STORMWATER CONTROL PLAN
FOR A REGULATED PROJECT

FOR THE

CASTELLUCCI ESTATE WINERY

LOCATED AT:
7900 Money Road
Oakville, CA 94562
Napa County APN 031-030-024

PREPARED FOR:
Antonio Castellucci
14 Pelican Point Road
Belvedere, CA 94920

PREPARED BY:

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Job No. 22-147

Michael R. Muelrath 11-13-2025

Michael R. Muelrath R.C.E. 67435 Date

This Stormwater Control Plan was prepared using the template by Dan Cloak Environmental Consulting dated July 2014.

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I. Project Data

Table 1. Project Data Form

Project Name/Number	Castellucci Estate Winery
Application Submittal Date	December 2024
Project Location	7900 Money Road Oakville, CA 94562 APN 031-030-024
Project Phase No.	No phasing proposed
Project Type and Description	New winery production and hospitality building with associated site improvements.
Total Project Site Area (acres)	2.6 +/- (total disturbed area)
Total New and Replaced Impervious Surface Area	1 acre (approximate)
Total Pre-Project Impervious Surface Area	2 acres (approximate)
Total Post-Project Impervious Surface Area	3 acres (approximate)

II. Setting

II.A. Project Location and Description

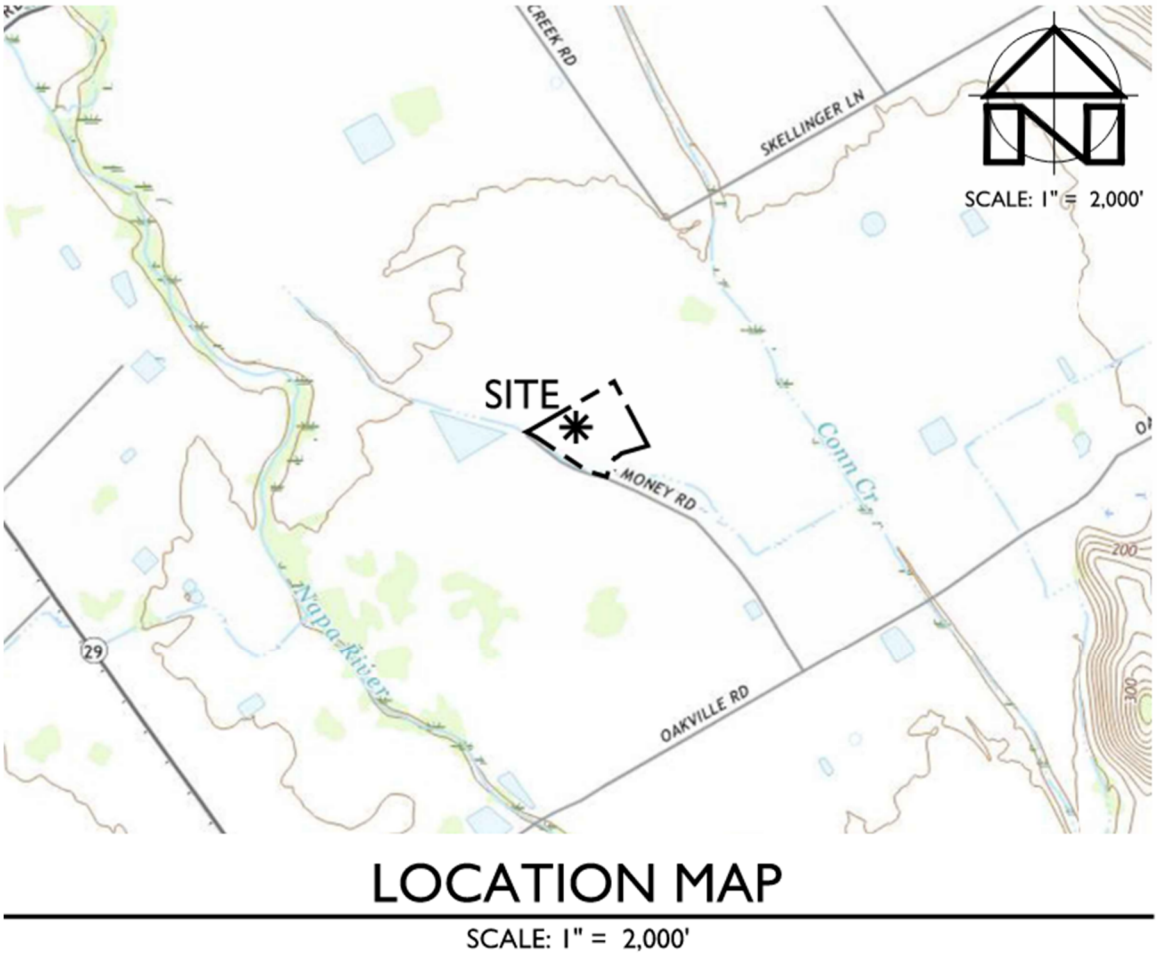

Figure 1: Location Map

Antonio Castellucci is applying for a Use Permit for a new winery facility at his property located at 7900 Money Road in Napa County, California. The subject property, known as Napa County Assessor's Parcel Number 031-030-024 is located on the valley floor midway between Highway 29 and Silverado Trail. The roughly 15 acre parcel is zoned Agricultural Preserve (AP).

II.B. Existing Site Features and Conditions

Topography can be described as gentle with average slopes less than 5% with the exception of an embankment for the bridge at the driveway entrance. The United States Department of Agriculture Soil Conservation Service Soils Map for Napa County shows one dominant soil type mapped on the project site: 181 Yolo loam, 0 to 10 percent slopes. 181 is classified as Hydrologic Soil Group B (HSG B) having moderately low runoff potential when saturated. 170 Pleasanton loam, 0 to 2 percent slopes occurs at the Money Road driveway entrance

but no new improvements are proposed in this area aside from a turnout on existing hardscape.

Figure 2: USDA Soils Map

Existing development on the property includes groundwater wells, two dwellings, vineyards and the access and utility infrastructure typical of this type of agricultural and residential development.

Runoff from the property generally flows from north to south, and concentrates in a blue line stream that flows easterly and is tributary to Conn Creek. An exception to this pattern is h the northeast corner of the property that drains to a ditch that flows northeasterly through adjacent vineyards.

Proposed onsite improvements include the new winery building, water tanks, new roads, and associated utility infrastructure.

Please see the Castellucci Estate Winery Use Permit Conceptual Site Improvement Plans for locations of existing and proposed features.

II.C. Opportunities and Constraints for Stormwater Control

Opportunities for stormwater control include:

1. The built-up winery building second level will allow runoff to be routed to treatment areas at lower elevations.

2. There are large vegetated buffers between most site improvements and drainage ways.
3. The near surface soils having good infiltration potential (HSG B).

Constraints for stormwater control include:

1. Linear nature of roadways.
2. Existing vineyard areas to be preserved.

III. Low Impact Development Design Strategies

III.A. Optimization of Site Layout

III.A.1. Limitation of development envelope

- The winery building footprint and new roadways are being developed on areas that are already improved with agricultural development.
- The proposed buildings and roads have been carefully designed to preserve natural vegetation on the property and no tree removal is proposed.

III.A.2. Preservation of natural drainage features

All natural drainage features on the property will be preserved.

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

The project has been designed with respect to stream setbacks as required by the Napa County Conservation Regulations. A setback is shown along the blue line stream located along the south side of the property.

III.A.4. Minimization of imperviousness

All access ways and parking areas have been designed to the minimum Napa County width standards and will not be excessively large. This ensures that excess impervious surfaces are not created. The new buildings have been carefully designed to house the required functions with the minimum footprint necessary.

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

Drainage design has been coordinated with the landscape design to provide an aesthetically pleasing site layout that addresses stormwater control requirements.

III.B. Use of Permeable Pavements

Permeable pavements are not proposed.

III.C. Dispersal of Runoff to Pervious Areas

The site layout and topography will allow for dispersal of runoff from impervious surfaces to pervious areas.

III.D. Stormwater Control Measures

Runoff from impervious areas at the winery site, including roofs and paved areas in the immediate vicinity of the winery building, will be routed to a single bioretention facility as shown on the Stormwater Control Plan Exhibit. The facility will be designed and constructed to the criteria in the BASMAA Post-Construction Manual (2019), including the following features:

- Surrounded by a compacted soil berm.
- Each layer built flat and to the elevations specified in the plans and referenced details
- 12 inches of Class 2 permeable rock, Caltrans specification 68-2.02F(3)
- 18 inches sand/compost mix meeting BASMAA specifications
- Non-float bark mulch will be placed over the surface of landscape areas except immediately at the trunk or stem of plantings in order to help retain soil moisture and discourage weeds.
- 6-inch deep reservoir between top of soil elevation and overflow elevation
- Drain inlet with frame overflow structure, with grate set to specified elevation, connected to storm drain (overflow used where storm drain connection is available and omitted where no storm drain exists)
- Plantings have been selected from the BASMAA Post Construction Manual Appendix E plant matrix to be suitable for the climate, exposure, and well-drained soil.
- Irrigation system on a separate zone, with drip emitters and "smart" irrigation controllers

IV. Documentation of Drainage Design

IV.A. Descriptions of Each Drainage Management Area

IV.A.1. Table of Drainage Management Areas

DMA Name	Surface Type	Area (square feet)
DMA #1	Winery building roofs, asphalt some roadway improvements, and concrete walkways	55,800 +/-
DMA #2	Production area roadway	3,200 +/-
DMA #3	Entrance roadway	7,700 +/-

IV.A.2. Drainage Management Area Descriptions

DMA #1 consists of the winery building, parking area, landscape areas, and road improvements in the vicinity. DMA #1 drains to Bioretention Area #1.

DMA #2 consists of a small portion of the new onsite roadway at the back of the winery. DMA #2 drains to Vegetated Receiving Area #2.

DMA #3 consists of access roadway from the existing bridge to that cannot be intercepted at Bioretention Area #1 due to the elevation of the road. DMA #3 drains to Vegetated Receiving Area #3.

IV.B. Tabulation and Sizing Calculations

IV.B.1. Information Summary for Bioretention Facility Design

See III.B.5

IV.B.2. Self-Treating Areas

Self-treating areas are not included in this analysis.

IV.B.3. Self-Retaining Areas

Self-retaining areas are not proposed.

IV.B.4. Vegetated Receiving Areas

DMA Name	Area (square feet)
VRA #2	1,500
VRA #3	3,800

IV.B.5. Areas Draining to Bioretention Facilities

DMA Name	DMA Area (square feet)	Post-project surface type	DMA Runoff factor	DMA Area × runoff factor	Facility Name		
					Bioretention Area #1		
DMA #1	33,800	Impervious	1.0	33,800	Sizing factor	Min Facility Size	(P) Facility Size
DMA #1	22,000	Permeable	0.1	2,200			
Total				36,000	0.04	1,440	1,500

III.B.6 Areas Draining to Vegetated Receiving Areas

DMA Name	Area (square feet)	Post-project surface type	Runoff factor	Product (Area x runoff factor)[A]	Vegetated receiving area DMA	Receiving self-retaining DMA Area (square feet) [B]	Ratio [A]/[B]≤2
DMA#2	3,200	Imperv	1	3,200	VRA#2	1,600	2
DMA#3	7,700	Imperv	1	7,700	VRA#3	3,850	2

V. Source Control Measures

V.A. Site activities and potential sources of pollutants

Since the wine production facility will have all processing operations done indoors with drains to the process wastewater system the winemaking process is not expected to be a source of site pollutants when properly contained.

Use of the parking lot and driveways are expected to be a source of pollutants. Pollutants can be generated by vehicle leaks, brake pad wear, and other deposition of particles from the environment onto the pavement surfaces.

Landscape maintenance, as well as indoor and outdoor pest control are potential sources of pollutants and are described in more detail in Table V.B below along with other source control measures not listed here.

V.B. Source Control Table

Potential source of runoff pollutants	Permanent source control BMPs	Operational source control BMPs
☒ Storm Drain Inlets (unauthorized non-stormwater discharges and accidental spills or leaks)	☒ Mark all inlets with the words "No Dumping! Drains to Waterway" or similar.	☒ Maintain and periodically replace markers. ☒ Provide stormwater pollution prevention information to new site owners, lessees, or operators. ☒ Include the following in lease agreements: "Tenant shall not allow anyone to discharge anything to storm drains or to store or deposit materials so as to create a potential discharge to storm drains."
☒ Indoor and Structural Pest Control	☒ Buildings will be designed to meet applicable code requirements to discourage entry of pests. ☒ Screens provided on ends of subdrain pipes daylighting to the ground surface.	☒ Provide Integrated Pest Management information to Owners, lessees and operators.
☒ Landscape / Outdoor Pesticide Use / Building and Grounds Maintenance	☒ Landscape will be designed to accomplish the following: Preserve existing native trees, shrubs and groundcover to the maximum extent practicable. Minimize irrigation and runoff, promote surface infiltration where appropriate and to minimize the use of fertilizers and	☒ Maintain landscaping using the minimum required or no pesticides and fertilizers. ☒ See applicable operational BMPs in CASQA Fact Sheet SC-41, "Building and Grounds Maintenance" included in this report ☒ Provide IPM information to new owners, lessees and operators.

	pesticides that can contribute to stormwater pollution. Where landscape areas are used to retain or detain stormwater plants that are tolerant of saturated soil conditions will be used. Pest resistant plants will be specified where practicable. Plants will be selected for site soils, slopes, climate, sun, wind, rain, land use, air movement, ecological consistency and plant interactions.	
☒ Pools, Spas, Ponds, Decorative Fountains and other Water Features	☒ Do not drain to onsite wastewater disposal systems or stormdrains discharging to water bodies. Allow chlorine or other neutralizing chemicals to dissipate for a few days and test to confirm the absence of chemicals before draining to landscape areas where infiltration can occur.	☒ Do not use copper-based algaecides. Control algae with chlorine or other alternatives such as sodium bromide. ☒ Never clean a filter in the street or near a storm drain. Rinse cartridge filters onto a dirt area, and spade filter residue into soil. Backwash diatomaceous earth filters onto dirt. Dispose of spent diatomaceous earth in the garbage. Spent diatomaceous earth cannot be discharged to surface waters, storm drainage systems, septic systems, or on the ground.
☒ Refuse Areas	☒ Refuse and recycling will be collected in the trash enclosure. The enclosure will be fenced to prevent dispersal of materials. If covered, the area will be drained to the sanitary sewer system. If not covered, all bins will have water tight lids.	☒ Refuse area must be patrolled for stray trash or open container lids the enclosure and swept clean regularly.

	Adjacent areas will be graded to prevent run-on.	
☒ Industrial processes	☒ All process activities to be performed indoors or under the canopy in the rear of the building with drains to the process wastewater system.	☒ See applicable operational BMPs in CASQA Fact Sheet SC-10, "Non-Stormwater Discharges" ☒ Owner will obtain coverage under the State Industrial General Permit or obtain a No Exposure Certificate.
☒ Outdoor Storage (Equipment or Materials)	☒ All winemaking materials to be used onsite are to be unloaded and immediately moved to a covered area to minimize exposure to rainfall. ☒ Material deliveries shall be scheduled for times when it is not raining to minimize exposure to rainfall. ☒ Facility shall comply with Napa County requirements for Hazardous Waste Generation, Storage and Disposal, Hazardous Materials Release Response and Inventory, California Accidental Release (CalARP) and Uniform Fire Code Article 80 Section 103(b) & (c) 1991	☒ See the Fact Sheets SC-31, "Outdoor Liquid Container Storage" and SC-33, "Outdoor Storage of Raw Materials" in the CASQA Stormwater Quality Handbooks at: www.casqa.org/resources/bmp-handbooks
☒ Vehicle and Equipment Cleaning	☒ No vehicle or equipment washing will be performed onsite. All employees will be informed that car washing is prohibited.	☒ Not Applicable
☒ Vehicle and Equipment Repair and Maintenance	☒ No vehicle or equipment repairs will be performed onsite. All employees will be informed that vehicle maintenance onsite is prohibited.	☒ Notify all future owners, lessees and operators that the following restrictions apply to this site: ☒ No person shall dispose of, nor permit the disposal, directly or indirectly of vehicle fluids,

		hazardous materials, or rinse water from parts cleaning into storm drains. ☒ No vehicle fluid removal shall be performed outside a building, nor on asphalt or ground surfaces, whether inside or outside a building, except in such a manner as to ensure that any spilled fluid will be in an area of secondary containment. Leaking vehicle fluids shall be contained or drained from the vehicle immediately. ☒ No person shall leave unattended parts or other open containers containing vehicle fluid, unless such containers are in use or in an area of secondary containment.
☒ Fire Sprinkler Test Water	☒ Provide a means to drain fire sprinkler test water to infiltrate into landscaping and not discharge to the storm drain.	☒ See the note in Fact Sheet SC-41, "Building and Grounds Maintenance," in the CASQA Stormwater Quality Handbook.
Miscellaneous Drain, Wash Water or Other Sources ☒ Boiler Drain Lines ☒ Condensate Drain Lines ☒ Rooftop Equipment ☒ Roofing, Gutters and Trim	☒ Boiler drain lines shall be directly or indirectly connected to the sanitary sewer system and may not discharge to the storm drain system. ☒ Condensate drain lines may discharge to landscaped areas if the flow is small enough that runoff will not occur. ☒ Condensate drain lines may not discharge to the storm drain system. ☒Rooftop equipment with potential to produce pollutants shall be roofed	If architectural copper is used, implement the following BMPs for management of rinsewater during installation: ☐If possible, purchase copper materials that have been pre-patinated at the factory. ☐ If patination is done on-site, prevent rinse water from entering storm drains by discharging to landscaping or by collecting in a tank and hauling off-site. ☐ Consider coating the copper materials with an impervious coating that prevents further corrosion and runoff.

	and/or have secondary containment. ☐ Any drainage sumps on-site shall feature a sediment sump to reduce the quantity of sediment in pumped water. ☐Include controls for other sources as specified by local agency.	☐ Prevent rinse water from entering storm drains by discharging to landscaping or by collecting in a tank and hauling offsite.
☒ Roads, Sidewalks and Parking Lots	☒ New and replaced impervious surfaces have bene designed to drain to bioretention or vegetated receiving areas.	☒ Sweep roads, sidewalks, and parking lots regularly to prevent accumulation of litter and debris. Collect debris from pressure washing to prevent entry into the storm drain system. Collect washwater containing any cleaning agent or degreaser and haul offsite to municipal waste treatment plant for disposal, do not discharge to a storm drain.

V.C. Features, Materials, and Methods of Construction of Source Control BMPs

Additional design specifications for source control BMPs will be submitted with the building permit drawing package.

VI. Stormwater Facility Maintenance

VI.A. Ownership and Responsibility for Maintenance in Perpetuity

The Applicant must commit to executing a Post Construction Stormwater BMP Maintenance Agreement which will be recorded with Napa County. This agreement will obligate the applicant to accept responsibility for operation and maintenance of stormwater treatment and any flow-control facilities in perpetuity or until such time as this responsibility is formally transferred to a subsequent property owner.

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

The bioretention facilities will be maintained on the following schedule at a minimum. Details of maintenance responsibilities and procedures will be included in a Stormwater Facility Operation and Maintenance Plan to be submitted for approval prior to the completion of construction.

At no time will synthetic pesticides or fertilizers be applied aside from Neem oil or equivalent and compost tea, nor will any soil amendments, other than aged compost mulch or sand/compost mix, be introduced.

Daily: The facilities will be examined for visible trash during regular policing of the site, and trash will be removed.

After Significant Rain Events: A significant rain event is one that produces approximately a half-inch or more rainfall in a 24-hour period. Within 24 hours after each such event, the following will be conducted:

The surface of the facility will be observed to confirm there is no ponding.

- Inlets and outlets will be inspected, and any accumulations of trash or debris will be removed.
- The surface of the mulch layer will be inspected for movement of material. Mulch will be replaced and raked smooth if needed.

Prior to the Start of the Rainy Season: In September or each year, the facility will be inspected to confirm there is no accumulation of debris that would block flow, and that growth and spread of plantings does not block inlets or the movement of runoff across the surface of the facility.

Annual Landscape Maintenance: In December – February of each year, vegetation will be cut back as needed, debris removed, and plants and mulch replaced as needed. The concrete work will be inspected for damage. The elevation of the top of soil and mulch layer will be confirmed to be consistent with the 6-inch reservoir depth.

VII. Construction Checklist

SCP Page #	Source Control or Treatment Control Measure	Construction Plan Sheet #s
13	Storm Drain Inlets	
13	Indoor and Structural Pest Control	
13-14	Landscape, Pesticide, Building & Grounds Maintenance	
14	Water Features	
14-15	Refuse Areas	
15	Industrial Processes	
15	Outdoor Storage (Equipment and Materials)	
16	Vehicle and Equipment Cleaning	
15-16	Vehicle and Equipment Repair and Maintenance	
16	Fire Sprinkler Test Water	
16-17	Drain, Wash Water or Other Sources, Boiler Drain Lines, Condensate Drain Lines, Rooftop Equipment Drainage Sumps, Roofing, Gutters and Trim	
17	Roads, Sidewalks and Parking Lots	

VIII. Certifications

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

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NOTE:
REFER TO STORMWATER CONTROL PLAN REPORT FOR ADDITIONAL INFORMATION

SCALE: 1" = 60'
0 60' 120'

APN 031-030-015
LANDS OF SPP NAPA VINEYARDS LLC

40' ACCESS AND UTILITY EASEMENT, PARCEL TWO OF 2008-0004056, NCR

5' WATER EASEMENT, PARCEL FIVE OF 2008-0004056, NCR

27' WIDE TRACTOR TURNAROUND EASEMENT PER 2008-0004056

APN 031-030-016
LANDS OF GARGIULO VINEYARD LLC

APPROXIMATE PROPERTY LINE

DMA #2
3,200 ± SF IMPERVIOUS

BIORETENTION AREA #1
1,500 SF

VEGETATED RECEIVING AREA #2
1,600 SF

(P) WINERY BUILDING
(SEE ARCHITECT'S DRAWINGS)

APN 031-030-025
LANDS OF OAKVILLE 38 VINEYARD LLC

DMA #1
33,800 ± SF IMPERVIOUS
22,000 ± SF PERVIOUS

APN 031-030-024
LANDS OF ANTONIO & RITA CASTELLUCCI TRUST

APN 031-030-017
LANDS OF KENNETH & GAIL LAIRD TRUST

(E) WELL

(E) WELL
PRIVATE 10' WATER LINE EASEMENT DN 2023-0010561

DMA #3
7,700 ± SF IMPERVIOUS

UNNAMED BLUE LINE STREAM

APPROXIMATE PROPERTY LINE

VEGETATED RECEIVING AREA #3
3,850 SF

APPROXIMATE BOUNDARY LINE

DRIVEWAY

APPROXIMATE PROPERTY LINE

MONEY ROAD

APN 031-030-018
LANDS OF KENNETH & GAIL LAIRD TRUST

FEMA FLOOD WAY / 100 YEAR BOUNDARY

FLOOD WAY / 100 YEAR

(E) WELL LOCATION PER COUNTY RECORDS FROM 1962, LIKELY ABANDONED

APN 031-030-026
LANDS OF ANTONIO & RITA CASTELLUCCI TRUST

30'

RESERVATION, 30' WIDE DRIVEWAY EASEMENT 2008-0004056, NCR

MONEY ROAD

APN 031-030-012
LANDS OF THOMAS & JACQUELINE GUMINA TRUST

STORMWATER CONTROL PLAN
SCALE: 1" = 60'

	DRAINAGE MANAGEMENT AREAS (SQ FT)		
DMA AREA	#1	#2	#3
PERVIOUS AREA	22,000 ±	0	0
IMPERVIOUS AREA	33,800 ±	3,200 ±	7,700 ±
TOTAL	55,800 ±	3,200 ±	7,700 ±

DMA LEGEND:
- SHEET FLOW DIRECTION
- IMPERVIOUS AREA (COLOR VARIES BY DMA)
- PERVIOUS AREA (COLOR VARIES BY DMA)
- VEGETATED RECEIVING AREA (COLOR VARIES BY DMA)
- BIORETENTION AREA (COLOR VARIES BY DMA)

PROPOSED SURFACE LEGEND:
- LIGHT DUTY PCC
- ASPHALT PAVING
- GRAVEL SURFACE
- LANDSCAPE WALL

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CASTELLUCCI ESTATE WINERY

USE PERMIT CONCEPTUAL PLANS
STORMWATER CONTROL PLAN

PREPARED UNDER THE DIRECTION OF:
REGISTERED PROFESSIONAL ENGINEER
EDWARD T. WUETRICH
No. 87910
Exp. 12/31/2026
STATE OF CALIFORNIA
NOT FOR USE FOR CONSTRUCTION

DRAWN BY: BT DRAFTING
CHECKED BY: EDW
DATE: JULY 18, 2025

REVISIONS:	BY:
2 11/7/2025 USE PERMIT PLAN CHECK #2	BT

JOB NUMBER: 22-147
FILE: 22-147CONC_SWCP.DWG
ORIGINAL SIZE: 24" X 36"

SHEET NUMBER: C4
OF 5