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Agricultural Erosion Control Plan Application and Plans

Anthem Winery P14-00320-MOD and Exception to Road and Street Standards,
Variance P14-00321-VAR and Viewshed, and
Agricultural Erosion Control Plan P14-00322-ECPA
Planning Commission Hearing Date (Wednesday, October 3, 2018)

APR 11 2017

Napa County Planning, Building & Environmental Services



Napa County CONSERVATION, DEVELOPMENT & PLANNING COMM 1195 Third Street, Room 210, Napa, California 94559 (707) 253-4416

BASIC APPLICATION FOR EROSION CONTROL PLAN REVIEW

FOR OFFICE USE ONLY

SUBMITTAL DATE: _____

FILE #: _____ APN #: _____ USGS QUAD: _____ [] STRUCTURAL [] AGRICULTURAL TOWNSHIP/RANGE: _____ REQUEST: _____

PROJECT TYPE: Agriculture: New ___ Vineyard Replant (Process I: ___ II: ___) Other: ___ Non-Agriculture: Structure ___ Driveway ___ Road ___ Reservoir ___ Other ___ PERCENT SLOPE: Cropland: ___ Structure: ___ Pad: ___ Driveway: ___ Road: ___ OTHER PERMITS: Grading Permit ___ Use Permit: ___ Variance: ___ Septic System Permit: ___ Groundwater Permit: ___ REVIEW AGENCIES: CDPD: [X] County Consultant: ___ OR RCD: ___ FINAL APPROVAL: CDPD: [X] Date: _____

TO BE COMPLETED BY APPLICANT (Please type or print legibly)

Applicant's Name: Phill Blake

Telephone #: (707) 252-3301 Fax #: (707) 252-4966 E-Mail: pblake@rsacivil.com

Mailing Address: 1515 Fourth Street Napa CA 94559 No Street City State Zip

Status of Applicant's Interest in Property: CPESC Consultant

Property Owner's Name: Justin and Julie Arbuckle

Telephone #: (415) 912-6379 Fax #: () E-Mail: jarbuckle@sbcglobal.net

Mailing Address: 3454 Redwood Road Napa CA 94558 No Street City State Zip

Site Address/Location: 3123 Dry Creek Road Napa No Street City

Assessor's Parcel #: 035-460-038 & 035-470-046 Existing Parcel Size: 21.67 & 22.96 acres Development Area Size: 1.15 Acres

Slope Range: 1 % to 21 % Total Acreage >= 30%: 0 acres Estimated Total Amount of Cut & Fill: 0 cubic yards

Land or Aerial Survey Prepared By RSA+ Date: 4/2011

(NOTE: Contour map/survey is required for all development areas with an estimated slope of 15% or greater and for all road/driveway projects, Contour map must include all areas within 100' of the cut and fill edges. Percent slope shall be calculated and presented as whole numbers.)

Source(s) of Water: Existing wells

Related Permits Filed: [] Water Rights [] Groundwater [] Well [] Sewage Disposal [] Use Permit/Variance? [] Timber Harvest [] Stream Alteration [] Others: _____

I hereby certify that all the information contained in this application, including but not limited to, this application form, the supplemental information sheets, site plan, plot plan, cross sections/elevations, is complete and accurate to the best of my knowledge. I hereby authorize such investigations including access to County Assessor's Records as are deemed necessary by the County Planning Division for evaluation of this application and preparation of reports related thereto, including the right of access to the property involved.

Signature of Applicant Date 3/17/15 Signature of Property Owner Date 3/17/15

TO BE COMPLETED BY CONSERVATION, DEVELOPMENT AND PLANNING DEPARTMENT

\$ Fee Receipt Number: Received By Date

EROSION CONTROL PLAN SUPPLEMENTAL INFORMATION

Project/Construction Phasing Information

1. Project Description: Vineyard planting APN: 035-460-038 & 035-470-046
- Parcel size: 17.54 & 27.23 acres Total land area disturbed: 1.15 acres
- Agriculture: NEW plant acres: 2.81 acres Replant acres: _____
- Structures: residence building driveway road other _____
2. Project Phases: one two or _____
3. Anticipated date to start construction (month/year): April 15, 2013
4. Estimated date of completion of each phase: Phase 1: July, 2015
Phase 2: _____
- Total construction time estimated: 7 months
5. Work scheduled between Oct. 1 and Apr. 1? Yes No **OR**
between Sept. 1 and Apr. 1? Yes No (municipal watershed)
6. Winterization measures in the Erosion Control Plan fiber roll, cover crop vineyard and avenues
7. Is a grading permit, a well permit, or a sewage disposal permit required? Yes No
If yes has the Napa Co Public Works and/or Environmental Management Departments. been notified? Yes No

Slope Information

9. Earth moving, grading or land clearing on slope(s) of: 1 % to 15 %
10. Total acreage with slopes greater than or equal to 30%: 0 acres
11. Contour mapping source: Riechers Spence & Associates, topographical survey

Water Deficient Area, Watershed Area, & Water Rights Diversion Permits

12. Water-deficient area: Yes (applicant must contact Co Env Mgmt Dept) No
13. Sub-Watershed Name: Salvador Channel
Municipal Reservoir Watershed: Yes No
If yes: Bell Canyon Kimball Milliken Lake Hennessey Rector
14. Have any other erosion control plans effecting this parcel been approved since 1991? Yes No
15. Coverage information (required for projects in any watershed):
(a) Existing acres of tree canopy cover per parcel: 035-460-038: 15.65 acres
035-470-046: 12.44 acres
Proposed acres of canopy cover to be removed: 035-460-038: 0 acres
035-470-046: 0 acres
Percent of canopy cover to be retained per parcel: 035-460-038: 100 %
035-470-046: 100 %
(b) Existing acres of shrub, brush, grass without tree canopy per parcel: 035-460-038: 3.51 acres
035-470-046: 5.27 acres
Proposed acres of shrub, brush, grass cover to be removed: 035-460-038: 1.10 acres
035-470-046: 0.05 acres
Percent of shrubs, brush, grass to be retained per parcel: 035-460-038: 66 %
035-470-046: 98 %
16. Is there a Water Rights permit associated with the project or parcel?
a) Copy of permit from the State Dept of Water Resources attached? Yes No **OR**
b) Date application for necessary permit submitted to this board: Yes No **OR**
c) Copy of associated CEQA document attached? Yes No acre/feet _____

Streams, Watercourses, & Streambed Alteration Agreements

17. All streams and watercourses in vicinity of project area(s) shown and the required setback(s) indicated with the distance and slope? Yes No
18. Is there a State Dept of Fish & Game Streambed Alteration (1603) Permit associated with the project or parcel? Yes No
- (a) Copy of State Dept of Fish & Game Permit attached? Yes No **OR**
- (b) Date application for necessary permit submitted to this agency: _____
- (c) Copy of CEQA document prepared attached? Yes No

Environmental Setting

19. Is any portion of the project located on or within 500' of a landslide? Yes No
Cite source: Field observations by Phill Blake, CPESC
20. Is any portion of the project located in the vicinity of rare/endangered species, species of special concern (plant, animal), wetland (type), riparian habitat, critical habitat, etc.? Yes No
If yes, list: Native grasslands (Stipa pulchra) exist within the project area.
Cite source/reference(s): Biological Resource Reconnaissance Survey/Anthem Winery Biological Resources Reconnaissance and Special Status Reconnaissance
Specific study prepared by: Kjeldsen Biological Consulting/MUSCI date: September 2012/August 2014
21. Is any portion of the project located on or within 500' of an archeological or historic site? Yes No
Cite source: Cultural Resources Survey
Specific study prepared by: Vicki R. Beard date: September 11, 2012

Grading Information

22. Are any new roads/driveways associated with the project? Yes No
23. Are any new vineyard avenues associated with the project? Yes No
24. Will the project involve any recontouring of the land? Yes No
25. Will there be any excavation or fill deeper than 12 inches? Yes No
26. Total cubic yards of cut & fill: 0
Cubic yards of cut: _____ fill: _____
Spoils location: on-site _____ off-site _____
27. Has a grading permit been filed with the Co Public Works Dept? Yes No
28. Will the project involve repair of a landslide? Yes No
Location _____ Size _____ Report _____

TIMBER HARVEST/TIMBER CONVERSION PERMITS

29. Is there a Timber Harvest or Conversion permit associated with the project/parcel? Yes No
Number of Acres: _____
- a) Copy of State Dept of Forestry Permit attached? Yes No **OR**
- b) Date application for necessary permit submitted to this agency: _____
- c) Copy of associated CEQA document attached? Yes No
- d) Date other County erosion control plan(s) submitted if different than the application date for this plan: _____
30. Is there a Timberland Conversion Exception associated with the project or parcel? Yes No

[...page intentionally left blank for duplicating purposes...]

SUPPLEMENTAL ENVIRONMENTAL INFORMATION (ECP)

To be provided by Property Owner: Justin and Julie Arbuckle

Attach response sheets to this page.

A. GENERAL INFORMATION

1. Name, address, telephone number of property owner.
Justin and Julie Arbuckle
3454 Dry Creek Road,
Napa, CA 94558
2. Address of project.
3123 Dry Creek Road
Napa, CA 94558, and
3456 Dry Creek Road,
Napa, CA 94558
3. APN.
035-460-038
035-470-046
4. Name, Address and telephone number of person to be contacted concerning this project, if different than owner.
Phill Blake
1515 Fourth Street
Napa, CA 94559
5. Indicate type or number of the permit application for the project to which this form pertains.
Vineyard Erosion Control Plan
6. List and describe any other related permits and/or other public approvals required for this project or parcel, including those required by city, regional, state and federal agencies.
No other permits
7. Existing zoning district.
AW
8. Proposed use of entire site and/or parcel. List and describe any other projects or improvements with site locations anticipated within the next several years (1-3-5 years).
APN 035-460-038: Currently there is a residence on the parcel. The vineyard addition will be the only improvement on the property.
APN 035-470-046: Currently there is a residence and a winery on the parcel. The vineyard addition and Anthem Winery Use Permit Plans.

B. PROJECT DESCRIPTION

9. Parcel(s) size(s), acres per parcel.
APN 035-460-038: 17.54 acres
APN 035-470-046: 27.23 acres
10. Project(s) size(s), acres per project.
APN 035-460-038: 1.10 acres
APN 035-470-046: 0.05 acres
11. Attach plans.
Plans are attached
12. Proposed scheduling.
The project will start in April 2013 and be complete by July 2015.

13. Anticipated incremental or phased development.
The project will take place in one phase.

14. If the project involves Napa County grading permit, use permit, variance or rezoning application, state this and indicate clearly why the application is required.
No additional permits will be required.

Discuss and check yes the following items which are applicable to your project or its effects (attach additional sheets)

YES NO

15. Change in existing features of any watercourses, wetlands, tidelands, beaches, hills or alteration of ground contours.
16. Change in scenic views or vistas from existing residential areas or public lands or roads.
17. Change in the pattern, scale or character of general area of project.
18. Change in bay, lake, stream or ground water quality or quantity, or alteration of existing drainage patterns.
19. Site on filled land or on slopes of 5% or more.
20. Substantial change in demand for Napa County services (police, fire, water, sewage, etc.)
21. Relationship to a larger project or series of projects.

C. ENVIRONMENTAL SETTING

22. Describe the project site as it exists before the project, including information on topography, soil stability, plants and animals, wetlands (types), riparian habitat and any cultural, historical or scenic aspects. Describe any/all existing structures on the site, and the use of the structures. Attach photographs of the site, could include current aerial photo.

The vineyard will be spread across two parcels, owned by the same persons. The topography ranges from flat to steep slopes. The topography of the vineyard area is moderate slopes. There area consists of fallow grasslands, agricultural planting and oak woodlands. There are two residential houses, a guest house and a permitted winery on the properties. See biological survey for more detailed information.

23. Describe the surrounding properties (approximately ¼ mile radius form parcel boundary), including information on plants and animals and any cultural, historical or scenic aspects. Indicate the type of land use (agriculture, residential, commercial, etc.), intensity of land use (vineyards, winery, one-family, multi-family, industry, etc.), and scale of development (acres, height, setback, yard, etc.). Attach photographs of the vicinity, could include current aerial photo.

Most of the surrounding properties have vineyards as well as residences. There is one neighboring residence that overlooks the area to be planted.

D. CERTIFICATION

I hereby certify that the statements furnished responding to the above and in the attached sheets present the data and information required for this initial evaluation to the best of my ability, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief.

3/17/15
Date


Signature of Property Owner

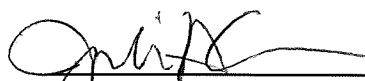
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INDEMNIFICATION AGREEMENT

In consideration of the discretionary approval for the project identified below, Permittee agrees to defend, indemnify, release and hold harmless the County, its agents, officers, attorneys, employees, boards and commissions from any claim, action or proceeding (collectively referred to as "proceeding") brought against any of the foregoing individuals or entities, the purpose of which is to attack, set aside, void or annul the discretionary project approval of the County, or an action relating to this project required by any such proceeding to be taken to comply with the California Environmental Quality Act by County's advisory agencies, appeal boards, zoning administrator, planning staff, planning commission, or board of supervisors, which action is brought within the applicable statute of limitations. This indemnification shall include, but not be limited to, damages, fees and/or costs awarded against the County, if any, and cost of suit, attorney's fees, and other costs, liabilities and expenses incurred in connection with such proceeding that relate solely to this discretionary approval or an action related to this project taken to comply with CEQA whether incurred by the Permittee, the County and/or the parties initiating or bringing such proceeding. Permittee further agrees to indemnify the County for all the County's costs, fees, and damages, which the County incurs in enforcing this indemnification agreement.

Permittee further agrees, as a condition of project approval, to defend, indemnify and hold harmless the County, its agents, officers, employees and attorneys for all costs incurred in additional investigation of or study of, or for supplementing, redrafting, revising, or amending any document (such as an EIR, negative declaration, specific plan, or general plan amendment) if made necessary by said proceeding and if the Permittee desires to pursue securing approvals which are conditioned on the approval of such documents.

In the event any such proceeding is brought, County shall promptly notify the Permittee of the proceeding, and County shall cooperate fully in the defense. If County fails to promptly notify the Permittee of the proceeding, or if County fails to cooperate fully in the defense, the Permittee shall not thereafter be responsible to defend, indemnify, or hold harmless the County. The County shall retain the right to participate in the defense of the proceeding if it bears its own attorney's fees and costs, and defends the action in good faith. The Permittee shall not be required to pay or perform any settlement unless the settlement is approved by the Permittee.



Permittee

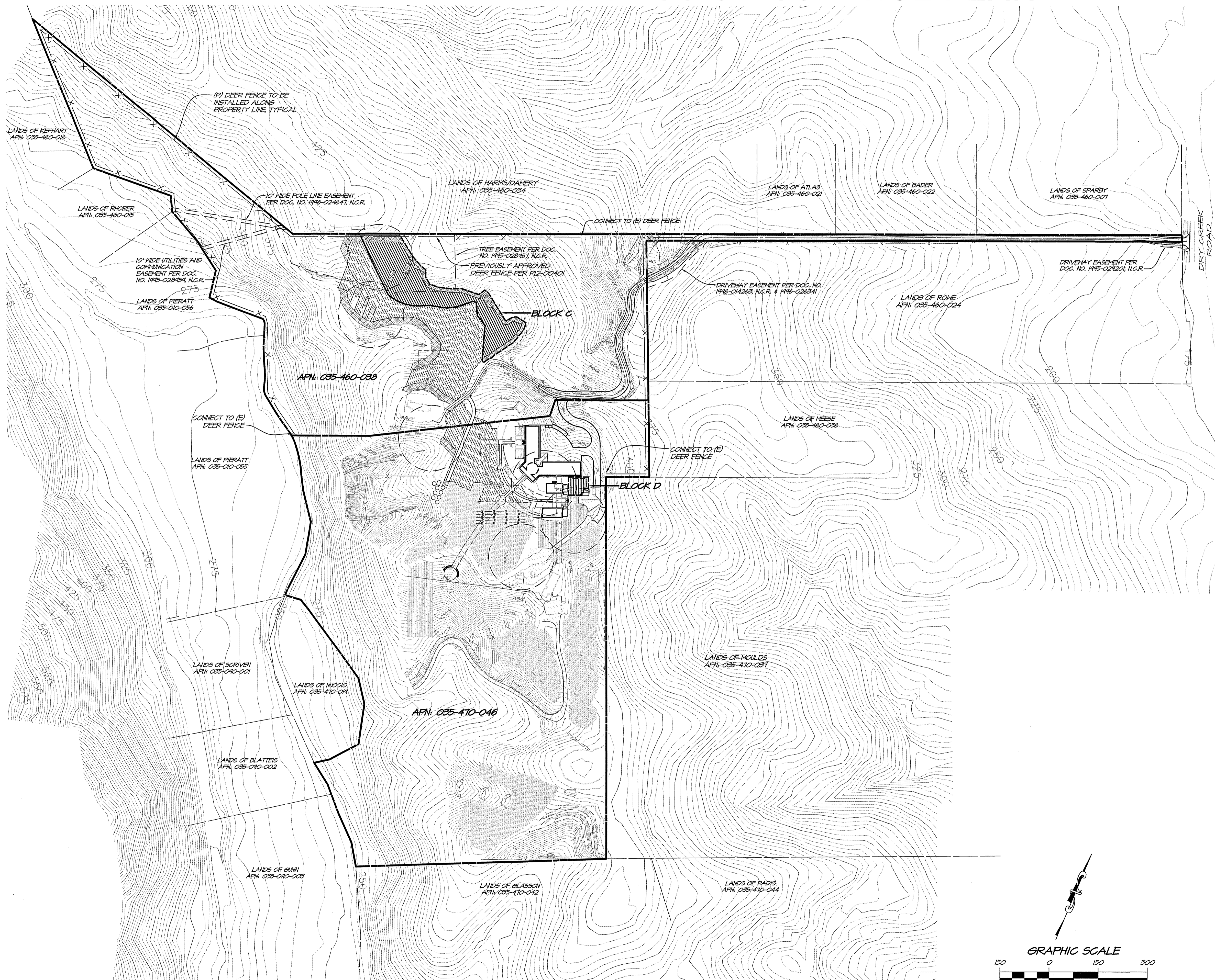
3/17/15

Date

Property Owner (if other than Permittee)

Project Identification

ANTHEM WINERY VINEYARD EROSION CONTROL PLAN



SITE PLAN
SCALE: 1" = 150'



VICINITY MAP
SCALE: 1" = 2000'

PROJECT INFORMATION

| | |
|---|---|
| OWNER: | JUSTIN AND JULIE AREBUCKLE 3454 REDWOOD ROAD NAPA, CALIFORNIA 94558 |
| SITE ADDRESS: | 3454 REDWOOD ROAD NAPA, CA 94558 |
| CIVIL ENGINEER: | RSA+ 1515 FOURTH STREET NAPA, CA 94934 |
| APN & AREA: | 035-460-038 (11.54 ACRES) 035-410-046 (21.23 ACRES) |
| PLANTED VINEYARD: | 0 ACRES (035-460-038) 5.71 ACRES (035-410-046) |
| APPROVED UNPLANTED VINEYARD: | 1.91 ACRES (035-460-038) 1.01 ACRES (035-410-046) |
| PROPOSED VINEYARD NET ACREAGE: | 0.95 ACRES |
| PROPOSED VINEYARD GROSS ACREAGE: | 1.14 ACRES (VINES & AVENUES) |
| EXISTING USE: | RURAL HOMESITE (035-460-038) WINERY (035-410-046) |
| PROPOSED USE: | RURAL HOMESITE (035-460-038) WINERY (035-410-046) |
| EXISTING ZONING: | AH (035-460-038 & 035-410-046) |
| PROPOSED ZONING: | AH (035-460-038 & 035-410-046) |

TOPOGRAPHY

- TOPOGRAPHIC SURVEY MAP PREPARED BY RIECHERS SPENCE & ASSOCIATES, DATED SEPT. 2013
- CONTOURS ARE SHOWN EVERY TWO FEET (2'). HIGHLIGHTED EVERY TEN FEET (10').

BOUNDARY

- BOUNDARY IS BASED ON A LOT LINE ADJUSTMENT PREPARED BY RIECHERS SPENCE & ASSOCIATES, DATED MARCH 2012

BASIS OF BEARING & BENCHMARK

- BASIS OF BEARINGS FOR THIS MAP IS PER BOOK 84 OF SURVEYS, PAGE 4 & 5, N.G.R.
- CITY OF NAPA BM #B-A. ELEVATION = 143.22' (NGVD 1929).

ASSOCIATED PERMITS

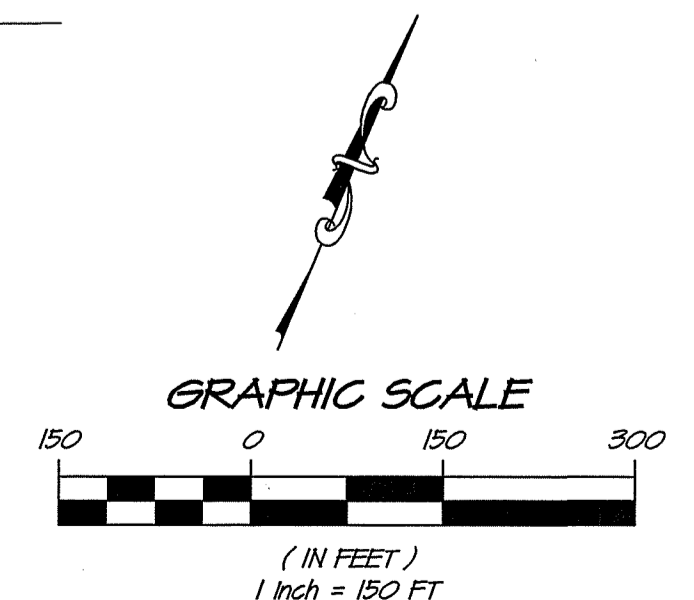
VINEYARD EROSION CONTROL PLAN (POB-00345, P12-00401)

VINEYARD ACREAGE

| | |
|-----------------|---------------------------|
| BLOCK C: | (035-460-038) 11.54 ACRES |
| BLOCK D: | (035-410-046) 0.05 ACRES |
| TOTAL | 1.14 ACRES |

SHEET INDEX

| | |
|-------------|--|
| C1.0 | COVER SHEET |
| C2.0 | NOTES |
| C3.0 | SLOPE ANALYSIS & EROSION CONTROL PLAN |

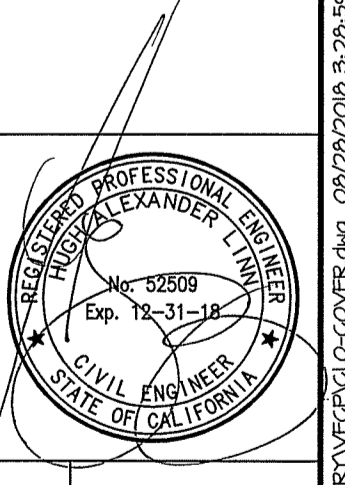


| | | | | |
|-----|------|-----------|----|------|
| NO. | DATE | REVISIONS | BY | APPD |
| | | | | |

1515 FOURTH STREET
NAPA, CALIF. 94559
OFFICE | 707.252.3301
+ www.rsacivil.com +

RSA+
RSA+ CONSULTING CIVIL ENGINEERS + SURVEYORS + 1980

ANTHEM WINERY COVER SHEET CALIFORNIA
NAPA COUNTY



| | |
|-----------|-----------------|
| DATE | AUGUST 28, 2018 |
| DRAWN | JFV/EP |
| DESIGNED | FRB |
| CHECKED | EP/FRB |
| JOB NO. | 411010.0 |
| SHEET NO. | C1.0 |
| | 1 OF 3 SHEETS |

NARRATIVE SUPPLEMENT TO THE EROSION CONTROL PLAN

NATURE AND PURPOSE OF ACTIVITY
 VINEYARD PLANTING AND VINEYARD AVENUES WILL BE DEVELOPED ON 130 ACRES LOCATED ON TWO PARCELS OF 44.63 TOTAL ACRES. NO GRADING ON SLOPES 30% OR GREATER WILL TAKE PLACE.

GENERAL SITE DESCRIPTION
 THE AREAS TO BE PLANTED RANGE IN SLOPE FROM 1% TO 15% AVERAGING 14%, AND CONSIST OF THE SOILS DESCRIBED BELOW. THE PROJECT AREA CONSISTS OF RUDERAL GRASS LAND AND SPARSELY SCATTERED OAK WOODLAND. THE PROJECT LIES IN THE SALVADOR CHANNEL WATERSHED.

NATURAL FEATURES ON-SITE OR AFFECTED BY PROJECT
 NO WETLANDS OR WATER BODIES, INCLUDING STREAMS OR WATERCOURSES REQUIRING SETBACKS ARE LOCATED IN THE VICINITY OF THE PROPOSED VINEYARD DEVELOPMENT.

LOCATION SOURCE OF WATER FOR IRRIGATION OR OTHER USES
 SEE TIER 1 HAA PROVIDED WITH THE USE PERMIT SUBMITTAL.

SOIL TYPES
 THE USDA-SCS NAPA COUNTY SOIL SURVEY MAPS THE PROJECT SITE AS: 1B3 - FAGAN CLAY LOAM, 30% TO 50% SLOPES.

CRITICAL AREAS
 THERE ARE NO IDENTIFIED AREAS OF EROSION OR SLOPE STABILITY.

EROSION CALCULATIONS:

| USLE "SOIL-SAVER" SPREADSHEET | | | | | | | | | |
|--|----------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| USLE LAYOUT AND PRACTICE ALTERNATIVES A=(R)(K)(L)(S)(C)(P) | | | | | | | | | |
| FOR: | PRE-PROJECT ANALYSIS | | | | | | | | |
| SOIL TYPE: | FAGAN 1B3 | T=3 | | | | | | | |
| USER: | P BLAKE, CPESC | | | | | | | | |
| DATE: | 8/21/2018 | | | | | | | | |
| # / ACRES: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| TRANSACT 1 | TRANSACT 2 | TRANSACT 3 | TRANSACT 4 | TRANSACT 5 | TRANSACT 6 | TRANSACT 7 | TRANSACT 8 | TRANSACT 9 | TRANSACT 10 |
| FACTOR: | DESCRIPTION | #1 / DESCRIBE | #2 / DESCRIBE | #3 / DESCRIBE | #4 / DESCRIBE | #5 / DESCRIBE | #6 / DESCRIBE | #7 / DESCRIBE | #8 / DESCRIBE |
| R** | RAINFALL | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 |
| K | SOIL EROSION | 0.28 | 0.28 | 0.28 | 0.28 | 0.28 | 0.28 | 0.28 | 0.28 |
| S | SLOPE LENGTH (FT) | 150 | 160 | 220 | 60 | | | | |
| S | GRADIENT | 15.0 | 15.0 | 12.0 | 13.0 | | | | |
| LS | CALCULATED LS | 2.90 | 2.99 | 2.59 | 1.51 | | | | 0.00 |
| C | COVER | 0.042 * | 0.042 * | 0.042 * | 0.042 * | | | | |
| P | PRACTICE | 1 VERTICAL | 1 VERTICAL | 1 VERTICAL | 1 VERTICAL | | | | |
| A | SOIL LOSS, TONS/ACRE | 2.28 | 2.36 | 2.04 | 2.35 | | | | 0.00 |
| | SOIL LOSS, TONS | 2.28 | 2.36 | 2.04 | 2.35 | | | | 0.00 |
| | A=(R)(K)(L)(S)(C)(P) | | | | | | | | |
| PER TABLE 5 | | | | | | | | | |
| *NO CANOPY, 60% COVER, 100% GRASS, IDLE PASTURE | | | | | | | | | |
| **NOAA ATLAS 14, VOLUME 6, VERSION 2 | | | | | | | | | |

| USLE "SOIL-SAVER" SPREADSHEET | | | | | | | | | |
|---|-----------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| USLE LAYOUT AND PRACTICE ALTERNATIVES A=(R)(K)(L)(S)(C)(P) | | | | | | | | | |
| FOR: | POST-PROJECT ANALYSIS | | | | | | | | |
| SOIL TYPE: | FAGAN 1B3 | T=3 | | | | | | | |
| USER: | P BLAKE, CPESC | | | | | | | | |
| DATE: | 8/21/2018 | | | | | | | | |
| # / ACRES: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| TRANSACT 1 | TRANSACT 2 | TRANSACT 3 | TRANSACT 4 | TRANSACT 5 | TRANSACT 6 | TRANSACT 7 | TRANSACT 8 | TRANSACT 9 | TRANSACT 10 |
| FACTOR: | DESCRIPTION | #1 / DESCRIBE | #2 / DESCRIBE | #3 / DESCRIBE | #4 / DESCRIBE | #5 / DESCRIBE | #6 / DESCRIBE | #7 / DESCRIBE | #8 / DESCRIBE |
| R** | RAINFALL | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 |
| K | SOIL EROSION | 0.28 | 0.28 | 0.28 | 0.28 | 0.28 | 0.28 | 0.28 | 0.28 |
| S | SLOPE LENGTH (FT) | 150 | 160 | 220 | 60 | | | | |
| S | GRADIENT | 15.0 | 15.0 | 12.0 | 13.0 | | | | |
| LS | CALCULATED LS | 2.90 | 2.99 | 2.59 | 1.51 | | | | 0.00 |
| C | COVER | 0.04 * | 0.04 * | 0.04 * | 0.04 * | | | | |
| P | PRACTICE | 1 VERTICAL | 1 VERTICAL | 1 VERTICAL | 1 VERTICAL | | | | |
| A | SOIL LOSS, TONS/ACRE | 2.17 | 2.24 | 1.94 | 1.13 | | | | 0.00 |
| | SOIL LOSS, TONS | 2.17 | 2.24 | 1.94 | 1.13 | | | | 0.00 |
| | A=(R)(K)(L)(S)(C)(P) | | | | | | | | |
| REFERENCE: USLE SPECIAL APPLICATIONS "C" FACTORS FOR VINEYARDS | | | | | | | | | |
| *75% COVER, NO-TILL COVER CROP, MINIMUM 1' WIDE MOWED OR MULCHED UNDER WIRE STRIP | | | | | | | | | |

RESULT: SLIGHT SOIL LOSS DECREASE (5% BLOCK C / 88% BLOCK D)

ANY/ALL PROPOSED EROSION CONTROL METHODS INCLUDING, BUT NOT LIMITED TO:

A) ALL DRAINAGE SYSTEMS AND FACILITIES, WALLS, GRIBBING OR OTHER EROSION PROTECTION DEVICES TO BE CONSTRUCTED WITH, OR AS A PART OF THE PROPOSED WORK.

FIBER ROLL SEDIMENT BARRIERS ARE TO BE INSTALLED AS A TEMPORARY EROSION CONTROL MEASURE, AT THE INDICATED LOCATIONS.

B) PROPOSED VEGETATIVE EROSION CONTROL MEASURES INCLUDING MAINTENANCE OF PLANT MATERIAL...

PRIOR TO OCTOBER 15TH OF THE DEVELOPMENT YEAR, ALL DISTURBED AREAS SHALL BE SEEDED AS DESCRIBED IN THE COVER CROP PROGRAM SECTION. THE COVER CROP WILL BE MANAGED EACH YEAR SUCH THAT ANY AREAS WHICH HAVE LESS THAN 70% VEGETATION COVER WILL BE RESEEDED UNTIL ADEQUATE COVERAGE IS ACHIEVED.

AVENUES SHALL BE PLANTED, ALSO AS DESCRIBED IN THE COVER CROP PROGRAM. THE COVER CROP WILL BE MANAGED EACH YEAR SUCH THAT ANY AREAS WHICH HAVE LESS THAN 75% VEGETATIVE COVER WILL BE RESEEDED UNTIL ADEQUATE COVERAGE IS ACHIEVED. ALL AVENUES SHALL BE MOWED ONLY AND SHALL NOT BE DISCED. IN YEAR ONE OF DEVELOPMENT, ALL CLEARED LAND, INCLUDING VINEYARD AVENUES WILL BE STRAW MULCHED FOLLOWING SEEDING OF THE COVER CROP. STRAW WILL BE APPLIED AT A RATE OF 3,000 LBS. PER ACRE.

NARRATIVE SUPPLEMENT TO THE EROSION CONTROL PLAN CONTINUED

STORM WATER STABILIZATION MEASURES TO HANDLE ANY INCREASED PEAK RATES OF RUNOFF FROM THE DEVELOPMENT OF THE SITE THAT WOULD RESULT IN FLOODING OR CHANNEL DEGRADATION DOWNSTREAM, INCLUDING CALCULATIONS OF ESTIMATED INCREASED RUNOFF AND/OR EXPLANATION OF WHY AN INCREASE IS/IS NOT EXPECTED:

TR-55 CALCULATIONS - NRCS EFM C/N'S USED

| * STORM DATA | | | | | | |
|--|--------|---------|---------|---------|----------|--------|
| RAINFALL DEPTH (IN INCHES) BY RAINFALL RETURN PERIOD | | | | | | |
| 2 YEAR | 5 YEAR | 10 YEAR | 25 YEAR | 50 YEAR | 100 YEAR | 1 YEAR |
| 3.40 | 4.38 | 5.17 | 6.21 | 6.99 | 7.77 | 0.00 |

* NOAA ATLAS 14, VOLUME 6, VERSION 2

PRE-PROJECT

| SUB-AREA LAND USE AND CURVE NUMBER DETAILS | | | | |
|--|------------------------------------|-----------------------|--------------------|--------------|
| SUB-AREA IDENTIFIER | LAND USE | HYDROLOGIC SOIL GROUP | SUB-AREA AREA (AC) | CURVE NUMBER |
| IA | PASTURE, GRASSLAND OR RANGE (FAIR) | C | 1.2 | 79 |
| | TOTAL AREA / WEIGHTED CURVE NUMBER | | 1.2 | 79 |

| SUB-AREA DATA | | | | | |
|-----------------------|------------------------------------|--------|-----------|-----|-----|
| NAME | DESCRIPTION | REACH | AREA (AC) | RCN | TC |
| IA | PASTURE, GRASSLAND OR RANGE (FAIR) | OUTLET | 1.2 | 79 | 0.1 |
| TOTAL AREA: 1.20 (AC) | | | | | |

POST-PROJECT

| SUB-AREA LAND USE AND CURVE NUMBER DETAILS | | | | |
|--|------------------------------------|-----------------------|--------------------|--------------|
| SUB-AREA IDENTIFIER | LAND USE | HYDROLOGIC SOIL GROUP | SUB-AREA AREA (AC) | CURVE NUMBER |
| IA | VINEYARD* | C | 1.2 | 76 |
| | TOTAL AREA / WEIGHTED CURVE NUMBER | | 1.2 | 76 |

* WOODS-GRASS COMBINATION / "FAIR" CONDITION. AS PER DAVE STEINER JANUARY, 2013 RCD MEMO. RCD MEMO REFERENCES CN 74, BUT TR-55 SPECIFIES CN 76, AS USED IN THIS ANALYSIS *

| SUB-AREA DATA | | | | | |
|-----------------------|-------------|--------|-----------|-----|-----|
| NAME | DESCRIPTION | REACH | AREA (AC) | RCN | TC |
| IA | | OUTLET | 1.2 | 79 | 0.1 |
| TOTAL AREA: 1.20 (AC) | | | | | |

PRE-PROJECT

| WATERSHED PEAK TABLE | | | | | | |
|------------------------------------|--------|--------|---------|---------|---------|----------|
| PEAK FLOW (CFS) BY RAINFALL PERIOD | | | | | | |
| SUB-AREA OR REACH IDENTIFIER | 2 YEAR | 5 YEAR | 10 YEAR | 25 YEAR | 50 YEAR | 100 YEAR |
| SUBAREAS IA | 0.40 | 0.66 | 0.88 | 1.18 | 1.41 | 1.64 |

POST-PROJECT

| WATERSHED PEAK TABLE | | | | | | |
|------------------------------------|--------|--------|---------|---------|---------|----------|
| PEAK FLOW (CFS) BY RAINFALL PERIOD | | | | | | |
| SUB-AREA OR REACH IDENTIFIER | 2 YEAR | 5 YEAR | 10 YEAR | 25 YEAR | 50 YEAR | 100 YEAR |
| SUBAREAS IA | 0.33 | 0.56 | 0.77 | 1.06 | 1.29 | 1.52 |

PLANTING OF THE VINEYARD WITH 75% NO-TILL COVER CROPS, AS COMPARED WITH THE PRE-PROJECT CONDITION OF OPEN GRASSLAND RESULTS IN THE FOLLOWING CHANGES IN RUNOFF, BY STORM EVENT:

| 2-YR STORM | 5-YR STORM | 10-YR STORM | 25-YR STORM | 50-YR STORM | 100-YR STORM |
|------------|------------|-------------|-------------|-------------|--------------|
| -0.07 CFS | -0.10 CFS | -0.11 CFS | -0.12 CFS | -0.12 CFS | -0.12 CFS |

NET RUNOFF RESULTS:

RUNOFF DECREASES MODESTLY WITH THE VINEYARD DEVELOPMENT AND THERE ARE THUS NO NEEDS TO ATTENUATE STORM RUNOFF WITH STORAGE DEVICE LAND TREATMENTS. RUNOFF QUANTITIES APPLY TO BOTH THE REDWOOD CREEK AND SALVADOR CREEK WATERSHEDS.

IMPLEMENTATION SCHEDULE:

THE PROPOSED VEGETATION CLEARING, EARTH MOVING/GRADING, AND CONSTRUCTION/PLANTING SCHEDULE:

AFTER APRIL 15:
 COMMENCE LAND CLEARING AND ESTABLISHMENT OF VINEYARD AND IRRIGATION SYSTEM.

PRIOR TO OCTOBER 15:
 SEED AND MULCH THE COVER CROP AND INSTALL FIBER ROLLS.

ESTIMATED COST:
 TOTAL COST FOR IMPLEMENTATION OF THE DESCRIBED EROSION CONTROL MEASURES: \$6,000.00

ROAD SERVING VINEYARDS:
 NOTE - NO NEW ROADS WILL BE CONSTRUCTED TO SERVICE NEW VINEYARDS. NO CULVERTS OR CREEK / SHALE CROSSINGS ARE IN PLAY. VINEYARD AVENUES WILL NOT REQUIRE GRADING, ALLOWING FOR NATURAL SHEET FLOW TO CONTINUE, AS PER PRE-PROJECT CONDITIONS.

EROSION CONTROL PLAN NOTES

- GRADING ON THE SITE WILL BE LIMITED TO THE EXCAVATION SHOWN ON THE PLAN.
- FIBER ROLL SEDIMENT BARRIERS WILL BE INSTALLED PRIOR TO ANY GRADING ON THE SITE AND WILL BE OPERABLE DURING THE RAINY SEASON, OCTOBER 15 TO APRIL 15.
- ALL MOVEMENT OF EARTH SHALL COMPLY WITH THE SPECIFICATIONS CONTAINED IN THE NAPA COUNTY GRADING ORDINANCE AND THE EROSION CONTROL PLAN.
- CHANGES TO THIS EROSION AND SEDIMENT CONTROL PLAN TO MEET FIELD CONDITIONS WILL BE MADE ONLY WITH THE APPROVAL OF OR AT THE DIRECTION OF THE DIRECTOR OF PUBLIC WORKS.
- BETWEEN OCTOBER 15 AND APRIL 1, ALL PAVED AREAS WILL BE KEPT CLEAR OF EARTH MATERIAL AND DEBRIS. THE SITE WILL BE MAINTAINED SO THAT A MINIMUM OF SEDIMENT-LADEN RUNOFF LEAVES THE SITE.
- THE CONTRACTOR WILL INFORM ALL CONSTRUCTION SITE WORKERS ABOUT THE MAJOR PROVISIONS OF THE EROSION AND SEDIMENT CONTROL PLAN AND SEEK THEIR COOPERATION IN AVOIDING THE DISTURBANCE OF THESE CONTROL MEASURES.

MAINTENANCE NOTES

- DURING THE RAINY SEASON (OCTOBER 15 TO APRIL 15) ALL SEDIMENT BARRIERS WILL BE INSPECTED AND REPAIRED AT THE END OF EACH WORKING DAY AND, IN ADDITION, AFTER EACH STORM.
- SEEDED AREAS WILL BE REPAIRED, RESEEDED AND MULCHED AS SOON AS POSSIBLE IF DAMAGED FOR ANY REASON.

COVER CROP PROGRAM

YEAR 1: CEREAL BARLEY WILL BE PLANTED AT A RATE OF 90 LBS PER ACRE. STRAW MULCH WILL BE APPLIED OVER SEED AT A RATE OF 3,000 LBS PER ACRE. THE ENTIRE DISTURBED SOIL AREA WILL BE TREATED. GRANULAR FERTILIZER WILL BE APPLIED AT A RATE THAT WILL YIELD 40 UNITS OF NITROGEN AND 80 UNITS OF PHOSPHORUS.

YEAR 2: A NO-TILL COVER CROP WILL BE PLANTED AS FOLLOWS:

- VINEYARD - 25 LBS PER ACRE PLANTING RATE:
- 40% BLANDO BROME, (BROMUS HORDEACEUS)
- 20% ZORRO ANNUAL FESCUE, (MULPIA MYUROS, VAR. HIRSUTA)
- 15% CALIFORNIA BROME, (BROMUS CARINATUS)
- 10% CRIMSON CLOVER, (TRIFOLIUM INCARNATUM)
- 10% ROSE CLOVER, (TRIFOLIUM HIRTUM)

AVENUES: FAWN TALL FESCUE PLANTED AT 25 LBS PER ACRE

3RD LEAF: TO ADDRESS THE LOSS OF PURPLE NEEDLEGRASS, THE COVER CROP WILL BE SUPPLEMENTED WITH THE ADDITIONAL SOWING OF PURPLE NEEDLEGRASS SEED IN THE 3RD LEAF STAGE OF VINEYARD DEVELOPMENT. SEED WILL BE DRILLED INTO THE STUBBLE OF THE NO-TILL COVER CROP THAT WAS ESTABLISHED IN YEAR 2 OF VINEYARD DEVELOPMENT. MITIGATION TIMING AT THIS STAGE OF VINEYARD GROWTH WILL MINIMIZE THE NEGATIVE IMPACTS OF SOWING A PERENNIAL GRASS COVER CROP BEFORE VINES ARE FULLY ESTABLISHED. DE-ANNED NEEDLEGRASS SEED WILL BE SEWN AT A RATE OF 35 LBS PER ACRE.

VINE ROW STRIP: A 1 FOOT WIDE MOWED OR MULCHED STRIP WILL BE MAINTAINED FOR WEED AND COVER CONTROL IN FEBRUARY OF EACH SEASON FOLLOWING PLANTING OF VINES.

GENERAL NOTES

- CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNERS AND THE ENGINEER HARMLESS FROM ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THE PROJECT; EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNERS OF THE ENGINEER.
- SHOULD ANY CONTRACTOR OR SUBCONTRACTOR FIND ANY DEFICIENCIES, ERRORS, CONFLICTS OR OMISSIONS IN THESE PLANS AND SPECIFICATIONS OR SHOULD HE BE IN DOUBT AS TO THEIR MEANING OR INTENT, HE SHALL NOTIFY THE ENGINEER FOR A WRITTEN CLARIFICATION, ADDENDUM, ETC. SHOULD HE FAIL TO DO SO BEFORE SUBMITTING A PROPOSAL, HE CANNOT CLAIM ADDITIONAL COMPENSATION FOR WORK REQUIRED TO COMPLETE THE PROJECT.
- WRITTEN DIMENSIONS ALWAYS TAKE PRECEDENCE OVER SCALED DIMENSIONS. IF THERE IS A CONFLICT, NOTIFY THE ENGINEER AND OBTAIN A CLARIFICATION. NO DEVIATIONS OR SUBSTITUTIONS SHALL BE ALLOWED WITHOUT OBTAINING WRITTEN APPROVAL FROM THE ENGINEER.
- ALL WORKMANSHIP AND MATERIALS FOR BOTH ONSITE AND OFFSITE IMPROVEMENTS SHALL CONFORM TO THE STANDARD SPECIFICATIONS AND STANDARD PLANS. THE ONSITE IMPROVEMENTS SHALL BE INSPECTED BY THE PUBLIC WORKS INSPECTOR.
- CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR BEING FAMILIAR WITH THE PROVISIONS AND REQUIREMENTS CONTAINED IN THE NAPA COUNTY STANDARD SPECIFICATIONS. CONTRACTOR SHALL HAVE A COPY AVAILABLE AT THE JOB SITE AT ALL TIMES.
- CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE (U.S.A.) AT 1-800-642-2444 PRIOR TO START OF ANY CONSTRUCTION.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE VERIFICATION OF ALL EXISTING UTILITIES IN THE FIELD. LOCATIONS OF UTILITIES AND UNDERGROUND FACILITIES SHOWN ARE APPROXIMATE AND FOR GENERAL INFORMATION ONLY.
- ALL MATERIAL SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR UNLESS OTHERWISE NOTED.
- SURVEYOR SHALL LAYOUT SITE IMPROVEMENTS AS SHOWN. PRIOR TO SETTING GRADING AND LAYOUT STAKES, THE SURVEYOR SHALL CHECK THE VERIFICATION TIE AND ADVISE THE ENGINEER IF THE LAYOUT DIMENSION VARIES BY MORE THAN 0.2 FEET.
- ALL MOVEMENT OF EARTH WILL COMPLY WITH NAPA COUNTY GRADING ORDINANCE SPECIFICATIONS AND THIS EROSION CONTROL PLAN.

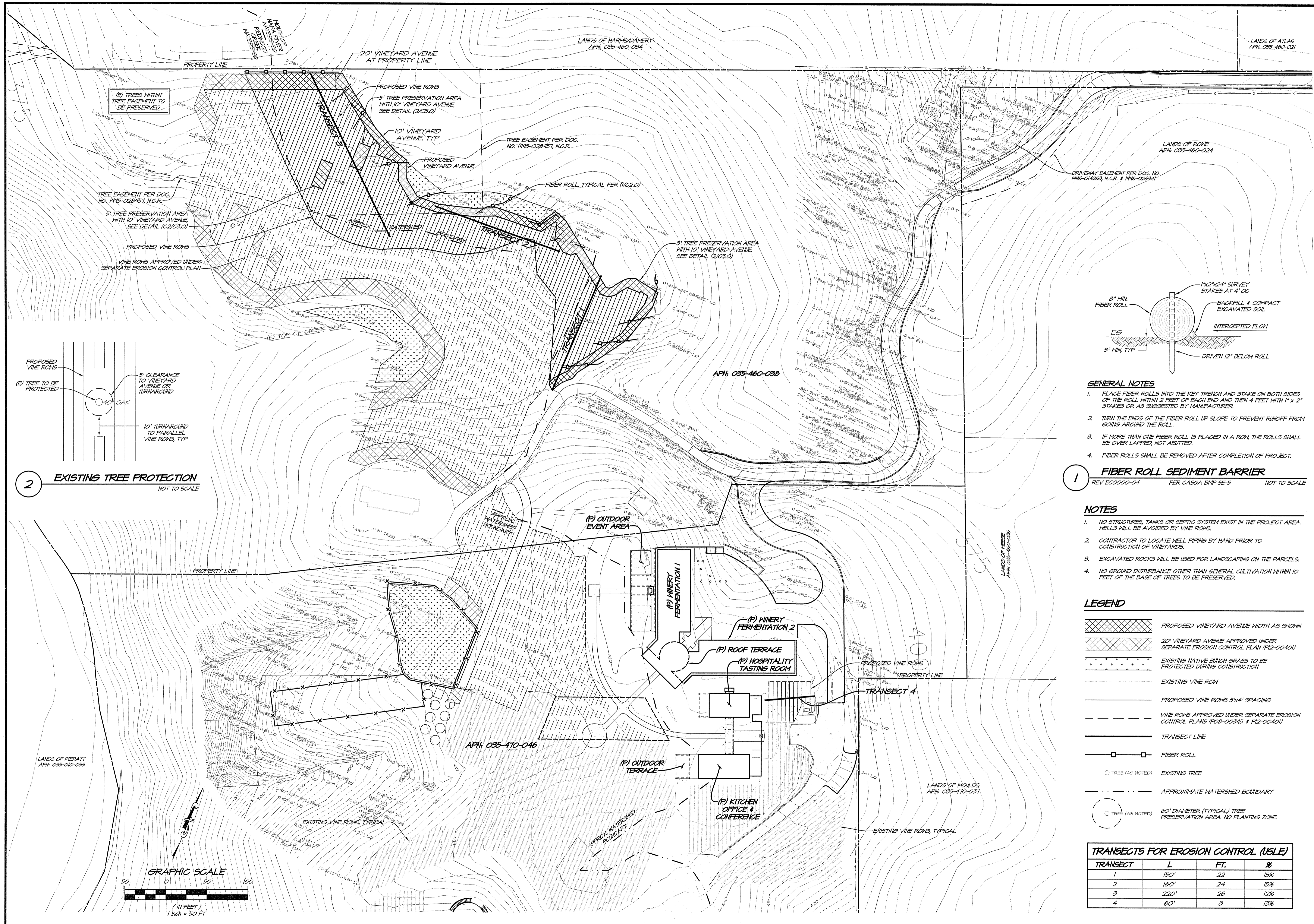
1515 FOURTH STREET
 NAPA, CALIF. 94559
 OFFICE (707) 252-3301
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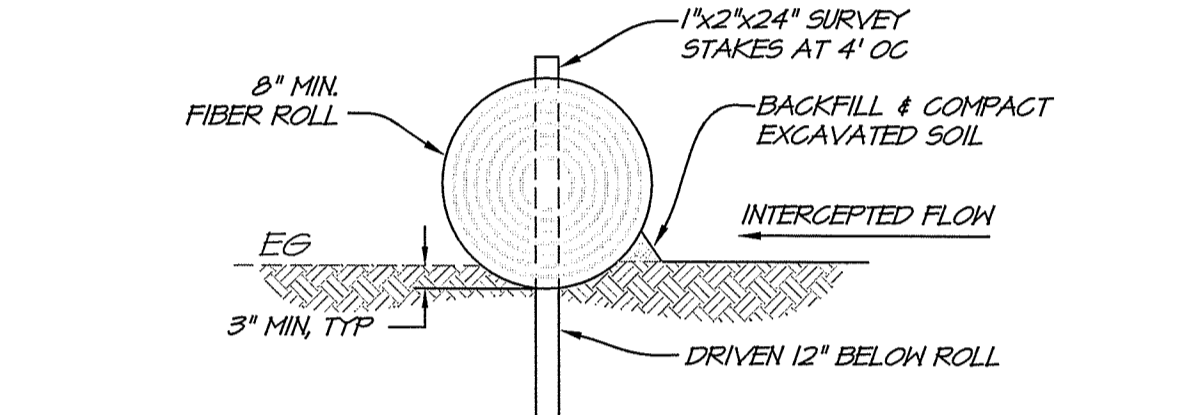
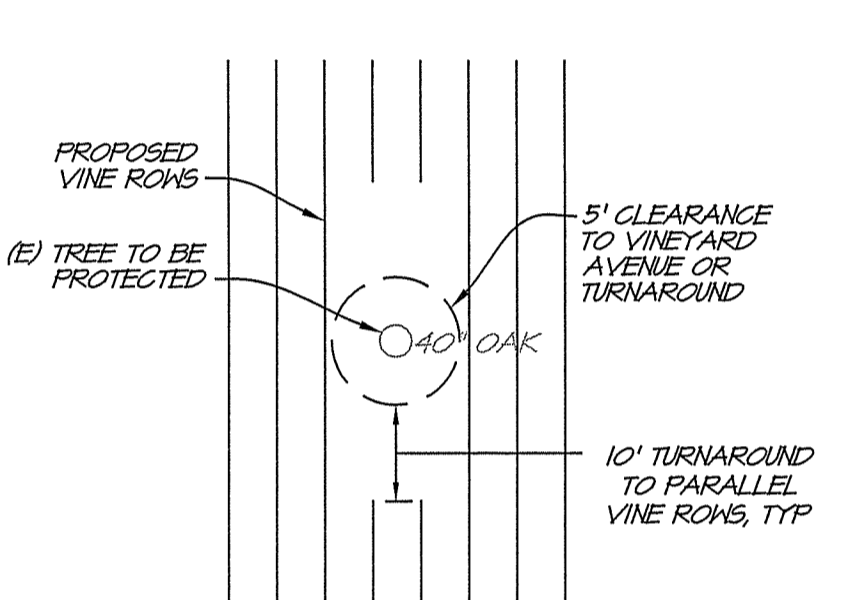
ANTHEM WINERY
 NOTES
 CALIFORNIA
 NAPA COUNTY

DATE: AUGUST 28, 2018
 DRAWN: JFV/KP
 DESIGNED: PRB
 CHECKED: BWF
 JOB NO.: 4111010
 SHEET NO.: C2.0
 2 OF 3 SHEETS

PROFESSIONAL ENGINEER
 J. F. VANDERKAM
 No. 52898
 Exp. 12-31-18
 CIVIL ENGINEER
 STATE OF CALIFORNIA



2 EXISTING TREE PROTECTION
NOT TO SCALE



- GENERAL NOTES**
1. PLACE FIBER ROLLS INTO THE KEY TRENCH AND STAKE ON BOTH SIDES OF THE ROLL WITHIN 2 FEET OF EACH END AND THEN 4 FEET WITH 1" X 2" STAKES OR AS SUGGESTED BY MANUFACTURER.
 2. TURN THE ENDS OF THE FIBER ROLL UP SLOPE TO PREVENT RUNOFF FROM GOING AROUND THE ROLL.
 3. IF MORE THAN ONE FIBER ROLL IS PLACED IN A ROW, THE ROLLS SHALL BE OVER LAPPED, NOT ABUTTED.
 4. FIBER ROLLS SHALL BE REMOVED AFTER COMPLETION OF PROJECT.

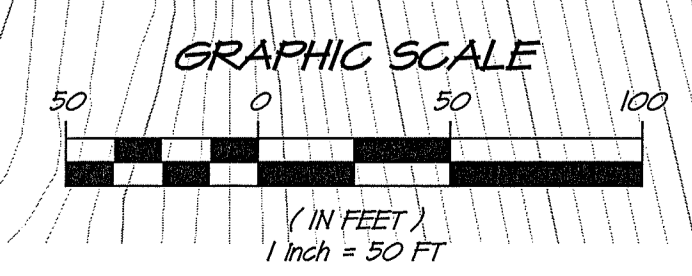
1 FIBER ROLL SEDIMENT BARRIER
REV EC0000-04 PER CASQA BMP SE-5 NOT TO SCALE

- NOTES**
1. NO STRUCTURES, TANKS OR SEPTIC SYSTEM EXIST IN THE PROJECT AREA. WELLS WILL BE AVOIDED BY VINE ROWS.
 2. CONTRACTOR TO LOCATE WELL PIPING BY HAND PRIOR TO CONSTRUCTION OF VINEYARDS.
 3. EXCAVATED ROCKS WILL BE USED FOR LANDSCAPING ON THE PARCELS.
 4. NO GROUND DISTURBANCE OTHER THAN GENERAL CULTIVATION WITHIN 10 FEET OF THE BASE OF TREES TO BE PRESERVED.

- LEGEND**
- PROPOSED VINEYARD AVENUE WIDTH AS SHOWN
 - 20' VINEYARD AVENUE APPROVED UNDER SEPARATE EROSION CONTROL PLAN (P12-0040)
 - EXISTING NATIVE BUNCH GRASS TO BE PROTECTED DURING CONSTRUCTION
 - EXISTING VINE ROW
 - PROPOSED VINE ROWS 5'x4' SPACING
 - VINE ROWS APPROVED UNDER SEPARATE EROSION CONTROL PLANS (P08-00345 & P12-0040)
 - TRANSECT LINE
 - FIBER ROLL
 - TREE (AS NOTED) EXISTING TREE
 - APPROXIMATE WATERSHED BOUNDARY
 - TREE (AS NOTED) 60" DIAMETER (TYPICAL) TREE PRESERVATION AREA, NO PLANTING ZONE

TRANSECTS FOR EROSION CONTROL (USLE)

| TRANSECT | L | FT. | % |
|----------|------|-----|-----|
| 1 | 150' | 22 | 15% |
| 2 | 160' | 24 | 15% |
| 3 | 220' | 26 | 12% |
| 4 | 60' | 8 | 13% |



DATE: AUGUST 28, 2010
 DRAWN: JFW/DT
 DESIGNED: FRB
 CHECKED: BWF
 JOB NO.: 4110100
 SHEET NO.: **C3.0**
 3 OF 3 SHEETS

ANTHEM WINERY
SLOPE ANALYSIS & EROSION CONTROL PLAN
 CALIFORNIA
 NAPA COUNTY

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