



March 7, 2022

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County of Sonoma (RPC) – FIRST REVIEW
County Permit No: BLD22-1083

Re: Plan Review: 3601 sf SFD, 1196 sf Garage & 1768 sf Covered porches.
Address: 9110 Chalk Hill Road, Santa Rosa

4 LEAF Inc, has completed the first review of the following documents for the project referenced above on behalf of the Sonoma County:

1. Intake Document: Electronic copy dated 02/00/22
2. Civil Plans: Electronic copy dated 01/00/22 by Peter M Crudo – P.E.
3. Architectural Plans: Electronic copy dated 11/00/21 by Kevin Farrell - Architect
4. Structural Plans: Electronic copy dated 2/7/2022 by William M Wettig – P.E.
5. Structural Calculations: Electronic copy dated 2/7/2022 by William M Wettig – P.E.
6. Truss Company: Deferred Submittal
7. Energy Calculations: Electronic copy dated 1/31/2022 by Deb Meiswinkel.
8. Geotechnical Report: Electronic copy dated 12/21/2021 by Steven Klick – Engineering Geologist & Arthur Graff – Geotechnical Engineer.
9. Geotechnical Review Letter: Electronic copy dated 1/28/2022 by Steven Klick – Engineering Geologist
10. Special Inspection Form: Electronic copy dated 2/8/2022 by IDS Engineering
11. CalGreen Checklist: Electronic copy dated 2/3/2022 by Jeff Farrell
12. Grading Questionnaire: Electronic copy dated 2/9/2022 by Deb Meiswinkel
13. Modified Septic Findings Report: Electronic copy dated 12/10/2021 by Elsa Marie Frick – Environmental health specialist.

The basis of the review is the following 2019 California Building Code (CBC), 2019 California Residential Code (CRC), 2019 California Mechanical Code (CMC), 2019 California Plumbing Code (CPC), 2019 California Electrical Code (CEC), 2019 California Energy Code (CEnC) (2019 Building Energy Efficiency Standards), 2019 California Green Building Standards Code (CALGreen) and Sonoma County Municipal Code, Sonoma County Well & Septic Standards, Sonoma County Fire Safety Standards as applicable, were used as the basis of our review. **Plan review comments follow on the attached list.**

Please submit an itemized response letter and two (2) sets of complete and revised documents with all revisions clouded directly to the County of Sonoma Resiliency Permit Center at 448 Fiscal Drive Santa Rosa Ca, 95403. Electronic submittals please upload a complete set with all revision clouded to electronic plans portal. <https://prmd.sonomacounty.ca.gov/citizenaccess/>

3601 sf SFD, 1196 sf Gar, 1768 sf Cov'd porches.
9110 Chalk Hill Road, Santa Rosa
March 4, 2022

County of Sonoma (RPC) – FIRST REVIEW
County Permit No.: BLD22-1083

Sincerely,
4 LEAF Inc,
Review by:

Ingeborg Vriend
Plans Examiner

Plan Review Comments

OCCUPANCY & BUILDING SUMMARY:

Re: **Occupancy:** R3/U
 Type of Construction: V-B
 Sprinklers: Yes
 Stories: 1
 Floor Area (s.f.): **SFD: 3601; Garage: 1196; Covered Porches: 1768 sf.**
 WUI: Yes

GENERAL INFORMATION:

- A. The following comments are referred to the 2019 California Building Code (CBC), 2019 California Residential Code (CRC), 2019 California Mechanical Code (CMC), 2019 California Plumbing Code (CPC), 2019 California Electrical Code (CEC), 2019 California Energy Code (CEnc) (2019 Building Energy Efficiency Standards), 2019 California Green Building Standards Code (CALGreen) and Sonoma County Municipal Code, Sonoma County Well & Septic Standards, Sonoma County Fire Safety Standards as applicable
- B. Respond in writing to each comment by marking the attached comment list or creating a response letter. Indicate which details, specification, or calculation shows the required information. Your complete and clear responses will expedite the re-check and hopefully, approval of this project.
- C. Please be sure to include the architect and engineer's stamp and signature on all sheets of the drawings and on the coversheets of specifications and calculations per CBPC 5536.1 and CBPC 6735. This item will be verified prior to plan approval.

PLANNING COMMENTS:

PLD1. Provide a complete plot plan showing the following information for review:

- a. Front, rear, and side yard setbacks.
- b. Distances between buildings.
- c. Locations of any existing buildings on the site and setbacks to proposed construction.
- d. Flood plain elevations
- e. Locations and sizes of utilities:
 - i. Electric meters/service.
 - ii. Gas meter(s).
 - iii. Water meter/service.
 - iv. Leach field, (existing and new.).
 - v. Propane tank(s).
 - vi. Solar panels.
 - vii. Well locations

PLD2. This property is within the Riparian Corridor, please identify that the structure is located within the adopted zoning ordinance section one for the riparian corridor.

<https://sonomacounty.ca.gov/PRMD/Regulations/Riparian-Corridors/Adopted-Zoning-Code-Amendments/>

FIRE COMMENTS:

- F1. Site Plan: Please verify if public water hydrant is used. If so, please demonstrate that a public water hydrant is within 250' of the residential building.
- a. All hydrants shall be located between sixty feet (60') and one hundred fifty feet (150') from the residential building. The fire hydrant shall be installed so that a fire engine utilizing the hydrant may maintain a minimum distance of sixty feet (60') from the residential building. Distance measurements shall be determined by hose lay along a road or driveway, not horizontal distance. **[SCMC 13-52(c)(2)]**
 - b. All hydrants for residential and commercial buildings that are part of a public water system on urban parcels shall have a fire flow which is the greater of either five hundred (500) gallons per minute with a residual pressure of twenty (20) pounds per square. **[SCMC 13-52(b)]**
 - c. Parcels with only residential buildings may use a public fire hydrant for the emergency water supply as allowed by **Table 13- 52b**, for non-urban parcels with exclusively residential buildings on them.
- F2. The hydrant serving any residential building shall be located at a turnout or turnaround, along the driveway to the building, or along the road that intersects with the driveway. The hydrant serving any residential building shall be connected to the emergency water supply by an approved minimum four inch (4") diameter water line. **[SCMC 13-52(c)(1)]**
- F3. Please verify that the Fire Safe Standards F1, for required driveway, turnaround, turnout, hammerhead, and similar requirements for buildings set well back from the road. **[SCMC 13-30 to 55]**
- F4. If a no public hydrant is used, please note and show that On site emergency water supply must be within 150' and at least 2500 gallons. If not located within 150' of the residence, an even larger volume of onsite storage for is required per Table 13-52a. **[SCMC 13-52(b)]**
- a. The distance to the hydrant, on a non-urban parcel with exclusively residential buildings on it, may exceed one hundred fifty feet (150') by one hundred fifty feet (150') for each additional five hundred (500) gallons of water storage capacity up to a maximum of two thousand five hundred and fifty feet (2,550') from the residential building as allowed by **Table 13-52a**.
 - b. Water tanks for emergency water supply placed inside the minimum setback requirement of Section 13-55 shall be constructed of non-combustible material. A flammable vegetation clearance of not less than twenty feet (20') shall be maintained around all poly-plastic or similar water tanks.
 - c. When multiple tanks are utilized to achieve the required volume of water, the connection between the tanks shall be an approved minimum four-inch (4") diameter water line. Please clarify.
- F5. Please note that all buildings shall have a permanently posted address, which shall be placed on building and shall be plainly visible and legible from the road on which the address is located or the primary driveway. The numbers shall contrast with their background. Sonoma County Fire Standards Sec. 13-48
- a. All buildings shall have a permanently posted address, which shall be placed at each driveway entrance and shall be visible and legible from both directions of travel along the road on which the address is located.

- i. **Exception:** An approved internally lighted building address device may be used when such building address device is located on the building and the building is located within thirty feet (30' of the edge of the road on which the address is located.
- b. All address signs along one-way roads shall be visible from both the intended direction of travel and the opposite direction.
- c. Where multiple addresses are required at a single driveway, such addresses shall be mounted on a single approved post.
- d. Where a road provides access solely to a commercial building, the address sign shall be placed at the nearest road intersection providing access to the site.

WELL & SEPTIC COMMENTS:

- WS1. Ensure the modified finding report providing proof of a properly sized and working septic system shall be supplied prior to final inspection. Alternately, an approved and finalized permit for a new septic system may be provided.
- WS2. Site Plan: Only one septic tank is shown on the site plan for the ADU. Please show the septic tank for the residence and show the leach lines serving both septic tanks on the site plan.
- WS3. Identify the location of the well serving this property on plans.

ARCHITECTURAL COMMENTS:

- A1. Sheet 2: Please specify hardi-siding and lap siding tested to SFM Standard 12-7A-1, or constructed of non-combustible or ignition resistant material. [R337.7.3]
- A2. Sheet 2: Please note that the exposed underside of exterior porch ceilings shall be non-combustible or protected by one of the following: **[R337.7.6] [CBC 707A.6]**
1. Noncombustible material
 2. Ignition-Resistant material
 3. One layer of 5/8-inch Type X gypsum sheathing behind the exterior cover on the underside of the ceiling.
 4. The exterior portion of a 1-hour fire resistive exterior wall assembly applied to the underside of the ceiling assembly.
 5. Porch ceiling assemblies with a horizontal underside tested to ASTM E2957.
 6. Porch ceiling assemblies with a horizontal underside tested per SFM Standard 12-7A-3.
- A3. Please provide a window and door schedule that provides all relevant size, type, and notes pertaining to WUI window and door requirements.
- A4. An automatic residential fire sprinkler system complying with NFPA 13D shall be installed in one- and two-family dwellings. [R313.2]. Please provide full set of plans, or if these are to be included in a deferred submittal, please note so under the deferred submittals heading on the cover sheet.
- A5. Please specify the underlayment for the metal roof deck. Per Table R905.1.1(1), ASTM D226 Type II (No. 30 asphalt felt) or per manufacturer's instructions are acceptable. [R905.10.5]

- A6. Sheet CS: Please note that address numbers shall be Arabic numbers or alphabetical letters. Numbers shall be a minimum of 4 inches high with a minimum stroke width of ½ inch. Numbers shall not be spelled out. These numbers shall contrast with their background. [R319.1]
- A7. There appears to be some discrepancy between notes and elevation and the energy calculations with regards to vented or unvented attic space. All five conditions must be met for an unvented roof or attic assembly to be allowed. The unvented attic space must be completely contained within the building thermal envelope [R806.3]. Please reconcile the discrepancies.
- A8. Please specify whether the roof insulation is air-impermeable, or air-permeable. If the insulation is only air-impermeable, it must be applied directly to the underside of roof sheathing. **[R806.5, 5.1]**
- A9. This project is located in a flood zone area, therefore please Provide adequate drainage paths around structures on slopes to guide floodwaters around and away from proposed structures.

MECHANICAL COMMENTS:

- M1. Sheet 3: Please note and or show that the kitchen range hood must be HVI rated, limited to 3 sone, and with a minimum airflow a specified in ASHRAE 62.2. Per **RCM 4.6.4.7**, vented range hoods including appliance-range hoods must be 100 cfm, while all other hood types including downdraft must be 300 cfm. **[CEnC 150.0(o)2B]**
- M2. Sheet 3: Outdoor condensing units shall have a clearance of at least 5 feet from the outlet of any dryer vent. [CEnC 150.0(h)3A] Verify that this clearance is provided on plans.
- M3. Sheet 3: Where factory-built chimneys pass through insulated assemblies, an insulation shield constructed of 26 gauge steel minimum shall be installed to provide clearance between the chimney and insulation material. [R1005.8]
- M3. Sheet 3: Please provide a humidistat at bathroom fans. [R303.3.1]

ELECTRICAL COMMENTS:

- E1. Please provide the following notes on the plan in regards to garage door openers:
 - a. On or after July 1, 2019, no person, corporation, or entity shall manufacture for sale in this state, sell, offer for sale at retail or wholesale, or install in this state a residential automatic garage door opener that does not have a battery backup function that is designed to operate when activated because of an electrical outage. The battery backup function shall operate in a manner so that the automatic garage door opener is operational without interruption during an electrical outage.
 - b. (This section applies to all automatic garage door openers manufactured and sold for use in any residence and other residential applications of automatic garage door openers manufactured for commercial purposes.
 - c. (On or after July 1, 2019, no replacement residential garage door shall be installed in a manner that connects the replacement door to an existing residential automatic garage door opener that does not meet the requirements set forth in subdivision (a), regardless of the date of manufacture of the residential automatic garage door opener.
- E2. Sheet 3: An EV outlet is shown inside of the garage. Please note that Each outlet installed for the purpose of charging electrical vehicles shall be supplied by an individual branch circuit.

Each circuit shall have no other outlets. [CEC 625.40].

- E3. Sheet 3: Please note that balconies, decks, and porches that are attached to the dwelling unit and are accessible from inside the dwelling unit shall have at least one receptacle outlet accessible from the balcony, deck, or porch. The receptacle outlet shall be located no more than 6½ feet above the walking surface. [CEC 210.52(E)(3)]
- E4. Sheet 3: Provide ventilation for indoor EV charging equipment, or specify charging equipment listed for charging electric vehicles indoors without ventilation and marked in accordance with 625.15(B). [CEC 625.52(B)]

PLUMBING COMMENTS:

- P1. Sheet 3: Provide notes to specify that systems using gas or propane water heaters for **individual dwelling units** shall include the following requirements of **CEnC 150.0(n)1**:
- A. A dedicated 120V, 20 amp electrical receptacle, connected to the electrical panel with a 120/240 volt 3 conductor, 10 AWG copper branch circuit, that is within 3 feet from the water heater and accessible to the water heater with no obstructions; and
 - i: Both ends of the unused conductor shall be labeled with the word spare and be electrically isolated; and
 - ii: A reserved single pole circuit breaker space in the electrical panel adjacent to the branch circuit in A above and labeled with the words "Future 240V use"; and
 - B. A Category III or IV vent, or a Type B vent with straight pipe between the outside termination and the space where the water heater is installed; and
 - C. A condensate drain that is no more than 2 inches higher than the base of the installed water heater, and allows natural draining without pump assistance; and
 - D. Gas supply line with a capacity of at least 200,000 Btu/hr.
- P2. Please show an emergency gas shut off valve near the gas meter on plans. [CPC 1210.9.3]

GREEN BUILDING COMMENTS:

- GR1. Please submit a 2019 CALGreen checklist (BPC-059), including Green Building Acknowledgements, Section 1 – Design Verification completed with the owner and designer's name, date, and signatures.

ENERGY COMPLIANCE COMMENTS:

- ENG1. Please note on the cover sheet that the following features must be field-verified by a certified HERS Rater as a condition for meeting the modeled energy performance:
- Building-level verification:
 - Indoor air quality ventilation
 - Kitchen range hood

- Cooling System Verifications:
 - Minimum Airflow
 - Verified EER
 - Verified SEER
 - Fan Efficacy Watts/CFM
- HVAC Distribution System Verifications:
 - Duct leakage testing

ENG2. There appears to be some discrepancy between notes and elevation and the energy calculations with regards to vented or unvented attic space. All five conditions must be met for an unvented roof or attic assembly to be allowed. The unvented attic space must be completely contained within the building thermal envelope [R806.3]. Please reconcile the discrepancies.

STRUCTURAL COMMENTS SFD:

- S1. Calculation p 12 & Sheets S1.1.1 and S1.2.0: The calculations for grid line 1 require two 2 ft shear walls. The roof plan shows one 4 ft shear wall. Please show the holdowns for the 15932 lbs on the foundation plan
- S2. Please provide calculations for the 6x6 and 6x8 headers shown on the roof framing plan.
- S3. Sheets S1.1.0 & S1.1.1: Please provide thickened footings and special pads for the SSW footings along lines 1 (at the loggia) and B (at the garage). Provide a punching shear calculation showing that the PT slab can resist the 15 kip uplift (and compression) at SSW wall ends, and detail the plates (or similar) required to distribute the forces, or show the pad footings from 33B/S4.1 to provide required anchorage.
- S4. Sheet S1.2.1: Please provide wind load calculations for the single 4x4 king post supporting two garage doors (near grid 4.3), and specify the king studs at the other ends the garage door headers. Alternately, provide a number of king studs at each end of header openings in exterior walls to comply with **Table R602.7.5**.
- S5. Sheet S1.2.0: Please specify king studs at the three Loggia doors – the two 16'x10' doors to dining and great room, and the 8' sliding door with two sidelights at the master suite. Provide wind load calculations or specify a number of king studs at each end of header openings in exterior walls to comply with **Table R602.7.5**.

If you have any questions regarding the above comments, please contact **Ingeborg Vriend** (ivriend@4leafinc.com) for plan review comments via email or telephone (925) 462-5959.

[End]