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Preliminary Stormwater Control Plan

Vine Cliff Winery Alteration Use Permit and Minor Modification
P25-00161-UP & P24-00191-MM
Planning Commission Hearing – June 18, 2025

PRELIMINARY STORMWATER CONTROL PLAN FOR A REGULATED PROJECT

Vine Cliff Winery Use Permit

Prepared for:

Vine Cliff Winery
7400 Silverado Trail
Napa, CA 94558
APN 032-030-027

Prepared by:

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Project No. 2024040

June 2024

Update: September 2024

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- Vicinity Map
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This Stormwater Control Plan was prepared using the Bay Area Stormwater Management Agencies Association (BASMAA) template dated January 2019.

I. PROJECT DATA

Table 1. Project Data

Project Name/Number	Vine Cliff Winery Use Permit / 2024040
Application Submittal Date	June 2024
Project Location	7400 Silverado Trail Napa, CA 94558 APN 032-030-027
Project Phase No.	N/A
Project Type and Description	Project Type: Regulated – This project involves remodeling the existing hospitality building and adding a commercial kitchen. The existing production area will be removed and replaced with guest arrival parking. The caves will be remodeled, including widening some portions and adding a new portal and roadways. Additionally, a covered crush pad will be installed at the new cave portal.
Total Project Site Area (acres)	99.60 acres
Total New and Replaced Impervious Surface Area	33,700 sq ft (0.77 acres)
Total Pre-Project Impervious Surface Area	61,600 sq ft (1.41 acres)
Total Post-Project Impervious Surface Area	67,100 sq ft (1.54 acres)

II. SETTING**II.A. Project Location and Description**

The Vine Cliff project site is approximately 99.60 acres and located at 7400 Silverado Trail, Napa, CA 94558. The project site is located approximately 0.38 miles northwest of Rector Reservoir, and has approximate coordinates of 38°26'49.61"N & 122°21'1.96"W. Refer to the Vicinity Map in Appendix A.

The project improvements will include remodeling production and hospitality infrastructure, including parking and landscaping improvements.

II.B. Site Features and Conditions**Project Description for Vine Cliff Winery**

The Vine Cliff Winery project site, located at 7400 Silverado Trail, Napa, CA, encompasses an existing winery that includes production and hospitality buildings, parking areas, and surrounding vineyards. The area within and around the project boundary is primarily characterized by vineyards with similar vegetation density, reflecting the typical landscape of the region.

The project site spans across steep sloping terrain, with slopes ranging from 5% to 40%. This gradient ensures that the site maintains natural drainage patterns, which will be preserved as part of the project's stormwater management strategy.

Stormwater runoff from the site will be efficiently managed by conveying it to designated self-retaining areas or directing it to proposed drainage structures. These drainage structures are designed to connect seamlessly to the existing swale located in the middle of the two-way access road, ensuring proper disposal and preventing any adverse impact on the surrounding environment.

Based on mapping from the National Resources Conservation Service (NRCS) Web Soil Survey, the project site soils are classified as Boomer gravelly loam and Cortina very stony loam (Hydrologic Soil Group C). According to the NRCS, Group C. According to the NRCS, Group C soils have a slow infiltration rate when thoroughly wet. These soils primarily consist of soils with a layer that impedes downward movement of water or soils with moderately fine to fine texture. They generally have a slow rate of water transmission, posing potential challenges for stormwater management and requiring careful planning to prevent runoff and erosion.

II.C. Opportunities and Constraints for Stormwater Control

Opportunities for this project include the open vegetated areas that can be used to construct a bioretention facility.

Constraints of this project include the steep hillside grades that require significant grading to accommodate bioretention facilities.

III. LOW IMPACT DEVELOPMENT DESIGN STRATEGIES

III.A. Optimization of Site Layout

III.A.1. Limitation of development envelope

The project is limited to be approximately within the limits of the existing development. Bioretention facilities have been located to limit the development of long storm drain networks and provide infiltration for stormwater runoff. Wherever feasible, existing drainage patterns have been maintained and existing vineyards will be protected.

III.A.2. Preservation of natural drainage features

The existing drainage pattern for the site shall be preserved where feasible.

III.A.3. Setbacks from creeks, wetlands, and riparian habitats

The proposed improvements are outside creek setbacks.

III.A.4. Minimization of imperviousness

Impervious surfacing of the site shall be minimized by incorporating landscaping as a prominent feature.

III.A.5. Use of drainage as a design element

Vegetated areas shall be utilized for both treatment and aesthetics.

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III.B. Dispersal of Runoff to Pervious Areas

Some of the improved areas will drain to self-retaining areas.

III.C. Stormwater Control Measures

This project will follow the Post Construction Manual, prepared for the Bay Area Stormwater Management Agencies Association (BASMAA). Stormwater will be conveyed to bioretention areas to minimize drainage runs and utilize the large amount of vegetated area for treatment. Level spreaders will be used to dissipate energy and spread stormwater throughout the vegetated areas to prevent erosion. Locations of bioretention areas can be seen in the attached Stormwater Control Plan (SCP). See the following tables for the different drainage areas.

IV. DOCUMENTATION OF DRAINAGE DESIGN

IV.A. Drainage Management Areas

Table 2. Table of Drainage Management Areas

DMA Region	Surface Type	Area (sf)	Runoff Factor	Weighted Area (SF) Area x Runoff Factor	Region receiving the DMA runoff
DMA-1A	Pavement	20702	1.0	20702	LID 1
DMA-1B	Landscaped area	11605	0.1	1161	LID 1
DMA-2A	Pavement	6594	1.0	6594	LID 2
DMA-2B	Landscaped area	4374	0.1	437	LID 2
DMA-3	Pavement	386	1.0	386	LID 2
DMA-4	Pavement	420	1.0	420	LID 2
DMA-5	Pavement	2756	1.0	2756	LID 3
DMA-6	Pavement	474	1.0	474	LID 3
DMA-7	Roof	2815	1.0	2815	LID 3
DMA-8	Gravel	4812	0.1	481	LID 4
DMA-9	Pavement	2143	1.0	2143	LID 4
DMA-10	Pavement	1166	1.0	1166	LID 5
DMA-11	Pavement	1463	1.0	1463	LID 6
DMA-12	Pavement	1101	1.0	1101	LID 7
DMA-13	Pavement	1269	1.0	1269	LID 8
DMA-14	Pavement	1020	1.0	1020	LID 9
DMA-15	Gravel	4064	0.1	406	LID 9
DMA-16	Pavement	2956	1.0	2956	SRA-1
DMA-17	Pavement	5607	1.0	5607	SRA-2

IV.B. Areas Draining to Self-Retaining Area

Table 3. Areas Draining to Self-Retaining Area

DMA Region	Weighted Area (SF)	Receiving self-retaining DMA	Receiving self-retaining DMA Area (SF)	Ratio of Weighted Area to self-retaining area (min 0.5)
DMA-16	2956	SRA-1	1563	0.5
DMA-17	5607	SRA-2	2915	0.5

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IV.C. Drainage Management Areas

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Table 4. Table of Areas Draining to Bioretention Facilities

DMA Region	DMA Area (SF)	Post-project surface type	DMA Runoff factor	DMA Area x runoff factor (SF)	Facility Name: LID 1		
DMA-1A	20702	Pavement	1	20702	LID Sizing Factor	Minimum LID Size (SF)	Proposed LID Size (SF)
DMA-1B	11605	Landscaped area	0.1	1160.5			
Total				1160.5	0.04	875	886

DMA Region	DMA Area (SF)	Post-project surface type	DMA Runoff factor	DMA Area x runoff factor (SF)	Facility Name: LID 2		
DMA-2A	6594	Pavement	1	6594	LID Sizing Factor	Minimum LID Size (SF)	Proposed LID Size (SF)
DMA-2B	4374	Landscaped area	0.1	437.4			
DMA-3	386	Pavement	1	386			
DMA-4	420	Pavement	1	420			
Total				7837.4	0.04	313	332

DMA Region	DMA Area (SF)	Post-project surface type	DMA Runoff factor	DMA Area x runoff factor (SF)	Facility Name: LID 3		
DMA-5	2756	Pavement	1	2756	LID Sizing Factor	Minimum LID Size (SF)	Proposed LID Size (SF)
DMA-6	474	Pavement	1	474			
DMA-7	2815	Roof	1	2815			
Total				6045	0.04	242	249

DMA Region	DMA Area (SF)	Post-project surface type	DMA Runoff factor	DMA Area x runoff factor (SF)	Facility Name: LID 4		
DMA-8	4812	Gravel	0.1	481.2	LID Sizing Factor	Minimum LID Size (SF)	Proposed LID Size (SF)
DMA-9	2143	Pavement	1	2143			
Total				2624.2	0.04	105	152

DMA Region	DMA Area (SF)	Post-project surface type	DMA Runoff factor	DMA Area x runoff factor (SF)	Facility Name: LID 5		
DMA-10	1166	Pavement	1	1166	LID Sizing Factor	Minimum LID Size (SF)	Proposed LID Size (SF)
Total				1166	0.04	47	64

DMA Region	DMA Area (SF)	Post-project surface type	DMA Runoff factor	DMA Area x runoff factor (SF)	Facility Name: LID 6		
DMA-11	1463	Pavement	1	1463	LID Sizing Factor	Minimum LID Size (SF)	Proposed LID Size (SF)
Total				1463	0.04	59	116

DMA Region	DMA Area (SF)	Post-project surface type	DMA Runoff factor	DMA Area x runoff factor (SF)	Facility Name: LID 7		
DMA-12	1101	Pavement	1	1101	LID Sizing Factor	Minimum LID Size (SF)	Proposed LID Size (SF)
Total				1101	0.04	44	61

DMA Region	DMA Area (SF)	Post-project surface type	DMA Runoff factor	DMA Area x runoff factor (SF)	Facility Name: LID 8		
DMA-13	1269	Pavement	1	1269	LID Sizing Factor	Minimum LID Size (SF)	Proposed LID Size (SF)
Total				1269	0.04	51	72

DMA Region	DMA Area (SF)	Post-project surface type	DMA Runoff factor	DMA Area x runoff factor (SF)	Facility Name: LID 9		
DMA-14	1020	Pavement	1	1020	LID Sizing Factor	Minimum LID Size (SF)	Proposed LID Size (SF)
DMA-15	4064	Gravel	0.1	406.4			
Total				1426	0.04	57	58

SOURCE CONTROL MEASURES

IV.A. Site activities and potential sources of pollutants

- On-site Storm Drain Inlets
- Parking Areas
- Landscape Maintenance

IV.D. Summary of Maintenance Requirements for Each Stormwater Facility

- Energy dissipaters constructed of rip rap and level spreaders shall be specified at the outlets of new and replaced storm drains to minimize erosion.
- Parking areas shall be designed to minimize impervious surface areas and graded to direct runoff the storm drain network and outlet at self-retaining areas.
- Existing trees, shrubs and groundcover shall be preserved where feasible.
- Plant species tolerant of saturated soil conditions shall be specified in landscaped areas to be utilized for stormwater infiltration and treatment.
- Gutters tributary are screened with a leaf guard or maximum ½-inch to ¾-inch-minimum corrosion-resistant metallic hardware fabric.
- Water collected will be used for irrigation only.
- Large openings are secured to prevent entry by children.
- Gutters are to be cleaned annually.

Potential source of runoff pollutants	Permanent source control BMPs	Operational source control BMPs
On-site Storm Drain Inlets	Mark all inlets with the words "No Dumping! Flows to Creek" or similar.	Maintain and periodically replace inlet markings. Provide stormwater pollution prevention information to new site owners, lessees, or operators. See applicable operational BMPs in Fact Sheet SC-44, "Drainage System Maintenance"
Landscaping/Pesticide Use/Ground Maintenance	<p>State that final landscaping will accomplish all the following:</p> <ul style="list-style-type: none"> - Preserve existing native trees, shrubs, and ground cover to maximum extent possible - Design landscaping to minimize irrigation and runoff, to promote surface infiltration where appropriate, and to minimize the use of fertilizers and pesticides that can contribute to stormwater pollution. - Where landscaped areas are used to retain or detain stormwater, specify plats that are tolerant of saturated soil conditions. - Consider using pest-resistant plants, especially adjacent to hardscape. <p>To insure successful establishment, select plants appropriate to site soils, slopes, climate, sun, wind, rain, land use, air movement, ecological consistency, and plant interactions.</p>	<p>Maintain landscaping using minimum or no pesticides</p> <p>See applicable operational BMPs in Fact Sheet SC-41, "building and Grounds Maintenance," in the CASQA Stormwater Quality Handbooks</p> <p>Provide IPM information to new owners, lessees, and operators</p>
Plazas, sidewalks and Parking Areas		<p>Sweep parking lots regularly to prevent accumulation of litter and debris. Collect debris from pressure washing to prevent entry into the storm drain system.</p> <p>Collect washwater containing any cleaning agent or degreaser and discharge to the sanitary sewer not to a storm drain.</p>

IV.E. Features, Materials, and Methods of Construction of Source Control BMPs

All Source Control BMPs listed in the previous section will be implemented with corresponding and appropriate features, materials, and methods of construction.

V. STORMWATER FACILITY MAINTENANCE

V.A. Ownership and Responsibility for Maintenance in Perpetuity

The applicant accepts responsibility for interim operation and maintenance of stormwater treatment and flow-control facilities until such time as this responsibility is formally transferred to a subsequent owner. The owner then accepts full responsibility for the proper operation and maintenance of all stormwater facilities.

V.B. Summary of Maintenance Requirements for Each Stormwater Facility

Any maintenance will be financed and implemented by the property owner. All facilities shall be inspected annually and documented. Any necessary repairs to facilities shall also be documented. Updated information, including contact information, must be provided to the municipality if property is sold and whenever designated individuals or contractors change.

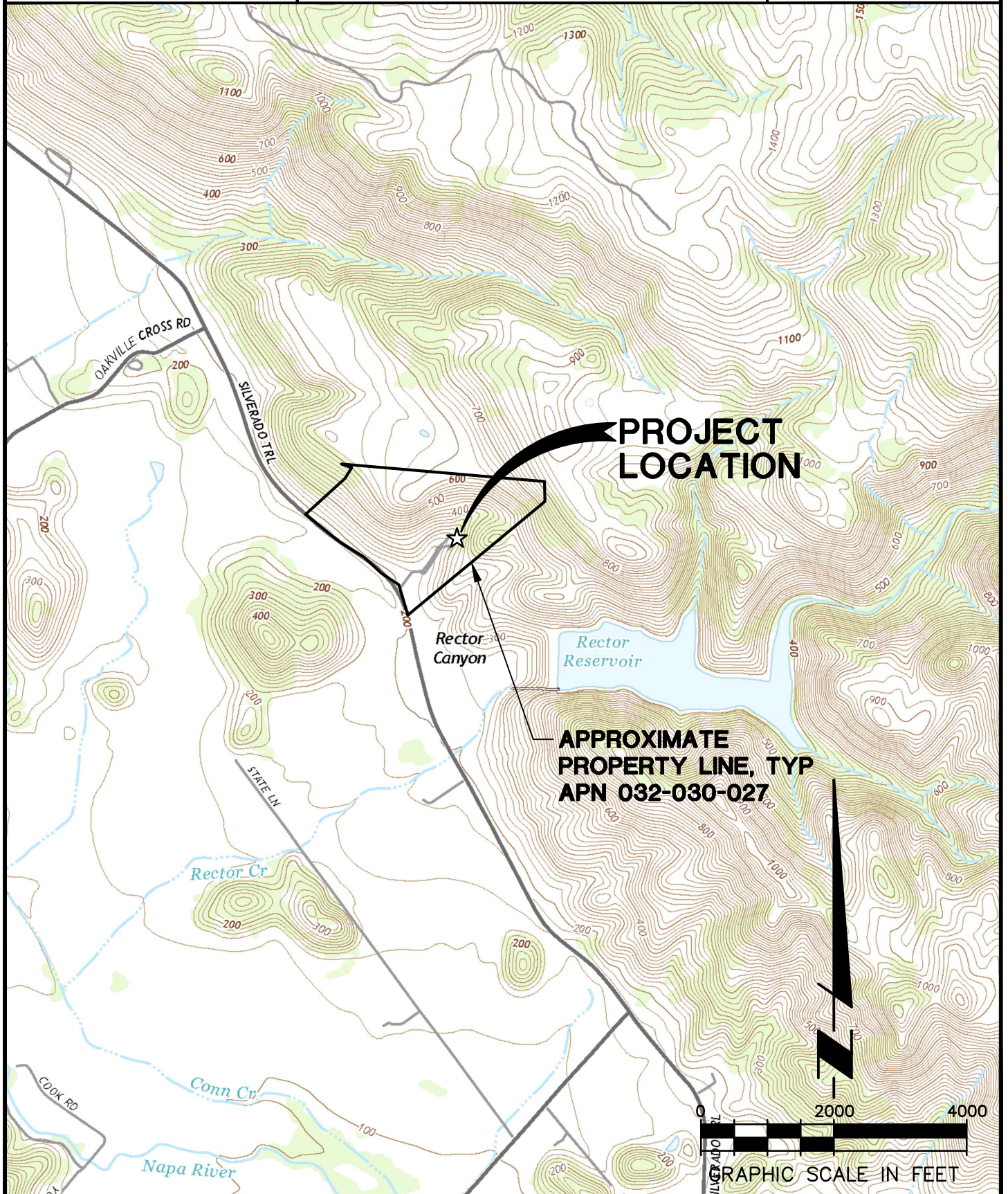
VI. CERTIFICATIONS

The preliminary design of stormwater treatment facilities and other stormwater pollution control measures in this plan are in accordance with the current edition of the BASMAA *Post-Construction Manual*.



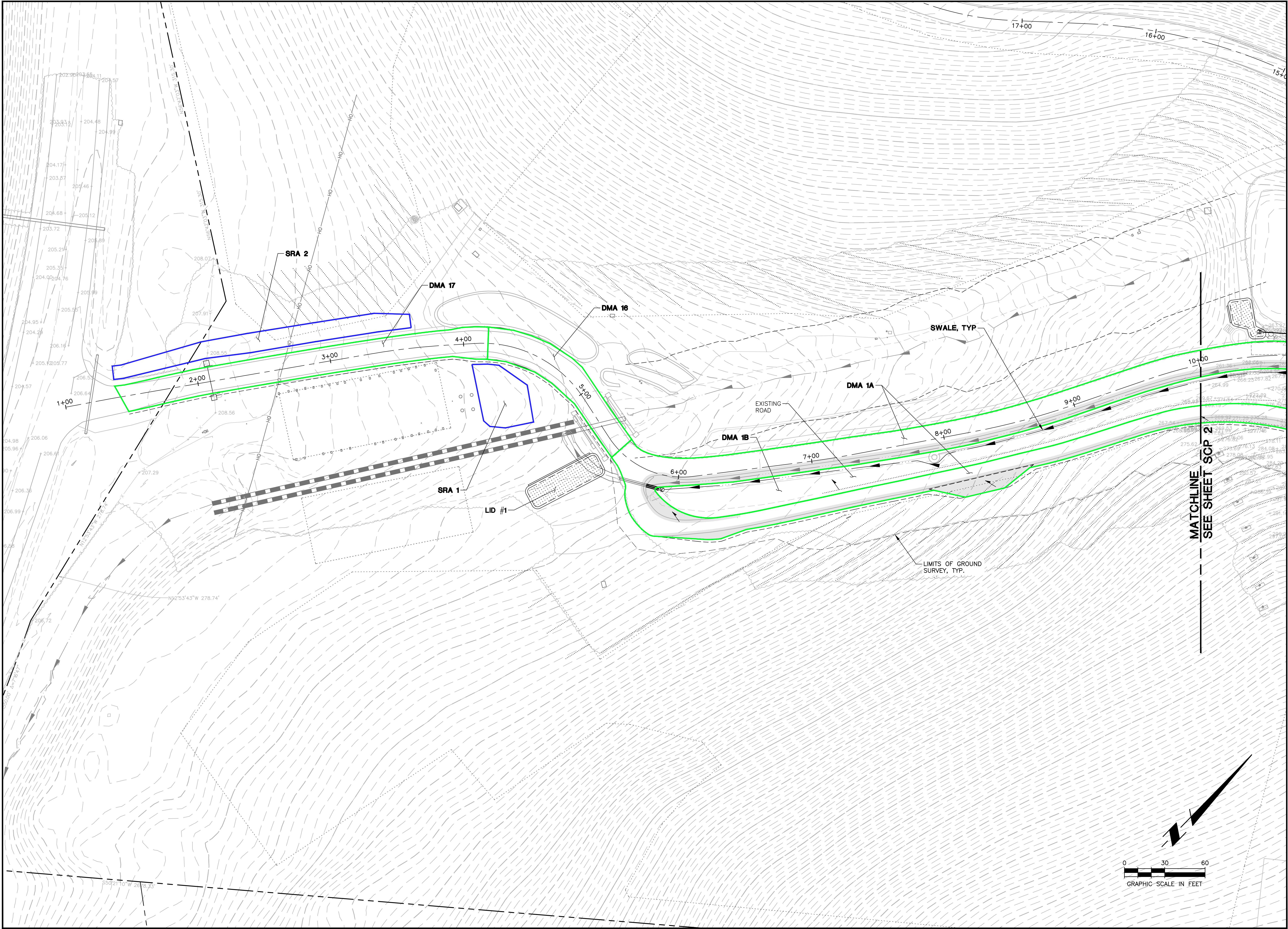
VINE CLIFF WINERY
7400 SILVERADO TRAIL
NAPA COUNTY, CALIFORNIA
APN 032-030-027
VICINITY MAP

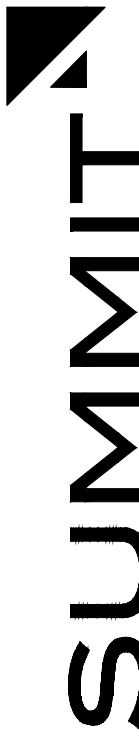
PROJECT NO. 2024040
DATE 2024-06-18
SHT NO 1 OF 1
BY BV CHK JG



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VINE CLIFF WINERY
7400 SILVERADO TRAIL
NAPA, CA 94558
APN 032-030-027

USE PERMIT

STORMWATER CONTROL PLAN

#	DATE	DESCRIPTION
	06/26/2024	PERMIT SUBMITTAL
1	09/13/2024	PERMIT RESUBMITTAL

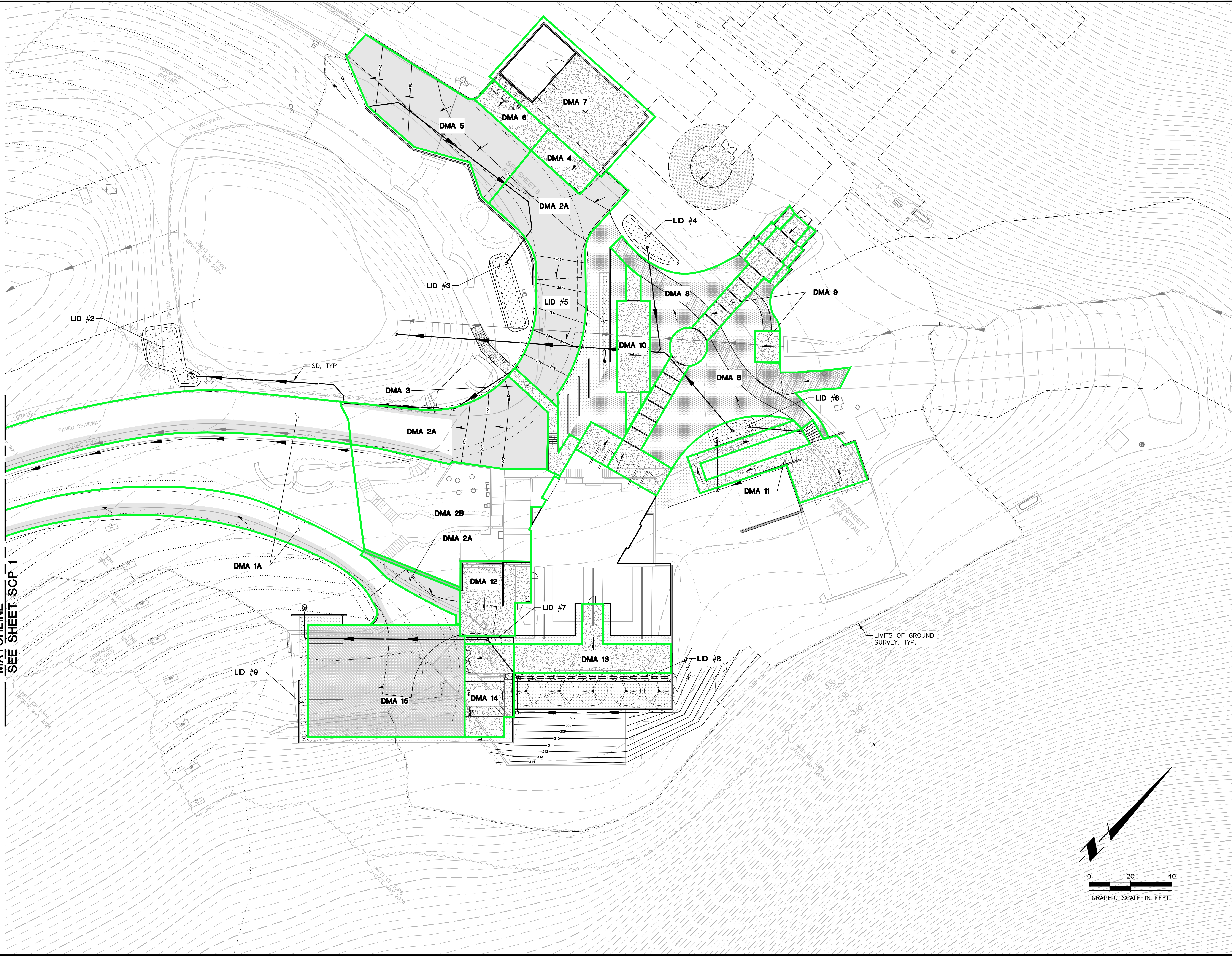
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SCP 1
1 OF 2

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