

**ENGINEER'S REPORT**

**for**

**HAYWARD GEOLOGIC HAZARD ABATEMENT DISTRICT  
LA VISTA DEVELOPMENT  
HAYWARD, CALIFORNIA**

**October 17, 2016**

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## **ENGINEER'S REPORT**

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

### **CERTIFICATION OF FILING**

The Hayward Geologic Hazard Abatement District (“GHAD”) shall provide monitoring and maintenance of improvements related to geologic hazard management and other responsibilities as a landowner, within the La Vista Development in the Hayward GHAD and levies and collects assessments in order to perform its activities.

The GHAD responsibilities, which are the subject of this report and the Plan of Control, 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 improvement; or the issuance and servicing of bonds issued to finance any of the foregoing (Section 26505).

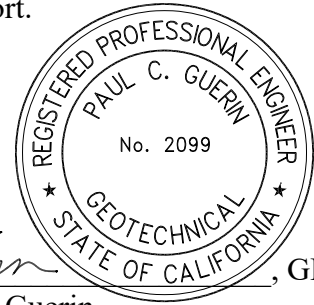
This report consists of eight parts, as follows:

- I. INTRODUCTION
- II. BACKGROUND
- III. GEOLOGIC HAZARD ABATEMENT DISTRICT DIAGRAM
- IV. SERVICE LEVELS
- V. DESCRIPTION OF GHAD-MAINTAINED IMPROVEMENTS
- VI. ASSESSMENT METHOD
- VII. ASSESSMENT LIMIT - BUDGET PROJECTION
- VIII. PROPERTY OWNER OR DEVELOPER RESPONSIBILITIES

The undersigned respectfully submits the enclosed Engineer's Report.

Date: October 17, 2016

By: ENGEO Incorporated



*Paul C Guerin*

Paul C. Guerin

I HEREBY CERTIFY that the enclosed Engineer's Report was approved and confirmed by the GHAD Board.

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Patricia E. Curtin  
Clerk of the Board  
Hayward Geologic Hazard Abatement District  
Hayward, California

## **ENGINEER’S REPORT**

**for**

**HAYWARD GEOLOGIC HAZARD ABATEMENT DISTRICT  
LA VISTA DEVELOPMENT  
HAYWARD, CALIFORNIA  
for the  
ESTABLISHMENT OF AN ASSESSMENT LIMIT**

### **I. INTRODUCTION**

The Hayward City Council formed the Hayward Geologic Hazard Abatement District (“GHAD” or “District”) on March 1, 2016 (Resolution No. 16-030), under the authority of the California Public Resources Code, Division 17, Section 26500 et seq. Members of the Hayward City Council act as the Board of Directors of the GHAD.

### **II. BACKGROUND**

The developer of the La Vista development (“Project”) has submitted the Hayward GHAD Plan of Control – La Vista Development (“Plan of Control”) that describes the GHAD’s responsibilities to permanently monitor and maintain GHAD improvements within the GHAD and within Easement Areas “M” and “TBD”. This Engineer’s Report describes the establishment of an assessment level to fund GHAD activities necessary or incidental to geologic hazard mitigation, abatement and control.

### **III. GEOLOGIC HAZARD ABATEMENT DISTRICT BOUNDARIES**

The boundaries for the GHAD are shown in the plats (Exhibit A) and legal description (Exhibit B).

### **IV. SERVICE LEVELS**

The GHAD’s activities are those that are 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 operations, including reporting to the GHAD Board of Directors.

2. In conjunction with the County Assessor’s Office, setting the annual levying of assessments on the property tax rolls.
3. Engagement of technical professionals to perform the monitoring duties as described in the Plan of Control.
4. Performance of GHAD maintenance activities in accordance with the Plan of Control. These maintenance activities include:
  - General maintenance of the surface drainage improvements within the GHAD Boundary and Easements “M” and “TBD”, such as the concrete V-ditches. The GHAD is also responsible for general maintenance of storm drain inlets and outlets in open space, subdrain outlets, and risers. Inspection and maintenance of concrete-lined drainage ditches.
  - Monitoring and maintenance of measurement devices, such as piezometers, inclinometers, and tiltmeters, if any.
  - Maintenance of existing property line/boundary fencing.
  - Inspection and maintenance of surface water quality treatment, water quality pond, and detention basins within the Project.
  - Maintenance of retaining wall east of Alquire Parkway at the northwest corner of the Moita property.
  - Maintenance of two CDS water quality treatment units along Tennyson Road.
  - Maintenance of roads associated with the water quality pond and the detention basins.
  - Maintenance of roads/trails over public water mains on the GHAD owned parcels.
  - Maintenance of debris benches and walls.
  - Maintenance of subdrains, including, but not limited to, those shown on Appendix A, Figure 3.
  - Maintenance of storm drain inlets, outfalls and pipelines within the GHAD owned parcels and a portion of the public park area.
  - Maintenance of trails (other than City-owned public trails) within the GHAD owned parcels.

- Maintenance of slopes including Hayward Concentrated Fault Zone.
  - Maintenance of vegetation control for fire suppression.
  - Maintenance of slopes including subdrains and surface drainage within Easements “M” and “TBD”.
5. The GHAD will also have maintenance, monitoring and repair responsibilities for slopes, which will include natural, reconstructed or partially reconstructed landslides.
  6. Preparation of annual GHAD budgets and other documents and reports for consideration by the GHAD Board of Directors.

## **V. DESCRIPTION OF THE IMPROVEMENTS MAINTAINED BY THE GHAD**

The GHAD-maintained improvements are described in the Plan of Control. In general, these improvements include water quality facilities; drainage systems, including concrete-lined ditches in developed areas and open space; open-space storm drain inlets and outlets; subdrains and outlets; retaining walls; access roadways; and improvements within Easements “M” and “TBD”.

## **VI. ASSESSMENT METHOD**

With the exception of Easements “M” and “TBD”, the improvements and GHAD responsibilities described in Section V are distributed within the limits of the GHAD. The improvements described in this document will confer the following special benefits to the assessed parcels:

1. Protection from slope instability
2. Protection from erosion due to uncontrolled surface water
3. Protection of water quality
4. Protection from wild land fires associated due to unmanaged vegetation

The GHAD assessment is distributed among all residential property owners within the GHAD. The improvements and responsibilities listed in Section V provide specific benefits to the properties within the GHAD and the improvements are constructed for the benefit of those assessed and not the general public.

As listed above and in Section 7.0 of the Plan of Control, the GHAD will monitor and maintain non-irrigated vegetation management, slopes, surface and subsurface drainages within Easements “M” and “TBD”. Although this area is outside the GHAD boundary, the maintenance of these facilities is necessary to reduce the potential for uncontrolled stormwater infiltration, erosion, and other potential geologic hazards that could affect properties and improvements within the Project.

Single-family residential lots are assessed as one unit. There are a total of 179 residential units within the Project. The total number of equivalent residential units within the GHAD was considered in light of the annual GHAD budget in developing the annual assessment amount. The Engineer hereby finds that residential properties within the GHAD receive substantially proportional special benefit.

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 GHAD. In preparation of the budget, several factors were considered including:

- Site geology
- Remedial grading
- Proximity of geologic hazards to proposed residences
- Improvements or structures
- Site access considerations
- Elements requiring routine maintenance, including:
  1. Surface drainage facilities
  2. Graded slopes
  3. Retaining walls
  4. Bioretention and detention basin facilities
  5. Trails and fire breaks

## **VII. ASSESSMENT - BUDGET**

The purpose of this Engineer's Report is to establish the assessment level and the apportionment of the assessment within the GHAD as required under Proposition 218. The annual budget in each subsequent fiscal year will apprise the GHAD Board of Directors of the estimated budget for the upcoming year.

Based on the estimated expenses for on-going operations, and allowing for larger (approximately \$750,000) geologic events at 10-year intervals, a budget was prepared for the purpose of estimating initial assessment levels (Exhibit B).

The Engineer recommends an annual assessment limit for the GHAD of \$1,502.00 per single-residential unit (Fiscal Year 2016/17 dollars). The proposed initial assessment level will be automatically adjusted annually on June 30 to reflect the percentage change in the San Francisco-Oakland-San Jose Consumers Price Index for All Urban Consumers.

While the assumptions and estimated expenses listed in Exhibit B were used to determine the assessment levels for the GHAD, they do not represent the actual budget for any one year of the GHAD's operation, since assessment of the individual parcels will be based on the issuance of building permits, which will occur over a number of years. In addition, the Engineer anticipates that the projected expense amounts will be reached over time and that these amounts will be inflation-adjusted in the year that the expenses occur.



## **VIII. PROPERTY OWNER OR DEVELOPER RESPONSIBILITIES**

The property owner or developer of the Project is responsible for managing and maintaining the La Vista portion of the GHAD until the GHAD accepts responsibility for the GHAD Improvements as set forth in the Plan of Control. In addition, the property owner or developer is responsible for funding any necessary GHAD functions or business undertaken for the GHAD that the GHAD Officers or Board of Directors determine are necessary before the GHAD accepts the GHAD Improvements. If the property owner or developer fails to fund all or a portion of these costs, these costs shall be covered by the funds generated by and for the GHAD (i.e., through the assessment) and the developer shall be required to reimburse the GHAD for such costs before the GHAD can accept monitoring and maintenance responsibilities for the GHAD Improvements.

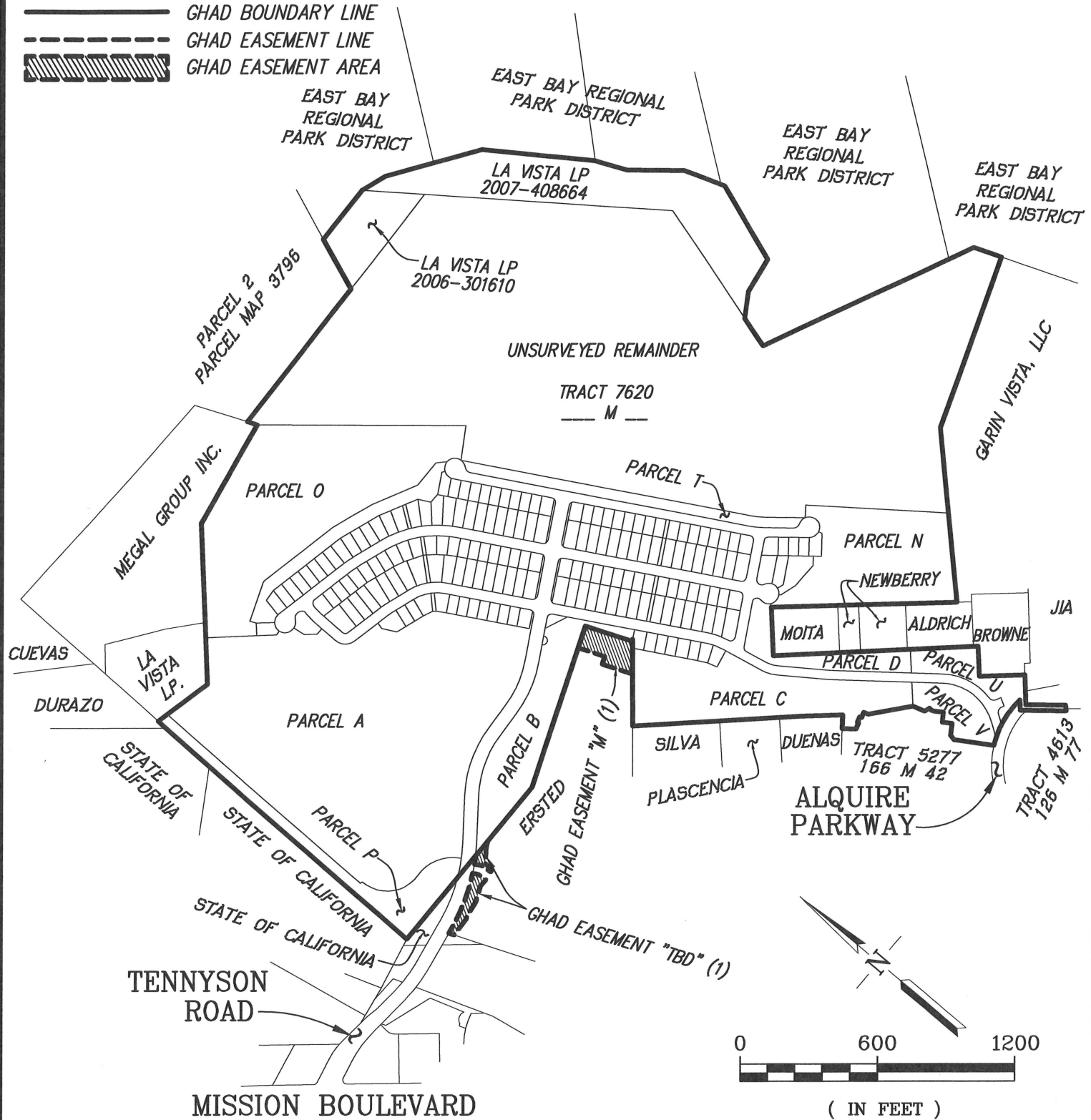
The GHAD may utilize funds generated by or for the GHAD to conduct any necessary GHAD functions or business for the GHAD before the GHAD accepts the GHAD improvements. Such functions and business can include periodic reporting to the GHAD Board of Directors and work performed by GHAD Officers to verify the GHAD is implemented in accordance with the Plan of Control and GHAD Law. Such an undertaking does not render the GHAD liable or responsible for the GHAD improvements during this period of time. The GHAD only becomes responsible for maintenance once the GHAD improvements are accepted by the GHAD in accordance with the requirements set forth in the Plan of Control.

**EXHIBIT A**

**Legal Description and Plats to Accompany Legal Description**

**LEGEND**

-  GHAD BOUNDARY LINE
-  GHAD EASEMENT LINE
-  GHAD EASEMENT AREA



(1) HAYWARD TENNYSON, LLC EASEMENTS MAINTAINED BY THE HAYWARD GHAD.

SHEET 1 OF 3 SHEETS

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**EXHIBIT A**

PLAT TO ACCOMPANY LEGAL DESCRIPTION FOR GEOLOGIC HAZARD ABATEMENT DISTRICT CITY OF HAYWARD, ALAMEDA COUNTY, CALIFORNIA



**RUGGERI-JENSEN-AZAR**  
ENGINEERS ■ PLANNERS ■ SURVEYORS  
4690 CHABOT DRIVE, SUITE 200 PLEASANTON, CA 94588  
PHONE: (925) 227-9100 FAX: (925) 227-9300

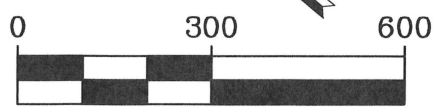
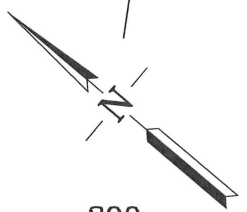
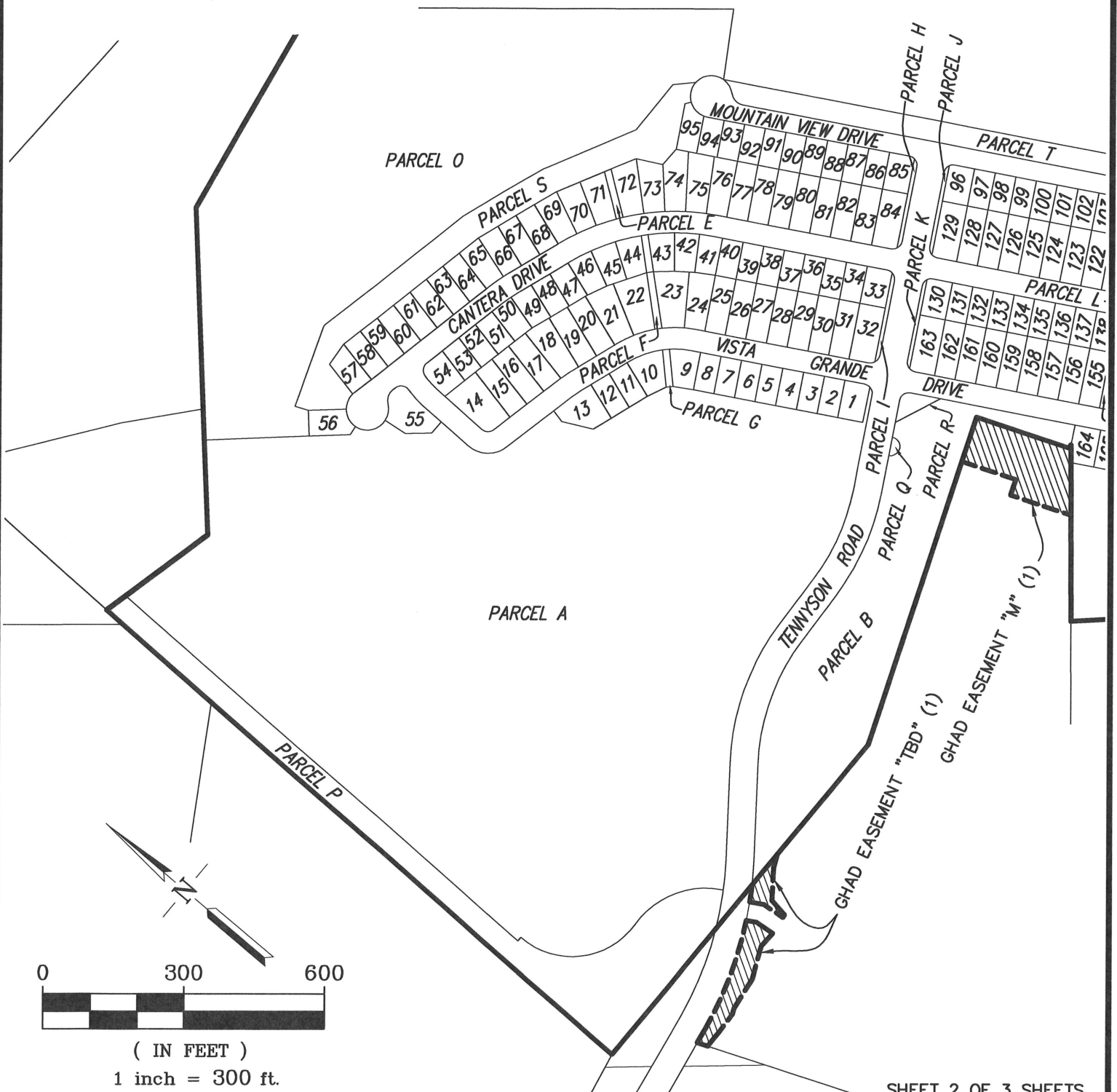
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**LEGEND**

-  GHAD BOUNDARY LINE
-  GHAD EASEMENT LINE
-  GHAD EASEMENT AREA

UNSURVEYED REMAINDER

TRACT 7620  
— M —



( IN FEET )  
1 inch = 300 ft.

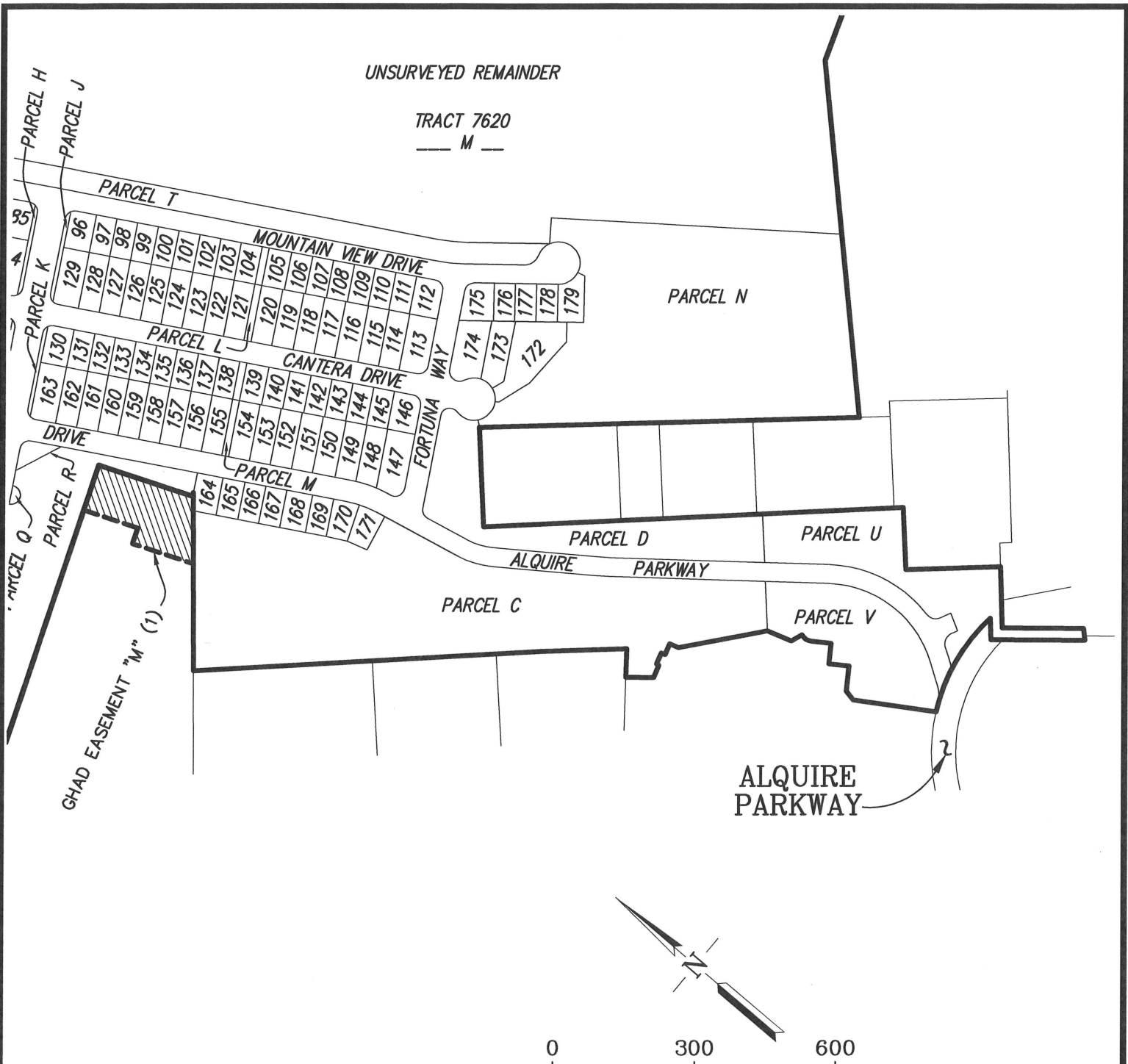
SHEET 2 OF 3 SHEETS

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**EXHIBIT A**  
**PLAT TO ACCOMPANY LEGAL DESCRIPTION**  
**FOR**  
**GEOLOGIC HAZARD**  
**ABATEMENT DISTRICT**  
**CITY OF HAYWARD, ALAMEDA COUNTY, CALIFORNIA**

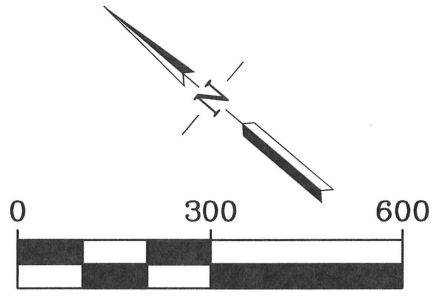
**RJA**  
**RUGGERI-JENSEN-AZAR**  
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 4690 CHABOT DRIVE, SUITE 200 PLEASANTON, CA 94588  
 PHONE: (925) 227-9100 FAX: (925) 227-9300

SCALE: 1" = 300'	DATE: 09-30-2015	JOB NO.: 053019
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**LEGEND**

-  GHAD BOUNDARY LINE
-  GHAD EASEMENT LINE
-  GHAD EASEMENT AREA



( IN FEET )  
1 inch = 300 ft.

SHEET 3 OF 3 SHEETS

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**EXHIBIT A**  
**PLAT TO ACCOMPANY LEGAL DESCRIPTION**  
**FOR**  
**GEOLOGIC HAZARD**  
**ABATEMENT DISTRICT**  
**CITY OF HAYWARD, ALAMEDA COUNTY, CALIFORNIA**



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SCALE: 1" = 300'	DATE: 09-30-2015	JOB NO.: 053019
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**EXHIBIT "A"**

Real Property situate in the City of Hayward, County of Alameda, and State of California; and being all of Lots 1 thru 179 & all of Parcels A thru V as created by that certain map entitled "Tract 7620" and filed on \_\_\_\_\_ and recorded in Book \_\_\_\_\_ of Maps at pages \_\_\_\_ through \_\_\_\_, Official Records of said County, and all of the certain parcel described as Parcel Two in a Grant Deed to La Vista L.P. recorded on August 7, 2006 under document number 2006-301610 Official Record of said County, and all of that certain parcel of land described in the Grant Deed to La Vista L.P. recorded on November 30, 2007 under document number 2007-408664 Official Records of said County.

**End of Description**

Prepared by:

\_\_\_\_\_  
Scott A. Shortlidge, L.S. 6441

\_\_\_\_\_  
Date

**EXHIBIT B**

**Hayward GHAD Budget**

**La Vista Development**

**EXHIBIT B**  
**Hayward Geologic Hazard Abatement District**  
**La Vista Development**

Budget

**ASSUMPTIONS**

Total Number of Single Family Residential Units	179
Annual Assessment per Unit (FY 2016/2017 Dollars)	\$1,502
Annual Adjustment in Assessment (estimated)	3.0%
Inflation (estimated)	3.0%
Investment Earnings (estimated)	4.5%
Frequency of Large-Scale Repair (years)	10
Cost of Large-Scale Repair (current \$)	\$750,000

**ESTIMATED ANNUAL EXPENSES IN FY 2016/17 DOLLARS**

Administration and Management	\$ 18,000
Additional GHAD Staff, Memberships, Assessment Roll, and Budget	\$ 9,250
Site Monitoring Program	\$ 10,250
Slope Stabilization, Erosion, and Minor Repairs	\$ 20,000
Detention Basin Facility Maintenance	\$ 15,300
Sediment Removal - Concrete Structures	\$ 12,500
Vegetation Control – Open Space	\$ 8,000
Subdrain Maintenance	\$ 500
Trail and Fence Maintenance	\$ 2,436
Open Space Management – Conservation Easement Activities	\$ 15,000
Concrete lined Drainage Ditch Replacement	\$ 20,000
Detention Basin/Water Quality Improvement Replacement	\$ 800
Open Space Storm Drain Replacement	\$ 13,800
Retaining Wall, Fence, and Trail Replacement	\$ 2,690
Major Repair (Annualized)	\$ 75,000
Misc & Contingency (10%)	<u>\$ 14,853</u>
<b>Total</b>	<b><u>\$ 238,379</u></b>