02

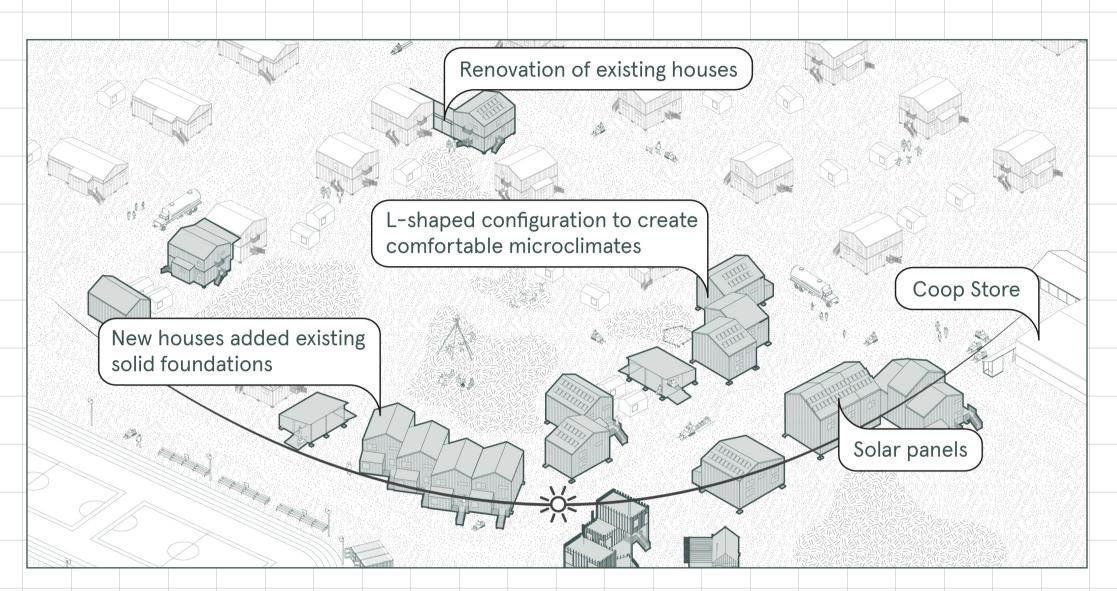
TO SAFELY AND APPROPRIATELY LOCATE BUILDINGS AND INFRASTRUCTURES

The living environment takes advantage of bioclimatic strategies and contributes to reduce the effects of natural hazards

MEANS OF ACTION

- 2.1 Choose adequate foundations to respect soil and permafrost conditions
- 2.2 Create comfortable microclimates all-year round by using adequate building orientation and configuration

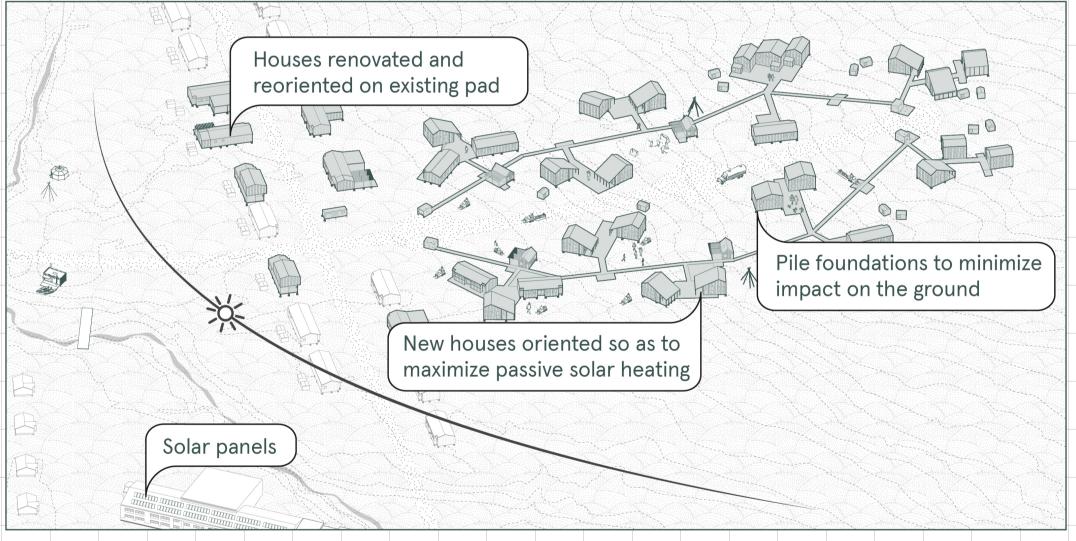
LAND AND ENVIRONMENT



VILLAGE CENTER

Existing granular pads in the village center can be used to maximal capacity by adding new houses on solid foundations. Older houses can be similarly renovated and extended.

Organizing houses in L-shaped configurations, especially on street corners, creates comfortable microclimates inside the block. Solar panels are installed on strategically oriented houses to generate green energy.



RESIDENTIAL AREA

Existing houses are renovated and reoriented to maxime passive solar heating, thereby needing less imported fossil fuel.

Such changes are possible in other locations where new houses are built on piles to minimize their impact on the ground by using less granular material.

Solar panels Sunny shared space protected from harsh winds Pile foundations Stone and concrete

NEW DEVELOPMENT

Great sun exposure all-day long, due in part to the site's elevation, allows the cluster's central space to get a lot of natural light. Thereby, solar pannels can be installed on some of the roofs.

Two types of foundations offer greater flexibility: piles as well as stone combined to concrete. The latter has the advantage of providing extra indoor storage. Both methods ensure stability and durability to the structure of the house.

The cluster configuration allows wind protection while limiting snow accumulation in the shared, central space.

Architecture project credits : Pierre-Olivier Demeule, 2016, Marie-Jeanne Allaire-Côté, 2017, Anabelle Tougas, 2019

foundations