

Town of Two Hills

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www.townoftwohills.com

PRIVATE SEWAGE DISPOSAL SYSTEM APPLICATION FORM Application Date: Estimated Project Start Date: Estimated Project Completion Date: ___ Applicant Type: Homeowner Contractor Cost of Installation (Labour & Material including Equipment) \$ The Permit Holder hereby certifies that this installation will be completed in accordance with the Alberta Safety Codes Act. A permit may expire if the undertaking to which it applies: (a) is not commenced within 90 days of issue of the permit, (b) is suspended or abandoned for a period of 120 days. An extension can be considered when applied for in writing prior to permit expiry date. Owner Name: ____ _____ Mailing Address: ____ Prov: _____ Postal Code: _____ Phone: _____ Fax: _____ ____ Cell: ___ _____ Email: ___ Owner's Signature / Declaration (Single Family Residential Only) Thereby declare I am the owner of the premises in which the work will be conducted, and reside or will reside on the property. I am doing the work myself, and assume responsibility for compliance with the applicable Act and Regulations" Mailing Address: _____ Company Name: _____ Prov: _____ Postal Code: ____ Phone: _____ Fax: ____ ____ Email: ___ Print Private Sewage Installer's Name PSDS Installer's Number Installer's Signature Project Location in the Town of Two Hills: Street Address: Legal Subdivision: Part of: ______ Section: _____ Township: _____ Range: _____ West of: _____ _____ Lot: _____ Block: _____ Plan: ___ Directions: TYPE OF WORK: INSTALLATION: TREATMENT / DISPOSAL METHODS (COMPLETE ALL APPLICABLE ITEMS): Commercial ☐ Treatment Mound ☐ Disposal Field ☐ Alteration ☐ Residential **Expected Volume of Sewage:** ☐ Sewage Lagoon ☐ Open (Surface) Discharge Number of Bedrooms ☐ Sand Filter ☐ Packaged Sewage Treatment Plant m3 per day ☐ Work Camp ☐ Litres per day ☐ Septic Tank Size ____ Number of Men ☐ Gallons per day ☐ Other ____ Sewage Holding Tank Size: Other Description of Work: ___

$\label{thm:complete} \textbf{COMPLETE THE ATTACHED SITE EVALUATION REPORT.}$

*\$4.50 or 4% of the permit fee maximum \$560.00

The Inspections Group Inc.

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REMIT PAYMENT AND APPLICATION TO THE INSPECTIONS GROUP INC.



PSDS PERMIT APPLICATION CHECKLIST

A COMPLETE SITE EVALUATION REPORT, AS PER THE 2021 ALBERTA PRIVATE SEWAGE SYSTEMS STANDARD OF PRACTICE (SOP) PART 7 SITE EVALUATION, IS REQUIRED WITH THE PERMIT APPLICATION. THE FOLLOWING DOCUMENTS ARE TO BE INCLUDED WITH YOUR COMPLETE SITE EVALUATION REPORT.

TRI	EATMENT FIELD, MOUND, OR LFH AT-GRADE SYSTEMS
	Wastewater strength projected for the development.
	Peak flow volume calculations for the development including confirmation plumbing fixture unit total is not exceeded.
	Site plan – as per current SOP Section 7.1 Site Characteristics and Evaluation Procedures including placement of system with setbacks noted for property lines, buildings, water sources/courses, description of surface features including slope and landscape, location of at least two (2) soil profile investigation locations in the area of the soil-based treatment system, etc.
	The characteristics of each soil profile investigated shall be described using Canadian System of Soil Classification nomenclature and includes complete site specific soil profile logs for at least two (2) locations, soil sample results of the most limiting condition, GPS coordinates of each soil profile with permanent benchmark, depth of each horizon identified, soil Colour (Munsell Nomenclature), soil texture, structure and grade, depth to most limiting condition, restrictive layer (if applicable), etc.
	Description of treatment system including a system diagram, piping to tank details, initial treatment (septic tank/ treatment plant), piping to and throughout final soil treatment component.
	Soil based treatment system design calculations, including pressure distribution system – if applicable.
	Tank certification information – CAN/CSA-B66 certificate or equivalent
	Package sewage treatment plant – treatment capacity, equipment structural requirements and certification (if applicable).
	Pump, if required by design. Manufacturer and pump curve to ensure flow capacity.
	High level alarm make/model.
	Filter type.
НО	LDING TANK
	Expected wastewater volume/day including tank storage capacity, bedroom count – current and proposed.
	Site plan showing placement of system with setbacks noted for property, buildings and water source.
	Tank certification information – CAN/CSA-B66 certificate or equivalent
	High level alarm make/model
	EN DISCHARGE SYSTEM
	Peak flow volume calculations for the development including confirmation plumbing fixture unit total is not exceeded.
	Site plan – as per current SOP Section 7.1 Site Characteristics and Evaluation Procedures including placement of system with setbacks noted for property lines, buildings, water sources/courses, description of surface features including slope and
	landscape, location of at least one (1) soil profile investigation location in the area of the soil-based treatment system, etc.
_	The characteristics of each soil profile investigated shall be described using Canadian System of Soil Classification
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PSDS Application Design Summary

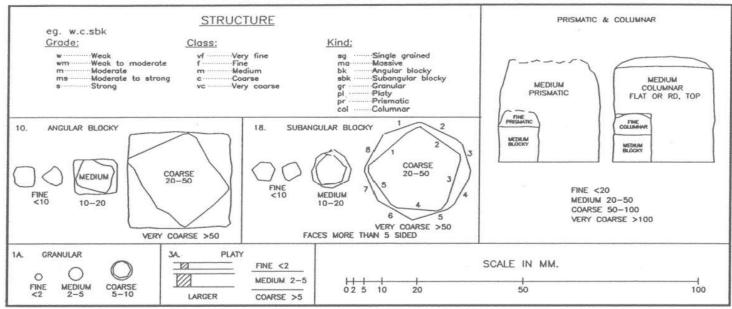
This document must be filled out with ALL relevant information or your application may be returned

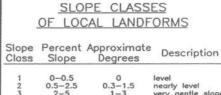
Legal Land Description													
Quarter	Section	n	Townshi	р	Range	١	West of		Lot	Bloc	k	Pla	n
	Municipal Address												
Development Details													
Property type New – Renovation – Repair - Replacement (Circle One)									e One)				
Total Bedro	ooms	Oc	cupant Tot	al	Avera	age [Daily Flow	Peak I	Daily F	low			
					S	Soil I	nformation			_			
Test Pit(s) [Depth	Liı	miting Laye	er De	epth	Re	strictive Lay	yer Dept	:h	Depth	n to	Seasonal V	Vater
Design Loading Rate Linear Lo					ng Rate	Rate Infiltration Area				Texture		Shape	Grade
Primary Tre	eatment	t <mark>(Cir</mark>	cle all that	арр	<mark>oly)</mark> Holo	ding	Tank – Sept	tic Tank	– Trea	tment	Plai	nt	
Tank Size				Tar	nk Make	re/Model F				Filt	Filter Type		
High Level	Alarm N	/lake	/Model				Effluent	Filter Ma	ake/M	odel			
					Add	ition	nal Informat	ion					
All designs	must m	eet	the require	emer	nts of th	ne cu	urrent Stand	dard of P	ractic	e availa	ble	at:	
https://ebs	safety	ode	s.ab.ca/do	cum	ents/w	ebdo	ocs/PI/PSS	SOP 20	<u>21-we</u>	b6.pdf			
Please note	e: NO W	'ORK	MAY STAI	RT W	/ITHOU	TAF	PERMIT BEI	NG ISSU	ED. <u>An</u>	applic	atic	on is not a P	ermit.
Design Doc	Design Documents may be found at: https://www.alberta.ca/private-sewage-design-tools												

Alberta Private Sewage Treatment System Soil Profile Log Form Owner Name or Job ID. Legal Land Location Test Pit GPS Coordinates LSD-1/4 Sec Twp Rg Mer Lot Block Plan Easting Northing Overall site slope % Vegetation notes: Slope position of test pit: Test hole No. Depth of Lab sample #1 Depth of Lab sample #2 Soil Subgroup Parent Material Drainage Depth Hori-Lab or Colour Gleying Mottling Structure Grade Consistence Moisture % Coarse Texture HT Fragments zon (cm) (in) Depth to Groundwater Limiting Soil Layer Characteristic, describe Depth to Seasonally Saturated Soil Depth to Limiting Soil Layer Limiting Topography Depth to Highly Permeable Layer **Key Limiting Features on System Design** Weather Condition notes: Comments: such as root depth and abundance or other pertinent observations:

Onsite Sewage System Site Evaluation Lot Diagram Sketch and Notes Project Name: Lot or Legal Description: Show the proposed ÎN location of the onsite sewage system and the following items indicating their distances from the proposed system: trees floodplains wells water sources surface water bedrock outcrops buildings property lines easement lines ditches or interceptors banks or steep fills driveways existing sewage systems underground utilities soil test pit and borehole locations Test Pit P1 □ drainage course slope direction borehole BH 1 Comments: Property line GPS coordinates: GPS coordinates of well: GPS coordinate of tank: GPS coordinates of soil treatment component corners:

Figure 4: Diagrammatic representation of soil structure





0-0.5 .5-2.5	0.3-1.5	level nearly level
2-5	1-3	very gentle slopes
6-9	3.5-5	gentle slopes
10-15	6-8.5	moderate slopes
16-30	9-17	strong slopes
31-45	17-24	very strong slopes
46-70	25-35	extreme slopes
1-100	35-45	steep slopes
>100	>45	very steep slopes

SURFACE	STONIN	ESS
	Surface Area	Distance Apart (cm
S0 non-stony S1 slightly stony S2 moderately stony s3 very stony S4 exceedingly stony S5 excessively stony	<0.01% 0.01-0.1% 0.1-3% 3-15% 15-50%	>30 10-30 2-10 1-2 0.1-5 0.1

SLO	PE	POSITION
c	-	crest
u	-	upper slope
m	-	mid slope
	-	lower slope
t		toe
d	-	depression
1	-	level

U	RAINAGE
VR	- very rapidly
R	- rapidly
w	- well
M	- moderately well
1	- imperfectly
P	- poorly
VP	- very poorly

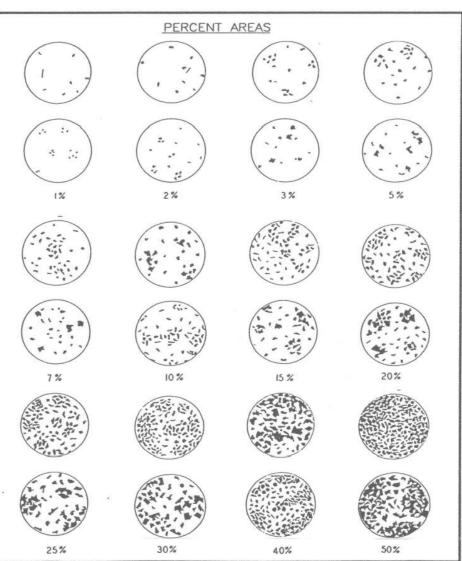


Table 10. Types, kinds and classes of soil structure.

Type Blocklike - soil particles arranged around a point and bounded by flat or rounded surfaces BK	Kind (Kind Code) Angular blocky (ABK) peds bounded by flattened, rectangular faces intersecting at relatively sharp angles	Structure Class and Code VF: very fine angular blocky F: fine angular blocky M: medium angular blocky C: coarse angular blocky VC: very coarse angular blocky Size (mr)	m)
	Subangular blocky (SBK): peds bounded by slightly rounded, subrectangular faces with vertices ² of their intersections mostly subrounded	VF: very fine subangular blocky F: fine subangular blocky M: medium subangular blocky C: coarse subangular blocky VC: very coarse subangular blocky >50	
	Granular (GR): spheroidal peds bounded by curved or very irregular faces that do not adjoin those of adjacent peds	VF: very fine granular <1 F: fine granular 1-2 M: medium granular 2-5 C: coarse granular 5-10 VC: very coarse granular >10	
Platelike: soil particles arranged around a horizontal plane and generally bounded by relatively flat horizontal surfaces PL	Platy (PL): peds flat or platelike; horizontal planes more or less well developed	VF: very fine platy <1 F: fine platy 1-2 M: medium platy 2-5 C: coarse platy 5-10 VC: very coarse platy >10	
Prismlike: soil particles arranged around a vertical axis and bounded by relatively flat vertical surfaces. PR	Prismatic (PR): vertical faces of peds well defined and vertices ² angular (edges sharp); prism tops essentially flat	VF: very fine prismatic <10 F: fine prismatic 10-20 M: medium prismatic 20-50 C: coarse prismatic 50-100 VC: very coarse prismatic >100	
	Columnar (COL): vertical edges near top of columns not sharp (vertices ² subrounded); column tops flat, rounded, or irregular	VF: very fine columnar <10 F: fine columnar 10-20 M: medium columnar 20-50 C: coarse columnar 50-100 VC: very coarse prismatic >100	
Structureless: no observable aggregation of primary particles or no definite	Single grained (SGR):	Loose, incoherent mass of individual prima particles, as in sands	ary
orderly arrangement around natural lines of weakness MA	Massive (MA):	amorphous; a coherent mass showing no evidence any distinct arrangement of soil particles; separat into clusters of particles; not peds	

Cloddy (CDY): not a structure; used to indicate the condition of some ploughed surface, grade, class, and shape too varied to be described in standard terms.

Consistence – moist soil								
Loose: No intact sample can be obtained.								
• Friable:	Structure breaks down with slight force between the fingers.							
• Firm:	Structure breaks down with moderate force between the fingers.							
• Extremely firm:	Structure breaks down with moderate force between the hands or							
-	slight foot pressure.							
• Rigid:	Structure breaks down only with foot pressure.							

The size limits refer to measurements in the smallest dimension of platy, prismatic, and columnar peds and to the largest of the nearly equal dimensions of blocky and granular peds.

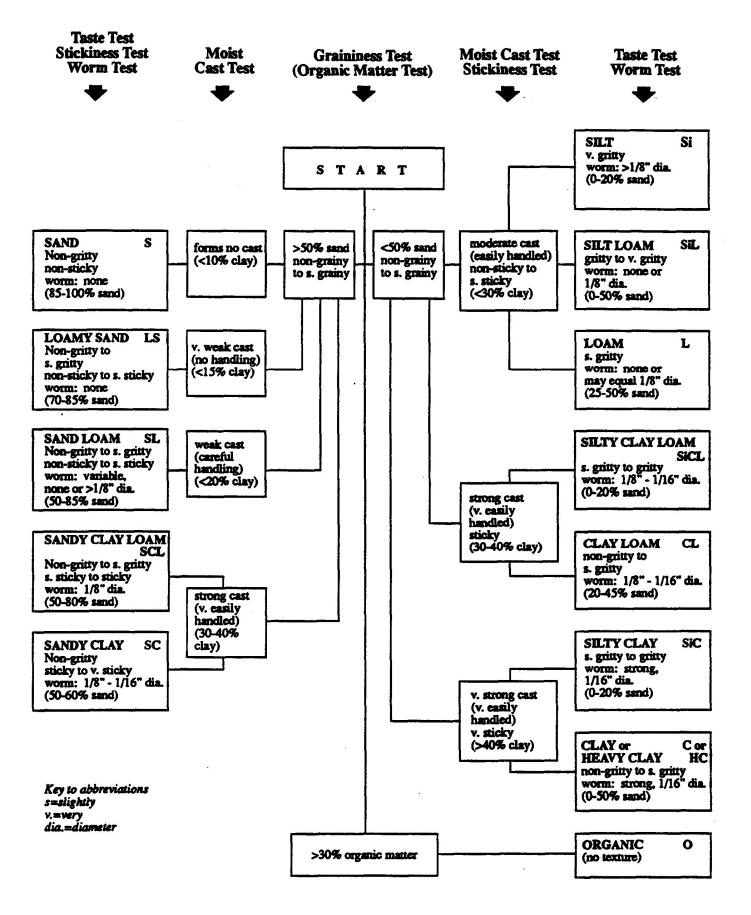
Definition of vertex (plural, vertices): the intersection of two planes of a geometrical figure.

Structure Grade Descriptions

Code		Structure Grade Definition
0	Massive /or single grained used to describe sands	This describes a soil that has no developed structure. There is no aggregation of primary particles or no definite orderly arrangement around natural lines of weakness.
1	Weak	Peds are either indistinct and barely evident in place, or observable in place but incompletely separated from adjacent peds. When disturbed, the soil material separates into a mixture of only a few entire peds, many broken peds and much unaggregated material.
2	Moderate	Peds are moderately durable, and are evident but not distinct in the undisturbed soil. When disturbed, the soil material parts into a mixture of many well formed, entire peds, some broken peds, and little unaggregated material. The peds may be handled without breaking and they part from adjoining peds to reveal nearly entire surfaces which have properties distinct from those caused by fracturing.
3	Strong	Peds are durable and evident in the undisturbed soil, adhere weakly to one another, withstand displacement and separate cleanly when the soil is disturbed. When removed, the soil material separates mainly into entire peds. Surfaces of unbroken peds have distinctive properties, compared to surfaces that result from fracturing.

Mottling Descriptions

Parameter	Code	Description
Abundance	Few	<2% of the exposed surface
	Common	2-20% of the exposed surface
	Many	>20% of the exposed surface
Size	Fine	< 5 mm
	Medium	5-15 mm
	Coarse	>15 mm
Contrast	Faint	Evident only on close examination. Faint mottles commonly have the same hue as the colour to which they are compared and differ by no more than 1 unit of chroma or 2 units of value. Some faint mottles of similar but low chroma and value can differ by 2.5 units of hue.
	Distinct	Readily seen, but contrast only moderately with the colour to which they are compared. Distinct mottles commonly have the same hue as the colour to which they are compared, but differ by 2 to 4 units of chroma or 3 to 4 units of value; or differ from the colour to which they are compared by 2.5 units of hue but by no ore than 1 unit of chroma or 2 units of value.
	Prominent	Contrast strongly with the colour to which they are compared. Prominent mottles are commonly the most obvious colour feature in a soil. Prominent mottles that have medium chroma and value commonly differ from the colour to which they are compared by at least 5 units of hue if chroma and value are the same; or at least 1 unit of chroma or 2 units of value if hue differs by 2.5 units.



	Complete	drawing	of propo	sed syste	em, lavoi	M DRAW	ocation (of tank et	C.		
			ргорс	Joed System		uis, posi				No.)
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