

Jones Beach Energy and Nature Center

Overview | December 18, 2019



Jones Beach Energy & Nature Center

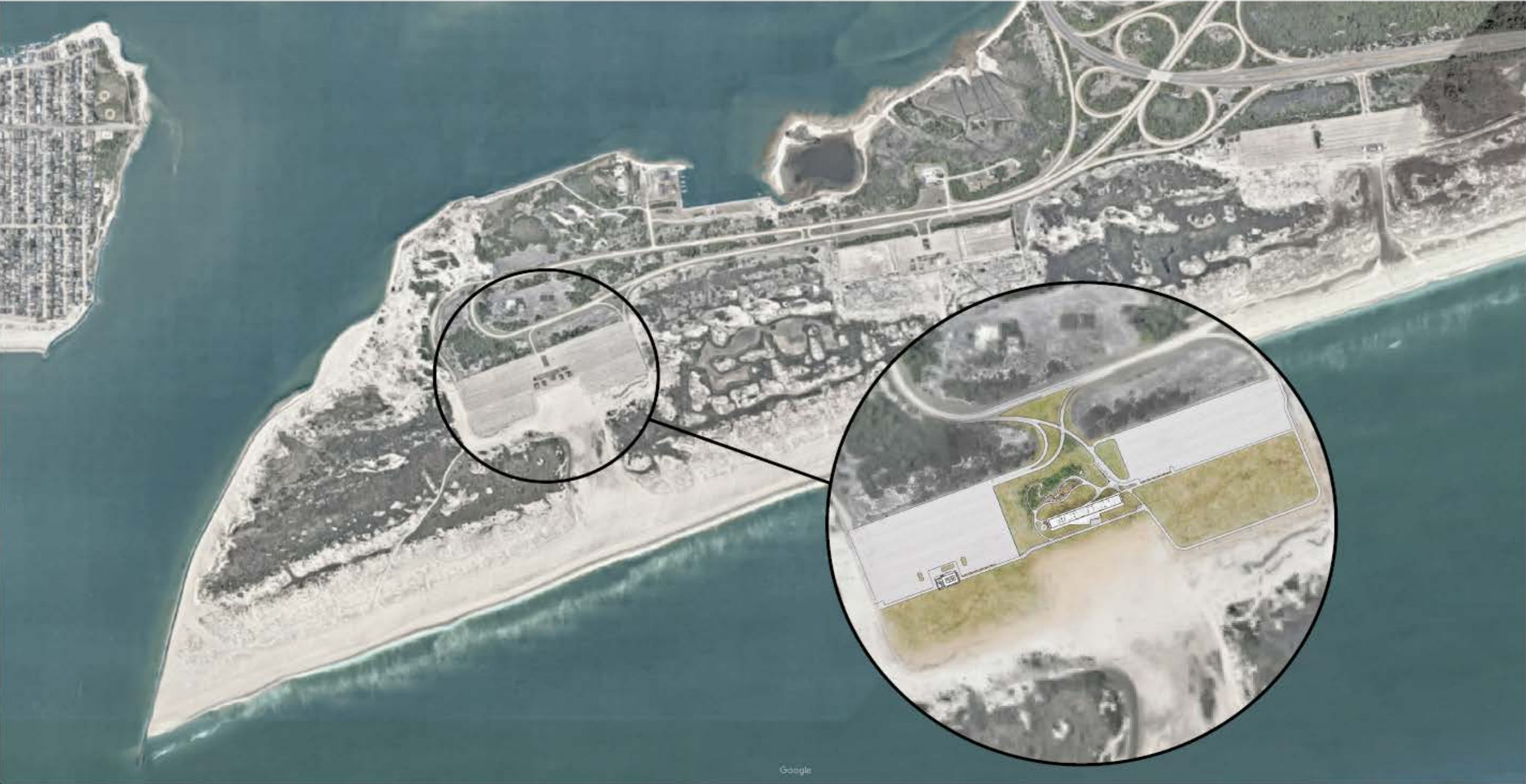
Jones Beach State Park is one of Long Island's premier cultural, recreational and natural destinations, welcoming 6.5 million visitors from around the world each year. The Park offers six and a half miles of spectacular beachfront, multiple cultural, sporting and recreation venues including the Jones Beach Theater and the iconic Boardwalk. At the western end of Jones Beach is a newly designated Park Preservation Area with undisturbed ocean dunes and bayfront tidal wetlands. This unique area of the Park will preserve the ecologically sensitive environment while allowing the public to learn about the nature of these special and wonderful places. This special area of Jones Beach is protected to preserve the ecologically sensitive environment, while allowing the public to learn about the nature of these special and wonderful places.

Jones Beach Energy & Nature Center is an integral and important element of the transformative rebirth of Jones Beach's West End. The Center is being planned as a central and vital component of the makeover of this uniquely spectacular part of the Park and will create a distinctive opportunity for visitors to learn how energy and the environment are interrelated. Through a variety of hands-on exhibits, visitors to the Energy & Nature Center will experience Long Island's ecosystems, learn about the interconnectedness of its plants, animals and their natural habitats, and can explore how to use energy wisely, conserve water and build a more resilient and sustainable island for future generations to enjoy.

Mission and Vision of the Energy & Nature Center is to provide an educational experience for Park patrons and visitors from all of Long Island to learn about, understand and explore:

- Interplay between humans, energy, and nature on the beach, where sun, water, and wind converge;
- Efforts and initiatives of the State of New York, environmentalists, energy producers, consumers, and others to address more than a century of fossil fuel emissions and rising temperatures/sea levels;
- Actions that individuals can take to conserve energy and become better stewards of the environment.

West End 2









Site and Landscape Features

- 9.5 acres of pavement replaced by pollinator area (6,200 sq. ft. interpretive zone and rain garden)
- ½ mile of extended bike trail linking West End to Jones Beach Central Mall
- 219 acres of newly designated Park Preservation Area
- 6 electric vehicle charging stations
- 13 exterior exhibits explore renewable energy technologies, biodiversity, coastal resiliency, and local conservation efforts on the beach (piping plover conservation area, CEHA line, sand fences, etc.)



Project Rendering









Visitor Experience: Education, Enlightenment, *Taking Action*

Discover the Wonder of Nature & Energy Visitors to the Center will discover the wonder of Nature & Energy on Long Island through state-of-the-art exhibits inside the building and site installations. Visitors will be introduced to interconnectivity of nature's beauty and the amazing energy systems through stewardship. The facility and programs offered will raise awareness and educate visitors on the Park's vulnerable ecology, wildlife habitat, plant life and the countless sea creatures, animals and birds that make their home among the estuary, beach and dune environments.

Landscape, Building & Exhibits as Experience Visitors will be presented with provocative ideas and questions concerning a single individual's role in the delicate balance of energy and nature, and how to have a positive impact. Through the exhibit experience and by example of the site and building there will opportunities to learn about the systems of both nature and energy, learn how small actions in every day life can have a dramatically positive global influence.

The Jones Beach Energy & Nature Center will become a landmark destination within the Park and have a far-reaching impact on all of Long Island. This facility will take full advantage of the newest green technologies and sustainable features throughout the building, while serving as an educational center with the interpretive features to highlight the Park's unique natural features.



EXISTING MARITIME SHRUBLAND

EXISTING MARITIME SHRUBLAND

PARKING LOT

BUS DROP-OFF

PARKING LOT

FUTURE COMFORT STATION

ENERGY AND NATURE CENTER

BIKEWAY EXTENSION

EXISTING PLOVER HABITAT

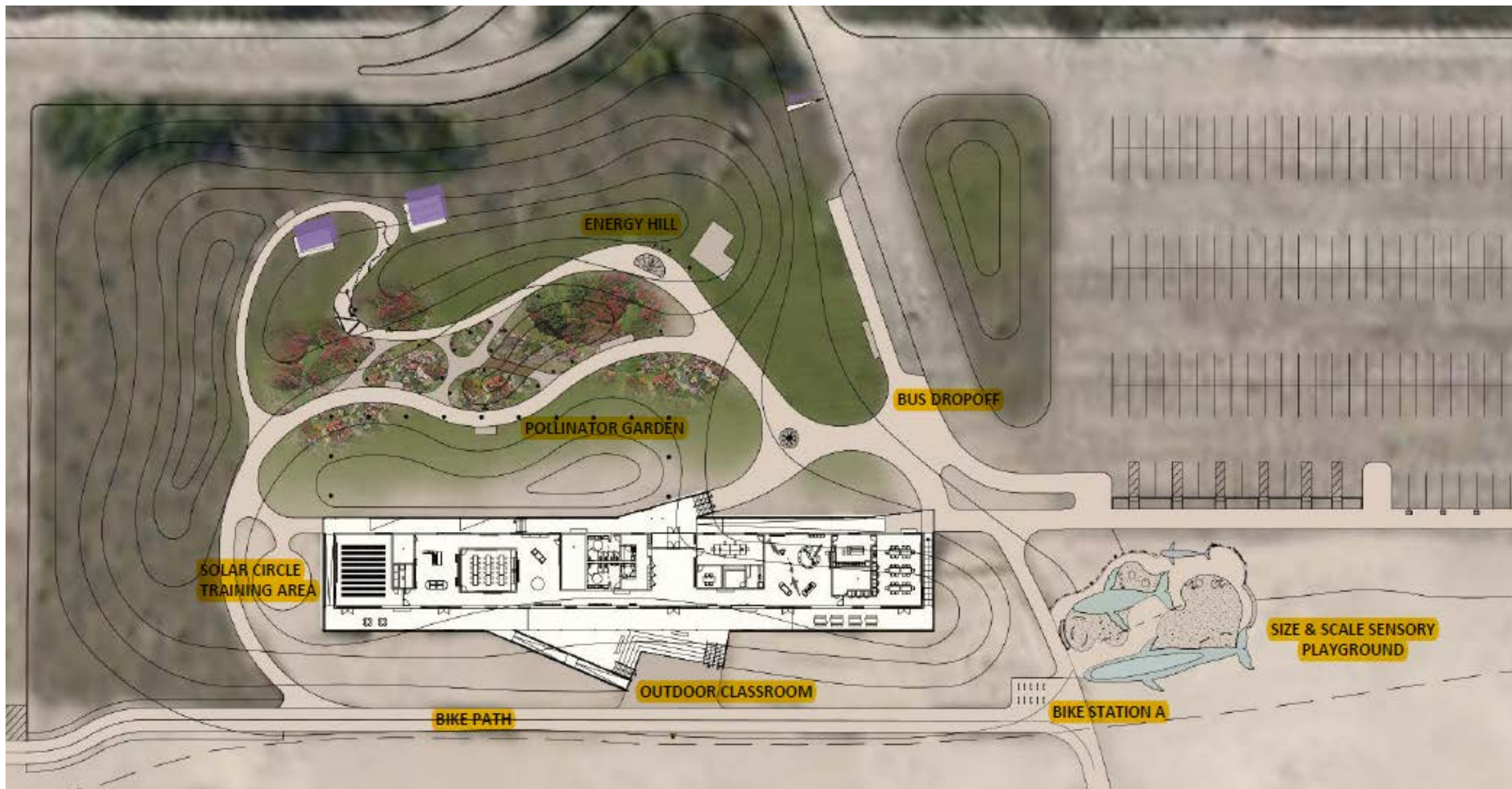
EXISTING BIKEWAY

FORMER LIMITS OF PARKING

EXISTING SECONDARY DUNE

EXISTING SECONDARY DUNE





Pollinator Garden

- Living example of positive interplay between human stewardship and the natural environment



SENSORY PLAYGROUND

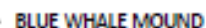
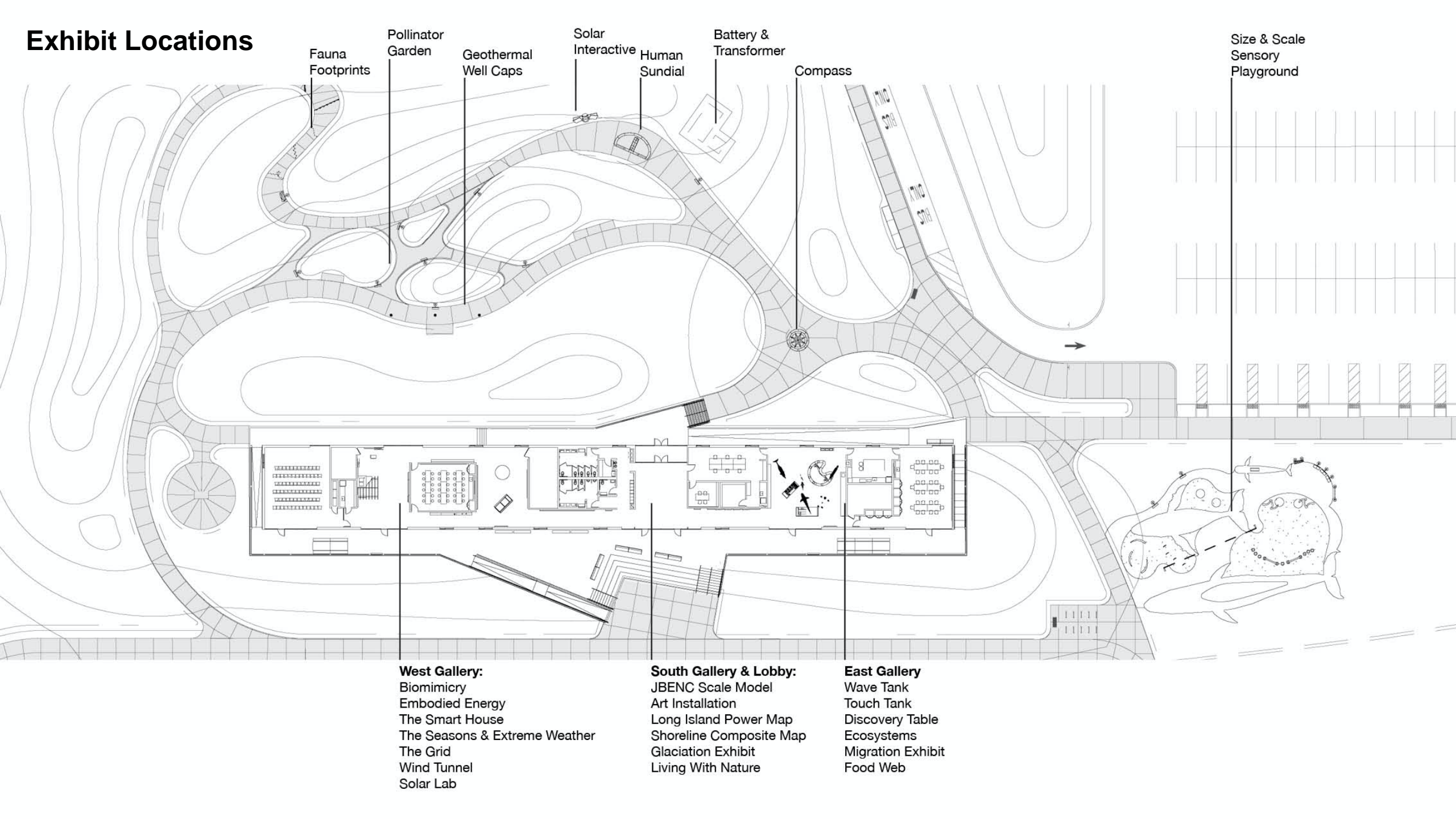


Exhibit Locations

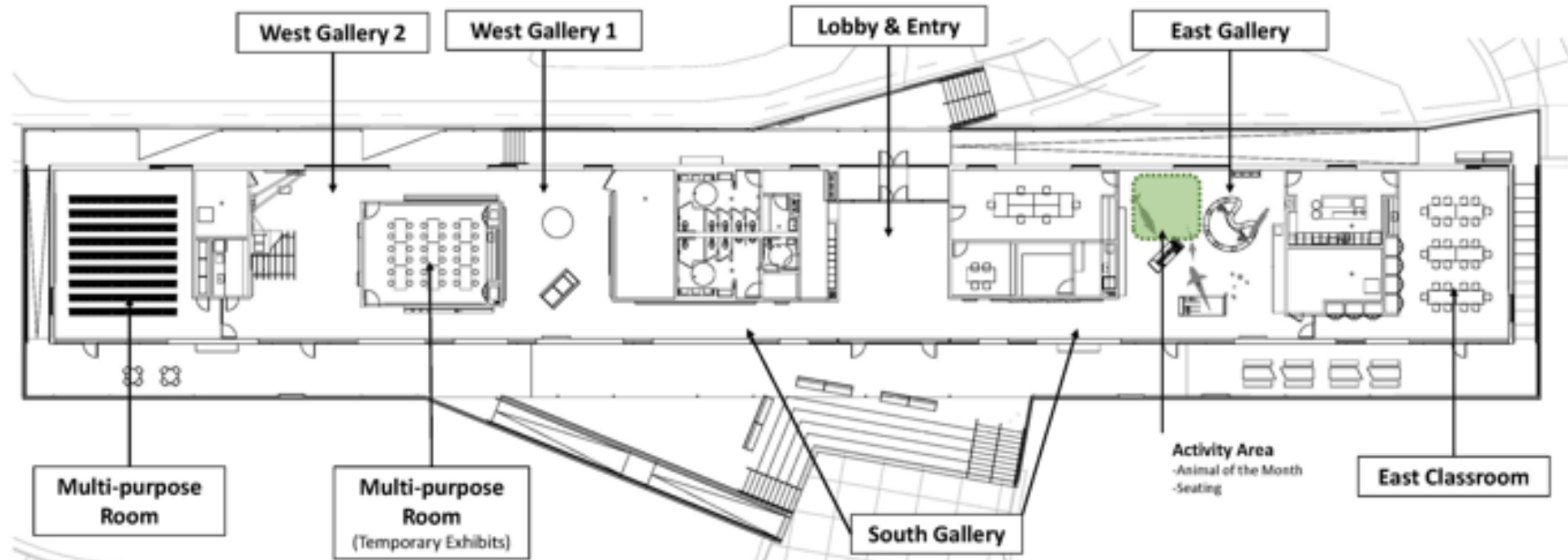


West Gallery:
Biomimicry
Embodied Energy
The Smart House
The Seasons & Extreme Weather
The Grid
Wind Tunnel
Solar Lab

South Gallery & Lobby:
JBENC Scale Model
Art Installation
Long Island Power Map
Shoreline Composite Map
Glaciation Exhibit
Living With Nature

East Gallery
Wave Tank
Touch Tank
Discovery Table
Ecosystems
Migration Exhibit
Food Web

Exhibits



IMAGES SHOWN ARE CONCEPT ONLY – DOES NOT REPRESENT FINAL DESIGN

Exhibit Themes

13 additional interior exhibits explore:

The power of nature

- Trophic levels
- Solar energy, wind, and waves
- Shoreline change
- Migration patterns and dynamo effects
- Ecological systems

Sustainable energy practices

- Conservation
- Production
- Distribution
- Consumption

Embodied energy

- Energy consumed in the extraction, transportation, and utilization of construction materials
- Technology and innovation in building and construction

Energy empowerment

- Green jobs
- Collective action
- Citizen science

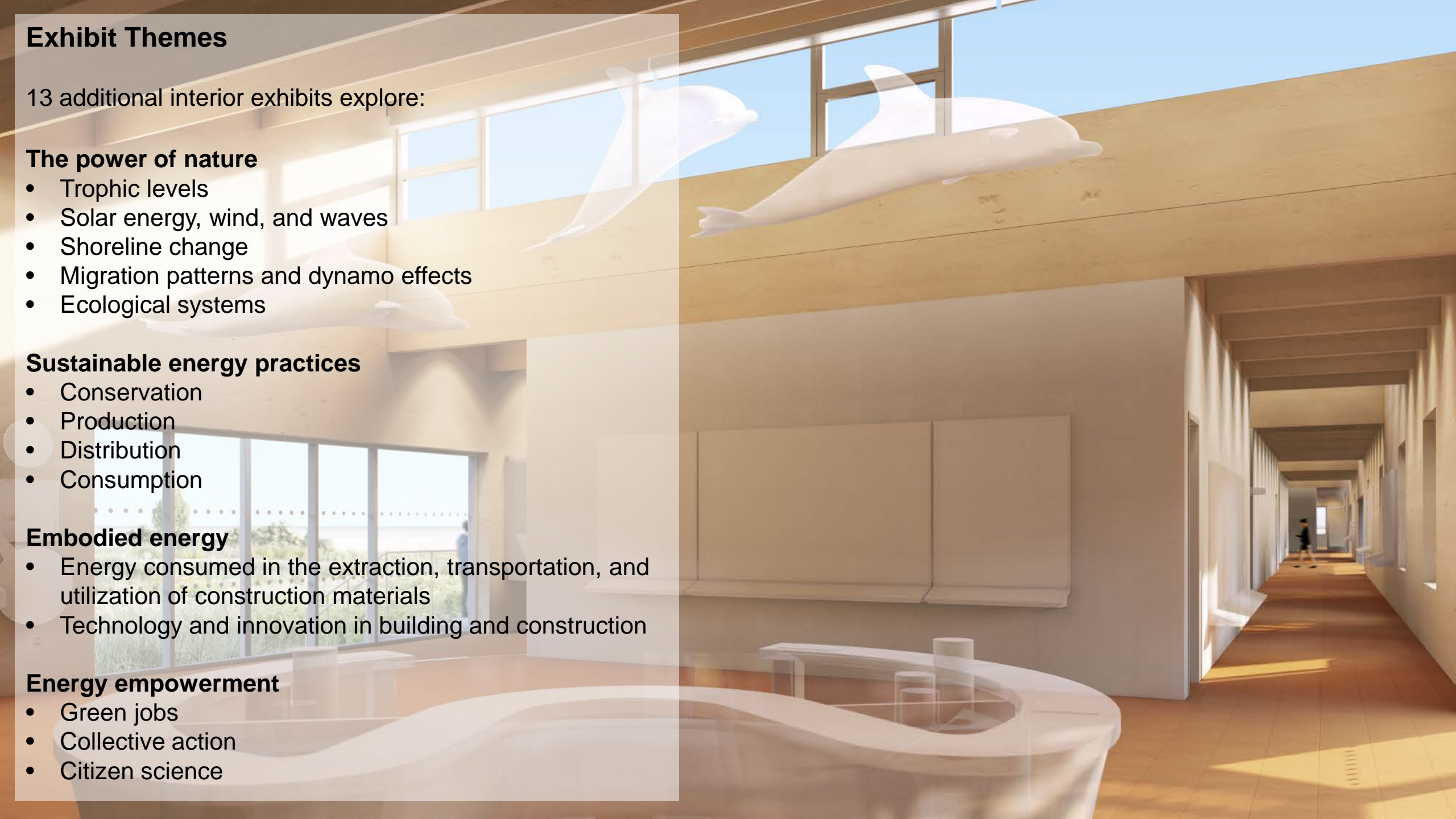


Exhibit: Building Model

Net Zero and Adaptive Features

- Passive design minimizes energy consumption
- Closed-loop geothermal well system replaces carbon-based heating or cooling,
- 260 panel, 90 kW grid-tied, net-metering solar array incorporating 500AH energy storage battery
- State-of-the-art bird glass throughout
- Doubles as a power support facility, minimum 12 hours of electricity



A touchable 3D model of the building highlights its sustainable design and introduces key themes: energy transfer in nature, energy production and use, and how efforts to conserve energy can protect the habitat and inhabitants—both human and non-human—of Jones Beach and Long Island.

Jones Beach Energy & Nature Center

- **Jones Beach Energy & Nature Center** is an important feature and key element to the transformative rebirth of Jones Beach's West End. In an era where more and more children are disconnected from nature, environmental education is essential to preparing the next generations of leaders for the future they will inherit. Visitors to the Center will discover the wonder of Nature & Energy on Long Island.
- **The 12,000 SF Center** will house state-of-the-art interactive exhibitions, real-time installations, teaching spaces & laboratories, classrooms, offices, and a community room for use by the Park, local schools, universities, scientific institutions, and the Long Island community. The exhibits and programming will make connections to environmental conservation and sustainable energy from the perspective of human impact, sustainability, and resiliency.
- **Building, Landscape & Exhibits as Experience** This new facility is taking full advantage of the newest green technologies and sustainable features throughout the building while serving as an educational center with the interpretive features to highlight the Park's unique natural features. Through the exhibit experience, and by the example of the site and building, there will be opportunities to learn about the systems of both nature and energy.
- **Bike Path connection to the rest of Jones Beach** The recently completed Jones Beach bike path, totaling 8.8 miles winding through all of Jones Beach, now provides access for visitors to the West End of the beach with the Energy & Nature Center as a destination point. The extension of the bike path is a vital link between beach communities in Nassau County allowing visitors another option to commute, exercise and enjoy this iconic destination. The new bike path is expected to attract 2,000 riders per weekend.
- **Way-finding Information & Signage** Jones Beach Energy & Nature Center is being built as part of the expanded Jones Beach Nature Preserve with Way-finding information and mapping at the Center that will lead visitors to the rest of the Preserve including walks to the beach, inlet, bayfront, birding sites and tidal wetlands. There will also be new signage and detailed maps at all other Jones Beach venues—Boardwalk, Central Mall, Jones Beach Theater—providing every visitor to Jones Beach with information and directions to this new Center and the Park Preserve on the West End.
- **Jones Beach Energy & Nature Center** will become a landmark destination of historical significance within the Park and have a lasting and far-reaching impact on all of Long Island.
- **Expected opening date: Fall 2020**

Thank You!

