SEACOAST SCIENCE CENTER

Master Plan
Existing Conditions

ARQ Architects   October 2019
Project Notes:
The Seacoast Science Center will plan in accordance with the most current FEMA Flood Zone designations.
The project will serve as a demonstration site for best practices in terms of resilient coastal construction and sustainable practices.

FEMA National Flood Hazard Zones

ZONE VE (EL. 14 Feet)

ZONE VE (EL. 13 Feet)

ZONE X (Not Shaded) Area Of Minimal Flood Hazard

ZONE VE (EL. 13 Feet)

ZONE AE (EL. 12 Feet)

EXISTING SITE PLAN

ARQ Architects October 2019
4' Sea Level Rise Probability
2030 - 29% - 92%
2050 - 79% - 100%
Sources:
NOAA
Surging Seas

Project Notes:
The Seacoast Science Center will plan in accordance with the most current FEMA Flood Zone designations.
The project will serve as a demonstration site for best practices in terms of resilient coastal construction and sustainable practices.

SEA LEVEL RISE - 4 Feet
SEACOAST SCIENCE CENTER
EXISTING SITE PLAN
ARQ Architects October 2019
5' Sea Level Rise Probability
2030 - 1% - 8%
2050 - 4% - 93%

Sources:
NOAA
Surging Seas

Project Notes:
The Seacoast Science Center will plan in accordance with the most current FEMA Flood Zone designations.

The project will serve as a demonstration site for best practices in terms of resilient coastal construction and sustainable practices.
6' Sea Level Rise Probability
2030 - 0% - 0%
2050 - 0% - 9%
Sources:
NOAA
Surging Seas

Project Notes:
The Seacoast Science Center will plan in accordance with the most current FEMA Flood Zone designations.
The project will serve as a demonstration site for best practices in terms of resilient coastal construction and sustainable practices.

existing Site Plan

SEA LEVEL RISE - 6 Feet

SEACOAST SCIENCE CENTER

EXISTING SITE PLAN

ARQ Architects October 2019
1. Follow Resilient Design strategies that serve as a demonstration site for coastal construction best practices.

2. Incorporate Native Vegetation and Rain Gardens into a landscape design that helps manage stormwater.

3. Incorporate a Green Roof that aids in stormwater management, improves energy efficiency, and provides vegetated & accessible outdoor space.

4. Utilize Water Conserving fixtures and explore greywater & captured stormwater re-use.

5. Optimize Solar Orientation to provide natural daylighting, reducing the lighting demand.

6. Utilize Passive Design strategies that optimize solar orientation and natural ventilation to reduce heating & cooling demands.

7. Incorporate a High Performance Building Envelope that is tightly sealed, highly insulated, & vapor open to reduce heating & cooling demands.

8. Incorporate Energy Efficient hvac, electrical, and lighting systems for maximized energy conservation.

9. Incorporate on site Photovoltaic Electric power generation, coordinated with other systems listed above to move towards a zero-net carbon building.

10. Incorporate the use of Natural & Low / No Voc Materials. Materials made with fossil fuels will be avoided.

11. Incorporate the Sustainable Building Systems used as a demonstration of energy & water conservation, renewable energy, and green building materials & practices.

SEACOAST SCIENCE CENTER

SUSTAINABILITY GOALS

ARG Architects October 2019
Project Notes:
The Seacoast Science Center will plan in accordance with the most current FEMA Flood Zone designations.

The project will serve as a demonstration site for best practices in terms of resilient coastal construction and sustainable practices.

FEMA National Flood Hazard Zones

SEACOAST SCIENCE CENTER

CONCEPT SITE PLAN

ARQ Architects January 2020
4' Sea Level Rise Probability
2030 - 29% - 92%
2050 - 79% - 100%

Sources:
NOAA
Surging Seas

Project Notes:
The Seacoast Science Center will plan in accordance with the most current FEMA Flood Zone designations.
The project will serve as a demonstration site for best practices in terms of resilient coastal construction and sustainable practices.
5' Sea Level Rise Probability
2030 - 1% - 8%
2050 - 4% - 93%

Sources:
NOAA
Surging Seas

Project Notes:
The Seacoast Science Center will plan in accordance with the most current FEMA Flood Zone designations.
The project will serve as a demonstration site for best practices in terms of resilient coastal construction and sustainable practices.

SEA LEVEL RISE - 5 Feet

SEACOAST SCIENCE CENTER

CONCEPT SITE PLAN

ARQ Architects January 2020
6' Sea Level Rise Probability
2030 - 0% - 0%
2050 - 0% - 9%

Sources:
NOAA
Surging Seas

Project Notes:
The Seacoast Science Center will plan in accordance with the most current FEMA Flood Zone designations.
The project will serve as a demonstration site for best practices in terms of resilient coastal construction and sustainable practices.

SEA LEVEL RISE - 6 Feet

SEA COAST SCIENCE CENTER

CONCEPT SITE PLAN

ARQ Architects January 2020