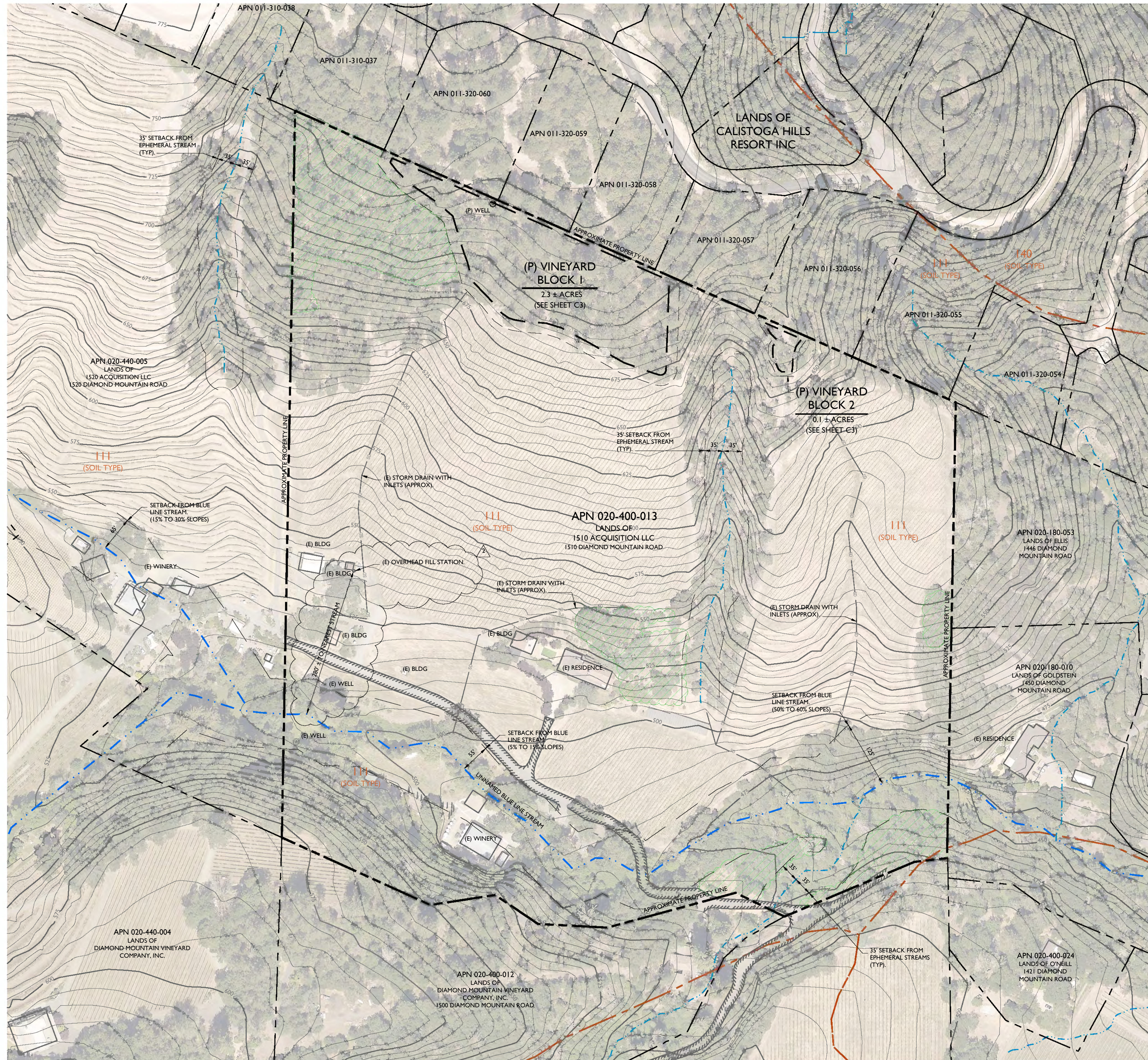
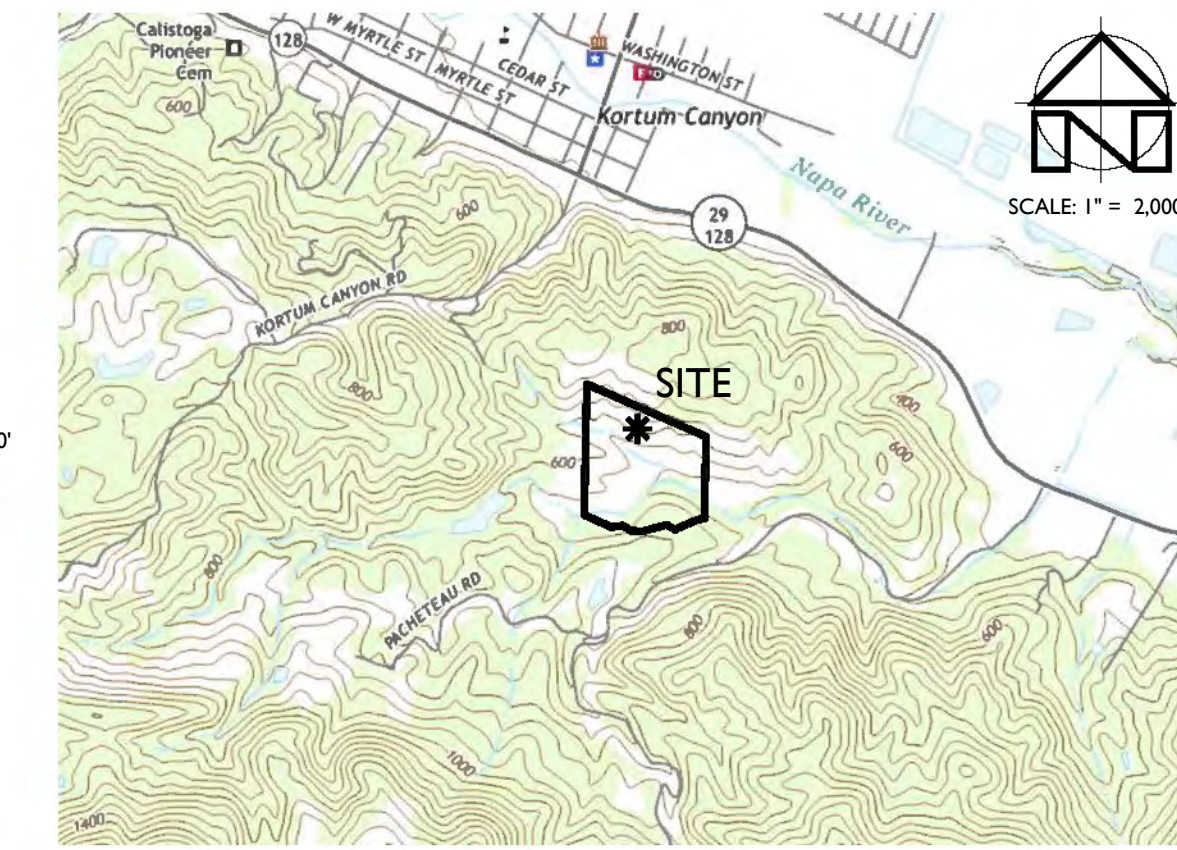
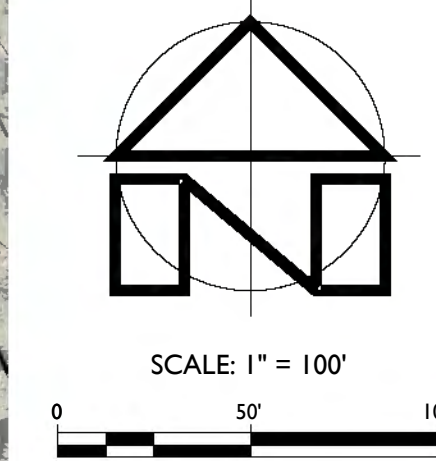


1510 ACQUISITION LLC

VINEYARD DEVELOPMENT EROSION CONTROL PLAN



OVERALL SITE PLAN
SCALE: 1" = 100'



LOCATION MAP
SCALE: 1" = 2,000'

PROJECT INFORMATION:

PROPERTY OWNER:
1510 ACQUISITION LLC
1155 CONNECTICUT AVENUE, SUITE 1200
WASHINGTON, DC 20036

SITE ADDRESS:
1510 DIAMOND MOUNTAIN ROAD
CALISTOGA, CA 94515

ASSESSOR'S PARCEL NUMBER:
020-400-013

PARCEL SIZE:
35.8 ± ACRES

PROJECT SIZE:
2.4 ± ACRES DISTURBED
1.9 ± ACRES PLANTED

ZONING:
AGRICULTURAL WATERSHED (AW)

SHEET INDEX:

- C1 COVER SHEET AND OVERALL SITE PLAN
- C2 NOTES AND ABBREVIATIONS
- C3 EROSION CONTROL PLAN
- C4 DETAILS

STREAM SETBACK NOTE:

STREAM LOCATIONS AND CLASSIFICATIONS ARE SHOWN FOR GENERAL REFERENCE ONLY. THOSE STREAMS / SETBACKS NOT IMMEDIATELY ADJACENT TO THE PROJECT AREA WERE NOT FIELD VERIFIED SINCE NO WORK IS PROPOSED NEAR THOSE FEATURES.

FLOOD HAZARD NOTE:

ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP (FIRM) MAP NUMBER 06097C0625E EFFECTIVE DECEMBER 2, 2008, THE PROJECT SITE IS NOT LOCATED IN A SPECIAL FLOOD HAZARD AREA.

SOIL TYPE LEGEND:

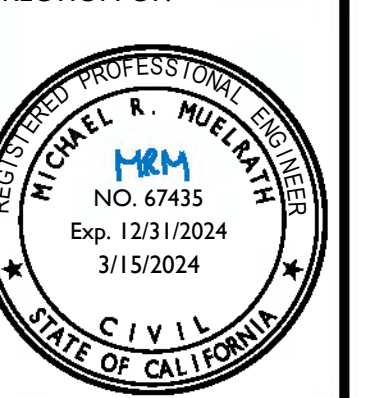
- 111 BOOMER-FORWARD-FELTA COMPLEX, 30 TO 50 PERCENT SLOPES
- 140 FORWARD GRAVELLY LOAM, 30 TO 75 PERCENT SLOPES

SOIL TYPE BOUNDARIES SHOWN ON THIS MAP ARE BASED ON THE NAPA COUNTY GEOGRAPHIC INFORMATION SYSTEM DATA AND SHOULD BE CONSIDERED APPROXIMATE.

LEGEND:

- APPROXIMATE PROPERTY LINE (SUBJECT PARCEL)
- APPROXIMATE PROPERTY LINE (ADJACENT PARCEL)
- VINEYARD CLEARING LIMITS / VINEYARD AVENUE
- LIMITS OF VINEYARD BLOCK
- BLUELINE STREAM
- EPHEMERAL STREAM
- SOIL TYPE BOUNDARY
- TREE CANOPY PRESERVATION AREA (2.4 ± ACRES TOTAL ON SLOPES <30%)

PREPARED UNDER THE DIRECTION OF:



DRAWN BY: SMI
CHECKED BY: MRM
DATE: MARCH 15, 2024
REVISIONS: BY: SMI
3/15/2024 PLAN CHECK
REVISIONS

JOB NUMBER: 22-118
FILE: 22-118CP_COV.DWG
ORIGINAL SIZE: 24" X 36"
SHEET NUMBER:

GENERAL NOTES:

- 1. THESE DRAWINGS WERE DEVELOPED EXCLUSIVELY FOR THIS PROJECT AND ARE NOT TO BE REPRODUCED OR USED FOR ANY OTHER PROJECT WITHOUT THE WRITTEN PERMISSION OF APPLIED CIVIL ENGINEERING INCORPORATED.
2. ALL MATERIALS AND WORKMANSHIP FOR THE WORK DESCRIBED ON THESE PLANS SHALL CONFORM TO THE LATEST EDITIONS OF THE FOLLOWING STANDARDS AS ADOPTED AND AMENDED BY NAPA COUNTY:
A. CALIFORNIA BUILDING CODE (2022)
B. CALIFORNIA ELECTRIC CODE (2022)
C. CALIFORNIA PLUMBING CODE (2022)
D. CALIFORNIA MECHANICAL CODE (2022)
E. CALIFORNIA FIRE CODE (2022)
F. CALIFORNIA DEPARTMENT OF TRANSPORTATION (2022)
G. NAPA COUNTY CODE (CURRENT)

CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR BEING FAMILIAR WITH ALL STANDARDS, CODES AND REGULATIONS APPLICABLE TO THIS PROJECT.

- 3. CONTRACTOR SHALL BE APPROPRIATELY LICENSED WITH THE STATE OF CALIFORNIA TO PERFORM THE WORK SHOWN ON THESE PLANS.
4. CONTRACTOR SHALL SUPPLY ALL MATERIALS, EQUIPMENT AND LABOR NECESSARY TO CONSTRUCT THE IMPROVEMENTS ILLUSTRATED ON THESE PLANS.
5. CONTRACTOR SHALL PROVIDE SUBMITTALS FOR ALL MATERIALS AND PRODUCTS TO BE USED FOR THE SITE IMPROVEMENTS TO APPLIED CIVIL ENGINEERING INCORPORATED FOR REVIEW AND APPROVAL.
6. THE IMPROVEMENTS SHOWN ON THESE PLANS REQUIRE INSPECTION BY THE NAPA COUNTY PLANNING, BUILDING AND ENVIRONMENTAL SERVICES DEPARTMENT. CONTRACTOR IS RESPONSIBLE FOR SCHEDULING ALL INSPECTIONS.
7. CONTRACTOR SHALL SCHEDULE A PRECONSTRUCTION MEETING WITH APPLIED CIVIL ENGINEERING INCORPORATED AND NAPA COUNTY AT LEAST ONE WEEK PRIOR TO THE COMMENCEMENT OF CONSTRUCTION TO REVIEW THE PROJECT PLANS AND SPECIFICATIONS AND NAPA COUNTY REQUIREMENTS.
8. CONTRACTOR IS RESPONSIBLE FOR SECURING ALL CONSTRUCTION RELATED PERMITS FROM THE GOVERNING AGENCIES AND MAINTAINING A COPY OF THE PERMITS AND THE APPROVED PLANS ON THE JOB SITE AT ALL TIMES.
9. CONTRACTOR SHALL CONTACT THE NAPA COUNTY PUBLIC WORKS, FIRE AND SHERIFF DEPARTMENTS TO PROVIDE EMERGENCY TELEPHONE NUMBERS AND KEEP THE DEPARTMENTS INFORMED DAILY OF ANY STREETS THAT ARE UNDER CONSTRUCTION AND DETOURS. DETOURS ARE NOT PERMITTED UNLESS APPROVED IN ADVANCE IN WRITING BY THE NAPA COUNTY PUBLIC WORKS DEPARTMENT.
10. THE PROPERTY OWNER AND CONTRACTOR ARE RESPONSIBLE FOR OBTAINING ALL APPROPRIATE PERMITS FOR WORK WITHIN ANY RIPARIAN AREA PRIOR TO COMMENCING WORK IN THAT AREA.
11. CONTRACTOR IS SOLELY RESPONSIBLE FOR JOB SITE CONDITIONS AND THE SAFETY OF PROPERTY AND PEOPLE ON THE JOB SITE AT ALL TIMES. CONTRACTOR SHALL MAINTAIN THE JOB SITE IN A SAFE CONDITION, IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REQUIREMENTS, AT ALL TIMES, INCLUDING OUTSIDE OF NORMAL WORKING HOURS. CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND ENGINEER HARMLESS FROM ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THE PROJECT, EXCEPT LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.
12. CONTRACTOR SHALL PROVIDE AND MAINTAIN BARRICADES TO PROVIDE FOR THE SAFETY OF THE GENERAL PUBLIC TO THE SATISFACTION OF NAPA COUNTY AND THE OWNER.
13. THESE PLANS ARE INTENDED TO PROVIDE HORIZONTAL AND VERTICAL CONTROL FOR THE PROPOSED SITE IMPROVEMENTS SHOWN HEREON.
14. ALL DIMENSIONS SHOWN ON THESE PLANS SHOW MEASUREMENTS IN A HORIZONTAL PLANE UNLESS OTHERWISE SPECIFIED.
15. ALL WRITTEN DIMENSIONS SUPERCEDE ANY SCALED DIMENSIONS. IF AN APPARENT DISCREPANCY IS IDENTIFIED CONTACT APPLIED CIVIL ENGINEERING INCORPORATED IMMEDIATELY FOR A WRITTEN CLARIFICATION.
16. IF ANY CONTRACTOR, SUBCONTRACTOR, OR SURVEYOR IDENTIFIES ANY OMISSIONS, DEFICIENCIES, CONFLICTS OR ERRORS IN THESE PLANS AND SPECIFICATIONS OR IF THERE IS ANY DOUBT AS TO THEIR MEANING OR INTENT, THEY SHALL CONTACT APPLIED CIVIL ENGINEERING INCORPORATED FOR A WRITTEN ADDENDUM OR CLARIFICATION. CONTRACTOR IS NOT ELIGIBLE FOR ADDITIONAL COMPENSATION IF THEY FAIL TO DO SO BEFORE PROVIDING A PROPOSAL.
17. CONTRACTOR IS TO PROTECT ALL EXISTING SITE IMPROVEMENTS, UTILITIES, BUILDINGS AND NATURAL FEATURES FROM DAMAGE THROUGHOUT THE DURATION OF CONSTRUCTION. ANY DAMAGE CAUSED BY CONTRACTOR SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE.
18. IN THE EVENT THAT ARCHEOLOGICAL ARTIFACTS OR HUMAN REMAINS ARE DISCOVERED DURING CONSTRUCTION, WORK SHALL CEASE IN A 50-FOOT RADIUS SURROUNDING THE AREA OF DISCOVERY. THE PERMITTEE SHALL CONTACT NAPA COUNTY PLANNING BUILDING AND ENVIRONMENTAL SERVICES DEPARTMENT AT (707) 253-4417 FOR FURTHER GUIDANCE, WHICH WILL LIKELY INCLUDE THE REQUIREMENT FOR THE PERMITTEE TO HIRE A QUALIFIED PROFESSIONAL TO ANALYZE THE ARTIFACTS ENCOUNTERED AND TO DETERMINE IF ADDITIONAL MEASURES ARE REQUIRED.

IF HUMAN REMAINS ARE ENCOUNTERED DURING THE DEVELOPMENT, ALL WORK IN THE VICINITY MUST BE, BY LAW, HALTED, AND THE NAPA COUNTY CORONER INFORMED, SO THAT THE CORONER CAN DETERMINE IF AN INVESTIGATION OF THE CAUSE OF DEATH IS REQUIRED, AND IF THE REMAINS ARE OF NATIVE AMERICAN ORIGIN. IF THE REMAINS ARE OF NATIVE AMERICAN ORIGIN, THE NEAREST TRIBAL RELATIVES AS DETERMINED BY THE STATE NATIVE AMERICAN HERITAGE COMMISSION SHALL BE CONTACTED BY THE PERMITTEE TO OBTAIN RECOMMENDATIONS FOR TREATING OR REMOVAL OF SUCH REMAINS, INCLUDING GRAVE GOODS, WITH APPROPRIATE DIGNITY, AS REQUIRED UNDER PUBLIC RESOURCES CODE SECTION 5097.98.

EXISTING UTILITY NOTES:

- 1. THE EXISTING UTILITY LOCATIONS SHOWN ON THESE PLANS ARE APPROXIMATE AND FOR INFORMATIONAL PURPOSES ONLY. THEY ARE BASED ON INFORMATION PROVIDED BY THE PROPERTY OWNER, THE SURVEYOR AND THE RESPECTIVE UTILITY COMPANIES. APPLIED CIVIL ENGINEERING INCORPORATED ASSUMES NO LIABILITY REGARDING THE ACCURACY OR THE COMPLETENESS OF THEIR LOCATIONS.
2. CONTRACTOR IS RESPONSIBLE FOR VERIFYING EXISTING UTILITY LOCATIONS PRIOR TO ORDERING MATERIALS OR BEGINNING CONSTRUCTION. IF A DISCREPANCY BETWEEN THE PLANNED AND ACTUAL HORIZONTAL OR VERTICAL LOCATION OF AN EXISTING UTILITY EXISTS, CONTACT APPLIED CIVIL ENGINEERING INCORPORATED FOR AN ALTERNATE DESIGN.
3. CONTRACTOR SHALL NOTIFY ALL PUBLIC AND PRIVATE UTILITY COMPANIES TWO WORKING DAYS PRIOR TO THE START OF CONSTRUCTION TO MARK THE LOCATION OF EXISTING UTILITY LINES. CALL UNDERGROUND SERVICE ALERT (USA) AT (800) 227-2600.
4. EXISTING UTILITIES ARE TO REMAIN IN SERVICE AT ALL TIMES. CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES PER THE REQUIREMENTS OF THE UTILITY OWNER.
5. CONTRACTOR SHALL COORDINATE ANY REQUIRED UTILITY RELOCATIONS WITH THE UTILITY OWNER.

SURVEY NOTES:

- 1. FADED BACKGROUND REPRESENTS EXISTING TOPOGRAPHIC FEATURES. TOPOGRAPHIC INFORMATION ON SHEET C1 WAS TAKEN FROM THE NAPA COUNTY GEOGRAPHIC INFORMATION SYSTEM DATABASE. TOPOGRAPHIC INFORMATION ON OTHER SHEETS WAS TAKEN ON FROM THE "REVERIE WINERY" PREPARED BY BKF ENGINEERS, DATED JULY, AUGUST AND SEPTEMBER, 2022. APPLIED CIVIL ENGINEERING INCORPORATED ASSUMES NO LIABILITY REGARDING THE ACCURACY OR COMPLETENESS OF THE TOPOGRAPHIC INFORMATION.
2. AERIAL PHOTOGRAPHS ARE NADIR IMAGES CAPTURED BY PICTOMETRY INTERNATIONAL DATED JULY 15, 2021 AND MAY NOT REPRESENT CURRENT CONDITIONS.
3. CONTOUR INTERVAL:
SHEET C1: FIVE (5) FEET, HIGHLIGHTED EVERY TWENTY FIVE (25) FEET.
OTHER SHEETS: ONE (1) FOOT, HIGHLIGHTED EVERY FIVE (5) FEET.
4. BENCHMARK: NAVD 88
5. THE PROPERTY LINES SHOWN ON THESE PLANS DO NOT REPRESENT A BOUNDARY SURVEY. THEY ARE APPROXIMATE AND ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY.
6. CONTRACTOR SHALL PRESERVE ALL EXISTING MONUMENTS THROUGHOUT THE DURATION OF CONSTRUCTION OR HAVE THEM REPLACED AT THEIR OWN EXPENSE. IF MONUMENTS ARE DISTURBED THEY NEED TO BE RE-SET BY A LICENSED LAND SURVEYOR AND A CORNER RECORD MUST BE FILED.
7. ALL CONSTRUCTION STAKING SHALL BE PERFORMED BY A LICENSED LAND SURVEYOR.

GRADING NOTES:

- 1. ALL EARTHWORK IS TO CONFORM TO THE REQUIREMENTS OF THE CALIFORNIA BUILDING CODE, NAPA COUNTY CONSERVATION REGULATIONS AND THE NAPA COUNTY PLANNING, BUILDING AND ENVIRONMENTAL SERVICES DEPARTMENT - ENGINEERING DIVISION STANDARDS.
2. ALL CUT AND FILL SLOPES SHALL BE NO STEEPER THAN 2:1 UNLESS OTHERWISE APPROVED BY A GEOTECHNICAL ENGINEER.
3. ALL DEBRIS GENERATED DURING DEMOLITION, SITE STRIPPING AND GRADING ACTIVITIES IS TO BE DISPOSED OF PROPERLY OFFSITE BY THE CONTRACTOR.
4. CONTRACTOR IS RESPONSIBLE FOR IMPORTING AND / OR EXPORTING MATERIALS AS NECESSARY TO ACHIEVE THE FINISH GRADES ILLUSTRATED ON THESE PLANS.
5. CONTRACTOR SHALL CONDUCT ALL GRADING OPERATIONS IN A MANNER THAT PREVENTS WIND BLOWN DIRT AND DUST AND RELATED DAMAGE TO NEIGHBORING PROPERTIES.
6. CONTRACTOR SHALL CONFORM TO EXISTING IMPROVEMENTS WITH A SMOOTH TRANSITION TO AVOID ABRUPT CHANGES IN GRADE. LOW SPOTS OR OTHER HAZARDOUS CONDITIONS.
7. PROPERTY OWNER SHALL BE RESPONSIBLE FOR MAINTAINING ALL FINISH GRADED SLOPES AFTER THE COMPLETION OF CONSTRUCTION AND REPAIRING ANY EROSION DAMAGE.

EROSION CONTROL NOTES:

- 1. ALL EROSION CONTROL WORK WILL BE PERFORMED BY THE VINEYARD MANAGER IN ACCORDANCE WITH THIS APPROVED VINEYARD EROSION CONTROL PLAN.
2. ALL DISTURBED AREAS MUST BE WINTERIZED BY OCTOBER 15TH OF EACH YEAR THAT THE PROJECT IS UNDER CONSTRUCTION.
3. A REQUEST TO ALLOW GRADING TO EXTEND BEYOND OCTOBER 15TH MAY BE GRANTED BY THE NAPA COUNTY PLANNING, BUILDING AND ENVIRONMENTAL SERVICES DEPARTMENT - CONSERVATION DIVISION IF A MAJORITY OF THE GRADING HAS BEEN COMPLETED AND THERE COULD BE A DETRIMENTAL EFFECT ON THE ENVIRONMENT IF THE REMAINING GRADING REMAINS INCOMPLETE. A REQUEST TO ALLOW GRADING TO EXTEND BEYOND OCTOBER 15TH MUST BE SUBMITTED IN WRITING TO NAPA COUNTY NO LATER THAN OCTOBER 1ST. GRADING BEYOND THE WINTERIZATION DEADLINE WILL NOT BE ALLOWED PRIOR TO APPROVAL BY NAPA COUNTY.
4. ALL PERMANENT DRAINAGE FACILITIES AND SEDIMENT RETENTION STRUCTURES MUST BE INSTALLED BY OCTOBER 1ST.
5. ALL TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES (WATER BARS, SILT FENCE & STRAW WATTLES) MUST BE INSTALLED BY OCTOBER 15TH.
6. ALL EROSION CONTROL MEASURES MUST BE INSPECTED AND MAINTAINED BY THE CONTRACTOR THROUGHOUT THE RAINY SEASON (OCTOBER 15TH THROUGH APRIL 1ST). INSPECTIONS MUST BE PERFORMED AT LEAST ONCE PER WEEK DURING EXTENDED DRY PERIODS, IMMEDIATELY BEFORE ANTICIPATED RAIN EVENTS, ONCE EVERY 24 HOURS DURING EXTENDED RAIN EVENTS AND IMMEDIATELY FOLLOWING EACH RAIN EVENT.
7. ALL DISTURBED AREAS ARE TO BE STABILIZED BY PLANTING OF AN EROSION CONTROL COVER CROP. PRIOR TO APPLYING THE EROSION CONTROL SEED BLEND, THE SEED BED SHOULD BE PREPARED BY UNIFORMLY SCARIFYING THE GROUND SURFACE TO A DEPTH OF TWO TO FOUR INCHES AND CONDITIONING TO BREAK UP LARGE PEDS.
8. THE COVER CROP SEED BLEND SHOULD BE BROADCAST OR DRILLED AFTER THE SEED BED HAS BEEN PREPARED.
9. A TEMPORARY TILLED COVER CROP WILL BE ESTABLISHED IN THE VINEYARD BLOCK AREAS FOR THE FIRST THREE YEARS AFTER PLANTING WHILE THE VINEYARD IS GETTING ESTABLISHED. THE TEMPORARY COVER CROP SEED MIX FOR THE VINEYARD ESTABLISHMENT SHOULD BE THE "SOIL BUILDER" AVAILABLE FROM NAPA VALLEY AG SUPPLY APPLIED AT A MINIMUM RATE OF 75 POUNDS PER ACRE:
COMMON VETCH 10%
CALIFORNIA RED OATS 20%
FIELD PEAS 30%
BELL BEANS 40%
10. THE PERMANENT COVER CROP SEED MIX FOR ALL NO-TILL VINEYARD BLOCKS AND VINEYARD AVENUES SHOULD BE THE "VINTNER'S BLEND" AVAILABLE FROM NAPA VALLEY AG SUPPLY APPLIED AT A MINIMUM RATE OF 75 POUNDS PER ACRE:
CREEPING RED FESCUE 40%
CHEWING FESCUE 25%
DWARF PERENNIAL RYE 25%
ROSE CLOVER 8%
NEW ZEALAND WHITE CLOVER 2%
11. ALTERNATE SEED MIX MAY BE USED BY THE VINEYARD MANAGER PROVIDED THAT ATTENTION IS GIVEN TO CHOOSING A COVER CROP THAT IS SUITABLE FOR THE SITE SOIL AND TOPOGRAPHIC CONDITIONS. ANY ALTERNATE SEED MIX MUST BE APPROVED BY THE ENGINEER AND THE NAPA COUNTY RESOURCE CONSERVATION DISTRICT PRIOR TO USE.
12. ALL SEEDED AREAS ARE TO BE FERTILIZED TO PROMOTE SUCCESSFUL ESTABLISHMENT OF THE COVER CROP. THE RECOMMENDED FERTILIZER IS AMMONIUM PHOSPHATE (16-20-0) APPLIED AT A RATE OF 250 POUNDS PER ACRE.
13. ADDITIONAL SOIL AMENDMENTS WILL BE ADDED BASED ON FUTURE SOILS TESTING REPORTS BY OTHERS. TYPICAL AMENDMENTS INCLUDE: COMPOSTED ORGANIC MATTER, LIME AND / OR GYPSUM. THE AMENDMENTS SHOULD BE INCORPORATED DURING THE LAND PREPARATION PROCESS TO INCREASE SOIL NUTRIENT CONTENT AND AVAILABILITY, AND TO IMPROVE SOIL STRUCTURE AND WATER HOLDING CAPACITY.
14. AFTER THE SEED AND FERTILIZER HAVE BEEN PLACED THE SEEDED AREA SHOULD BE RAKED, DRAGGED OR HARROWED TO ENSURE THAT SEEDS ARE PROPERLY BEDDED.
15. ALL DISTURBED AREAS ARE TO BE MULCHED WITH STRAW AT A RATE OF 3,000 POUNDS PER ACRE TO PROTECT THE BARE SOILS WHILE THE COVER CROP IS GETTING ESTABLISHED.
16. STRAW SHOULD BE SPREAD BY HAND IN A MANNER THAT PROMOTES FORMATION OF AN INTERWOVEN MATRIX. CRIMPING STRAW INTO THE SOIL IS HIGHLY RECOMMENDED ESPECIALLY ON WINDY SITES AND IS MANDATORY ON SITES WHERE STRAW IS MECHANICALLY CHOPPED AND BLOWN INTO PLACE.
17. ALL SOIL CUT AND FILL SLOPES THAT ARE STEEPER THAN 4:1 (HORIZONTAL TO VERTICAL) MUST BE COVERED WITH NORTH AMERICAN GREEN C125BN EROSION CONTROL BLANKET AFTER THE EROSION CONTROL SEED AND FERTILIZER HAVE BEEN PLACED.
18. CONTRACTOR MUST MAINTAIN AN ADEQUATE SUPPLY OF EROSION CONTROL MATERIALS ONSITE TO FACILITATE MAINTENANCE AND REPAIR THROUGHOUT THE RAINY SEASON. TYPICAL MATERIALS THAT SHOULD BE KEPT ONSITE INCLUDE SILT FENCE AND STRAW WATTLE SEDIMENT BARRIERS, GRAVEL BAGS, EROSION CONTROL BLANKETS, STRAW AND EROSION CONTROL SEED MIX.

EROSION CONTROL COVER CROP MANAGEMENT NOTES:

- 1. ESTABLISHING AN EFFECTIVE VEGETATIVE COVER CROP WILL BE THE PRIMARY MEANS OF PREVENTING EROSION FROM THE PROPOSED VINEYARD DEVELOPMENT AREA. AFTER THE INITIAL LAND PREPARATION ACTIVITIES ARE COMPLETE A TEMPORARY COVER CROP WILL BE PLANTED AND STRAW MULCH WILL BE APPLIED THROUGHOUT THE CLEARED AREA TO STABILIZE THE PROJECT AREAS THROUGH THE WINTER. A MINIMUM COVERAGE OF 85% IS REQUIRED TO MAINTAIN EROSION RATES AT ACCEPTABLE LEVELS.
2. THE COVER CROP WILL BE TILLED IN THE SPRING THROUGHOUT THE LIFE OF THE VINEYARD. THE TILLED AREAS AND ANY OTHER DISTURBED AREAS OR AREAS WITH LESS THAN ADEQUATE COVER WILL ALSO BE MULCHED EACH YEAR IN THE FALL TO PROTECT THE BARE SOIL WHILE THE COVER CROP IS GETTING ESTABLISHED AS NEEDED TO ACHIEVE THE SPECIFIED COVER PERCENTAGE.
3. ALL VINEYARD AVENUES WILL BE PROTECTED WITH A PERMANENT NO-TILL COVER CROP WITH DENSITIES MAINTAINED AT 85% OR MORE THROUGHOUT THE RAINY SEASON. VINEYARD AVENUES SHALL NOT BE TILLED.
4. THE COVER CROP SHOULD BE IRRIGATED PRIOR TO THE RAINY SEASON TO ESTABLISH A DENSE COVER PRIOR TO THE ONSET OF HEAVY RAINS. THIS IS ESPECIALLY IMPORTANT IN EROSION PRONE AREAS SUCH AS VINEYARD AVENUES AND MORE STEELY SLOPING AREAS. IN ORDER TO EFFECTIVELY ESTABLISH COVER, AT LEAST TWO INCHES OF WATER SHOULD BE APPLIED TO GERMINATE THE SEEDS. WATER SHOULD BE APPLIED BY SPRINKLER OR MICROSPRAYERS AT A RATE THAT DOES NOT CAUSE RUNOFF OR EROSION. ADDITIONAL WATER SHOULD BE APPLIED, AS NECESSARY, TO ACHIEVE THE DESIGN COVER PERCENTAGE AND TO MAINTAIN THE COVER CROP UNTIL SUFFICIENT RAINFALL OCCURS. IF ADEQUATE WATER IS NOT AVAILABLE TO IRRIGATE THE ENTIRE PROJECT AREA THEN 20 FOOT WIDE STRIPS, ORIENTATED ALONG THE CONTOUR, SHOULD BE IRRIGATED. LOCATIONS TO BE DETERMINED BY THE ENGINEER IN THE FIELD.

ABBREVIATIONS:

Table with 4 columns: Abbreviation, Description, Abbreviation, Description. Includes entries like AB AGGREGATE BASE, AC ASPHALT CONCRETE, AD AREA DRAIN, etc.



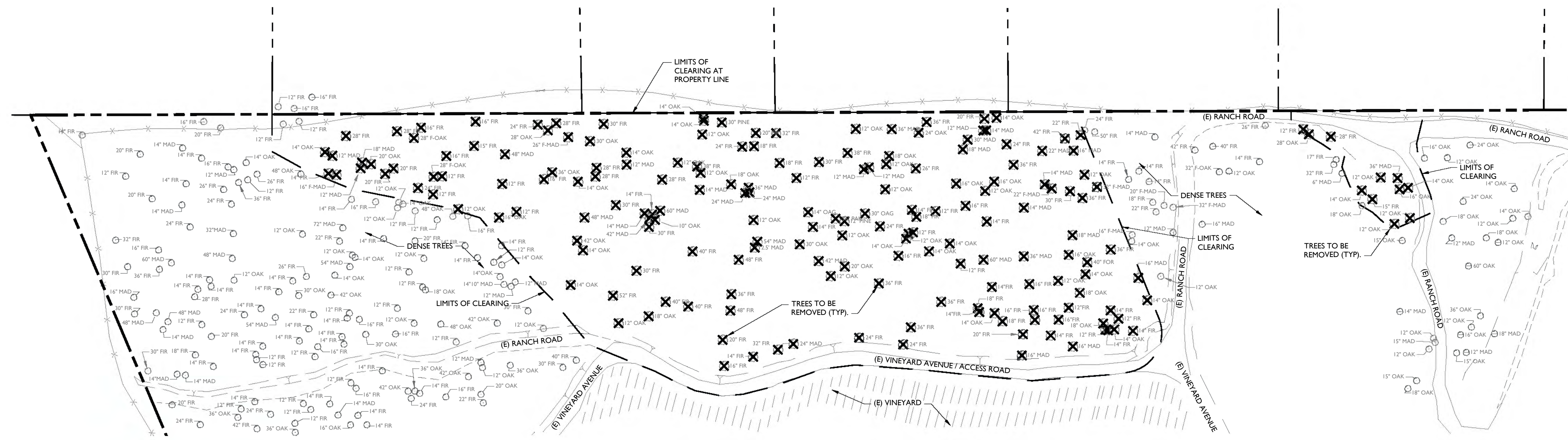
1510 ACQUISITION LLC
VINEYARD DEVELOPMENT EROSION CONTROL PLAN
NOTES AND ABBREVIATIONS

PREPARED UNDER THE DIRECTION OF:

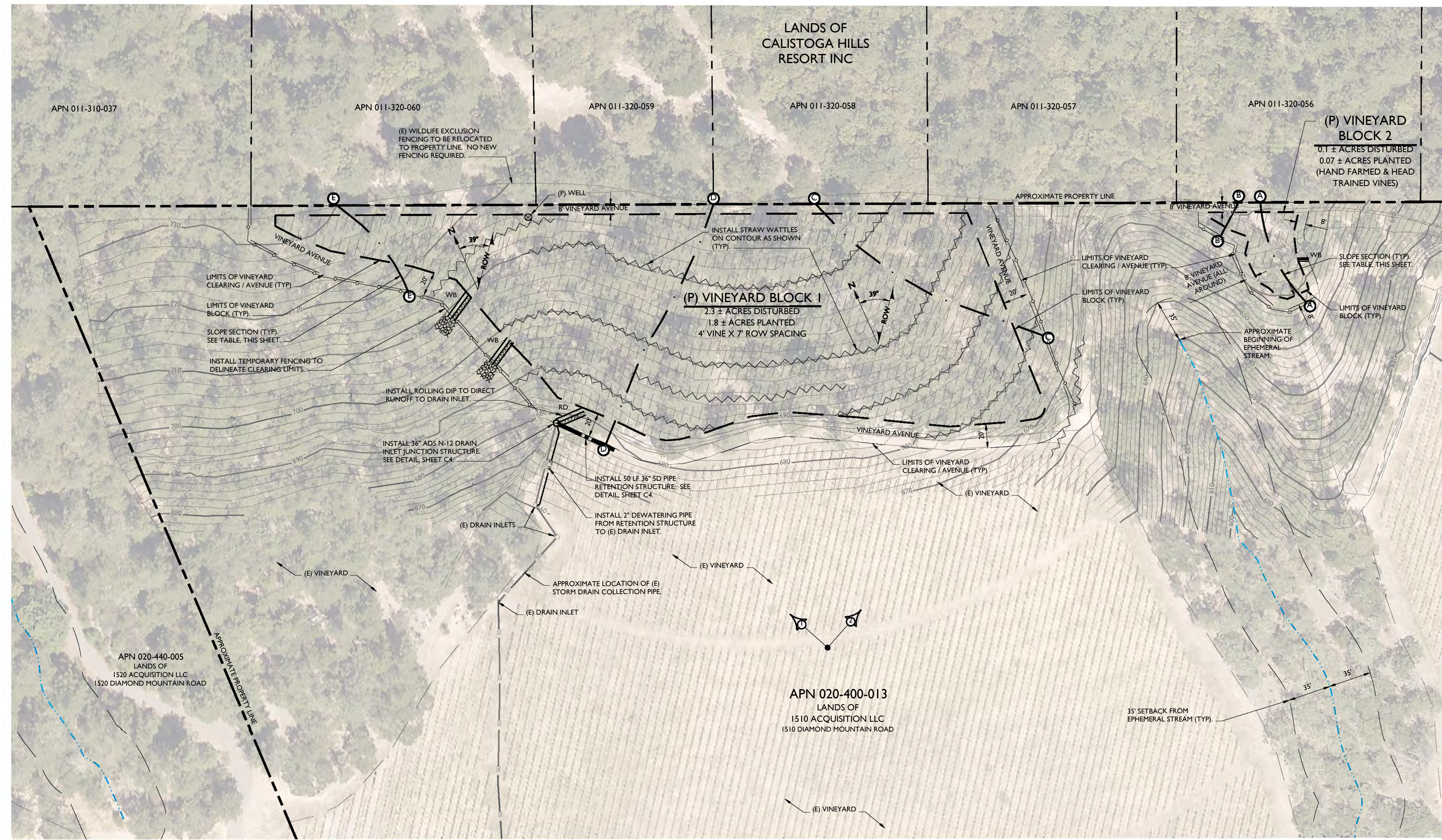
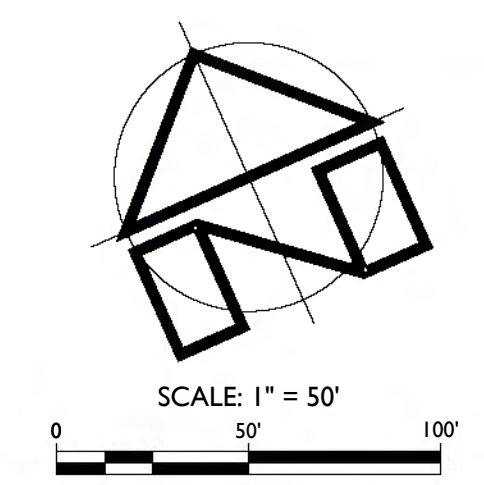


DRAWN BY: SMI
CHECKED BY: MRM
DATE: MARCH 15, 2024
REVISIONS: 3/15/2024 SMI
PLAN CHECK REVISIONS

JOB NUMBER: 22-118
FILE: 22-118ECP_COV.DWG
ORIGINAL SIZE: 24" X 36"
SHEET NUMBER:



TREE REMOVAL PLAN
SCALE: 1" = 50'



EROSION CONTROL PLAN
SCALE: 1" = 50'

SLOPE SECTIONS	
A - A	14%
B - B	14%
C - C	18%
D - D	17%
E - E	11%
AVERAGE	15%

LEGEND:

- APPROXIMATE PROPERTY LINE (SUBJECT PARCEL)
- APPROXIMATE PROPERTY LINE (ADJACENT PARCEL)
- VINEYARD CLEARING LIMITS / VINEYARD AVENUE
- LIMIT OF VINEYARD BLOCK
- VINE ROWS & ROW DIRECTION
- BLUELINE STREAM
- EPHEMERAL STREAM
- SOIL TYPE BOUNDARY
- STRAW WATTLE SEDIMENT BARRIER
- TEMPORARY CONSTRUCTION FENCE
- SLOPE SECTION. SEE TABLE, THIS SHEET.
- WATERBAR
- ROCK ENERGY DISSIPATOR
- PHOTO LOCATION AND DIRECTION
- TREE TO BE REMOVED (192 TOTAL)

NOTES:

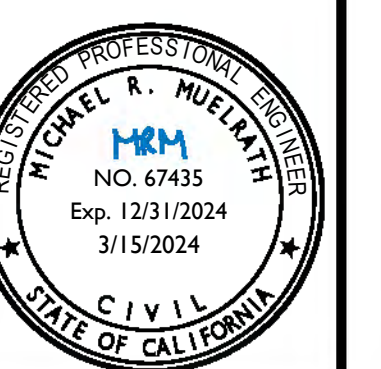
- ALL CLEARING LIMITS SHALL BE MARKED BY THE ENGINEER OR SURVEYOR PRIOR TO CONSTRUCTION AND TEMPORARY CONSTRUCTION FENCING (ORANGE FENCING OR EQUIVALENT) SHALL BE INSTALLED ALONG THE CLEARING LIMITS PRIOR TO ANY LAND PREPARATION ACTIVITIES. THE TEMPORARY CONSTRUCTION FENCING SHALL BE ADJUSTED AROUND THE CANOPY OF ANY TREES THAT ARE TO REMAIN OUTSIDE OF THE CLEARING LIMITS WITH CANOPY THAT OVERHANGS INTO THE CLEARING LIMITS TO KEEP LAND PREPARATION ACTIVITIES OUTSIDE OF THE TREE CANOPY AREA.
- ALL STREAM SETBACKS SHALL BE VERIFIED BY THE ENGINEER PRIOR TO CONSTRUCTION.
- TRACK WALK ENTIRE DISTURBED AREA. SEE SURFACE ROUGHENING DETAIL, SHEET C4.
- ALL TEMPORARY STAGING, STOCKPILE AND PARKING AREAS SHALL BE WITHIN THE PROPOSED DEVELOPMENT AREAS. NO STAGING, STOCKPILING, PARKING OR OTHER LAND DISTURBANCE SHALL OCCUR OUTSIDE OF THE PROPOSED DEVELOPMENT AREAS.
- ALL EROSION CONTROL MATERIALS SHALL BE FREE OF PLASTIC MONOFILAMENT SO THAT SMALL WILDLIFE WILL NOT BECOME ENTANGLED.

SITE PHOTOGRAPH NOTES:

REPRESENTS APPROXIMATE LOCATION AND DIRECTION OF ISOMETRIC VIEW OBTAINED FROM GOOGLE EARTH IMAGERY DATED FEBRUARY 25, 2021. SEE PHOTOGRAPHIC DOCUMENTATION OF EXISTING SITE CONDITIONS FOR THE 1510 PROPERTIES LLC VINEYARD DEVELOPMENT EROSION CONTROL PLAN FOR PHOTOGRAPHS AND DESCRIPTIONS.

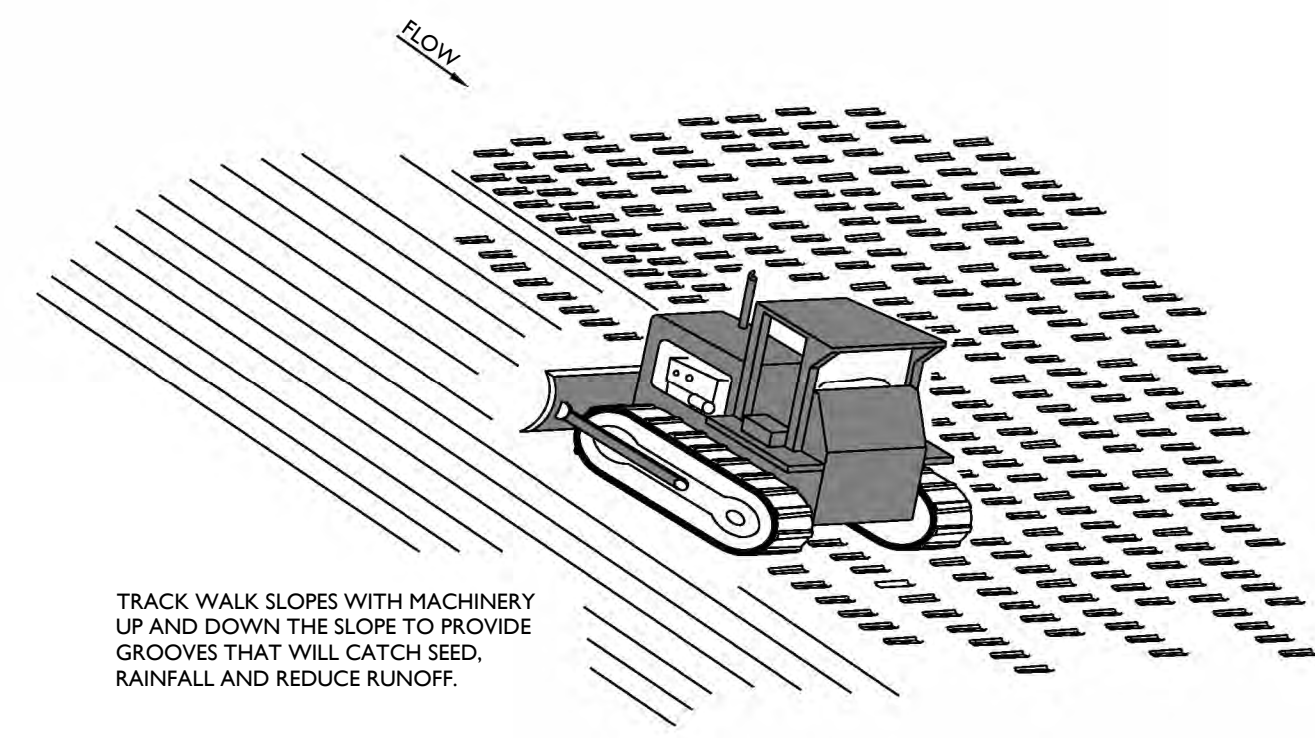
1510 ACQUISITION LLC
VINEYARD DEVELOPMENT EROSION CONTROL PLAN
EROSION CONTROL PLAN

PREPARED UNDER THE DIRECTION OF:



DRAWN BY: SMI
CHECKED BY: MRM
DATE: MARCH 15, 2024
REVISIONS: 3/15/2024 BY: SMI
PLAN CHECK REVISIONS

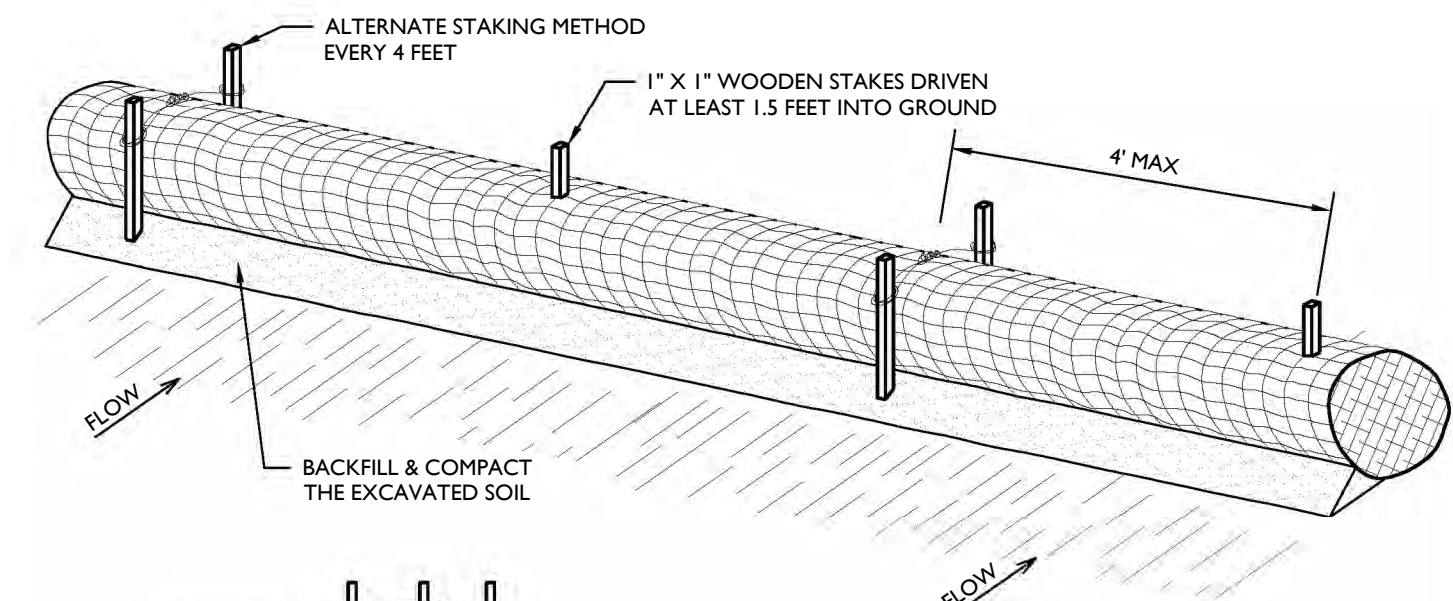
JOB NUMBER: 22-118
FILE: 22-118ECP_ECP.DWG
ORIGINAL SIZE: 24" X 36"
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TRACK WALK SLOPES WITH MACHINERY UP AND DOWN THE SLOPE TO PROVIDE GROOVES THAT WILL CATCH SEED, RAINFALL AND REDUCE RUNOFF.

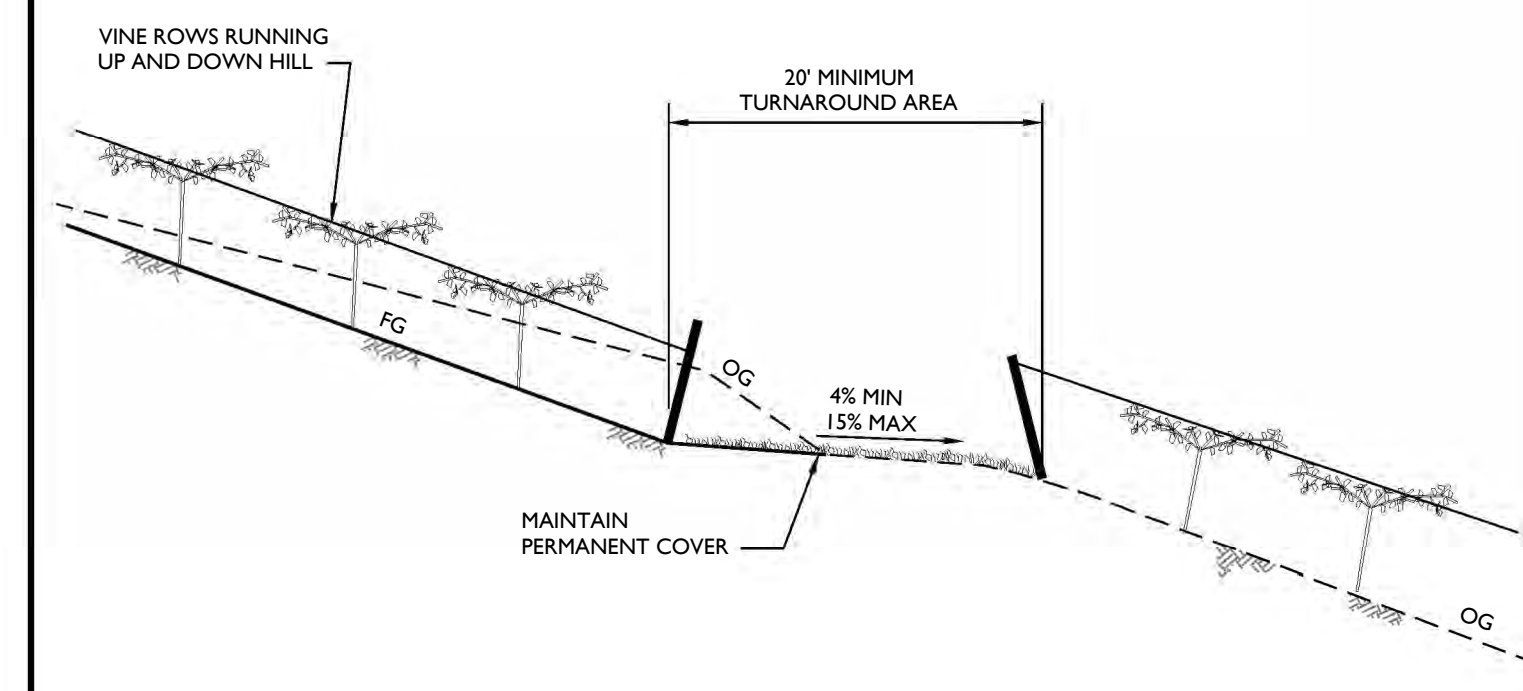
SURFACE ROUGHENING DETAIL

- NOTES:
1. PREPARE SMOOTH SLOPE BEFORE THE WATTLING PROCEDURE IS STARTED. SHALLOW GULLIES SHOULD BE SMOOTHED AS WORK PROGRESSES.
 2. DIG SHALLOW TRENCHES ACROSS THE SLOPE ON CONTOUR, TO PLACE ROLLS IN. THE TRENCH SHOULD BE DEEP ENOUGH TO ACCOMMODATE ONE THIRD TO ONE HALF THE THICKNESS OF THE ROLL. WHEN THE SOIL IS LOOSE AND UNCOMPACTED, THE TRENCH SHOULD BE DEEP ENOUGH TO BURY THE ROLL 2/3 OF ITS THICKNESS BECAUSE THE GROUND WILL SETTLE.
 3. IT IS CRITICAL THAT ROLLS ARE INSTALLED PERPENDICULAR TO WATER MOVEMENT, PARALLEL TO THE SLOPE CONTOUR. A HAND LEVEL LASER LEVEL OR EQUIVALENT TYPE OF INSTRUMENT SHOULD BE USED TO ENSURE LEVEL INSTALLATION. START DIGGING TRENCHES AND INSTALL ROLLS FROM THE BOTTOM OF THE SLOPE AND WORK UP.
 4. LAY THE ROLL ALONG THE TRENCHES FITTING IT SNUGLY AGAINST THE SOIL. MAKE SURE NO GAPS EXIST BETWEEN THE SOIL AND THE STRAW WATTLE.
 5. USE A STRAIGHT BAR TO DRIVE CLEAN HOLES THROUGH THE WATTLE AND INTO THE SOIL. DRIVE THE STAKE THROUGH PREPARED HOLE INTO SOIL. LEAVE ONLY 1 OR 2 INCHES OF STAKE EXPOSED ABOVE ROLL.
 6. INSTALL STAKES AT 4 FEET MAX INTERVALS.
 7. USE EXCAVATED MATERIAL TO CREATE COMPACTED BERM ON UPSLOPE SIDE OF ROLL TO PREVENT WATER FROM PIPING UNDER ROLL AND FORCE IT TO FILTER THROUGHOUT THE ROLL.
 8. ENDS OF ROLLS SHOULD BE OVERLAPPED 1' AND SHOULD BE SECURELY STAKED TO PREVENT WATER PASSAGE THROUGH THE JOINT.

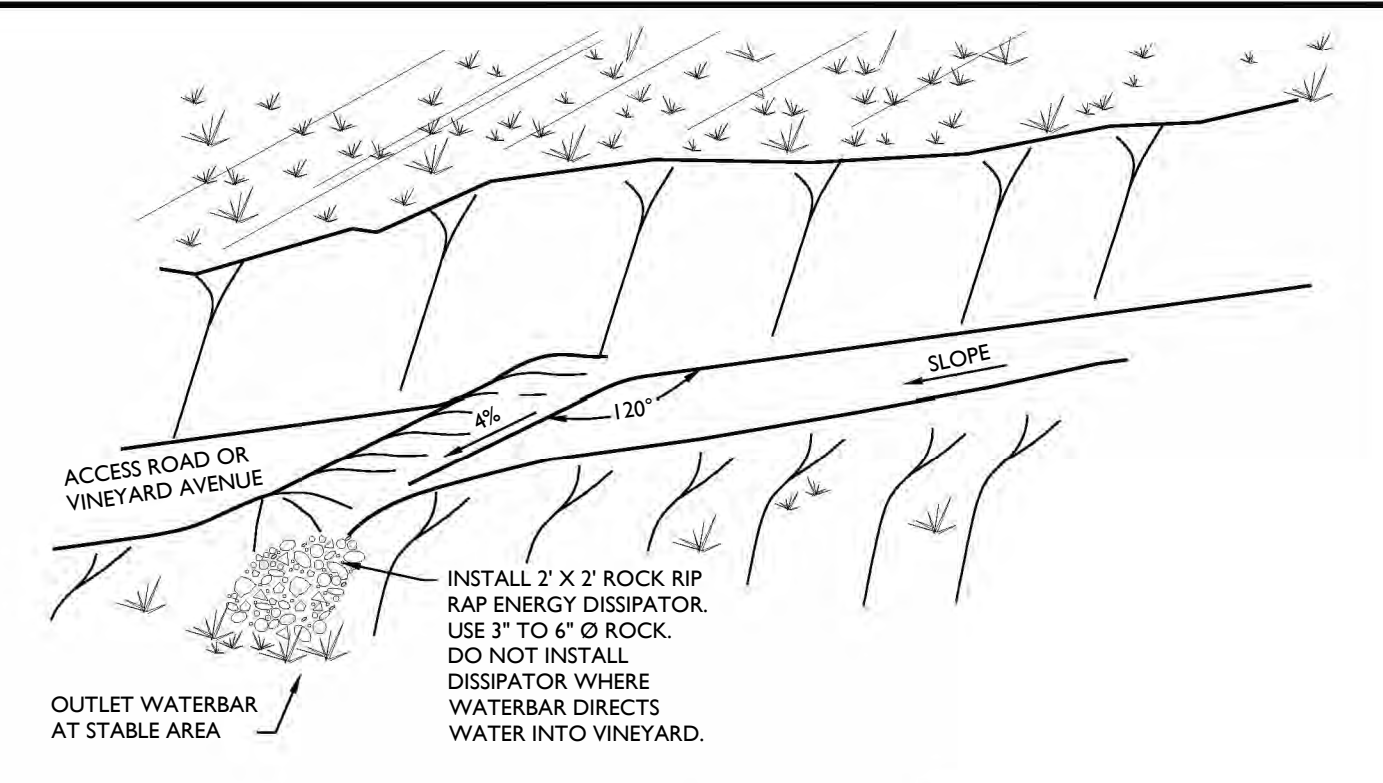


FIBER ROLL / WATTLE SEDIMENT BARRIER DETAIL

NOTE:
ALL EROSION CONTROL MATERIALS SHALL BE FREE OF PLASTIC MONOLAYERMENT SO THAT SMALL WILDLIFE WILL NOT BECOME ENTANGLED.



OUTSLOPED VINEYARD AVENUE AT BOTTOM OF BLOCK I DETAIL

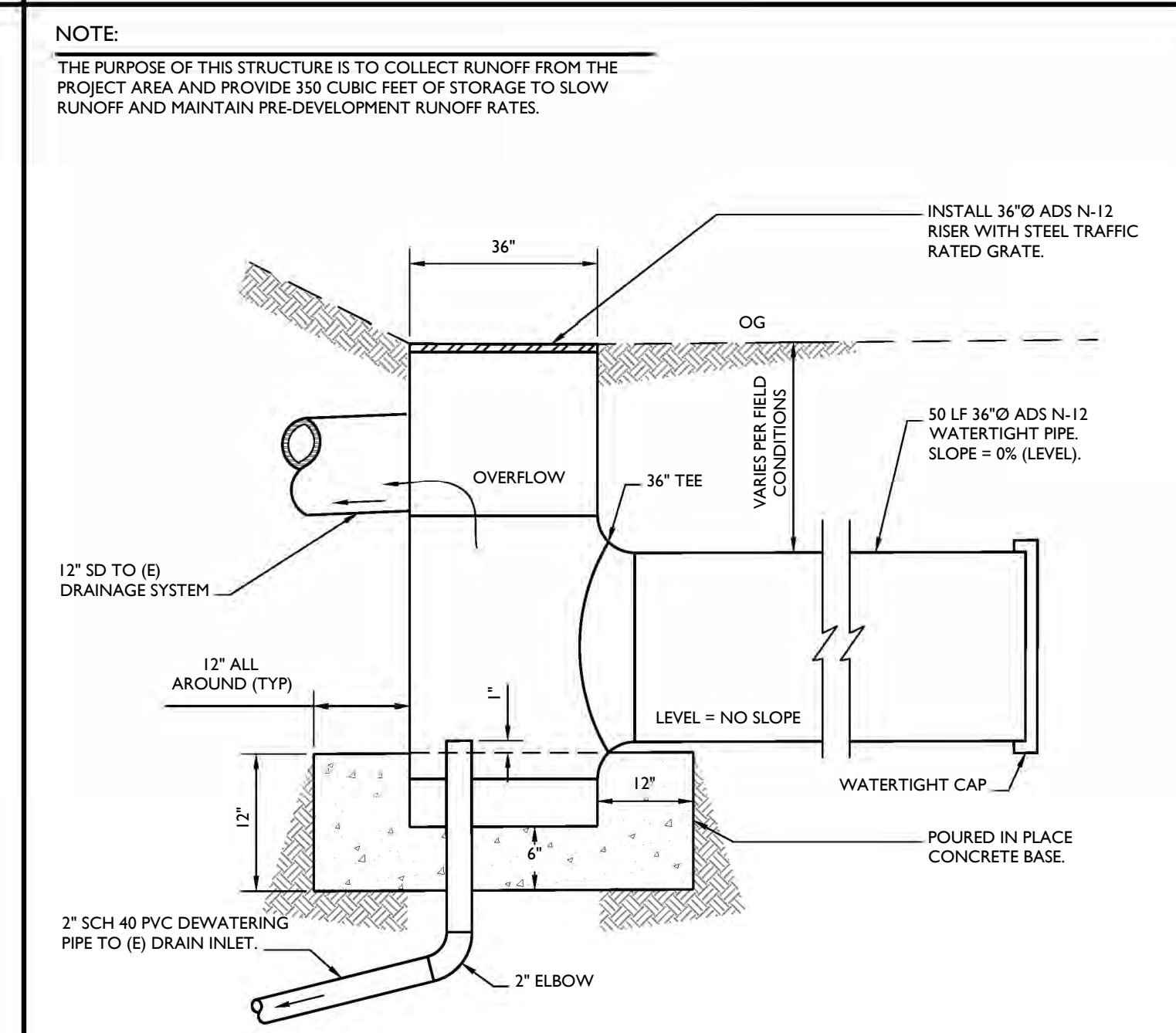


SECTION

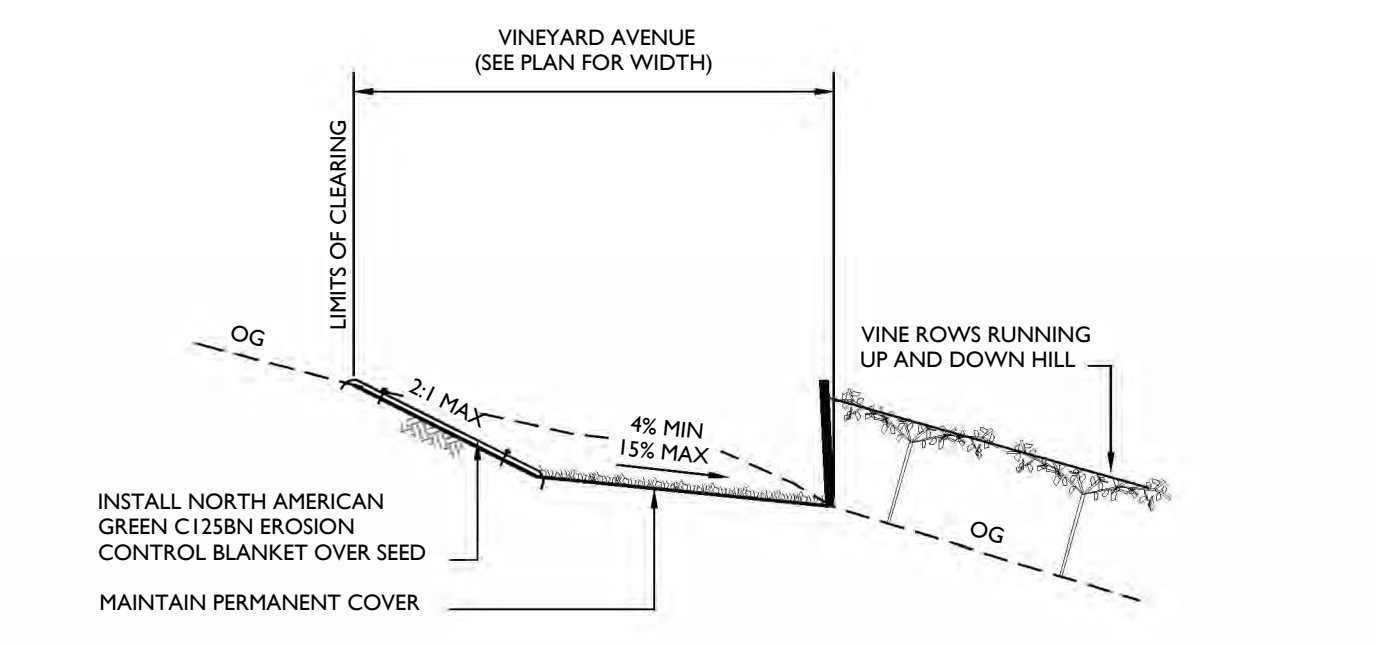
MAXIMUM DISTANCE BETWEEN WATERBARS

EROSION HAZARD	SLOPE ALONG ROAD			
	<10%	11% - 25%	26% - 50%	>50%
EXTREME	100'	75'	50'	50'
HIGH	150'	100'	75'	50'
MODERATE	200'	150'	100'	75'
LOW	300'	200'	150'	100'

WATERBAR DETAIL



DRAINAGE INLET & RETENTION STRUCTURE DETAIL



OUTSLOPED VINEYARD AVENUE AT TOP OF BLOCK DETAIL

PREPARED UNDER THE DIRECTION OF:



DRAWN BY: SMI

CHECKED BY: MRM

DATE: MARCH 15, 2024

REVISIONS: BY: 3/15/2024 SMI

PLAN CHECK REVISIONS

JOB NUMBER: 22-118

FILE: 22-118ECP_DET.DWG

ORIGINAL SIZE: 24" X 36"

SHEET NUMBER:

C4
OF



1510 Acquisition LLC

Vineyard Development Erosion Control Plan

Erosion Control Plan Narrative

- 1. The nature and purpose of all/any land clearing, grading or earthmoving activity, the amount of cut & fill, the location of spoils storage and disposal areas, the total number of acres of grading involved including but not limited to roads, vineyards, avenues, trenching for irrigation or pipes, reservoirs, wells, water tanks, septic systems, etc. Indicate the acres of land clearing, grading or earthmoving activity that will occur on 30% or greater slopes. (Note: slopes shall be calculated in whole percent)*

The project site is located on Diamond Mountain Road, approximately 4,000 feet west of the intersection of Diamond Mountain Road and State Route 29 / 128. The property is located south of Calistoga in an unincorporated portion of Napa County, California, on Assessor's Parcel Number 020-400-013. Access to the project area is via an existing private driveway. The purpose of the proposed land clearing, grading and earthmoving is to prepare the 2.4-acre project area for planting with a new vineyard. Following is a list of planned land preparation activities:

- Clearing and grubbing of existing vegetation
- Re-contouring and land leveling to promote sheet flow and installation of erosion and runoff control measures
- Ripping, as needed to fracture subsoils and rock to a depth of approximately 24 to 48 inches to prepare soil for planting and to incorporate soil amendments
- Mechanical and hand rock raking to remove loose rocks from the ground surface
- Discing and harrowing to prepare seedbed for vegetative erosion control measures
- Installation of erosion control features

Grading within the project area will be the minimum amount needed to smooth out the existing ground surface and create smooth slopes to promote sheet flow, and to install the proposed runoff and erosion control measures. Cuts and fills will be moderate and will generally average from 0 to 6 inches. The estimated quantity of grading is approximately 250 cubic yards of cut and 250 cubic yards of fill. An earthwork balance will be achieved onsite. Import and/or export of soil material is not planned however, soil amendments will be imported and incorporated into the project area as needed to improve soil tilth and fertility to support and maintain vine and cover crop growth.

All temporary debris, vegetation, soil and soil amendment stockpiles and storage areas, if needed, will be located within the proposed vineyard project area. No long term stockpiles of rock or soil are anticipated. However, if stockpiles are needed onsite, they will be kept

within the vineyard development area. It is planned that all rock will be disposed of within the proposed vineyard footprint.

No new roads are required to access the proposed vineyard development area.

The total disturbed area for the vineyard development project is $2.4 \pm$ acres. The total disturbed area includes the area to be planted with vines and the area used for perimeter avenues that provide access to the vineyard blocks for farming equipment and incidental disturbance for installation of erosion control features. The total area to be planted with vines within the $2.4 \pm$ acre project area is $1.9 \pm$ acres.

Stream and drainage course setbacks will be provided in accordance with the Napa County Conservation Regulations and are shown on the plans.

The proposed vineyard development consists of two new vineyard blocks. The blocks will have a row spacing of 7 feet and vine spacing along the row of 4 feet for an average vine density of 1,556 vines per acre and a total of approximately 2,956 vines.

The details of the proposed vineyard development are shown on the 1510 Acquisition LLC Vineyard Development Erosion Control Plan prepared by Applied Civil Engineering Incorporated.

- 2. Comprehensive description of existing site conditions, including topography, vegetation (including under-story and canopy cover), and soils. Provide extent of tree canopy covered and shrub and brush without a tree canopy covered areas in acres for each parcel. Identify and indicate the project boundaries in watersheds, including municipal watersheds, and in the water deficient area. The plan preparer is required to visit the site and the narrative must include the date, purpose, and persons making each site visit. The description shall verify the source or validity of the topographic map. Wide angle or panoramic photographs documenting existing site conditions shall be provided. A photo location map indicating the date of the site visit and by whom it was made shall accompany such documentation.*

Topography:

The project area is located in the Mayacamas Mountains on the west side of the Napa Valley, approximately 3.5 miles southwest of downtown Calistoga in Napa County, California (Latitude = 38.569° N & Longitude = 122.575° W). Topography is characterized by moderate to steep slopes averaging 11% to 18% throughout the project area. The topography across the entire parcel varies greatly with slopes ranging from flat to in excess of 50%.

Slopes were determined using topographic data prepared obtained from BKF Engineers and the slope transect method in several representative locations in the proposed development area. None of the proposed vineyard development area exceeds 30% natural ground slope.

Vegetation:

The Calveg designations for the subject parcel were obtained from the Napa County GIS database and are as follows:

- BA – Barren / Rock
- NX – Mixed Hardwoods

Our visual observation of onsite vegetation in the vicinity of the project area is consistent with the Calveg mapping with the exception that there is also existing residential, winery and agricultural development on the parcel. A more detailed assessment of vegetation on the parcel and within the project area was prepared by Salix Natural Resource Management (SNRM). According to the report by SNRM there are no sensitive plant species that will be affected by the proposed project. Please refer to the report by SNRM for additional information.

Using aerial photographs of the subject parcel from 2016 obtained from the Napa County Geographic Information System website we have estimated the following land use / coverage statistics for the property:

Developed & Ruderal Area (graded, paved, landscape, etc.)	19.0 ± acres
Tree Canopy Cover	16.8 ± acres
Brush / Grass Cover	0 ± acres
Total Parcel Size	35.8 ± acres

The proposed development area includes 2.4 acres of tree canopy. The calculated canopy cover and brush / grass cover retention percentages are as follows:

Tree Canopy Retention	86%
Brush / Grass Retention	N/A%

Watershed:

The project site is located on the west side of the Napa Valley. Rainfall runoff from the project site and most of the property flows to the central portion of the property via sheet and shallow concentrated flow and through drainage infrastructure. Ultimately, runoff concentrates in Kortum Canyon Creek, which is tributary to the Napa River. The Napa River and is located approximately 1.3 miles northeast of the project site.

No changes in runoff patterns are proposed as part of this project. All existing drainage patterns will be maintained.

The subject parcel is not located within a municipal drinking water supply watershed, nor in any designated groundwater-deficient area.

Site Visits & Photograph Documentation:

Representatives from Applied Civil Engineering Incorporated have visited the site several times since 2022. The purpose of the site visits was to review existing site conditions and to verify the general validity of the topographic mapping for this project that was prepared by BKF Engineers. Several isometric photographs were obtained from Google Earth to document existing site conditions. The Photographs are presented in the Photographic Documentation of Existing Site Conditions for the 1510 Acquisition LLC Vineyard Development Erosion Control Plan.

- 3. All natural and man-made features on-site including but not limited to, streams, watercourses (drainage, channels, etc.), wetlands, riparian habitat, lakes, reservoirs, roads, water tanks, septic systems, reservoirs, ponds, etc. Indicate which ones may be affected by the proposed activity. For blue line and County-definitional streams indicate top, toe, and slope of bank, channel depth, and existing and proposed setback conditions. The entire length of blue line streams & 41 County-named streams on the parcel(s) shall be included in photo documentation (a recent aerial may be included). Provide the name and distance of the nearest blue line and/or County-definitional stream(s) to the project site.*

Existing manmade improvements on the subject parcel include a driveway, several dirt and gravel roads, a winery, a single family residence, two groundwater wells, water tanks and the related structural outbuildings and utility infrastructure that is typical of this type of rural residential and agricultural development. None of the existing manmade improvements will be affected by the proposed project.

There are two unnamed streams located in the south/central portion of the property and an ephemeral stream located in the central portion of the property. The proposed vineyard development will provide setbacks from the blue-line and ephemeral streams, well in excess of what is required by the Napa County Conservation Regulations. At the closest point the project area is located more than 700 feet from the blue line stream.

- 4. Location and source of water for irrigation or other uses. Provide copies of all necessary permits.*

The irrigation source for the proposed vineyard development will be a new well that will be located on the subject parcel. The existing wells will continue to supply the existing vineyards. All well locations are shown on the Erosion Control Plans.

Please refer to the Water Availability Analysis prepared by Richard Slade and Associates for additional information regarding estimated water use and estimated aquifer recharge rates.

5. *Soil types/soil series identified in the Soil Conservation Service (SCS) Napa County Soil Survey, or, if prepared, a site-specific soils report.*

The United States Department of Agriculture Soil Conservation Service Soils Map for Napa County shows the majority of the project area located in Mapping Unit 111, Boomer-Forward-Felta complex, 5-30% slopes. The approximate soil type boundaries based on data obtained from the Napa County Geographic Information System database are illustrated on Sheet C1 of the 1510 Acquisition LLC Vineyard Development Erosion Control Plan.

6. *Critical areas of erosion and slope instability such as gullies, landslides, etc. within or potentially affecting the “development site” (i.e., the area disturbed by the project) or potentially affected by the work to be undertaken within the development site. In the case of landslides a report indicating the probable effects of the planned work on slope stability and erosion levels shall be prepared and submitted by a registered geologist.*

According to the Napa County Geographic Information System there are not any known landslides located in the vicinity of the property. Furthermore, representatives from Applied Civil Engineering Incorporated have visited the site several times to review the project area and have not observed any signs of gullies, landslides, slope instability or excessive erosion within the project area or in close proximity to the project area that would be affected by the proposed project.

7. *Any erosion calculations prepared.*

The Universal Soil Loss Equation (USLE) was used to model pre-project and post-project conditions and estimate soil loss rates from the project area due to sheet erosion. The Soil Loss Analysis prepared by Dave Steiner, CPESC, CPSWC is included as an attachment to this document.

The USLE calculations predict that net soil loss rates will decrease slightly relative to existing conditions after implementation of the proposed vineyard erosion control plan.

8. *Any/all proposed erosion control methods including, but not limited to:*

- 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.*

The following measures will be implemented to minimize the potential for erosion on the project site during development and following completion of the vineyard development program:

- *Sediment Barriers – Temporary silt fence and straw wattle-type sediment barriers will be installed throughout the development area. The planned locations and installation details are provided on the erosion control plan. Additional sediment*

barriers will be installed as deemed necessary throughout the course of construction. The sediment barriers are intended to provide temporary sediment control during development and until the cover crop is established.

- Erosion Control Blankets – Erosion control blankets will be installed over seed on all cut and fill slopes that are steeper than 4:1 (Horizontal : Vertical). Erosion control blankets will provide additional protection from rainfall impact on exposed soils while the cover crop is getting established. The erosion control blanket locations, specifications and installation details are provided on the erosion control plan.
 - Water Bars – Temporary water bars will be installed on vineyard avenues to divert runoff from the avenues to prevent rutting. Water bar locations and installation details are shown on the erosion control plan. Water bar locations will be field verified and adjusted by the Engineer based on field conditions.
 - Rolling Dips – Permanent rolling dips will be installed on vineyard access roads to divert runoff from the road surface to prevent rutting. Rolling dip locations and installation details are shown on the erosion control plan. Rolling dip locations will be field verified and adjusted by the Engineer based on field conditions. Rolling dips may be used in place of water bars.
 - Storm Drain Pipe - A permanent storm drain pipe will be installed where indicated on the Erosion Control Plan to connect to the existing drainage pipe network. The storm drain pipe will collect runoff from the new development and will include a retention component that will slow runoff from the project area and mitigate for potential increase in runoff rates.
 - Straw Mulch – Weed free agricultural straw derived from wheat, rice, barley, or native grass shall be used. Straw mulch can be applied by hand and can be adhered to slopes by roughening the soil surface before the mulch is applied, spreading the straw in a manner that promotes formation of an interwoven matrix, then crimping the straw into the soil. Straw mulch shall be applied at a rate of 3,000 pounds per acre over disturbed areas.
 - Energy Dissipators – Rock rip-rap energy dissipators will be constructed at the outlet of all water bars and rolling dips that direct flow outside of the vineyard area to dissipate runoff energy and minimize the potential for erosion.
- b. *Proposed vegetative erosion control measures including maintenance of plant material and slopes until a specified percentage of plant coverage is uniformly established.*

Establishing an effective vegetative cover crop will be the primary method of preventing erosion from the vineyard development area. After the land preparation activities are complete, a temporary cover crop will be planted and straw mulch will be spread

throughout the cleared area to stabilize the project area through the winter. Minimum coverage has been calculated for each block in order to maintain soil loss rates at or below existing conditions. Minimum coverage rates for each development area are as follows:

VINEYARD BLOCK COVER CROP SPECIFICATION TABLE	
Block ID	Required Cover %
1	80%
2	80%

The seed, fertilizer and mulch specifications are provided on the erosion control plan.

This temporary cover crop will be cultivated in the spring and replanted in the fall for the first three years of the vineyard establishment period. Straw mulch will also be applied each fall during the vineyard established period. In the fall, following the vineyard establishment period all vineyard blocks will be planted with a permanent cover crop seed mix and farming practices will transition to a permanent cover, no-till, farming regime. The permanent cover crop will be mowed in the spring. Spring mowing will be timed to allow maturation of seeds and promote natural stand regeneration. All permanent cover crop areas will be reseeded every two to three years or more frequently as needed to maintain the required cover percentage. Straw mulching and/or compost will also be applied each fall as needed to achieve the required coverage level.

Weed control under the vine rows will be primarily via mechanical means such as string trimmers and minimal herbicide usage. Herbicide used to control weeds within the vineyard block will be limited to spraying of post-emergent herbicide in a narrow 18-inch maximum width strip spray, if necessary to control weeds at the bases of the vines. The post emergent herbicide will be applied in the late winter or early spring to ensure that the spray area has vegetative protection through the rainy season. If the spray areas are not achieving adequate cover, they must be mulched with straw or compost and reseeded each year to provide the required cover.

The cover crop should be irrigated prior to the onset of the rainy season for at least the first fall, following development to establish a dense cover prior to the onset of heavy winter rains.

- c. *Proposed erosion control measures for vineyard avenues to accommodate farm or vineyard equipment and materials storage locations*

A permanent cover crop will be planted in the vineyard avenues the first all following land preparation activities and it will be maintained as permanent cover throughout the life of the vineyard. No tilling will occur in the vineyard avenues. The permanent cover crop will be mowed in the spring. Mowing will be timed to allow maturation of seeds and promote natural cover crop regeneration. All permanent cover crop areas will be reseeded every two to three years or more frequently as needed to maintain at least

coverage level specified for each vineyard block. Straw mulching and/or pre-irrigation of the cover crop will also be implemented as needed to achieve the required coverage. No herbicides will be used in the vineyard avenues.

Alternatively, vineyard avenues may be lined with crushed rock to limit their susceptibility to erosion and provide all-weather access around the perimeter of the vineyard project area.

Water bars, rolling dips and/or straw wattles will be installed across the sloping vineyard avenues to force runoff off the avenue and onto adjacent stable areas so that runoff does not concentrate on the vineyard avenues and cause erosion.

9. *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. Include calculations of estimated increased runoff and/or an explanation of why an increase is/is not expected.*

A detailed analysis of the project area for both pre- and post-project conditions utilizing the United States Department of Agriculture Technical Release 55 (USDA TR-55) methodologies is presented in the Hydrologic Analysis prepared by David Steiner, CPESC, CPSWQ. These calculations indicate that post-project conditions will result in runoff rates that are equal to current conditions after implementation of the measures included in the erosion control plan.

Since there will be no increase in peak runoff rates, the proposed project should not result in any significant change to local or regional hydrology / runoff patterns that could result in downstream flooding or channel degradation.

10. *An implementation schedule indicating:*

- a. *The proposed vegetation clearing, earth moving/grading, and construction/planting schedule.*
- b. *The proposed schedule for winterizing the site (by October 15th of each year the permit is in effect except in a municipal watershed where it is by September 1st).*
- c. *The proposed schedule for installation of all interim erosion and sediment control measures (including vegetative measures) and the state of completion of such devices/measures at the end of the grading season (i.e., on October 15th [except in 5 designated municipal watersheds where it is September 1st] of each year the permit will be in effect).*
- d. *The proposed schedule for installation of any permanent erosion and sediment control devices required.*

Vineyard Development Schedule

The schedule below is an estimate and is subject to change. Implementation of winterization and erosion control measures must be adjusted to accommodate any changes in development and planning under consultation with the Engineer. All land preparation, planting and erosion control work is to be performed by the property owner or by their contractor / vineyard manager. If implementation is phased the schedule below will be repeated as needed for each phase.

April 2024

Commence Vineyard Development Program

Begin clearing and grubbing of existing vegetation. Complete land preparation for vineyard planting including: ripping, discing, rock removal and processing, recontouring and incorporation of soil amendments.

Install drainage improvements, waterbars and rock energy dissipators.

Install trellis and irrigation systems.

Plant vines.

Prior to October 1, 2024

Complete drainage system installation

Prior to October 15, 2024

Complete all earth disturbing activities

Winterize Site

Seed vineyard with temporary cover crop seed mix

Seed vineyard avenues with permanent cover crop seed mix

Place fertilizer, straw mulch and erosion control blankets

Install sediment barriers

Install water bars

Pre-irrigate cover crop to establish cover prior to rainy season.

Establish reserve of erosion control measures to be maintained onsite throughout the rainy season to facilitate rapid deployment. Materials shall include silt fence, straw wattle, straw, erosion control seed mix, erosion control blanket and plastic sheeting.

October 15, 2024 - April 2025

Inspect and maintain vegetative cover and erosion control devices at least once per week, prior to each anticipated rainfall event, at least once every 24 hours during extended rainfall events and following each rainfall event. Reseed and mulch any erosion-damaged areas or areas with less than the specified cover percentage and repair or replace erosion control devices as necessary.

Spring 2025 Cultivate temporary cover crop within vineyard block footprint area and perform fine site grading to repair any storm-damaged areas. No tilling of vineyard avenues is to be performed.

Prior to October 15, 2025 Complete all earth disturbing activities

Winterize Site

Seed vineyard with temporary cover crop seed mix

Seed vineyard avenues with permanent cover crop seed mix

Place fertilizer, straw mulch and erosion control blankets

Install sediment barriers

Install water bars

Establish reserve of erosion control measures to be maintained onsite throughout the rainy season to facilitate rapid deployment. Materials shall include silt fence, straw wattle, straw, erosion control seed mix, erosion control blanket and plastic sheeting.

October 15, 2025 - April 2026

Inspect and maintain vegetative cover and erosion control devices at least once per week, prior to each anticipated rainfall event, at least once every 24 hours during extended rainfall events and following each rainfall event. Reseed and mulch any erosion-damaged areas or areas with less than the specified cover percentage and repair or replace erosion control devices as necessary.

Spring 2026 Cultivate temporary cover crop and perform fine site grading to repair any storm-damaged areas.

Prior to October 15, 2026 Complete all earth disturbing activities

Winterize Site

Seed vineyard with temporary cover crop seed mix

Seed vineyard avenues with permanent cover crop seed mix

Place fertilizer, straw mulch and erosion control blankets

Install sediment barriers

Install water bars

Pre-irrigate cover crop to establish cover prior to rainy season.

Establish reserve of erosion control measures to be maintained onsite throughout the rainy season to facilitate rapid deployment. Materials shall include silt fence, straw wattle, straw, erosion control seed mix, erosion control blanket and plastic sheeting.

October 15, 2026 - April 2027

Inspect and maintain vegetative cover and erosion control devices at least once per week, prior to each anticipated rainfall event, at least once every 24 hours during extended rainfall events and following each rainfall event. Reseed and mulch any erosion-damaged areas or areas with less than the specified cover percentage and repair or replace erosion control devices as necessary.

Spring 2027

Cultivate temporary cover crop and perform fine site grading to repair any storm-damaged areas.

Prior to October 15, 2027

Complete all earth disturbing activities

Winterize Site

Seed vineyard with permanent cover crop seed mix

Seed vineyard avenues with permanent cover crop seed mix

Place fertilizer, straw mulch and erosion control blankets

Install sediment barriers

Install water bars

Pre-irrigate cover crop to establish cover prior to rainy season.

Establish reserve of erosion control measures to be maintained onsite throughout the rainy season to facilitate rapid deployment. Materials shall include silt fence, straw wattle, straw, erosion control seed mix, erosion control blanket and plastic sheeting.

October 15, 2027 - April 2028

Inspect and maintain vegetative cover and erosion control devices at least once per week, prior to each anticipated rainfall event, at least once every 24 hours during extended rainfall events and following each rainfall event. Reseed and mulch any erosion-damaged areas or areas with less than the specified cover percentage and repair or replace erosion control devices as necessary.

Spring 2028 & Beyond

See Annual Maintenance Schedule

Annual Maintenance Schedule

Spring

Mow permanent cover crop in vineyard and vineyard avenues and perform fine site grading to repair any storm-damaged areas.

Prior to September 15

Winterize Site

Repair any damage to vineyard and vineyard avenues that has occurred during the farming season. Place seed and straw on all vineyard avenues as needed to achieve the specified cover percentage. Install water bars.

Place erosion control seed, fertilizer, straw mulch, erosion control blankets and sediment barriers as necessary to stabilize any erosion-prone areas outside and adjacent to the vineyard areas.

September 15 - April 1

Inspect and maintain vegetative cover and erosion control devices at least once per week, prior to each anticipated rainfall event, at least once every 24 hours during extended rainfall events and following each rainfall event. Reseed and mulch any erosion-damaged areas or areas with less than the specified percentage cover and repair or replace erosion control devices as necessary.

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

Implementation of erosion and sediment control measures for this project is anticipated to cost approximately \$5,000 to \$10,000 per acre for installation and maintenance. This estimate includes only the erosion and sediment control portions of the project, not the entire cost of permitting, engineering, land preparation, development, irrigation systems, trellis systems, and plants.