

ATTERBURY & ASSOCIATES, INC.  
Civil Engineers – Land Planners

September 14, 2009  
05-25

Mr. David Hardy  
Sonoma County Permit and Resource Management Department  
2550 Ventura Avenue  
Santa Rosa, CA 95403

Re: Response to Questionnaire of December 10, 2008  
UPE 07-0008 – 245 Wappo Road

Dear Mr. Hardy,

Materials submitted with this report:

- BZA Issues to Follow Up, dated 12-10-08;
- RGH Feasibility Report, dated 8-24-09;
- Preliminary Grading and Drainage Plans, dated 8-21-09

This report sets forth the Applicant's position on the matters which were raised by your December 10, 2008 e-mail, and the list of "BZA Issues to Follow Up."

Since the majority of the questions pertained to the water use by the winery, this issue will be addressed first. Your e-mail posed the question: "Does taking a 0.5 AF user (a 3 bedroom dwelling) offline offset the additional use of the winery?" This is in reference to the recently acquired Farhat property known as 100 Wappo Road, APN. 028-250-007, 15 acres, upon which there is presently situated a three (3) bedroom dwelling.

As you know, Mr. Cornell intends to mitigate the impact of the winery's water use by demolishing the existing dwelling on 100 Wappo Road per DEM09-0100, and by granting a Conservation Easement to the County which relinquishes future development rights on that property, both as to structures and vineyards. In addition, Mr. Cornell intends forever waive the riparian rights appurtenant to 100 Wappo Road, which otherwise would allow him to draw water directly from Mark West Creek. It should be noted that State Water Quality Control Board officials are aware of numerous undeclared riparian water users in the Upper Mark West Creek Watershed.

You have a draft of the Easement Mr. Cornell proposes to grant.

In my opinion, the net effect of these mitigation efforts is that the winery water use will be more than completely offset by the water use being taken off-line, and therefore would have a positive effect upon the watershed.

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The computation below illustrates this point (using parameters adopted by PRMD in evaluating winery projects).

Annual Water Consumption -  
Winery Domestic Water Use -

7 employees x 15 gpd. x 260 working days/yr. = 27,300 gpy.  
15 tasting room guests x 2.5 x 260 wd/yr. gpd. = 9,750  
10 dinner guests x 25 gpd. x 10/yr. = 2,500  
Total domestic water use = 39,550 gpy.

Winery Process Water Use - ( industry standard)

4 gpww/gw produced x 24,000 gal. wine = 96,000 gallons per year.

Total Winery Water Use = 135,550 gpy.

135,550 gal/yr.  
Winery Water use =  $\frac{135,550 \text{ gal/yr.}}{325,851 \text{ gal./ac.-ft.}}$  = **0.42 ac.-ft. per year**

Three Bedroom Dwelling Water Use -

150 gal./day per bedroom x 3 bedrooms = 450 gpd.

450 gpd. x 365 days/year = 164,250 gallons per year.

164,250 gpy  
3 bdrm. Water use =  $\frac{164,250 \text{ gpy}}{325,851 \text{ gal./ac.-ft.}}$  = **0.50 ac.-ft. per year**

Conclusion - **0.42 ac.-ft. (winery) < 0.50 ac.-ft. (3 bdrm. dwelling)**

**On an annual basis the winery uses 26,068 gallons less water than a three bedroom dwelling.**

**Taking the three bedroom dwelling off-line more than mitigates the winery water use and will be a positive impact on the watershed.**

The limitations to development on 100 Wappo Road and the mitigated water use thereon, as set forth in the Conservation Easement, addresses those matters set forth in Questionnaire Items, 1, 2, 4, 8, 14, 15, 18, 23, 24, 28 and 29.

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The following responses to the remaining questions follow the numerical order in the questionnaire.

**No. 3** – Stability Analysis – The attached analysis from RGH addresses this issue.

**No. 10** – All of the excavated soils from the winery and cave not placed on site as engineered fill will be hauled off site to an approved location to receive fill.

**No. 11** – The attached report from RGH addresses this issue.

**No. 12** – Cornell Vineyards comprises 25 acres of vineyard and produces 75 to 100 tons of fruit per year, or 5,000 to 6,670 cases of wine per year. Other Sonoma County fruit may be brought in to the facility.

**No. 16** – The attached report from RGH addresses this issue. Stated simply, there is no relationship between the winery site and the landslide. Recalling the inspection attended by yourself, Dean Parsons, the Water Board representative and others, the landslide is in a different drainage than the winery site. It was therefore apparent that the winery site could not affect the landslide. This was the consensus of those in attendance and it is also the opinion of RGH.

It should be noted that to date there is no evidence of accelerated sheet flows from the winery site. The storm water off the winery site remains as sheet flow.

The infamous January 2006 storm event was region-wide with hundreds of landslides throughout the North Bay. The Geyserville Bridge was taken out of service by this storm. The only relationship the winery site has to the landslide below the existing dwelling is they share the same address.

**No. 21** – Enclosed please find an updated Preliminary Grading Plan

**No. 22** – Winery building cut = 2,060 cy, fill = 2,000 cy, net = 60 cy;  
Cave cut = 7,800 cy, net = 7,800 cy;  
Roadway cut = 1,200 cy, Roadway fill = 4,650 cy, net = -3,450 cy;  
Tank area cut = 1,950 cy, fill = 20 cy, net = 1,930cy;  
Total cut = 13,010 cy; Total fill = 6,670 cy; Total net = 6,340 cy

Total export from site = 6,340 cy.

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**No. 25** – The proposed building area of 18,670 sf comprises 5,816 sf. of storage, kitchen, offices and process wastewater pre-treatment and primary treatment equipment.

The production area of 12,854 sf is comprised of inside crush operation, cold storage area, open top fermentation and mechanical and storage.

The Cornell Winery will process primarily red grapes, which requires larger square footage for open top fermentation. The barrel processing and storage will be single-stacking.

**No. 26** – The treated process wastewater from the winery will be reclaimed by drip irrigation in the vineyard just above the winery site at 420 Wappo Road.

The horizontal distance from the Cornell well to this vineyard is about 1,250 ft. The minimum setback distance is 100 ft.

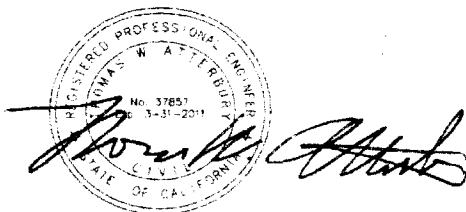
The impact on the Cornell well from surface drip irrigation of treated process wastewater would be insignificant.

Maximum allowable levels of residual process wastewater constituents will be reduced to less than what is required by the North Coast Regional Water Quality Control Board.

Water-born pathogens are not present in winery process wastewater.

The above is respectfully submitted for your review. Please call should you have further questions.

Sincerely,



The seal is circular with the text "REGISTERED PROFESSIONAL ENGINEER" around the top edge and "STATE OF CALIFORNIA" around the bottom edge. In the center, it reads "THOMAS W. ATTERBURY" and "No. 37857" with "3-31-2011" below it. A handwritten signature is written over the seal.

Thomas W. Atterbury, RCE

Cc: Guy Davis, Davis Family Vineyards  
John Holdredge

# PRELIMINARY GRADING PLAN

UP-E07-0008  
**SANTA ROSA, CALIFORNIA 95404**  
**ASSASSOR'S PARCEL NO. 028-260-041**

**Project Information**

**PROJECT ADDRESS:** 245 WEST WAPPPO ROAD  
**OWNER/DEVELOPER:** CORNELL FARMS, LLC  
 2355 LAGUNA ROAD  
 SANTA ROSA, CA 95401  
**ARCHITECT:** HOWARD W. BRUNNER, P.L.S.  
 250 HEALDSBURG AVENUE  
 HEALDSBURG, CA 95448  
 PH: 707-433-9760  
**CIVIL ENGINEER:** ATTERBURY & ASSOCIATES, INC.  
 10180 HEALDSBURG AVE., SUITE D  
 HEALDSBURG, CA 95448  
 PH: 707-433-0134; FX: 707-433-0136  
**ARCHITECT:** BACKEN GILLIAM ARCHITECTS  
 2352 MARINSHIP WAY  
 SAUSALITO, CA 94965  
 PH: 415-289-3860  
**ACRES:** 40.00

**Sheet Index**

1. TITLE SHEET, COUNTY MAP
2. NOTES
3. SITE PLAN
4. ROAD PLAN AND PROFILE
5. PRELIMINARY GRADING PLAN
6. CROSS SECTIONS
7. CROSS SECTIONS

**Earthwork Estimates**

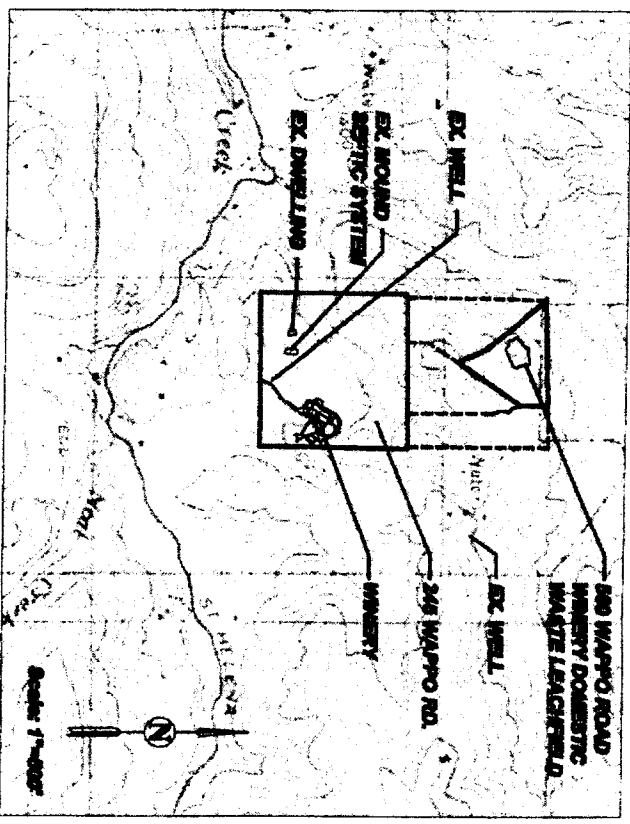
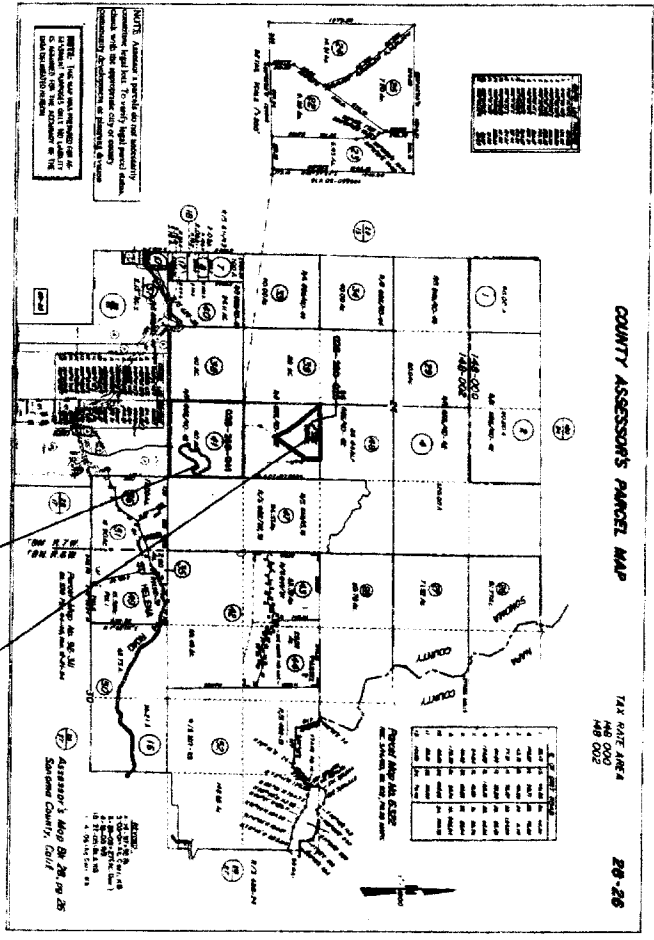
**BUILDING PAD**  
 CUT - 2,060 CY  
 FILL - 2,000 CY  
 NET - 80 CY (CUT)

**CAVE**  
 CUT - 7,800 CY  
 FILL - 0 CY  
 NET - 7,800 CY (CUT)

**ROADWAY GRADINGS**  
 CUT - 1,200 CY  
 FILL - 4,660 CY  
 NET - 3,460 CY (FILL)

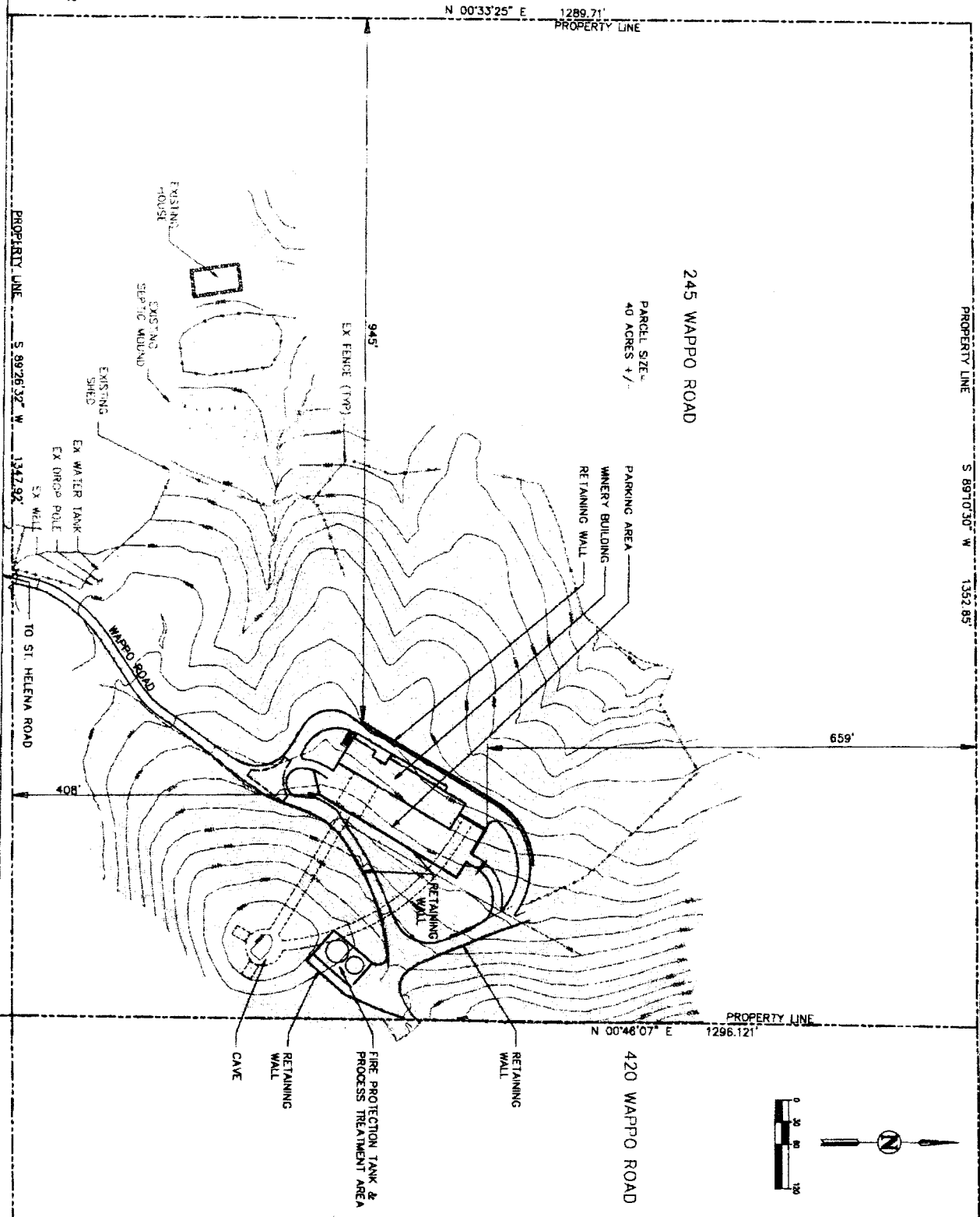
**TANK PAD**  
 CUT - 1,950 CY  
 FILL - 20 CY  
 NET - 1,930 CY (CUT)

**TOTAL EARTHWORK**  
 CUT - 8,070 CY  
 FILL - 6,660 CY  
 NET - 6,940 CY (CUT) (TO BE HALLED OFF SITE)



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|-------------|----------|--|-----------------|--|
| TITLE SHEET |          |  | APN 028-260-041 | <b>ATTERBURY &amp; ASSOCIATES, INC.</b><br>Civil Engineering - Land Planning<br>10180 Healdsburg Avenue, Suite D, Healdsburg, CA 95448<br>Phone: (707) 433-0134; Fax: (707) 433-0136 |
| Sheet No.   | Scale    |  |                 |  |
| C1          | 1" = 40' |  |                 |  |

NOTE:  
PROPERTY LINES PER 652 MAPS  
32-33 & PER 666 MAPS 40-42



|          |          |
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| Sheet    | 08/27/08 |
| Scale    | 1" = 40' |
| Date     | 08-28    |
| Drawn    |          |
| Checked  |          |
| Approved |          |

**SITE PLAN**  
Henry Cornell Winery  
245 Wappo Road  
Santa Rosa, CA



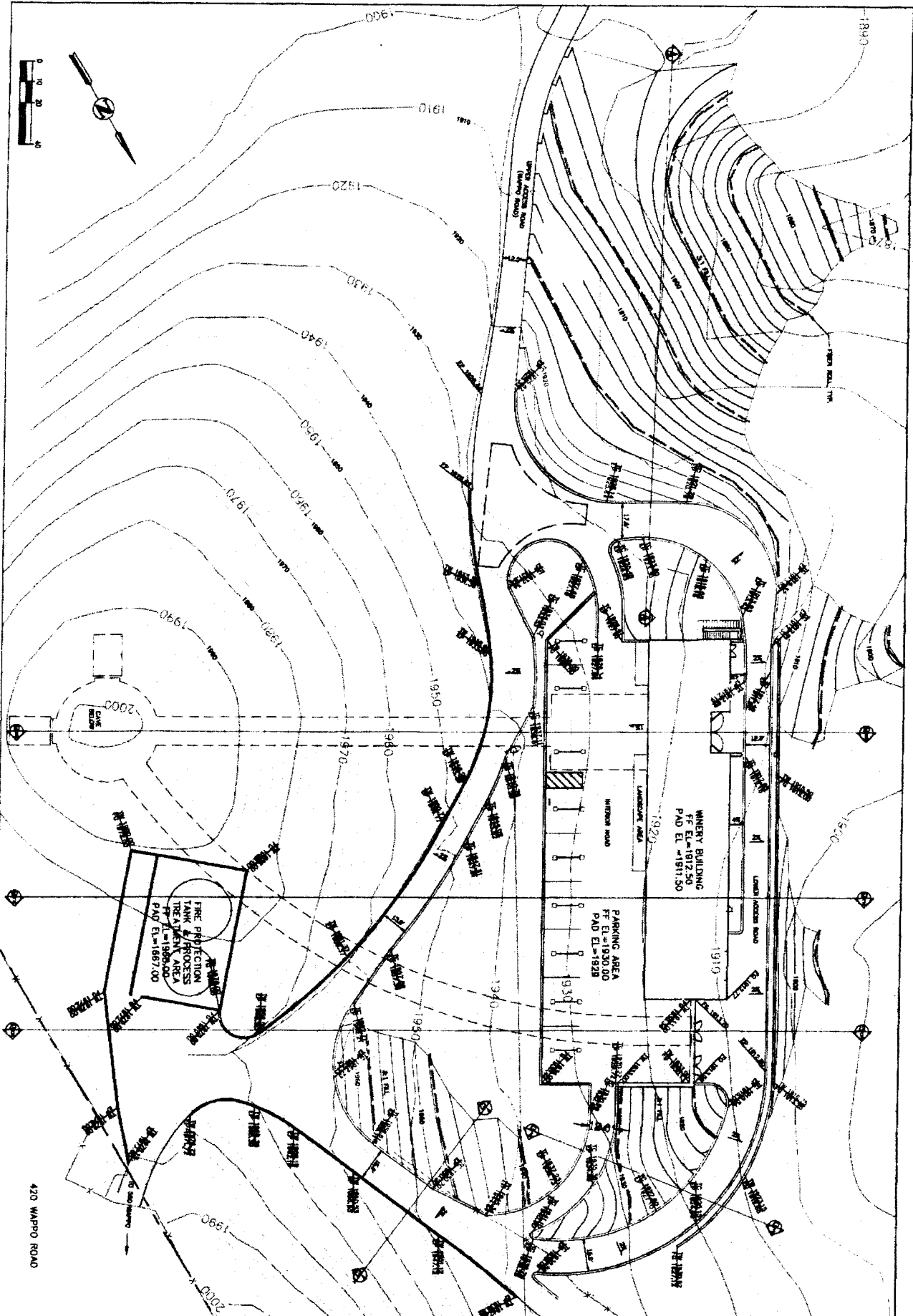
APN 028-260-041

**ATTERBURY & ASSOCIATES, INC.**  
Civil Engineering - Land Planning  
1400 Montgomery Avenue, Suite 4, Redwood City, CA 94063  
Phone: (650) 432-9534 Fax: (650) 432-9535

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C5

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| BY      | J. A. W.  |
| SCALE   | 1" = 40'  |
| PROJECT | WINERY    |
| NO.     | 02-26-041 |

**PRELIMINARY GRADING PLAN**

Henry Cornell Winery  
 245 Wappa Road  
 Santa Rosa, CA

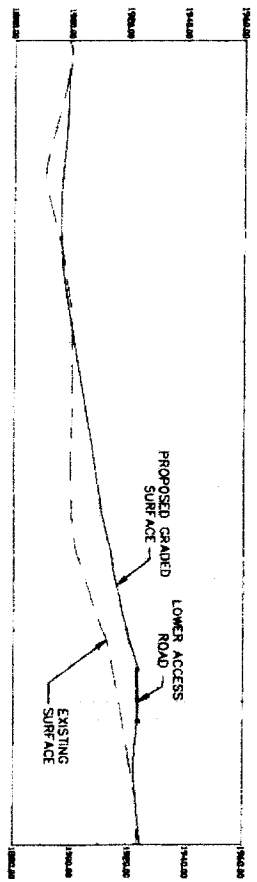


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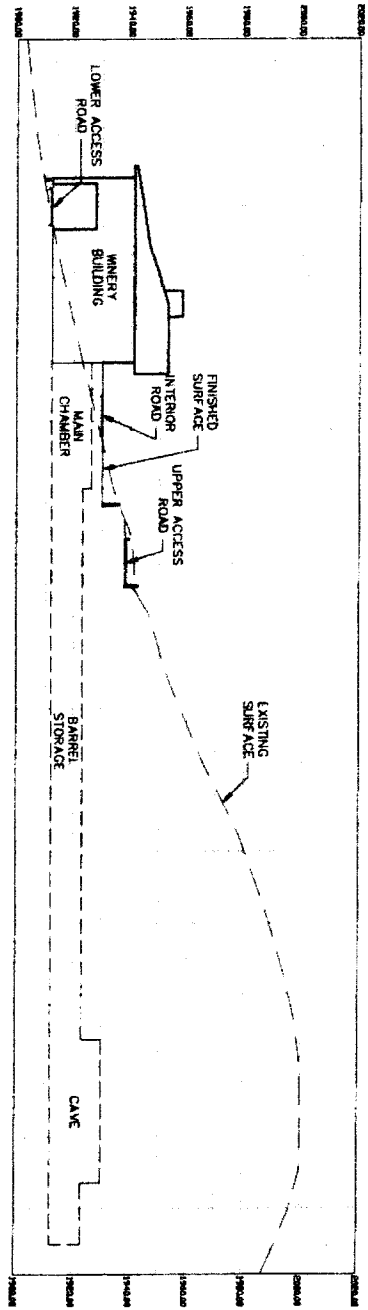
**ATTERBURY & ASSOCIATES, INC.**  
 Civil Engineering - Land Planning

1999 Atterbury Avenue, Suite A, Healdsburg, CA 95920  
 Phone: (707) 438-0024 Fax: (707) 432-8122

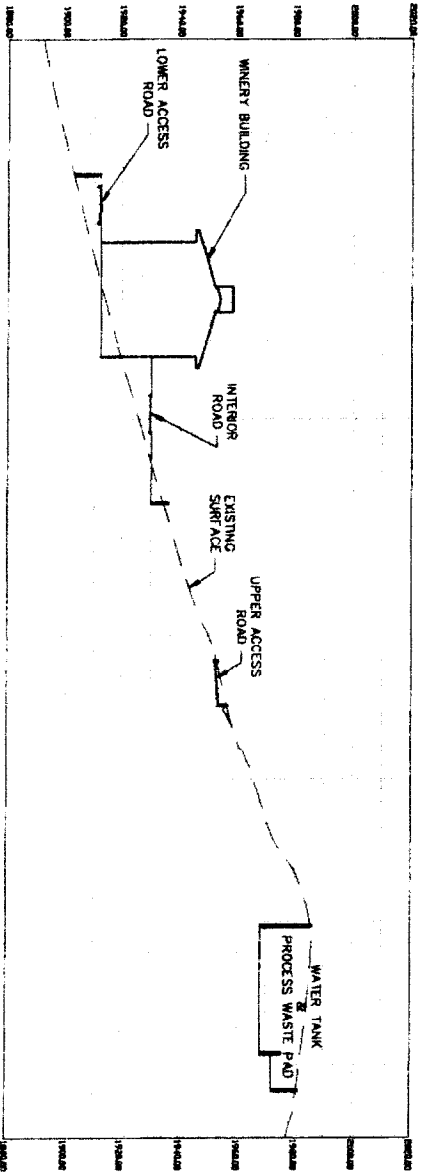
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SECTION A-A



SECTION B-B



SECTION C-C

VERTICAL SCALE: 1"=20'  
HORIZONTAL SCALE: 1"=20'

GROSS SECTIONS

Henry Cornell Winery  
245 Woppo Road  
Santa Rosa, CA



APN 028-260-041

**ATTERBURY & ASSOCIATES, INC.**

Civil Engineering - Land Planning  
12600 Redwood Avenue, Suite 200, Redwood, CA 95468  
Phone (707) 435-9700 Fax (707) 435-9700

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VERTICAL SCALE: 1"=20'  
HORIZONTAL SCALE: 1"=20'

CROSS SECTIONS

Henry Cornell Wherry  
245 Wappo Road  
Santo Rosa, CA

DATE: 05-25

SCALE: AS SHOWN

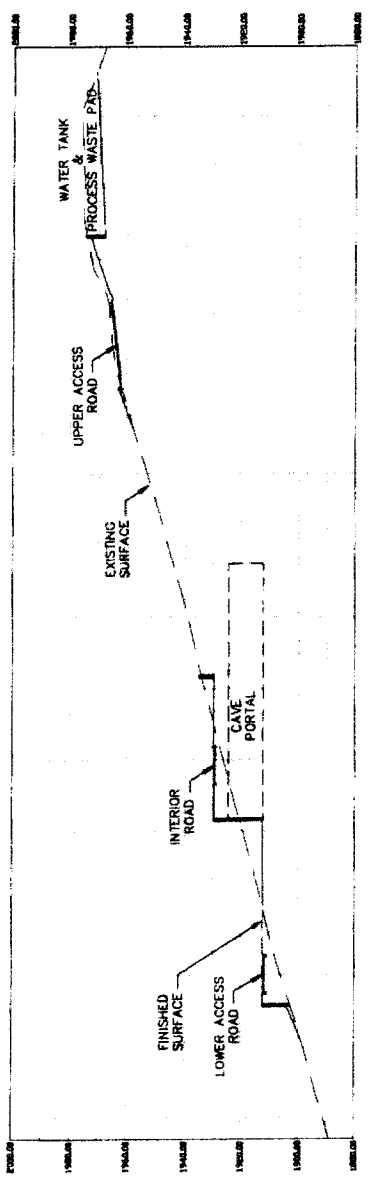


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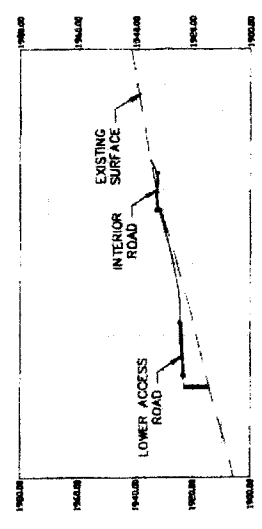
ATERBURY & ASSOCIATES, INC.  
Civil Engineering - Land Planning

1988 Monterey Avenue, Suite 100, Monterey, CA 93940  
Phone: (831) 462-6100 Fax: (831) 462-6101

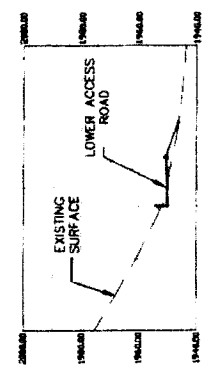
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SECTION D-D



SECTION E-E



SECTION F-F