



June 15, 2010

FROM: Darla Pimlott, Supervising REHS, Well & Septic Section  
TO: Blake Hillegas, Supervising Planner, Project Review  
SUBJECT: VJB 60 Shaw Road, APN 050-275-028; Septic Capacity

I have reviewed the letter submitted to Permit Sonoma, by Steve Brown, RCE dated February 5, 2020 and sent to Mr. Belmonte. The letter is an overview and an analysis completed by Steve Brown, RCE for Mr. Belmonte, of the information provided by Dimensions 4 regarding the septic system flows for the new septic system design proposal and use permit. After a meeting with Steve Brown, RCE, I was asked to review this letter along with additional documentation provided by Steve Brown, RCE from similar facilities. The businesses used as comparisons are Sonoma's Best and Cornerstone.

The On-site Waste Water Treatment System (OWTS) Manual, section 4.5, C., provides direction for sizing wastewater flow for multi-unit residences and non-residential projects. The first two methods in this section, being the most direct and commonly used methods to sizing septic systems are done using the listed flows and types of use in table 11.1 of the OWTS or appropriate literature references such as the US/EPA. The third method which Steve Brown, RCE used, is a review of documentation of data from comparable facilities along with data obtained by Dimensions 4. The Director of Permit Sonoma may consider adjustments to the listed table in 11.1 or the US/EPA along with the review of the technical information afforded in the comparability methodology.

Under the methodology allowed in section 4.5, C. Under the comparison information method and the data about VJBs operation and recorded flows, the following operational types, number of visitors, employees and waste water flows equaling a maximum of 1500 gallons per day in septic system flows are acceptable.

1. Total services provided by VJB, noted in the letters from Dimension 4, Steve Brown RCE, and subsequent emails and meetings are a wine tasting bar, gelato shop, outdoor barbeque, deli kitchen, outdoor pizza oven, Kenwood Pasta Company (packaged dry pasta), a chocolatier and a Tommy Bahama shop.
2. Steve Brown, RCE analyzed D4's report by applying a peak factor or multiplier of 2.3 to the peak average flows observed from March 15 to October 31, 2019. Steve Brown, RCE noted when discussing commercial projects with his clients he uses a peak factor method. Further research into the application and use of peak factors I found that this method of calculation is also used to capture potential uncounted for uses or flows outside of daily use for sewer flows. Steve Brown, RCE then using Dimensions 4 estimated peak flow of 1500 gallons per day, separated out flows for employees and visitor use and broke the flows down further to estimated uses from the visitors for wine tasting, food and employees that was comparable and in line with Dimensions 4's estimates of the visitor use and employee use.
3. The total maximum number of customers per day is 313. Wine tasting customers (153) are assigned flows of 3 gallons per person and the customers partaking in food services (160) is 5 gallons per person. Total flows for both wine tasting and food services is 1259 gallons per day.
4. Total maximum number of employees is 16 using a flow of 15 gallons per day equals 240 gallons per day of waste flow.
5. The total flows from above is 1499 gallons per day, but the rounding up of the number to 1500 gallons per day per Dimensions 4 reports seems practical.
6. Ongoing monitoring of the system will be required through our Nonstandard Operational Program. We will be able to monitor the care and maintenance of the system along with septic flows from the business. The flows shall not exceed the capacity of the dispersal field size of 1500 gallons per day.
7. The submitted septic plan will need to be reviewed for completeness for construction purposes and submitted through our new electronic format.

