

“G”

Wastewater Feasibility Study

A. J. MOORE ASSOCIATES
ARCHITECTURE & RESTORATION ENGINEERING
1038 Stonybrook Drive, Napa, California, 94558
Ph-707-253-9310; Cell-707-486-8574; ajmanapa@gmail.com

ALAN J. MOORE, AIA
ARCHITECT

County Project No. P15-00020

May 31, 2016

**Planning, Building, & Environmental Services:
Environmental Health Division**

1195 Third Street, Suite 210, Napa, CA, 94559
ATTN.: Jason Hade, AICP-Office 707-253-4417
Direct-707-299-4298; jason.hade@countyofnapa.org

Copy: Ms. Kim Withrow, Supervisor-
Office- 707-253-4471

WINERY USE PERMIT APPLICATION REVISION No.4

**RESPONSE LETTER to ENVIROMENTAL HEALTH Division Comments
Mc VICAR VINEYARDS APN 034-160-008**

6155 Solano Avenue, Napa, CA, 94558

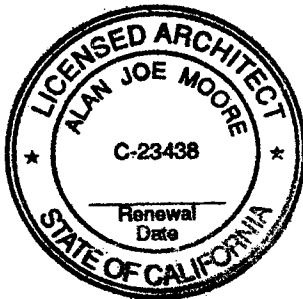
Dear Ms Withrow

Per your Review Memorandum comments, the proposed serving of cheese or nuts (in addition to crackers and wine) has been deleted on the original Application Request page 10 of 29 where they were stated. A copy of that page marked 'Delta-4' is attached.

The copy of the Complete Original SEPTIC Sewer System Design Set is also appended along with a recent Inspection Report on the Tank and Field conditions; the review indicated excellent to good condition.

Attached is the Napa County Existing Individual Septic System Inspection Report with all pertinent field-confirmed details and sizes noted. Also attached is an "as-built" drawing (8.5"x11") attached to indicate for the record what is physically existing (overall plan and details) and working in good order.

Respectfully
Alan J. Moore, AIA

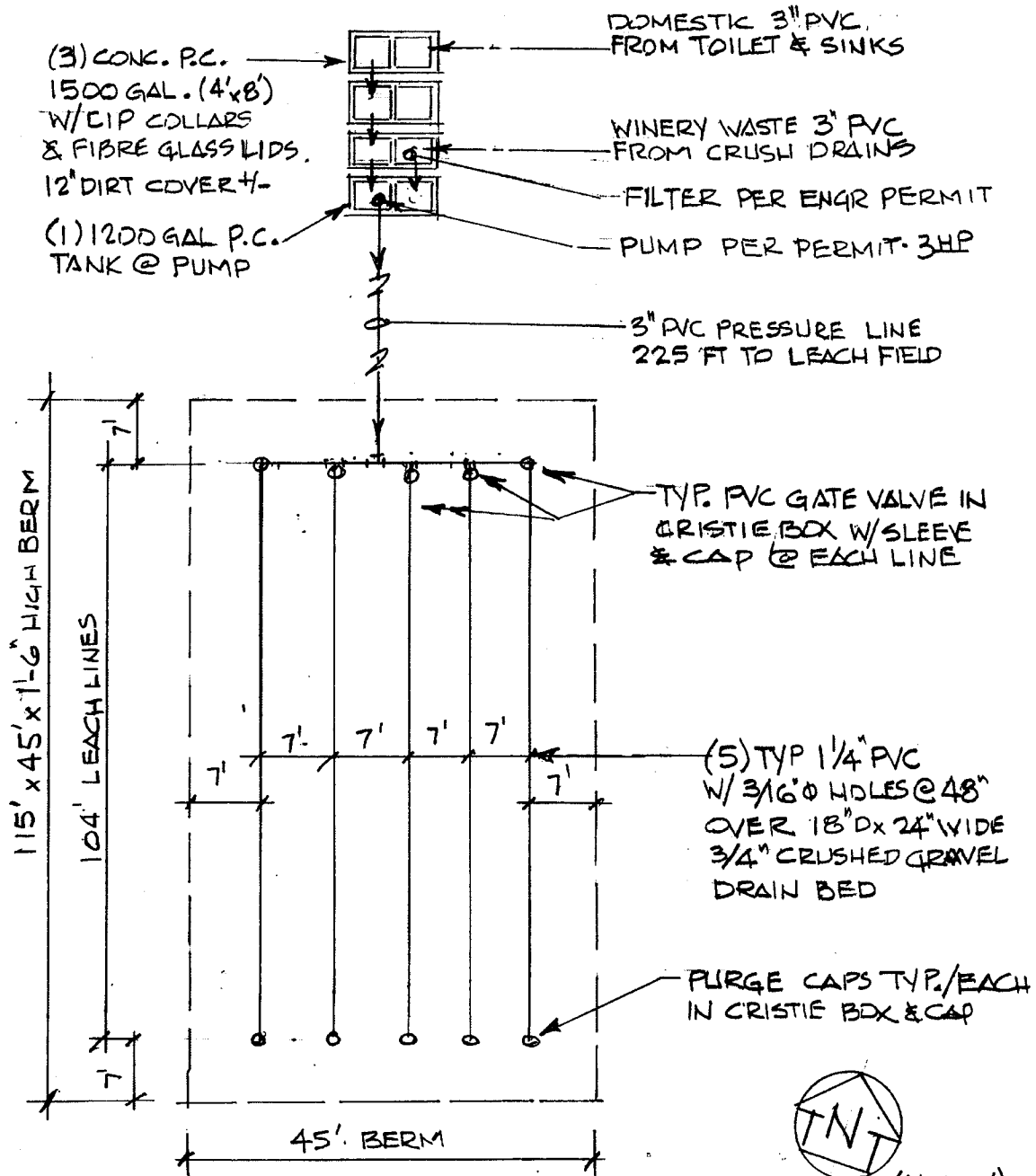


A. J. MOORE ASSOCIATES
ARCHITECTURE & RESTORATION ENGINEERING

6155 SOLANO AVENUE, NAPA McVICAR VINEYARDS
WINERY USE PERMIT APN 034-160-008
County Project No. P15-00020

Page 2 of 2
REV. May 31, 2016

Existing Septic Field 'As-Built' Plan



NO SCALE (1/4" = 20')
AJM - 3/8/16
FIELD VERIFIED

NAPA COUNTY DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
EXISTING INDIVIDUAL SEPTIC SYSTEM INSPECTION REPORT FORM

PROPERTY OWNER PATSY McVicar Trust DATE 3/8/16
ADDRESS 6155 SOLANO Ave Napa APN 034/016/008

PRIMARY TREATMENT-SEPTIC TANK

Distance to closest well: This parcel: 100 Adjacent parcel: 1000
Date tank was last pumped FEB. 2016
Distance from foundation 60 Pumped by ROTO ROOTER
Distance from property line 60 Pre-fab tank or poured in place (describe) P.C. CONC.
Material-tank Concrete lid Concrete / P/liner Number of compartments 4
Inside length 10' width 6' depth 5' Total Capacity 1200 Gal For Pump
③ 1500 Each Tank.

SECONDARY TREATMENT-DISPOSAL FIELD (if other than leach field describe below)

Distance to closest well: This parcel 200' Adjacent parcel 1000
Distance to property line 250' Distance from foundation 175'
Total length on leach line 100' Total effective sidewall _____
Type of filter material Rock 3/4" Amount of filter material: 13 Yards Per Line
Type of pipe PVC 1 1/4" Number of lines 5
Depth of cover over rock: _____ Above pipe: 8" Below pipe: 16"
Trench width: 24" depth 2 1/2"

GENERAL INFORMATION

Is the house/structure presently occupied? No How many bedrooms? None
If commercial use-how many employees (FT and PT) None At present time
How many units served by this system ① Toilet ① Hand Basin ① Kitchen sink
Any other septic systems on the property No If yes, how many? _____

CONDITION OF SYSTEM

Make a statement on the condition of the septic tank and interior surfaces, including baffles and fittings. How was this determined? Note: If tank is over five years old, it must be inspected (pumping is required to allow inspection).

After Pumping tank check walls, bottom, Baffles and lids all fine.

Make a statement on the condition of the sump/pump (if applicable), including size, alarm, structure, etc.

Sump pump tank holds 1200 Gallon Test manual and floats working fine at present time.

Make a statement on the condition of the distribution box, leaching lines, etc. How was the length and location of the disposal field determined

Leach field and D-Boxes are working fine / system is being pressurized

Note: Information on disposal field must be determined by physically locating each line by exposing the ends. All distribution boxes must be uncovered and inspected.

A PLOT PLAN OF THE SEPTIC SYSTEM AND ALL OTHER IMPROVEMENTS MUST BE ATTACHED TO THIS REPORT-DISTANCE TO PONDS/STREAMS, WELLS, BUILDINGS, ETC. MUST BE SHOWN

Pedro Garcia
(Licensed Contractor) Roto Rooter

Note: In order to secure clearance of an individual sewage disposal system from the Department of Environmental Management, the system must be inspected by a licensed sewage contractor and the completed form returned to our office for evaluation. It should be accompanied by a plot plan showing the septic system, wells, buildings and

For Service or Repair Call:

Fairfield
707-429-5151

Vallejo
707-642-9200

Vacaville
707-448-5551

Dixon
707-678-5113

Rio Vista
707-374-5678

Benicia
707-747-5557

Napa
707-224-2433

Upper Napa Valley
707-963-7934

AJ Moore Assoc.

SEPTIC TANK INSPECTION REPORT

Condition of Septic System as of 1-8-16 date.

Owner: PATSY McVICKER Job: 6155 SOLANO AVE
NAPA

	Excellent Condition	Average Condition	Poor Condition
Lid	<u>/</u>	<u>/</u>	<u>/</u>
Inlet Baffles	<u>/</u>	<u>/</u>	<u>/</u>
Outlet Baffles	<u>/</u>	<u>/</u>	<u>/</u>
Center Baffles	<u>/</u>	<u>/</u>	<u>/</u>
Side Boards	<u>/</u>	<u>/</u>	<u>/</u>
Bottom	<u>/</u>	<u>/</u>	<u>/</u>
Incoming Lines	<u>/</u>	<u>/</u>	<u>/</u>
Outgoing Lines (Drainfield)	<u>/</u>	<u>/</u>	<u>/</u>

Work performed and comments: _____

Recommendations: _____

Contractors License #803644

Inspected by: Dave O'Connell

This inspection was performed on the date above. Septic systems may vary in working capacity according to soil conditions, weather, amount of water usage by the numbers of persons using the system. Property owners should realize they are running their own sewage disposal system and handle it accordingly by performing regular preventive maintenance (Such as routine pumping, routine cleaning of the lines, and regular usage of chemicals for bacteria and degreasing)

RESIDENTIAL - MUNICIPAL - INDUSTRIAL - PLUMBING OR DRAIN CLEANING

THEODORE J. WALKER
REGISTERED ENVIRONMENTAL HEALTH SPECIALIST
2280 PLEASANT HILL RD.
SEBASTOPOL, CA. 95472
829-6854

April 24, 1992

Mr. Nate Passaglia and
Ms. Jeanna Michael
Napa County Environmental Health Services
1195 Third St.
Napa, Ca. 94559

RECEIVED

APR 27 1992

DEPT. OF
ENVIRONMENTAL MANAGEMENT

Re: Revisions for Chias De Napa Winery, 5253 Solanp Ave.,
Napa Ca., Sid McVicars Owner

Dear Nate and Jeanna:

Enclosed are revised plans for the proposed small winery mentioned above. Recently, Mark Phillips of P and R Septic, myself and your department have had conversations regarding the design of the wastewater disposal design. Per your request, I have received permission from Blair Allen from the Regional Water Quality Control Board to delete sand from the bottom of the trench in lieu of standard drain rock.

Blair Allen did not give permission to utilize the square footage of the trench bottom in calculating the size of the system. Therefore, this has been modified.

In addition, the recent percolation rate for the area of the proposed system has been estimated at 1 - 3 inches per hour. In my original design, I utilized the most conservative rate allowed at .20 gallons/square foot/day. Therefore, the system can be actually reduced in total size. In dicussing this with my client, he has chosen to reduce the size of the system from the original design.

Therefore, the revised sizing of the system is as follows:

Using the estimated percolation of 1-3 inches per hour, the percolation rate of 60 minutes per inch converts to .74 gallons per square foot per day. Using the sidewall factor only (liquid area below the pipe), we use .8 feet per lineal foot (for one side), and 1.6 feet per lineal foot (calculating for both sides): Therefore, we use the following equation:

Proposed 550 gallons per day (peak load)
.74 gal/sq.ft./day X 1.6 sq.ft./lineal foot =

550 gallons
1.18 gal./lin.ft. = 466 lineal feet needed

Note: Will install 500 lineal feet for a safety factor.
There is adequate expansion area, the system will be a
Pressure Distribution System, and the trench width will be
24 inches wide instead of 36 inches wide.

Should you have any question, please call me at 829-6854.

Yours truly,



Theodore J. Walker,
Registered Environmental Health Specialist
#4323

cc: Sid McVickers
P & R Septic
Blair Allen, WQCB

NAPA COUNTY ORDINANCE
NUMBER 885

PERMIT NO. _____

NAPA COUNTY DEPARTMENT OF PUBLIC WORKS
APPLICATION FOR FLOOD PLAIN MANAGEMENT PERMIT

TO: Napa County Department of Public Works
1195 Third Street, Room 201
Napa, CA 94559
(707) 253-4351

252-6866 94581
(MARK PHILLIPS) PER SEPTIC SYSTEMS P.O. Box 6776
(PLEASE PRINT) Applicants Name Address Telephone Number

SID MCVICAN
Owners Name Address Telephone Number

HOFFMAN LN / SOLANO AVE 34-160-08
Project Site Address Assessors Parcel No.

Project Description SEPTIC SYSTEM FOR SMALL WINEY

Project Cost \$ _____ (attach estimate)

THE APPLICANT IS RESPONSIBLE FOR OBTAINING ANY PERMITS
REQUIRED BY OTHER AGENCIES AS LISTED BELOW:

OWNER AND APPLICANT REVIEW AND SIGN REVERSE SIDE

TO BE COMPLETED BY DISTRICT

Application Received by _____ Date _____

\$50.00 Fee Receipt No. 1557 Date 5/6/92

Project is in Floodplain/Floodway Floodplain Elev. 78.5 MSL X

ENGINEERS FINDINGS AND COMMENTS _____

Final Inspection by _____ Date _____ Floor Elev. Check _____ MSL _____

(OVER)

OFFICE OF THE ATTORNEY GENERAL
STATE OF NEW YORK
ALBANY

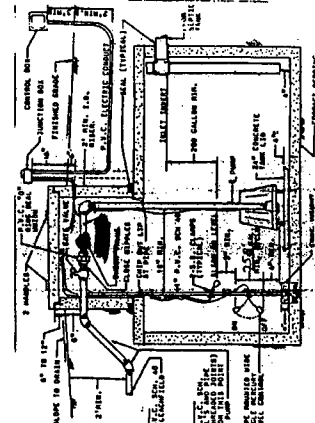
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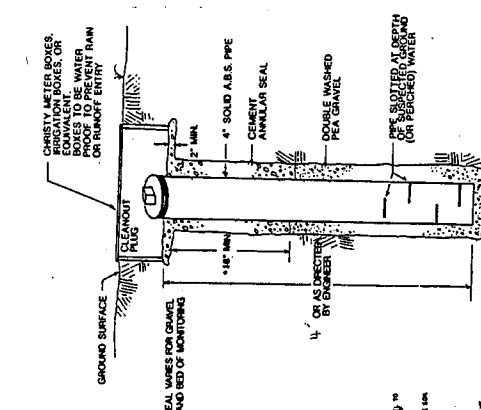
- B. Minimum 1 1/4" PVC Schedule 40 from pump to the float valve is required.
- C. 1. A 3/16" diameter ball-valve and air vent hole.
2. PVC ending in ball check valve.
3. PVC gate or ball valve and union(s).
High points in the transmission line after the pump may require an air "header" valve, depending upon the design.

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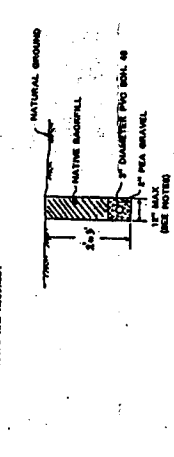
1. Introduction



Abstract

CMR

1. ALL METALLIC, NONCORROSION RESISTANT, AND CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF THE AASHTO SPECIFICATIONS FOR PAVEMENT, BRIDGE, AND HIGHWAY CONSTRUCTION.
2. PRIOR TO PLACING OF THE GRAVEL, IN THE SUBBENCHES, THE SURFACE SHALL BE PREPARED BY THE CONTRACTOR TO BE SMOOTH AND FREE OF ALL OBSTRUCTIONS. THE CONTRACTOR SHALL PLACE A 2" TO 4" DEEP RIFT RAKE IN THE SUBBENCHES TO BE USED TO REMOVE ALL OBSTRUCTIONS. THE CONTRACTOR SHALL PLACE A 2" TO 4" DEEP RIFT RAKE IN THE SUBBENCHES TO BE USED TO REMOVE ALL OBSTRUCTIONS. THE CONTRACTOR SHALL PLACE A 2" TO 4" DEEP RIFT RAKE IN THE SUBBENCHES TO BE USED TO REMOVE ALL OBSTRUCTIONS.
3. THERE MUST BE AT LEAST TWO INCHES OF LAYERED DRAIN BOLD OVER THE TOP OF THE FANDED DRAIN PIPE.
4. THE FIRST FIVE FEET OF THE FIRST LAYER OF THE SUBBENCHES SHALL BE COVERED BY A 12" MINIMUM LAYER OF 1/2" GRAVEL. THE REMAINING LAYERS SHALL BE COVERED BY 12" MINIMUM LAYER OF 1/2" GRAVEL. THE REMAINING LAYERS SHALL BE COVERED BY 12" MINIMUM LAYER OF 1/2" GRAVEL.
5. LAYERS ARE TO BE COMPACTED BY CONTOUR TO THE PROPER DEPTH AS INDICATED ON THE DRAWINGS. THE CONTRACTOR SHALL PLACE A 2" TO 4" DEEP RIFT RAKE IN THE SUBBENCHES TO BE USED TO REMOVE ALL OBSTRUCTIONS. THE CONTRACTOR SHALL PLACE A 2" TO 4" DEEP RIFT RAKE IN THE SUBBENCHES TO BE USED TO REMOVE ALL OBSTRUCTIONS.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER PLACEMENT OF THE LAYERS AND PLACED WITH THE AID OF A TAPING OR LEVELING DEVICE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER PLACEMENT OF THE LAYERS AND PLACED WITH THE AID OF A TAPING OR LEVELING DEVICE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER PLACEMENT OF THE LAYERS AND PLACED WITH THE AID OF A TAPING OR LEVELING DEVICE.
7. THE PRESSURE DISTRIBUTION LAYERS SHALL BE 12" MINIMUM (TYPICAL) DIAMETER PVC PIPE. THE PRESSURE DISTRIBUTION LAYERS SHALL BE 12" MINIMUM (TYPICAL) DIAMETER PVC PIPE. THE PRESSURE DISTRIBUTION LAYERS SHALL BE 12" MINIMUM (TYPICAL) DIAMETER PVC PIPE.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER PLACEMENT OF THE LAYERS AND PLACED WITH THE AID OF A TAPING OR LEVELING DEVICE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER PLACEMENT OF THE LAYERS AND PLACED WITH THE AID OF A TAPING OR LEVELING DEVICE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER PLACEMENT OF THE LAYERS AND PLACED WITH THE AID OF A TAPING OR LEVELING DEVICE.
9. ADDITIONAL AND OTHER VARIOUS TYPES SHALL BE ALLOWED AT THE DISCRETION OF THE ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER PLACEMENT OF THE LAYERS AND PLACED WITH THE AID OF A TAPING OR LEVELING DEVICE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER PLACEMENT OF THE LAYERS AND PLACED WITH THE AID OF A TAPING OR LEVELING DEVICE.
10. THE FIRST FIVE FEET OF PIPE FROM THE DISTRIBUTION BOX SHALL BE CONNECTED TO THE PREPARED PIPE OF THE LAYERS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER PLACEMENT OF THE LAYERS AND PLACED WITH THE AID OF A TAPING OR LEVELING DEVICE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER PLACEMENT OF THE LAYERS AND PLACED WITH THE AID OF A TAPING OR LEVELING DEVICE.
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12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER PLACEMENT OF THE LAYERS AND PLACED WITH THE AID OF A TAPING OR LEVELING DEVICE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER PLACEMENT OF THE LAYERS AND PLACED WITH THE AID OF A TAPING OR LEVELING DEVICE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER PLACEMENT OF THE LAYERS AND PLACED WITH THE AID OF A TAPING OR LEVELING DEVICE.
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14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER PLACEMENT OF THE LAYERS AND PLACED WITH THE AID OF A TAPING OR LEVELING DEVICE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER PLACEMENT OF THE LAYERS AND PLACED WITH THE AID OF A TAPING OR LEVELING DEVICE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER PLACEMENT OF THE LAYERS AND PLACED WITH THE AID OF A TAPING OR LEVELING DEVICE.
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NOTE: 1) EXCHANGE RATES USED: 1 SHILLING

OR WITH A BACKBONE WITH A MOUNTAIN VIEW OF A MOUNTAIN

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	REGAL	DAILY	THE

THOMPSON J. WALKER, REHS 04323 Exp: 12/31/98

3 EXPLORATION HOLES

DISPOSAL FIELD

PRIMARY LINES TO BE INSTALLED ON CONTOUR

PURGE COPS INSIDE CHRISTI BOXES, OR EQUIV.

EXPANSION AREA

MONITORING WELLS

1.5" PVC SCH 40 ENGRAVED PIPE WITH 3/16" GRIP/CEP, 4" ON CENTER

1.5" PVC SCH 40 GATE VALVE, 1" INSIDE CHRISTI BOXES, OR EQUIV.

TAPER PERIMETER OF FILL 3" FROM THIS EDGE (SEE DETAIL)

7.81 ACRES
A.P.N. 36-180-08
LANDS OF MOYDAR



175 FEET

1.5" PVC SCH 40 SOLID PIPE, 3' LONG

BREAK AWAY GATE TRENCH

2" FROM TRENCH EDGE TO TRENCH EDGE

EXPANSION AREA

EXPANSION AREA

EXPANSION AREA

375 L.P. 3" DIAMETER PVC SCH 40 TRANSMISSION LINE (SEE DETAILS)

WINEY WASTE LINE

WINEY SEPTIC TANKS

15K GAL EACH

DOMESTIC TANK

15K GAL

DOMESTIC WASTE LINE

FLOOR DRAIN FOR CUISIN

WELL

375 L.P. 3" DIAMETER PVC SCH 40 TRANSMISSION LINE (SEE DETAILS)

SEE SEPTIC TANK DETAIL

375 L.P. 3" DIAMETER PVC SCH 40 TRANSMISSION LINE (SEE DETAILS)

375 L.P. 3" DIAMETER PVC SCH 40 TRANSMISSION LINE (SEE DETAILS)

NOTE: WINEY BUILDING AND BUILDING PAD PREVIOUSLY CONSTRUCTED BASED ON PLANS PREPARED BY ROBERT MANUPELLI, INC.

NOTE: PROPERTY LINE, WINEY BUILDING, AND WINEY BUILDING PAD PREVIOUSLY CONSTRUCTED BASED ON PLANS PREPARED BY ROBERT MANUPELLI, INC.

PLANS APPROVED

DATE: 10/1/88

COUNTY OF NAPA

APPROVED BY: ROBERT MANUPELLI, INC.

PRESSURE DISTRIBUTION SYSTEM

DATE: 10/1/88	BY: ROBERT MANUPELLI, INC.
PROJECT: WINEY BUILDING AND BUILDING PAD	OWNER: WINEY BUILDING AND BUILDING PAD
LOCATION: 375 L.P. 3" DIAMETER PVC SCH 40 TRANSMISSION LINE	DESIGNER: ROBERT MANUPELLI, INC.
SCALE: 1" = 10'	DATE: 10/1/88

RECEIVED
APR 27 1989
OFFICE OF THE
SUPERVISOR

IF THIS PERMIT IS GRANTED BY THE ENGINEER THE PERMITTEE SHALL
COMPLY WITH THE FOLLOWING REQUIREMENTS AS INDICATED "X"

- *****
- X 1. Lowest floor elevations (including basement) must be above 79.5 ft. MSL
(from FIRM) Or, if applicable, ~~certificates~~ floodproofed to said elevation
~~and certificate of registered civil engineer attached to this~~
~~application (attach FEMA 81-31, April-82)~~ H.S.
- ___ 2. Level notes, from established bench mark, to a visible mark at the
site must be provided to Engineer prior to start of project (attach to
permit). This mark shall be protected so as to remain usable until
project deemed complete by Engineer (Sec 10221).
- ___ 3. This is or is not (circle one) a substantial improvement to an existing
structure. Project cost _____ Market value of structure _____
- ___ 4. Amount of excavation _____ cubic yard or fill _____ cubic yard permitted
- ___ 5. Structure or facility is in Riparian Zone and no substantial Riparian
Cover is to be removed (Sect. 10308).
- ___ 6. Automatic equalization of hydrostatic flood forces required for
enclosed area below lowest floor (Sect. 10306)
- ___ 7. Structure must be anchored firmly (Sect. 10301).
- X 8. Water supply systems must be sealed or protected to 79.5 ft. MSL
(from FIRM)
- X 9. Waste disposal system shall be located to prevent contamination by
100 year flood. (Sect. 10300 f)
- ___ 10. Sanitary sewer system shall be designed with backflow preventer.
(Sect. 10300 e)
- ✓ X 11. Electrical and fuel or heating systems must be designed to function
during a 100 year flood (Sect. 10300 c)
- ___ 12. Call Engineer 24 hours prior to start of project.
- ___ 13. Inform Engineer of completion by written correspondence.

I HEREBY CERTIFY THAT THE INFORMATION SUPPLIED BY MYSELF OR MY
REPRESENTATIVE IN CONNECTION WITH THIS PERMIT IS TRUE AND THAT I HAVE READ,
UNDERSTAND AND AGREE TO THE ABOVE REQUIREMENTS AND CONDITIONS.

X John McLean 5-22-92 John P. Jolly 5-22-92
Owner Signature Date Applicant/Signature Date

PERMIT—EXPIRES ONE YEAR FROM DATE BELOW

THIS PERMIT IS HEREBY GRANTED SUBJECT TO COMPLIANCE WITH CONDITIONS ☒
THIS PERMIT IS HEREBY DENIED ☐

David M. Howard 5/18/92
Engineers Signature Date

REQUEST FOR APPEAL OR VARIANCE

(IF APPLICATION IS DENIED OWNER MAY APPEAL ENGINEERS DECISION TO, OR REQUEST
A VARIANCE FROM THE NAPA COUNTY BOARD OF SUPERVISORS BY COMPLETING FORM
BELOW)

I _____
Owners Signature Date

HEREBY REQUEST AN APPEAL AT PUBLIC HEARING BY THE COUNTY BOARD OF
SUPERVISORS TO THE DETERMINATION OF THE ENGINEER A VARIANCE FROM THE
REQUIREMENTS OF THE FLOOD PLAIN MANAGEMENT ORDINANCE (#885)

(THIS FORM MUST BE RETURNED TO PUBLIC WORKS DEPT. WITHIN 10 WORKING DAYS)
DATE OF APPEAL PUBLIC HEARING _____ GRANTED _____ DENIED _____
DATE OF VARIANCE CONSIDERATION _____ GRANTED _____ DENIED _____

Zabel Special Purpose Filter
SEPTIC TANK INSTALLATION FEATURES

- **PREVENTS CLOGGED DRAIN FIELDS**

Filters suspended solids 90% +.

Model A100 = 1/16" filtration

Model A300 = 1/32" filtration

- **PROTECTS THE ENVIRONMENT**

Treats waste water by lowering BOD₅ 45%.

Acts as contact stabilization unit.

Protects groundwater quality by improving efficiency of tank and drain field.

- **IMPROVES SEPTIC TANK EFFICIENCY**

Slows internal velocity.

Holds nutrients (solids) trying to exit tank.

Bio-mass growth on disc dams causes solids to disintegrate, lose buoyancy and fall to tank bottom.

- **EASY TO MAINTAIN**

Can be cleaned at regular tank inspection.

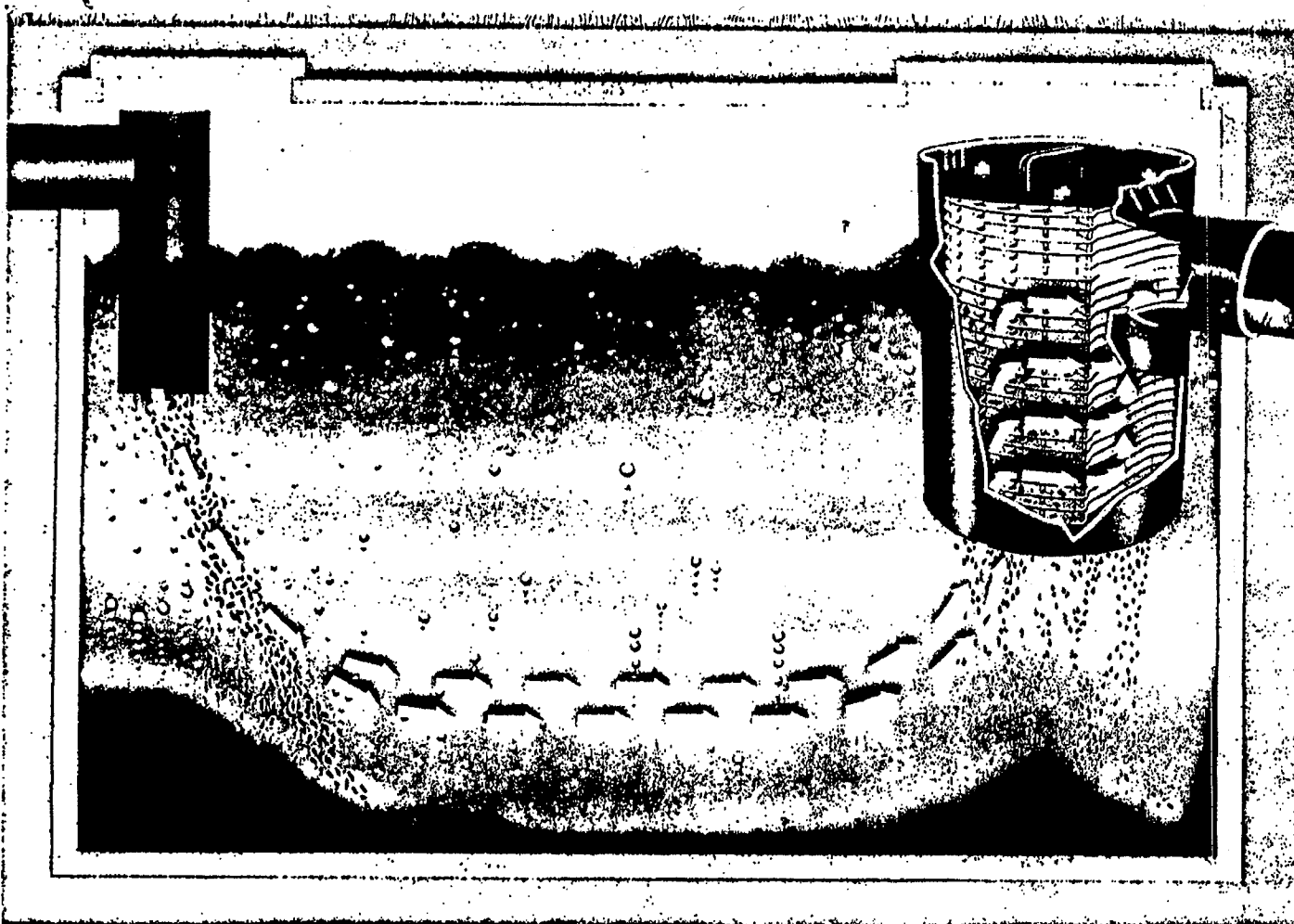
Increases time between pumping.

Removable cartridge can be replaced or;

Cartridge can be hosed off back into tank.

- **NO MOVING PARTS**

- **LIFETIME WARRANTY**



Model #A100

Zabel Industries International, Ltd.

Zabel Special Purpose Filter

REMOVES SOLIDS

utilizing over 198 feet of filtering capacity

INCREASES EFFICIENCY

over 198 feet of settling capacity in a 1 foot wide space

PROTECT DRAINAGE FIELDS

solid-reduced effluents drain away faster

UTILIZES FLOW

the Zabel disc dam concept slows internal velocity but increases effectiveness.

INCREASES EFFLUENT QUALITY

reducing suspended solids in the effluent discharge.

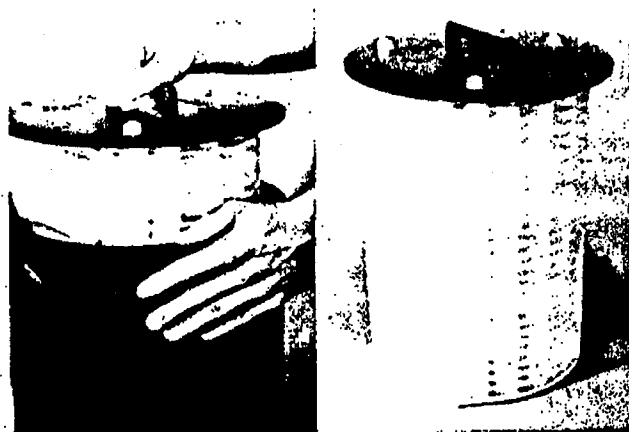
EASY INSTALLATION

just slides in any 4½ inch outlet opening

ZABEL DISC DAM FILTER PLATE



The series of Zabel disc dams are normally set with 1/16" spacing to filter out any biological sludges, water works sludges and light flocculent sludges.



The Zabel disc dam assembly easily slides in to the sturdy case. You can readily see how influent enters thru the open bottom of the case, is filtered as the liquid passes thru the Zabel disc dams, and suspended solids then fall back to the bottom of the septic tank or collection tank through the return holes. The clarified liquid flows on to the next stage (or the drainage field) through the side-wall effluent opening.

For More Information
Contact:

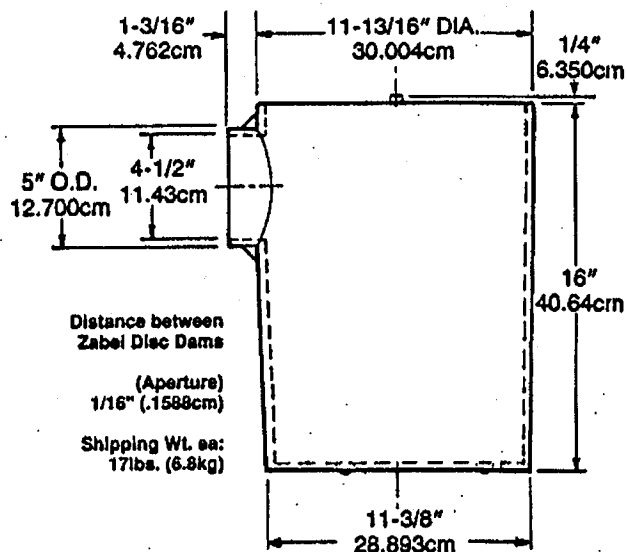
Zabel Industries International, Ltd.

3600 Chamberlain Lane, Suite 612 • Louisville, KY 40241
1-502-429-0628 or 1-800-221-5742

Patent No. 4710295



Replace the dirty cartridge with a clean one, place the dirty cartridge in a plastic bag and spray off with a hose at your shop.



equivalent number of feet straight pipe for different fittings

6/9

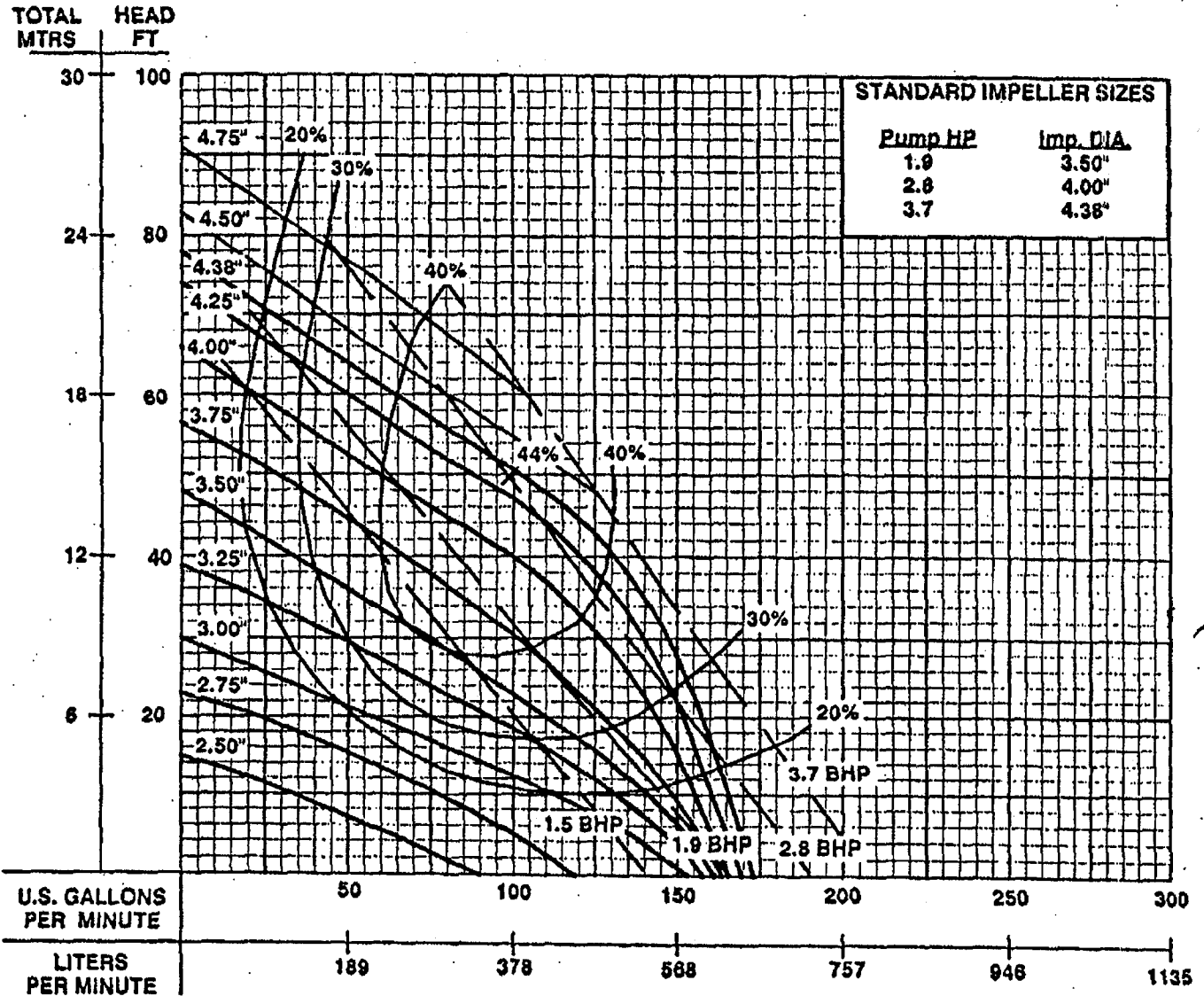


Size of Fitting, Inches	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	5"	6"	8"	10"
90° Ell	1.5	2.0	2.7	3.5	4.3	5.5	6.5	8.0	10.0	14.0	15	20	25
45° Ell	0.8	1.0	1.3	1.7	2.0	2.5	3.0	3.8	5.0	6.3	7.1	9.4	12
Long Sweep Ell	1.0	1.4	1.7	2.3	2.7	3.3	4.2	5.2	7.0	9.0	11.0	14.0	
Close Return Bend	3.6	5.0	6.0	8.3	10.0	13.0	15.0	18.0	24.0	31.0	37.0	39.0	
Tee—Straight Run	1	2	2	3	3	4	5						
Tee—Side Inlet or Outlet	3.3	4.5	5.7	7.6	9.0	12.0	14.0	17.0	22.0	27.0	31.0	40.0	

EQ FNT

SECTION	4B
PAGE	10
ISSUED	11/89
SUPERSEDES	9/85

PERFORMANCE CURVE **SERIES: 3SE ,1.9, 2.8, & 3.7 HP, 3450RPM**



Testing is performed with water, specific gravity of 1.0, other fluids may vary performance.

Peabody Barnes
 651 North Main Street, Mansfield, Ohio 44902
 Phone 419/522-1511



PUMP CALCULATIONS

USE FLOW RATE $Q = 123$ gpm
PIPE SIZE 3" PVC

1. TOTAL DESIGN HEAD (T.D.H.)

A. Static Head (Hs)

Elevation of highest leach line invert = 74

Elevation of pump = 69

$$H_s = 74 - 69 = 5$$

B. Friction Head Loss (Hf)

at 123 gpm, Friction Loss (FL) for 3" PVC = 3.8/100'

Friction Loss in pipe, bends, valves, etc:

Description	Estimated #	Equiv. Length	Total Length
90° Bend	4	5.5	22.0 LF
45° Bend	4	2.5	10.0
Gate Valve	8	1.2	11.2
Check Valve	1	13.0	13.0
Pipe	275 LF	1.0	275.0
TOTAL:			<u>331 LF</u>

$$H_f = 331' \times 3.8 / 100'$$

$$H_f = 12.57$$

C. Total Design Head

$$T.D.H. = H_s + H_f$$

$$= 5 + 12.57 \text{ (Add Below)} + 22.58$$

$$T.D.H. = 40.15$$

RECOMMENDED PUMP: Goulds 3HP-WS30 Series D or Equivalent

Add See Reabody Barnes

1) Loss through laterals

$$2.94' / 100 \text{ LF} \times 700 \text{ LF} = 20.58$$

2) Loss through anticipated 24 inch rise = 2.0

$$22.58$$

Call Designer to Verify Pump Before Ordering

$\frac{7}{9}$ [illegible]

2/9

FRICTION LOSS PER 100' OF PLASTIC PIPE

	GPM	GPH	2"		2½"		3"		4"		6"		8"		10"	
			Fl.	Lbs.	Fl.	Lbs.	Fl.	Lbs.	Fl.	Lbs.	Fl.	Lbs.	Fl.	Lbs.	Fl.	Lbs.
	1	60														
	2	120														
	3	180														
	4	240														
	5	300														
	6	360	.10	.044												
	8	480	.17	.073												
	10	600	.25	.108	.11	.046										
	15	900	.52	.224	.22	.094										
	20	1,200	.86	.375	.36	.158	.13	.056								
	25	1,500	1.29	.561	.54	.234	.19	.083								
	30	1,800	1.81	.786	.75	.327	.26	.114								
	35	2,100	2.42	1.05	1.00	.436	.35	.151	.09	.041						
	40	2,400	3.11	1.35	1.28	.556	.44	.191	.12	.052						
	X45	2,700	3.84	1.67	1.54	.668	.55	.239	.15	.064						
	50	3,000	4.67	2.03	1.93	.839	.66	.288	.17	.076						
	60	3,600	6.60	2.87	2.71	1.18	.93	.406	.25	.107						
	70	4,200	8.83	3.84	3.66	1.59	1.24	.540	.33	.143						
	80	4,800	11.43	4.97	4.67	2.03	1.58	.687	.41	.180						
	90	5,400	14.26	6.20	5.82	2.53	1.98	.861	.52	.224						
	100	6,000			7.11	3.09	2.42	1.05	.63	.272	.08	.036				
	125	7,500			10.83	4.71	3.80	1.65	.95	.415	.13	.055				
	150	9,000					5.15	2.24	1.33	.580	.18	.077				
	175	10,500					6.90	3.00	1.78	.774	.23	.102				
	200	12,000					8.90	3.87	2.27	.985	.30	.130				
	250	15,000							3.36	1.46	.45	.195	.12	.051		
	300	18,000							4.85	2.11	.63	.275	.17	.072		
	350	21,000							6.53	2.84	.84	.367	.22	.095		
	400	24,000									1.08	.471	.28	.121		
	500	30,000									1.66	.720	.42	.182	.14	.059
	550	33,000									1.98	.861	.50	.219	.16	.071
	600	36,000									2.35	1.02	.59	.258	.19	.083
	700	42,000											.79	.343	.26	.112
	800	48,000											1.02	.443	.33	.143
	900	54,000											1.27	.554	.41	.179
	950	57,000													.46	.198
	1000	60,000													.50	.218

THEODORE J. WALKER
REGISTERED ENVIRONMENTAL HEALTH SPECIALIST
2280 PLEASANT HILL RD.
SEBASTOPOL, CA. 95472
829-6854

RECEIVED

APR 27 1992

DEPT. OF
ENVIRONMENTAL MANAGEMENT

April 24, 1992

Design Revisions for Chias De Napa Winery, 5253 Solano Ave.,
Napa Ca., Sid McVicars Owner

Recently, the percolation rate for the area of the proposed system has been estimated at 1 - 3 inches per hour. In my original design, I utilized the most conservative rate allowed at .20 gallons/square foot/day. Therefore, the system can be actually reduced in total size. In discussing this with my client, he has chosen to reduce the size of the system from the original design.

Therefore, the revised sizing of the system is as follows:

Using the estimated percolation of 1-3 inches per hour, the percolation rate of 60 minutes per inch converts to .74 gallons per square foot per day. Using the sidewall factor only (liquid area below the pipe), we use .8 feet per lineal foot (for one side), and 1.6 feet per lineal foot (calculating for both sides): Therefore, we use the following equation:

Proposed 550 gallons per day (peak load)
.74 gal/sq.ft./day X 1.6 sq.ft./lineal foot =

550 gallons
1.18 gal./lin.ft. = 466 lineal feet needed

Note: Will install 500 lineal feet for a safety factor. There is adequate expansion area, the system will be a Pressure Distribution System, and the trench width will be 24 inches wide instead of 36 inches wide.



NAPA COUNTY

TRENT CAVE, R.S.
Director of Environmental Health

DEPARTMENT OF ENVIRONMENTAL HEALTH

1195 THIRD STREET, ROOM 205 • NAPA, CALIFORNIA 94559-3082
AREA CODE 707/253-4471

DIVISION OF ENVIRONMENTAL HEALTH INSPECTION SCHEDULE FOR SPECIAL DESIGN SEWAGE SYSTEMS

The attached plans have been approved and an Environmental Assessment completed on 5/6/92

Please be advised that any changes in the design or location must be approved by both the designer and the Division of Environmental Health. This office must be contacted for field inspections during the stages of construction checked below. We would prefer to meet with the designer at the site but that is not mandatory.

~~ETI BEDS~~ P.D. 5/1/92

Environmental Health will inspect the ETI Bed at two stages at the following intervals:

FIRST INSPECTION

- OK 6/1/92 gm ☒ Inspection of rock, sand and/or soil to be used
- OK 6/1/92 gm ☒ Inspection of distribution and perforated lines in the bed *lines & SQUIRT TEST*
- OK 6/1/92 gm ☒ Inspection of septic tank(s) *Zabel filters on both W. mainy tank outlets*
- OK 6/1/92 gm ☒ Inspection of sewer line

SECOND INSPECTION

- OK 6/3/92 gm ☒ Inspection of the covered bed
- OK 6/3/92 gm ☒ Inspection of monitoring wells *only 30" - sanitary seal capped 6 total*
- ☐ Inspection of french drains and surface water diversion ditches
- OK 6/3/92 gm ☒ Inspection of sump/pumps and alarm
- ☐ Other _____

A final construction report from the designer will be required prior to this office issuing any final. This must include an as built plot plan showing any significant deviations from the approved plans.

For the above inspections, you should contact the district sanitarian at least 24 hours in advance.

If you have any questions regarding these inspection requirements, please contact the undersigned sanitarian.

Approved by: _____

(Signature)

Zabel Special Purpose Filter
SEPTIC TANK INSTALLATION FEATURES

- **PREVENTS CLOGGED DRAIN FIELDS**

Filters suspended solids 90% +.

Model A100 = 1/16" filtration

Model A300 = 1/32" filtration

- **PROTECTS THE ENVIRONMENT**

Treats waste water by lowering BOD₅ 45%.

Acts as contact stabilization unit.

Protects groundwater quality by improving efficiency of tank and drain field.

- **IMPROVES SEPTIC TANK EFFICIENCY**

Slows internal velocity.

Holds nutrients (solids) trying to exit tank.

Bio-mass growth on disc dams causes solids to disintegrate, lose buoyancy and fall to tank bottom.

- **EASY TO MAINTAIN**

Can be cleaned at regular tank inspection.

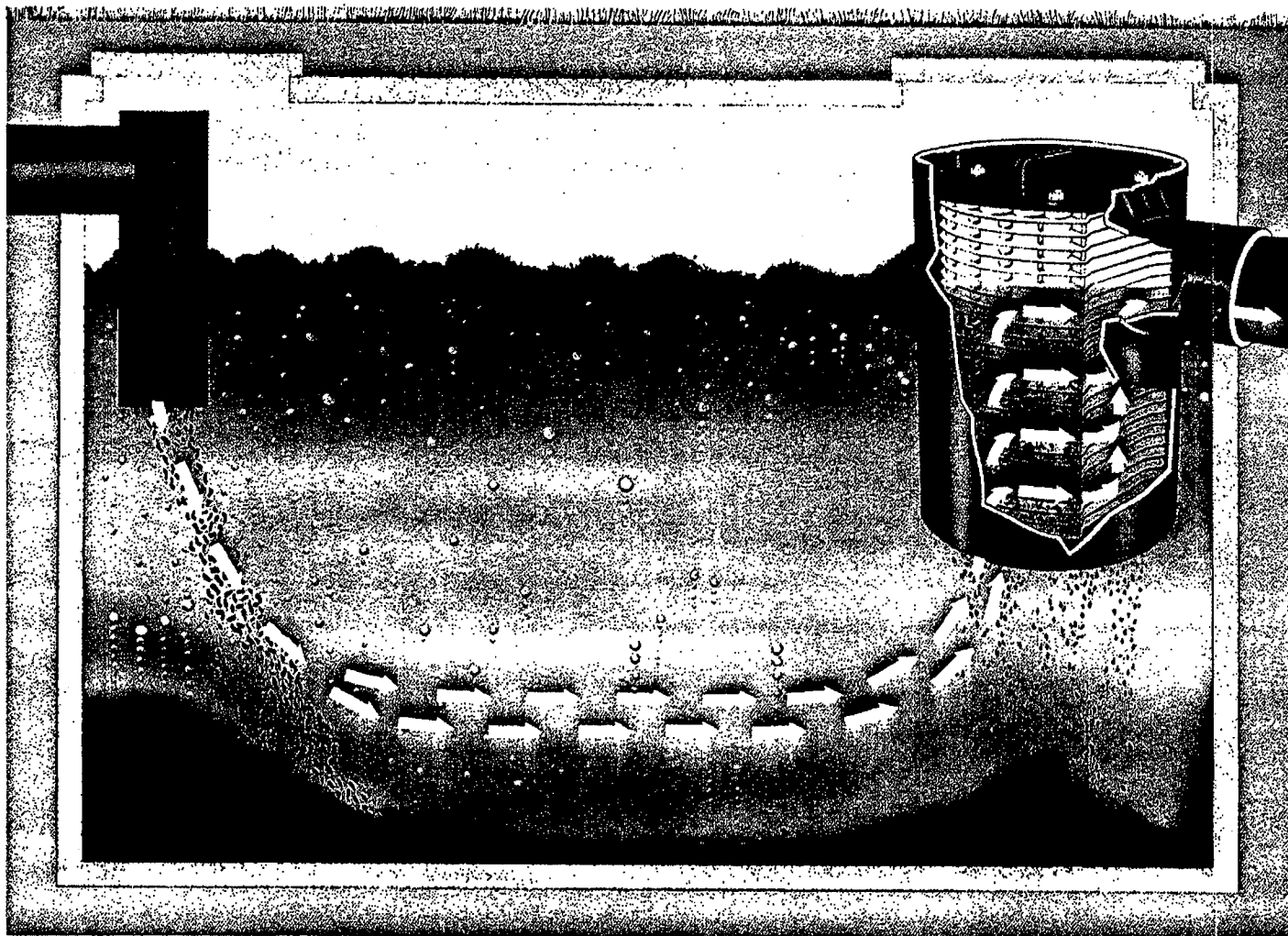
Increases time between pumping.

Removable cartridge can be replaced or;

Cartridge can be hosed off back into tank.

- **NO MOVING PARTS**

- **LIFETIME WARRANTY**



Model #A100

Zabel Industries International, Ltd.

Zabel Special Purpose Filter

REMOVES SOLIDS

utilizing over 198 feet of filtering capacity

INCREASES EFFICIENCY

over 198 feet of settling capacity in a 1 foot wide space

PROTECT DRAINAGE FIELDS

solid-reduced effluents drain away faster

UTILIZES FLOW

the Zabel disc dam concept slows internal velocity but increases effectiveness.

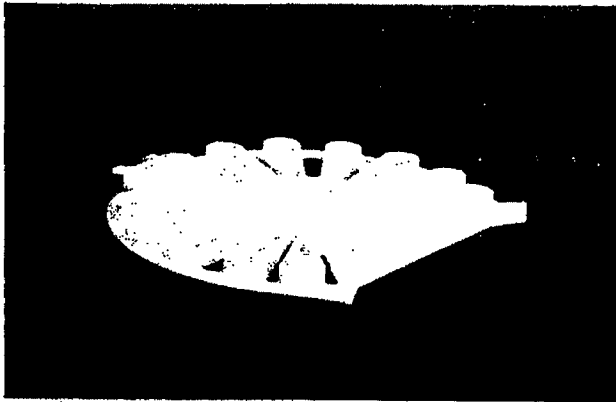
INCREASES EFFLUENT QUALITY

reducing suspended solids in the effluent discharge.

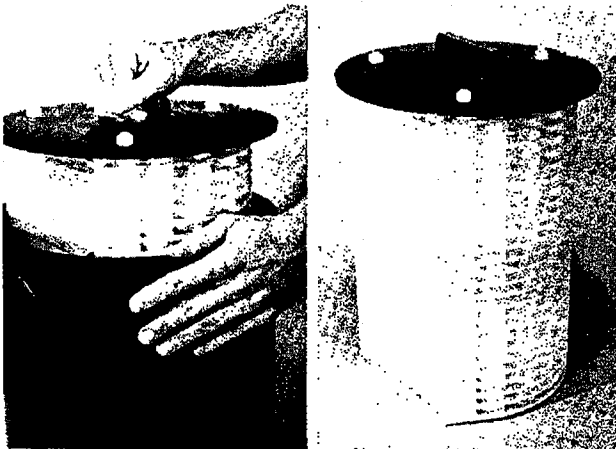
EASY INSTALLATION

just slides in any 4½ inch outlet opening

ZABEL DISC DAM FILTER PLATE



The series of Zabel disc dams are normally set with 1/16" spacing to filter out any biological sludges, water works sludges and light flocculent sludges.



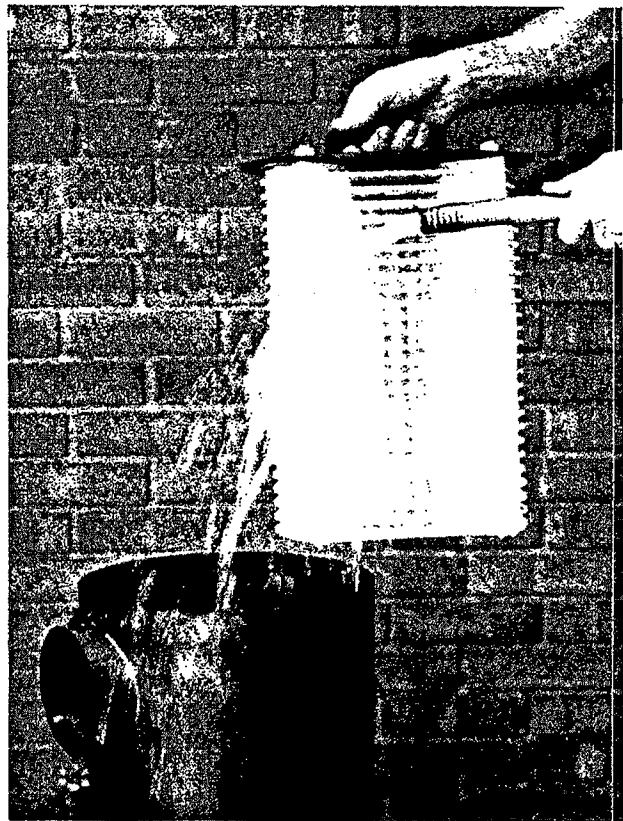
The Zabel disc dam assembly easily slides in to the sturdy case. You can readily see how influent enters thru the open bottom of the case, is filtered as the liquid passes thru the Zabel disc dams, and suspended solids then fall back to the bottom of the septic tank or collection tank through the return holes. The clarified liquid flows on to the next stage (or the drainage field) through the side-wall effluent opening.

For More Information
Contact:

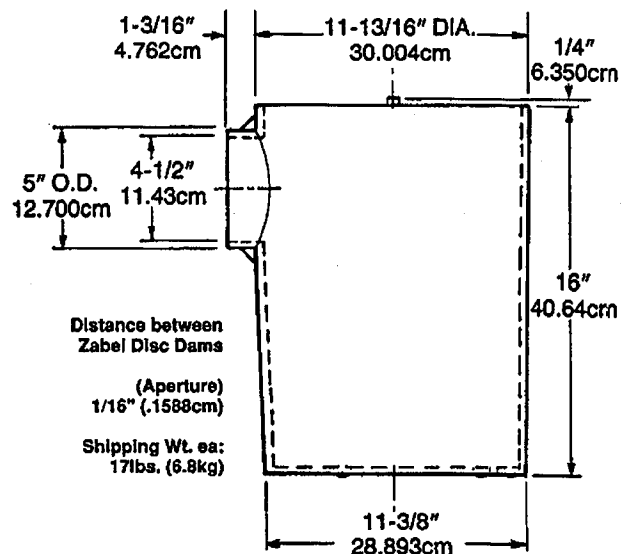
Zabel Industries International, Ltd.

3600 Chamberlain Lane, Suite 612 • Louisville, KY 40241
1-502-429-0628 or 1-800-221-5742

Patent No. 4710295



Replace the dirty cartridge with a clean one, place the dirty cartridge in a plastic bag and spray off with a hose at your shop.



Equivalent number of feet straight pipe for different fittings

6/9



Size of Fitting, Inches	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	5"	6"	8"	10"
90° Ell	1.5	2.0	2.7	3.5	4.3	5.5	6.5	8.0	10.0	14.0	15	20	25
45° Ell	0.8	1.0	1.3	1.7	2.0	2.5	3.0	3.8	5.0	6.3	7.1	9.4	12
Long Sweep Ell	1.0	1.4	1.7	2.3	2.7	3.3	4.2	5.2	7.0	9.0	11.0	14.0	
Close Return Bend	3.6	5.0	6.0	7.8	10.0	12.0	15.0	18.0	24.0	31.0	37.0	39.0	
Tee—Straight Run	1	2	2	3	3	4	5						
Tee—Side Inlet or Outlet	3.3	4.5	5.7	7.6	9.0	12.0	14.0	17.0	22.0	27.0	31.0	40.0	

10 FT.

7/9

[illegible]

3/9

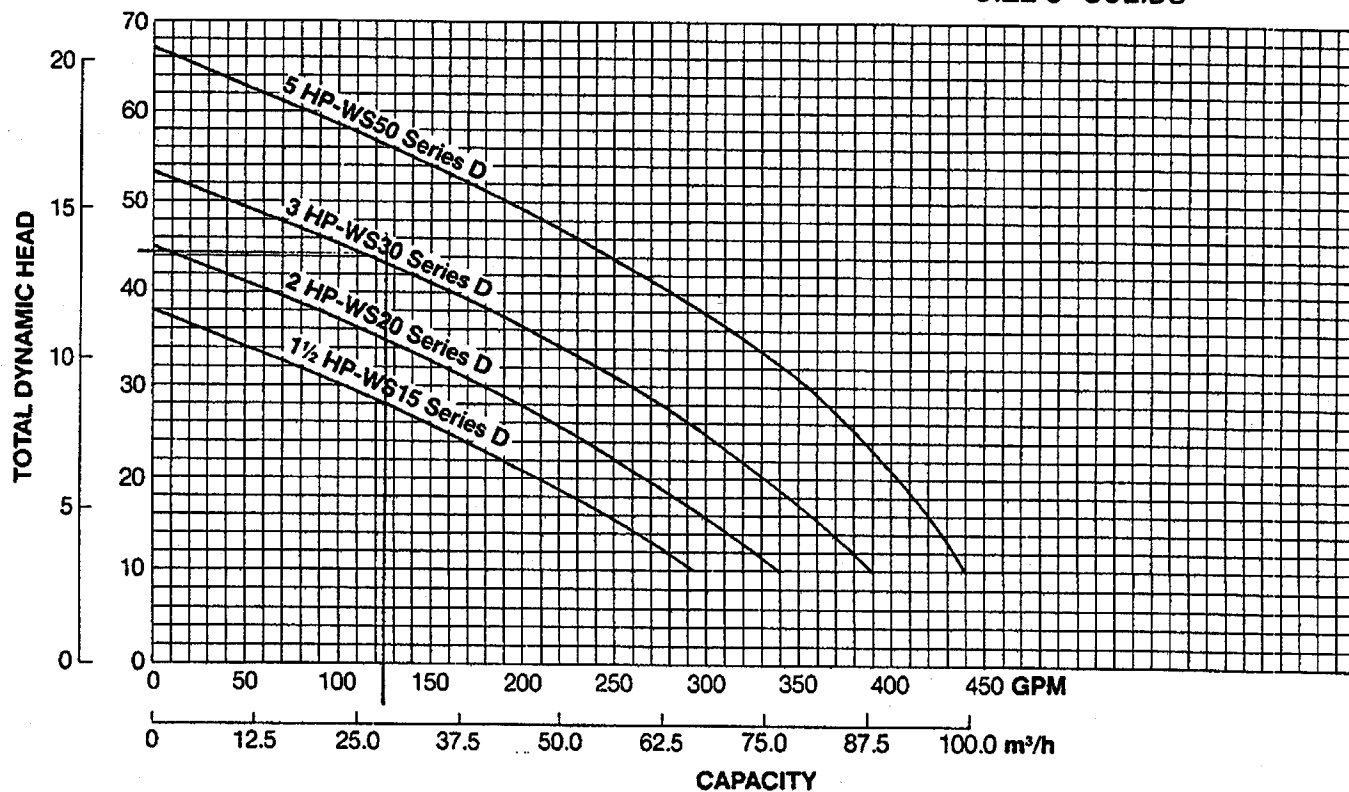
FRICTION LOSS PER 100' OF PLASTIC PIPE

GPM	GPH	2"		2½"		3"		4"		6"		8"		10"	
		Fl.	Lbs.	Fl.	Lbs.	Fl.	Lbs.	Fl.	Lbs.	Fl.	Lbs.	Fl.	Lbs.	Fl.	Lbs.
1	60														
2	120														
3	180														
4	240														
5	300														
6	360	.10	.044												
8	480	.17	.073												
10	600	.25	.108	.11	.046										
15	900	.52	.224	.22	.094										
20	1,200	.86	.375	.36	.158	.13	.056								
25	1,500	1.29	.561	.54	.234	.19	.083								
30	1,800	1.81	.786	.75	.327	.26	.114								
35	2,100	2.42	1.05	1.00	.436	.35	.151	.09	.041						
40	2,400	3.11	1.35	1.28	.556	.44	.191	.12	.052						
X45	2,700	3.84	1.67	1.54	.668	.55	.239	.15	.064						
50	3,000	4.67	2.03	1.93	.839	.66	.288	.17	.076						
60	3,600	6.60	2.87	2.71	1.18	.93	.406	.25	.107						
70	4,200	8.83	3.84	3.66	1.59	1.24	.540	.33	.143						
80	4,800	11.43	4.97	4.67	2.03	1.58	.687	.41	.180						
90	5,400	14.26	6.20	5.82	2.53	1.98	.861	.52	.224						
100	6,000			7.11	3.09	2.42	1.05	.63	.272	.08	.036				
125	7,500			10.83	4.71	3.80	1.65	.95	.415	.13	.055				
150	9,000					5.15	2.24	1.33	.580	.18	.077				
175	10,500					6.90	3.00	1.78	.774	.23	.102				
200	12,000					8.90	3.87	2.27	.985	.30	.130				
250	15,000							3.36	1.46	.45	.195	.12	.051		
300	18,000							4.85	2.11	.63	.275	.17	.072		
350	21,000							6.53	2.84	.84	.367	.22	.095		
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500	30,000									1.66	.720	.42	.182	.14	.059
550	33,000									1.98	.861	.50	.219	.16	.071
600	36,000									2.35	1.02	.59	.258	.19	.083
700	42,000											.79	.343	.26	.112
800	48,000											1.02	.443	.33	.143
900	54,000											1.27	.554	.41	.179
950	57,000													.46	.198
1000	60,000													.50	.218

Submersible Sewage Pump

MODEL 3888
SIZE 3" SOLIDS

METERS FEET



 **GOULDS PUMPS, INC.**
SENECA FALLS, NEW YORK 13148

PUMP CALCULATIONS

USE FLOW RATE $Q = 123$ gpm
 PIPE SIZE 3" PVC

1. TOTAL DESIGN HEAD (T.D.H.)

A. Static Head (Hs)

Elevation of highest leach line invert = 74
 Elevation of pump = 69

$$H_s = 74 - 69 = 5$$

B. Friction Head Loss (Hf)

at 123 gpm, Friction Loss (FL) for 3" PVC = 3.8/100'

Friction Loss in pipe, bends, valves, etc:

Description	Estimated #	Equiv. Length	Total Length
90° Bend	<u>4</u>	5.5	22.0 LF
45° Bend	<u>4</u>	2.5	10.0
Gate Valve	<u>8</u>	1.2	11.2
Check Valve	<u>1</u>	13.0	13.0
Pipe	275 LF	1.0	275.0
TOTAL:			<u>331 LF</u>

$$H_f = 331' \times 3.8 / 100'$$

$$H_f = 12.57$$

C. Total Design Head

$$\begin{aligned} \text{T.D.H.} &= H_s + H_f \\ &= 5 + 12.57 \text{ (Add Below)} + 22.58 \end{aligned}$$

$$\text{T.D.H.} = 40.15$$

RECOMMENDED PUMP: Goulds 3HP-WS30 Series D or Equivalent

Add

1) Loss through laterals

$$2.94' / 100 \text{ feet} \times 700 \text{ LF} = 20.58$$

2) Loss through anticipated 24 inch rise = 2.0

$$22.58$$

CHAS DE NAPA WINERY
SYDNEY McVICARS
5253 Solano Ave.
Napa, Ca.

PRESSURE DISTRIBUTION SYSTEM DESIGN:

Site Evaluation Field Analysis performed 8-12-88 by Napa Septic and Tim Snellings of Napa County Health Department. System was accepted for a Special Design ETI System, design by Mahorney and Associates.

Review of the site and soil conditions reveals that the ETI System may not be best suited for Winery Waste Water Design. On March 13, 1992, I evaluated the site with augered holes excavated as indicated on the plans. Shown is an area for a Special Design Pressure Distribution System. Soils encountered consisted of:

Hole #1

0-24 Sandy Clay Loam, Granular Structure, Firm, Damp

24-36 Silty Clay Loam, Granular, V. Firm, Damp

Hole #2

0-18 Silty Clay Loam, Granular, firm, Damp

18-25 Gravelly Silty Clay Loam, Granular, firm, damp

Hole #3

0-24 Silty Clay Loam, blocky, firm, damp

24-36 Sandy Clay Loam, Granular, firm, damp

No water or seepage was encountered within the first 36 inches of the auger holes on this date. Note: Seasonal rainfall had occurred within the last 48 hours.

Estimated perk rate results in a infiltration rate of .20 \approx 0.5"/hr. *ASSUMED*
gallons per square foot per day (the same as Mahorney and Ass.) However, utilizing trenches instead of a large gravel bed, you get increased sidewall factor. In this case, we will a 36 inch wide trench, which will result in a sidewall factor of 4 square feet per lineal feet. Therefore to size the system, use the following:

500 gallon/day peak load

,20 gals/square feet/day X 4.0 square feet per lineal ft =

500gal

.80 = 625 lineal feet needed. Note, will install 700

lineal feet for a safety factor. There is adequate expansion area. The system will be Pressure Distribution for equal flow.

OK

SITE EVALUATION
MADE CLOSE
TO WINEY
BUILDING.
SOIL CHANGES
POSSIBLE?

19. ✓ Pump head calculations included (no siphons).
20. Number of doses/day 2, 3-4 (should be between 2 and 4).
21. Sump size 1,200 gals. Alarm within 20 ft. of house OK.
22. Foot head at each hole OK. (2 ft. min.)
23. ✓ Balancing valve at beginning and purge valve at end of each line, encased in plastic or concrete boxes.
24. ✓ Two foot separation from manifold to perforated pipe.
25. Distance of sump and pump from disposal system 275 (not >30 ft.)
26. Number of monitoring wells 6 (six required.)

4/2/92 Spoke with Ted Walker about concerns with plans:

- ① Assumed $\frac{1}{2}$ "/hr. perc. rate
- ② No sand in trenches - only gravel
- ③ Effective area of 4" / lin. ft. as opposed to 2" / lin. ft. as per requirements.

Told Ted that these represent a significant deviation from our guidelines, and as per our agreement with Regional Water, we must refer the proposal to them for review - Ted will write letter to Blair Allen and explain.

- 4/21/92
- ① Site evaluation in proposed system area revealed soil in the 1-3"/hr. range - OK. for proposed system.
 - ② Blair Allen verbally approved use of gravel in place of sand - more suitable due to type of water (winery)
 - ③ Blair Allen said 2" / lin. ft. OK.

REVIEWED BY

MOR

DATE

4/21/92

PDS

PLAN CHECK SHEET FOR PRESSURE DISTRIBUTION SYSTEM

OWNER SIDNEY McVICAR - CHIAS DE NAPA DATE IN 3/26/92

ADDRESS 5253 SOLANO AVE. A.P.# 34-160-08

GENERAL REQUIREMENTS

1. ☒ 3 copies of plans, design criteria, plan check fee paid.
2. ☒ Completed environmental assessment sheet and USGS Quad section.
- ③ 3. ☐ Perc test or site evaluation on file, location indicated.
4. ☒ Plans show precise location on parcel and drawn to scale.
5. ☒ Plans show contours or elevations.
6. ☒ All setbacks are indicated.
7. ☒ All water diversion shown - no problem on adjoining lots.
8. ☒ Files on adjoining parcels checked for wells and easements.
9. ☒ Engineer's inspection schedule included.
10. ☒ 100% reserve area designated.
- ④ 11. ☐ Outside floodway or flood plain. *(IN FLOODPLAIN ACCORDING TO FIELD 9/14/89 REVIEW.)*
12. ☒ Tank sealed if Water table < 72" and sump not sealed with bituminous material.

DESIGN CRITERIA

⑤ FLOODPLAIN MONT. PERMIT REQUIRED.

⑥ PERC. TEST IN A DIFFERENT AREA 150'-200' AWAY

1. Slope 0.5% (Must not exceed 30%).
2. Percolation rate ? in/hr. (not < 1/2 in/hr at 24" below trench bottom).
3. Depth to groundwater 36" in. (not < 24" below trench bottom).
4. Depth to impervious layer ? in. (not < 24" below trench bottom).
5. Design wastewater flow 500 G.P.D.
6. Type of sand in trench GRAVEL
7. Depth of ~~sand~~ under pipe OK. (8" min.)
8. Gravel size P 60 (3/8" to 3/4"). Depth gravel under pipe OK. (2" min.) Depth gravel over pipe OK. (2" min.)
9. Filter media between gravel and backfill OK.
10. Depth of backfill over gravel 12" (12" min.)
11. Application rate of native soil based on perc rate 0.74 GPM (1-3" / HR.) Gal./sq. ft./day.
12. Square feet effective sidewall area (sand and gravel) 2 (not > 3 sq. ft./lin. ft.)
13. Length pressurized line run 275 (not > 50 ft.)
14. Total length of distribution system 700 ft. (Daily flow divided by application rate X effective sidewall area.)
15. Trench width 36" in. (18"-24" REQUIRED)
16. Trench spacing 7' (ON CENTER) ft. (6 FT. MIN.)
17. Lateral pipe diameter 1 1/4" in.
18. Perforations spacing 48 in.
- Perforations diameter 3/16 in.

THEODORE J. WALKER
REGISTERED ENVIRONMENTAL HEALTH SPECIALIST
2280 PLEASANT HILL RD.
SEBASTOPOL, CA. 95472
829-6854

June 16, 1992

Ms. Jeanna Michael, R.E.H.S.
Napa County Department of
Environmental Health
1195 Third St., Rm. 205
Napa, California 94559

Re: Septic System final for 5253 Solano Ave., Napa Ca.
A.P. #34-160-08

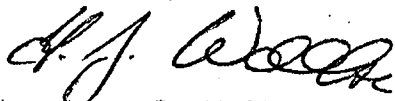
Dear Jeanna Michael:

I have inspected the septic system installation for the property mentioned above, and have found the installation to be in conformance with the plans that were approved and in compliance with the Napa County regulations.

The septic tanks were moved slightly, and are shown on the attached "As Built Plans".

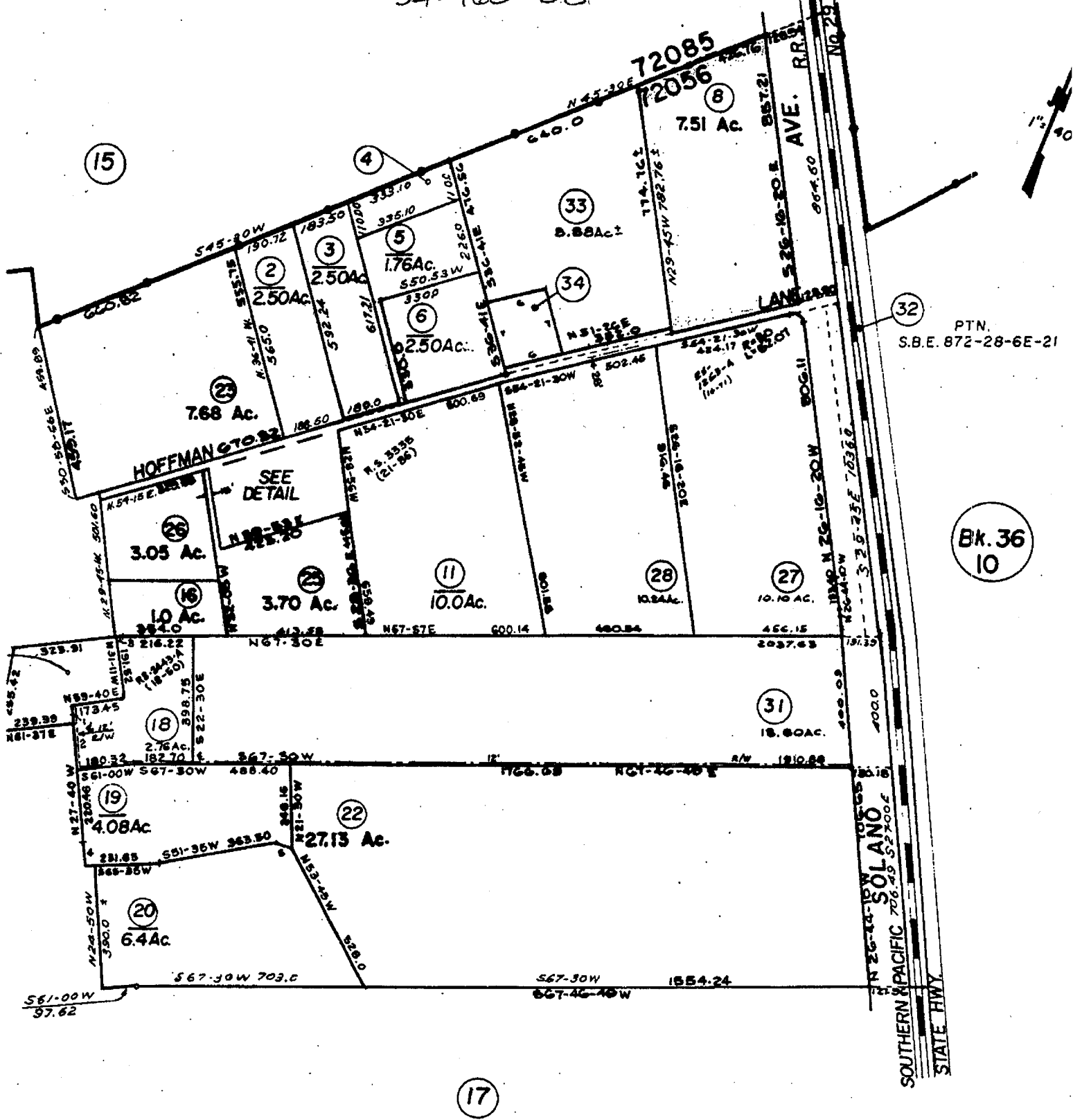
I recommend that approval be given for the final inspection. Should you have questions, please call me at 829-6854 or 829-7936.

Yours truly,



Theodore J. Walker,
Registered Environmental Health Specialist
#4323

cc: Sid McVicar
Mark Phillips



MAHORNEY,
ALFONSO
AND ASSOCIATES, INC.

CIVIL ENGINEERS
LAND SURVEYORS
AND LAND PLANNING
#1386

Page 2

Re: Chias De Napa
McVicar-Small
Winery Permit
NCAP 34-160-08

The Winery structures will be elevated. The E-T-I Bed will be elevated approximately 36" above original ground (77.5 +/- MSL-USGS).

I trust the above is sufficient for your needs at this time. Final Design Plans and Specifications will be submitted to your office for review and approval at the appropriate time. Please contact me should you have any questions.

Sincerely;

R.G. Mahorney
R.G. Mahorney, P.E. *By R.G.M.*

RGM/rjm
Attach:

**MAHORNEY,
ALFONSO
AND ASSOCIATES, INC.**

CIVIL ENGINEERS
LAND SURVEYORS
AND LAND PLANNING
#1386

R E C E I V E D
SEP 15 1988

Jill Pahl, R.S.
Department of Environmental Health
County of Napa
1195 Third Street
Napa, California, 94559

DEPT. OF
ENVIRONMENTAL MANAGEMENT

Re: Chias De Napa
McVicar-Small
Winery Permit
NCAP# 34-160-08

Dear Jill:

The project applicant has requested that I respond to your request for additional information relative to methods of sewage disposal available to the project. I have examined the site, acquired topographical data, and examined the Site Evaluation Report prepared by your department.

The Site Evaluation Report indicates that high seasonal groundwater occurs at approximately 36" below the lowest ground surface and that said 36" of soil is acceptable for special design.

The project is to be constructed on NCAP #34-160-08, a 7.5 +/- Acre parcel of land located adjacent to Solano Ave. and lying immediately north of Hoffman Lane. The Winery structures are to be placed at the northerly end of the parcel approximately 200 ft. westerly of Solano Ave and 750 ft. northerly of Hoffman Lane.

The Winery structures are proposed to be located approximately 590 ft. from the nearest residence and approximately 780 ft. from the nearest Winery. Both the structures noted above lie southwesterly of the proposed Winery location.

Due to the existing soil conditions and the limited amount of wastewater to be generated, an Evapo-Transpiration and Infiltration Disposal System with watertight septic tanks seems best suited to the subject project. The disposal facilities should be placed easterly of the winery structures. An E-T-I Bed of 3300 SF (33'x100') with a 1500 gal. septic tank should provide adequate wastewater treatment and disposal for the proposed Small Winery.

Drainage of the project lands flows Southwesterly from a high elevation of 75.8 +/- to a low of 71.8 +/- . Ground slope is approximately 0.44%.

SEP 15 1988



From
Quadrangle T. 6 N.
Map
Entitled
Yountville, CA.

38°22'30"
122°22'30"
260 000
FEET

Mapped, edited, and published by the Geological Survey
Control by USGS, USC&GS, and USCF

(NAPA)
1560 IV SE

TIM SWELLING (Napa Co. Environmental Health Dept --

Commercial Resources (Impact 50 & 51)

☒ On-site/Nearby Aggregate/Rock Product/Mineral Resource Site
(% site - material(name)) _____

Amount of Prime Cropland/Grazing Land Potentially Removed From Production
(acres): _____

Total Amount of Prime Cropland/Grazing land In County
(acres): _____

Percentage Loss in Prime Cropland/Grazing Land: _____

Other

*E-T-I Disposal System Recommended in report prepared by civil engineer, Mahoney, Alfano
and associates, Inc. received 9/15/88*

SOURCE OF ENVIRONMENTAL SETTING INFORMATION:

Except as otherwise indicated, the source of the setting information specified above is
(a) the Napa County Environmental Sensitivity Mapping Program; (b) a review of the 1968
1:12,000 scale aerial photos of the site; (c) the comments received; (d) conversations
with knowledgeable individuals (see notes below); (e) the preparer's personal knowledge
of the area; and (f) where necessary, a site visit (see notes below).

FIELD CHECK (Optional):

Date: _____
By: _____

On-site Improvements & Vegetation: _____

Surrounding Land Uses: _____

Views: _____

Site Distance: _____

Other: _____

Background Information
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Traffic (Impact 34, 35, 36, 37 & 38)

Estimated Traffic Speed (mph): _____

Site Distance At Driveway Location (ft): _____ Standard: _____

Percentage Increase In Hazards To Existing Traffic: _____

Traffic Generation (trips)

per day: _____

peak hr: _____

peak hr cross traffic: _____

Traffic Distribution (%)

(see traffic distribution sketch when attached)

north: _____ south: _____ east: _____ west: _____

Traffic Level Changes (ADT/peak hr)

street name (capacity): _____

existing (LOS): _____

base case (LOS): _____

with project (LOS): _____

percent of remaining: _____

uncommitted capacity: _____

*Parking Spaces Provided: _____

Standard: _____

Traffic Study: _____

Public Safety (Impact 44, 45, 46 & 47)

Fire Risk: Low Fire Response Time (min): _____ Fire Hydrant Distance (ft): _____

☒ Airport/Heliport Safety Zone (% site - airport): _____

☒ Airport/Heliport Approach Protection Zone (% site - airport): _____

☒ Airport/Heliport Clear Zone (% site - airport): _____

Noise (Impact 17, 18, 19 & 20)

Peak On-site Ldn Noise Levels At Proposed Facility (dBA): _____ Standard: _____

*Ldn Noise Levels At Most Highly Impacted Off-site Receptors (dBA)

location:	_____	_____	_____	_____
standard:	_____	_____	_____	_____
existing:	_____	_____	_____	_____
base case:	_____	_____	_____	_____
with project:	_____	_____	_____	_____
difference:	_____	_____	_____	_____

Peak Construction Noise Levels At Most Highly Impacted Receptors (dBA): _____

Standard: _____

Ecosystems (Impact 21, 22, 23, 24 & 25)

☐ Unique/Rare/Endangered Plant (symbol(scient. name) - common name): _____

☐ Unique/Rare/Endangered Animal (name): _____

☐ Fresh/Brackish/Salt Water Marsh (% site) _____

☐ Riparian Gallery (% site - stream): _____

☐ Vernal Swale/Pool/Pond/Lake (% site) _____

☐ Other Unique/Important/Particularly Productive Habitat (% site- type): _____

Biotic/Wildlife Survey: _____

Cultural Resources (Impact 31, 32 & 33)

☐ Archaeological Site (% site - number): _____

☐ Historical Site (name): _____

☐ Archaeologically/Historically Sensitive Area (% site): _____

☐ Recreational/Educational/Religious/Scientific Use Area (% site - name): _____

Archaeological Survey: _____

Background Information

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***Runoff (Impact 6 & 9)**

Watershed

designation: _____

size (acres): _____

Percentage Change in Downstream Flows:

(see runoff/erosion calculation sheet when attached)

***Erosion/Sedimentation/Water Quality (Impact 7, 8, 10, 11 & 12)**

Watershed

designation _____

erosion hazard _____

size (acres) _____

Percentage Increase In Sediment Delivered To Drainageway

(see runoff/erosion calculation sheet when attached)

construction: _____

permanent: _____

***Air Quality (Impact 13, 14, 15 & 16)**

Traffic Generated (trips/day): _____ Average Trip Length (miles/trip): _____

VMT Increase (miles/day): _____ Existing VMT In Airshed: _____

Percentage Increase In Pollutants Released In Airshed: _____

On-site Air Pollution Levels

(see air quality calculation sheets when attached)

CO (1 hr): _____ ppm CO (8 hr): _____ ppm HC (3 hr): _____ ppm TSP (24 hr): _____ ug/m³

Proportion of Remaining Uncommitted Capacity To Hazardous Off-site Air Pollution

Levels Employed (see air quality calculation sheet when attached)

Roadway: _____

CO (1 hr): _____

CO (8 hr): _____

HC (3 hr): _____

TSP (24 hr): _____

**ENVIRONMENTAL ASSESSMENT
BACKGROUND INFORMATION**

PROJECT NAME: CHIAS DENAPA WINERY / McVicar APN# 34-160-08

ENVIRONMENTAL SETTING INFORMATION & IMPACT CALCULATIONS (Optional):

Topography (see attached topo map)

*Slope: _____

Geology (Impact 1, 2 & 3)

Bedrock (% site-symbol(name)-dip): _____

Surficial Deposits (% site-symbol(name)): 100% QyFo Fluvial deposits

Historic Marsh Area (% site - name) _____

☐ Landslides (_____ definite, _____ probable, _____ questionable, _____ active)

☐ Soil Creep Areas (_____ definite, _____ probable, _____ questionable, _____ active)

☒ Active Faults (name - location): West Napa Fault Study area

☐ Other Faults (name - location): _____

☐ Unique/Scientifically Important Geologic/Geomorphic Feature: _____

Geological Study: Talbot Consultants 4/7/88 hazard for rupture of fault is no more than
slight for construction of winery

***Soils** (Impact 1, 7, 8, 10 & 51)

% Site	Number	Name (Slope)	Class	Erosion	Runoff	Potential Use
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____

Meteorology (Impact 4)

Prevailing Wind Direction: _____

Flooding (Impact 5 & 6)

☒ Delineated 100-Year Floodplain (% site - stream name): Napa River 100%

☐ Delineated Floodway (% site - stream name): _____

☒ Tsunami/Seiche/Dam/Levee Failure Inundation Area (% area): 100% Rector Creek Dam
100% Conn Dam

* Items often not relevant to smaller projects undertaken

PART IV: POSSIBILITY OF SIGNIFICANT IMPACT (answer YES or NO)

YES Does the project include excavation of the ground surface? (Possible archeological, geological, hydrological impacts)

IF YES are there any reasons why there is no possibility of a significant impact from this source? **LIST**

The project will serve an approved small winery where it was determined that the small winery was not located within an environmentally sensitive area.

NO Does the project include alteration of the ground or native vegetation near undisturbed land or habitat or parks?

NO Does the project include removal or replacement of native vegetation over more than one acre?
(Possible habitat, recreational, visual impacts)

IF YES are there any reasons why there is no possibility of a significant impact from this source? **LIST**

NO Will the project generate traffic in excess of a single dwelling?

NO Will project-generated traffic exceed 5% of the measured traffic or capacity of any road?

NO Will the project generate a parking need for more vehicles than can be accommodated on site by existing facilities?
(Possible traffic, air quality, hydrological impacts)

IF YES are there any reasons why there is no possibility of a significant impact from this source? **LIST**

PART III: ELIGIBILITY FOR CATEGORICAL EXEMPTION
(two or three checks are necessary to establish eligibility)

(The following applies to Categorical Classes 1 (additions over 10,000 sq.ft.), 3,4,5,6, and 11 only)

X No sensitive resources on project site: Environmental Sensitivity Maps checked
5/6/92 by UCB
date planner initials

(The following applies to all Categorical Classes)

X No significant cumulative impact.

See Part IV. This can be checked only if all questions in Part IV are answered NO.

(The following applies to all Categorical Classes)

X No reasonable possibility of significant impact.

See Part V. This can be checked only if all questions in Part V are answered NO, or if any YES answers are explained.

PART IV: CUMULATIVE IMPACT (answer YES or NO)

NO Will the project contribute to a cumulatively significant effect on traffic?

NO Will the project contribute to a cumulatively significant effect on air quality?

NO Will the project contribute to a cumulatively significant effect on loss of habitat (e.g. birds-of-prey, riparian, oak forest)?

NO Will the project contribute to a cumulatively significant degradation or depletion of groundwater?

NO Will the project contribute to a cumulatively significant degradation of surface waters or wetlands?

NO Will the project contribute to a cumulatively significant degradation of ambient noise levels?

PART I: EXEMPT FROM CEQA (STATUTORY EXEMPTION) (check if category applies)

- ☐ General Rule: there is no possibility of a significant effect (15061(b)(3))
 - ☐ Exchange of property or lease pursuant to State Lands boundary settlement (21080.11)
 - ☐ Railroad grade crossing elimination or grade separation construction (21080.13)
 - ☐ Restriping of streets or highways (21080.19)
 - ☐ Underground pipeline in public ROW, less than 1 mile long (21080.21)
-

PART II: CATEGORICAL EXEMPTION CLASS

(Note: The following list of categories provides a short name showing the scope of each category, but does not fully define its applicability. State Guidelines Sec. 15301 *et seq.* and County Guidelines Sec.409 should be checked to determine if the class applies. This section must be completed.)

- ☐ Class 1: Existing structures with no expansion of use
- ☐ Class 2: Replacement of structures
- ☒ Class 3: New small structures
- ☐ Class 4: Minor alterations to land
- ☐ Class 5: Minor land use limitations in areas under 20% slope
- ☐ Class 6: Research without major environmental disturbance
- ☐ Classes 7 & 8: County environmental protection actions
- ☐ Class 9: Inspection activities
- ☐ Class 11: Signs
- ☐ Class 12: Certain sales of surplus County property
- ☐ Class 13: Acquisition of land to preserve natural condition
- ☐ Class 14: Additions to schools of 10 or fewer classrooms or 25% or less capacity
- ☐ Class 15: Certain urban land divisions into 4 or fewer parcels; or certain agricultural land divisions into 40-acre or larger parcels
- ☐ Class 16: Acquisition of land for parks
- ☐ Class 17: Agricultural preserve contracts
- ☐ Class 19: Certain annexations
- ☐ Class 20: Reorganization of special districts
- ☐ Class 21: Enforcement or revocation actions
- ☐ Class 22: Educational program changes involving only interior construction
- ☐ Class 23: Public gatherings for which the facilities were designed
- ☐ Class 24: County regulation of employees
- ☐ Class 25: Ownership transfers to preserve open space
- ☐ Class 26: Acquisition of housing by public housing agency
- ☐ Class 27: Leasing by County of existing facilities

#92-05434

CATEGORICAL EXEMPTION
GRANTED X
CLASS 3

**PRELIMINARY ENVIRONMENTAL REVIEW
(EXEMPTION CHECKLIST)**

APPLICANT NAME: Chias de Napa Winery/McVicar

FILE NUMBER: #91400-SDS

PROJECT DESCRIPTION: Special design sewage disposal application to construct a sewage disposal system designed with above grade raised berms to serve a winery located on the west side of Solano Ave. north of its intersection with Hoffman Lane.

ASSESSORS PARCEL NUMBER(S): 34-160-08

supporting document(s) (including topographic map) are attached

FORM COMPLETED BY


Wynntress Chatman Balcher

ON May 6, 1992

POK. NAPA KANUCHU

