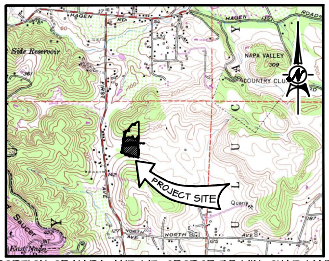


PORTION OF NAPA AND MT. GEORGE 7.5 MIN. QUAD MAPS

Vicinity Map

1" = ±2000'

MILLER VINEYARD
30 LUPINE HILL ROAD
EROSION CONTROL PLAN
FOR NEW VINEYARD DEVELOPMENT

SHEET INDEX

1. TITLE SHEET
2. PLAN, DETAILS, IRRIGATION & ROAD PLAN

Narrative

This project is the new planting of approximately ±5.51 gross acres (±4.52 net acres) of vineyard within APN 052-170-054, a ±10.47 acres parcel located at 30 Lupine Hill Road, Napa. Within the parcel boundaries are ±0.4 access roads and ±10.07 acres of tree canopy, brush, and resident grasses. Primary access is from Lupine Hill Road.

Existing ground slopes in the project area range from 4% to 35%, with slopes over 30% being confined to small areas within the vineyard blocks (totaling ±0.05 acres). Blocks will be planted with a vinerow spacing of 7' running generally perpendicular to contours. All blocks will be farmed with ATVs and harvest tractors. A new drip irrigation and heat protection system will be installed with an existing recycled water connection as the water source; if recycled water is not available the vineyard will be dry farmed. The recycled water main line approximate location is in the southeast corner of the property. Water use on the new vineyard is expected to be ±3.4 af per annum.

There is one ephemeral stream within project area. Setbacks have been provided pursuant to Napa County Conservation Regulations. The projects lies within the Hagen Creek subwatershed and falls within the MST Groundwater Deficient Area.

Soils within the block boundaries have been classified in the USDA Soil Conservation Service's Napa County Soil Survey, as SCS#152, Hambright-Rock outcrop complex, 30 to 75% slopes and SCS#178, Sobrante loam, 5 to 30% slopes.

No Special Status Species will be impacted by this project as concluded in the Biological Resource Survey prepared by Kjeldsen Biological Consulting, dated August, 2024.

No Cultural Resources occur in the vicinity of this project as concluded in the Cultural Resources Study prepared by Archaeological Services, Inc., dated June 7, 2013.

Vegetation Removal consists of resident grasses. All organic material to be burned shall be stacked at strategic locations within the cleared areas. Burning of the organic material shall only take place after obtaining approval from all the governing agencies.

Ground Preparation shall include removal of vegetation and rocks, ripping and disking. **Rocks** shall be used for local landscaping, and/or erosion control features, and/or they may be crushed and used as surfacing for existing traffic areas, and/or they may be off-hauled to a properly permitted disposal site (Vulcan Materials Company or Mark West Quarry), and/or used per Detail 3, Sheet 2.

Wildlife Exclusion Fence may be installed around the vineyard blocks as shown on the plan sheet, with gates and/or cattle guards provided at access locations. For convenience, the fence may be routed around trees and other imposing physical features. New wildlife exclusion fencing shall be 6' wire mesh topped with 2 strands of barbed wire.

Temporary Erosion Control Measures consist of the installation of 100% biodegradable fiber rolls and the application of straw mulch where seeding occurs. The installation of all **fiber rolls** shall be completed in accordance with the appropriate detail along the contours at locations shown on the plan, prior to the rainy season at the end of years P-1 and P. They shall be left in place through the winter after planting after which they may be removed. A **straw mulch** cover shall be applied over all open and/or disturbed and seeded areas at the rate specified in the *Project Notes*.

Permanent Erosion Control Measures consist of the following:

1) Clean, repair or replace existing drainage features as needed at the locations shown on the plan.

2) Construction of water bars where shown on the plan and as needed in accordance with the appropriate detail.

3) The vineyard may be full tilled in years P-1 and P, and a winter cover crop shall be seeded and mulched at the end of growing season P-1. At the end of the growing season in year P, a permanent cover crop shall be planted within the new vineyard, (refer to cultivation chart under *Project Notes*). The cover crop may be mowed and strip sprayed centered on the vinerow using springtime applications of post-emergent contact sprays. NO PREMERGENT SPRAYS SHALL BE USED. As a normal cultural practice no disking, ripping or other tillage shall occur within the vineyard once the permanent cover crop has been established. Areas outside the vineyard blocks, including avenues and turnspaces, shall not be disked or sprayed at any time. Using this method a minimum ground cover of 80% will be obtained each winter, straw mulch may be needed to meet 80% ground cover. From time to time (every three or four years), it may be necessary to disk the cover crop to open up the ground or to re-establish proper ground cover. Should this be necessary, notification shall be provided to Napa County PBES and Napa Valley Vineyard Engineering, and the work shall proceed as prescribed in Napa County Conservation, Development and Planning Department guidelines, dated April 8, 2004, entitled "Protocol for Replanting/Renewal of Approved Non-Tilled Vineyard Cover Crops".

4) Implementation and adherence to the **Annual Winterization** program presented in the Project Notes.

Costs: The total cost of all erosion control measures is estimated to be $4000-6500/acre including equipment, materials, and labor.

The project site was visited by the plan preparer in January, 2024 to inspect the site, and will be visited during and after development to check for proper implementation of erosion control measures.

Project Notes

APN & Owner: 052-170-054 — Miller, Jeffrey A & Teri A, Phone# (408) 458-6221, 26800 Soquel San Jose Rd., Los Gatos, CA 95033

Site Address: 30 Lupine Hill Road, Napa

Contact: John Derr @ (707) 738-8878, 497 Walnut, Napa, CA 94559 — Drew L. Aspegren, P.E. @ (707) 963-4927, Napa Valley Vineyard Engineering, Inc., 176 Main St., Suite B, St. Helena, CA 94574

Mapping: Adobe Associates, Inc. (2024)

Implementation Schedule: Work may begin during the first growing season after project approval and may be completed over several years. Preplant and planting operations may be conducted over two growing seasons or they may be conducted during the same year. The work will be scheduled as follows:

Year P-1 April 1 thru Oct 15	Clearing, rock and root removal, stacking vegetation for burning or other disposal, disking, installing permanent erosion control measures prior to vineyard layout, staking and installation of drip system, installing temporary erosion control measures. Winterization, consisting of seeding and mulching, shall be completed by October 15, or by the end of any extension of time granted by Napa County PBES.
Rainy Season Oct 16 thru March 31	Maintain erosion control measures, burning as allowed by government agencies.
Fallow Seasons April 1 thru Sept 15	Mow cover crop, seed and mulch as required to re-establish cover crop.
Year P Apr 1 thru Oct 15	Complete unfinished pre-plant operations, plant vineyard and begin cultural practices (refer to cultivation chart below). Maintain all erosion control features.

Cover Cropping and Cultivation Practices

Year	Cultivation during growing season	Cover Crop, planted at end of growing season
Pre-plant (P-1)	rip and disk	winter crop
Planting (P)	full till	permanent crop
P+1 Forward	mow, weed control	permanent crop

***All ground disturbing activities shall be completed by October 15 of each year, and all erosion control measures shall be in place by October 15, or by the end of any extension of time granted by Napa County PBES.**

Seeding Requirements: All exposed or disturbed soils shall be seeded. Seed and fertilizer shall be applied hydraulically or broadcast at the rates specified below:

Miller Cover Mix @ 75 lbs/ac	Dwarf Perennal Ryegrass	25%
	Creeping Red Fescue	30%
	Chewings Red Fescue	30%
	New Zealand White Clover-RK	10%
	Hykon Rosa Clover-RK	5%

Fertilizer : Ammonium phosphate sulfate (16-20-0) 200-240 lbs/ac

An alternate seed mix and/or fertilizer may be used after review and approval by Napa County PBES.

Straw Mulch shall be spread over all disturbed and seeded areas. The mulch shall be spread mechanically or by hand at the rate of 2 tons/acre. As an alternate to mulch, the seeded areas may be irrigated through germination until the onset of winter rains.

As an alternate to seeding and mulching, the vineyard may be hydro seeded using the same mix and fertilizer at the rates specified above.

Fiber Rolls shall be installed at the locations shown on the plan in accordance with the appropriate detail. Fiber Rolls shall be maintained through the winter after planting, after which they may be removed. See Detail 1, Sheet 2.

Water Bars shall be constructed where shown on the plan in accordance with the appropriate detail. Water Bars shall remain in place as permanent structures and shall be reshaped as necessary prior to each rainy season.

Maintenance: Cover cropping and cultivation shall be implemented as described in the Narrative (Permanent Erosion Control Measures) and elsewhere in the Project Notes (Cover Cropping and Cultivation Practices).

Annual Winterization: shall be completed by October 15 each year, or by the end of any extension of time granted by Napa County PBES, and shall include the following:

1) The condition of the non-tilled cover crop, including those areas outside the vineyard proper, and the suitability and effectiveness of the seed mix and fertilizer shall be evaluated. Weak areas shall be reseeded as necessary; if addition of soil amendments in indicated, they shall be incorporated and those areas shall be seeded and mulched.

2) All roads and turnspaces which are not rocked or paved shall be seeded, fertilized and mulched, and they shall remain undisturbed throughout the rainy season.

3) All existing erosion control and drainage features shall be inspected, cleaned, and repaired as necessary.

All existing erosion control features and drainage shall be inspected and cleaned, or repaired as necessary. All erosion control measures shall be inspected after each storm event, and any necessary repairs, cleaning and maintenance shall be promptly performed.

Special Notes - Existing Facilities

Contractor shall determine exact location of all existing facilities and other obstructions prior to beginning of work, and shall be responsible for their safekeeping during the course of work.

Contractor shall be responsible for the location of all utilities in the work area, and shall be responsible for their safekeeping during the course of work.

Some underground utilities and facilities can be located by underground services alert (U.S.A.) call 1 (800) 642-2444, or 811 at least forty eight (48) hours before all work operations.

Contractor shall locate all existing utilities, storm drains, and shall make all efforts not to damage them during the course of construction. Should damage occur, owner or engineer shall be notified and repairs shall be made immediately. In no case shall damage pipelines be allowed to remain unrepaired overnight.

Legend

(0.52)	AREA & ACREAGE WITH SLOPES GREATER THAN 30%
	BLOCK BOUNDARY
	AVENUE/TURNSPACE
	VINEROWS
(2)	DETAIL 2
	DIVERSION DITCH
(E)	EXISTING
	FIBER ROLL
MSB	MINIMUM SETBACK
P	PLANTING YEAR
PBES	PLANNING, BUILDING AND ENVIRONMENTAL SERVICES
	PROPERTY LINE APPROXIMATE LOCATION
(RDA)	ROCK DISPOSAL AREA
SCS	SOIL CONSERVATION SERVICE
139	SCS SOIL MAPPING UNIT
S	SCS SOIL TYPE BOUNDARY
	WATER BAR
x x	WILDLIFE EXCLUSION FENCE (E)
	WILDLIFE EXCLUSION FENCE PROPOSED
	VINEYARD ACCESS ROAD

MILLER VINEYARD
30 LUPINE HILL ROAD
EROSION CONTROL PLAN
FOR NEW VINEYARD DEVELOPMENT

Napa Valley Vineyard Engineering, Inc.
176 Main St., Suite B
St. Helena, CA 94574
(707) 963 4927

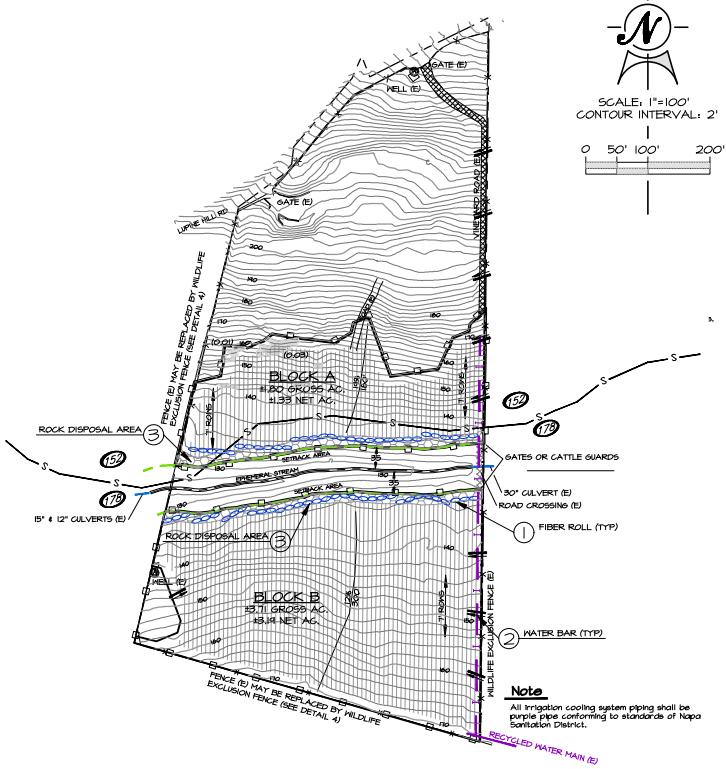
REGISTERED PROFESSIONAL ENGINEER — DREW L. ASPEGREN — No. 31418 Exp. 12-31-26 — CIVIL — STATE OF CALIFORNIA

DREW L. ASPEGREN, PE
R.C.E. 31418

October 30, 2024
DATE

THIS DOCUMENT, AND THE IDEAS AND DESIGNS INCORPORATED HEREIN, AS AN INSTRUMENT OF PROFESSIONAL SERVICE, ARE THE PROPERTY OF NAPA VALLEY VINEYARD ENGINEERING, INC., AND ARE NOT TO BE USED, IN WHOLE OR IN PART, FOR ANY OTHER PROJECT WITHOUT WRITTEN AUTHORIZATION FROM NAPA VALLEY VINEYARD ENGINEERING, INC.

REV. 1 PER COUNTY COMMENTS ON 1-23-25 BY DLA DATED 3-4-25

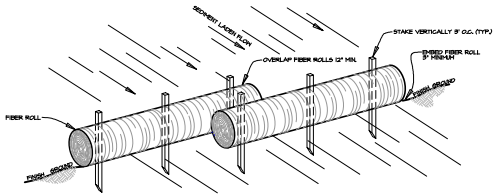


ECP PLAN VIEW

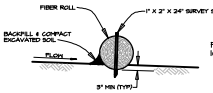
N

SCALE: 1"=100'
CONTOUR INTERVAL: 2'

0 50' 100' 200'



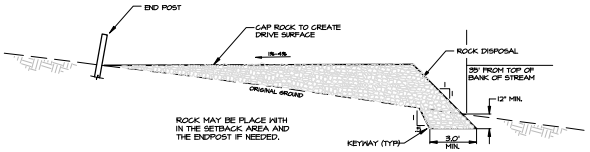
FIBER ROLL SEDIMENT BARRIER (ISOMETRIC VIEW)



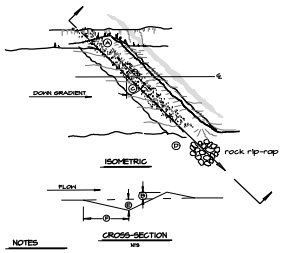
Fiber Rolls shall be made of 100% biodegradable materials.

FIBER ROLL SEDIMENT BARRIER (SECTION)

1 FIBER ROLL
N.T.S.

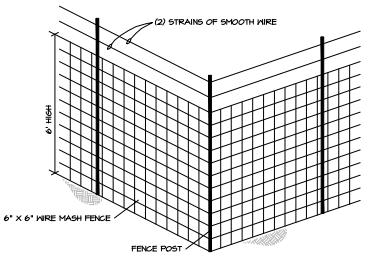


3 ROCK DISPOSAL AREA (TYP)
N.T.S.



NOTES
Waterbar construction for little or no traffic. Specifications are average and shall be adjusted to conditions.
1. Tie-in to bank if appropriate.
2. Cross drain berm height 4" to 6" above the roadbed.
3. Angle drain 30° to 45° degrees downgrade with road centerline.
4. Outfall structure as shown in plan.
5. Depth minimum 6".
6. 3' to 4'.

2 WATER BAR
N.T.S.



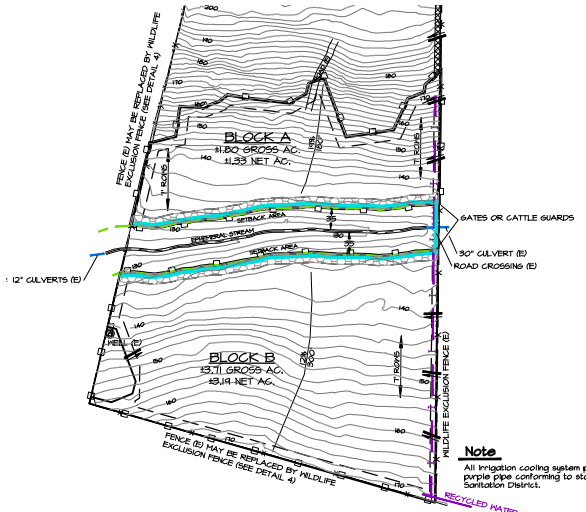
4 WILDLIFE EXCLUSION FENCE
N.T.S.

Notes

1. Existing road and avenue improvements as shown on plan. With the construction and annual maintenance of waterbars none of the unpaved avenue length is delivering sediment to the stream system.
2. Proposed avenues and roads leading to proposed vineyard blocks will be graded out to conform with vineyard operations.
3. All avenues which are not gravel or paved shall be seeded and mulched every year before September 15th.
4. Waterbars shall be installed as shown on this sheet.
5. Any new roads built for vineyard operations will need to be reviewed by NCRCD for conformance with Water Board standards.

Legend

- BLOCK BOUNDARY
- AVENUE/TURNSPACE
- VINEYARD BOUNDARY (APPROX.)
- (E) EXISTING
- PROPERTY LINE APPROXIMATE LOCATION
- PROPOSE IRRIGATION/COOLING SYSTEM MAIN
- ROAD NOT DRAINING TO STREAM SYSTEM
- WATER BAR
- WILDLIFE EXCLUSION FENCE (E)
- WILDLIFE EXCLUSION FENCE PROPOSED
- VINEYARD ACCESS ROAD



Note
All irrigation cooling system piping shall be purple pipe conforming to standards of Napa Sanitation District.

IRRIGATION/COOLING SYSTEM & ROAD PLAN VIEW

TOPOGRAPHIC MAPPING FROM ADOBE ASSOCIATES, INC. (2024)

REV.	DESCRIPTION	BY	DATE
1	PER COUNTY COMMENTS ON 1-23-25	DLA	3-4-25

This document and the ideas and designs incorporated herein, as an instrument of professional service, are the property of Napa Valley Vineyard Engineering, Inc., and are not to be used, in whole or part, for any other project without written authorization from Napa Valley Vineyard Engineering, Inc.

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REGISTERED PROFESSIONAL ENGINEER — DREW L. ASPEGREN — No. 31418 Exp. 12-31-26 — CIVIL — STATE OF CALIFORNIA

DATE	10-30-24
SCALE	AS SHOWN
24ECPMillerR1.dwg	
DRAWN	JRJ
CHECKED	DLA
APPROVED	
DREW L. ASPEGREN, PE	R.C.E. 31418

MILLER VINEYARD

30 LUPINE HILL ROAD

EROSION CONTROL PLAN
TRACK 1- NEW VINEYARD

PLAN & DETAILS

SHEET 2 OF 2