



LUD _____
PST _____

Geoexchange Application Requirement List

Geoexchange Project

All of the following information is necessary to facilitate a thorough evaluation and timely decision on your application. To expedite the evaluation, all materials submitted must be clear, legible and precise. To achieve this level of customer service, staff have been instructed to accept only complete applications which **include plans prepared to professional drafting standards.**

Project address:	
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completed by applicant	office use only	Required items
<input type="radio"/>	<input type="radio"/>	1. An approved development permit , if the Land Use Bylaw requirements are not met
<input type="radio"/>	<input type="radio"/>	2. Completed Mechanical Permit Application Form
<input type="radio"/>	<input type="radio"/>	3. Two (2) copies of a dimensioned site plan , including: <i>(preferred scale is Metric - 1:200 or Engineer - 1" = 20' 0")</i>
<input type="checkbox"/>	<input type="checkbox"/>	north arrow
<input type="checkbox"/>	<input type="checkbox"/>	municipal address
<input type="checkbox"/>	<input type="checkbox"/>	property lines
<input type="checkbox"/>	<input type="checkbox"/>	adjacent City streets, lanes, and adjacent lots
<input type="checkbox"/>	<input type="checkbox"/>	site area & coverage
<input type="checkbox"/>	<input type="checkbox"/>	front, side and rear yard dimensions
<input type="checkbox"/>	<input type="checkbox"/>	right-of-way setbacks, easements and utility rights-of-way, if any
<input type="checkbox"/>	<input type="checkbox"/>	overhead utilities
<input type="checkbox"/>	<input type="checkbox"/>	outline of all structures on property covered by permit
<input type="checkbox"/>	<input type="checkbox"/>	outline of all structures on adjoining properties (private or public)
<input type="checkbox"/>	<input type="checkbox"/>	planned ground exchanger field with bore hole placements, piping sizes, depths and spacing
<input type="checkbox"/>	<input type="checkbox"/>	layout of all ground circuits and headers including into structure
<input type="radio"/>	<input type="radio"/>	4. System information – contractor verification. Failing to meet standard requirements may result in replacement of any or all non-compliant equipment and materials.
<input type="checkbox"/>	<input type="checkbox"/>	Part 3 (commercial) system per Alberta Building Code 2014 definition – Mechanical Engineer stamped and signed drawings.
<input type="checkbox"/>	<input type="checkbox"/>	Part 9 (residential/small building) system per Alberta Building Code 2014 definition – Mechanical Engineer OR geoexchange designer drawings
<input type="checkbox"/>	<input type="checkbox"/>	Cathodic protection system designed by Corrosion Engineer or system specialist, if DX system
<input type="checkbox"/>	<input type="checkbox"/>	All pipe shall be line printed in compliance with CAN/CSA C448 and be marked with "C448" and "Geo" or "Geothermal"

<input type="radio"/>	<input type="radio"/>	5. Ground loop information
<input type="checkbox"/>	<input type="checkbox"/>	Refrigerant (DX) information:
<input type="checkbox"/>	<input type="checkbox"/>	refrigerant specification sheet
<input type="checkbox"/>	<input type="checkbox"/>	refrigerant type (per CAN/CSA B52 and/or ASHRAE 34):
	<input type="checkbox"/>	<input type="checkbox"/> R-22
	<input type="checkbox"/>	<input type="checkbox"/> R-410A
	<input type="checkbox"/>	<input type="checkbox"/> other _____
<input type="checkbox"/>	<input type="checkbox"/>	operating pressures:
		Maximum _____ Minimum _____
<input type="checkbox"/>	<input type="checkbox"/>	Thermal transfer fluid information:
<input type="checkbox"/>	<input type="checkbox"/>	transfer fluid specification sheet
	<input type="checkbox"/>	<input type="checkbox"/> propylene glycol
	<input type="checkbox"/>	<input type="checkbox"/> methanol
	<input type="checkbox"/>	<input type="checkbox"/> ethanol
	<input type="checkbox"/>	<input type="checkbox"/> other _____
<input type="checkbox"/>	<input type="checkbox"/>	dilution level of antifreeze:
		_____ % water _____ litres of antifreeze
		_____ % antifreeze _____ litres total volume
<input type="radio"/>	<input type="radio"/>	6. Additional documentation, where required
<input type="checkbox"/>	<input type="checkbox"/>	thorough heat loss calculation for main structure (to meet CAN/CSA F280 for Part 9 applications and ASHRAE standards for Part 3 applications)
<input type="checkbox"/>	<input type="checkbox"/>	thorough and separate heat loss calculations for each peripheral heating/cooling load:
	<input type="checkbox"/>	<input type="checkbox"/> on-demand domestic hot water (not applicable for desuperheater function)
	<input type="checkbox"/>	<input type="checkbox"/> snow/ice melt
	<input type="checkbox"/>	<input type="checkbox"/> spa
	<input type="checkbox"/>	<input type="checkbox"/> pool
	<input type="checkbox"/>	<input type="checkbox"/> other:
<input type="checkbox"/>	<input type="checkbox"/>	back-up heat source specification sheet including type, size, output, etc
<input type="checkbox"/>	<input type="checkbox"/>	for DX systems only – Certified brazer's (refrigeration) certificate (photocopy is acceptable)
<input type="checkbox"/>	<input type="checkbox"/>	for DX systems only – cathodic protection documentation (per NACE)
<input type="checkbox"/>	<input type="checkbox"/>	approval letter from Alberta Environment for regulated open loop system
<input type="checkbox"/>	<input type="checkbox"/>	Alberta Energy Resources (AER) licence for bores deeper than 150 metres below grade
<input type="checkbox"/>	<input type="checkbox"/>	geotechnical report
<input type="checkbox"/>	<input type="checkbox"/>	hydrogeological report (required if Alberta Environment letter is required)
<input type="checkbox"/>	<input type="checkbox"/>	copy of independent utility locate report
<input type="checkbox"/>	<input type="checkbox"/>	copies of specification sheets for each equipment item
<input type="radio"/>	<input type="radio"/>	7. Drilling company: _____
		Contact name & phone number: _____
<input type="radio"/>	<input type="radio"/>	8. Fee (Fee Schedule), based on market-up construction costs, including all labour, equipment and material (including drilling, trenching, excavating and backfilling)

FOIP DISCLAIMER: The personal information on this form is being collected under the authority of The Calgary Building Permit Bylaw 64M94 (Section 5) and amendments thereto. It will be used for the permit review and inspection processes and may be communicated to relevant City Business Units, utility providers, and Alberta Health Services. It may also be used to conduct ongoing evaluations of services received from Planning & Development. The name of the applicant and the nature of the permit will be available to the public. Please send inquiries by mail to the FOIP Program Administrator, Planning & Development, PO Box 2100, Station M, Calgary, AB T2P 2M5 or contact us by phone at 311.