



County of San Diego
Department of Environmental Health and Quality
Land and Water Quality
5500 Overland Ave., Suite 210, San Diego, CA 92123 / (858) 565-5173
www.sdcdehq.org

ONSITE WASTEWATER TREATMENT SYSTEM LAYOUT APPROVAL
EXPIRATION DATE: 9/4/2026

Owner: Ramos Jose A&Nenetzky
Address: 25145 E Old Julian Hwy*Ramona Ca\
Ramona, CA 92065
Phone:
Site: 2396 CAPE HORN, JULIAN
Parcel: 291-110-24-00
Certification: PERC TEST
Record ID: DEH2024-LOWTS-018759

This project is **APPROVED** for the following:

Commercial / Residential: Residential
Number of Bedrooms: 3
Gallons / Day: 450

THIS IS NOT AN ONSITE WASTEWATER TREATMENT SYSTEM PERMIT

You have until 9/4/2026 to obtain a septic permit. However, a site recheck may be required at any time to determine if site conditions have changed. Refer to the County of San Diego, Department of Environmental Health and Quality, Local Agency Management Program for Onsite Wastewater Treatment Systems for all applicable setbacks and standard conditions of approval.

ONSITE WASTEWATER SYSTEM REQUIREMENTS

Primary Septic Tank (in gallons): 1000
Pump Tank (in gallons): 1000
Surge Tank (in gallons): 300

Soil Disposal System

	System Type	Length	Width	Depth	Cap Depth	Spacing	Depth of Medium	# of Pods
Primary Dwelling	Leach Lines	500	1.50	3		10	1	

CONDITIONS TO BE COMPLETED PRIOR TO THE ISSUANCE OF A SEPTIC PERMIT

Potable Water Source: Public Water Supply
DEHQ Grading Inspection: Waived (9/4/2024)
Water District: Julian Municipal Water District
DEHQ Building Plan Review:

COMMENTS: LAYOUT TIME EXTENSION:
PROPOSED 3-BR SFD.

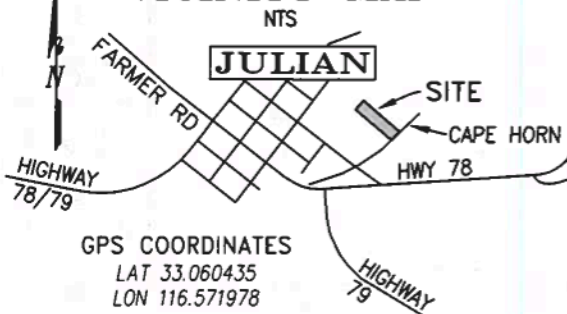
INSTALL 1000 GALLON SEPTIC TANK, 1000 GALLON PUMP CHAMBER, AND 300 GALLON SURGE TANK + 500' LEACH LINES.
POTABLE WATER BY JULIAN COMMUNITY SERVICES DISTRICT.

SEPTIC APPROVAL WILL BE VOIDED IF GRADING EXCEEDS WHAT IS SHOWN ON THE LAYOUT.

Approved By: Cara Schiksnis

Date: 9/4/2024

VICINITY MAP



OWNER:
STEPHEN FRAILEY
1444 CESAR E. CHAVEZ PKWY
SAN DIEGO, CA 92113
(619) 533-7932
steve@pacificmaritimegroup.com

SITE ADDRESS:
2408 CAPE HORN AVENUE
JULIAN, 92036

LEGEND:

SEPTIC TANK:	
TIGHT LINE:	
PRIMARY LEACH LINE:	
RESERVE LEACH LINE:	
WATER LINE:	
POWERLINE:	
SETBACK LINE:	
CONTOUR LINE:	
CUT:	
FILL:	
SINGLE FAMILY DWELLING:	
PERCOLATION TEST:	
OBSERVATION BORING:	

K01476 11/7/88

PROPERTY PLAT

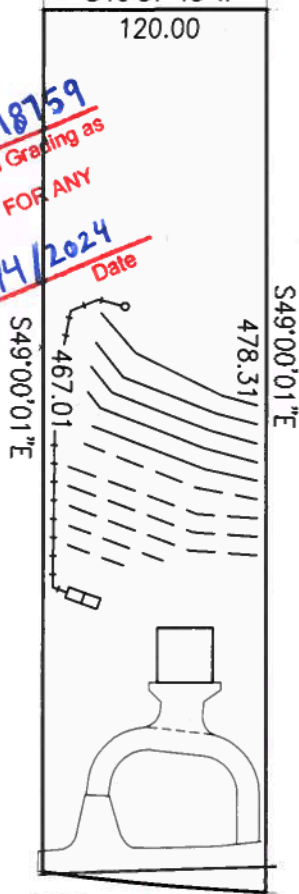
SCALE 1"= 100'

S40°57'43"W

120.00

PLEASE SEND
APPROVED LAYOUT TO:
PATRICK ENGINEERING
POB 442
JULIAN, CA 92036
(760) 765-1343
patrickeng@sbcglobal.net

DEH Record #:
Any changes to the Structures, Driveway and Grading as
shown on this plan, will void this approval.
SEE COMMENTS ON ATTACHED SHEET FOR ANY
SPECIAL CONDITIONS OF APPROVAL.
9/4/2024
Date
Specialist



APN 291-110-24-00

LOT APPROVED FOR
THREE BEDROOM SFD;
1000 GAL TANK WITH
500' OF LEACH LINE
WITH 100% RESERVE
PER K01476 11/7/88

LAYOUT SHOWN HEREON
IS FOR THREE BEDROOMS
1000 GAL TANK WITH
500' OF LEACH LINE
WITH 100% RESERVE

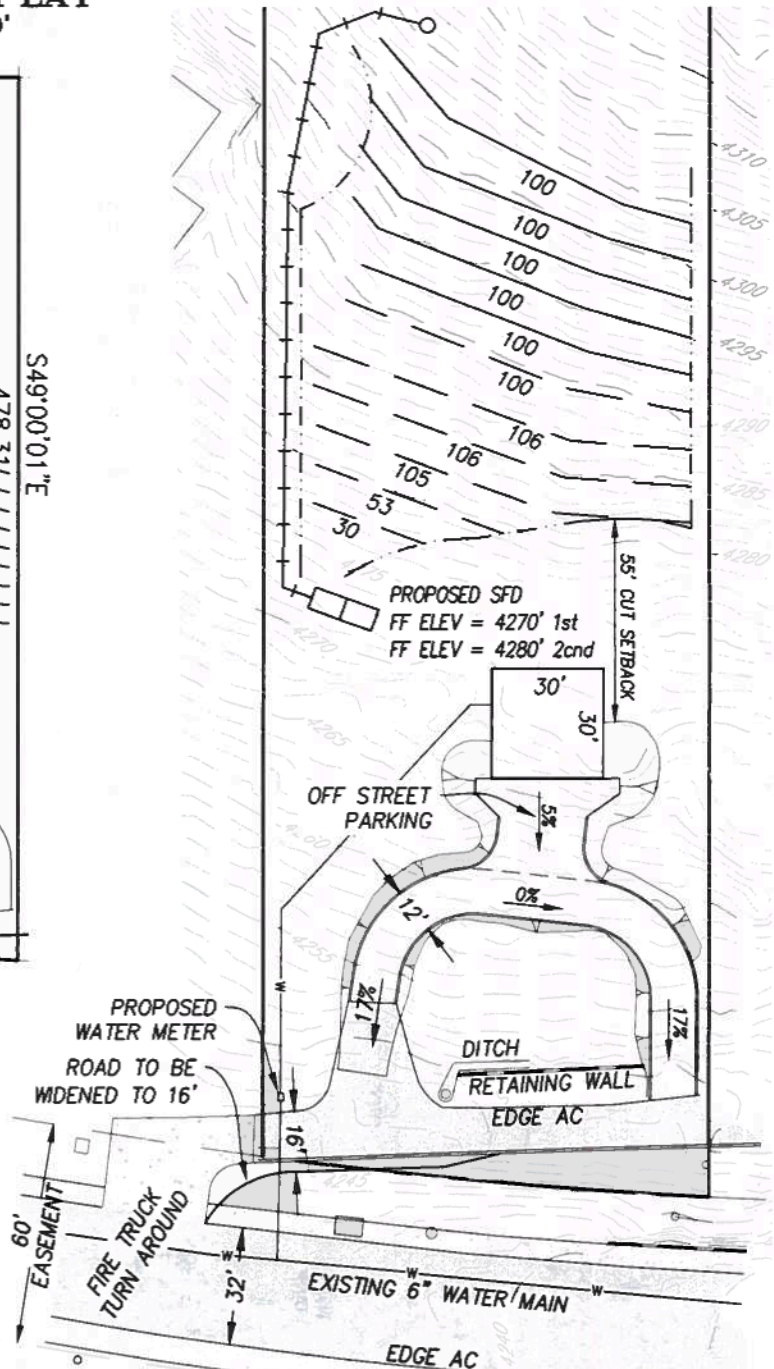
I CERTIFY THAT THE LAYOUT
SHOWS ALL PUBLIC WATER
LINES ON OR WITHIN 20' OF
THE PROPERTY.

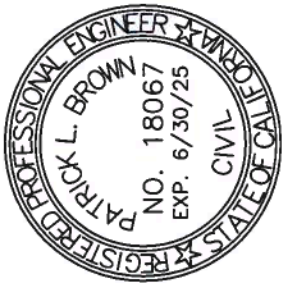
PATRICK L. BROWN R.C.E. 18067

NOTE:
SFD FOUNDATION TO
USE STEM WALL
CONSTRUCTION

LAYOUT DETAIL

SCALE 1"= 50'





PUMP CHAMBER 1000 GALLON TANK

PUMP CONTROL PANEL

AUDIBLE ALARM

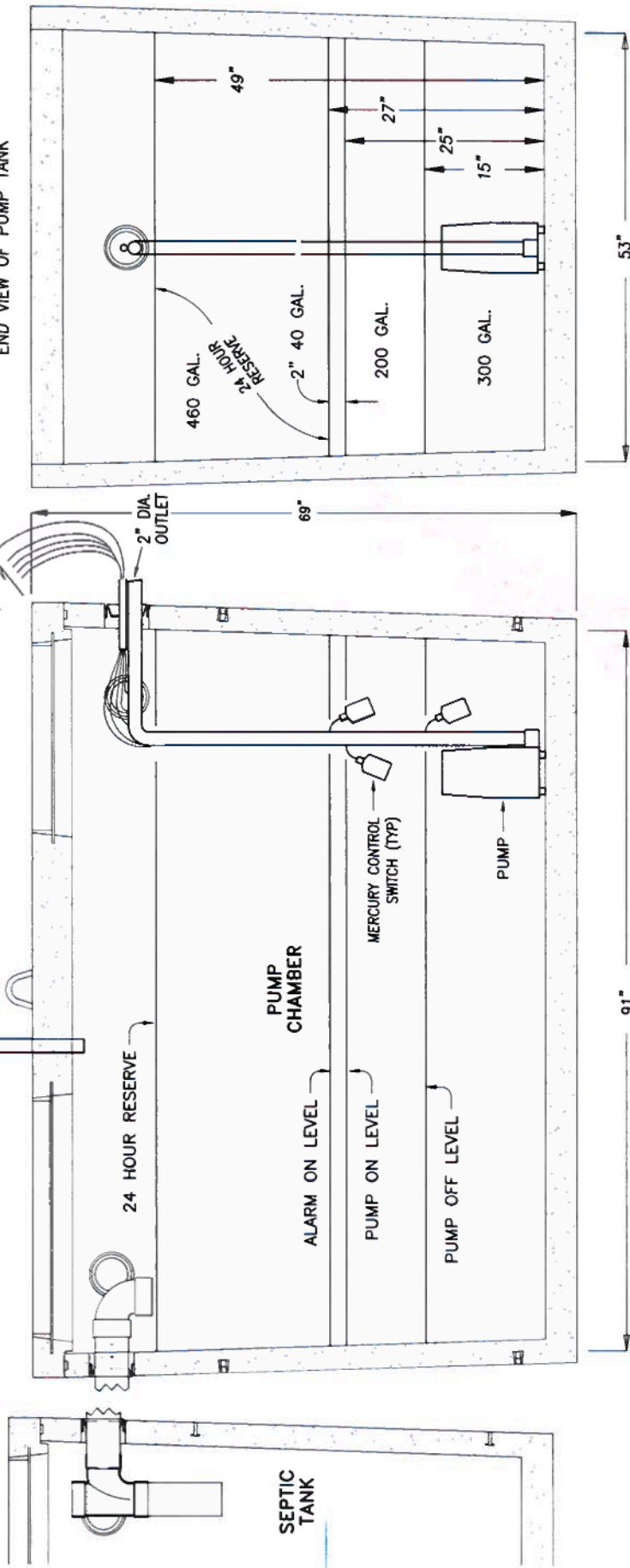
CONTROL PANEL MODEL:
"50A006" Model Simplex
115/208/230V
1 Phase Control Panel

"J" VENT WITH CHECK BALL TO
PREVENT ODOR ESCAPING

SIDE VIEW OF
SEPTIC TANK

SIDE VIEW OF PUMP TANK

END VIEW OF PUMP TANK



PUMP TANK MODEL:
JENSEN PRECAST Tank, JS 1000
Gallon 4 Inch Layout Holding
Tank 24"E, 30"E PRTA No Baffle

NOTE:
NO MORE THAN 36" COVER
OVER PUMP CHAMBER

PUMP CHAMBER DRAWING

PATRICK ENGINEERING
POB 442
JULIAN, CALIFORNIA 92036

PUMP SIZE CALCULATIONS

FIND TOTAL DYNAMIC HEAD

FRICION LOSS IN PIPE

$$f = .2083 \left(\frac{100}{C} \right)^{1.85} \frac{q^{1.85}}{d^{4.8655}}$$

f = FRICTION HEAD IN FEET OF LIQUID PER 100 FEET OF PIPE

d = INSIDE DIAMETER OF PIPE IN INCHES

q = FLOW IN GALLONS PER MINUTE

C = CONSTANT ACCOUNTING FOR SURFACE ROUGHNESS

d = 2 INCHES

q = GALLONS PER MINUTE

C = 130 (WILLIAMS AND HAZEN TABLES)

FRICION LOSS IN FITTINGS (WILLIAMS AND HAZEN TABLE) IN EQUIVALENT PIPE

3.99 LINEAL FEET PER FITTING (90° ELL)

3.99 x 7 ELLS = 28 LF IN EQUIVALENT PIPE

L = LENGTH OF RUN OF 2" P.V.C. PIPE = 180 ft. (PIPE RUN) + 28 lf (FITTINGS) = 208 ft. OF 2" PIPE

EXAMPLE SOLUTION AT 10 GPM

$$f = .2083 \left(\frac{100}{C} \right)^{1.85} \left(\frac{10}{2} \right)^{1.85} \frac{1}{4.8655}$$

f = .128 x 2.43 = .31 FEET OF EQUIVALENT PIPE

f = .31 PER 100'

208 ft OF PIPE 208 / 100 = 2.08

FRICION HEAD = .31 x 2.08 = 0.64 FEET

STATIC HEAD = 36.65 FEET

TDH = 36.65 + 0.64 = 37.29

TDH = 37.29 FEET

SYSTEM CURVE CALCULATIONS

Q (GPM)	TOTAL DYNAMIC HEAD (FT)
10	37.29
20	38.98
30	41.58
40	45.04
50	49.33
60	54.44
70	60.31



SUMP PUMP:

AURORA/HYDROMATIC MODEL SKHD150

230 VOLT

12 AMPS

3450 R.P.M.

3/4 IN. MAX SOLID DIA. SOLIDS CAPACITY

1 1/2" NPT DISCHARGE

MERCURY CONTROL SWITCHES FOR

LIQUID LEVEL CONTROL AND ALARM

SUPPLIER: BARRETT ENGINEERED PUMPS

619-232-3029

SEE ATTACHED PUMP PERFORMANCE DATA



ENGINEERING DETAILS - SKHD150

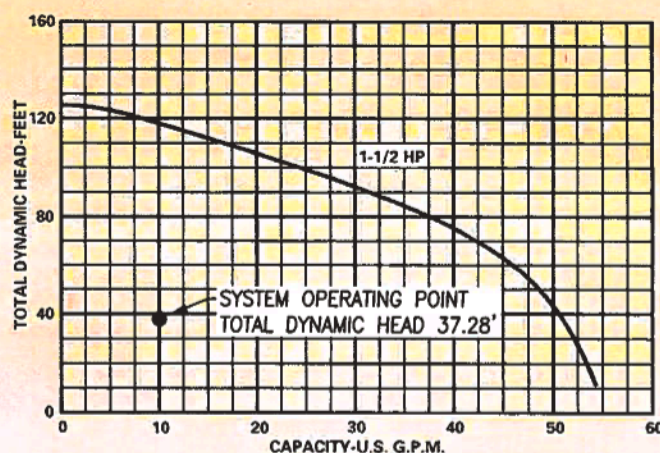
Pump Characteristics

Pump/Motor Unit	Submersible				
Manual Models	M2	M6	M3	M4	M5
Horsepower	1-1/2				
Full Load Amps	12.0	6.1	5.7	2.9	2.7
Motor Type	Capacitor Start	Three-Phase			
R.P.M.	3450				
Phase Ø	1	3			
Voltage	230	200	230	460	575
Hertz	60				
Operation	Intermittent				
Temperature	140°F Ambient				
NEMA Design	B				
Insulation	Class B				
Discharge Size	1-1/2" NPT				
Solids Handling	3/4"				
Unit Weight	75 lbs.				
Power Cord	16/3, STWA, 1ø, 230V = 20' std. 16/4, STWA, 1ø, 230V = 20' std. (S.F.) 18/5, STWA, 3ø, 200V, 230V, 460V, or 575V = 20' std. (S.F.)				

Materials of Construction

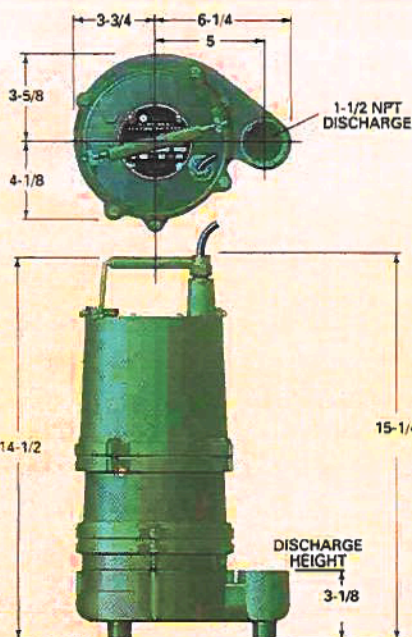
Handle	Steel
Lubricating Oil	Dielectric Oil
Motor Housing	Cast Iron
Pump Casing	Cast Iron
Shaft	Stainless Steel
Mechanical Shaft Seal	Seal Faces: Carbon/Ceramic Seal Body: Brass Spring: Stainless Steel Bellows: Buna-N
Impeller	Thermoplastic
Upper Bearing	Brass Sleeve Bearing
Lower Bearing	Single Row Ball Bearing
Fasteners	Stainless Steel

Performance Data



Total Head (feet)		40	60	80	100	120	125
GPM	1-1/2 HP	51	45	36	24	9	0

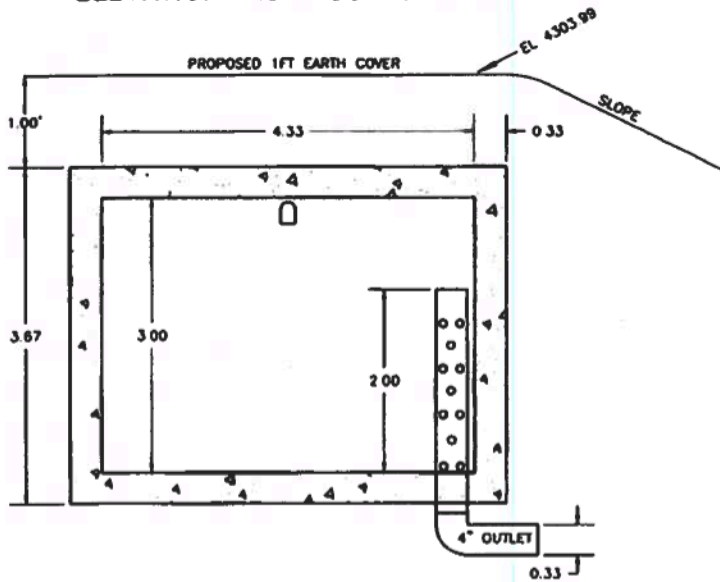
Dimensional Data



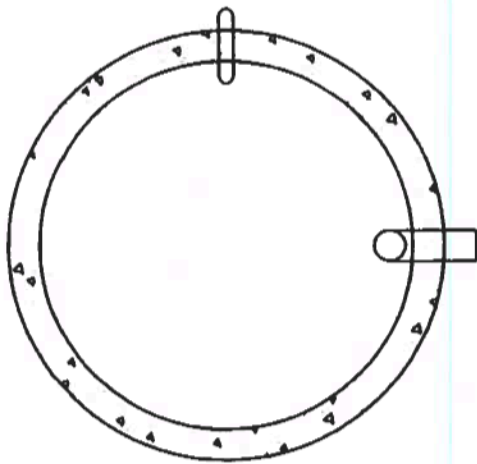
1. All dimensions in inches
2. Component dimensions may vary $\pm 1/8$ inch
3. Not for construction purpose unless certified
4. Dimensions and weights are approximate
5. We reserve the right to make revisions to our products and their specifications without notice

AURORA/HYDROMATIC Pumps, Inc.
1840 Baney Road, Ashland, Ohio 44805
(419) 289-3042

ELEVATION VIEW-SURGE TANK



PLAN VIEW-SURGE TANK



SURGE TANK VOLUME

$$VOLUME = 3.14 \times R^2 \times H$$

$$2.17 \times 2.17 \times 3.14 = 14.79 \text{ sq. ft.}$$

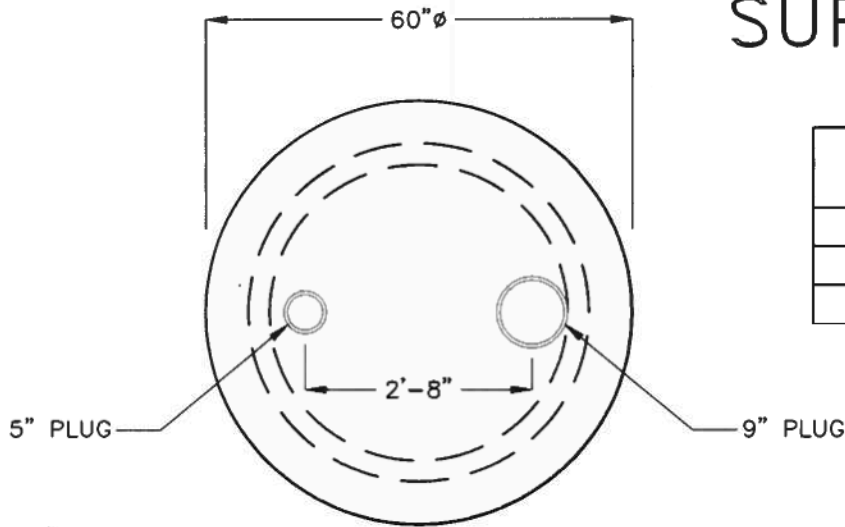
$$3 \times 14.79 = 44.37 \text{ cu. ft.}$$

$$1 \text{ cu. ft.} = 7.48 \text{ gal.}$$

$$44.37 \times 7.48 = 332 \text{ gal.}$$

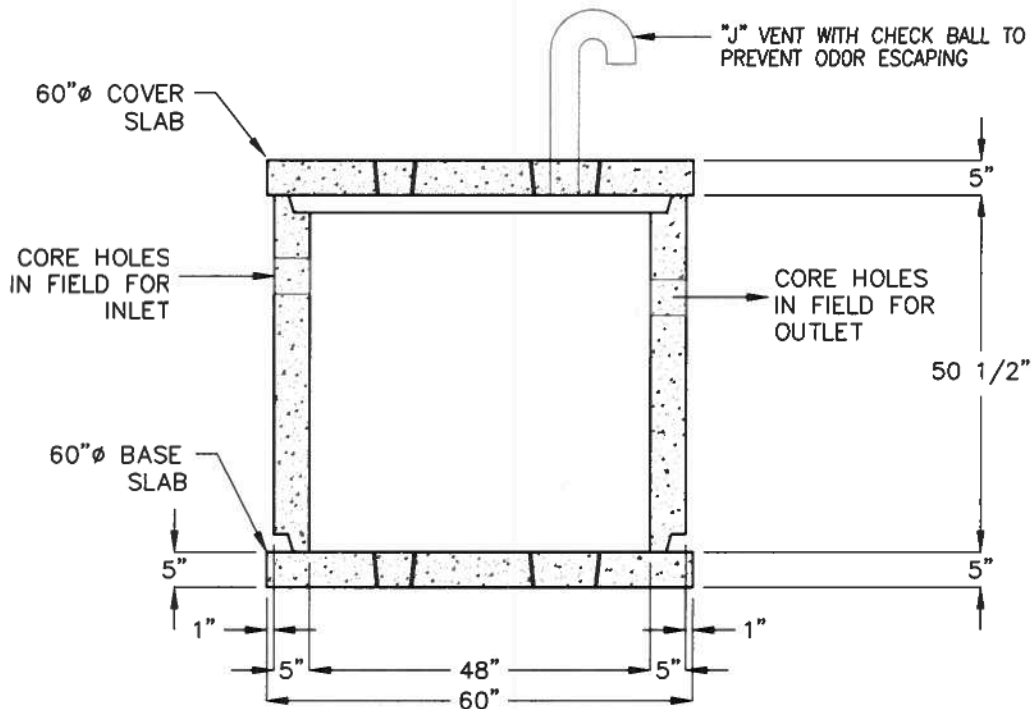


CONCRETE SURGE TANK



TOP & BASE SLAB VIEW

GALLON CAPACITY FROM INSIDE FLOOR		
18"	150	gal
24"	200	gal
30"	250	gal



SECTION VIEW

FOR COMPLETE
DESIGN AND PRODUCT
INFORMATION, CONTACT
JENSEN PRECAST.

NOTE: SEALING OF JOINTS WILL BE
THE RESPONSIBILITY OF OTHERS



County of San Diego, Planning & Development Services
PROJECT FACILITY AVAILABILITY - WATER
ZONING DIVISION

Please type or use pen

Stephen Frailey Owner's Name		619-533-7932 Phone	ORG _____	W
1444 Cesar E. Chavez Parkway Owner's Mailing Address		Street	ACCT _____	
San Diego City	CA State	92036 Zip	ACT _____	
			TASK _____	
			DATE _____ AMT \$ _____	

DISTRICT CASHIER'S USE ONLY

SECTION 1. PROJECT DESCRIPTION

TO BE COMPLETED BY APPLICANT

- A. ☐ Major Subdivision (TM) ☐ Specific Plan or Specific Plan Amendment
☐ Minor Subdivision (TPM) ☐ Certificate of Compliance
☐ Boundary Adjustment
☐ Rezone (Reclassification) from _____ to _____ zone.
☐ Major Use Permit (MUP), purpose: _____
☐ Time Extension...Case No. _____
☐ Expired Map...Case No. _____
☒ Other Site Plan
- B. ☒ Residential Total number of dwelling units 1
☐ Commercial Gross floor area _____
☐ Industrial Gross floor area _____
☐ Other Gross floor area _____
- C. ☒ Total Project acreage 1.25 Total number of lots 1
- D. Is the project proposing the use of groundwater? ☐ Yes ☒ No
Is the project proposing the use of reclaimed water? ☐ Yes ☒ No

Assessor's Parcel Number(s)
(Add extra if necessary)

291-110-24-00	291-110-24-00
291-110-24-00	291-110-24-00
291-110-24-00	291-110-24-00
291-110-24-00	291-110-24-00

Thomas Guide Page 1136 Grid B-7
2408 Cape Horn Avenue
Project address Street
Julian 92036
Community Planning Area/Subregion Zip

Owner/Applicant agrees to pay all necessary construction costs, dedicate all district required easements to extend service to the project and
COMPLETE ALL CONDITIONS REQUIRED BY THE DISTRICT.

Applicant's Signature: Stephen Frailey Date: 6/29/2022
Address: 1444 Cesar E. Chavez Parkway, San Diego, CA 92113 Phone: (619) 533-7932

(On completion of above, present to the district that provides water protection to complete Section 2 below.)

SECTION 2: FACILITY AVAILABILITY

TO BE COMPLETED BY DISTRICT

- District Name: Julian Community Services District Service area _____
- A. ☒ Project is in the district.
☐ Project is not in the district but is within its Sphere of Influence boundary, owner must apply for annexation.
☐ Project is not in the district and is not within its Sphere of Influence boundary.
☐ The project is not located entirely within the district and a potential boundary issue exists with the _____ District.
- B. ☐ Facilities to serve the project ☐ ARE ☐ ARE NOT reasonably expected to be available within the next 5 years based on the capital facility plans of the district Explain in space below or on attached _____ (Number of sheets)
☐ Project will not be served for the following reason(s): _____
- C. ☐ District conditions are attached. Number of sheets attached: _____
☐ District has specific water reclamation conditions which are attached. Number of sheets attached: _____
☒ District will submit conditions at a later date.
- D. ☐ How far will the pipeline(s) have to be extended to serve the project? _____

This Project Facility Availability Form is valid until final discretionary action is taken pursuant to the application for the proposed project or until it is withdrawn, unless a shorter expiration date is otherwise noted

Authorized Signature: [Signature] Print Name: Greg Schmidt
Print Title: General Manager Phone: 760 707 7572 Date: 7-8-22

NOTE: THIS DOCUMENT IS NOT A COMMITMENT OF SERVICE OR FACILITIES BY THE DISTRICT
On completion of Section 2 and 3 by the District, applicant is to submit this form with application to:
Planning & Development Services - Zoning Counter, 5510 Overland Ave, Suite 110, San Diego, CA 92123



**COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC HEALTH
SEPTIC TANK INSTALLATION REPORT
SOIL CONDITIONS OF TRENCH OR SEEPAGE PIT
PERCOLATION TEST**

K01476

DEPARTMENT USE ONLY	
Time spent:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Final permit map required:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Sanitary:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Date:	11/11/88

APN: 291-110-24

Date November 7, 1988

OWNER'S NAME Jim Carl

ADDRESS 16562 Elm Circle

CONTRACTOR _____

ADDRESS Fountain Valley, Ca. 92708

*Legal Location Lot 10/11 Section 5, Block 22

Block _____

Test Location R4E. T13S, S.B.M. County of San Diego

off Cape Horn

(NUMBER, STREET AND TOWN)

THIS REPORT WILL NOT BE REVIEWED UNTIL THE FOLLOWING INFORMATION IS ATTACHED:

- | | | | |
|-------------------------------------|------------------------|--------------------------------|---|
| 1. Lot Location (locate by street) | 4. Lot Grade | 7. Tent Holes | 10. All calculations on 8 1/2 x 11" Sheet |
| 2. Existing and Proposed Structures | 5. Wells | 8. Sub-Surface Disposal System | |
| 3. Surfaced Areas | 6. Utility Water Lines | 9. Cuts and Fill | |

SUB-SURFACE DRAINAGE

PERCOLATION TEST	TEST	DEPTH OF HOLE	TIME FOR H ₂ O	SAFETY FACTOR	TIME/INCH	AVE. TIME/IN
Last two readings shall not vary more than 10%	1.	3 feet			33min/inch	49 min/inch
	2.	3 feet			44min/inch	
	3.	3 feet			29min/inch	
	4.	3 feet			66min/inch	

LEACHING SEEPAGE PITS - Provide soils log and calculations on 8 1/2 x 11" sheet

DEPTH	COARSE SAND OR GRAVEL	FINE SAND	SANDY LOAM OR SANDY CLAY	CLAY WITH CONSIDERABLE SAND OR GRAVEL	EFFECTIVE ABSORP AREA
	#12		3 feet	77 min/inch	

TYPE OF SOIL: Give specific information (clay-adobe-decomposed granite, etc.)

Surface: Silt

1 ft. below surface: silt

2 ft. below surface: schist

3 ft. below surface: schist

8 to 10 ft. below surface: Schist - Cut Back Profile

Source of water Julian Communities Service Dist Depth of water table None Encountered

Proposed structure: No. One Type Single Family Dwelling

No. of bedrooms: Three, and/or maximum capacity _____

***REVIEW OF STAMPED, APPROVED BUILDING
PLANS AND GRADING REQUIRED PRIOR TO
ISSUANCE OF SEPTIC TANK PERMIT.**

RECOMMENDATIONS:

Size tank 1000 gal.
Drainage tile 500 ft.
Trench width 1.5 ft.
Trench depth 3 ft.
Seepage pit width ft.
Seepage pit depth ft.

I have reviewed this percolation data and design of the subsurface sewage disposal system for this parcel and find the data and design to be accurate and in compliance with the State and local regulations and good engineering practices.

Patrick L. Brown
Patrick L. Brown BCE 18067
REGISTERED ENGINEER (REG. NO. 1)
P.O. Box 442 Julian Ca. 765-1343 11-7-88
Address 92036 Phone _____ Date _____

APN: 291-110-20, 24



County of San Diego
Department of Environmental Health and Quality
Land and Water Quality
5500 Overland Ave., Suite 210, San Diego, CA 92123 / (858) 565-5173
www.sdcdehq.org

ONSITE WASTEWATER TREATMENT SYSTEM LAYOUT APPROVAL
EXPIRATION DATE: 11/14/2023

Resubmitted Extension

Owner: Frailey Stephen P&Maria I
Address: 1444 Cesar E. Chavez Parkway,
San Diego, CA 92113
Phone: 760-765-1343

Site: NO ADDRESS,
Parcel: 291-110-24-00
Certification: Percolation test
Record ID: DEH2022-LOWTS-015722

CAUTS-018789

This project is **APPROVED** for the following:

Commercial / Residential: Residential *Gallons / Day:* 450
Number of Bedrooms: 3

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CONDITIONS TO BE COMPLETED PRIOR TO THE ISSUANCE OF A SEPTIC PERMIT

Potable Water Source: Public Water Supply *Water District:*
DEHQ Grading Inspection: *DEHQ Building Plan Review:*

COMMENTS: Proposed 3BR SFD. Grading check required prior to septic permit issuance. House must be stick built foundation, no grading for house shown on layout.

Public water by Julian Community Services District

Approved By: Brandi Coley

Date: 11/14/2022

For
TO be Paid
Paid: 6/24

Received

JUN 18

County of San Diego
Dept. of Environmental Health
Land & Water Quality Div.