



NANTUCKET

living with water

SALONI MODI

Nantucket living with Water



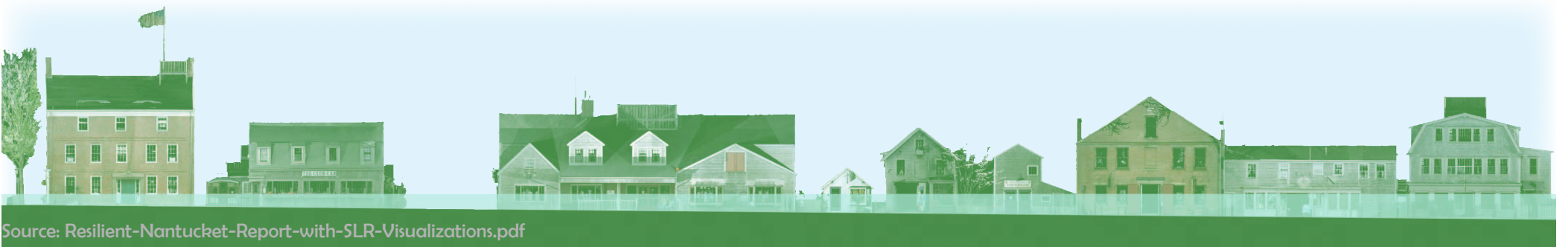
Source: Cover of New York 2140. Illustration by Stephan Martiniere. Design by Kirk Benshoff.

Prologue

Today, our 2101 world map looks very different from that of 2020. The sea levels have risen more or less by twelve-foot across the globe. Most of the famous beaches of the world have disappeared into the oceans. The coastal cities like Miami, Venice, Mumbai, have become something else entirely - famous diving spots to explore the submerged cities. While atoll islands like Maldives are lost to the ocean, there are a numbers of metropolis islands formed by the ocean. With every rising inch of sea level, the water continues to invade more of the coastine, spearing deeper and deeper into the cities. These islands are low-lying cities that are now disconnected from the mainland by the ocean. Today the metropolis island of New York City is a hundereds of skyscrapers rising from the ocean interconnected by a networks of water canals and skybridges. Like the New York City, most of the metropolitan cities around the world exhausted their city budgets to survive with the rising sea. Some strategized to avoid and resist while some to accomodate. Only a few succeeded and these few are still struggling to survive even today, since the same story persists - the global warming is melting ice sheets, and the sea levels are rising. The rising water is engulfing more and more land making continents grow apart.



Source: Resilient-Nantucket-Report-with-SLR-Visualizations.pdf

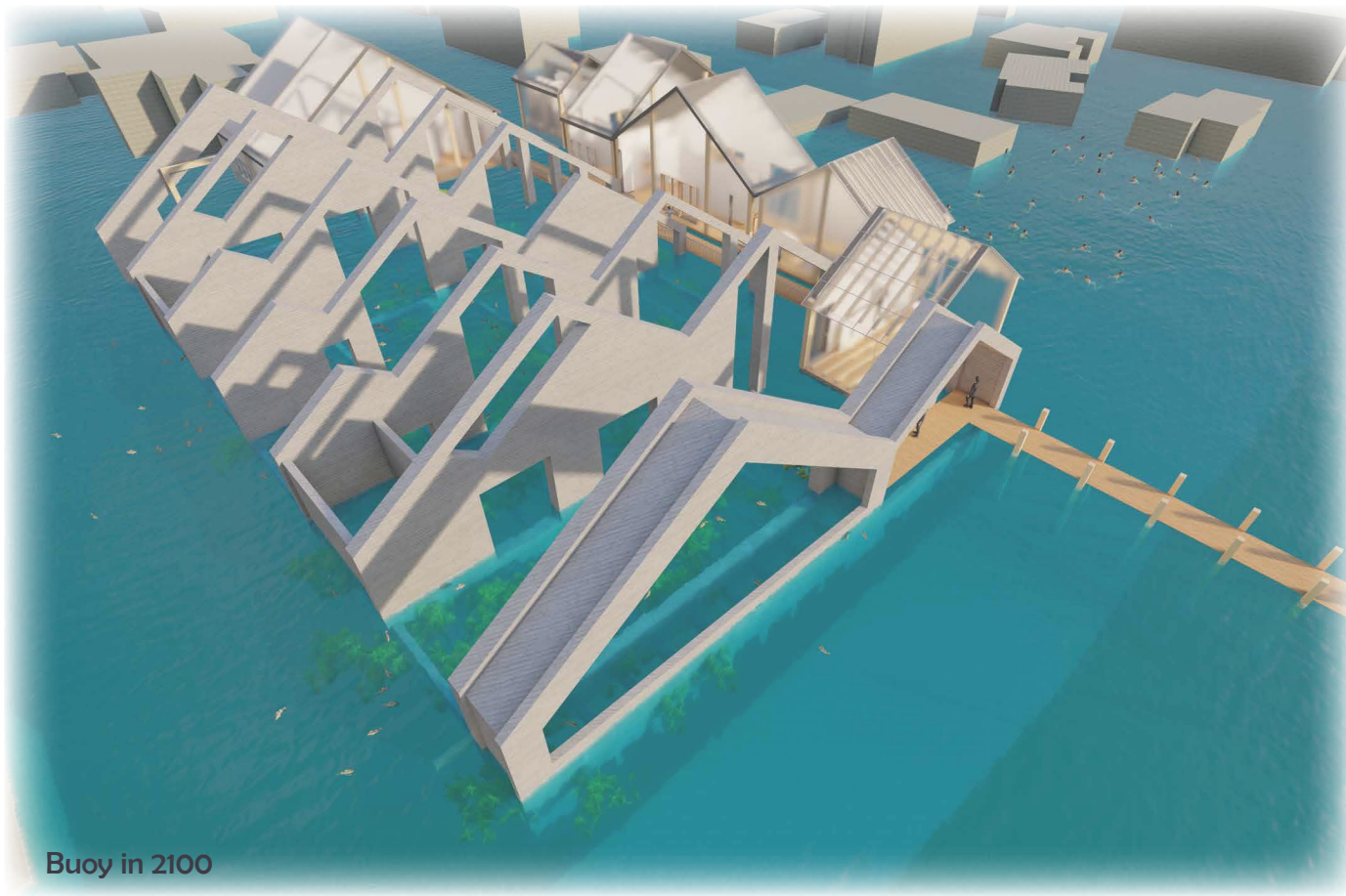


Source: Resilient-Nantucket-Report-with-SLR-Visualizations.pdf

Nantucket Live

By late 2030s, every high tide started flooded the wharves and downtown streets with atleast a foot of water. The water kept rising by a foot every decade. Tourists and beaches both disappeared alike. But the worst came with the hurricane in 2075. The hurricane's 165-mile-an-hour winds with the eighteen-foot storm surge overwhelmed the city. The fatal storm submerged most of the downtown and swept off the historic houses on the wharves. The flood water did not recede completely, leaving the downtown in eight-foot water. Today, at the start of 22nd century, the sea level is twelve-foot higher. Most of the downtown is overrun by water. In the beginning of 21st century, approximately 17,000 people lived on the island year round with more than 11,000 residing seasonally. In 2017, there were some 500,000 visitor trips to the island.¹ Most of the people fled to the mainland to start a more secured life. It may seem like, the rising sea levels must have killed the 'Islomania', but the news says otherwise. It is been reported that Zade cruise lines is buying nearly all of the Nantucket Island. The company plans to revive the crumbling island by transforming it into a premier tourist destination.

¹ Information from the Nantucket Data Platform: www.nantucketdataplatfrom.com.



Buoy in 2100

BUOY WHARF

In the 21st century, Nantucket used to be 48 square miles in size with 88 miles of coastline. According to Graham Giese, director of the Land & Sea Interaction Program at the Center for Coastal Studies in Provincetown, Massachusetts, Nantucket is losing six acres of upland annually to sea level rise. Today the significance of the island has shrunk drastically just as its size.

Zade cruise lines has shown interest in the island by investing in phase two of the “Buoy”. Buoy opened a few months ago after being refurbished into a wharf. The wharf is a part of the Zade’s plan to revive the island.

Buoy in 21st century was used as an art center. It consisted of 8 units that formed the spaces and a concrete frame to hold these units. These units were designed to float individually when required. In the 22nd century, Buoy is renovated to be used as a wharf. The

arrangement of the units along a walkway replicates the Nantucket's Old South wharf and Straight wharf to provide a spatial experience of these wharves, which are now lost to the ocean.

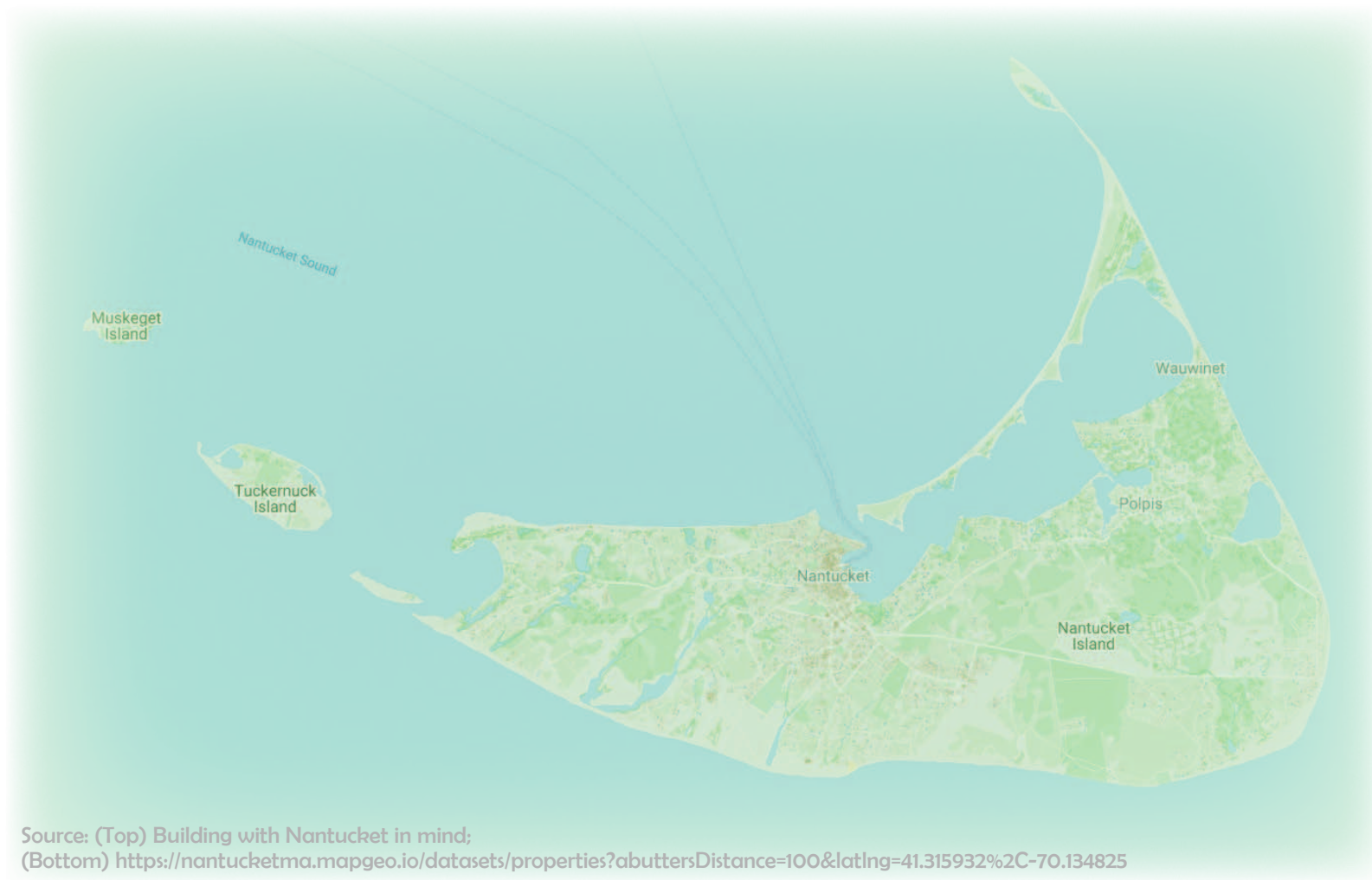
Buoy can be accessed through water only hence there is a pier to dock boats and yachts. At Buoy, the visitors eat and imbibe at the restaurant while enjoying uninterrupted views of the sea. The restaurant serves seafood that is bred and harvested in Buoy's fish farms. Alongside the farm and food, the guests have an opportunity to indulge in water recreational activities like kayaking, swimming, snorkelling and scuba diving, while exploring the wreckage of Nantucket downtown. Buoy also has a small art gallery as a remnant of its past.

The project has sustainable systems, like water monitoring laboratory, turbines for energy generation and a natural waste system, that facilitate the day-to-day activities.



Night view of Buoy in 2100

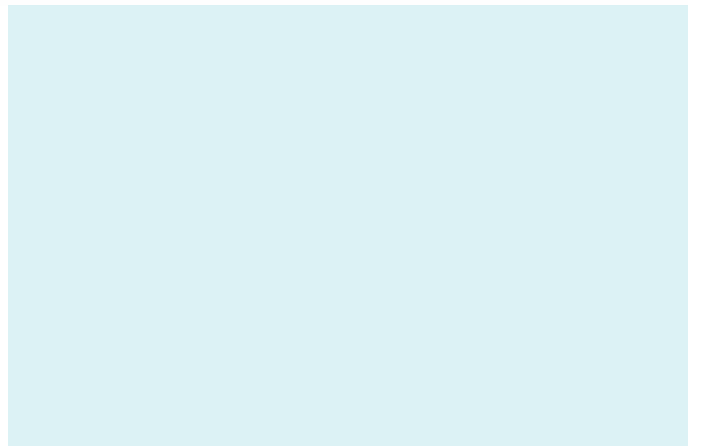
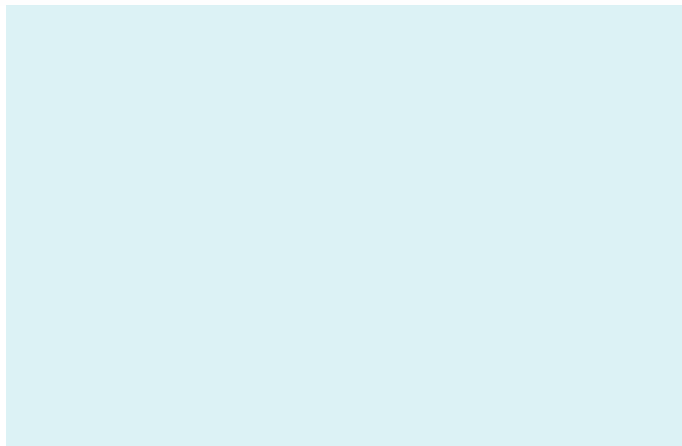
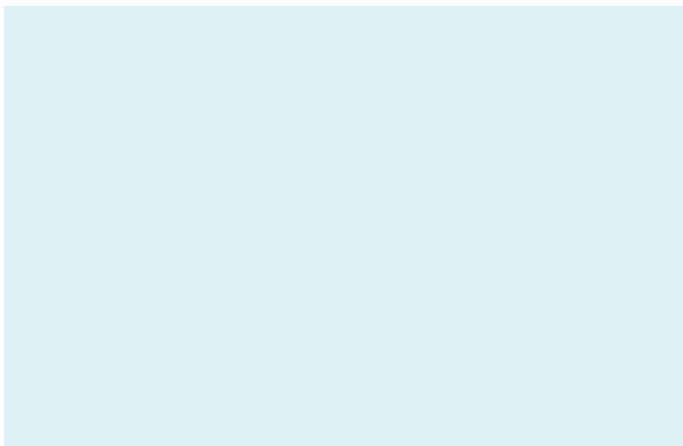
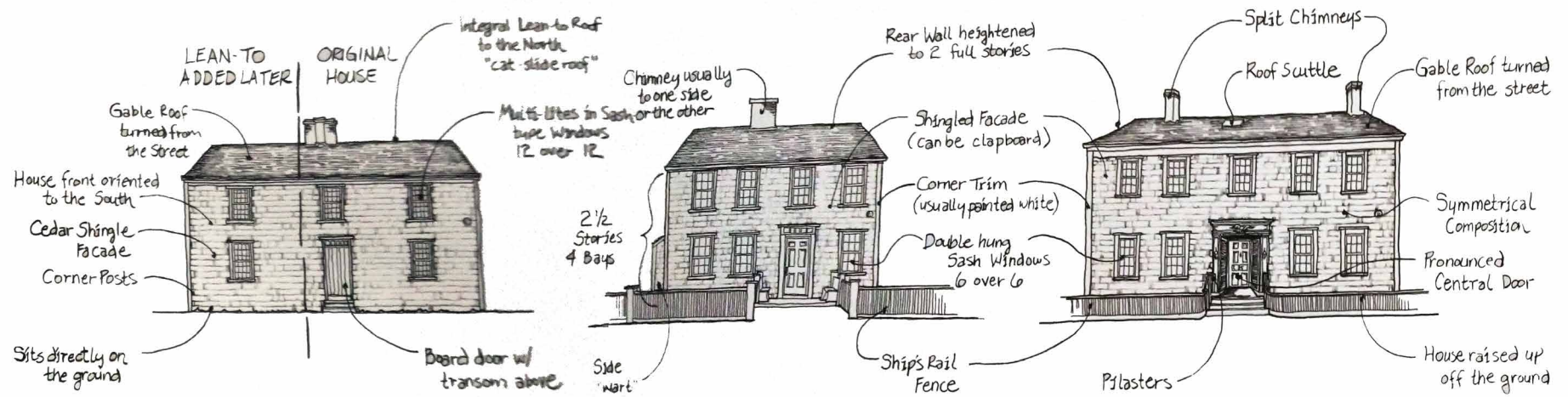
Nantucket living with Water

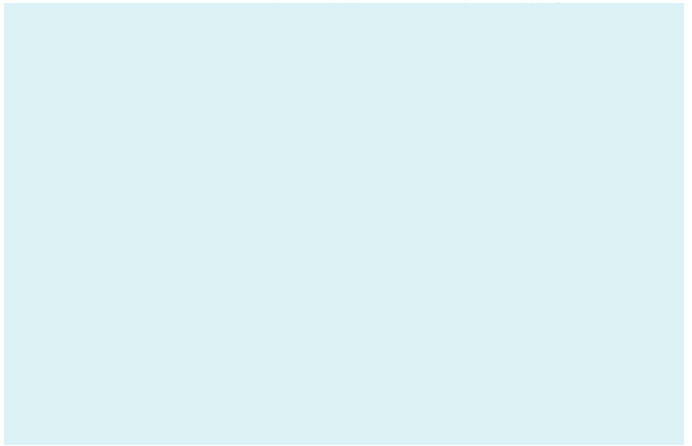
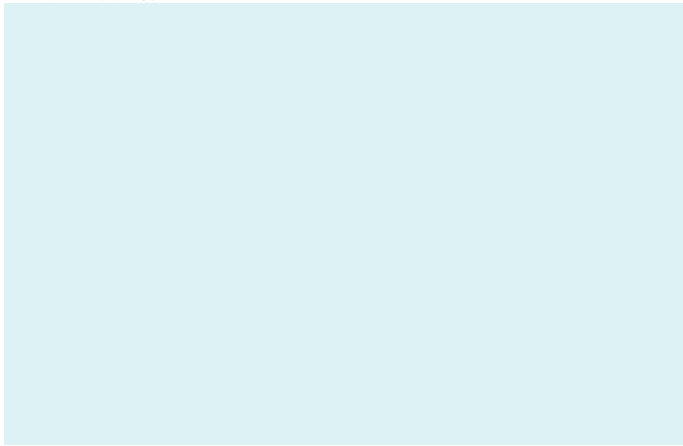
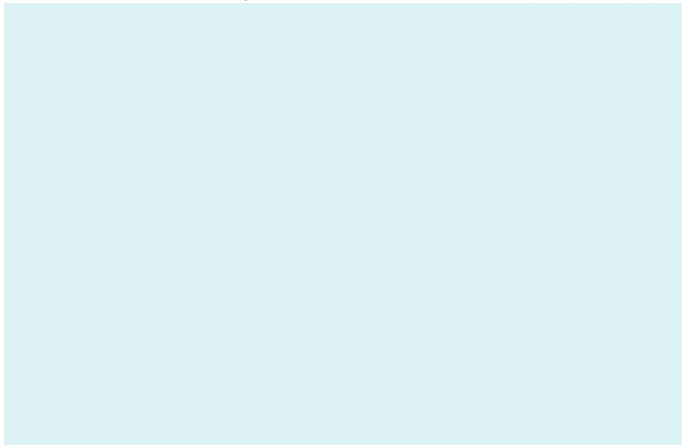
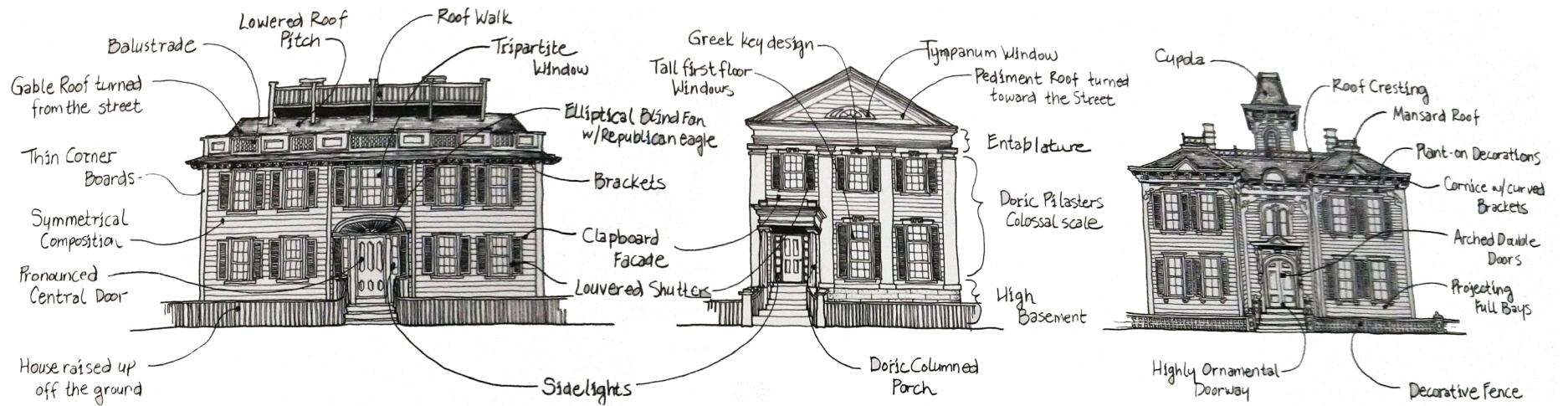


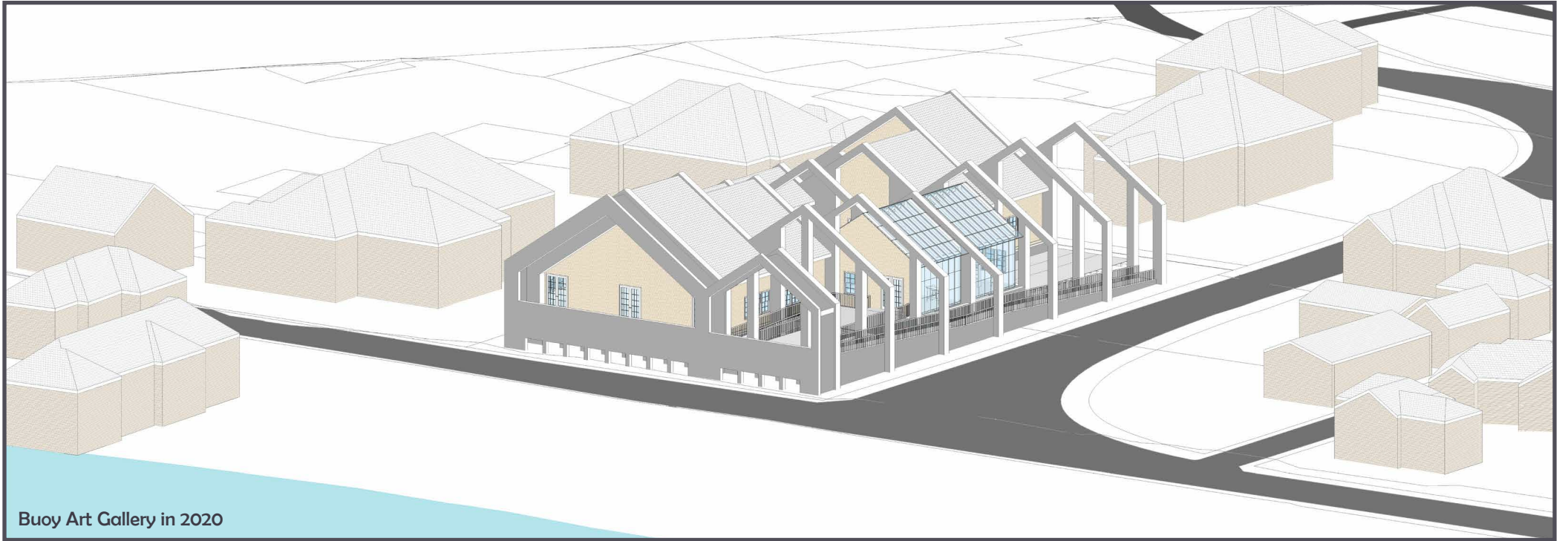
Source: (Top) Building with Nantucket in mind;
(Bottom) <https://nantucketma.mapgeo.io/datasets/properties?abuttersDistance=100&latlng=41.315932%2C-70.134825>

Nantucket through Centuries

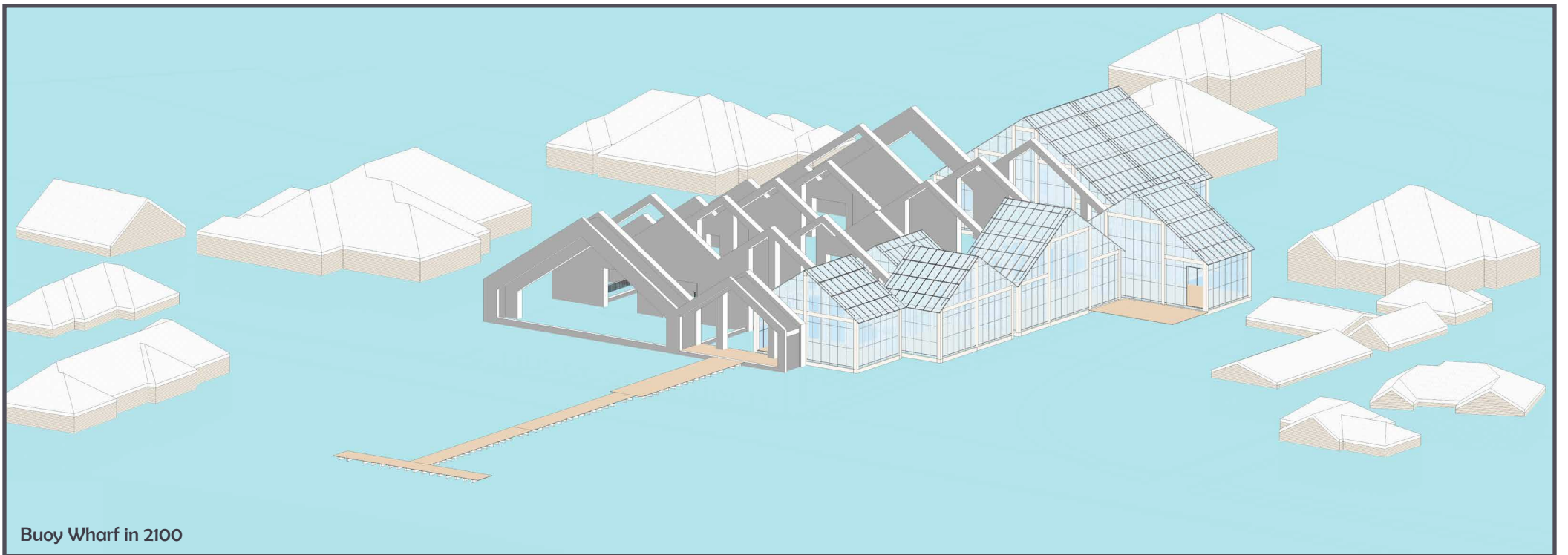
Human habitation on Nantucket traces back to the Paleolndian Period, pre-dating the time when rising temperatures and retreating glacier formed this island. Though the island came to existence only in 1602 when Bartholomew Gosnold, first charted its location (Fig.1). At the time, approximately 3000 Wampanoags inhabited the island. In 1641, the island was purchased by Thomas Mahew, but was not settled until 1659 when Thomas Macy led a group of Quakers to found a settlement near Capaum Pond (Fig.2). The settlement and harbour soon moved to the Nantucket habor due to stiling of the Capaum pond. By 1715, Nantucketer began deep-ocean whaling. Soon by mid-1700s, Nantucket became the whaling capital of the world. The eighteenth century was a century of growth and prosperity for Nantucket. Though the downfall of the island's whaling economy began with The Great of 1846. And the last blow to whaling was the Confederate Commerce raiders in 1865. By late-1870s, Nantucket had re-eshtablished its economy around tourism. Large whaling houses were converted to hotels and candle factories to art studio to keep the tourists entertained. Nantucket benefited for it's tourism economy until late 2040s, when Nantucket became an island in perils due to coastal flooding and sea level rise.







Buoy Art Gallery in 2020



Buoy Wharf in 2100

Nantucket adapting

Architecturally, Buoy blend in with the cultural heritage of Nantucket with its wood shingle walls, gable roof and a simple form. It was also considered contemporary in a way due to the thick concrete frame that held the wooden units.

The art residencies next door where flooded with 12ft of water, not functioning any more and hence making Buoy's complimentary program redundant.

Every day, little by little, the water is rising, washing away beaches, eroding coastlines, pushing into homes and shops and places of worship.

In the 21st century, Nantucket used to to be 48 square miles in size with 88 miles of coastline. The island was one of the United States' largest National Historic Landmark Districts with over 800 pre-1860s structures contributing to its historical, cultural, and architectural significance.

The island is coextensive with Nantucket town (township); with Tuckernuck and Muskeget islands to the west, it forms Nantucket county.

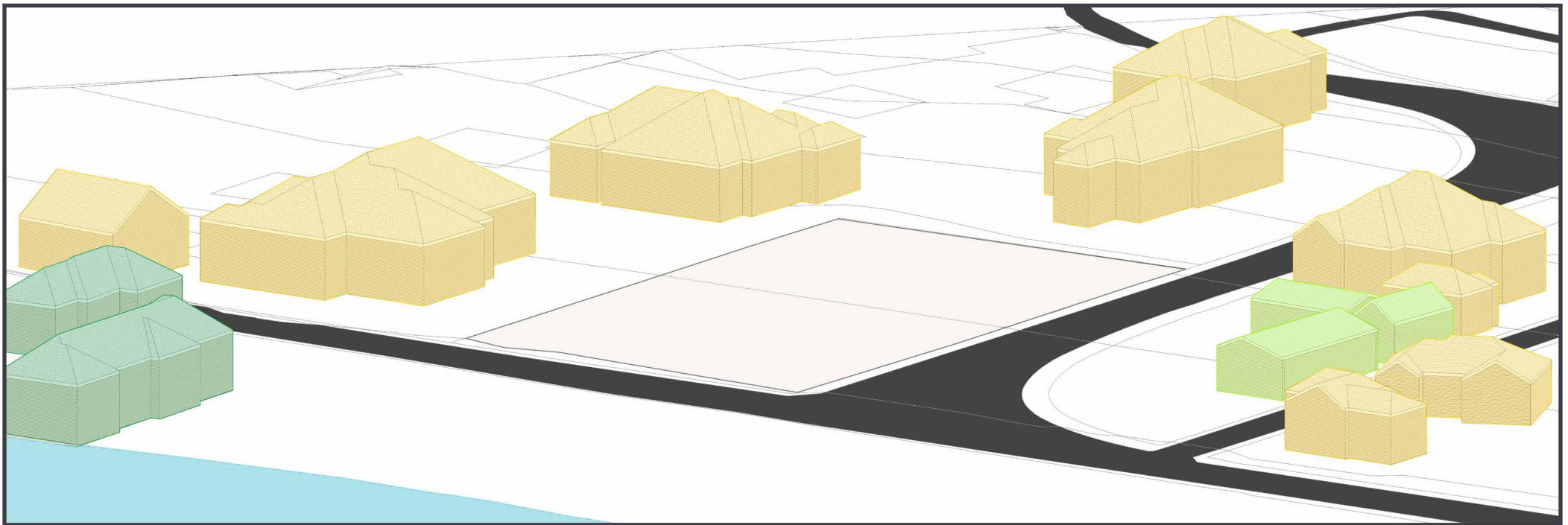
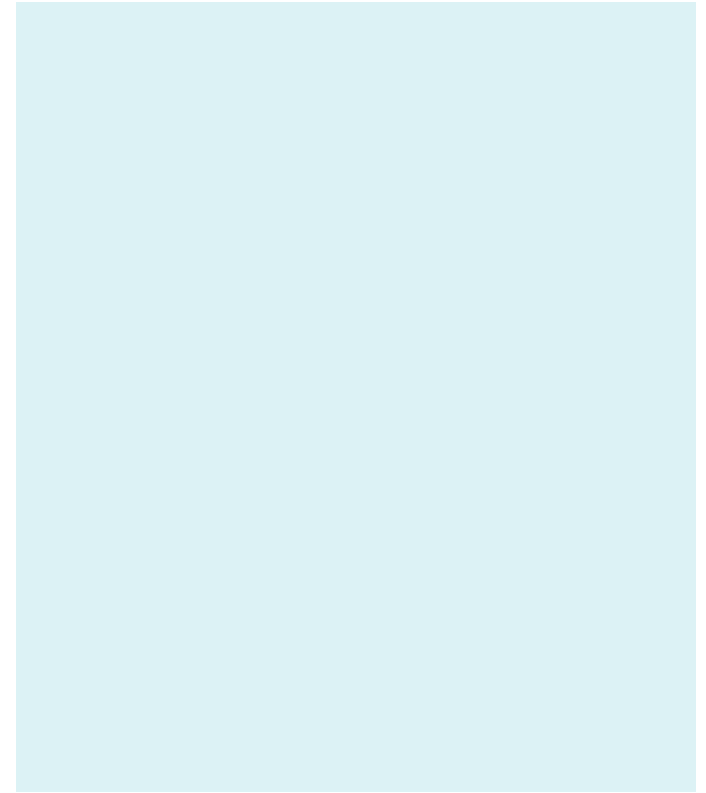
Archiplego_atolls_water leve;s have risen by 12ft since 2001.

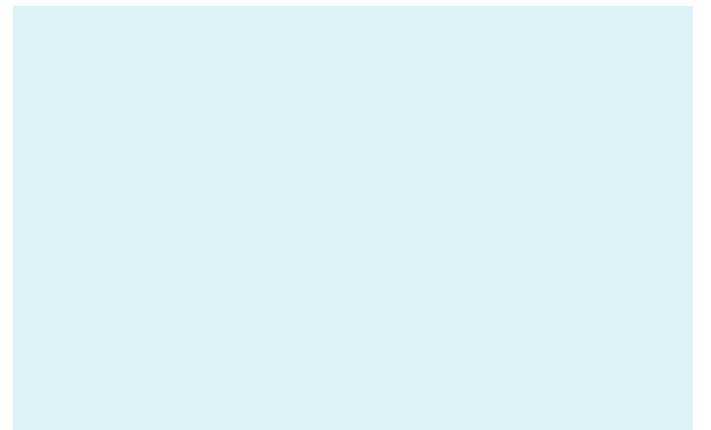
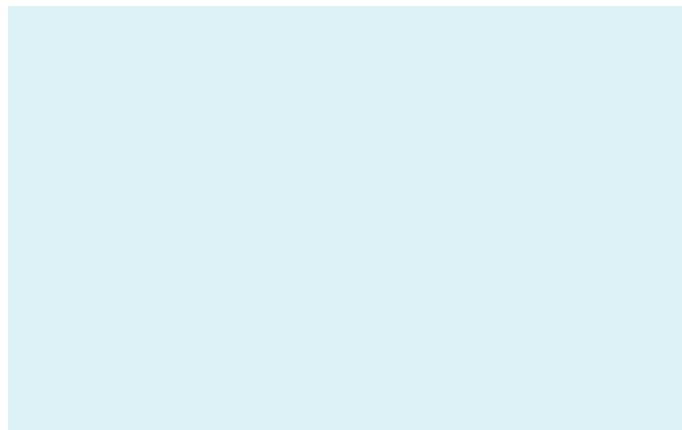
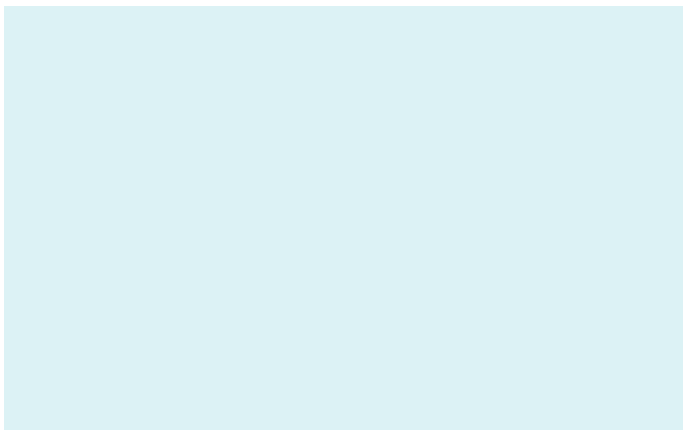
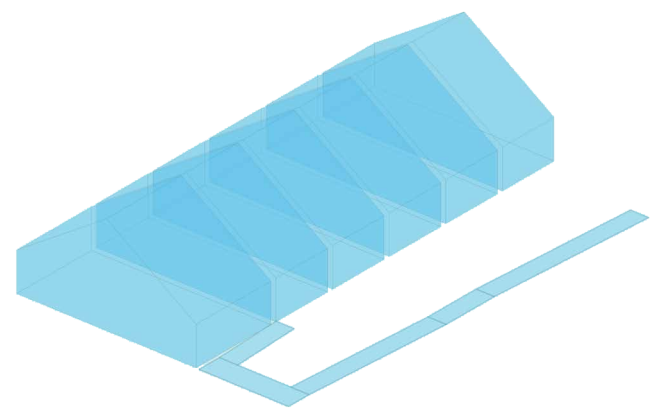
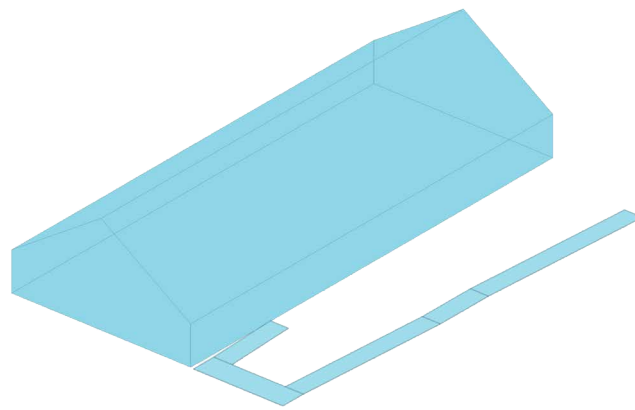
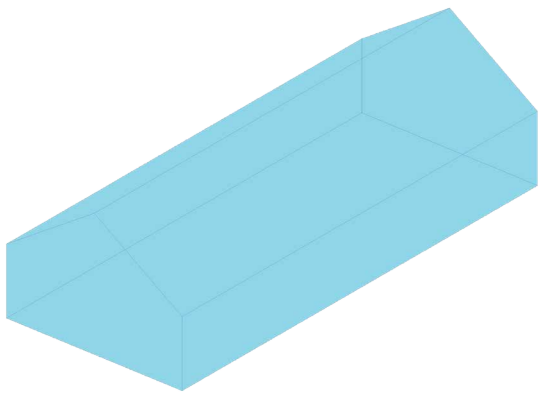
Nantucket living with Water

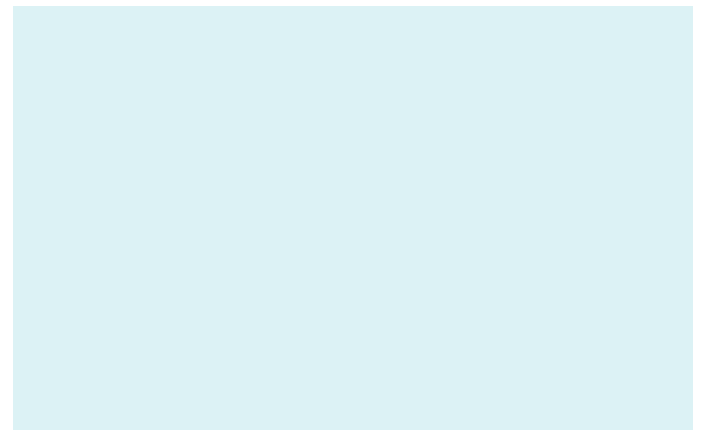
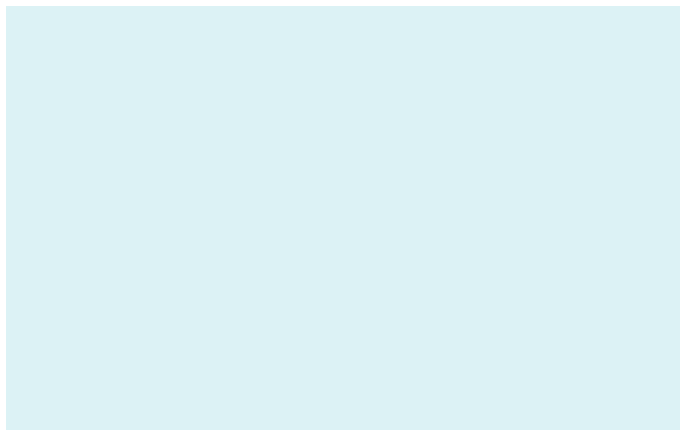
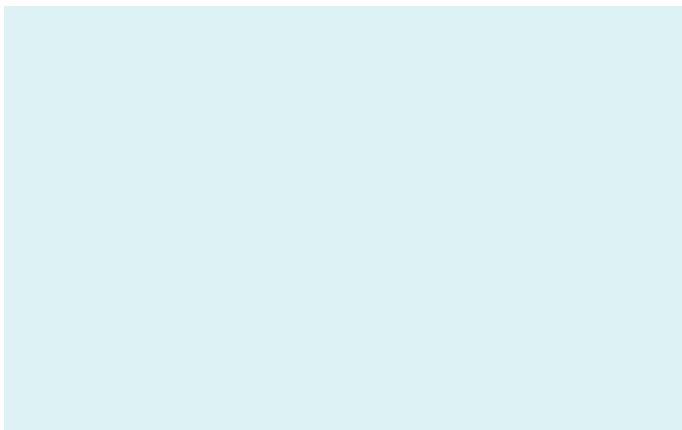
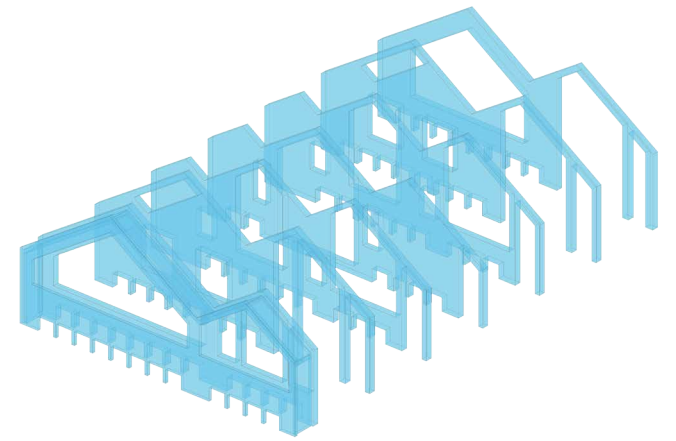
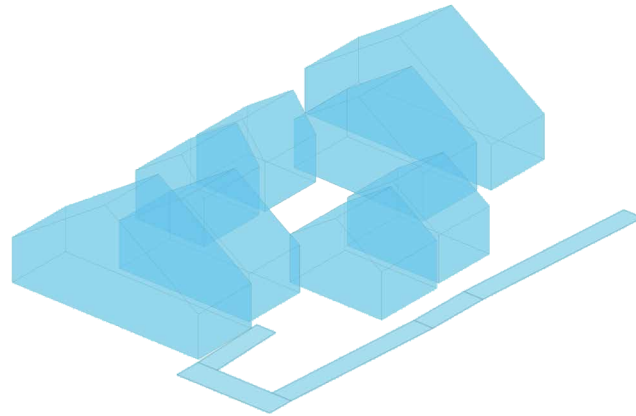
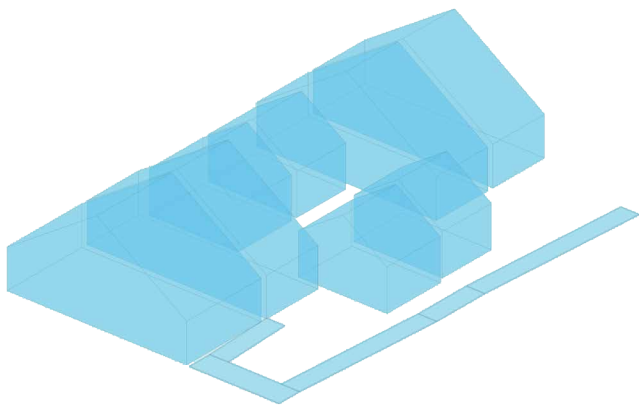


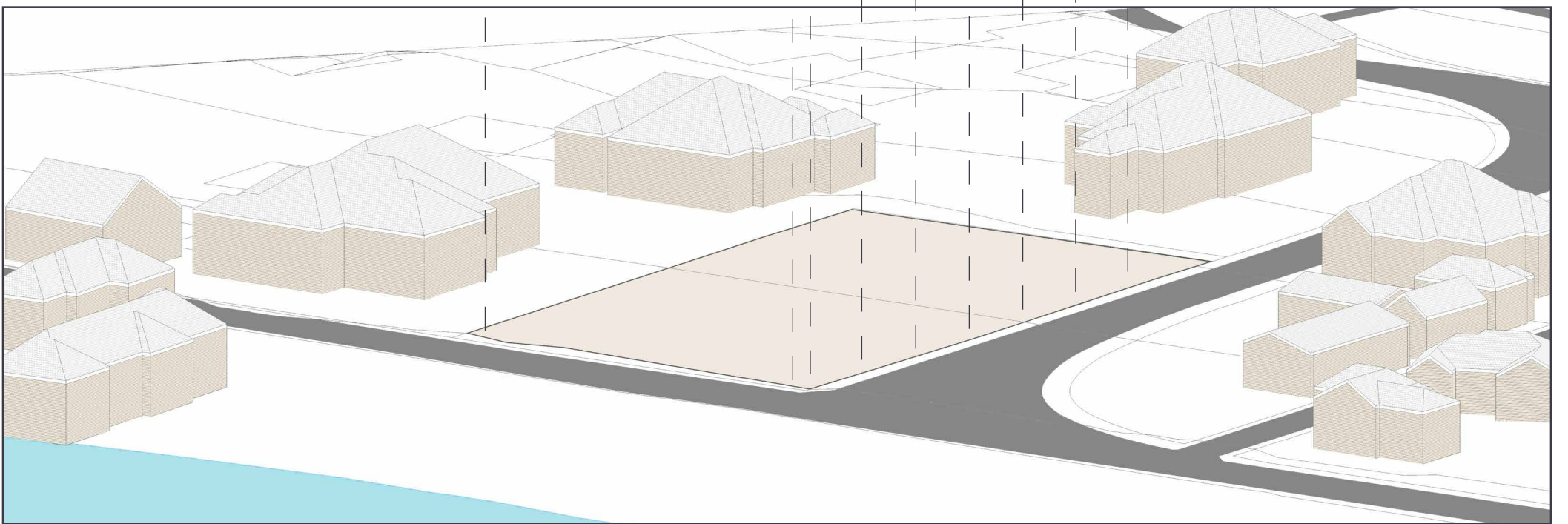
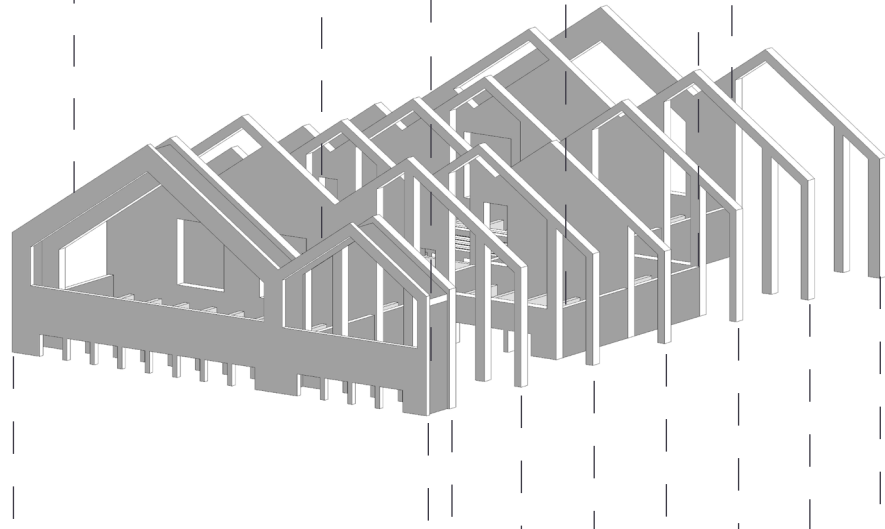
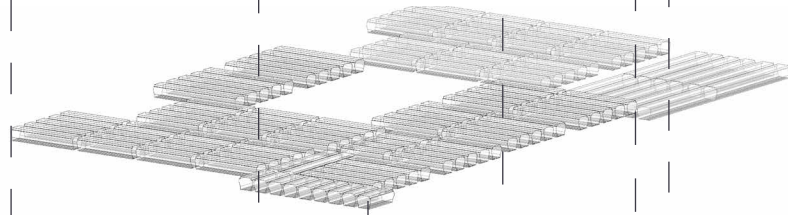
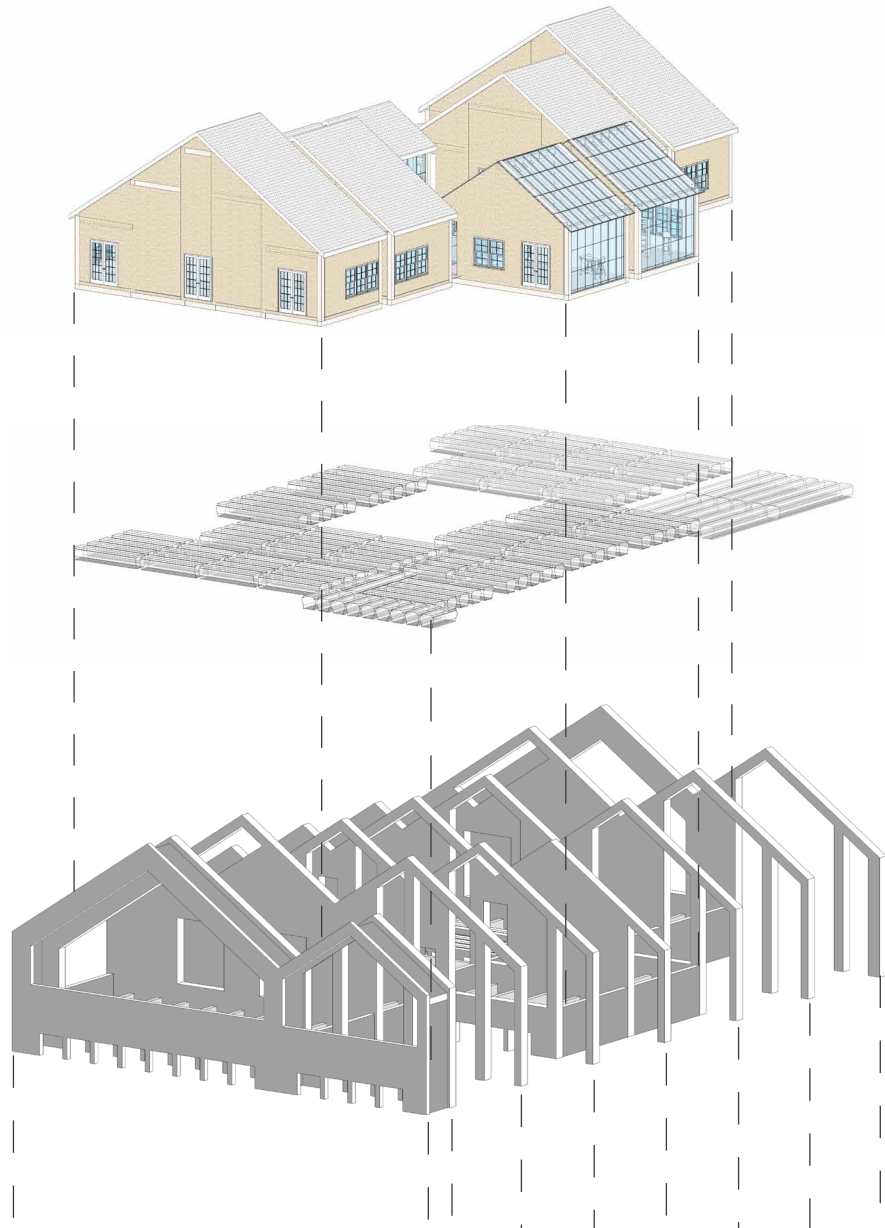
Site view of Buoy in 2020

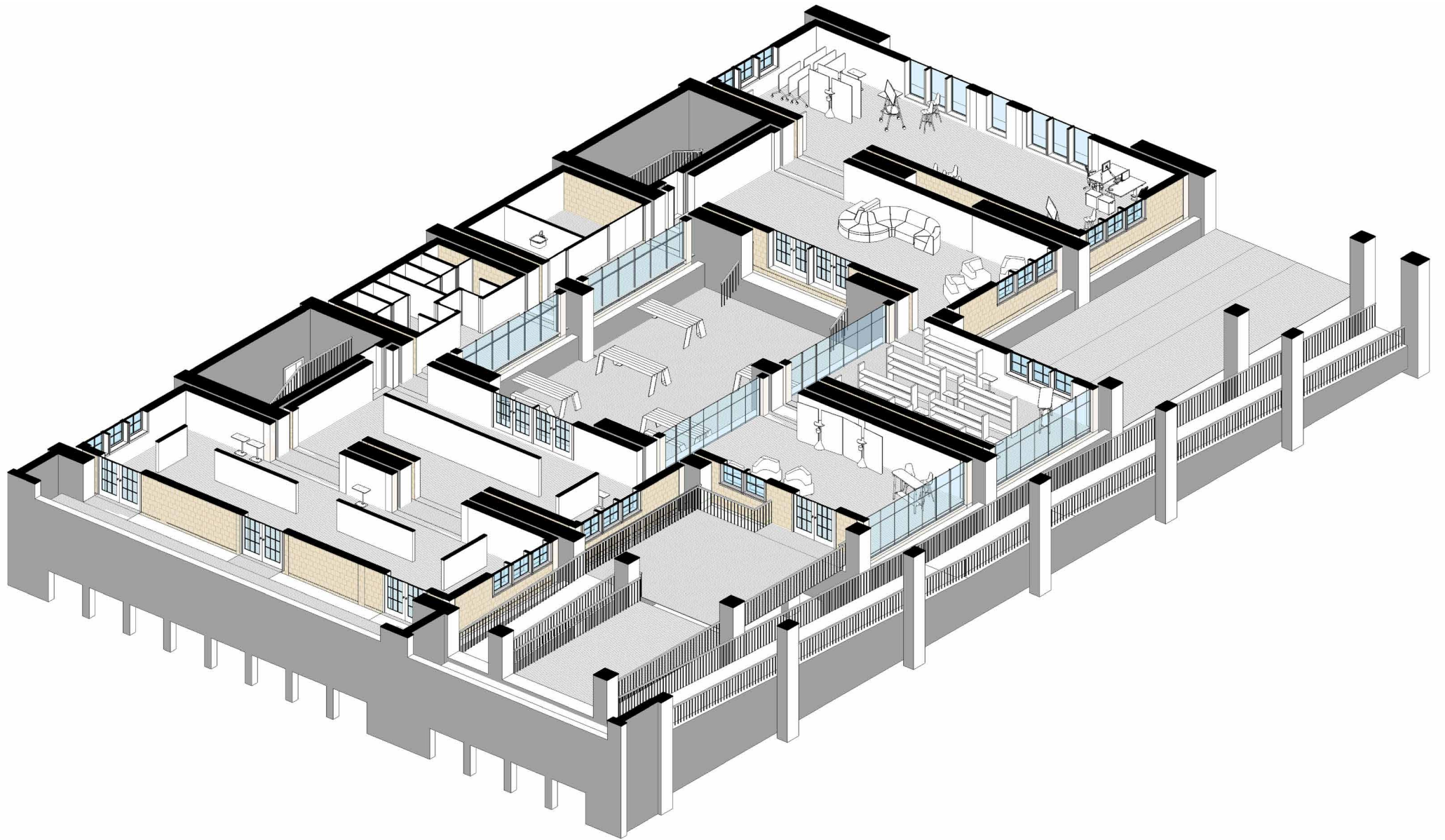
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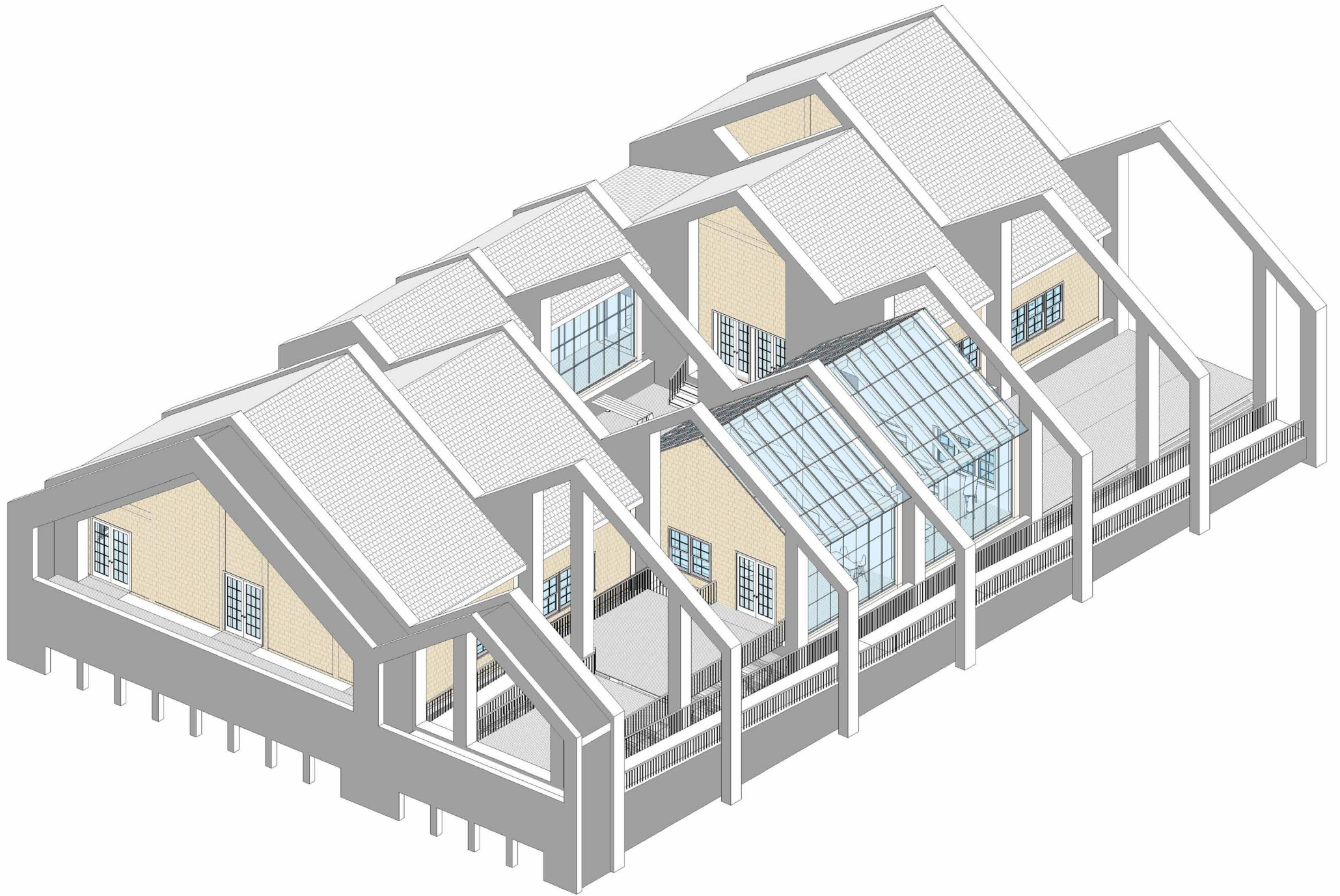




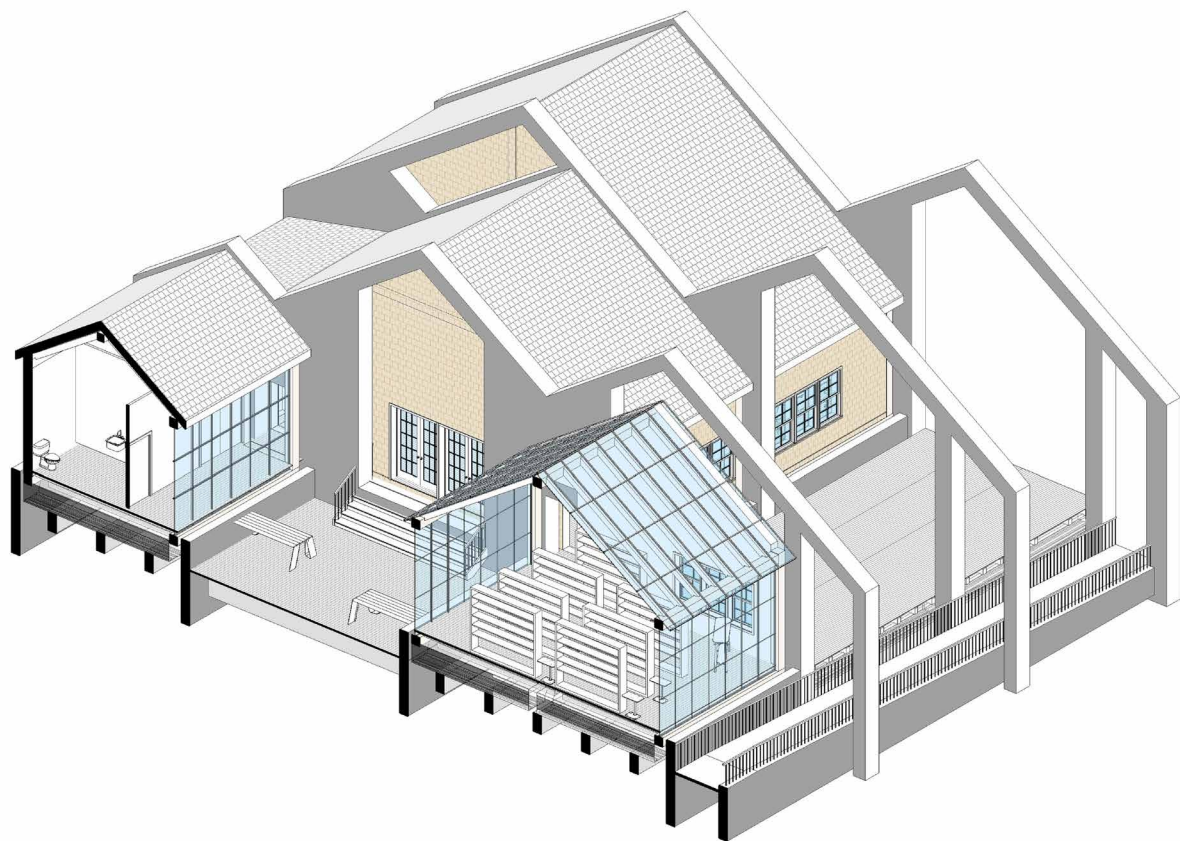
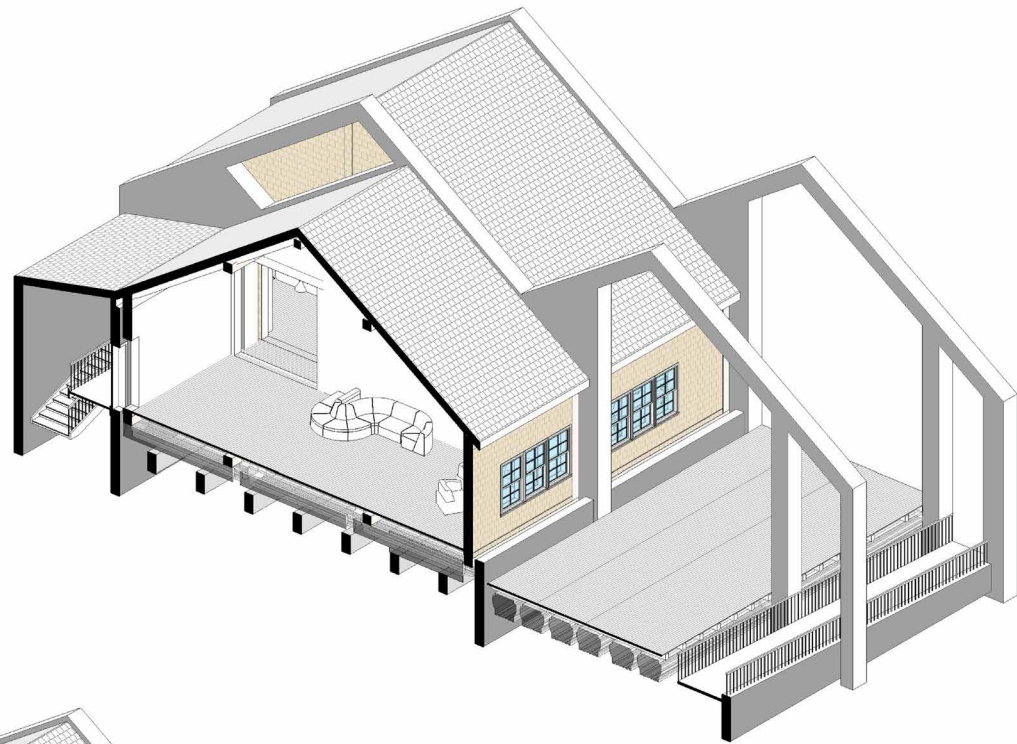
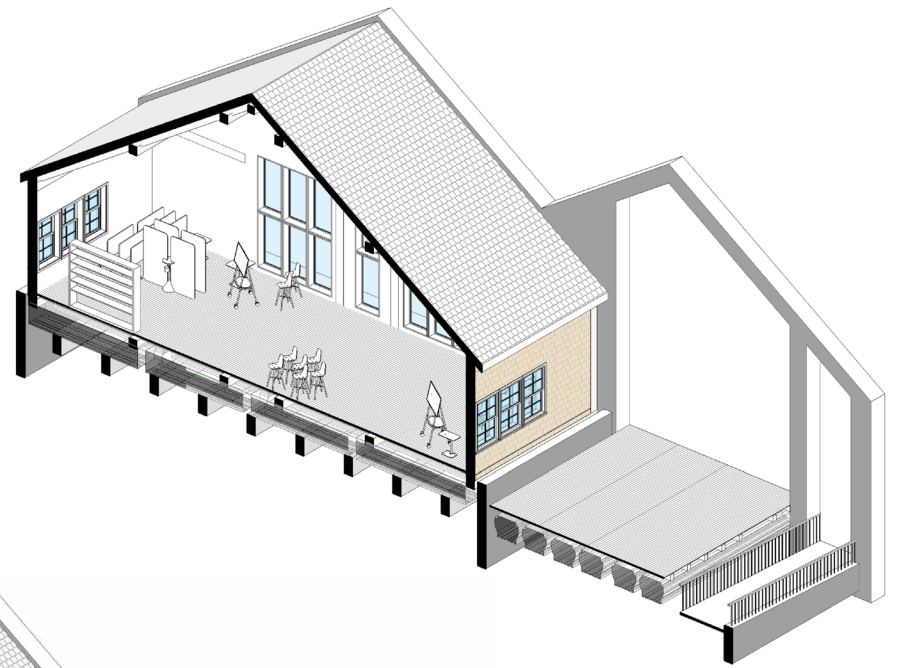


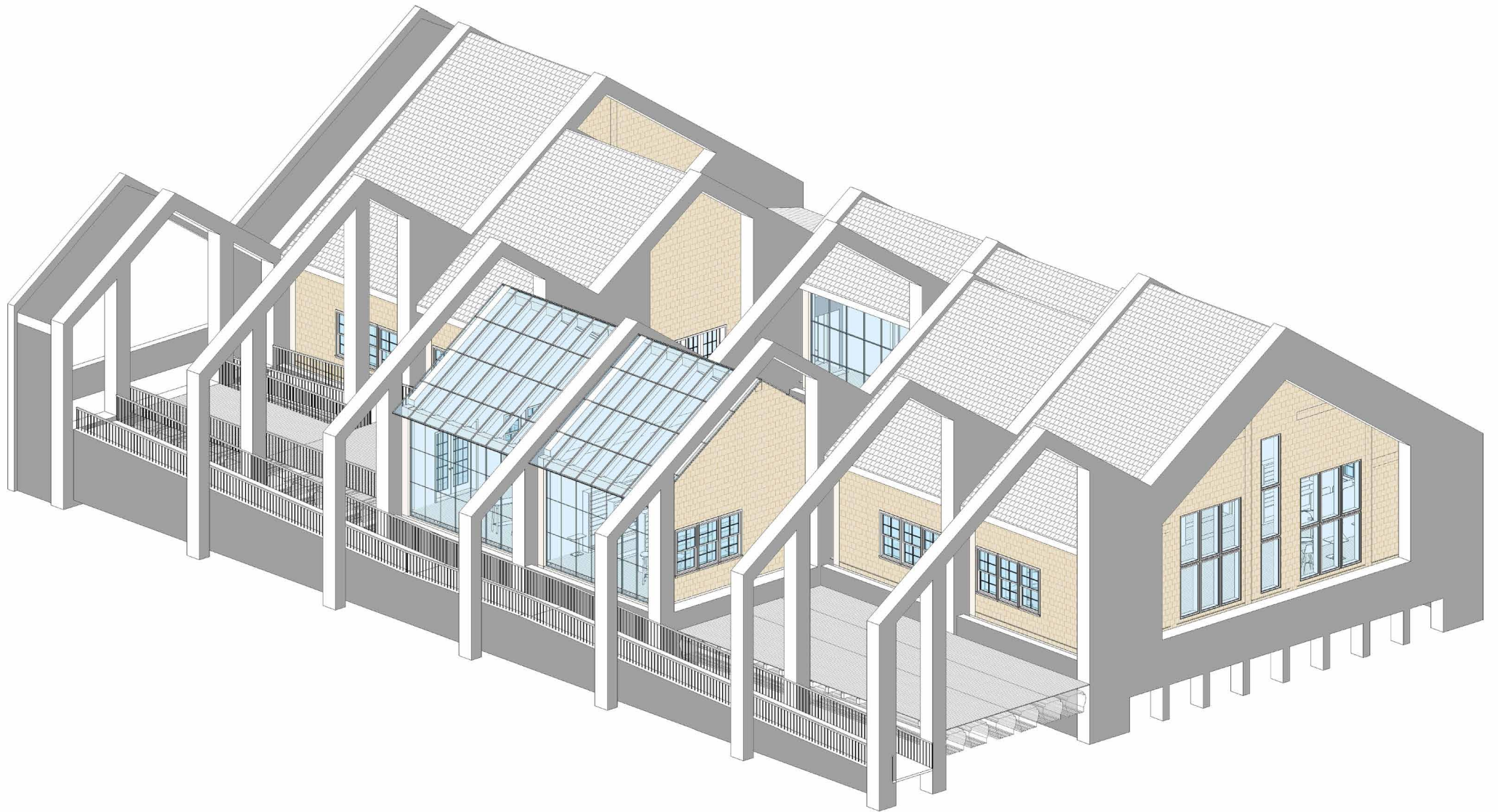




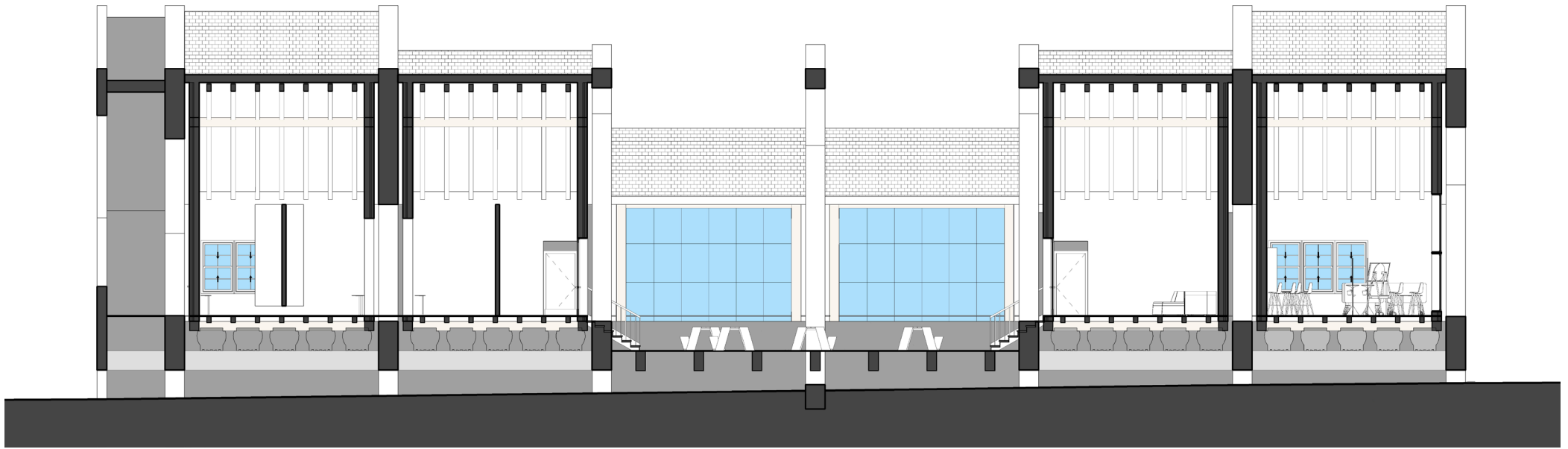


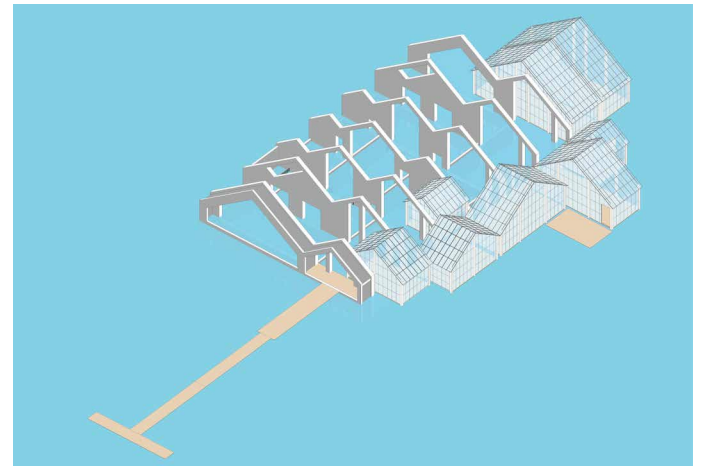
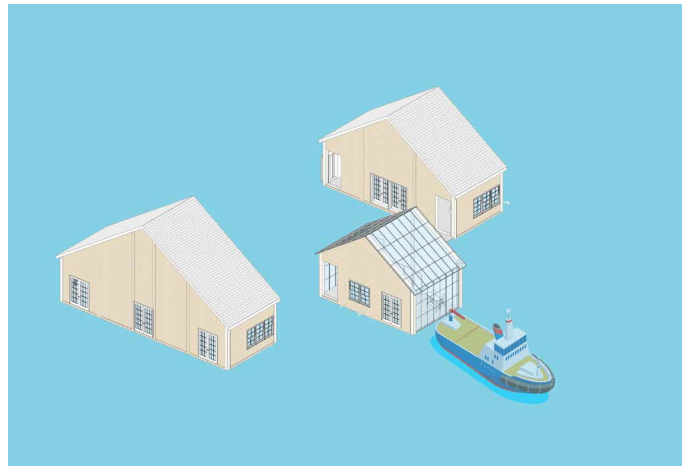
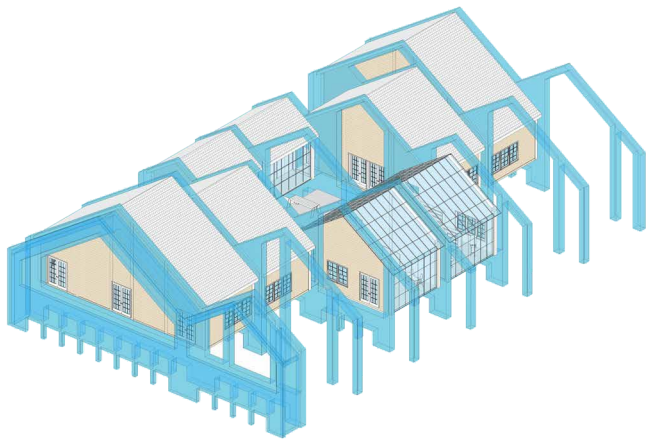
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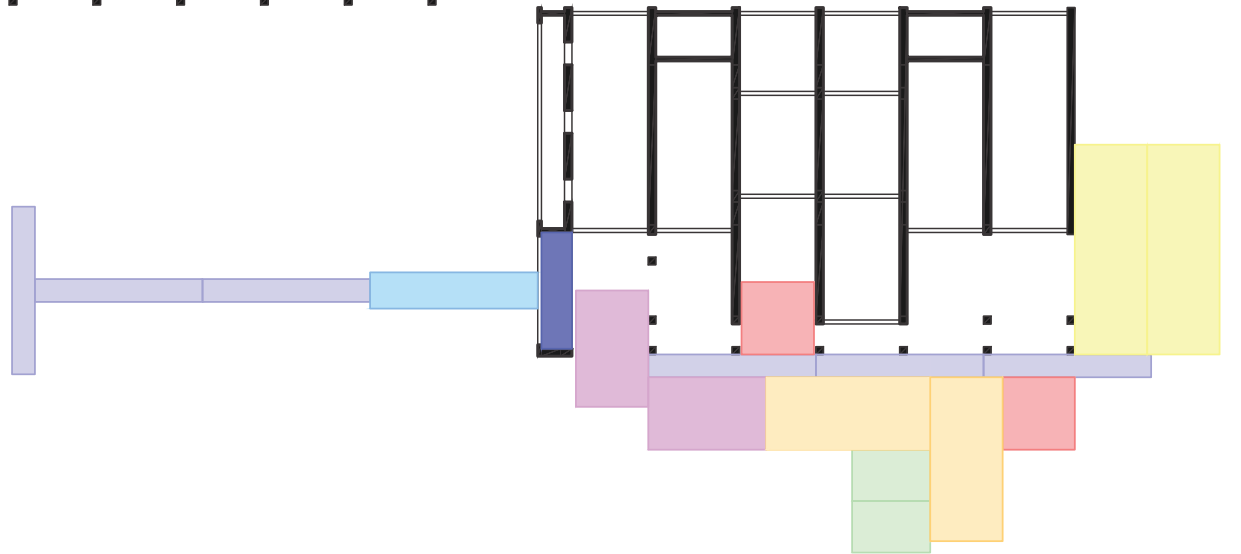
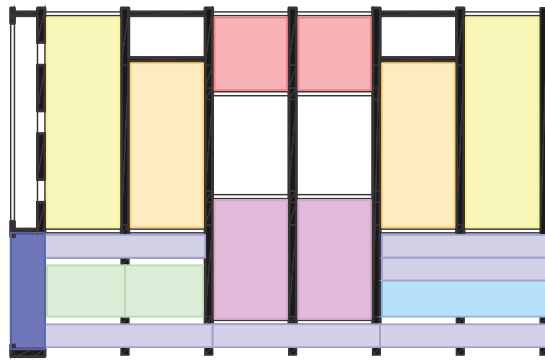
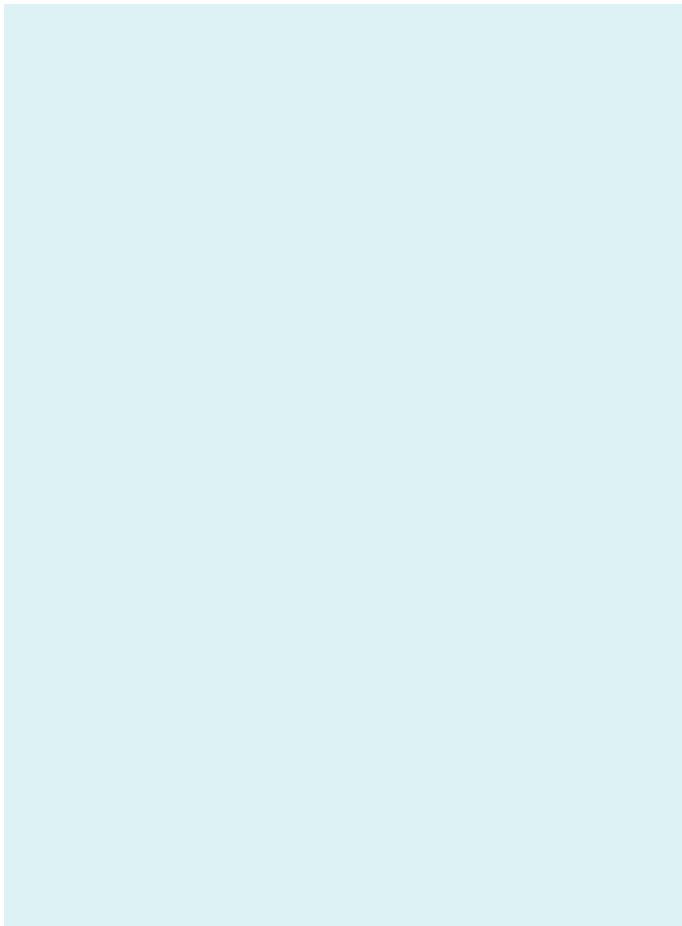


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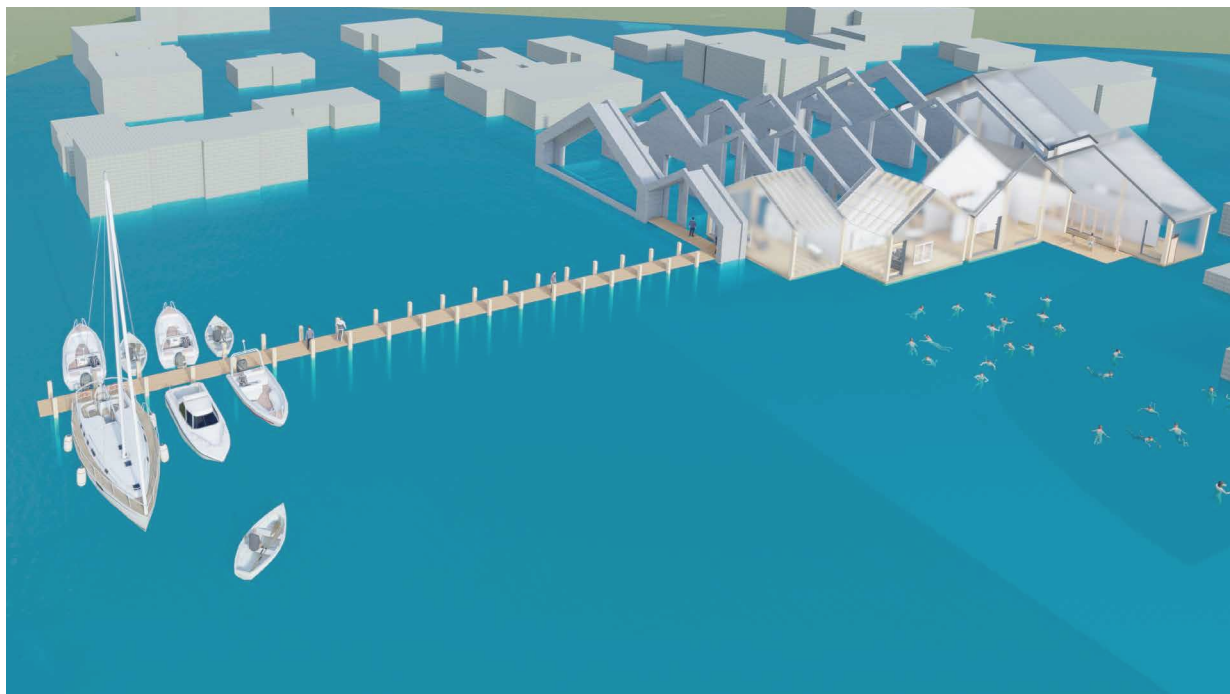
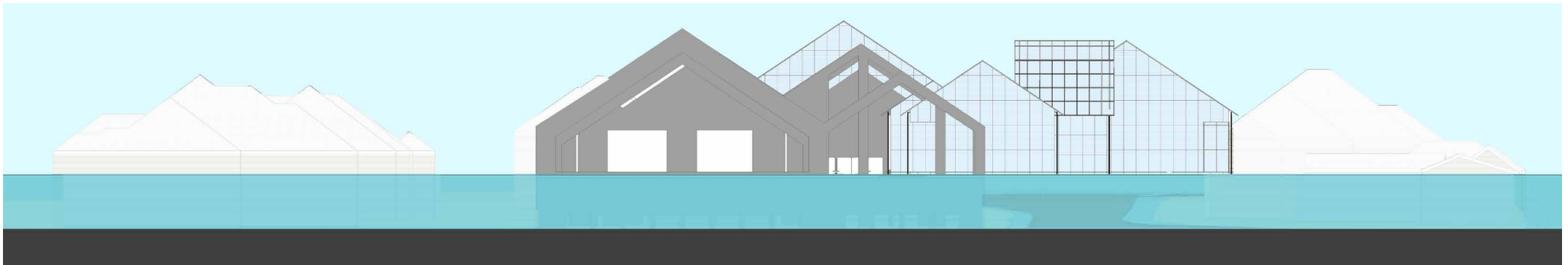


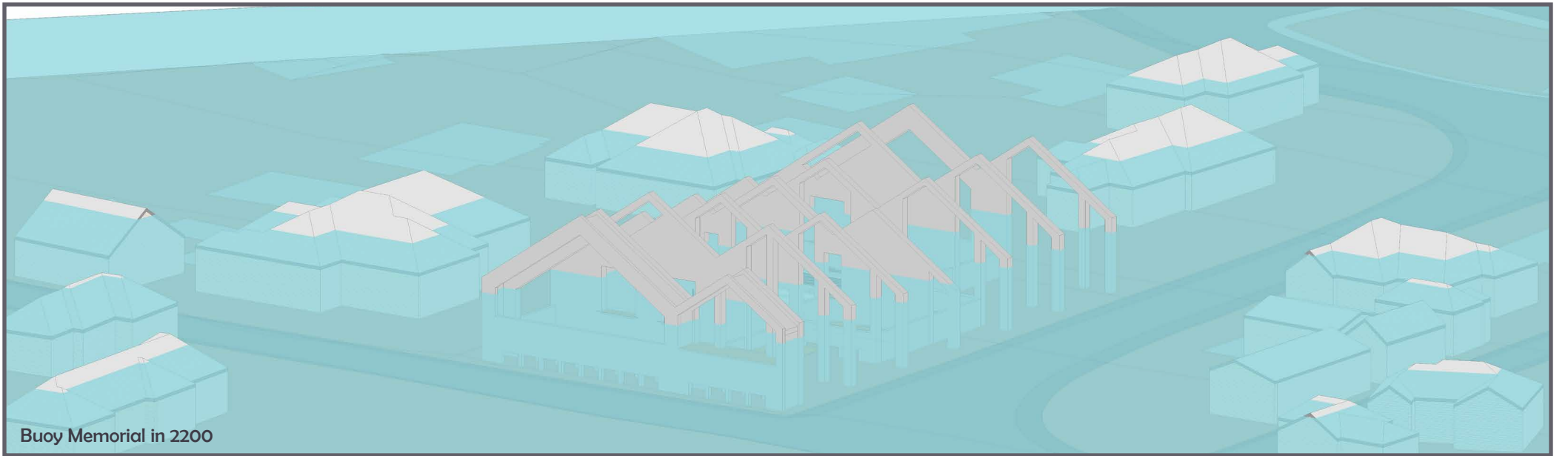
And it also reuse the structural frame of the art gallery with a new facade.



Nantucket living with Water







Buoy Memorial in 2200

Nantucket anticipating

Nantucket visually is a unique blend of simple and elegant. Though, historically it has been a survivor, fighting its way to reinstate itself over and over again. It dealt with epidemics, economic crisis, fires, hurricanes and flooding, and still managed to be a resilient socio-ecological system, adapting to survive every now and then. The sea level rise has perished this coastal community but seems like Nantucket still has a chance to revive.

As Nantucket, Buoy was designed to be resilient and adaptive. In 21st century, Buoy promoted Nantucket's historic past of art residency through its function as an art center. With concept of compartmentalization and buoyancy, Buoy was designed to float. Unaffected by sea levels rising, Buoy Art Gallery functioned until 2098. It shut down to revitalize itself as a wharf. Opened a few months ago, Buoy Wharf is also culturally rooted to Nantucket's past. It resembles the wharves' of Nantucket through its organization. That's not all for adapting, as the sea level continues to rise, the functioning of Buoy wharf in turbulent waters will not be possible. In times like those, the concrete frame of Buoy will hold its ground, longer than the wooden houses, as a placeholder of Nantucket. Buoy memorial will continue to tell the story of Nantucket.

