

ENGINEER'S REPORT

for

GEOLOGIC HAZARD ABATEMENT DISTRICT
LEONA QUARRY
CITY OF OAKLAND, CALIFORNIA
AUGUST 13, 2004
LATEST REVISION FEBRUARY 23, 2005

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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.

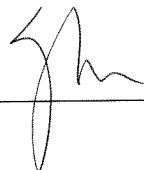
The improvements which are the subject of this report are defined as any activity necessary or incidental to the prevention, mitigation, abatement, or control of a geologic hazard, construction, maintenance, repair, or operation of any improvement; or the issuance and servicing of bonds issued to finance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

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.

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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.

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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

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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%)	\$38,785
TOTAL	<u>\$427,635</u>

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