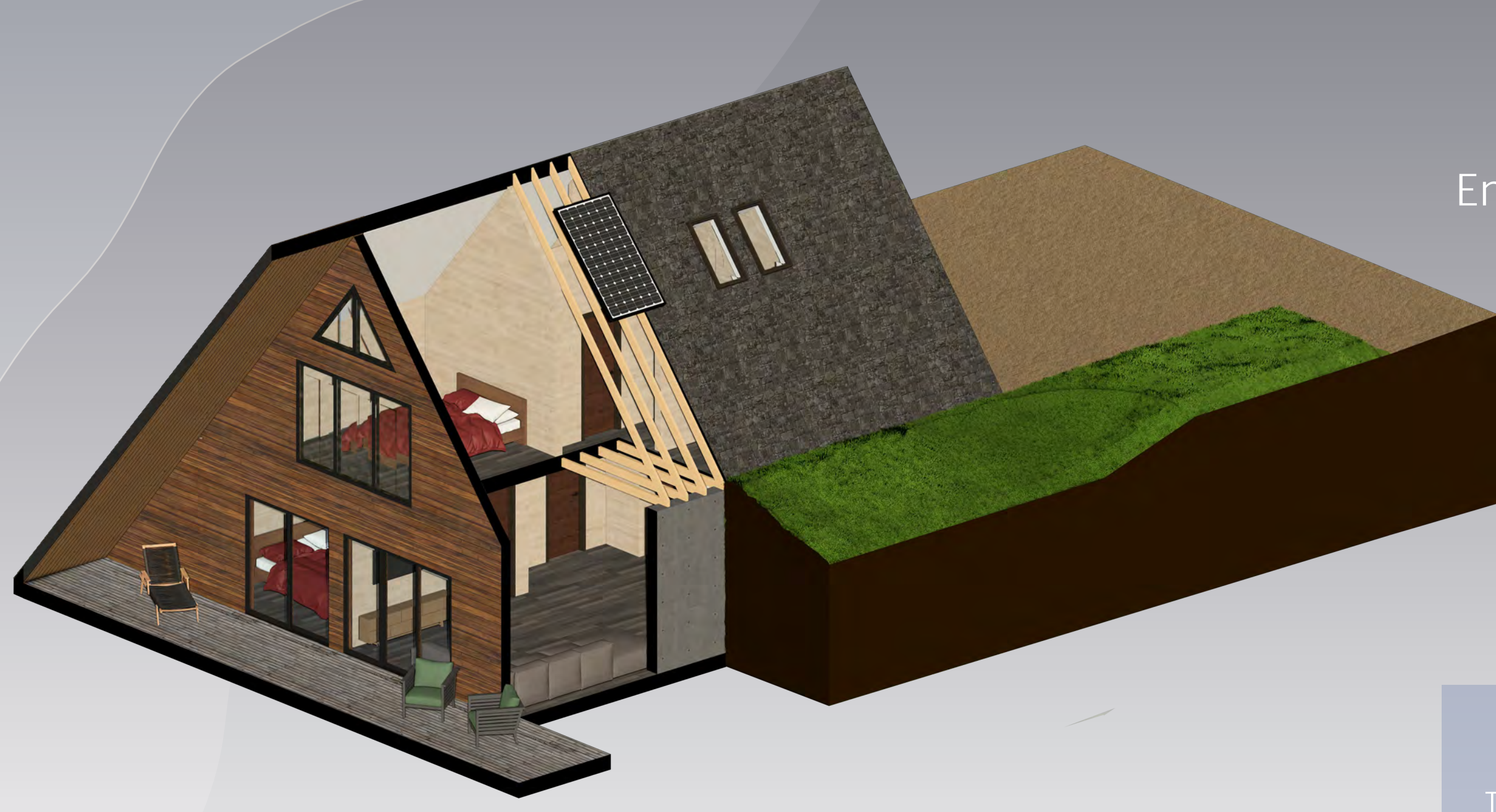
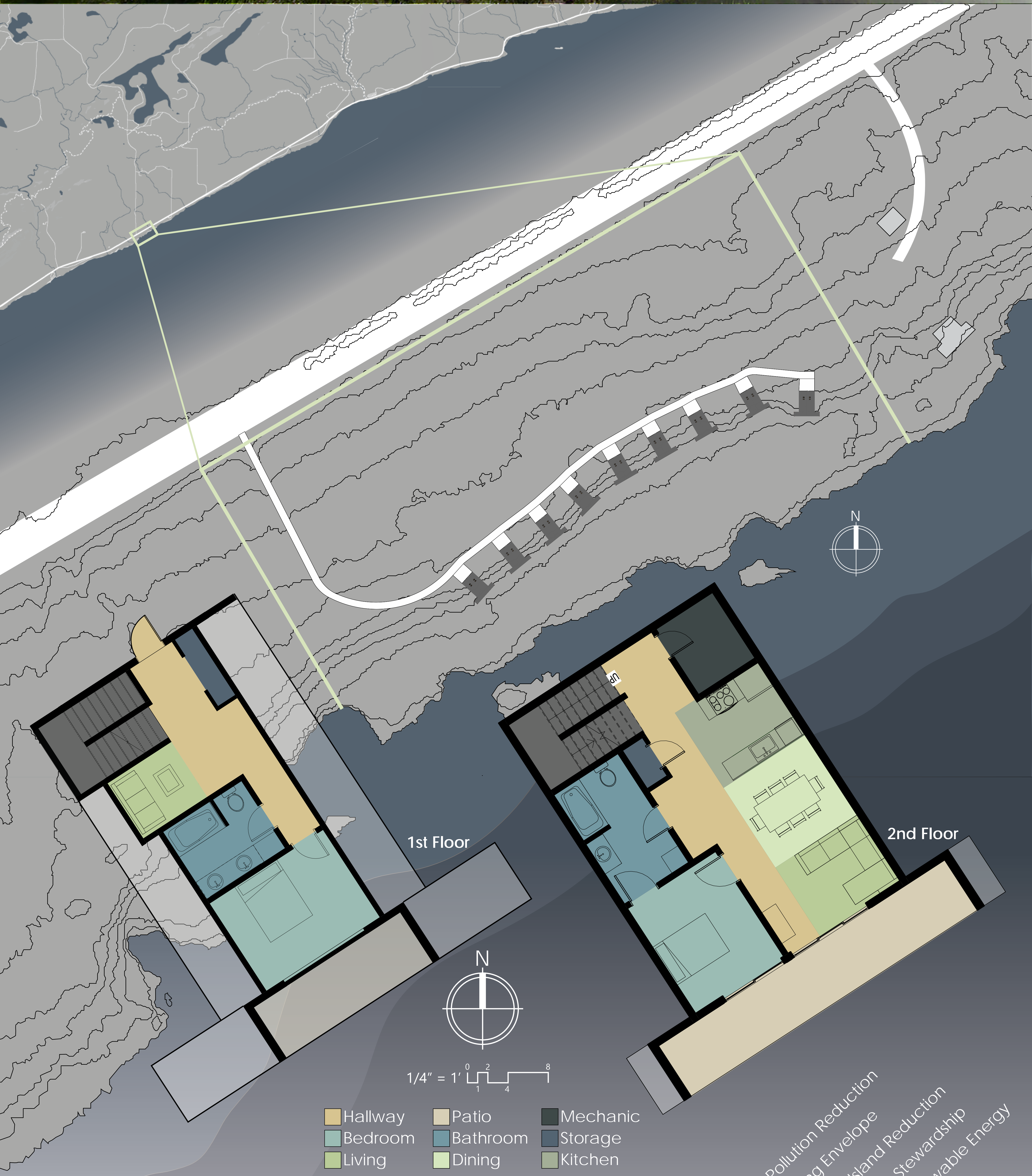
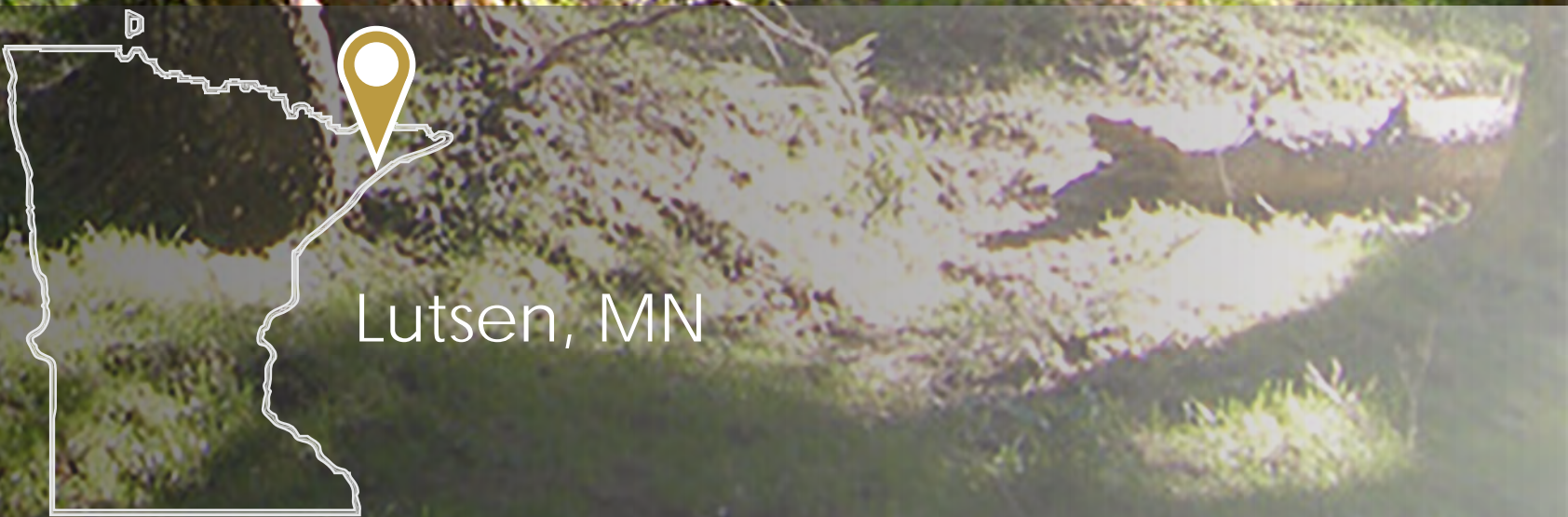


TOURISM AND SUSTAINABILITY: STRATEGIES FOR DESIGNING ON THE NORTH SHORE OF MINNESOTA



The North Shore of Minnesota boasts almost indescribable beauty, playing host to waterfalls, hiking trails, thousands of acres of protected forests, and Lake Superior Coastlines. Naturally, thousands of tourists flock here every year to soak in all it has to offer. With a wide variety of cabins and resorts to choose from, the goal of this project aims to provide a variety of different sustainable design solutions which are specifically catered for the unique location that is the North Shore of Minnesota.



Energy & Atmosphere
Water Efficiency
Sustainable Site

Light Pollution Reduction	Building Envelope	Heat Island Reduction	Water Stewardship	Renewable Energy
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Delivering on a more modern design, the Shoreline Sanctuary harbors unique design choices. Entering from the second floor, one will find the first floor to be almost completely encased in earth. With the roof clad in shale stone tiles, reminiscent of the rocky cliffs present on the lake shore. Combining both earth sheltering and a conscious material pallet, these cabins are able to sink away from view into the hillside they are placed on.

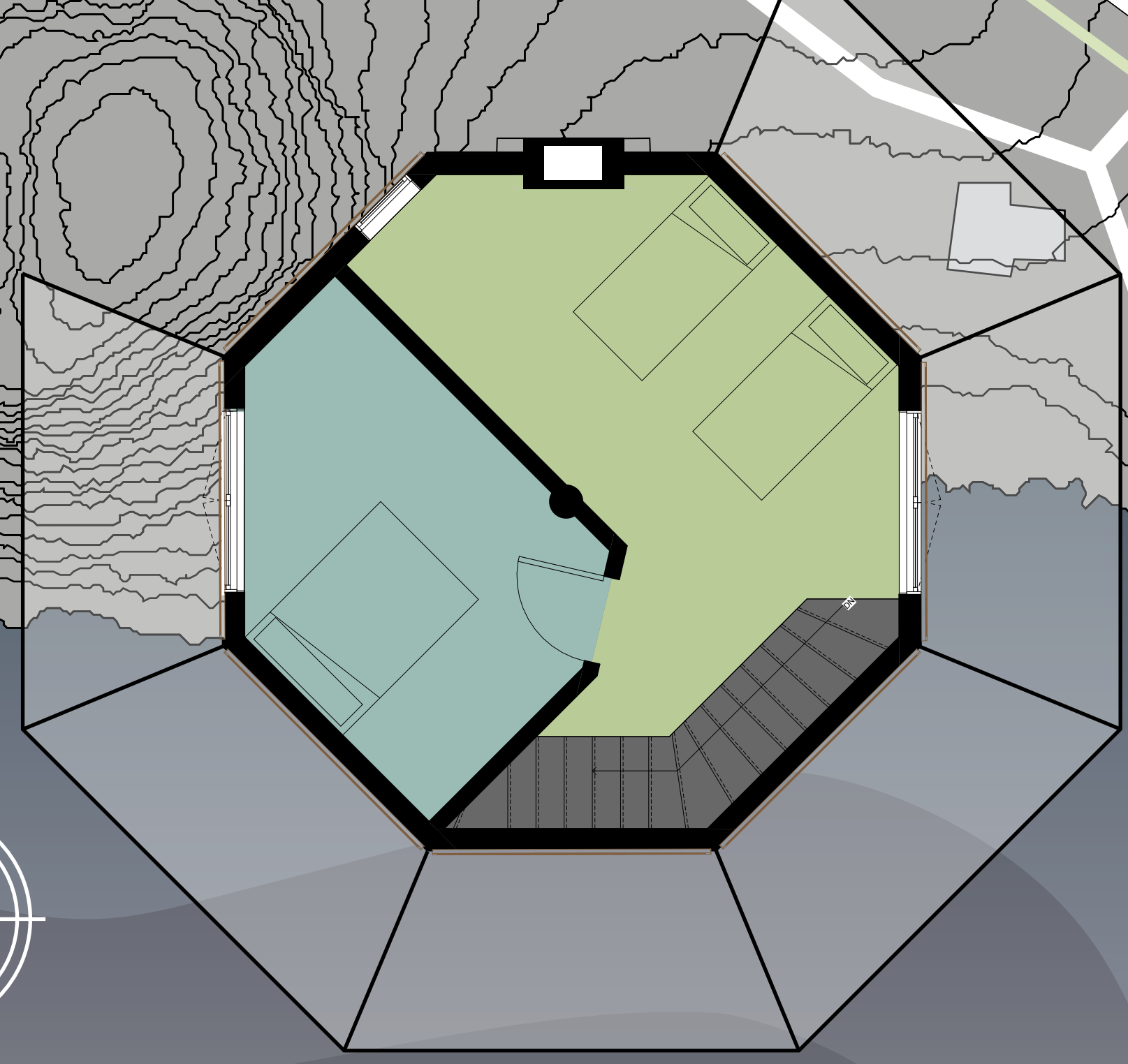
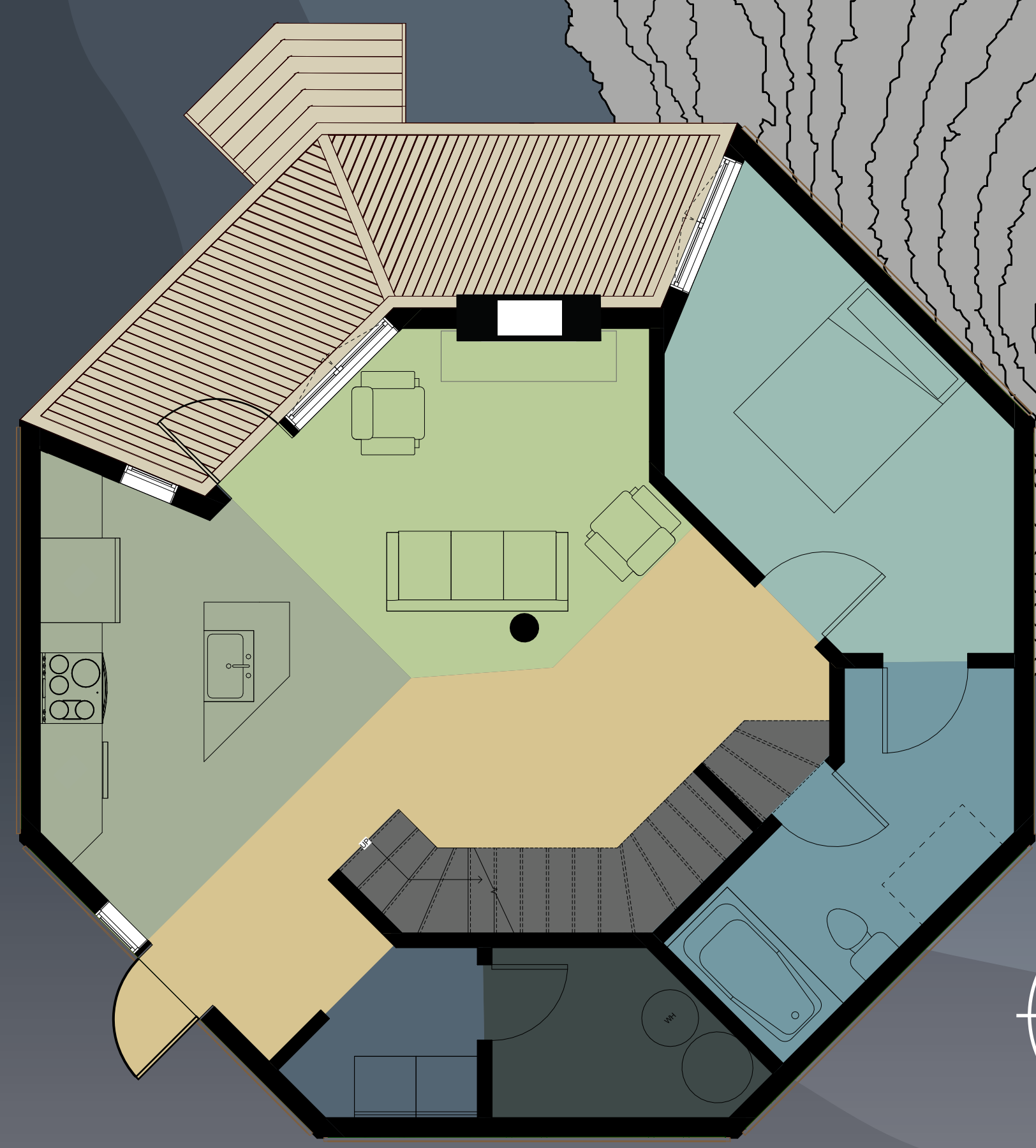
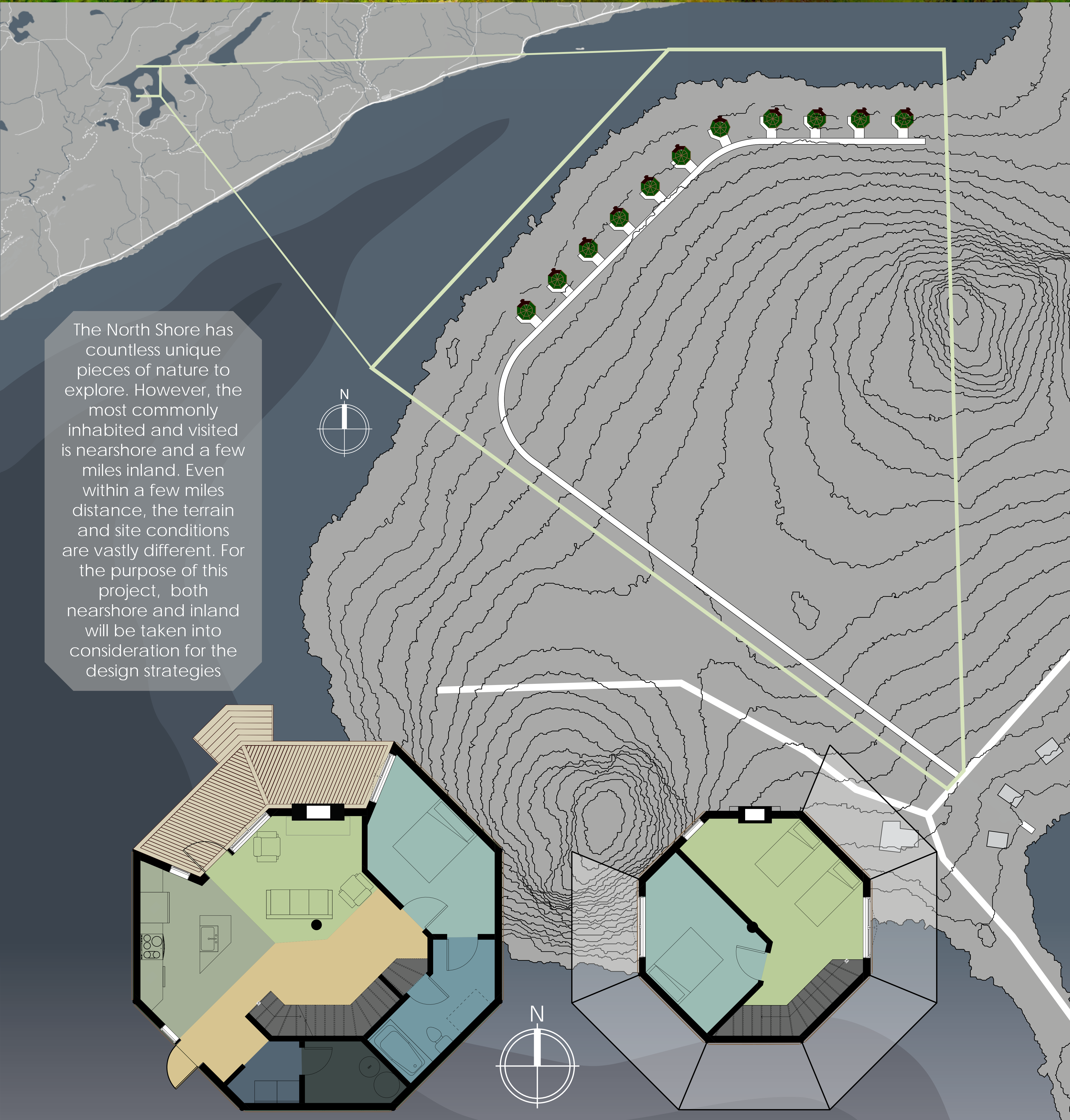
Fact: The earth is a great method of trapping, storing, and regulating heat
Strategy: Incorporate an earth-sheltering factor into the design as to help reduce CO2 emissions.

Fact: Greywater reclamation is a fantastic way to reduce freshwater waste.
Strategy: Install a greywater reclamation system, which will pump and disinfect greywater (showers, washing machines, etc), and reintroduce it into the water system.



Nature and Tourism: A Relationship

Nature and outdoor recreation is the major driving force for attracting tourism to this area, meaning the preservation of the natural environment is essential to keeping the North Shore's tourism industry alive and well. This project will focus on reducing ecological and visual impact on both sites.



1/4" = 1' 0 2 4 8

- Hallway
- Bedroom
- Living
- Deck
- Bathroom
- Dining
- Mechanic
- Storage
- Kitchen



- Light Pollution Reduction
- Building Envelope
- Heat Island Reduction
- Water Stewardship
- Renewable Energy

Energy & Atmosphere					♻️
Water Efficiency				💧	
Sustainable Site	💡	🌡️			

The Caribou Lake Cabin design is inspired by Ojibwe architecture, who historically inhabited the land for hundreds of years. The geometrical cladding seen enveloping the building is inspired by the Ojibwe symbol for the thunderbird. These triangular panels are covered in moss, which can remain in good health for years, going dormant in the winter and re-emerging in the spring.

Fact: Groundwater wells are the primary source of water for most North Shore Residents

Strategy: Through the use of permeable pavers, and the exclusion of hardscape surfaces, groundwater is replenished

Fact: The Superior National Forest is an International Dark-Sky Sanctuary

Strategy: All bulbs used should be dark-sky compliant, on timers, and a warm colored light (2700k-3000K)

Fact: Recently, Lutsen has been employing the Cook County Local Energy Project, promoting the use of renewable energy

Strategy: Utilize the growing local conscious surrounding renewable energy, and implement it into the design (solar or wind)

Fact: Green roofs, vegetation, and trees all help in the reduction of the heat island effect.

Strategy: Utilize plant life as a means of cladding, to absorb UV rays & CO2, while also providing a semi-camouflage to help reduce visual impact on the environment.

