THE HESS COLLECTION WINERY
2847 ATLAS PEAK ROAD

EROSION CONTROL PLAN
REVISED MAY 2019

PPI
ENGINEERING

THIS PAGE IS INTENTIONALLY LEFT BLANK

11712901

THE HESS COLLECTION WINERY
2847 ATLAS PEAK ROAD

EROSION CONTROL PLAN

REVISED MAY 2019
ORIGINAL SUBMITTAL DECEMBER 2018

PREPARED BY:

PPI ENGINEERING
2800 JEFFERSON STREET
NAPA, CALIFORNIA 94558
(707) 253-1806

TABLE OF CONTENTS

THE HESS COLLECTION WINERY
2847 ATLAS PEAK ROAD

EROSION CONTROL PLAN

NARRATIVE

1. The nature and purpose of the land disturbing activity and the amount of grading involved.

a) This ECP addresses the development of approximately 16.9 net acres (21.7 gross acres) of proposed vineyard on the ranch located at 2847 Atlas Peak Road in southern Napa County. Of the total area covered under this ECP, 0.9 net acres of vineyard is existing vineyard that was developed without an ECP under the landscape exemption. As such, only 16 net acres within this ECP are proposed new plantings. The ranch is located on APN 039-080-042 which consists of approximately 40.1 acres per the Napa County Assessor's Office.

b) Activities to be accomplished include removal of brush and trees within the proposed clearing limits, ripping, blasting, rock removal, cultivating the soil to prepare for planting, seeding cover crop, mulching, trenching for irrigation pipelines, installation of trellis system and deer fence, laying out the vine rows, and installing erosion control measures.

2. General description of existing site conditions, including topography, vegetation and soils.

a) The site is located in the Milliken Creek West Fork and Milliken Creek Main Fork Watersheds.

b) The elevations in the vineyard area range from approximately 974 to 1146 feet above mean sea level per topographic mapping. Ground slopes within the project boundary range between 8 and 21 percent. There are small pockets of areas with slope over 30% in Blocks 1, 2, and 4 which total approximately 0.5 acres, please see Sheet 1 for the locations.

c) Topographic mapping was provided by American Aerial Mapping, Inc., flown on January 31, 2018.

d) Existing vegetation consists of vineyard, grass, brush, and trees. Please see biological report prepared by WRA dated September 2018 and the supplemental biological memorandum dated May 7, 2019 also prepared by WRA.

e) There is one residence on the property. Please see cultural resources report prepared by Flaherty Cultural Resource Services dated November 18, 2018.

f) A portion of the property is currently deer fenced. Please see Figure 3 in Appendix D for the Proposed Deer Fence map. The proposed deer fence includes blocks fenced individually and in clusters where appropriate.

g) A site visit of the property was performed by Jim Bushey and Matt Bueno of PPI Engineering on Friday, July 6, 2018 to evaluate the vineyard development area and to collect photographic documentation. Photographs of pre-project conditions can be found in Appendix A.

3. Natural and man-made features onsite including streams, lakes, reservoirs, roads, drainage, and other areas that may be affected by the proposed activity.

a) No natural or man-made features are expected to be adversely affected by this project.

b) There are no drainages on the property that meet the Napa County definition of a stream.

c) In this ECP all wetlands are avoided with a minimum 50' buffer, which includes a 24' turnaround avenue and a 26' undisturbed filter strip.

d) There is an existing dirt road on the property. The primary access to the proposed vineyard blocks will be from the vegetated vineyard avenues. Please see the Road Plan in Appendix E.

4. Location and source of water for irrigation or other uses.

a) The proposed water source is an existing well. Please see the Vicinity Map for the location. Please see the revised WAA prepared by Richard C. Slade & Associates dated February 8, 2019.

5. Soil types/soil series identified in the Soil Conservation Service (SCS) Napa County Soil Survey.

a) The USDA – NRCS Web Soil Survey maps the soil within the project boundary as Aiken loam with 30 to 50 percent slopes, Boomer-Forward-Felta complex with 30 to 50 percent slopes, Hambright Rock-Outcrop complex with 30 to 75 percent slopes, and Hambright-Rock outcrop complex with 2 to 30 percent slopes.

b) Some rock is expected to be generated as a result of this project. In some locations rock will be used for rock filled avenues that will help retain sediment as well as disperse runoff from vineyard blocks. Rock filled avenues shall be located as shown on the Plan sheet and at the downslope edge of vineyard blocks as determined by the Engineer in the field at the time of construction. The toe of the rock filled avenue shall not extend past the proposed clearing limits. Because of the nature of the rock filled avenues the proposed block boundary location is conceptual and not exact. Rock not used immediately will be stockpiled for future use inside the proposed clearing limits. Stockpiles are expected to be less than 20 feet in height. Rock staging areas shall be located inside of proposed clearing limits. Temporary rock stockpiles shall also be located inside of proposed clearing limits. No grading activities, ground disturbance or rock storage will occur outside of the proposed clearing limits.

6. Critical areas, if any, within the development site that have serious erosion potential or problems.

a) There are no areas with serious erosion potential or problems.

7. Erosion calculations

a) Universal Soil Loss Equation (USLE) spreadsheets for this project are in Appendix B of this report.

b) Please see the revised pre-project versus post-project soil loss analysis prepared by PPI Engineering dated May 2019.

8. Proposed erosion control methods including:

a) All drainage systems and facilities, walls, cribbing or other erosion protection devices to be constructed with, or as a part of the proposed work.

1. No drainage systems are required to control erosion on this project.

2. The final pass with disking equipment shall be performed across slopes to prevent channeling water downhill the first winter after development.

3. Straw wattles shall be installed the year of construction in the approximate locations shown on the Site Plan. Additional temporary erosion control measures shall be installed as needed.

b) Proposed vegetative erosion control measures including location, type and quantity of seed, mulch, fertilizer and irrigation, timing and methods of planting, mulching and maintenance of plant material and slopes until a specified percentage of plant coverage is uniformly established.

1. Disturbed areas shall be seeded as described below. Straw mulch shall be applied to all disturbed areas at a rate of 3,000 lbs/acre prior to October 15 of the year of construction.

2. A permanent cover crop strategy will be utilized. The permanent cover crop will be generated the first year by seeding with the following mix: Dwarf Barley at 50 pounds per acre, Blando Brome at 8 pounds per acre, Zorro Fescue at 12 pounds per acre, and Crimson Clover at 6 pounds per acre. A pre-approved alternative seed mix may be allowed.

   The permanent cover crop will be managed each year such that any areas which have less than 80% vegetative cover will be reseeded and mulched until adequate coverage is achieved. The permanent cover crop shall be mowed only and not disked.

3. The owner has the option of using a Dwarf Barley (or a pre-approved alternative) cover crop in the first three years that the block is planted to aid with vineyard establishment. If this option is used, seed shall be applied at a rate of 120 pounds per acre if broadcast or at a rate of 60 pounds per acre if drilled. The cover crop within the vineyard may be disked each spring after April 1 for the first three years. An alternative cover crop seed mix may be used upon prior approval. Each year the owner chooses to disk, the area shall be straw mulched at a rate of 3,000 pounds per acre and straw wattles installed prior to October 15. The permanent seed mix will be seeded prior to October 15 of the fourth (or earlier) year.

4. No pre-emergent herbicides will be strip sprayed in the vinerows for weed management. Contact or systemic herbicides may be applied in spring (no earlier than February 15th to ensure adequate vegetative cover in the spray strips for the remainder of the rainy season). The width of the spray strip shall be no wider than 1 foot in order to achieve 80% vegetative cover (based on a six-foot minimum row spacing). If the owner chooses to farm without herbicide, an alternative will be to hand-hoe around the base of the vine only, or other methods that do not result in a continuous bare strip.

5. Fertilizer shall be applied as necessary by vineyard management personnel for both the vineyard and to ensure specified percent vegetative cover crop is achieved. Site specific soil analysis should be performed.

6. The vineyard avenues shall be mowed only and shall not be disked. Unless otherwise noted, all avenues shall conform to the natural grade. Vineyard avenues

shall be seeded and mulched prior to October 15 of the year of construction and in subsequent years in bare or disturbed areas. The cover crop will be managed each year such that any avenues that have less than 80% vegetative cover will be reseeded and mulched until adequate coverage is achieved. Seeding and mulching is not required on avenues and roads properly surfaced with gravel.

7. The proposed vine by row spacing is expected to be 4 feet by 6.5 feet, however in areas where cross-slope exceeds 15% the owner shall increase the row spacing as needed to ensure there is adequate room for equipment. Width of tillage equipment shall be no more than 75% of row width to allow for bench formation and to minimize erosion.

8. The owner has the freedom to further subdivide vineyard blocks within the footprint of the proposed vineyard for irrigation and viticulture purposes. The proposed vinerow directions shall not be altered without an approved modification from Napa County.

9. Irrigation pipelines shall be located within existing roadways, vineyards and vineyard avenues, and/or within proposed clearing limits. Regardless of pipeline location, pipeline trenches located on ground slopes greater than 15% shall be backfilled using imported or select native granular material to a depth of 6 inches above the pipelines such that voids do not form below haunches of pipe. Backfill shall be wheel rolled or otherwise compacted to reduce settlement. Final grading over trenches shall be mounded and water-barred such that water is directed away from trenches.

10. As stated in the Napa County Protocol for Re-Planting/Renewal of Approved Non-Tilled Vineyard Cover Crops dated March 23, 2004, when it becomes necessary, either by routine or emergency, to re-establish or renew vineyard cover crop the following measures should be followed:
    - Seek professional consultation, including soil nutrient analysis, to determine the reasons for the original cover crop's failure. Adjust soil fertility, irrigation and seed selection accordingly.
    - When tillage is necessary, alternate rows should be tilled, seeded, and straw-mulched to effectively accomplish the re-establishment/renewal process over a two-year period.
    - Tillage and re-seeding should be conducted in the following manner:
        - In year 1, till to prepare seed bed and sow desired cover crop in every other row ("the evens"), leaving the alternate rows ("the odds") untilled and mowed only.
        - Mulch all tilled rows having an up and down hill (perpendicular to contour) row direction with 3,000 lbs./acre of loose straw, or approved equivalent, after seeding.
        - Tilled rows with cross-slope (parallel to contour) row direction and slope gradients less than 15% may not require straw mulch.

- In year 2, till to prepare seed bed and sow desired cover crop in "odd" rows.
- In year 2, leave "even" rows untilled and mowed only.
- Mulch rows tilled in year 2 as specified above.
- Put all re-establishment measures in place by October 15
- In year 3, return all rows to non-tilled culture.

9. Stormwater stabilization measures, if the development of the site will result in increased peak rates of runoff that may cause flooding or channel degradation downstream.

a) No significant increase in quantity or rate of runoff is expected as a result of this project.

b) Please see the revised hydrology report prepared by PPI Engineering dated May 2019.

10. An implementation schedule showing the following:

a) The proposed clearing, grading, and/or construction schedule.

DATE	DESCRIPTION
April 1:	Commence clearing and tillage operations.
October 1:	All tillage and erosion control completed. This shall include complete construction of all structural measures required in these blocks, e.g. the rocked water crossings and rock filled avenues.
October 15:	All winterization complete, including seeding, straw mulching, and straw wattle installation.

b) The proposed schedule for winterizing the site (generally by October 15 of each year the permit is in effect.)

The site shall be winterized and all necessary erosion control measures described in the Erosion Control Plan shall be installed by October 15.

c) The proposed schedule of installation of all interim erosion and sediment control measures, including the stage of completion of such devices at the end of the grading season (generally October 15) of each year the permit will be in effect.

See Item 10a).

d) The schedule for installation of permanent erosion and sediment control devices where required.

See Item 10a).

11. The estimated cost of implementation of the erosion and sediment control measures.

Typical costs for installing erosion control measures as described in this plan range from $5,000 to 10,000 per acre.

THE HESS COLLECTION WINERY
2847 ATLAS PEAK ROAD

EROSION CONTROL PLAN

S T A N D A R D P R O V I S I O N S

SECTION 1 - SCOPE OF WORK

These specifications cover the construction of the erosion control measures for approximately 16.9 acres of vineyard to be developed by The Hess Collection Winery.

The drawing numbered 11712901B, Sheets 1 through 2, and these Specifications describe in detail the construction of the complete erosion control system. Requests for further information or clarification of the work to be done can be made to Jim Bushey or Matt Bueno at the Napa office of PPI Engineering, phone (707) 253-1806.

All costs for the complete construction of the erosion control system must be included in the bid items, since no other payment will be made outside of the bid items. This includes all costs for moving onto and off of the job site, all equipment, tools, materials, labor, fuel, taxes, and incidentals for furnishing and installing the erosion control system.

Surveying adequate for construction will be provided by the Owner, at the Owner's expense. The Contractor will be responsible for preserving construction survey stakes and markers for the duration of their intended use. Any restaking costs or additional survey work requested by the Contractor shall be deducted from the final payment to the Contractor. The Owner does not guarantee that the project being bid will be awarded. The Owner also reserves the right to change the quantities of actual work performed as needed with payment made according to the new quantities at the unit price bid.

SECTION 2 - AUTHORITY OF OWNER AND ENGINEER

The property is owned by Sabrina Weyenth & Timothy Persson Trust. Sabrina Weyenth & Timothy Persson Trust or the appointed representative shall have the final say in the event of a dispute with the Contractor.

The Owner shall appoint PPI Engineering (PPI) as the Engineer to perform periodic review of the work. PPI Engineering shall report any unsatisfactory work to the Owner. The Contractor shall be responsible for any engineering fees or repair costs associated with bringing the unsatisfactory work into compliance with the Plans and Specifications.

SECTION 3 - CHANGES IN WORK

Materials and the manner of performance of the work performed in this contract shall be according to the Plans and Specifications. Modifications to the Plans or Specifications shall be agreed upon in writing by the Contractor, Owner, and Engineer before the work in question is performed. Materials and construction methods shall be as specified on the Plans and Specifications. The burden of proof that a given material or method constitutes an equivalent to the one specified will rest with the Contractor.

SECTION 4 - UTILITIES

At least two working days prior to beginning any excavation on the project, the Contractor shall contact Underground Service Alert (USA) at 1-800-642-2444 and request field location of all existing utilities.

Certain facilities at the site are existing. The Contractor shall be careful to avoid damaging existing facilities and shall notify the Owner immediately if any damage does occur. The cost of repairing any damage shall be the sole responsibility of the Contractor.

SECTION 5 - PROSECUTION OF THE WORK

Unless otherwise provided, the contract time shall commence upon issuance of a Notice to Proceed by the Owner. The work shall start within ten days thereafter and be diligently prosecuted to completion within the time specified in the Contractor's bid. If weather conditions prevent completion of the project within the specified amount of time, the Owner may extend the completion date of the project.

SECTION 6 - RESPONSIBILITIES OF THE CONTRACTOR

The Contractor agrees that in accordance with generally accepted construction practices, Contractor will be required to assume sole and complete responsibility for job site conditions during the course of construction of the project, including the safety of all persons and property. This requirement shall be made to apply continuously and not be limited to normal working hours. Contractor further agrees to defend, indemnify and hold design professional harmless from any and all liability, real or alleged, in connection with the performance of the work on this project, excepting liability arising from the sole negligence of design professional.

The Contractor shall be responsible for controlling dust and mud generated from construction activities. The Contractor shall not allow dust or mud to obstruct vehicular traffic on County roads or State Highways. The Contractor shall be responsible for cleaning all vehicles prior to leaving the site as required by the California Highway Patrol. The Contractor, at their own expense, shall provide adequate dust control and prevention of mud tracking on roads, and take other preventative measures as directed by the Owner.

The Contractor shall be responsible for following all safety laws that may be applicable. Of particular concern are the trench safety regulations issued by CAL-OSHA. The Contractor alone shall be responsible for the safety of their equipment and methods and for any damage or injury which may result from their failure, improper construction, maintenance, or operation.

The Contractor shall be responsible for installing necessary sediment retention measures to keep sediment from leaving the site if construction activities continue beyond October 1.

The Contractor shall keep the work site clean and free of rubbish and debris throughout the project. Materials and equipment shall be removed from the site as soon as they are no longer necessary or the project is completed.

The Contractor shall also be responsible for ensuring that all permits which are necessary for construction have been obtained and that copies of these permits are maintained onsite at all times.

The Contractor shall, at their own expense, furnish all necessary light, power, pumps, and water necessary for the work.

SECTION 7 - MEASUREMENT AND PAYMENT

Payment shall be made at the unit prices bid according to the actual quantities installed. Measurement of the final quantities shall be the responsibility of the Owner's Engineer.

The Engineer shall periodically observe the project during construction and upon completion of the project any unfinished or unacceptable work observed will be brought to the Contractor's attention verbally and in writing. Final payment will be made upon satisfactory completion of all work items required by these Plans and Specifications.

SECTION 8 - GUARANTEE

In addition to the guarantees from suppliers, the Contractor shall guarantee the work he performs for a period of two years. Any repairs needed to the system within two years of completion due to faulty workmanship or materials shall be promptly repaired at no expense to the Owner. Any costs incurred by the Owner and/or Engineer within two years of completion due to rubbish or debris placed in a trench or other excavation shall be paid by the Contractor.

Unless otherwise provided in writing, payment by the Owner to the Contractor for installation of this system shall constitute acceptance of all provisions in this document by the Contractor.

THE HESS COLLECTION WINERY
2847 ATLAS PEAK ROAD

EROSION CONTROL PLAN

S P E C I A L P R O V I S I O N S

SECTION 1 – ROCKED WATER CROSSING

1.1 GENERAL:

Rocked water crossings shall be constructed as shown on Detail 3, Sheet 2 in locations shown on Sheet 1 and as staked in the field by the Engineer.

1.2 MATERIALS & INSTALLATION:

Excavate channel bed to a depth of 6-8". If bed of channel is not bedrock, place filter fabric (Mirafi 1100N or equal) under rock. Place clean 6-8" field rock in excavated channel bed, on grade with natural channel.

Care should be taken to not disturb channel, bank and surrounding area any more than is necessary for rocked water crossing and road construction. All disturbed areas shall be seeded and mulched. Permits from appropriate regulatory agencies shall be obtained before construction.

SECTION 2 – ROCK-FILLED AVENUE

2.1 GENERAL:

Rock-filled avenues will be constructed as shown in Detail 2, Sheet 2, along the field edges in the locations shown on Sheet 1 and as staked in the field by the Engineer.

2.2 MATERIALS:

Rock used in the construction of the rock-filled avenue shall be field rock generated onsite and shall be well-graded to prevent large voids within the structure. Smaller (3-inch minus) field rock and ¾-inch minus gravel will be used to line the trough of the avenue. Gravel may be crushed rock generated onsite but should contain sufficient fines to reduce the overall permeability of the avenue and cause water to flow laterally along the length of the structure (generally equivalent to Cal –Trans Class II Aggregate Base).

2.3 INSTALLATION:

The rock-filled avenue shall be constructed as shown on Detail 2, Sheet 2 and as staked in the field by the Engineer. The rock shall be placed on undisturbed natural sod where ground slope is less than 15%. On steeper sites a bench shall be cut along the outboard toe for placement of rock. If a bench is cut, straw wattles shall be installed along the outboard edge of the bench **prior** to placing rock. Care shall be taken to remove as much of the fine material (clay and silt size) as possible prior to placing the rock. The rock-filled avenue shall be parallel to the contour to ensure the water is evenly distributed, and the ends shall be turned uphill at least 2 feet in elevation to prevent water from running around the end. The avenue shall be constructed of large, well-graded rock to a finished cross-section with a trough depth of at least 3 feet. A layer of 3-inch minus field rock shall be spread 6-inches thick within the trough and a 6-inch layer of gravel applied over the smaller rock. Finished depth of the trough shall be at least 2 feet.

SECTION 3 - TEMPORARY MEASURES

3.1 GENERAL:

Temporary erosion control measures shall be constructed by the Owner. These measures can include water bars, straw wattles, straw mulching, straw bale dikes, and other practices as needed. The measures shall be constructed in conformance with the detail drawings and maintained in a functional condition throughout the rainy season.

SECTION 4 - MAINTENANCE

4.1 GENERAL:

The erosion control measures described in these Specifications and shown on the Plans and Details require regular maintenance in order to function as intended. Vineyard management personnel shall assure that the erosion control measures are monitored throughout the rainy season each year and necessary repairs and/or maintenance are performed immediately. Maintenance operations shall include, but not be limited to the following activities.

4.2 STRAW WATTLES:

Straw wattles shall be monitored and repaired as needed to ensure water does not run under the wattle or between adjacent wattles. Should excessive erosion cause the wattle to fill with sediment, this material shall be removed to a protected location and the source of the sediment located and protected as needed.

APPENDIX A

PHOTOGRAPHIC DOCUMENTATION

Photo 1

7/6/2018

Photo 2

7/6/2018

APPENDIX B

USLE CALCULATIONS

PPI Engineering

Napa County
Maximum Length of Slope
for a soil loss of 5 tons per acre

NAME: Persson DATE: 3/23/18

Cover Type: Permanent Cover Crop
Soil Unit No. (100-182)--- 102 -K= 0.24
Soil Name Aiken -R= 60
-T= 3

Percent Cover		65% Up & Down Hill	70% Up & Down Hill	75% Up & Down Hill	80% Up & Down Hill	85% Up & Down Hill	90% Up & Down Hill
		C= 0.058 P= 1.0	C= 0.046 P= 1.0	C= 0.034 P= 1.0	C= 0.022 P= 1.0	C= 0.015 P= 1.0	C= 0.010 P= 1.0
PERCENT SLOPE	2	8,229,642	17,821,645	48,813,925	208,319,804	746,737,696	2,884,950,407
	4	86,830	155,004	330,021	979,900	2,552,763	7,034,588
	6	7,946	12,633	23,124	55,230	118,805	267,311
	8	3,659	5,817	10,648	25,433	54,708	123,093
	10	1,952	3,104	5,681	13,568	29,187	65,670
	12	1,181	1,878	3,438	8,211	17,663	39,742
	14	775	1,232	2,255	5,385	11,583	26,062
	16	539	857	1,569	3,747	8,059	18,133
	18	393	624	1,142	2,728	5,868	13,204
	20	296	471	862	2,060	4,431	9,969
	22	230	366	671	1,602	3,445	7,751
	24	184	292	534	1,276	2,745	6,177
	26	149	238	435	1,038	2,234	5,026
	28	124	197	360	860	1,850	4,163
	30	104	166	303	724	1,556	3,502
	32	89	141	258	617	1,327	2,987
	34	77	122	223	533	1,146	2,578
	36	67	106	195	465	1,000	2,249
	38	59	94	171	409	881	1,982
	40	52	83	152	364	783	1,761
	42	47	75	137	326	701	1,578
	44	42	67	123	294	633	1,424
	46	38	61	112	267	575	1,294
	48	35	56	102	244	526	1,182
	50	32	51	94	225	483	1,087

NOTES:
C=Cover and Management Factor
P=Practice Factor

PPI Engineering

Napa County
Maximum Length of Slope
for a soil loss of 5 tons per acre

NAME: Persson DATE: 3/23/18

Cover Type: Permanent Cover Crop
Soil Unit No. (100-182)--- 102 -K= 0.24
Soil Name Aiken -R= 60
-T= 3

Percent Cover		65% Cross-Slope	70% Cross-Slope	75% Cross-Slope	80% Cross-Slope	85% Cross-Slope	90% Cross-Slope
		C= 0.058 P= 0.6	C= 0.046 P= 0.6	C= 0.034 P= 0.6	C= 0.022 P= 0.6	C= 0.015 P= 0.6	C= 0.010 P= 0.6
PERCENT SLOPE	2	45,172,696	97,823,429	267,940,785	1,143,472,303	4,098,860,784	15,835,560,670
	4	311,380	555,861	1,183,486	3,514,017	9,154,453	25,226,706
	6	22,073	35,091	64,233	153,415	330,013	742,530
	8	10,164	16,159	29,578	70,646	151,967	341,926
	10	5,423	8,621	15,780	37,689	81,074	182,417
	12	3,282	5,217	9,550	22,809	49,064	110,394
	14	2,152	3,421	6,263	14,958	32,176	72,396
	16	1,497	2,380	4,357	10,407	22,387	50,371
	18	1,090	1,733	3,173	7,578	16,301	36,678
	20	823	1,309	2,395	5,721	12,307	27,691
	22	640	1,018	1,863	4,449	9,570	21,531
	24	510	811	1,484	3,545	7,626	17,158
	26	415	660	1,208	2,884	6,205	13,961
	28	344	546	1,000	2,389	5,139	11,564
	30	289	460	842	2,010	4,324	9,728
	32	247	392	718	1,714	3,687	8,296
	34	213	338	619	1,480	3,183	7,161
	36	186	295	541	1,291	2,777	6,248
	38	164	260	476	1,137	2,447	5,505
	40	145	231	423	1,011	2,175	4,893
	42	130	207	379	906	1,948	4,383
	44	118	187	342	817	1,758	3,956
	46	107	170	311	742	1,597	3,593
	48	98	155	284	679	1,460	3,284
	50	90	143	261	624	1,342	3,019

NOTES:
C=Cover and Management Factor
P=Practice Factor

PPI Engineering

Napa County
Maximum Length of Slope
for a soil loss of 6 tons per acre

NAME: Persson DATE: 3/23/18

Cover Type: Permanent Cover Crop
Soil Unit No. (100-182)--- 110 -K= 0.28
Soil Name Boomer-Forward-Felta -R= 60
-T= 4

Percent Cover		65% Up & Down Hill	70% Up & Down Hill	75% Up & Down Hill	80% Up & Down Hill	85% Up & Down Hill	90% Up & Down Hill
		C= 0.058 P= 1.0	C= 0.046 P= 1.0	C= 0.034 P= 1.0	C= 0.022 P= 1.0	C= 0.015 P= 1.0	C= 0.010 P= 1.0
PERCENT SLOPE	2	9,039,874	19,576,239	53,619,803	228,829,514	820,256,265	3,168,982,439
	4	93,165	166,315	354,101	1,051,400	2,739,029	7,547,877
	6	8,407	13,365	24,464	58,431	125,691	282,804
	8	3,871	6,154	11,265	26,907	57,879	130,228
	10	2,065	3,283	6,010	14,355	30,878	69,476
	12	1,250	1,987	3,637	8,687	18,687	42,045
	14	820	1,303	2,385	5,697	12,255	27,573
	16	570	907	1,660	3,964	8,526	19,184
	18	415	660	1,208	2,886	6,209	13,969
	20	314	498	912	2,179	4,687	10,546
	22	244	388	709	1,694	3,645	8,201
	24	194	309	565	1,350	2,904	6,535
	26	158	251	460	1,099	2,363	5,317
	28	131	208	381	910	1,957	4,404
	30	110	175	321	766	1,647	3,705
	32	94	149	273	653	1,404	3,160
	34	81	129	236	564	1,212	2,727
	36	71	112	206	492	1,058	2,380
	38	62	99	181	433	932	2,097
	40	55	88	161	385	828	1,863
	42	50	79	144	345	742	1,669
	44	45	71	130	311	670	1,507
	46	41	65	118	283	608	1,369
	48	37	59	108	258	556	1,251
	50	34	54	99	238	511	1,150

NOTES:
C=Cover and Management Factor
P=Practice Factor

PPI Engineering

Napa County
Maximum Length of Slope
for a soil loss of 6 tons per acre

NAME: Persson DATE: 3/23/18

Cover Type: Permanent Cover Crop
Soil Unit No. (100-182)--- 110 -K= 0.28
Soil Name Boomer-Forward-Felta -R= 60
-T= 4

Percent Cover		65% Cross-Slope	70% Cross-Slope	75% Cross-Slope	80% Cross-Slope	85% Cross-Slope	90% Cross-Slope
		C= 0.058 P= 0.6	C= 0.046 P= 0.6	C= 0.034 P= 0.6	C= 0.022 P= 0.6	C= 0.015 P= 0.6	C= 0.010 P= 0.6
PERCENT SLOPE	2	49,620,084	107,454,439	294,320,360	1,256,050,586	4,502,405,938	17,394,619,177
	4	334,100	596,420	1,269,841	3,770,422	9,822,421	27,067,409
	6	23,352	37,125	67,956	162,307	349,141	785,567
	8	10,753	17,096	31,293	74,740	160,775	361,744
	10	5,737	9,120	16,695	39,874	85,773	192,990
	12	3,472	5,519	10,103	24,131	51,908	116,792
	14	2,277	3,620	6,626	15,825	34,041	76,592
	16	1,584	2,518	4,610	11,010	23,684	53,290
	18	1,153	1,834	3,357	8,017	17,246	38,804
	20	871	1,384	2,534	6,053	13,020	29,296
	22	677	1,077	1,971	4,706	10,124	22,779
	24	540	858	1,570	3,751	8,068	18,153
	26	439	698	1,278	3,052	6,564	14,770
	28	364	578	1,058	2,528	5,437	12,234
	30	306	486	890	2,126	4,574	10,292
	32	261	415	759	1,813	3,901	8,777
	34	225	358	655	1,565	3,367	7,576
	36	197	312	572	1,366	2,938	6,610
	38	173	275	504	1,203	2,588	5,824
	40	154	245	448	1,069	2,301	5,176
	42	138	219	401	958	2,061	4,637
	44	124	198	362	865	1,860	4,185
	46	113	180	329	785	1,690	3,802
	48	103	164	301	718	1,544	3,475
	50	95	151	276	660	1,420	3,194

NOTES:
C=Cover and Management Factor
P=Practice Factor

PPI Engineering

Napa County
Maximum Length of Slope
for a soil loss of 3 tons per acre

NAME: Persson DATE: 3/23/18

Cover Type: Permanent Cover Crop
Soil Unit No. (100-182)--- 151 & 152 -K= 0.10
Soil Name Hambright-Rock Outcrop -R= 60
-T= 1

Percent Cover		65% Up & Down Hill	70% Up & Down Hill	75% Up & Down Hill	80% Up & Down Hill	85% Up & Down Hill	90% Up & Down Hill
		C= 0.058 P= 1.0	C= 0.046 P= 1.0	C= 0.034 P= 1.0	C= 0.022 P= 1.0	C= 0.015 P= 1.0	C= 0.010 P= 1.0
	2	27,749,513	60,092,772	164,595,584	702,433,156	2,517,923,442	9,727,758,889
	4	216,060	385,701	821,197	2,438,306	6,352,092	17,504,306
	6	16,477	26,195	47,949	114,524	246,354	554,296
	8	7,588	12,063	22,080	52,737	113,443	255,246
	10	4,048	6,435	11,780	28,135	60,522	136,173
	12	2,450	3,895	7,129	17,027	36,626	82,408
P	14	1,607	2,554	4,675	11,166	24,019	54,043
E	16	1,118	1,777	3,253	7,769	16,712	37,601
R	18	814	1,294	2,368	5,657	12,169	27,380
C	20	614	977	1,788	4,271	9,187	20,671
E	22	478	760	1,390	3,321	7,144	16,073
N	24	381	605	1,108	2,646	5,693	12,809
T	26	310	493	902	2,153	4,632	10,422
	28	257	408	747	1,784	3,837	8,632
S	30	216	343	628	1,500	3,228	7,262
L	32	184	293	536	1,280	2,752	6,193
O	34	159	253	462	1,104	2,376	5,346
P	36	139	220	403	964	2,073	4,664
E	38	122	194	355	849	1,826	4,109
	40	109	173	316	755	1,623	3,652
	42	97	155	283	676	1,454	3,272
	44	88	140	255	610	1,312	2,953
	46	80	127	232	554	1,192	2,683
	48	73	116	212	507	1,090	2,452
	50	67	107	195	466	1,002	2,254

NOTES:
C=Cover and Management Factor
P=Practice Factor

PPI Engineering

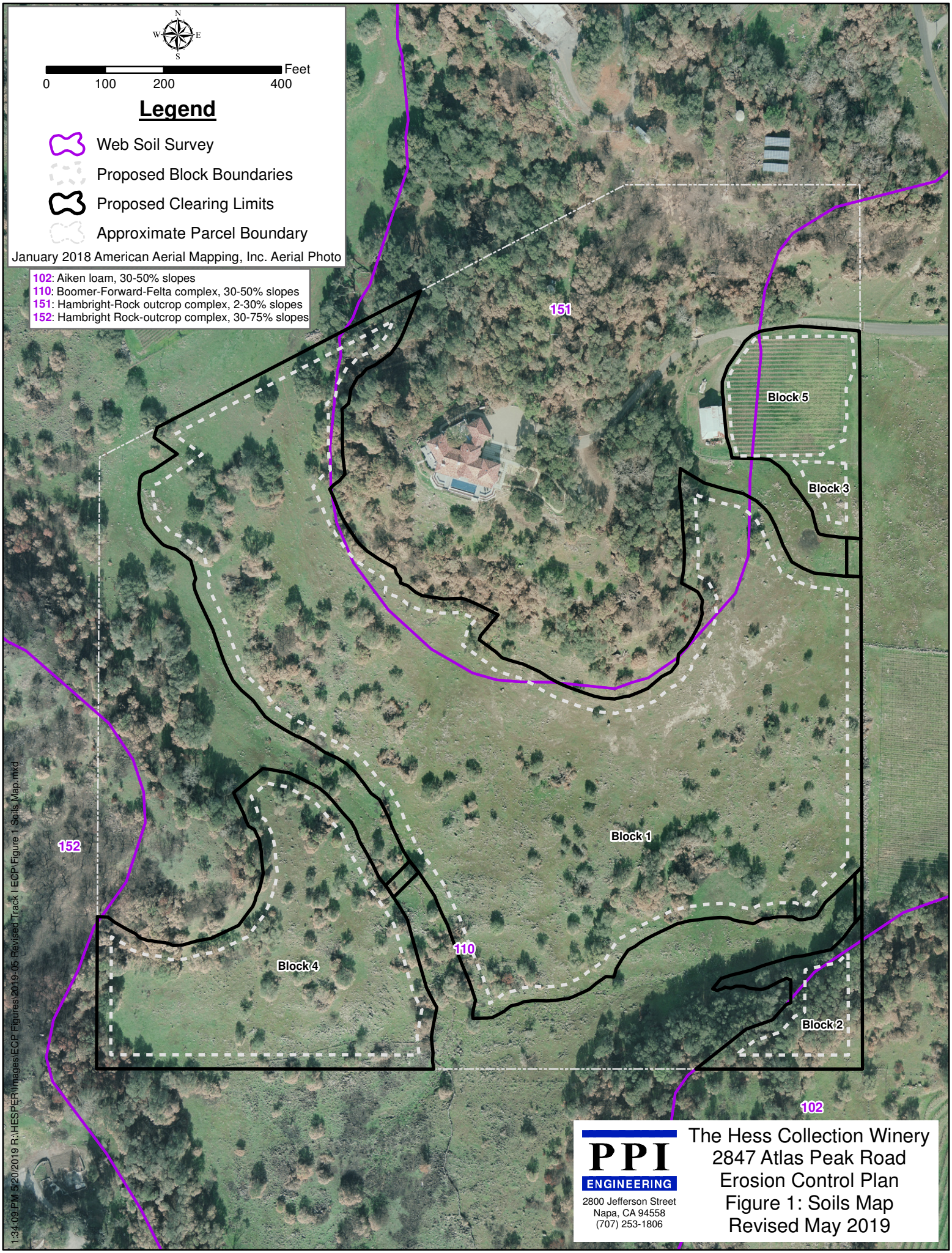
Napa County
Maximum Length of Slope
for a soil loss of 3 tons per acre

NAME: Persson DATE: 3/23/18

Cover Type: Permanent Cover Crop
Soil Unit No. (100-182)--- 151 & 152 -K= 0.10
Soil Name Hambright-Rock Outcrop -R= 60
-T= 1

Percent Cover		65% Cross-Slope	70% Cross-Slope	75% Cross-Slope	80% Cross-Slope	85% Cross-Slope	90% Cross-Slope
		C= 0.058 P= 0.6	C= 0.046 P= 0.6	C= 0.034 P= 0.6	C= 0.022 P= 0.6	C= 0.015 P= 0.6	C= 0.010 P= 0.6
PERCENT SLOPE	2	152,317,729	329,850,637	903,469,034	3,855,672,124	13,820,941,022	53,395,897,446
	4	774,813	1,383,159	2,944,893	8,743,999	22,779,209	62,772,118
	6	45,770	72,765	133,193	318,122	684,316	1,539,711
	8	21,077	33,507	61,334	146,491	315,119	709,018
	10	11,244	17,876	32,721	78,153	168,115	378,260
	12	6,805	10,818	19,802	47,296	101,739	228,912
	14	4,463	7,095	12,986	31,016	66,720	150,120
	16	3,105	4,936	9,035	21,580	46,421	104,448
	18	2,261	3,594	6,579	15,714	33,802	76,055
	20	1,707	2,714	4,967	11,864	25,520	57,419
	22	1,327	2,110	3,862	9,225	19,843	44,647
	24	1,058	1,681	3,078	7,351	15,813	35,579
	26	861	1,368	2,504	5,981	12,866	28,949
	28	713	1,133	2,074	4,954	10,657	23,978
	30	600	953	1,745	4,168	8,965	20,172
	32	511	813	1,488	3,554	7,646	17,203
	34	441	702	1,285	3,068	6,600	14,849
	36	385	612	1,121	2,677	5,758	12,957
	38	339	539	987	2,359	5,073	11,415
	40	302	479	878	2,096	4,509	10,146
	42	270	430	786	1,878	4,040	9,089
	44	244	388	710	1,695	3,646	8,202
	46	222	352	645	1,540	3,312	7,451
	48	202	322	589	1,407	3,027	6,811
	50	186	296	542	1,293	2,782	6,260

NOTES:
C=Cover and Management Factor
P=Practice Factor



PPI ENGINEERING
2800 Jefferson Street
Napa, CA 94558
(707) 253-1806

The Hess Collection Winery
2847 Atlas Peak Road
Erosion Control Plan
Figure 1: Soils Map
Revised May 2019

APPENDIX C

SLOPE CALCULATIONS

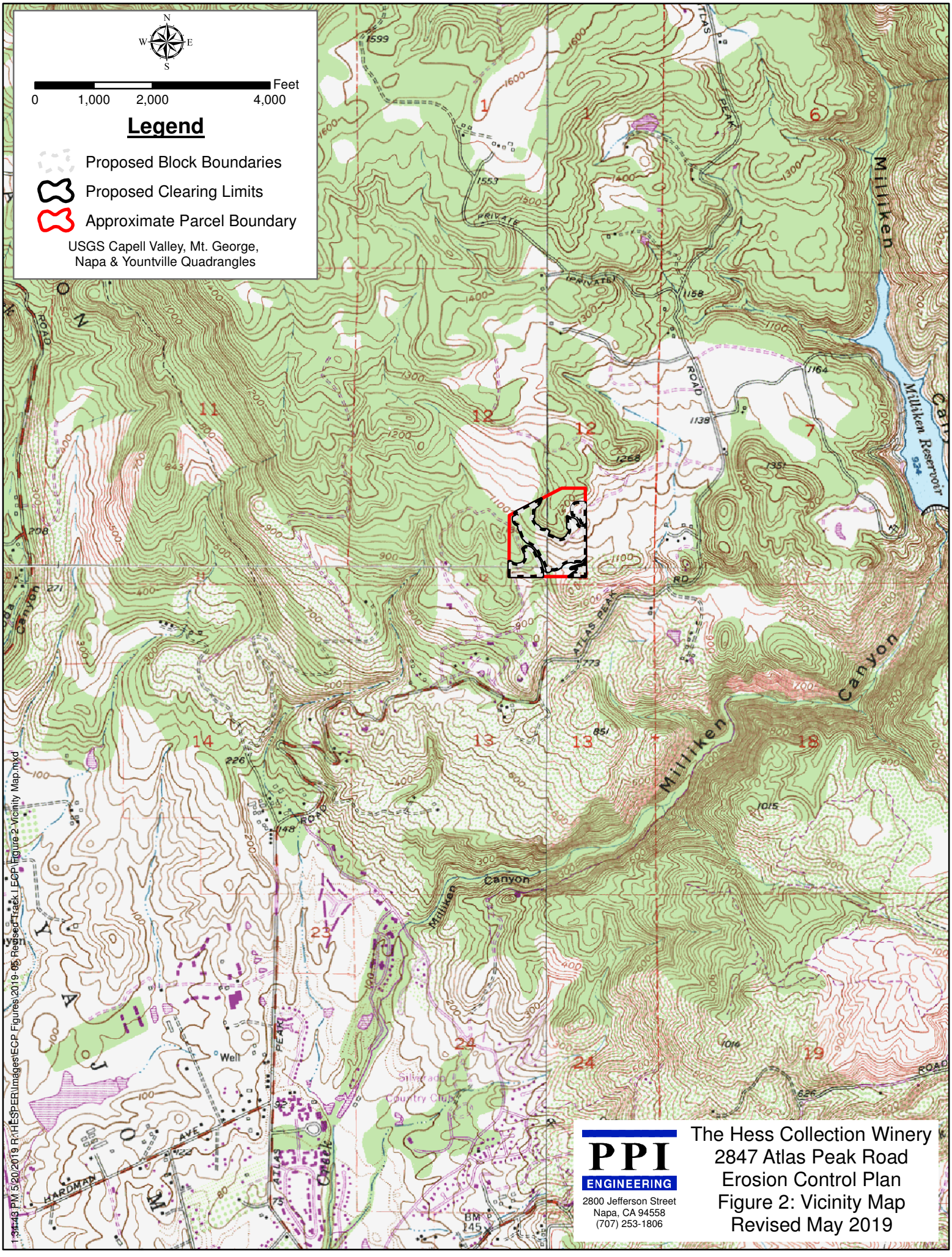
THE HESS COLLECTION WINERY
2847 ATLAS PEAK ROAD

Average Slope Of Proposed Vineyard Blocks

Block	Gross Acres	Net Acres	Slope #1	Slope #2	Average slope
1	15.1	12.4	14%	21%	18%
2	0.9	0.4	21%		21%
3	0.3	0.1	8%		8%
4	4.2	3.1	12%	19%	16%
5	1.1	0.9	9%		9%
Avenues	0.1				
Total	**21.7**	**16.9**			**14%**

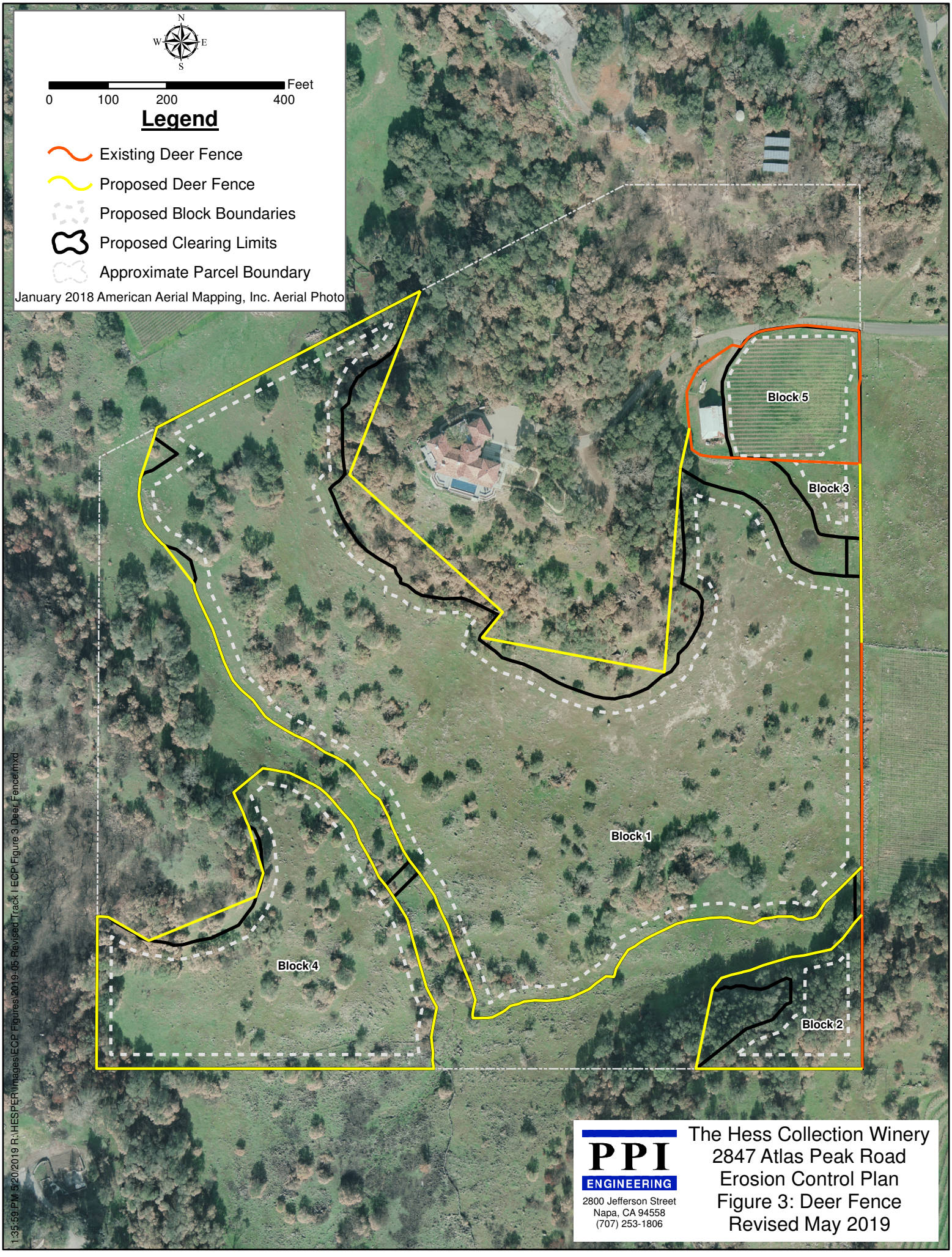
APPENDIX D

SUPPORTING FIGURES



PPI ENGINEERING
2800 Jefferson Street
Napa, CA 94558
(707) 253-1806

The Hess Collection Winery
2847 Atlas Peak Road
Erosion Control Plan
Figure 2: Vicinity Map
Revised May 2019



PPI ENGINEERING
2800 Jefferson Street
Napa, CA 94558
(707) 253-1806

The Hess Collection Winery
2847 Atlas Peak Road
Erosion Control Plan
Figure 3: Deer Fence
Revised May 2019

1:36:32 PM 5/20/2019 R:\HESPER\Images\ECP Figures\2019-05 Revised Track I ECP\Figure 4 Chemical Mixing & Storage Area.mxd

PPI ENGINEERING
2800 Jefferson Street
Napa, CA 94558
(707) 253-1806

The Hess Collection Winery
2847 Atlas Peak Road
Erosion Control Plan
Figure 4: Chemical Mixing & Storage Area
Revised May 2019

APPENDIX E

ROAD PLAN

THE HESS COLLECTION WINERY
2847 ATLAS PEAK ROAD

EROSION CONTROL PLAN

R O A D P L A N

SECTION 1 - INTRODUCTION

Road systems can be a significant but easily controlled source of sediment production and delivery to stream channels (Napolitano et. al. 2009). The recommendations contained within this Road Plan are consistent with recent road management plans prepared by the Napa County Resource Conservation District (RCD) and with guidance presented within the Mendocino County RCD's 'Forest and Ranch Roads Handbook' (Weaver, W.E., and Hagans, D.K. 2014).

An existing paved driveway provides access from Atlas Peak Road to the property at Assessor's Parcel Number (APN) 039-080-042. An existing dirt road provides access from the paved driveway to the existing vineyard block and barn on the property. This plan addresses road improvements and vineyard access associated with the proposed new vineyard blocks requested in this Track I Erosion Control Plan (ECP).

The paved driveway that provides access from Atlas Peak Road to the existing vineyard block is shown as "Paved Road" on Figure 5 of this ECP. This road and the existing dirt road to the barn are in excellent condition and will continue to be maintained in their current state, and no changes or improvements are required as a result of this project. Access to the proposed vineyard blocks will be from vegetated vineyard avenues. These vegetated vineyard avenues are not roads, they are tractor turnaround and access avenues that do not meet the criteria for a road.

SECTION 2 - PROPOSED IMPROVEMENTS

2.1 ROCKED WATER CROSSINGS

There are several seasonal wetlands that bisect the property and prevent access to the proposed vineyard blocks. Three rocked-water crossings are proposed as part of this Track I ECP. The Forest and Ranch Roads Handbook recommends the use of rocked water crossings for "ephemeral and intermittent streams when the majority of traffic will be crossing during low flow or dry conditions." Installing rocked water crossings will ensure the continued stability of these drainage crossings and minimize sedimentation caused by vineyard traffic. The rocked water crossing is shown on Detail 3 on Sheet 2 of this ECP, and the specifications are discussed in Section 1 of the Special Provisions.

2.2 VEGETATED AVENUES

Although a vegetated vineyard avenue is not a road, these avenues will be primary points of access to the proposed vineyard blocks for farming equipment and workers, and so they are discussed herein. These avenues are reseeded as needed to ensure appropriate levels of vegetative cover are maintained as required in the engineered Erosion Control Plans that cover these avenues. Per the *Forest and Ranch Roads Handbook*, "[v]egetation protects erodible soil from raindrop impact and soil particle detachment, increases surface roughness and reduces surface runoff velocity." Section 8b of the ECP Narrative discusses the percent vegetative cover that is required for each vineyard avenue associated with the proposed vineyard blocks within this ECP.

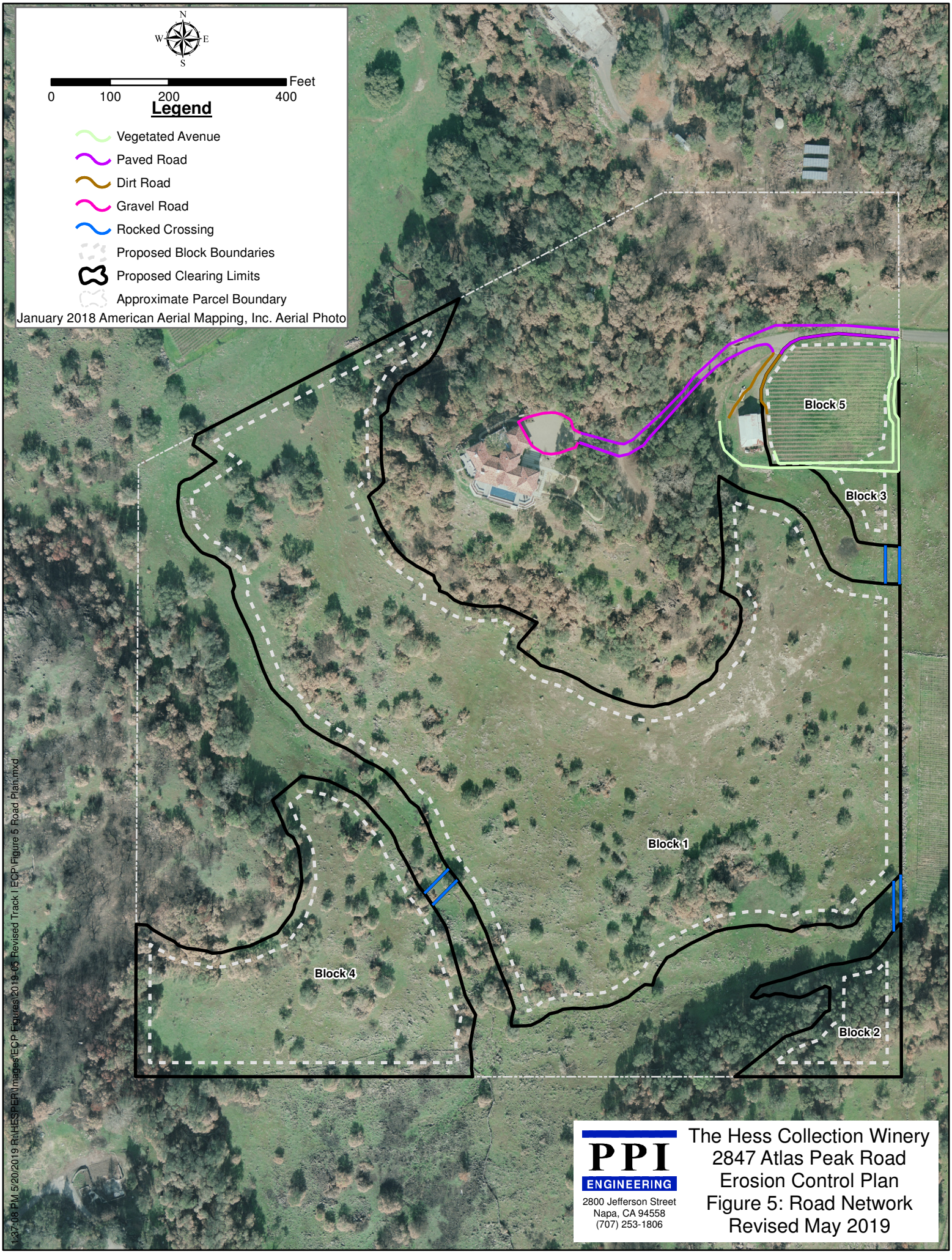
SECTION 3 - CONCLUSIONS

Road-related sediment can be prevented from entering the stream system through a variety of best management practices and erosion prevention treatments that generally involve dispersing road runoff and disconnecting road surface and ditch drainage. The proposed improvements in this Road Plan are consistent with guidance from the Napa County RCD and the Handbook for Forest and Ranch Roads and will ensure that the existing road network will be upgraded as necessary to minimize potential for erosion and sediment delivery to local drainages.

SECTION 4 - REFERENCES

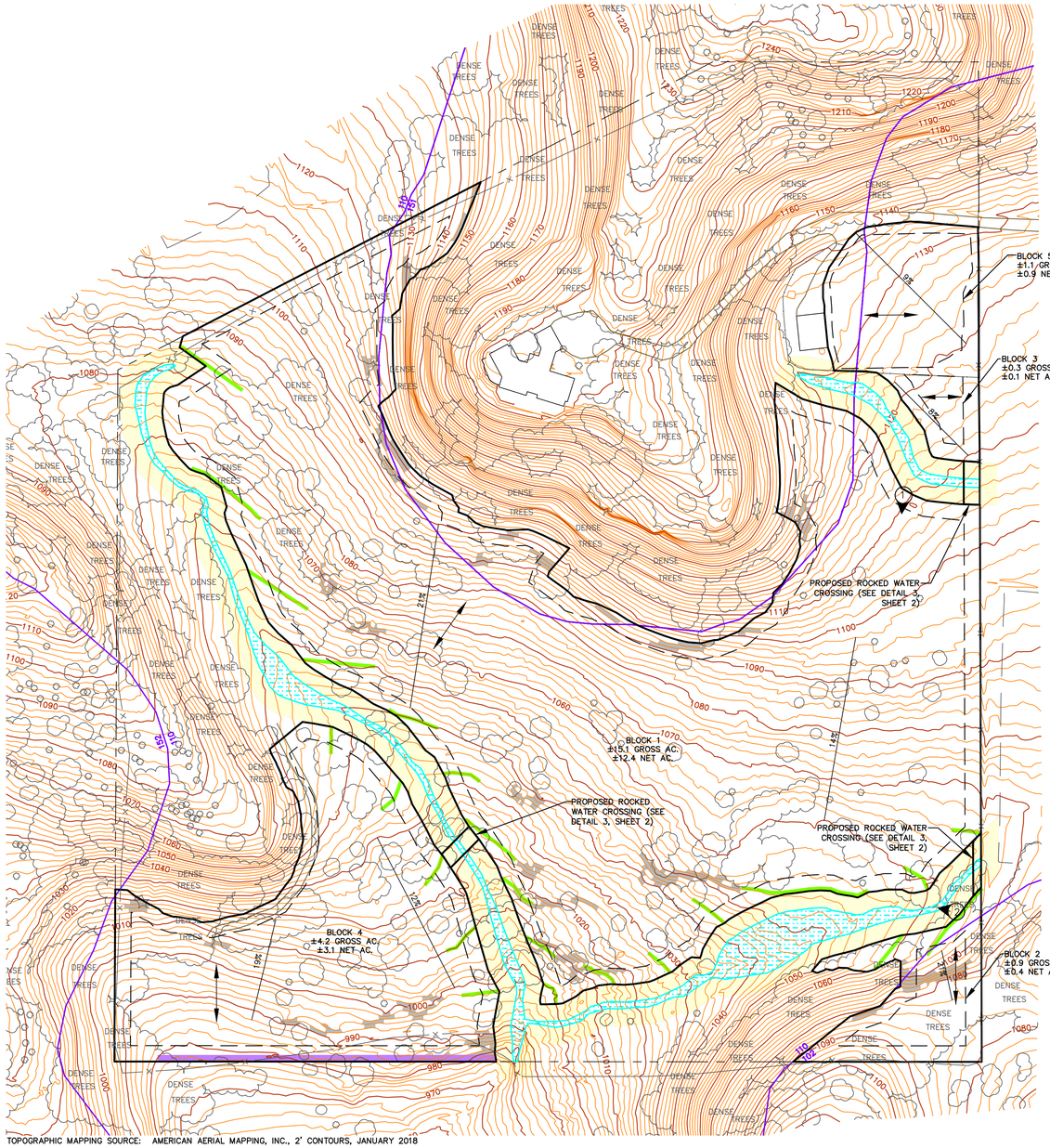
Napolitano, Potter, Whyte 2009. *Napa River Sediment TMDL and Habitat Enhancement Plan.* California Regional Water Quality Control Board, San Francisco Bay Region.

Weaver, W.E., and Hagans, D.K., 2014, *Handbook for Forest and Ranch Roads*: A Guide for Planning, Designing, Constructing, Reconstructing, Maintaining and Closing Wildland Roads: Ukiah, CA, Mendocino County Resource Conservation District.



PPI ENGINEERING
2800 Jefferson Street
Napa, CA 94558
(707) 253-1806

The Hess Collection Winery
2847 Atlas Peak Road
Erosion Control Plan
Figure 5: Road Network
Revised May 2019



TOPOGRAPHIC MAPPING SOURCE: AMERICAN AERIAL MAPPING, INC., 2' CONTOURS, JANUARY 2018

GRAPHIC SCALE

100 0 50 100 200 400

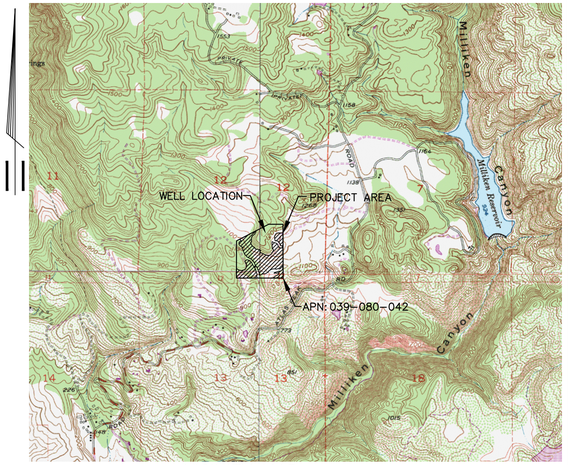
(IN FEET)
1 inch = 100 ft.

LEGEND

- APPROXIMATE PROPERTY LINE LOCATION
- SEASONAL WETLAND MAPPED BY WRA
- 26' UNDISTURBED FILTER STRIP
- EXISTING ROAD
- EXISTING FENCE
- EXISTING BUILDING
- EXISTING VINEYARD BLOCK
- PROPOSED VINEYARD CLEARING LIMITS
- PROPOSED VINEYARD BLOCK BOUNDARY
- PROPOSED STRAW WATTLE (SEE DETAIL 1, SHEET 2)
- PROPOSED ROCK FILLED AVENUE (SEE DETAIL 2, SHEET 2)
- AREA WHERE GROUND SLOPE IS 30 PERCENT OR GREATER
- PROPOSED VINEROW DIRECTION
- X — PHOTO POINT NUMBER & LOCATION (SEE APPENDIX A)
- X% — AVERAGE SURFACE SLOPE
- 110 / 151 — SOIL TYPE BOUNDARY

USDA SOIL CLASSIFICATIONS:

102	AIKEN LOAM 30–50% SLOPE
110	BOOMER–FORWARD–FELTA COMPLEX 30–50% SLOPE
151	HAMBRIGHT–ROCK OUTCROP COMPLEX 2–30% SLOPE
152	HAMBRIGHT–ROCK OUTCROP COMPLEX 30–75% SLOPE



VICINITY MAP

USGS CAPELL VALLEY, MT. GEORGE,
NAPA & YOUNTVILLE QUADRANGLES
TOWNSHIP 6 N., RANGE 4 W.
SCALE: 1" = ±2000'

NOTES:

1. OWNER: SABRINA WEYENETH & TIMOTHY PERSSON TRUST
   SITE ADDRESS: 2847 ATLAS PEAK ROAD
   APN: 039–080–042
2. ACCESS TO PROJECT IS FROM ATLAS PEAK ROAD. THE SITE IS GATED AND LOCKED. ADMITTANCE IS AVAILABLE UPON REQUEST.
3. EXISTING VEGETATION CONSISTS OF VINEYARD, GRASS, BRUSH AND TREES.
4. DISTURBED AREAS SHALL BE SEEDED AS DESCRIBED BELOW. STRAW MULCH SHALL BE APPLIED TO ALL DISTURBED AREAS AT A RATE OF 3,000 POUNDS PER ACRE PRIOR TO OCTOBER 15 OF THE YEAR OF CONSTRUCTION.
5. PERMANENT COVER CROP (NO–TILL):
   A PERMANENT COVER CROP STRATEGY WILL BE UTILIZED. THE PERMANENT COVER CROP WILL BE GENERATED THE FIRST YEAR BY SEEDING WITH THE FOLLOWING MIX:

VARIETY	RATE (LBS/ACRE)
DWARF BARLEY	50
BLANDO BROME	8
ZORRO FESCUE	12
CRIMSON CLOVER	6

   A PRE–APPROVED ALTERNATIVE SEED MIX MAY BE ALLOWED.

   THE PERMANENT COVER CROP WILL BE MANAGED EACH YEAR SUCH THAT ANY AREAS WHICH HAVE LESS THAN 80% VEGETATIVE COVER WILL BE RESEEDED AND MULCHED UNTIL ADEQUATE COVERAGE IS ACHIEVED. THE PERMANENT COVER CROP SHALL BE MOWED ONLY AND NOT DISKED.
6. THE OWNER HAS THE OPTION OF USING A DWARF BARLEY (OR A PRE–APPROVED ALTERNATIVE) COVER CROP IN THE FIRST THREE YEARS THAT THE BLOCK IS PLANTED TO AID WITH VINEYARD ESTABLISHMENT. IF THIS OPTION IS USED, SEED SHALL BE APPLIED AT A RATE OF 120 POUNDS PER ACRE IF BROADCAST OR AT A RATE OF 60 POUNDS PER ACRE IF DRILLED. THE COVER CROP WITHIN THE VINEYARD MAY BE DISKED EACH SPRING AFTER APRIL 1 FOR THE FIRST THREE YEARS. AN ALTERNATIVE COVER CROP SEED MIX MAY BE USED UPON PRIOR APPROVAL. EACH YEAR THE OWNER CHOOSES TO DISK, THE AREA SHALL BE STRAW MULCHED AT A RATE OF 3,000 LBS/ACRE AND STRAW WATTLES SHALL BE INSTALLED PRIOR TO OCTOBER 15. THE PERMANENT SEED MIX WILL BE SEEDED PRIOR TO OCTOBER 15 OF THE FOURTH (OR EARLIER) YEAR.
7. NO PRE–EMERGENT HERBICIDES WILL BE STRIP SPRAYED IN THE VINEROWS FOR WEED MANAGEMENT. CONTACT OR SYSTEMIC HERBICIDES MAY BE APPLIED IN SPRING (NO EARLIER THAN FEBRUARY 15TH TO ENSURE ADEQUATE VEGETATIVE COVER IN THE SPRAY STRIPS FOR THE REMAINDER OF THE RAINY SEASON). THE WIDTH OF THE SPRAY STRIP SHALL BE NO WIDER THAN 1 FOOT IN ORDER TO ACHIEVE 80% VEGETATIVE COVER (BASED ON A SIX–FOOT MINIMUM ROW SPACING). IF THE OWNER CHOOSES TO FARM WITHOUT HERBICIDE, AN ALTERNATIVE WILL BE TO HAND–HOE AROUND THE BASE OF THE VINE ONLY, OR OTHER METHODS THAT DO NOT RESULT IN A CONTINUOUS BARE STRIP.
8. FERTILIZER SHALL BE APPLIED AS NECESSARY BY VINEYARD MANAGEMENT PERSONNEL FOR BOTH THE VINEYARD AND TO ENSURE SPECIFIED PERCENT VEGETATIVE COVER CROP IS ACHIEVED. SITE–SPECIFIC SOIL ANALYSIS SHOULD BE PERFORMED.
9. THE VINEYARD AVENUES SHALL BE MOWED ONLY AND SHALL NOT BE DISKED. UNLESS OTHERWISE NOTED, ALL AVENUES SHALL CONFORM TO THE NATURAL GRADE. VINEYARD AVENUES SHALL BE SEEDED AND MULCHED PRIOR TO OCTOBER 15 OF THE YEAR OF CONSTRUCTION AND IN SUBSEQUENT YEARS IN BARE OR DISTURBED AREAS. THE COVER CROP WILL BE MANAGED EACH YEAR SUCH THAT ANY AVENUES WHICH HAVE LESS THAN 80% VEGETATIVE COVER WILL BE RESEEDED AND MULCHED UNTIL ADEQUATE COVERAGE IS ACHIEVED. SEEDING AND MULCHING IS NOT REQUIRED ON AVENUES AND ROADS PROPERLY SURFACED WITH GRAVEL.
10. THE PROPOSED VINE BY ROW SPACING IS EXPECTED TO BE 4' BY 6.5', HOWEVER IN AREAS WHERE CROSS–SLOPE EXCEEDS 15% THE OWNER SHALL INCREASE THE ROW SPACING AS NEEDED TO ENSURE THERE IS ADEQUATE ROOM FOR EQUIPMENT. WIDTH OF TILLAGE EQUIPMENT SHALL BE NO MORE THAN 75% OF ROW WIDTH TO ALLOW FOR BENCH FORMATION AND TO MINIMIZE EROSION.
11. THE OWNER HAS THE FREEDOM TO FURTHER SUBDIVIDE VINEYARD BLOCKS WITHIN THE FOOTPRINT OF THE PROPOSED VINEYARD FOR IRRIGATION AND VITICULTURE PURPOSES. THE PROPOSED VINEROW DIRECTIONS SHALL NOT BE ALTERED WITHOUT AN APPROVED MODIFICATION FROM NAPA COUNTY.
12. THE LOCATION OF THE EXISTING WELL, THE PROPOSED WATER SOURCE, IS SHOWN ON THE VICINITY MAP.
13. A PORTION OF THE PROPERTY IS CURRENTLY DEER FENCED. ADDITIONAL DEER FENCE IS NEEDED FOR THE PROPOSED VINEYARD, SEE APPENDIX D FOR THE PROPOSED DEER FENCE MAP.
14. REQUESTS FOR FURTHER INFORMATION, CLARIFICATION OF WORK TO BE DONE, OR INSPECTION INFORMATION CAN BE MADE TO JIM BUSHEY OR MATT BUENO AT PPI ENGINEERING IN NAPA, (707) 253–1806.
15. PROPERTY LINES AS SHOWN ARE APPROXIMATE. OWNER SHALL BE RESPONSIBLE FOR SURVEYING PROPERTY LINE(S) AS NECESSARY PRIOR TO ANY SITE DISTURBANCE.
16. THE OWNER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS.
17. AT LEAST 48 HOURS PRIOR TO EXCAVATING, THE CONTRACTOR SHALL CALL UNDERGROUND SERVICES ALERT (U.S.A.) AT 1–800–642–2444 IN ORDER TO LOCATE EXISTING UTILITIES. IT IS THE OWNER'S RESPONSIBILITY TO LOCATE ANY ADDITIONAL UNDERGROUND UTILITIES THAT MAY HAVE BEEN INSTALLED "IN–HOUSE" OR BY PRIVATE CONTRACTORS AND THEREFORE MAY NOT BE LOCATED THROUGH UNDERGROUND SERVICE ALERT.
18. IT IS THE OWNER'S RESPONSIBILITY TO INSTALL ALL STRUCTURAL MEASURES AS SHOWN ON THE SITE PLAN AND DETAILS AND AS DESCRIBED IN THE SPECIFICATIONS WITHIN THE TIME FRAMES SPECIFIED FOR THIS PROJECT. ANY DEVIATION FROM THESE PLANS MUST BE REVIEWED AND APPROVED BY NAPA COUNTY PLANNING, BUILDING AND ENVIRONMENTAL SERVICES DEPARTMENT. IT IS THE OWNER'S RESPONSIBILITY TO INITIATE THIS MODIFICATION PROCESS. PPI ENGINEERING MUST BE NOTIFIED AT LEAST 48 HOURS IN ADVANCE OF CONSTRUCTION IN ORDER TO SCHEDULE A PRE–CONSTRUCTION MEETING WITH THE OWNER/MANAGER AND CONTRACTOR(S). FOR ONGOING MULTI–YEAR PROJECTS PPI ENGINEERING MUST BE NOTIFIED AT LEAST 48 HOURS IN ADVANCE OF RESUMING CONSTRUCTION EACH YEAR.

REGISTERED PROFESSIONAL ENGINEER — JAMES B. IMWALLE — No. 49931 — EXPIRES: 9-30-20 — Civil — STATE OF CALIFORNIA

REV. NO.	DESCRIPTION	BY	DATE
1	THIS DRAWING SUPERSEDES DRAWING 11712901A. ALL BLOCKS HAVE BEEN UPDATED TO REQUIRE 80% VEGETATIVE COVER. NOTES 5, 7 AND 9 WERE UPDATED.	ALB	05/15/19

PPI ENGINEERING
2800 JEFFERSON STREET
NAPA, CA 94558
707/253–1806 FAX 707/253–1604

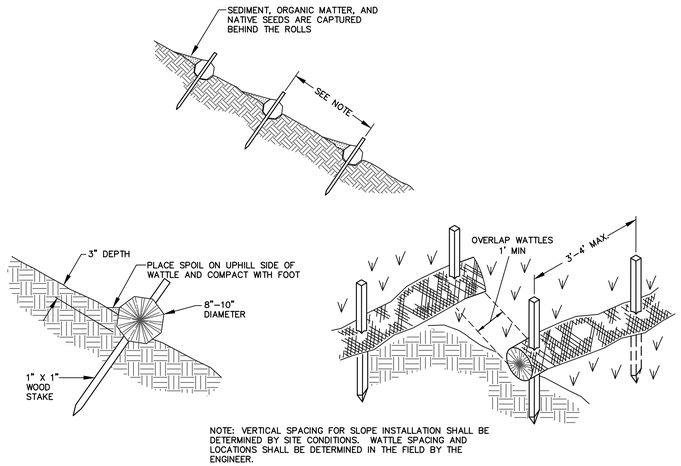
JOB NO: 11712901
DWG. NO: 11712901B

THE HESS COLLECTION WINERY
2847 ATLAS PEAK ROAD
TRACK I ECP
SITE PLAN

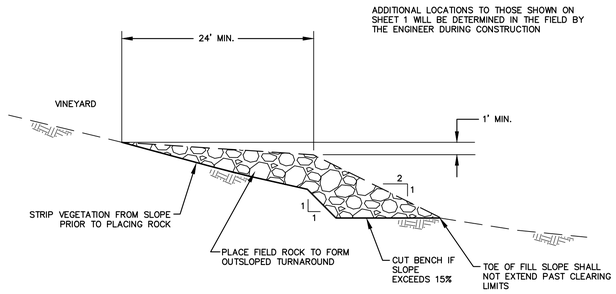
DESIGN ENGINEER: J. BUSHEY, M. BUENO

SCALE:	DRAWN BY:	DATE:	SHEET:
AS SHOWN	ALB, SM	05–20–19	1 OF: 2

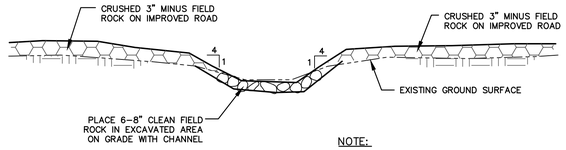
R:\JOBS\PDR\11712901 Persson Track I ECP\Drawings\11712901B.dwg, SITE PLAN, 5/20/2019 11:30:37 AM



1/2 STRAW WATTLE INSTALLATION
N.T.S.



2/2 ROCK–FILLED AVENUE
N.T.S.



NOTE:
IF BED OF CHANNEL IS NOT BEDROCK PLACE FILTER FABRIC (MIRAFI 1100N OR EQUAL) UNDER ROCK.

3/2 TYPICAL ROCKED WATER CROSSING
N.T.S.

REGISTERED PROFESSIONAL ENGINEER
JAMES R. BUSHEY
No. 49931
EXPIRES: 9-30-20
Civil
STATE OF CALIFORNIA

REV. NO.	DESCRIPTION	BY	DATE
1	THIS DRAWING SUPERSEDES DRAWING 11712901A. NO CHANGES WERE MADE TO THIS SHEET.	ALB	05/15/19

PPI ENGINEERING
2800 JEFFERSON STREET
NAPA, CA 94558
707/253-1806 FAX 707/253-1604

JOB NO: 11712901
DWG. NO: 11712901B

THE HESS COLLECTION WINERY
2847 ATLAS PEAK ROAD
TRACK I ECP
DETAILS

DESIGN ENGINEER: J. BUSHEY, M. BUENO

SCALE:	DRAWN BY:	DATE:	SHEET:
AS SHOWN	ALB, SM	05–20–19	2 OF: 2

R:\HESS\P3\11712901 Persons Track I ECP\Drawings\11712901B.dwg, DETAILS, 5/20/2019 11:10:06 AM