



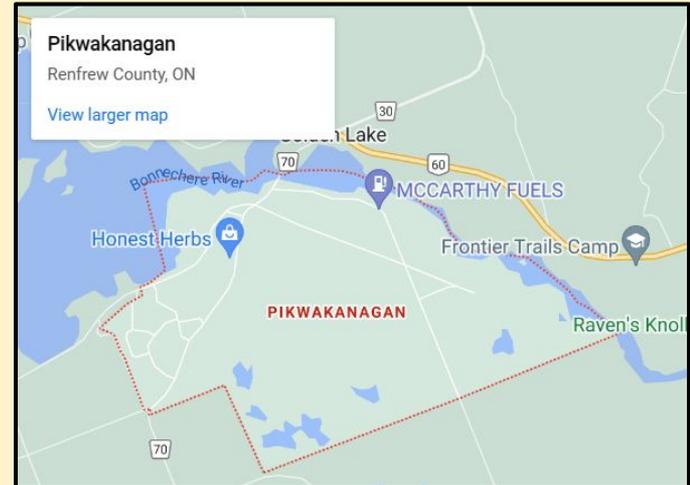
**Algonquins of Pikwakanagan
First Nation**

Neya Wabun Guardian Program Centre

The Blueprint Builders

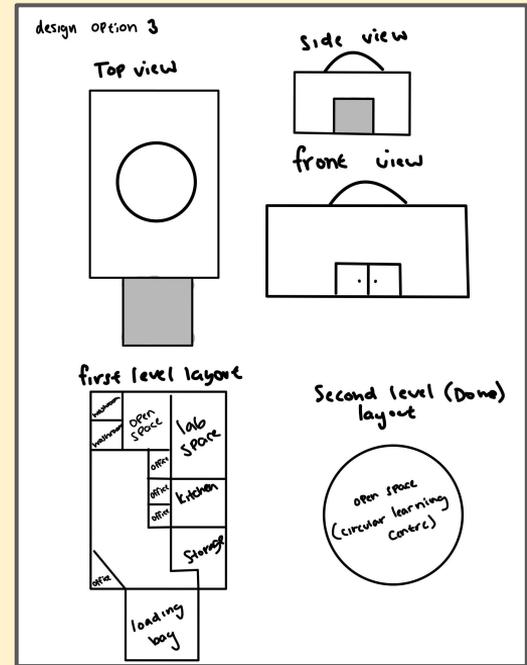
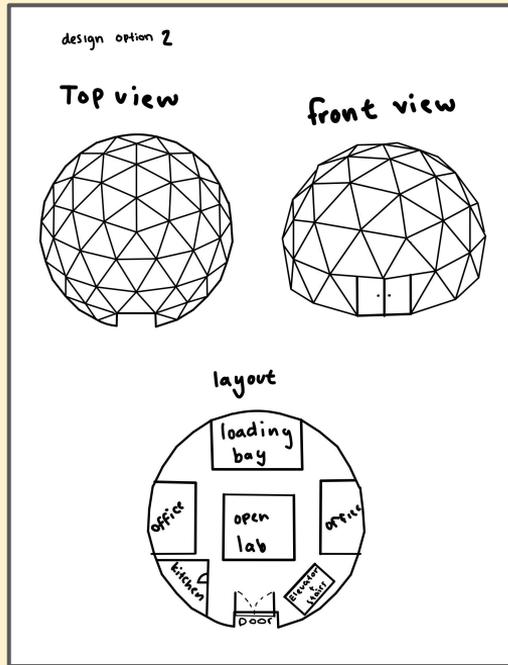
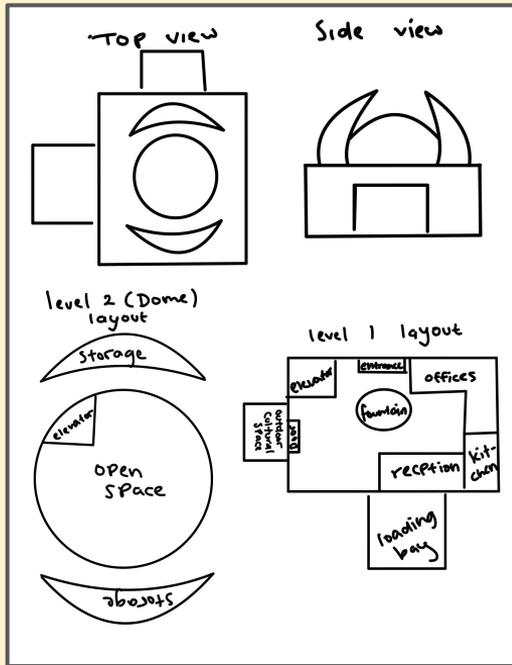
Problem Statement

There exists a need for infrastructure to represent the culture of the Algonquins of Pikwàkanagàn First Nations, and aid the Neya Wabun Guardians in their monitoring work by giving them an office space, and a place to practice cultural activities and medicine harvesting.



Three initial design concepts

These were the initial designs generated by the team's interpretation of the problem statement.

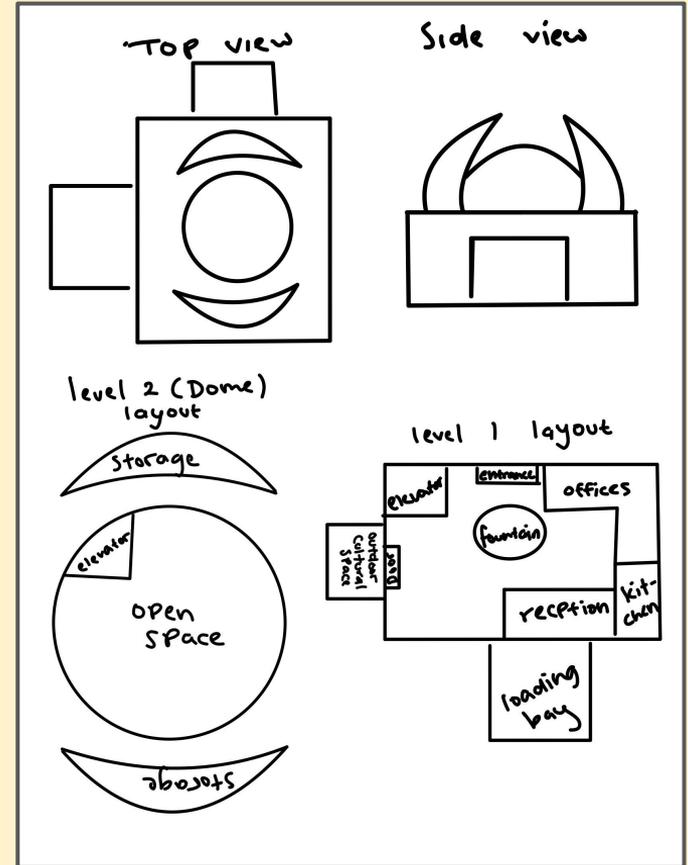


Initial Concept 1

The first concept features a first floor with a rectangular layout, with office space, a kitchen, a loading bay, and a reception area.

There is a glass dome around the second floor, surrounded by hollow crescent pillars, designed to house storage.

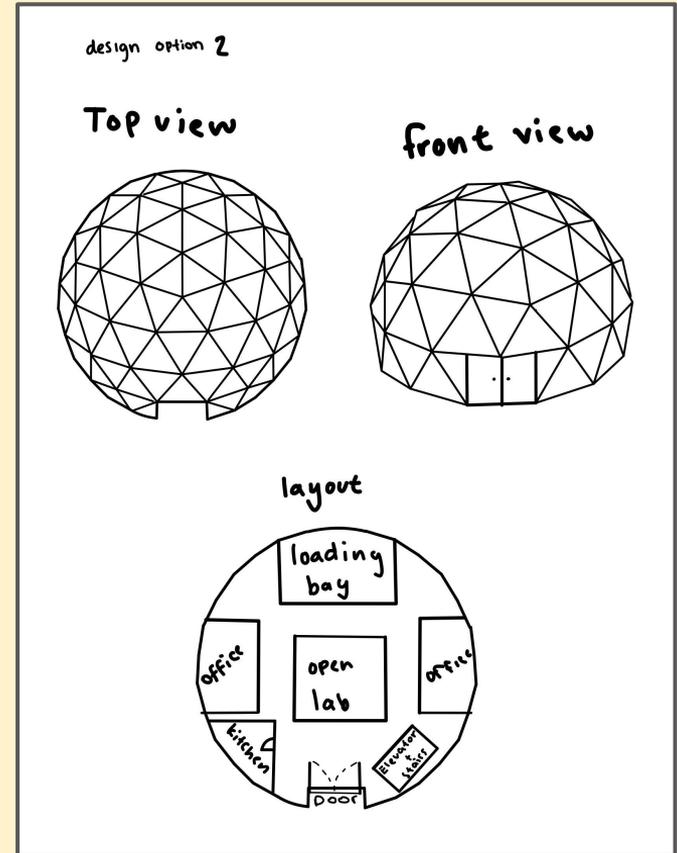
On the outside of the building, there is a lean-to that acts as a space for outdoor activities.



Initial Concept 2

The second concept has a circular floor plan, with space for offices, a loading bay, a laboratory, and a kitchen.

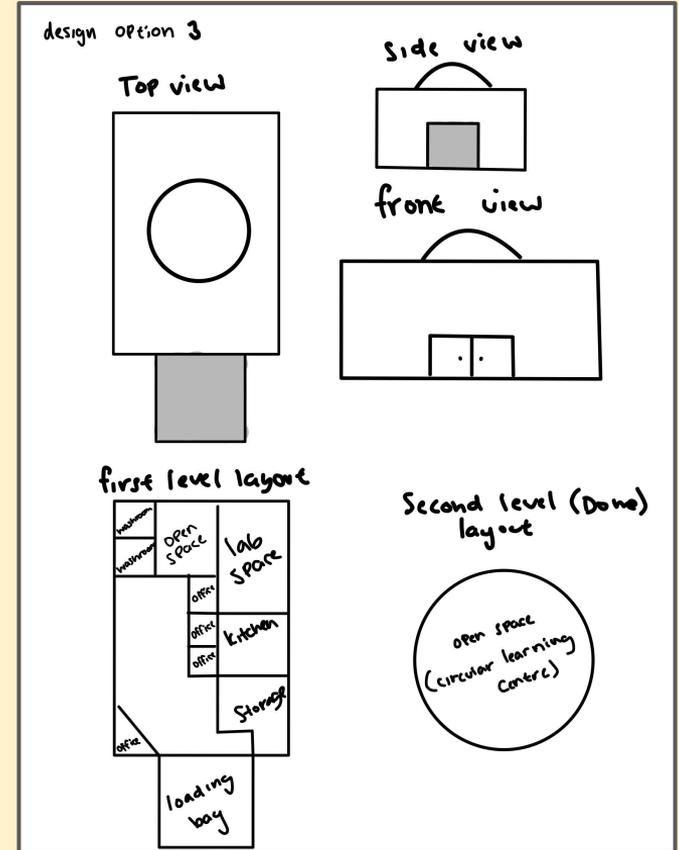
It is surrounded by a glass dome, acting as the walls and roof of the building.



Initial Concept 3

The third concept features a rectangular first floor, with a lab space, some offices, storage areas, a kitchen, and a loading bay.

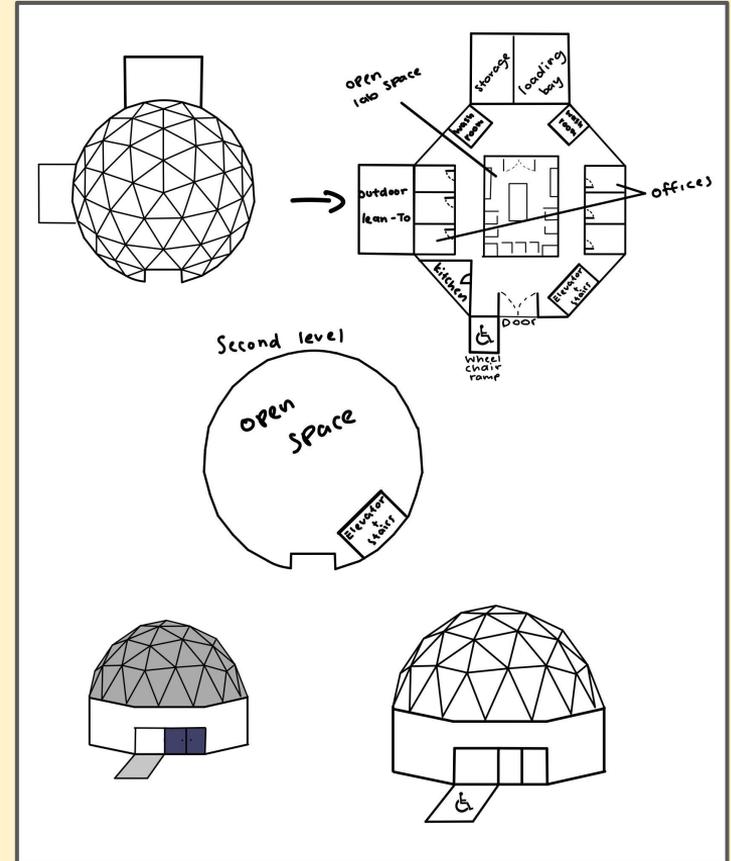
It also has a dome atop the building, making a second floor, which acts as an open space for activities.



Chosen concept

This final concept was generated using the three initial concepts the team came up with. It features a lab space, offices, a storage area and loading bay, a kitchen, as well as a lean-to outside.

It also has the glass dome that appeared in the three concepts, acting as a second level and open space for any activities.

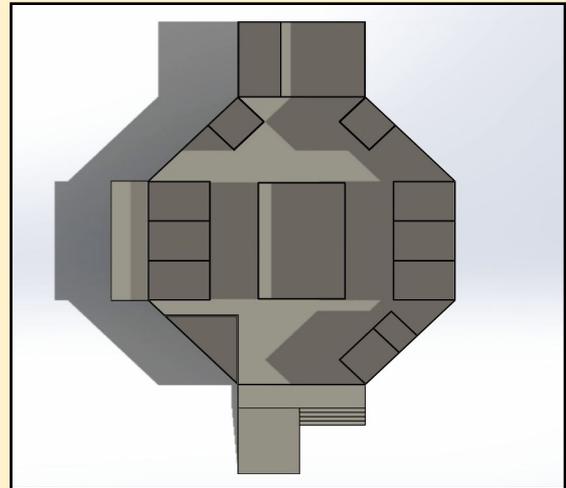
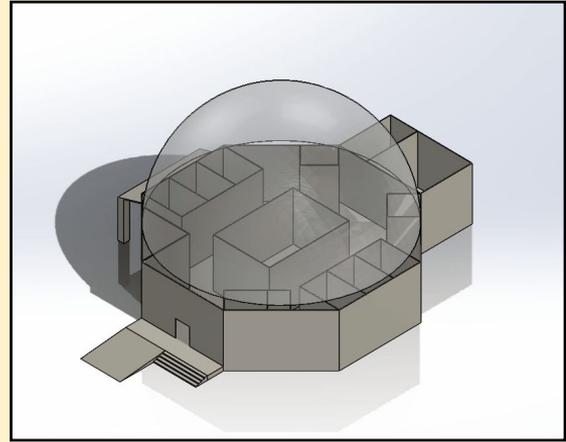


First Prototype

The first prototype is a two story building. The first floor holds the laboratory, offices, bathrooms, kitchen, storage space, and the garage. The second floor is open concept, enclosed by a glass dome. Some key features are:

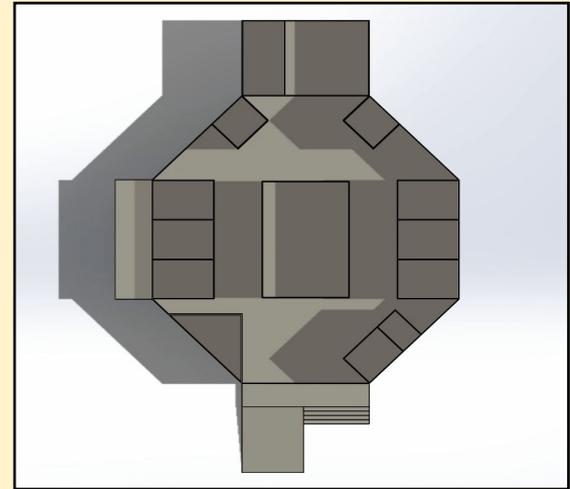
- The laboratory in the center of the building, easily accessible with double wide doors.
- 6 offices along the sides of the building.
- The two bathrooms are on either side of the garage and storage space.
- The kitchen.
- The elevator and stairs leading to the second floor.
- A lean-to for vehicle storage on the buildings left.
- A wheelchair ramp at the main door for accessibility.

*Note: Not pictured is the floor of the second story for visual purposes.



Issues with first prototype

After the final client meeting, it was clear that the client's favoured designs that featured buildings with 15-20 offices. As it currently was, our prototype did not have enough space to accommodate that many extra rooms.



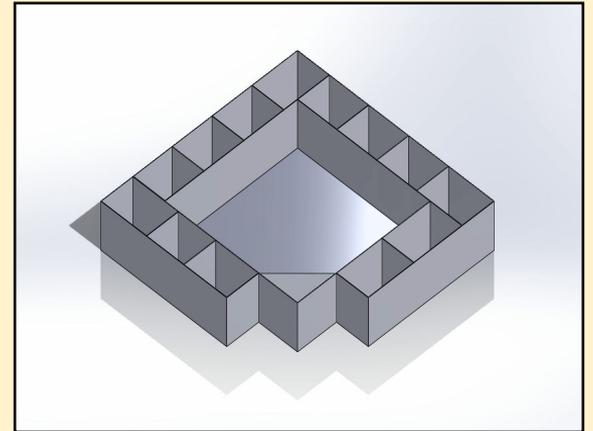
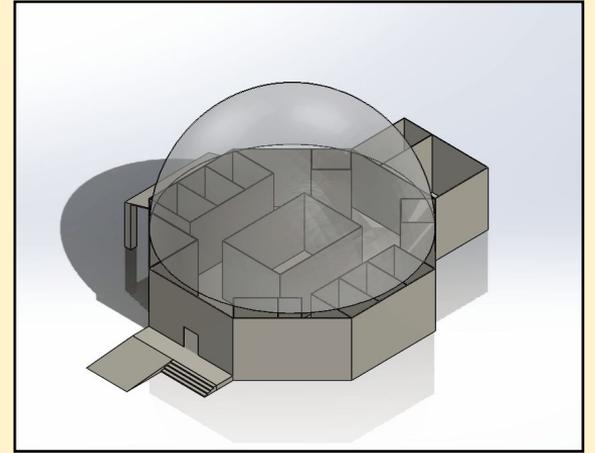
- 6 offices

Second Prototype

The second prototype has the same first and second floor as the first prototype. There was need for more offices, and the first floor did not have the space needed to accommodate them.

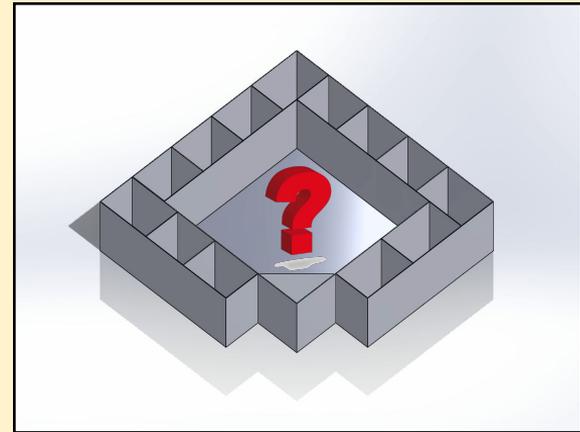
The solution was to create a basement, so that there could be enough space for the extra rooms without cramming them all together. The addition included:

- 13 new offices downstairs.
- Extension of the elevator/stairs.



Issues with second prototype

The first issue was that the addition of the basement left a large empty space in the middle of the floor. This did not satisfy us, as it was not an optimization of all the area we had. The second issue was that there was no room to hold meetings, if there was such a need for multiple employees or people to come together formally.

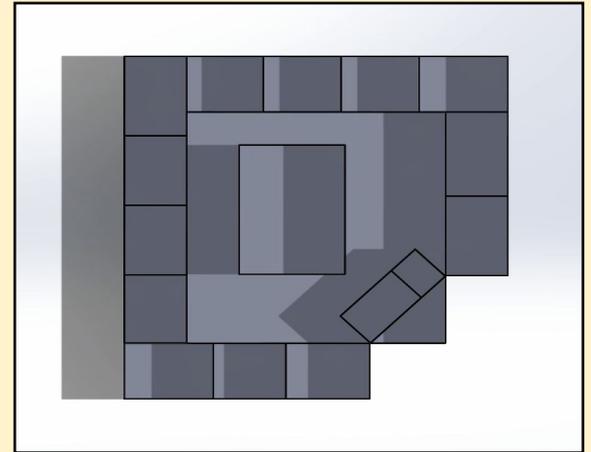
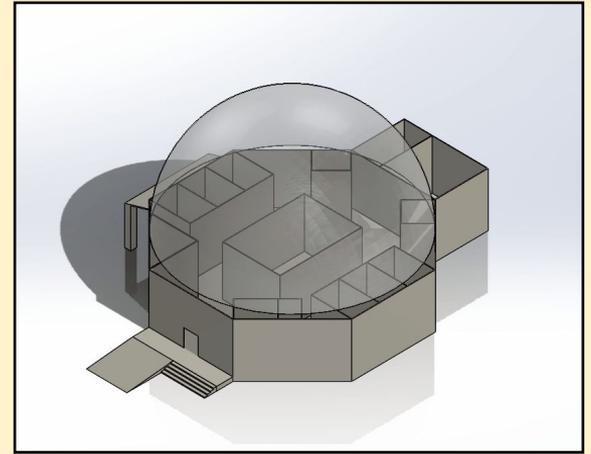


Third Prototype

The third prototype has the same first and second floor as the first prototype. There was a lack of optimization of the basement area, as well as no space for meetings to be held.

The solution was to create a room in the basement, to fill up space as well as provide a meeting area.

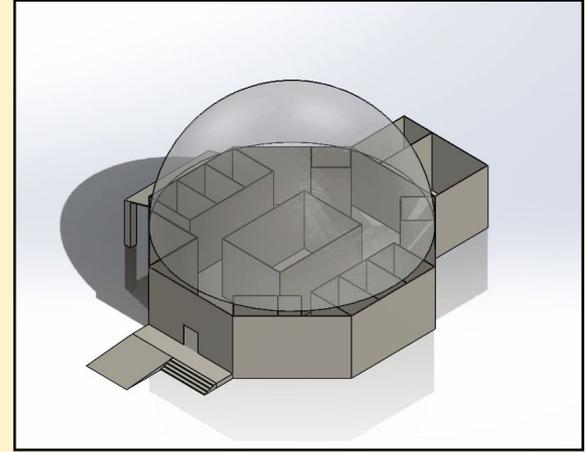
- A boardroom.



Final Design

Following the final client meeting, our feedback consisted mainly of issues with the glass dome. The client felt it did not fit their needs. There were no complaints of the interior. This left us with the question,

What can we do?

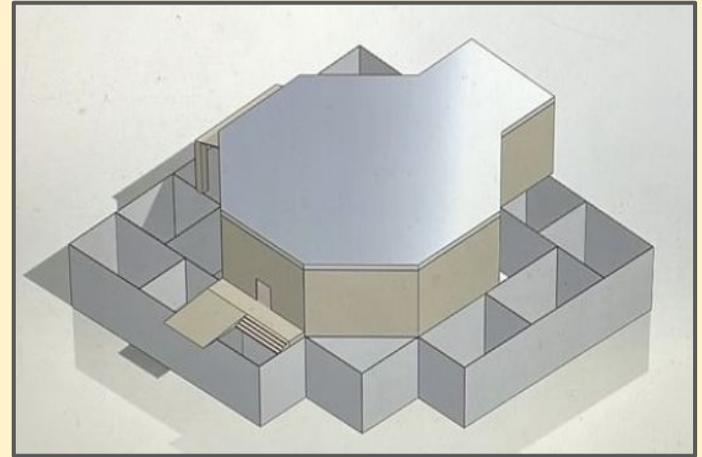


- UV Radiation
- Acoustics
- Thermal Performance
- Structural Integrity
- Condensation

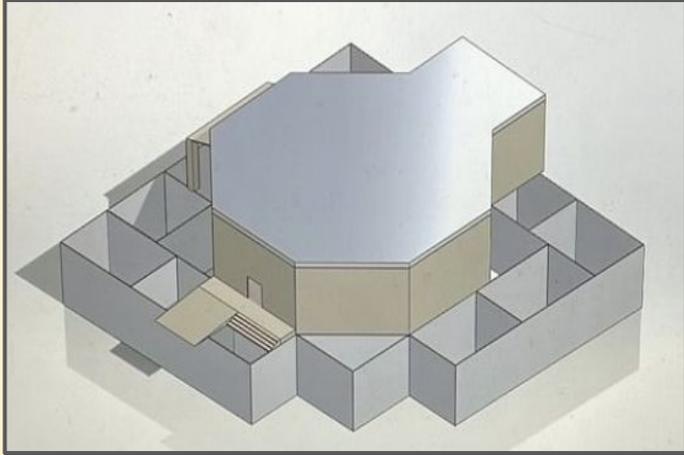
Final Design

Our solution:

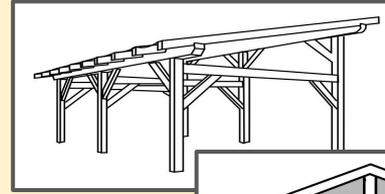
Given the time constraints, redesigning entirely was out of the question. Though the shape of our building was based on the dome, removing it did not cause trouble with the interior.



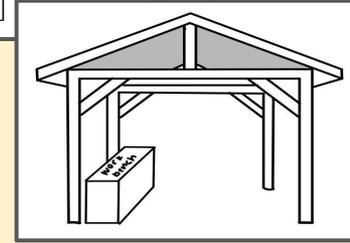
Final Design



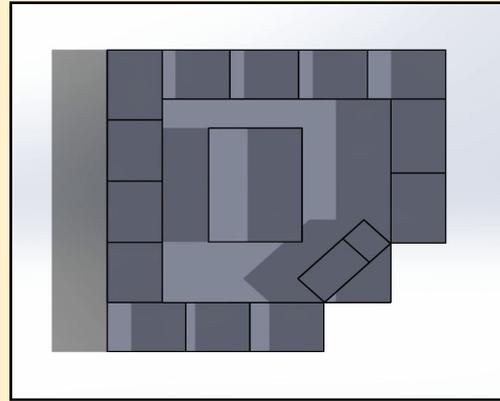
First floor vs basement size



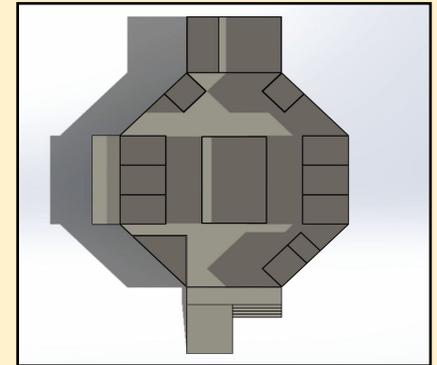
Lean-to



Outdoor
Community
Space



Basement interior



First floor interior