30, inclusive.

NEW HOME OWNERS: Please check with your title or mortgage company first about who will send in the tax payments. Payments must be for the full amount on the stub, and the first stub must be used for payment before the second stub. Both stubs must be sent together if paying the entire bill at one time. If sending multiple checks, be sure the total equals the amount due and all checks are included with the coupon(s) in the same envelope. Your canceled check is your receipt. Never mail in cash. Return envelopes are provided for your convenience. Only U.S. Post Office cancellation mark is used as date for payment receipt. A penalty will be charged on all late postmarks.

PAYMENT DUE DATE: Taxpayers have the option of paying both installments when the first installment is due—both coupons are required when paying entire bill at one time. The first installment must be paid by 5:00 p.m. or postmarked by December 10 to avoid 10% penalty. The second installment must be paid by 5:00 p.m. or postmarked by April 10 to avoid 10% penalty and an administrative cost. If such dates fall on Saturday, Sunday, or legal holiday, the time of delinquency is 5:00 p.m. on the next business day. Payment must be for the full amount on the coupon and received by the due date regardless of pending adjustments. The first coupon must be paid before the second coupon.

CHECK PAYMENTS: Mail remittances must be by bank check, draft, express or post office money order and sent with payment coupon to P.O. Box 7002, San Francisco, CA 94120-7002. Do not mail cash. All checks must be drawn on a U.S. bank in U.S. dollars and made payable to Contra Costa County Tax Collector. Taxes are payable at the County Tax Collector's Office between the hours of 8:00 a.m. and 5:00 p.m., Saturdays, Sundays and holidays excluded. All checks returned by the bank, for any reason, will cause the record of payment to be canceled. An \$85 return-check fee will be assessed. Additionally, penalties will be charged if payment is not settled by the delinquency date.

ONLINE BANKING: Please enter the PARCEL NUMBER as the account number of the bill you wish to pay on line with your bank. On-line bill payment must occur no later than five business days prior to the due date shown on the coupon in order for the check payment mailed to our office to be postmarked no later than the due date.

REDEMPTION CHARGES: A redemption fee of \$15.00 per parcel will be charged to set up a default account for taxes unpaid after June 30th. A redemption penalty of 18% per annum will also be charged on the unpaid portion of the defaulted taxes until paid in full.

UNPAID PRIOR TAXES OWING: If shown, this means the property is Tax Defaulted for prior year delinquent taxes. It will be necessary, as provided by law, to pay the additional delinquent penalties and costs as well as the redemption penalties and fees. For more information, call the Tax Collector's Office at 1-925-957-5280.

PROPERTY TAX ASSISTANCE FOR SENIOR CITIZENS OR BLIND OR DISABLED PERSONS: The state budget does not include funding for the Gonsalves-Deukmejian-Petris Senior Citizens Property Tax Assistance Law. Therefore, the Franchise Tax Board (FTB) will not issue Homeowner and Renter Assistance (HRA) Program instruction booklets and will not accept HRA claims. For the most current information on the HRA program, go to www.ftb.ca.gov and search for HRA.

PROPERTY TAX POSTPONEMENT FOR SENIOR CITIZENS OR BLIND OR DISABLED PERSONS: Chapter 4, Statutes of 2009, suspended the Senior Citizens' Property Tax Deferral Program effective February 20, 2009. As a result of the program suspension, the Controller no longer accepts applications for property tax postponement. For the most current information on the Property Tax Postponement program please visit the Controller's website at www.sco.ca.gov (Public Services).



ELECTRONIC BILLING: Please support our effort toward a cleaner and healthier environment by taking advantage of paperless billing. The Tax Collector's Office currently offers SECURED PROPERTY TAX bill notification by e-mail. In addition to the annual e-mail notification, we will also send you a reminder notification prior to the delinquent date of each installment. To participate, visit our website at www.cctax.us.



ELECTRONIC PAYMENTS can be made 24/7 by dialing 1-925-957-5280 or going to www.cctax.us on the Internet. Enter the first nine digits of the Parcel Number for the taxes you wish to pay. Payments are accepted up until 11:59 p.m. Pacific time of the delinquent date. A small convenience fee is charged by the payment service provider for credit or debit card transactions. There is no convenience fee for e-check transactions.

2ND COUPON — PAYABLE WITH OR AFTER 1ST COUPON

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CHANGE OF BILLING ADDRESS (PLEASE PRINT)

You must check mark the box on the front of this coupon to indicate change. Request must be sent by April 10 for change to appear on next year's bill.

Owner's Name _____

Care of (if applicable) _____

Permanent Mailing Address _____ City • State • Zip _____

E-mail Address _____ Phone Number _____

Owner's Signature (Required) _____ Date _____

Change Of primary residence? Yes ___ No ___ When? ___/___/___

CHECK CONVERSION: When you provide a paper check as payment, you authorize us either to use information from your check to make a one-time electronic fund transfer from your account or to process the payment as a check transaction. When we use information from your check to make an electronic fund transfer, funds may be withdrawn from your account as soon as the same day we receive your payment, and you will not receive your check back from your financial institution. Pursuant to regulatory rules (NACHA and Regulation E), we properly notify you of our intention to clear your check electronically. If you prefer not to have your check converted, you can opt out at www.cctax.us > Look Up/Pay Taxes > Check Conversion Opt-Out.

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CHANGE OF BILLING ADDRESS (PLEASE PRINT)

You must check mark the box on the front of this coupon to indicate change. Request must be sent by April 10 for change to appear on next year's bill.

Owner's Name _____

Care of (if applicable) _____

Permanent Mailing Address _____ City • State • Zip _____

E-mail Address _____ Phone Number _____

Owner's Signature (Required) _____ Date _____

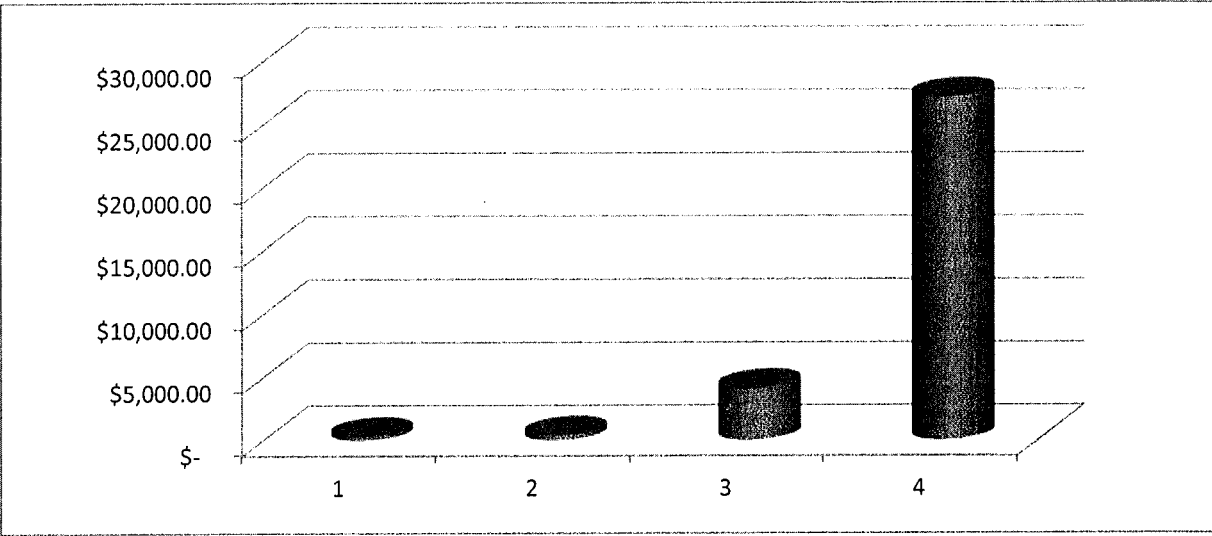
Change Of primary residence? Yes ___ No ___ When? ___/___/___

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Oakland Area GHAD Expenditures Report

Date	Amount	Payee	Purpose
2/2/2009	\$5,000.00	GHAD Attorney	
6/17/2009	\$5,000.00	GHAD Attorney	
8/3/2009	\$1,925.00	Francisco and Associates	CPI Adjustment/Assessment Roll 2009/10
12/15/2009	\$5,000.00	GHAD Attorney	
4/20/2010	\$6,483.00	GHAD Attorney	
1/31/2011	\$2,672.00	GHAD Manager, Francisco and Associates	CPI Adjustment/Assessment Roll 2010/11
5/17/2011	\$1,399.34	GHAD Attorney	
10/20/2011	\$1,238.55	GHAD Attorney	
10/26/2011	\$1,925.00	Francisco and Associates	CPI Adjustment/Assessment Roll 2011/12
3/16/2012	\$652.00	GHAD Attorney	
5/14/2012	\$2,262.00	GHAD Attorney	
6/4/2012	\$685.00	GHAD Manager	ENGEO Meeting with Oakland City Staff
8/25/2012	\$130.50	GHAD Attorney	
9/10/2012	\$174.00	GHAD Attorney	
9/10/2012	\$6,925.30	GHAD Attorney	
10/28/2012	\$1,925.00	Francisco and Associates	CPI Adjustment/Assessment Roll 2012/13
6/3/2013	\$593.00	GHAD Attorney	
8/8/2013	\$869.50	GHAD Attorney	
9/9/2013	\$2,862.00	GHAD Attorney	
10/30/2013	\$1,925.00	Francisco & Associates	CPI Adjustment/Assessment Roll 2013/14
1/16/2014	\$3,200.55	GHAD Attorney	
4/21/2014	\$9,451.50	GHAD Attorney	
5/9/2014	\$794.62	GHAD Manager	ENGEO Meeting w/ Oakland City Staff, HOA
5/25/2014	\$8,822.00	GHAD Attorney	
7/7/2014	\$2,075.00	GHAD Attorney	
7/28/2014	\$6,627.95	GHAD Attorney	
9/24/2014	\$6,782.55	GHAD Attorney	

	Blackhawk	Wilder	Leona Quarry	Oakland Area
Total yearly collections	\$ 1,750,000.00	\$ 666,321.60	\$ 552,230.56	\$ 102,055.04
Total acreage	5000	1572	133.2	3.75
Cost per acre	\$ 350.00	\$ 423.87	\$ 4,145.88	\$ 27,214.68



\$ 3,189.00	Total Assessment over 40 year period		
\$ 3,284.67			
\$ 3,383.21			
\$ 3,484.71			
\$ 3,589.25			
\$ 3,696.93			
\$ 3,807.83			
\$ 3,922.07			
\$ 4,039.73			
\$ 4,160.92	\$ 36,558.31	X 32 lots	\$ 1,169,865.96 Year 10
\$ 4,285.75			
\$ 4,414.32			
\$ 4,546.75			
\$ 4,683.15			
\$ 4,823.65			
\$ 4,968.36			
\$ 5,117.41			
\$ 5,270.93			
\$ 5,429.06			
\$ 5,591.93	\$ 85,689.62	X32	\$ 2,742,067.98 Year 20
\$ 5,759.69			
\$ 5,932.48			
\$ 6,110.45			
\$ 6,293.77			
\$ 6,482.58			
\$ 6,677.06			
\$ 6,877.37			
\$ 7,083.69			
\$ 7,296.20			
\$ 7,515.09	\$ 151,718.00	X32	\$ 4,854,976.02 Year 30
\$ 7,740.54			
\$ 7,972.76			
\$ 8,211.94			
\$ 8,458.30			
\$ 8,712.05			
\$ 8,973.41			
\$ 9,242.61			
\$ 9,519.89			
\$ 9,805.48			
\$ 10,099.65	\$ 240,454.64	X 32 lots	\$ 7,694,548.48 Year 40