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LETTER OF TRANSMITTAL

To: PRMD Well & Septic

Date: 11/4/19 Job No. 7734.2
Attn: Darla Pimlott
Re: 60 Shaw Ave, Kenwood

We are sending you the following items

- ☐ Prints
- ☐ Reproductibles
- ☐ Attached
- ☐ Originals
- ☐ Copy of letter
- ☐ Under separate cover
- ☐ Calculations
- ☐ Fee Payment
- ☐ Receipt
- ☐ Permit applications
- ☒ Report

COPIES	DATE	PAGES	DESCRIPTION
1		1	Septic System and Wastewater Analysis Letter

These are transmitted as checked below:

- ☐ For approval
- ☐ For your use
- ☐ For processing
- ☐ As requested
- ☐ Signature
- ☐ For your records
- ☐ For review and comment
- ☐ Recording
- ☐ Replacement
- ☐ Distribution
- ☐ Returned for corrections
- ☐ For bids due _____

Hello Darla,

Please find attached the septic system and wastewater analysis letter as requested. We would like to schedule a meeting with you to discuss solutions to keep the project moving forward.

Thank you,

COPY TO: File

SIGNED: Seung (Ted) Park

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October 14, 2019

County of Sonoma
Department of Permit and Resource Management
2550 Ventura Avenue
Santa Rosa, CA 95403

Subject: Septic System and Wastewater Analysis

Worksite: VJB Vineyard & Cellars
60 Shaw Ave., Kenwood, CA
APN 050-275-028

Darla,

Per request, we are providing you a report regarding the proposed commercial 1500 septic system for VJB Vineyard & Cellars under SEP17-0427.

Please find attached the following documents for reference.

1. Septic System and Water Usage observations dated August 8, 2019.
2. Copy of email from Blake Hillegas and Becky Ver Meer.
3. Table 11.1 from Section 11 of the Sonoma County OWTS manual.
4. Section 11.4: Flow Equalization of the Sonoma County OWTS manual.

Our report dated 8/8/19 summarizes historical data and current usage for the facilities at 60 Shaw Ave. We concluded that the proposed 1500 gal. drip system will adequately accommodate 313 guests per day using the 3 to 5 gallons per day per guest. We are proposing to increase the existing septic capacity by 79% by utilizing all the area available for septic on site. Furthermore, the system will have an Orenco AX-MAX75 pretreatment system that will not only significantly improve quality of the outflow but be more easily monitored as well. With the proposal of removing events and confining business hours from 9AM-4PM, the proposed system should far exceed the performance of the 2 systems currently serving the facilities.

As we previously mentioned in the meeting on 9/17/19, a 5 gallon per guest amount to account for food was a number agreed to by both parties. James Johnson, REHS, originally proposed and agreed that a 5 gallons per day amount per guest would be more than enough to account for guests consuming food on the property. We have attached an email from Becky Ver Meer dated 6/8/17 showing that she also used the 5 gallons per guest calculations to determine the capacity for guests consuming food. This project has been

going on for quite some time and for PRMD to suddenly change and increase an agreed upon flow value by 160% near the permitting stage puts an unrealistic expectation on the owners and project. As you can see by our latest septic drawings on hold by planning, we are utilizing every area possible while maintaining appropriate setbacks per Sonoma County septic regulations.

Customers partake mainly in wine tasting with an option to order food items from a limited menu. Due to the pre-prepped nature of the food served from their facilities and the usage of disposable utensils, we believe a 5 gallons per day per customers ordering food is more than adequate for septic usage calculations. Looking through sales records and receipts on their busiest days of the season (early September) we concluded that less than half the guests order prepared food. The rest of the guests are there for wine tasting which is calculated at 3 gallons per day. With a peak employee count of 16 calculated at 15 gallons per day (240 gallons total), 1260 gallons remain for customer use. With assumptions of 160 guests ordering food (800 gallons) and 153 guests strictly wine tasting (460 gallons), we conservatively calculated that the facilities will be able to serve a total of 313 guests per day.

VJB is foremost a winery/wine tasting facility and not a restaurant. Table 11.1 shows Becky's calculation of 13 gallons per guest stemming from a "restaurant" with wasteflow calculations beginning with a meal served. An average patron at VJB does not come for meals but rather for wine tasting with food as a secondary option. For example, a bar can serve burgers and a burger joint serve beer, but to say those two are the same would be an error. Customers come to VJB to taste wine and might order food. Food can range from something as simple as a bag of chips to charcuterie and pizza, but to say every customer should be calculated at 13 gallons would be irresponsible. Guest receipts on a busy summer weekend showed that, on average, less than half of customers ordered any type of food. Using an extremely conservative approach as shown on our report dated 8/8/19, current water usage puts water usage at approximately 1 gallon per guest.

The "worst case scenario", peak usage was brought up multiple times during the meeting at PRMD on 9/17/19. We do understand that there can be heavier than usual traffic with more people ordering food than a typical day. Section 11.4: Flow Equalization of the OWTS manual touches on this topic and the operations at VJB seem very applicable to this method of calculation. VJB sees a sharp increase in traffic on Friday-Sunday, with traffic peaking on the 2 weekend days. This number drops significantly on the weekdays and is regular and predictable. The 5,000 gallon septic tank along with the 2,500 gallon grease trap has enough capacity to hold close to 5 days' worth of maximum daily flow. With the dispersal area designed for the full 1500 gallons per day, the advanced pretreatment system can dose on a time and/or demand basis to account for any surges during peak hours.

Lastly, Section 11.1 states that a "Commercial OWTS that **EXCEED** the 1500-gallons per day flow criteria of this section are subject to the requirements of section 14, or section 11.5. As we are not proposing to exceed the 1500 gallon flow, VJB should be exempt from having to file any application with the San Francisco Bay Regional Water Quality Control Board.

As shown on our 8/8/19 report, we are proposing a 313 guest capacity with 16 employees under the proposed 1500 gallon septic system. As our calculations were done in a conservative manner, we believe the proposed system will have no issues processing the septic loads required for all operations at VJB Vineyard & Cellars, 60 Shaw Ave.

Sincerely,

DIMENSIONS 4 ENGINEERING, INC.

By: _____
Seung Jun Park (Ted), RCE 89409

REGISTERED PROFESSIONAL ENGINEER
SEUNG JUN PARK
No. C89409
Exp. 12/31/20
CIVIL
STATE OF CALIFORNIA

cc: File
Henry Belmonte