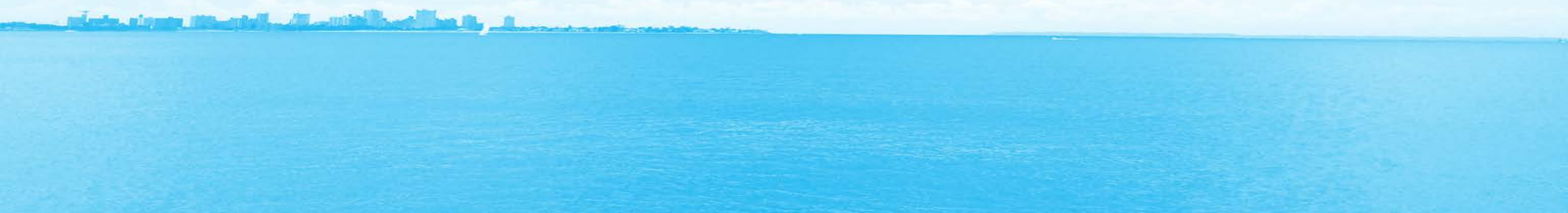


**RESILIENT NEIGHBORHOODS INITIATIVE:  
SHEEPSHEAD BAY/GERRITSEN BEACH  
CB 15 UPDATE  
APRIL 25, 2017**





**A more resilient NYC is one where neighborhoods, buildings and infrastructure can withstand and recover quickly from flooding and climate events.**

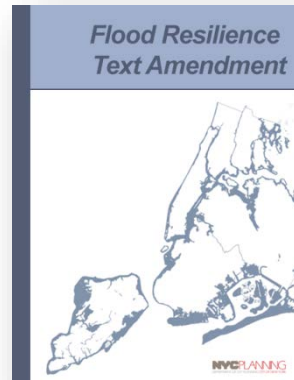
**#ONENYC**

This requires **multiple lines of defense:**

- infrastructure hardening where feasible,
- emergency preparedness, and
- **utilizing building code and zoning** as tools so buildings are protected from future flooding due to sea level rise.

# Flood resilience zoning (DCP)

**Flood Text** (2013) initial, temporary regulations building off EO 230



**SRNR** (2015) provides additional zoning relief to expedite recovery



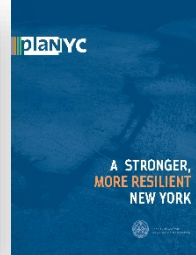
**Flood Text II** (2018) to be updated and made permanent



**Executive Order 230** (2012) mayoral override of zoning



**PFIRM + Freeboard** (2012) DOB requires most restrictive map; additional elevation



**SIRR Report** (2013) long-term, citywide resiliency framework



**Build it Back** (2015) lessons learned in rebuilding effort inform zoning changes



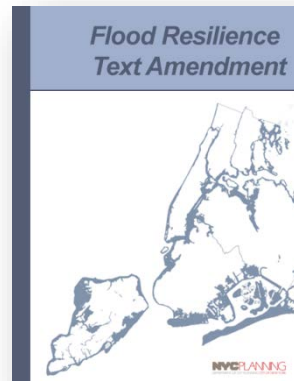
**One New York** (2015) moves from recovery to future resiliency



**Neighborhood Studies** (2014-17) will inform the text and local rezonings

# Flood resilience zoning (DCP)

**Flood Text** (2013) initial, temporary regulations building off EO 230



**SRNR** (2015) provides additional zoning relief to expedite recovery



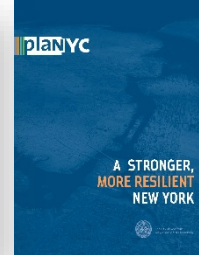
**Flood Text II** (2018) to be updated and made permanent



**Executive Order 230** (2012) mayoral override of zoning



**PFIRM + Freeboard** (2012) DOB requires most restrictive map; additional elevation



**SIRR Report** (2013) long-term, citywide resiliency framework



**Build it Back** (2015) lessons learned in rebuilding effort inform zoning changes



**One New York** (2015) moves from recovery to future resiliency



**Neighborhood Studies** (2014-17) will inform the text and local rezonings



# Resilient Neighborhoods Initiative

## Reduce flood risks

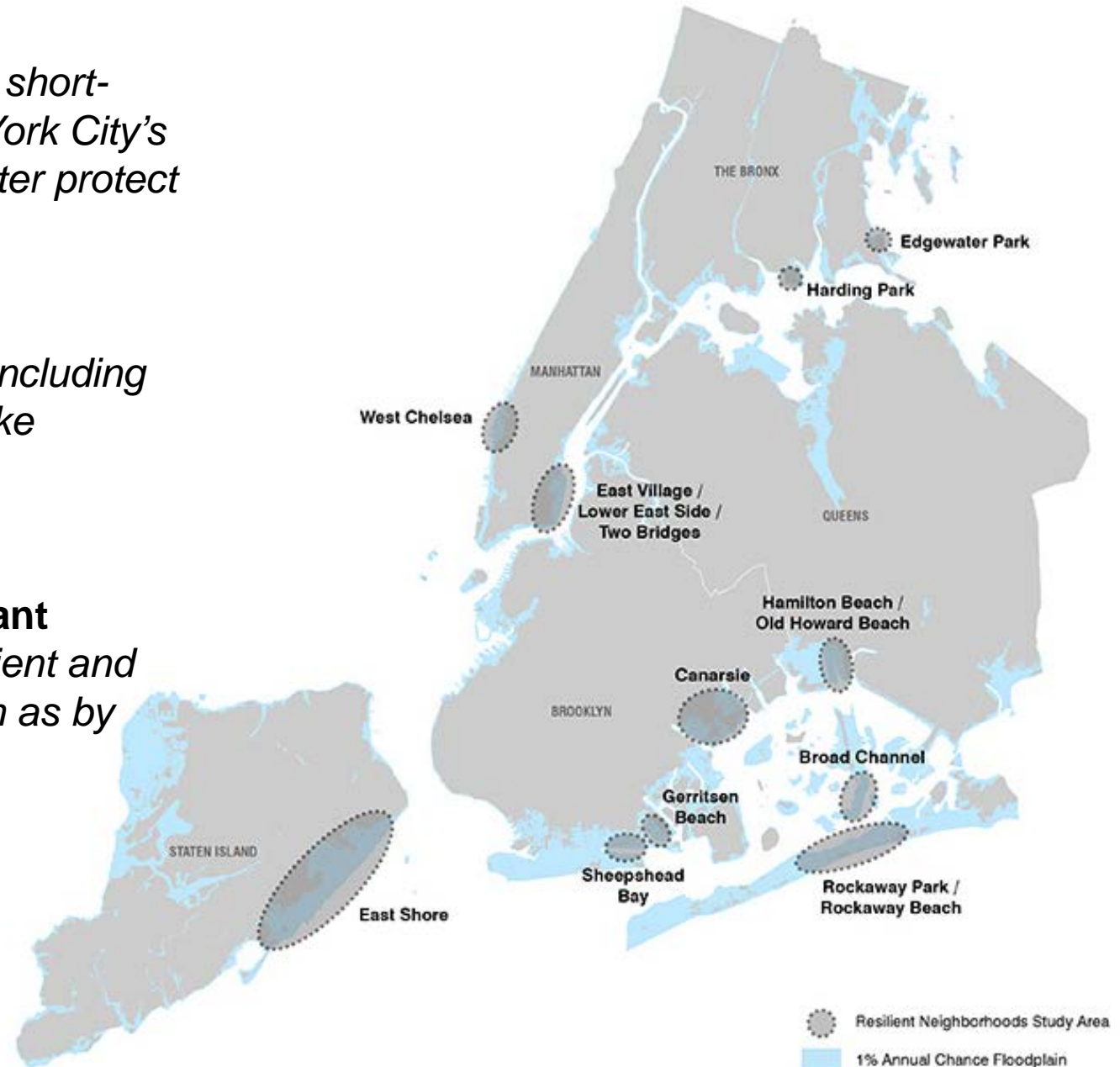
*Develop zoning strategies and other tools to advance short-term, cost-effective investments that can make New York City's building stock more resilient to severe storms and better protect our coastline.*

## Plan for adaptation over time

*Climate change will increase coastal risks over time, including more tidal flooding in some areas. It is important to take measures to reduce the long-term vulnerabilities that neighborhoods will face over time.*

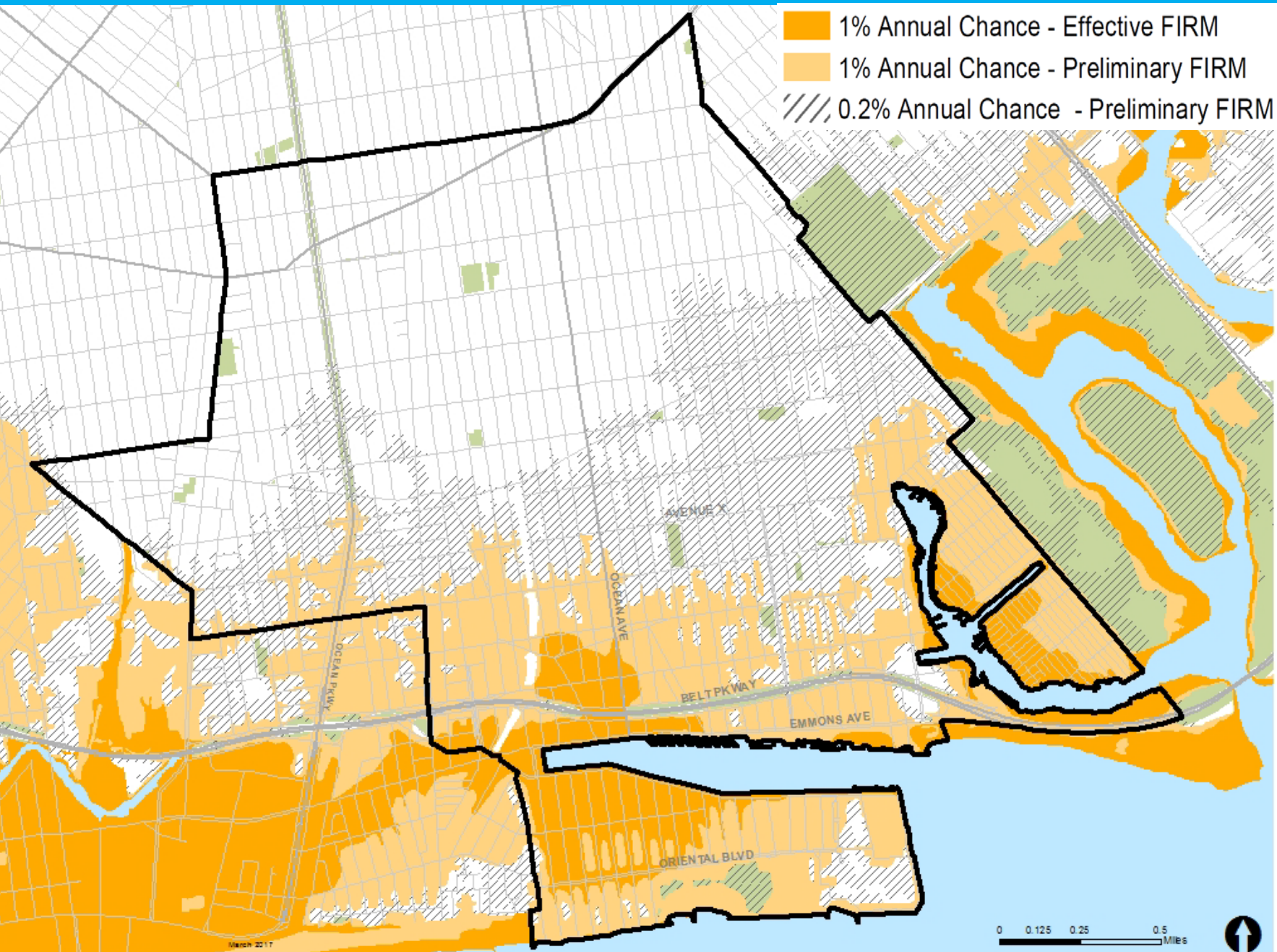
## Ensure neighborhoods are both resilient and vibrant

*Encourage high-quality development that is both resilient and respects each neighborhood's built environment, such as by limiting building height and improving public space.*



- **Spring 2013 – Winter 2014** New York Rising Program
- **June 2014** Resilient Neighborhoods Initiative Kickoff at CB15
- **Fall 2014 – Spring 2015** Community Advisory Committee Meetings
- **August 2015** Gerritsen Beach Homeowners Association
- **November 2015** CB 15 update on Resilient Neighborhoods Studies
- **Fall 2016 – Spring 2017** Councilmember Briefings
- **April 2017** Brooklyn Borough Board

# Community Board 15 Flood Maps



- Currently in NYC, Building Code and Zoning rules are based off the 1% annual chance floodplain, as shown on the Preliminary Flood Insurance Rate Map
- For flood insurance purposes, the Effective Flood Insurance Rate Map is used.

# Resiliency Challenges in Gerritsen Beach

- **Sunken lots and residential uses below the DFE** vulnerability to coastal flooding is exacerbated by high DFEs and sunken lots
- **Large homes on shallow lots with limited light and air:** Lots with narrow yards that pose challenges for existing zoning compliance, elevation strategies, ADA access, streetscape, and neighborhood character
- **Narrow streets:** Many of the streets are as narrow as 20 feet, particularly in the southern section of the neighborhood, which present safety risks and accessibility issues during emergencies
- **Density:** current zoning designation allows for multi-family development, which could over-stress existing storm sewer infrastructure





## Sheepshead Bay Road

- High BFE (4-6')
- Attached building type difficult to elevate
- Small businesses unable to afford extensive retrofitting options

## Residential Areas

- Detached homes and apartment buildings
- Buildings on irregular lots
- Bungalow courts on sunken lots with infrastructure issues

## Special Sheepshead Bay District

- High BFE, below grade retail, diverse building typologies
- Variety of building types at water's edge w/ high BFE, sunken lots, SLR risk
- apartment buildings with ground floor units that are overbuilt/ difficult to retrofit

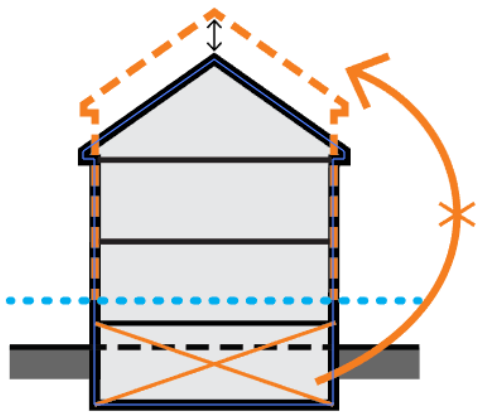
# What We've Learned

Based on our work in Sheephead Bay, Gerritsen Beach, and other floodplain communities, we've learned:

1

## Height

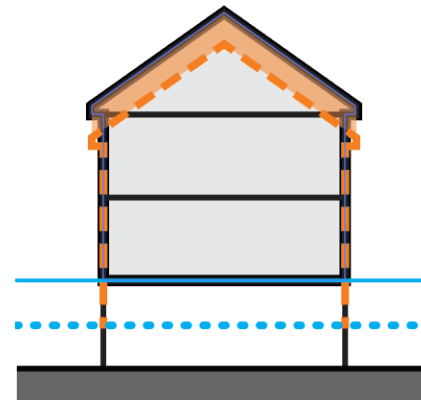
Homeowners may face the loss of subgrade spaces when retrofitting



2

## Height

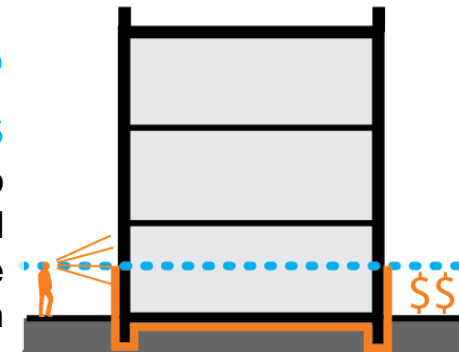
Properties owners may want to address future risk by over-elevating



3

## Ground Floors

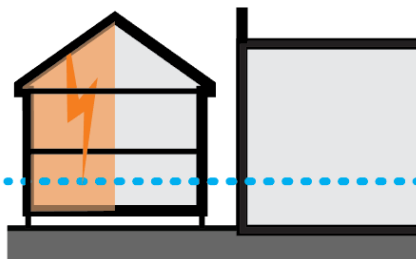
Current incentives to keep active ground floors may not be enough



4

## Homes in M Districts

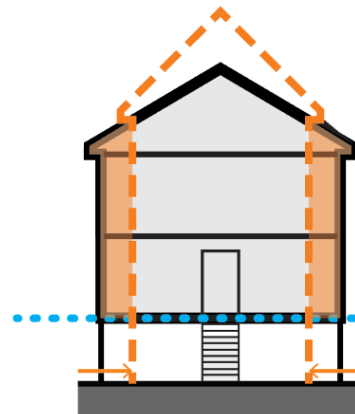
Existing homes in M. Districts, if damaged, may not be able to rebuild



5

## Old Homes in Small Lots

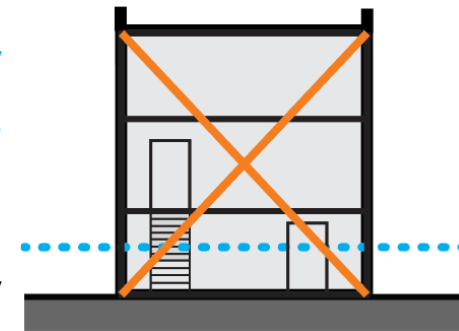
Old bungalow homes on small lots may need more flexibility to rebuild in the future



6

## Highly Vulnerable Areas

Density may need to be limited in highly vulnerable areas



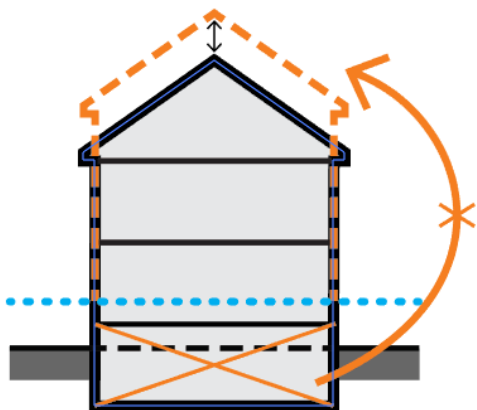
# What We've Learned

Based on our work in Sheephead Bay, Gerritsen Beach, and other floodplain communities, we've learned:

1

## Height

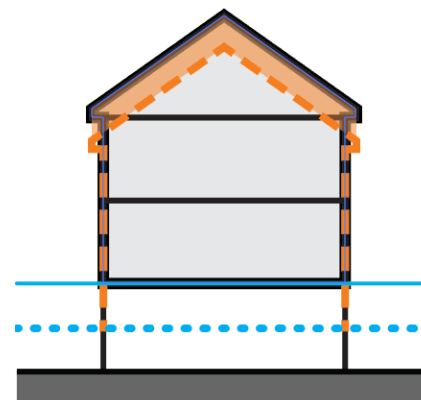
Homeowners may face the loss of subgrade spaces when retrofitting



2

## Height

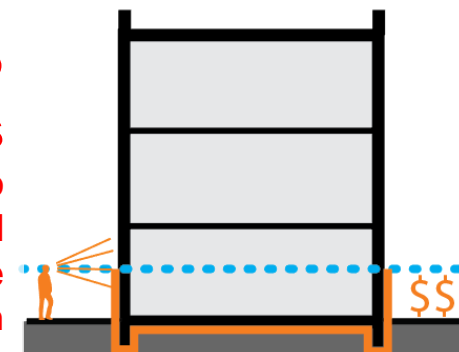
Properties owners may want to address future risk by over-elevating



3

## Ground Floors

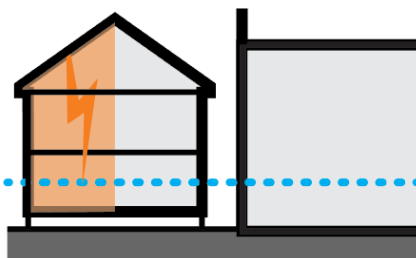
Current incentives to keep active ground floors may not be enough



4

## Homes in M Districts

Existing homes in M. Districts, if damaged, may not be able to rebuild



5

## Old Homes in Small Lots

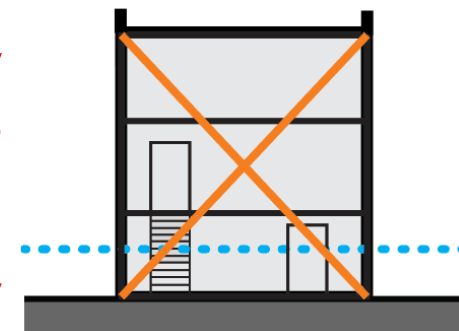
Old bungalow homes on small lots may need more flexibility to rebuild in the future



6

## Highly Vulnerable Areas

Density may need to be limited in highly vulnerable areas





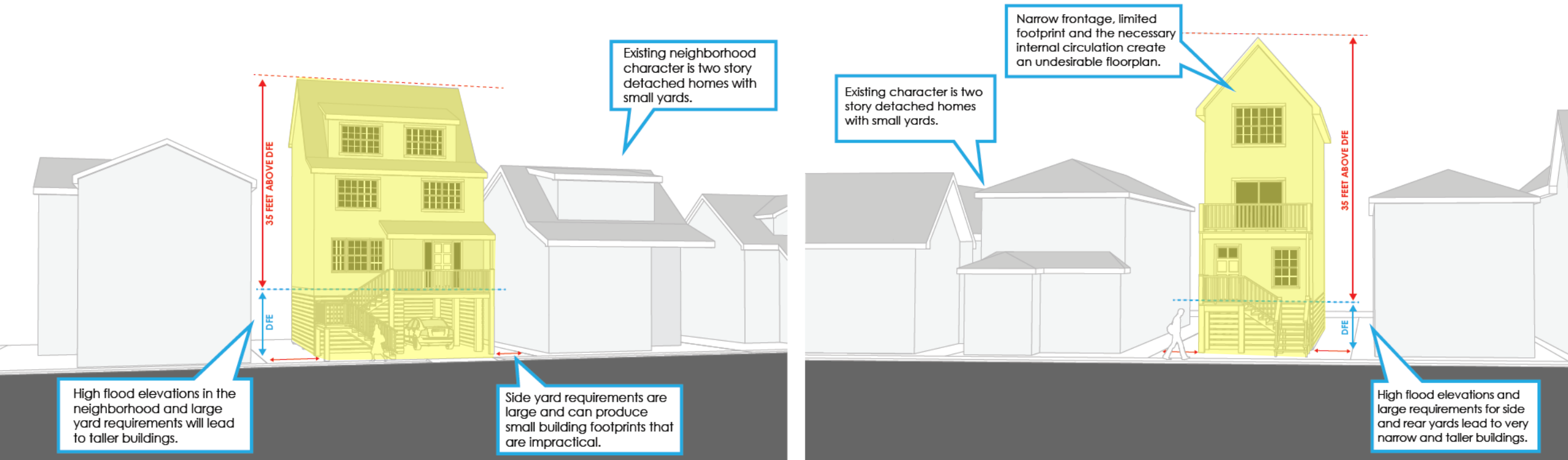
Resilient Neighborhoods

# Gerritsen Beach



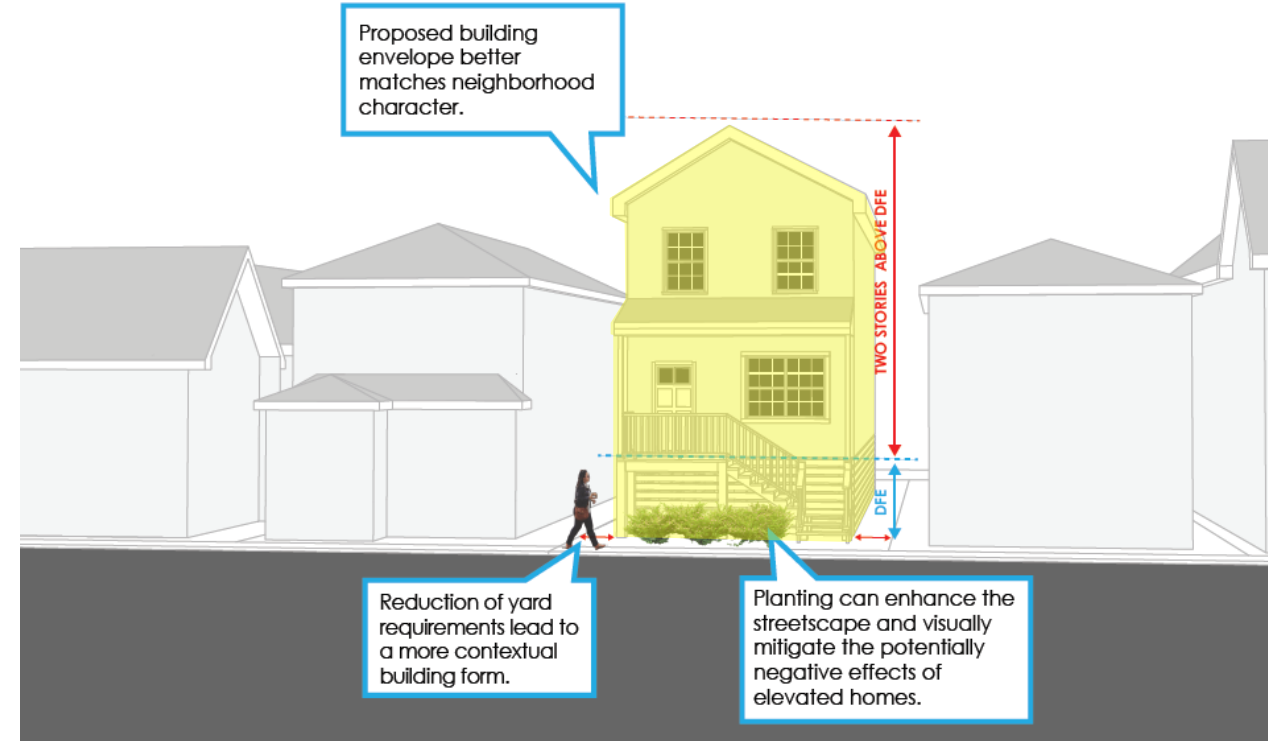
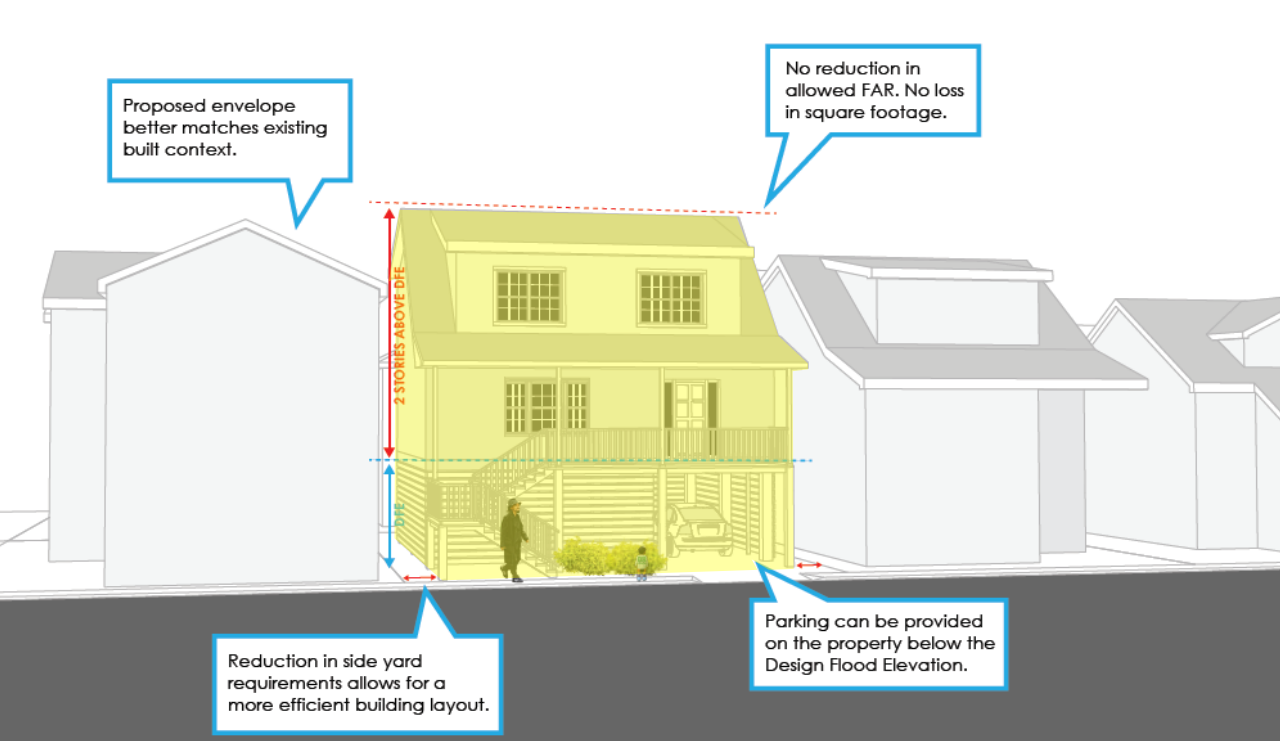


# Gerritsen Beach Residential Core Existing R4 Zoning



- Allows for multi-family buildings
- Max building height 35ft above DFE (already 6-8ft above street level)
- Inefficient footprint due to zoning requirements
- Max building height 2 to 3 stories
- Often do not comply with side yard regulations

# Gerritsen Beach Residential Core Proposed Zoning Strategies



- **Rezone** from multi-family R4 to one and two family R4-1 to prevent out of context development
- **Reduce side yard requirements** to allow for a better building layout
- **Limit height at 25 feet** or two (2) stories to match existing built character
- **Further limit new development** to one-family homes for lots < 3,000 sf in line with existing infrastructure capacity
- **No change in allowable FAR**

# Gerritsen Beach Waterfront Proposed Zoning Strategies



 Subject to Wave Risk (LiMWA)

 C3 Zoning District

- On lots not directly fronting the water, **rezone** from multi-family C3 to **one and two family R4-1** to prevent out of context development
- Limit development in areas at higher risk along the waterfront to commercial uses only



# Gerritsen Avenue Proposed Zoning Strategies



- Expand C2-2 designation along existing commercial uses
- Allow for a **wider range of uses** to serve the local community



Resilient Neighborhoods

# Sheepshead Bay





# Special Sheepshead Bay District



Restaurants and cafes on western end of Emmons



Public plaza



Seven-story apartment building on eastern end



Created in 1973 to promote waterfront related uses and encourage the creation of new public open space.

- Special District does not have any guidance on resiliency
- Public open space requirements are not aligned with today's resiliency design standards
- Plazas are allowed to be sunken up to 2 feet below grade.



Below grade retail space in cellar



Attached buildings

## Current Uses in Special Sheepshead Bay District by Subarea

- |   |  |
|---|--|
| <span style="display: inline-block; width: 15px; height: 15px; background-color: #f08080; border: 1px solid black;"></span> Local Retail                        | <span style="display: inline-block; width: 15px; height: 15px; background-color: #add8e6; border: 1px solid black;"></span> Bungalow Courts                  |
| <span style="display: inline-block; width: 15px; height: 15px; background-color: #ff0000; border: 1px solid black;"></span> Restaurants, cafe,                  | <span style="display: inline-block; width: 15px; height: 15px; background-color: #ffff00; border: 1px solid black;"></span> 1-2 Family Homes                 |
| <span style="display: inline-block; width: 15px; height: 15px; background-color: #ff00ff; border: 1px solid black;"></span> Hotels                              | <span style="display: inline-block; width: 15px; height: 15px; background-color: #ffa500; border: 1px solid black;"></span> Multi-family Buildings           |
| <span style="display: inline-block; width: 15px; height: 15px; background-color: #00bfff; border: 1px solid black;"></span> Maritime Uses<br>Yacht/Social Clubs | <span style="display: inline-block; width: 15px; height: 15px; background-color: #a0522d; border: 1px solid black;"></span> Health/Social Services           |
|   | <span style="display: inline-block; width: 15px; height: 15px; background-color: #4169e1; border: 1px solid black;"></span> Senior Housing<br>Adult Day Care |



## ACTIVE COMMERCIAL GROUND FLOORS

Require retail spaces have optimal floor to ceiling heights to allow for a range of uses.



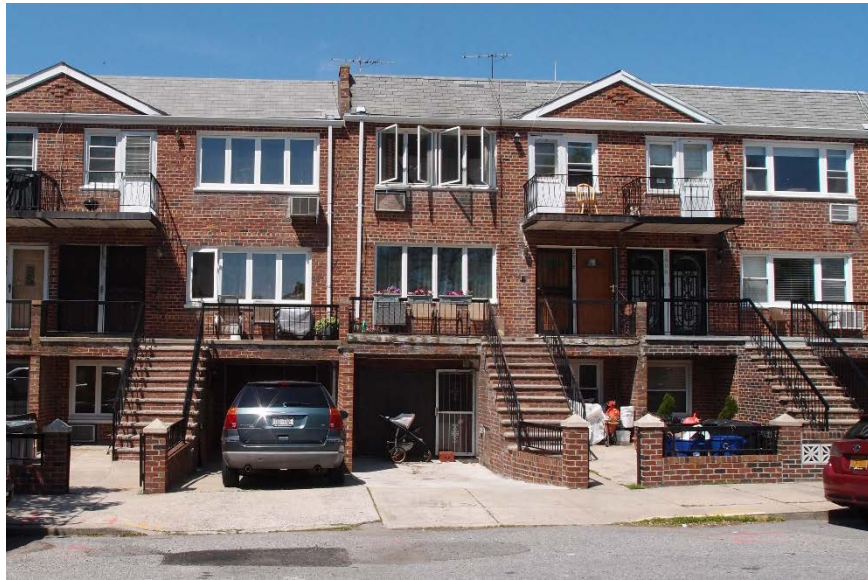
## UPDATE PUBLIC SPACE REGULATIONS

Align SSBD text with resiliency and urban design best practices to ensure open space is accessible and can withstand flooding



# Residential Areas Proposed Zoning Strategies

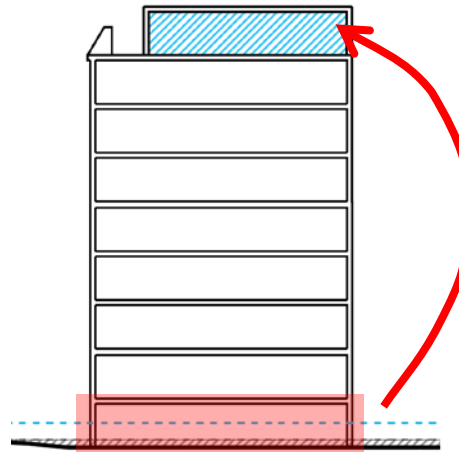
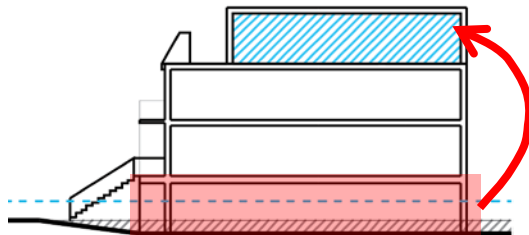
## Attached Homes



## Multi-family Buildings

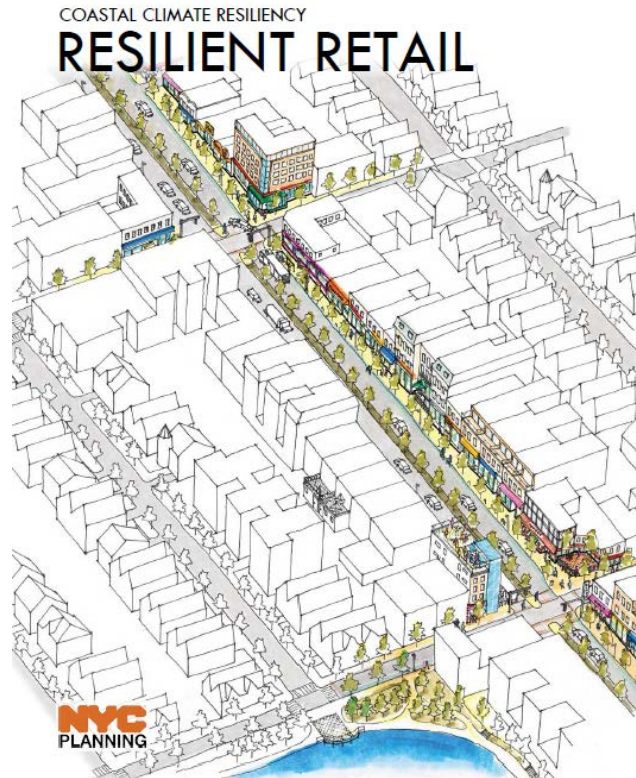


**Identify citywide zoning modifications that make it easier retrofit attached buildings and apartment buildings.**

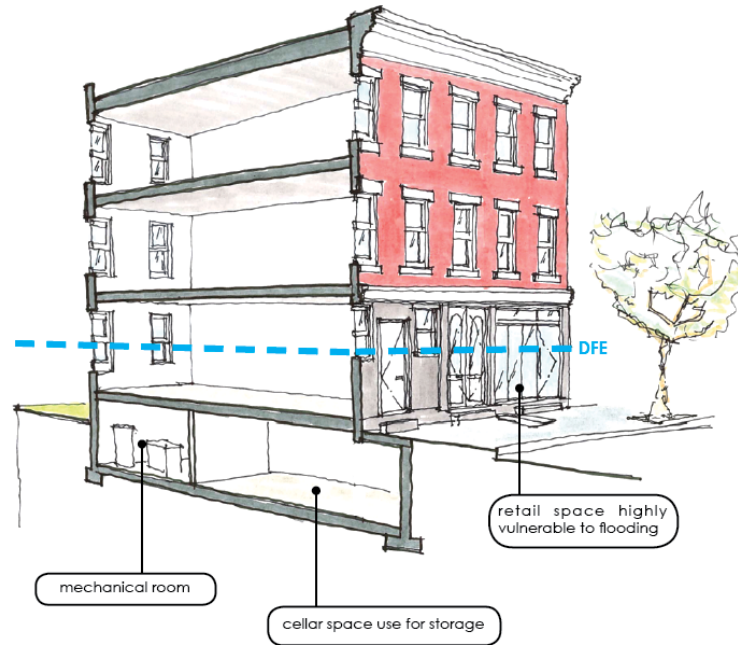




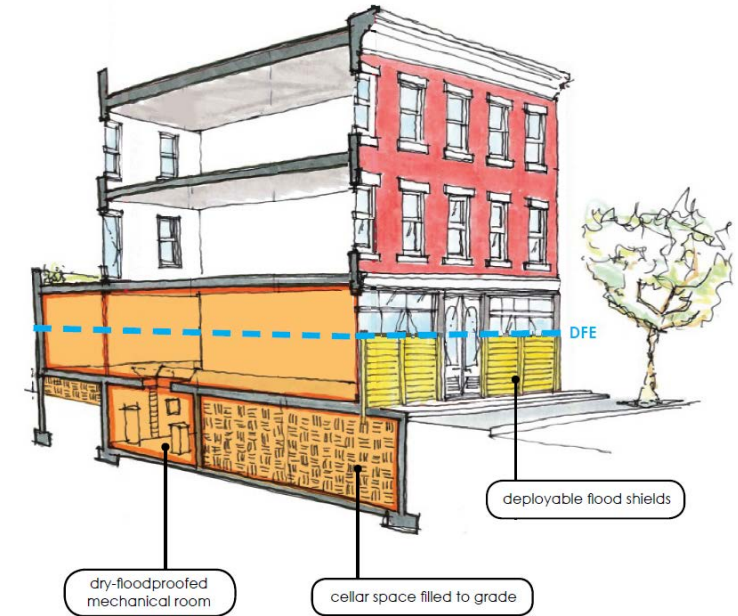
# Sheepshead Bay Road Strategies



Existing low rise mixed use building with below grade space



Retrofitted low rise mixed use building



- Sheepshead Bay Road is case study in Resilient Retail Report
- The report provides retrofit and design strategies for commercial buildings



- DCP provided retrofitting and zoning analysis to the Build it Back program
- Build it Back evaluating elevation/reconstruction options and infrastructure repairs.





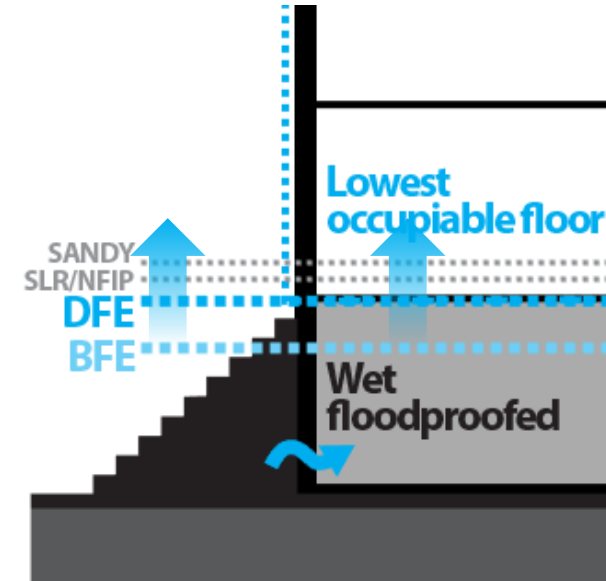
1

Make the provisions of the current, temporary 2013 Flood Text **permanent**



2

**Fix and improve** provisions based on lessons learned from Resilient Neighborhood Studies and other areas in the floodplain



3

Begin to **promote** new development + proactive retrofitting to high resiliency standards





Given the difficult issues involved, DCP plans a robust public engagement process:



As part of this outreach process, DCP will:

- **Partner with stakeholders** to educate and promote awareness of flood risk and resiliency issues
- **Explain how zoning tools** relate to resiliency
- **Explore unique neighborhood issues** through in-depth public presentations and workshops
- Develop a proposal through an **iterative process** that is shaped by feedback

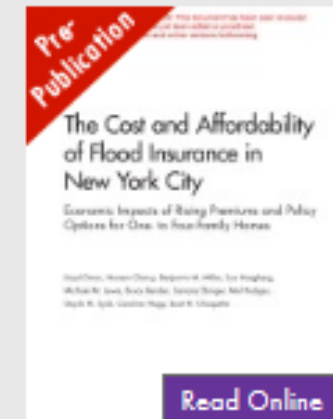
\* Schedule is tentative and subject to change

## The Cost and Affordability of Flood Insurance in New York City

### Economic Impacts of Rising Premiums and Policy Options for One- to Four-Family Homes

by Lloyd Dixon, Noreen Clancy, Benjamin M. Miller, Sue Hoegberg, Michael M. Lewis, Bruce Bender, Samara Ebinger, Mel Hodges, [Gayle M. Syck](#), Caroline Nagy, Scott R. Choquette

Related Topics: [Community Resilience](#), [Flooding](#), [Insurance](#), [New York City](#), [Residential Housing](#)



### Key Findings/Next Steps

- Many neighborhoods will be especially hard hit when risk increases and rates move toward actuarial rates. Rates could reach up to \$4000 a year.
- City is advocating that FEMA explore more cost-effective retrofitting strategies.



- Report release in late April/early May
- 2017-2018 outreach on Flood Text II
- Proposed local zoning actions will travel with Flood Text II



**Flood risk information and address lookup**  
**[floodhelpny.org](http://floodhelpny.org)**

**For more information and updates visit our website:**  
**[www.nyc.gov/resilientneighborhoods](http://www.nyc.gov/resilientneighborhoods)**

**or email us:**  
**[ResilientNeighborhoods@planning.nyc.gov](mailto:ResilientNeighborhoods@planning.nyc.gov)**