



STORMWATER CONTROL PLAN

SMALL/SINGLE-FAMILY HOME PROJECT

SAPP RESIDENCE

2 TALLENT LANE, YOUNTVILLE, CA 94599

APN: 036-041-032

NOVEMBER 15, 2024



11.15.2024

PREPARED BY:

MADRONE ENGINEERING

1485 MAIN STREET, SUITE 302

ST. HELENA, CA 94574



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I. Introduction & General Requirements

A. Report Overview

Madrone Engineering has prepared this report to assist the Sapp Residence project in complying with current storm water regulations, specifically the Phase II NPDES Permit for Small Municipal Storm Sewer Systems (MS4s). As of June 30, 2015, development projects that create or replace 2,500 square feet or more of impervious surface (roofs or pavement) must incorporate specific measures to reduce runoff.

As the total new or reconstructed impervious area for this project is greater than 5,000 square feet, but part of a single-family residence (SFR) project, the project is required to submit a complete Storm Water Control Plan for Small/Single-Family Home Projects. This report follows the Bay Area Stormwater Management Agencies Association guidelines found in Appendix C (Small/Single-Family Home Projects) of the Post-Construction Manual.

B. Project Description

This project is requesting a design review approval for the construction of a new residence and accessory dwelling unit (ADU) located at 2 Tallent Lane, Yountville, CA (APN 036-041-032). The project will demolish the existing residential structure, garage, driveway, and hardscape and construct a new single-family residence (SFR), accessory dwelling unit (ADU), pool, driveway, and related utility infrastructure.

The project location is in the town of Yountville, approximately 200 ft from Yountville Cross Road, in a single-family residential area which includes multiple developed residential parcels. The project proposes to be constructed on level ground with slopes less than 5% on the valley floor of Napa County. The project proposes to relocate the existing driveway to the front of the property off Tallent Lane. Stormwater is currently surface draining to a drain inlet located on the neighboring parcel to the south. There is one existing well on the parcel to remain. No springs were observed on the parcel.



II. Project Data Form

Project Name/Number	Sapp Residence
Application Submittal Date	November 15, 2024
Project Location (street address + APN)	2 Tallent Lane Yountville, CA 94599 APN: 036-041-032
Name of Owner or Developer	Matthew and Amy Sapp
Project Type and Description	Small Project (> 5,000 square feet) New SFR, ADU, pool, and driveway
Total Project Site Area (acres)	0.26± acres
Total New or Replaced Impervious Surface Area (square feet)	8,004 square feet
Total Pre-Project Impervious Surface Area	~3,100 square feet
Total Post-Project Impervious Surface Area	~8,004 square feet
Runoff Reduction Measures Selected (check one or more)	<input checked="" type="checkbox"/> 1. Disperse runoff to vegetated area <input type="checkbox"/> 2. Pervious Pavement <input type="checkbox"/> 3. Cisterns or Rain Barrels <input checked="" type="checkbox"/> 4. Bioretention Facility or Planter Box



III. Runoff Reduction Option Checklists

The guidelines in Appendix C of the BASMAA Post-Construction Manual provide four options for reducing storm water runoff:

1. Disperse Runoff to Vegetated Areas
2. Pervious Pavement
3. Cisterns or Rain Barrels
4. Bioretention Facility or Planter Box

Storm water runoff from this project will be routed to vegetated areas (Option 1) and/or directed to bioretention facilities (Option 4). See below for specific details showing the implementation of the selected options.

A. Option 1: Disperse Runoff to Vegetated Areas

On the site plan, show:

- ☒ Each impervious area from which runoff will be directed, and its square footage.
- ☒ The vegetated areas that will receive runoff, and the approximate square footage of each.
- ☒ If necessary, explain in notes on the plan how runoff will be routed from impervious surfaces to vegetated areas.

Confirm the following standard specifications are met:

- ☒ Tributary impervious square footage in no instance exceeds twice the square footage of the receiving pervious area.
- ☒ The design, including slopes and soils, reflects a reasonable expectation that an inch of rainfall will soak into the soil and produce no runoff.
- ☒ Roof areas collect runoff and route it to the receiving pervious area via gutters and downspouts.
- ☒ Paved areas are sloped so drainage is routed to the receiving pervious area.
- ☒ Runoff is dispersed across the vegetated area (for example, with a splash block) to avoid erosion and promote infiltration.
- ☒ Vegetated area has amended soils, vegetation, and irrigation as required to maintain soil stability and permeability.
- ☒ Any drain inlets within the vegetated area are at least 3 inches above surrounding grade.

B. Option 2: Pervious Pavement

On the site plan, show:

- ☐ Location, extent and types of pervious pavements.

Confirm the following standard specifications are met:

- ☐ No erodible areas drain on to permeable pavement.
- ☐ Subgrade compaction is minimal.



- ☐ Reservoir base course is of open-graded crushed stone. Base depth is adequate to retain rainfall (3 inches is adequate) and support design loads (more depth may be required).
- ☐ No subdrain is included or, if a subdrain is included, outlet elevation is a minimum of 3 inches above bottom of base course.
- ☐ Subgrade is uniform and slopes are not so steep that subgrade is prone to erosion.
- ☐ Rigid edge is provided to retain granular pavements and unit pavers.
- ☐ Solid unit pavers, if used, are set in sand or gravel with minimum 3/8 inch gaps between the pavers. Joints are filled with an open-graded aggregate free of fines.
- ☐ Permeable concrete or porous asphalt, if used, are installed by industry-certified professionals according to the vendor's recommendations.
- ☐ Selection and location of pavements incorporates Americans with Disabilities Act requirements (if applicable), site aesthetics, and uses.

C. Option 3: Cisterns or Rain Barrels

On the site plan, show:

- ☐ Impervious areas tributary to each cistern or rain barrel.
- ☐ Location of each cistern or rain barrel.

Confirm the following standard specifications are met:

- ☐ Rain barrels are sited at grade on a sound and level surface at or near gutter downspouts.
- ☐ Gutters tributary to rain barrels are screened with a leaf guard or maximum 1/2-inch to 1/4-inch-minimum corrosion-resistant metallic hardware fabric.
- ☐ Water collected will be used for irrigation only.
- ☐ Openings are screened with a corrosion-resistant metallic fine mesh (1/16 inch or smaller) to prevent mosquito harborage.
- ☐ Large openings are secured to prevent entry by children.
- ☐ Rain barrels and gutters are to be cleaned annually.
- ☐ The local mosquito and vector control district is informed of the installation. The district will be provided additional information and/or rights of entry if they request.

D. Option 4: Bioretention Facility or Planter Box

On the site plan, show:

- ☒ Impervious areas tributary to the planter box.
- ☒ Location and footprint of planter box.

Confirm the following standard specifications are met:

- ☒ Reservoir depth is 4"-6" minimum.
- ☒ 18" depth soil mix with minimum long-term infiltration rate of 5"/hour. See <http://www.cccleanwater.org/c3-guidebook.html> for a list of soil mix suppliers.
- ☒ Surface area of soil mix is a minimum 0.04 times the tributary impervious area.



- ☒ "Class 2 perm" drainage layer 12" deep.
- ☒ No filter fabric.
- ☐ Perforated pipe (PVC SDR 35 or approved equivalent) underdrain with outlet located flush or nearly flush with planter bottom.
- ☐ Connection with sufficient head to storm drain or discharge point.
- ☐ Underdrain has a clean-out port consisting of a vertical, rigid, non-perforated PVC pipe, connected to the underdrain via a sweep bend, with a minimum diameter of 4" and a watertight cap.
- ☐ Overflow outlet connected to a downstream storm drain or approved discharge point.
- ☒ Planter is set level.
- ☒ Emergency spillage will be safely conveyed overland.
- ☒ Plantings are suitable to the climate, exposure, and a well-drained soil.
- ☒ Irrigation system with connection to water supply, on a separate zone.

IV. Conclusion

This report demonstrates that the project design is in compliance with current stormwater regulations and follows the recommendations of Appendix C of the BASMAA Post-Construction Manual for a Small/Single-Family Home Project.

24.029
Sapp Residence
2 Tallent Lane



APPENDICES

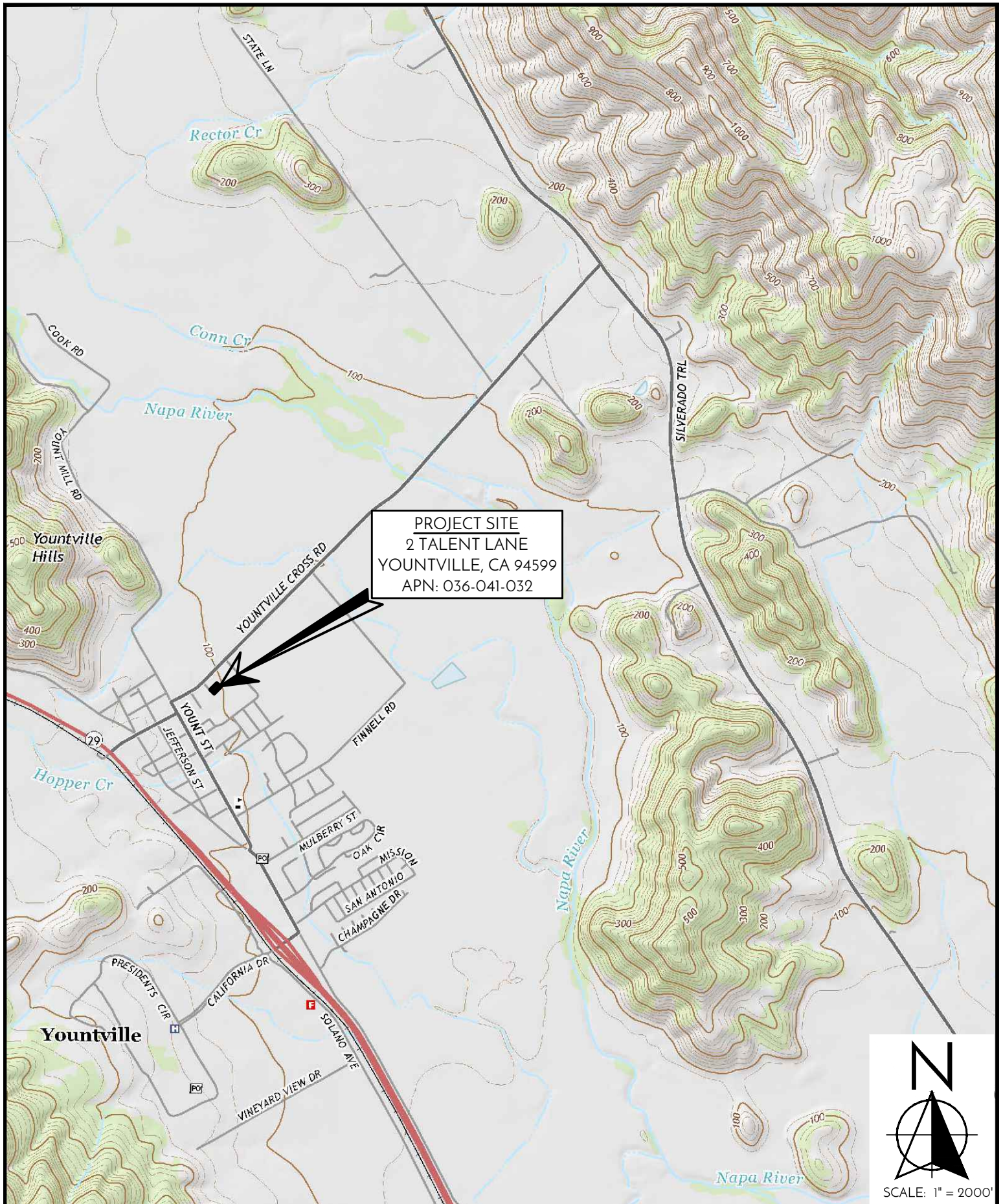
APPENDIX A: VICINITY MAP

APPENDIX B: STORMWATER SKETCH

24.029
Sapp Residence
2 Tallent Lane



APPENDIX A VICINITY MAP



SAPP RESIDENCE VICINITY MAP



1485 MAIN ST, SUITE 302
ST. HELENA, CA 94574
(707) 302-6280

DATE: 11/15/2024
SCALE: 1"=2,000'
JOB #: 24.029
APN: 036-041-032

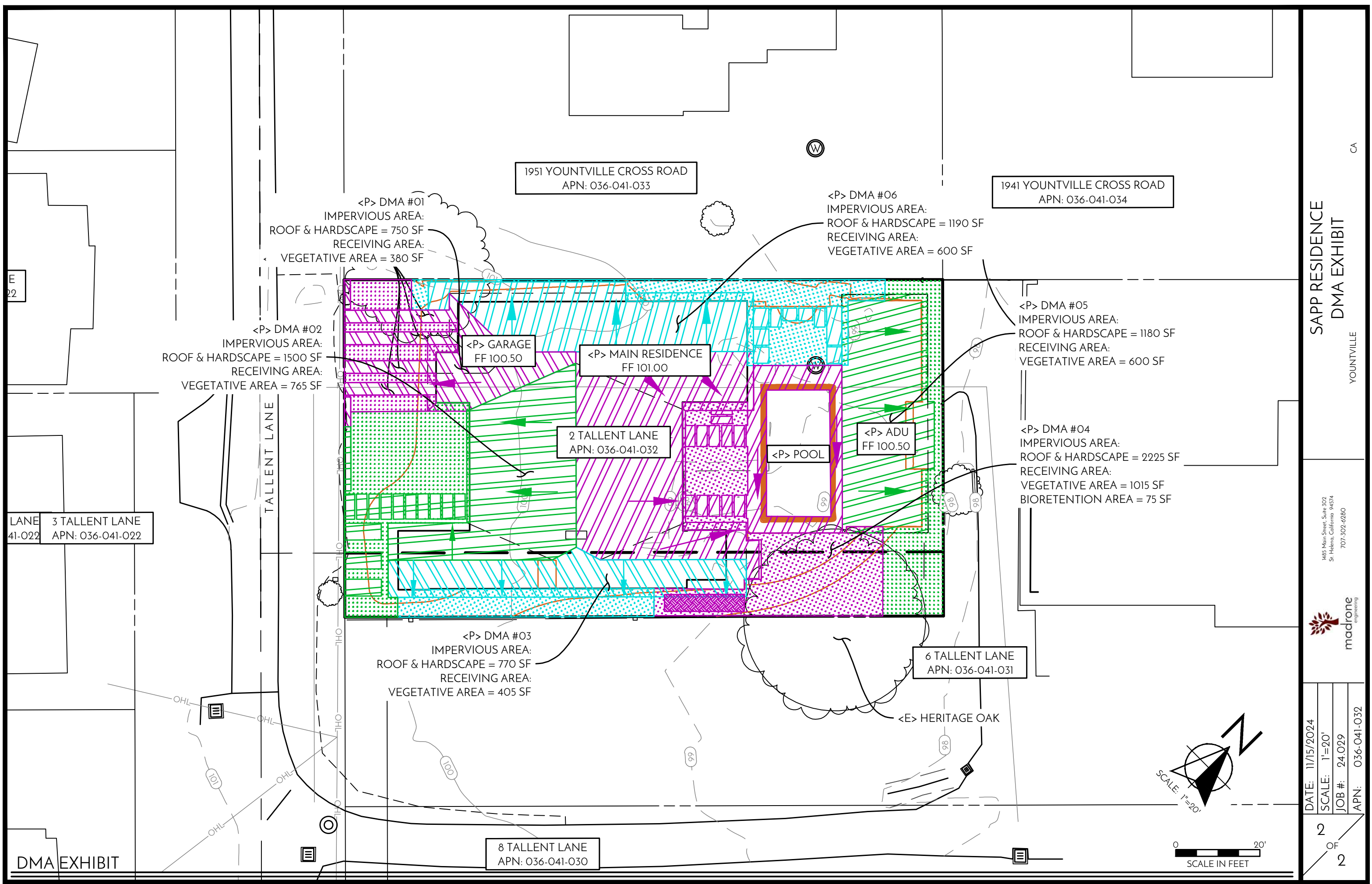
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24.029
Sapp Residence
2 Tallent Lane



APPENDIX B

STORMWATER SKETCH



SAPP RESIDENCE
DMA EXHIBIT

1485 Main Street, Suite 302
St. Helena, California 94574
707.302.6280



DATE:	11/15/2024
SCALE:	1"=20'
JOB #:	24.029
APN:	036-041-032