

March 31, 2017

To: Mr. George Burton

Planner

**Town of Paradise Valley** 6401 E Lincoln Drive Paradise Valley, AZ 85253

Re: 6199 N 44<sup>th</sup> Street – Hillside Application – Site Drainage Improvements

Marsoner Residence LDG Project #1608081

### **PROJECT NARRATIVE**

Dear Mr. Burton:

In accordance with the Town of Paradise Valley Hillside Ordinance, we have prepared this submittal package that covers proposed site drainage improvements on the subject property, located at 6199 N 44<sup>th</sup> Street, Paradise Valley, AZ 85253, parcel 169-20-115, being a portion of the SW ¼ of Section 7, Township 2 North, Range 4 East of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.

The property is surrounded by streets on its north, east and west sides and large residential lot on the south side.

There is an existing 10,153 s.f. single family residence constructed in 2004-2005. Original survey and civil plans prepared in 2003 by Land Survey Services, PLLC and Gannet Fleming, Inc are enclosed in this submittal. Based on our review of these plans and the historic aerial topography maps, there are no washes that existed on this property. The lot is covered with native vegetation. The existing terrain slopes northeasterly with an average slope of 15%, which is similar to the slopes, prior to the construction of the house. No offsite flows enter the subject property. Ultimate outfall of the site is located at the northeasterly property corner at an elevation of 1348.25. The original Grading and Drainage plan that was approved by the Town of Paradise Valley proposed the sheet flows to be routed around the house perimeter via swales and piping. Riprap at each point of pipe discharge and in a portion of the swales was specified as well. As seen on the historic aerial photos, the amount of erosion control that was installed on site was

The owner of the property hired a licensed landscape contractor to address the existing erosion issues on site and to mitigate the drainage impact to the Town's right-of-way and neighboring properties downstream by placing riprap rock and creating artificial swales. Unfortunately, the work that was done in 2015 was with no engineering or permitting through the Town.

not sufficient to address the site generated runoff. During storms, great amounts of silt and debris washed out from

the site onto the public streets, near the intersection of Valley Vista Lane and 44<sup>th</sup> Place.

As of now the Owner was presented with two choices - to either put back everything as it is shown on the original plans or to permit all work that was completed. Our firm was retained to evaluate these options and after thorough review of the existing and historic site conditions, we believe that certain site drainage improvements, as shown on our plans, would benefit not only the subject property but the Town as well. In addition, our plans show some of the disturbed areas to be restored and revegetated to their historic conditions. We presented our plan during a site meeting with Mr. Richard Edwards on October 26<sup>th</sup>, 2016 and the proposed plan as presented herein was found acceptable.

A surface water test conducted on March 15<sup>th</sup>, 2017 by the Town of Paradise Valley Public Works crew. Water was sprayed on the pavement of 44<sup>th</sup> Street, Valley Vista Lane, and 44<sup>th</sup> Place. Water test cannot create conditions similar to 100-year design storm event, however it could clearly identify existing diversions, flow splits and confirm location of the ultimate outfall.

Water test was witnessed by the Town's officials, homeowners of 6199 N 44<sup>th</sup> Street and 4424 E Valley Vista Ln, LDG and Gookin engineers. There were no evident diversions of the historic flows observed. Improvements of 6199 N 44<sup>th</sup> Street property do not have an adverse impact to downstream properties. The runoff ultimately reaches a point west of the driveway entrance of 4424 E Valley Vista Ln. The entire test was video recorded and a disc was provided to Mr. Richard Edwards.

### **Drainage Narrative**

Site is located in FEMA Flood Zone "X" according to Flood Insurance Rate Map (FIRM) #: 04013C, Panel 1765 of 4425, Suffix L, dated October 16th, 2013, as published by FEMA. The FIRM Panel defines Zone "X" as follows: "Areas determined to be outside the 0.2% annual chance floodplain".

At each point of discharge, rock outlet structures are proposed as energy dissipaters. Rock outlet structures will be installed with harvested from the site large boulders for erosion protection and to minimize the visual impact of the pipe opening. Existing excessive riprap that currently sits above the adjacent grade will be removed from the site. Riprap that will remain on site will be set in colored concrete to blend in with the surrounding native desert colors typical for the subject site. Historic drainage patterns and magnitudes are restored and preserved.

On-site retention with 50% reduction coefficient as directed by the Town Engineer is provided near the site outfall. This retention basin will attenuate the flows that currently leave the property and will keep the silt on site instead of depositing onto the street right-of-way.

In conclusion, the project site has the potential to collect, convey and discharge runoff safely and effectively. The proposed improvements reduce the drainage impact to the neighboring lots downstream and will not result in changes to the existing and historic drainage patterns or magnitudes.

Respectfully Submitted,



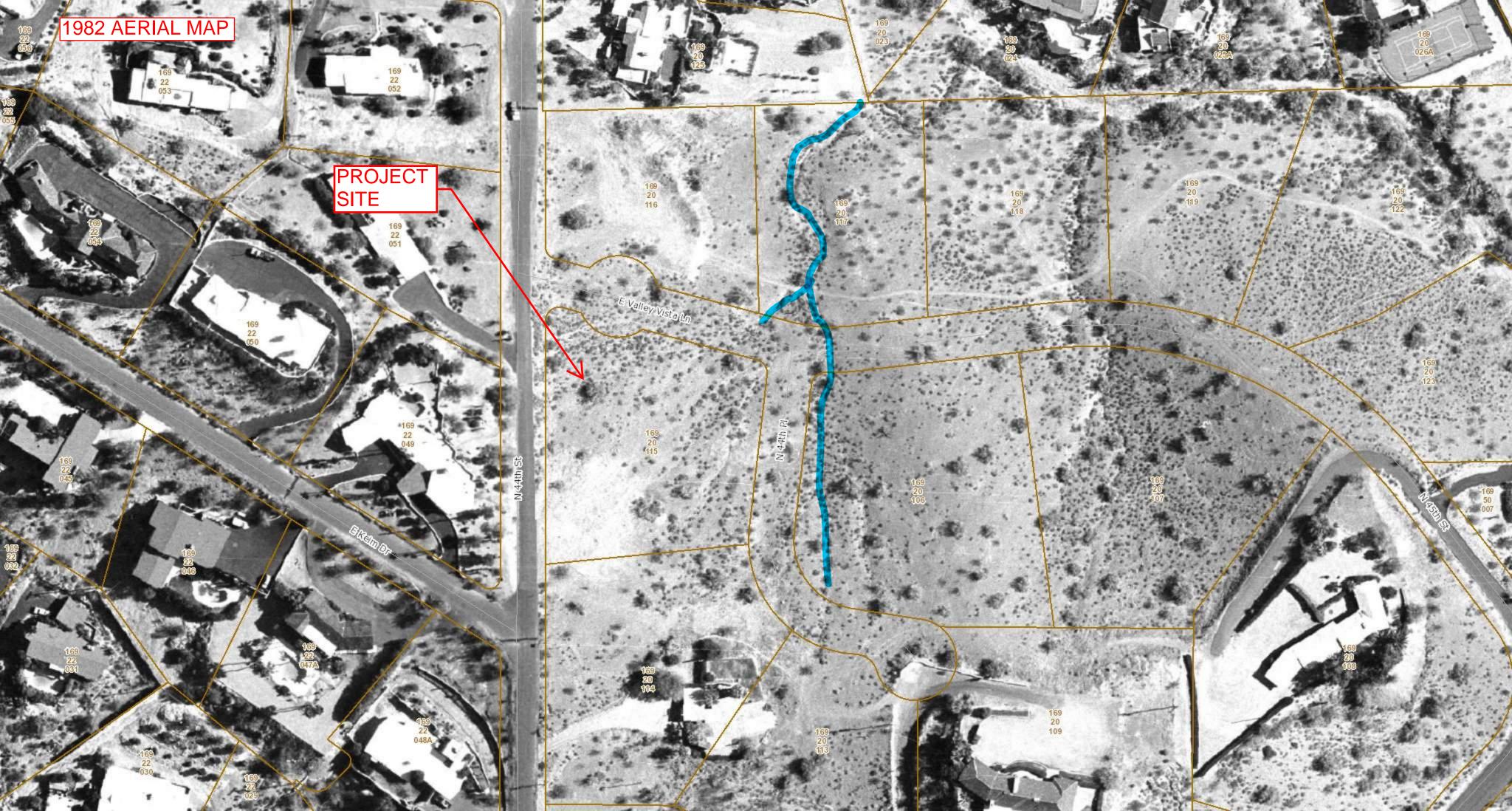
Nick Prodanov, PE, PMP EXPIRES 06/30/2019 Principal

Land Development Group, LLC

#### **Enclosures:**

- Maps and Photos Exhibits
- Topographic Survey
- Grading and Drainage Plan
- Previously Approved Civil Plans
- Aerial Map with Proposed Improvements







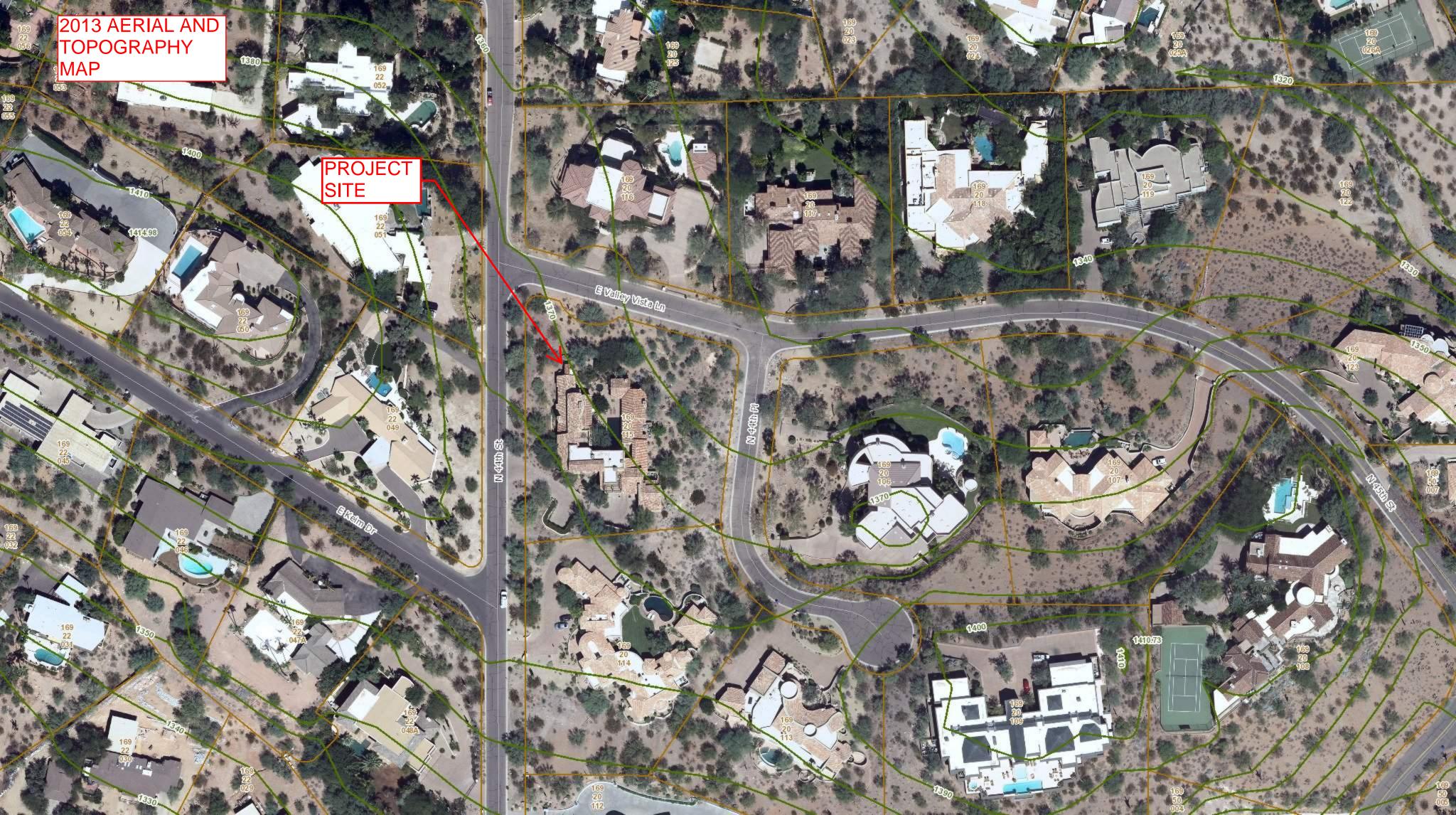
















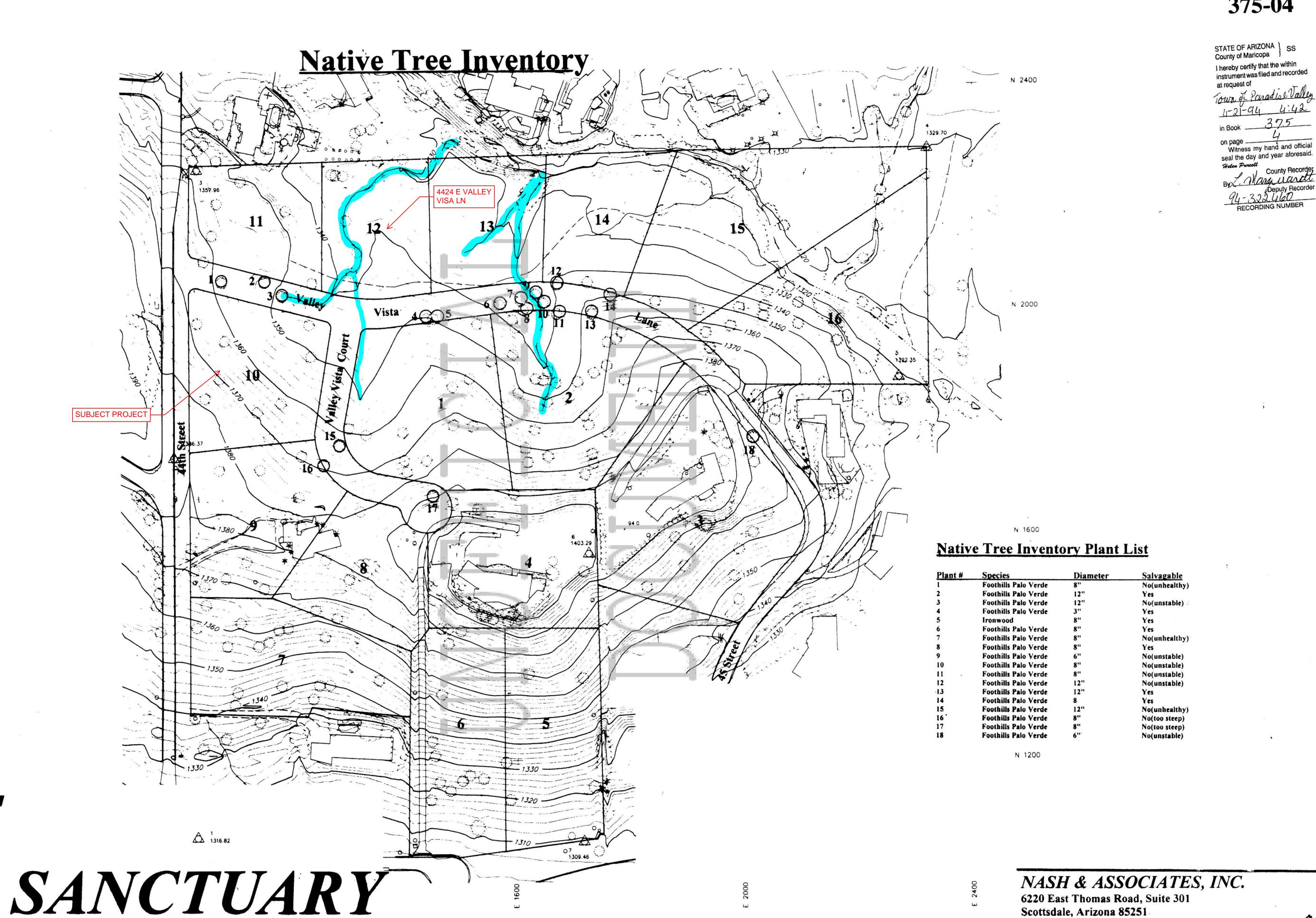


# 2006 Aerial NE



# 2014 Aerial NE





THE

APPROXIMATELY

30 ACRES

KENNEY AERIAL

(602) 949-0344 Fax (602) 949-9823

Date: 2/27/95 Drawn By: Checked By: N

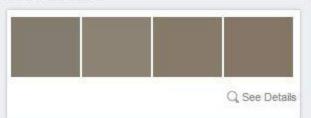
Revisions: 10/20/75 11/13/75 1/21/14 Job No. FDC - 395



#### GOES GREAT WITH



### SIMILAR COLOURS



## MORE SHADES



# porcini

CSP-195

Earthy and robust, the little Italian mushrooms were the perfect complement to our farewell dinner in Tuscany.

LRV: 19.9 ?

