

November 29, 2018

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County of San Diego  
Planning and Development Services  
5510 Overland Avenue, Suite 310  
San Diego, California 92123

**Subject:** *Fire Protection Plan – Letter Report for the Resque Ranch Project; Assessor’s Parcel Number: 276-030-61*

This Fire Protection Plan (FPP) – Letter Report is submitted pursuant to Section 4903 of the County of San Diego 2017 Consolidated Fire Code to address the adverse environmental effects that the proposed Equestrian Rescue Ranch may have from wildland fire. The FPP-Letter Report further provides mitigation of those impacts to ensure that the above-referenced Project does not unnecessarily expose people, livestock, or structures to a significant risk of loss, injury, or death involving wildland fires. For purposes of this FPP- Letter Report, the Equestrian Rescue Ranch Project will be referred to as the “Resque Ranch Project” or the “Project.”

## 1 Project Description

The Project proponent, 4030 Goldfinch Investments, LLC, is preparing an application for development and operation of a new equine rescue ranch to be located on privately-held land in central San Diego County, California (Refer to Figure 1, Project Vicinity; and Figure 2, Project Location). The majority of the Resque Ranch Project site has been graded and a new horse stable and circular corral have been built (Refer to Attachment 1, Representative Site Photographs). The proposed Project property is approximately 5.12 acres, of which the proposed equine rescue facilities (i.e., horse stables and corrals) would be within an approximately 3.1-acre area (See Attachment 2, Proposed Site Plan). A graded pad, which is located on the eastern edge of the property for a future single-family home on approximately 1.8 acres, is not a part of this Project’s FPP. The Project would require approval from the County of San Diego for a Minor Use Permit to allow for construction and operation of such facilities for the long-term.

The proposed Project site occurs on County Assessor Parcel Number 276-030-61 and is subject to the General Plan Regional Category Rural, Land Use Designation. Zoning for the site is RL-20 (Rural Lands). Primary access to the site would occur from Highland Valley Road on a 24-foot wide asphalt paved road that connects with a 20-foot wide paved road around the horse stable and corral area. This road would be one-way direction around the perimeter of the Project site. All fire access roads will be designed and maintained to support the imposed loads of fire apparatus (not less than 75,000 lbs.) and be consistent with code requirements for asphaltic cement (AC) pavement surface. The fire roads as planned and constructed would facilitate a maximum hose pull of approximately 150 feet for all site features.

## 2 Environmental Setting

### 2.1 Location

The Resque Ranch Project is located in the unincorporated portion of the County of San Diego within the Ramona Community Planning Area, south of the City of Escondido and San Pasqual Valley, north of the City of Poway, and west of the City of Ramona. More specifically, the Proposed Project site is situated north of Highland Valley Road, just east of Paseo Penasco. The Project lies within Township 13 South, Range 1 West in the southwestern portion of Section 4 of the San Pasqual U.S. Geographical Survey 7.5-minute quadrangle map. Figure 1 illustrates the Proposed Project's regional location.

The surrounding land uses in all directions include semi-rural residential properties and agriculture, which is primarily vineyards and orchards. The entirety of the Project lies within the state responsibility area (SRA) Moderate Fire Hazard Severity Zone, as statutorily designated by the California Department of Forestry and Fire Protection (CALFIRE)<sup>1</sup>.

### 2.2 Topography

The Project site is located in Highland Valley, which is north of Starvation Mountain and adjacent to an unnamed ridgeline to the north and east of the site. Topography influences fire risk by affecting fire spread rates. Typically, steep terrain results in faster fire spread up-slope and slower fire spread down-slope, unless downslope winds are influencing the fire. Flat terrain tends to have little effect on fire spread, resulting in fires that are driven by wind. Terrain within the Project site is relatively flat and has been graded to allow for the construction of a horse stable. The terrain adjacent to the Project includes steep, mountainous terrain to the north, south, and east. Elevations range from approximately 1,081 feet above mean seal level (AMSL) along the eastern property boundary to 958 feet AMSL in the northwestern corner of the property.

### 2.3 Geology

The U.S. Department of Agriculture (USDA) Soils Service Map for the San Pasqual Quadrangle designates the soils as "Arlington coarse sandy loam, 2 to 9 percent slopes". The site does not contain geological features that would pose any increased danger of wildfire potential.

### 2.4 Flammable Vegetation

The Resque Ranch property has been cleared of flammable vegetation; all vegetation on the site had been removed prior to the site inspection by Dudek's Fire Prevention Planners on October 30, 2018. The

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1 California Department of Forestry and Fire Protection (CAL FIRE). 2007. Fire and Resource Assessment Program (FRAP). San Diego County Fire Hazard Severity Zones in SRA. November 6, 2007.

Project site consists of a completely graded, dirt pad, with a newly constructed metal horse barn in the northwestern portion of the property. Surrounding vegetation would be characterized as orchards, vineyards, and eucalyptus groves within semi-rural residential properties as well as undeveloped, naturally-vegetated parcels. CAL FIRE FRAP fire history data<sup>2</sup> also indicates that the vegetation within Highland Valley area burned in 2007 (Witch Fire). The vegetation on and adjacent to this property is still in early stages of recovery toward a climax species composition.

## 2.5 Climate

Inland, northern San Diego County and the project area's weather are influenced by the Pacific Ocean and are frequently under the influence of a seasonal, migratory subtropical high-pressure cell known as the "Pacific High" (WRCC 2014)<sup>3</sup>. Wet winters and dry summers with mild seasonal changes characterize the Southern California climate. This climate pattern is occasionally interrupted by extreme periods of hot weather, winter storms, or dry, easterly Santa Ana winds. The average high temperature for the project area is approximately 70°F, with average highs in the summer and early fall months (July–October) reaching 95°F. Precipitation typically occurs from December through April with annual rainfall ranging from 3.5 to 13.3 inches. The prevailing wind pattern is from the west (on-shore), but the presence of the Pacific Ocean causes a diurnal wind pattern known as the land/sea breeze system. During the day, winds are from the west–southwest (sea) and at night, winds are from the northeast (land), averaging two miles per hour (mph). During the summer season, the diurnal winds may average slightly higher (approximately 16 mph) than the winds during the winter season due to greater pressure gradient forces. Surface winds can also be influenced locally by topography and slope variations. The highest wind velocities are associated with downslope, canyon, and Santa Ana winds.

The project area's climate has a large influence on the fire risk, as drying vegetation during the summer months becomes fuel available to advancing flames should an ignition be realized. Typically, the highest fire danger is produced by the high-pressure systems that occur in the Great Basin, which result in the Santa Ana winds of Southern California. Sustained wind speeds recorded during recent major fires in San Diego County exceeded 30 mph and may exceed 65 mph during extreme conditions. The Santa Ana wind conditions are a reversal of the prevailing southwesterly winds that usually occur on a region-wide basis during late summer and early fall. Santa Ana winds are warm and dry winds that flow from the higher desert elevations in the north through the mountain passes and canyons. As they converge through the canyons, their velocities increase. Consequently, peak velocities are highest at the mouths of canyons and dissipate as they spread across valley floors. Santa Ana winds generally coincide with the regional drought period and the period of highest fire danger. The Proposed Project site is affected by Santa Ana winds from the north and east of the site. The slopes are generally in alignment with the extreme Santa Ana wind events, which can influence fire spread by creating downslope wind-driven fires.

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<sup>2</sup> CAL FIRE. 2018. Fire and Resource Assessment Program - FRAP Mapping Database. Accessed November 7, 2018. <http://frap.fire.ca.gov/data/frapgisdata-subset>

<sup>3</sup> WRCC (Western Regional Climate Center). 2014. "Climate of California." Western Regional Climate Center. <http://www.wrcc.dri.edu/narratives/california/>.

## 3 Project Exposure to Wildland Fires

### 3.1 Water Supply

On-site firefighting water needs will be met from off-site fire hydrants and an on-site water tank. As one of the water delivery options, there are two fire hydrants available nearby the Resque Ranch facilities. The first hydrant is located on Highland Valley Road, approximately 280 feet west of the proposed Project entrance. Another hydrant is located 15 feet from the northwest corner of the property. In addition to the public water system connection, a licensed Fire Protection Engineer or fire sprinkler contractor will need to calculate and design a water tank capacity and delivery system to handle required fire flow for this Project. The tank shall comply with 2016 California Fire Code, County of San Diego 2017 Consolidated Fire Code (CCFC), and NFPA 22, Private Fire Protection Water Tanks. This tank will be located near the horse stable and will be provided sufficient fire department hose connections and stored hoses for watering all potential fire areas (County of San Diego Ordinance No. 10285 Section 3130). The capacity of the water tank at the facility would be based on firefighting needs and automatic fire sprinkler operation in the horse barn with the lower half of the tank designated for firefighting and automatically maintained at all times. The proponent will submit plans to the County, demonstrating the water system capable of handling firefighting and fire sprinkler operations.

### 3.2 Fire Access Roads

Access to the project site would be provided from Highland Valley Road via a newly proposed 24-foot wide asphalt cement (AC) pavement private driveway.

Internal circulation would be provided by a 20-foot-wide, one-way road. This road would be improved with asphalt pavement and would be maintained to provide a fire buffer as well as to facilitate on-site circulation for emergency vehicles.

Although not planned or required, a possible secondary fire access road could be provided to the north, via an approximately 16-foot wide dirt road, that connects to a privately owned driveway and eventually Paseo Penasco, which is approximately 500 feet to the west of the property.

### 3.3 Dead Ends

The circulatory road throughout the project site will include a one-way, looped roadway around the Resque Ranch facilities. Road distance thresholds specified under Section 503.1.3 of the Consolidated Fire Code restrict maximum dead end road lengths for varying parcel size. The project's parcel size is approximately 5.12 acres. Parcels of this size are allowed a maximum dead-end road length of 2,640 feet according to Section 503.1.3 of the 2017 CCFC. The distance from the site entrance to the farthest point within the facility is approximately 1,185 feet. Therefore, the project is in compliance.

### 3.4 Width

Primary access road is 24 feet with internal roads a minimum 20 feet wide.

### 3.5 Vertical clearance

Minimum vertical clearance of 13 feet 6 inches will be maintained for the entire required width of fire access roads.

### 3.6 Grade

Road grades will not exceed 5%, complying with the 2017 CCFC.

### 3.7 Surface

All access and internal road surfaces will consist of asphalt pavement and would be capable of supporting the imposed loads of fire apparatus (not less than 75,000 lbs.)

### 3.8 Fire Response

Fire response will be provided by Ramona Municipal Water District's<sup>4</sup> (RMWD) Fire Station #82, which is staffed 24 hours per day 7 days per week by a CAL FIRE, Schedule A crew. CAL FIRE is under contract to provide firefighter/paramedic personnel to RMWD<sup>5</sup>. Fire Station #82 is located at 3410 Dye Road and serves the Highland Valley area. Total road travel distance from Station 82 to the northeast corner of the horse stable is approximately 8.7 miles with a response travel time of 15 minutes and 26 seconds<sup>6</sup>. Therefore, the fire station can respond to the Resque Ranch site within the San Diego County General Plan 20 minute travel time requirement for the Proposed Project's land use designation.

The Project site would be visited daily by a limited number of employees and visitors to care for the horses and maintain or repair facilities. This on-site population will not be consistent, and would not include overnight stays, except in rare instances where a caregiver would be required 24 hours a day to care for a very sick animal. This land use activity does not fit into typical models to calculate projected call volume. As a conservative comparison, this analysis uses up to four people on-site during daylight hours. Therefore, the 24-hour equivalency would be ½ that number since staff would not be on site after dark/overnight (there will be some variation throughout the year with a higher number of persons during wildfire events where horses could be sheltered). Using San Diego County fire agencies' estimate of 82 annual calls per 1,000 population, the project's estimated two daylight only on-site personnel, would

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<sup>4</sup> In 1981, The Ramona Fire District was consolidated into the RMWD.

<sup>5</sup> RMWD covers over 75 square miles and serves an estimated 40,000 residents with three fire stations.

<sup>6</sup> Assumes travel time to the project entrance, an adjusted speed based on the Insurance Services Office travel time formula ( $T = 0.65 + 1.7D$ , where T=time and D= distance), and does not include turnout time.

generate up to 1 call every five years (0.2 calls per year). The type of call would be expected to be medical-related. These estimates are likely overly conservative because County statistics represent calls from dense urban areas where medical and fire related calls are much higher than would be anticipated from the Project. Therefore, the proposed Project is not expected to cause a decline in the emergency response times for Station 82. A portion of the project's parcel tax revenue will be allocated to fire protection, which can be used to maintain current levels of protection without impacting existing residents.

### 3.9 Setback from Property Lines

The minimum setback as regulated by the County of San Diego Zoning Ordinance Sections 3100 and 4800 will be maintained.

### 3.10 Building Construction

The metal, horse stable includes several horse stalls and feed stock storage, meeting applicable Fire and Building Codes pursuant to requirements for ignition resistance (California Building Code Chapter 7A).

### 3.11 Fire Protection Systems

An approved, commercial automatic fire sprinkler system (NFPA 13) will be installed in the horse stable.

### 3.12 Defensible Space

The facilities will be maintained free of combustible vegetation throughout the property. Off-site land uses preclude vegetative fuels and the provided defensible space is considered adequate for the Project.

### 3.13 Vegetation Management

Vegetation management will be maintained by the Project applicant on at least an annual basis or more often, as needed. Plants used anywhere on the site will be from an approved fire resistant plant list that is maintained by the County of San Diego, Department of Planning and Land Use (PDS 199)<sup>7</sup>. Ornamental trees planted onsite would be limited to groupings of 2–3 trees with canopies for each grouping separated horizontally as described in Table 1.

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<sup>7</sup> [https://www.sandiegocounty.gov/content/sdc/pds/fire\\_resistant.html](https://www.sandiegocounty.gov/content/sdc/pds/fire_resistant.html)

**Table 1 Distance between Tree Canopies by Percent Slope<sup>1</sup>**

Percent of Slope	Required Distances Between Edge of Mature Tree Canopies <sup>2</sup>
0-20	10 feet
21-40	20 feet
41+	30 feet

<sup>1</sup> Source: 2017 CCFC.

<sup>2</sup> Determined from canopy dimensions as described in Sunset Western Garden Book (Current Edition).

### 3.14 Fire Behavior Computer Modeling

Computer fire modeling is not proposed for the Resque Ranch Project.

### 3.15 Additional Horse Stable Requirements

The horse stable will be maintained in accordance with the County’s Zoning Ordinance (No. 10285) related to equine uses. Pertinent requirements are as follows:

1. The interior of electrical appliances, such as fans and heaters, will be kept clean.
2. Extension cords will not be used as a permanent electrical conduit. Industrial grade extension cords for a temporary event can be used, if the use of extension cords is unavoidable.
3. Dry, well-cured hay can only be stored in an enclosed building, a covered area, or a covered bin, meeting animal enclosure and main building setbacks as regulated by the County of San Diego Zoning Ordinance Sections 3100 and 4800.
4. Rags and cloths used to clean tack and hooves shall be stored in an orderly fashion within an enclosed building or covered bin that meets the animal enclosure and main building setbacks. Bedding materials shall also be stored in the same location.
5. All wiring and electric cords shall be properly run and installed with insulating wiring routed and strung through metal conduits.
6. Light fixtures shall have caged enclosure to prevent damage and sparking.
7. Large structures over 1,000 square feet in area shall meet a minimum fire separation setback of 50 feet to reduce risk of fire between structures.
8. The electrical system shall allow the power to be shut off to each building without losing power to the water pumps, if applicable.
9. The proponent shall clearly post an emergency fire plan, which includes the fire prevention requirements above, for all employees and visitors to see.

County of San Diego, Planning and Development Services

Subject: *Fire Protection Plan – Letter Report for the Resque Ranch Project;*

*APN: 276-030-61*

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11/27/2018

Prepared by (Signature)

Date

Michael Huff, Principal

Printed Name, Title

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Project Applicant (Signature)

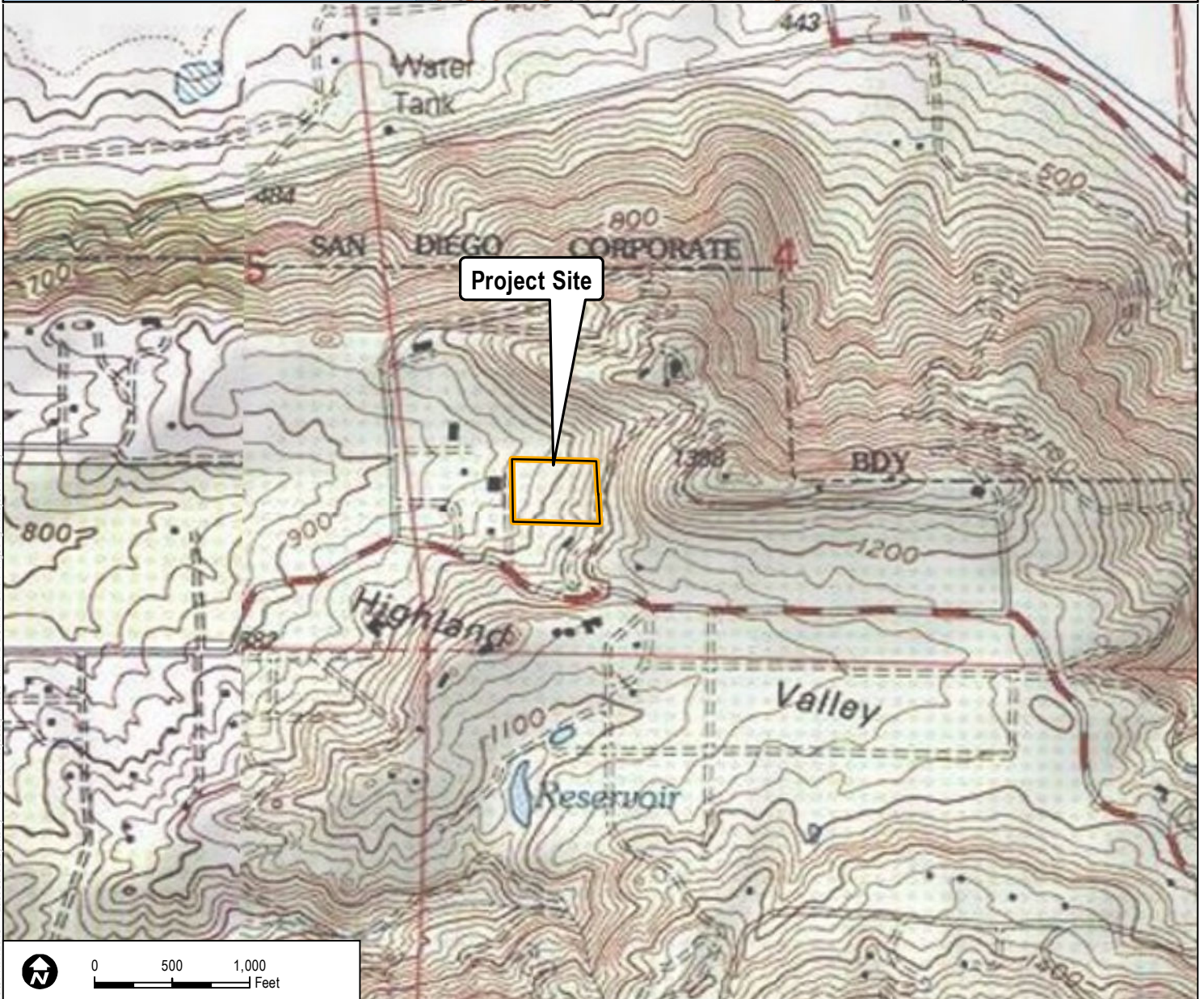
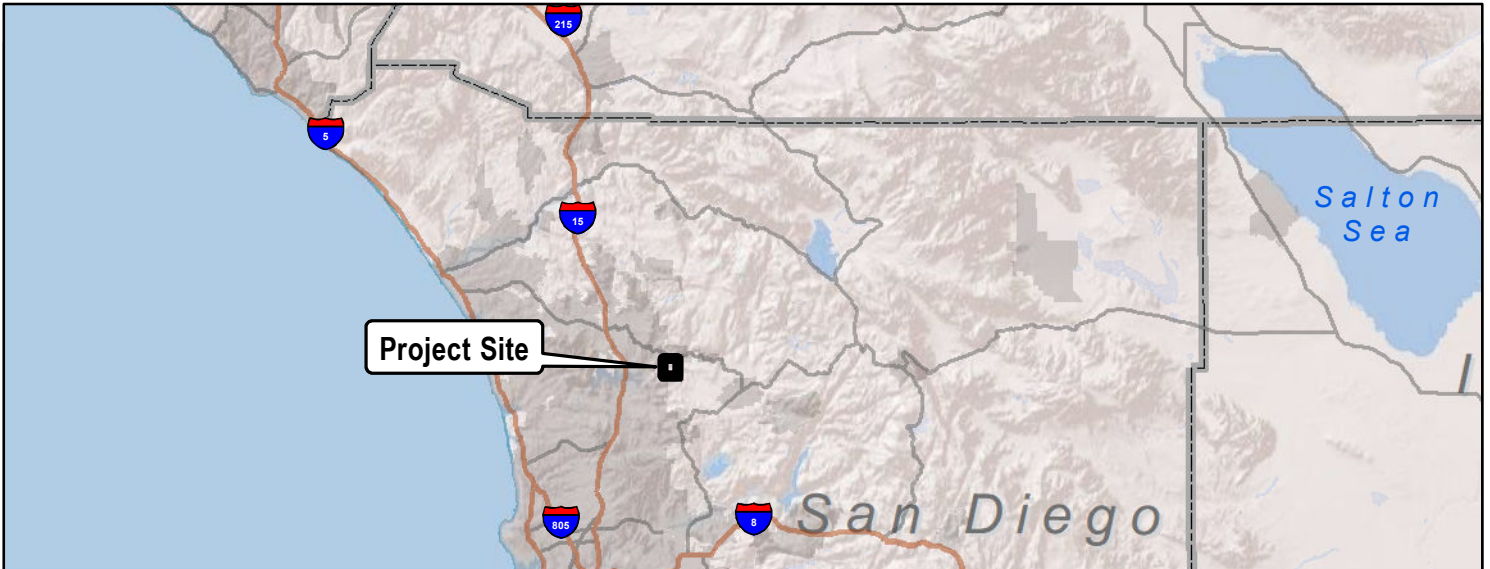
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Att: *Figure 1 – Project Vicinity*  
*Figure 2 – Project Location*  
*Attachment 1 – Photograph Log*  
*Attachment 2 – Project Site Plan*





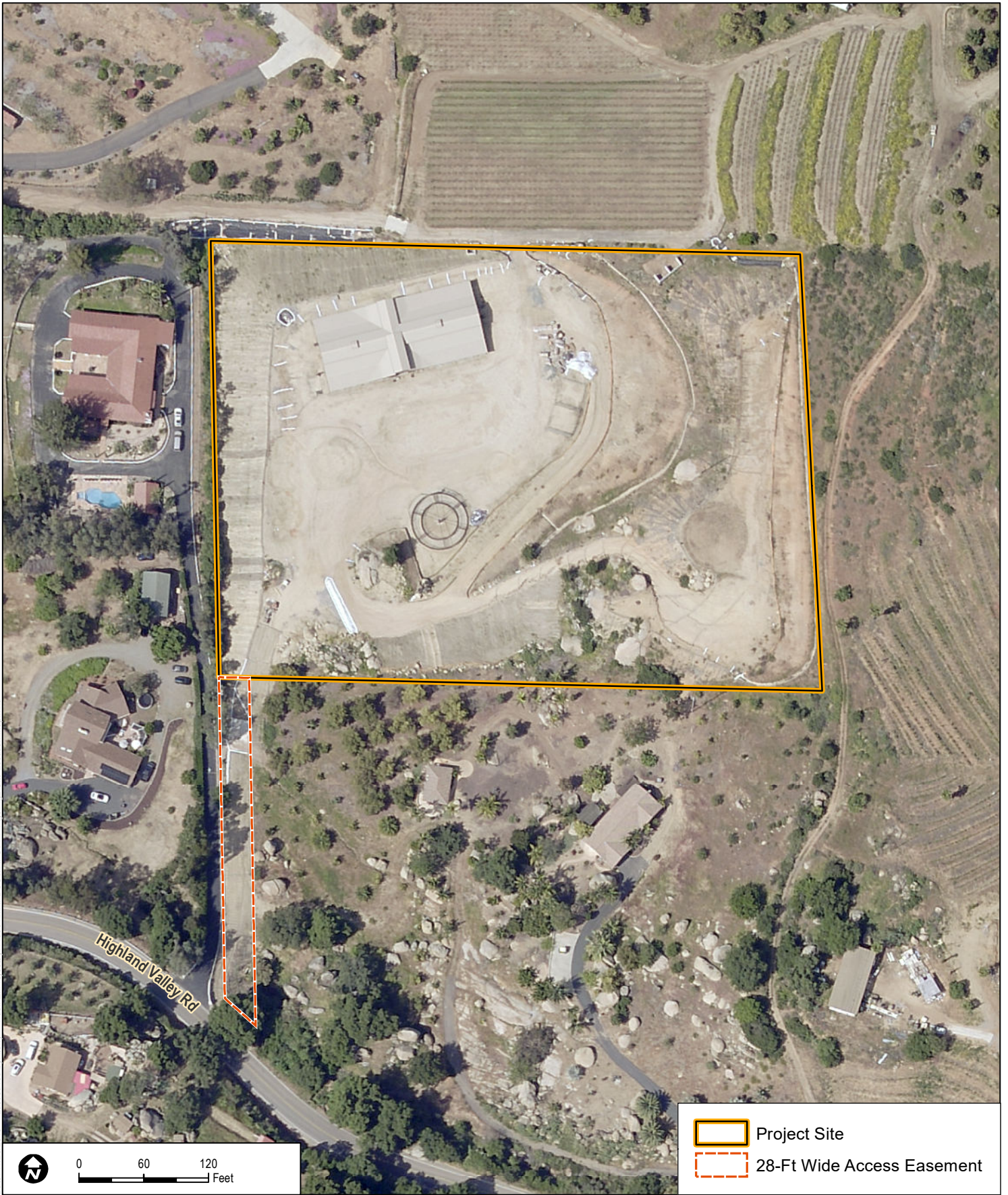
SOURCE: USGS 7.5 Minute Series, San Pasquel Quadrangle

**DUDEK**



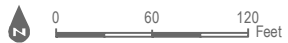
**FIGURE 1**  
Project Vicinity

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SOURCE: AERIAL-SANGIS IMAGERY 2017

**DUDEK**



**FIGURE 2**  
Project Location



# Attachment 1

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Representative Photographs



# Attachment 1 – Resque Ranch Project

## Representative Site Photographs



**Photograph 1.** View looking at north side of horse stable that is built on the property. Building is constructed with both metal roof and metal exterior siding.



**Photograph 2.** View of adjacent, rural residential properties to the west and vineyard to the north of the property.



**Photograph 3.** View of north side of horse stable, facing east. Stable is adjacent to vineyard, orchards, and open stable area.



**Photograph 4.** Photo of south side of building, facing north. Graded area is proposed for corral and open stables. Avocado orchard, vineyards are on hillside behind horse stable.

# Attachment 1 – Resque Ranch Project

## Representative Site Photographs



**Photograph 5.** Onsite photograph of graded area, looking south.



**Photograph 6.** photograph of proposed driveway (graded area), which connects to Highland Valley Road.



**Photograph 7.** View of western edge of project site, looking north.



**Photograph 8.** View of interior of horse stable with enclosed metal stables with wood panels. The interior is protected with a commercial, automatic fire sprinkler system.



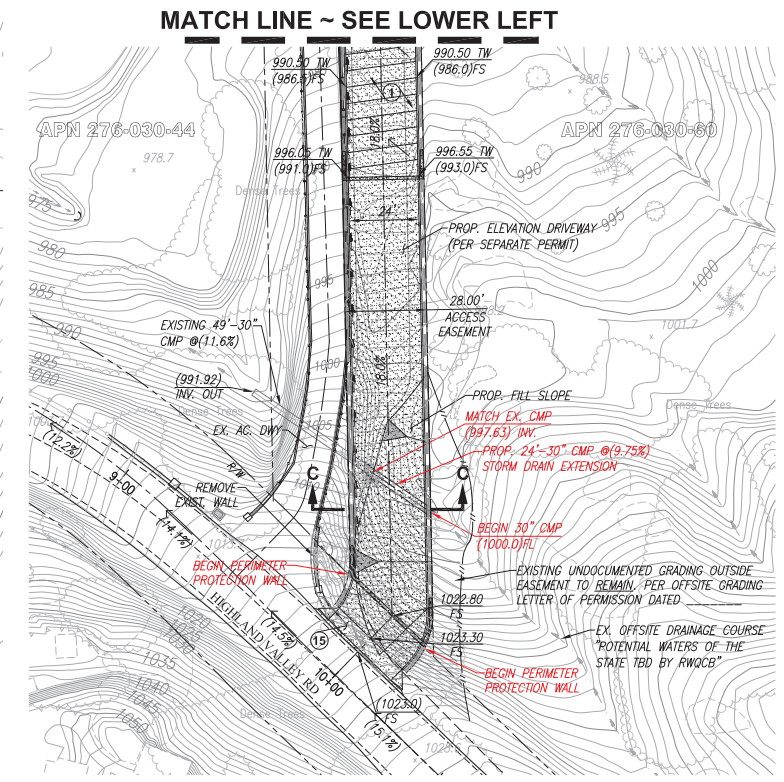
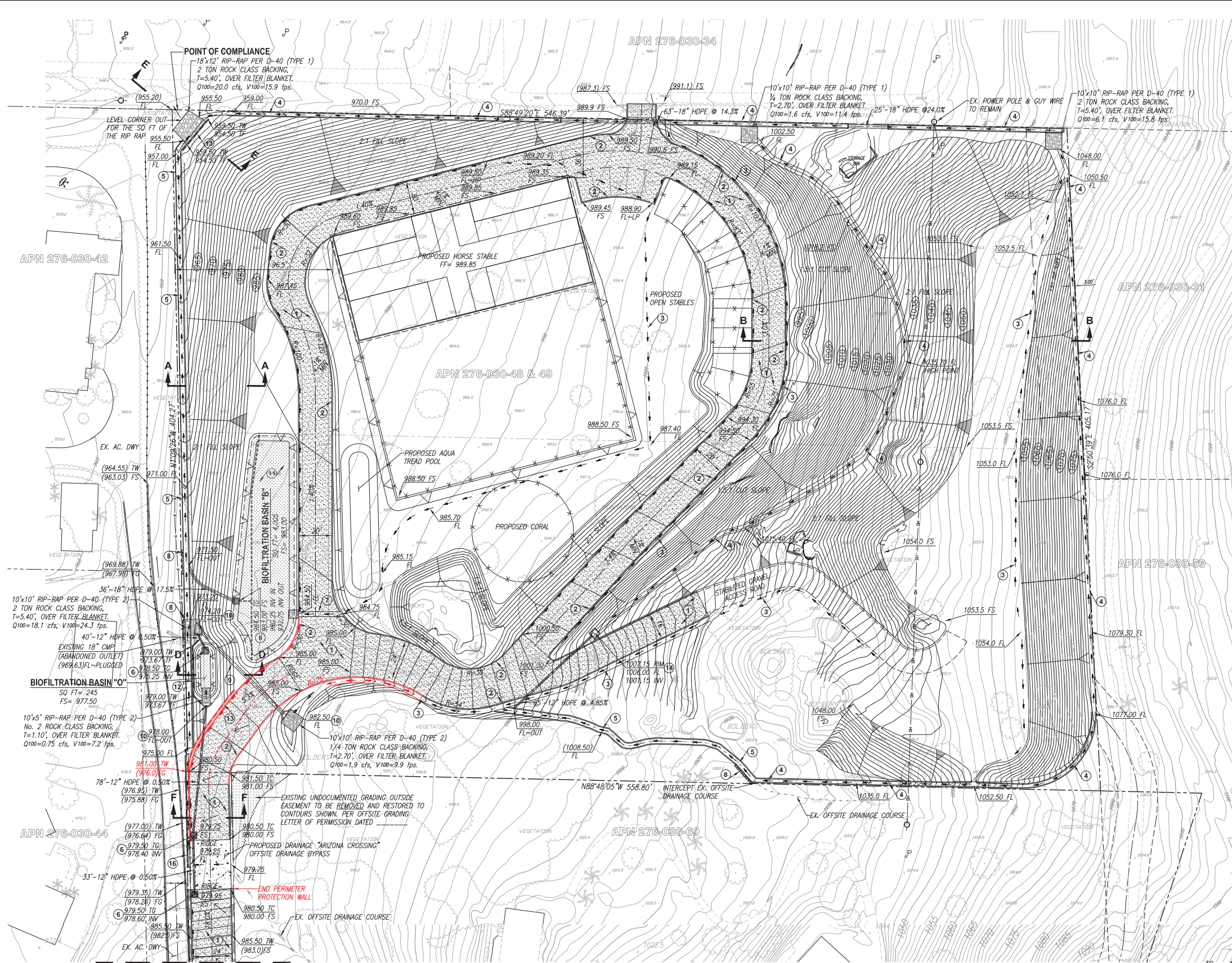
# Attachment 2

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Project Site Plan







**CONSTRUCTION NOTES**

- ① CONSTRUCT 3" AC PAVEMENT OVER 7" CLASS II A.B. WITH 95% COMPACTED NATIVE. (STRUCTURAL SECTION SHALL BE AS APPROVED BY DPW MATERIAL LAB).
- ② CONSTRUCT 6" AC BERM TYPE A PER SDRSD G-5.
- ③ EARTHEN SWALE @ 1.0% MIN. PER DETAIL SHEET 3.
- ④ CONSTRUCT 24" WIDE TYPE "B" BROW DITCH PER SDRSD D-75.
- ⑤ CONSTRUCT 36" WIDE TYPE "D" BROW DITCH PER SDRSD D-75.
- ⑥ 36"x36" "BROOKS" TYPE PRECAST CATCH BASIN.
- ⑦ CONSTRUCT 3.0" WIDE P.C.C. RIBBON GUTTER PER DETAIL SHEET 2.
- ⑧ PROPOSED SPLASH WALL 15' LONG X 24" TALL.
- ⑨ PROPOSED 71'-24" HDPE @ 10.5%.
- ⑩ PROPOSED CONCRETE HEADWALL PER SDRSD D-34.
- ⑪ CONSTRUCT BIOFILTRATION BASIN W/NUTRIENT SENSITIVE MEDIA PER "BF-2" & PER DETAIL SHEET 2.
- ⑫ CONSTRUCT MASONRY RETAINING PER SDRSD C-5.
- ⑬ CONSTRUCT MASONRY RETAINING PER SDRSD C-4.
- ⑭ CONSTRUCT TYPE "F" CATCH BASIN PER SDRSD D-7.
- ⑮ CONSTRUCT 30" WIDE AC DRIVEWAY PER SDRSD DS-07.
- ⑯ PROPOSED SPLASH WALL 50' LONG X 24" TALL.

