Exhibit 1:
Ordinance No. 14-15, Referendum Language and supporting Staff Report

ORDINANCE NO. 14-15

AN ORDINANCE OF THE CITY OF KEY WEST, FLORIDA, PURSUANT TO SECTION 1.05(A) OF THE CHARTER OF THE CITY OF KEY WEST, FLORIDA, PROPOSING A REFERENDUM TO PERMIT AN AMENDMENT TO THE LAND DEVELOPMENT REGULATIONS TO PROVIDE AN EXCEPTION TO BUILDING HEIGHT REGULATIONS FOR THE SPECIFIC PURPOSE(S) OF PROTECTING HOMES AND POSSESSIONS DURING FLOOD EVENTS; TO MITIGATE RISING INSURANCE RATES; FACILITATE POTENTIAL FLOOD INSURANCE RATE DISCOUNTS CITYWIDE BY IMPROVING THE CITY'S COMMUNITY RATING SYSTEM STANDING; AND IN RESPONSE TO COMPREHENSIVE PLAN POLICIES RELATED TO ADAPTATION; SETTING THE GENERAL ELECTION OF NOVEMBER 4, 2014, AS THE DATE OF REFERENDUM; PROVIDING FOR SEVERABILITY; PROVIDING FOR REPEAL OF INCONSISTENT PROVISIONS; PROVIDING FOR AN EFFECTIVE DATE

WHEREAS, Key West Charter Section 1.05(A) provides that the building height restrictions in the land development regulations are subject to change only upon approval of the majority vote of the electors; and

WHEREAS, the City shall follow Florida Statutes Section 100.342 concerning notice of a referendum and Florida Statutes Section 101.161 concerning preparation of the referendum ballot; and

WHEREAS, the City Commission desires to obtain electorate approval to provide an exception for building height of not more than 4 feet above **FEMA** established flood levels, yet no more than 40 feet in height; and

WHEREAS, the City Commission desires that the proposed referendum appear on the General Election ballot of November 4, 2014.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY OF KEY WEST, FLORIDA:

Section 1: Pursuant to Key West Charter section 1.05 a referendum to permit an exception to building height restrictions within the land development regulations shall hereby be presented to the voters of Key West. The question appearing on the ballot shall have the following title: "Referendum - Exception To Building Height Regulations To Protect Properties From Flooding." The question appearing on the ballot shall be worded as follows:

To protect property against flooding and reduce flood insurance costs for taxpayers citywide, should the City permit an exception to building height regulations when buildings are voluntarily raised off the ground, up to four feet above FEMA established flood levels, yet no more than 40 feet in height?

YES _____ NO _____

Section 2: In the event of the passage of the proposed Referendum to allow an exception to the building height regulations for properties that voluntarily raise their buildings above flood levels, as set forth in section 1, above, Section 122-1149 of Division 3, of Article V, of Chapter 122, of the Key West Land Development Regulations shall be amended as follows:

Section. 122-1149. Height.

(a) The term "building height" as used in the land development regulations shall mean the vertical

distance from the crown of the nearest adjacent street to the highest point of the proposed building.

(b) Height limitations contained in the schedule of district regulations located in divisions 2 through 14 of article IV of this chapter, in division 2 of this article and in this division shall apply to all construction unless otherwise stated herein below and/or in section 122-1151.

(c) These height regulations may be waived subject to variance criteria found in Chapter 90-391 in order to accommodate non-habitable hardware and utility structures typically associated with the principal structure, including spires, belfries, cupolas, antennas, water tanks, ventilators, chimneys, or other appurtenances usually required to be placed above the roof level and not intended for human occupancy or use.

(d) Flood Protection Building Height Exception: An exception to the building height regulations as referenced in subsection (b) above may be permitted in cases where a building is raised above the ground to meet or exceed FEMA established base flood elevation levels under the following conditions:

1. Only the equivalent measurement of distance from the existing ground level, prior to infill, to the required base flood elevation of the building, and up to a maximum of four (4) feet above the base flood elevation, may exceed the building height regulations.
2. No exception shall result in a building height that would exceed 40 feet.

Section 3: The City Clerk is hereby authorized and instructed to take all necessary and proper action to place the referendum question set forth in Section 1, above, on the General Election ballot of November 4, 2014, 2014, and to

provide notice of the referendum election as provided by law.

Section 4: If any section, provision, clause, phrase, or application of this Ordinance is held invalid or unconstitutional for any reason by any court of competent jurisdiction, the remaining provisions of this Ordinance shall be deemed severable therefrom and shall be construed as reasonable and necessary to achieve the lawful purposes of this Ordinance.

Section 5: All Ordinances or parts of Ordinances of said City in conflict with the provisions of this Ordinance are hereby superseded to the extent of such conflict.

Section 6: This Ordinance shall go into effect immediately upon its passage and adoption and authentication by the signature of the presiding officer and the Clerk of the Commission.

Read and passed on first reading at a regular meeting held this 5 day of August, 2014.

Read and passed on final reading at a regular meeting held this 19 day of August, 2014.

Authenticated by the presiding officer and Clerk of the Commission on 20 day of August, 2014.

Filed with the Clerk August 20, 2014.

Mayor Craig Cates	Yes
Vice Mayor Mark Rossi	Yes
Commissioner Teri Johnston	Yes
Commissioner Clayton Lopez	Yes
Commissioner Billy Wardlow	Yes
Commissioner Jimmy Weekley	Yes
Commissioner Tony Yaniz	Yes

Craig Cates
CRAIG CATES, MAYOR

ATTEST:

Cheryl Smith cpth
CHERYL SMITH, CITY CLERK

EXECUTIVE SUMMARY

To: Jim Scholl, Interim City Manager

Through: Donald Leland Craig, AICP
Director of Community Development Services

From: Nicole Malo, AICP, LEED GA
Planner II

Meeting Date: July 1, 2014

RE: Flood Protection Building Height Referendum Language

Action Statement:
Consistent with the City Charter that requires a positive vote of a referendum in order to change building height regulations, this request is to approve the proposed language for a flood protection building height referendum to be placed on ballot for the November 3, 2014 general election:

> ***To protect property against flooding and reduce flood insurance costs for taxpayers citywide, should the City permit an exception to building height regulations when buildings are voluntarily raised off the ground, up to four feet above FEMA established flood levels, yet no more than 40' in height?***

If the referendum is approved by the electorate, the Land Development Regulations must follow the regulated approval process which requires Planning Board and City Commission approval. The proposed Land Development Regulation amendment associated with this referendum is proposed as follows:

Section. 122-1149. Height.

(a) Flood Protection Building Height Exception: An exception to the building height regulations as referenced in subsection (b) above may be permitted in cases where a building is raised above the ground to meet or exceed FEMA established base flood elevation levels under the following conditions:

1. Only the equivalent measurement of distance from the existing ground level, prior to infill, to the required base flood elevation of the building, and up to a maximum of four (4) feet above the base flood elevation, may exceed the building height regulations.
2. No exception shall result in a building height that would exceed 40 feet.

Consistency with the Strategic Plan
The referendum approach is consistent with the intent of all chapters of the Strategic Plan including: The Environment; The Economy; Infrastructure; Government; and Quality of Life.

Purpose:
The City Charter prohibits any change to the existing building height regulations without voter approval. The majority of land within the City is already developed and property owners may experience difficulty raising an existing structure to protect their homes and businesses from rising sea levels, increased flooding and meet FEMA structural requirements without exceeding the building height limitation (Please see Attachment B for additional information). The purpose of this flood protection building height referendum is to permit an exception to existing building height regulations for buildings that are raised above flood hazard levels in order to: **help property owners protect their homes and valuables during flood events; mitigate rising insurance rates from the 2012 Biggert-Waters Act; facilitate potential flood insurance rate discounts citywide as a result of improving the City's Community Rating System standing; and in response to Comprehensive Plan Policies related to adaptation**. The proposed Referendum language has been carefully worded as to avoid unintended consequences.

The proposed language was crafted by a diverse group of Key West citizens that represented environmental and quality of life groups, historic preservationists, business owners and home owners. As a group, consensus was reached on the proposal because raising homes above flood levels **1) helps people protect themselves and what is important to them from flooding; 2) is nondiscriminatory, fair and equitable; 3) respects existing building height protections; 4) respects existing Historic District protections; and 5) is the most proactive approach for the future of the Key West community.**

1. **It helps people protect themselves and what is important to them from flooding.** In 2005, as a direct result of hurricanes Dennis, Katrina, Rita and Wilma some 3,000 of the City's permanent population never returned.

   Further, personal belongings were destroyed, several weeks of business lost, approximately 70% of vehicles were ruined, and homes and businesses were flooded, causing $17 million in public property damage, and at least $164 million in insured personal property, not including losses that weren't covered by flood insurance.

2. **Nondiscriminatory - Fair and equitable**

   a. It provides flood relief to the most **existing structures**, particularly in the most low lying flood prone areas of the City with the lowest height limitations (25').

   b. Due to its flexibility, it does not single out or subject the most vulnerable property owners who voluntarily choose to elevate their structures to a height variance process which is costly.

3. **Provides height protection** - It limits the overall height of the existing or new structure in several ways as follows:

a. Does **not change the height limitations** currently existing in the Comprehensive Plan and Land Development Regulations nor changes the point where height is measured from Citywide (crown of the road).

b. Provides an **exception** to the height restriction that is tied to the elevation of the building to or above FEMA flood levels.

   Buildings will not be granted an exception that are not elevating above the flood level. The buildings sitting on the highest ground will be the most restricted and the lowest lying structures will be provided the most flexibility to raise the structure.

c. **Limits the exception to a maximum building height of 40 feet**.

   * This does not change the existing building height limitations.

   * Size of the building + feet elevated off the ground = 40' or less

d. Allows a building to be raised **above the regulated flood level to a maximum of 4 feet**. The distance above the required minimum flood level is defined as "*freeboard*."

   According to information obtained from the state representative of the National Flood Insurance Program, the cost of flood insurance goes down exponentially for every foot that a building is raised above the flood zone level with the maximum savings possible being achieved at three (3) feet about the flood level.

   In anticipation of the flood map changes expected within the next few years flood levels are expected to increase one foot citywide, an additional foot of freeboard is planned to account for this loss. Further, 4' of freeboard is commensurate with sea level rise projections for the next 50 years.

4. **Protects the Historic District**

   a. **Does not change or supersede existing Historic Architectural Guidelines.** Existing Historic Architectural Guidelines will continue to regulate properties and protect the character of the Historic District for new development with the following existing provisions (p.38). The Historic Architectural Guidelines presently state the following:

   Elevation of finished floor above grade - *Applications for buildings with the first finished floor above the minimum height necessary to comply with federal flood regulations will not be approved unless the applicant demonstrates that such elevation does not interfere with the essential form and integrity of properties in the neighborhood. In situations wherein*

parking is proposed below the first finished floor, HARC shall consider how visible the parking is from the public right-of-way; whether the parking area is enclosed or otherwise concealed by walls louvers, lattice, landscaping or other features; and whether fill and/or berms are used to minimize the gap between the first finished floor and the crown of the nearest road

Height *– must not exceed 2.5 stories. There must be a sympathetic relationship of height between new buildings and existing adjacent structures of the neighborhood. New buildings must be compatible with historic floor elevations. The height of all new construction shall be based upon the height of existing structures within the vicinity.*

Proportion, scale and mass *– massing, scale and proportion should be similar to that of existing historical buildings in the historical zone. No new construction shall be enlarged so that its proportions are out of scale with its surroundings. No structure shall outsize the majority of structures in the streetscape or historic zone.*

Compatibility- *Design must be compatible with Key West architectural characteristics in the historical zones. All new construction must be in keeping with the historic character in terms of size, scale, design, materials, color and texture.*

b. FEMA exempts historically contributing structures from having to meet structural elevation requirements.

c. A significant portion of the Historic District is in the FEMA designated flood zone 'X' which is **above FEMA established flood levels** of type AE and V flood zones and are NOT subject to this height referendum.

d. Allows historic properties in lower lying areas (outside of the X zone) to elevate their structures protect their historic building from flood damage subject to the guidelines above.

5. Most proactive approach:

a. It allows property owners to begin to adapt their homes before we are hit by the next big flood event without having to address this ballot question during a period of disaster recovery.

b. It provides an important piece of regulatory relief to the complicated issues related to adaptation of our community to rising sea levels.

c. It helps improve the City's Community Rating System ranking with National Flood Insurance Program; therefore providing flood insurance rate reductions Citywide.

d. It allows new development to be sustainably constructed with a view towards the future of the island in which we experience more frequent flooding and permanent water inundation.

e. In anticipation of the FEMA- National Flood Insurance Program Map changes expected within the next few years, it allows 4' of freeboard which provides upwards of 94% of reductions in flood annual insurance premiums and is a height commensurate with sea level rise projections.

Previous Actions

During the April 1, 2014 City Commission meeting the body directed planning staff to pursue additional research and input for a potential flood damage prevention building height referendum for the November 2014 ballot (see Attachment A).

Since that time staff has consulted various Flood Insurance Companies to gather additional information; made site visits throughout the city; assessed existing information; updated available Flood Maps; created other demonstrative tools; discussed the unintended consequences of the referendum language; and refined the approach.

Staff also met with local stakeholders to present a full range of potential approaches to a flood damage protection height referendum with limitations related to existing Land Development Code including: Last Stand, the Keys Branch of the US Green Building Council, FIRM, the DEO, the Keys Wide Planners Forum, the Key West Board of Realtors, the Chamber of Commerce, the League of Women Voters, HARC, the Planning Board, the Sustainability Advisory Board and BVRAC. The purpose of these meetings was to share the existing information and gather input (see Attachment B).

On June 9, 2014 a Focus Group, consisting of volunteers representing the groups above and the Historic Florida Keys Foundation, the Nature Conservancy, and the Marine Sanctuary (NOAA), was convened to build consensus on a single approach and refine the referendum language. The following approach, which includes an agreed upon amendment was, supported by all members present:

> *To protect buildings against flooding and reduce flood insurance costs citywide, should the City allow an exception to building height regulations to permit one foot of additional building height for each one foot added, to raise buildings, voluntarily no more than 4' above FEMA established flood levels, not to exceed 40 feet in height?*

This consensus is the basis of the recommended referendum language.

General Concerns

Based on discussions with diverse groups and individuals throughout the community the following concerns have been identified, and vetted by the Focus Group and State:

1. *The height referendum will negatively affect the character of the city creating a stilt community:*

The character of Key West is irrefutably changing, but not as a result of the height referendum. The City faces outside pressures that cannot be negated on a local level such as:

a. Federal and State regulations requiring all new or substantially improved structures be elevated.
b. The city is built on porous limestone rock and cannot be buffered against flooding (such as in Holland), and that in order to maintain life as we know it both public and private buildings, services and transportation networks must be elevated.
c. Sea level rise: Currently the City experiences flooding on high tides without rain which is dramatically aggravated during significant rain events. As sea levels continue to rise at their current rate we can expect more frequent flooding events. Climate change will result in increased frequency and intensity of storms and may cause greater sea level rise.

2. *The height referendum will negatively affect the Historic District.*
The language prosed for the Referendum attempts to balance the impacts that will occur with the need to protect the historic buildings from rising and flood water damage and property owners from rising insurance rates. Properties that are listed as Historically Contributing, or are located within the X zone are exempt from meeting FEMA flood elevation requirements; however, Historically Contributing they ARE NOT exempt from flood insurance rate hikes expected to suffer major increases within four years-time. Presently, the Historic Guidelines include a policy that requires permit review, on a site-by-site basis, for properties that wish to elevate above the required FEMA Flood elevation as stated above.

3. *The height referendum will only benefit developers.*
Careful consideration of the need to protect and adapt the existing housing stock has been used to craft the proposed referendum language, including and input from current home owners. This referendum does not change the existing height restrictions and provides a maximum height of 40' for property owners that wish to elevate their low-lying structures above flood prone levels.

4. *People will not be able to afford to elevate their homes.*
Homeowners with mortgaged property are required to carry flood insurance. The cost of flood insurance is incurring historic increases and property owners may decide that elevating their structures out of a rising flood zone is safer and cost effective. Government regulations should not stand in the way of allowing people to protect their homes from flooding and lowering their flood insurance costs to acceptable levels.

Staff is currently seeking the assistance of the Florida Building Commission to provide non-biased data as to how much it costs to elevate an existing structure. Further, the City is pursuing multiple avenues for programs that assist homeowners in the cost of elevating their structures.

5. *Will the program be mandatory?*
   No, the referendum language specifically states that the program is voluntary.

6. *A height Referendum won't solve the problems the City faces related to Climate Change.*
   True, but it will help to provide relief related to some of the problems. Staff is working the wicked problem through a multifaceted approach most importantly beginning the long range process of coordinating the raising of our transportation networks and critical services throughout the Keys. Staff is also working on a Climate Change element to the Comprehensive Plan.

Legislative Considerations

The proposed referendum language requesting an exception to building height for flood protection purposes is compatible with the existing Historic Architectural Guidelines, and the existing Land Development Regulations because it does not change the height regulations nor does it change where height is measured from. It only allows staff to bring back to the City Commission for further review a Land Development Regulation change based on the proposed exception for height. Staff is proposing that Section 122-1149 read as follows:

Section. 122-1149. Height.

(a) The term "building height" as used in the land development regulations shall mean the vertical distance from the crown of the nearest adjacent street to the highest point of the proposed building.

(b) Height limitations contained in the schedule of district regulations located in divisions 2 through 14 of article IV of this chapter, in division 2 of this article and in this division shall apply to all construction unless otherwise stated herein below and/or in section 122-1151.

(c) These height regulations may be waived subject to variance criteria found in Chapter 90-391 in order to accommodate non-habitable hardware and utility structures typically associated with the principal structure, including spires, belfries, cupolas, antennas, water tanks, ventilators, chimneys, or other appurtenances usually required to be placed above the roof level and not intended for human occupancy or use.

(d) Flood Protection Building Height Exception: An exception to the building height regulations as referenced in subsection (b) above may be permitted in cases where a building is raised above the ground to meet or exceed FEMA established base flood elevation levels under the following conditions:

   1. Only the equivalent measurement of distance from the existing ground level, prior to infill, to the required base flood elevation of the building, and up to a maximum of four (4) feet above the base flood elevation, may exceed the building height regulations.
   2. No exception shall result in a building height that would exceed 40 feet.

The proposal is consistent with Comprehensive Plan *Policy 1.1.12.5: Increased Height: The City shall consider allowing increased heights for new construction or redevelopment if such additional height is justified based on adopted Coastal High Hazard Maps and Storm Surge Flood Maps in order to promote safe new development and redevelopment based on sea level rise predictions. Such additional height must be compatible with surrounding development.*

Process

City Commission discussion of potential referendum	April 1, 2014
Stakeholder Group Meetings	April – May, 2014
Focus Group Meeting	June 9, 2014
City Commission 1st reading	July 1, 2014
City Commission 2nd reading	August 5, 2014

Attachments:

Attachment A – April 1, 2014 **City Commission Discussion item Report** (w/out Exhibits)

Attachment B – **May 22, 2014 Stakeholder Groups Report**. This report contains Referendum Language Options 1-5 that evolved as a result of the stakeholder group meetings and discussions with community members and were presented to the Focus Group. This report also contains important Flood Insurance Terms and Savings analysis.

a. Exhibit 1 - 2014 Referendum and LDR Amendments Timeline
b. Exhibit 2 – BW 12 Update. 20140305 email form Scott Fraser
c. Exhibit 3 – Massachusetts Coastal Zone Management Smart Cost information
d. Exhibit 4 - FEMA NFIP rate maps (X-zone) and complete City BFE Map
e. Exhibit 5 - District Map
f. Exhibit 6 – 2011 Key West Stormwater Master Plan Topography Map
g. Exhibit 7 – City of Key West Storm Surge Map, Engineering Services, 2012
h. Exhibit 8 – Comprehensive Plan Coastal High Hazard and Storm Surge Map
i. Exhibit 9 – FEMA Repetitive Loss and Severe Repetitive Loss Map
j. Exhibit 10 – CRS points system and insurance rates description

Options/Advantages/Disadvantages:

Option 1: Approve the referendum language as proposed:
To protect property against flooding and reduce flood insurance costs for taxpayers citywide, should the City permit an exception to building height regulations when buildings are voluntarily raised off the ground, up to four feet above FEMA established flood levels, yet no more than 40' in height?

1. **Consistency with the City's Strategic Plan, Vision, and Mission:**

   The referendum approach is consistent with the intent of the Strategic Plan, Vision, and Mission to protect and respond to the Environment and the Climate Action Plan; to protect the Economy including our private assets and keep housing affordable; to create sustainable Infrastructure that supports local needs, the economy, and green

practices; to implement the adopted long range plans of the City, such as the Comprehensive Plan and the Climate Action Plan; and protect and improve the Quality of Life.

2. **Financial Impact:** The new regulations would result in higher FEMA Community Rating System standing, which will help to lower flood insurance rates citywide. Additionally, if the referendum is approved and property owners elevate their structures it will result in lower insurance rates for the property owners and help the City to maintain a healthy tax base.

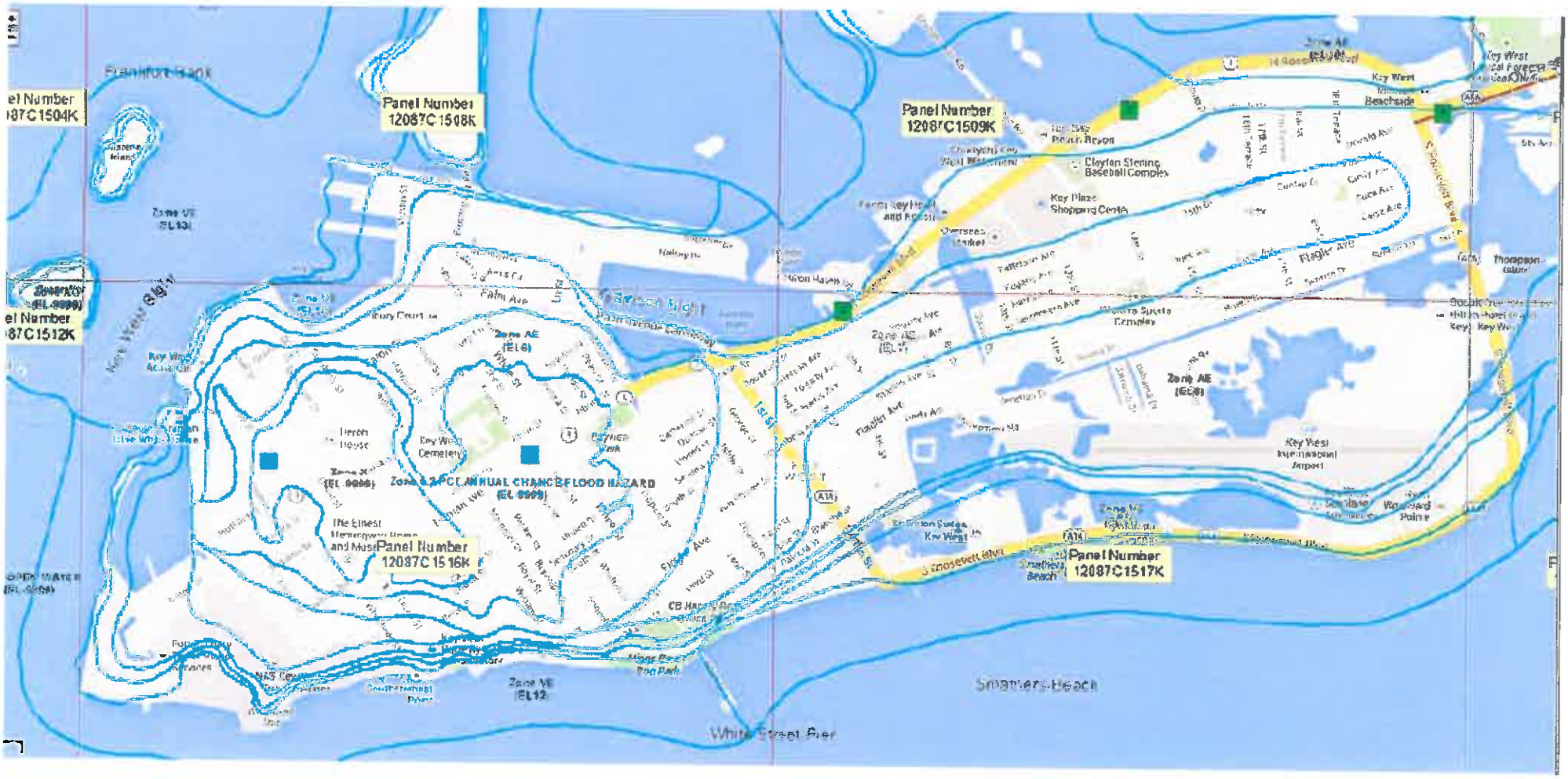
Option 2: Deny the referendum language as proposed:

1. **Consistency with the City's Strategic Plan, Vision, and Mission:** Denying the proposed referendum language may be inconsistent with the intent of the Strategic Plan, Vision, and Mission
2. **Financial Impact:** If the referendum language is denied the City will lose the opportunity to allow the voters to decide whether to allow additional height to mitigate flooding. Preventing the voters from choosing will not help the City achieve higher FEMA Community Rating System standing, which would help to lower flood insurance rates citywide; and may contribute to situations where homeowners are forced to pay high flood insurance premiums because they cannot elevate their structures without exceeding the height restrictions in the lowest lying areas of the City.

Recommendation

The Planning Department recommends **approval** of the proposed flood protection referendum language.

Exhibit 2:
FEMA NFIP Rate maps (x zone) and city BFE maps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Zone AE
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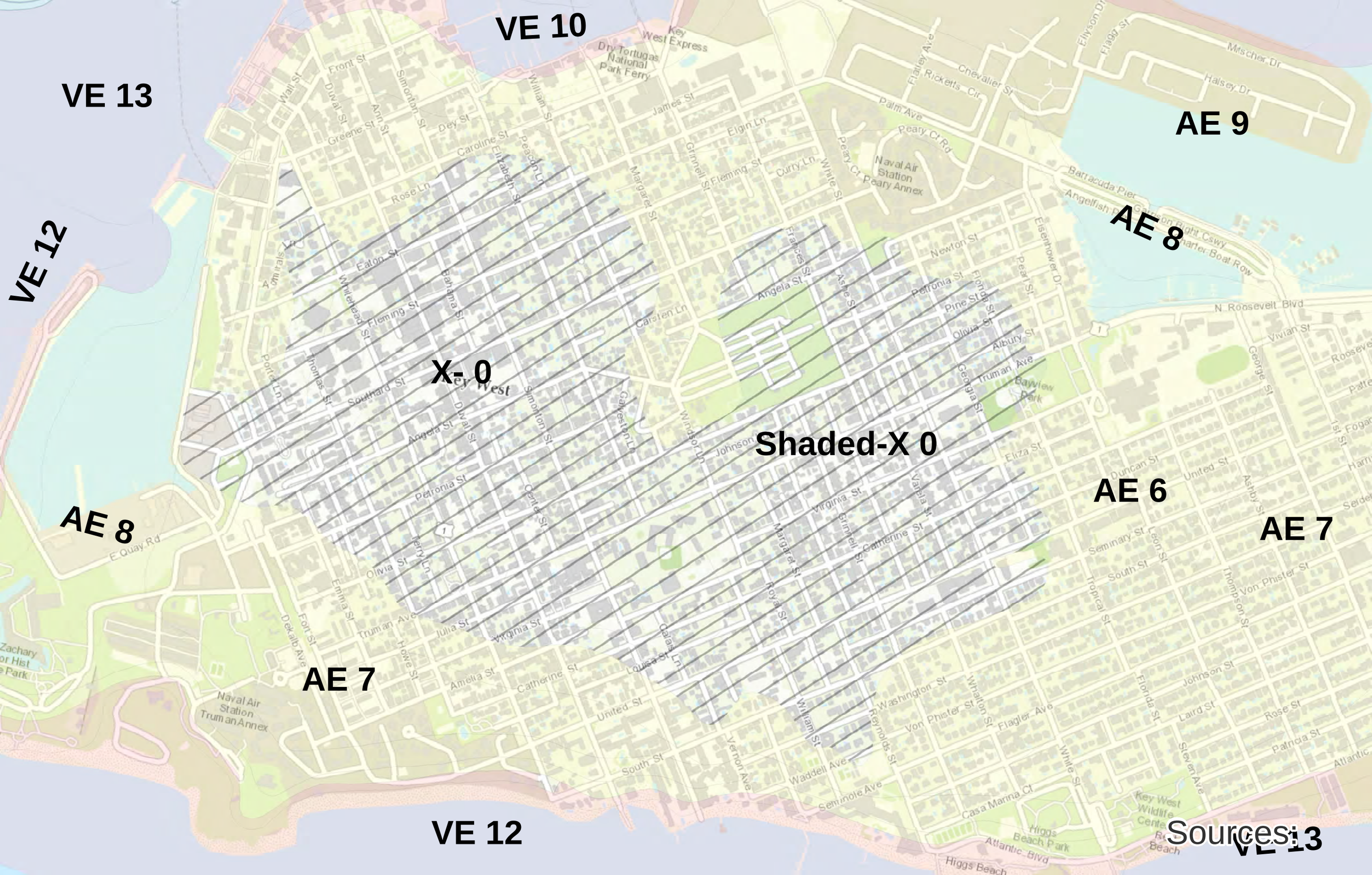
Zone VE
(EL 12)
Key West
Cemetery
Key West
International
Airport
Clayton Sterling
Baseball Complex
Key Plaza
Shopping Center
Smathers Beach
White Street Pier

X-Zones Shaded Areas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AE 8
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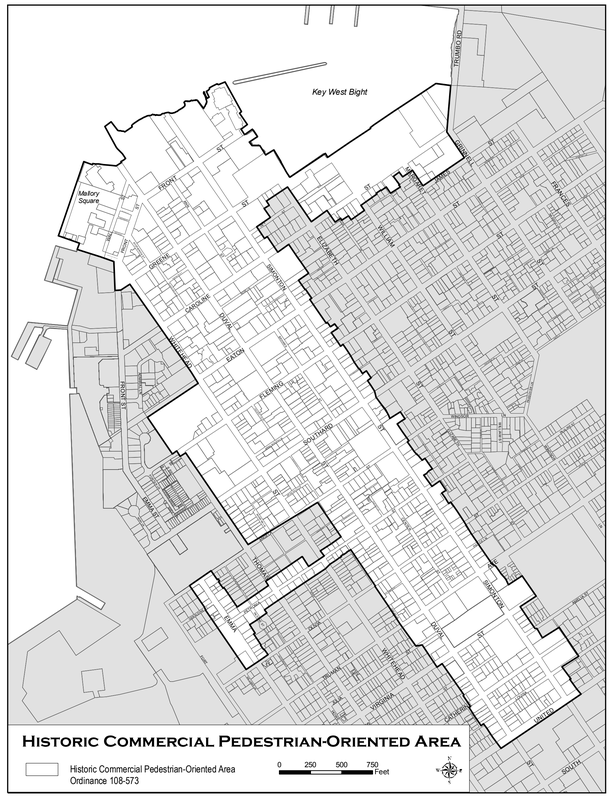
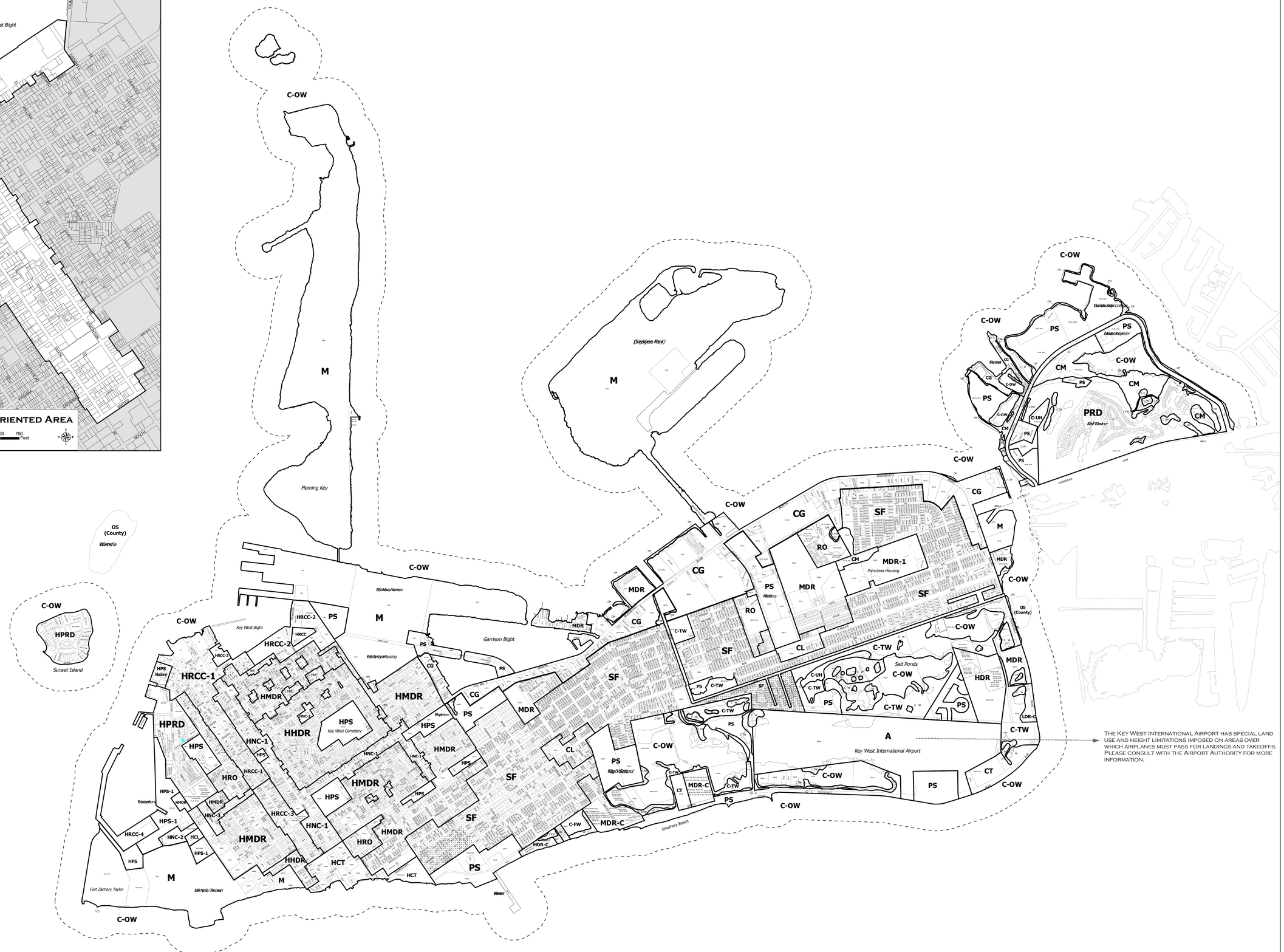
AE 6
AE 7
AE 8
AE 7
VE 12
VE 13
Key West Express
Dry Tortugas National Park Ferry
Naval Air Station Peary Annex
Naval Air Station Truman Annex
Key West
Bayview Park
Higgs Beach Park
Key West Wildlife Center
Front St
Wall St
Duval St
Greene St
Simonton St
Ann St
Dey St
William St
James St
Caroline St
Elizabeth St
Peacon Ln
Rose Ln
Admirals Ln
Eaton St
Whitehead St
Bahama St
Fleming St
Margaret St
Grinnell St
Elgin Ln
Curry Ln
White St
Peary Ct
Peary Ct Rd
Palm Ave
Flatley Ave
Ricketts Cir
Chevalier St
Ellyson Dr
Flagg St
Mitscher Dr
Halsey Dr
Barracuda Pier
Angelfish Pier
Garrison Bight Cswy
Charter Boat Row
Eisenhower Dr
Newton St
Petronia St
Pine St
Florida St
Olivia St
Albury St
Truman Ave
Pearl St
N Roosevelt Blvd
Vivian St
George St
Thomas St
Southard St
Angela St
Carsten Ln
Frances St
Ashe St
Windsor Ln
Johnson St
Galveston Ln
Center St
Jerry Ln
Julia St
Virginia St
Emma St
Howe St
Dekalb Ave
Fort St
Amelia St
Catherine St
Louisa St
Casa Ln
Roya St
Margaret St
Grinnell St
Catherine St
Vanela St
Duncan St
United St
Seminary St
South St
Tropical St
Leon St
Thompson St
Von Phister St
Ashby St
Washington St
Whalton St
Flagler Ave
Reynolds St
William St
Vernon Ave
Waddell Ave
Seminole Ave
Casa Marina Ct
White St
Florida St
Laird St
Rose St
Patricia St
Atlantic Blvd
Higgs Beach
Sloven Ave
Duncan St
Zachary Taylor Hist Park
E Quay Rd

Sources:

Exhibit 3:
City zoning map





THE KEY WEST INTERNATIONAL AIRPORT HAS SPECIAL LAND USE AND HEIGHT LIMITATIONS IMPOSED ON AREAS OVER WHICH AIRPLANES MUST PASS FOR LANDINGS AND TAKEOFFS. PLEASE CONSULT WITH THE AIRPORT AUTHORITY FOR MORE INFORMATION.

OFFICIAL ZONING MAP OF THE CITY OF KEY WEST, FLORIDA

LEGEND

A	Airport	**HHDR**	Historic High Density Residential	**MDR**	Medium Density Residential
C-FW	Conservation- Freshwater Wetlands	**HMDR**	Historic Medium Density Residential	**MDR-1**	Medium Density Residential 1
C-OW	Conservation- Outstanding Waters of the State	**HNC (1 - 3)**	Historic Neighborhood Commercial 1 - 3	**MDR-C**	Coastal Medium Density Residential
C-TW	Conservation- Tidal Wetlands of the State	**HPRD**	Historic Planned Redevelopment and Development District	**PRD**	Planned Redevelopment and Development District
C-UH	Conservation- Upland Hammock				
CG	General Commercial	**HPS**	Historic Public and Semi-public Services	**PS**	Public Services
CL	Limited Commercial	**HPS (1 & 2)**	Historic Public and Semi-public Services 1 & 2	**RO**	Residential / Office
CM	Conservation- Mangrove	**HRCC**	Historic Residential Commercial Core	**SF**	Single Family
CT	Salt Pond Commercial Tourist	**HRCC (1 - 4)**	Historic Residential Commercial Core 1-4		SF Special, Ordinances 122-236 and 122-238
HCL	Historic Limited Commercial	**HRO**	Historic Residential / Office		
HCT	Historic Commercial Tourist	**LDR-C**	Coastal Low Density Residential		
HDR	High Density Residential	**M**	Military		

Zoning delinations based on Future Land Use Map (FLUM).

Original map created by D. Sullins Stewart with the City of Key West Planning Department dated 1993.

1996 Revisions provided by the City of Key West Planning Department.

FLUM adopted as zoning map by ordinance 97-10, July 3, 1997.

2004 Revisions provided by the City of Key West Planning Department based on ordinances 99-18, 00-14, and 03-04.

Base map provided by the Monroe County Property Appraiser.

Parcel map updated on: June 24, 2004

Plot prepared on: December 14, 2004

ATTESTED:

See Key West City Clerk's Office for Official Version

TY SYMROSKI, CITY PLANNER — DATE

REVISIONS:

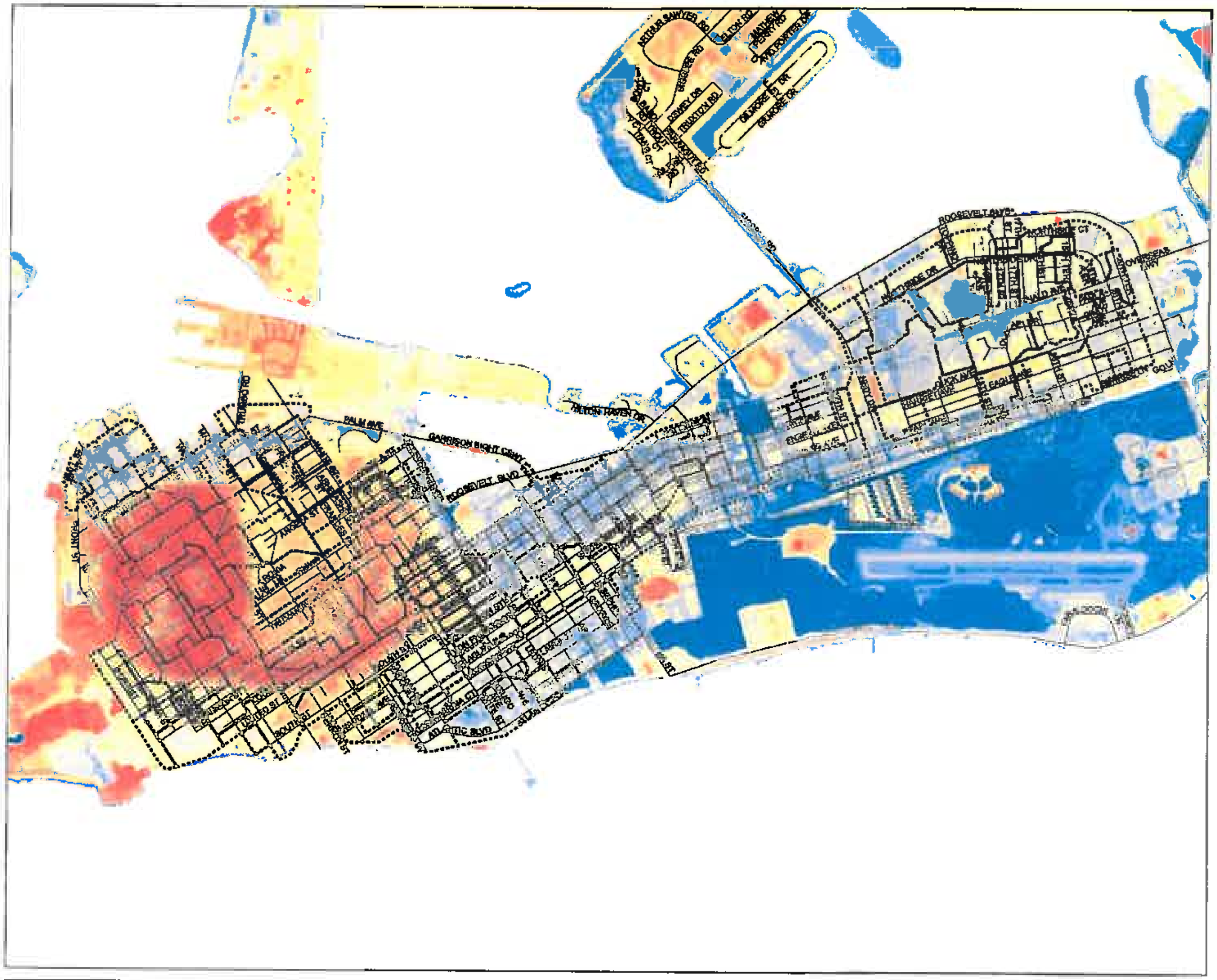
1. _____ _____
2. _____ _____
3. _____ _____
4. _____ _____
5. _____ _____

0 1,000 2,000 3,000 4,000 5,000 FEET

ORIGINAL SCALE IS 1INCH = 800 FEET

N W E S

Exhibit 4:
2011 Key West Stormwater Master Plan map



LEGEND

Roads

Sub-Basin

Digital Elevation Model

Elevation in Feet

<0

-0.1 - 1

1 - 2

2 - 3

3 - 4

4 - 5

5 - 6

6 - 7

7 - 8

>8

Only City sub-basins contributing runoff to City-maintained outfalls are shown. City areas draining directly to Gulf, Ocean, or canals are not modeled, but are still managed for potential water quality effects.

N

0 0.25 0.5

Miles

Exhibit 2-2

Topography

Key West Stormwater Master Plan

Key West, Florida

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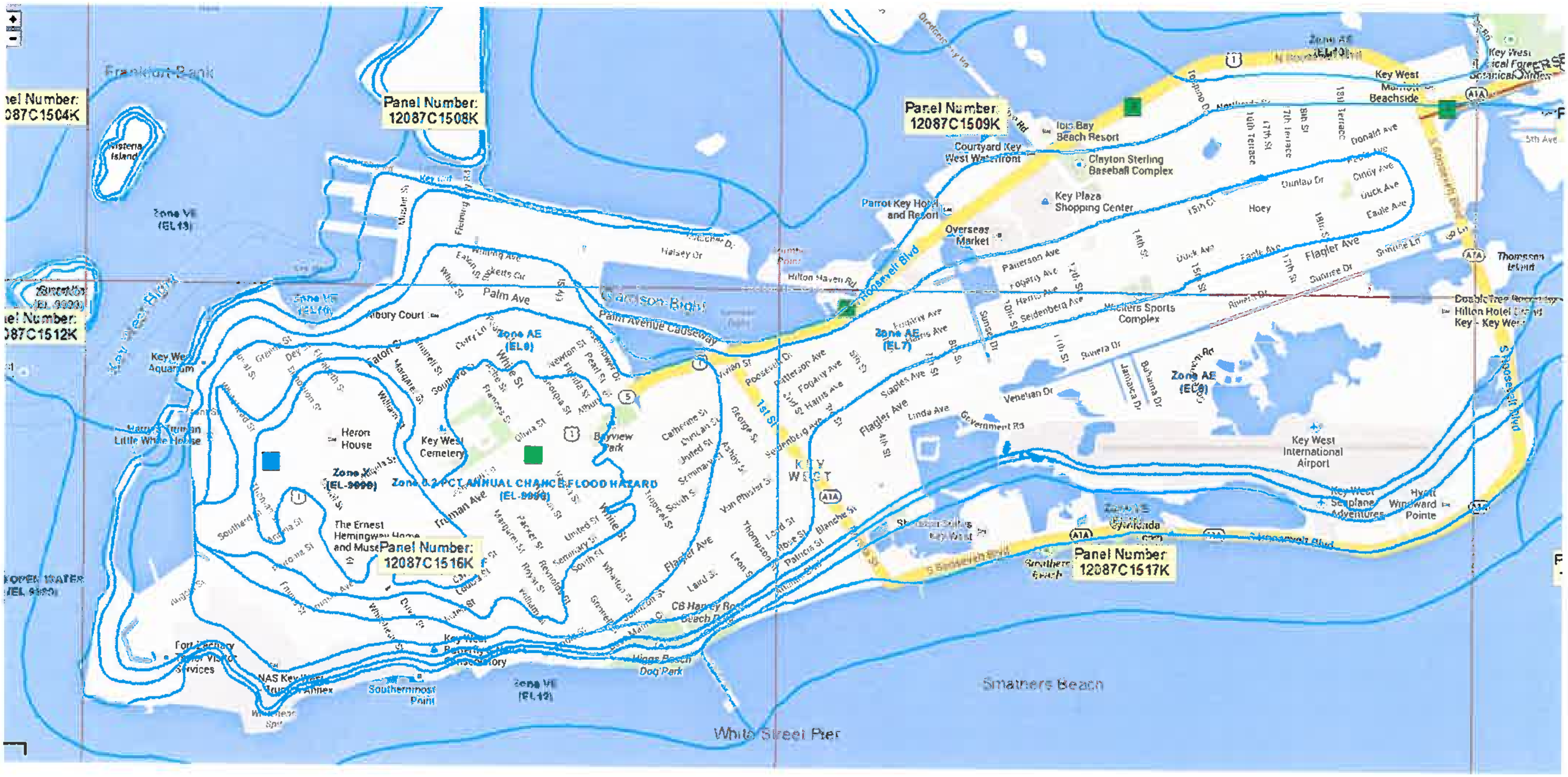
CH2MHILL

Exhibit 5:
Key West Comprehensive Plan
Coastal High Hazard map


Panel Number:
12087C1508K
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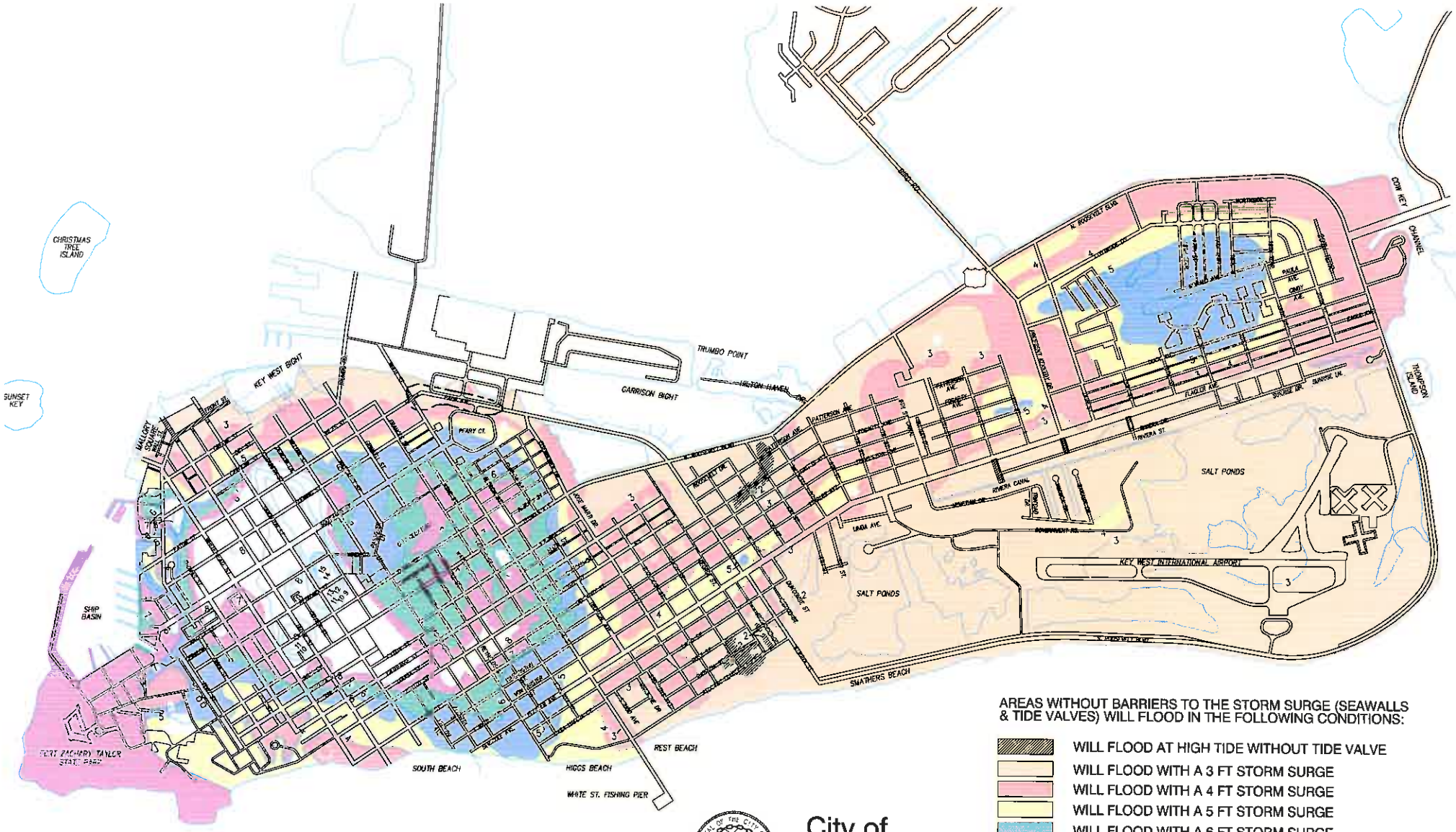
12087C1509K
Panel Number:
12087C1516K
Panel Number
12087C1517K
Zone VE
(EL13)
Zone AE
(EL8)
Zone AE
(EL7)
Zone AE
(EL6)
Zone X
(EL-9999)
Zone 0.2 PCT ANNUAL CHANCE FLOOD HAZARD
(EL-9999)
Zone VE
(EL12)
Frankford Bank
Garrison Bight
Palm Ave
Palm Avenue Causeway
Albury Court
Heron
House
Key West
Cemetery
Bayview
Park
The Ernest
Hemingway Home
Truman Ave
Flagler Ave
Key West
International
Airport
Ibis Bay
Beach Resort
Clayton Sterling
Baseball Complex
Key Plaza
Shopping Center
Parrot Key Hotel
and Resort
Overseas
Market
Courtyard Key
West Waterfront
Key West
Marriott
Beachside
Thompson
Island
DoubleTree Resort by
Hilton Hotel Grand
Key - Key West
Wickers Sports
Complex
Key West
Seaplane
Adventures
Hyatt
Windward
Pointe
Key West
Aquarium
Harry S. Truman
Little White House
Fort Zachary
Taylor Visitor
Services
NAS Key West
Truman Annex
Southernmost
Point
CB Harvey Rest
Beach Park
Higgs Beach
Dog Park
Smathers Beach
White Street Pier
KEY
WEST
Smathers
Beach
S Roosevelt Blvd
N Roosevelt Blvd
1st St
White St
Bertha St
Flagler Ave
Venetian Dr
Government Rd
Linda Ave
Staples Ave
Seidenberg Ave
Patterson Ave
Fogarty Ave
Harris Ave
Dunlap Dr
Duck Ave
Eagle Ave
Sunrise Dr
Riviera Dr
Donald Ave
Cindy Ave
Hilton Haven Rd
Halsey Dr
Eaton St
Southard St
Olivia St
Whitehead St
Duval St
Simonton St
Elizabeth St
William St
Margaret St
Grinnell St
Frances St
Windsor Ln
Newton St
Pearl St
Catherine St
Seminary St
United St
South St
Reynolds St
Laird St
Leon St
Thompson St
Ashby St
George St
Von Phister St
Bahama Dr
Jamaica Dr
Sunset Dr
5th Ave



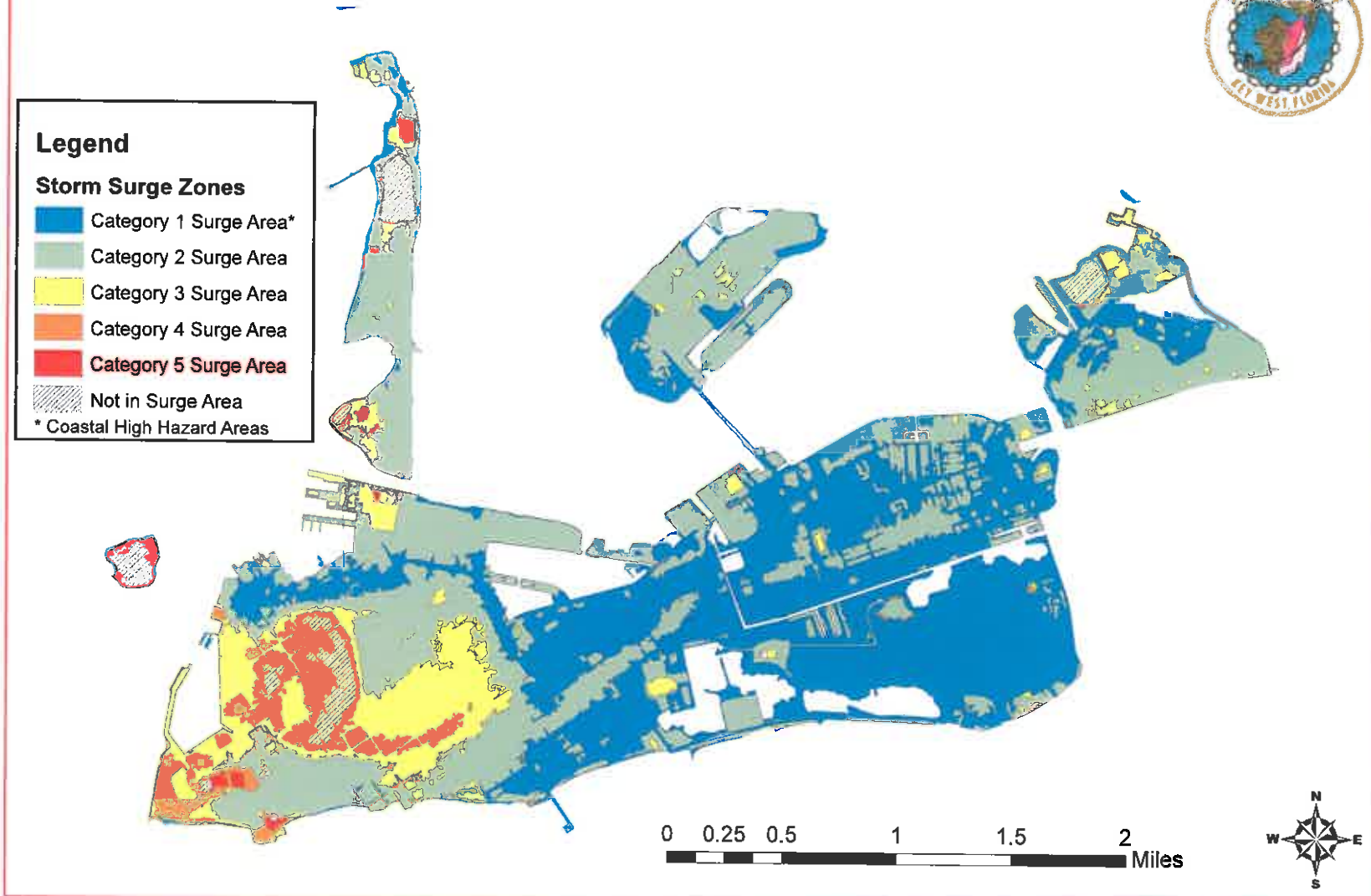
AREAS WITHOUT BARRIERS TO THE STORM SURGE (SEAWALLS & TIDE VALVES) WILL FLOOD IN THE FOLLOWING CONDITIONS:

- WILL FLOOD AT HIGH TIDE WITHOUT TIDE VALVE
- WILL FLOOD WITH A 3 FT STORM SURGE
- WILL FLOOD WITH A 4 FT STORM SURGE
- WILL FLOOD WITH A 5 FT STORM SURGE
- WILL FLOOD WITH A 6 FT STORM SURGE
- WILL FLOOD WITH A 7 FT STORM SURGE
- WILL FLOOD WITH A 8 FT STORM SURGE

STORM TIDE = STORM SURGE + ASTRONOMICAL TIDE

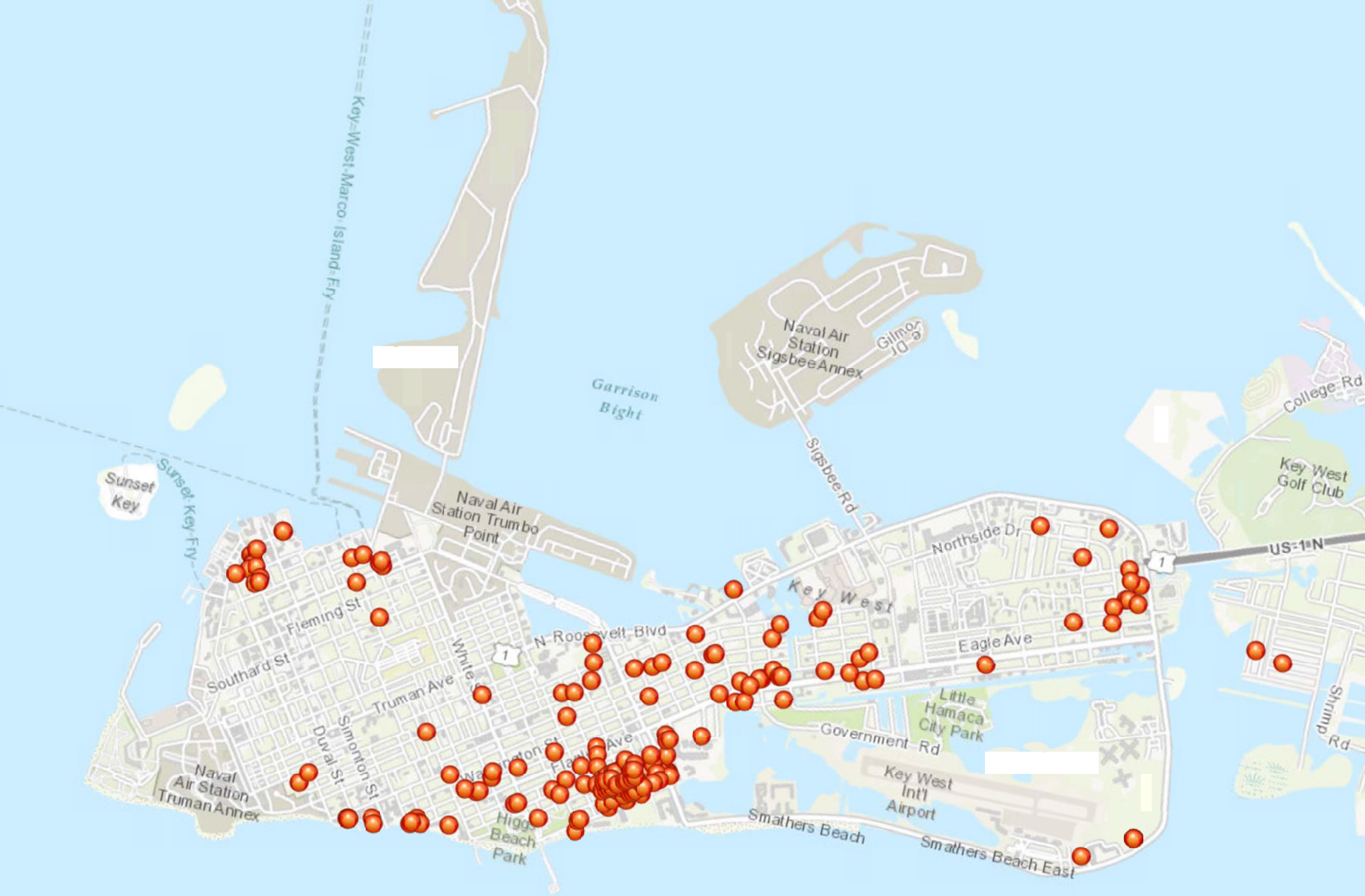
City of Key West
ENGINEERING SERVICES
DWG. NO.: E-483 10/03/05

This map shows areas of the City that are subject to inundation by storm surge associated with hurricane events.
The Category 1 Surge Area is the City's Coastal High Hazard Area. Data Source: Statewide Regional Evacuation Study Program.



CITY OF KEY WEST - Storm Surge Zones - October 2012

Exhibit 6:
FEMA Repetitive Loss and Severe Repetitive Loss maps




SEMINARY ST
GEORGE ST
VON PHISTER ST
Beitha St
ALBERTA ST
PATRICIA ST
© 2011 Google
Google

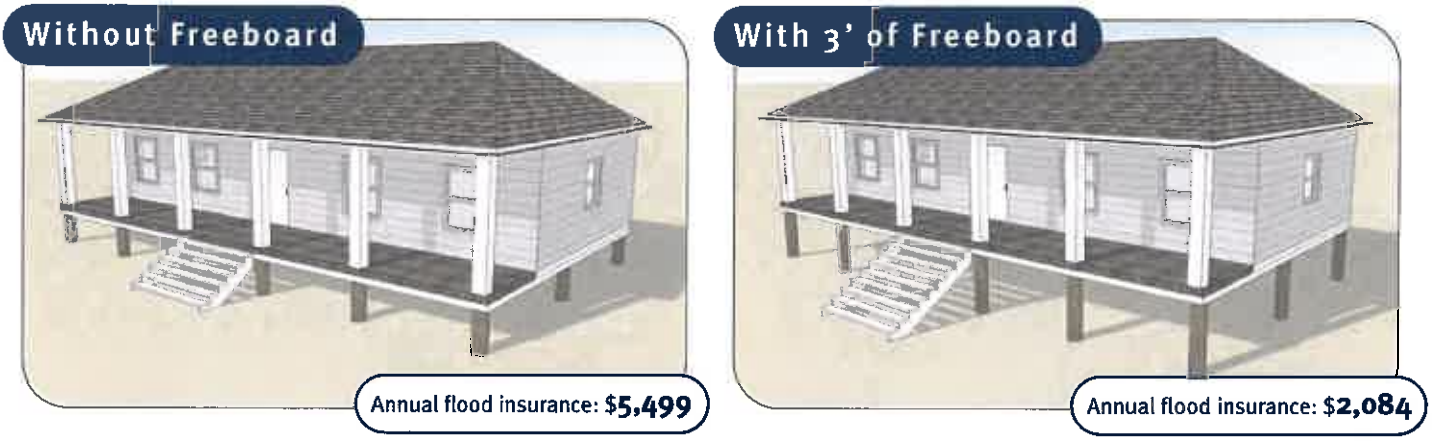
Exhibit 7:
CRS points system and Insurance Rates Description

fact sheet 5

stormsmart coasts

Raise Your Home, Lower Your Monthly Payments

Protect buildings and reduce monthly expenses with freeboard



Elevating a home a few feet above legally mandated heights has very little effect on its overall look, yet it can lead to substantial reductions in flood insurance, substantially decrease the chances the home will be damaged by storms and flooding, and help protect against sea level rise.

What Is Freeboard?

Freeboard is elevating a building's lowest floor above predicted flood elevations by a small additional height (generally 1-3 feet above National Flood Insurance Program [NFIP] minimum height requirements). Elevating a home a few feet above legally mandated heights has very little effect on its overall look, yet it can lead to substantial reductions in flood insurance, significantly decrease the chances the home will be damaged by storms and flooding, and help protect against sea level rise.

What Are the Benefits of Freeboard?

Increased protection from floods and storms. Storm waters can and do rise higher than shown on Flood Insurance Rate Maps (FIRMs). Freeboard helps protect buildings from storms larger than those that FIRMs are based on, and provides an added margin of safety to address the flood modeling and mapping uncertainties associated with FIRMs.

Better preparation for ongoing sea level rise. Massachusetts has experienced a relative sea level rise of approximately 1 foot over the past 100 years. Since elevations on FIRMs do not include sea level rise, freeboard will help keep structures above floodwaters as storm surge elevations increase.

Greatly reduced flood insurance premiums. Recognizing that freeboard reduces flood risk, the Federal Emergency Management Agency (FEMA, which administers the NFIP) provides substantial (sometimes more than 50 percent) reductions in flood insurance premiums for structures incorporating freeboard. These savings can rapidly accumulate, especially over the life of a normal mortgage.

Example of savings on NFIP premiums[1] with freeboard

		Annual savings in NFIP premiums	Savings over 30-year mortgage
V Zone[2]	1' freeboard	$1,360 (25%)	$40,800
	2' freeboard	$2,730 (50%)	$81,900
	3' freeboard	$3,415 (62%)	$102,450
A Zone[3]	1' freeboard	$502 (41%)	$15,060
	2' freeboard	$678 (55%)	$20,340
	3' freeboard	$743 (60%)	$22,290

[1] **NFIP premiums** based on May 2007 rates for a one-floor residential structure with no basement built after a FIRM was issued for the community (post-FIRM rates differ from pre-FIRM rates). $500 deductible/$250,000 coverage for the building/$100,000 for contents.

[2] **V zones**: This Flood Insurance Rate Map (FIRM) designation refers to coastal areas that are subject to the highest levels of wave energy and flooding.

[3] **A zones**: Also a FIRM designation, coastal A zones are subject to flooding but with less wave energy than V zones (i.e., wave heights less than 3 feet).

What Are the Costs of Freeboard?

The expense of incorporating freeboard into new structures is surprisingly low, generally adding only about 0.25 to 1.5 percent to the total construction costs for each foot of added height, according to a 2006 FEMA-commissioned study (*Evaluation of the National Flood Insurance Program's Building Standards*). The minor resulting increase in monthly mortgage payments is generally more than offset by savings on NFIP premiums. Consequently, adding freeboard typically saves homeowners money.

Consider, for example, a proposed one-story building in the V zone[2] that will cost $250,000 to build at minimum legal standards (the NFIP requires that all homes in the floodplain be elevated to at least the base flood elevation [BFE], mapped on FIRMs). According to the study cited above, adding each foot of freeboard to a home on piles or piers adds about 0.4 percent to total construction costs (about $1,000 a foot in this example). If the owner takes out a mortgage at 6.5 percent APR for the total construction costs, he or she will have lower monthly payments (mortgage plus NFIP premiums) with 3 feet of freeboard, even though the construction costs are higher.

Home at minimum legal height		
Monthly mortgage payments	$1,580.17	
Monthly flood insurance	+ $458.25	
Total monthly cost	= $2,038.42	
Home with 3' of freeboard		
Monthly mortgage payments	$1,599.13	(+$18.96)
Monthly flood insurance	+ $173.67	(-$284.58)
Total monthly cost	= $1,772.80	**(-$265.62)**

In this example, adding 3 feet of freeboard saves the homeowner $265.62 per month, or $95,623.67 over a 30-year mortgage. Benefits in A zones[3] are generally less dramatic, but still substantial. To determine NFIP premiums for a specific property, see a licensed insurance agent.

Who Can Benefit from Freeboard?

Nearly everyone building in floodplains can better protect themselves and their property and save on flood insurance by including freeboard into their construction and reconstruction projects. Additional benefits include:

- **Homeowners** - Whether or not you live in the house year-round, having it elevated increases the chances that it will weather storms safely, decreasing your worry and protecting your investment. If you're building a new home, or doing a renovation, ask your builder/designer about incorporating freeboard.
- **Builders/contractors** - Freeboard provides a competitive edge over other builders, allowing you to market the benefits of reduced flood insurance and flood risk to potential buyers. When doing retrofits (especially those requiring bringing structures up to current NFIP standards), explain the benefits of freeboard to your clients.
- **Municipalities** - Encourage the use of freeboard in appropriate private and public construction throughout your community's floodplain. (NOTE: The Massachusetts Attorney General's office has recently rejected bylaws requiring freeboard, but municipalities may promote its use.)
- **Businesses** - Freeboard helps: protect your buildings, important records, and inventory from flooding; drastically decrease your recovery/clean-up time after storm; and potentially save your business. The Institute for Business and Home Safety reports that more than 25 percent of businesses that close due to storm damage never reopen.

For More Information . . .

- For technical details on costs of using different flood-resistant building techniques (including freeboard), see the American Institutes for Research's *Evaluation of the National Flood Insurance Program's Building Standards* 2006 study at www.fema.gov/library/viewRecord.do?id=2592.
- For general information on the National Flood Insurance Program, see www.FloodSmart.gov.
- For specific questions on flood insurance rates, see a licensed insurance agent.
- Communities looking for more information on the National Flood Insurance Program can contact Richard Zingarelli, Massachusetts NFIP Coordinator: (617) 626-1406, Richard.Zingarelli@state.ma.us.
- For general information on how Massachusetts communities can protect themselves from storms, see the StormSmart Coasts website at mass.gov/czm/stormsmart.
- Businesses looking to prepare for storms and other catastrophic events should visit the Institute for Business and Home Safety's website at www.ibhs.org.

Executive Office of Energy and Environmental Affairs
Ian A. Bowles, Secretary

Commonwealth of Massachusetts
Deval L. Patrick, Governor
Timothy P. Murray, Lieutenant Governor

Massachusetts Office of Coastal Zone Management
Deerin Babb-Brott, Director
Bruce K. Carlisle, Assistant Director

Massachusetts Office of Coastal Zone Management (CZM) ◆ 251 Causeway Street, Suite 800 Boston, MA 02114-2136 ◆ (617) 626-1200/1212 ◆ www.mass.gov/czm

This fact sheet was developed through CZM's StormSmart Coasts program, which supports community efforts to manage coastal floodplains. For further information on StormSmart Coasts, visit **www.mass.gov/czm/stormsmart**.

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Printed: June 2009. This information is available in alternate formats upon request.

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National Flood Insurance Program Community Rating System

The National Flood Insurance Program's (NFIP) Community Rating System (CRS) is a voluntary incentive program that recognizes and encourages community floodplain management activities that exceed the minimum NFIP requirements.

As a result, flood insurance premium rates are discounted to reflect the reduced flood risk resulting from the community actions meeting the three goals of the CRS:

1. Reduce flood damage to insurable property;
2. Strengthen and support the insurance aspects of the NFIP, and
3. Encourage a comprehensive approach to floodplain management.

CRS Brochure

This brochure, *NFIP CRS: The Local Official's Guide to Saving Lives, Preventing Property Damage and Reducing the Cost of Flood Insurance* introduces the National Flood Insurance Program (NFIP) Community Rating System (CRS) as a way of promoting the awareness of flood insurance.

CRS Fact Sheets

Community Rating System Fact Sheet

[Changes to the Community Rating System in 2013]

[CRS Credit for High Water Mark Initiative]

CRS Award for Excellence

The CRS Award for Excellence recognizes an individual who has provided leadership in the area of alerting residents to the dangers of flooding and promoting the purchase of flood insurance through the NFIP. Click here to learn about the CRS Award for Excellence.

How are Flood Insurance Premium Discounts Calculated?

For CRS participating communities, flood insurance premium rates are discounted in increments of 5% (i.e., a Class 1 community would receive a 45% premium discount, while a Class 9 community would receive a 5% discount (a Class 10 is not participating in the CRS and receives no discount)). The CRS classes for local communities are based on 18 creditable activities, organized under four categories:

1. Public Information,
2. Mapping and Regulations,
3. Flood Damage Reduction, and
4. Flood Preparedness.

The table below shows the credit points earned, classification awarded and premium reductions given for communities in the NFIP CRS.

CREDIT POINTS	CLASS	PREMIUM REDUCTION SFHA*	PREMIUM REDUCTION NON-SFHA**
4,500+	1	45%	10%
4,000 – 4,499	2	40%	10%
3,500 – 3,999	3	35%	10%
3,000 – 3,499	4	30%	10%
2,500 – 2,999	5	25%	10%
2,000 – 2,499	6	20%	10%
1,500 – 1,999	7	15%	5%

1,000 – 1,499	8	10%	5%
500 – 999	9	5%	5%
0 – 499	10	0	0

*Special Flood Hazard Area
**Preferred Risk Policies are available only in B, C and X Zones for properties that are shown to have a minimal risk of flood damage. The Preferred Risk Policy does not receive premium rate credits under the CRS because it already has a lower premium than other policies. The CRS credit for AR and A99 Zones are based on non-Special Flood Hazard Areas (non-SFHAs) (B, C and X Zones). Credits are: classes 1-6, 10% and classes 7-9, 5%. Premium reductions are subject to change.

Additional Resources

CRS Coordinator's Manual
The Coordinator’s Manual for the CRS includes the CRS Schedule, which sets the criteria for CRS classification and CRS Commentary on the schedule. Section 100 gives general background information on the CRS. Section 200 explains the application and verification procedures. Sections 300 through 700 explain the credit points and calculations that will be used to verify CRS credit. The procedures in these sections are used by a community to submit a modification for a better CRS classification.

CRS Communities and Their Classes
These pages are from the most recent Flood Insurance Agent's Manual containing current and historical listings of all CRS communities, their class and insurance discount.

Numbers of CRS Communities by State
This link shows how many communities participate in the CRS in each state and the distribution of communities by CRS Class in each CRS Class.

Community Rating System Participation National Map
The CRS Participation map of the nation shows the wide range of communities that participate in CRS. CRS participation attracts all kinds of communities including small, large, inland, coastal, arid, etc. The map also includes the approximate territories served by the ISO Field Specialists who work with individual communities.

Community Rating System Participation by FEMA Region Maps
The CRS FEMA Regional map indicates communities that participate in CRS and from which states.

Community Rating System Participation State Maps
The CRS State maps depict communities that participate in the CRS and communities with the greatest risk to flooding, as measured by the number of flood insurance policies in effect.

Community Rating System Series and Activity Posters
These posters provide simplified descriptions of the CRS. 2013 CRS Coordinator’s Manual changes are highlighted. The posters could be useful to explain and promote the CRS. The files are formatted to print large posters suitable for wall display.

Community Rating System (CRS) Overview, Prerecorded Presentation

This nine minute narrated Power Point presentation is about the CRS. It is an introduction to the Community Rating System suitable for viewers with little or no familiarity with the CRS.

Webinars on the Community Rating System

FEMA is introducing the CRS Webinar Series targeted to new communities that are not yet participating in the Community Rating System of the National Flood Insurance Program as well as to local government staff with some experience in the CRS. The series will include basic introductory sessions and more advanced topics, most averaging about an hour in length. Scheduled so are the following:

- Introduction to the Community Rating System
    - February 18, 2014 - 1:00 pm Eastern/10:00 am Pacific
    - March 18, 2014 - 1:00 pm Eastern/10:00 am Pacific
    - May 20, 2014 - 1:00 pm Eastern/10:00 am Pacific
    - July 15, 2014 - 1:00 pm Eastern/10:00 am Pacific
- Developing Outreach Projects (Activity 330)
    - February 19, 2014 - 1:00 pm Eastern/10:00 am Pacific
    - April 16, 2014 - 1:00 pm Eastern/10:00 am Pacific
- Higher Regulatory Standards (Activity 430)
    - March 19, 2014 - 1:00 pm Eastern/10:00 am Pacific

Coming soon:

- Preparing for the CRS Verification Visit
- Drainage System Maintenance (Activity 540)
- Natural Floodplain Functions

Registration

Go to http://atkinsglobalna.webex.com/tc and type “CRS” in the search field to view webinars that are now open for registration.

If you have questions about the CRS Webinar Series, please contact Becca.Croft@atkinsglobal.com.

NFIP/CRS Update Newsletter

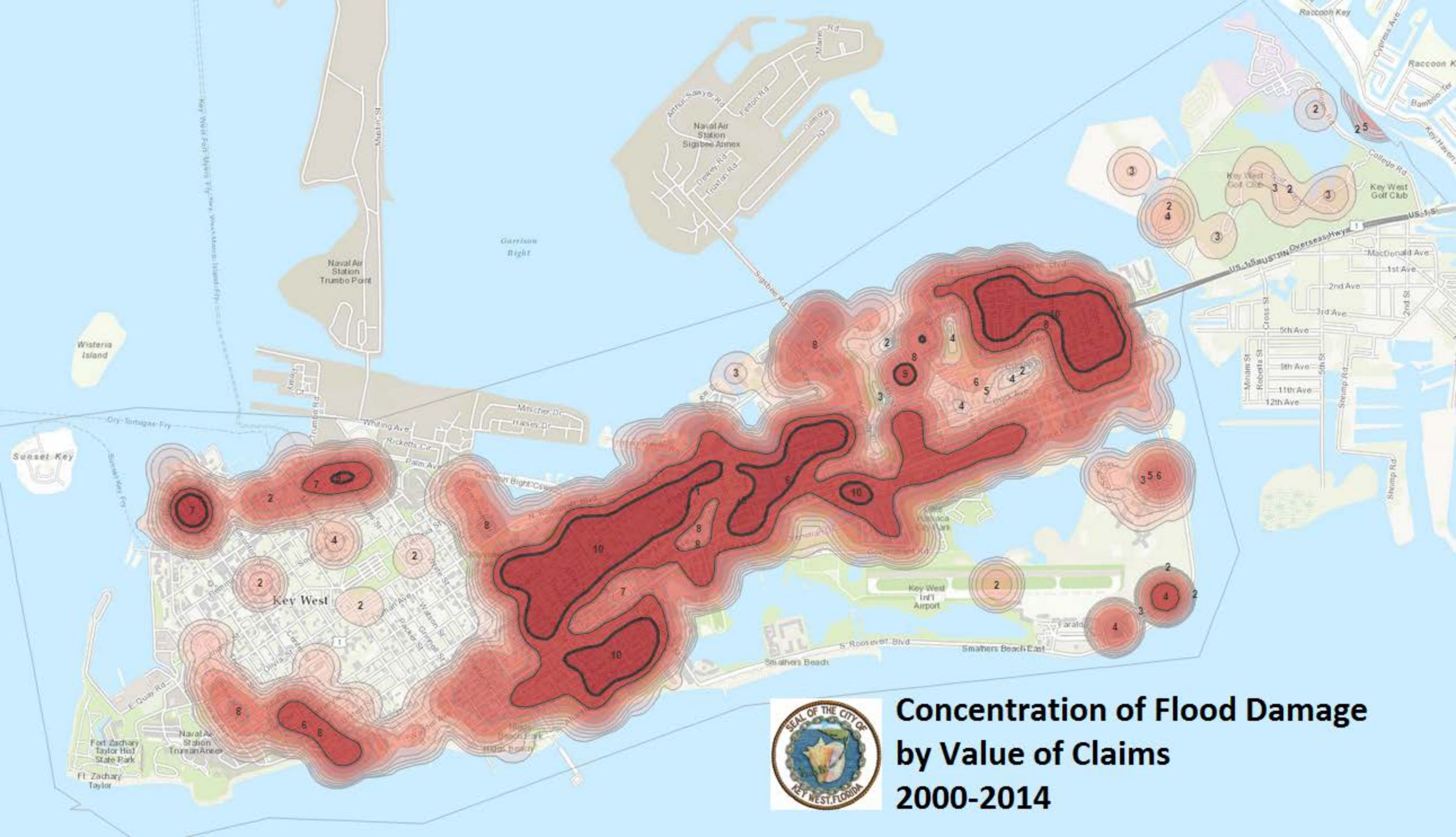
The CRS Update Newsletter is a publication to provide local officials and others interested in the Community Rating System with news they can use. To sign up for CRS e-mail updates click on the link below,

- November 2014 Newsletter
- September 2014 Newsletter
- July 2014 Newsletter
- February 2014 Newsletter
- December 2013 Newsletter
- October 2013 Newsletter
- July 2013 Newsletter
- May 2013 Newsletter
- March 2013 Newsletter
- January 2013 Newsletter
- August 2012 Newsletter
- June 2012 Newsletter
- March 2012 Newsletter
- February 2012 - Special Edition
- October 2011 Newsletter - Special Edition
- January-April 2011 Newsletter
- October-December 2010 Newsletter
- April-May 2010 Newsletter
- February 2010 Newsletter
- December 2009 Newsletter
- October 2009 Newsletter
- August 2009 Newsletter


Sign up for CRS email updates

Last Updated: 01/30/2015 - 11:03

Exhibit 8:
Concentration of Flood Damage by Insurance Claim Value Map


Concentration of Flood Damage
by Value of Claims
2000-2014
Key West
Naval Air Station Trumbo Point
Naval Air Station Sigsbee Annex
Garrison Bight
Key West Int'l Airport
Smathers Beach
Smathers Beach East
Key West Golf Club
Fort Zachary Taylor Hist State Park
Naval Air Station Truman Annex
Ft. Zachary Taylor
Sunset Key
Wisteria Island
Raccoon Key
US-1/S Overseas Hwy
Whitehead St
Duval St
Simonton St
Truman Ave
Flagler Ave
Eaton St
Fleming St
Petronia St
Angela St
Olivia St
Caroline St
Margaret St
Grinnell St
Watson St
Packer St
Palm Ave
Rickets Cir
Mitscher Dr
Halsey Dr
Sigsbee Rd
Maine Rd
Arthur Sawyer Rd
Fenton Rd
Dewey Rd
Hunter Rd
Truman Rd
Key West Fort Zachary Trl
Key West Truman Island Trl
Dry Tortugas Fry
Sunset Key Trl
E Quay Rd
Government Rd
S Roosevelt Blvd
College Rd
Cypress Ave
Bamboo Ter
Key Haven
MacDonald Ave
1st Ave
2nd Ave
3rd Ave
5th Ave
9th Ave
11th Ave
12th Ave
Cross St
Miriam St
Roberts St
2nd St
5th St
Shrimp Rd

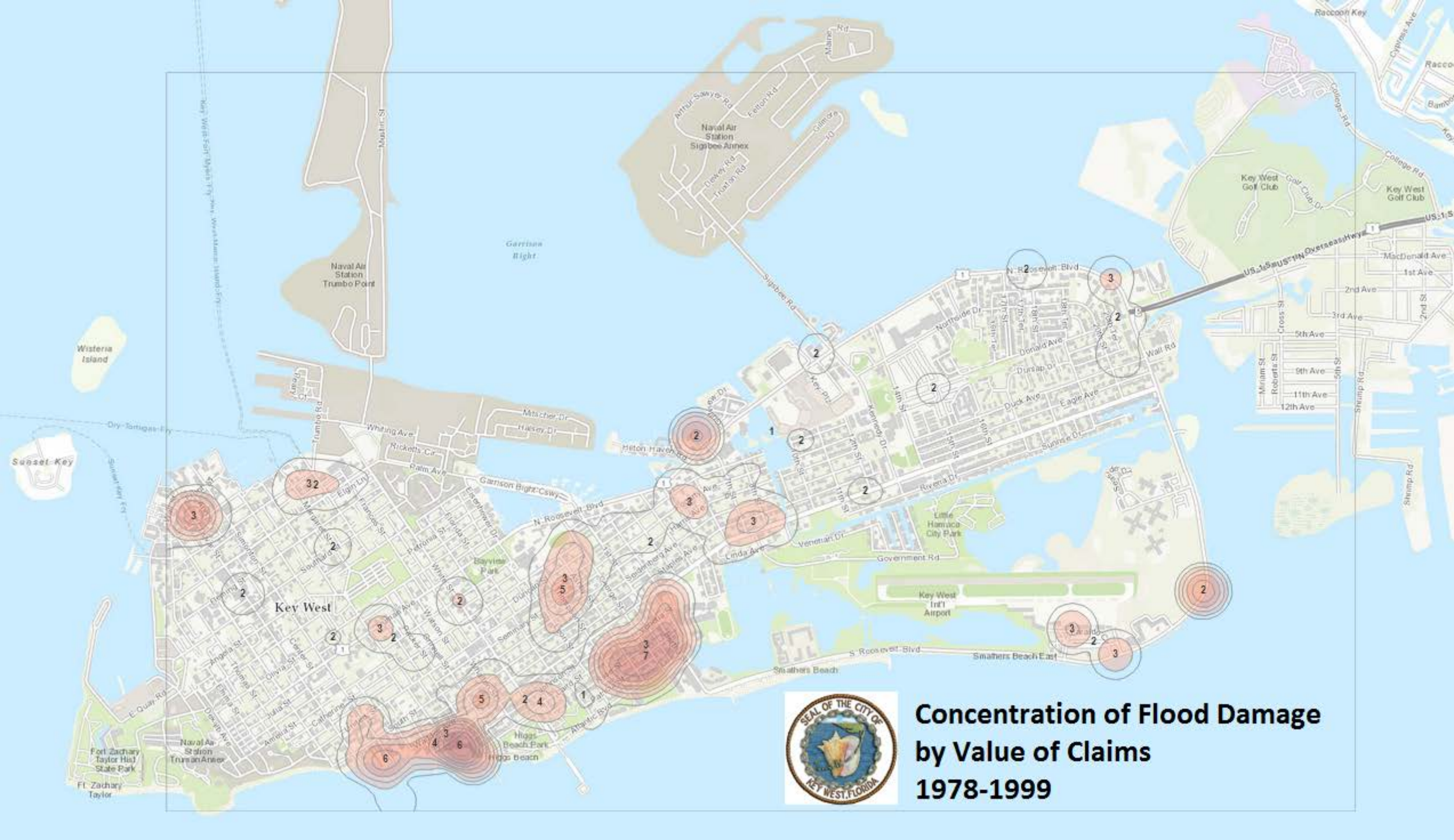

Concentration of Flood Damage
by Value of Claims
1978-1999
Key West
Naval Air Station Trumbo Point
Naval Air Station Sigsbee Annex
Garrison Bight
Sunset Key
Wisteria Island
Dry Tortugas Ferry
Key West Int'l Airport
Little Hamaca City Park
Bayview Park
Higgs Beach Park
Higgs Beach
Smathers Beach
Smathers Beach East
Fort Zachary Taylor Hist State Park
Ft Zachary Taylor
Naval Air Station Truman Annex
Key West Golf Club
Raccoon Key
US 1 S
US 1 N Overseas Hwy
N Roosevelt Blvd
S Roosevelt Blvd
Sigsbee Rd
Whitehead St
Duval St
Simonton St
Truman Ave
Eaton Harbor Rd
Garrison Bight Cswy
Government Rd
Veteran Dr
Linda Ave
Rivera Dr
Wall Rd
Shrimp Rd
College Rd
MacDonald Ave
1st Ave
2nd Ave
3rd Ave
5th Ave
9th Ave
11th Ave
12th Ave

Exhibit 9:
FIRM Insurance Rate Review

Flood Insurance Costs

	2010	2013	$ Change	% Change	2014	$ Change	% Change	Cumulative $ Change	Cumulative % Change
Avg. Policy	$1,160	$1,324	$164	14%	$1,510	$186	14%	$350	30%
Avg. SFHA	$1,262	$1,440	$178	14%	$1,670	$230	16%	$408	32%

Flood Insurance Costs w/Policy Surcharge

	2010	2013	$ Change	% Change	2014	$ Change	% Change	Cumulative $ Change	Cumulative % Change
Avg. Policy	$1,160	$1,394	$234	20%	$1,580	$186	13%	$420	36%
Avg. SFHA	$1,262	$1,510	$248	20%	$1,740	$230	15%	$478	38%

Number Flood Insurance Policies In Effect

	2010	2013	Change	% Change	2014	Change	% Change	Cumulative $ Change	Cumulative % Change
# Policies	8,326	8,088	-238	-3%	7,792	-296	-4%	-534	-6%
# SFHA Policies	7,060	6,932	-128	-2%	6,586	-346	-5%	-474	-7%

2013

Commercial	Residential	2013	2013 Avg
1618	6470		
Surcharge	Surcharge		
$404,400	$161,760	$566,160	$70

2014

Commercial	Residential	2014	2014 Avg
1558	6234		
Surcharge	Surcharge		
$389,600	$155,840	$545,440	$70

Exhibit 10:
Cost Estimates for Raising Structures

Key West CMU home elevation costs
1,500 sq ft home

Task	Party	SF Quantity	Cost	Total	Actual Quantity
Elevation Cert		1	$ 500.00	$ 500.00	
Engineering & Drawings		1	$ 8,000.00	$ 8,000.00	
Permits		1	$ 500.00	$ 500.00	
Soil Test		1	$ 1,500.00	$ 1,500.00	
Temp Pole		1	$ 500.00	$ 500.00	
Job Site Bathrooms		1	$ 200.00	$ 200.00	
Dumpsters/Site Trash Removal		4	$ 800.00	$ 3,200.00	
Site Prep for Elevation		1	$ 1,500.00	$ 1,500.00	
Elevation		1500	$ 29.00	$ 43,500.00	
Foundation demo and removal		1	$ 1,500.00	$ 1,500.00	
Excavation		1	$ 1,500.00	$ 1,500.00	
Foundation		1	$ 95,000.00	$ 95,000.00	
Plumbing Rough Water & Sewer		1	$ 2,500.00	$ 2,500.00	
Gas Line		1	$ 1,500.00	$ 1,500.00	
Insulated Water Line			$ 200.00	$ -	
HVAC Disconnect & Reconnect		1	$ 5,000.00	$ 5,000.00	
Carpentry- stairs, rails, decks, A/C pad		1	$ 2,500.00	$ 2,500.00	
ADA compliance, ramps/lift					
Remove garage door & track				$ -	
Grade out yard & dirt as needed		1	$ 1,000.00	$ 1,000.00	
Install sod by Pallet		0	$ 400.00	$ -	
Downspouts		20	$ 5.00	$ 100.00	
Erosion Control		0	$ 1,500.00	$ -	
Landscaping		1	$ 500.00	$ 500.00	
Site Supervision - Related to work		1	$ 5,000.00	$ 5,000.00	
	TOTAL			$ 175,500.00	

Elevation cost is $29.00/ft of foundation for up to 6'. After that add $1.00/ft.
Slab separation add $.90/ft for labor/materials.
Chimney - add $1000 to $2000 depending on size
Local estimates required. Depends on A- A-Zone foundation reuse or new and or new V-Zone foundation with piles

Key West wood frame home elevation costs
1,500 sq ft home

		SF			
Task	**Party**	**Quantity**	**Cost**	**Total**	**Actual Quantity**
Elevation Cert		1	$ 500.00	$ 500.00	
Engineering & Drawings		1	$ 8,000.00	$ 8,000.00	
Permits		1	$ 500.00	$ 500.00	
Soil Test		1	$ 1,500.00	$ 1,500.00	
Temp Pole		1	$ 500.00	$ 500.00	
Job Site Bathrooms		1	$ 200.00	$ 200.00	
Dumpsters/Site Trash Removal		4	$ 800.00	$ 3,200.00	
Site Prep for Elevation		1	$ 1,500.00	$ 1,500.00	
Secure pool & pool pump				$ -	
Elevation 1		1500	$ 19.00	$ 28,500.00	
Foundation demo and removal		1	$ 1,500.00	$ 1,500.00	
Excavation		1	$ 1,500.00	$ 1,500.00	
Foundation		1	$ 75,000.00	$ 75,000.00	
Plumbing Rough Water & Sewer		1	$ 2,500.00	$ 2,500.00	
Gas Line		1	$ 1,500.00	$ 1,500.00	
Insulated Water Line			$ 200.00	$ -	
HVAC Disconnect & Reconnect		1	$ 5,000.00	$ 5,000.00	
Carpentry- stairs, rails, decks, A/C pad		1	$ 2,500.00	$ 2,500.00	
ADA compliance, ramps/lift					
Remove garage door & track				$ -	
Grade out yard & dirt as needed		1	$ 1,000.00	$ 1,000.00	
Install sod by Pallet		0	$ 400.00	$ -	
Downspouts		20	$ 5.00	$ 100.00	
Erosion Control		0	$ 1,500.00	$ -	
General Labor		0	$ 5,000.00	$ -	
Landscaping		1	$ 500.00	$ 500.00	
Site Supervision - Related to work		1	$ 5,000.00	$ 5,000.00	
	TOTAL			$ 145,500.00	

Elevation cost is $19.00/ft of foundation for up to 6'. After that add $1.00/ft. ft. Slab sep

Local estimates required. Depends on A- A-Zone foundation reuse or new and or new V·

aration add $.90/ft for labor/materials. Chimney add $1,000 to $2,000 depending on size for prep to lift.

-zone foundation with piles