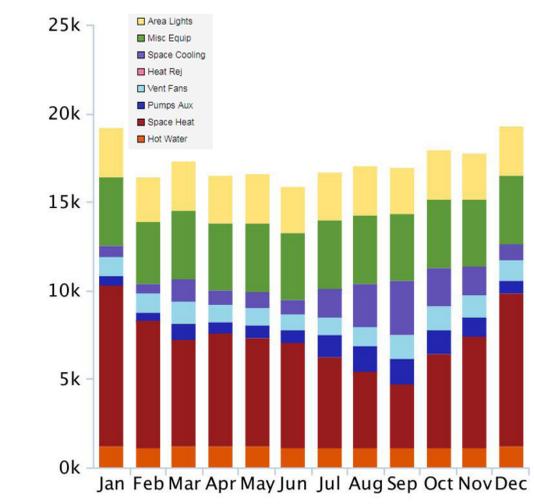
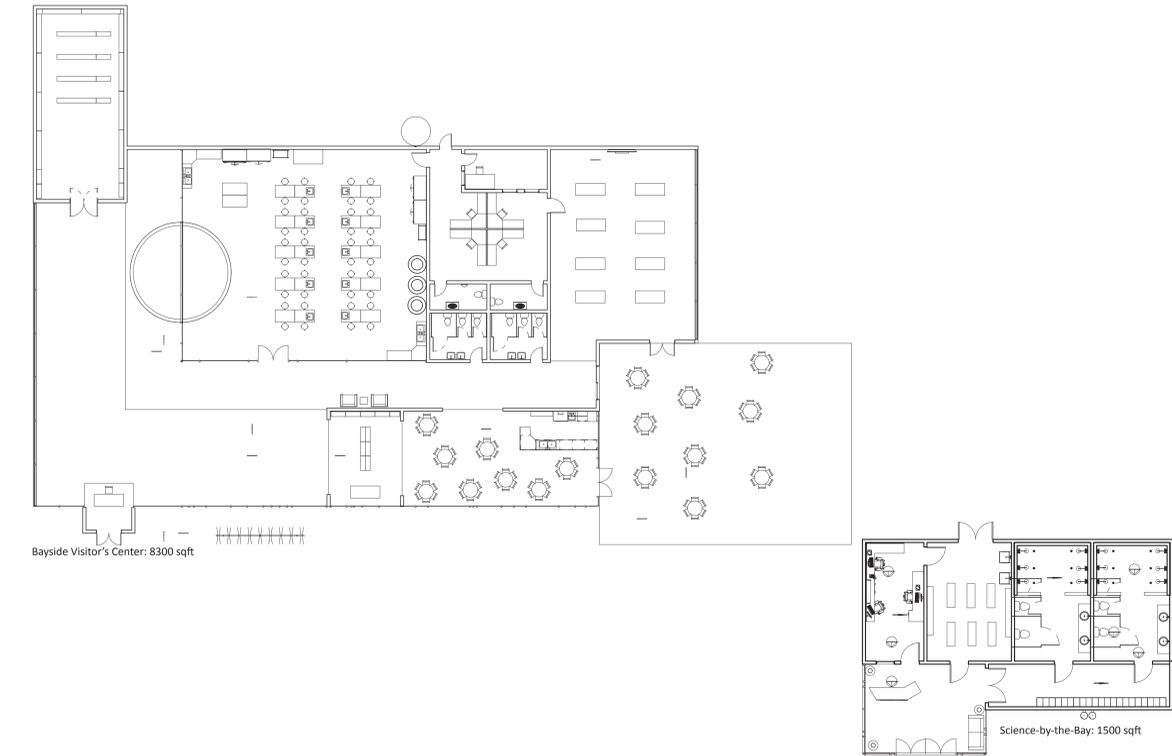


The main goal of our project was to create an environmentally friendly and self sustainable research facility and storage space. This includes using alternative energy sources and using the surrounding landscape to make the buildings more sustainable. The large curtain walls will allow for plenty of natural sunlight to enter the building during the day.

For the main energy source we used solar panels. We thought this would be the best choice as there is a lot of exposure to the sun year round. With the amount of sunlight for photovoltaic and natural indoor lighting, the building will not need to turn to other energy sources for all of the buildings appliances. On the Bayside Visitor's Center, there would be roughly 834 solar panels that would be enough to power the entire building. Each solar panel produces on average 265 watts for about 8 hours a day. This means that on an average day, the solar panels would produce over 1,700,000 kWh.

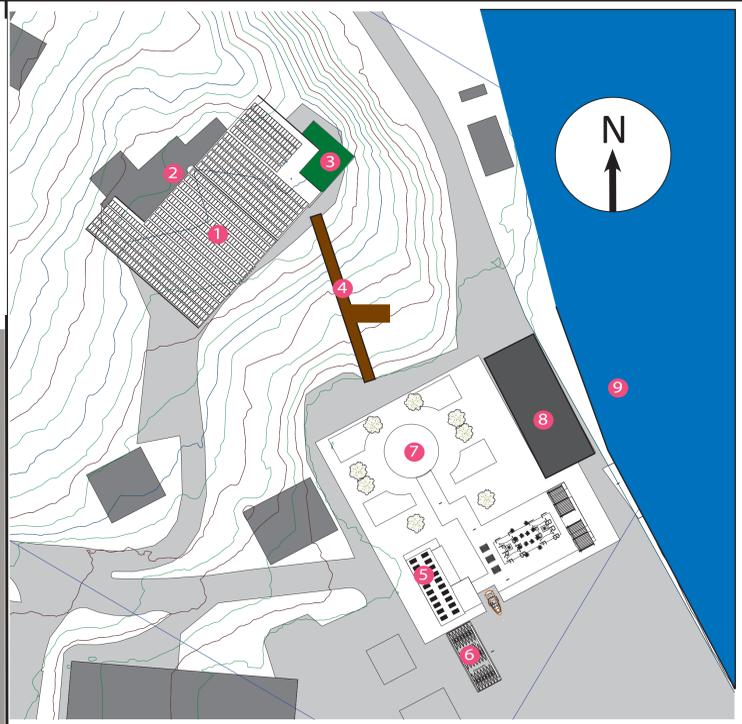
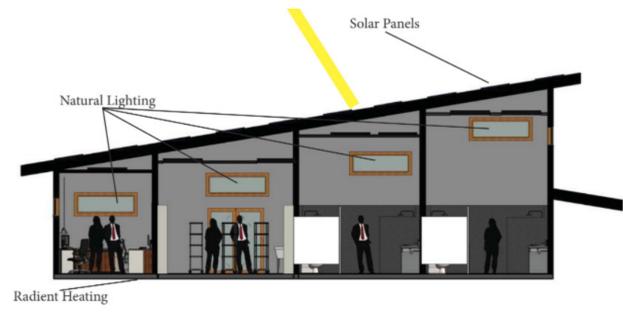
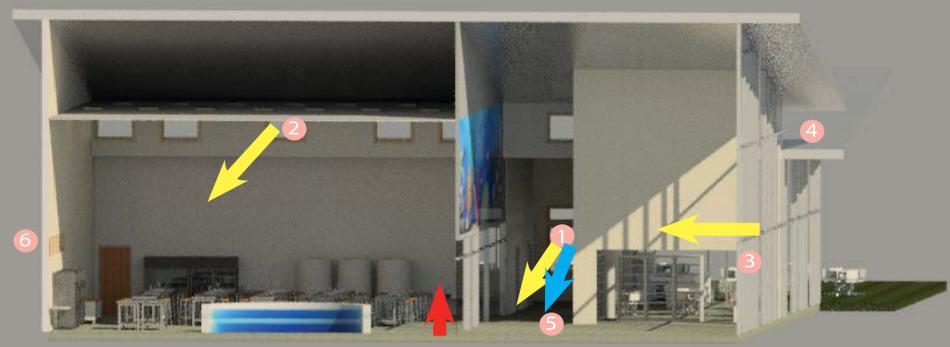
To help conserve water, we have implemented water collection methods to our rooftops. This water would be used for the lab, showers and other appliances. The main use for this water would be for radiant heating. Radiant heating is a better method for distributing heat and is much more energy efficient than other methods.

Both buildings implement all of these methods of photovoltaic, radiant heating, and water collection to contribute to our goal of zero net energy.



	Calculated Energy Use (kBtu/sf/year)
HVAC	1.54 kBtu/sf/year
Lighting	.59 kBtu/sf/year
Appliances and Plug Loads	1.53 kBtu/sf/year
Domestic Hot Water	1.3 kBtu/sf/year
Total Building Consumption	4.96 kBtu/sf/year
Total Exhibit Consumption	2 kBtu/sf/year
Gross EUI	6.96 kBtu/sf/year
Renewable Production	-42.05 kBtu/sf/year
Net EUI	-35.09 kBtu/sf/year

- 1 Windows for cross ventilation, lighting
- 2 High windows for lighting
- 3 Curtain wall for natural light and heat, views of bay
- 4 Solar Panels for renewable energy sources
- 5 Radiant heating
- 6 *Not Pictured* Rainwater collection



- 1 Bayside Visitors Center
- 2 Rainwater Collection
- 3 Picnic Area
- 4 Stairs with Lookout
- 5 Science-on-the-Bay
- 6 Boat/Kayak Storage
- 7 Courtyard
- 8 Historic Theater
- 9 San Francisco Bay