

MIKRO HYGGE, NORWAY TINY HOUSE COMMUNITY - RICKY BRAY

My architectural project aims to address many challenges facing the housing and design industries. I designed a tiny house community located in Norway. This would be an affordable and environmentally conscious community. The unique roof shape of the tiny house, pitched diagonally across a rectangular floor plan, provides many benefits over conventional roof types; it provides more interior space for the loft whilst maintaining the same footprint. It also provides more surface area for maximum solar gain for the Tesla solar roof tiles. The roof drains stormwater conveniently at two points using a rain chain system that eliminates blocked gutters. The steep angle of the roof is suitable for the snowy Norwegian climate.

Some of the other environmentally conscious features are high levels of insulation, induction cooking, reverse cycle air conditioning, use of timber, no concrete, composting toilet.

I took inspiration from Norwegian architecture as well as the tiny house movement. One of my main inspirations for this project is my mother, a builder who aspires to create sustainable tiny communities. I chose the location of Norway because it is my dream destination and I thought the climate needs would be more challenging than a location with a mild climate.

I completed this project using Blender, Illustrator and Photoshop. I began by searching for inspiration and doing an array of different concept sketches. Once I decided on a concept that met the requirements, particularly being a unique construction approach, I created a mock-up in Photoshop. I made floor plans in Illustrator then went to Blender to begin the 3D project. I modelled the frame and roof first then created the interior. I added decoration, lighting and a deck. I then constructed a landscape to place the community in. I rendered the scene and then used photoshop to add final adjustments.

The biggest challenge I faced was my limited processing power. My design as a whole was far too detailed for my computer to handle, specifically the interior decorations and the landscape. I had to reduce the detail in the landscape to render the scenes.

I decided on an inviting and natural aesthetic (hygge) for my tiny houses to create pods of warm atmosphere that contrast the harsh landscape. The tiny houses have all the necessary facilities, and are designed to meet the constraints of the National Construction Code.