

## CAPE COD HOSPITAL – PROJECT 2022

### Coastal Resiliency Measures

Cape Cod Hospital's Project 2022 incorporates site and design changes and features which further the Cape Cod Commission's Coastal Resiliency Goal and the Technical Bulletin's three Objectives. This is accomplished by minimizing and removing existing development within the most sensitive flood zones, elevating the addition, and improving Hospital infrastructure. These measures, organized by the Technical Bulletin Objectives, are referenced below:

1. Objective CR1: *Minimize development in the floodplain.*

- No development is proposed within a V zone.
- The Project includes the demolition and removal of the Whitcomb Pavilion building which is located within flood zone X. The basement of the Whitcomb Pavilion currently houses telephone infrastructure which would be vulnerable to the largest storms. The basement of the Cape Cod Medical Center is likewise low and vulnerable. Both these buildings and their lower levels are being demolished and the space relocated to the first floor of the main hospital, which is 20.67' above mean sea level. (NAVD88 datum). Only parking of vehicles will remain within the 100 year flood plain.

2. Objective CR2: *Plan for sea level rise, erosion and floods.*

- The first floor of the new addition is elevated to 20.67' NAVD88.
- All new mechanical systems except for the water-resistant fire sprinkler room are located near or above the first floor.
- Building entrance grading is elevated for accessibility, substantial fill is being introduced around the addition to raise the grades well above the 100 year base flood elevation.
- The Project includes upgrading the Hospital's back-up emergency generator to meet current code requirements as well as new underground fuel storage tanks. Fill is being introduced in the fuel tank storage area to bring the ground over the tanks to elevation 20.0 NAVD88.
- The two closest buildings to the coast line, the Whitcomb Pavilion building and the Cape Cod Medical Center building, are to be demolished and their uses relocated to the main hospital building. The basement levels are currently vulnerable to flooding from the largest modeled storms.
- All proposed building locations will be outside of the affected SLOSH areas for everything smaller than a category 4 hurricane. The first floor at 20.67 is above

reach of the graphically mapped elevation of the Category 4 flood level which is elevation 20.

3. Objective CR3: *Reduce vulnerability of built environment to coastal hazards.*

- The Project removes existing development within coastal resource areas.
- The addition is designed to withstand high pressure wind and debris impact.
- The project includes new stormwater drainage systems and incorporates stormwater best management practices.