

# Annual Town Meeting

March 9, 2019

# Warrant Article 13



## Motion 1

Replace 850 linear feet of failed seawall

- FEMA reimbursement
- \$1 million dollar State Grant

## Motion 2

Construct revetment along full length of seawall- 3500 linear feet

- Betterment for area residents

# Winter Storm Riley Seawall Failure 2018



# Storm Surge



# Storm Surge





# Chain Of Events

- Erosion
- Exposed Footing
- Water over wall
- Undermining
- Seawall Failure



# Seawall Failure

## Cable Hill

- 35 feet lost property
- 5,000 cubic yards of soil
- 2-3 hours



## Ocean Road North

- Home sits 20 feet behind failure





# History



- Wall was constructed in 1950's to protect barrier beach
- Built in response to the Hurricane of 1938
- Total seawall length is 3500 linear feet
- Failed sections equal 850 linear feet
- Average seawall expectancy is 50 years- Past the end of useful life at 65+ years
- Conditions Study 2011
  - Critical condition
  - To do nothing would result in catastrophic failure
  - Replacement was recommended in 2012



# Call To Action-One Barrier Beach



By definition, the beach provides a barrier between the mainland and adjacent nearshore wetland, such as a salt marsh or mudflat and marine waters offshore.

-Bates Coastal Geology Research





# Full Moon Tide- February 19, 2019



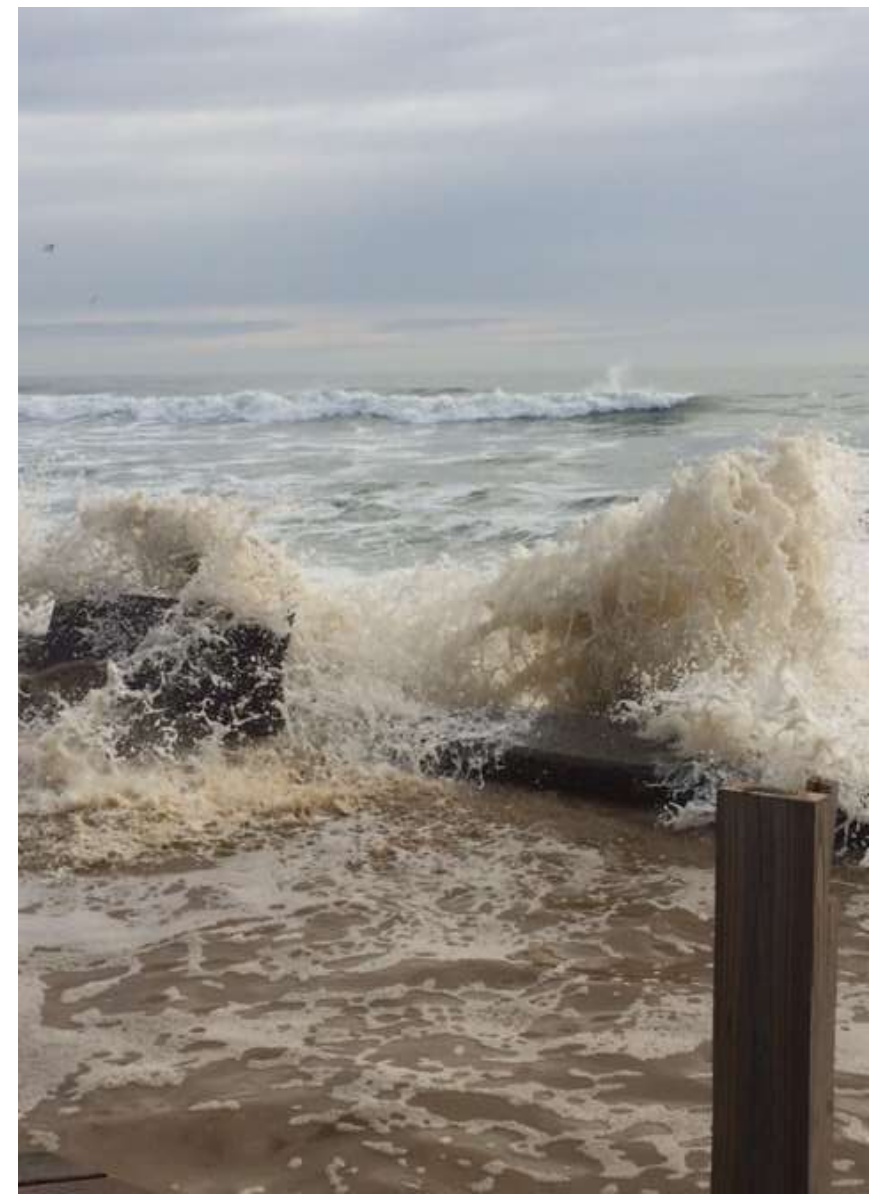


# Gurnet Road Flooding





# Seawall At Work



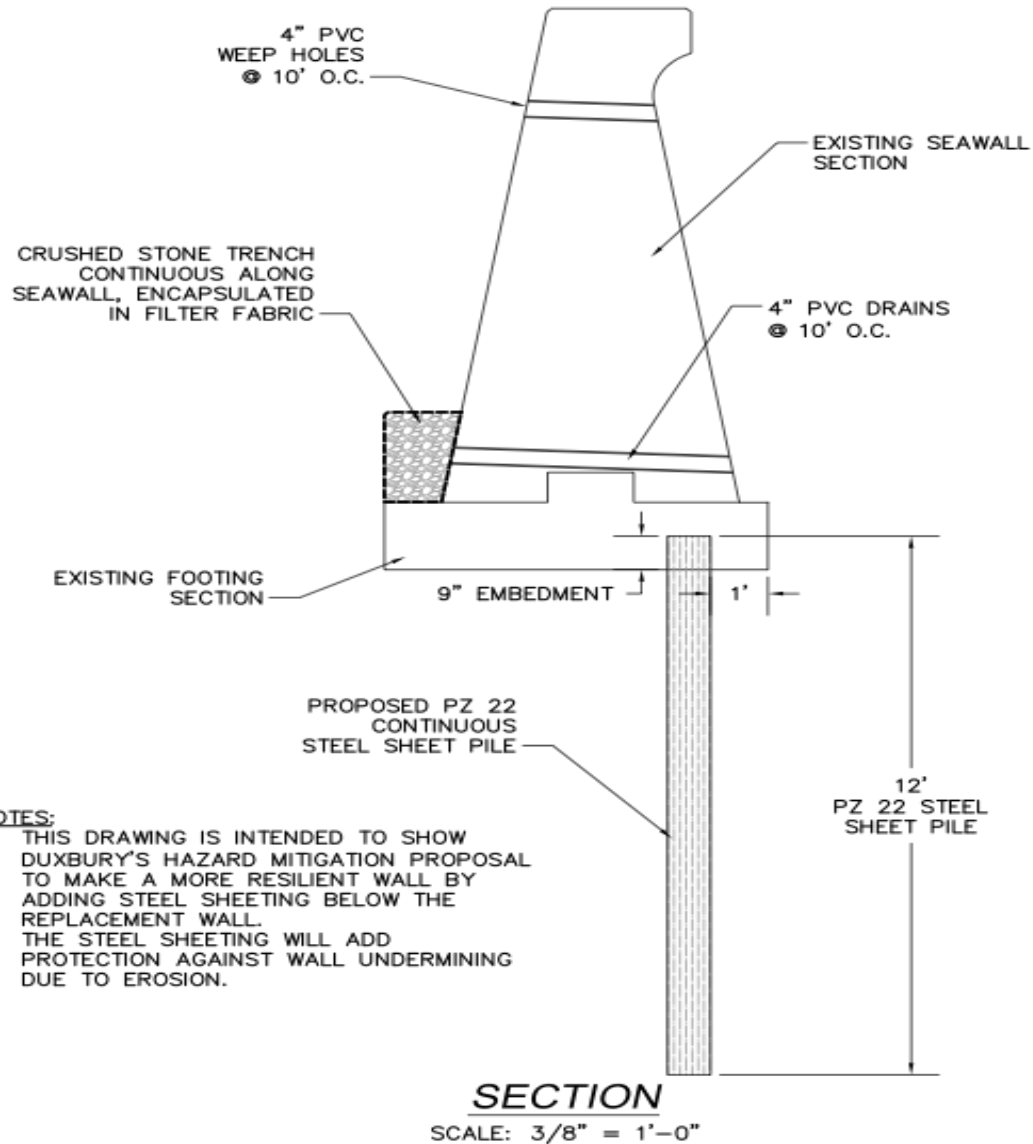


# Proposed Wall Replacement

## Phase I

- Replace 850 linear feet of failed sections
- Current design standard enhancements
  - High quality concrete
  - Rebar
  - Steel sheeting
  - Weep holes

- Revetment



FEBRUARY 15, 2019

# The Cost Of Inaction

- \$2 million dollars in taxes from community in jeopardy
- Gurnet Road access becomes compromised
- No access for emergency vehicles
- Underground utilities and sewer lines are potentially disturbed
- Extensive flooding into Duxbury Bay





# Protect Duxbury Beach

