



Table PD-2. Wastewater Application Rates for Shallow PD System¹

Percolation Rate (MPI)	Septic Tank Treatment Standard Rate (gpd/ft ²)	Supplemental Treatment Standard Rate ² (gpd/ft ²)	Enhanced Rate ³ (gpd/ft ²)	Treatment Multiplier ⁴
1-5	1.2	1.2	1.2	0
10	0.80	0.80	1.2	1.5
24	0.60	0.60	1.2	2.0
30	0.56	0.56	1.12	2.0
45	0.45	0.45	0.68	1.5
60	0.35	0.35	0.53	1.5
90	0.20	0.20	0.25	1.25
91-120	0.20	0.20	0.25	1.25

Table 3-1. Wastewater Design Flows for Single Family Residences and Second Units

No. of Bedrooms	Design Flow (gal/day)
1	150
2	300
3	450
4	525
5	600
6	675
>6	+ 75 per bedroom

Table PD-1. Minimum Vertical Separation Requirements for Shallow PD System (feet, below trench bottom)

Percolation Rate (MPI)	Depth to Groundwater	Supplemental Treatment*	Primary Treatment**	Soil Depth
1-5	5	3	2	3
6-120	3	2	3	2

* Provided by a septic tank sized and constructed in accordance with requirements in Part 3 of this Manual.
 ** Provided by an approved alternative treatment system identified in this Manual.

PROJECT DISCUSSION

The property owner, Terate Nalukas, wants to add a 5 bedroom house (600 gallons per day) and a 3 bedroom ADU 450 gallons per day) on this undeveloped parcel. There will also be a bathroom and sink in the shop which will not count as additional wastewater flow as long as it is only used by property residents. The daily wastewater flow per County regulations for this development will be 1050 gallon per day. This plan was developed to show where and how a septic system will be installed to serve as the sanitary means of wastewater treatment and disposal for this development.

Soil profiles were performed and the depth to seasonal high ground water was determined by a California Certified Hydro Geologist, Jeremy Wire, to be at least 10' below the surface of the ground. A perk test was performed which produced an average rate of 2.7 minutes per inch when calculated per County directions. A pressure dosed system was designed for this site since because there is not 20' of separation between the bottom of the proposed leach trenches (3' deep) and seasonal high ground water (10') as required for a conventional system. that is required for a conventional system when the perk rate is between 1 and 5 minutes per inch. A pressure dosed septic system (an "alternative system") was selected for this site, since only 5' of separation between the bottom of the leach trenches and seasonal high groundwater is required at this perk rate (2.7 minutes per inch).

Two tanks are required for this system. One is a septic tank which has to have a volume twice the daily wastewater flow (1050 gallons). This plan calls for a Chapin 2500 gallon septic tank. A separate pump chamber is required, in this case I specify a 2500 gallon tank to serve this purpose.

The amount of leach trench required is determined as follows;
 1050 gallons of wastewater a day/ 1.2 gallons of water per square foot of infiltrative area = 875 square feet of infiltrative area / 4 square feet of infiltrative area per linear foot of trench = 219 linear feet of leach trench per leach field. Two leach fields are required as shown here. The plan meets this requirement by specifying two leach fields each with 222 linear feet of leach trench.

SOIL PROFILE RESULTS

CONVENTIONAL SYSTEMS
 soil profile by Jeff Camp REHS

DATE OF INSPECTION: 5/20/2021

SR # 865936
 APN # 712-04-082
 APPLICANT: Steve Hartsell
 SITE ADDRESS: 4 Richmond Ave Morgan Hill
 CONDUCTED BY: Hartsell/Longwell
 CHECKED BY: J. Camp

HOLE # SP1

1. silty clay dry
 2. silty clay dry
 3. silty clay dry
 4. silty clay dry
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HOLE # SP2

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COMMENTS:

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 16. silty clay dry
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 19. silty clay dry
 20. silty clay dry

These percolation test holes were set up and the test was conducted in accordance with county standards, including the pre-soak. I was on site during the entire test. SR Hartsell, REHS

County of Santa Clara - Department of Environmental Health
 SOIL PERCOLATION TEST RECORDED MEASUREMENTS

OWNER/APPLICANT: Steve Hartsell
 LOCATION: 4 Richmond Ave Morgan Hill
 CONTACT PERSON: Steve Hartsell
 SR #: 865936
 PLAN FILE #:
 PHONE: 450-888-2419
 DATE: 5-21-21

HOLE #	TIME	DEPTH	START	FINISH	AMIN	AMCH	MPI	TIME	DEPTH	START	FINISH	AMIN	AMCH	MPI
HOLE #1	11:11	12.1	16	17	30	30	2.0	11:15	12.5	17	18	30	30	2.0
	12:11	12.1	16	17	30	30	2.0	12:15	12.5	17	18	30	30	2.0
	12:11	12.1	16	17	30	30	2.0	12:15	12.5	17	18	30	30	2.0
	12:11	12.1	16	17	30	30	2.0	12:15	12.5	17	18	30	30	2.0
	12:11	12.1	16	17	30	30	2.0	12:15	12.5	17	18	30	30	2.0
	12:11	12.1	16	17	30	30	2.0	12:15	12.5	17	18	30	30	2.0
	12:11	12.1	16	17	30	30	2.0	12:15	12.5	17	18	30	30	2.0
	12:11	12.1	16	17	30	30	2.0	12:15	12.5	17	18	30	30	2.0
	12:11	12.1	16	17	30	30	2.0	12:15	12.5	17	18	30	30	2.0
	12:11	12.1	16	17	30	30	2.0	12:15	12.5	17	18	30	30	2.0
HOLE #2	11:11	12.1	16	17	30	30	2.0	11:15	12.5	17	18	30	30	2.0
	12:11	12.1	16	17	30	30	2.0	12:15	12.5	17	18	30	30	2.0
	12:11	12.1	16	17	30	30	2.0	12:15	12.5	17	18	30	30	2.0
	12:11	12.1	16	17	30	30	2.0	12:15	12.5	17	18	30	30	2.0
	12:11	12.1	16	17	30	30	2.0	12:15	12.5	17	18	30	30	2.0
	12:11	12.1	16	17	30	30	2.0	12:15	12.5	17	18	30	30	2.0
	12:11	12.1	16	17	30	30	2.0	12:15	12.5	17	18	30	30	2.0
	12:11	12.1	16	17	30	30	2.0	12:15	12.5	17	18	30	30	2.0
	12:11	12.1	16	17	30	30	2.0	12:15	12.5	17	18	30	30	2.0
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ONSITE WASTEWATER TREATMENT AND DISPOSAL PLAN

**RICHMOND AVENUE
 MORGAN HILL, CA 95037
 APN 712-04-082**

5-15-2022

SCALE AS NOTED

BY SRH

PAGE

onsite one

1 OF 3

