City of Miami
Sea Level Rise Committee
Planning & Zoning Workshop #1
Meeting Agenda

January 13, 2017
2:45 PM
Miami Riverside Center 10th Floor Main Conference Room
444 SW 2nd Avenue, Miami, FL 33130

MISSION

To study sea level rise and its effect on the City of Miami, incorporating all available information on the subject; and make recommendations and help to frame legislation to be considered by the City Commission, for enhancing the resilience and sustainability of all the City's communities from the impact of sea level rise

Wayne Pathman, Chair
Jose Regalado, Vice Chair
Kilan Ashad-Bishop, Member
Reinaldo Borges, Member
Albert Gomez, Member
Pete Gomez, Member
David Martin, Member
James Murley, Member
Rachel Silverstein, Member

For more information contact: astewart@miamigov.com / 305-960-5191

Sea Level Rise Committee – Planning & Zoning Workshop #1

I. Overview of relevant plans/documents including Comprehensive Neighborhood Plan & Miami21 – Presentation by Planning & Zoning Department

II. Goals of Comprehensive Neighborhood Plan, Miami 21 and other plans

III. Review of existing requirements in planning documents
   i. deeper dive into existing sustainability requirements
   ii. opportunities for mainstreaming resilience and SLR considerations into planning documents

IV. Resilience vision and next steps for Planning & Zoning Department

V. Envisioning future collaboration between P&Z, ORS and the SLRC
   i. roles of each in building Miami's resilience to SLR
   ii. future workshop outlines and topics

Other Business (January 4 Meeting)

VI. 2016 Annual Board Reports – due 1/15/17 (may be submitted on 1/17/17)

VII. January 26th City Commission Meeting, SLRC Discussion Item – "*Discussion by Chairman and members of the Sea Level Rise Committee regarding the economic impacts of sea level rise on the City of Miami*"

NOTES:

MCNP, M21, Ch23 (historic preservation), Ch17 (environmental)

MCNP focus on SLR
- Water supply facility plan update (2015)
- EAR

M21 Sustainability
- LEED Silver
- Heat Island
  . Solar reflectance
  . roof structure
- Article 9 (Landscape standards)
- Appendix B (waterfront standards)

For more information contact: astewart@miamigov.com / 305-960-5191

Next Steps

- Collaboration with ORS
- Continued MCNP update
- Active Design Guidelines (www.activedesign.org)

Waterfront charter in the City Code that requires the setbacks

RB – question about the MCNP is there anything that can be shared about any pending changes related to standards…
Any specific items with regards to resilience for that will modify the code for individual resilience of buildings

- P&Z employs a broader vision for the city that focuses on neighborhood resilience that would set the platform for buildings not to be affected in the first place – Longevity of the neighborhood is key.

DM – could there be something built in that the planning director could have much more flexibility to make decisions.

- Having individuals such as the SLRC and ORS etc., involved in the process is the key
- Miami21 is an organic zoning ordinance that can change regularly to remain relevant
- Will be reluctant to make any changes unless we have the information to make positive changes

DM – how do we get that research and data to implement and also prioritize which areas first?

- FG - Best practices that other cities are employing and tailoring those best practices to Miami (hard work) that's the work that begins now
- JG: infrastructure review committee that which P&Z is a part of, a broader strategy of how we are going to live with water
- FG – vulnerability map is a great place to start, we would do well with SLR to look at the city as a whole with a more nuanced manner to carve out areas that are more, less or intermediate vulnerability and figure out how to prioritize

PG – AAAs

- Resilient Redesign for Shorecrest is a good idea for an AAA, all of downtown (the DDA)

RB – M21 is a fantastic code for urbanism, walkability, human interest etc., how do we modify the code so M21 is not just a sustainability code but also a resilience code. Concerned that continue to just build without considering how buildings meet the streets, and cope with flooding etc. Freeboard ordinance, Miami Beach…adaptability and flexibility component of the freeboard ordinance is really critical… good that we are evaluating buildings for sustainability, but right now the code does not allow us to consider resilience (such as the basement situation).
At least 5 buildings in Brickell that have basement parking with permanent flooding…..
Freeboard ordinance allows us to look ahead, look at neighborhoods where we need to have more flexibility and adaptability where the building meets the ground….Bring Guari into the conversation to talk about how we can modify things…

WP – Timing is important…. Other cities (MB) are moving forward on things to give developers (like David) the opportunity to build for tomorrow. Let's take advantage of M21 being a flexible working document… the playing field is going to change in 10 years due to insurance, taxation and banking…we need to be ahead of this…it's not that hard to changing a BFE (MB did in 3 months)..
@ DM how do you envision developing in the next few years if you don't see the movement from the City with legislation to account for the changes expected with SLR.

AG: The reason they can't say anything positive (or rather, point to anything being done) for the City of Miami from a Rockefeller point of view..because of former animosity in terms of applying for 100 RC separately…

DM: why do we need to change now…residential..the people that are buying from me are asking the questions…we need to prepare a timeline, we are going to implement these changes within this timeline and let the public know….create incentives…if someone builds a resilient building, they should get a couple more floors.

WP: we need to have right incentives and show people we are doing the right things to keep the institutional capital investors in the local economy…

KAB – Brought up the issue of making sure that lower socio economic concerns are considered…

JG: - 100 Million bond..vulnerability analysis need to go along with economic opportunity…

RS: - don't want us to be reinventing the wheel here by learning from other Cities

AG: - higher resolution LIDR system is key! Natural systems are key.

WP: creating some kind of recommendation today that we can make action on…

DS: Sorecrest presentation in front the board by next month hopefully.. check with David if the February 27 date work!

Condensed Title:

An ordinance amending Chapter 54 of the City Code as it pertains to freeboard and minimum finished floor elevations, and an ordinance amending the Land Development Regulations of the City Code as it pertains to building height, base flood elevation, grade and yard elevation requirements.

Key Intended Outcome Supported:

Increase satisfaction with neighborhood character. Increase satisfaction with development and growth management across the City.

Supporting Data (Surveys, Environmental Scan, etc 48% of residential respondents and 55% of businesses rate the effort put forth by the City to regulate development is "about the right amount."

Item Summary/Recommendation:

FIRST READING

The first ordinance would amend Chapter 54, "Floods", by establishing a minimum and maximum freeboard above base flood elevation for all properties and the second ordinance would amend the Land Development regulations pertaining to the calculation of building height, and establish minimum elevations of required yards in single family districts.

On October 14, 2015, at the request of Commissioner Malakoff, the City Commission referred the subject ordinance amendments (Item C4D) to the Land Use and Development Committee. On January 20, 2016, the Land Use and Development Committee recommended that the City Commission refer the proposed ordinances to the Planning Board. On February 10, 2016, the City Commission referred the subject ordinance amendments (Item C4C) to the Planning Board.

The Administration recommends that the City Commission 1) accept the recommendation of the Land Use and Development Committee via separate motion; and 2) approve the attached Ordinance at First Reading and set a Second Reading Public Hearing for May 11, 2016.

Advisory Board Recommendation:

On March 22, 2016, the Planning Board transmitted the proposed ordinance with modifications to the City Commission with a favorable recommendation (vote 6 to 0).

Financial Information:

Source of Funds:		Amount	Account
	1		
	2		
	3		
OBPI	Total		

Financial Impact Summary:

In accordance with Charter section 5.02, which requires that the "City of Miami Beach shall consider the long-term economic impact (at least five years) of proposed legislative actions," this shall confirm that the City Administration evaluated the long-term economic impact (at least five years) of this proposed legislative action, and determined that there will be no measurable impact on the City's budget.

City Clerk's Office Legislative Tracking:

Thomas Mooney

Sign-Offs:

Department Director	Assistant City Manager	City Manager

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MIAMIBEACH

AGENDA ITEM R5D

DATE 4-13-16

MIAMIBEACH

City of Miami Beach, 1700 Convention Center Drive, Miami Beach, Florida 33139, www.miamibeachfl.gov

COMMISSION MEMORANDUM

TO: Mayor Philip Levine and Members of the City Commission

FROM: Jimmy L. Morales, City Manager

DATE: April 13, 2016

FIRST READING

SUBJECT: **Freeboard height and minimum finished floor elevations.**

AN ORDINANCE OF THE MAYOR AND CITY COMMISSION OF THE CITY OF MIAMI BEACH, FLORIDA, AMENDING SUBPART A – GENERAL ORDINANCES, OF THE CITY CODE, BY AMENDING CHAPTER 54 "FLOODS" AT SECTION 54-35, "DEFINITIONS," BY AMENDING THE DEFINITIONS FOR BASE FLOOD ELEVATION, CROWN OF ROAD, AND FREEBOARD, AND TO ESTABLISH DEFINITIONS FOR CENTERLINE OF ROADWAY, FUTURE CROWN OF ROAD, MINIMUM FREEBOARD, MAXIMUM FREEBOARD, GREEN INFRASTRUCTURE, LOW IMPACT DEVELOPMENT (LID), AND SURFACE STORMWATER SHALLOW CONVEYANCE; AND BY AMENDING SECTION 54-47, "GENERAL STANDARDS" BY REQUIRING A STORMWATER MANAGEMENT PLAN; AND BY AMENDING SECTION 54-48, "SPECIFIC STANDARDS" BY CLARIFYING THE MINIMUM ELEVATION OF THE LOWEST FINISHED FLOOR FOR RESIDENTIAL AND NON-RESIDENTIAL CONSTRUCTION AND REQUIRING A MINIMUM ELEVATION FOR GARAGE ENTRANCES; AND BY AMENDING SECTION 54-51, "STANDARDS FOR COASTAL HIGH HAZARD AREAS (V-ZONES)," BY CLARIFYING THE MINIMUM ELEVATION OF THE LOWEST FLOOR OF ALL NEW CONSTRUCTION AND SUBSTANTIAL IMPROVEMENTS; PROVIDING CODIFICATION; REPEALER; SEVERABILITY; AND AN EFFECTIVE DATE.

Building height, base flood elevation, grade and yard elevation requirements.

AN ORDINANCE OF THE MAYOR AND CITY COMMISSION OF THE CITY OF MIAMI BEACH, FLORIDA, AMENDING THE CITY'S LAND DEVELOPMENT REGULATIONS, BY AMENDING CHAPTER 114, "GENERAL PROVISIONS," AT SECTION 114-1, "DEFINITIONS," BY AMENDING THE DEFINITIONS FOR GRADE, FUTURE ADJUSTED GRADE, AND BUILDING HEIGHT, AND TO ESTABLISH BY REFERENCE TO CHAPTER 54-35 DEFINITIONS FOR BASE FLOOD ELEVATION, CROWN OF ROAD, FUTURE CROWN OF ROAD, FREEBOARD, MINIMUM FREEBOARD, MAXIMUM FREEBOARD, GREEN INFRASTRUCTURE, FUTURE ADJUSTED GRADE, AND SURFACE STORMWATER SHALLOW CONVEYANCE; BY AMENDING CHAPTER 142, "ZONING DISTRICTS AND REGULATIONS," DIVISION 2, "RS-1, RS-

2, RS-3, RS-4 SINGLE-FAMILY RESIDENTIAL DISTRICTS," BY AMENDING AND CLARIFYING THE MAXIMUM ELEVATION WITHIN A REQUIRED YARD AND PROVIDING A MINIMUM ELEVATION REQUIREMENT FOR NEW CONSTRUCTION, AND AMENDING HOW MAXIMUM BUILDING HEIGHT IS CALCULATED; PROVIDING CODIFICATION; REPEALER; SEVERABILITY; AND AN EFFECTIVE DATE.

ADMINISTRATION RECOMMENDATION

The Administration recommends that the City Commission 1) accept the recommendation of the Land Use and Development Committee via separate motion; and 2) approve the attached Ordinances at First Reading and set a Second Reading Public Hearing for May 11, 2016. These recommendations developed by stormwater and flooding consultant AECOM and vetted by the Mayor's Blue Ribbon Panel on Sea Level Rise and city staff will not only reduce our risk to sea level rise and flooding, but also will protect against storm surge as referenced in the summary chart. Furthmore, these recommedations protect and enhance our economic resiliency in light of forth coming insurance reform, the upcoming FEMA flood map requrements and to improve our Community Rating System (CRS) score that affects private property insurance.

BACKGROUND

On October 14, 2015, at the request of Commissioner Malakoff, the City Commission referred a discussion item regarding amendments to the City Code to improve the City's resiliency to sea level rise, flooding and natural disasters to the Land Use and Development Committee (Item C4D). On January 20, 2016 the Land Use Committee discussed the items and recommended that the attached Ordinance Amendments be referred to the Planning Board.

On February 10, 2016 the City Commission referred the proposed Ordinance Amendments (Item C4D) to the Planning Board for review and recommendation. Commissioner Joy Malakoff is the sponsor of the proposed Ordinances.

ANALYSIS

There are two related ordinance amendments attached. The first ordinance amends chapter 54, "Floods,", and the second ordinance amends the Land Development Regulations, including references to chapter 54. The following is a list of terms, along with their common definitions, which are used throughout this analysis:

Freeboard means the additional height between the minimum finished floor elevation and the *base flood elevation*. Freeboard tends to compensate for many unknown factors, such as wave action, stormwater conveyance impediments such as blockage of bridge or culvert openings, and other factors, which could contribute to greater flood heights.

Base Flood Elevation means the regulatory elevation associated with building elevation, flood-proofing, protection of building systems and utilities and other flood protection provisions as identified in current FEMA FIRM panels. Currently within the City of Miami Beach, this elevation

ranges between 7 to 10 feet *NGVD*.

FEMA – **Federal Emergency Management Agency**. FEMA is an agency of Homeland Security, with the stated mission to "support our citizens and first responders to ensure that as a nation we work together to build, sustain and improve our capability to prepare for, protect against, respond to, recover from and mitigate all hazards."

FIRM – **Flood Insurance Rate Map**. This is the official map of a community on which FEMA has delineated both the special hazard areas and the risk premium zones applicable to the community.

NGVD and ***NAVD*** are reference surface vertical *datums* (a fixed starting point) used to ensure that all elevation records are properly related. The current national datum is the **National Geodetic Vertical Datum (NGVD)** of 1929, which is expressed in relation to mean sea level, or the **North American Vertical Datum (NAVD)** of 1988. **NGVD 29** used a simple model of gravity based on latitude to calculate the approximate sea level and did not take into account other variations. Thus, the elevation difference for points across the country does change between NGVD and NAVD. In order to convert between the two datums in Miami Beach, 1.56 is added to an elevation that is expressed as NAVD. For example, 5.0 feet NAVD = 6.56 feet NGVD. Although NAVD is a more updated standard, NGVD is still more widely used, thus both reference datums are included in this analysis.

LID - ***Low-Impact Development*** techniques mimic natural processes to manage stormwater, and are frequently cheaper and more attractive than traditional stormwater management techniques.

Southeast Florida Regional Climate Change Compact Unified Sea Level Rise Projections from 1992 to 2100. The projection highlights three planning horizons:

1. Short term, by 2030, sea level is projected to rise 6 to 10 inches above 1992 mean sea level,
2. Medium term, by 2060, sea level is projected to rise 14 to 34 inches above 1992 mean sea level,
3. Long term, by 2100, sea level is projected to rise 31 to 81 inches above 1992 mean sea level.

The Miami Beach City Commission adopted these projections for planning purposes on March 9, 2016.

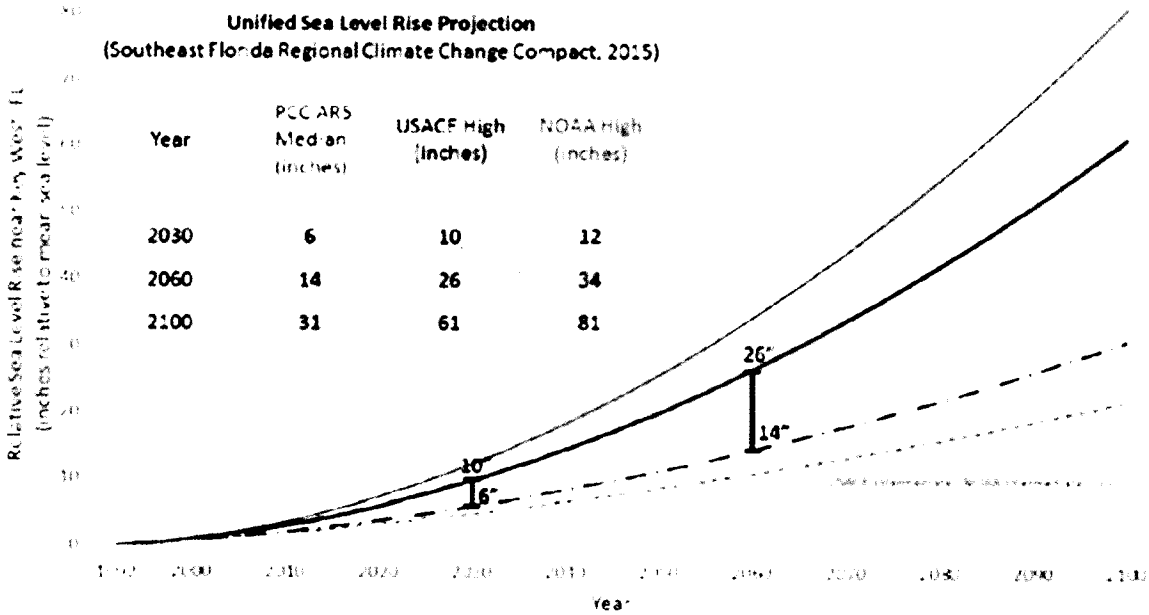

Figure 1: Unified Sea Level Rise Projection. These projections are referenced to mean sea level at the Key West tide gauge. The projection includes three global curves adapted for regional application: the median of the IPCC AR5 RCP8.5 scenario as the lowest boundary (blue dashed curve), the USACE High curve as the upper boundary for the short term for use until 2060 (solid blue line), and the NOAA High curve as the uppermost boundary for medium and long term use (orange solid curve). The incorporated table lists the projection values at years 2030, 2060 and 2100. The USACE Intermediate or NOAA Intermediate Low curve is displayed on the figure for reference (green dashed curve). This scenario would require significant reductions in greenhouse gas emissions in order to be plausible and does not reflect current emissions trends.

AECOM is the consultant for the development of the City's Comprehensive Resiliency Program.

AECOM's recommendations have been incorporated into the proposed ordinances. The following is a summary of the proposed legislation:

Minimum Base Flood Elevation:
Limited areas of the City are depicted on the current FEMA FIRM panels as having a base flood elevation of 7.0 feet NGVD. Although the designation of base flood elevations are based on coastal inundation modeling by FEMA, further research and modeling as part of the ongoing City of Miami Beach Flood Mitigation Study indicates that during a large storm event, this area will be faced with similar flood risks as the surrounding areas currently mapped with a base flood elevation of 8.0 feet NGVD.

Therefore, to provide adequate protection of properties within this zone, it is recommended that the City adopt a minimum base flood elevation of 8.0 feet NGVD. This will affect major renovation and new construction projects, requiring a one foot higher finish floor elevation. However, it should be noted that this ordinance is intended to apply only to design and permitting requirements in the City and is not intended to be used as an insurance rate tool. The adopted FEMA FIRM panels will continue to be used for this purpose.

New FEMA FIRM panels will be available as soon as 2018-19 based on revised coastal modeling, providing updated base flood elevations for the entire City. Once these FEMA maps are adopted by the City, this section of the code may require additional revisions.

Building Freeboard

As sea levels and storm severity continue to increase, low lying infrastructure including buildings must also elevate in order to reduce risk or maintain low risk from potential flood damage. Consistent with U.S. Federal and State guidance, these code changes provide the basic level of protection for buildings through minimal freeboard requirements. This nominal change in new building finish floor elevation requirements will provide additional levels of protection, potentially reduce insurance premiums and enhance the City's current NFIP CRS (National Flood Insurance Program Community Rating System) status, which can have benefits to all residents and business owners in the City.

As proposed, a minimum freeboard of one (1) foot, and a maximum freeboard of five (5) feet would be established at this time. Building heights would be measured from the base flood elevation plus the actual freeboard provided, which would be between the minimum (1') and maximum (5') freeboard.

In order to account for the future raising of streets and sidewalks for commercial properties, the measurement of building height is also proposed to be modified. Commercial properties often have zero or minimal setbacks, and it is preferable from a business perspective and urban design standpoint to have such commercial uses located at the same level as the sidewalk. In order to accommodate the future raising of streets and sidewalks, additional height will have to be built into projects today, so that the building can be modified with a future raised floor slab to meet the future raised public sidewalk. As proposed, for projects that are designed to accommodate a future raised slab to meet the future sidewalk level, building height would be measured from the base flood elevation plus the provided freeboard. Currently, height for commercial properties that are located predominately at the sidewalk level, are measured from the minimum first floor elevation.

Seawall Elevation and Design (included for reference)

The City of Miami Beach is surrounded by water and protected from erosion and damage from wave action by seawalls. Since much of the island was built out over 50 years ago, many of these sea walls are at a low elevation reducing their effectiveness as the first line of defense against wave energy. For this reason, elevating this critical means of protection for the City is paramount to incorporating resilience.

Understanding the unintended consequences to view sheds from low lying homes, it is recognized that not all sea walls can be built to the ideal elevation of 5.7 feet NAVD at this time. For this reason and to continue protecting properties within the City, private sea walls are recommended to be elevated to an elevation of at least 4.0 feet NAVD, offering additional levels of protection with minimal adverse impacts to view sheds.

In addition to the increase in elevation for private sea walls, the design of the new/renovated walls shall also incorporate a more robust design including larger footer, rebar, width, etc. enabling a retrofit to elevation 5.7 feet NAVD with minimal effort such as with a height extension and new cap. As proposed, all new public sea walls would be constructed to a minimum

elevation of 5.7 feet NAVD. Any private sea walls impacted by public right-of-way projects involving City funds would also be constructed to the minimum elevation of 5.7 feet NAVD consistent with public sea walls.

Specifically, the Public Works Manual, Section A.2 "General Requirements – Sea Wall Elevation", is proposed to be amended as follows:

> 5) The minimum ~~height~~ top of wall elevation required ~~requirement~~ when replacing/repairing a public seawall is ~~3.2~~ 5.7 ft. NAVD (7.26 ft. NGVD).
>
> 5a) The minimum top of wall elevation required when replacing/repairing a private seawall is 4.0 ft. (NAVD 88), unless part of right-of-way project. However, the seawall structural design shall accommodate a future retrofit for a seawall height extension up to a minimum elevation of 5.7 ft. NAVD (7.26 ft. NGVD).
>
> 9) When existing seawalls are disturbed as part of a right-of-way project they must be raised to a minimum elevation of 5.7 ft. NAVD. *(no change)*

Minimum Residential Lot Grade:

Recently, the City Commission amended the requirements for raising yards within Single Family Districts as an adaptation measure to address the effects of sea level rise. Within single family districts, the maximum elevation of a required front yard and side yards facing a street is limited to no higher than the greater of 'adjusted grade', which is the midpoint between the base floor elevation (BFE) and 'sidewalk grade', or 30 inches above 'sidewalk grade'. Grade is the sidewalk elevation at the center of the property. For example, if grade is 4 feet NGVD, and the base flood elevation (BFE) is 8 feet NGVD, then adjusted grade is 6 feet NGVD. Since the 'adjusted grade' is only 24 inches above 'grade', in this instance the maximum elevation of a required yard could be raised to 30 inches above grade or 6 feet 6 inches NGVD.

As part of its overall review, AECOM has recommended that if the elevation of required yards is less than elevation 2.5 feet NAVD, then required yards may be elevated to 5.0 feet NAVD. While the previous amendments reflect improvements in addressing concerns over sea level rise, there needs to be better agreement between the Land Development Regulations (LDR's) and the Miami Beach Stormwater Management Master Plan (SMP). The adopted SMP calls for the raising of the minimum crowns of roadways in various parts of the City to approximately 5.26 feet NGVD (3.7 feet NAVD). In order to improve consistency between the SMP and LDR's, the proposed ordinance establishes a definition for the 'future crown of the road', where the SMP is referenced. It also establishes a 'future adjusted grade' which is the midpoint elevation between the future crown of the road and the base flood elevation (BFE).

In order to accommodate the raising of the roadways and public sidewalks, the proposed ordinance would require that all required yards be raised to a minimum elevation of 5 feet NAVD (6.56 feet NGVD), with the exception of driveways, private walkways, grade transition areas, surface Stormwater shallow conveyance and LID features and areas where landscaping is to be preserved. However, it would still require that fences within front yards and side yards facing a street be measured from the existing 'sidewalk grade'. This will allow for better transitions between the public right of way and private property as the Stormwater Master Plan is implemented over time.

SUMMARY

The following chart provides a comparison of the primary changes proposed, as described above:

LDR Code / City Policy	Requirement	Policy Elevation (NAVD) ft.	Level of Protection from SLR & 2.0 ft. King Tide (ft.)	Equivalent Storm Surge Protection	Equivalent Storm Surge (return period)	Risk Reduction from Increasing Flood Insurance Costs	Risk Reduction from 1-ft increase in BFE from FIRM update
Base Flood Elevation (BFE) (based on low elevation) actual BFE varies							
Existing	5.44 Feet NAVD (7 Feet NGVD)	5.44	3.44	Cat. 1	25-yr storm	no	no
Proposed	6.44 Feet NAVD (8 Feet NGVD)	6.44	4.44	Cat. 1	50-yr storm	for properties at risk in 7 ft BFE zone	for properties at risk in 7 ft BFE zone
Freeboard (comm. & res.) *varies with BFE elevation (based on proposed min.)							
Existing	BFE + 0 ft	6.44	4.44	Cat. 1	50-yr storm	for properties at risk in 7 ft BFE zone	for properties at risk in 7 ft BFE zone
Proposed	+1 ft.	7.44	5.44	Cat. 1	100-yr storm	only until increase in BFE occurs	only until increase in BFE occurs
	+2 ft.	8.44	6.44	Cat. 2	100-yr storm	yes, some cost reduction	yes, some cost reduction
	+3 ft.	9.44	7.44	Cat. 2	100-yr storm	yes, max. cost reduction	yes, some cost reduction

Freeboard (comm. & res.) *varies with BFE elevation (based on proposed min.) [CONTINUED]							
Proposed [CONT.]	+4 ft.	10.44	8.44	Cat. 3	100-yr storm	yes	yes, max. cost reduction
	+5 ft.	11.44	9.44	Cat. 4	100-yr storm	yes	yes
Freeboard (critical infrastructure)							
Existing (critical infra)	+2 ft.	8.44	6.44	Cat. 2	100-yr storm	yes, some cost reduction	yes, some cost reduction
Proposed (critical infra)	+3 ft.	9.44	7.44	Cat. 3	100-yr storm	yes, max. cost reduction	yes, some cost reduction
Seawall Elevation (Private)							
Existing	3.2 FT NAVD (4.76 FT NGVD)	3.2	1.2	Cat. 0	2-year storm	n/a	n/a
Proposed (interim)	4.0 FT NAVD (5.56 FT NGVD)	4	2	Cat. 0	5-yr storm	n/a	n/a
Proposed	5.7 FT NAVD (7.26 FT NGVD)	5.7	3.7	Cat. 1	50-yr storm	n/a	n/a
Seawall Elevation (Public)							
Existing	3.2 FT NAVD (4.76 FT NGVD)	3.2	1.2	Cat. 0	2-year storm	n/a	n/a
Proposed	5.7 FT NAVD (7.26 FT NGVD)	5.7	3.7	Cat. 1	50-yr storm	n/a	n/a
Minimum required yard elevation (existing lot elev. varies)							
Existing	avg. of sidewalk and BFE	varies					
Proposed	5.0 Feet NAVD (6.56 Feet NGVD)	5	3	Cat. 1	25-yr storm	n/a	n/a

PLANNING BOARD REVIEW

On March 22, 2016, the Planning Board transmitted the proposed ordinances to the City Commission with a favorable recommendation, including two notable changes. As recommended by the Mayor's Blue Ribbon Panel on Flooding and Sea Level Rise, the Planning Board recommended increasing the maximum freeboard from three (3') feet to five (5') feet above the base flood elevation. ,The Board also recommended that single family homes which are individually designated as historic structures, or are classified as 'contributing' buildings in a local historic district, be exempt from the minimum yard elevation requirements. These recommendations have been incorporated into the text of the attached ordinances and denoted with a double underline. The issue of how to address sea level rise in historic districts is being further reviewed by staff and by the Mayor's Blue Ribbon Panel on Sea Level Rise.

FINANCIAL IMPACT

In accordance with Charter Section 5.02, which requires that the "City of Miami Beach shall consider the long term economic impact (at least five years) of proposed legislative actions," this shall confirm that the City Administration City Administration evaluated the long term economic impact (at least five years) of this proposed legislative action. The proposed Ordinance is not expected to have a negative fiscal impact upon the City.

RECOMMENDATION

These recommendations developed by stormwater and flooding consultant AECOM and vetted by the Mayor's Blue Ribbon Panel on Sea Level Rise and city staff will not only reduce our risk to sea level rise and flooding, but also will protect against storm surge as referenced in the summary chart. Furthmore, these recommedations protect and enhance our economic resiliency in light of forth coming insurance reform, the upcoming FEMA flood map requrements and to improve our Community Rating System (CRS) score that affects private property insurance.

The Administration recommends that the City Commission 1) accept the recommendation of the Land Use and Development Committee via separate motion; and 2) approve the attached Ordinance at First Reading and set a Second Reading Public Hearing for May 11, 2016. These requrements will be reviewed periodically agaianst the best available science, in order to adjust and to continue adapting.

JLM/SMT/TRM/MAB

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FREEBOARD

ORDINANCE NO._____

AN ORDINANCE OF THE MAYOR AND CITY COMMISSION OF THE CITY OF MIAMI BEACH, FLORIDA, AMENDING SUBPART A – GENERAL ORDINANCES, OF THE CITY CODE, BY AMENDING CHAPTER 54 "FLOODS" AT SECTION 54-35, "DEFINITIONS," BY AMENDING THE DEFINITIONS FOR BASE FLOOD ELEVATION, CROWN OF ROAD, AND FREEBOARD, AND BY CREATING DEFINITIONS FOR CENTERLINE OF ROADWAY, CRITICAL FACILITY, FUTURE CROWN OF ROAD, MINIMUM FREEBOARD, MAXIMUM FREEBOARD, GREEN INFRASTRUCTURE, LOW IMPACT DEVELOPMENT (LID), AND SURFACE STORMWATER SHALLOW CONVEYANCE; BY AMENDING SECTION 54-45, "PERMIT PROCEDURES," TO REQUIRE A STORMWATER MANAGEMENT PLAN; BY AMENDING SECTION 54-47, "GENERAL STANDARDS," TO PROHIBIT SEPTIC SEWAGE SYSTEMS, AND INCLUDE REQUIREMENTS FOR STORAGE OF HAZARDOUS MATERIALS; BY AMENDING SECTION 54-48, "SPECIFIC STANDARDS," TO CLARIFY THE MINIMUM ELEVATION OF THE LOWEST FINISHED FLOOR FOR RESIDENTIAL AND NON-RESIDENTIAL CONSTRUCTION, AND REQUIRING A MINIMUM ELEVATION FOR GARAGE ENTRANCES; BY AMENDING SECTION 54-51, "STANDARDS FOR COASTAL HIGH HAZARD AREAS (V-ZONES)," TO CLARIFY THE MINIMUM ELEVATION OF THE LOWEST FLOOR OF ALL NEW CONSTRUCTION AND SUBSTANTIAL IMPROVEMENTS; PROVIDING CODIFICATION; REPEALER; SEVERABILITY; AND AN EFFECTIVE DATE.

WHEREAS, sea level rise and flooding is an ongoing concern of the City; and

WHEREAS, low lying infrastructure including buildings must also elevate in order to reduce risk or maintain low risk from potential flood damage; and

WHEREAS, it is appropriate to establish minimum freeboard requirements for residential and commercial structures to provide additional levels of protection to maintain consistency with U.S. Federal and state guidance, and

WHEREAS, these regulations will accomplish these goals and ensure that the public health, safety and welfare will be preserved.

NOW THEREFORE BE IT ORDAINED BY THE MAYOR AND CITY COMMISSION OF THE CITY OF MIAMI BEACH, FLORIDA:

SECTION 1. Section 54-35, "Definitions," is amended as follows:

* * *

Base Flood Elevation means ~~the water-surface elevation associated with the base flood~~ .the regulatory elevation associated with building elevation, flood-proofing, protection of building systems and utilities and other flood protection provisions as identified in current FEMA Flood Insurance Rate Map (FIRM) panels. This elevation shall not be less than 8.0 ft. NGVD (6.44 ft. NAVD) in the City of Miami Beach.

* * *

~~Crown of road (*cCenter line*)~~ of roadway means a line running parallel with the ~~highway~~ roadway right-of-way which is half the distance between the extreme edges of the official right-of-way width as shown on a map approved by the department of the public works.

* * *

Critical facility means a facility designated as an essential facility including, but not limited to: hospitals, fire, rescue, ambulance and police stations and emergency vehicle garages, emergency shelters, designated emergency preparedness, communications, and operation centers and other facilities required for emergency response, power generating stations and other public utility facilities required in an emergency ancillary structures (including, but not limited to, communication towers, fuel storage tanks, cooling towers, electrical substation structure, fire water storage tanks, or other structures housing or supporting water, or other fire-suppression material or equipment, water storage facilities and pump structures required to maintain water pressure for fire suppression building and other structures (including, but not limited to facilities that manufacture, process, handle, store, use, or dispose of such substances as hazardous fuels, hazardous chemicals, hazardous waste, or explosives) containing extremely hazardous materials.

Crown of road means the highest elevation of the roadway at a specific cross section.

Crown of road, future means the highest elevation of the crown of road as described in the adopted Miami Beach Stormwater Master Plan, located at exhibit X.

* * *

Freeboard means the additional height, usually expressed as a factor of safety in feet, above a flood level for purposes of floodplain management. Freeboard tends to compensate for many unknown factors, such as wave action, blockage of bridge or culvert openings, and hydrological effect of urbanization of the watershed, which could contribute to flood heights greater than the heights calculated for a selected frequency flood and floodway conditions. All new construction and substantial improvements to existing construction shall meet the minimum freeboard requirement, and may exceed the minimum freeboard requirement up to the maximum freeboard without such height counting against the maximum height for construction in the applicable zoning district

Freeboard, minimum equals one (1) foot.

Freeboard, maximum equals five (5') feet.

* * *

Green Infrastructure means natural vegetation, landscape design and engineered techniques that retain, absorb, and often cleanse stormwater runoff.

* * *

Low-Impact development (LID) means techniques that mimic natural processes to manage stormwater, and are frequently cheaper and more attractive than traditional stormwater management techniques.

* * *

Surface stormwater shallow conveyance means vegetated swales, permeable pavement, rain gardens, and rainwater/stormwater capture and infiltration devices.

* * *

SECTION 2. Section 54-45, "Permit Procedures," is amended as follows:

Application for a development permit shall be made to the building director or his/her designee on forms furnished by him or her prior to any development activities, and may include, but not be limited to, the following plans in duplicate drawn to scale showing the nature, location, dimension, and elevations of the area in questions, existing and proposed structures, earthen fill, storage of materials or equipment, drainage facilities, and the location of the foregoing. Specifically, the following information is required:

(1) Application stage:

* * *

(f) A stormwater management plan and site drainage calculations, for new constructions and substantial improvement, shall be prepared by a Florida licensed engineer in accordance with the Public Works Department Manual and Procedures, to demonstrate that adequate surface drainage shall be provided and surface run-off water shall be diverted to a storm conveyance or other approved point of collection, in accordance with Florida Building Code Sections 1804 and R401.3. The site shall be graded in manner to drain surface water away from foundation walls in accordance with Florida Building Code Sections 1804 and R401.3. All site drainage for new construction shall be designed and constructed in such a manner as to provide runoff rates, volume and pollutant loads not exceeding predevelopment conditions and prevent flooding adjacent properties.

* * *

SECTION 3. Section 54-47, "General Standards," is hereby amended as follows:

In all areas of special flood hazard, all development sites, including new construction and substantial improvements, shall be reasonably safe from flooding and meet the following provisions:

* * *

(16) Installation of new septic swage systems is prohibited in the City of Miami Beach Special Hazard Area.

(17) Hazardous materials shall be stored indoors in the City of Miami Beach Special Flood Hazard Area and shall be elevated no lower than Base Flood Elevation plus minimum freeboard.

* * *

SECTION 4. Section 54-48, "Specific Standards," is hereby amended as follows:

In areas mapped as "Zone X" (shaded and unshaded) on the City of Miami Beach Flood Insurance Rate Map (FIRM), all new construction and substantial improvement of any buildings (including manufactured homes) shall construct the lowest floor at an elevation of at least one foot above the highest adjacent grade or above the crown of the nearest street, whichever is higher.

In all A-zones where base flood elevation data have been provided (zones AE, A1-30, A (with base flood elevation), and AH), as set forth in section 54-37, the following provisions, in addition to those set forth in sections 54-47 54-47 and 54-49 54-49, shall apply:

(1) *Residential construction.*

(a) All new construction and substantial improvement of any residential building (including manufactured homes) shall have the lowest finished floor including electrical, heating, ventilation, plumbing, air conditioning equipment, cable, telephone, and other service facilities, including duct work elevated to no lower than the base flood elevation plus minimum freeboard. Should solid foundation perimeter walls be used to elevate a structure, there must be a minimum of two openings on different sides of each enclosed area sufficient to facilitate automatic equalization of flood hydrostatic forces in accordance with standards of subsection 54-48(3).

The following shall apply for single family residential garage structures:

When constructed as part of a detached or attached garage structure to the main home, garages shall be constructed no lower than adjusted grade, as defined in Section 114.1. Further, the overall height and structural composition of the first floor garage structure shall be designed and built to accommodate a future raised floor slab to meet the height of base flood elevation plus minimum freeboard, subject to the height limitations provided in Section 142-105.

When constructed under the main home, the associated driveway shall be sloped upward from the public right of way to a minimum elevation of adjusted grade, as defined in Section 114.1, and then may slope downward to a lower garage elevation.

The following shall apply to multifamily residential garage structures:

Access drives to garage structures shall be sloped upward from the public right of way to a minimum elevation of adjusted grade, as defined in Section 114.1, and then may slope downward to a lower garage elevation. Further, the overall height and structural composition of the first floor garage structure shall be designed and built to accommodate a future raised floor slab to meet the height of base flood elevation plus minimum freeboard.

(b) The lowest floor of an addition to the nonsubstantial improvement of a residential structure shall be elevated to no lower than the existing lowest finished floor elevation.

(2) *Nonresidential construction.*

(a) All new construction and substantial improvement of any commercial, industrial, or nonresidential building (including manufactured homes) shall have the lowest floor, including basement, electrical, heating, ventilation, plumbing, air conditioning equipment, cable, telephone, and other service facilities, including duct work, elevated to no lower than the base flood elevation plus minimum freeboard. All buildings located in A-zones may be floodproofed, in lieu of being elevated, provided that all areas of the building components, together with attendant utilities and sanitary facilities, below the base flood elevation, plus ~~one foot~~ minimum freeboard are watertight with walls substantially impermeable to the passage of water, and use structural components having the capability of resisting hydrostatic and hydrodynamic loads and the effects of buoyancy. A registered professional engineer or architect shall certify that the standards of this subsection are satisfied using the FEMA floodproofing certificate. Such certification along with the corresponding engineering data, and the operational and maintenance plans shall be provided to the floodplain administrator.

(b) The lowest floor of an addition to the nonsubstantial improvement of a commercial structure shall be elevated to no lower than the existing lowest finished floor elevation.

(c) All new construction and substantial improvements to critical facilities shall have the lowest floor, including electrical, heating, ventilation, plumbing, air conditioning equipment, cable, telephone, and other service facilities including duct work, elevated to no lower than the base flood elevation plus two (2) feet.

* * *

(4) *Standards for manufactured homes and recreational vehicles.*

(a) All manufactured homes that are placed, or substantially improved within ~~a~~zones A1-30, AH, and AE, on sites (i) outside of an existing manufactured home park or subdivision, (ii) in a new manufactured home park or subdivision, (iii) in an expansion to an existing manufactured home park or subdivision, or (iv) in an existing manufactured home park or subdivision on which a manufactured home has incurred "substantial damage" as the result of a flood, the lowest floor be elevated on a permanent foundation to no lower than the base flood elevation, plus freeboard and be securely anchored to an adequately anchored foundation system to resist flotation, collapse, and lateral movement.

* * *

SECTION 5. Section 54-51. "Standards for coastal high hazard areas (V-zones),"is amended as follows:

* * *

Located within areas of special flood hazard established in section 54-37 are coastal high hazard areas, designated as zones V1-V30, VE, or V (with BFE). The following provisions shall apply:

(2) All new construction and substantial improvements in zones V1-V30, VE, and V (with BFE) shall be elevated on pilings or columns so that:

(a) The bottom of the lowest horizontal structural member of the lowest floor (excluding the pilings or columns) is elevated to no lower than the base flood elevation, plus freeboard, whether or not the structure contains a basement; and

* * *

(c) For all structures located seaward of the coastal construction control line (CCCL), the bottom of the lowest horizontal structural member of the lowest floor of all new construction and substantial improvements of the habitable structures, as defined in Florida Building Code Section 3109, shall be elevated to the 100-year flood elevation established by the Florida Department of Environmental Protection, plus freeboard or the base flood elevation, plus freeboard, whichever is the higher.

* * *

(11) For all structures located seaward of the coastal construction control line (CCCL), the bottom of the lowest horizontal structural member of the lowest floor of all new construction and substantial improvements of the habitable structures, as defined in Florida Building Code Section 3109, shall be elevated to the flood elevation established by the Florida Department of Environmental Protection, plus freeboard or the base flood elevation, plus freeboard, whichever is higher. All non-elevation design requirements subsections 54-51(2) through (10) shall apply.

* * *

SECTION 6. CODIFICATION.

It is the intention of the Mayor and City Commission of the City of Miami Beach, and it is hereby ordained that the provisions of this ordinance shall become and be made part of the Code of the City of Miami Beach, Florida. The sections of this ordinance may be renumbered or relettered to accomplish such intention, and the word "ordinance" may be changed to "section", "article", or other appropriate word.

SECTION 7. REPEALER.

All ordinances or parts of ordinances in conflict herewith be and the same are hereby repealed.

SECTION 8. SEVERABILITY.

If any section, subsection, clause or provision of this Ordinance is held invalid, the remainder shall not be affected by such invalidity.

SECTION 9. EFFECTIVE DATE.

This Ordinance shall take effect ten days following adoption.

PASSED AND ADOPTED this _____ day of _____, 2016.

_____
Philip Levine, Mayor

ATTEST:

_____
Rafael E. Granado, City Clerk

APPROVED AS TO FORM
AND LANGUAGE
AND FOR EXECUTION

3-29-2016
City Attorney Date

First Reading: April 13, 2016
Second Reading: May 11, 2016

Verified By: _____
Thomas R. Mooney, AICP
Planning Director

Underline = new language
~~Strikethrough~~ = deleted language

[Sponsored by Commissioner Joy Malakoff]

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DEVELOPMENT REGULATIONS – GRADE ELEVATIONS AND HEIGHT

ORDINANCE NO._____

AN ORDINANCE OF THE MAYOR AND CITY COMMISSION OF THE CITY OF MIAMI BEACH, FLORIDA, AMENDING THE CITY'S LAND DEVELOPMENT REGULATIONS, BY AMENDING CHAPTER 114, "GENERAL PROVISIONS," AT SECTION 114-1, "DEFINITIONS," BY AMENDING THE DEFINITIONS FOR GRADE, FUTURE ADJUSTED GRADE, AND BUILDING HEIGHT, AND TO ESTABLISH BY REFERENCE TO CHAPTER 54-35 DEFINITIONS FOR BASE FLOOD ELEVATION, CROWN OF ROAD, FUTURE CROWN OF ROAD, FREEBOARD, MINIMUM FREEBOARD, MAXIMUM FREEBOARD, GREEN INFRASTRUCTURE, FUTURE ADJUSTED GRADE, AND SURFACE STORMWATER SHALLOW CONVEYANCE; BY AMENDING CHAPTER 142, "ZONING DISTRICTS AND REGULATIONS," DIVISION 2, "RS-1, RS-2, RS-3, RS-4 SINGLE-FAMILY RESIDENTIAL DISTRICTS," BY AMENDING AND CLARIFYING THE MAXIMUM ELEVATION WITHIN A REQUIRED YARD AND PROVIDING A MINIMUM ELEVATION REQUIREMENT FOR NEW CONSTRUCTION, AND AMENDING HOW MAXIMUM BUILDING HEIGHT IS CALCULATED; PROVIDING CODIFICATION; REPEALER; SEVERABILITY; AND AN EFFECTIVE DATE.

WHEREAS, sea level rise and flooding is an ongoing concern of the City; and

WHEREAS, the City hired AECOM to produce a report relating to Enhancing Resiliency and to Review the City of Miami Beach's code of ordinances and regulations to assist the City in enhancing sustainability and resiliency in the face of climate change and increased flooding events; and

WHEREAS, the FEMA FIRM panels indicate a base flood elevation in certain areas of the City of 7.0 feet NGVD, and AECOM indicates that a large storm event would create a flood risk situation even at a flood elevation of 8.0 feet NGVD; and

WHEREAS, due to the foregoing, it is within the police powers of the City, for the health, safety and welfare of the City of Miami Beach, that existing low-lying infrastructure and future construction projects for structures, including buildings, be elevated in order to reduce risk or maintain low risk from potential flood damage; and

WHEREAS, in 2015, as one of the City's efforts to combat flooding and sea level rise, the City has previously implemented increased height requirements for sea walls in order to more fully protect the City and its residents from flooding; and

WHEREAS, the City is also implementing "freeboard," the additional height, usually expressed as a factor of safety in feet, above a flood level for purposes of floodplain management, which factor is to be utilized in future construction projects in developing first floor elevations, in order to protect the structures from flooding events; and

WHEREAS, it is appropriate consistent with the "freeboard" amendments to the Code, and the desire to develop enhanced stormwater retention procedures for all properties, as well as the implemented increased heights of sea walls, the Administration recommends amending to amend the maximum elevation requirements within required yards of single family districts to eliminate or mitigate any conflict with the City's efforts corresponding legislation enacted to address sea level rise and flood mitigation measures; and

WHEREAS, the regulation of grade elevations in single family districts is necessary in order to ensure compatible development within the built character of the single-family neighborhoods of the City; and

WHEREAS, these regulations will accomplish these goals and ensure that the public health, safety and welfare will be preserved in the City.

NOW THEREFORE BE IT ORDAINED BY THE MAYOR AND CITY COMMISSION OF THE CITY OF MIAMI BEACH, FLORIDA:

SECTION 1. Section 114-1, "Definitions", is amended as follows:

* * *

Base flood elevation, for the City of Miami Beach shall be as defined in Chapter 54-35.

* * *

Crown of road, shall be as defined in Chapter 54-35.

Crown of road, future, shall be as defined in Chapter 54-35.

* * *

Freeboard shall be as defined in Chapter 54-35.

Freeboard, mimimum shall be as defined in Chapter 54-35.

Freeboard, maximum shall be as defined in Chapter 54-35.

* * *

Green Infrastructure shall be as defined in Chapter 54-35.

* * *

Grade means the city sidewalk elevation at the centerline of the front of the property. If there is no sidewalk, the elevation of the crown of the road at the centerline of the front of the property shall be used. ~~*the public works director shall establish the city sidewalk elevations.*~~

Grade, adjusted means the midpoint elevation between grade and the minimum required flood elevation for a lot or lots.

* * *

Grade, future adjusted, means the midpoint elevation between the future crown of the road as defined in the Public Works Manual, and the base flood elevation plus minimum freeboard for a lot or lots.

* * *

Height of building means the vertical distance from the lowest floor according to the following, as applicable:

(a) When the minimum finished floor elevation is located between grade and base flood elevation plus *freeboard*, height shall be measured from the minimum finished floor elevation to the highest point of the roof;

~~(b) When enclosed commercial or residential space is located at or below grade, height shall be measured from grade to the highest point to the roof;~~

~~(c)~~(b) When the minimum finished floor elevation is located above the base flood elevation plus *freeboard*, height shall be measured from the base flood elevation plus freeboard.

The highest point of a roof is as follows:

1. The highest point of a flat roof;
2. The deck line of a mansard roof;
3. The average height between eaves and ridge for gable hip and gambrel roofs; or
4. The average height between high and low points for a shed roof.

(c) As all rights-of-way have not yet been elevated, for commercial properties, height shall be measured from the base flood elevation, plus *freeboard*, provided that the height of the first floor shall be tall enough to allow the first floor to eventually be elevated to base flood elevation, plus minimum freeboard, once the adjacent right of way is elevated.

* * *

Surface stormwater shallow conveyance shall be as defined in Chapter 54-35.

* * *

SECTION 2. Section 142-105, "Development regulations and area requirements", is amended as follows:

* * *

(b) The development regulations for the RS-1, RS-2, RS-3, RS-4 single-family residential districts are as follows:

(1) Lot area, lot width, lot coverage, unit size, and building height requirements. The lot area, lot width, lot coverage, and building height requirements for the RS-1, RS-2, RS-3, RS-4 single-family residential districts are as follows:

Zoning District	Minimum Lot Area (square feet)	Minimum Lot Width (feet)*	Maximum Lot Coverage for a 2-story Home (% of lot area)**	Maximum Unit Size (% of Lot Area)	Maximum Building Height, which shall not exceed two stories above the ~~minimum~~ base flood elevation, plus freeboard in all

					districts***
RS-1	30,000	100	30%	50%	28 feet - flat roofs. 31 feet - sloped roofs.
RS-2	18,000	75	30%	50%	
RS-3	10,000	50 - Oceanfront lots. 60 - All others	30%	50%	24 feet - flat roofs. 27 feet - sloped roofs. May be increased up to 28 feet for flat roofs and 31 feet for sloped roofs when approved by the DRB or HPB, in accordance with the applicable design review or appropriateness criteria.
RS-4	6,000	50	30%	50%	24 feet - flat roofs. 27 feet- sloped roofs.
		*Except those lots fronting on a cul-de-sac or circular street as defined in lot width	**Single story homes shall follow the requirements of section 142-105(b)(4)b.		*** Height shall be measured from the ~~minimum~~ required base flood elevation for the lot, plus freeboard, measured to the top of the structural slab for a flat roof and to the mid-point of the slope for a sloped roof. Single story homes shall follow the requirements of section 142-105(b)(4)b

(2) *Maximum number of stories.* The maximum number of stories shall not exceed two above the ~~minimum~~ base flood elevation plus *freeboard*.

* * *

(4) Unit size requirements.

* * *

d. Non-air conditioned space located below minimum flood elevation, plus freeboard. Notwithstanding the above, for those properties located in the RS-1, RS-2, RS-3, RS-4 single-family residential districts, where the first habitable floor is ~~required to be~~ located six feet or more above existing grade in order to meet minimum flood elevation requirements, including freeboard, the following shall apply:

1. The height of the area under the main structure may have a maximum floor to ceiling clearance of seven feet six inches from ~~grade~~ the lowest level slab

provided. ~~Except that in the event that the minimum flood elevation requires the underside of the slab of the first habitable floor to exceed seven feet six inches from grade, such slab shall not exceed the minimum flood elevation as measured from grade.~~

2. Up to, but not exceeding, 600 square feet of segregated parking garage area may be permitted under the main structure.

3. The area under the first habitable floor of the main structure shall consist of non-air conditioned space.~~, which is at least 50 percent open.~~ Such area shall not be subdivided into different rooms, with the exception of the parking garage area, and required stairs and/or elevators.

4. The parking garage area and the ~~open~~, non-air-conditioned floor space located directly below the first habitable floor, shall not count in the unit size calculations.~~, provided it remains open in perpetuity.~~

* * *

(8) *Exterior building and lot standards.* The following shall apply to all buildings and properties in the RS-1, RS-2, RS-3, RS-4 single-family residential districts:

a. Exterior bars on entryways, doors and windows shall be prohibited on front and side elevations, which face a street or right-of-way.

b. The minimum elevation of a required yard shall be no less than five (5) feet NAVD (6.56 feet NGVD), with the exception of driveways, walkways, transition areas, green infrastructure (e.g., vegetated swales, permeable pavement, rain gardens, and rainwater/stormwater capture and infiltration devices), and areas where existing landscaping is to be preserved, which may have a lower elevation. When in conflict with the maximum elevation requirements as outlined in paragraph c. below, the minimum elevation requirements shall still apply. However, the minimum yard elevation requirements shall not apply to properties containing single family homes individually designated as historic structures, or to properties with single family homes designated as 'contributing' within a local historic district.

~~b~~c. The maximum elevation of a required yard shall be in accordance with the following, however in no instance shall the elevation of a required yard, exceed the minimum flood elevation, plus freeboard:

1. *Front Yard.* The maximum elevation within a required front yard shall not exceed adjusted grade, ~~or~~ 30 inches above grade, or future adjusted grade, whichever is greater. In this instance the maximum height of any fence(s) or wall(s) in the required front yard, constructed in compliance with Section 142-1132 (h), "*Allowable encroachments within required yards*", shall be measured from existing grade.

2. *Interior Side Yards* (located between the front setback line and rear property line).The maximum elevation shall not exceed adjusted grade, or 30 inches above grade, whichever is greater, except:

a. When the average grade of an adjacent lot along the abutting side yard is equal or greater than adjusted grade, the maximum elevation within the required side yard shall not exceed 30 inches above adjusted grade.

b. When abutting a vacant property, the maximum elevation within the required side yard shall not exceed 30 inches above adjusted grade.

c.. Notwithstanding the above, when abutting property owners have jointly agreed to a higher elevation, both side yards may be elevated to the same higher elevation through the submission of concurrent building permits, not to exceed the minimum required flood elevation. In this instance the maximum height of any fences or walls along the adjoining property lines, constructed in accordance with Section 142-1132 (h), *Allowable encroachments within required yards*, shall be measured from the new average grade of the required side yards.

3. *Side Yard Facing a Street.* The maximum elevation within a required side yard facing a street shall not exceed adjusted grade ~~or~~ 30 inches above grade, <u>or future adjusted grade,</u> whichever is greater. <u>In this instance the maximum height of any fence(s) or wall(s) in the required side yard facing a street, constructed in compliance with Section 142-1132 (h), *"Allowable encroachments within required yards"*, shall be measured from existing grade.</u>

4. *Rear Yard.* The maximum elevation for a required rear yard, (not including portions located within a required sideyard or sideyard facing the street), shall be calculated according to the following:

a. *Waterfront. The maximum elevation shall not exceed the ~~minimum required~~ <u>base</u> flood elevation<u>, plus freeboard</u>.*

b. *Non-waterfront.* The maximum elevation shall not exceed adjusted grade, or 30 inches above grade, whichever is greater, except:

i. When the average grade of <u>an</u> adjacent lot along the abutting rear yard is equal or greater than adjusted grade, the maximum elevation within the required rear yard shall not exceed 30 inches above adjusted grade.

ii. When abutting a vacant property, the maximum elevation within the required rear yard shall not exceed 30 inches above adjusted grade.

iii. Notwithstanding the above, when abutting property owners have jointly agreed to a higher elevation, both rear yards may be elevated to the same higher elevation through the submission of concurrent building permits, not to exceed the minimum required flood elevation. In this instance the maximum height of any fences or walls along the adjoining property lines, constructed in accordance with Section 142-1132 (h), *Allowable encroachments within required yards*, shall be measured from the new average grade of the required rear yards.

5. In all instances where the existing elevation of a site is modified, a site shall be designed with adequate infrastructure to retain all stormwater on site in accordance with all applicable state and local regulations.

SECTION 4. CODIFICATION.

It is the intention of the Mayor and City Commission of the City of Miami Beach, and it is hereby ordained that the provisions of this ordinance shall become and be made part of the Code of the City of Miami Beach, Florida. The sections of this ordinance may be renumbered or

relettered to accomplish such intention, and the word "ordinance" may be changed to "section", "article", or other appropriate word.

SECTION 5. REPEALER.

All ordinances or parts of ordinances in conflict herewith be and the same are hereby repealed.

SECTION 6. SEVERABILITY.

If any section, subsection, clause or provision of this Ordinance is held invalid, the remainder shall not be affected by such invalidity.

SECTION 7. EFFECTIVE DATE.

This Ordinance shall take effect ten days following adoption.

PASSED AND ADOPTED this _____ day of _____, 2016.

_____
Philip Levine, Mayor

ATTEST:

_____
Rafael E. Granado, City Clerk

APPROVED AS TO FORM
AND LANGUAGE
AND FOR EXECUTION

_____ 3-29-16
City Attorney Date

First Reading: April 13, 2016
Second Reading: May 11, 2016

Verified By: _____
Thomas R. Mooney, AICP
Planning Director

Underline = new language
~~Strikethrough~~ = deleted language

[Sponsored by Commissioner Joy Malakoff]

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