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Stormwater Control Plan

DRAFT

Stormwater Control Plan
For a Regulated Project for the
Sleeping Lady Vineyard Winery

April 15, 2016

This plan was prepared using the instructions, criteria, and minimum requirements in the Bay Area Stormwater Management Agencies Association's (BASMAA's) *Post-Construction Manual*.

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Project Data

Table 1. Project Data Form

Project Name/Number	Sleeping Lay Vineyard Winery
Application Submittal Date	November 2015
Project Location	5537 Solano Avenue Napa, CA 94558 APN 034-170-005
Project Phase No.	N/A
Project Type and Description	New Winery Facility
Total Project Site Area (acres)	2 +/-
Total New and Replaced Impervious Surface Area	73,225 square feet (approximate)
Total Pre-Project Impervious Surface Area	65,605 square feet (approximate)
Total Post-Project Impervious Surface Area	94,630 square feet (approximate)

I. Setting

I.A. Project Location and Description

Sleeping Lady Vineyard LLC is applying for a Use Permit to construct and operate a new winery at their property located at 5537 Solano Avenue in Napa County, California. The subject property, known as Napa County Assessor's Parcel Number 034-170-005, is located along the west side of Solano Avenue approximately 0.6 miles south of the intersection of Solano Avenue and Hoffman Lane between the City of Napa and the Town of Yountville.

The roughly 103.8 acre parcel is zoned Agricultural Preserve (AP) and Agricultural Watershed (AW). Topography in the vicinity of the project area can be described as gently to moderately sloping with overall average slopes between 5% and 30%. The United States Department of Agriculture Soil Conservation Service Soils Map for Napa County shows the winery building site area mapped as Cortina very stony loam, 0 to 5% slopes and Bressa-Dibble complex 15 to 30 percent slopes (Hydrologic Soil Group A & C, respectively).

Existing structures on the property include a single family residence, a second dwelling unit, vineyards as well as residential and agricultural accessory buildings that support the existing residential and agricultural uses on the property.

A drainage ditch is located in the central portion of the property. The ditch runs along the driveway, in an easterly direction and leaves the property via a box culvert at Solano Avenue. The drainage is ultimately tributary to the Napa River. The ditch is mapped as a blue-line stream upstream of the subject property but has no blue-line designation on the subject parcel.

Proposed onsite improvements include renovation of an existing barn for use as a winery, construction of a future covered outdoor work area, water tanks, wastewater systems, driveway widening and parking. The planned site improvements are illustrated on the plans prepared by Coffman Engineers.

I.B. Opportunities and Constraints for Stormwater Control

Opportunities for stormwater control include

1. Gently sloping topography and elevation of the winery site will allow roof and impervious area runoff to be routed to treatment areas at lower elevations
2. Permeable soils near building site (HSG A)
3. Large vegetated buffer (vineyard with cover crop) between winery building site and drainage ways

Constraints for stormwater control include:

1. Potential for high seasonal groundwater conditions
2. Lack of undeveloped areas given that most of the site is developed in vineyard

II. Low Impact Development Design Strategies

II.A. Optimization of Site Layout

II.A.1. Limitation of development envelope

The proposed site layout has been designed to utilize the existing driveway that currently provides access to the existing residences and vineyards. The driveway has to be widened to meet County standards but utilizing the existing driveway alignment minimizes the development envelope.

Furthermore the main winery building will utilize an existing barn that will be renovated. The adjacent area that will be used for the covered outdoor work area as well as the parking area is in the area of an existing storage yard that is already disturbed and compacted.

The proposed buildings and access road improvements have been carefully designed to preserve the existing trees and native vegetation onsite to the greatest extent possible.

II.A.2. Preservation of natural drainage features

All natural drainage features on the property will be preserved.

II.A.3. Setbacks from creeks, wetlands, and riparian habitats

The winery development area is located well away from all streams and associated setbacks. The driveway is located adjacent to a drainage channel that is an extension of a blue-line stream but is not a blue-line stream itself. The road will be widened as part of the project but will generally maintain existing setbacks to the drainage channel and widening will be on the opposite side of the driveway.

II.A.4. Minimization of imperviousness

As previously noted the project will utilize the existing driveway alignment which will be shared with the existing residences. This will minimize the amount of impervious surface required to provide access to the winery site. Furthermore, all access ways will be designed to the County minimum width standards required for safe access to ensure that excess impervious surfaces are not created.

Additionally, the winery will utilize the existing barn building and surrounding storage yard areas to minimize the creation of new impervious surfaces.

II.A.5. Use of drainage as a design element

Drainage design will be coordinated with the landscape design to provide an aesthetically pleasing site layout that addresses stormwater control requirements.

II.B. Use of Permeable Pavements

Permeable pavements are not currently planned. If permeable pavements are incorporated into the final project design they will be designed in accordance with manufacturers' recommendations and the BASMAA Post-Construction Manual requirements.

II.C. Dispersal of Runoff to Pervious Areas

The site layout and topography will allow for dispersal of runoff from impervious surfaces at the winery site to pervious receiving areas.

II.D. Stormwater Control Measures

Runoff from all impervious areas at the building site, including roofs and paved areas in the immediate vicinity of the winery facility, will be routed to a bioretention facility as shown on the Stormwater Control Plan Exhibit. The facilities will be designed and constructed to the criteria in the BASMAA Post-Construction Manual (July 2014), including the following features:

- Surrounded by a concrete curb, wood header, steel edge or level compacted soil berm. Where adjacent to pavement, curbs will be thickened and an impermeable vertical cutoff wall will be included if required by the soils engineer.
- Each layer built flat, level, and to the elevations specified in the plans:
 - Bottom of Gravel Layer (BGL)
 - Top of Gravel Layer (TGL)
 - Top of Soil Layer (TSL)
 - Overflow Grate
 - Facility Rim
- 12 inches of Class 2 permeable rock, Caltrans specification 68-2.02F(3)
- 18 inches sand/compost mix meeting BASMAA specifications
- 4 inch diameter SDR 35 PVC perforated pipe underdrain, installed with the invert at the top of the Class 2 permeable rock layer with holes facing down, and connected to the overflow structure at that same elevation
- 6-inch-deep reservoir between top of soil elevation and overflow elevation
- Concrete drop inlet with frame overflow structure, with grate set to specified elevation, connected to storm drain (overflow used where storm drain connection is available and omitted where no storm drain exists)
- Vertical cutoff walls where needed to protect adjacent pavement
- Plantings selected for water conservation
- Irrigation system on a separate zone, with drip emitters and “smart” irrigation controllers

- Sign identifying the facility as a stormwater treatment facility.

The only significant new and reconstructed impervious area on the site which does not drain to a bioretention facility is the long linear driveway.

III. Documentation of Drainage Design

III.A. Descriptions of Each Drainage Management Area

III.A.1. Table of Drainage Management Areas

DMA Name	Surface Type	Area (square feet)
DMA #1	Roof, driveway paving	14,200 +/-
DMA #2	Driveway paving	14,900 +/-
DMA #3	Driveway paving	10,100 +/-
DMA #4	Driveway paving	34,600 +/-

III.A.2. Drainage Management Area Descriptions

DMA #1, totaling 14,200 +/- square feet, drains the winery building site, parking area and portion of the driveway. DMA #1 drains to Bioretention Area #1 via a storm drain pipe.

DMA #2, totaling 14,900 +/- square feet, drains a portion of the driveway. DMA #2 drains to Vegetated Receiving Area #2 via sheet flow.

DMA #3, totaling 10,100 +/- square feet, drains a portion of the driveway. DMA #3 drains to Vegetated Receiving Area #3 via sheet flow.

DMA #4, totaling 34,600 +/- square feet, drains a portion of the driveway. DMA #4 drains to Vegetated Receiving Area #4 via sheet flow.

III.B. Tabulation and Sizing Calculations

III.B.1. Information Summary for Bioretention Facility Design

Total Project Area (Square Feet)	
DMA #1	14,200 +/-

III.B.2. Self-Treating Areas

DMA Area
Name (square feet)

None	
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III.B.3. Self-Retaining Areas

DMA Area
Name (square feet)

None	
------	--

III.B.4. Areas Draining to Vegetated Receiving Areas

DMA Area
Name (square feet)

DMA #2	14,900 +/-
DMA #3	10,100 +/-
DMA #4	34,600 +/-

III.B.5. Areas Draining to Self-Retaining Areas

DMA Name	Area (square feet)	Post-project surface type	Runoff factor	Product runoff factor [A]	Receiving self-retaining DMA	Receiving self-retaining DMA Area (square feet) [B]	Ratio [A]/[B]
None							

III.B.6. Areas Draining to Bioretention Facilities

DMA Name	DMA Area (square feet)	Post-project surface type	DMA Runoff factor	DMA Area × runoff factor	Facility Name		
					Bioretention Area #1		
#1	14,200	Imperv	1	14,200	Sizing factor	Minimum Facility Size	Proposed Facility Size
Total=				14,200	0.04	568	750

III.B.7. Areas Draining to Vegetated Receiving Areas

DMA Name	Area (square feet)	Post-project surface type	Runoff factor	Product runoff factor)[A]	Receiving self-retaining DMA	Receiving self-retaining DMA Area (square feet) [B]	Ratio [A]/[B]
DMA #2	14,900 +/-	Impervious	1	14,900 +/-	#2	57,200 +/-	0.26
DMA #3	10,100 +/-	Impervious	1	10,100 +/-	#3	13,200 +/-	0.76
DMA #4	34,600 +/-	Impervious	1	34,600 +/-	#4	42,000 +/-	.82

IV. Source Control Measures

IV.A. Site activities and potential sources of pollutants

IV.B. Source Control Table

Potential source of runoff pollutants	Permanent source control BMPs	Operational source control BMPs
<input checked="" type="checkbox"/> Storm Drain Inlets	<input checked="" type="checkbox"/> Mark all inlets with the words “No Dumping! Drains to Waterway” or similar.	<input checked="" type="checkbox"/> Maintain and periodically repaint or replace inlet markings. <input checked="" type="checkbox"/> Provide stormwater pollution prevention information to all onsite personnel. <input checked="" type="checkbox"/> See applicable BMPs in Fact Sheet SC-44, “Drainage System Maintenance” in the CASQA Stormwater Quality Handbook at: www.casqa.org/resources/bmp-handbooks <input checked="" type="checkbox"/> Include the following in lease agreements (if facility is leased): “Tenant shall not allow anyone to discharge anything to the storm drains or to store or deposit materials so as to create a potential discharge to storm drains.”
<input checked="" type="checkbox"/> Interior Floor Drains and Elevator Shaft Pumps	<input checked="" type="checkbox"/> All interior floor drains will be plumbed to the sanitary sewer.	<input checked="" type="checkbox"/> Inspect and maintain drains to prevent blockage and overflow.
<input type="checkbox"/> Interior Parking Garages	<input type="checkbox"/> Parking garage floor drains will be plumbed to the sanitary sewer	<input type="checkbox"/> Inspect and maintain drains to prevent blockage and overflow.
<input checked="" type="checkbox"/> Indoor and Structural Pest Control	<input checked="" type="checkbox"/> Buildings will be designed to meet applicable code requirements to discourage entry of pests.	<input checked="" type="checkbox"/> Provide Integrated Pest Management information to Owners, lessees and operators.
<input checked="" type="checkbox"/> Landscape / Outdoor Pesticide Use / Building and Grounds Maintenance	<input checked="" type="checkbox"/> Landscape will be designed to accomplish the following: Preserve existing native trees, shrubs and groundcover to the maximum extent	<input checked="" type="checkbox"/> Maintain landscaping using the minimum required or no pesticides and fertilizers. <input checked="" type="checkbox"/> See applicable operational BMPs in Fact Sheet SC-41, “Building and Grounds Maintenance” in the CASQA Stormwater Quality Handbook at: www.casqa.org/resources/bmp-handbooks <input checked="" type="checkbox"/> Provide IPM information to new owners, lessees and

	<p>practicable.</p> <p>Minimize irrigation and runoff, promote surface infiltration where appropriate and to minimize the use of fertilizers and pesticides that can contribute to stormwater pollution.</p> <p>Where landscape areas are used to retain or detain stormwater plants that are tolerant of saturated soil conditions will be used.</p> <p>Pest resistant plants will be specified where practicable.</p> <p>Plants will be selected for site soils, slopes, climate, sun, wind, rain, land use, air movement, ecological consistency and plant interactions.</p>	operators.
<input type="checkbox"/> Pools, Spas, Ponds, Decorative Fountains and other Water Features	<input type="checkbox"/> Do not connect to onsite wastewater disposal systems. Drain to landscape area for infiltration	<input type="checkbox"/> See applicable operational BMPs in Fact Sheet SC-72, "Fountain and Pool Maintenance" in the CASQA Stormwater Quality Handbook at: www.casqa.org/resources/bmp-handbooks
<input type="checkbox"/> Food Service	<input type="checkbox"/> Restaurants, grocery stores and other food service operations will have a floor sink or other area for cleaning floor mats, containers and equipment located either indoors or in a covered area outdoors.	<input type="checkbox"/> Drain must be connected to grease interceptor and grease interceptor must be pumped whenever solids accumulate to 35% of total tank capacity.
<input checked="" type="checkbox"/> Refuse Areas	<input checked="" type="checkbox"/> Refuse and recycling will be collected in the trash enclosure. The enclosure	<input checked="" type="checkbox"/> Refuse area must be patrolled and cleaned regularly.

	will be fenced to prevent dispersal of materials. If covered, the area will be drained to the sanitary sewer system. If not covered, all bins will have water tight lids. Adjacent areas will be graded to prevent run-on.	
<input checked="" type="checkbox"/> Industrial Processes	<input checked="" type="checkbox"/> All winery processing activities to be performed indoors or outdoors under roof. No processes to drain to exterior or to storm drain system.	<input checked="" type="checkbox"/> See Fact Sheet SC-10, "Non-Stormwater Discharges" in the CASQA Stormwater Quality Handbooks at: www.casqa.org/resources/bmp-handbooks
<input checked="" type="checkbox"/> Outdoor Storage (Equipment or Materials)	<input checked="" type="checkbox"/> All winemaking materials to be used onsite are to be unloaded and immediately moved to a covered area to minimize exposure to rainfall. <input checked="" type="checkbox"/> Material deliveries shall be scheduled for times when it is not raining to minimize exposure to rainfall. <input checked="" type="checkbox"/> Facility shall comply with Napa County	<input checked="" type="checkbox"/> See the Fact Sheets SC-31, "Outdoor Liquid Container Storage" and SC-33, "Outdoor Storage of Raw Materials" in the CASQA Stormwater Quality Handbooks at: www.casqa.org/resources/bmp-handbooks

	requirements for Hazardous Waste Generation, Storage and Disposal, Hazardous Materials Release Response and Inventory, California Accidental Release (CalARP) and Uniform Fire Code Article 80 Section 103(b) & (c) 1991	
<input checked="" type="checkbox"/> Vehicle and Equipment Cleaning	<input checked="" type="checkbox"/> No vehicle or equipment washing will be performed onsite. All employees will be informed that car washing is prohibited.	<input checked="" type="checkbox"/> Not Applicable
<input checked="" type="checkbox"/> Vehicle and Equipment Repair and Maintenance	<input checked="" type="checkbox"/> No vehicle or equipment repairs will be performed onsite. All employees will be informed that vehicle maintenance onsite is prohibited.	<input checked="" type="checkbox"/> Notify all future owners, lessees and operators that the following restrictions apply to this site: <input checked="" type="checkbox"/> No person shall dispose of, nor permit the disposal, directly or indirectly of vehicle fluids, hazardous materials, or rinse water from parts cleaning into storm drains. <input checked="" type="checkbox"/> No vehicle fluid removal shall be performed outside a building, nor on asphalt or ground surfaces, whether inside or outside a building, except in such a manner as to ensure that any spilled fluid will be in an area of secondary containment. Leaking vehicle fluids shall be contained or drained from the vehicle immediately. <input checked="" type="checkbox"/> No person shall leave unattended parts or other open containers containing vehicle fluid, unless such containers are in use or in an area of secondary containment.
<input type="checkbox"/> Fuel Dispensing Areas	No vehicle fueling will be performed onsite. All employees will be informed that vehicle fueling onsite is prohibited.	<input type="checkbox"/> The property owner, lessee or operator, as applicable, shall dry sweep the fueling area routinely. <input type="checkbox"/> See the Business Guide Sheet, "Automotive Service–Service Stations" in the CASQA Stormwater Quality Handbooks at: www.casqa.org/resources/bmp-handbooks

<input type="checkbox"/> Loading Docks	<input type="checkbox"/> Loading docks shall be covered and graded to minimize run-on to and runoff from the loading area. <input type="checkbox"/> Roof downspouts shall be positioned to direct stormwater away from the loading area. <input type="checkbox"/> Water from loading dock areas shall be drained to a containment system that is pumped regularly to avoid overflows.	<input type="checkbox"/> Move loaded and unloaded items indoors as soon as possible. See Fact Sheet SC-30, “Outdoor Loading and Unloading” in the CASQA Stormwater Quality Handbooks at: www.casqa.org/resources/bmp-handbooks
<input checked="" type="checkbox"/> Fire Sprinkler Test Water	<input checked="" type="checkbox"/> Provide a means to drain fire sprinkler test water to infiltrate into landscaping and not discharge to the storm drain.	<input checked="" type="checkbox"/> See the note in Fact Sheet SC-41, “Building and Grounds Maintenance,” in the CASQA Stormwater Quality Handbooks at: www.casqa.org/resources/bmp-handbooks

<p>Miscellaneous Drain, Wash Water or Other Sources</p> <p><input checked="" type="checkbox"/>Boiler Drain Lines</p> <p><input checked="" type="checkbox"/>Condensate Drain Lines</p> <p><input checked="" type="checkbox"/>Rooftop Equipment</p> <p><input type="checkbox"/>Drainage Sumps</p> <p><input checked="" type="checkbox"/>Roofing, Gutters and Trim</p> <p><input type="checkbox"/>Other:</p>	<p><input checked="" type="checkbox"/>Boiler drain lines shall be directly or indirectly connected to the sanitary sewer system and may not discharge to the storm drain system.</p> <p><input checked="" type="checkbox"/>Condensate drain lines may discharge to landscaped areas if the flow is small enough that runoff will not occur.</p> <p><input checked="" type="checkbox"/>Condensate drain lines may not discharge to the storm drain system.</p> <p><input checked="" type="checkbox"/>Rooftop equipment with potential to produce pollutants shall be roofed and/or have secondary containment.</p> <p><input type="checkbox"/>Any drainage sumps on-site shall feature a sediment sump to reduce the quantity of sediment in pumped water.</p> <p><input type="checkbox"/>Include controls for other sources as specified by local agency.</p>	<p>If architectural copper is used, implement the following BMPs for management of rinsewater during installation:</p> <p><input checked="" type="checkbox"/>If possible, purchase copper materials that have been pre-patinated at the factory.</p> <p><input checked="" type="checkbox"/>If patination is done on-site, prevent rinse water from entering storm drains by discharging to landscaping or by collecting in a tank and hauling off-site.</p> <p><input checked="" type="checkbox"/>Consider coating the copper materials with an impervious coating that prevents further corrosion and runoff.</p> <p><input checked="" type="checkbox"/>Implement the following BMPs during routine maintenance:</p> <p><input checked="" type="checkbox"/>Prevent rinse water from entering storm drains by discharging to landscaping or by collecting in a tank and hauling offsite.</p>
<p><input checked="" type="checkbox"/>Plazas, Sidewalks and Parking Lots</p>	<p>None.</p>	<p><input checked="" type="checkbox"/>Sweep plazas, sidewalks, and parking lots regularly to prevent accumulation of litter and debris. Collect debris from pressure washing to prevent entry into the storm drain system. Collect washwater containing any cleaning agent or degreaser and haul offsite to municipal waste treatment plant for disposal, do not discharge to a storm drain.</p>

IV.C. Features, Materials, and Methods of Construction of Source Control BMPs

Full design specifications for all source control BMPs will be submitted with the building permit drawing package.

V. Stormwater Facility Maintenance

V.A. Ownership and Responsibility for Maintenance in Perpetuity

The Applicant must commit to executing a Post Construction Stormwater BMP Maintenance Agreement which will be recorded with Napa County. This agreement will obligate the applicant to accept responsibility for operation and maintenance of stormwater treatment and flow-control facilities in perpetuity or until such time as this responsibility is formally transferred to a subsequent property owner. Refer to the Stormwater Treatment Facilities Operation and Maintenance Plan for Sleeping Lady Vineyard Winery for detailed requirements.

V.B. Summary of Maintenance Requirements for Each Stormwater Facility

The bioretention facilities will be maintained on the following schedule at a minimum. Details of maintenance responsibilities and procedures will be included in a Stormwater Facility Operation and Maintenance Plan to be submitted for approval prior to the completion of construction.

At no time will synthetic pesticides or fertilizers be applied, nor will any soil amendments, other than aged compost mulch or sand/compost mix, be introduced.

Daily: The facilities will be examined for visible trash during regular policing of the site, and trash will be removed.

After Significant Rain Events: A significant rain event is one that produces approximately a half-inch or more rainfall in a 24-hour period. Within 24 hours after each such event, the following will be conducted:

The surface of the facility will be observed to confirm there is no ponding.

- Inlets and outlets will be inspected, and any accumulations of trash or debris will be removed.
- The surface of the mulch layer will be inspected for movement of material. Mulch will be replaced and raked smooth if needed.

Prior to the Start of the Rainy Season: In September or each year, the facility will be inspected to confirm there is no accumulation of debris that would block flow, and that growth and spread of plantings does not block inlets or the movement of runoff across the surface of the facility.

Annual Landscape Maintenance: In December - February of each year, vegetation will be cut back as needed, debris removed, and plants and mulch replaced as needed. The concrete work will be inspected for damage. The elevation of the top of soil and mulch layer will be confirmed to be consistent with the 6-inch reservoir depth.

Refer to the Stormwater Treatment Facilities Operation and Maintenance Plan for Sleeping Lady Vineyard Winery for additional stormwater facility maintenance requirements.

VI. Construction Checklist

See Plan Sheet #s
(To Be Filled In
When
Construction
Plans are
Complete)

Stormwater
Control
Plan
Page # Source Control or Treatment Control
Measure

1	Bioretention Area #1 & Vegetated Receiving Areas #2, #3 & #4	
1	Storm Drain Inlets	
N/A	Interior Flood Drains and Elevator Shaft Pumps	
N/A	Interior Parking Garages	
1	Indoor and Structural Pest Control	
1	Landscape / Outdoor Pesticide Use / Building and Grounds Maintenance	
N/A	Pools, Spas, Ponds, Decorative Fountains and other Water Features	
N/A	Food Service	
1	Refuse Areas	
1	Industrial Processes	
1	Outdoor Storage (Equipment or Materials)	
N/A	Vehicle and Equipment Cleaning	
N/A	Vehicle and Equipment Repair and Maintenance	
N/A	Fuel Dispensing Areas	
N/A	Loading Docks	
1	Fire Sprinkler Test Water	
1	Miscellaneous Drain, Wash Water or Other Sources	

	Boiler Drain Lines Condensate Drain Lines Rooftop Equipment Drainage Sumps Roofing, Gutters and Trim Other:	
1	Plazas, Sidewalks and Parking Lots	

VII. Certifications

This preliminary design of stormwater treatment facilities and other stormwater pollution control measures in this plan are intended to be in accordance with the current edition of the BASMAA *Post-Construction Manual* as required by Napa County.

General Notes

Property owner information is based upon that "Grant Deed" recorded January 24, 2014, under Document Number 2014-0001675 of Official Records, Napa County Records. Property lines shown hereon are based upon found monumentation and delineated from that map titled "Map No. 4525 Record of Survey of a Portion of the Lands of Roberta C. Simcoe" recorded in Book 28 of Record of Survey at Page 41, Napa County Records. A field survey was performed by Adobe Associates, Inc. on May 29 & June 2, 2015.

Features shown hereon are existing as of the date of the field survey performed by Adobe Associates, Inc.

Utilities shown hereon are based upon physical features observed at the time of this survey, such as paint markings, overhead wiring, utility poles, and utility boxes. For the location of under ground utilities, a subsurface utility locating company should be contacted.

Contours shown hereon are a 1' (one foot) vertical interval and are shown based upon a field survey performed by Adobe Associates, Inc., on May 29 & June 2, 2015.

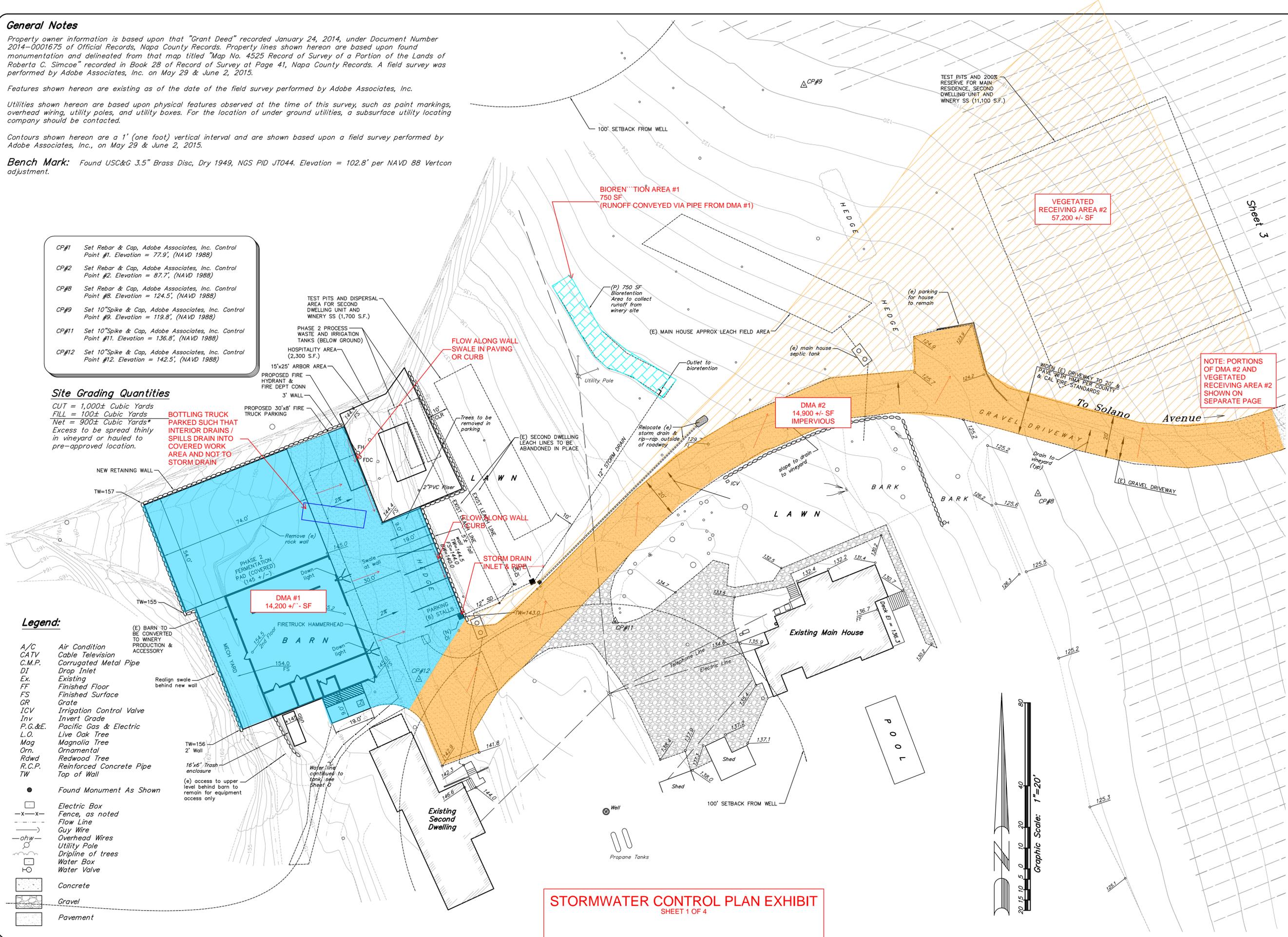
Bench Mark: Found USC&G 3.5" Brass Disc, Dry 1949, NGS PID JT044. Elevation = 102.8' per NAVD 88 Vertcon adjustment.

- CP#1 Set Rebar & Cap, Adobe Associates, Inc. Control Point #1. Elevation = 77.9', (NAVD 1988)
- CP#2 Set Rebar & Cap, Adobe Associates, Inc. Control Point #2. Elevation = 87.7', (NAVD 1988)
- CP#8 Set Rebar & Cap, Adobe Associates, Inc. Control Point #8. Elevation = 124.5', (NAVD 1988)
- CP#9 Set 10" Spike & Cap, Adobe Associates, Inc. Control Point #9. Elevation = 119.8', (NAVD 1988)
- CP#11 Set 10" Spike & Cap, Adobe Associates, Inc. Control Point #11. Elevation = 136.8', (NAVD 1988)
- CP#12 Set 10" Spike & Cap, Adobe Associates, Inc. Control Point #12. Elevation = 142.5', (NAVD 1988)

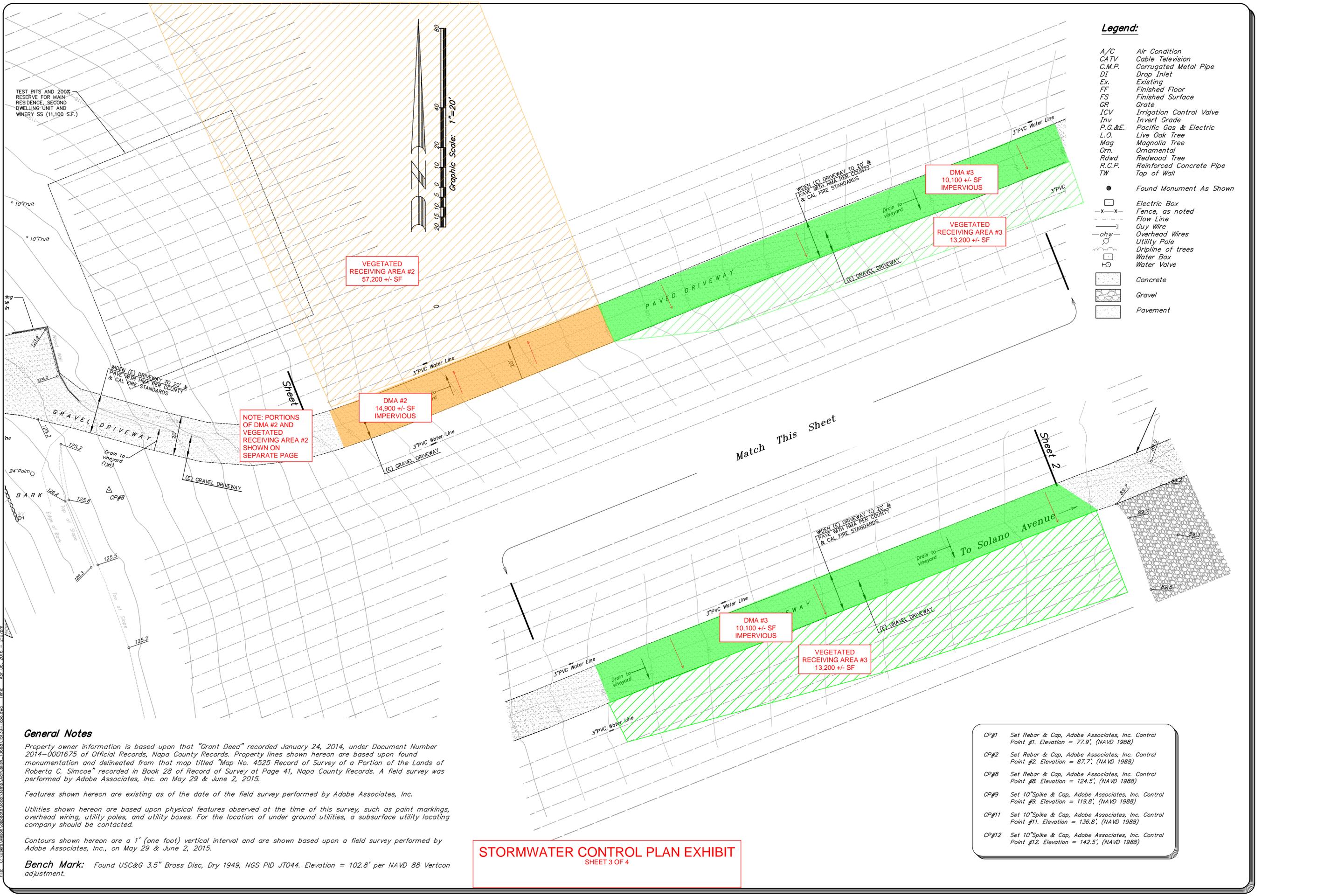
Site Grading Quantities

CUT = 1,000± Cubic Yards
 FILL = 100± Cubic Yards
 Net = 900± Cubic Yards*
 Excess to be spread thinly in vineyard or hauled to pre-approved location.

BOTTLING TRUCK PARKED SUCH THAT INTERIOR DRAINS / SPILLS DRAIN INTO COVERED WORK AREA AND NOT TO STORM DRAIN

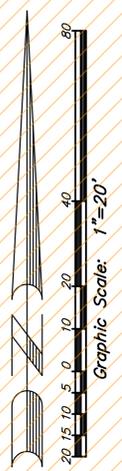


File: C:\Users\wilson\OneDrive\Local\Napa\A&P\01111111_13668\16139-1600.dwg Date: 06/01/2016 Time: 2:02pm



- Legend:**
- A/C Air Condition
 - CATV Cable Television
 - C.M.P. Corrugated Metal Pipe
 - DI Drop Inlet
 - Ex. Existing
 - FF Finished Floor
 - FS Finished Surface
 - GR Grate
 - ICV Irrigation Control Valve
 - Inv Invert Grade
 - P.G.&E. Pacific Gas & Electric
 - L.O. Live Oak Tree
 - Mag Magnolia Tree
 - Orn. Ornamental
 - Rdwd Redwood Tree
 - R.C.P. Reinforced Concrete Pipe
 - TW Top of Wall
 - Found Monument As Shown
 - Electric Box
 - x-x- Fence, as noted
 - Flow Line
 - Guy Wire
 - ohw- Overhead Wires
 - Utility Pole
 - Dripline of trees
 - Water Box
 - Water Valve
 - Concrete
 - Gravel
 - Pavement

TEST PITS AND 200% RESERVE FOR MAIN RESIDENCE, SECOND DWELLING UNIT AND WINERY SS (11,100 S.F.)



VEGETATED RECEIVING AREA #2
57,200 +/- SF

DMA #2
14,900 +/- SF IMPERVIOUS

NOTE: PORTIONS OF DMA #2 AND VEGETATED RECEIVING AREA #2 SHOWN ON SEPARATE PAGE

DMA #3
10,100 +/- SF IMPERVIOUS

VEGETATED RECEIVING AREA #3
13,200 +/- SF

DMA #3
10,100 +/- SF IMPERVIOUS

VEGETATED RECEIVING AREA #3
13,200 +/- SF

STORMWATER CONTROL PLAN EXHIBIT
SHEET 3 OF 4

General Notes

Property owner information is based upon that "Grant Deed" recorded January 24, 2014, under Document Number 2014-0001675 of Official Records, Napa County Records. Property lines shown hereon are based upon found monumentation and delineated from that map titled "Map No. 4525 Record of Survey of a Portion of the Lands of Roberta C. Simcoe" recorded in Book 28 of Record of Survey at Page 41, Napa County Records. A field survey was performed by Adobe Associates, Inc. on May 29 & June 2, 2015.

Features shown hereon are existing as of the date of the field survey performed by Adobe Associates, Inc.

Utilities shown hereon are based upon physical features observed at the time of this survey, such as paint markings, overhead wiring, utility poles, and utility boxes. For the location of under ground utilities, a subsurface utility locating company should be contacted.

Contours shown hereon are a 1' (one foot) vertical interval and are shown based upon a field survey performed by Adobe Associates, Inc., on May 29 & June 2, 2015.

Bench Mark: Found USC&G 3.5" Brass Disc, Dry 1949, NGS PID JT044. Elevation = 102.8' per NAVD 88 Vertcon adjustment.

- CP#1 Set Rebar & Cap, Adobe Associates, Inc. Control Point #1. Elevation = 77.9', (NAVD 1988)
- CP#2 Set Rebar & Cap, Adobe Associates, Inc. Control Point #2. Elevation = 87.7', (NAVD 1988)
- CP#8 Set Rebar & Cap, Adobe Associates, Inc. Control Point #8. Elevation = 124.5', (NAVD 1988)
- CP#9 Set 10" Spike & Cap, Adobe Associates, Inc. Control Point #9. Elevation = 119.8', (NAVD 1988)
- CP#11 Set 10" Spike & Cap, Adobe Associates, Inc. Control Point #11. Elevation = 136.8', (NAVD 1988)
- CP#12 Set 10" Spike & Cap, Adobe Associates, Inc. Control Point #12. Elevation = 142.5', (NAVD 1988)

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General Notes

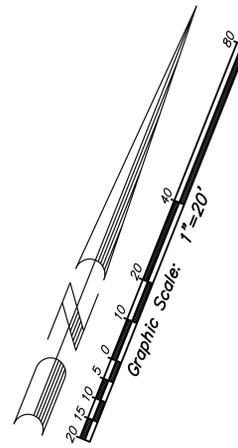
Property owner information is based upon that "Grant Deed" recorded January 24, 2014, under Document Number 2014-0001675 of Official Records, Napa County Records. Property lines shown hereon are based upon found monumentation and delineated from that map titled "Map No. 4525 Record of Survey of a Portion of the Lands of Robertha C. Simcoe" recorded in Book 28 of Record of Survey at Page 41, Napa County Records. A field survey was performed by Adobe Associates, Inc. on May 29 & June 2, 2015.

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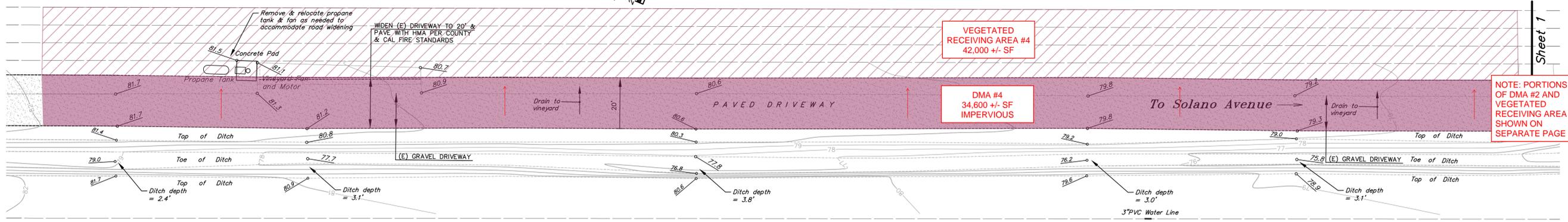
Bench Mark: Found USC&G 3.5" Brass Disc, Dry 1949, NGS PID JT044. Elevation = 102.8' per NAVD 88 Vertcon adjustment.



Legend:

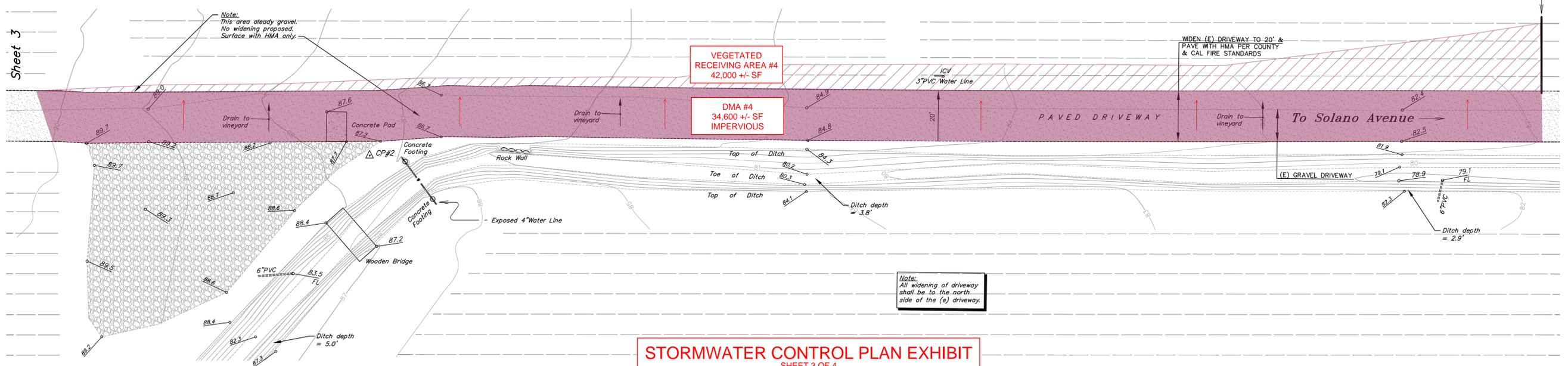
- | | | | |
|---------|--------------------------|-------|-------------------------|
| A/C | Air Condition | ● | Found Monument As Shown |
| CATV | Cable Television | □ | Electric Box |
| C.M.P. | Corrugated Metal Pipe | -x-x- | Fence, as noted |
| DI | Drop Inlet | --- | Flow Line |
| Ex. | Existing | --- | Guy Wire |
| FF | Finished Floor | ohw | Overhead Wires |
| FS | Finished Surface | ○ | Utility Pole |
| GR | Grate | ○ | Dripline of trees |
| ICV | Irrigation Control Valve | □ | Water Box |
| Inv | Invert Grade | ○ | Water Valve |
| P.G.&E. | Pacific Gas & Electric | □ | Concrete |
| L.O. | Live Oak Tree | □ | Gravel |
| Mag | Magnolia Tree | □ | Pavement |
| Orn. | Ornamental | | |
| Rawd | Redwood Tree | | |
| R.C.P. | Reinforced Concrete Pipe | | |
| TW | Top of Wall | | |

- CP#1 Set Rebar & Cap, Adobe Associates, Inc. Control Point #1. Elevation = 77.9'; (NAVD 1988)
- CP#2 Set Rebar & Cap, Adobe Associates, Inc. Control Point #2. Elevation = 87.7'; (NAVD 1988)
- CP#8 Set Rebar & Cap, Adobe Associates, Inc. Control Point #8. Elevation = 124.5'; (NAVD 1988)
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- CP#12 Set 10" Spike & Cap, Adobe Associates, Inc. Control Point #12. Elevation = 142.5'; (NAVD 1988)



Note:
All widening of driveway shall be to the north side of the (e) driveway.

Match This Sheet



Note:
All widening of driveway shall be to the north side of the (e) driveway.

STORMWATER CONTROL PLAN EXHIBIT
SHEET 3 OF 4

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General Notes

Property owner information is based upon that "Grant Deed" recorded January 24, 2014, under Document Number 2014-0001675 of Official Records, Napa County Records. Property lines shown hereon are based upon found monumentation and delineated from that map titled "Map No. 4525 Record of Survey of a Portion of the Lands of Roberto C. Simcoe" recorded in Book 28 of Record of Survey at Page 41, Napa County Records. A field survey was performed by Adobe Associates, Inc. on May 29 & June 2, 2015.

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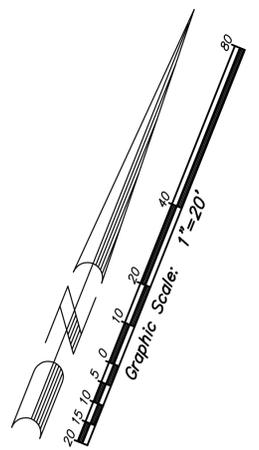
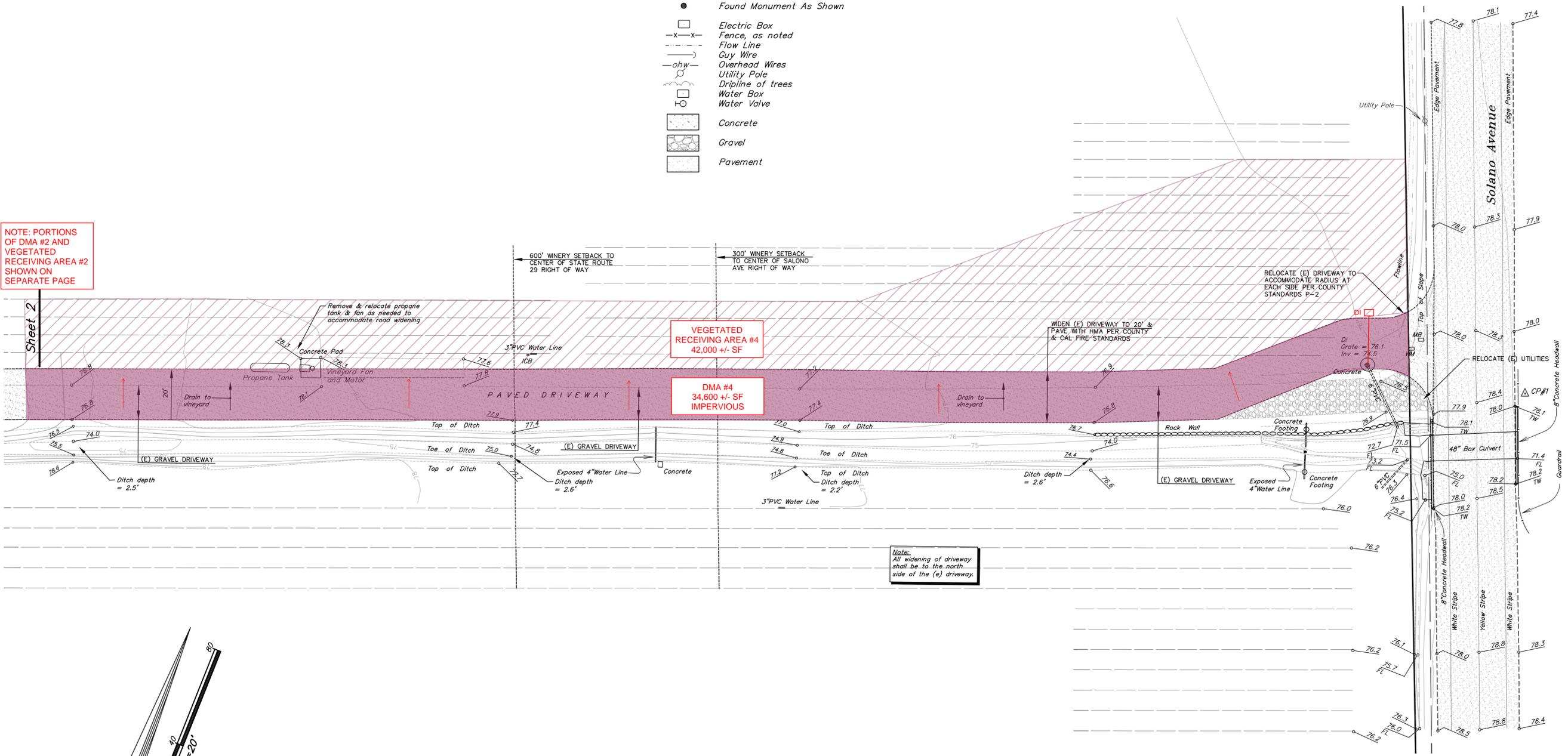
Legend:

- A/C Air Condition
- CATV Cable Television
- C.M.P. Corrugated Metal Pipe
- DI Drop Inlet
- Ex Existing
- FF Finished Floor
- FS Finished Surface
- GR Grate
- ICV Irrigation Control Valve
- Inv Invert Grade
- P.G.&E. Pacific Gas & Electric
- L.O. Live Oak Tree
- Mag Magnolia Tree
- Orn Ornamental
- Rdwd Redwood Tree
- R.C.P. Reinforced Concrete Pipe
- TW Top of Wall

- Found Monument As Shown
- Electric Box
- x-x- Fence, as noted
- Flow Line
- Guy Wire
- ohw- Overhead Wires
- Utility Pole
- Dripline of trees
- Water Box
- Water Valve
- ▨ Concrete
- ▩ Gravel
- ▧ Pavement

- CP#1 Set Rebar & Cap, Adobe Associates, Inc. Control Point #1. Elevation = 77.9', (NAVD 1988)
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- CP#12 Set 10" Spike & Cap, Adobe Associates, Inc. Control Point #12. Elevation = 142.5', (NAVD 1988)

NOTE: PORTIONS OF DMA #2 AND VEGETATED RECEIVING AREA #2 SHOWN ON SEPARATE PAGE



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