

RECONCILING INUIT/WESTERN VALUES

PRESENTERS:

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CIP GENERATION 2019, OTTAWA

JULY 4, 2019 3:45PM- 5:00PM

LES SAISONS - LEVEL 3

RECONCILE

Transitive Verb

1a: to restore to friendship or harmony

1b : Settle, Resolve

2 : to make consistent or congruous

(Merriam-Webster)

Wall Hanging,
Pangnirtung



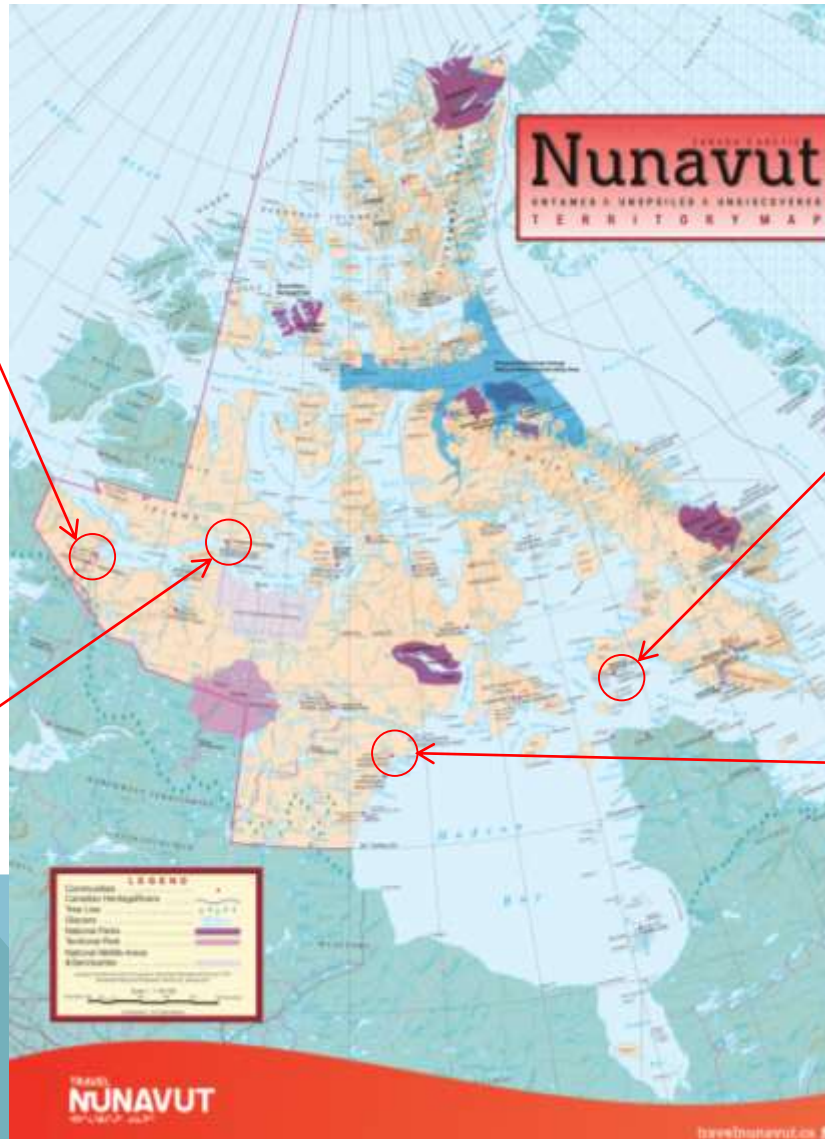
WHERE WE WORK:

Planning and
Lands Division
Headquarters
Kugluktuk, NU

- Director, Planning and Lands
- Manager, Community Planning
- Territorial Community Planner

Kitikmeot
Regional Office
Cambridge Bay,
NU

- Community Planner



Qikiqtaaluk
Regional Office
Cape Dorset, NU

- Community Planner

Kivalliq Regional
Office

Rankin Inlet, NU

- Community Planner (Vacant)

COMMUNITY PLANNING IN NUNAVUT



Municipal Government:

City of Iqaluit

- Director of Planning & Development
- City Planner

Hamlets (24)

- Planning and Lands Administrator (PLA)

HISTORY

- There have been people living in Nunavut for thousands of years.
- From the 1500s to about 1900, contact with Europeans and European-Canadians was limited to explorers and whalers.
- Early 1900s, traders (HBC and the NWC), missionaries and the Canadian Justice system (RCMP) arrived and established outposts.
- In the 1940s the Military established Defence Early Warning (DEW) lines sites.
- 1950s Inuit were relocated into communities (some forced through the killing of sled dogs, or being relocated to high arctic), children forced to attend school.
- 1970s – Local councils, National and Regional Inuit Associations established.
- 1993 Nunavut Lands Claim Agreement signed
- 1999 Nunavut created



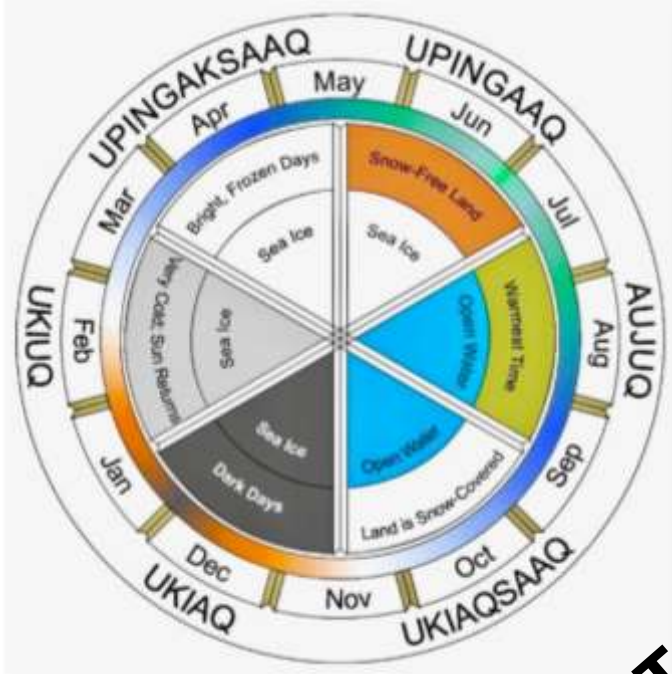
Carving Polar Bear,
Cape Dorset



Hanging, Pangnirtung



Pipsi (Arctic Char) Drying,
Cape Dorset



A DIFFERENT PERSPECTIVE



Seasons Chart: <http://msp.ioc-unesco.org/world-applications/americas/canada/nunavut/>

Circumpolar world map:

http://www.canadiangeographic.com/educational_products/polar_knowledge_arctic_circumpolar_floor_map.asp

INUIT SOCIETAL VALUES/IQ PRINCIPALS

ᐃᐅᐃᑦ ᐱᑦᑲᐅᑦᑲᑦᑲᑦᑲᑦ
Inuit Societal Values

 <p style="color: blue;">ᐃᐅᐅᑦᑲᑦᑲᑦᑲᑦᑲᑦ Inuugatiqitsiarniq</p>	 <p style="color: purple;">ᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦ Tunnganarniq</p>	 <p style="color: grey;">ᐱᐅᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦ Pijitsirniq</p>	 <p style="color: green;">ᐅᐅᐅᑦᑲᑦᑲᑦᑲᑦᑲᑦ Aajiqatigilniq</p>	 <p style="color: orange;">ᐱᑲᐱᑦᑲᑦᑲᑦᑲᑦᑲᑦ Pijimaksarniq / Pijariqsarniq</p>	 <p style="color: lightgreen;">ᐱᑲᐱᑦᑲᑦᑲᑦᑲᑦᑲᑦ Pijirngatigilniq / Ikaqatigilniq</p>	 <p style="color: yellowgreen;">ᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦ Qanuqtuarniq</p>	 <p style="color: blue;">ᐅᑲᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦ Avatittinnik Kamatsiarniq</p>
Inuit nuatqatigiittiarniagut				les valeurs sociales inuit			
<p style="color: grey;">ᐅᐅᐅᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦ ᐱᑲᐱᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦ</p> <p>Respecting others, relationships and caring for people.</p> <p>ᐱᑲᐱᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦ ᐱᑲᐱᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦ</p> <p>Respect de l'autre, rapports avec l'autre et compassion envers les autres.</p>	<p style="color: grey;">ᐅᑲᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦ ᐅᑲᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦ</p> <p>Fostering good spirit by being open, welcoming and inclusive.</p> <p>ᐱᑲᐱᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦ ᐱᑲᐱᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦ</p> <p>Promouvoir un bon état d'esprit en étant ouvert, accueillant et inclusif.</p>	<p style="color: grey;">ᐱᑲᐱᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦ ᐱᑲᐱᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦ</p> <p>Serving and providing for family and/or community.</p> <p>ᐱᑲᐱᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦ ᐱᑲᐱᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦ</p> <p>Service à la famille et à la communauté.</p>	<p style="color: grey;">ᐅᑲᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦ ᐅᑲᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦ</p> <p>Decision making through discussion and consensus.</p> <p>ᐱᑲᐱᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦ ᐱᑲᐱᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦ</p> <p>Discuter et développer des consensus pour la prise de décisions.</p>	<p style="color: grey;">ᐅᑲᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦ ᐅᑲᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦ</p> <p>Development of skills through observation, mentoring, practice, and effort.</p> <p>ᐱᑲᐱᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦ ᐱᑲᐱᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦ</p> <p>Le développement des compétences par la pratique, l'effort et l'action.</p>	<p style="color: grey;">ᐅᑲᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦ ᐅᑲᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦ</p> <p>Working together for a common cause.</p> <p>ᐱᑲᐱᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦ ᐱᑲᐱᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦ</p> <p>Travailler ensemble dans un but commun.</p>	<p style="color: grey;">ᐅᑲᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦ ᐅᑲᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦ</p> <p>Being innovative and resourceful.</p> <p>ᐱᑲᐱᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦ ᐱᑲᐱᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦ</p> <p>Innovation et ingéniosité dans la recherche de solutions.</p>	<p style="color: grey;">ᐅᑲᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦ ᐅᑲᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦ</p> <p>Respect and care for the land, animals and the environment.</p> <p>ᐱᑲᐱᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦ ᐱᑲᐱᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦ</p> <p>Respect et soin de la terre, de la faune et de l'environnement.</p>

www.gov.nu.ca

Source: Government of Nunavut, <https://www.gov.nu.ca/information/inuit-societal-values>

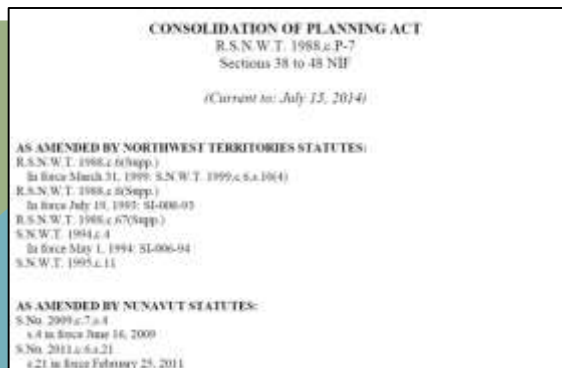
LEGISLATION

Planning Act (1988)

Municipal land-use planning roles, mechanisms and processes.

Territorial and Municipal authority
General (“Community”) Plans
Zoning By-laws
Development permitting
Appeal process
Enforcement

Takeaway: Broadly similar to other Canadian jurisdictions.



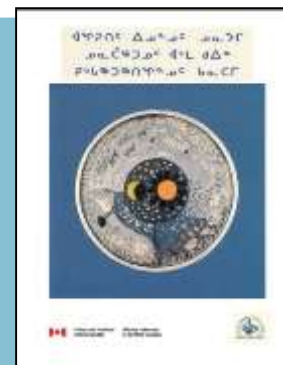
Nunavut Agreement (1993)

Land claim agreement between Inuit of the “Nunavut Settlement Area” and the Crown.

Article 11 (LAND USE PLANNING) Part 2
Planning Principles, Policies, Priorities and Objectives

Article 14 (MUNICIPAL LANDS)
Governs how lands within municipal boundaries are administered.

Takeaway: Augments Inuit values and gives municipalities expanded authorities to control land.



LEGISLATION

Opinion: The Nunavut Agreement maintains the existing Canadian land tenure framework, but places a framework of Inuit values on top of this to guide land-use planning

Our challenge: How does a practising Planner reconcile these two competing systems of understanding; Inuit and Kablunak/Qallunaat (non-Inuit)?



Arctic Bay, Nunavut

URBAN DESIGN & BUILT FORM IN THE CANADIAN ARCTIC

Clyde River, Nunavut

Major considerations:

- Lifestyles
- Development standards
- Wind and snowdrifting
- Permafrost
- Drainage



A Nunavut community must accommodate traditional Inuit lifestyles as well as the practical considerations of living in a modern community located in a harsh climate.

URBAN DESIGN & BUILT FORM

Lifestyles



Fish drying rack, protected against insects.



Seasonal storage of boats, for leisure and fishing.

A multi-unit residential building (ca. 1980s) with compact rectangular design (minimal structural projections into yards) and protection against wind and snow.



A well-equipped hunter and outdoor recreationalist lives here. The yards contain vehicle storage, a shack, and open lay-down of large equipment. The siding is decorated with animal skulls.

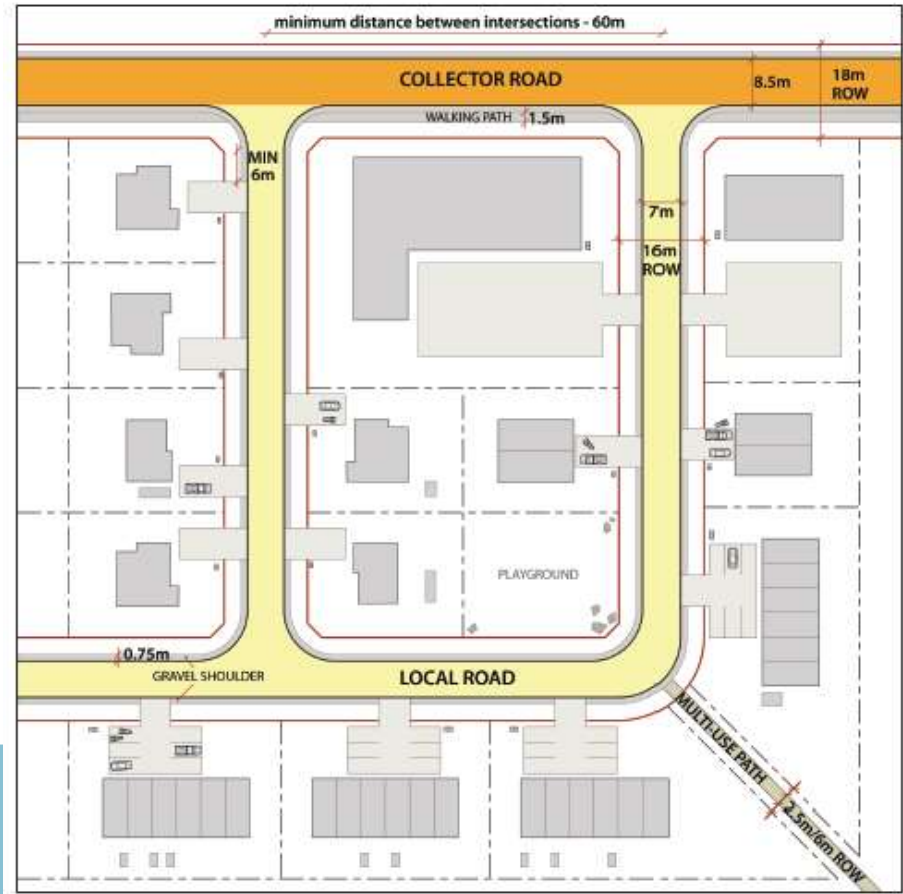
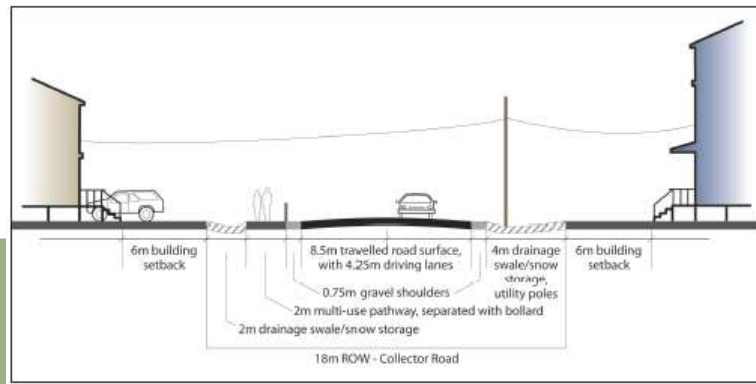
This shack is used for stone-carving.



Trucked water, wastewater, and fuel services. (A few communities also have utilidor.)

URBAN DESIGN & BUILT FORM

Development standards



URBAN DESIGN & BUILT FORM

Wind and snowdrifting



Chesterfield Inlet Snowdrifting Assessment (2009)

URBAN DESIGN & BUILT FORM

Wind and snowdrifting

Snow Fence Assessment, Repulse Bay (Naujaat), NU (2012)



Figure 1: Winds > 15 km/h

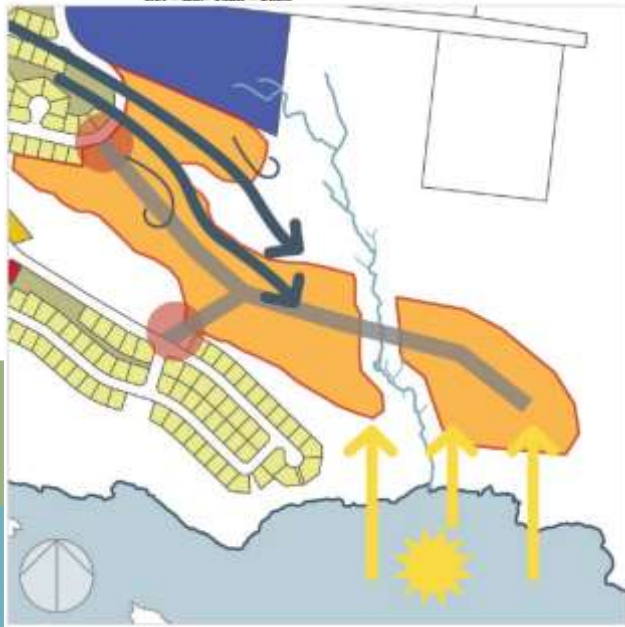


Figure 2: Winds > 15 km/h with Falling Snow

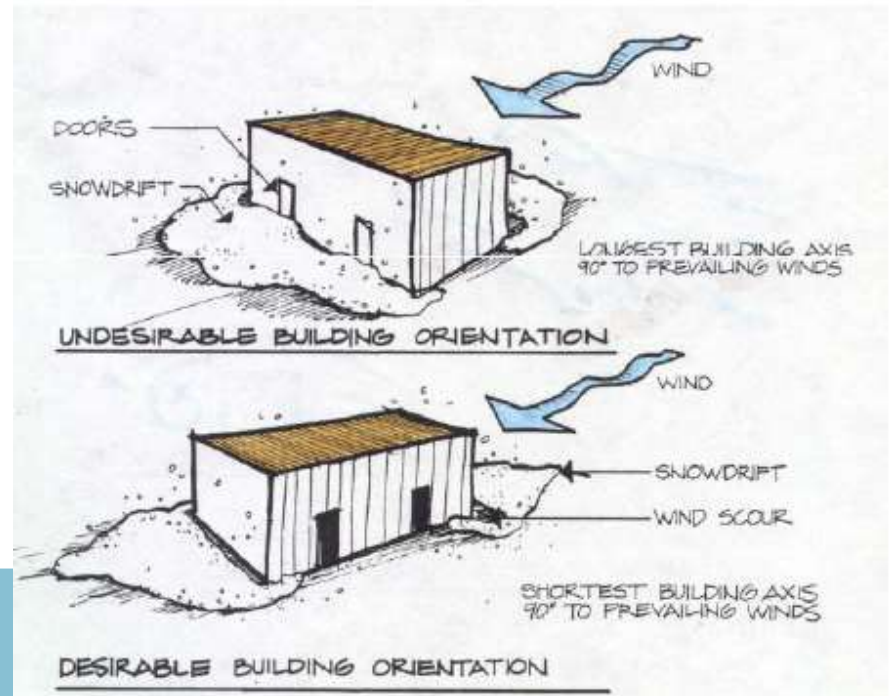


Figure 3: Winds > 15 km/h with Blowing Snow

Directional Distribution of Winter Winds for Repulse Bay Airport, NU
Oct - Apr 1980 - 2008



Taloyoak Snowdrifting Assessment (2009)



Subdivision Design and Standards Manual (2010; revised 2019)

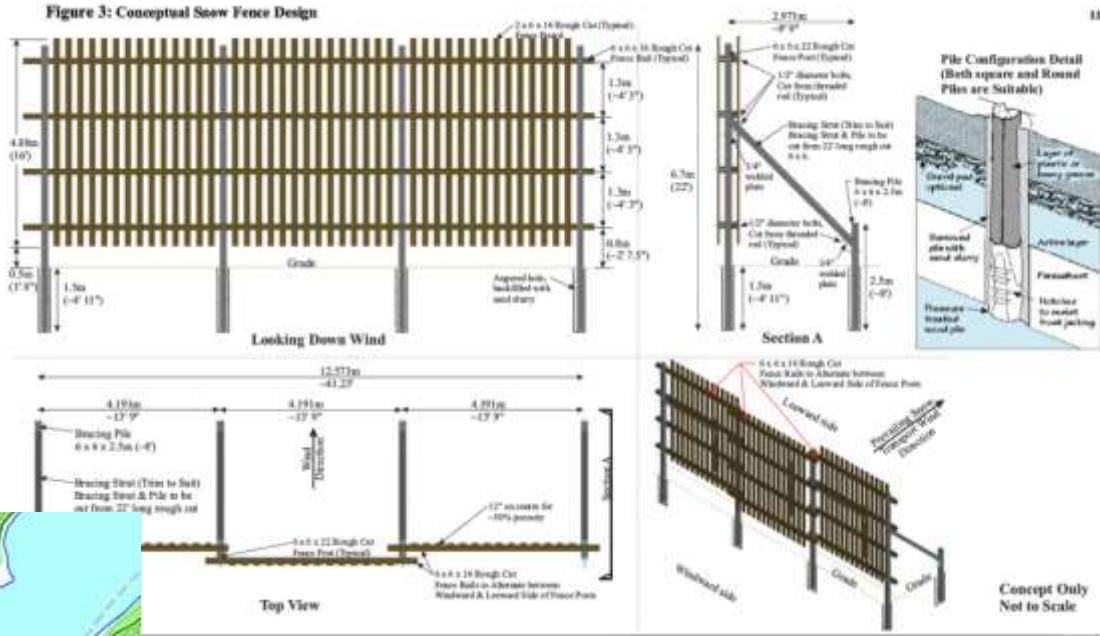
URBAN DESIGN & BUILT FORM

Wind and snowdrifting



Subdivision Design and Standards Manual (2010; revised 2019)

Structural Snow Fence Design and Placement Guide – for Cambridge Bay & Gjoa Haven, NU (2014)



Snow fencing and snow accumulation setbacks in a Community Plan, Hamlet of Rankin Inlet

URBAN DESIGN & BUILT FORM

Permafrost



Five-plex residential building in Kugluktuk, built on piles drilled into bedrock.

Foundation Types



Steel Piles

Steel piles are drilled deep into the ground, into bedrock if it is near the surface. If drilled into bedrock, permafrost thaw will not be an issue. Piles that are not drilled deep enough into the permafrost can shift up and down during the year as permafrost freezes and thaws. Piles do not need annual maintenance, but extreme shifting may require them to be cut off and replaced with a pad and wedge foundation. For more information, refer to the Canadian Standards Association Technical Guide to Infrastructure in Permafrost.⁶



Pad and Wedge

Stacks of pressure-treated lumber that hold the house off of the ground. These blocks of wood should be on a gravel pad and may need annual adjustment using wedges to keep the house level.



Screw Jacks

Adjustable jacks that keep the house level. These jacks are placed on wooden platforms on a gravel pad to spread the weight. Annual maintenance may be needed.

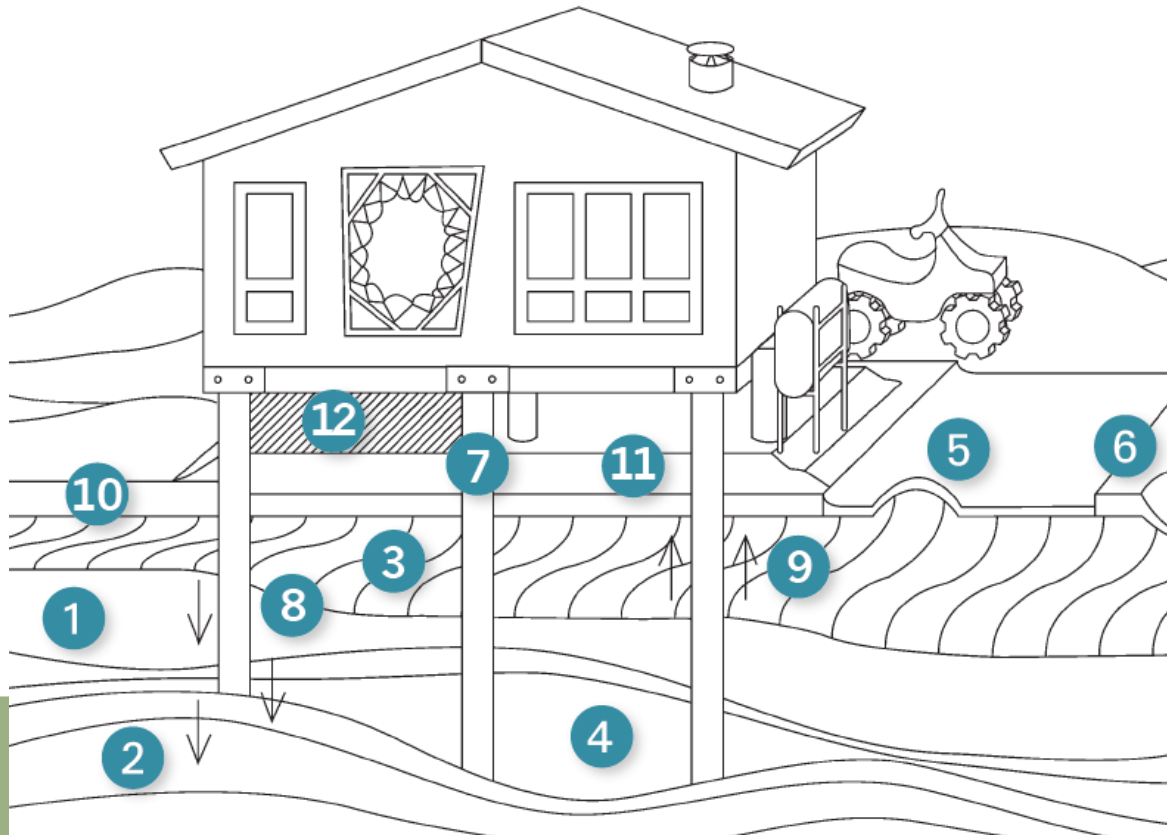


Space Frames

A web of aluminum tubes that spread the weight of a house onto many points. This system is often used when the ground below has a high potential for unstable permafrost.

URBAN DESIGN & BUILT FORM

Permafrost



1 Permafrost

Ground that remains frozen for at least two years.

2 Bedrock

Solid rock underlying surface materials.

3 Active Layer

The top layer of ground that is subject to annual thawing and freezing.

4 Ice-Rich Permafrost

Permafrost containing a lot of ice. Ice rich permafrost can form thick layers of ice (lenses) in clay or silty soils, which can cause thaw settlement.

5 Frost-Heave

The upward movement of the ground surface caused by the formation of ice in the soil.⁸

6 Thaw Settlement

The downward movement of the ground surface due to ice melting in the soil.⁸

7 Piles

Steel building supports drilled into the permafrost are called piles. Piles move by 8 creeping (moving down) or 9 frost-jacking (moving up) as permafrost warms, or as the active layer gets deeper.

Surface Foundation

These adjustable foundations that sit on a gravel pad or concrete footings are more affected by thaw settlement and frost-heave than piles. Examples include: pad and wedge, space frames and screw jacks.

8 Organic Layer

The top layer of dark soil or peat. A thick organic layer that insulates permafrost in the summer.

9 Gravel Pad

The gravel pad insulates the permafrost and drains water away from the house.

10 Skirting

Wooden board covering the foundation of a house.

URBAN DESIGN & BUILT FORM

Drainage



Erosion in Kugluktuk after July 21, 2007 storm event



Roadside drainage ditches and damaged culverts.



Hamlet of Kugluktuk Master Drainage Plan (2019)

COMMUNITY ENGAGEMENT



Engaging the Public at the
Hall Beach Co-op



Community Consultation in Qikiqtarjuaq



Consultation with Elders in Kugluktuk.





Refreshments in Igloolik



Setting up in Kugluktuk.



Improvising in Igloolik



Refreshments in Kugluktuk



Consultation with a respected Elder in Chesterfield Inlet.



Building rapport with Hamlet Staff in Hall Beach



Community
consultation in
Taloyoak

Engaging Council in
Igloolik



RADIOSTAT AND HAZARD MAPPING

Kimmirut



Cape Dorset



Pangnirtung



CLYDE RIVER GEOTECHNICAL AND DRAINAGE

Clyde River Geotechnical and Drainage Subdivision Analysis

Figure 3-2 Google Earth screen capture showing primary flow paths



CLYDE RIVER GEOTECHNICAL AND DRAINAGE



CLYDE RIVER GEOTECHNICAL AND DRAINAGE





Flying into Pangnirtung

GOING FORWARD

Check out our Division Website for more details on our work in Nunavut communities! <https://cgs-pals.ca/>



THANK YOU!

Furs, Cape Dorset