



Construction
Industries Division
STATE OF NEW MEXICO
Environment
Department

PERMIT
TO INSTALL OR MODIFY
AN INDIVIDUAL LIQUID WASTE SYSTEM

NMED Permit Number <u>SF 9306 17</u>
CID Permit Number <u>0463 90-9</u>

DIRECTIONS: All sections must be filled out completely. You must obtain NMED and CID/MHD approval prior to installing a system.

SYSTEM OWNER'S NAME - Last, First and Middle <u>GORMAN THOMAS D.</u>		HOME PHONE <u>438-3932</u>	BUSINESS PHONE <u>827-3474</u>
MAILING ADDRESS - Street/P.O. Box, City, State and Zip Code <u>P.O. BOX 168 CERRILLOS N.M. 87010</u>			
LOCATION OF SYSTEM - Street Address, and directions to site (attach map if needed) <u>PL M125, B16, A7, A2</u>			COUNTY <u>S. F.</u>
SUBDIVISION, Block and lot <u>SECOND SAN MARCOS</u>		TOWNSHIP-RANGE-SECTION <u>T. 14 N R 8 E N. M. P. M.</u>	
INSTALLER'S NAME AND FIRM <u>Pinon Construction K.D. Tl. Works</u>			PHONE <u>471-6366</u>
MAILING ADDRESS-Street/P.O. Box, City, State and Zip Code <u>RT 9 BOX 16 B.L. SANTA FE, N.M. 87505</u>			
C.I.D. License Number and Certification <u>034269</u> <u>016446</u>	MM-1 ☐	MM-98 ☒	MS-1 ☐
			MS-3 ☐
			HOMEOWNER ☐

I. PERMIT APPLICATION

- A. Application for: ☒ new system ☐ modification/replacement mobile home: ☐ yes ☐ no
- B. System is: ☒ conventional ☐ alternative ☐ holding tank (vault) ☐ other _____
- C. Includes: ☒ verification of plat date ☐ variance application ☐ plans with engineer seal, ☐ other _____

II. WASTEWATER SOURCES AND DESIGN FLOWS IN GALLONS PER DAY (GPD)

A. Proposed liquid waste system use and design flow:

- ☒ single family: number of bedrooms 3 375 GPD
- ☐ multiple family: number of units _____ number bedrooms per unit _____
- ☐ other (type _____) flow sizing units _____

B. Are there existing liquid waste sources on property and flows:

- ☐ single family: number of bedrooms None
- ☐ multiple family: number of units _____ number bedrooms per unit _____
- ☐ other (type _____) flow sizing units _____

C. Are there any other wastewater sources, not listed in A or B, on property:

None

D. Total Design Flow on Property (Total A + B + C =)

GPD 375

III. SITE INFORMATION

A. Lot size 7.485 acres or _____ square feet. Date of record (plat date) 6-4-82
(nearest .01 acres)

B. Is there room for a replacement system or additional leaching area? Number of square feet 7 acc.

C. Check all of the following which appear on the property:

- ☐ surface water ☐ rock outcrops ☐ irrigation ☐ over 15% slope ☐ caliche ☐ wells

D. Depth from the ground surface to:

Top of Seasonal High Water Table 120'

Bedrock, Caliche, or Tight Clay 8'

Gravel, Cobbles, or Highly Permeable Soils 8'

E. Soil type: (see instructions under III Site Information on back of page)

- ☐ coarse sand or gravel: give percolation rate _____ (min./in.)
- ☐ fine sand
- ☒ sandy loam or sandy clay
- ☐ clay with considerable sand or gravel
- ☐ clay with small amount of sand or gravel
- ☐ other: give percolation rate _____ (min./in.)

INSTRUCTIONS AND EXPLANATIONS

I. PERMIT APPLICATION

A. This application is for:

A new system or modification (changing the method of liquid waste treatment or disposal, enlarging the system, altering the location of the system, increasing the amount of design flow or removing or replacing component materials). Indicate if it will be a mobile home. Manufactured Housing Division approves CID permits for mobile homes.

B. This system is:

Conventional system such as septic tank with trenches, beds (both standard and deep) or seepage pits.

Alternative system. Those systems without specific standards for construction in the Uniform Plumbing Code (See Engineers seal, under section I-C, below).

Holding tanks (vaults) are watertight tanks designed to receive and retain liquid waste for periodic pumping and disposal off-site.

C. This application includes:

Verification of plat date. Supply proof of plat date if claiming an exemption from current lot size requirement.

Variance form. A variance request asks for official permission for a system which does not conform to a section of the Liquid Waste Disposal Regulations. This request needs to be submitted on an NMED form and attached to this application form.

Engineer seal. CID requires a Registered Professional Engineer (RPE) seal on the design (prior to approval) for alternative systems. The design with engineer seal must be submitted with the permit application form to CID/MHD before submitting to NMED.

II. WASTEWATER SOURCES AND DESIGN FLOW

System use and design flow for A, B and C:

Proposed, Existing and Other. Using the directions below, indicate the flow for the liquid waste system you propose to build plus provide information on existing liquid waste systems on the property and indicate if there are other sources of wastewater on the property.

Single family. A home or mobile home built to house one family. Indicate the maximum number of existing or future bedrooms. The number of bedrooms are used to determine design flow.

Multiple family. Refers to housing which is designed to have more than one family (i.e. apartments, duplex, mobile home parks). Indicate the number of units (i.e. apartments, mobile homes) on the property. Indicate the number of existing or future bedrooms for each unit. The number of bedrooms are used to determine the design flow.

Other. Refers to all other buildings except residential uses (i.e. stores, bars, restaurant, schools, churches). From TABLE 1 (back of this form) or another suitable source, indicate the number and type of sizing units that will be used to estimate the amount of wastewater your establishment will produce. For example, motels would use number of beds; schools would use students, etc..

Gallons per day (GPD) residential. Residential design flows are determined by assuming two people for each of the first two bedrooms, and one person for each additional bedroom, with each person contributing 75 gallons per day. For example, a three bedroom house or mobile home would produce 375 gallons per day. For multiple family units, determine the flow for each unit, then total the flows for all the units.

Gallons per day all others. Multiply the number of sizing units, as determined above, by their flow rate (gallons per day); flow rates from Table 1 may be used. If sizing is by fixture units (such as faucets, toilets), refer to the Uniform Plumbing Code (UPC; for example Tables 4-1, 4-2, 10-1).

Total Design Flow on the property. Total design flows for all liquid waste systems and other wastewater discharge on the lot must be provided to NMED. Total flows for A + B + C = Total Design Flow.

III. SITE INFORMATION

A. Lot size. Enter your lot size either in acres (in decimal to nearest hundredth) or square feet.

B. Replacement area. Determine if there will be enough area for a replacement system or additional leaching area. This area should be able to meet all the required setback requirements (Table 3).

C. Check all of the physical features (as listed) which appear on the property.

D. Depth of soil. To protect ground water, the Liquid Waste Disposal Regulations (LWDR) require at least four feet of suitable soil between the bottom of a private sewage disposal trench/absorption area and: 1) the seasonal high water table 2) bedrock and fractured rock or 3) material with a percolation rate faster than one minute per inch (0-1). For areas where soil depth is a concern, you may be required to auger or dig a hole to determine or verify adequate clearance.

E. Soil Type. The more slowly water percolates through the soil, the larger your leaching area will need to be to prevent sewage from surfacing in your yard. Estimate your soil type by augering or digging to the depth of your trench, bed or pit bottom, or at least three feet, and collect a handful of soil. Compare it to the descriptions below and check the appropriate box on this form. For "other" or unusual soil types, actual percolation rates should be determined; NMED has a form with directions. Your County Extension Agent, NMED environmentalist, or plumbing inspector may be able to help determine soil characteristics if you have difficulty.

Coarse sand or gravel (percolation rate 1-5 minutes per inch) is made up almost entirely of particles at least twice as large as the period at the end of this sentence (0.5mm and up). Coarse sand is very gritty to touch, and water will pass through it almost instantly. If you fill your test hole with water until the soil is saturated and water backs up, the water level will drop an inch in less than five minutes. If the level drops an inch in one minute or less, it is not suitable soil because it is not likely to prevent ground water pollution. An absorption area can be installed in such an area if at least four feet of soil below and around the drainfield trench/absorption area are replaced with a suitable soil, and the leaching area is sized accordingly to the replacement soil characteristics.

Fine (to medium) sand (percolation rate 6-15 minutes per inch) has smaller grains than coarse sand but it still feels gritty. Particles are more likely to stick to your hands, though they can be brushed off. Most sand box sand would be in this category.

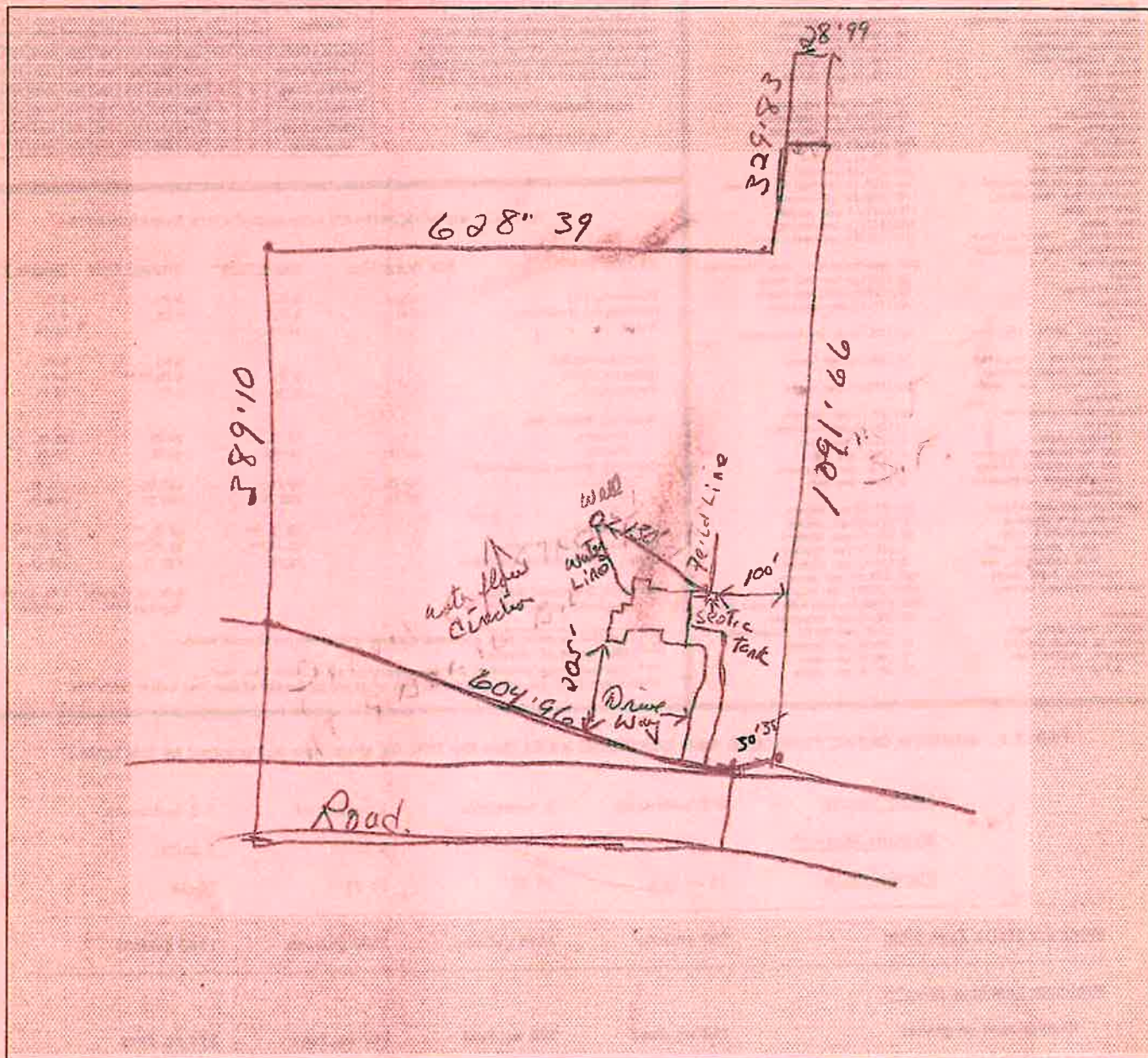
Sandy loam or sandy clay (percolation rate 15-30 minutes per inch) is a well mixed soil, including particles of sand, clay and, in loam, humus or organic matter. Clay (like silt) is composed of extremely small particles. Sandy loam or sandy clay will hold a shape when compacted in your fist, but when dampened will not feel very sticky. This soil type would make good adobes if not too loamy. Water will pass more slowly than in fine sand. If you filled a jar 1/3 with soil and the rest with water and shook the jar, the materials would gradually settle out separately so that you had about 1/2 sand and the rest clay, silt or humus.

(Continued on the back of page 2)

Site Plan. (use this sheet or attached 8-1/2 by 11 sheet, to application). Diagram the liquid waste system (bird's eye view). Show setback distances to any objects in Table 3 (back of form). Include the following landmarks within 200 feet of the systems.

- proposed and existing buildings, driveways, water lines and wells;
- direction of groundwater movement, any surface water, irrigated areas, arroyos, rock outcrops or steeply sloping areas;
- property lines and dimensions of the parcel where the system is to be located.
- location of other wastewater disposal systems on the property.

(Draw the system within the clear area and use the grey area to show features off the site)



This is: a proposed plan ☐ as built plan ☒.

Note: Any changes made in design, after NMED has issued a permit, must be approved by NMED prior to installation.

Date and Initial: INSTALLER B.L. DATE 7-22-95 NMED _____ DATE _____

Comments: _____

TABLE 1. ESTABLISHED WASTEWATER FLOW RATES

Because of the many variables encounter, it is not possible to set absolute values for waste/sewage flow rates for all situations. The designer should evaluate each situation and, if figures in this Table need modification, they should be made with the concurrence of the Administrative Authority.

TYPE OF OCCUPANCY	UNIT GALLONS (liters) PER DAY
1. Airport	15 (56.8) per employee 5 (18.9) per passenger
2. Bowling alleys (snack bar only)	75 (283.9) per lane
3. Camps: campground with central comfort station with flush toilets, no showers	35 (132.5) per person
Day camps (no meals served)	25 (94.6) per person
Summer and seasonal	15 (56.8) per person
Churches (Sanctuary)	50 (189.3) per person
with kitchen waste	5 (18.9) per seat
5. Dance hall	7 (26.5) per seat
6. Factories no shower	5 (18.9) per person
with showers	25 (94.6) per employee
Cafeteria, add	35 (132.5) per employee
7. Hospitals	5 (18.9) per employee
Kitchen waste only	250 (946.3) per bed
Laundry waste only	25 (94.6) per bed
8. Hotels (no kitchen waste)	40 (151.4) per bed
9. Institutions (Resident)	60 (227.1) per bed (2 person)
Nursing home	75 (283.9) per person
Rest home	125 (473.1) per person
10. Laundries, self-service (minimum 10 hours per day)	125 (473.1) per person
Commercial	50 (189.3) per wash cycle
11. Motel	Per manufacturer's specifications
with kitchen	50 (189.3) per bed space
12. Offices	60 (227.1) per bed space
13. Parks picnic parks (toilets only)	20 (75.7) per parking space
recreation vehicles without water hook-up with water and sewer hook-up	75 (283.9) per space
14. Restaurants-cafeterias	100 (378.5) per space
toilet	20 (75.7) per person
kitchen waste	7 (26.5) per customer
add for garbage disposal	6 (22.7) per meal
add for cocktail lounge	1 (3.8) per meal
kitchen waste-disposable service	2 (7.6) per customer
15. Schools-Staff and office	2 (7.6) per meal
Elementary students	20 (75.7) per person
Intermediate & high	15 (56.8) per person
gym & showers, add	20 (75.7) per student
with cafeteria, add	5 (18.9) per student
Boarding, total waste	3 (11.4) per student
16. Service station, toilets	100 (378.5) per person
17. Storms	1000 (3785) for 1st bay
public restrooms, add	500 (1892.5) each additional bay
18. Swimming pools, public	20 (75.7) per employee
19. Theaters, auditorium	1 (3.8) per 10 ft ² floor space
drive-in	10 (37.9) per person
	5 (18.9) per seat
	10 (37.9) per space

TABLE 2. MAXIMUM DESIGN FLOW LIMITATIONS UNDER LIQUID WASTE DISPOSAL REGULATIONS SECTION 302

Note: These tables show total design flow limitations (in gallons per day, or gpd) for lots without liquid waste system discharges established prior to 2/1/90.

Established liquid waste systems are allowed to continue discharging at their existing total design flow (even if that established total design flow exceeds the appropriate entry in the tables), provided they meet the lot size requirement at the time of initial installation and provided they do not increase the total design flow. Increases in total design flow must meet these limitations.

Discharging liquid waste systems on lots platted after 2/1/90 and expansions of existing systems are limited to total design flows given by the following formula, provided that the lot size is at least 0.75 acre:

$$\text{Total Design Flow (gpd)} = \text{Lot Size (acres)} \times 500$$

OFF-SITE WATER SUPPLY

Plot Date	.25 acre	.33 acre	.50 acre	.75 acre	1.00 acre	1.25 acres	1.75 acres	2.00 acres
Prior to 11/1/73	375	375	450	450	500	625	875	1000
11/1/73 to 9/7/79	0	0	450	450	500	625	875	1000
9/7/79 to 3/1/80	0	0	450	450	500	625	875	1000
3/1/80 to 11/9/85	0	375	450	450	500	625	875	1000
11/9/85 to 2/1/90	0	375	450	450	500	625	875	1000
After 2/1/90	0	0	0	375	500	625	875	1000

ON-SITE WATER SUPPLY

Plot Date	.33 acre	.50 acre	.75 acre	1.00 acre	1.25 acres	1.50 acres	1.75 acres	2.00 acres	2.75 acres	3.00 acres
Prior to 11/1/73	375	450	450	500	625	750	850	1000	1375	1750
11/1/73 to 9/7/79	0	0	450	500	625	750	850	1000	1375	1750
9/7/79 to 3/1/80	0	0	450	500	625	750	850	1000	1375	1750
3/1/80 to 11/9/85	0	0	450	500	625	750	850	1000	1375	1750
11/9/85 to 2/1/90	0	0	375	375	375	750	850	1000	1375	1750
After 2/1/90	0	0	0	375	500	625	750	850	1000	1375

TABLE 3. MINIMUM SETBACK AND CLEARANCE REQUIREMENTS

FROM:	TO: Sewer Line	Septic Tank*	Disposal Field	Seepage Pit
Property line	clear	5 ft.	5 ft.	8 ft.
Building or structure	2 ft.	5 ft.	8 ft.	8 ft.
Trees	-	10 ft.	-	10 ft.
Distribution box	-	-	5 ft.	5 ft.
Disposal field	-	5 ft.	4 ft.****	5 ft.
Seepage pit	-	5 ft.	5 ft.	12 ft.
Drinking Water line				
Private	1 ft.	10 ft.	10 ft.	10 ft.
Public	10 ft.	10 ft.	10 ft.	10 ft.
Drinking Water source/well				
Private	50 ft.	50 ft.	100 ft.	100 ft.
Public	50 ft.	100 ft.	300 ft.	200 ft.
Lined canals	-	10 ft.**	10 ft.**	10 ft.**
Unlined canals/arroyos	-	15 ft.**	25 ft.**	25 ft.**
Other watercourses and lakes	-	50 ft.	100 ft.	100 ft.
Bedrock, fractured rock, seasonal water table	-	-	4 ft. to trench bottom***	4 ft. to trench bottom

* Applies to privy pits, enclosed systems and other treatment units.

** Plus depth of channel.

*** Unlined privy pits shall provide clearance of at least two feet.

**** Plus 2 feet for each additional foot of depth in excess of one foot below drain line.

TABLE 4. MINIMUM SEPTIC TANK SIZE AND LEACHING AREA (See the UPC for situations not covered by this table.)

<u>Single Family:</u>	0-2 bedrooms	3 bedrooms	4 bedrooms	5-6 bedrooms
<u>Multiple Family*:</u>	-	-	2 units	3 units
<u>Fixture Units:</u>	15 or less	16-20	21-25	26-33
<u>Minimum Septic Tank Size:</u>	750 gallons	1000 gallons	1200 gallons	1500 gallons
<u>Minimum Leaching Area**:</u>				
Coarse sand or gravel	150 sq. feet	200 sq. feet	240 sq. feet	300 sq. feet
Fine sand	188 sq. feet	250 sq. feet	300 sq. feet	375 sq. feet
Sandy loam or sandy clay	300 sq. feet	400 sq. feet	480 sq. feet	600 sq. feet
Clay w/considerable sand or gravel	675 sq. feet	900 sq. feet	1080 sq. feet	1350 sq. feet
Clay w/small amount of sand or gravel	900 sq. feet	1200 sq. feet	1440 sq. feet	1800 sq. feet

* For one bedroom units, add 150 gallons for each additional bedroom.

** The UPC requires that the area for leaching beds be at least 50% greater than for trenches. For deep trenches, side wall area in excess of the required 12 inches, and not to exceed 36 inches, below the leach line may be added to the trench bottom area when computing minimum leaching area. Leaching area for seepage pits is figured on the basis of sidewall area below the inlet pipe.

F. Water source for the lot?

☐ Off-site or ☒ On-site

☐ Public or ☒ Private ☐ Shared ☐ Other

IV. SYSTEM DESIGN

A. Treatment unit: ☒ septic tank ☐ other - specify

Size 1000 GAL (capacity in gallons) Manufacturer Montano

B. Leaching area: ☒ trench ☐ bed ☐ seepage pit ☐ other (specify)

Trench or bed dimensions: 400 = width 2' x [length 100' (ft.) + (ft.) + (ft.)]
(square feet)

Other (seepage pit, etc.) dimensions: =
(square feet) (measurements)

C. Depth of gravel below drain pipe 2' in. or ft. Distance from ground surface to bottom of leaching area 40" in. or ft.

D. Site Plan: Follow instructions on top of page 3.

V. APPLICATION. The foregoing information is correct and true to the best of my knowledge. I understand that the issuing of the permit does not relieve me from the responsibility of complying with all applicable provisions of the New Mexico Uniform Plumbing Code and the New Mexico Liquid Waste Disposal Regulations. Obtaining this permit does not relieve me from the responsibility of obtaining any permit required by state, city or county regulations or ordinances or other requirements of state or federal law.

☐ OWNER

☒ CONTRACTOR

Signature Bonny Ryla

Date 7-22-93

VI. NMED PERMIT. A permit for construction of the liquid waste disposal system described herein is hereby:

☒ granted

☐ granted subject to conditions (cite regulations)

☐ denied (cite regulations)

NMED Signature Vladimir Gostanov

Date 7-22-93

☐ Reasons for Denial or ☐ Conditions. Failure to meet the conditions of this section invalidates the permit, and is subject to enforcement.

* Call for an installation inspection by NMED prior to system cover-up if this box is checked ☐. Phone No.

Type of inspection done: ☐ pre-permit

☐ during installation/after installation

VII. CID PERMIT. There is a fee for a CID permit. A permit for construction of the liquid waste disposal system described herein is hereby:

☒ granted

☐ granted subject to conditions

☐ denied

CID/MHD Signature S401 England

Date 7 22 93

Conditions. Failure to meet the conditions of this section invalidates the permit, and is subject to enforcement

INSPECTION. The private sewage disposal system described herein ☐ meets ☐ does not meet the design and construction requirement of the Construction Industries Commission's New Mexico Uniform Plumbing Code.

CID/MHD Signature

Title

Date

Clay with considerable sand or gravel (percolation rate 30-60 minutes per inch) will usually be more sticky and less gritty than sandy loam or sandy clay. This soil type will contain more clay than sand (about 1/3 sand). Water will pass through this soil, but only very slowly. Four to six inches of sand should be added to the bottom of the trench to prevent compaction.

Clay with a small amount of sand or gravel (percolation rate slower than 60 minutes per inch (60 - 120)) is very sticky when wet, or very hard when dry. Water will pass so slowly, if at all, that you will: 1) need a huge disposal area; 2) need to replace the soil with better material; 3) need a different kind of system.

- F. **Water source.** Check "off-site" if your water is from a source not on or within 100 feet of your lot. Check "on-site" if a drinking supply (e.g. well) is on or within 100 feet of your property. Indicate whether public or private. (A public supply serves at least 15 connections or 25 people at least 60 days during the year.) If private, indicate if shared.

IV. SYSTEM DESIGN

- A. **Treatment unit(septic tank).** Septic tank size is determined by the number of bedrooms or fixture units (see Table 4), or if other sizing units are used, by multiplying gallons per day times 1.5 (if less than 1500) or 1125 gallons plus 0.75 times the gallons per day if the flow is over 1500 gpd. Specify if using something different from septic tank.
- B. **Leaching area.** Indicate if the leaching area will be a trench, bed, seepage pit or other type leaching system. Square footage required may be determined from Table 4. Follow your soil type across to the appropriate column. For example, a fine sandy soil will require a minimum of 250 square feet for a 3 bedroom house. To determine total required trench length in linear feet, divide the required square feet of leaching area by the trench width. For example, 250 feet divided by 2 feet (width of your backhoe?) equals 125 feet. Trenches must be from 1.5 to 3 feet wide and no more than 100 feet long. Thus the 125 linear feet of trench could consist of, for example, a 70 and a 60 foot long trench. Drainpipe in a trench must be; at least 6 feet from pipe in an adjacent trench; underlain by at least 12 inches of gravel; and covered by at least 2 inches of gravel (plus barrier material) and 12 inches of earth. Install gravelless drainpipe according to manufacturer's instructions. Refer to the UPC for additional information.
- C. **Depths.** The drainpipe in the trench must be underlain by at least 12 inches of gravel. Record the total amount of gravel to be placed under the pipe. Before adding the gravel, what will be the depth from the lip of the trench (ground surface) to the bottom of the trench? Record this depth.

V. APPLICATION.

Indicate if you are the owner or contractor and sign the application form.

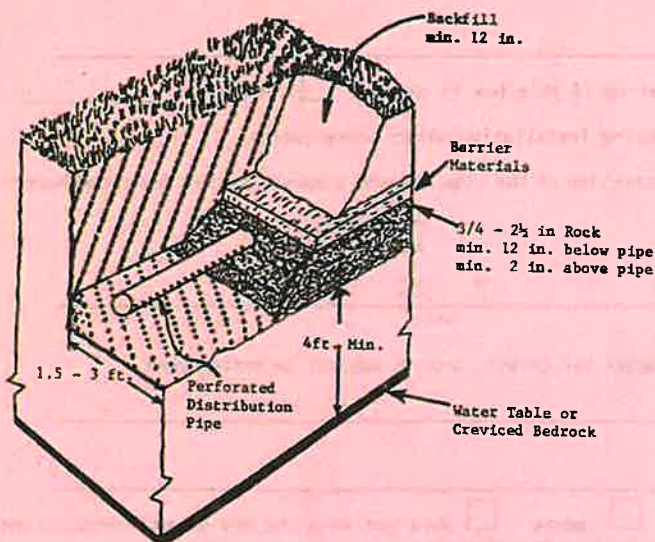
VI. NMED PERMIT.

Please review the application form to determine if NMED granted the permit, granted the permit subject to conditions or denied the permit. If the permit was granted with conditions, be sure to determine just what those conditions are before installing the system. Failure to meet the stated conditions invalidates the permit. Also check to see if a installation inspection is required by NMED. If an inspection is required as a condition of the permit and NMED is not given an opportunity to inspect, the permit may be invalidated.

VII. CID PERMIT.

Please review the application form to determine if CID/MHD granted the permit, granted the permit subject to conditions or denied the permit. If the permit was granted with conditions, be sure to determine what those conditions are before installing the system. Failure to meet the conditions may invalidate the permit. CID has a fee for permits.

EXAMPLE TRENCH SYSTEM



EXAMPLE SITE PLAN

