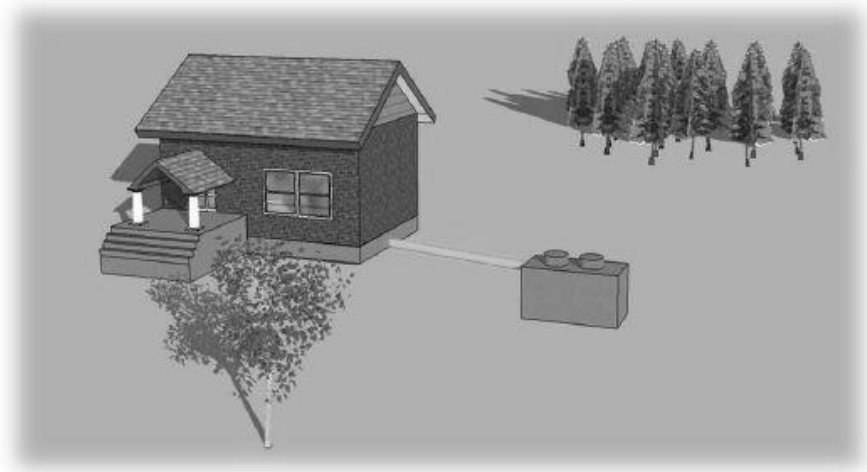


CROOK COUNTY WYOMING HOLDING TANK APPLICATION PACKET



CROOK COUNTY SMALL WASTEWATER REGULATION
Adopted by Resolution: May 1, 2018

**DELEGATION AGREEMENT WYOMING DEPARTMENT OF
ENVIRONMENTAL QUALITY AND CROOK COUNTY, WYOMING**
Effective May 1, 2019
Crook County Holding Tank Application
December 2023

Introduction

This application package is designed to cover only one (1) or two (2) bedroom residences with no basement or non-residential buildings producing no more than two hundred eighty (280) gallons of domestic wastewater per day. For all other situations, a State of Wyoming licensed Professional Engineer must design the holding tank system.

In order to use this package, your holding tank system must meet the following criteria:

1. Crook County will not permit a permanent holding tank at a year-round residence.
2. The owner will use the holding tank system either on a temporary, seasonal, or intermittent basis, or to temporarily correct a failed septic system.
3. The owner cannot install a conventional septic system due to severe site restrictions.
4. There is no public sewer system or other alternative systems available to the building.
5. The holding tank must be located in an area graded for surface water to flow away from it so that water will not pond.

Definitions

Holding Tank - A watertight tank is meant to hold wastewater for a short time until the owner has the tank pumped and the wastewater is disposed of at an offsite wastewater treatment facility. Holding tanks do not disperse or treat wastewater.

Temporary Basis - A holding tank is used while the installer completes the permanent waste disposal system or in an emergency, such as a septic system failure, when no other alternatives are available.

Seasonal Basis - A residence or non-residential building in use for less than four (4) months (one hundred twenty (120) days) during any calendar year, like a cabin used as a full-time summer residence.

Intermittent Basis - Like “seasonal” use, but not occupied for the entire four (4) months (one hundred twenty (120) days) period. For example, a cabin is used only on weekends over the summer.

Table of Contents	
Holding Tank Application	Pages 1 - 2
Site Evaluation	Page 3
Site Plan Drawing	Page 4
Holding Tank Design Requirements	Page 5
Flow Rates - Table One (1) & Table Two (2)	Page 6
Design Flow & Tank Sizing Calculations	Page 7 – 8
Holding Tank & Piping Information	Page 9
Alarm System & Pumper & Pumping Schedule	Page 10
Wyoming Approved Tank Lists	Pages 11 - 13

Crook County Holding Tank Application

The fee to obtain a Holding Tank Permit to Construct and Inspection is two hundred dollars (\$200.00). This fee is established by the Crook County Board of County Commissioners and reviewed by the Board from time to time. **The two hundred dollars (\$200.00) fee shall be submitted with the completed application package.**

Submit completed Application Worksheet to:										Date Application and Fee was Submitted								
Crook County Planning Crook County Courthouse 309 E Cleveland Street Sundance, WY 82729 (307)-283-4548 timl@crookcounty.wy.gov calebp@crookcounty.wy.gov										(Office Use Only)								
										Application/Permit Number								
										(Office Use Only)								
Or mail completed Application Worksheet to:										Crook County Authorization								
Crook County Planning P.O. Box 825 Sundance, WY 82729-0825 307-283-4548 timl@crookcounty.wy.gov calebp@crookcounty.wy.gov										Date	(Office Use Only)							
										By	(Office Use Only)							
Name of Project																		
Applicant – Real Estate Owner							Engineer/Geologist (if applicable)											
Printed Name							Printed Name											
Title							Title											
Mailing Address							Mailing Address											
City, State				Zip Code			City, State				Zip Code							
Phone Number							Phone Number											
Email							Email											
Installers Information																		
Printed Name							Company											
Mailing Address							City, State				Zip Code							
Phone Number							Email											
Application Location	County		CROOK COUNTY			Physical Address												
	¼ ¼ Section					Section					Township				Range			
	Decimal Latitude:		44.			° N		Decimal Longitude			-104.			° W				
	Attach a map of the septic holding tank area. Crook County map viewer or Google Earth may be used to create a pdf map of the proposed location.																	

Property Information			
Physical Address			City
State			Zip Code
Lot Size	_____ Feet by _____ Feet Or _____ Acres		
Type of Building	☐ Home ☐ Shop ☐ Office ☐ Double Wide ☐ Guest Home ☐ Apartment ☐ Single Wide ☐ Apartment in Shop ☐ Camper ☐ Barn ☐ Other = _____		
Water Source (Check One)	☐ Cistern		
	☐ Private Well	Well Permit Number	
	☐ Community Well	Name	
	☐ Municipal Well	Name	
Will this holding tank be located within a delineated source water protection area?			☐ Yes ☐ No
Does the county approved plat require enhanced septic systems? If yes, do <u>NOT</u> proceed with this application. Contact the Crook County Wastewater Specialist or Crook County Planning Department to discuss other options.			☐ Yes ☐ No
Provide a legal description of the property (from sales contract or deed) below and attach a copy of the county-approved plat.			
Access Route			
As part of this application, the applicant shall certify under penalty of perjury that the applicant has secured and shall maintain permission for Crook County personnel and their invitees to access the permitted site, including (i) permission to access the land where the site is located, (ii) permission to collect resource data as defined by Wyoming Statute § 6-3-414, and (iii) permission to enter and cross all properties necessary to access the site if the site cannot be directly accessed from a public road. A map of the access route(s) to the site shall accompany this application. Attach map as a separate sheet.			
Signatures			
All undersigned certify under penalty of perjury that the owner or applicant has secured and shall maintain permission for Crook County personnel and their invitees to access the permitted site, including (i) permission to access the land where the site is located, (ii) permission to collect resource data as defined by Wyoming Statute § 6-3-414, and (iii) permission to enter and cross all properties necessary to access the site if the site cannot be directly accessed from a public road. All undersigned agree to comply with all applicable Wyoming Statutes and Regulations and to allow the activities described in this application.			
Real Estate Owner (Signature Required)		Engineer/Geologist (If Applicable)	
Signature		Signature	
Printed Name		Printed Name	
Title		Title	
Date		Date	

Section 35-11-901 of Wyoming Statutes provides that: All permit applications shall be signed in accordance with 40 CFR Part 122.22, “for” or “by” signatures are not acceptable.

Section 35-11-901 of Wyoming Statutes provides that: Any person who knowingly makes any false statement, representation, or certification in any application, shall upon conviction be fined not more than \$10,000 or imprisoned for not more than one year, or both.

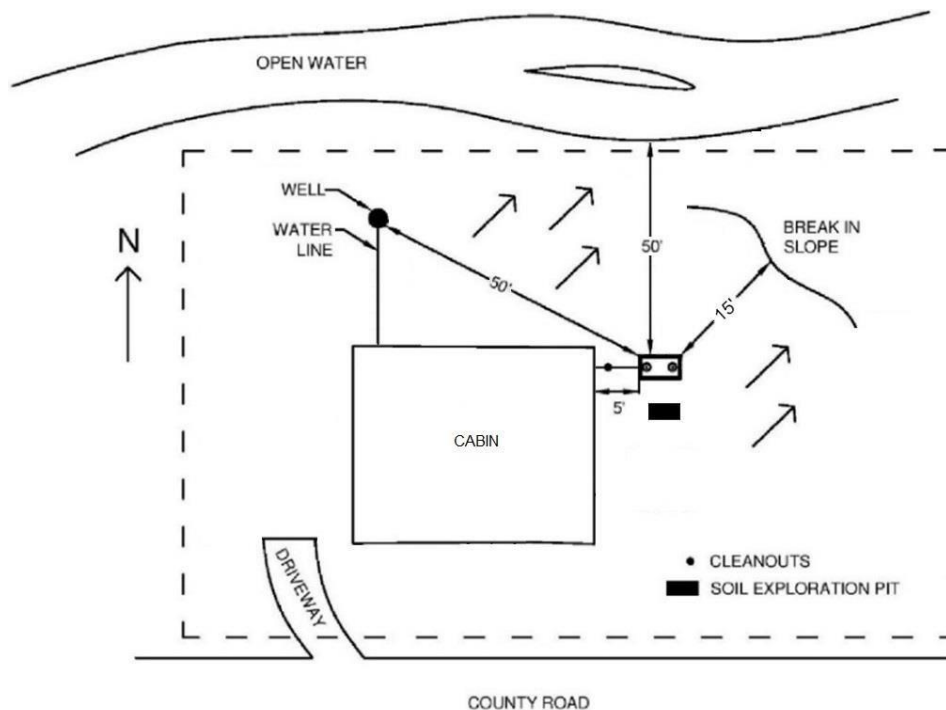
Site Evaluation	
The owner must be aware of the depth of any impermeable soil layers, high groundwater levels, and slope when considering the holding tank location. The holding tank system must meet the criteria listed in the Application Package Introduction. The questions below will ensure you have gathered the information necessary to determine if a holding tank site is appropriate.	
Excavation	
Does the soil exploration pit lie within the area of the proposed septic holding tank?	☐ Yes ☐ No ☐ N/A
Was the bottom of the required soil exploration pit at least four (4) feet below the bottom of the proposed septic holding tank, usually a minimum eight (8) - nine (9) feet total depth? (Required)	☐ Yes ☐ No ☐ N/A
Submit a color photo of the Exploration Pit. This photo must show a tape measure against the sidewall of the trench and the entire sidewall.	☐ Yes ☐ No ☐ N/A
Is a colored photo of Exploration Pit included in this application? (Required) SMS = (307) 290-0450 / Email = calebp@crookcounty.wy.gov ☐ Photo Attached	
Depth of the excavation? (Page # 3 – Box A)	Page # 3 - (Box A) _____ Inches & _____ Feet
Impermeable Layers	
Did the excavator observe a rock layer below the surface?	☐ Yes ☐ No ☐ N/A
If yes, at what depth below the ground surface was a rock layer discovered?	_____ Inches & _____ Feet
Did the excavator observe a clay layer below the surface?	☐ Yes ☐ No ☐ N/A
If yes, at what depth below the ground surface was a clay layer discovered?	_____ Inches & _____ Feet
High Groundwater	
Was groundwater present in the excavation?	☐ Yes ☐ No ☐ N/A
If yes, at what depth below the ground surface was groundwater present?	_____ Inches & _____ Feet
Does the soil have an alkali crust at the surface, a rotten egg smell, or a blue-gray or greenish- gray (gley) color that may indicate frequent/continuous saturation?	☐ Yes ☐ No ☐ N/A
If yes, at what depth below the ground surface?	_____ Inches & _____ Feet
Does the soil have a mottled appearance with areas around roots or cracks that look like rust, or is the soil stained a dark red-black or red-brown color, which may indicate periods of saturation?	☐ Yes ☐ No ☐ N/A
If yes, at what depth below the ground surface?	_____ Inches & _____ Feet
Slope	
What is the estimated slope of the proposed holding tank area? Take a color photograph of the proposed holding tank area and attach a copy as a separate sheet.	_____ %
Is a colored photo of the proposed leachfield area included in this application? Please take this photo at a distance to help visualize the slope. (Required) SMS = (307) 290-0450 / Email = calebp@crookcounty.wy.gov ☐ Photo Attached	
How far away is the nearest break in slope (the side of a hill or where the slope becomes abruptly steeper) from the proposed holding tank area?	_____ Feet
Other	
How far away is the nearest surface water body, such as a lake, river, pond, creek, ditch, or wetland from the proposed holding tank area? (Minimum Setback Fifty (50) Feet)	_____ Feet
How far away are areas where the soil may be compacted by vehicles, such as roads or parking spaces, from the proposed holding tank area?	_____ Feet
How far away are water supply wells (drinking or irrigation wells), cisterns, or water supply lines from the proposed holding tank area? (Minimum Setback Fifty (50) Feet From Tank Septic)	_____ Feet
Do surface drainage features (ditches, depressions, or swales) direct runoff from paved areas such as roofs, patios, or driveways, away from the holding tank?	☐ Yes ☐ No ☐ N/A

Site Plan Drawing

Attach a sketch of your site as a separate sheet, showing each of the items in the table below if applicable.

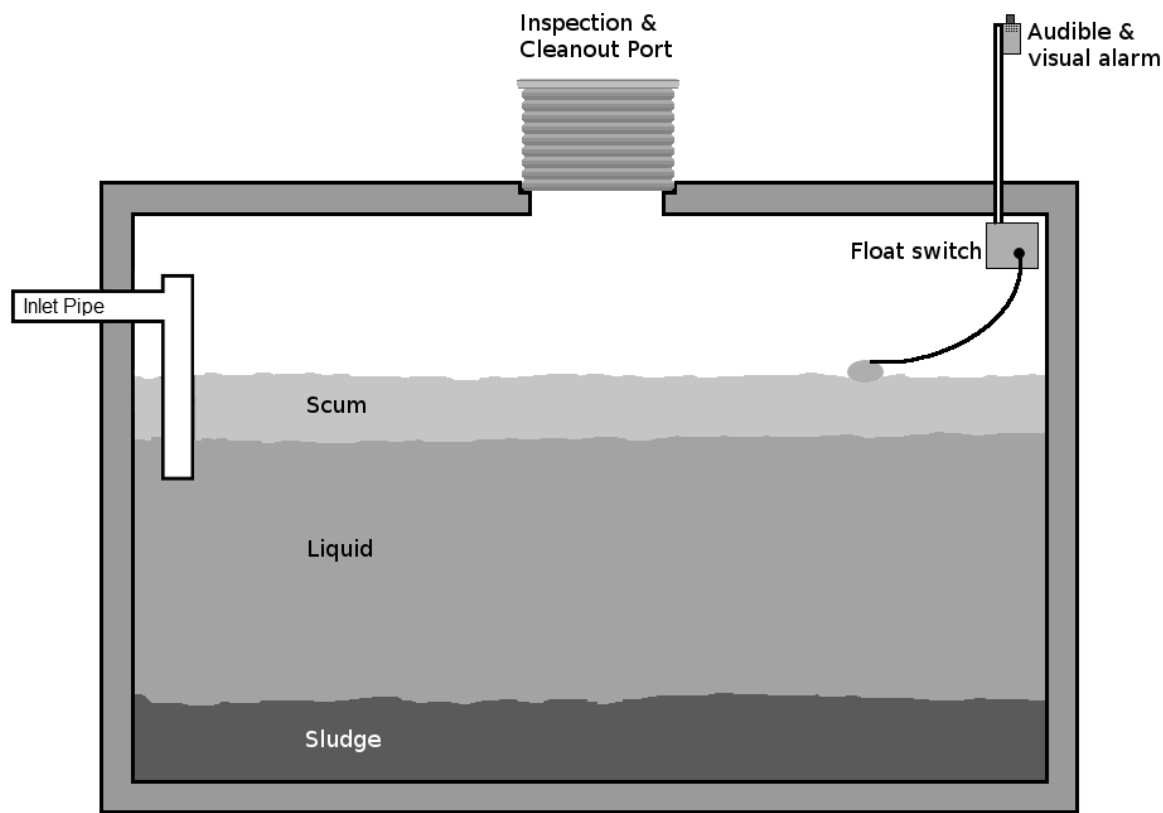
Check Box If Shown On Site Plan	Element	Required Setback Distance To Holding Tank (feet)	Is the Setback Distance Satisfied?
☐	Property Lines	Ten (10)	☐ Yes ☐ No
☐	All Buildings, Roads, And Driveways	—	—
☐	Setback To Buildings W/Out A Foundation Drain	Five (5)	☐ Yes ☐ No
☐	Setback To Buildings With A Foundation Drain	Five (5)	☐ Yes ☐ No
☐	Private Wells	Fifty (50)	☐ Yes ☐ No
☐	Neighbors Well	Fifty (50)	☐ Yes ☐ No
☐	Public Water Supply Wells	One Hundred (100)	☐ Yes ☐ No
☐	Potable Water Supply Lines	Twenty-Five (25)	☐ Yes ☐ No
☐	Surface Water (Pond, Intermittent Waterways, Etc.)	Fifty (50)	☐ Yes ☐ No
☐	Septic Tank	—	☐ Yes ☐ No
☐	Break In Slope (Where Slope Gets Abruptly Steeper)	Fifteen (15)	—
☐	Cisterns	Twenty-Five (25)	—
☐	North Arrow	—	—
☐	Slope (Arrow Pointing Downslope)	—	—
☐	Location Of Numbered Percolation Test Holes (Numbered)	—	—
☐	Location Of Soil Exploration Pit	—	—
☐	Location Of Cleanout Port(S)	—	—

Example Site Plan:



Holding Tank Design Requirements	
Holding tanks must be watertight, including all joints and connections, and constructed of concrete, fiberglass, or thermoplastic.	
Holding tanks shall have open-ended sanitary tees or baffles, with one (1) inch clear space over tees and baffles to allow gases to vent through the building vent stack.	
Holding tanks must be installed in an area with no vehicular traffic on a level grade with firm bedding and a minimum six (6) inch depth of soil cover over the tank.	
The minimum liquid volume of the holding tank must be the greater of one thousand (1,000) gallons or seven (7) days of storage of wastewater based on the estimated daily flow rate, whichever is larger.	
The depth of the wastewater in the tank shall be between three (3) and six (6) feet.	
If the holding tank is a modified septic tank, the outlet pipe opening must be capped and sealed.	
Each chamber must have an access opening with a minimum diameter of twenty (20) inches, from which both inlet and outlet (if present) tees are accessible.	
Access openings must have risers extending to the ground surface and locking, gas-tight lids.	
The tank inlet piping must be four (4) inch diameter, schedule forty (40) PVC or equivalent.	
Holding tanks must be equipped with a high-water level audible or an indoor illuminated alarm or both that will trigger when the water level reaches three quarters (3/4) of the tank capacity.	

Diagram of a Typical Holding Tank



Drawing modified from Express Septic Services, 2020. Port Orchard, WA.

Table One (1)		
Residential Wastewater Flow Rates Per Bedroom (Including Mobile Homes)		
Page # 6 (Box A) Number of Bedrooms	Page # 6 (Box B) Flow in Gallons Per Unit Per Day	
One (1)	150	
Two (2)	280	
Table Two (2)		
Non-Residential Wastewater Flow Rates		
Facility	Page # 6 (Box C) Unit	Page # 6 (Box D) Flow in Gallons Per Unit Per Day
Airports	Person	4 GPD
Apartment	Bedroom	120 GPD
Automobile Service Station	Vehicle Served	10 GPD
Bars	Seat	20 GPD
Bathhouses and swimming pools	Person	10 GPD
Campgrounds (w/ toilets only)	Person	25 GPD
Campgrounds (w/shower facility)	Person	45 GPD
Church	Person	4 GPD
Country Club	Member	25 GPD
Day School, Office Building, Retail Store, Warehouse (no showers)	Person	15 GPD
Hospital	Bed	250 GPD
Industrial Building (sanitary waste only)	Employee	20 GPD
Laundry (self-service)	Machine	450 GPD
Mobile Home	Bedroom	See Table One (1)
Motel, Hotel, Resort	Bedroom	140 GPD
Recreational Vehicle	Each	100 GPD
Rest Home, Care Facility, Boarding School	Bed	100 GPD
Restaurant	Meal	10 GPD
Restaurant (kitchen waste only)	Meal	6 GPD
Theater	Seat	3 GPD

¹Values shown in the above table are the typical flow rates from *Wastewater Engineering Treatment and Reuse*, Metcalf and Eddy, 2003.

Design Flow (Gallons Per Day)			
Building Type	☐ Residential (Including Mobile Homes)	☐ Non-residential	
For a residential building enter the value found in (Flow in Gallons Per Unit Per Day) Table one (1) on page six (6).			
For a non-residential building use the (Unit and Flow in Gallons Per Unit Per Day) Table two (2) on page six (6).			
Non-Residential Design Flow Calculation			
Number of Units Page # 6 (Box C) or Page # 6 (Box B)	* Flow Gallons Per Day Page # 6 (Box D) or Page # 6 (Box B)	= Design Flow Rate Page # 7 (Box # 1)	
<u>Example</u>	5 Units	*	45 Gallons Per Day(GPD)
		=	225 Gallons Per Day(GPD)
Design Flow Rate Gallons Per Day (GPD): (Page 7 - Box # 1)			Page # 7 - Box # 1
			<u>Gallons Per Day (GPD)</u>
Required Tank Size Calculation			
Design Flow Rate Page # 7 (Box # 1)	* 7 Days Days of Storage	= Required Tank Size Page # 7 (Box # 2)	
<u>Example</u>	225 Gallons Per Day(GPD)	*	Done Week of Storage (7 Days)
		=	1,575 Gallon Tank (2,000 Gallon Tank)
Required Tank Size (Gallons) (Page 7 - Box # 2)			Page # 7 - Box # 2
Round up to the nearest thousand (1,000) Gallons			<u>Gallons</u>
Tank Pumping Calculations			
Required Tank Size Page # 7 (Box # 2)	* 0.75 (75%) 75% (0.75) Tank Volume	= Maximum Gallons Page # 7 (Box # 3)	
<u>Example</u>	2000 Gallon Tank	*	75 % (0.75) Tank Volume
		=	1500 Maximum Volume of Septic Tank
Maximum holding tank volume (Seventy-Five (75) % full) (Gallons) (Page 7 - Box # 2)			Page # 7 - Box # 3
			Max Holding Gallons
Maximum Gallons	÷ Design Flow Rate	= Days of Storage	
<u>Example</u>	1500 Maximum Gallons	÷	225 Gallons Per Day (GPD)
		=	6.66 or 7 Days
Number of days to reach maximum tank volume (Alarm Activated) Enter calculated value in Box # 4.			Page # 7 - Box # 2
			<u>Days</u>
How many days a year will the building be occupied? Enter the value in Box # 5.			Page # 7 - Box # 2
			<u>Days</u>
Days Occupied (Box # 5)	÷ Days of Storage (Box # 4)	= Yearly Pumping Rate (Box # 6)	
<u>Example</u>	36 Days Occupied a Year	÷	7 Days Storage
		=	(5.14) 5 Times Yearly
Pumping Rate (Yearly) Enter calculated value in Box # 6			Page # 7 - Box # 2
			<u>USD</u>

What is the fee the tank pumper charges for pumping the tank? Enter the value in Box # 7			Page # 7 - Box # 2 <u>Gallons Tank</u>	
*			=	
Pumper Fee (Box # 7)			Pumping Rate (Box # 6)	
Yearly Pumping Cost				
<i>Example</i> \$300.00 USD Pumper Fee *			5 Pumping Rate Yearly = \$1500.00 USD Yearly	
Annual holding tank pumping cost.			Page # 7 - Box # 2 <u>Gallons Tank</u>	

Holding Tank				
Manufacturer	☐ Boom Concrete ☐ Norwesco ☐ J & D Pre-Cast ☐ Other = _____			
Model Number		Number of Compartments	☐ One (1) Compartment ☐ Two (2) Compartment	
Size (Gallons)	☐ 1,000 Gallons ☐ 1,250 Gallons ☐ 1,500 Gallons ☐ 2,000 Gallons ☐ Other = _____			
Tank Material	☐ Concrete ☐ Thermoplastic ☐ Fiberglass ☐ Other = _____			
Is this septic tank on the approved list? (Page # 28 – Page # 31)			☐ Yes ☐ No ☐ Don't Know	
If no, provide a tank diagram from the manufacturer. If you cannot locate a diagram from the manufacturer, complete the following three (3) rows. (These rows are indicated with a thick black line on the border) See Page # 6 for septic tank design requirements and a diagram of a septic tank.				
Please complete for tanks NOT on approved list. ☐ N/A	Internal Dimensions = Length = _____ Inches Width = _____ Inches Height = _____ Inches			
	Liquid Depth (Inches)	_____ Inches	Amount of Air Space Between Top of Liquid and Tank Ceiling (Inches)	_____ Inches
	Operating Capacity	$\left(\frac{\text{Length (Inches)} \times \text{Width (Inches)} \times \text{Liquid Depth (Inches)}}{231} \right) \div 231 = \text{_____ Gallons}$		
Depth of backfill over septic tank. (Usually six (6) to thirty-six (36) Inches)				_____ Inches
Will the holding tank be installed on a level grade, with firm bedding to prevent settling, and without rock or other obstructions touching the tank as per Crook County Small Wastewater Regulation, Chapter III, Section 6,a,(2)?				☐ Yes ☐ No
Does the tank have a twenty (20) inch access opening in <u>EACH</u> compartment of the tank and a riser from the access opening that terminates at a max of six (6) inches below the ground surface?				☐ Yes ☐ No
Do tank access risers terminating above ground have locking devices?				☐ Yes ☐ No
Piping				
What will the piping material between the house and the septic tank be?	☐ SCH-40 ☐ SDR-35	What is the proposed pipe size (diameter)?	_____ Inches	
Will the installer lay the pipe from the house to the septic tank in a straight line?				☐ Yes ☐ No ☐ N/A
If no, will the installer include the <u>required</u> cleanout ports at any alignment change greater than twenty-two and a half (22.5) degrees?				☐ Yes ☐ No ☐ N/A
Will the pipe from the house to the septic tank be more than one hundred (100) feet long?				☐ Yes ☐ No
If yes, will the <u>required</u> cleanout ports be spaced along the line every one-hundred (100) feet or less?				☐ Yes ☐ No ☐ N/A
Crook County recommends a cleanout port facing each direction between the building and the tank. If only one is used, which direction does the <u>required</u> cleanout port face?				☐ Toward Building ☐ Toward Holding Tank ☐ Toward Both
Will the piping have a minimum slope of quarter (1/4) inch per one (1) foot, two (2) % ?				☐ Yes ☐ No

WDEQ Previously Approved Septic Tanks			
City	Supplier	Size (Gallons)	Compartment
Casper	A.J. Vollmar, WYO Septic Tanks	1000	Single
	AllTerra Construction, LLC	1000	Single
		1500	Single
	Forterra Pipe and Precast	1000	Single
		1500	Single
Cheyenne	Vaughn Concrete Products	1500	Single
		2000	Single
		1000	Two
		1250	Two
		1500	Two
		2000	Two
Cody	Cody Precast & Septic Service	1500	Single
		1000	Two
		1500	Two
Evanston	Ellingford Brothers, Inc.	1000	Two
Etna-Thayne	Precast Concrete Products	1000	Single
		1000	Two
		1500	Two
Gillette	Intermountain Construction & Materials	1250	Single
Mills	American Plumbing and Heating	1000	Single
Pinedale	Summit Precast	1000	Two
Powell	Big Horn Precast	1000	Two
		1250	Two
		2000	Two
Riverton	Wind River Ready Mix	1000	Single
		1000	Two
Rock Springs	Rock Springs Block Co.	1250	Single
		1550	Single
		1750	Single
Sheridan	Manor Precast and Materials (Skyline)	1000	Single
		1250	Single
		1500	Single
		1500	Two
Torrington	G & L Concrete, Inc.	1000	Single
Wheatland	Croell Redi-Mix (Model A)	1000	Single
Worland	PBR, Inc.	1000	Two
		1500	Two

WDEQ Previously Approved Septic Tanks				
State	City	Supplier	Size (Gallons)	Compartment
Colorado	Rifle	Copeland Concrete	1250	Two
			2000	Two
			2500	Two
			3000	Two
	Loveland	Oldcastle Precast Concrete	1000	Two (Round)
			1250	Two
			1500	Two
			2000	Two
			2500	Two
			3000	Two
			1250	Single
			2500	Single
			3000	Single
Indiana	Plymouth	AK Industries, Inc.	1500	Two
Iowa	Hospers	Ace Roto-Mold, Den Hartog Industries	1250	Single
			1500	Single
			1000	Two
			1250	Two
			1500	Two
Minnesota	St. Bonifacius	Norwesco	1000	Single
			1250	Single
			1500	Single
			1000	Two
			1250	Two
			1500	Two
Montana	Billings	Billings Precast Enterprises	1000	Two
			1500	Two
	Three Forks	Kanta Products, Inc.	1500	Single
			1000	Two
			1500	Two
	Billings	Montana Terrazzo Company	1000	Two
			1100	Two
			1500	Two
			2000	Two

WDEQ Previously Approved Septic Tanks				
State	City	Supplier	Size (Gallons)	Compartment
Nebraska	Scottsbluff	Panhandle Concrete Products, Inc.	1000	Two
			1250	Two
			1500	Two
			2000	Two
	Lincoln	Snyder Industries, Inc.	1000	Two
			1250	Two
			1500	Two
			1500	Single
South Dakota	Newell	Boom Concrete	1000	Single
			1500	Single
			1500	Two
	Rapid City	J & D Precast, Inc.	1000	Single
			1000	Two
			1500	Two
			2000	Two
			3350	Two
Utah	Salt Lake City	DURA-CRETE, Inc.	1000	Single
			1250	Single
			1500	Single
			1750	Single
			2500	Single
			1000	Two
	Hyde Park	Robertson Manufacturing	1500	Single
			2000	Single