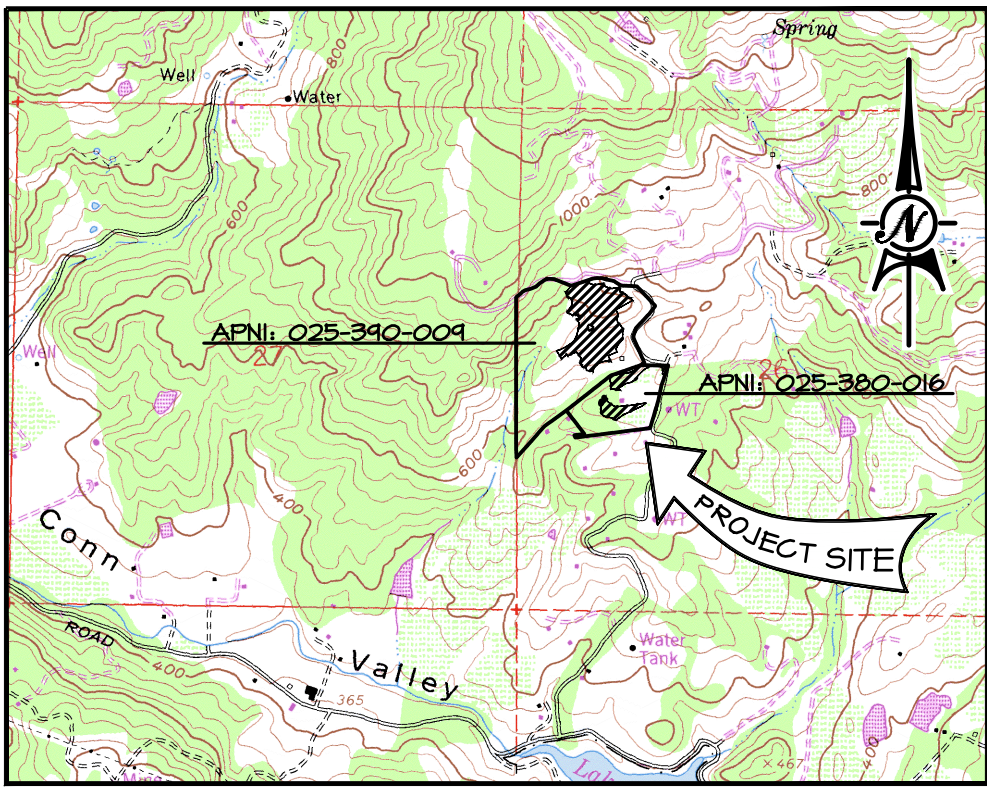




PORTION OF ST. HELENA 7.5 MIN. QUAD MAP

Vicinity Map

1" = ±2000'

Narrative

This project is the new planting of approximately ±9.96 gross acres (±7.64 net acres) of vineyard, the replanting of ±1.67 net acres of vineyard, and the removal of 0.04 acres of vineyard within APNs 025-390-009 & 025-380-016, two parcels totaling ±48.52 acres located at 805 Greenfield Road, St. Helena. Within the parcels boundaries are residences, outbuildings, water storage tanks, tennis court, pool, ±4.65 acres of existing vineyard, 3 water storage reservoirs, access roads, ±24 acres of tree canopy, brush, and resident grasses. Primary access is from Greenfield Road.

The vineyard area in the parcel 025-390-009 (Block A & staging area) consists of ±4.73 acres of a previously approved project (ECP# P08-00591) and an additional ±4.81 acres of new vineyard. The ±0.04 acre portion of existing vineyard that is built inside the stream setback is marked to be removed and restored with grass. The vineyard area in parcel 025-380-016 (Block B, C, & D) consists of 2.09 acres of new vineyard.

Existing ground slopes in the project area range from 4% to 45%, with slopes over 30% being confined to small areas within the vineyard blocks (totaling ±1.10 acres). The vineyard will be planted as follows: Blocks A with a vinerow spacing of 6' oriented generally perpendicular to contours, Block B with a vinerow spacing of 10' oriented NE/SW, Block C with a vinerow spacing of 8' oriented NE/SW, and Block D with a vinerow spacing of 7' oriented NW/SE. All blocks will be farmed with ATVs and harvest tractors. A new drip irrigation system will be installed with the 3 existing reservoirs as the water source. Water availability is presented in the Water Diversion Analysis prepared by Napa Valley Vineyard Engineering, Inc.

There are two County definition streams within the parcels; one along the eastern border of parcel 025-390-009 that flows southwesterly, and the other on the western side of parcel 025-390-009. There are also several ephemeral streams. Setbacks have been provided pursuant to Napa County Conservation Regulations. The project drains towards a blue line stream and unnamed streams, thence Conn Creek and Lake Hennessey. The project lies within the Lake Hennessey subwatershed.

Soils within the block boundaries have been classified in the USDA Soil Conservation Service's Napa County Soil Survey, as SCS#146, Haire loam; SCS#179, Sobrante loam.

No Special Status Species will be impacted by this project as concluded in the Biological Resource Survey prepared by Kjeldsen Biological Consulting, December 2021.

No Cultural Resources occur in the vicinity of this project as concluded in the Cultural Resources Study prepared by Tom Origer & Associates, October 11, 2021.

Vegetation Removal consists of resident grasses, brush and scattered trees as shown on the plan sheets. All organic material to be burned and/or chipped shall be stacked at strategic locations within the cleared areas. Burning of the organic material shall only take place after obtaining approval from all the governing agencies.

Ground Preparation shall include removal of vegetation and rocks, ripping, disking and incorporation of soil amendments. Ripping shall be to a maximum depth of 24" within block boundaries, perimeter avenues/turnspaces shall not be disked or ripped. **Rocks** shall be used for local landscaping, and/or erosion control features, and/or they may be crushed and used as surfacing for existing traffic areas, and/or they may be off-hauled to a properly permitted disposal site, and/or they may be placed in existing rock disposal areas, and/or they may be use to create rock disposal avenues.

Wildlife Exclusion Fence may be installed around the proposed vineyard blocks as shown on the plan sheet, with gates and/or cattle guards provided at convenient locations. For convenience, the fence may be routed around trees and other imposing physical features, existing fence may remain in place, except that existing fence within proposed vineyard blocks shall be removed.

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

Permanent Erosion Control Measures consist of the following:

- Cleaning, repairing or replacing existing drainage features as needed.
- Construction of water bars where shown on the plan and as needed in accordance with the appropriate detail.
- Construction of rock disposal avenues where shown on the plan in accordance with the appropriate detail.
- Diversion ditches shall be constructed where shown on the plan, and maintained throughout the life of the vineyard. The ditches shall not be tilled or disked during any vineyard operations.
- The vineyard may be full tilled in years P-1 and P, and a winter cover crop shall be seeded and mulched at the end of growing season P-1. At the end of the growing season in year P, a permanent cover crop shall be planted within the new vineyard. (refer to cultivation chart under *Project Notes*). The cover crop may be mowed and strip sprayed 12" centered on the vinerow using properly timed applications of post-emergent contact sprays. NO PRE-EMERGENT SPRAYS SHALL BE USED. As a normal cultural practice, no tillage shall occur within the vineyard once the permanent cover crop has been established. Areas outside the vineyard blocks, including avenues and turnspaces, shall not be tilled or sprayed at any time. Using this method, a minimum ground cover of 75% will be obtained each winter. From time to time (every three or four years), it may be necessary to till the cover crop to open up the ground or to re-establish proper ground cover. Should this be necessary, notification shall be provided to Napa County and Napa County RCD, and the work shall proceed as prescribed in Napa County Conservation, Development and Planning Department guidelines, dated April 8, 2004, entitled "Protocol for Replanting/Renewal of Approved Non-Tilled Vineyard Cover Crops".
- Implementation and adherence to the **Annual Winterization** program presented in the Project Notes.

Costs: The total cost of all erosion control measures is estimated to be \$5000-8500/acre including equipment, materials, and labor.

The project site was visited by the plan preparer in October, 2020 to inspect the site, and will be visited during and after development to check for proper implementation of erosion control measures.

MOSHKELANI FAMILY VINEYARDS, LLC GREENFIELD ROAD EROSION CONTROL PLAN FOR NEW VINEYARD DEVELOPMENT

Project Notes

APN & Owner: 025-390-009
025-380-016

Moshkelani Family Vineyards, LLC
c/o Saeid Moshkelani & Azin Shahzamani
6601 Rialto Blvd Apt 5202
Austin, TX 78735

Site Address: 805 Greenfield Rd

Contact: Paul Saviez @ 707-299-7211
3307 Mountain Home Ranch Rd
Calistoga, CA 94515

Drew L. Aspegren, P. E. @ 707-963-4927
Napa Valley Vineyard Engineering, Inc.
176 Main St., Suite B
St. Helena, CA 94574

Mapping: Napa County GIS Data Base (2002)

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

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

Cover Cropping and Cultivation Practices

Year	Cultivation during growing season	Cover Crop, planted or maintained at end of growing season
Pre-plant (P-1)	rip and disk	winter cover crop
Planting (P)	full till	permanent cover crop
P+1	mow, weed control	permanent cover crop
P+2 Forward	mow, weed control	permanent cover crop

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

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

Winter Cover Mix @ 80 lbs/ac	Annual Ryegrass Crimson Clover Blando Brome Rose Clover	45% 25% 20% 10%
Moshkelani Permanent Cover Mix @ 35 lbs/ac	Red Fescue Chewings Fescue Ryegrass Rose Clover Blansa Clover	40% 25% 25% 5% 5%

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

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

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

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

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

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

Diversion Ditches shall be constructed at the locations shown on the plan. Ditch flowline shall be sloped to drain at 4 to 6%. Ditches shall remain as permanent structures

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

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

- The condition of the non-tilled cover crop, including those areas outside the vineyard, and the suitability and effectiveness of the seed mix and fertilizer shall be evaluated. Weak areas shall be reseeded as necessary; if addition of soil amendments in indicated, they shall be incorporated and those areas shall be seeded and mulched.
- All roadside ditches, drop inlets, infield diversions shall be cleaned, repaired and reshaped as necessary.
- All roads and turnspaces which are not rocked or paved shall be seeded, fertilized and mulched, and they shall remain undisturbed throughout the rainy season.
- All existing erosion control and drainage features shall be inspected, cleaned, and repaired as necessary.

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

Special Notes - Existing Facilities

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

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

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

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

Special Notes - Bird Protection

Environmental Commitment, Bird Protection:

- For earth-disturbing activities occurring between February 1 and August 31, (which coincides with the grading season of April 1 through October 15 - NCC Section 18.108.070 L, and bird breeding and nesting seasons), a qualified biologist (defined as knowledgeable and experienced in the biology and natural history of local avian resources with potential to occur at the project site) shall conduct preconstruction surveys for nesting birds within all suitable habitat on the project site, and where there is potential for impacts adjacent to the project areas. The preconstruction survey shall be conducted no earlier than 14 days prior to vegetation removal and ground disturbing activities are to commence. Should ground disturbance commence later than 14 days from the survey date, surveys should be repeated. A copy of the survey will be provided to the Napa County Conservation Division and the CDFW prior to commencement of work.
- After commencement of work if there is a period of no work activity of 5 days or longer during the bird breeding season, surveys shall be repeated to ensure birds have not established nests during inactivity.
- In the event that nesting birds are found, the Permittee shall identify appropriate avoidance methods and exclusion buffers in consultation with the County Conservation Division and the U.S. Fish and Wildlife Service (USFWS) and/or CDFW prior to initiation of project activities. Exclusion buffers may vary in size, depending on habitat characteristics, project activities/disturbance levels, and species as determined by a qualified biologist in consultation with County Conservation Division and the USFWS and/or CDFW.
- Exclusion buffers shall be fenced with temporary construction fencing (or the like), the installation of which shall be verified by Napa County prior to the commencement of any earthmoving and/or development activities. Exclusion buffers shall remain in effect until the young have fledged or nest(s) are otherwise determined inactive by a qualified biologist.
- Alternative methods aimed at flushing out nesting birds prior to pre-construction surveys, whether physical (i.e., removing or disturbing nests by physically disturbing trees with construction equipment), audible (i.e., utilizing sirens or bird cannons), or chemical (i.e., spraying nesting birds or their habitats) would be considered an impact to nesting birds and is prohibited. Any act associated with flushing birds from project areas should undergo consultation with the USFWS/CDFW prior to any activity that could disturb nesting birds.

SHEET INDEX

- TITLE SHEET
- PLAN & DETAILS
- IRRIGATION & ROAD PLAN

Legend

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

MOSHKELANI FAMILY VINEYARDS, LLC
GREENFIELD ROAD
EROSION CONTROL PLAN
FOR NEW VINEYARD DEVELOPMENT

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

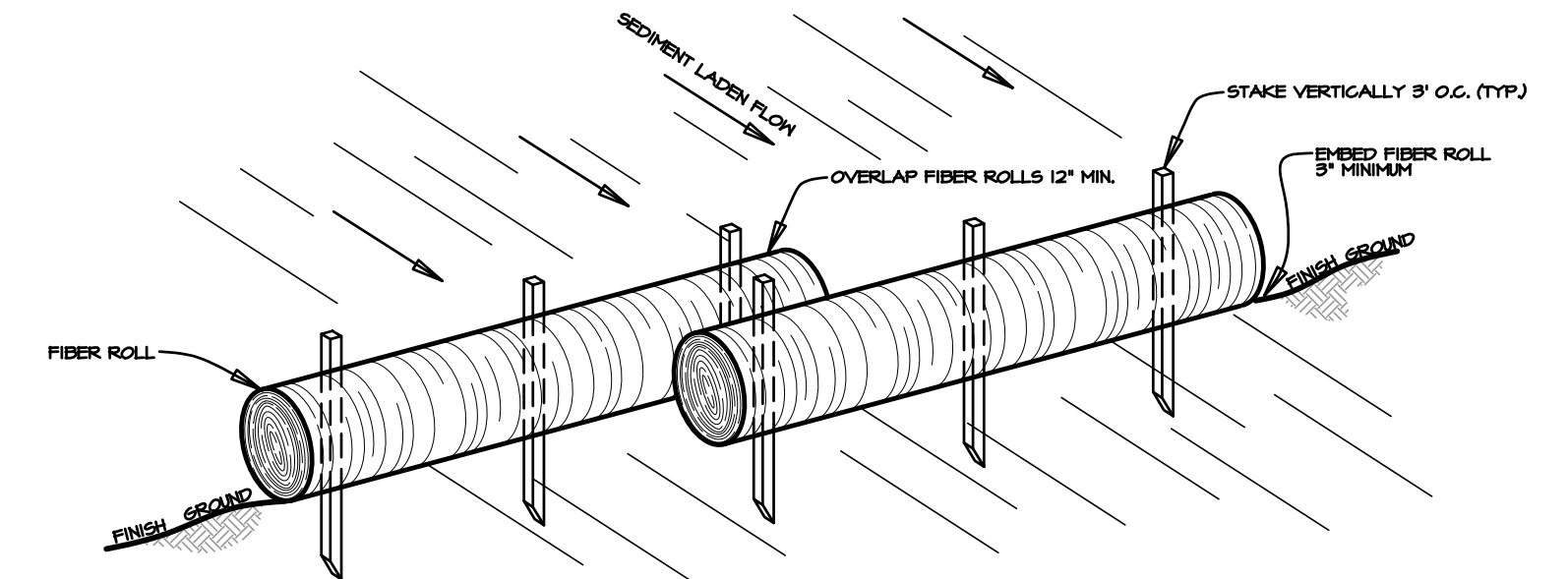
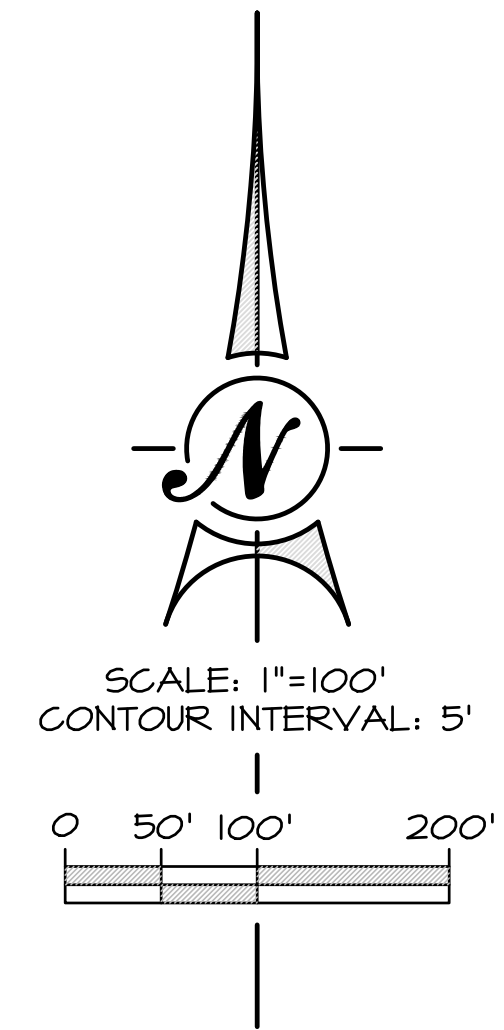


December 1, 2021
DREW L. ASPEGREN, PE
R.C.E. 31418
DATE

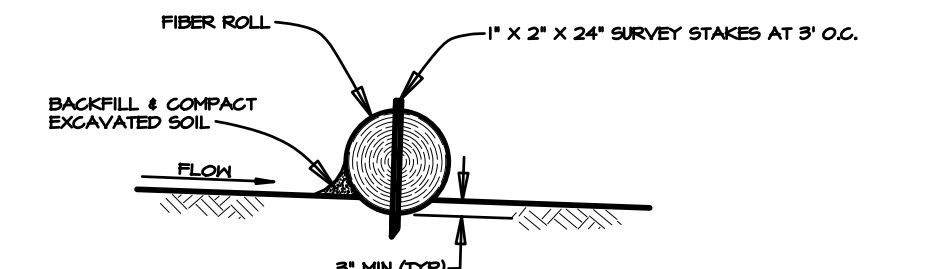
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SPECIAL NOTE - BLOCK A

AREA TO BE ABANDONED. AT THE TIME OF PLAN IMPLEMENTATION, VINES AND THEIR ROOTS, TRELLISING, IRRIGATION, AVENUES/TURNSPACES AND OTHER APPURTENANCES, SHALL BE REMOVED. THE GROUND SHALL BE PREPARED AND SHALL BE SEEDED USING MATERIAL FROM SURROUNDING VEGETATION, AND MULCHED. THE AREA SHALL REMAIN UNDISTURBED AND ALLOWED TO REGROW TO RESIDENT VEGETATION.

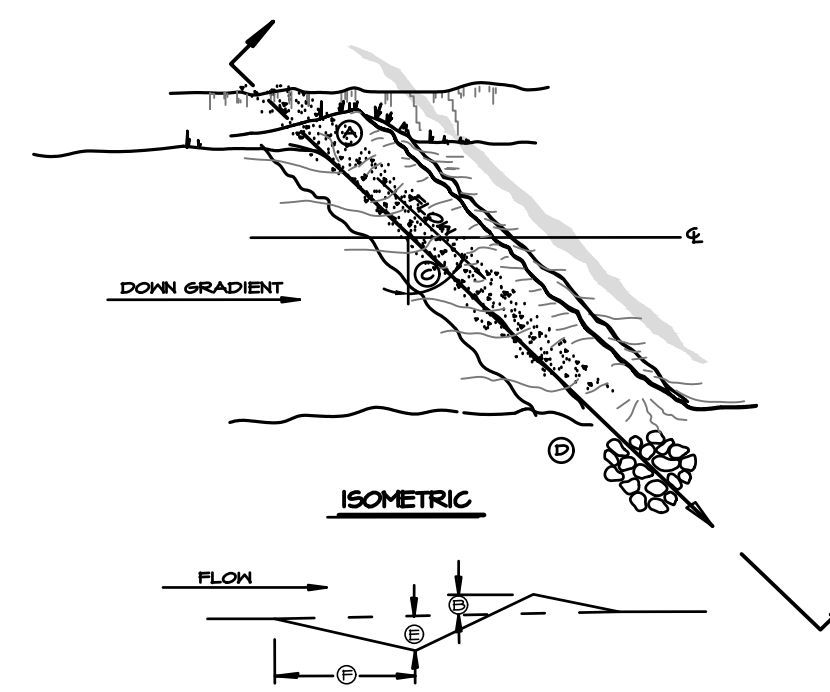


FIBER ROLL SEDIMENT BARRIER (ISOMETRIC VIEW)



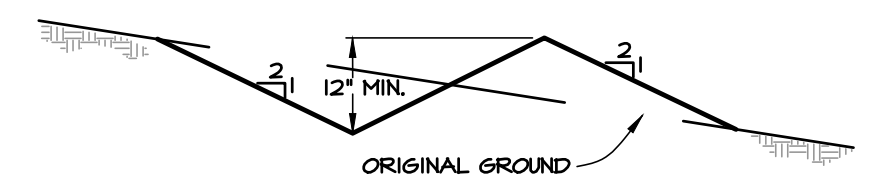
FIBER ROLL SEDIMENT BARRIER (SECTION)

1 FIBER ROLL
N.T.S.



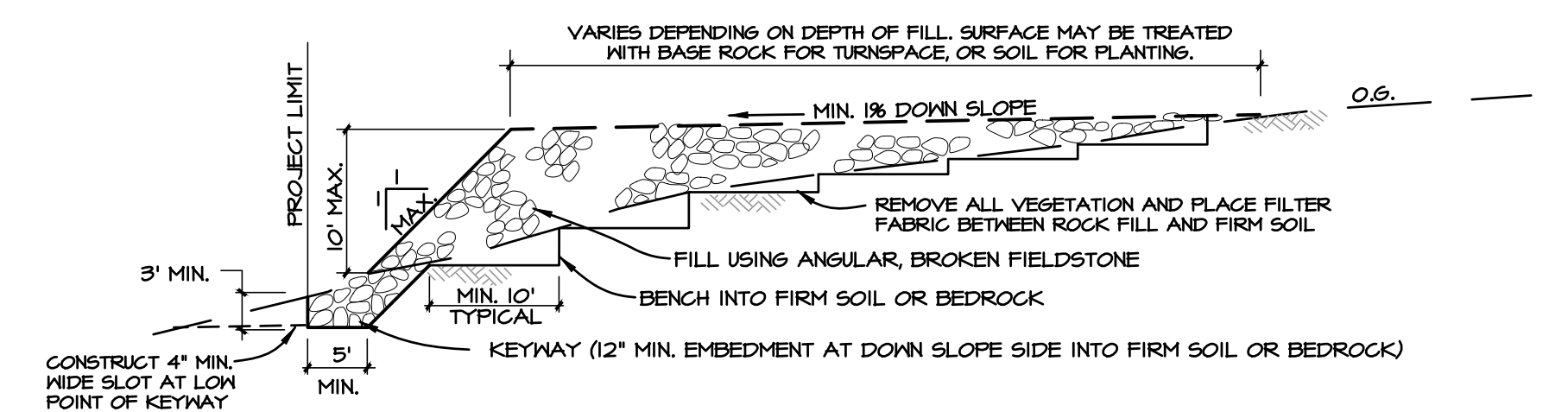
NOTES:
Waterbar construction for little or no traffic. Specifications are average and shall be adjusted to conditions.
1. Tie-in to bank if appropriate.
2. Cross drain berm height 4\"/>

2 WATER BAR
N.T.S.



NOTES:
1. FLOWLINE SLOPE SHALL BE 2-4%
2. DIVERSION DITCHES SHALL BE SEEDED, MULCHED & COVERED W/WHITE NETTING WHICH SHALL BE SECURELY ANCHORED IN PLACE

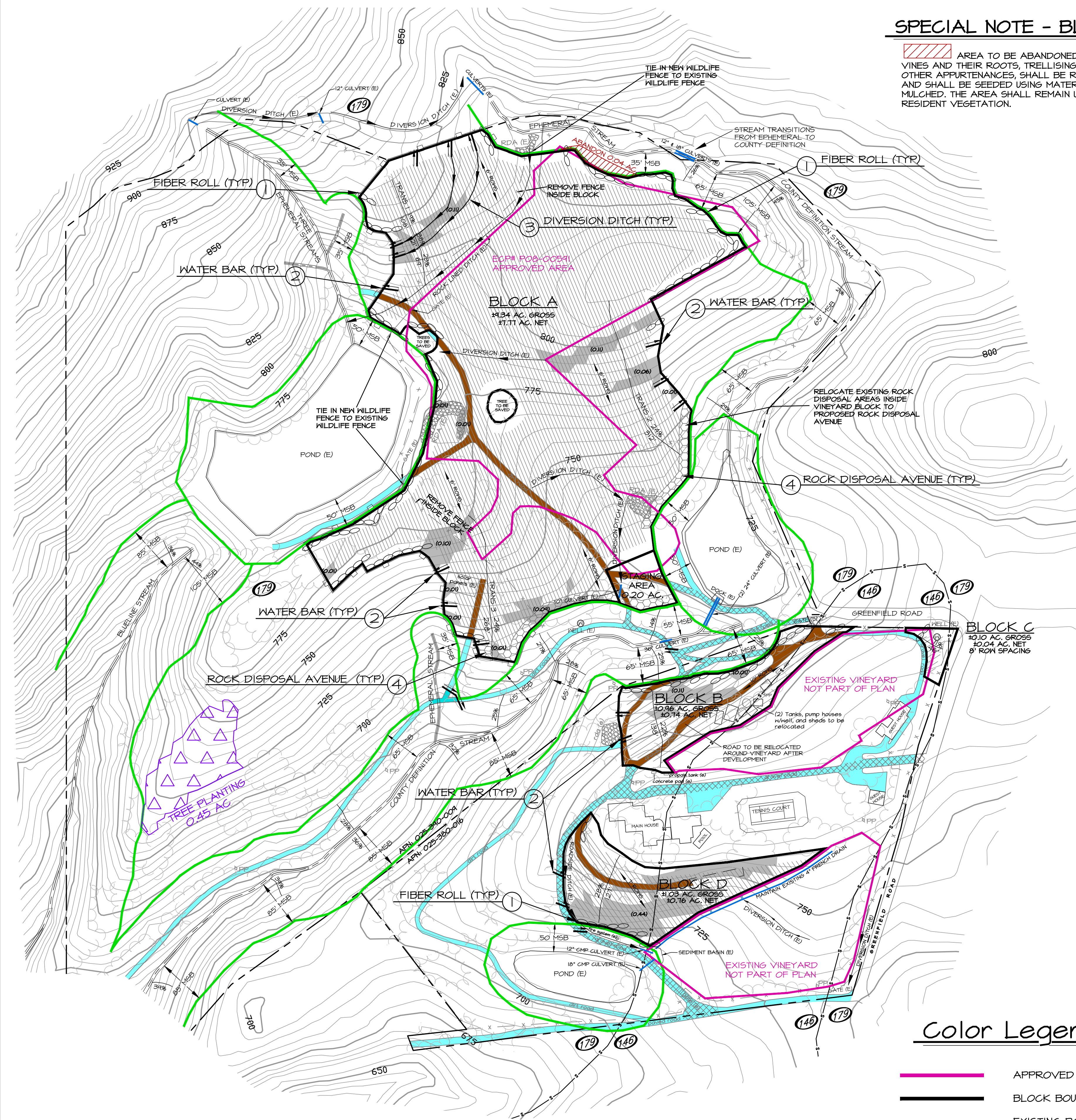
3 DIVERSION DITCH
N.T.S.



4 ROCK DISPOSAL AVENUE
N.T.S.

Color Legend

- APPROVED BOUNDARY
- BLOCK BOUNDARY, GROSS
- EXISTING ROAD TO BE MAINTAINED
- EXISTING ROAD TO BE REMOVED
- STREAM SETBACK LINE



TOPOGRAPHIC MAPPING FROM NAPA COUNTY GIS DATABASE (2002)

REV.	DESCRIPTION	BY	DATE
1	PER COUNTY COMMENTS ON EMAILS DATED 5-14-22 & 6-10-22	DLA	4-4-22

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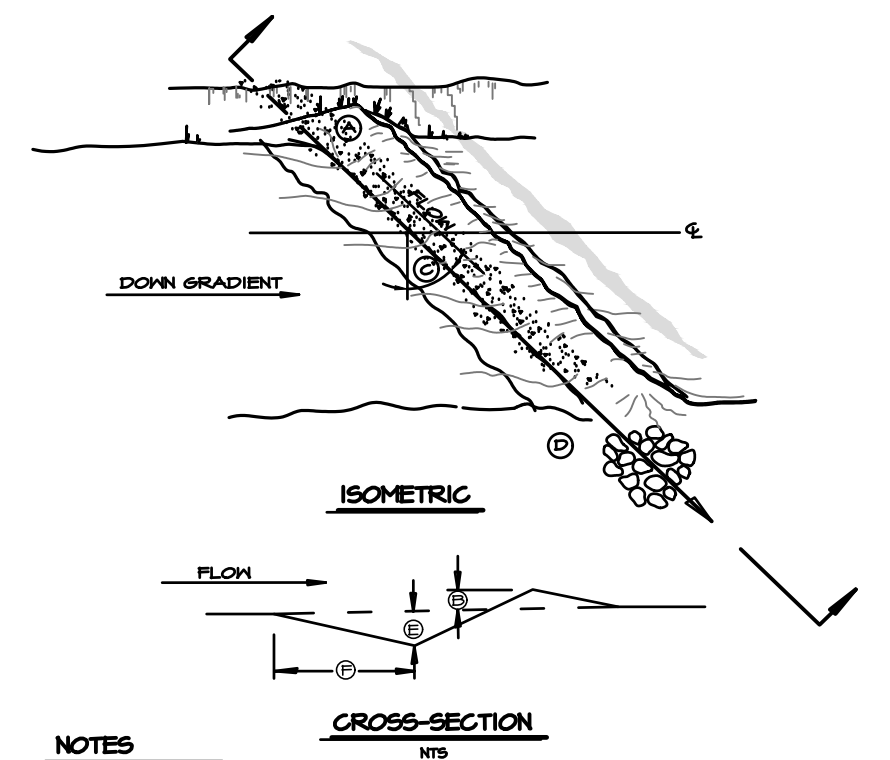
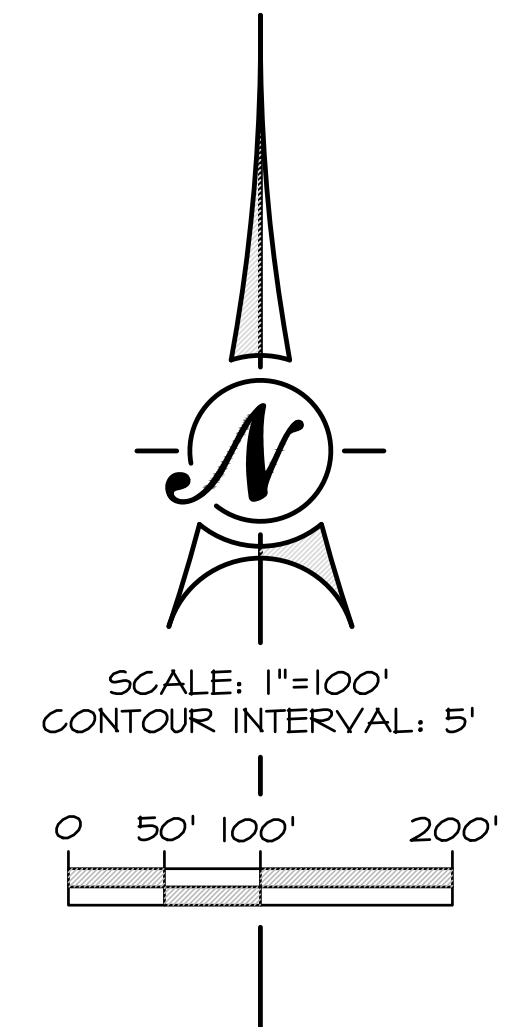
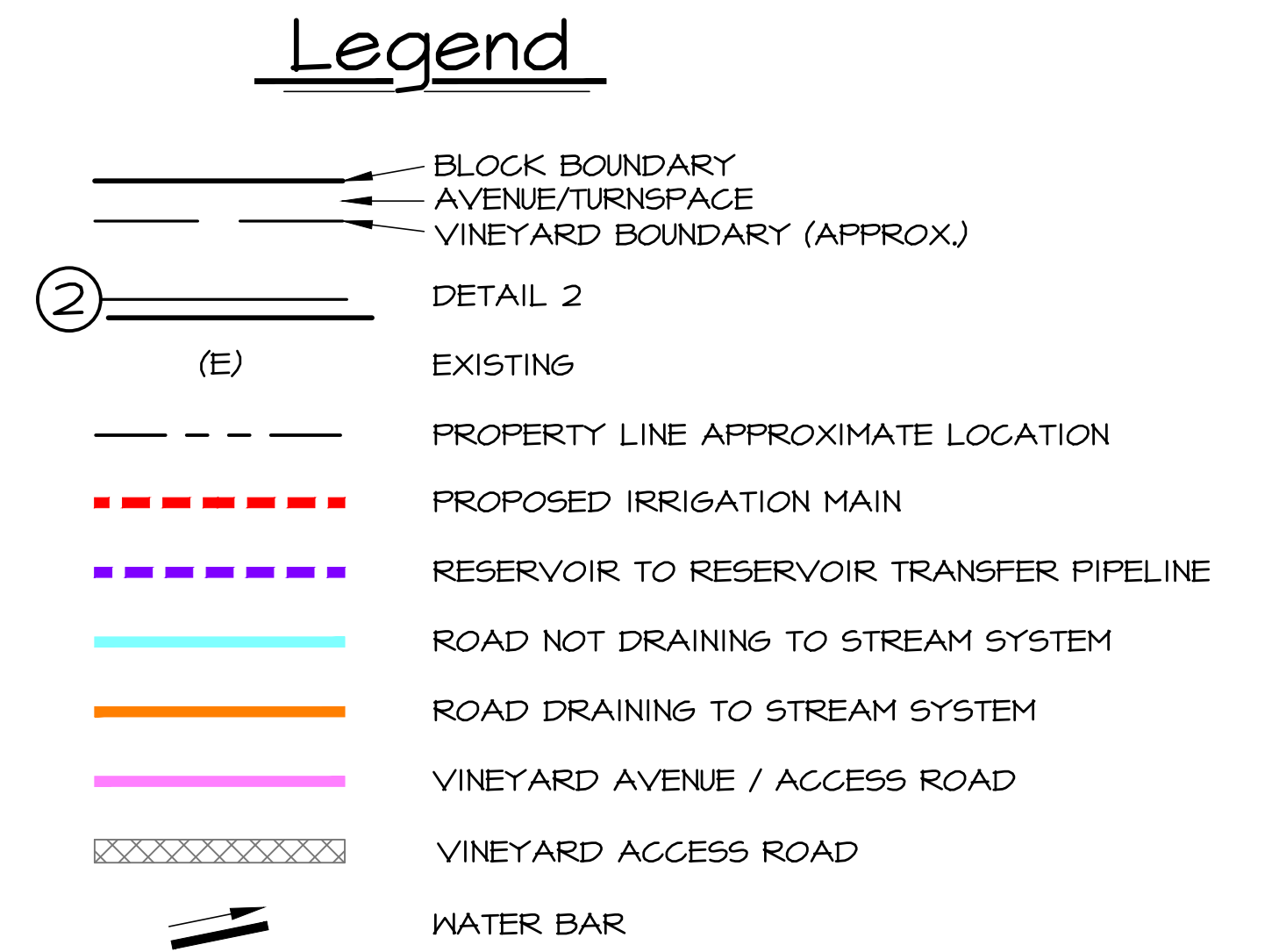
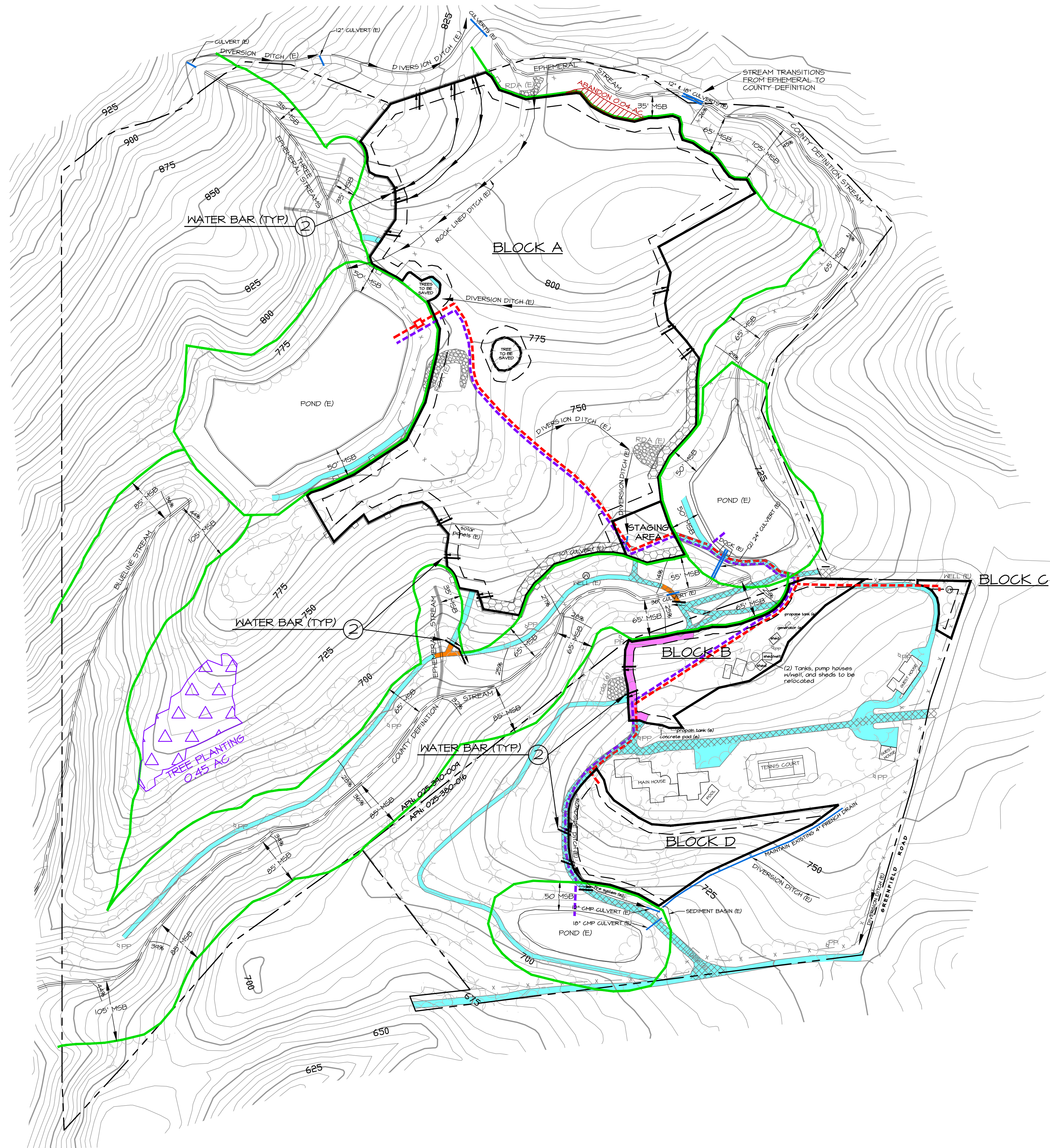
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176 Main St., Suite B
St. Helena, CA 94574
(707) 963 4927



DATE	12-01-21	SCALE	AS SHOWN
DRAWN	2023CP/Moshkelani/RLing	CHECKED	BPM
APPROVED			DLA
DREN L. ASPEGREN, PE		R.C.E. 31418	

MOSHKELANI FAMILY VINEYARDS
GREENFIELD ROAD

EROSION CONTROL PLAN
TRACK I-NEW VINEYARD
PLAN & DETAILS



Notes

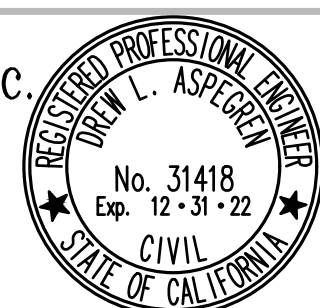
- With the construction and annual maintenance of waterbars no more the 25% of the unpaved road length is delivering sediment to the stream system.
- Existing avenues in proposed vineyard blocks will be graded out to conform with vineyard operations.
- All Roads which are not gravel or paved shall be seeded and mulched every year before September 15th.
- Waterbars shall be installed as shown on this sheet.
- Any new roads built for vineyard operations will need to be reviewed by NCRCD for conformance with Water Board standards.

TOPOGRAPHIC MAPPING FROM NAPA COUNTY GIS DATABASE (2002)

REV.	DESCRIPTION	BY	DATE
1	PER COUNTY COMMENTS ON EMAILS DATED 5-14-22 & 6-10-22	DLA	4-4-22

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



DATE	12-01-21	SCALE	AS SHOWN
DRAWN	200C/Moshkelani/RLdg	CHECKED	BPM
APPROVED			DLA
DREW L. ASPEGREN, PE		R.C.E. 31418	

MOSHKELANI FAMILY VINEYARDS
GREENFIELD ROAD

EROSION CONTROL PLAN
TRACK I-NEW VINEYARD
ROAD, IRRIGATION PLAN

SHEET
3
OF 3