



/härTH/
noun

*the floor of the fireplace
a symbol for one's home*

Braving the winter weather is a Canadian tradition. Unfortunately, when temperatures plunge, circulating the campus grounds becomes a challenge. Despite our tolerance for the cold temperatures, students who venture out into the cold sometimes need a break. *Hearth* is a beacon for those seeking shelter within the campus grounds.

Hearth acts as a multifunctional structure, serving both functional and educational purposes through material application and experimentation. *Hearth* harnesses the surrounding environment and creates a truly warm space through passive solar gain strategies. As the physical hearth gathers heat and displays a fogged interior, individuals wandering through the University of Alberta campus grounds will have no trouble finding a comfortable space to warm up.

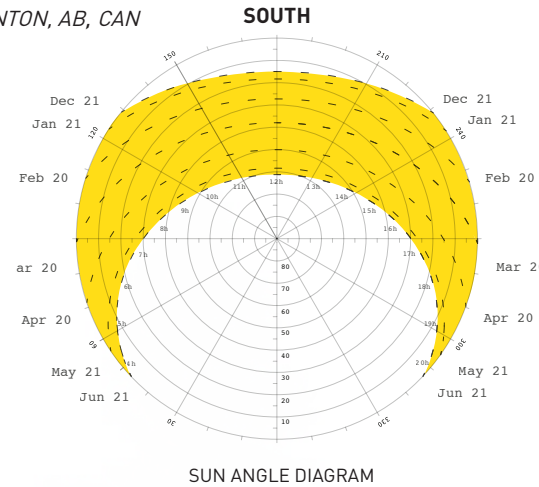
Strategically orientated transparent, heat-retaining and insulating materials combined with circulation through a small, elevated space are the components that make *Hearth's* preformance of warmth possible.





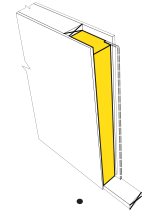
PERSPECTIVE - ABOVE

LAT: 53°N LONG: 113°W
(SOLAR TIME ZONE 1)
EDMONTON, AB, CAN

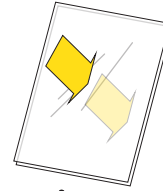


SUN ANGLE DIAGRAM

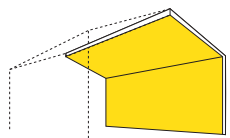
INSULATION
Walls filled with heat insulating materials.



TRANSPARENCY
South-oriented transparent plexiglass allows passive sunlight transmission.

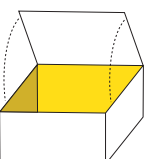


PITCH
Timber-frame roof pitched for snow clearing and interior solar exposure.

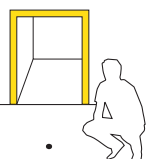


Darkened finish for solar absorption

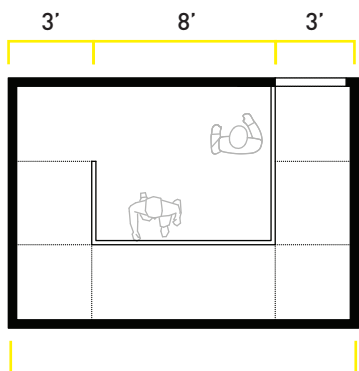
THERMAL MASS
Subfloor core filled with thermal insulating material.



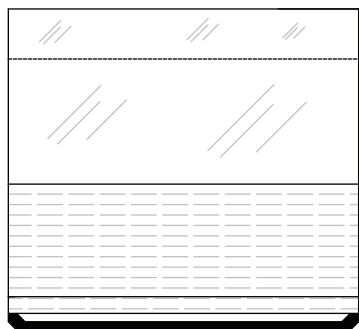
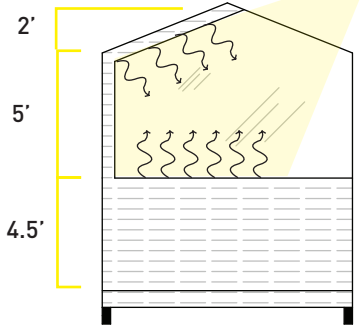
MINI-DOOR
Short door minimizes warm air escape & cold air intake.



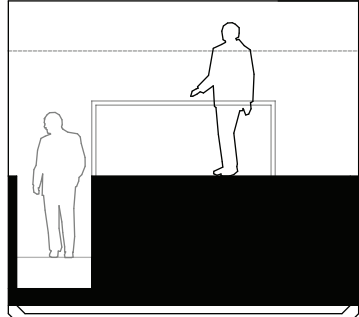
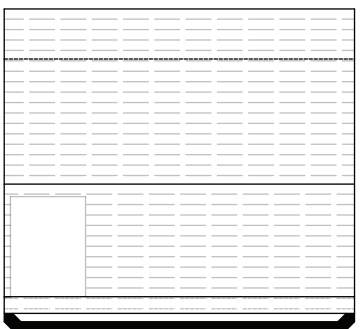
MEASURED DRAWINGS



TYPICAL 6" WALL THICKNESSES

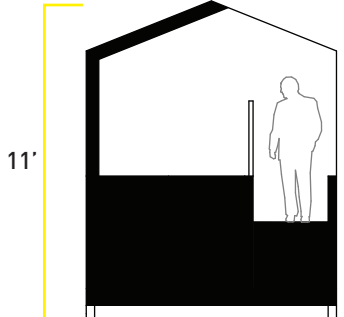


PITCH
WALL
DOOR



RAMP
3:12 SLOPE

HAND RAIL



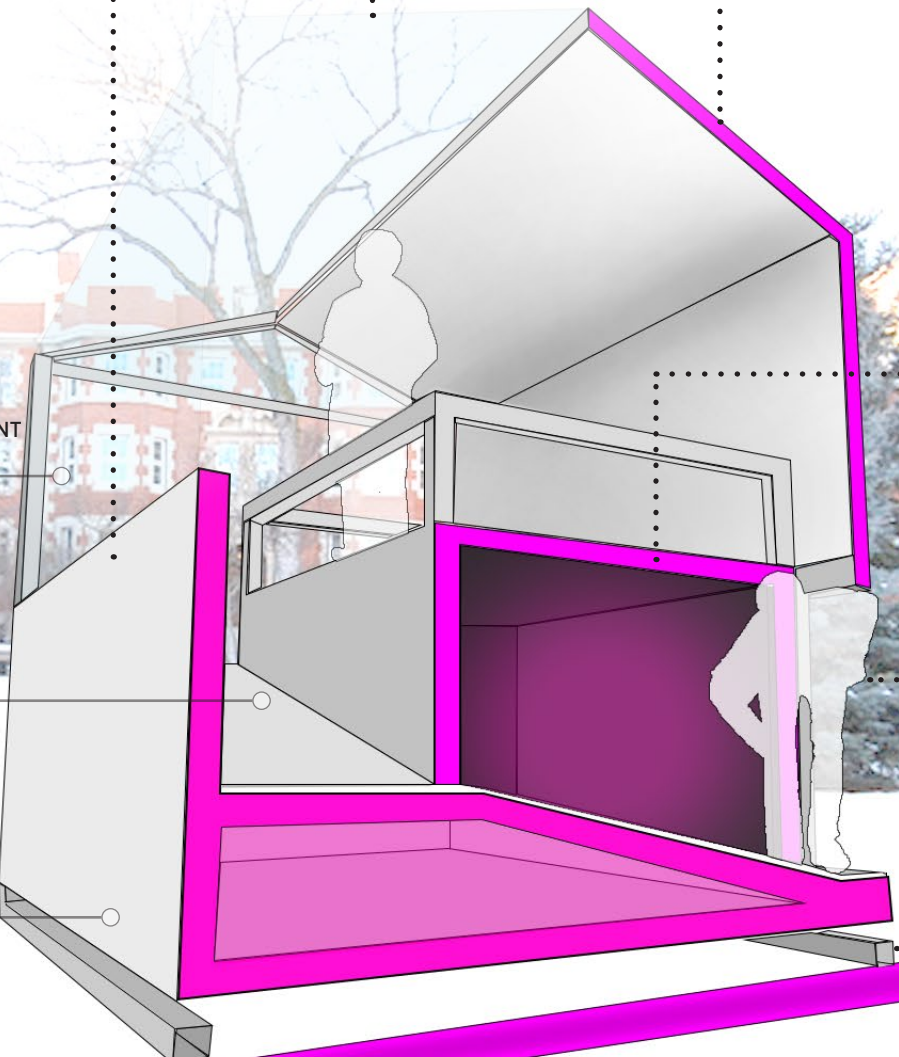
THERMAL MASS



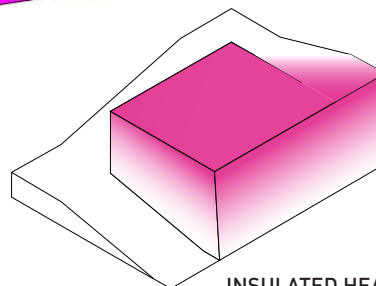
SOUTH-FACING TRANSPARENT PLEXI-GLASS SURFACE

NON-SLIP, WATER RESISTANT RUBBER MAT

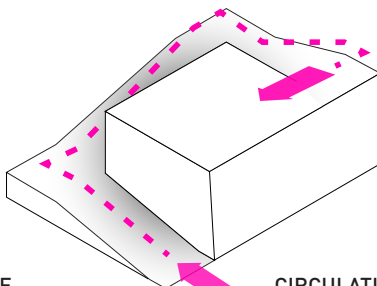
PLYWOOD SIDING



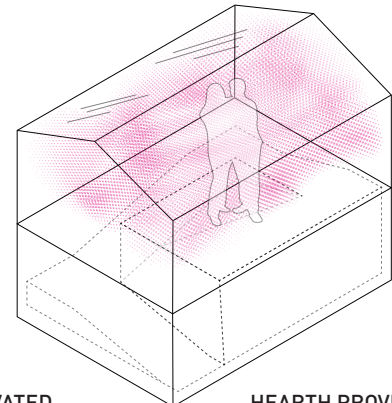
RAISED FRAME
Structure elevated off ground reducing thermal bridging. Allows for mobility of structure.



INSULATED HEARTH CORE GAINS & STORES SOLAR HEAT



CIRCULATION TO ELEVATED SPACE W/ RISING WARM AIR



HEARTH PROVIDES HEAT FOG CREATES BEACON