AGRICULTURAL RESOURCES

LOCAL AGRICULTURAL RESOURCES ASSESSMENT
(LARA) MODEL RESULTS

for

ALISO CANYON TM
SAN DIEGO COUNTY, CALIFORNIA
Project Numbers PDS2014-TM-5589; PDS2014-ER-14-08-011

Date
September 17, 2014

Prepared by:
Michael Johnson, County Agricultural Resources Specialist
County of San Diego
Planning & Development Services
5510 Overland Drive
San Diego, CA 92123-1666

1.0 EXECUTIVE SUMMARY

The project is an eight-lot subdivision on 30.2 acres of land located to the south and west of Aliso Canyon Rd., at the intersection of Pacifica Ranch Dr. and Aliso Canyon Rd., within the San Dieguito Community Plan. Access is proposed from Pacifica Ranch Dr. to an internal Street "A." The project would be served by sewer provided by the Rancho Santa Fe Community Services District and water would be provided by the Olivenhain Municipal Water District. Proposed parcel sizes range from 2.0 to 8.8 acres gross.

Based on the results of the Local Agricultural Resources Assessment (LARA) Model, the site is considered an important agricultural resource. The site received a high rating for climate, water, slope and surrounding land use. In addition, the site received a moderate score for soil quality and land use consistency. This combination of ratings indicates that the project site falls within the LARA Model's Scenario Two and is an important agricultural resource. The results of each LARA Model factor rating that contribute to this determination are detailed below.

2.0 LOCAL AGRICULTURAL RESOURCE ASSESSMENT (LARA) MODEL

In determining whether impacts to agricultural resources are significant environmental effects, the CEQA Guidelines references the California Agricultural LESA Model (1997) prepared by the California Department of Conservation (DOC), as an optional methodology that may be used to assess the relative value of agriculture and farmland. In the past, the LESA Model has been applied to various agricultural properties throughout the County of San Diego to assess agricultural importance in association with proposed discretionary land use permits. After several years of practical experience with application of the LESA Model in San Diego County, the inadequacy of the model in capturing the unique and varied character of San Diego agriculture has become apparent. An alternative approach, referred to as the Local Agricultural Resource Assessment (LARA) Model has been developed to assess the relative value of agricultural resources in San Diego County. Specific documentation of the LARA Model can be found in the Guidelines for Determining Significance for Agricultural Resources at http://www.sdcounty.ca.gov/pds/procguid.html#Agricultural Resources (Guidelines).

The LARA Model takes into account the following factors in determining the importance of an agricultural resource:

Required Factors:
- Water
- Climate
- Soil Quality

Complementary Factors:
- Surrounding Land Uses
- Land Use Consistency
- Topography

The following subsections detail the rating assigned to the project site for each of the above factors.

2.1 Water

The water rating is primarily based the site's County Water Authority (CWA) service status; however, if the project does not already have imported water service, the underlying groundwater aquifer type and the presence of a groundwater well is also considered (Table 1).

The project site is located within the CWA boundaries and is served by the Olivenhain Municipal Water District. There is an existing water meter on site which serves the existing agricultural operation and the existing single-family dwelling. The groundwater aquifer type is located on fractured crystalline rock. Based on these parameters, the property scores high for Water Resources.

Table 1. Water Rating [1]

County Water Authority (CWA) Service Status	Groundwater Aquifer Type and Well Presence	Rating
Inside CWA service area with existing water infrastructure connections and a meter	**Any groundwater aquifer type**	**High**
Inside CWA service area with infrastructure connections to the site, but no meter has been installed	The site is located in an Alluvial or Sedimentary Aquifer *and* has an existing well	High
	The site is located in an Alluvial or Sedimentary Aquifer, but has no existing well	Moderate
	The site is located on Fractured Crystalline Rock and has an existing well	Moderate
	The site is located on Fractured Crystalline Rock, but has no existing well	Low
Outside CWA or inside CWA but infrastructure connections are not available at the site and no meter is installed	The site is located in an Alluvial or Sedimentary Aquifer *and* has an existing well	Moderate
	The site is located in an Alluvial or Sedimentary Aquifer, but has no existing well	Low
	The site is located on Fractured Crystalline Rock (with or without a well)	Low
	The site is located in a Desert Basin (with or without a well)	Low

[1] If more than one underlying groundwater aquifer type exists at a site, usually the aquifer type that could produce the most water should be used to obtain the water rating. If it would be more reasonable to apply the rating based on the aquifer that would produce less water, a clear justification and reason for doing so must be provided.

2.2 Climate

Sunset Zones are used as a standard measure of climate suitability due to the variability of microclimate conditions that the Sunset Zones take into account. Recognizing that the Sunset Zones were not developed as a tool to determine the suitability for commercial agricultural production, their use is not intended to determine suitability for specific crops, rather they are a measure of overall climate suitability for the typical agricultural commodities produced in San Diego County. The project site is located within Sunset Zone 23, which has a rating of high.

Climate (Sunset Zone) Description	Rating
Zone 23 represents thermal belts of the Coastal Areaclimate and is one of the most favorable for growing subtropical plants and most favorable for growing avocados. Zone 23 occurs in coastal incorporated cities and also occurs in the unincorporated communities of Fallbrook, Rainbow, Bonsall, San Dieguito, Lakeside, western portions of Crest and Valle De Oro, Spring Valley, Otay, and western portion of Jamul-Dulzura.	**High**

2.3 Soil Quality

The project's soil quality rating is based on the presence of soils that meet the quality criteria for Prime Farmland or Farmland of Statewide Importance as defined by the Farmland Mapping and Monitoring Program (FMMP) that are available for agricultural use and that have been previously used for agriculture.

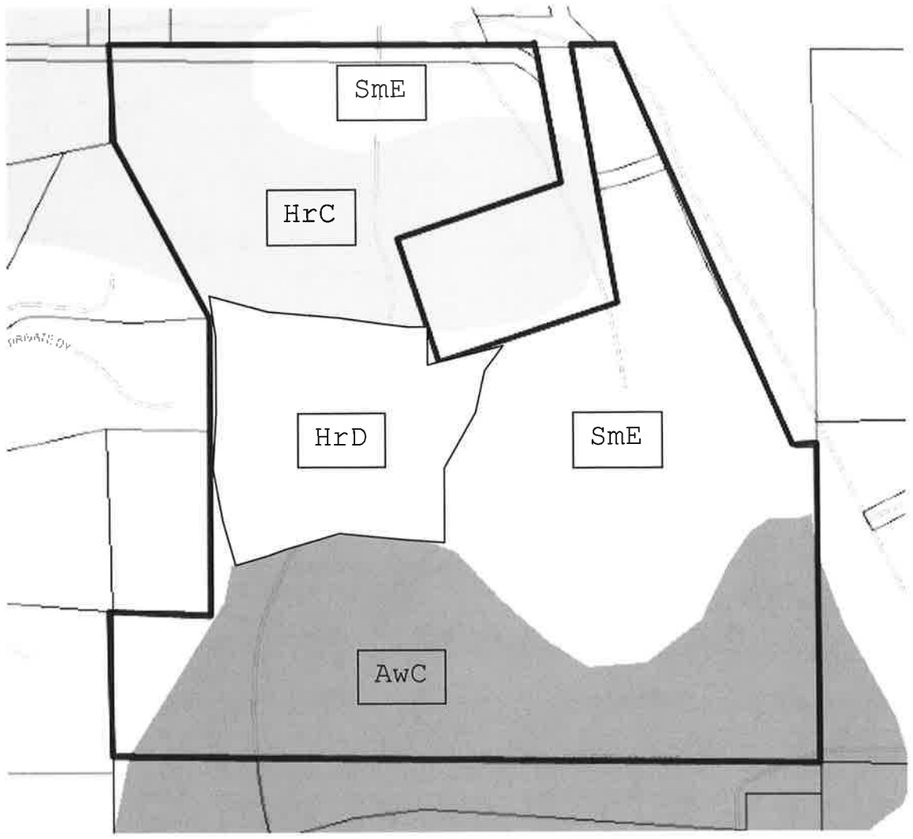
The project is underlain by four soil types, two of which meet the soil quality criteria for Prime Farmland or Farmland of Statewide Importance (See Figure 1). The northern portion of the property contains Huerhuero loam 2 to 9 percent slopes, which is a Farmland of Statewide Importance Soil. The southern portion of the property contains Auld clay 5 to 9 percent slopes, which is a Prime Farmland Soil. Several of the areas that meet the criteria for Prime Farmland Soils and Farmland of Statewide Importance Soils are unavailable for agriculture due to presence of existing structures and Pacifica Ranch Drive.

Fifty percent of the site meets the criteria for Prime Farmland Soils and Farmland of Statewide Importance Soils. Therefore, the project's soil quality rating is 0.50, as detailed in Table 2, Soil Quality Matrix. The project receives a moderate rating for soil quality based on this score.

Additionally, approximately 7.5 acres of the area which contains Auld clay 5 to 9 percent slopes has either in the past or is currently used for agricultural production, consisting mostly of a nursery, and is therefore considered an agricultural resource (see Figure 2). The remaining portions of the site with soil that meets the soil quality criteria for Prime Farmland or Farmland of Statewide Importance has not been used for agriculture in the

past and therefore does not meet the definition of an Agricultural Resource as defined by Guidelines.

Figure 1. Soil Types



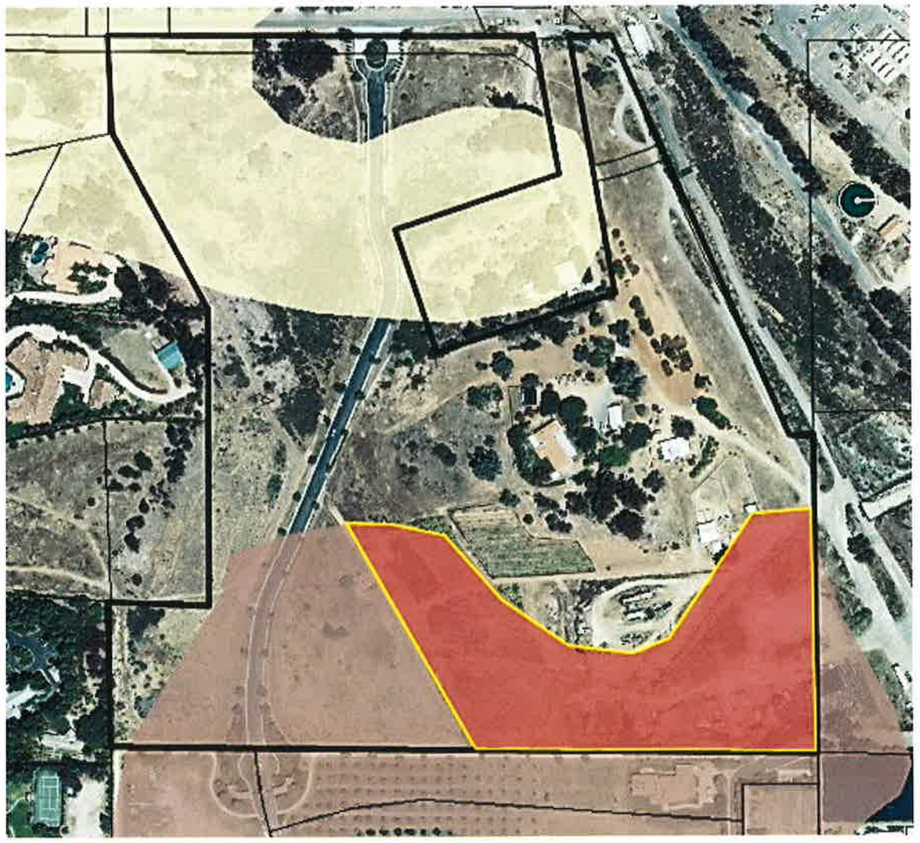
HrC: Huerhuero loam 2 to 9 percent slopes

HrD: Huerhuero loam, 9 to 15 percent slopes

AwC: Auld clay 5 to 9 percent slopes

SmE: San Miguel rocky silt loam, 9 to 30 percent slopes

Figure 2. Area Used For Agriculture with Prime Soils



= Area used for agriculture which contains Auld clay 5 to 9 percent slopes

Table 2. Soil Quality Matrix

	Column A	Column B	Column C	Column D	Column E	Column F	Column G
	Soil Type	Size of project site (acreage)	Unavailable for agricultural use	Available for agricultural use	Proportion of project site	Is soil candidate for prime farmland or farmland of statewide significance? (Yes = 1, No = 0)	Multiply Column E x Column F
Row 1	Huerhuero loam 2 to 9 percent slopes (HrC)	5.9	0.6	5.3	0.19	1	0.19
Row 2	Huerhuero loam 9 to 15 percent slope	4.6	0.5	4.1	0.15	0	0
Row 3	San Miguel Rocky Loam 9 to 30 percent slope (SmE)	10.5	0.6	9.9	.35	0	0
Row 4	Auld clay 5 to 9 percent slopes (AwC)	9.2	0.6	8.6	0.31	1	0.31
Row 7	Total	30.2	Total	27.9			
Row 8						***Soil Quality Matrix Score***	**0.5**

Table 3. Soil Quality Matrix Interpretation

Soil Quality Matrix Score	Soil Quality Rating
The site has a Soil Quality Matrix score ranging from 0.66 to 1.0 and has a minimum of 10 acres of contiguous Prime Farmland or Statewide Importance Soils	High
The site has a Soil Quality Matrix score ranging from 0.33 to 0.66 or the site has a minimum of 10 acres of contiguous Prime Farmland or Statewide Importance Soils	**Moderate**
The site has a Soil Quality Matrix score less than 0.33 and does not have 10 acres or more of contiguous Prime Farmland or Statewide Importance Soils	Low

2.4 Surrounding Land Use

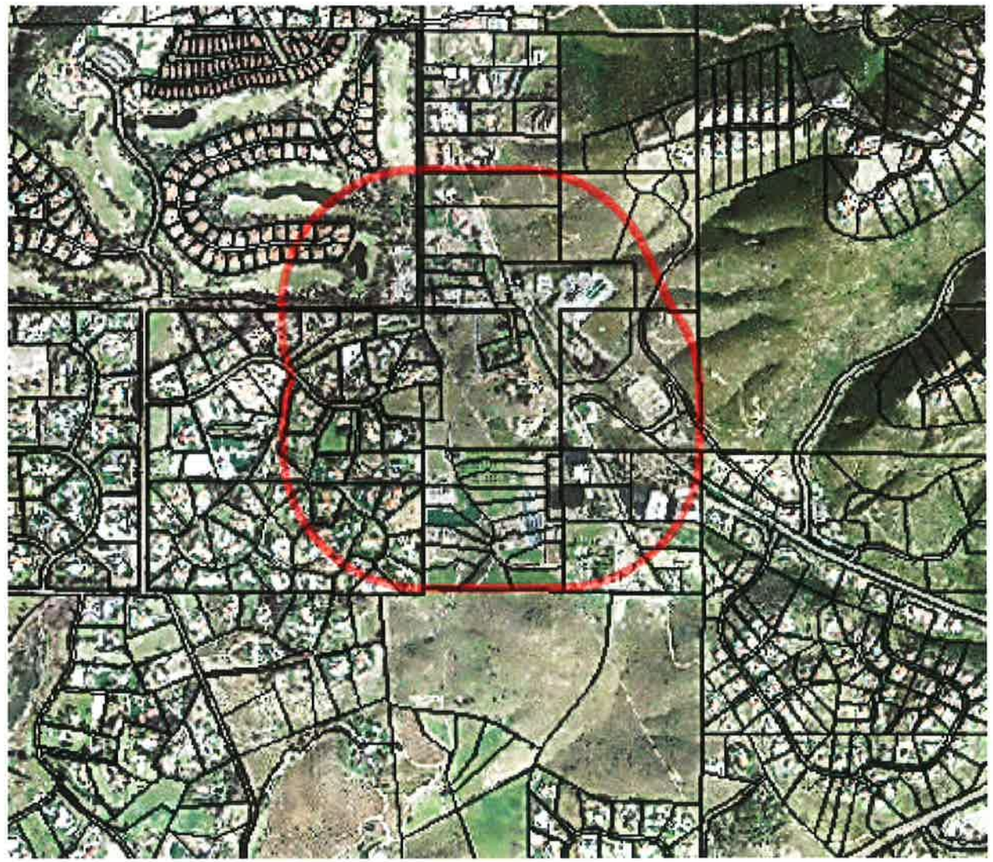
Surrounding land use is a factor in determining the importance of an agricultural resource because surrounding land uses that are compatible with agriculture make a site more attractive for agricultural use due to lower expectations of nuisance issues and other potential impacts from non-farm neighbors. This factor also accounts for the degree to which an area is primarily agricultural, assigning a higher rating to areas dominated by agricultural uses than an area dominated by higher density, urban development.

Figure 3 identifies the ¼ mile area surrounding the project site that defines the project's Zone of Influence (ZOI), which is 444.4 acres in size and comprised mostly of undeveloped land, single-family residential uses on parcels over 2 acres in size, and agricultural uses. Based on a review of the land uses within the ZOI, 431.9 acres of the ZOI is compatible with agricultural use and the site receives a high rating for surrounding land use. Many of the parcels that were considered compatible with agricultural uses, especially to the west of the project, are over two acres in size and contain both a single family residence and agricultural uses. As described on footnote 10 on page 33 of the Guidelines, these parcels are considered compatible with agricultural uses.

Table 4. Surrounding Land Use Rating

Percentage of Land within ZOI that is Compatible with Agriculture	Surrounding Land Use Rating
50% or greater	**High**
Greater than 25% but less than 50%	Moderate
25% or less	Low

Figure 3. Project Zone of Influence



2.5 Land Use Consistency

The median parcel size associated with the project site compared to the median parcel size of parcels located within the ZOI is a complementary factor used in the LARA model.

The ZOI is made up of 91 parcels ranging in size from less than 0.5 acre to 109.8 acres. The median parcel size among parcels in the ZOI is 2.5 acres and the median parcel size of the proposed project is 2.8 acres. Therefore, since the project's median parcel size is larger than the median parcel size within the project's ZOI by up to ten acres, the project receives a moderate land use consistency rating.

Table 5. Land Use Consistency Rating

Project's median parcel size compared to ZOI median parcel size	Land Use Consistency Rating
The project's median parcel size is smaller than the median parcel size within the project's ZOI	High
The project's median parcel size is up to ten acres larger than the median parcel size within the project's ZOI	**Moderate**
The project's median parcel size is larger than the median parcel size within the project's ZOI by ten acres or more	Low

2.6 Slope

The Slope Rating for the site is based on the average slope for the area of the site that is available for agricultural use, as identified in the Soil Quality Rating Matrix. Approximately 23.03 acres are in the 0-15% slope range; 5.58 acres are in the 15-25% slope range; and 2.31 acres are above 25% slope. Therefore, the average slope for the site falls in the less than 15% slope category, resulting in a high rating for slope.

Table 6. Slope Rating

Average Slope	Topography Rating
Less than 15% slope	**High**
15% up to 25% slope	Moderate
25% slope and higher	Low

3.0 LARA MODEL RESULTS

The ratings for each LARA model factor for the project site are as follows:

Required Factors	Complementary Factors
Water = High	Surrounding land use = High
Climate = High	Land use consistency rating = Moderate
Soil Quality = Moderate	Slope = High

Table 7. Interpretation of LARA Model Results

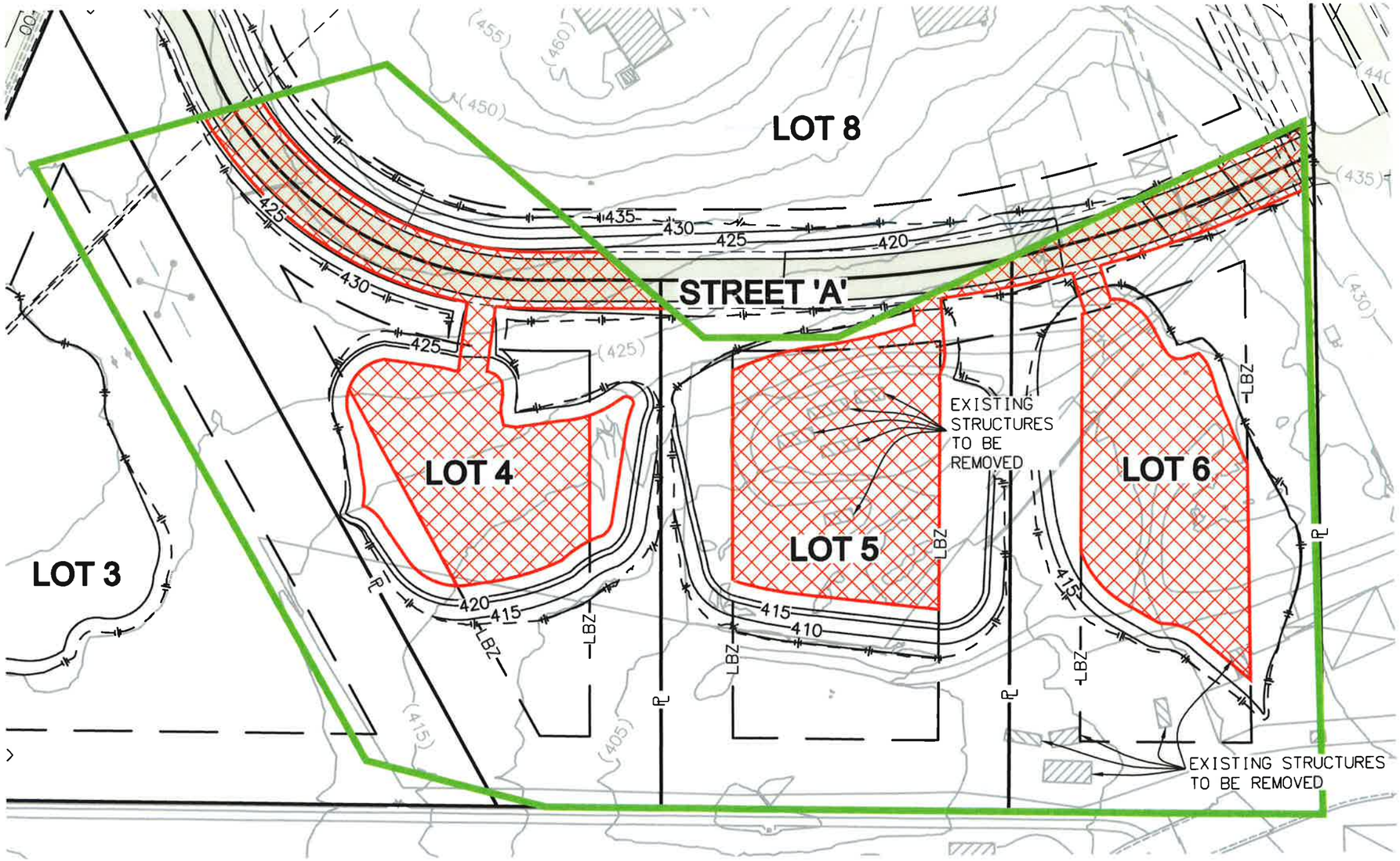
LARA Model Results			LARA Model Interpretation
Possible Scenarios	**Required Factors**	**Complementary Factors**	
Scenario 1	All three factors rated high	At least one factor rated high or moderate	The site is an important agricultural resource
Scenario 2	**Two factors rated high, one factor rated moderate**	**At least two factors rated high or moderate**	
Scenario 3	One factor rated high, two factors rated moderate	At least two factors rated high	
Scenario 4	All factors rated moderate	All factors rated high	
Scenario 5	At least one factor rated low importance	N/A	The site is *not* an important agricultural resource
Scenario 6	All other model results		

Based on the site conditions, the project's LARA Model rating falls within Scenario 2, indicating that the site is an important agricultural resource. As shown on the Agricultural Resources Impacts Exhibit, attached hereto, the project will impact approximately 2.06 acres of the 7.5 acres which contains Auld clay 5 to 9 percent slopes, a soil which meets the soil criteria for Prime Farmland Soils, and has been used for agriculture in the past (the agricultural resource).

Page 34 of the County of San Diego Guidelines for Determining Significance for Agricultural Resources states that many typical San Diego County farming operations are compatible with rural residential land uses as is evidenced by the existing viability of agricultural operations that are located among rural residential land uses. Many parcels that are two acres with a single family residence and a small orchard or other farming or equestrian uses are common within the County.

Since the project preserves 5.44 acres of the 7.5 acres of Agricultural Resource on site, the project complies with the required 1:1 minimum agricultural preservation ratio. Page 46 of the Guidelines states that where agricultural resource preservation is proposed on residential parcels larger than two acres, the need to apply a limited building zone will

be considered, but is not usually anticipated to be required. An agricultural limited building zone easement is not required because the parcels will be over 2-acres in size; the project design leaves at least half of the parcels within the agricultural resource area available for agriculture; and surrounding parcels of a similar size contain agricultural uses on lots which contain single-family residences.



AGRICULTURAL RESOURCE AREA- 326,711 S.F.= 7.50 AC

IMPACTED AREA- 89,700 S.F.= 2.06 AC= 27%

—LBZ— LIMITED BUILDING ZONE (50' FROM PROPERTY LINE)

ALISO CANYON SUBDIVISION
AGRICULTURAL RESOURCE IMPACTS

SDC PDS RCVD 08-19-14
TM5589

RBF CONSULTING
A Baker Company
5050 AVENIDA ENCINAS, SUITE 260
CARLSBAD, CALIFORNIA 92008-4386
760.476.9193 ▪ FAX 760.476.9198 ▪ www.RBF.com

H:\PDATA\137718_Aliso Canyon\CADD\Land\Exhibits\137718-AG_LBZ AREA EXHIBIT.dwg 08/18/14 - 12:53pm DWIENER