

Coastal Resilience at Local Level

Coastal Resources Commission

April 18, 2019

Donna Creef, Dare County Planning Director



Resilience At Local Level

- Dare County's ability to effectively respond to and address the hazards and influences impacting our community.
- Impacts to our public infrastructure, residential and commercial properties, natural resources, and local economy.
- Both short-term and long-term responses to specific events and future conditions.

Resilience at Local Level

- Historical -- Coastal communities have been practicing resiliency for decades just not called resiliency. Construction practices of coastal communities, past recovery from multiple events.
- Future -- Identification of new management tools to address impacts from more frequent, intense events to changing conditions.

Resilience at Local Level

- Education of property owners and residents on hazards through outreach activities.
- Mitigation of hazards and flood risks through regulation and assistance to property owners.

Resiliency Through Education

- Dare County is a participant in the NFIP Community Rating System. The CRS program is a voluntary program in which local governments implement outreach activities and higher regulations to mitigate flood hazards.
- Dare County property owners currently receive a 15% decrease on policies.

CRS Activities

- In 2017, Dare and six towns joined efforts on CRS outreach activities to present unified CRS message.
- Slogan – “Low Risk is not No Risk”.
- Brochure on flood risks, protection measures, and flood insurance.
- Webpage – OBXFloodmaps.com

CRS Slogan



"LOW RISK" Is Not "NO RISK"
FLOODS HAPPEN... ANYWHERE



"LOW RISK" Is Not "NO RISK"
Don't Be Fooled By The X Zone – Get Flood Insurance

CRS Brochure



Know Your Zone

Learn About Flood Risks
On the Outer Banks and
How to Protect Your Property



"LOW RISK" Is Not "NO RISK"
OBXFloodMaps.com



Flood Insurance Costs And Rating Factors

There are many factors that affect the cost of a flood insurance policy. Here are some items that affect how flood insurance costs are determined.

- **ARE YOU IN A FLOOD ZONE?** If the property is located in a flood zone, then the cost of flood insurance will reflect the flood zone designation for the property. Properties in low-risk X zones or Shaded X zones generally have lower flood insurance rates. Some X zone properties may qualify for a preferred risk policy (PRP). Properties in AE zones, AO zones and VE zones will be higher in cost due to the higher risk associated with these flood zones. VE zones are the highest risk zones and may have higher flood insurance rates.
- **HAS THE ZONE CHANGED?** If the flood zone designation for your property has changed, talk to your insurance agent about what impacts the new designation may have on your insurance rate. If your property has changed from a higher risk zone to a lower risk zone, you may experience decreased flood insurance costs. Please contact your insurance agent to discuss your options.
- **ELEVATE TO MITIGATE** The elevation of the first floor of living area directly impacts the cost of flood insurance. If the first floor is below the base flood elevation, then your insurance rate will be significantly higher. On the outer Banks, elevating structures is the preferred construction method to mitigate flood risks. Older, existing homes can be raised to mitigate flood risks. Equipment, such as the HVAC unit, should also be elevated to the applicable base flood elevation for costs savings.
- **FLOOD VENTS** Flood vents are required for enclosed areas located below the base flood elevation. Proper installation of flood vents will impact your flood insurance rate.
- **ENCLOSED AREAS** Areas located below the base flood elevation are limited to use for parking, access and storage. All construction materials used in areas below the base flood must be flood resistant materials. A list of flood resistant materials can be found at OBXFloodMaps.com.

ELEVATE TO MITIGATE!

1 Foot = 30% Reduction

An elevation of 1 foot above the base flood elevation may result in significant savings in flood insurance premiums. Elevating a home above the base flood is the best way to reduce the cost of your annual flood insurance premiums.

(Source FEMA October 2017)



Older home in Hatteras village elevated to mitigate flood risks



For more information
visit: OBXFloodMaps.com

- Latest information on updated flood maps
- Explanation of different flood zones and associated risks
- Additional FAQs
- Subscribe to receive emails
- Request flood zone designation for your property
- Video gallery



"LOW RISK" Is Not "NO RISK"

Mitigation-Living Shorelines

- Construction of living shorelines along estuarine shoreline areas.
- Living shorelines respond better to storm conditions than traditional bulkheads.
- Cooperative efforts with non-profits, government agencies, and property owners.

Mitigation Efforts



Living shoreline projects can be constructed with CCAP (community conservation assistance program) grants. These grants are cost-shared by property owners and State funds. Dare Soil and Water staff administers CCAP grants.

Mitigation Efforts

- Since 1999, Dare County has elevated over 72 homes with HMGP grant funds and other FEMA mitigation funds. Pending applications of 24 homes for FEMA funding.
- Since 2011, 143 homes have been elevated by property owners with insurance (ICC) funds and private funding. ICC provides up to \$30,000 to property owner.



Eagle Pass Road Hatteras
FEMA Mitigation Project

Elevated in 2016 with
HMGP Funds



FFL 10.6'

Resiliency Through Regulation

- National Flood Insurance Program participant since 1978.
- Local ordinance includes 1-foot freeboard that was enacted in 2014.
- Currently working on Local Elevation Standard in response to revised FIRMs.

Flood Maps in Dare

- Current flood insurance rate maps (FIRMs) were adopted in 2006.
- Revised preliminary maps released for Dare County on June 30, 2016. Hope to have letter of final determination later this year for adoption of revised maps in 2020.
- Developed OBXfloodmaps.com for centralized information source for property owners.

Revised FIRMs for Dare

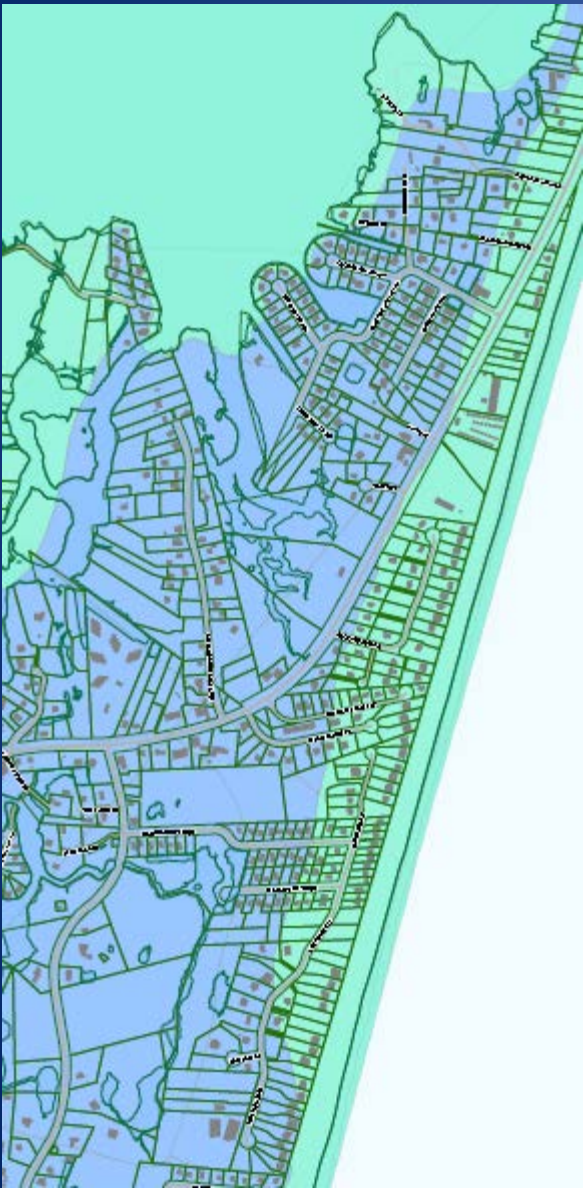
- Now- 14,703 properties AE zone and VE Zone (12,875 AE properties and 1828 VE properties on 2006 maps.)
- Revised maps --11,627 properties total
- 8,493 AE zone (decreased BFE AE8 – AE4)
- 120 AO zone (new for Dare)
- 124 VE zone (moved to Shaded X or AE zone)
- 2,890 Shaded X zone (reclassified)
- 3,076 X zones

Concerns About Maps

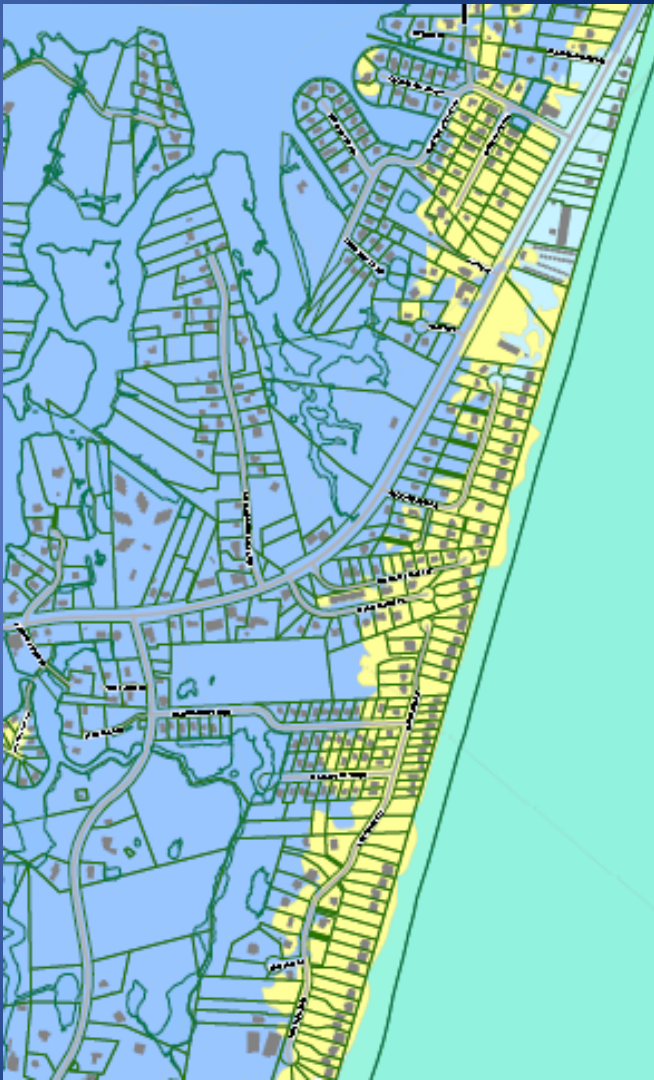
- Historically flooded areas will be designated as X zones, Shaded X, or in AE zone with decreased BFEs.
- Revised maps may not accurately reflect soundside flooding hazards or extreme rainfall amounts.
- Failure to realize risk, assume there is no risk in X zones/Shaded X zones. Property owners choose to discontinue flood insurance coverage.

HATTERAS VILLAGE

Effective Map



Revised Map




Shaded X

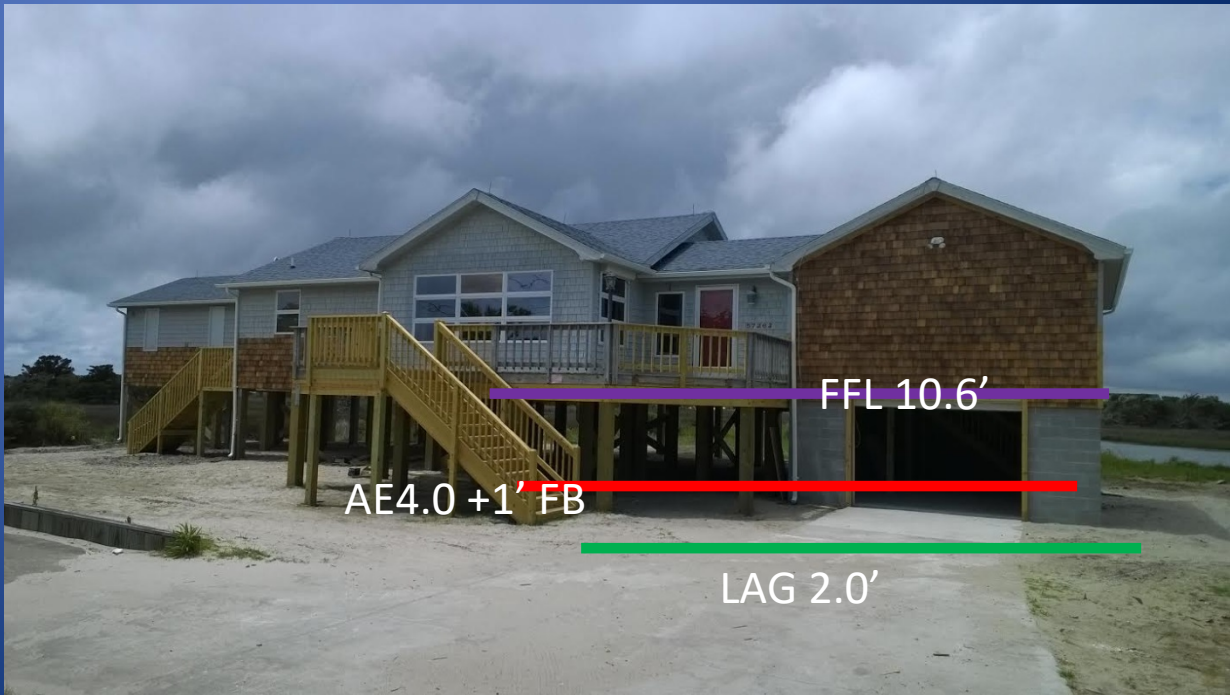

AE Zone


VE Zone



Eagle Pass Road Hatteras
FEMA Mitigation Project

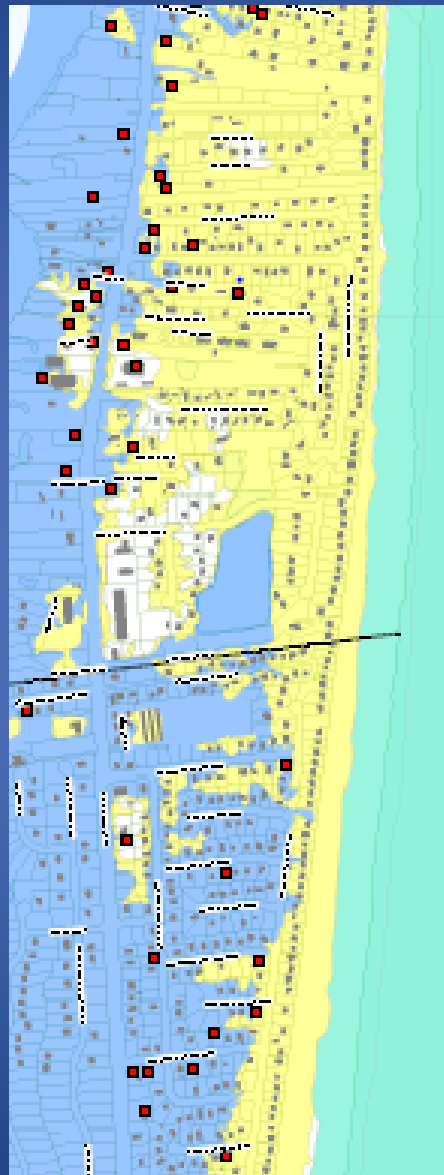
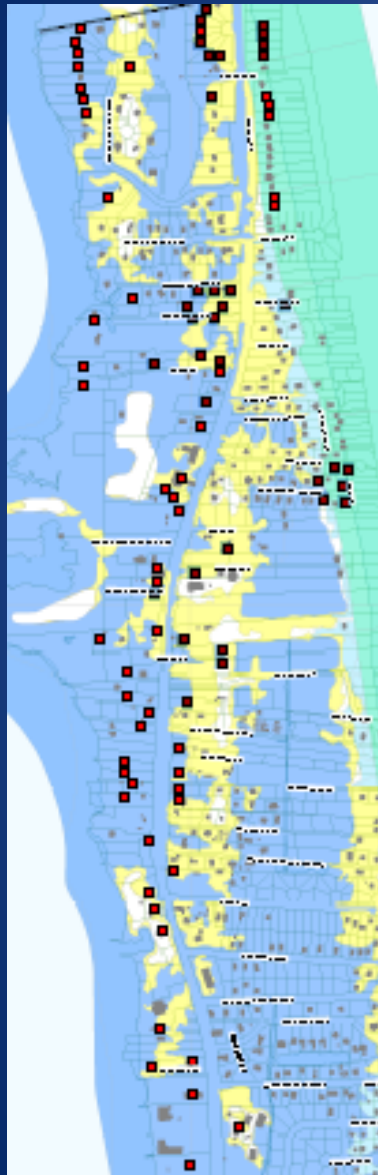
2006 AE 8.0 + 1' FB
PRELIMINARY AE 4.0







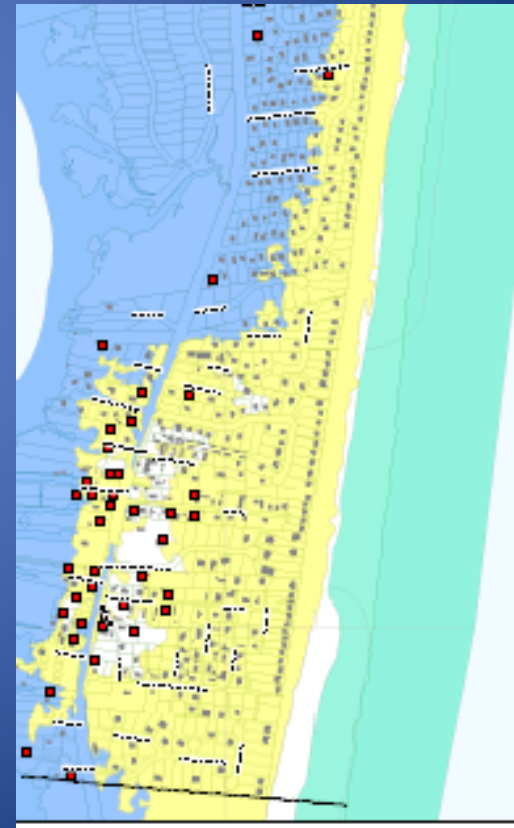


Approximate Tide Line Hurricane Matthew

Irene Flooding -- Rodanthe



-  AE 5 or AE 4
-  Shaded X Zone
-  VE Zone
-  Major Flood Damage



COLINGTON



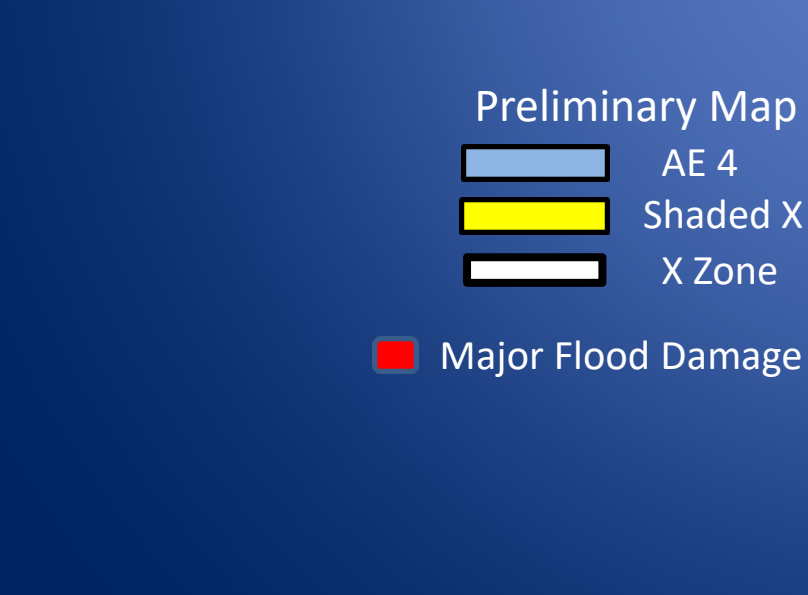
Effective Map



AE 8



Shaded X



Preliminary Map



AE 4



Shaded X



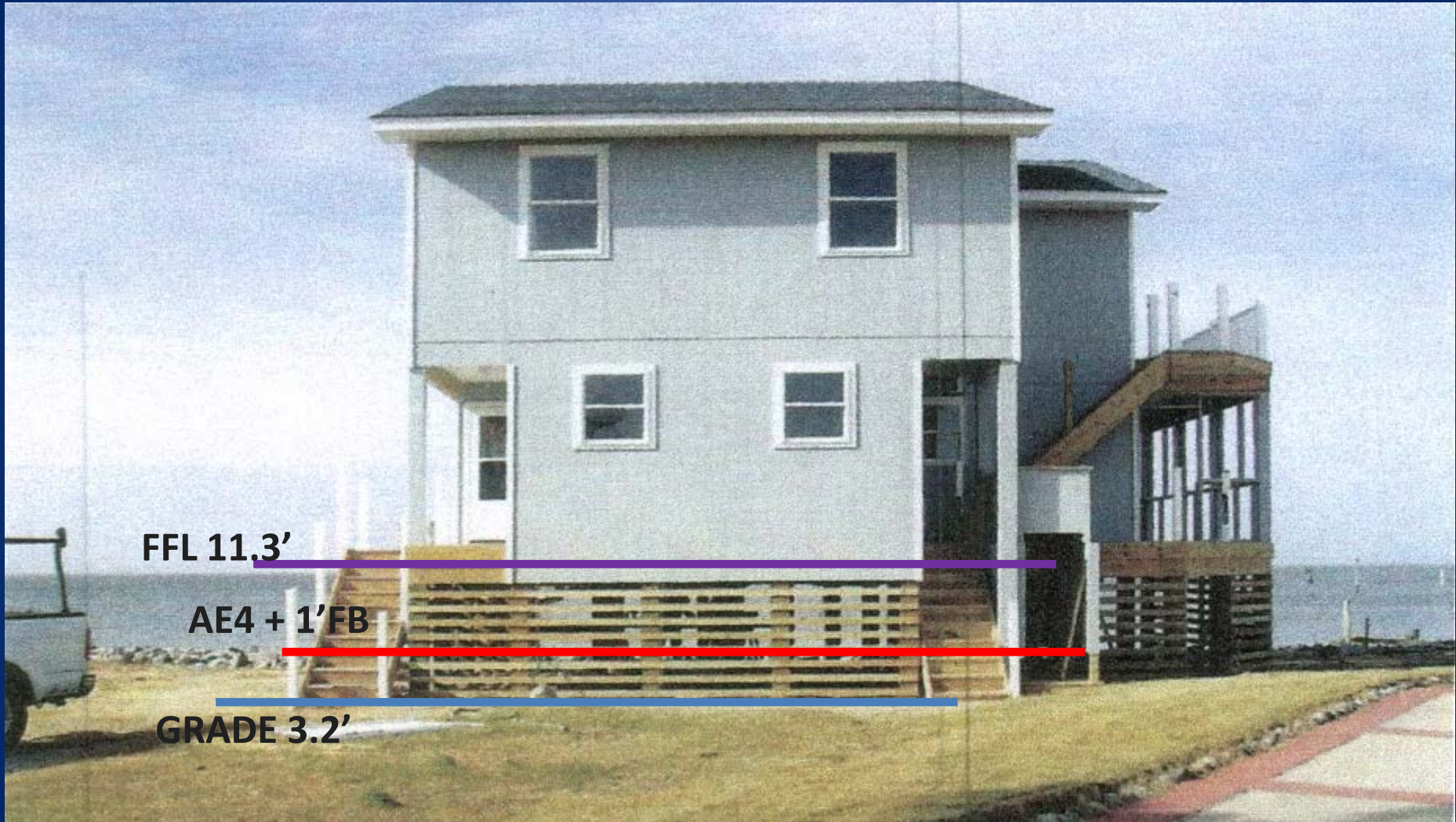
X Zone



Major Flood Damage



COLINGTON 2006 FIRM AE 8.0 REVISED AE 4.0



FFL 11.3'

AE4 + 1'FB

GRADE 3.2'

Harbour View Drive

Proposed Regulations

- Developing local elevation standard (LES) to accompany revised FIRMs. Dare working with six towns to develop local elevation standard.
- Input from OB Homebuilders throughout process. Support from realtors and insurance agents.
- Goal of LES is to ensure structures are elevated to appropriate levels to mitigate flood losses.

Local Elevation Standard

- LES elevation will be based on review of historical base flood elevations and local empirical knowledge. We do not want to go beyond current (2006) BFEs.
- Additional freeboard amounts for those areas that remain in AE flood zones. VE zone freeboard remains at 1 foot.
- Treat Shaded X and X zones as flood zones with elevation requirement if natural grade is not to identified LES level.

Local Elevation Standard

- LES regulations will not allow homeowners to convert enclosed storage areas currently below base flood for use as living areas.
- Hope to avoid structures being rendered non-conforming with if future FIRMs revert back to higher base elevations. FIRMs are updated every ten years or so.

Suggested Actions

- Advocate for better mapping options for use in FIRM updates.
- More local involvement during map development to validate maps with empirical data.
- Shorter map adoption process – should not take four years for map adoption.
- Advocate for higher ICC funding as part of NFIP renewal.

Questions

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