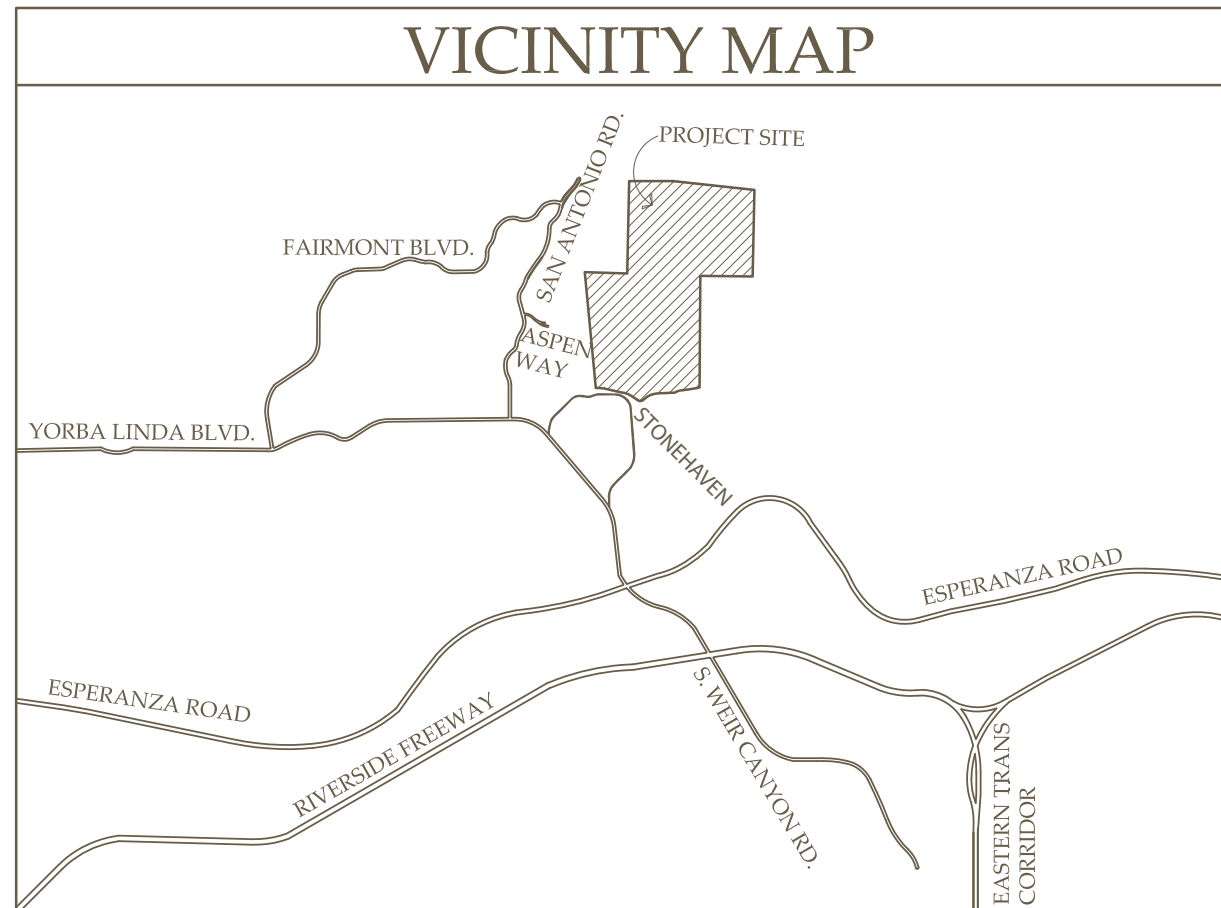
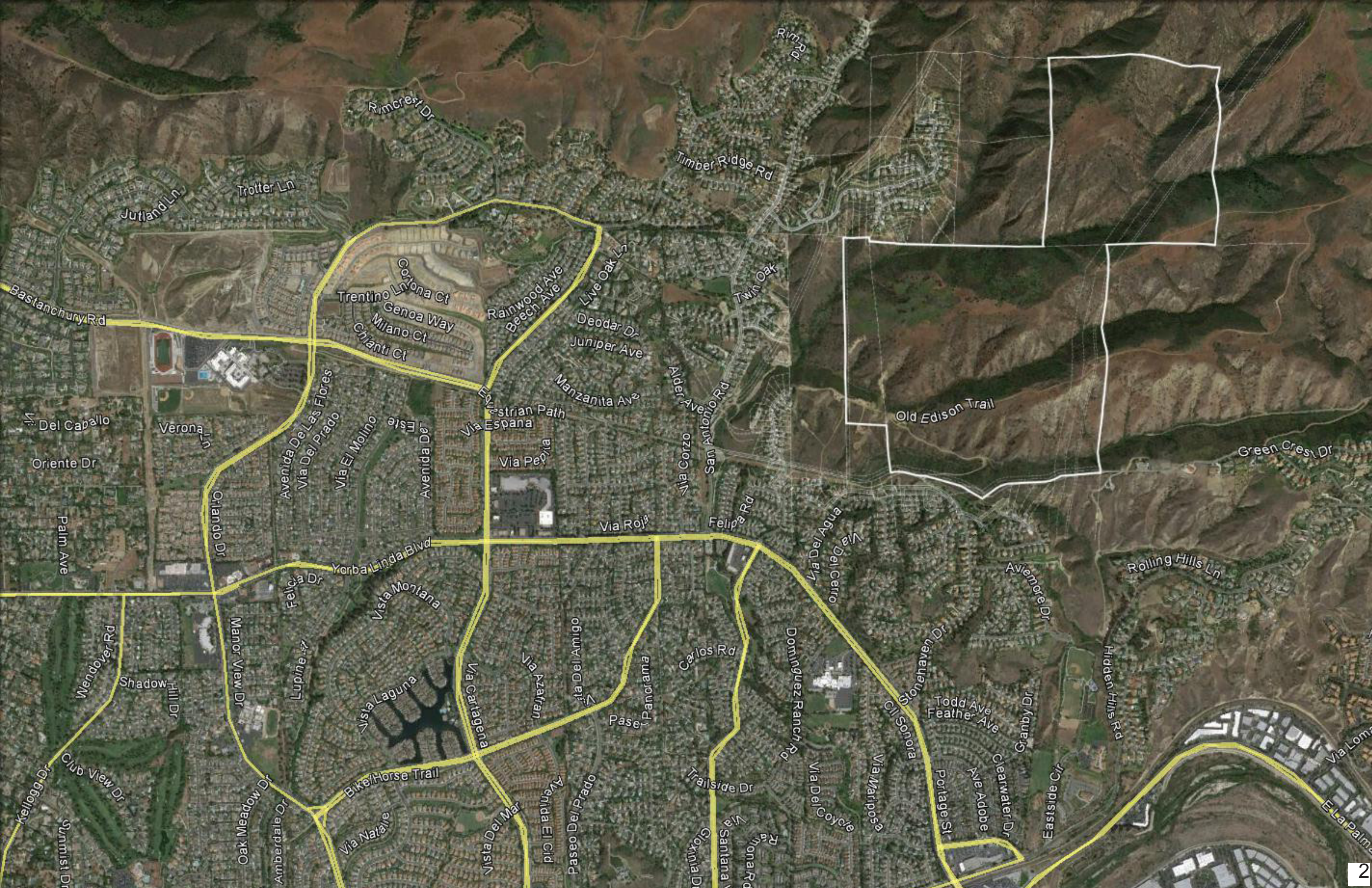


# Esperanza Hills









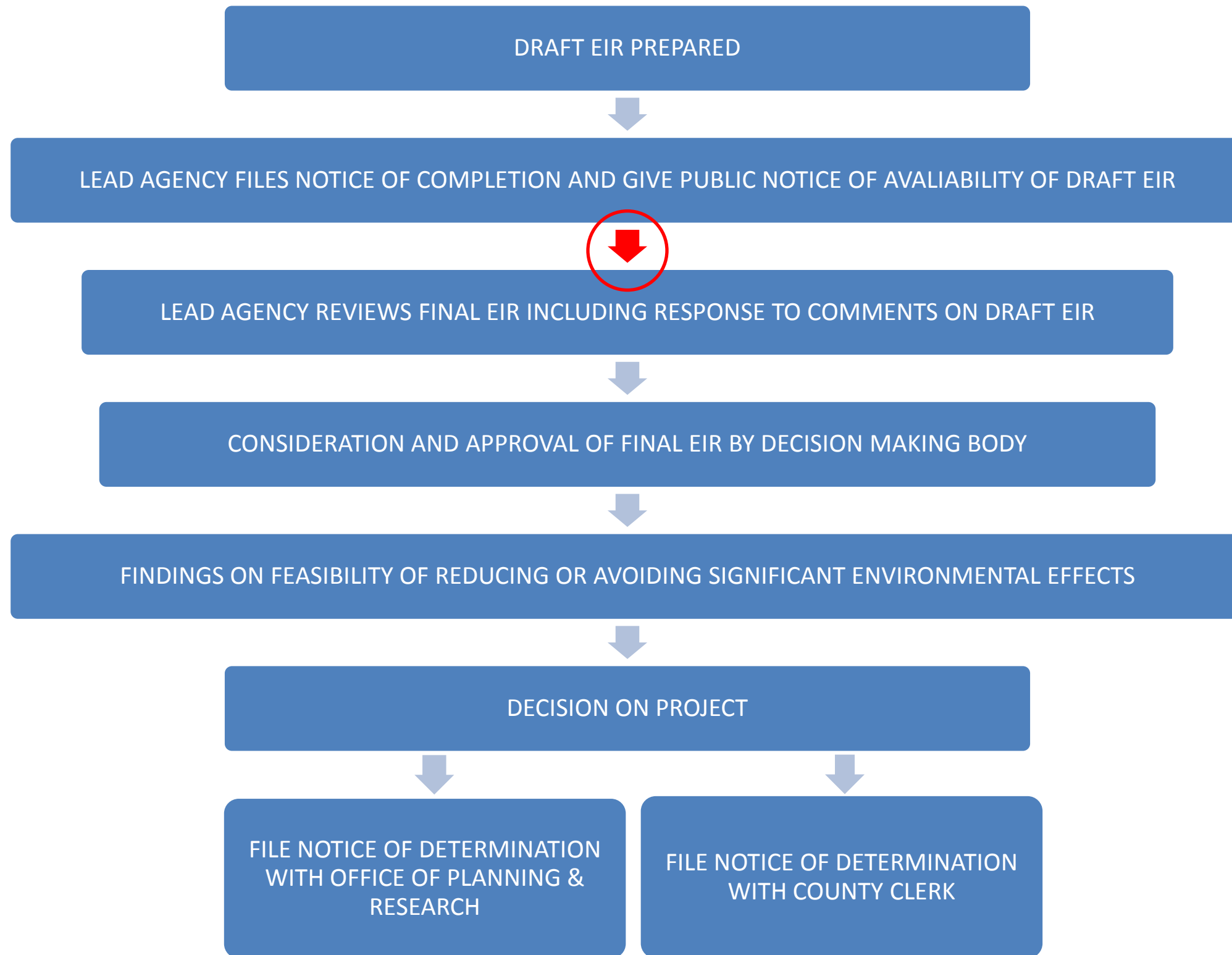
# Meeting Goals

- Provide an Overview of where the Esperanza Hills project is in the CEQA Process
- Describe the Freeway Fire After Action Reports Authored by Various Agencies and Steps Taken by Public Agencies As a Result of Those Reports
- Describe the Fire Safety Considerations Incorporated into the Design of the Esperanza Hills Project
- Describe the Traffic Control Evacuation Plan Initiated by the OCSD, How it Affects this Neighborhood, and How This Project Fits Into that Plan
- Describe the Traffic Capacities of San Antonio, Stonehaven, Via De Agua and How This Project Will Affect Traffic on Those Streets
- Provide Answers To Other Frequently Asked Questions – Water Storage, Density, Geotechnical Considerations, Trails, Parks, Access
- Provide an Opportunity for the Public to Ask Questions from Esperanza Hills and its Technical Experts
- Record Questions and Comments So They Can Be Forwarded to County as EIR Comments



# CEQA Process

## (California Environmental Quality Act)





# Steps Taken to Design the Project for Fire Safety

- Reviewed After Incident Reports:
  - City of Brea
  - OCFA Report and Presentations
  - Yorba Linda Water District
- Attended Meetings With:
  - OCFA both on and off site
  - City of Yorba Linda
  - YLWD
  - Chino Hills State Park
  - OCSD both on site and off site
- Reviewed Fire History Study from Hills for Everyone
- Retained Dudek Urban Forestry and Fire Protection Planning to Provide Advice and Prepare Report
- Attended Public Presentation On Lessons Learned From Freeway Fire
- Talked to Neighbors, Firefighters, the Sheriffs, and Others Who Experienced the Fire



# What We Learned About the Freeway Fire

- Yorba Linda had no emergency traffic evacuation plan in effect at the time
- Brea Police Department was unable to get control of the major intersections
- Traffic conditions were aggravated by the closures of the 91 and 57 freeways
- Traffic conditions were further aggravated by people coming into the wildland interface areas to view the fire.
- Alert OC, the reverse 911 notification system, was not in effect in Yorba Linda
- The evacuation orders were not well organized or communicated and not well followed until the fire actually reached YL neighborhoods and homes were already burning
- This was the first fire to hit this area since the Owl Fire in 1980, so there was plenty of fuel.
- A water booster pump failed, interrupting water supply for fire fighting to this area
- The majority of houses burned or damaged were damaged as a result of ember fires, not direct radiant heat and most of the houses burned were built prior to 1995
- The Casino Ridge subdivision, built after 2004 to the new construction standards for “hardened” homes, lost no homes and no hardened homes in the Yorba Linda area were lost



# Steps Taken By Agencies Since the Freeway Fire

- The Yorba Linda City Council Adopted Alert OC and required its residential construction standards for homes to be repaired and new homes to be built to higher fire prevention standards
- OCFA Completed After Action Reports (AAR) in 2008 and a presentation in 2009 that contained multiple recommendations and enacted several operational changes including early alert and coordination with other agencies for large wildfires
- The State Fire Marshall developed standards for “ignition resistant” buildings (hardened homes) that were adopted by the California Building Standards Commission for VHFHSZ (Very High Fire Hazard Severity Zones)
- YLWD completed the Hidden Hills Reservoir, made numerous operational changes and in March 2013 adopted the Northeast Area Planning Study to enhance its system and provide for water storage for the developments in this area
- OCSD Designed a Traffic Control Emergency Evacuation Plan for Yorba Linda in 2013
- OCFA adopted the “Ready Set Go” program for neighborhood emergency evacuations





# 2008 Freeway Complex Fire AAR

## LESSONS LEARNED

- Ember Intrusion
- Water Supply Challenges
- EOC Coordination
- Mass Notifications
- Repopulation of Residents
- Radio Communications





# 2008 Freeway Complex Fire AAR

## MITIGATION / PREPARATION

Permanent measures that can be put into place over time to better prepare communities against wildfire

Defensible Space

Construction Features





# FIRE PREVENTION MEASURES

- **Defensible Space**
- **Non-combustible Construction**
- **Fuel Modifications**



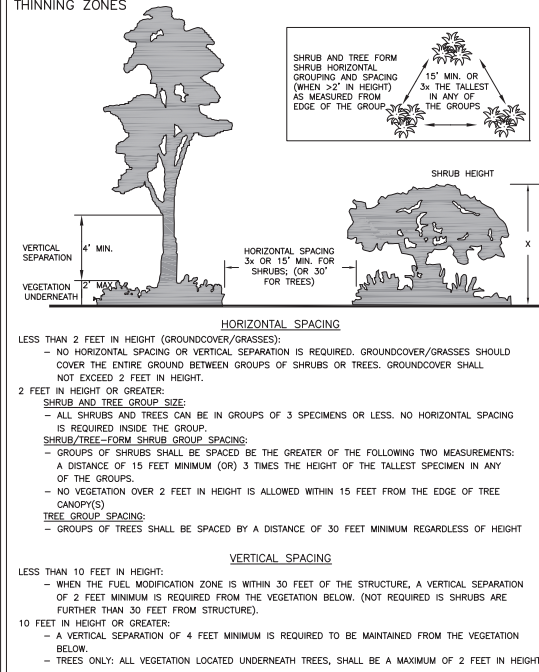


# Blue Mud Canyon





# ATTACHMENT 6: TREE AND TREE-FRPM SHRUB PRUNING AND THINNING ZONES



# ATTACHMENT 7: UNDESIRABLE PLANT SPECIES

(TARGET SPECIES)  
CERTAIN PLANTS ARE CONSIDERED TO BE UNDESIRABLE IN THE LANDSCAPE DUE TO CHARACTERISTICS THAT MAKE THEM HIGHLY FLAMMABLE. THESE CHARACTERISTICS CAN BE EITHER PHYSICAL OR CHEMICAL. PHYSICAL PROPERTIES THAT WOULD CONTRIBUTE TO HIGH FLAMMABILITY INCLUDE LARGE AMOUNTS OF DEAD MATERIAL, RETAINED WITHIN THE PLANT, ROUGH OR PEELING BARK, AND THE PRODUCTION OF COPIOUS AMOUNTS OF LITTER. CHEMICAL PROPERTIES INCLUDE THE PRESENCE OF VOLATILE SUBSTANCES SUCH AS OILS, RESINS, WAX, AND PITCH. CERTAIN NATIVE PLANTS ARE NOTORIOUS FOR CONTAINING THESE VOLATILE SUBSTANCES.

PLANTS WITH THESE CHARACTERISTICS SHALL NOT BE PLANTED IN ANY OF THE FUEL MODIFICATION ZONES. THEY SHOULD BE REMOVED BECAUSE OF THE POTENTIAL THREAT THEY POSE TO ANY STRUCTURES. THEY ARE REFERRED TO AS TARGET SPECIES SINCE THEIR COMPLETE REMOVAL IS A CRITICAL PART OF HAZARD REDUCTION. THESE FIRE-PRONE PLANT SPECIES INCLUDE (BUT NOT LIMITED TO):

BOTANICAL NAME	COMMON NAME
CYNARA CARDUNCULUS	ARTICHOKE
RICINUS COMMUNIS	CASTOR BEAN PLANT
CRISUM VULGARE	WILD ARTICHOKE
BRASSICA INGRA	BLACK MUSTARD
SILYBUM MARIANUM	MILK THISTLE
SACCOLA AUSTRALIS	RUSSIAN THISTLE/TUMBLEWOOD
NICOTIANA BIGELEVIL	INDIAN TOBACCO
NICOTIANA GLAUCA	TREE TOBACCO
LACTUCA SERIOLA	PROXIMO LETTUCE
CONYZA CANADENSIS	HORSWEEED
HETEROTHACA GRANDIFLORA	TELEGRAPH PLANT
ANTHEMIS COTULA	MAYWEED
URTICA URENS	BURNING NETTLE
CARDARIA DRABA	NIGHT CRESS, PEPPERGRASS
BRASSICA RAPA	WILD TURNIP, YELLOW MUSTARD
ADENOSTOMA FASCICULATUM	CHAMISE
ADENOSTOMA SPARSIFOLIUM	RED SHANKS
CORTADERIA SELLOANA	PAMPAS GRASS
ARTEMISIA CALIFORNICA	CALIFORNIA SAGE BRUSH
ERIODNIUM FASCICULATUM	COMMON BLACKWHEAT
SALVA MELIFERA	BLACK SAGE

**ORNAMENTALS**

CORTADERIA	PAMPAS GRASS
CUPRESSUS SP.	CYPRESS
EUCALYPTUS SP.	EUCALYPTUS
JUNIPERUS SP.	JUNIPER
PINE	PINE

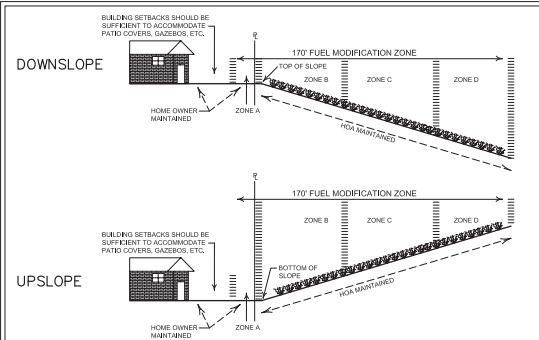
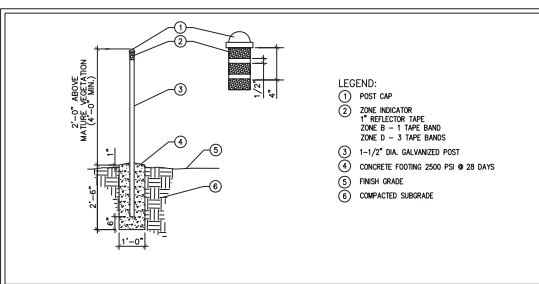
# ATTACHMENT 8: PLANTING PALLETTE FOR FUEL MODIFICATION ZONE B

ZONE B SHALL BE CLEARED OF ALL UNDESIRABLE PLANT SPECIES, IRRIGATED, AND PLANTED WITH SPECIES LISTED BELOW.

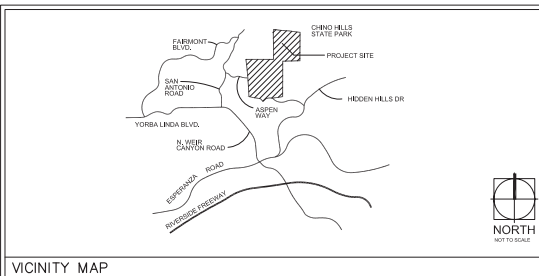
PROPOSED PLANT PALLETTE	COMMON NAME	SPACING
TREE		
ABUTILUS UNEDO	STRAWBERRY TREE	8' o.c.
CERCIS OCCIDENTALIS	WESTERN REDBUD	6' o.c.
PLATANUS RACEMOSA	CALIFORNIA SYCAMORE	5' o.c.
RHUS LANCA	AFRICAN SUMAC	12' o.c.
TECOMA STANS (STENOLOBUM STANS)	YELLOW BELLS	8' o.c.
SHRUBS:		
ABELIA X GRANDIFLORA	GLOSSY ABELIA	8' o.c.
CISTUS X PURPUREUS	ORCHID ROCKROSE	6' o.c.
COTONEASTER BUXTIFOLIUS	(NO COMMON NAME)	5' o.c.
SILVERBERRY	SILVERBERRY	8' o.c.
LANTANA CAMARA CULTIVARS	TEXAS RANGER	6' o.c.
LEUCOPHYLLUM FRUTESCENS	PHOTINIA	12' o.c.
PHYRACANTHA SPECIES	FIRETHORN	8' o.c.
LEMONADE BERRY	LEMONADE BERRY	10' o.c.
ROSMARINUS OFFICINALIS	ROSEMARY	4' o.c.
SALVA GREGGII	AUTUMNS SAGE	5' o.c.
XYLOSMA CONGESTUM	SHINNY XYLOSMA	12' o.c.
GROUNDCOVER/SUCCULENTS/PERENNIALS:		
ARCTOSTAPHYLOS "PACIFIC MIST"	PACIFIC MIST MANZANITA	10' o.c.
BACCHARIS PILLULARIS VAR. PILLULARIS	TWIN PEAKS #2	5' o.c.
COTONEASTER CONGESTUS "LIKIAN"	LIKIAN COTONEASTER	6' o.c.
LONGICERA JAPONICA "HALLIANA"	HALL'S HONEYSUCKLE	4' o.c.
MYOPORIUM PARVIFOLIUM	(NO COMMON NAME)	6' o.c.
TECOMARIA CAPENSIS	CAPE HONEYSUCKLE	5' o.c.
AGAVE ATTENUATA	CENTURY PLANT	6' o.c.
HEPSEALOE	RED YUCCA	4' o.c.

**STATE RESPONSIBILITY AREA, VERY HIGH FIRE HAZARD SEVERITY ZONE (VHFHSZ) NOTE:**  
This County of Orange area has been designated a very high fire hazard severity zone protection area. All development guidelines for a very high fire hazard severity zone protection area (VHFHSZ) pertaining to width of roads, fire sprinkler systems, building construction features, and fuel modification plan submittal shall be met in addition to the OCA fuel modification criteria on this plan.

There is no existing federally protected animal or bird habitat within the fuel modification areas we are proposing. There is no restriction regarding the dates of plant density thinning throughout the year. Maintenance is required in the late spring and early fall of each year. The project Landscape Architect has researched the soil and steepness of the slopes and there are no Geological issues preventing the required maintenance to be performed.



# ATTACHMENT 2: TYPICAL FUEL MODIFICATION ZONES FOR LOTS



# CONCEPTUAL FUEL MODIFICATION PLAN

## ESPERANZA HILLS - OPTION 1

### ORANGE COUNTY, CALIFORNIA

#### ESPERANZA HILLS, LLC

7114 EAST STETSON DRIVE SUITE 350, SCOTTSDALE, AZ 85251

YORBA LINDA LAND, LLC  
APN 326-031-008  
YORBA LINDA LAND, LLC

BRIDAL HILLS LLC PROPERTY  
APN 326-031-007  
BRIDAL HILLS, LLC

SEE EASEMENT FROM BRIDAL HILLS LLC FOR OFFSITE FUEL MODIFICATION

SEE EASEMENT FROM BRIDAL HILLS LLC FOR OFFSITE FUEL MODIFICATION

SEE EASEMENT FROM BRIDAL HILLS LLC FOR OFFSITE FUEL MODIFICATION

SEE EASEMENT FROM BRIDAL HILLS LLC FOR OFFSITE FUEL MODIFICATION

SEE EASEMENT FROM BRIDAL HILLS LLC FOR OFFSITE FUEL MODIFICATION

SEE EASEMENT FROM BRIDAL HILLS LLC FOR OFFSITE FUEL MODIFICATION

SEE EASEMENT FROM BRIDAL HILLS LLC FOR OFFSITE FUEL MODIFICATION

SEE EASEMENT FROM BRIDAL HILLS LLC FOR OFFSITE FUEL MODIFICATION

SEE EASEMENT FROM BRIDAL HILLS LLC FOR OFFSITE FUEL MODIFICATION

SEE EASEMENT FROM BRIDAL HILLS LLC FOR OFFSITE FUEL MODIFICATION

SEE EASEMENT FROM BRIDAL HILLS LLC FOR OFFSITE FUEL MODIFICATION

SEE EASEMENT FROM BRIDAL HILLS LLC FOR OFFSITE FUEL MODIFICATION

SEE EASEMENT FROM BRIDAL HILLS LLC FOR OFFSITE FUEL MODIFICATION

SEE EASEMENT FROM BRIDAL HILLS LLC FOR OFFSITE FUEL MODIFICATION

SEE EASEMENT FROM BRIDAL HILLS LLC FOR OFFSITE FUEL MODIFICATION

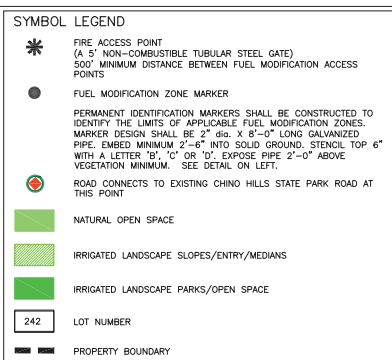
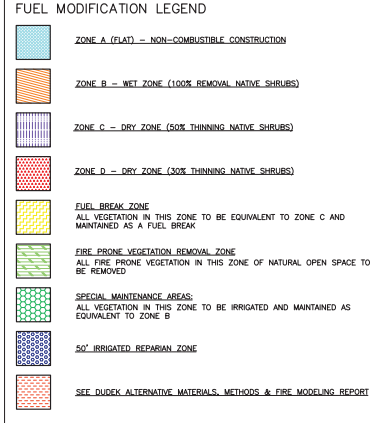
SEE EASEMENT FROM BRIDAL HILLS LLC FOR OFFSITE FUEL MODIFICATION

SEE EASEMENT FROM BRIDAL HILLS LLC FOR OFFSITE FUEL MODIFICATION

SEE EASEMENT FROM BRIDAL HILLS LLC FOR OFFSITE FUEL MODIFICATION

CHINO HILLS STATE PARK

# VESTING TENTATIVE TRACT MAP NO. 17522 A



# FUEL MODIFICATION MAINTENANCE NOTES

**Zone A - Irrigated Structure Setback Zone**  
The purpose of the setback zone is to provide a defensible space for fire suppression forces and to protect structures from radiant and convective heat. No combustible construction shall be allowed within the 20-foot setback zone (Zone A). In no case shall Zone A be less than 20 feet minimum. This zone is to be located on a level graded area at the top or base of slope and shall be between Zone B and the structure. If the Zone is located within the lot containing the structure, it shall be the most distal 20 feet of the lot. If the Zone is outside of the lot containing the structure, it shall begin immediately outside the lot line and may incorporate trails, roadways and other flat, noncombustible areas that create defensible space for fire crews between the protected structure and Zone B. The latter condition is preferred as it allows combustible construction within individual lots.

**Zone A - Specific Maintenance Requirements**

- Automatic irrigation systems to maintain healthy vegetation with high moisture content, and be regularly irrigated.
- Pruning of foliage to reduce fuel load, maintain vertical continuity, and removal of plant litter and dead wood.
- Complete removal of undesirable plant species. There is also minimal allowance for retention of selected native vegetation.
- Plants in this zone shall be highly fire resistant and selected from the Fuel Modification Zone Plant List for the setback zone and given geological area.
- Tree species are not allowed within 10 feet of combustible structures (measured from the edge of a full growth crown).
- Maintenance including thinning and removal of over-growth, replacement of dead/dying fire resistant plantings, and maintenance of the operation of the irrigation system.
- Devices that burn solid fuels are not permitted in any fuel modification zone.
- No combustible construction shall be allowed within Zone A.

**Zone B - Irrigated Zone**  
This portion of fuel modification consists of irrigated landscaping. This irrigated zone adjoins Zone A, and is a minimum of 50 feet in width and may be increased or decreased as conditions require. Zone B fuel modification zone will be permanently and regularly irrigated. The selection of plant species, design of the irrigation system and maintenance program shall sensitively address water conservation practices and include methods of erosion control to protect against slope failure. All irrigation shall be kept a minimum of 20 feet from the drip line of any existing native Quercus (oak) species. Zone B shall be cleared of all undesirable plant species, irrigated, and planted with plants from the approved OCA Plant List. Exceptions to save desirable species may be submitted for approval by the Fire Chief on a site-specific basis. As in Zone A, combustible construction is not allowed in Zone B.

**Zone B - Specific Requirements**

- Groundcover shall be installed and maintained at a height not to exceed 2 feet.
- In order to maintain proper coverage, native grasses shall be allowed to go to seed.
- Native grasses shall be cut off annual seeding. Cut height shall be approximately 4 inches.
- Apply irrigation rates to maintain healthy vegetation with high moisture content based on plant species specific needs.
- All plant species designed for Zone B shall be selected from the Orange County Fuel Zone Plant List. Existing fuel modifications maintenance programs are limited to the plants listed on the approved plans unless a revision is requested. Planting and maintenance shall be in accordance with planting restrictions from the OCA Vegetation Management Guidelines.
- Groups of trees, tree-form shrubs, and shrubs that naturally exceed 2 feet in height shall be vertically pruned, and horizontally spaced in accordance with OCA.
- Remove if dead and dying vegetation and undesirable plant species from OCA list.
- Devices that burn solid fuels are not permitted in any fuel modification zone.
- Combustible construction is not allowed within Zone B.

**Zone C & D - Thinning Zones - Non-irrigated**  
Zone C is 50 feet in width and requires horizontal and vertical spacing of plant groups in accordance with OCA requirements and removal of all dead and dying vegetation and undesirable species from OCA list. Minimum thinning percentage of plant removal is 50%.

**Zone D is 50 feet in width and requires horizontal and vertical spacing of plant groups in accordance with OCA requirements and removal of all dead and dying vegetation and undesirable species from OCA list. Minimum thinning percentage of plant removal is 30%.**

Thinning zones reduce the fuel load of a wildland area adjacent to the irrigated zones and urban development, reducing heat and ember production from wildland fires. Thinning zones adjoin Zone B and can extend 100 feet or more into wildland areas. The total percentage of vegetation to be removed is determined by many factors, including topography, exposure, vegetation type, and vegetation density. Sometimes a greater thinning percentage than the minimum may be temporarily needed to meet spacing requirements from OCA or the removal of dead and undesirable species.

**Zone C & D - Specific Requirements**

- Removal of all dead and dying vegetation and undesirable plant species from OCA list.
- In order to maintain proper coverage, native grasses shall be allowed to go to seed. Native grasses shall be cut off annual seeding. Cut heights shall be approximately 4 inches.
- Groups of trees, tree-form shrubs, and shrubs that naturally exceed 2 feet in height shall be vertically pruned, and horizontally spaced in accordance with OCA requirements.
- Plant species introduced into Zone C or D shall be selected from OCA Fuel Modification Zone plant list. Existing fuel modifications maintenance programs are limited to the plants listed on the approved plans unless a revision is requested. Planting and maintenance shall be in accordance with planting restrictions from OCA plant lists.
- Reduce fuel loading by reducing the fuel in each removing shrub or tree without substantial decrease in the canopy cover or removal of free holding root systems. Maintain sufficient cover to prevent erosion and requiring planting. Root of species listed in OCA undesirable plant species shall be removed from the zone unless an erosion analysis has been performed by a qualified professional or Geologist indicating the need to retain the root systems. Geology reports affecting the fuel modification program shall be provided to the OCA.

**Prior to Rough Grading Permit Issuance:** The developer/builder shall have approved/stamped conceptual or Precise Fuel Modification Plan.

**Prior to Precise Grading Permit Issuance:** The developer/builder shall have approved/stamped Precise Fuel Modification Plan, with applicable note stating maintenance language will be provided in OCA's and reviewed prior to issuance of certificate of occupancy.

**Prior to Building Permit Issuance:** Prior to dropping lumber, the developer/builder shall implement those portions if the approved fuel modification plan determined to be necessary be the OCA prior to the introduction of any combustible materials into the area. Removal of undesirable species may meet this requirement or a separation of combustible vegetation for a minimum distance of 100 feet from the location of the structure and lumber stock-pile. This generally involves removal and thinning of plant materials indicated on the approved plan. An inspection and/or release letter to the building department is required.

**Prior to Issuance of Certificate of Occupancy:** The fuel modification zones adjacent to structures must be installed, irrigated, and inspected. This includes physical installation of features identified in the approved precise fuel modification plan (including but not limited to, plant establishment, thinning, irrigation, zone markers, access easements, etc.). An OCA Inspector will provide written approval of completion at the time of this inspection. A written disclosure may be requested by the OCA Inspector indicating that the homeowner is aware of the fuel modification zone on their land and that they are aware of the associated restrictions if the zone. Copies of buyer or builder signed emergency and maintenance access easements shall be presented upon occupancy final.

**Prior to Home Owner Association (HOA) Maintenance Acceptance from Developer:** This inspection/meeting must include the Fire Inspector and the following representatives:

- Landscape design professional
- Installing landscape contractor
- HOA management representative

The fuel modification maintenance contractor shall be maintained as originally installed and approved. A copy of the approved plans must be provided to the HOA representatives at the time. Landscape professionals must convey ongoing maintenance requirements to HOA representatives. The OCA language for maintenance must also be provided and approved by the OCA.

**Annual Inspection and Maintenance:** The property owner is responsible for all maintenance of the fuel modification. All areas must be maintained indefinitely in accordance with notes on the approved fuel modification plans. This includes a minimum of two growth reduction maintenance activities throughout all fuel modification zones each year. Perform maintenance sometime within time periods of mid to late spring and once again in early to mid fall. Other activities include maintenance of irrigation systems, replacement of dead plant material, removal of trees and shrubs not on the approved plans, and removal of undesirable highly combustible species. The OCA may conduct inspections of established fuel modification areas. Ongoing maintenance shall be conducted a minimum of twice a year regardless of the dates of these inspections. The property owner shall retain all approved fuel modification plans. The plans should be used to perform the maintenance. As property is transferred, property owners shall disclose the location and regulations of fuel modification zone to the new property owners.

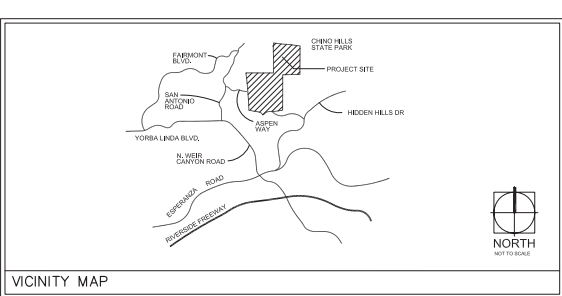
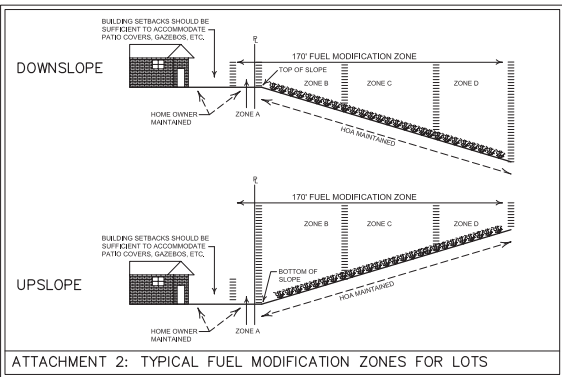
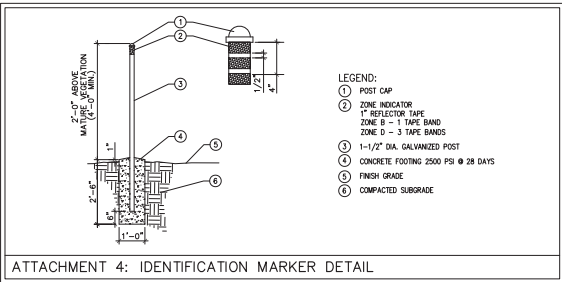
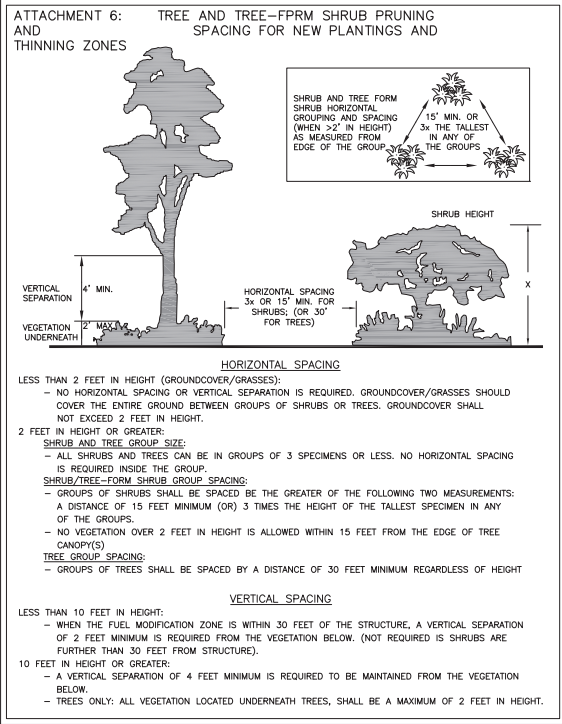
SCALE: 1" = 200'-0"



**SUMMERS/MURPHY & PARTNERS, INC.**  
2000 PACIFIC COAST HIGHWAY, SUITE 200  
DANA POINT, CALIFORNIA 92629 (949) 445-4444  
LANDSCAPE ARCHITECTS

DATE: 10/04/2013





ATTACHMENT 7: UNDESIRABLE PLANT SPECIES

(TARGET SPECIES)

CERTAIN PLANTS ARE CONSIDERED TO BE UNDESIRABLE IN THE LANDSCAPE DUE TO CHARACTERISTICS THAT MAKE THEM HIGHLY FLAMMABLE. THESE CHARACTERISTICS CAN BE EITHER PHYSICAL OR CHEMICAL. PHYSICAL PROPERTIES THAT WOULD CONTRIBUTE TO HIGH FLAMMABILITY INCLUDE LARGE AMOUNTS OF DEAD MATERIAL, RETAINED WITHIN THE PLANT, ROUGH OR PEELING BARK, AND THE PRODUCTION OF COPIOUS AMOUNTS OF LITTER. CHEMICAL PROPERTIES INCLUDE THE PRESENCE OF VOLATILE SUBSTANCES SUCH AS OILS, RESINS, WAX, AND PITCH. CERTAIN NATIVE PLANTS ARE NOTORIOUS FOR CONTAINING THESE VOLATILE SUBSTANCES.

PLANTS WITH THESE CHARACTERISTICS SHALL NOT BE PLANTED IN ANY OF THE FUEL MODIFICATION ZONES. SHOULD THESE SPECIES ALREADY EXIST WITHIN THE AREAS, THEY SHALL BE REMOVED BECAUSE OF THE POTENTIAL THREAT THEY POSE TO ANY STRUCTURES. THEY ARE REFERRED TO AS TARGET SPECIES SINCE THEIR COMPLETE REMOVAL IS A CRITICAL PART OF HAZARD REDUCTION. THESE FIRE-PRONE PLANT SPECIES INCLUDE (BUT NOT LIMITED TO):

BOTANICAL NAME	COMMON NAME
CYNARA CARDUNCULUS	ARTICHOKE THISTLE
RICINUS COMMUNIS	CASTOR BEAN PLANT
CIRSIL VILGARE	WILD ARTICHOKE
BRASSICA NIGRA	BLACK MUSTARD
SILYBUM MARIANUM	MILK THISTLE
SACCOLA AUSTRALIS	RUSSIAN THISTLE/TUMBLEWOOD
NODOTIANA BIGELOWII	INDIAN TOBACCO
NODOTIANA GLAUCA	TREE TOBACCO
LACTUCA SERIOLIA	PRICKLY LETTUCE
CONYZA CANADENSIS	HORSWEED
HETEROTHACA GRANDIFLORA	TELEGRAPH PLANT
ANTHEMIS COTULA	WILDMAY
URTICA URENS	BURNING NETTLE
CARDARIA DRABA	WILD TURNIP, YELLOW MUSTARD
ADENOSTOMA FASCICULATUM	CHAMISE
ADENOSTOMA SPARSIFOLIUM	RED SHANKS
CORTADERIA SELLOANA	PAMPA GRASS
ARTEMISIA CALIFORNICA	CALIFORNIA SAGE BRUSH
ERIGODNUM FASCICULATUM	COMMON BUCKWHEAT
SAVIA MELIFERA	BLACK SAGE

ORNBMENTALS

BOTANICAL NAME	COMMON NAME
CORTADERIA	PAMPA GRASS
CUPRESSUS SP.	CYPRESS
EUCALYPTUS SP.	EUCALYPTUS
JUNIPERUS SP.	JUNIPER
PINUS SP.	PINE

STATE RESPONSIBILITY AREA, VERY HIGH FIRE HAZARD SEVERITY ZONE (VHFHSZ) NOTE:

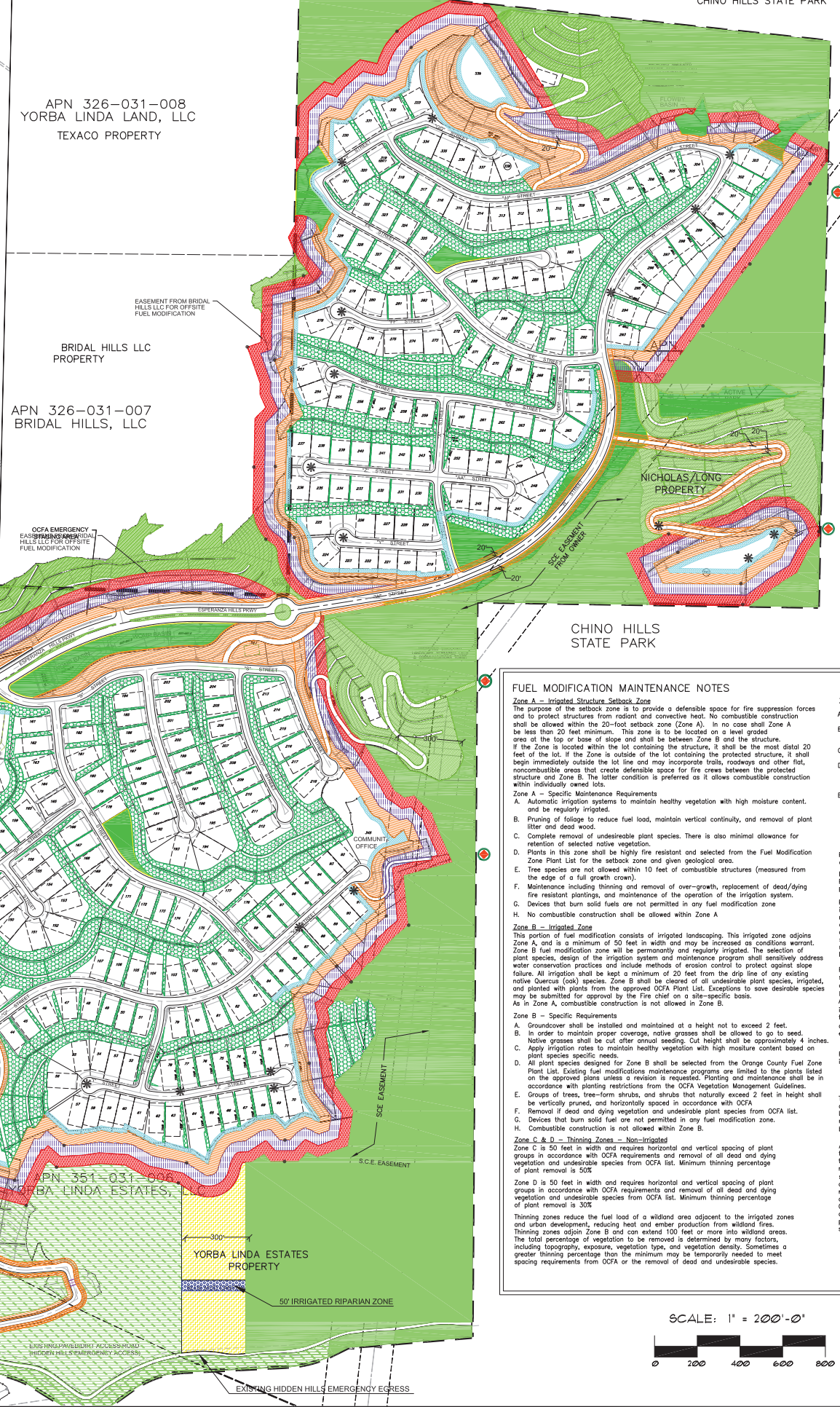
This County of Orange area has been designated a very high fire hazard severity zone protection area. All development guidelines for a very high fire hazard severity zone protection area (VHFHSZ) pertaining to width of roads, fire sprinkler systems, building construction features, and fuel modification plan submittal shall be met in addition to the OCA fuel modification criteria on this plan.

There is no existing federally protected animal or bird habitat within the fuel modification areas we are proposing. There is no restriction regarding the dates of plant density thinning throughout the year. Maintenance is required in the late spring and early fall of each year. The project Landscape Architect has researched the soil and steepness of the slopes and there are no Geological issues preventing the required maintenance to be performed.

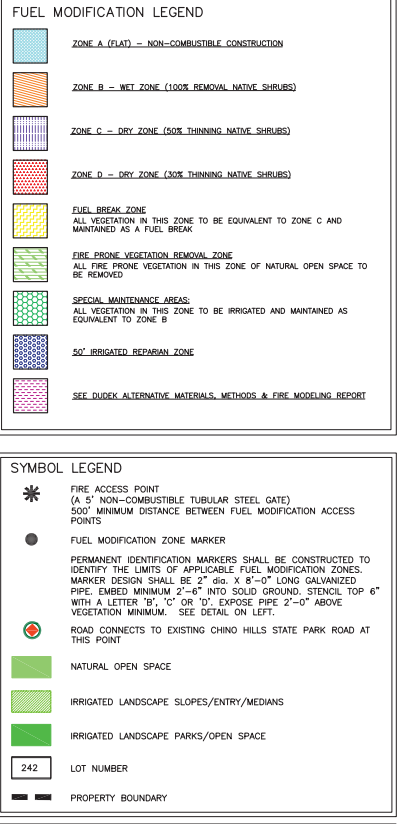
ATTACHMENT 8: PLANTING PALLETTE FOR FUEL MODIFICATION ZONE B

ZONE B SHALL BE CLEARED OF ALL UNDESIRABLE PLANT SPECIES, IRRIGATED, AND PLANTED WITH SPECIES LISTED BELOW

PROPOSED PLANT PALLETTE	BOTANICAL NAME	COMMON NAME	SPACING
TREE:	ARBUS UNEDO	STRAWBERRY TREE	
	CERDUS OCCIDENTALIS	WESTERN REDBUD	
	PLATANUS RACEMOSA	CALIFORNIA SYCAMORE	
	RHUS LANCEA	AFRICAN SUMAC	
	TECOMA STANS (STENOLOBUM STANS)	YELLOW BELLS	
SHRUBS:	ABELIA X GRANDIFLORA	GLOSSY ABELIA	8' o.c.
	CISTUS X PURPUREUS	ORCHID ROCKROSE	6' o.c.
	COTONEASTER BUXTIFOLIUS	(NO COMMON NAME)	5' o.c.
	ELAEAGNUS PUNGENS	SILVERBERRY	12' o.c.
	LEUCOPHYLLUM FRUTESCENS	YELLOW SAGE	5' o.c.
	PHOTINIA FRASERI	TEXAS RANGER	6' o.c.
	PYRACANTHA SPECIES	PHOTINIA	12' o.c.
	RHUS INTEGRIFOLIA	FIRETHORN	8' o.c.
	ROSMARINUS OFFICINALIS	LEMONADE BERRY	10' o.c.
	SALVIA GREGGII	ROSEMARY	4' o.c.
	XYLOSMA CONGESTUM	AUTUMN SAGE	5' o.c.
		SHINNY XYLOSMA	12' o.c.
GROUNDCOVER/SUCCULENTS/PERENNIALS:			
	ARCTOSTAPHYLOS "PACIFIC MIST"	PACIFIC MIST MANZANITA	10' o.c.
	BACCHARIS PILLULARIS VAR. PILLULARIS	TWIN PEAKS #2	5' o.c.
	COTONEASTER CONGESTUS "LUNAR"	LUNAR COTONEASTER	6' o.c.
	LONGICERA JAPONICA "MALLANA"	HALL'S HONEYSUCKLE	4' o.c.
	MYOPORUM PARVIFOLIUM	(NO COMMON NAME)	6' o.c.
	CAPE HONEYSUCKLE	CAPE HONEYSUCKLE	5' o.c.
	AGAVE ATTENUATA	CENTURY PLANT	6' o.c.
	HEPERALOE	RED YUCCA	4' o.c.



# VESTING TENTATIVE TRACT MAP NO. 17522 D



FUEL MODIFICATION MAINTENANCE NOTES

Zone A - Irrigated Structure Setback Zone

The purpose of the setback zone is to provide a defensible space for fire suppression forces and to protect structures from radiant heat. No combustible construction shall be allowed within the 20-foot setback zone (Zone A). In no case shall Zone A be less than 20 feet minimum. This zone is to be located on a level graded area of the top or base of slope and shall be between Zone B and the structure. If the Zone A is located within the lot containing the structure, it shall be the most distal 20 feet of the lot. If the Zone A is outside of the lot containing the structure, it shall begin immediately outside the lot line and may incorporate trails, roadways and other fire noncombustible areas that create defensible space for fire crews between the protected structure and Zone B. The latter condition is preferred as it allows combustible construction within individually owned lots.

Zone A - Specific Maintenance Requirements

- A. Automatic irrigation systems to maintain healthy vegetation with high moisture content, and be regularly irrigated.
- B. Pruning of foliage to reduce fuel load, maintain vertical continuity, and removal of plant litter and dead wood.
- C. Complete removal of undesirable plant species. There is also minimal allowance for retention of selected native vegetation.
- D. Plants in this zone shall be highly fire resistant and selected from the Fuel Modification Zone Plant List for the setback zone and given geological area.
- E. Tree species are not allowed within 10 feet of combustible structures (measured from the edge of a full growth crown).
- F. Maintenance including thinning and removal of over-growth, replacement of dead/dying fire resistant plantings, and maintenance of the operation of the irrigation system.
- G. Devices that burn solid fuels are not permitted in any fuel modification zone.
- H. No combustible construction shall be allowed within Zone A.

Zone B - Irrigated Zone

This portion of fuel modification consists of irrigated landscaping. This irrigated zone adjoins Zone A, and is a minimum of 50 feet in width and may be increased as conditions warrant. Zone B fuel modification zone will be permanently and regularly irrigated. The selection of plant species, design of the irrigation system and maintenance program shall sensitively address water conservation practices and include methods of erosion control to protect against slope failure. All irrigation shall be kept a minimum of 20 feet from the drip line of any existing native Quercus (oak) species. Zone B shall be cleared of all undesirable plant species, irrigated, and planted with plants from the approved OCA Plant List. Exceptions to save desirable species may be submitted for approval by the Fire Chief on a site-specific basis.

As in Zone A, combustible construction is not allowed in Zone B.

Zone B - Specific Requirements

- A. Groundcover shall be installed and maintained at a height not to exceed 2 feet.
- B. In order to maintain proper coverage, native grasses shall be allowed to go to seed. Native grasses shall be cut after annual seeding. Cut height shall be approximately 4 inches.
- C. Apply irrigation rates to maintain healthy vegetation with high moisture content based on plant species specific needs.
- D. All plant species designed for Zone B shall be selected from the Orange County Fuel Zone Plant List. Existing fuel modifications maintenance programs are limited to the plants listed on the approved plans unless a revision is requested. Planting and maintenance shall be in accordance with planting restrictions from the OCA Vegetation Management Guidelines.
- E. Groups of trees, tree-form shrubs, and shrubs that naturally exceed 2 feet in height shall be vertically pruned, and horizontally spaced in accordance with OCA.
- F. Removal of dead and dying vegetation and undesirable plant species from OCA list.
- G. Devices that burn solid fuel are not permitted in any fuel modification zone.
- H. Combustible construction is not allowed within Zone B.

Zone C & D - Thinning Zones - Non-irrigated

Zone C is 50 feet in width and requires horizontal and vertical spacing of plant groups in accordance with OCA requirements and removal of all dead and dying vegetation and undesirable species from OCA list. Minimum thinning percentage of plant removal is 50%.

Zone D is 50 feet in width and requires horizontal and vertical spacing of plant groups in accordance with OCA requirements and removal of all dead and dying vegetation and undesirable species from OCA list. Minimum thinning percentage of plant removal is 50%.

Thinning zones reduce the fuel load of a wildland area adjacent to the irrigated zones and urban development, reducing heat and ember production from wildland fires. Thinning zones adjoin Zone B and can extend 100 feet or more into wildland areas. The total percentage of vegetation to be removed is determined by many factors, including topography, exposure, vegetation type, and vegetation density. Sometimes a greater thinning percentage than the minimum may be temporarily needed to meet spacing requirements from OCA or the removal of dead and undesirable species.

Zone C & D - Specific Requirements

A. Removal of all dead and dying vegetation and undesirable plant species from OCA list.

B. In order to maintain proper coverage, native grasses shall be allowed to go to seed. Native grasses shall be cut after annual seeding. Cut heights shall be approximately 4 inches.

C. Groups of trees, tree-form shrubs, and shrubs that naturally exceed 4 feet in height shall be vertically pruned, and horizontally spaced in accordance with OCA requirements.

D. Plant species introduced into Zone C or D shall be selected from OCA Fuel Modification Zone plant list. Existing fuel modification maintenance programs are limited to the plants listed on the approved plans unless a revision is requested. Planting and maintenance shall be in accordance with planting restrictions from OCA plant lists.

E. Reduce fuel loading by reducing the fuel in each remaining shrub or tree without substantial decrease in the canopy cover or removal of tree holding root systems. Maintain sufficient cover to prevent erosion with regaining planting. Root of species listed in OCA undesirable plant species shall be removed from the zone unless an arbor analysis has been performed by a qualified professional or geologist indicating the need to retain the root systems. Geology reports affecting the fuel modification program shall be provided to the OCA.

Prior to Rough Grading Permit Issuance: The developer/builder shall have approved/stamped conceptual or Precise Fuel Modification Plan.

Prior to Precise Grading Permit Issuance: The developer/builder shall have approved/stamped Precise Fuel Modification Plan, with applicable note stating maintenance language will be provided in CC&Rs and reviewed prior to issuance of certificate of occupancy.

Prior to Building Permit Issuance: Prior to dropping lumber, the developer/builder shall implement those portions of the approved fuel modification plan determined to be necessary by the OCA prior to the introduction of any combustible materials into the area. Removal of undesirable species may meet this requirement or a separation of combustible vegetation for a minimum distance of 100 feet from the location of the structure and lumber stock-pile. This generally involves removal and thinning of plant materials indicated on the approved plan. An inspection and/or release letter to the building department is required.

Prior to Issuance of Certificate of Occupancy: The fuel modification zones adjacent to structures must be installed, irrigated, and inspected. This includes physical installation of features identified in the approved precise fuel modification plan (including but not limited to, plant establishment, thinning, irrigation, zone markers, access easements, etc.). An OCA Inspector will provide written approval of completion at the time of this final inspection. A written disclosure may be requested by the OCA Inspector indicating that the homeowner is aware of the fuel modification zone on their land and that they are aware of the associated restrictions if the zone. Copies of buyer or builder signed emergency and maintenance access easements shall be presented upon occupancy final.

Prior to Home Owner Association (HOA) Maintenance Acceptance from Developer: This inspection/meeting must include the Fire Inspector and the following representatives:

- Landscape design professional
- Installing landscape contractor
- HOA management representative
- HOA landscape maintenance contractor

The fuel modification area shall be maintained as originally installed and approved. A copy of the approved plans must be provided to the HOA representatives at the time. Landscape professionals must convey ongoing maintenance requirements to HOA representatives. The CC&R language for maintenance must also be provided and approved by the OCA.

Annual Inspection and Maintenance: The property owner is responsible for all maintenance of the fuel modification. All areas must be maintained in accordance with notes on the approved fuel modification plans. This includes a minimum of two growth reduction maintenance activities throughout all fuel modification zones each year. Perform maintenance sometime within time periods of mid to late spring and once again in early to mid fall. Other activities include maintenance of irrigation systems, replacement of dead plant material, removal of trees and shrubs not on the approved plans, and removal of undesirable highly combustible species. The OCA may conduct inspections of established fuel modification areas. Ongoing maintenance shall be conducted a minimum of twice a year regardless of the dates of these inspections. The property owner shall retain all approved fuel modification plans. The plans should be used to perform the maintenance. As property is transferred, property owners shall disclose the location and regulations of fuel modification zone to the new property owners.

# CONCEPTUAL FUEL MODIFICATION PLAN

## ESPERANZA HILLS - OPTION 2B

### ORANGE COUNTY, CALIFORNIA

#### ESPERANZA HILLS, LLC

7114 EAST STETSON DRIVE SUITE 350, SCOTTSDALE, AZ 85251



# Esperanza Hills Fire Safety Features

## Fuel Modification for Fire Prevention

- Irrigated Area through Blue Mud Canyon to restore Walnuts and provide habitat for Least Bell's Vireo
- Establish Fuel Modification Zone around irrigated mitigation area with low water use, year round color, fire resistant California Friendly plant pallet
- Establish fire break zone through plant pallet in Blue Mud Canyon
- Remove non-native fire friendly plants in fuel modification zone in Blue Mud Canyon
- Establish fuel modification zones surrounding development to be maintained by the HOA in accordance with OCFA standards, which will be annually audited

# Esperanza Hills Fire Safety Features

## Fire Fighting Design Features

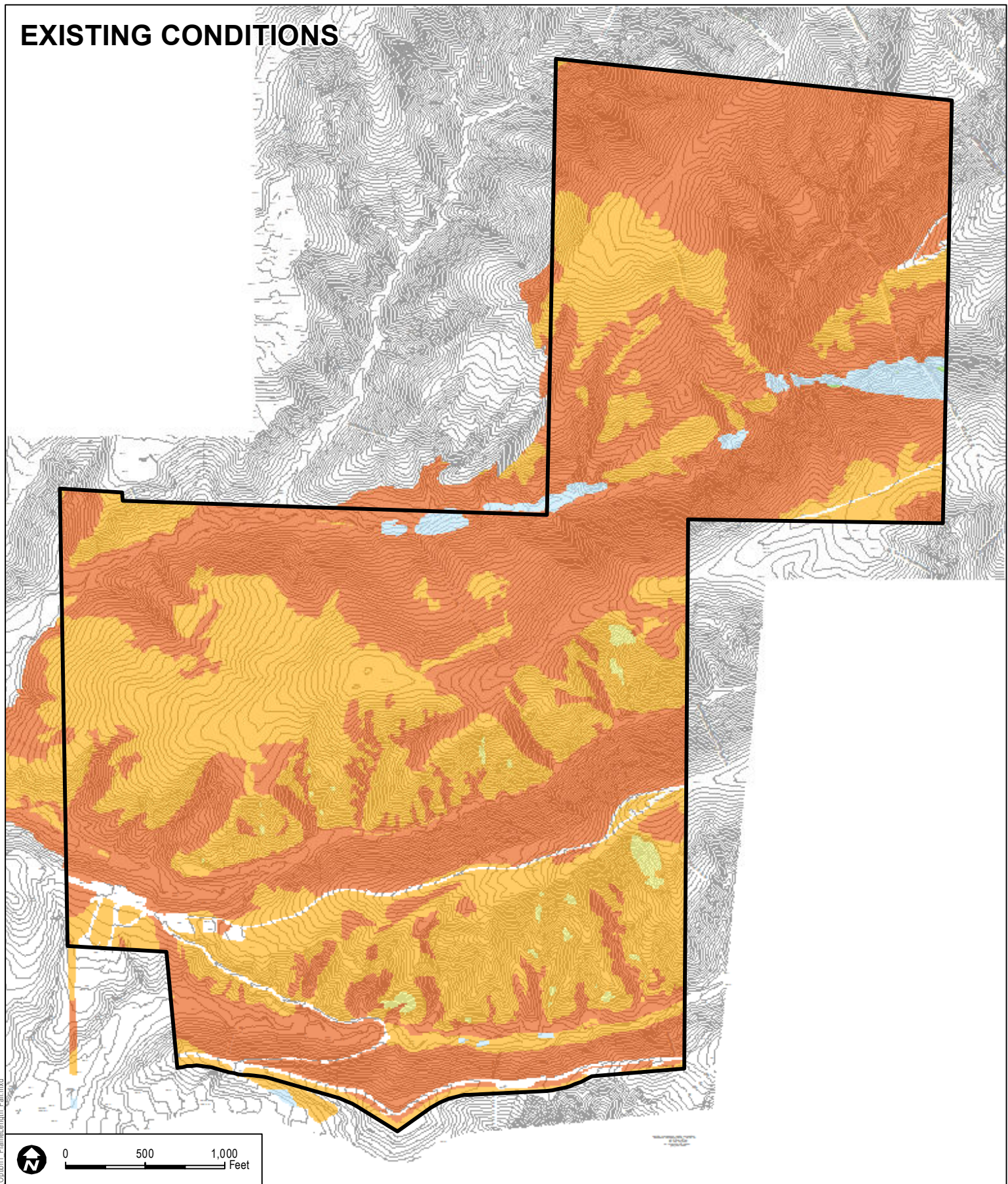
- Construct at least three staging areas for fire trucks – 2 with 5 truck capacity and 1 with 2 truck capacity. Each staging area will have direct gravity fed hydrants.
- Construct 2 underground water reservoirs for service to area with over one million gallon capacity to serve project and surrounding neighborhood
- Roads are constructed for emergency ingress and egress simultaneously, and will connect to existing dirt roads currently maintained for access to Chino Hills State Park and Southern Cal Edison facilities

## Fire Protection Features

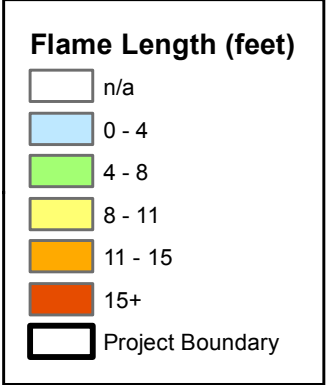
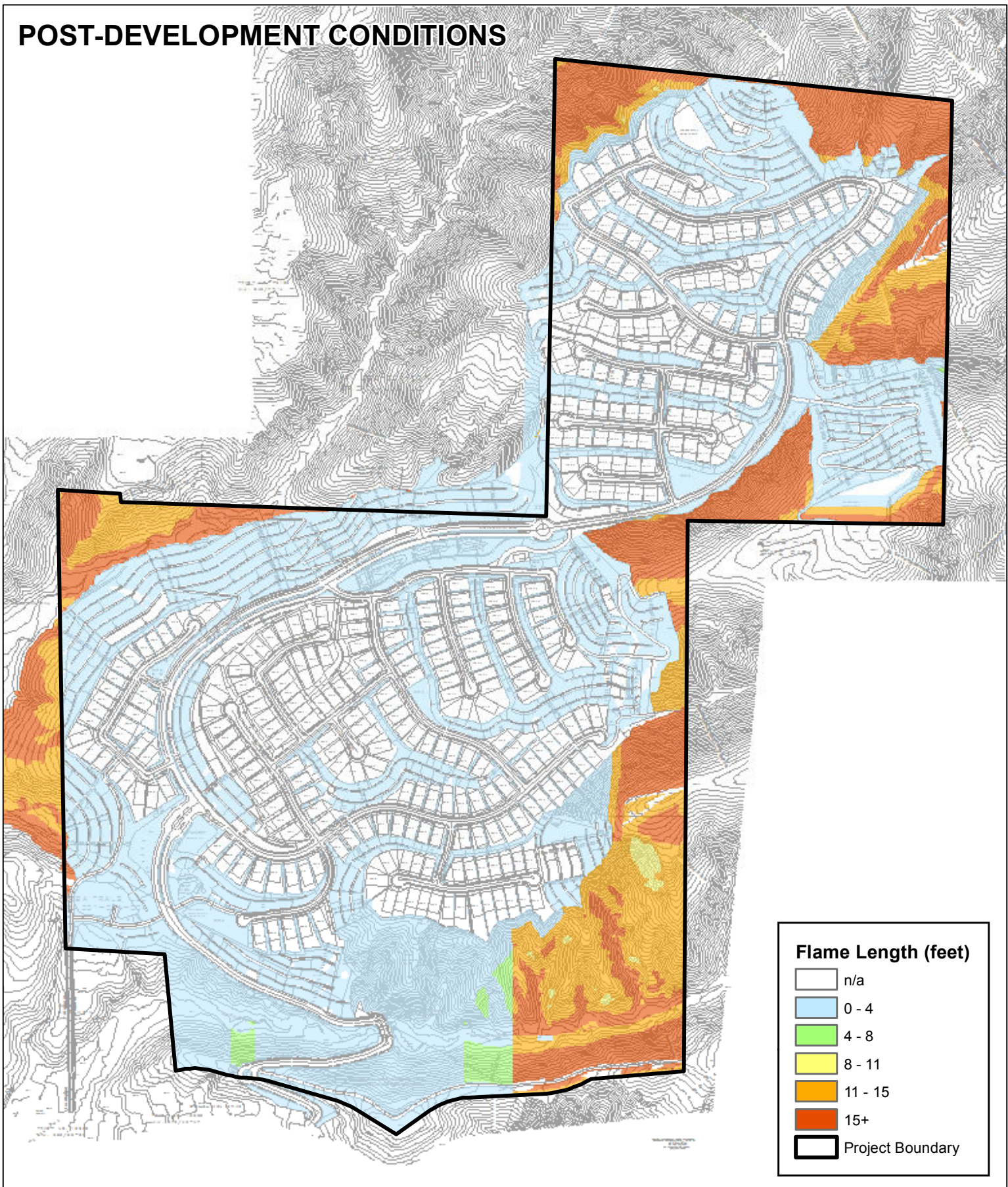
- All homes will be built to latest hardened home requirements, with sprinklers, including attic sprinklers
- The HOA will enforce the “Ready Set Go” program on an annual basis
- The HOA will maintain an emergency alert system in addition to Alert OC



EXISTING CONDITIONS



POST-DEVELOPMENT CONDITIONS



DUDEK

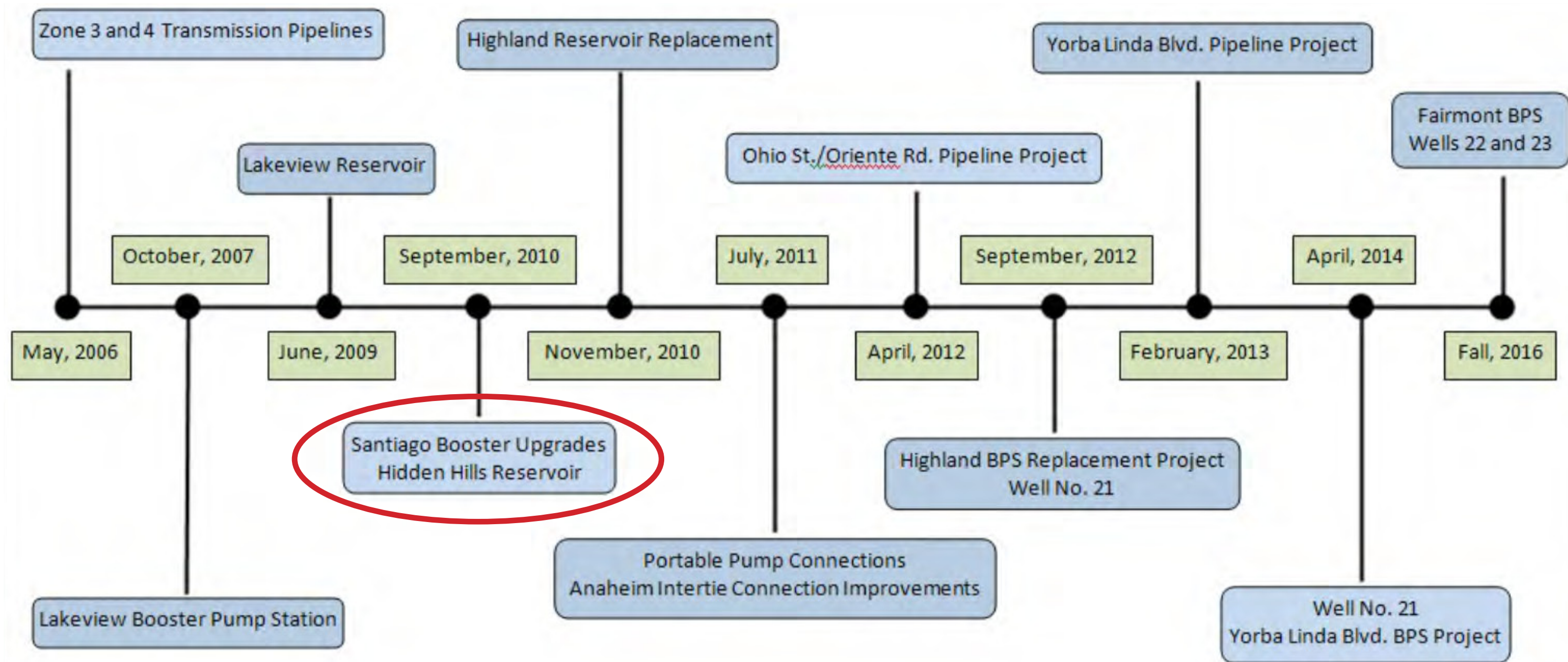
7740-01  
APRIL 2013

ESPERANZA HILLS - OPTION 1

FIGURE 3  
Fire Behavior Comparison - Flame Length, Fall Fire



# Yorba Linda Water District System Enhancements







## **Water Emergency Response Organization of Orange County (WEROC)**



- **Seat at the Operational Area EOC**
- **Mutual Assistance**
- **Training and exercises**
  - WebEOC and Resource Manager training**
- **OC Multi-Agency Multi-Hazard Mitigation Plan**
  - 20 water utilities**



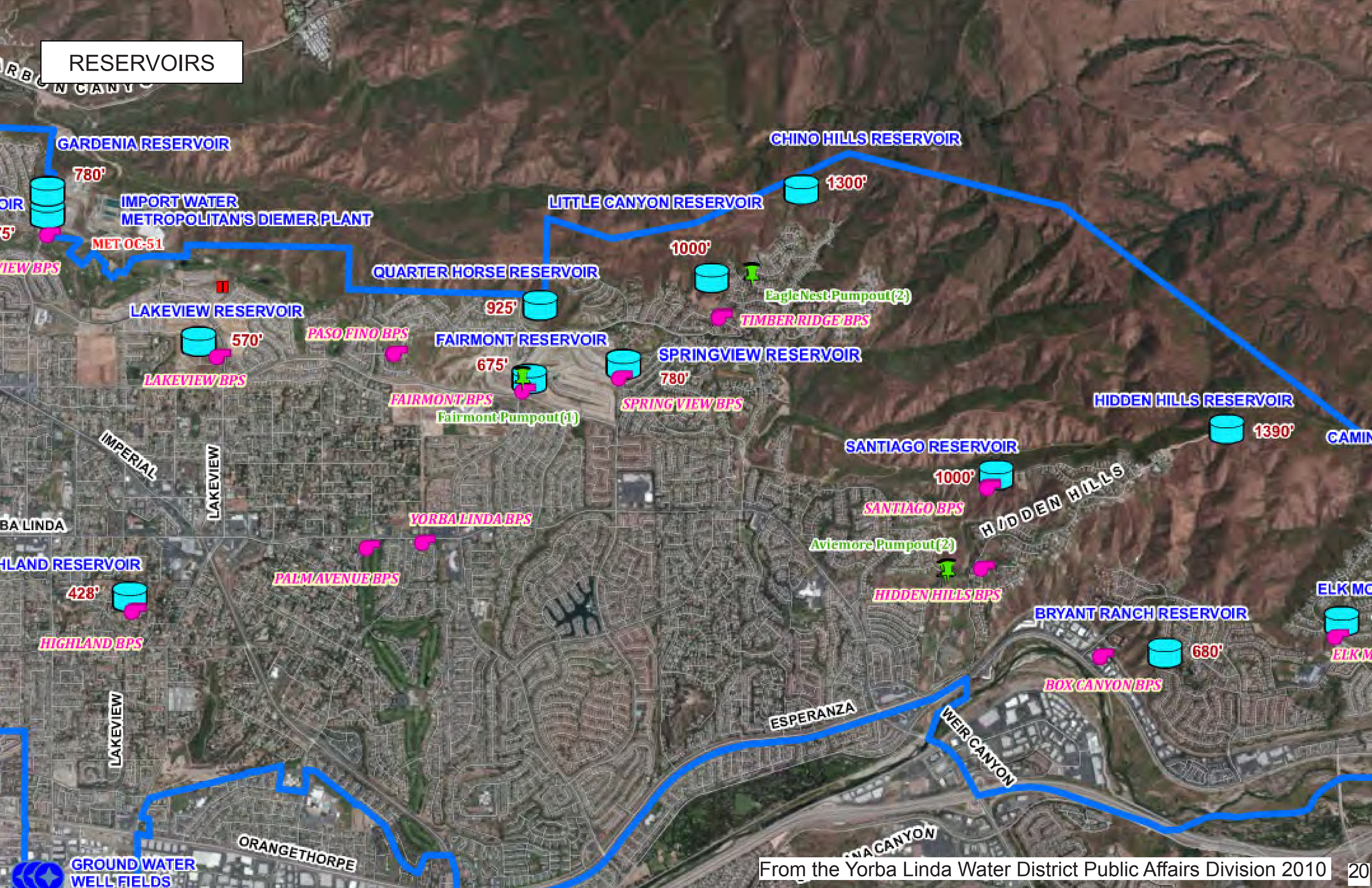
# The "Fast Track"

- **2005 - \$95 Million in Capital Improvement Projects**
- **Infrastructural overhaul of the water system ensuring reliability to meet future demands**
- **Added an additional 7 Million Gallons of Storage**
- **1,000-18,000 GPM Pump Capacity**
- **Redundancy throughout the system**





# RESERVOIRS



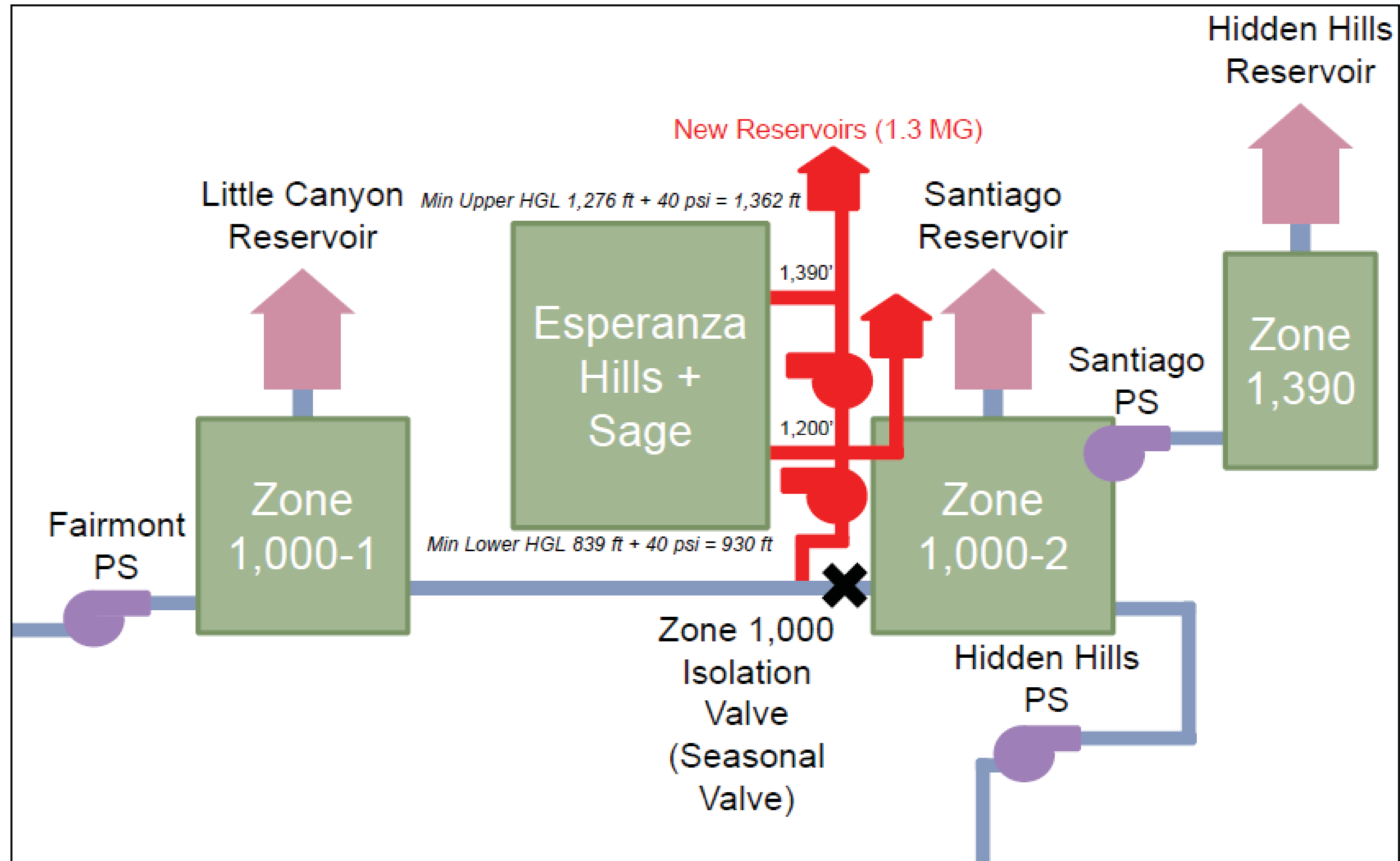
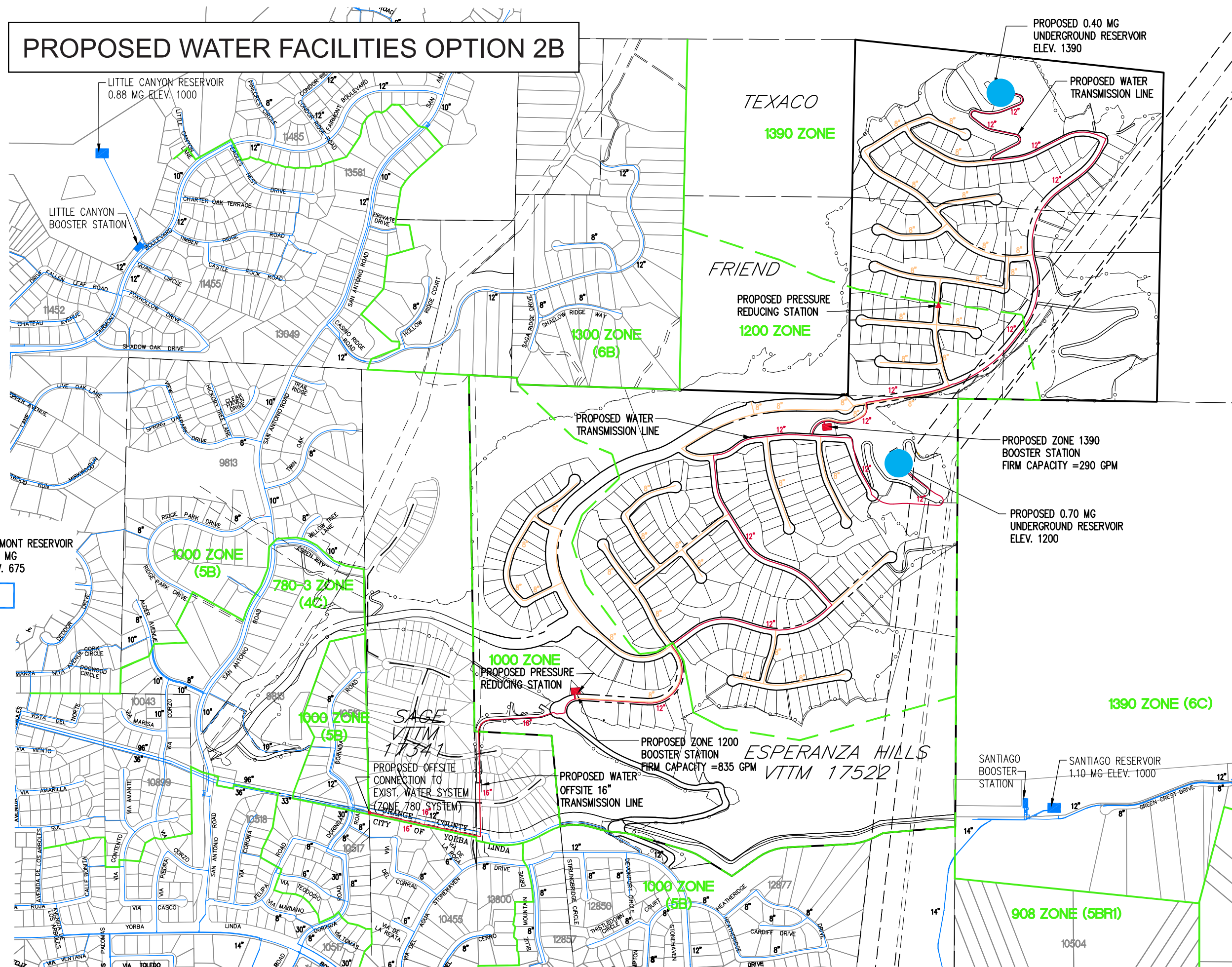


Figure 3






## On-Site Storage Siting

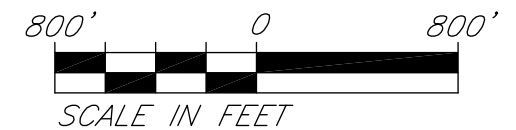
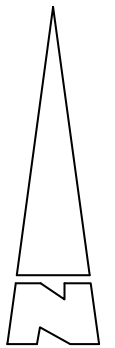


## PROPOSED WATER FACILITIES OPTION 2B



LEGEND

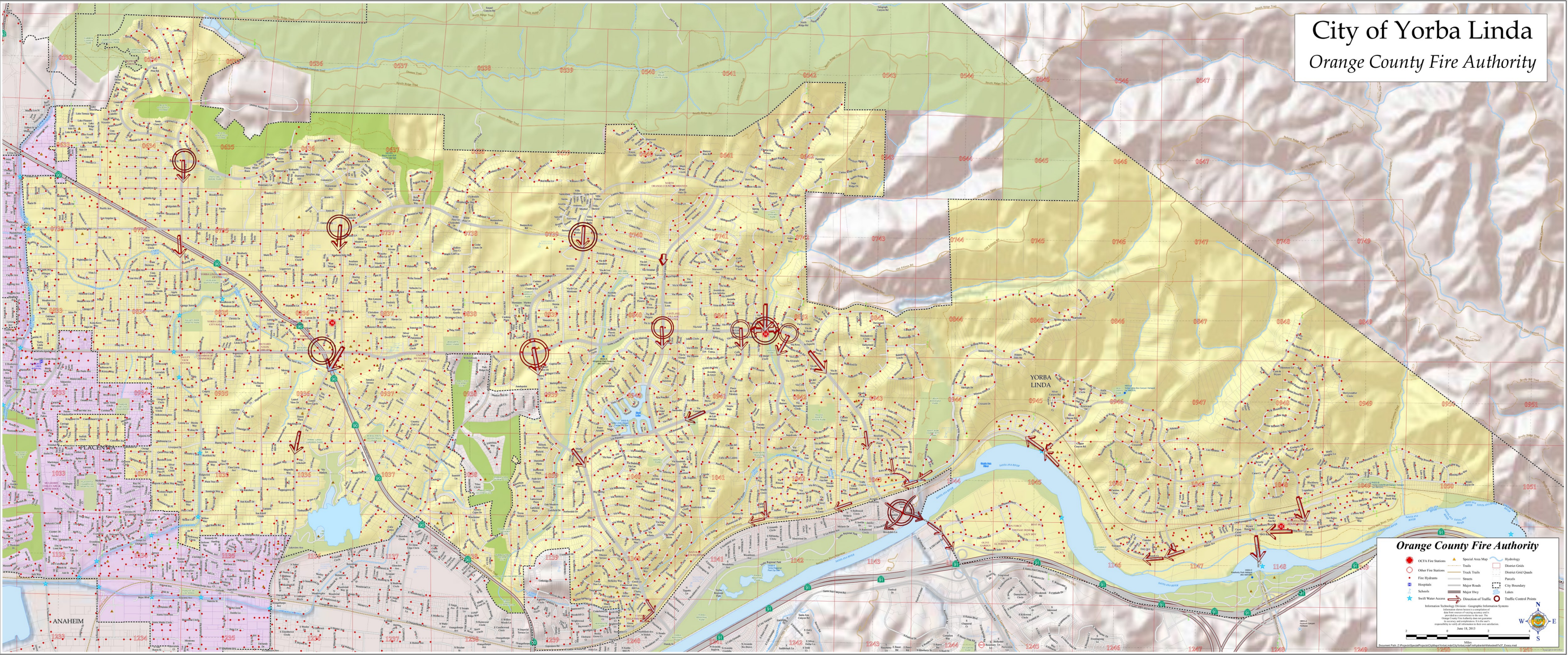
-  PROPOSED TRANSMISSION LINE  
 PROPOSED DISTRIBUTION LINE  
 FUTURE WATER BY OTHERS  
 12" EXISTING 12" WATER  
 ZONE BOUNDARIES



**KWG** ENGINEERS

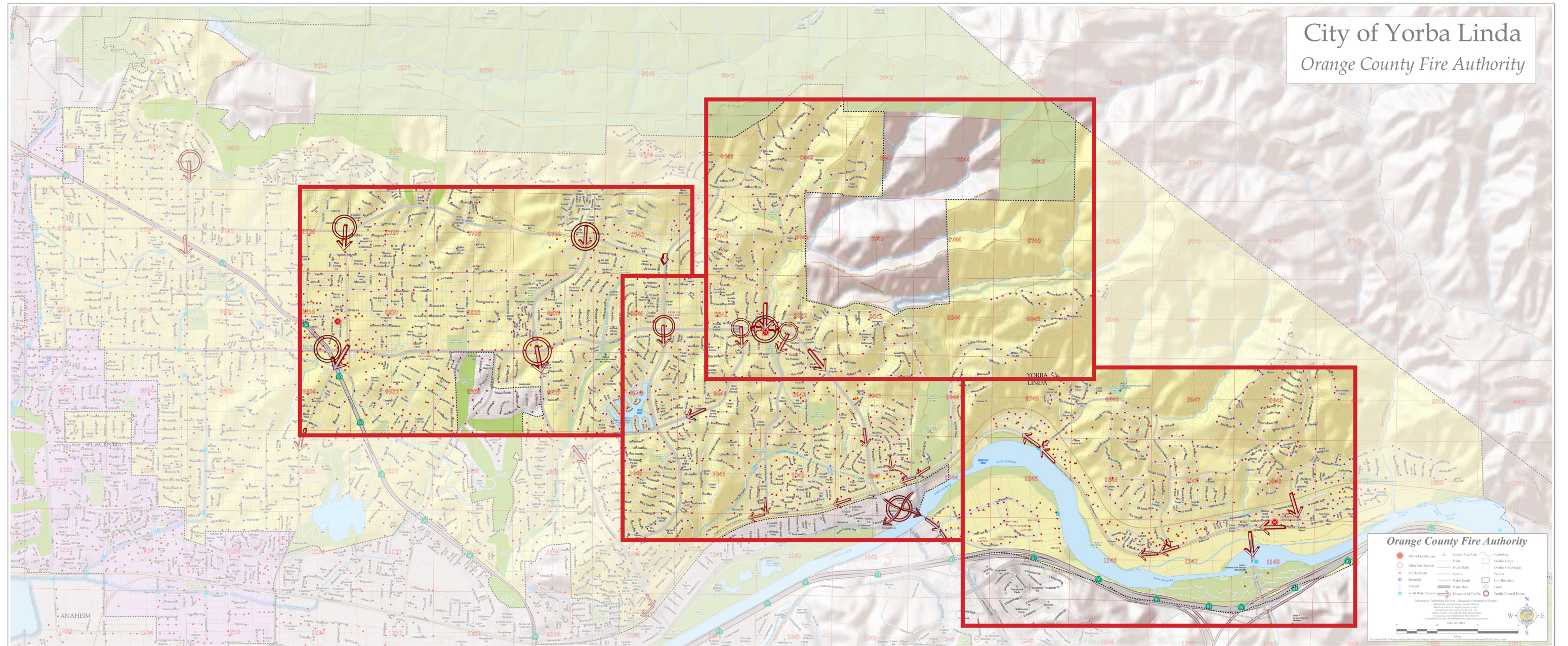


CITY OF YORBA LINDA TRAFFIC CONTROL MAP

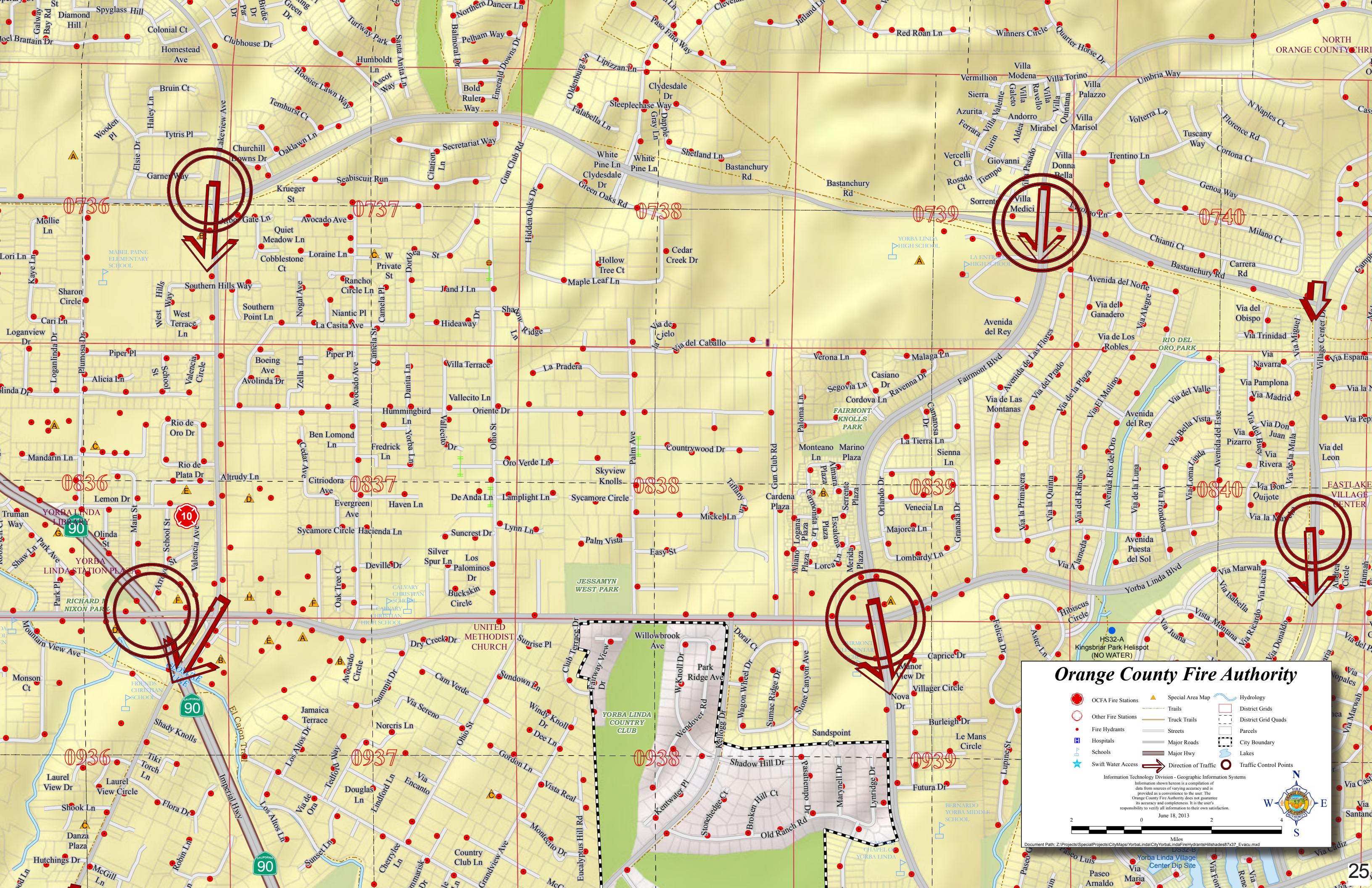




# CITY OF YORBA LINDA TRAFFIC CONTROL MAP ENLARGEMENT AREAS







### Orange County Fire Authority

Information Technology Division - Geographic Information Systems  
Information shown hereon is a compilation of data from sources of varying accuracy and is provided as a convenience to the user. The Orange County Fire Authority does not guarantee its accuracy and completeness. It is the user's responsibility to verify all information for their own satisfaction.  
June 18, 2013

2 0 2 4 Miles

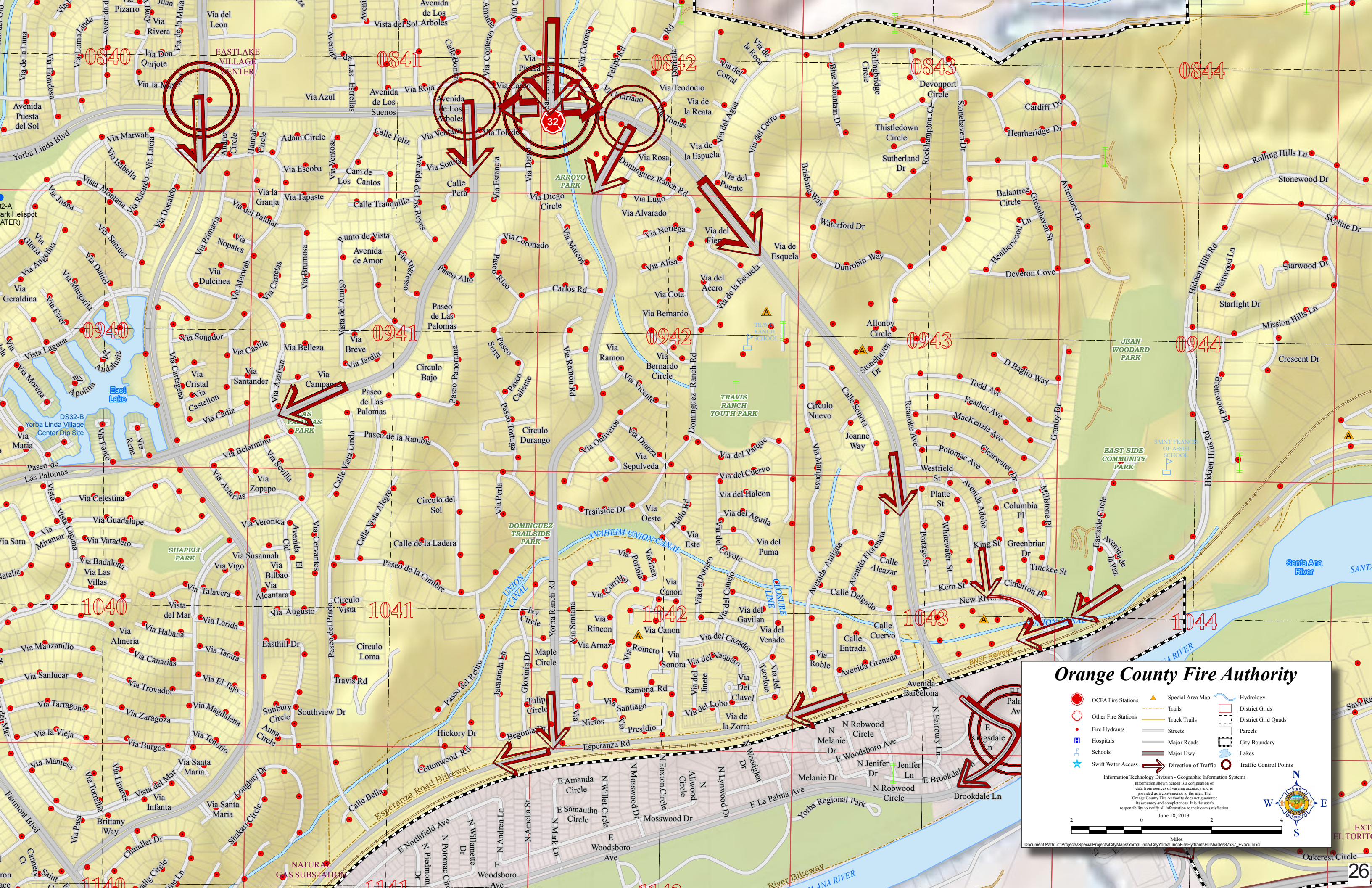
Document Path: Z:\Projects\Special Projects\City Maps\Yorbala Linda\City\Yorbala Linda\FireHydrants\Hishades87x37\_Evacu.mxd

Yorbala Linda Center Dip Site

25

OCFA Fire Stations	Special Area Map	Hydrology
Other Fire Stations	Trails	District Grids
Fire Hydrants	Truck Trails	District Grid Quads
Hospitals	Streets	Parcels
Schools	Major Roads	City Boundary
Swift Water Access	Major Hwy	Lakes
	Direction of Traffic	Traffic Control Points





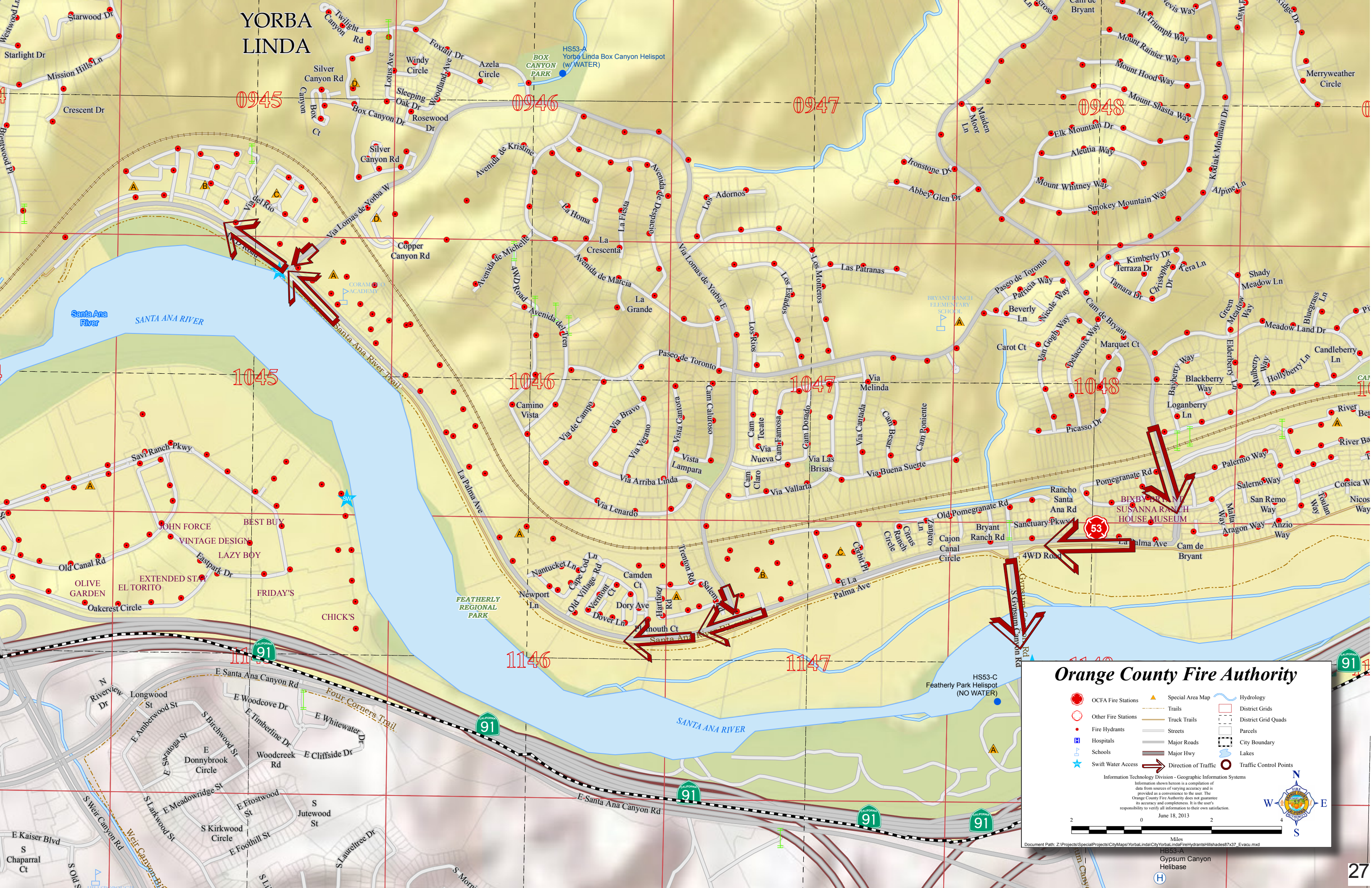
# Orange County Fire Authority

- OCFA Fire Stations
- Other Fire Stations
- Fire Hydrants
- Hospitals
- Schools
- Swift Water Access
- Special Area Map
- Trails
- Truck Trails
- Streets
- Major Roads
- Major Hwy
- Hydrology
- District Grids
- District Grid Quads
- Parcels
- City Boundary
- Lakes
- Traffic Control Points

Information Technology Division - Geographic Information Systems  
Information shown hereon is a compilation of data from sources of varying accuracy and is provided as a convenience to the user. The Orange County Fire Authority does not guarantee its accuracy and completeness. It is the user's responsibility to verify all information to their own satisfaction.  
June 18, 2013  
Miles  
2 0 2 4  
Document Path: Z:\Projects\SpecialProjects\CityMaps\Yorba Linda\City\Yorba Linda\FireHydrants\Hillshades87x37\_Evacu.mxd







YORBA LINDA

0945

0946

0947

0948

1045

1046

1047

1048

1146

1147

1148

Orange County Fire Authority

- OCFA Fire Stations
- Other Fire Stations
- Fire Hydrants
- Hospitals
- Schools
- Swift Water Access
- Special Area Map
- Trails
- Streets
- Major Roads
- Major Hwy
- Hydrology
- District Grids
- District Grid Quads
- Parcels
- City Boundary
- Lakes
- Traffic Control Points

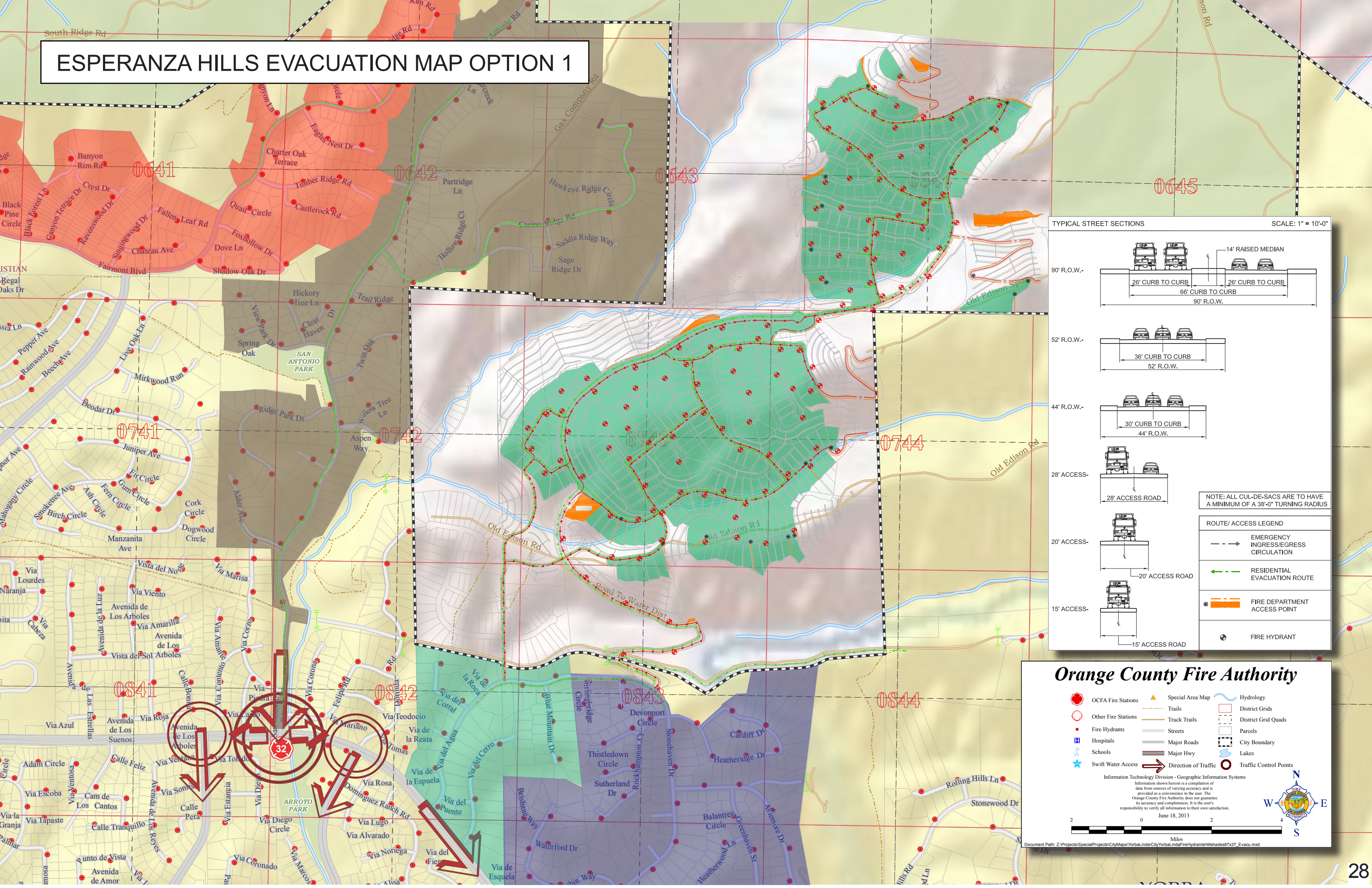
Information Technology Division - Geographic Information Systems  
Information shown hereon is a compilation of data from sources of varying accuracy and is provided as a convenience to the user. The Orange County Fire Authority does not guarantee its accuracy and completeness. It is the user's responsibility to verify all information for their own satisfaction.  
June 18, 2013



Document Path: Z:\Projects\Special Projects\City Maps\Yorba Linda\City\Yorba Linda\Fire Hydrants\Hillshades\7x37\_Evacu.mxd  
HB53-A  
Gypsum Canyon  
Helibase



# ESPERANZA HILLS EVACUATION MAP OPTION 1



TYPICAL STREET SECTIONS SCALE: 1" = 10'-0"

90' R.O.W. - 26' CURB TO CURB 66' CURB TO CURB 26' CURB TO CURB 14' RAISED MEDIAN 90' R.O.W.

52' R.O.W. - 36' CURB TO CURB 52' R.O.W.

44' R.O.W. - 30' CURB TO CURB 44' R.O.W.

28' ACCESS - 28' ACCESS ROAD

20' ACCESS - 20' ACCESS ROAD

15' ACCESS - 15' ACCESS ROAD

NOTE: ALL CUL-DE-SACS ARE TO HAVE A MINIMUM OF A 38'-0" TURNING RADIUS

ROUTE/ ACCESS LEGEND	
	EMERGENCY INGRESS/EGRESS CIRCULATION
	RESIDENTIAL EVACUATION ROUTE
	FIRE DEPARTMENT ACCESS POINT
	FIRE HYDRANT

## Orange County Fire Authority

	OCFA Fire Stations		Special Area Map		Hydrology
	Other Fire Stations		Trails		District Grids
	Fire Hydrants		Truck Trails		District Grid Quads
	Hospitals		Streets		Parcels
	Schools		Major Roads		City Boundary
	Swift Water Access		Major Hwy		Lakes
					Traffic Control Points

Information Technology Division - Geographic Information Systems

Information shown hereon is a compilation of data from sources of varying accuracy and is provided as a convenience to the user. The Orange County Fire Authority does not guarantee its accuracy and completeness. It is the user's responsibility to verify all information to their own satisfaction.

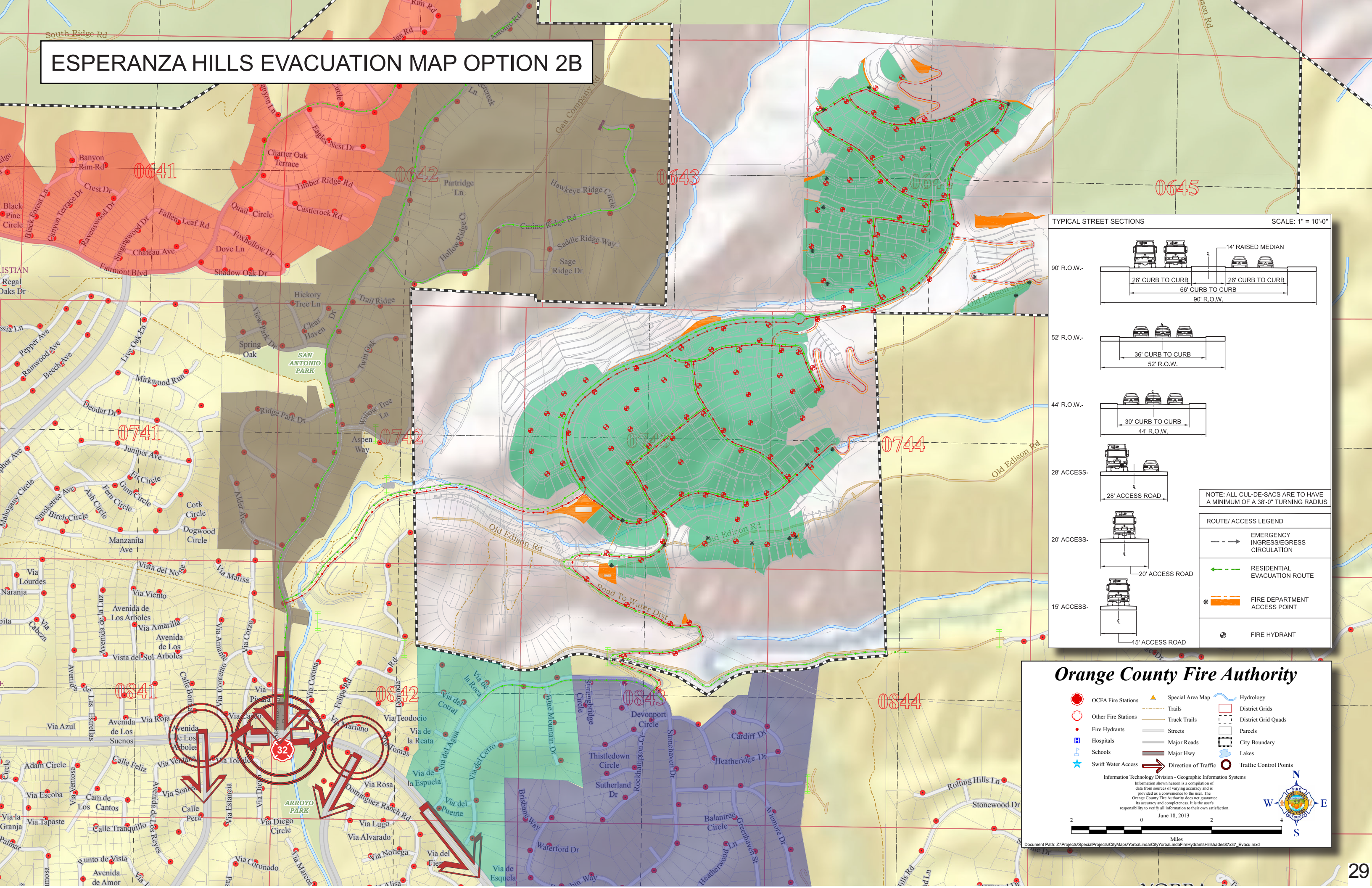
June 18, 2013

2 0 2 4 Miles

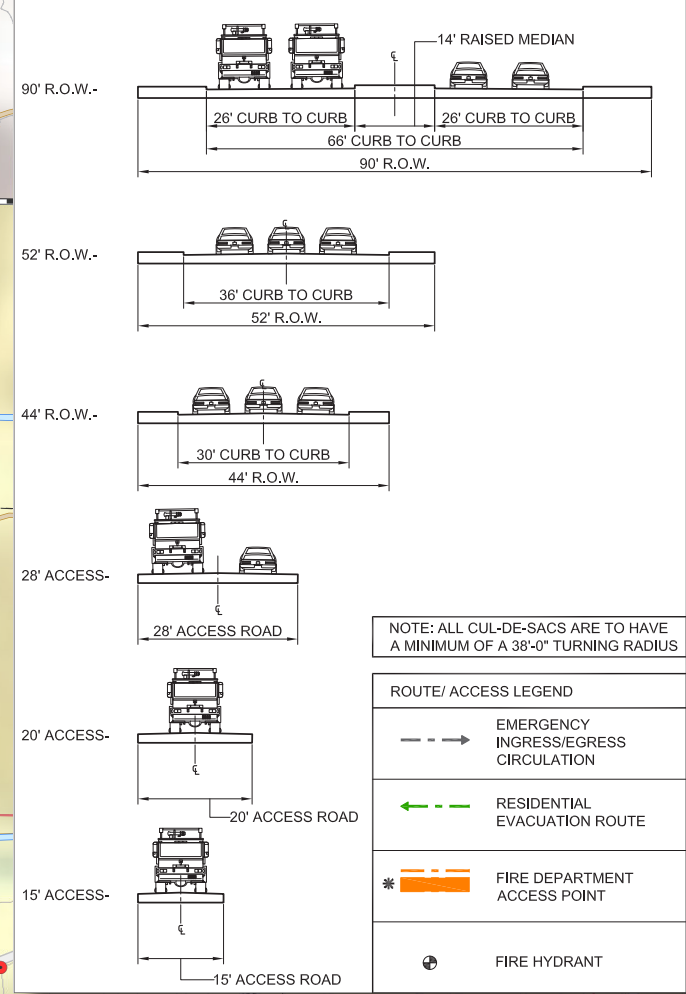
Document Path: Z:\Projects\SpecialProjects\CityMaps\Yorba Linda\City\Yorba Linda\FireHydrants\Hillshades\7x37\_Evacu.mxd



# ESPERANZA HILLS EVACUATION MAP OPTION 2B



TYPICAL STREET SECTIONS SCALE: 1" = 10'-0"



# Orange County Fire Authority

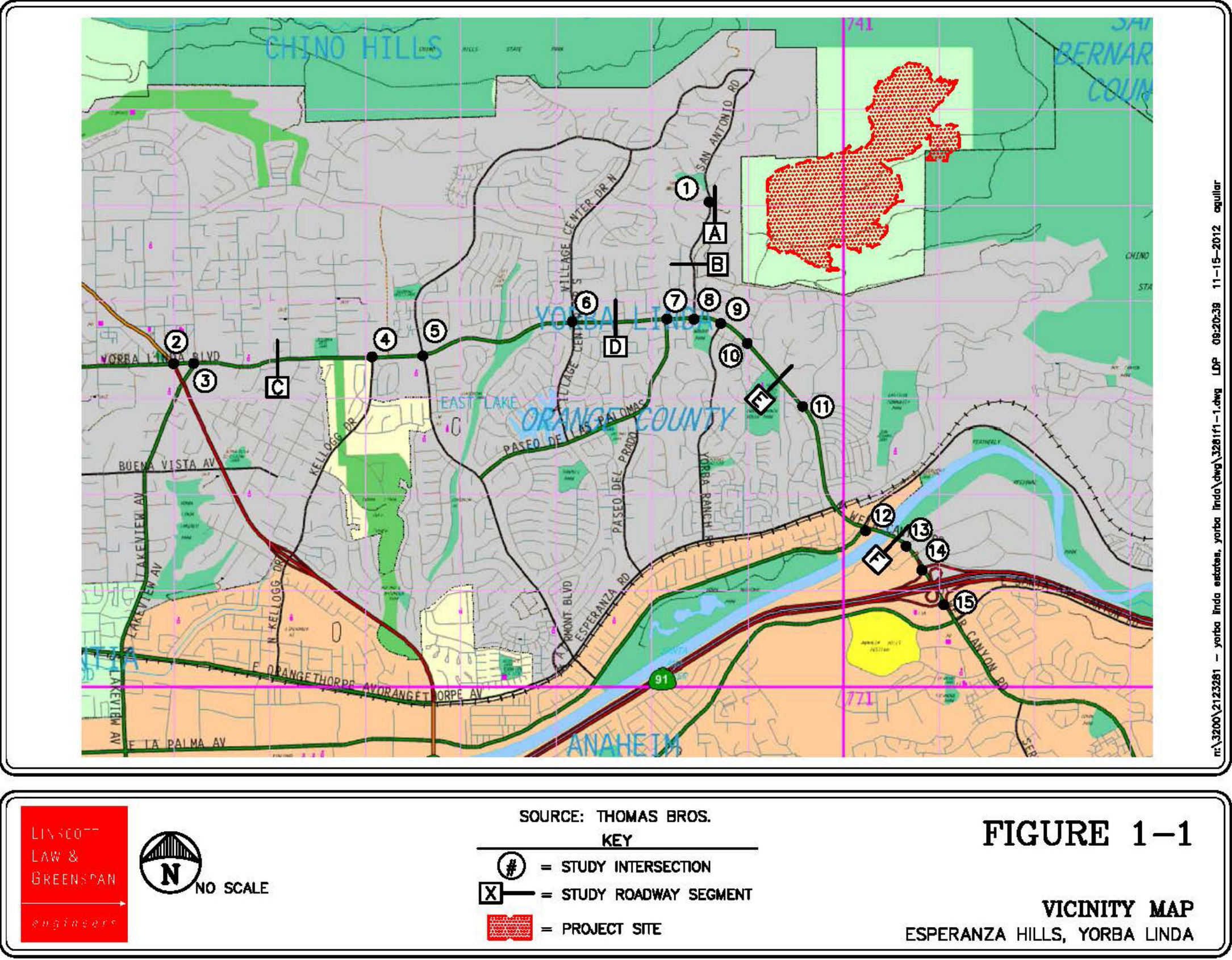
Information shown hereon is a compilation of data from sources of varying accuracy and is provided as a convenience to the user. The Orange County Fire Authority does not guarantee its accuracy and completeness. It is the user's responsibility to verify all information to their satisfaction.

June 18, 2013

Miles

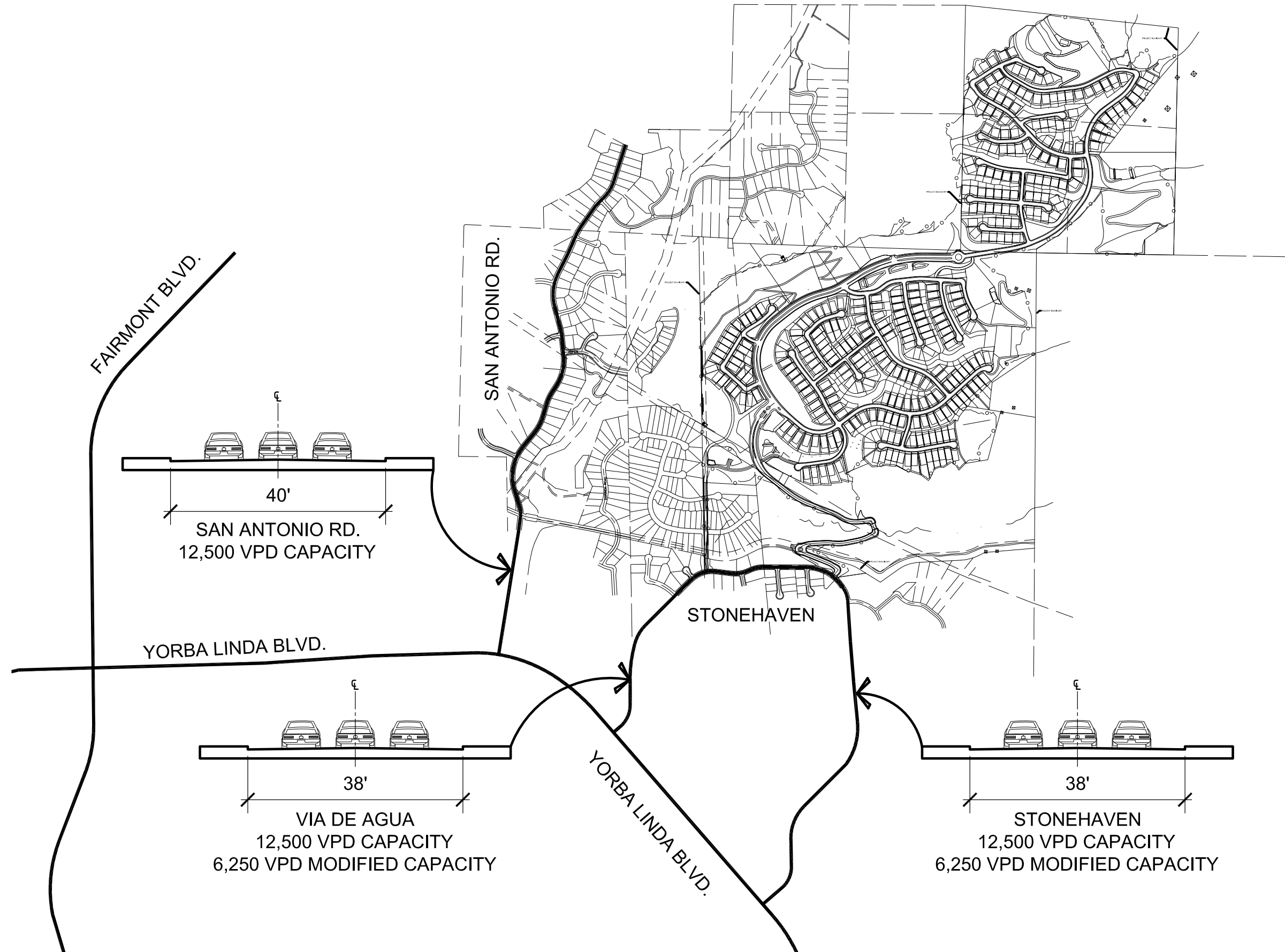


# Traffic Study Scope





# Collector Streets





# Traffic Capacities

Street Name	Capacity vpd	Modified Capacity vpd	Existing vpd	Project Only EH + BH	Projected 2020 CV+EH+BH	LOS current	LOS 2020
Via De Agua (Option 1)	12,500	6250	1112	2351	4452	A	C
Stonehaven (Option 1)	12,500	6250	1966	1266	3389	A	A
San Antonio (Option 2)	12,500	12,500	3530	3617	7629	A	B
San Antonio (Option 2B) (65%)	12,500	12500	3530	2351	6363	A	A
Stonehaven (Option 2B) (11%)	12500	6250	1966	398	2521	A	A
Via De Agua (Option 2B) (24%)	12500	6250	1112	868	2969	A	A



# Project Traffic Generation

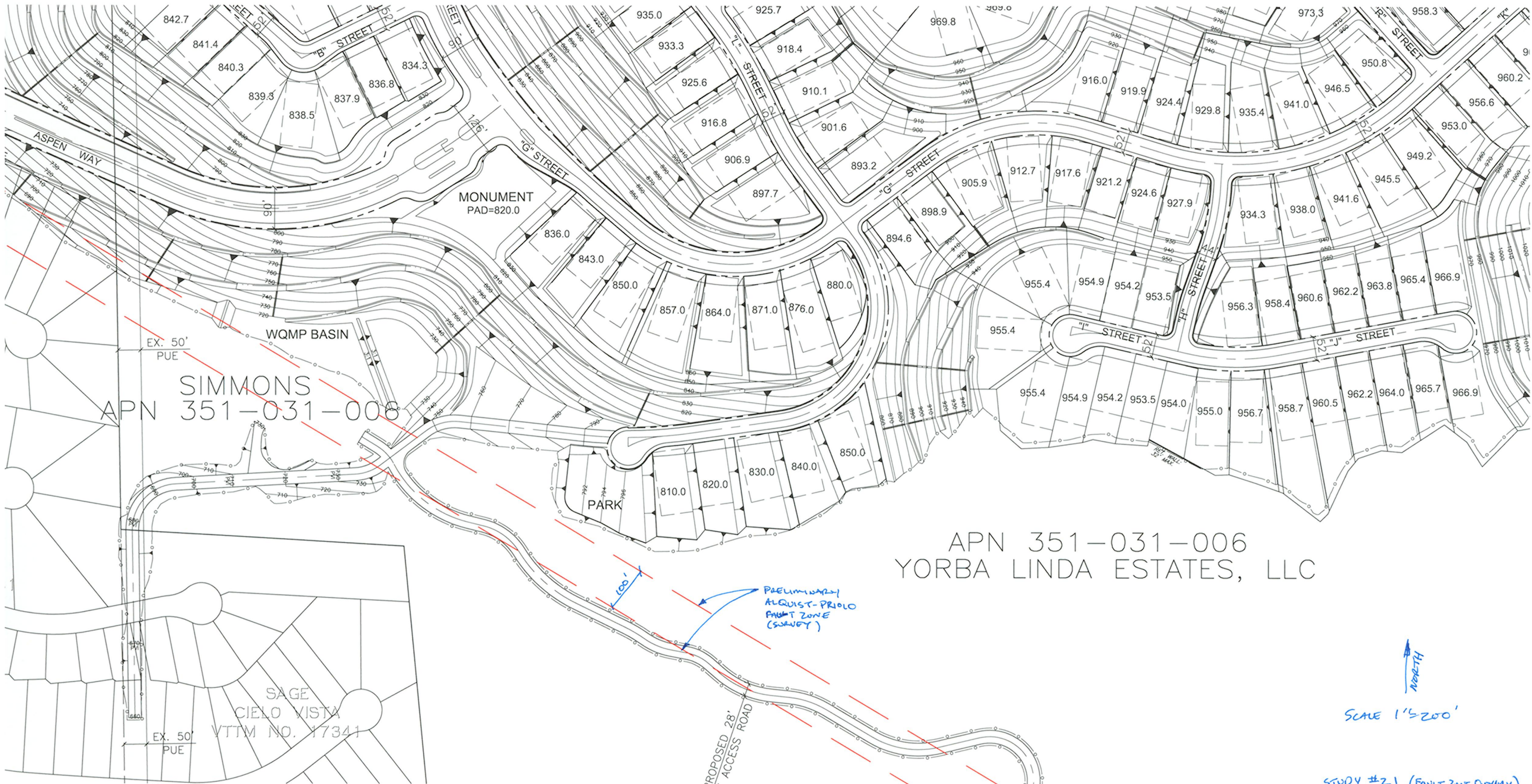
**Table 5-14-5 Project Traffic Generation Forecast**

Project Description	Daily 2-Way	AM Peak Hour			PM Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
Generation Factors							
Single-family housing (trip ends per dwelling unit)	9.57	0.19	0.56	0.75	0.64	0.37	1.01
Proposed Project Trip Generation							
Residential (378 dwelling units)	3,617	72	212	284	242	140	382

Source: *Trip Generation*, 8<sup>th</sup> Edition, Institute of Transportation Engineers (ITE)



## WHITTIER FAULT LOCATION



STUDY #21 (FAULT ZONE CORRECTION)  
KWC ENGINEERS  
7/18/12

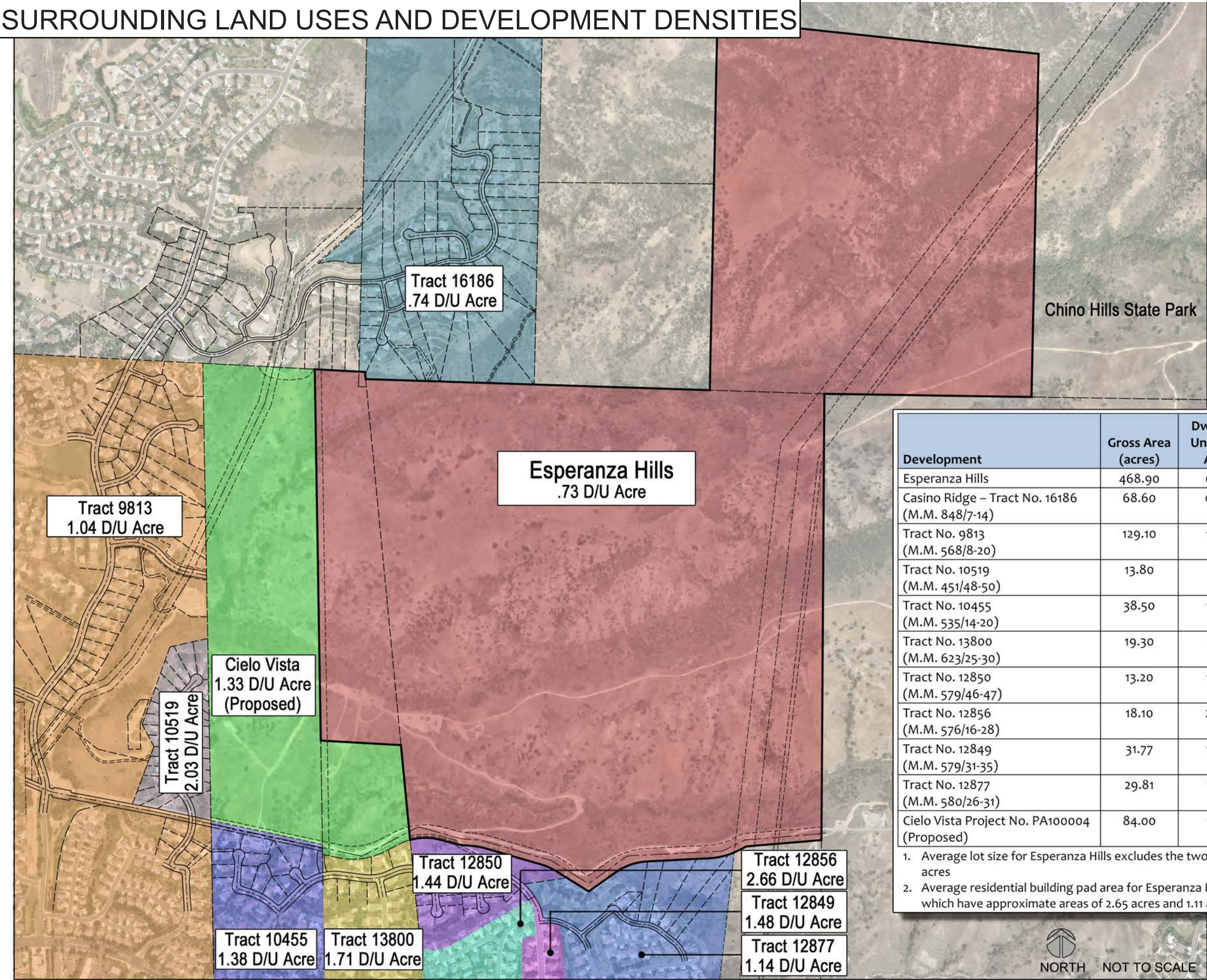


# City of Yorba Linda General Plan Provisions

- **Policy 1.2** of the GP for the Murdock Property is to: “permit development at an average density of 1.0 dwelling units per based acre” and the circulation element designated it at 1 DU/AC. **(GP p. C-15)**
- “A potential of 630 dwelling units are permitted within the Area Plan designation with an average overall density of 1.0 DU/AC over the entire 630 acre Area Plan development area.  
**(Murdock Property Appendix to GP)**
- Residential uses will be clustered for provision of open space and recreation/golf course facilities, and in response to the topography of the property. **(Murdock Property Appendix to GP)**
- Circulation improvements to San Antonio Road and Via De Agua Road will be required.  
**(Murdock Property Appendix to GP)**
- “Future access will be provided by San Antonio Road, located approximately ½ mile to the west, and Via De La Agua, located 700 feet to the west. Access easements or development in conjunction with adjacent properties (labeled 21, 20, and 19 on the attached exhibit) will be required.” **(Appendix to GP)**
- **Policy 5.5** is to complete the equestrian trail network through the community with particular emphasis on extension of trails through the Shell and Murdock Properties, and connections into Chino Hills State Park.
- None of the property was designated as conservation or open space **(Exhibit RR-3)**, Historic **(Exhibit H-2)**, or designated as riparian habitat or a wildlife corridor. **(Exhibit RR-4)**



SURROUNDING LAND USES AND DEVELOPMENT DENSITIES



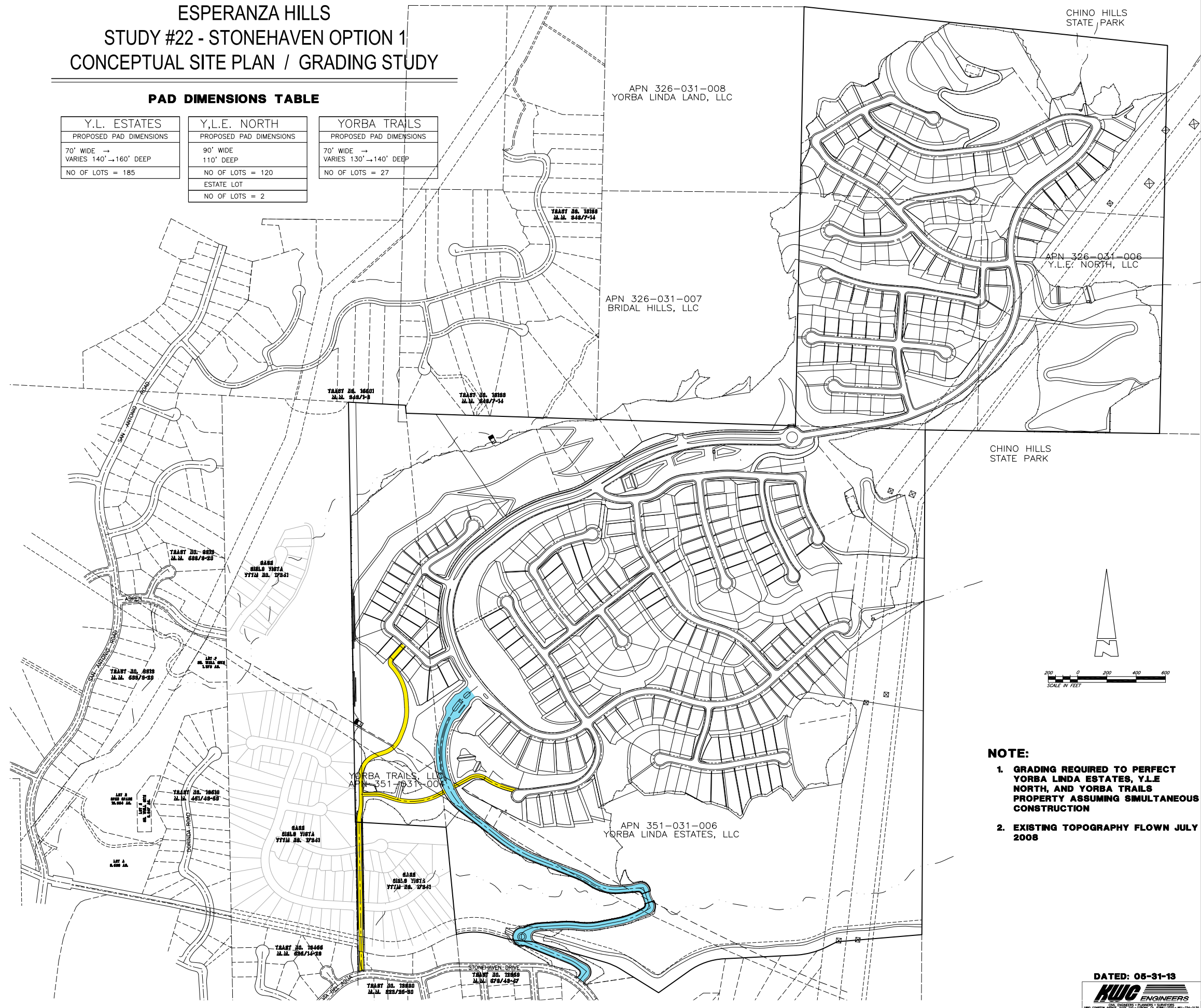
Development	Gross Area (acres)	Dwelling Units per Acre	Number of Lots (DU)		Average Lot Size (SF)	
			Option 1	Option 2	Option 1	Option 2
Esperanza Hills	468.90	0.73	334	340	18,755	18,553
Casino Ridge – Tract No. 16186 (M.M. 848/7-14)	68.60	0.74	51		45,740	
Tract No. 9813 (M.M. 568/8-20)	129.10	1.04	134		28,750	
Tract No. 10519 (M.M. 451/48-50)	13.80	1.9	28		18,730	
Tract No. 10455 (M.M. 535/14-20)	38.50	1.38	53		33,100	
Tract No. 13800 (M.M. 623/25-30)	19.30	1.71	33		27,800	
Tract No. 12850 (M.M. 579/46-47)	13.20	1.44	19		20,910	
Tract No. 12856 (M.M. 576/16-28)	18.10	2.65	48		13,326	
Tract No. 12849 (M.M. 579/31-35)	31.77	1.48	47		23,782	
Tract No. 12877 (M.M. 580/26-31)	29.81	1.14	34		28,254	
Cielo Vista Project No. PA100004 (Proposed)	84.00	1.33	112		14,810	

1. Average lot size for Esperanza Hills excludes the two estate lots, which have lot sizes that are 21.78 acres and 2.08 acres
2. Average residential building pad area for Esperanza Hills would increase with the addition of the two estate lots, which have approximate areas of 2.65 acres and 1.11 acres.



### PAD DIMENSIONS TABLE

YORBA TRAILS	
PROPOSED PAD DIMENSIONS	
70' WIDE →	
VARIES 130' → 140' DEEP	
NO OF LOTS = 27	



**NOTE:**

- 1. GRADING REQUIRED TO PERFECT YORBA LINDA ESTATES, Y.L.E NORTH, AND YORBA TRAILS PROPERTY ASSUMING SIMULTANEOUS CONSTRUCTION**
- 2. EXISTING TOPOGRAPHY FLOWN JULY 2008**

**DATED: 05-31-13**



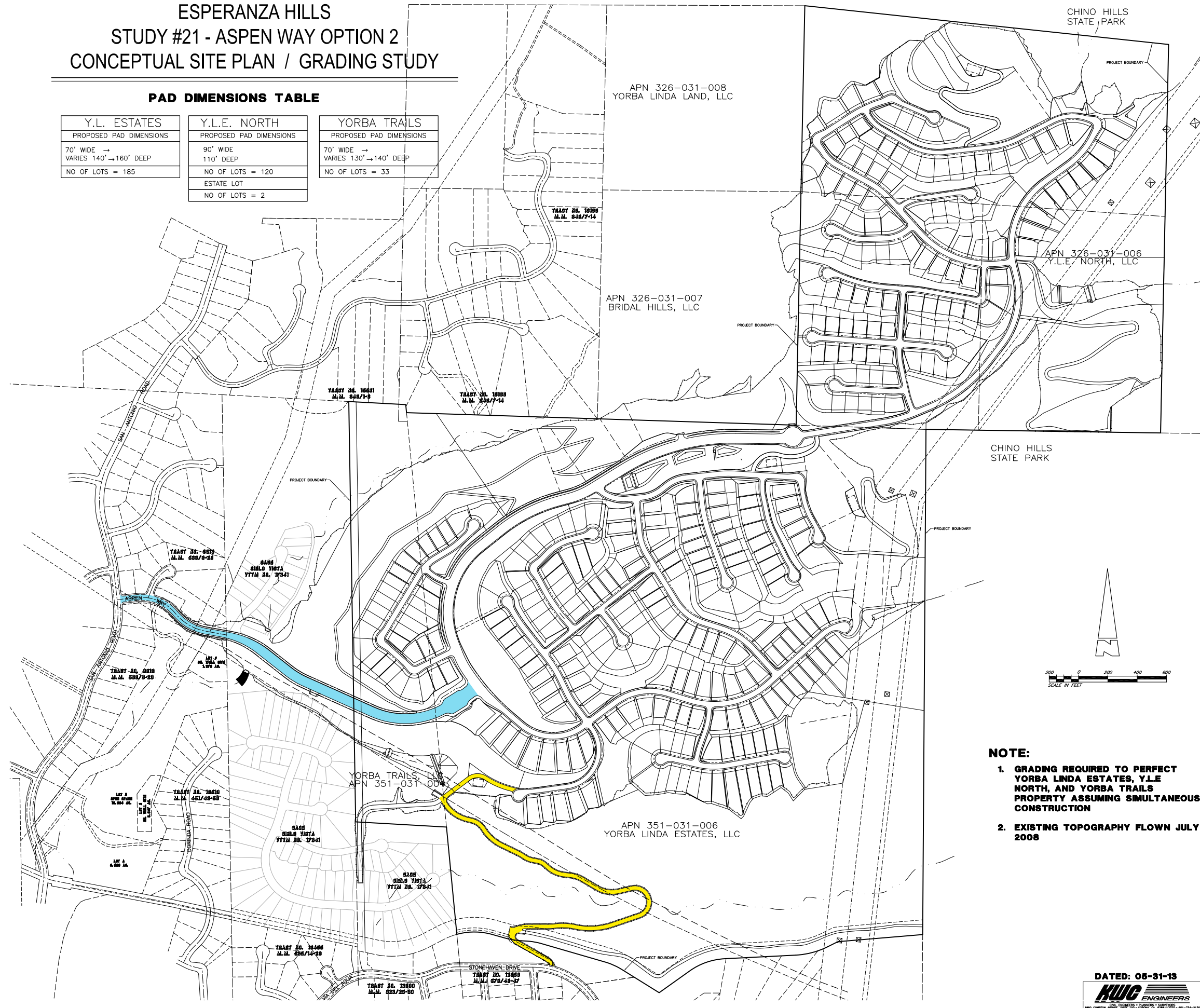
**KWC ENGINEERS**  
CIVIL ENGINEERS • PLANNERS • SURVEYORS  
1880, COMBON ALLEY, SUITE 102 • DALLAS, TX 75244 • (214) 341-1100



ESPERANZA HILLS  
STUDY #21 - ASPEN WAY OPTION 2  
CONCEPTUAL SITE PLAN / GRADING STUDY

## PAD DIMENSIONS TABLE

Y.L. ESTATES	Y.L.E. NORTH	YORBA TRAILS
PROPOSED PAD DIMENSIONS	PROPOSED PAD DIMENSIONS	PROPOSED PAD DIMENSIONS
70' WIDE → VARIES 140' → 160' DEEP	90' WIDE 110' DEEP	70' WIDE → VARIES 130' → 140' DEEP
NO OF LOTS = 185	NO OF LOTS = 120	NO OF LOTS = 33
	ESTATE LOT	
	NO OF LOTS = 2	



**NOTE:**

- 1. GRADING REQUIRED TO PERFECT YORBA LINDA ESTATES, Y.I.E NORTH, AND YORBA TRAILS PROPERTY ASSUMING SIMULTANEOUS CONSTRUCTION**
- 2. EXISTING TOPOGRAPHY FLOWN JULY 2008**

**DATED: 05-31-13**

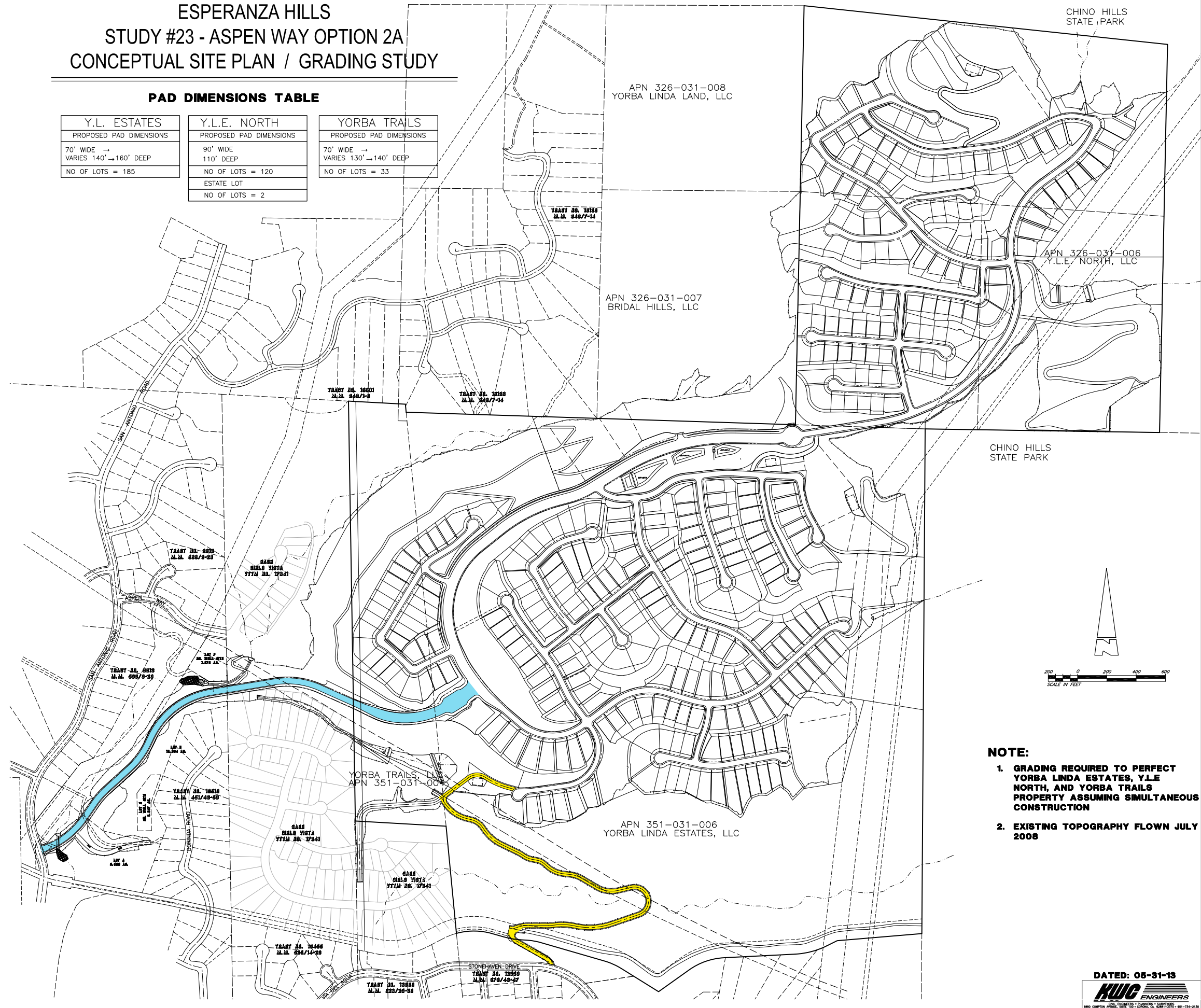


**KWC ENGINEERS**  
CIVIL ENGINEERS • PLANNERS • SURVEYORS  
1880, CONDON ROAD, SUITE 202, CHANDLER, AZ 85226  
(602) 997-1100 • FAX (602) 997-1105



### PAD DIMENSIONS TABLE

YORBA TRAILS	
PROPOSED PAD DIMENSIONS	
70' WIDE →	
VARIES 130' → 140' DEEP	
NO OF LOTS = 33	



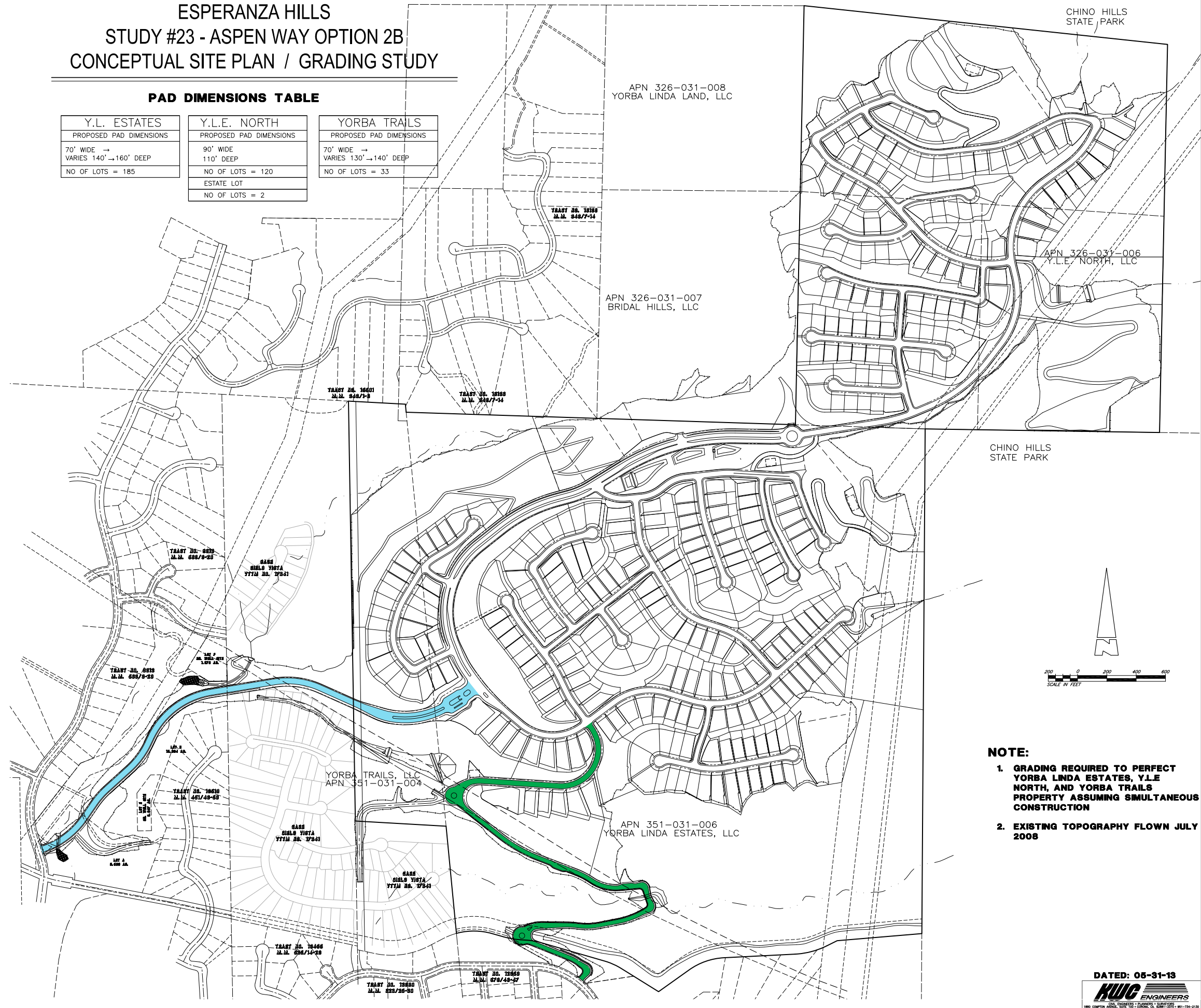
## 2. EXISTING TOPOGRAPHY FLOWN JULY 2008

**KWC ENGINEER**  
CIVIL ENGINEERS • PLANNERS • SURVEYORS  
1880 COMPTON AVENUE, SUITE 100 • CORONA, CA 92609 • 951/441-1111



### PAD DIMENSIONS TABLE

YORBA TRAILS	
PROPOSED PAD DIMENSIONS	
70' WIDE →	
VARIES 130' → 140' DEEP	
NO OF LOTS = 33	



**DATED: 05-31-13**







TOTAL OFF-SITE IMPROVEMENT AREA: 451,669 SF OR 10.4 ACRES





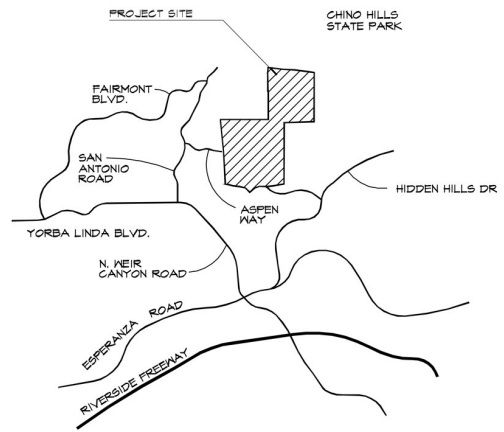
- NATURAL OPEN SPACE PRESERVED - 6,591,886 SF OR 151.3 ACRES (32.2%)
- LANDSCAPED & IRRIGATED SLOPES - 5,512,649 SF OR 126.6 ACRES (26.9%)
- LANDSCAPED PARKS/ DETENTION BASINS - 715,767 SF OR 16.4 ACRES (3.6%)
- USEABLE RESIDENTIAL PAD AREA - 4,936,958 SF OR 113.3 ACRES (24.2%)
- ROADS, WATER TANKS, SIDEWALKS & BENCH DRAINS - 2,699,643 SF OR 61.3 ACRES (13.1%)
- PROPERTY BOUNDARY - TOTAL AREA - 20,426,903 SF OR 468.9 ACRES

NOTE: OPEN SPACE & LANDSCAPED AREAS ARE OVER 62% OF THE SITE AREA

OFF-SITE IMPROVEMENTS (IMPROVED AREA OUTSIDE PROPERTY BOUNDARY):

TOTAL OFF-SITE IMPROVEMENT AREA: 1,080,744 SF OR 24.9 ACRES

- LANDSCAPED & IRRIGATED SLOPES - 860,459 SF OR 19.8 ACRES
- ROADS, SIDEWALKS & BENCH DRAINS - 225,785 SF OR 5.2 ACRES



VICINITY MAP  
NOT TO SCALE

OPEN SPACE EXHIBIT  
SAN ANTONIO ROAD - OPTION 2B  
ESPERANZA HILLS  
YORBA LINDA, CALIFORNIA

DATE: 01/13/2014





PLAY