



Floodplain Management Ordinance Update

Implications for Manufactured Home Parks (MHPs)

October 2021



Proposed Revision to Flood Ordinance

To help maintain the **\$1.5 million in annual flood insurance premium savings** that the City's residents receive via FEMA's Community Rating System, the flood ordinance is being updated.

Staff worked with code specialists from Florida Division of Emergency Management to have language that meets FEMA's, FDEM's, and the City's recommendations.

Existing requirements (paraphrased)

- › Minimum finished floor at 36 inches above grade

Proposed change (paraphrased) to meet the CRS compliance

- › Bottom of the frame at or above code requirements within the Florida Building Code for structures within Zones A and V (the FBC also refers to local design flood elevation which for Clearwater is +2 feet above the designated FEMA elevation requirements)



Proposed Revision to Flood Ordinance

Section 7. That Chapter 51. Flood Damage Prevention, Article III. Flood Resistant Development, Division 5. Manufactured Homes, Section 51.1305. Elevation Requirements, Community Development Code, be amended to read as follows:

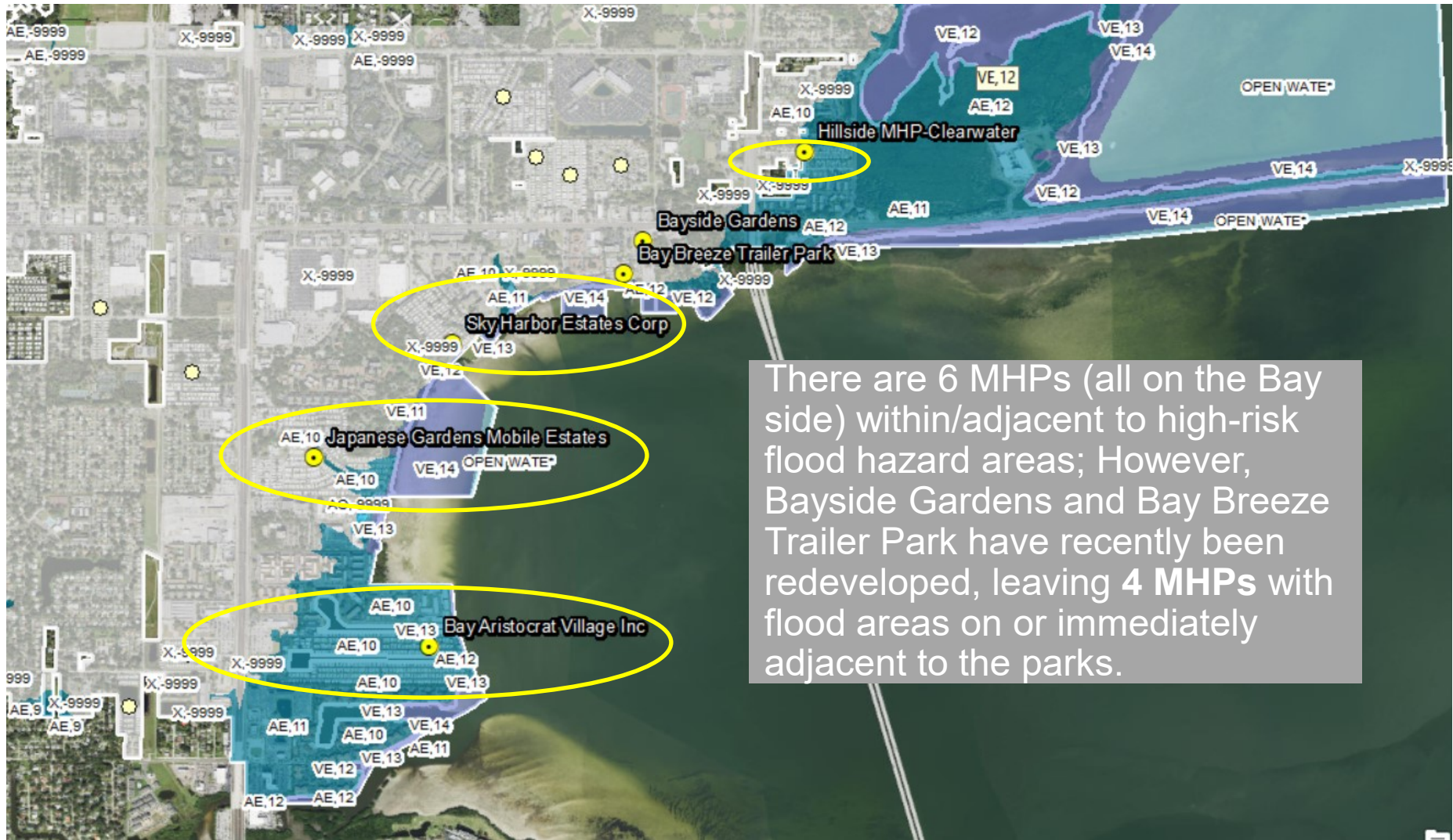
Sec. 51.1305. Elevation requirements.

- (1) All manufactured Manufactured homes that are placed, replaced, or substantially improved in flood hazard areas shall be elevated such that the bottom of the frame is at or above the elevation required as applicable to the flood hazard area, in the Florida Building Code, Residential Section R322.2 (Zone A) or R322.3 (Zone V and Coastal A Zone). shall comply with Section 51.1305(2) or 51.1305(3), as applicable
- (2) *General elevation requirement.* Unless subject to the requirements of Section 51.1305(3), all manufactured homes that are placed, replaced, or substantially improved on sites located: (a) outside of a manufactured home park or subdivision; (b) in a new manufactured home park or subdivision; (c) in an expansion to an existing manufactured home park or subdivision; or (d) in an existing manufactured home park or subdivision upon which a manufactured home has incurred "substantial damage" as the result of a flood, shall be elevated such that the bottom of the frame is at or above the elevation required, as applicable to the flood hazard area, in the Florida Building Code, Residential.
- (3) ~~Elevation requirement for certain existing manufactured home parks and subdivisions.~~ Manufactured homes that are not subject to Section 51.1305(2), including manufactured homes that are placed, replaced, or substantially improved on sites located in an existing manufactured home park or subdivision, unless on a site where substantial damage as result of flooding has occurred, shall be elevated such that either the:
 - (a) ~~Bottom of the frame of the manufactured home is at or above the elevation required, as applicable to the flood hazard area, in the Florida Building Code, Residential; or~~
 - (b) ~~Bottom of the frame is supported by reinforced piers or other foundation elements of at least equivalent strength that are not less than 36 inches in height above grade~~

Note: Additional regulatory information is available within *Chapter 51 – Flood Damage Prevention* of the Community Development Code

← This is an excerpt of the code change that pertains to manufactured home elevation requirements and is not the full set of revisions being considered.

Manufactured Home Parks within FEMA High-Risk Areas



There are 6 MHPs (all on the Bay side) within/adjacent to high-risk flood hazard areas; However, Bayside Gardens and Bay Breeze Trailer Park have recently been redeveloped, leaving **4 MHPs** with flood areas on or immediately adjacent to the parks.

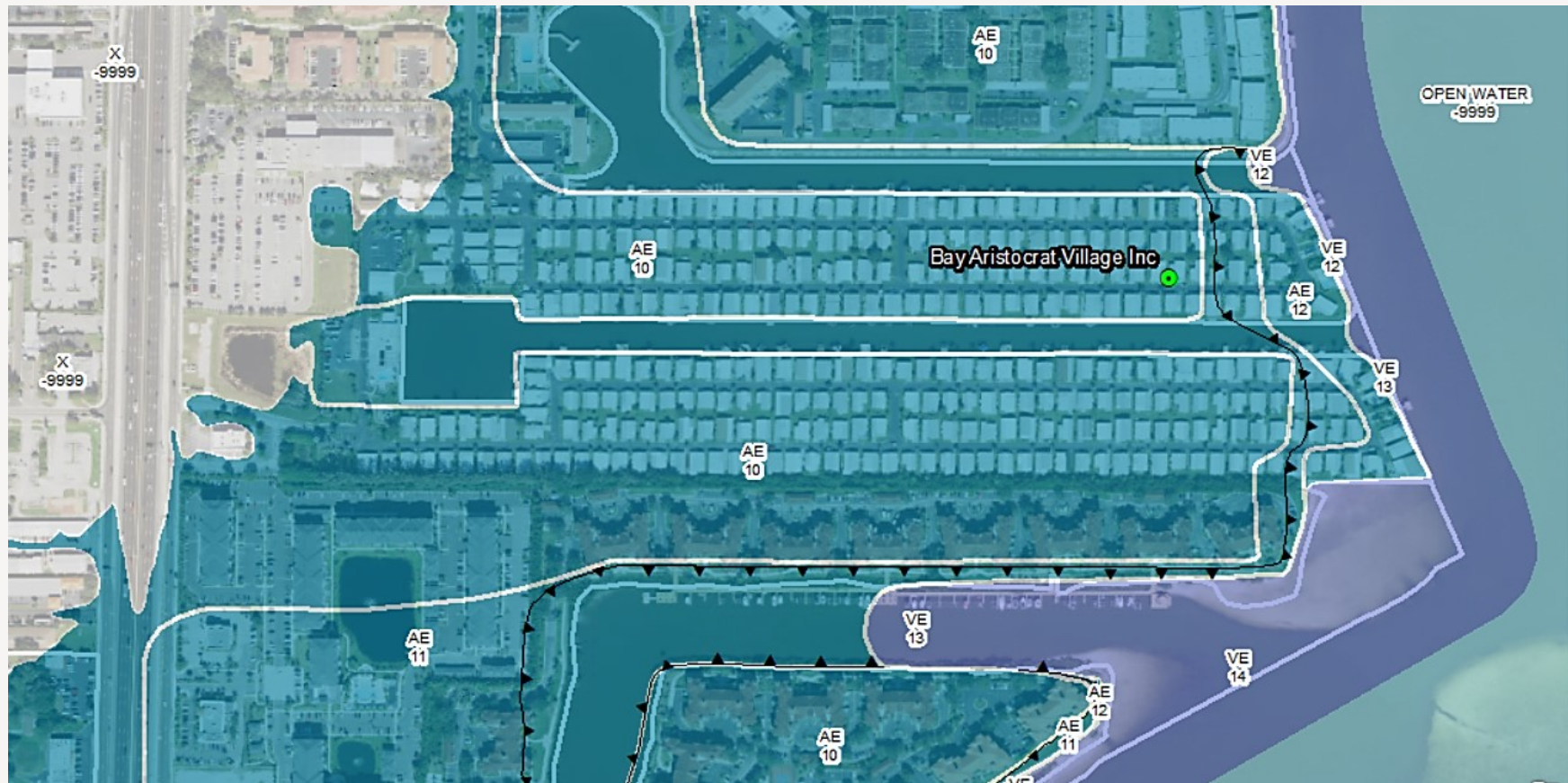
The 4 MHP Parks In/Adjacent to the SFHA

- › **Bay Aristocrat Village** (362 Lots)
 - › Flood zones AE (Inland), Coastal AE (Some Wave Action) and VE (Coastal)
 - › All of the lots are within one of the above high-risk flood zones
- › **Hillside MHP** (70 Lots)
 - › Flood zones X (low risk), AE, and Coastal AE
 - › Approximately half of the lots are within AE or Coastal AE zones
- › **Bayside Waters MHP (F/K/A Japanese Gardens Mobile Estates)** (368 Lots)
 - › Flood zones X (low risk), X500, AE, Coastal AE, and VE
 - › Approximately 60 lots in AE zones (11 of which are Coastal AE; and 1 of those lots is immediately adjacent to VE zone)
- › **Sky Harbor Estates** (137 Lots)
 - › Flood zone X and a small sliver of X500 adjacent to the bay
 - › All lots are in Zone X (However, 7 lots are immediately adjacent to X500 and VE Zones)



Bay Aristocrat Village

Relation to the Special Flood Hazard Areas and Base Flood Elevations (Effective August 24, 2021)



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Bay Aristocrat Village

Sample Elevation Certificate

U.S. DEPARTMENT OF HOMELAND SECURITY
Federal Emergency Management Agency
National Flood Insurance Program

ELEVATION CERTIFICATE

OMB No. 1660-0008
Expires March 31, 2012

Important: Read the instructions on pages 1-9.

SECTION A - PROPERTY INFORMATION

A1. Building Owner's Name					
A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.	18675 US Highway 19 North				
City	Clearwater	State FL ZIP Code 33764			
A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.)	Parcel ID # 20-29-16-03290-000				
A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.)	Residential				
A5. Latitude/Longitude: Lat. 27.943671 Long. -82.726821	Horizontal Datum: <input type="checkbox"/> NAD 1927 <input checked="" type="checkbox"/> NAD 1983				
A6. Attach at least 2 photographs of the building if the Certificate is being used to obtain flood insurance.					
A7. Building Diagram Number	8				
A8. For a building with a crawlspace or enclosure(s):	A9. For a building with an attached garage:				
a) Square footage of crawlspace or enclosure(s)	1445	sq ft	a) Square footage of attached garage	N/A	sq ft
b) No. of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above adjacent grade	13		b) No. of permanent flood openings in the attached garage within 1.0 foot above adjacent grade	0	
c) Total net area of flood openings in A8.b	1946	sq in	c) Total net area of flood openings in A9.b	0	sq in
d) Engineered flood openings?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		d) Engineered flood openings?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	

SECTION B - FLOOD INSURANCE RATE MAP (FIRM) INFORMATION

B1. NFIP Community Name & Community Number Pinellas County Unincorporated Areas 125139		B2. County Name Pinellas		B3. State FL	
B4. Map/Panel Number 12103C0128	B5. Suffix G	B6. FIRM Index Date 8-18-09	B7. FIRM Panel Effective/Revised Date 9-3-03	B8. Flood Zone(s) AE	B9. Base Flood Elevation(s) (Zone AO, use base flood depth) 9'
B10. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in Item B9. <input type="checkbox"/> FIS Profile <input checked="" type="checkbox"/> FIRM <input type="checkbox"/> Community Determined <input type="checkbox"/> Other (Describe) _____					
B11. Indicate elevation datum used for BFE in Item B9: <input type="checkbox"/> NGVD 1929 <input checked="" type="checkbox"/> NAVD 1988 <input type="checkbox"/> Other (Describe) _____					
B12. Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Designation Date N/A <input type="checkbox"/> CBRS <input type="checkbox"/> OPA					

SECTION C - BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)

C1. Building elevations are based on:	<input type="checkbox"/> Construction Drawings*	<input type="checkbox"/> Building Under Construction*	<input checked="" type="checkbox"/> Finished Construction
*A new Elevation Certificate will be required when construction of the building is complete.			
C2. Elevations – Zones A1-A30, AE, AH, A (with BFE), VE, V1-V30, V (with BFE), AR, AR/A, AR/AE, AR/A1-A30, AR/AH, AR/AO. Complete Items C2.a-h below according to the building diagram specified in Item A7. Use the same datum as the BFE. Benchmark Utilized <u>G TIDAL FLD</u> Vertical Datum <u>ELEV= 9.48'(N.A.V.D.)</u> Conversion/Comments <u>N/A</u>			
a) Top of bottom floor (including basement, crawlspace, or enclosure floor)	10.3	Check the measurement used. <input checked="" type="checkbox"/> feet <input type="checkbox"/> meters (Puerto Rico only)	
b) Top of the next higher floor	N/A	<input checked="" type="checkbox"/> feet <input type="checkbox"/> meters (Puerto Rico only)	
c) Bottom of the lowest horizontal structural member (V Zones only)	N/A	<input checked="" type="checkbox"/> feet <input type="checkbox"/> meters (Puerto Rico only)	
d) Attached garage (top of slab)	N/A	<input checked="" type="checkbox"/> feet <input type="checkbox"/> meters (Puerto Rico only)	
e) Lowest elevation of machinery or equipment servicing the building	9.6	<input checked="" type="checkbox"/> feet <input type="checkbox"/> meters (Puerto Rico only)	
f) Lowest adjacent (finished) grade next to building (LAG)	6.3	<input checked="" type="checkbox"/> feet <input type="checkbox"/> meters (Puerto Rico only)	
g) Highest adjacent (finished) grade next to building (HAG)	1.4	<input checked="" type="checkbox"/> feet <input type="checkbox"/> meters (Puerto Rico only)	
h) Lowest adjacent grade at lowest elevation of deck or stairs, including structural support	N/A	<input checked="" type="checkbox"/> feet <input type="checkbox"/> meters (Puerto Rico only)	

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Bay Aristocrat Village

Sample Elevation Certificate

Building Photographs

See Instructions for Item A6.

Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.
18675 US Highway 19 North # [REDACTED]

City Clearwater State FL ZIP Code 33764

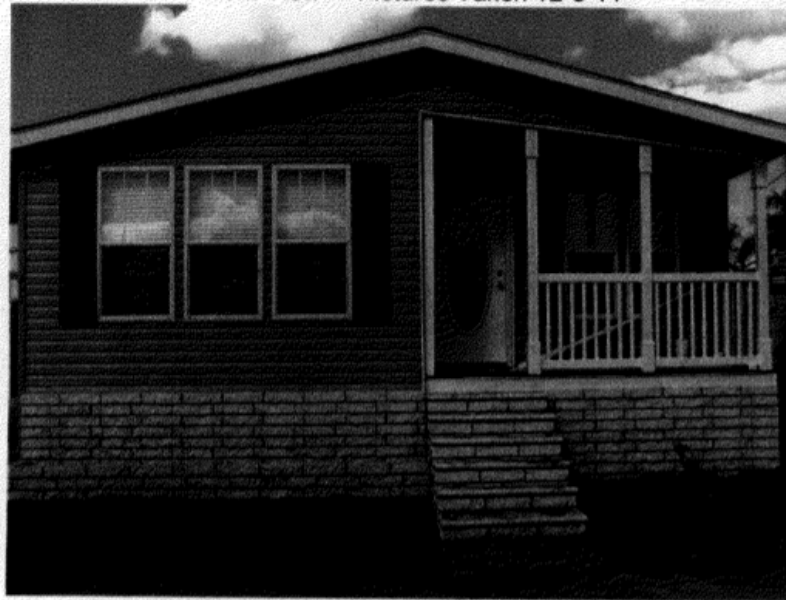
For Insurance Company Use:

Policy Number

Company NAIC Number

If using the Elevation Certificate to obtain NFIP flood insurance, affix at least two building photographs below according to the instructions for Item A6. Identify all photographs with: date taken; "Front View" and "Rear View"; and, if required, "Right Side View" and "Left Side View." If submitting more photographs than will fit on this page, use the Continuation Page on the reverse.

"Front View" – Pictures Taken 12-5-11



"Rear View" – Pictures Taken 12-5-11

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Zone and BFE in Effect for EC:

AE; 9 Feet (FIRM Date 09/03/03)

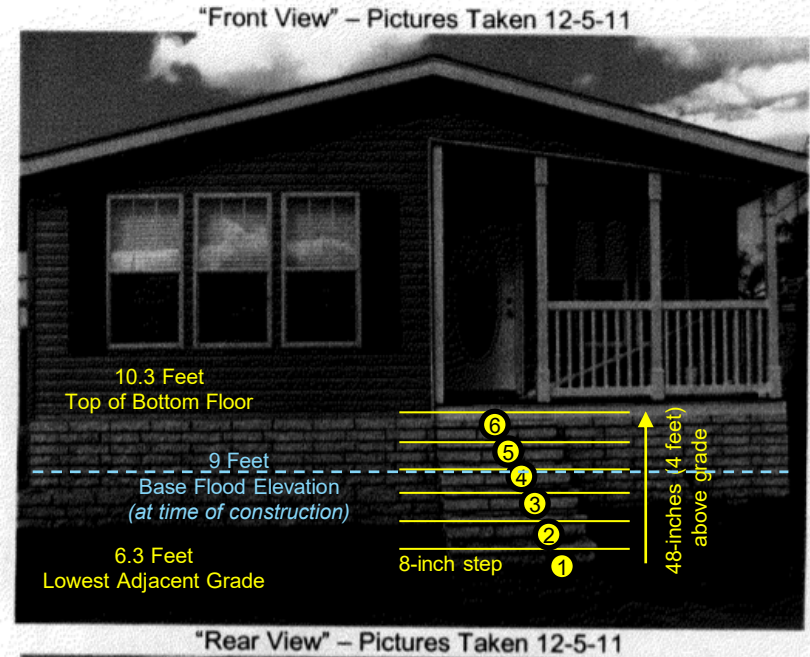
Zone and BFE based on Current Effective FIRM:

AE (Coastal); 11 Feet (FIRM Date 08/24/21)

Design Flood Elevation:

13 Feet (Effective BFE + 2 Feet)

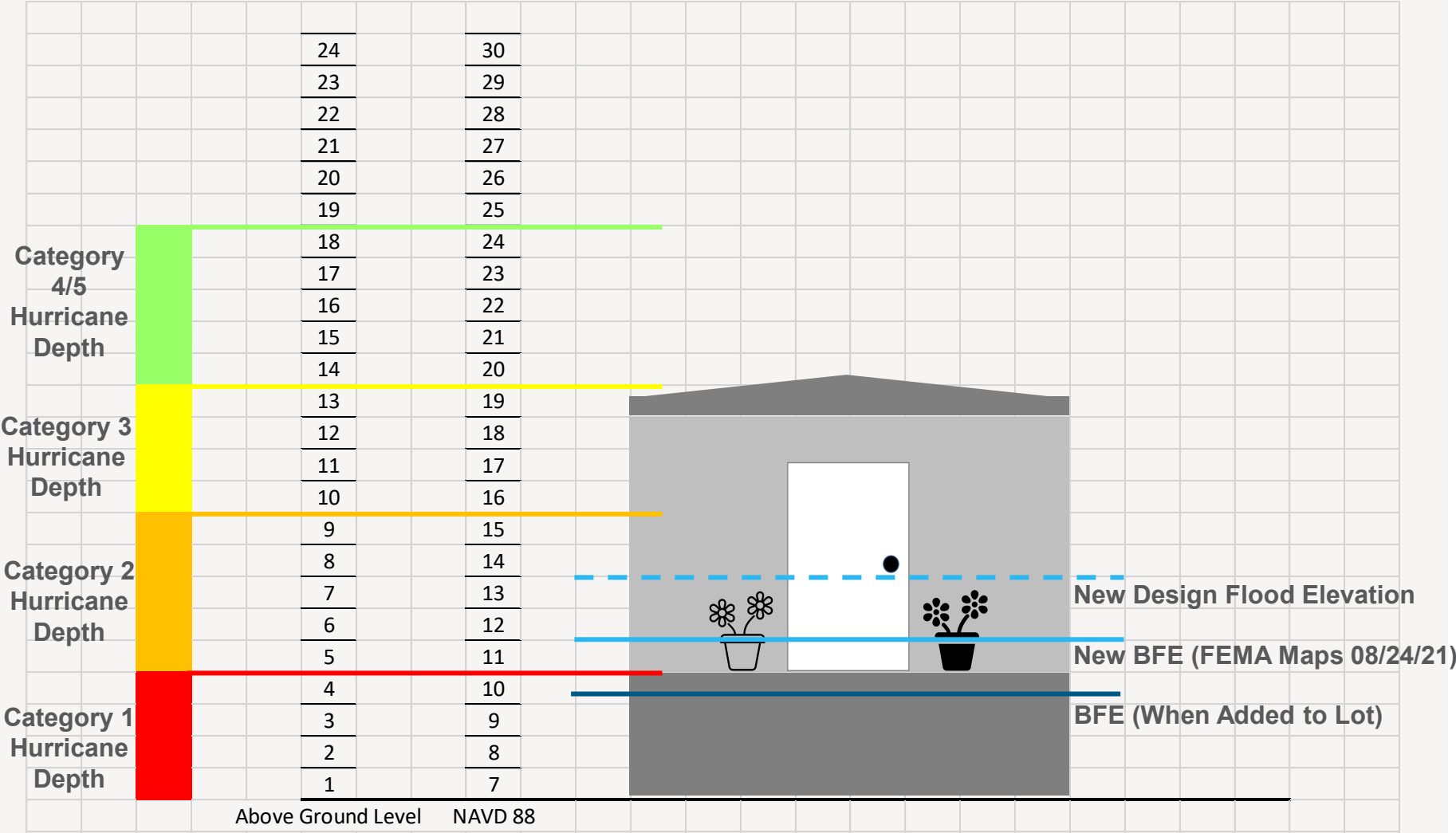
All elevations referenced
are NAVD88



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FEMA FIRM Zones

Zone Designations

- A
- AE
- AO
- OPEN WATER
- VE
- X
- City Boundary

2-Foot Contours

Limit of Moderate Flooding

North Arrow

Sources: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Bay Aristocrat Village

Summary of Changes



Proposed Code Language (Sec. 51.1305 – Elevation requirements)

“All manufactured homes that are placed, replaced, or substantially improved in flood hazard areas shall be elevated such that the bottom of the frame is at or above the elevation required as applicable to the flood hazard area”, so for:

- **Red polygon** (~20 lots):
 - They are within a coastal AE and thus need to adhere to V-zone standards
 - Land elevation is generally 5 to 7 feet
 - Base flood elevation is 12 feet
 - Design flood elevation is 14 feet
- **Yellow polygon** (~20 lots):
 - They are within a coastal AE or VE zones and thus need to adhere to V-zone standards
 - Land elevation is generally 6 feet
 - Base flood elevation is 13 feet
 - Design flood elevation is 15 feet
- **Orange polygon** (most of the lots in the MHP):
 - They are within an AE zone and thus need to adhere to those standards
 - Land elevation is generally 6 to 7 feet
 - Base flood elevation is 10 feet
 - Design flood elevation is 12 feet

Hillside

Relation to the Special Flood Hazard Areas and Base Flood Elevations (Effective August 24, 2021)



Hillside

No sample Elevation Certificates are available through the County's online viewer tool.

Google Street View imagery for sample areas located within the FEMA SFHA.

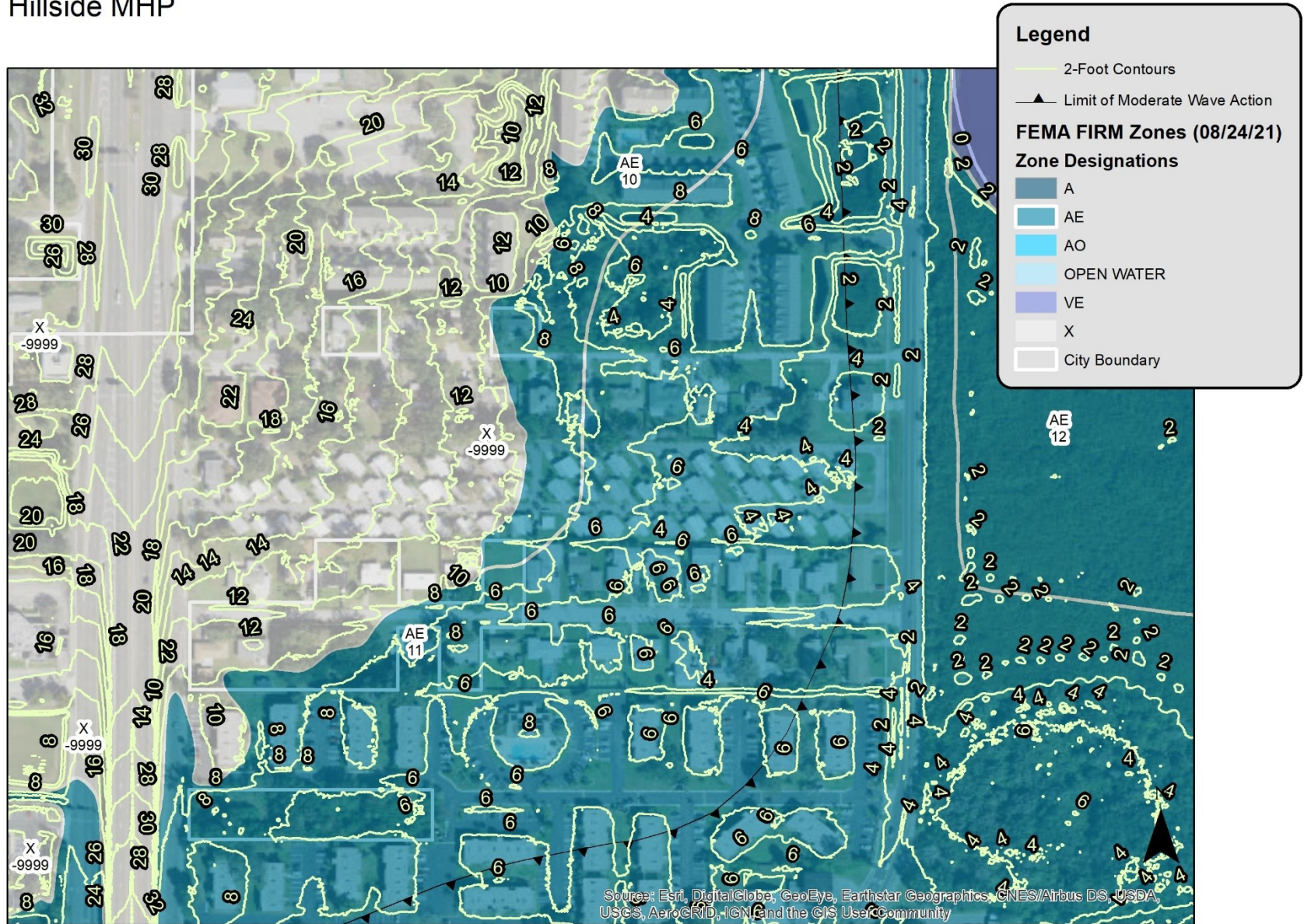
[2014 time stamp for imagery]



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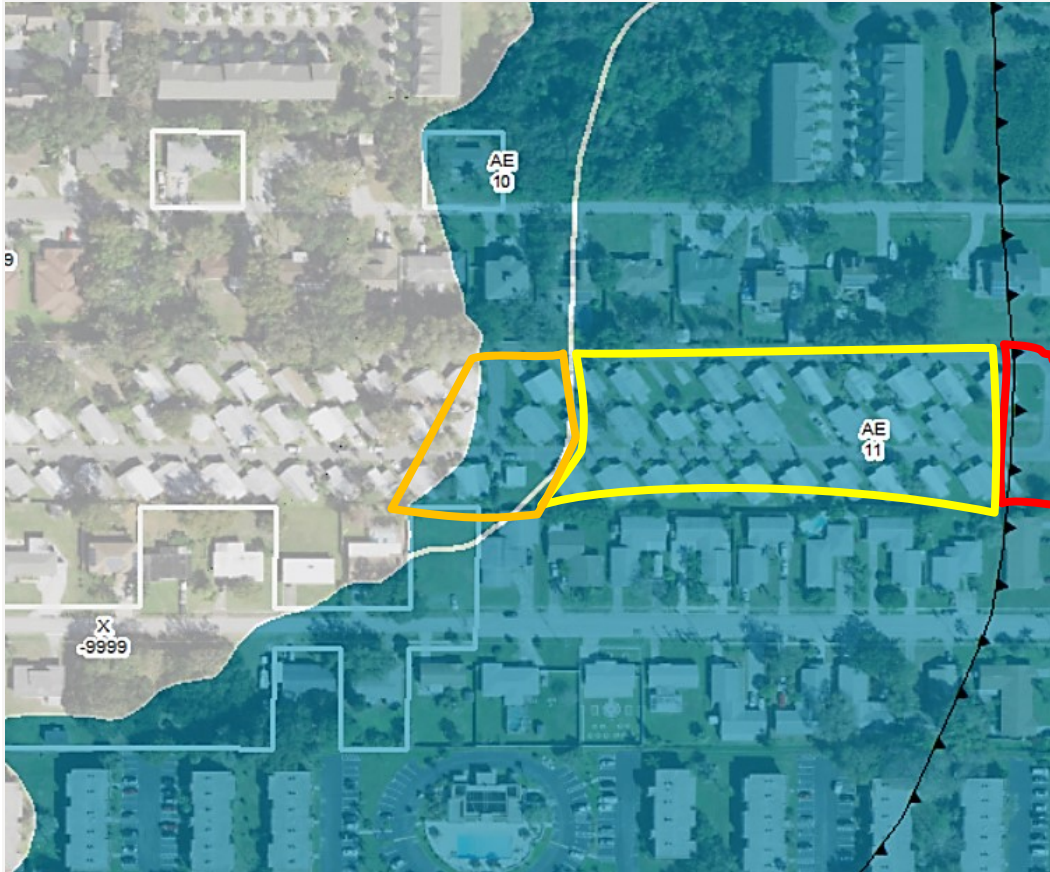
Hillside MHP



Ground elevations on the east side of Hillside MHP (towards S. Bayshore Blvd.) are generally 4 to 6-feet, while those on the west side (towards McMullen Booth Rd.) are 16 to 18-feet [Elevations referenced are in NAVD88].

Hillside

Summary of Changes



Proposed Code Language (Sec. 51.1305 – Elevation requirements)

“All manufactured homes that are placed, replaced, or substantially improved in flood hazard areas shall be elevated such that the bottom of the frame is at or above the elevation required as applicable to the flood hazard area”, so for:

- **Red polygon** (~2 lots):
 - They are within a coastal AE and thus need to adhere to V-zone standards
 - Land elevation is generally 2 to 4 feet
 - Base flood elevation is 12 feet
 - Design flood elevation is 14 feet
- **Yellow polygon** (~30 lots):
 - They are within an AE zone and thus need to adhere to those standards
 - Land elevation is generally 4 to 8 feet
 - Base flood elevation is 11 feet
 - Design flood elevation is 13 feet
- **Orange polygon** (~7 lots):
 - They are within an AE zone and thus need to adhere to those standards
 - Land elevation is generally 9 to 10 feet
 - Base flood elevation is 10 feet
 - Design flood elevation is 12 feet



Bayside Waters (F/K/A Japanese Gardens)

Relation to the Special Flood Hazard Areas and Base Flood Elevations (Effective August 24, 2021)



Bayside Waters

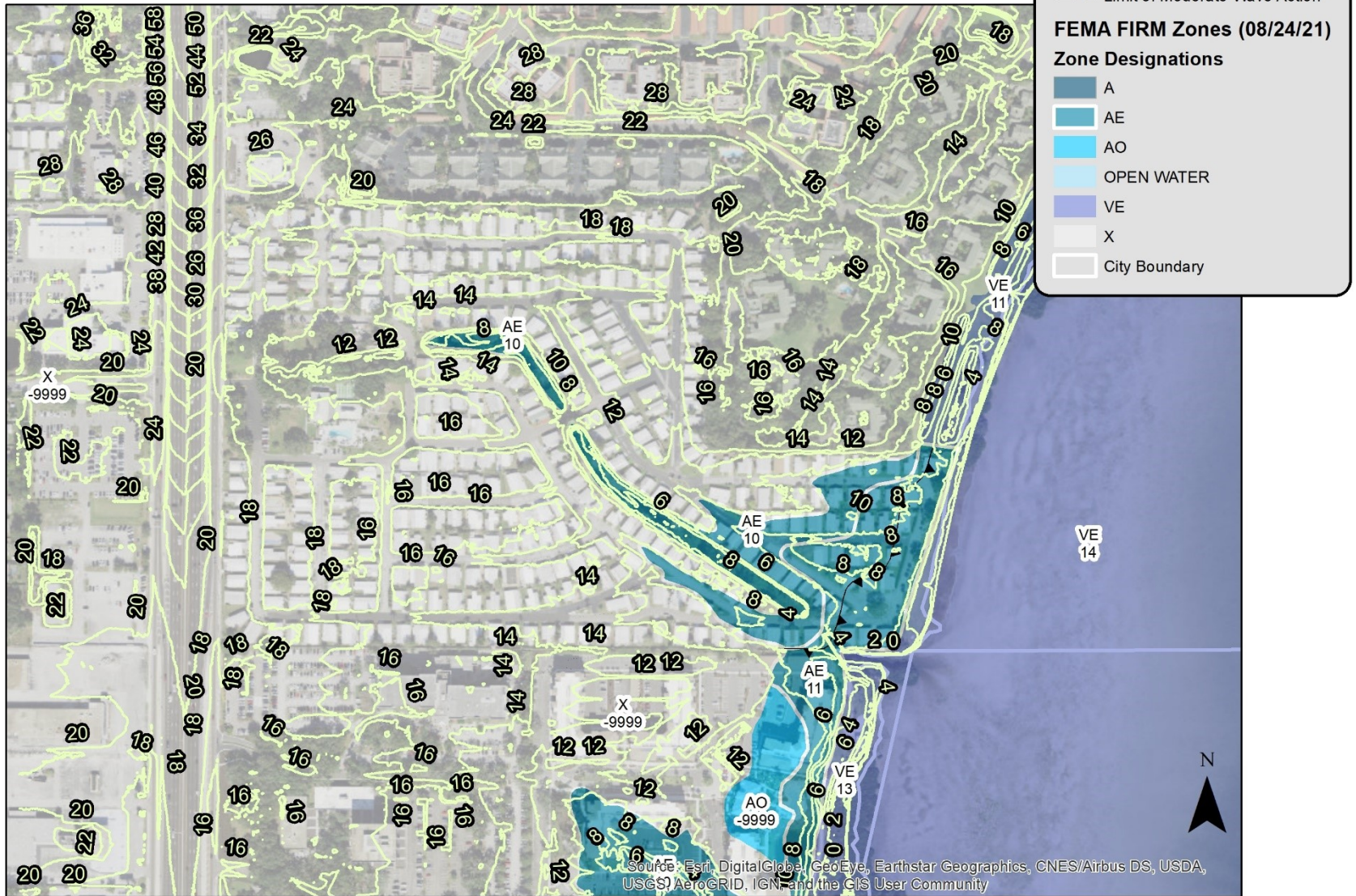
No sample Elevation Certificates are available through the County's online viewer tool.

Google Street View Imagery for sample areas located within the FEMA SFHA.

[2011 time stamp for imagery]



Bayside Waters MHP



Ground elevations vary between 6 to 8-feet for most of the areas located within the special flood hazard areas of the MHP [Elevations referenced are in NAVD88].

Bayside Waters

(F/K/A Japanese Gardens)

Summary of Changes



Proposed Code Language (Sec. 51.1305 – Elevation requirements)

“All manufactured homes that are placed, replaced, or substantially improved in flood hazard areas shall be elevated such that the bottom of the frame is at or above the elevation required as applicable to the flood hazard area”, so for:

- **Red polygon** (~10 lots):
 - They are within a coastal AE and thus need to adhere to V-zone standards
 - Land elevation is generally 6 to 8 feet
 - Base flood elevation is 11 feet
 - Design flood elevation is 13 feet
- **Yellow polygon** (~12 lots):
 - They are within an AE zone and thus need to adhere to those standards
 - Land elevation is generally 7 to 8 feet
 - Base flood elevation is 11 feet
 - Design flood elevation is 13 feet
- **Orange polygon** (~45 lots):
 - They are within an AE zone and thus need to adhere to those standards
 - Land elevation is generally 8 to 9 feet
 - Base flood elevation is 10 feet
 - Design flood elevation is 12 feet

Sky Harbor

Relation to the Special Flood Hazard Areas and Base Flood Elevations (Effective August 24, 2021)



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Sky Harbor

Sample Elevation Certificate

ELEVATION CERTIFICATE

Important: Read the instructions on pages 1 - 7.

SECTION A - PROPERTY OWNER INFORMATION		For Insurance Company Use:
BUILDING OWNER'S NAME [REDACTED]		Policy Number
BUILDING STREET ADDRESS (Including Apt., Unit, Suite, and/or Bldg. No.) OR P.O. ROUTE AND BOX NO. 585 Sky Harbor Dr. # [REDACTED]		Company NAIC Number
CITY Clearwater	STATE FL	ZIP CODE 33759
PROPERTY DESCRIPTION (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.) Lot [REDACTED] Sky Harbor Estates Corporation Condo/ 17/29/16/82690/000/1 [REDACTED]		
BUILDING USE (e.g., Residential, Non-residential, Addition, Accessory, etc. Use a Comments area, if necessary.) Residential		
LATITUDE/LONGITUDE (OPTIONAL) (##° - ##' - ###.##" or ###.####")	HORIZONTAL DATUM: <input type="checkbox"/> NAD 1927 <input type="checkbox"/> NAD 1983	SOURCE: <input type="checkbox"/> GPS (Type): _____ <input type="checkbox"/> USGS Quad Map <input type="checkbox"/> Other: _____

SECTION B - FLOOD INSURANCE RATE MAP (FIRM) INFORMATION

B1. NFIP COMMUNITY NAME & COMMUNITY NUMBER City of Clearwater/125039		B2. COUNTY NAME Pinellas		B3. STATE FL	
B4. MAP AND PANEL NUMBER 12103C 0128	B5. SUFFIX G	B6. FIRM INDEX DATE 9/3/03	B7. FIRM PANEL EFFECTIVE/REVISED DATE 9/3/03	B8. FLOOD ZONE(S) X	B9. BASE FLOOD ELEVATION(S) (Zone AO, use depth of flooding)

310. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in B9.
☐ FIS Profile ☒ FIRM ☐ Community Determined ☐ Other (Describe): _____
311. Indicate the elevation datum used for the BFE in B9: ☐ NGVD 1929 ☒ NAVD 1988 ☐ Other (Describe): _____
312. Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA)? ☐ Yes ☒ No Designation Date: _____

SECTION C - BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)

1. Building elevations are based on: ☐ Construction Drawings* ☐ Building Under Construction* ☒ Finished Construction
 *A new Elevation Certificate will be required when construction of the building is complete.
2. Building Diagram Number 8 (Select the building diagram most similar to the building for which this certificate is being completed - see pages 6 and 7. If no diagram accurately represents the building, provide a sketch or photograph.)
3. Elevations - Zones A1-A30, AE, AH, A (with BFE), VE, V1-V30, V (with BFE), AR, AR/A, AR/AE, AR/A1-A30, AR/AH, AR/AO
 Complete Items C3.-a-i below according to the building diagram specified in Item C2. State the datum used. If the datum is different from the datum used for the BFE in Section B, convert the datum to that used for the BFE. Show field measurements and datum conversion calculation. Use the space provided or the Comments area of Section D or Section G, as appropriate, to document the datum conversion.
 Datum NAVD 1988 Conversion/Comments PCBM Courtney V

Elevation reference mark used Courtney V Does the elevation reference mark used appear on the FIRM? ☐ Yes ☒ No

- | | |
|------------------------------------------------------------------------------------------------------------------|-------------|
| a) Top of bottom floor (including basement or enclosure) | 22.11 ft(m) |
| b) Top of next higher floor | N/A. ft(m) |
| c) Bottom of lowest horizontal structural member (V zones only) | N/A. ft(m) |
| d) Attached garage (top of slab) | N/A. ft(m) |
| e) Lowest elevation of machinery and/or equipment servicing the building (Describe in a Comments area) <u>NC</u> | 20.11 ft(m) |
| f) Lowest adjacent (finished) grade (LAG) | 19.9 ft(m) |
| g) Highest adjacent (finished) grade (HAG) | 20.3 ft(m) |



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Sky Harbor

Google Street View Imagery for sample areas located within the FEMA SFHA.

[2007 time stamp for imagery]



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Sky Harbor MHP



Ground elevations at the shoreline are generally 10-16 feet, but structures immediately adjacent are located on land approximately 20-feet.

[Elevations referenced are in NAVD88].

Sky Harbor

Summary of Changes

No lots appear to be within the special flood hazard areas. The lots that front the shoreline are adjacent to the velocity zone and should be reviewed for vulnerability to storm surge but will not be impacted as it relates to the proposed code changes.



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Follow up questions may be directed to:

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Lauren.Matzke@MyClearwater.com