

Exhibit A-1

**CONSTELLATION BRANDS INC.
WAPPO HILL**

**EROSION CONTROL PLAN
REVISED MARCH 2025**



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**CONSTELLATION BRANDS INC.
WAPPO HILL**

EROSION CONTROL PLAN



**REVISED MARCH 2025
ORIGINAL SUBMITTAL AUGUST 2024**

PREPARED BY:

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**CONSTELLATION BRANDS INC.
WAPPO HILL**

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 12.3 net acres (18.4 gross acres) of proposed vineyard located off Silverado Trail in Napa. The ranch is located on APNs 039-040-050 (83.9 acres) and 039-040-054 (353.81 acres) for a total of approximately 437.71 acres per the Napa County Assessor's Office.
- b) Activities to be accomplished include removing brush and trees within the proposed clearing limits, ripping, rock removal, cultivating the soil to prepare for planting, seeding cover crop, mulching, trenching for irrigation pipelines, installing trellis system and deer fence, laying out the vinerows, and installing erosion control measures.

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

- a) The site is located in the Chase Creek and Napa River – Yountville Reach Watersheds.
- b) The elevations in the vineyard area range from approximately 72 to 396 feet above mean sea level per topographic mapping. Ground slopes within the project boundary range between 10 and 34 percent. There are small pockets of areas with slope over 30% in several vineyard blocks which total approximately 1.3 acres, please see Sheets 2 and 3 for the locations.
- c) Topographic mapping was provided by the National Oceanic and Atmospheric Administration (NOAA), flown 2018-2019. Supplemental ground topographic survey provided by PPI Engineering where dense canopy did not allow for accurate mapping.
- d) Existing vegetation consists of grass, brush, and trees. The area is currently grazed. Please see biological report prepared by WRA dated May 2024.
- e) Please see Appendix E for Vegetation Retention Calculations to demonstrate compliance with Napa County General Plan Policy CON-24(C).
- f) There are structures on the property. Please see the cultural resources report prepared by Flaherty Cultural Resource Services dated May 6, 2024.
- g) A portion of the property is currently deer fenced. Please see Figure 2 in Appendix D for the Proposed Deer Fence map.

- h) A site visit of the property was performed by Matt Bueno and Rachel Rosasco of PPI Engineering on Thursday, August 17, 2023 to evaluate the vineyard development area and to collect photographic documentation. Photographs of pre-project conditions can be found in Appendix A.

Additional site visits by PPI staff occurred during the spring and summer of 2024.

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. The Napa River is in the vicinity but will not be affected by the project. The existing reservoir in the vicinity will also not be affected by the project.
- b) All ephemeral or intermittent streams that do not meet the Napa County definition of a stream have been avoided with a minimum 35' buffer in accordance with Napa County Conservation Regulation 18.108.025.
- c) In this ECP, all wetlands are avoided with a minimum 50' buffer in accordance with Napa County Conservation Regulation 18.108.026.
- d) There is an existing network of ranch roads throughout the property. The existing road network is sufficient for access to proposed vineyard blocks. The existing roads shall be maintained and surfaced with crushed rock as needed. All vineyard blocks will utilize existing access points from Silverado Trail.

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

- a) The location of recycled water pipeline, the proposed water source, is shown on the Vicinity Map.

5. Soil types/soil series identified in the Natural Resource Conservation Service (NRCS) Web Soil Survey.

- a) The USDA – NRCS Web Soil Survey maps the soil within the project boundary as Bale Clay Loam with 2 to 5 percent slopes, Forward Silt Loam with 5 to 39 percent slopes, Perkins Gravelly Loam with 5 to 9 percent slopes, and Sobrante Loam with 30 to 50 percent slopes.
- b) Some rock is expected to be generated as a result of this project. Some of the rock generated will be used to construct erosion control features such as rock energy dissipaters. Rock may be crushed and used on the existing roads where needed. 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 pre-project versus post-project soil loss analysis prepared by PPI Engineering dated August 2024.

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. A variety of drainage systems will be utilized for erosion control in this project. In some locations existing diversion ditches will direct runoff to drop inlets, and drainage pipelines will be used to direct runoff to desired locations. A level spreader and insloped avenue will be used to disperse water and prevent concentrated flow from forming and developing gullies. Straw wattles will be installed. Please see Sheets 2 & 3 for locations of the above erosion control items. Please see the Detail Sheet 4 and the Special Provisions for details on the erosion control items.
- 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 lbs/acre, Blando Brome at 10 lbs/acre, and Zorro Fescue at 12 lbs/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 the percent vegetative cover specified below will be reseeded and mulched until adequate coverage is achieved. The permanent cover crop shall be mowed only and not disked.

Block with 75% vegetative cover: 1C

Blocks with 80% vegetative cover: 1A, 2, 4, 5A & 5B

Blocks with 85% vegetative cover: 1B, 3A & 3B

3. In Blocks 1A, 1C, 2, 4, 5A & 5B the owner has the option of using a Dwarf Barley 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 lbs/acre if broadcast or at a rate of 60 lbs/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 installed prior to October 15. The permanent seed mix will be seeded prior to October 15 of the fourth (or earlier) year.
4. In Blocks 1B, 3A & 3B the permanent cover must be established the first year. Disking for the first three years to aid with vineyard establishment is not permitted due to the slope of the block.
5. Herbicides may be used for weed management. Herbicides may be applied in spring (no earlier than February 15 to ensure adequate vegetative cover in the spray strips for the remainder of the rainy season). Strip spraying is permitted within the vineyard blocks that require 80% or less vegetative cover provided such that the overall vegetated cover meets the required cover detailed above. Blocks that require 85% or greater vegetative cover shall be spot sprayed only. 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. Other

methods of vegetation management may be allowed with prior approval from the Engineer and provided the minimum cover requirements are achieved.

6. 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.
7. 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 the percent vegetative cover specified below will be reseeded and mulched until adequate coverage is achieved. Seeding and mulching is not required on avenues and roads properly surfaced with gravel.

Block with 75% vegetative cover: 1C

Blocks with 80% vegetative cover: 1A, 2, 4, 5A & 5B

Blocks with 85% vegetative cover: 1B, 3A & 3B

8. The proposed vine by row spacing is expected to be 8' by 4', 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.
9. 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.
10. 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.
11. 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.

- Proposed new pipes are to account for existing infrastructure discharging into project area. Since runoff is already concentrated in these gullies no measurable increase in runoff is expected.
- No significant increase in quantity or rate of runoff is expected as a result of this project.
- Please see hydrology report prepared by PPI Engineering dated August 2024.

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 which could include ditches, drop inlets, surface drainage pipelines, level spreaders

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 \$2,000 to \$5,000 per acre.

**CONSTELLATION BRANDS INC.
WAPPO HILL**

EROSION CONTROL PLAN

STANDARD PROVISIONS

SECTION 1 - SCOPE OF WORK

These specifications cover the construction of the erosion control measures for approximately 12.3 acres of vineyard to be developed by Constellation Brands Inc.

The drawing numbered 12213201B, Sheets 1 through 4, 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 Constellation Brands Inc. Constellation Brands Inc. or the appointed representative shall have the final say in the event of a dispute with the Contractor.

The Owner shall appoint PPI Engineering 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.

**CONSTELLATION BRANDS INC.
WAPPO HILL**

EROSION CONTROL PLAN

SPECIAL PROVISIONS

SECTION 1 - INSLOPED AVENUE

1.1 GENERAL:

Insloped avenues shall be constructed to the lines and grades shown on the drawings and as staked in the field by the Engineer. Where insloped avenues are not designated, avenue shall conform to original slope.

1.2 INSTALLATION:

The avenues shall be constructed using a bulldozer with six-way blade and slope board or other suitable equipment. The flowline of the insloped avenue shall be graded 2% minimum, 5% maximum to drain toward the rock level spreader. Vegetation shall be removed or thoroughly incorporated prior to construction of the insloped avenues. Soil for fill material shall be moisture conditioned as necessary and compacted to 90% relative compaction per ASTM D1557. Cut and fill slopes shall be seeded with an Engineer-approved seed mixture by October 15 of the year of Construction.

SECTION 2 – CULVERT REPAIR

2.1 GENERAL:

Existing culverts shall be inspected, repaired, replaced or maintained as needed to divert water to vegetated vineyard areas as shown on the Plans and as staked in the field by the Engineer. If upon inspection, the Engineer determines that replacement of the culvert is required, the culvert shall be replaced in accordance with the provisions outlined in Sections 2.2 and 2.3 of these specifications and according to Detail 2, Sheet 4.

2.2 MATERIALS:

Culverts shall be Aluminized Steel Type 2 Corrugated Metal Pipe (CMP), 12 gauge minimum, conforming to ASTM A929 and AASHTO M36. Backfill for culverts shall be select native granular material approved in the field by the Engineer. Clean 8-inch median field rock generated on site will be used for energy dissipation and channel protection. Filter fabric shall be Mirafi 1100N filter fabric or equivalent (if needed).

2.3 INSTALLATION:

A trench will be excavated such that the invert of the pipe is at the same elevation of the upstream and downstream flow line. Culverts shall be installed to follow the natural grade of the existing ground surface.

Backfill around the culvert shall be placed in no greater than 8 inch lifts and compacted to 95% relative compaction per ASTM D1557. A minimum of 1 foot of cover shall be maintained along the entire length of pipe unless approved otherwise by the Engineer.

All disturbed areas shall be seeded and mulched.

SECTION 3 – STANDARD DROP INLET

3.1 GENERAL:

Drop inlets shall be furnished and installed by the Contractor in the locations shown on the plans and as staked in the field by the Engineer, according to Detail 3, Sheet 4. The dimensions of the riser and connector pipeline shall be as shown on the Details. A grate shall be installed over the top of each drop inlet.

Existing drop inlets that require repair or replacement shall use the same size and type of material as the existing infrastructure unless pre-approved or otherwise directed by the Engineer.

3.2 MATERIALS:

Drop inlet risers shall be galvanized, 14 gauge corrugated metal pipe (CMP) or dual walled corrugated polyethylene of the diameter shown on the Plans and/or Specifications.

Grates shall be Agri Drain Bar Guard or equal.

Concrete for the bottom of the inlet shall be Portland Cement concrete, 2,000 psi minimum compressive strength.

3.3 INSTALLATION:

Standard Drop inlets shall be constructed as shown on the detail sheet and as staked in the field by the Engineer. Connector pipes shall be mortared in place to form a watertight seal. Grates shall be bolted or locked to drop inlet riser. Backfill around the inlet shall be compacted sufficiently by hand or water-jetted such that excessive settlement does not occur.

SECTION 4 - ROCK LEVEL SPREADER

4.1 GENERAL:

A rock level spreader shall be installed at the location shown on the Plans and as staked in the field by the Engineer. The rock level spreader shall be constructed to uniformly spread water onto the ground surface.

4.2 MATERIALS:

Rock used in the construction of the rock level spreader 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 spreader. Gravel may be crushed rock generated onsite but should contain sufficient fines to reduce the overall permeability of the trough and cause water to spread laterally along the length of the trough (generally equivalent to Cal –Trans Class II Aggregate Base).

4.3 INSTALLATION:

The rock level spreader shall be constructed as shown on Detail 4, Sheet 4. 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. Rock will then be placed over the wattle. This will help prevent fine sediment from being washed out of the structure. 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 level spreader shall be parallel to the contour to ensure the water is evenly distributed, and the ends shall be turned uphill at least 4 feet in elevation to prevent water from running around the end. The spreader shall be constructed of large, well-graded rock to a finished cross-section with a trough depth of at least 2 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 1 foot.

SECTION 5 - SURFACE DRAINAGE PIPELINE

5.1 GENERAL:

Surface drainage pipelines shall be installed to collect surface runoff at low points throughout the project area and transport it to a protected outlet, as shown in Detail 5, Sheet 4.

5.2 MATERIALS:

Surface drainage pipelines shall be constructed of solid corrugated polyethylene pipe (CPP) as shown on the Plans. Corrugated plastic pipe for use as surface drainage pipelines shall meet the standards of ASTM F667 and AASHTO M294, as applicable. Bent or damaged pipe shall not be used in the drainage system and shall be removed from the job site.

Pipe connections shall be made with fittings manufactured by the same manufacturer who made the pipe. All connections shall be securely fastened and the resulting connection shall not have gaps greater than 1/8 inch wide.

5.3 INSTALLATION:

The Contractor may use a trencher, or drainage plow with vertical soil displacement or backhoe/excavator for the excavation and placement of the surface drainage pipe as dictated by soil conditions. The operator shall be skillful in laying the tubing. Grade control may be established by visual control with grade stakes set no more than 100 feet apart or by laser control with grade stakes set no more than 200 feet apart. Trenches must be sufficiently wide for bedding material to flow freely around the sides of the pipe.

Construction staking shall be provided by the Owner's Engineer. The slope, alignment, and depth of placement of the tubing shall be as shown on the Plans and as staked in the field. A minimum cover of 4.0 feet must be provided within vineyard areas, unless otherwise staked in the field by Engineer.

A gradual variation of no more than 0.10 foot from grade will be allowed where slopes are 2% or less. Where slopes are greater than 2%, a gradual variation of no more than 0.20 foot from grade will be allowed. No reverse grade will be allowed. A gradual variation of no more than 1 foot from design alignment is allowed.

Surface drainage piping may be backfilled with select native material. Pipelines shall be hand shaded. Backfill material within 3 inches of the pipeline shall be free of rocks and dirt clods larger than 1 inch in size and shall be hand-tamped as necessary to ensure no voids are present.

Pipelines may also be bedded in gravel or other granular material approved by the Engineer. Bedding material shall be no larger than 1 inch diameter and must be able to flow freely around the sides of the pipe. The trench bottom shall be continuous, firm, relatively smooth, and free of rocks or other objects larger than 1 inch.

Stretching of the tubing should be avoided during installation. No more than 10% stretch will be allowed.

Cobbles and rocks may be present on the project site. The Contractor shall take necessary actions to work around the cobbles and rocks at their own expense.

Final backfill shall be placed and spread in approximately uniform layers to fill the trench completely. Rolling equipment or heavy tampers shall not be used to consolidate backfill.

Where pipe is installed under all-weather roads, backfill shall be Class II Aggregate Base compacted to 90% per ASTM D1557. Road surface shall be regraded or paved as necessary to match original conditions.

SECTION 6 – DITCH REPAIR

6.1 GENERAL:

Existing ditches shall be repaired and maintained in the locations shown on the plans and as directed in field by the Engineer.

6.2 MATERIALS:

Ditches will be cut into native material. Rock for lining ditches (if necessary) will be native rock generated onsite, 4-to-8-inch diameter. Filter fabric shall be Mirafi 140N or equal.

6.3 INSTALLATION:

Repair of existing ditches will be made as directed in the field by the Engineer. To the extent possible the ditch cross-section and slope of intact sections of functional ditches will be re-established. If ditches have failed and need to be completely reconstructed they shall conform to the following specification:

Ditch reconstruction shall be cut into native material to the extent possible. Fill material, if necessary, shall be moisture conditioned and compacted to 90% relative compaction per ASTM D1557. Flowline slope shall be 4% minimum and 5% maximum unless rock-lined. Side slopes of the ditches shall be 2:1 (Horizontal:Vertical) as shown on Detail 6, Sheet 4. The ditch shall be a minimum of 12 inches deep when complete and shall be lined with 4 to 8 inch diameter angular rock if the flowline slope exceeds 5%. A non-woven filter fabric shall be placed between the ground surface and the rock. The rocks shall be keyed into the sides of the ditch such that they do not obstruct or reduce the cross section of the channel.

SECTION 7 - TEMPORARY MEASURES

7.1 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 8 - MAINTENANCE

8.1 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.

8.2 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.

8.3 DROP INLETS:

Drop inlets are designed with trash racks at the ground surface. Debris shall be removed from trash racks after each storm event or as necessary to ensure a clear flow path for water entering the drop inlet. Damaged trash racks shall be repaired immediately in order to ensure that unacceptable quantities of debris do not enter the storm drainage piping system. Drop inlets shall also be inspected annually for any sediment that may have accumulated within the riser. Sediment shall be removed and spread in a safe location and protected as necessary.

8.4 LEVEL SPREADERS:

Level spreaders shall be inspected after each storm event the first year and at least annually thereafter to ensure proper functioning.

8.5 DITCHES:

Ditches shall be monitored for over-topping and repaired as needed. Debris that could reduce the capacity of the ditch shall be removed during/after each storm event.

APPENDIX A

PHOTOGRAPHIC DOCUMENTATION



Photo 1

8/17/2023



Photo 2

8/17/2023

APPENDIX B

USLE CALCULATIONS

PPI Engineering

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

NAME: Constellation Wappo Hill

DATE: 3/8/23

Cover Type: Permanent Cover Crop

Soil Unit No. (100-182)--- 139

Soil Name Forward

-K= 0.17

-R= 45

-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
P E R C E N T S L O P E	2	12,346,820	26,737,572	73,234,870	312,539,375	1,120,320,433	4,328,251,951
	4	117,706	210,124	447,375	1,328,351	3,460,519	9,536,070
	6	10,136	16,114	29,496	70,449	151,544	340,974
	8	4,667	7,420	13,583	32,441	69,784	157,014
	10	2,490	3,959	7,246	17,307	37,230	83,767
	12	1,507	2,396	4,385	10,474	22,530	50,693
	14	988	1,571	2,876	6,869	14,775	33,244
	16	688	1,093	2,001	4,779	10,280	23,130
	18	501	796	1,457	3,480	7,486	16,843
	20	378	601	1,100	2,627	5,651	12,716
	22	294	467	855	2,043	4,394	9,887
	24	234	372	682	1,628	3,502	7,879
	26	191	303	555	1,325	2,849	6,411
	28	158	251	459	1,097	2,360	5,310
	30	133	211	386	923	1,985	4,467
	32	113	180	330	787	1,693	3,810
	34	98	155	284	679	1,462	3,288
	36	85	136	248	593	1,275	2,869
	38	75	119	219	522	1,124	2,528
	40	67	106	194	464	999	2,247
	42	60	95	174	416	895	2,013
	44	54	86	157	375	807	1,816
	46	49	78	143	341	733	1,650
	48	45	71	130	312	670	1,508
	50	41	66	120	286	616	1,386

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: Constellation Wappo Hill

DATE: 3/8/23

Cover Type: Permanent Cover Crop

Soil Unit No. (100-182)--- 169

Soil Name Perkins

-K= 0.15

-R= 45

-T= 5

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	102,858,981	222,745,577	610,105,632	2,603,705,485	9,333,174,291	36,057,835,460
	4	577,186	1,030,365	2,193,755	6,513,715	16,969,042	46,761,181
	6	36,164	57,493	105,239	251,356	540,694	1,216,562
	8	16,653	26,475	48,461	115,746	248,983	560,212
	10	8,884	14,124	25,854	61,750	132,832	298,872
	12	5,377	8,548	15,646	37,370	80,386	180,869
	14	3,526	5,606	10,261	24,507	52,717	118,613
	16	2,453	3,900	7,139	17,051	36,679	82,527
	18	1,786	2,840	5,198	12,416	26,708	60,093
	20	1,349	2,144	3,925	9,374	20,164	45,368
	22	1,049	1,667	3,052	7,289	15,679	35,277
	24	836	1,329	2,432	5,808	12,494	28,112
	26	680	1,081	1,979	4,726	10,166	22,873
	28	563	895	1,639	3,914	8,420	18,946
	30	474	753	1,379	3,293	7,084	15,938
	32	404	642	1,176	2,808	6,041	13,592
	34	349	554	1,015	2,424	5,215	11,733
	36	304	484	886	2,115	4,550	10,237
	38	268	426	780	1,864	4,009	9,019
	40	238	379	693	1,656	3,563	8,016
	42	213	339	621	1,484	3,192	7,182
	44	193	306	561	1,339	2,880	6,481
	46	175	278	509	1,216	2,617	5,888
	48	160	254	466	1,112	2,392	5,381
	50	147	234	428	1,022	2,198	4,946

NOTES:

C=Cover and Management Factor

P=Practice Factor

PPI Engineering

Napa County
Maximum Length of Slope
for a soil loss of 2 tons per acre

NAME: Constellation Wappo Hill

DATE: 3/8/23

Cover Type: Permanent Cover Crop

Soil Unit No. (100-182)--- 179

Soil Name Sobrante

-K= 0.32

-R= 45

-T= 2

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
	2 388,075	840,393	2,301,857	9,823,476	35,212,974	136,041,992
	4 8,787	15,685	33,396	99,159	258,321	711,850
	6 1,271	2,021	3,700	8,837	19,009	42,770
	8 585	931	1,704	4,069	8,753	19,695
	10 312	497	909	2,171	4,670	10,507
	12 189	301	550	1,314	2,826	6,359
P	14 124	197	361	862	1,853	4,170
E	16 86	137	251	599	1,289	2,901
R	18 63	100	183	436	939	2,113
C	20 47	75	138	330	709	1,595
E	22 37	59	107	256	551	1,240
N	24 29	47	85	204	439	988
T	26 24	38	70	166	357	804
S	28 20	31	58	138	296	666
	30 17	26	48	116	249	560
L	32 14	23	41	99	212	478
O	34 12	19	36	85	183	412
P	36 11	17	31	74	160	360
E	38 9	15	27	66	141	317
	40 8	13	24	58	125	282
	42 8	12	22	52	112	252
	44 7	11	20	47	101	228
	46 6	10	18	43	92	207
	48 6	9	16	39	84	189
	50 5	8	15	36	77	174

NOTES:

C=Cover and Management Factor

P=Practice Factor

PPI Engineering

Napa County
Maximum Length of Slope
for a soil loss of 2 tons per acre

NAME: Constellation Wappo Hill

DATE: 3/8/23

Cover Type: Permanent Cover Crop

Soil Unit No. (100-182)--- 179

Soil Name Sobrante

-K= 0.32

-R= 45

-T= 2

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
P E R C E N T R O P E S L O P E	2	2,130,152	4,612,937	12,634,948	53,921,291	193,284,843	746,737,696
	4	31,509	56,249	119,760	355,594	926,366	2,552,763
	6	3,532	5,615	10,277	24,546	52,802	118,805
	8	1,626	2,585	4,733	11,303	24,315	54,708
	10	868	1,379	2,525	6,030	12,972	29,187
	12	525	835	1,528	3,649	7,850	17,663
	14	344	547	1,002	2,393	5,148	11,583
	16	240	381	697	1,665	3,582	8,059
	18	174	277	508	1,212	2,608	5,868
	20	132	209	383	915	1,969	4,431
	22	102	163	298	712	1,531	3,445
	24	82	130	237	567	1,220	2,745
	26	66	106	193	462	993	2,234
	28	55	87	160	382	822	1,850
	30	46	74	135	322	692	1,556
	32	39	63	115	274	590	1,327
	34	34	54	99	237	509	1,146
	36	30	47	86	207	444	1,000
	38	26	42	76	182	391	881
	40	23	37	68	162	348	783
	42	21	33	61	145	312	701
	44	19	30	55	131	281	633
	46	17	27	50	119	256	575
	48	16	25	45	109	234	526
	50	14	23	42	100	215	483

NOTES:

C=Cover and Management Factor

P=Practice Factor

APPENDIX C

SLOPE CALCULATIONS

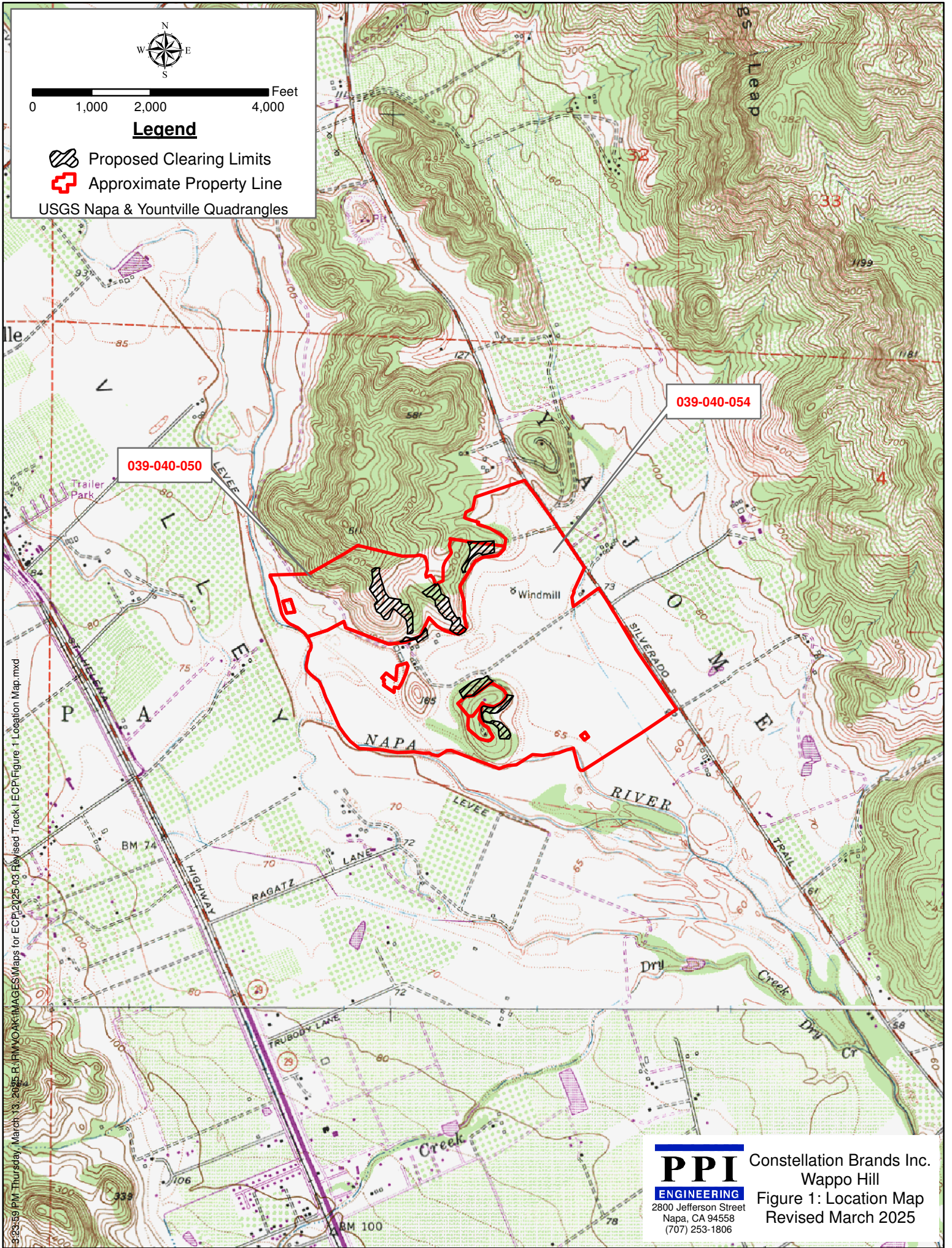
**CONSTELLATION BRANDS INC.
WAPPO HILL**

Average Slope Of Proposed Vineyard Blocks

Block	Gross Acres	Net Acres	Slope #1	Slope #2	Average slope
1A	4.2	3.1	15%	26%	21%
1B	2.0	1.2	18%	24%	21%
1C	0.7	0.5	15%	N/A	15%
2	4.3	2.9	15%	24%	20%
3A	2.1	1.4	21%	30%	26%
3B	0.4	0.2	25%	34%	30%
4	2.2	1.7	26%	30%	28%
5A	1.3	0.7	16%	28%	22%
5B	1.2	0.6	23%	27%	25%
Total	18.4	12.3			23%

APPENDIX D

SUPPORTING FIGURES



039-040-050

039-040-054

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

Constellation Brands Inc.
Wappo Hill
Figure 1: Location Map
Revised March 2025

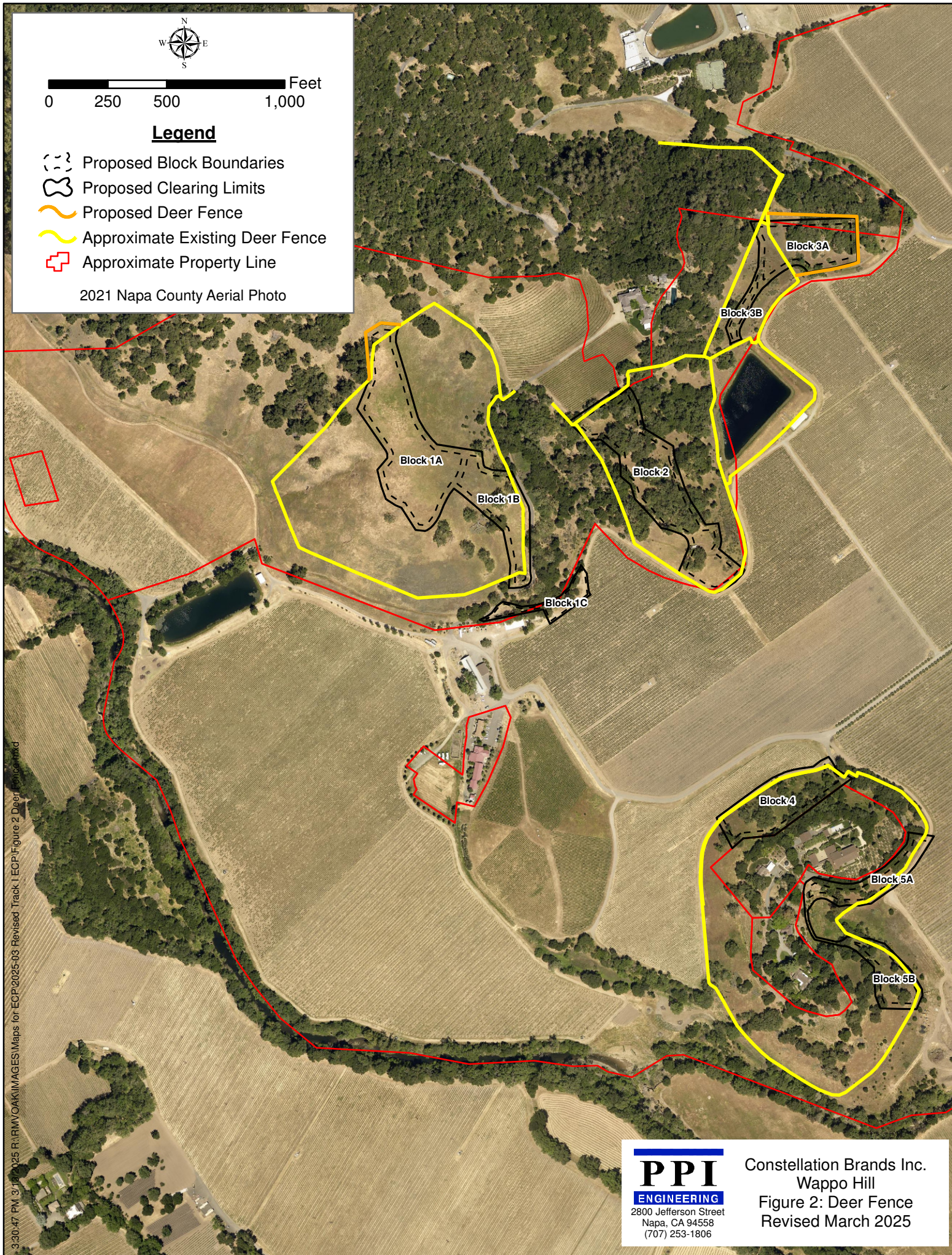


0 250 500 1,000 Feet

Legend

- Proposed Block Boundaries
- Proposed Clearing Limits
- Proposed Deer Fence
- Approximate Existing Deer Fence
- Approximate Property Line

2021 Napa County Aerial Photo



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

Constellation Brands Inc.
Wappo Hill
Figure 2: Deer Fence
Revised March 2025

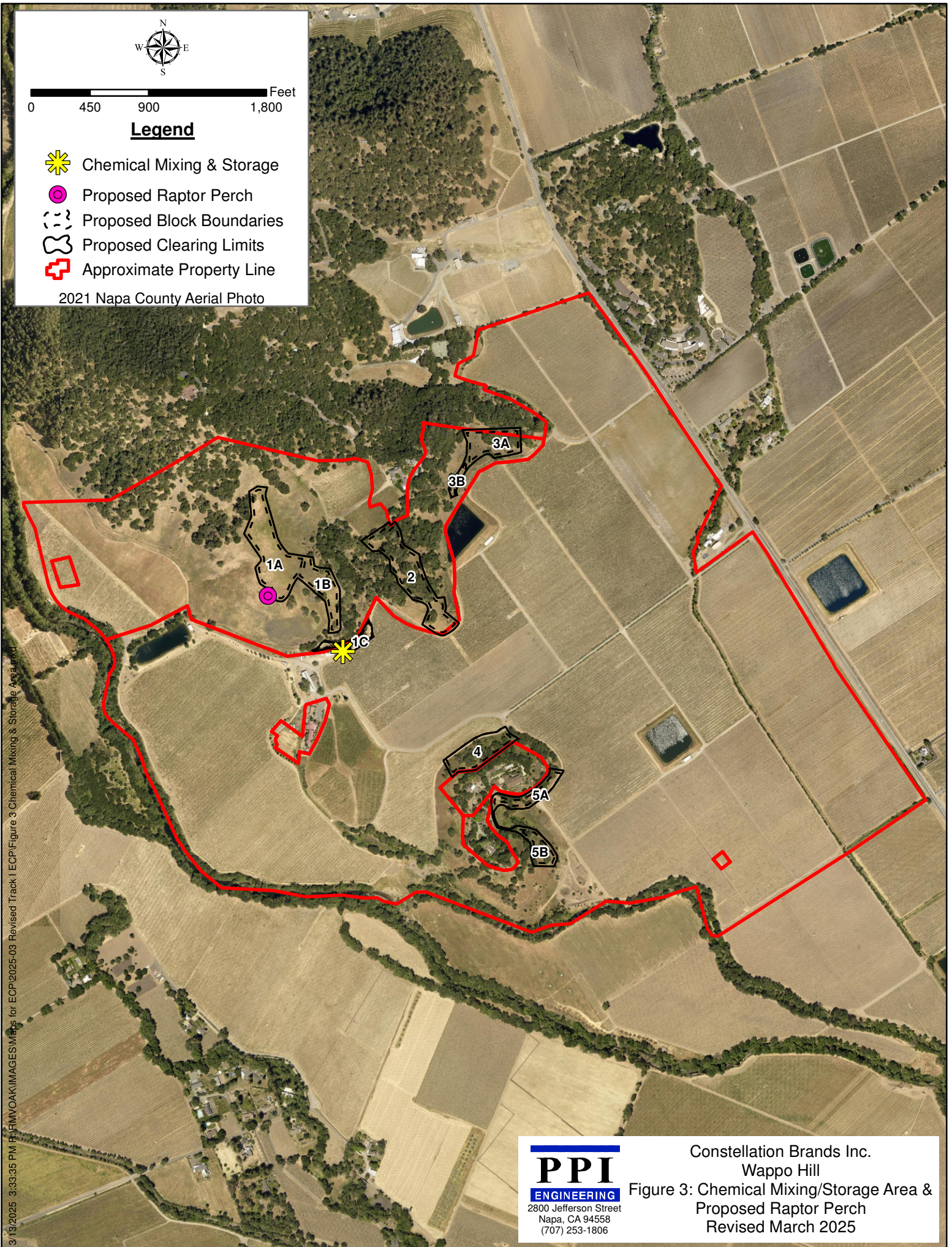


0 450 900 1,800 Feet

Legend

- Chemical Mixing & Storage
- Proposed Raptor Perch
- Proposed Block Boundaries
- Proposed Clearing Limits
- Approximate Property Line

2021 Napa County Aerial Photo



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Napa, CA 94558
(707) 253-1806

Constellation Brands Inc.
Wappo Hill
Figure 3: Chemical Mixing/Storage Area &
Proposed Raptor Perch
Revised March 2025

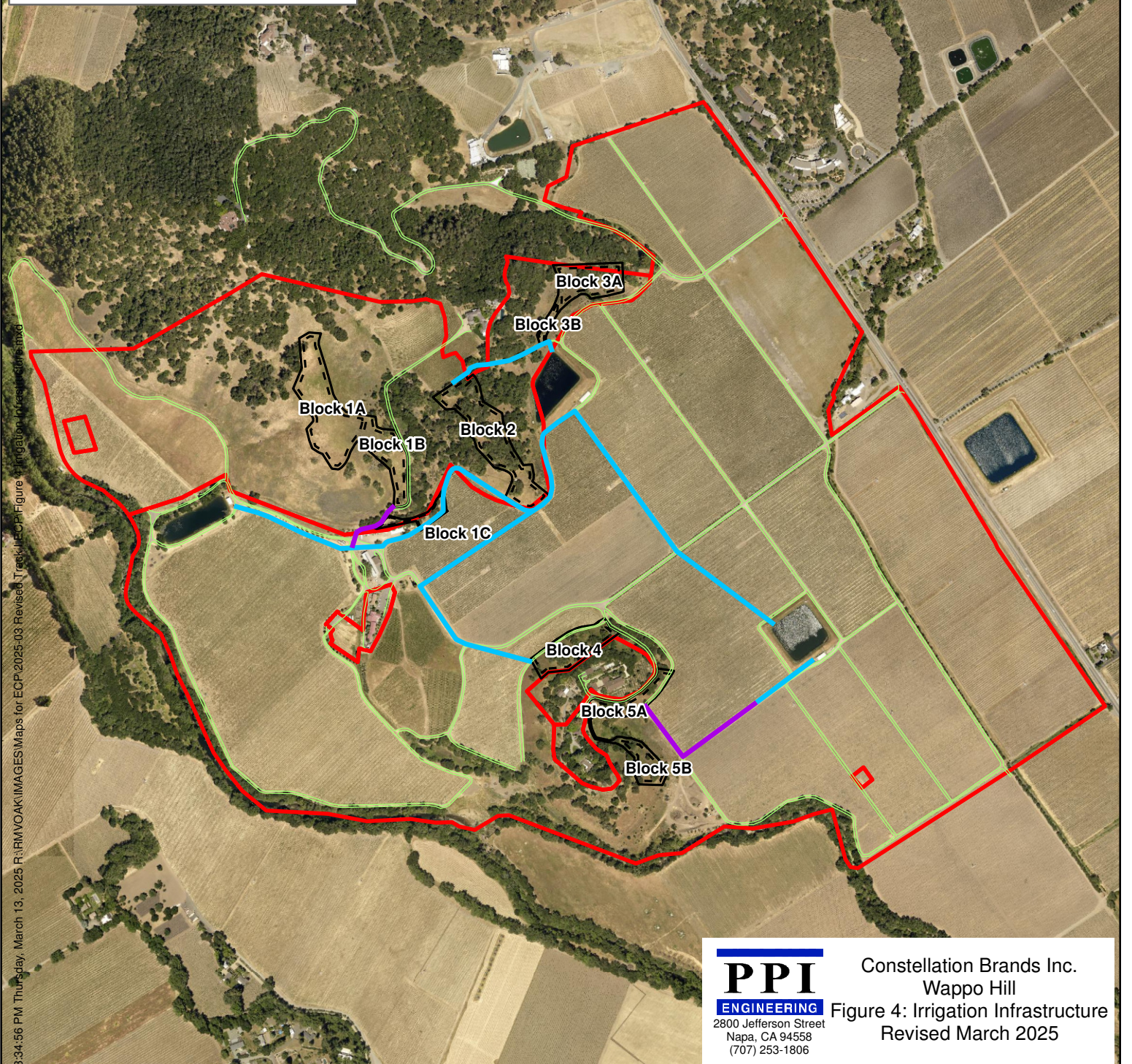


0 450 900 1,800 Feet

Legend

- Existing Irrigation Mainlines, Approximate Location
- Proposed Irrigation Mainlines
- Proposed Block Boundaries
- Proposed Clearing Limits
- Existing Roads
- Approximate Property Line

2021 Napa County Aerial Photo



3:34:56 PM Thursday, March 13, 2025 R:\RM\VOAK\IMAGES\Maps for ECP 2025-03 Revised Track\ECF Figure 4 Irrigation Infrastructure.mxd

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(707) 253-1806

Constellation Brands Inc.
Wappo Hill
Figure 4: Irrigation Infrastructure
Revised March 2025

APPENDIX E

VEGETATION RETENTION CALCULATIONS

**CONSTELLATION BRANDS INC.
WAPPO HILL**

2:1 Tree Preservation Calculations

	APN 039-040-050	APN 039-040-054
Proposed Clearing Limits (acres)	12.8	5.3
Existing Trees on Parcel (acres) ¹	31.5	16.3
Trees Proposed to be Removed (acres)	4.2	2.5
Trees Preserved on Parcel (acres)	27.3	13.8
Trees Retained (percent)	87%	85%
Trees Proposed for Preservation (acres)	12.6	5.4
Proposed Preservation Ratios	3:1	2.2:1

Notes:

1. Source: Site-Specific Biological Study

Some rounding may occur



0 350 700 1,400 Feet

Legend

- Proposed Preservation Area (18 acres)
- WRA-Mapped Trees
- Proposed Block Boundaries
- Proposed Clearing Limits
- Approximate Property Line

2021 Napa County Aerial Photo

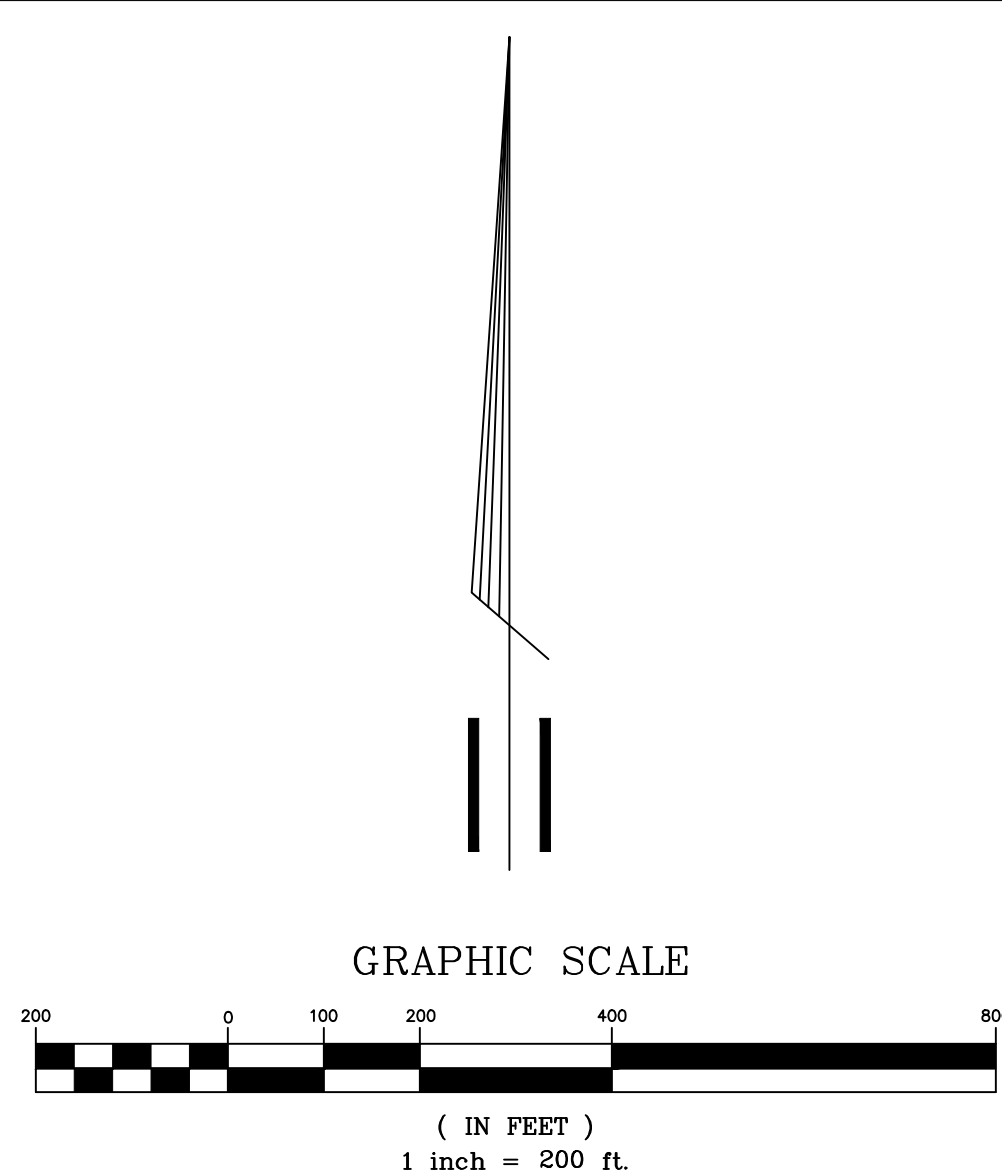
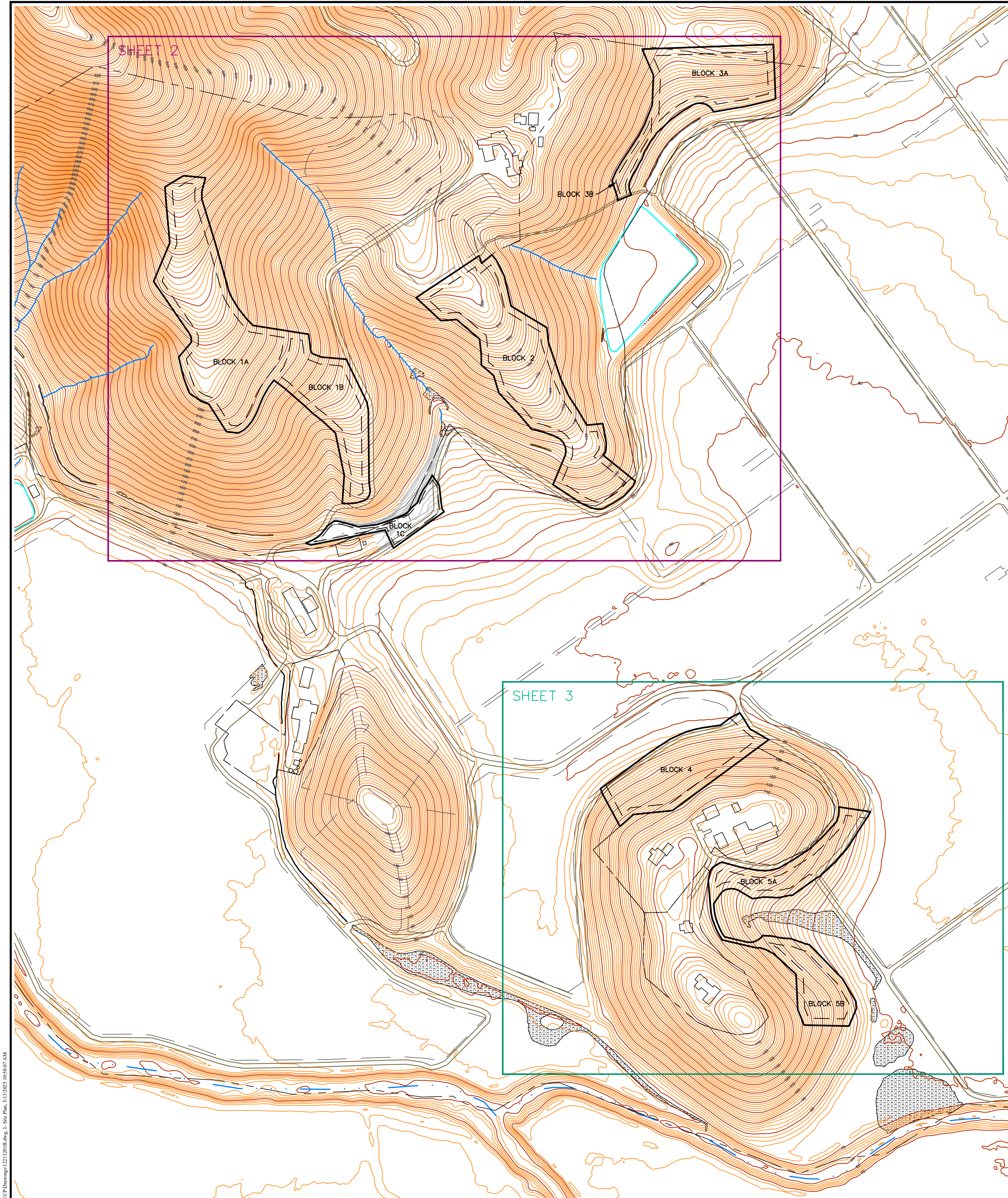
APN 039-040-050: 12.6 acres of woodland proposed for preservation
APN 039-040-054: 5.4 acres of woodland proposed for preservation



3/38 1:13 PM 3/13/2025 R:\RM\VOAK\IMAGES\Maps for ECP\2025-03 Revised Track 1 ECP\Figure 5 Tree Preservation.mxd

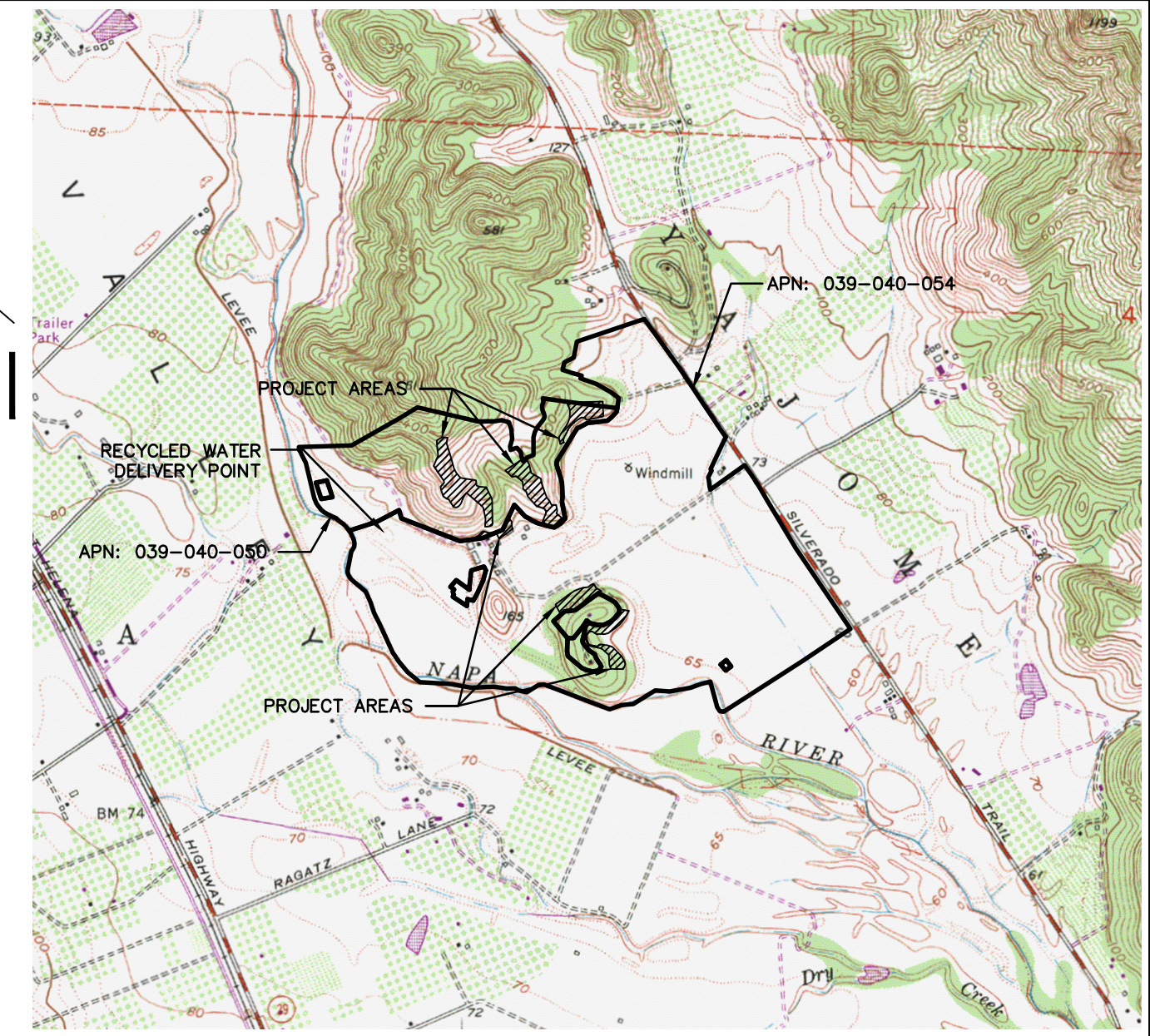
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(707) 253-1806

Constellation Brands Inc.
Wappo Hill
Figure 5: Tree Preservation
Revised March 2025



LEGEND

- NOAA LIDAR 10' INDEX CONTOUR
- NOAA LIDAR 2' INTERMEDIATE CONTOUR
- PPI 10' INDEX CONTOUR
- PPI 2' INTERMEDIATE CONTOUR
- APPROXIMATE PROPERTY LINE LOCATION
- EXISTING VINEYARD AREA
- U.S.G.S. BLUE LINE STREAM
- POTENTIAL WATERS OF THE U.S.
- EXISTING RESERVOIR
- WETLANDS
- EXISTING ROAD
- EXISTING BUILDING
- PROPOSED VINEYARD CLEARING LIMITS
- PROPOSED VINEYARD BLOCK BOUNDARY



VICINITY MAP
USGS YOUNTVILLE QUADRANGLE
TOWNSHIP 6 N., RANGE 4 W.
SCALE: 1" = ±2000'

- NOTES:
- OWNER: CONSTELLATION BRANDS INC.
SITE ADDRESS: NO SITUS
APN: 039-040-050 & 039-040-054
 - ACCESS TO PROJECT IS FROM SILVERADO TRAIL. THE SITE IS GATED AND LOCKED. ADMITTANCE IS AVAILABLE UPON REQUEST.
 - EXISTING VEGETATION CONSISTS OF GRASS, BRUSH, AND TREES.
 - 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.
 - 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	10
ZORRO FESCUE	12

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 THE PERCENT VEGETATIVE COVER SPECIFIED BELOW WILL BE RESEEDED AND MULCHED UNTIL ADEQUATE COVERAGE IS ACHIEVED. THE PERMANENT COVER CROP SHALL BE MOWED ONLY AND NOT DISKED.

COVER TYPE	BLOCKS
BLOCK WITH 75% VEGETATIVE COVER:	1C
BLOCKS WITH 80% VEGETATIVE COVER:	1A, 2, 4, 5A & 5B
BLOCKS WITH 85% VEGETATIVE COVER:	1B, 3A & 3B
 - IN BLOCKS 1A, 1C, 2, 4, 5A & 5B THE OWNER HAS THE OPTION OF USING A DWARF BARLEY 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 LBS/ACRE IF BROADCAST OR AT A RATE OF 60 LBS/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.
 - IN BLOCKS 1B, 3A & 3B THE PERMANENT COVER MUST BE ESTABLISHED THE FIRST YEAR. DISKING FOR THE FIRST THREE YEARS TO AID WITH VINEYARD ESTABLISHMENT IS NOT PERMITTED DUE TO THE SLOPE OF THE BLOCK.
 - HERBICIDES MAY BE USED FOR WEED MANAGEMENT. HERBICIDES MAY BE APPLIED IN SPRING (NO EARLIER THAN FEBRUARY 15 TO ENSURE ADEQUATE VEGETATIVE COVER IN THE SPRAY STRIPS FOR THE REMAINDER OF THE RAINY SEASON). STRIP SPRAYING IS PERMITTED WITHIN THE VINEYARD BLOCKS THAT REQUIRE 80% OR LESS VEGETATIVE COVER PROVIDED SUCH THAT THE OVERALL VEGETATED COVER MEETS THE REQUIRED COVER DETAILED ABOVE. BLOCKS THAT REQUIRE 85% OR GREATER VEGETATIVE COVER SHALL BE SPOT SPRAYED ONLY. 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. OTHER METHODS OF VEGETATION MANAGEMENT MAY BE ALLOWED WITH PRIOR APPROVAL FROM THE ENGINEER AND PROVIDED THE MINIMUM COVER REQUIREMENTS ARE ACHIEVED.
 - 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.
 - 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 THE PERCENT VEGETATIVE COVER SPECIFIED BELOW WILL BE RESEEDED AND MULCHED UNTIL ADEQUATE COVERAGE IS ACHIEVED. SEEDING AND MULCHING IS NOT REQUIRED ON AVENUES AND ROADS PROPERLY SURFACED WITH GRAVEL.

COVER TYPE	BLOCKS
BLOCK WITH 75% VEGETATIVE COVER:	1C
BLOCKS WITH 80% VEGETATIVE COVER:	1A, 2, 4, 5A & 5B
BLOCKS WITH 85% VEGETATIVE COVER:	1B, 3A & 3B
 - THE PROPOSED VINE AND ROW SPACING IS EXPECTED TO BE 8' BY 4', 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.
 - 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.
 - THE LOCATION OF THE RECYCLED WATER PIPELINE, THE PROPOSED WATER SOURCE, IS SHOWN ON THE VICINITY MAP.
 - A PORTION OF THE PROPERTY IS CURRENTLY DEER FENCED. SEE APPENDIX D FOR THE PROPOSED DEER FENCE MAP.
 - 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.
 - PROPERTY LINES AS SHOWN ARE APPROXIMATE. OWNER SHALL BE RESPONSIBLE FOR SURVEYING PROPERTY LINE(S) AS NECESSARY PRIOR TO ANY SITE DISTURBANCE.
 - THE OWNER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS.
 - AT LEAST 48 HOURS PRIOR TO EXCAVATING, THE CONTRACTOR SHALL CALL UNDERGROUND SERVICES ALERT (U.S.A.) AT 811 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.
 - 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 PROCESSING. THE OWNER SHALL 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.

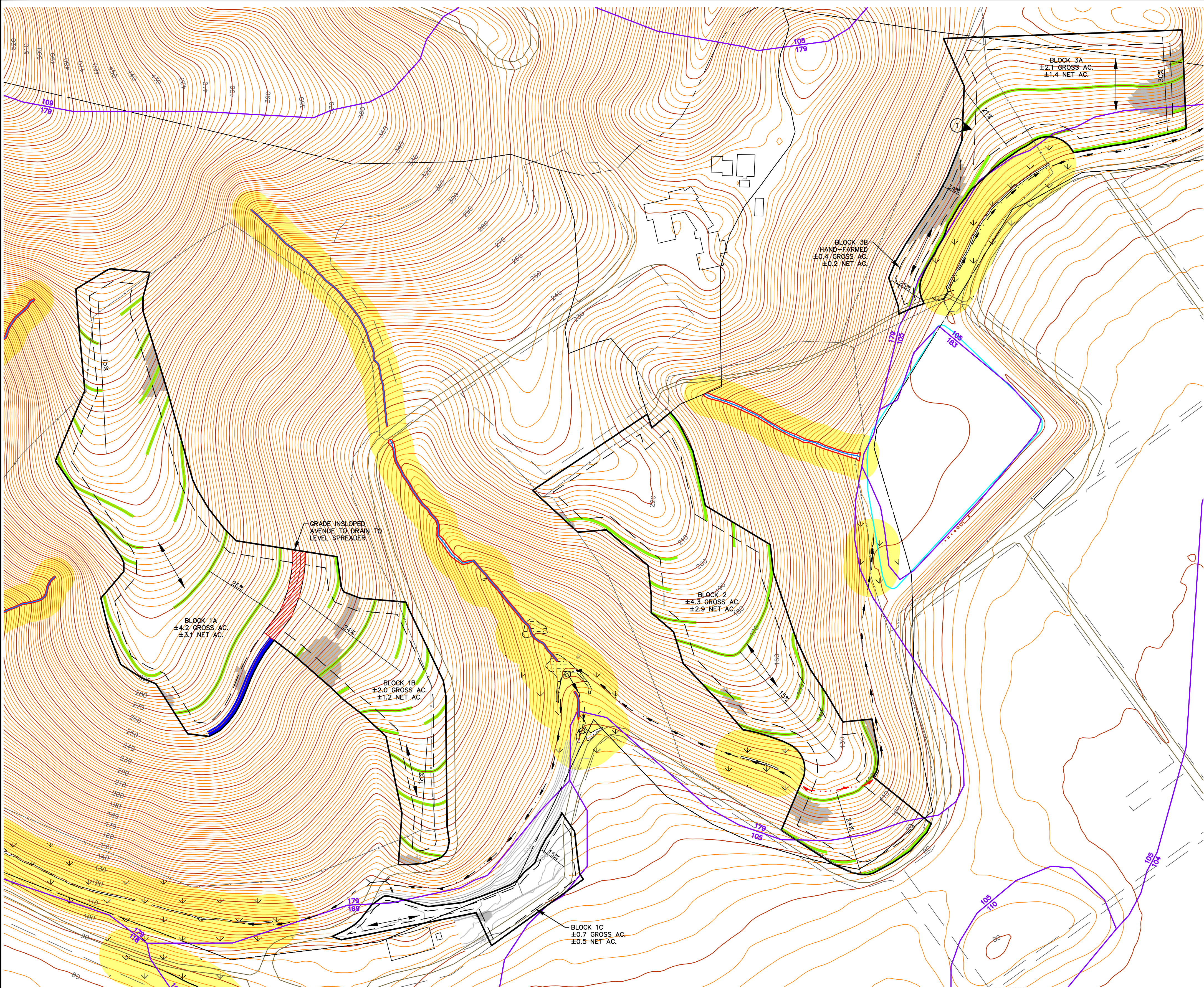
TOPOGRAPHIC MAPPING SOURCES: 2018-2019 NOAA LIDAR, 2' CONTOUR INTERVAL
JANUARY 2024 PPI TOPO 2' CONTOUR INTERVAL

REV. NO.	DESCRIPTION	BY	DATE
1	DRAWING 12213201B SUPERSEDES DRAWING 12213201A. INCORPORATED CHANGES RESULTING FROM COUNTY COMMENTS.	JCJ	3-4-25



PPI
ENGINEERING
2800 JEFFERSON STREET
NAPA, CA 94558
707/253-1806 FAX 707/253-1804
JOB NO: 12213201
DWG. NO: 12213201B

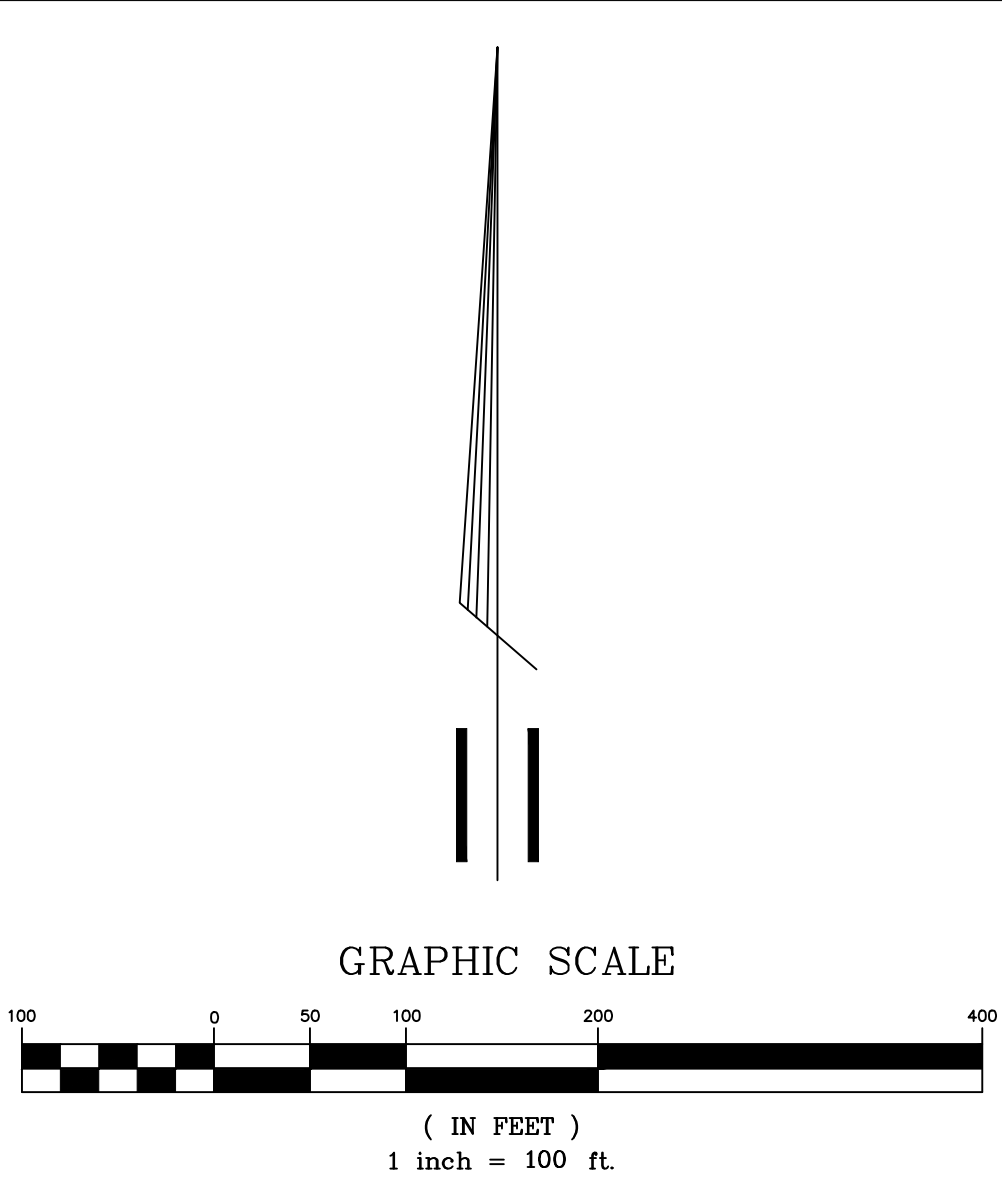
CONSTELLATION BRANDS INC. WAPPO HILL			
EROSION CONTROL PLAN SITE PLAN			
DESIGN ENGINEER: J. BUSHEY, M. BUENO, R. ROSASCO			
SCALE: AS SHOWN	DRAWN BY: JCJ	DATE: 3-13-25	SHEET: 1 OF: 4



TOPOGRAPHIC MAPPING SOURCES: 2018-2019 NOAA LIDAR, 2' CONTOUR INTERVAL
JANUARY 2024 PPI TOPO 2' CONTOUR INTERVAL

USDA SOIL CLASSIFICATIONS:

104	BALE CLAY LOAM, 0-2% SLOPE
105	BALE CLAY LOAM, 2-5% SLOPE
109	BOOMER GRAVELLY LOAM, 14-60% SLOPE
110	BOOMER-FORWARD-FELTA COMPLEX, 30-50% SLOPE
118	COLE SILT LOAM, 0-2% SLOPE
189	PERKINS GRAVELLY LOAM, 5-9% SLOPE
179	SOBRANTE LOAM, 30-50% SLOPE
183	WATER



- NOAA LIDAR 10' INDEX CONTOUR
- NOAA LIDAR 2' INTERMEDIATE CONTOUR
- PPI 10' INDEX CONTOUR
- PPI 2' INTERMEDIATE CONTOUR
- APPROXIMATE PROPERTY LINE LOCATION
- EXISTING VINEYARD AREA
- POTENTIAL WATERS OF THE U.S.
- EXISTING RESERVOIR
- TOP OF BANK, APPROXIMATE
- 35' WATERS SETBACK
- WETLANDS
- 50' WETLAND SETBACK
- EXISTING ROAD
- EXISTING FENCE
- EXISTING BUILDING
- EXISTING SURFACE DRAINAGE LINE, APPROXIMATE LOCATION
- EXISTING DITCH, APPROXIMATE LOCATION, TO BE INSPECTED, REPAIRED & MAINTAINED AS NEEDED (SEE DETAIL 6, SHEET 4)
- EXISTING DITCH, APPROXIMATE LOCATION, TO BE REMOVED
- EXISTING DROP INLET, APPROXIMATE LOCATION
- EXISTING CULVERT, APPROXIMATE LOCATION, TO BE INSPECTED, REPAIRED, REPLACED OR MAINTAINED AS NEEDED (SEE DETAIL 2, SHEET 4)
- PROPOSED VINEYARD CLEARING LIMITS
- PROPOSED VINEYARD BLOCK BOUNDARY
- PROPOSED STRAW WATTLE (SEE DETAIL 1, SHEET 3)
- PROPOSED ROCK LEVEL SPREADER (SEE DETAIL 4, SHEET 4)
- PROPOSED INSLOPED AVENUE (SEE DETAIL 1, SHEET 4)
- AREA WHERE GROUND SLOPE IS 30 PERCENT OR GREATER
- PROPOSED VINEROW DIRECTION
- PHOTO POINT NUMBER & LOCATION (SEE APPENDIX A)
- AVERAGE SURFACE SLOPE
- SOIL TYPE BOUNDARY

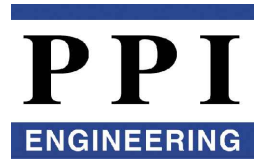


CONSTELLATION BRANDS INC.
WAPPO HILL

EROSION CONTROL PLAN
BLOCKS 1, 2 & 3

DESIGN ENGINEER: J. BUSHEY, M. BUENO, R. ROSASCO

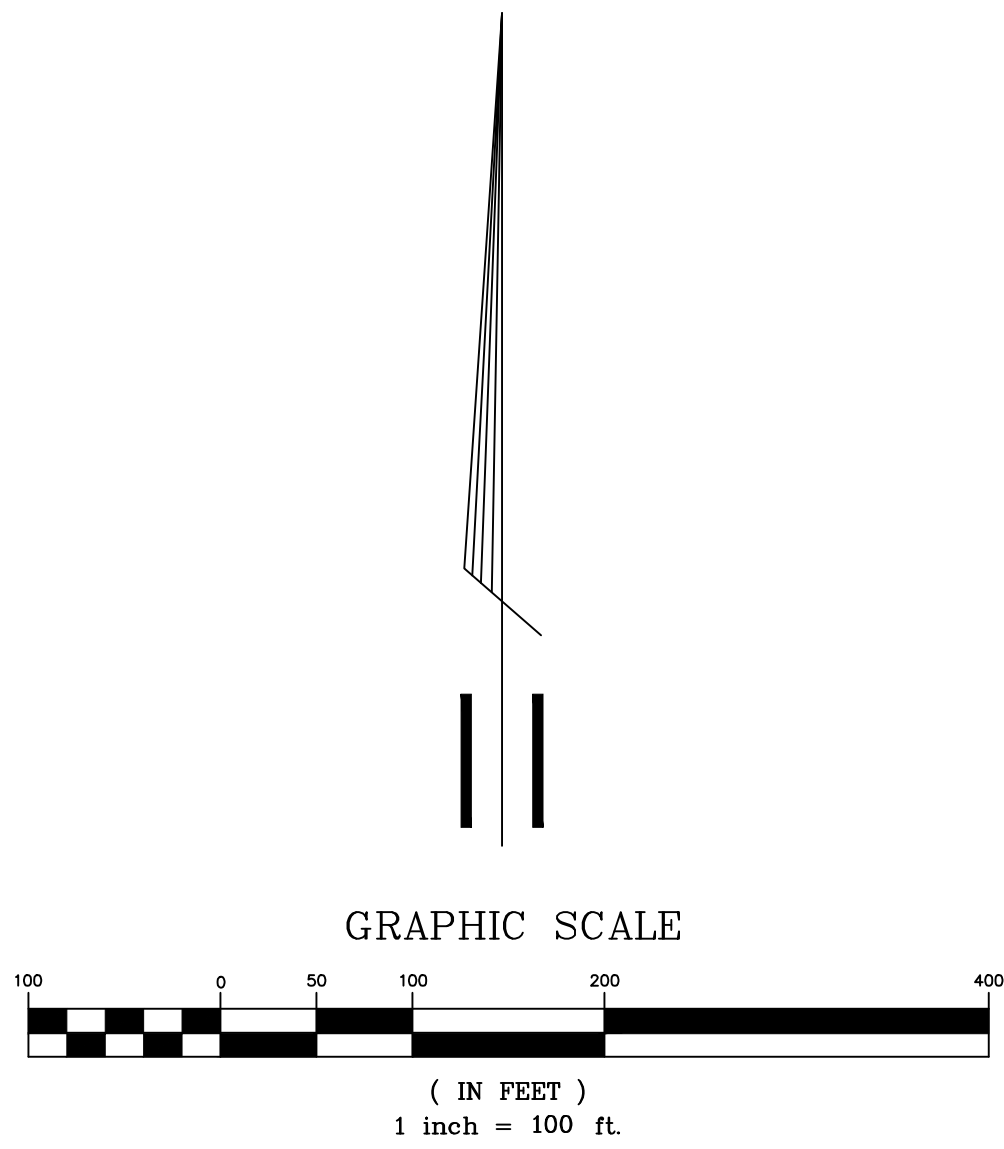
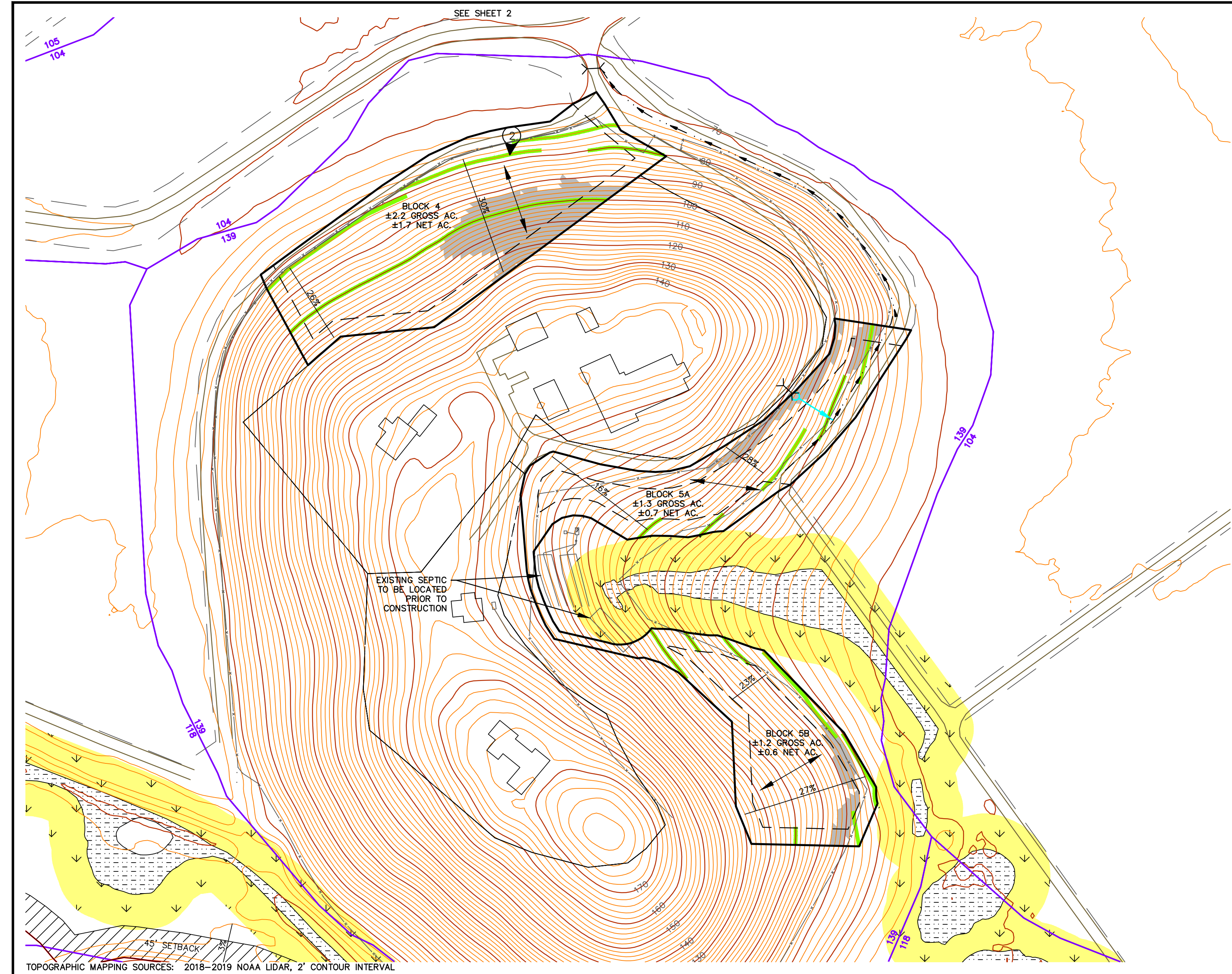
SCALE: AS SHOWN DRAWN BY: JCJ DATE: 3-13-25 SHEET: 2 OF: 4



2800 JEFFERSON STREET
NAPA, CA 94558
707/253-1806 FAX 707/253-1804

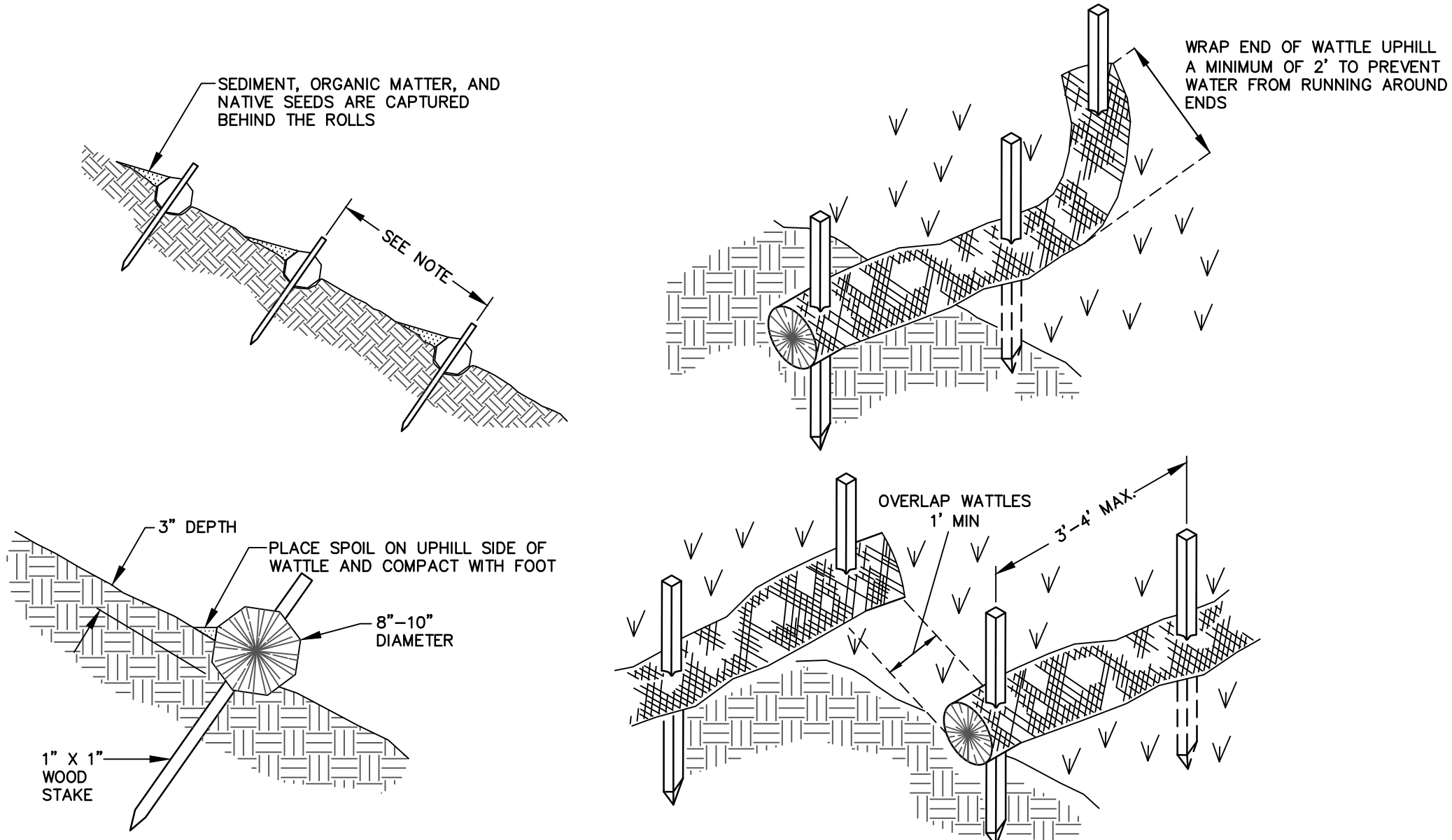
JOB NO: 12213201
DWG. NO: 12213201B

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- LEGEND**
- APPROXIMATE PROPERTY LINE LOCATION
 - EXISTING VINEYARD AREA
 - TOP OF BANK, APPROXIMATE
 - NAPA COUNTY STREAM SETBACK
 - WETLANDS
 - 50' WETLAND SETBACK
 - EXISTING ROAD
 - EXISTING FENCE
 - EXISTING BUILDING
 - EXISTING DITCH, APPROXIMATE LOCATION, TO BE INSPECTED, REPAIRED & MAINTAINED AS NEEDED (SEE DETAIL 6, SHEET 4)
 - EXISTING CULVERT, APPROXIMATE LOCATION, TO BE INSPECTED, REPAIRED, REPLACED OR MAINTAINED AS NEEDED (SEE DETAIL 2, SHEET 4)
 - PROPOSED VINEYARD CLEARING LIMITS
 - PROPOSED VINEYARD BLOCK BOUNDARY
 - PROPOSED 8"ø SURFACE DRAINAGE LINE (SEE DETAIL 5, SHEET 4)
 - PROPOSED 18"ø DROP INLET (SEE DETAIL 3, SHEET 4)
 - PROPOSED STRAW WATTLE (SEE DETAIL 1, THIS SHEET)
 - AREA WHERE GROUND SLOPE IS 30 PERCENT OR GREATER
 - PROPOSED VINEROW DIRECTION
 - PHOTO POINT NUMBER & LOCATION (SEE APPENDIX A)
 - AVERAGE SURFACE SLOPE
 - SOIL TYPE BOUNDARY

- USDA SOIL CLASSIFICATIONS:**
- BALE CLAY LOAM, 0-2% SLOPE
 - BALE CLAY LOAM, 2-5% SLOPE
 - COLE SILT LOAM, 0-2% SLOPE
 - FORWARD SILT LOAM, 5-39% SLOPE



NOTE: VERTICAL SPACING FOR SLOPE INSTALLATION SHALL BE DETERMINED BY SITE CONDITIONS. WATTLE SPACING AND LOCATIONS SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.

1
3 STRAW WATTLE INSTALLATION
N.T.S.



CONSTELLATION BRANDS INC.
WAPPO HILL

EROSION CONTROL PLAN
BLOCKS 4 & 5

DESIGN ENGINEER:
J. BUSHEY, M. BUENO, R. ROSASCO

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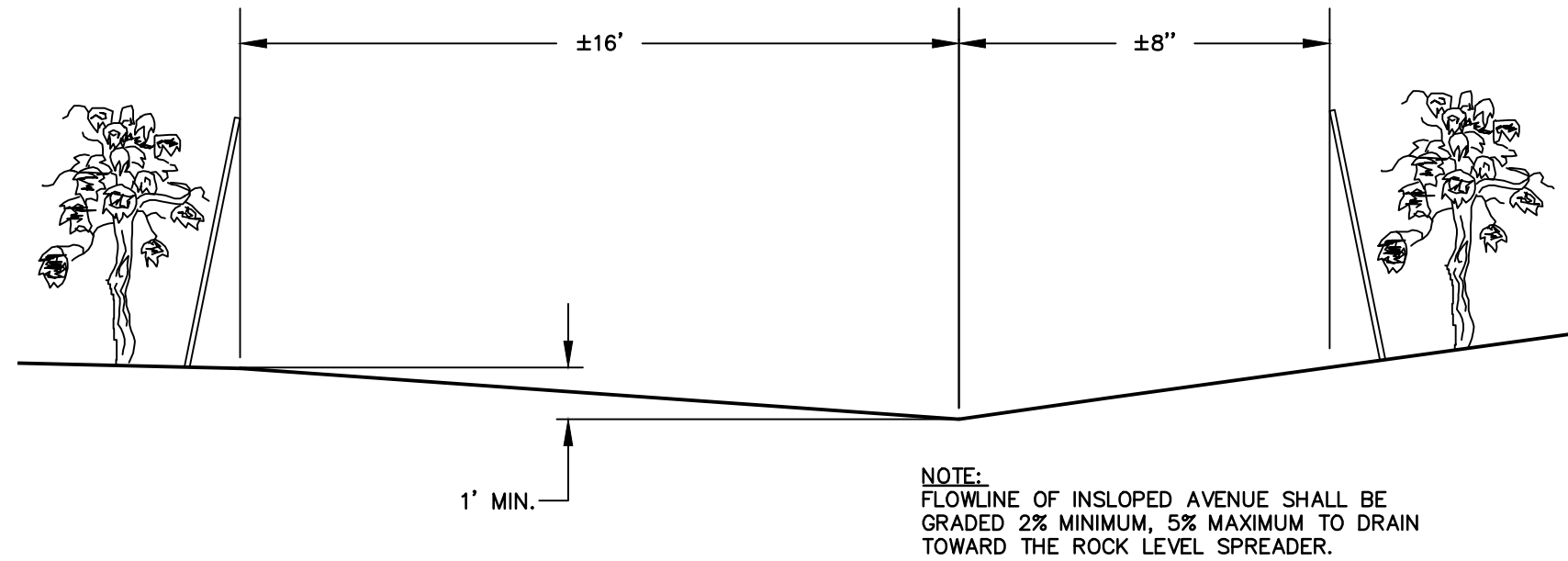
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JOB NO: 12213201	SCALE: AS SHOWN	DRAWN BY: JCJ	DATE: 3-13-25	SHEET: 3 OF: 4
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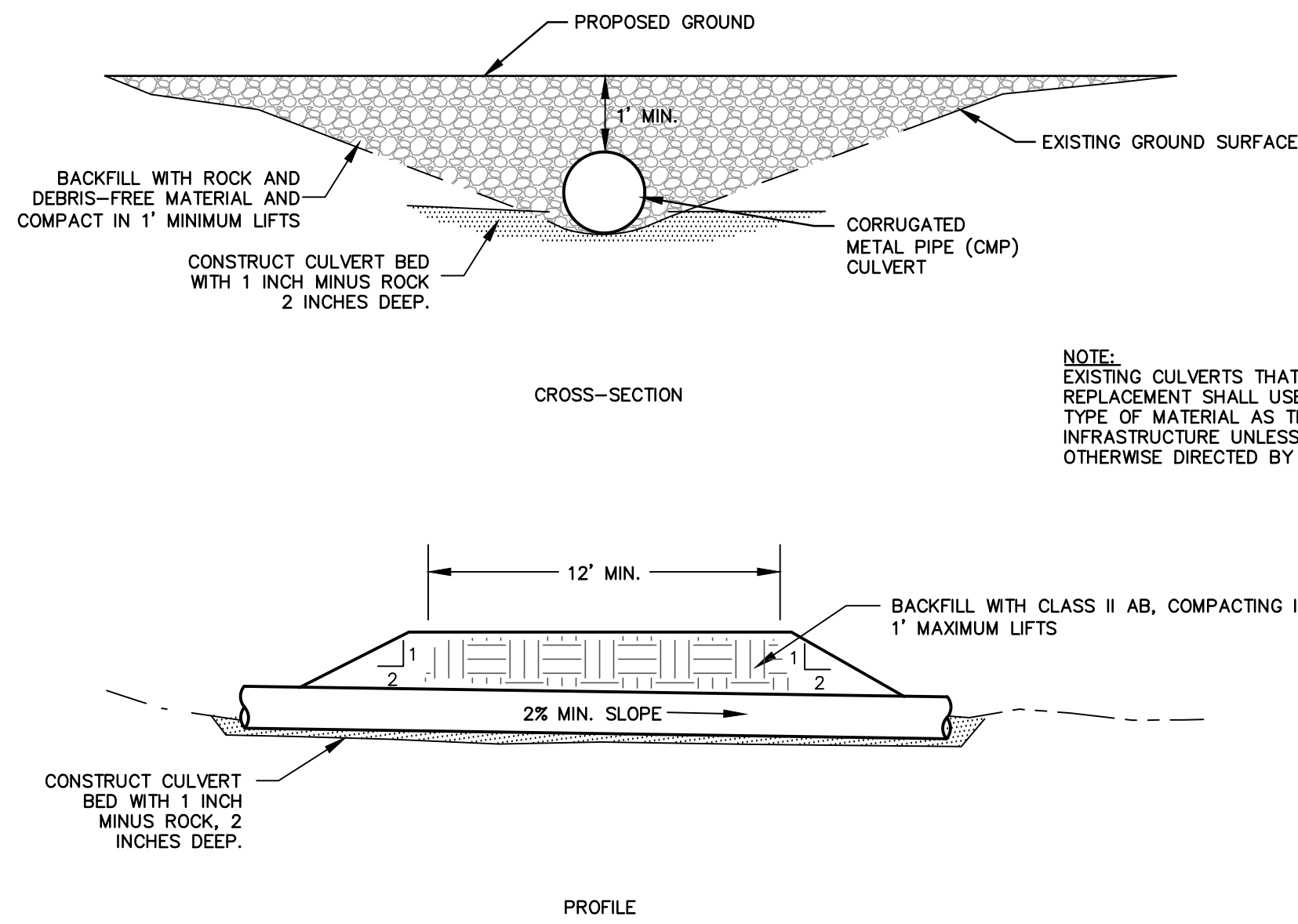
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DWG. NO: 12213201B

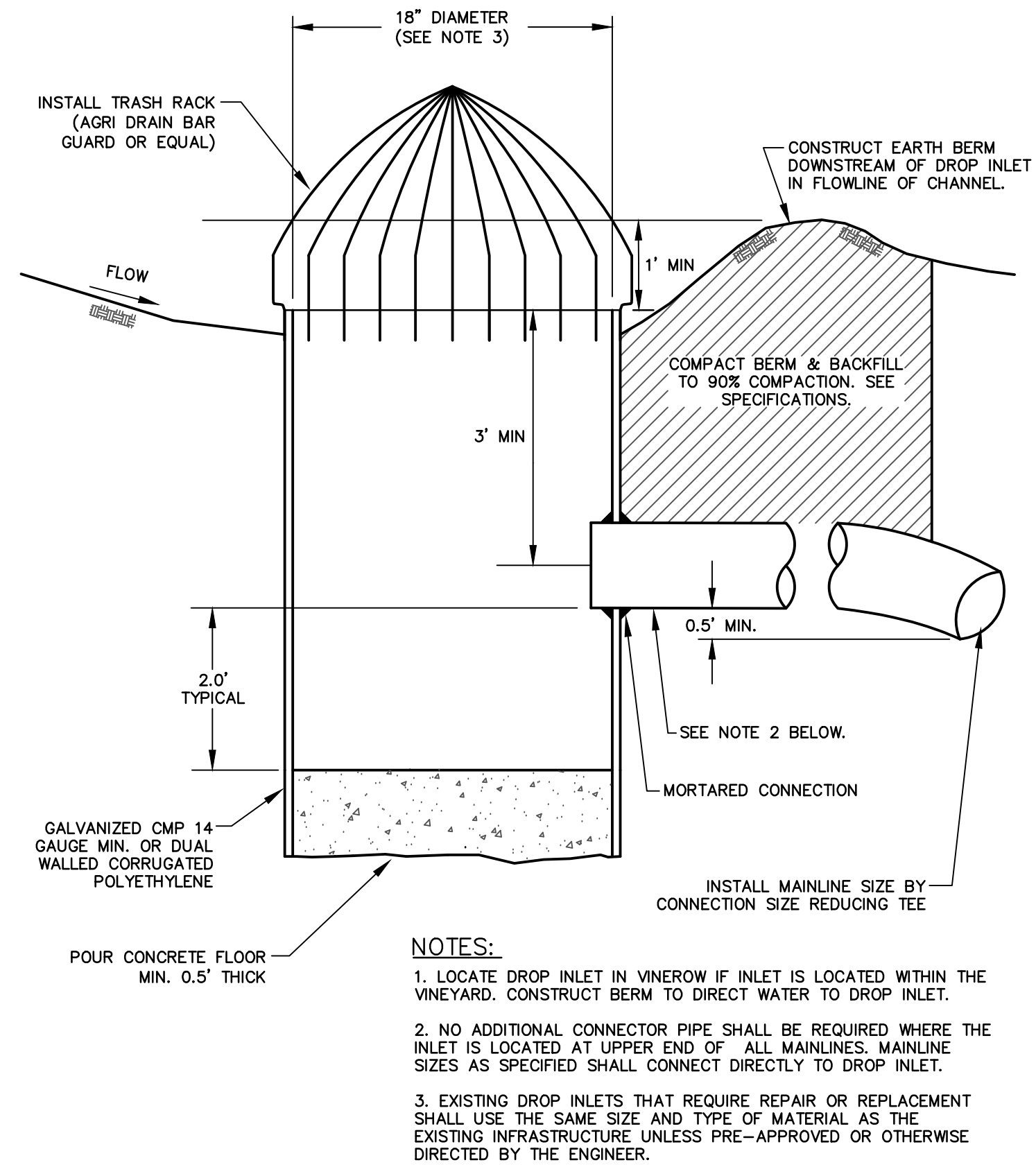
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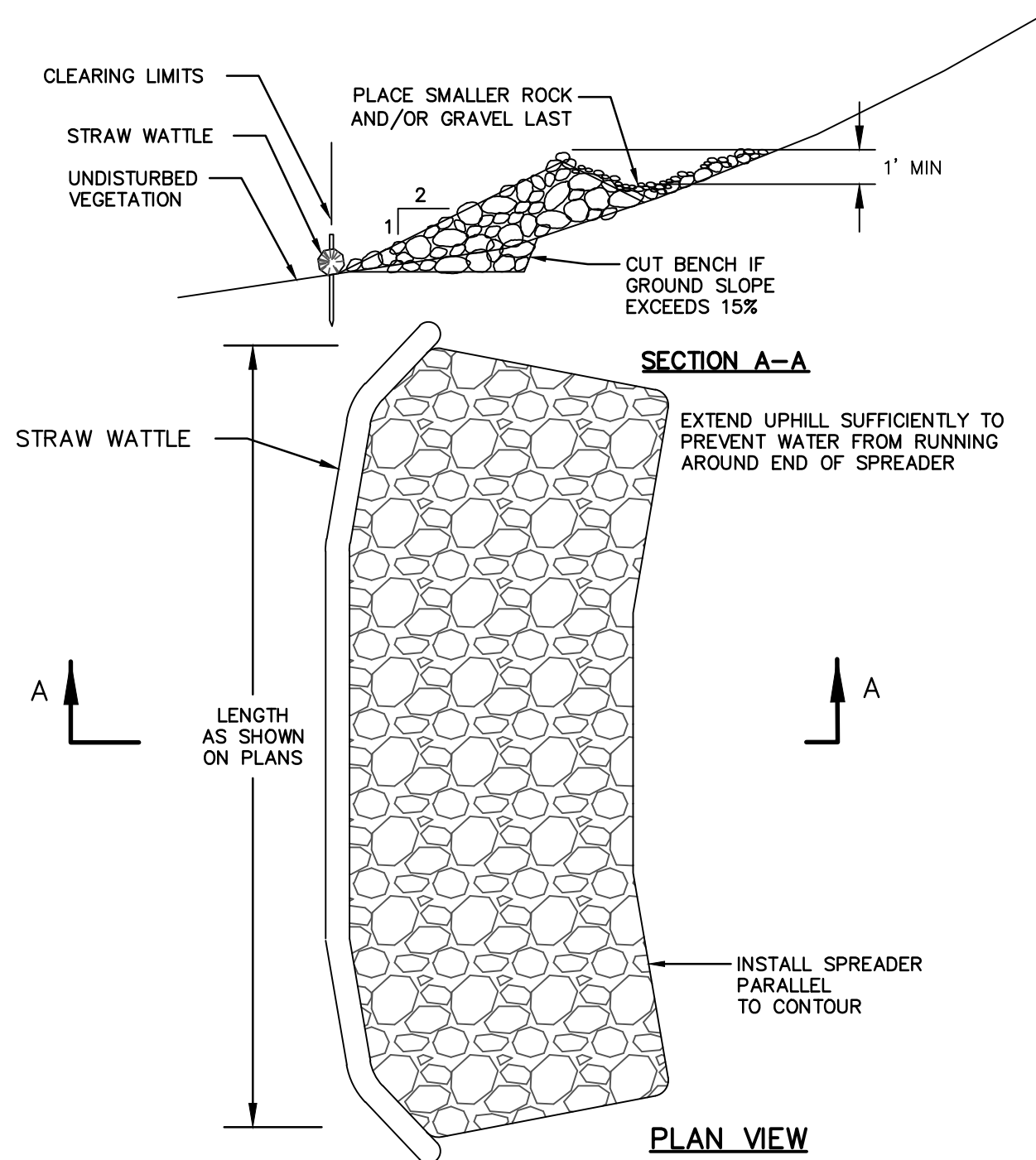
1 INSLOPED AVENUE
4 N.T.S.



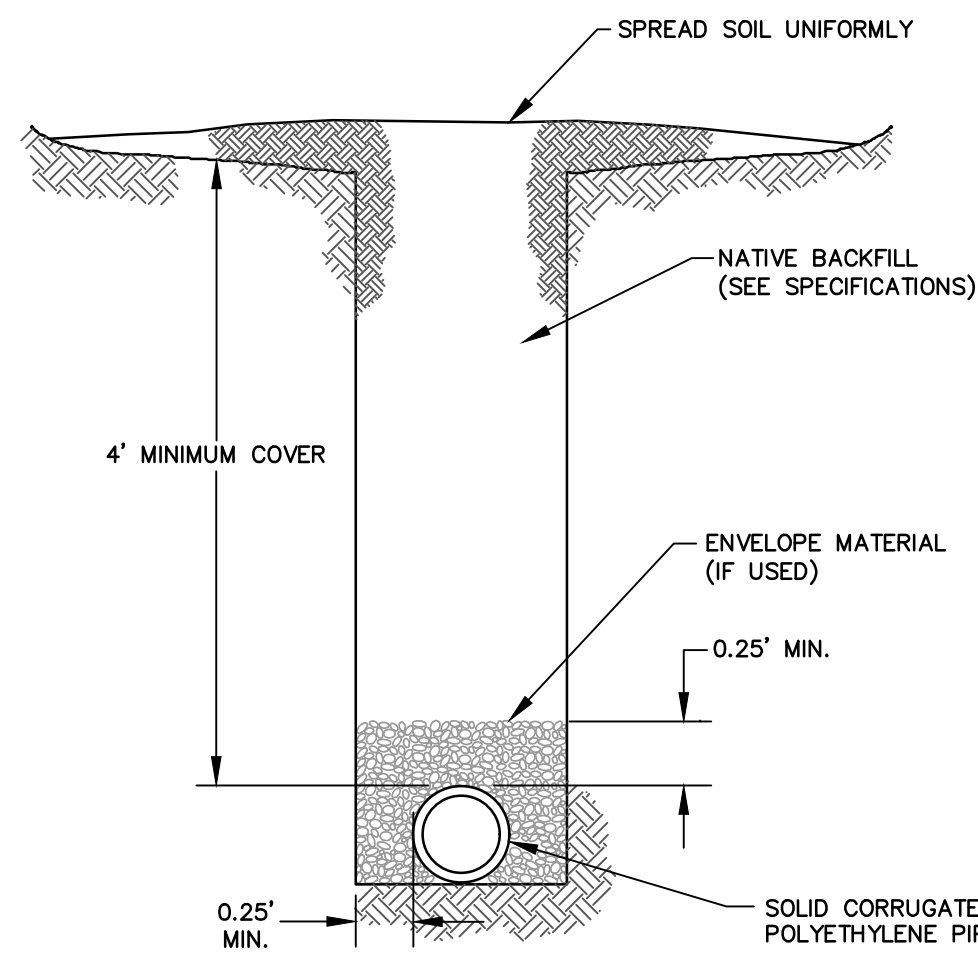
2 CULVERT REPAIR
4 N.T.S.



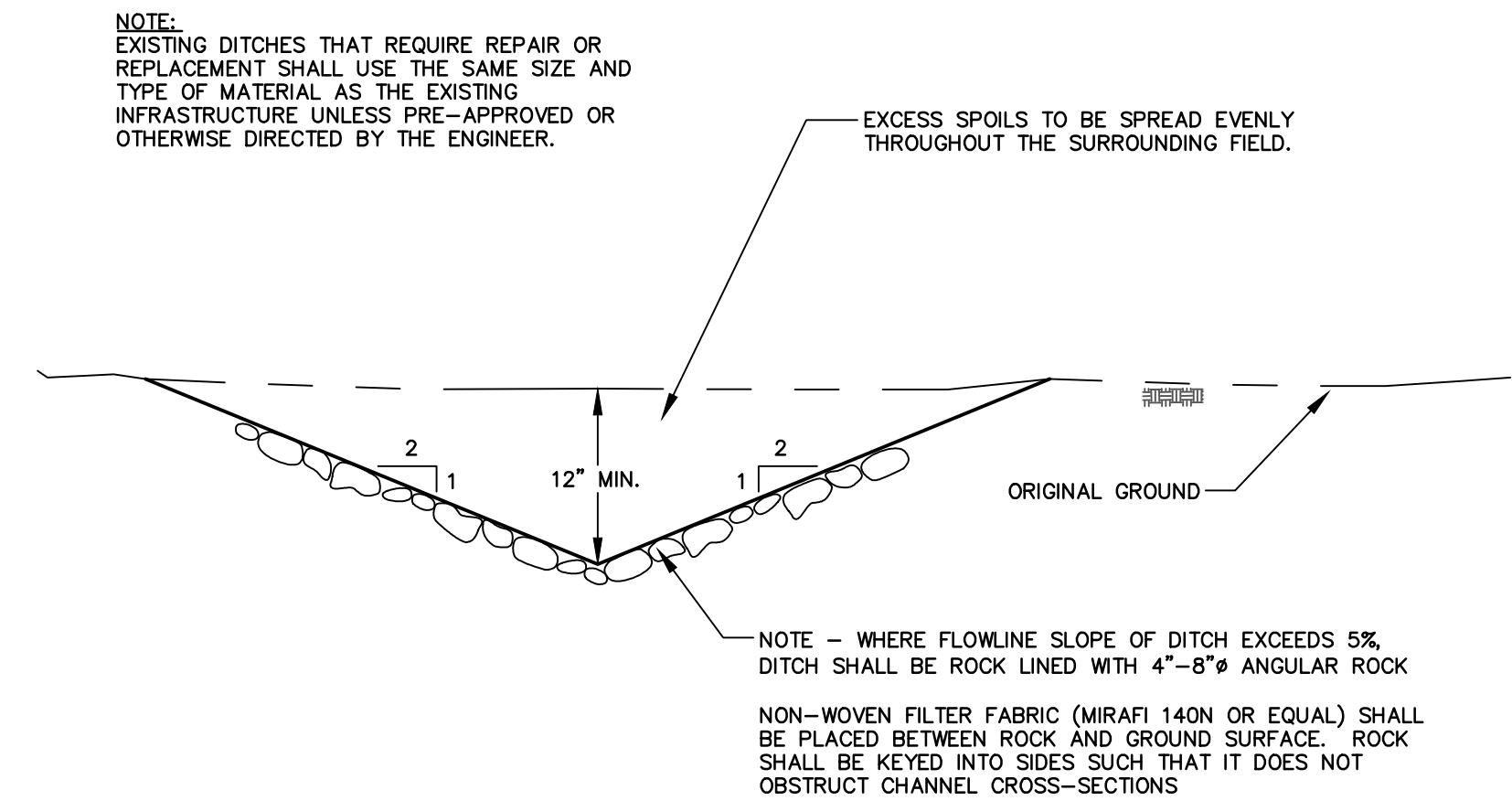
3 STANDARD DROP INLET
4 N.T.S.



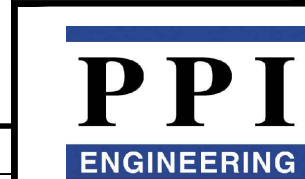
4 ROCK LEVEL SPREADER
4 N.T.S.



5 SURFACE DRAINAGE PIPELINE
4 N.T.S.



6 DITCH REPAIR
4 N.T.S.



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JOB NO: 12213201
DWG. NO: 12213201B

CONSTELLATION BRANDS INC.
WAPPO HILL

EROSION CONTROL PLAN
DETAILS

DESIGN ENGINEER: J. BUSHEY, M. BUENO, R. ROSASCO

SCALE: AS SHOWN DRAWN BY: JCJ DATE: 3-13-25 SHEET: 4 OF: 4

REV. NO.	DESCRIPTION	BY	DATE
1	DRAWING 12213201B SUPERSEDES DRAWING 12213201A. INCORPORATED CHANGES RESULTING FROM COUNTY COMMENTS. NO CHANGES WERE MADE TO THIS SHEET.	JCJ	3-3-25

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