



**Town of Surfside
PLANNING & ZONING BOARD
AGENDA**

May 23 2019 – 6:00 p.m.

Town Hall Commission Chambers –
9293 Harding Ave, 2nd Floor, Surfside, FL 33154

Rule 7.05 Decorum. Any person making impertinent or slanderous remarks or who becomes boisterous while addressing the commission shall be barred from further appearance before the commission by the presiding officer, unless permission to continue or again address the commission is granted by the majority vote of the commission members present. No clapping, applauding, heckling or verbal outbursts in support or opposition to a speaker or his or her remarks shall be permitted. Signs or placards may be disallowed in the commission chamber by the presiding officer. Persons exiting the commission chambers shall do so quietly.

Any person who received compensation, remuneration or expenses for conducting lobbying activities is required to register as a lobbyist with the Town Clerk prior to engaging in lobbying activities per Town Code Sec. 2-235. "Lobbyist" specifically includes the principal, as defined in this section, as well as any agent, officer or employee of a principal, regardless of whether such lobbying activities fall within the normal scope of employment of such agent, officer or employee. The term "lobbyist" specifically excludes any person who only appears as a representative of a not-for-profit community-based organization for the purpose of requesting a grant without special compensation or reimbursement for the appearance; and any person who only appears as a representative of a neighborhood, homeowners or condominium association without compensation for the appearance, whether direct or indirect or contingent, to express support of or opposition to any item.

Per Miami Dade County Fire Marshal, the Commission Chambers has a maximum capacity of 99 people. Once reached this capacity, people will be asked to watch the meeting from the first floor.

1. Call to Order/Roll Call

2. Town Commission Liaison Report – Vice Mayor Gielchinsky

3. Approval of Minutes – April 30, 2019

4. Applications:

A. 9538 Harding Avenue – The applicant is requesting three (3) Permanent Window Signs and one (1) television screen.

B. 524 92nd Street- The applicant is requesting to convert their garage to approximately 286 square feet of additional living space.

C. 8826 Froude Avenue – The applicant is requesting to build a 2,247 square foot two-story new home.

D. 9472 Harding Avenue – “Mesa” Bar-Fish-Meat - The applicant is requesting the change of face on one (1) existing illuminated Individually-Mounted Push Through Letter Sign for the Mesa Restaurant

5. Local Planning Agency Items

A. Florida Friendly Landscape

AN ORDINANCE OF THE TOWN COMMISSION OF THE TOWN OF SURFSIDE, FLORIDA, AMENDING ARTICLE VIII, "LANDSCAPE REQUIREMENTS," OF CHAPTER 90, "ZONING," OF THE TOWN'S CODE OF ORDINANCES BY ESTABLISHING FLORIDA-FRIENDLY LANDSCAPE REQUIREMENTS; PROVIDING FOR CODIFICATION; PROVIDING FOR SEVERABILITY; PROVIDING FOR CONFLICTS; AND PROVIDING FOR AN EFFECTIVE DATE.

6. Discussion Items:

- A. Freeboard, Base Flood Elevation and Finished Floor Elevation**
- B. Summer Meetings Schedule**
- C. Future agenda items**

7. Adjournment

THIS MEETING IS OPEN TO THE PUBLIC. IN ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT OF 1990, ALL PERSONS THAT ARE DISABLED; WHO NEED SPECIAL ACCOMMODATIONS TO PARTICIPATE IN THIS MEETING BECAUSE OF THAT DISABILITY SHOULD CONTACT THE OFFICE OF THE TOWN CLERK AT 305-861-4863 EXT. 226 NO LATER THAN FOUR DAYS PRIOR TO SUCH PROCEEDING.

IN ACCORDANCE WITH THE PROVISIONS OF SECTION 286.0105, FLORIDA STATUTES, ANYONE WISHING TO APPEAL ANY DECISION MADE BY THE TOWN OF SURFSIDE COMMISSION, WITH RESPECT TO ANY MATTER CONSIDERED AT THIS MEETING OR HEARING, WILL NEED A RECORD OF THE PROCEEDINGS AND FOR SUCH PURPOSE, MAY NEED TO ENSURE THAT A VERBATIM RECORD OF THE PROCEEDINGS IS MADE WHICH RECORD SHALL INCLUDE THE TESTIMONY AND EVIDENCE UPON WHICH THE APPEAL IS TO BE BASED.

AGENDA ITEMS MAY BE VIEWED AT THE OFFICE OF THE TOWN CLERK, TOWN OF SURFSIDE TOWN HALL, 9293 HARDING AVENUE. ANYONE WISHING TO OBTAIN A COPY OF ANY AGENDA ITEM SHOULD CONTACT THE TOWN CLERK AT 305-861-4863. A COMPLETE AGENDA PACKET IS ALSO AVAILABLE ON THE TOWN WEBSITE AT www.townofsurfsidefl.gov.

TWO OR MORE MEMBERS OF TOWN COMMISSION OR OTHER TOWN BOARDS MAY ATTEND AND PARTICIPATE AT THIS MEETING.

THESE MEETINGS MAY BE CONDUCTED BY MEANS OF OR IN CONJUNCTION WITH COMMUNICATIONS MEDIA TECHNOLOGY, SPECIFICALLY, A TELEPHONE CONFERENCE CALL. THE LOCATION 9293 HARDING AVENUE, SURFSIDE, FL 33154, WHICH IS OPEN TO THE PUBLIC, SHALL SERVE AS AN ACCESS POINT FOR SUCH COMMUNICATION.



Town of Surfside PLANNING & ZONING BOARD MEETING

MINUTES

April 30, 2019 – 6:00 p.m.

Town Hall Commission Chambers –
9293 Harding Ave, 2nd Floor, Surfside, FL 33154

1. Call to Order/Roll Call

Vice Chair Frankel called the meeting to order at 6:10 p.m.

Present: Vice Chair Judith Frankel, Board Member Peter Glynn,
Board Member Rochel Kramer, and Board Member Brian Roller

Absent: Chair Lindsay Lecour, Board Member Marina Gershanovich, and
Board Member Jorge Garcia

Chair Lindsay Lecour entered at 6:48 p.m.

Also present were Town Manager Guillermo Olmedillo, Town Planner Sarah Sinatra Gould, Vice Mayor Gielchinsky and Town Attorney Dan Espino.

2. Town Commission Liaison Report – Vice Mayor Gielchinsky

A motion was made by Board Member Glynn to defer Vice Mayor Gielchinsky Liaison Report. The motion received a second from Board Member Roller. All voted in favor.

Vice Mayor Gielchinsky apologized to the Board for missing the last couple of meetings. He spoke regarding the Give a Foot – Get a Foot concept the Board discussed at their meeting and he stated he discussed that before the Commission. The Commission gave the direction to move forward with that and for the Planning & Zoning Board to do something similar to a resolution the Planning & Zoning Board passed several years ago.

Commission asked for a resolution or a memo laying out the particulars and ground work of what they were considering and if he could have it for the next commission meeting in order for him to discuss it in an open forum.

He discussed comments made by the public at the commission meeting regarding the discussion by the Planning & Zoning Board in the past regarding this item.

Discussion among the Board, Town Planner Sarah Sinatra Gould and Vice Mayor Gielchinsky took place regarding the language that will be requested from the legal department in order to have the documentation requested to go before the next

commission meeting in order to make the timeline for the referendum to be placed on the ballot.

The following speakers spoke on this item:

Eliana Salzhauer

Vice Mayor Gielchinsky left the meeting at 7:03 p.m.

3. Approval of Minutes – March 28, 2019

A motion was made by Board Member Roller to approve the March 28, 2019 Planning & Zoning Minutes. The motion received a second by Board Member Kramer. All voted in favor.

4. Applications:

A. 801 89th Street - *The applicant is requesting to fix and replace their existing fence*

Town Planner Sarah Sinatra Gould introduced the item and recommended approval with the condition to be consistent by planting shrubs with the height requirement and those shrubs must be installed once the wall is installed and within one year of permitting.

The following speakers spoke on this item:

Gad Boucheninou

Vice Chair Judith Frankel and Town Planner Sarah Sinatra Gould responded to the speaker's comments.

A motion was made by Board Member Brian Roller to approve with the stated staff conditions. The motion received a second from Board Member Peter Glynn. All voted in favor.

B. 9173 Abbott Avenue - The applicant is requesting to substantially renovate an existing house by remodeling the existing open den and converting it into a bedroom and enclosing the existing terrace and converting it into a family room.

Town Planner Sarah Sinatra Gould introduced the item and recommended approval with two (2) conditions: (1) that at the time of building permit the finished floor elevation will be verified and approved by the building official and (2) provide the landscape planted directly around where the front façade is located.

The following speakers spoke on this item:

Albert Ekevazo, the applicant.

Vice Chair Judith Frankel asked Town Planner Sarah Sinatra Gould if this project meets the 50%.

Town Planner Sarah Sinatra Gould stated that they do not currently meet the 50% and that is why the conditions were put in place.

Board Member Brian Roller asked if the applicant was pretty much gutting the area and asked regarding the garage conversion.

Albert Ekevazo, applicant, explained the project to the Board.

After further discussion among the Board and applicant regarding the landscaping a motion was made by Board Member Peter Glynn to approve with the stated staff conditions. The motion received a second from Board Member Brian Roller. All voted in favor.

C. 9480 Harding Avenue - The applicant is requesting one window sign for their business.

Town Planner Sarah Sinatra Gould introduced the item and recommended approval that the window sign will reflect the graphics provided in the submittal package. and they will have thirty (30) days to remove the sign.

Board Member Brian Roller would like to add the condition to remove the additional sign.

Town Planner Sarah Sinatra Gould stated they would do that in conjunction with the Code Enforcement Notice.

Town Planner Sarah Sinatra Gould and Board members added the condition that they must remove the additional sign within thirty (30) days.

A motion was made by Board Member Brian Roller to approve with the stated staff conditions. The motion received a second from Board Member Peter Glynn. All voted in favor.

5. Projects

A. Introduction of Professors - Guillermo Olmedillo, Town Manager

Town Manager Guillermo Olmedillo introduced the project that has been taking place with the Town working with local universities on urban design and planning and introduced two (2) professors from the University of Miami they have been working with. He introduced Chris Meyers from the University of Miami and gave a history of his experience and Shawna Meyers from the University of Miami and gave a history of her experience.

Professors Chris Meyers and Shawna Meyers gave a presentation of the project and they are currently working on with the Town.

Discussion among the Board Members, Town Manager Guillermo Olmedillo and Professors Meyers took place on the upcoming project, framework of several scenarios, the timelines and if students will be used to work on this project.

The following speakers spoke on this item:
Eliana Salzhauer

6. Local Planning Agency Items

A. Prohibition of Hotels in the H40 District

AN ORDINANCE OF THE TOWN COMMISSION OF THE TOWN OF SURFSIDE, FLORIDA AMENDING THE TOWN OF SURFSIDE CODE OF ORDINANCES BY AMENDING SECTION 90-41, "REGULATED USES", TO CHANGE THE LIST OF PERMITTED, CONDITIONAL, AND PROHIBITED USES TO PROHIBIT HOTELS IN THE H-40 ZONING DISTRICT SOUTH OF 93RD STREET AND ADDRESS HOTEL ACCESSORY USES; PROVIDING FOR SEVERABILITY; PROVIDING FOR INCLUSION IN THE CODE; PROVIDING FOR CONFLICTS AND PROVIDING FOR AN EFFECTIVE DATE.

Town Clerk Sandra Novoa read the item into the record.

Town Planner Sarah Sinatra Gould introduced the item.

Chair Lindsay Lecour asked Town Planner Sarah Sinatra Gould to give the board an update of the concern from Commissioner Karukin.

Town Planner Sarah Sinatra Gould gave an update of the Commissioner Karukin concern being the character and massing of the scale.

The following speakers spoke on this item:

Sasha Plutno
Marc Levenson
Patricia Fernandez
Brian Bey
Pamela O'Hagan
Clara Diaz-Leal
Eliana Salzhauer
Maggie McManagle
Michael Kashtan
Alex Tachmes
Marianne Meisheid
Silvia Coltrane
George Kousoulas

Matthew Barnes
Tom Robertson
Rick Superstein
Jennifer Fine
Kristofer Machado
Anthony Blate
Esther Superstein
Fernanda Siqueira
Leonard Ambard

Discussion among the Board continued regarding the beach and that being the biggest resource the hotels would be using and other issues on the list including crime.

The Board requested to pursue other means of perceived impacts with facts of hotel use including historic/non-historic overlay, aggregation, massing and scale of the hotels, crime statistic report, where it originates, does an increase in guest increase crime, and consequences of grandfathering.

Town Manager Guillermo Olmedillo explained the code and how it pertains to short term rentals.

The Board requested additional time and deferral for more study, more specificity, additional discussion and to bring back as a discussion item with an extension of zoning in progress for three (3) months.

A motion was made to defer the item for further discussion which would evaluate the correlations of the impact on the hotel use and for alternative solutions and recommend the Commission to defer and extend the zoning in progress for three (3) months was made by Board Member Peter Glynn. The motion received a second by Vice Chair Judith Frankel. All voted in favor.

7. Discussion Items:

A. Freeboard & Height

Town Planner Sarah Sinatra Gould introduced the item regarding what was discussed at the March 28, 2019 Planning & Zoning meeting where staff presented graphics as it pertains to the height elevation and sea levels providing graphics of hurricanes.

The following speakers spoke on this item:

Sasha Plutno
Eliana Salzhauer
Jeff Rose
George Kousoulas
Clara Diaz-Leal

Pamela O'Hagan
Brian Bey
Patricia Fernandez
Maggie McManagle

Board Member Peter Glynn would like to give people the opportunity to rebuild something but not building mansions and something that everyone can agree upon.

Board Member Rochel Kramer spoke regarding the concerns of rebuilding.

Vice Chair Judith Frankel spoke regarding existing sea levels and the concerns of climate change and the topic of rebuilding homes in the future. She also asked if there could be revisions done to the code as to the setback requirements.

Chair Lindsay Lecour spoke regarding the storm surge, the existing code and the Comprehensive Plan.

Discussion continued among the Board and Staff regarding the interpretation of the code.

The Board requested a public workshop to take place to discuss revisions and educate the public with what the Town has done to address sea level rise.

Town Manager Guillermo Olmedillo answered Chair Lindsay Lecour question regarding the workshop and provided information about the professors from the University of Miami that were present earlier in the meeting that will be discussing their concerns on sea level rise. He discussed holding public meetings to educate the public.

Chair Lindsay Lecour requested to have dates for those workshops at their next meeting.

B. Future Agenda Items

There were no future agenda items discussed.

8. Adjournment

A motion was made by Board Member Peter Glynn seconded by Board Member Brian Roller to adjourn the meeting without objection at 9:40 p.m.
Respectfully submitted,

Accepted this ____ day of _____, 2019.

Chair Lindsay Lecour

Attest:

Sandra Novoa, MMC
Town Clerk



MEMORANDUM

To: Design Review Board
 Thru: Guillermo Olmedillo, Town Manager
 From: Sarah Sinatra Gould, AICP, Town Planner
 CC: Lillian Arango, Town Attorney
 Date: May 23, 2019
 Re: 9538 Harding Avenue – Lemel Spa

The subject property is located at 9538 Harding Avenue and is within the SD-B40 zoning district. The applicant is moving the business from 9471 Harding Avenue. The applicant is requesting three (3) Pemanent Window Signs and one (1) television screen.

Staff has reviewed the current application for consideration by the Design Review Board. In this report, Staff presents the following:

- Applicable Zoning Code regulations, along with the results of the review
- Staff Recommendation

STANDARDS / RESULTS

Town of Surfside Zoning Code, Applicable Requirements

Sec. 90-73

Signs	Permitted	Proposed
<p>Area</p>	<p><u>Television Screen</u> 20 percent of the area of the glass window if feature is within 36” of the window. If located greater than 36” away from a window the screen shall be permitted to exceed 20 percent of the window area.</p> <p><u>Window Signs</u> 20 percent of the area of the glass window or door in which the sign is displayed.</p>	<p><u>Television Screen</u> 1) Undetermined – Additional information regarding the location of the screen is required</p> <p><u>Window Signs</u> 1. 13.8% of the window area 2. 11.3% of the “door” area 3. Insufficient dimensions provided</p>



<p>Location</p>	<p>With the exception of theater marquees and V-box signs, no sign shall be erected so that any portion thereof shall project over a dedicated street or sidewalk or so that any portion thereof shall project more than five feet from any main building wall.</p>	<p><u>Window Signs</u> Signs do not project over the sidewalk or street</p>
<p>Permanent window sign</p>	<p>Lettering shall not exceed eight inches in height. Acceptable materials include painted gold leaf or silver leaf, silk-screened, cut or polished metal, cut or frosted vinyl, and etched glass.</p>	<p>Lettering does not exceed eight inches in height</p>

RECOMMENDATION

Staff recommends denial of the window signs subject to the following conditions:

- 1) Television Screen: Lacks information regarding how far back the TV is positioned. Television screens or similar electronic features shall not exceed 20 percent of the area of the glass window if the feature is within 36 inches of the window. Television screens or similar electronic features located greater than 36 inches away from a window shall be permitted to exceed 20 percent of the area of the glass window.

- 2) Provide the length of the LEMEL lettering for window sign #3. In doing so, an accurate coverage calculation can be determined.

19-500



DRB Meeting	___/___/20__
Application / Plans Due	___/___/20__

TOWN OF SURFSIDE

MAY 13 3:46PM

**TOWN OF SURFSIDE
MULTI-FAMILY AND NON-RESIDENTIAL DESIGN REVIEW APPLICATION**

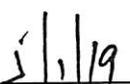
(Signs, awnings, store fronts, fences, and walls etc)

A complete submittal includes all items on the "Multi-family and Non-Residential Design Review Application Submission Checklist" document as well as completing this application in full. The owner and agent must sign the application with the appropriate supplemental documentation attached. Please print legibly in ink or type on this application form.

PROJECT INFORMATION	
OWNER'S NAME	VELVA LEMEL
PHONE / FAX	786.309.0000
AGENT'S NAME	
ADDRESS	9538 HARDING AVE. SURFSIDE, FL 33154
PHONE / FAX	
PROPERTY ADDRESS	9538 HARDING AVE SURFSIDE, FL 33154
ZONING CATEGORY	
DESCRIPTION OF PROPOSED WORK	MOVING OF SIGNAGE TO NEW LOCATION FROM 9471 HARDING AVE TO 9538 HARDING AVE

INTERNAL USE ONLY	
Date Submitted	Project Number
Report Completed	Date
Fee Paid	\$

ZONING STANDARDS	Required	Provided
Sign Area (if applicable)	_____	_____
Awning Size (if applicable)	_____	_____
Fence Height (if applicable)	_____	_____
Wall Height (if applicable)	_____	_____

SIGNATURE OF OWNER _____ DATE 5/1/19 _____ SIGNATURE OF AGENT _____ DATE _____



MEMORANDUM

To: Planning & Zoning Board

Thru: Guillermo Olmedillo, Town Manager

From: Sarah Sinatra Gould, AICP, Town Planner

CC: Lillian Arango, Town Attorney

Date: May 23, 2019

Re: 524 92nd Street – Garage Conversion, Interior Remodeling

The property is located at 524 92nd Street, within the H30B zoning. The applicant is requesting to convert their garage to approximately 286 square feet of additional living space. Other renovations are being proposed in the interior and new windows and doors are proposed on the front, side and rear of the residence.



Staff has reviewed the current application for consideration by the Design Review Board. In this report Staff presents the following:

- Applicable Zoning Code regulations, along with the results of the review
- Staff Recommendation

STANDARDS / RESULTS

Town of Surfside Zoning Code, Applicable Requirements

Sec. 90-50.1 (5) Garage Facades

Required	Proposed
1 window	New double-single hung impact resistant window
Landscaping required along the base	No landscaping provided

Sec. 90.50 Architecture and roof decks

	Required	Proposed
Unique Elevation	A unique elevation from the main buildings of the adjacent two (2) homes shall be created through the modulation of at least three (3) of the following architectural features: (a) Length, width and massing of the structure; (b) Number of stories; (c) Façade materials; (d) Porches and other similar articulation of the front façade; (e) Number and location of doors and windows; and (f) Roof style and pitch.	The proposed home will feature different lengths, widths and massing, façade materials and roof style and pitch.
Wall openings	10% for all elevations	All elevations shall result in a zero percent net loss of wall openings.
Roof Material	(a) Clay Tile; (b) White concrete tile; (c) Solid color cement tile which color is impregnated with the same color intensity throughout, provided said color if granted approval by the Board; (d) Architecturally embellished metal if granted approval by the Board; or (e) Other Florida Building Code approved roof material(s) if granted approval by the Board.	Existing concrete roof tile

Sec. 90-77 Off-street Parking Requirements

Required	Minimum Space Requirements	Proposed
Single-family	2 spaces	2 spaces are provided in existing driveway

Windows and Trims

Required	Proposed
Window styles should always be consistent among all elevations of a building.	Consistent.
Frame materials should never vary on a single building.	No variation.
Window, door and eave trim should be consistent on all elevations of the house	Consistent.

RECOMMENDATION

Staff finds the application meets the Code subject to the following;

1. Provide landscaping or a planter in front of the converted garage. Per code section 90-50.1, the installation of planter is only permitted when the landscaping will result in insufficient off-street parking. There is sufficient space in the front yard for a landscaped strip which will not impede off-street parking.

Section 90-50.1: If the garage entrance is located at the front or primary corner of the property, landscaping shall be provided along the base of the new exterior wall. When the installation of landscaping results in insufficient off-street parking, a landscaped planter shall be permitted in lieu of the required landscaping.

18-492

TOWN OF SURFSIDE

APR 30 19 3:29 PM



DRB Meeting	___/___/20__
Application / Plans Due	___/___/20__

**TOWN OF SURFSIDE
SINGLE-FAMILY and TWO-FAMILY SITE PLAN APPLICATION**

A complete submittal includes all items on the "Single-Family and Two-Family Site Plan Application Submission Checklist" document as well as completing this application in full. The owner and agent must sign the application with the appropriate supplemental documentation attached. Please print legibly in ink or type on this application form.

PROJECT INFORMATION	
OWNER'S NAME	Katy Horowitz
PHONE / FAX	786-352-2522
AGENT'S NAME	Jeffrey Rose
ADDRESS	524 92nd St, Surfside FL 33154
PHONE / FAX	305-733-2485
PROPERTY ADDRESS	524 92nd St, Surfside FL 33154
ZONING CATEGORY	Residential H30B
DESCRIPTION OF PROPOSED WORK	garage conversion, interior remodeling

INTERNAL USE ONLY	
Date Submitted	Project Number
Report Completed	Date
Fee Paid	\$

ZONING STANDARDS	Required	Provided
Plot Size	6,057.8	6,057.8
Setbacks (F/R/S)	20' 20' 50"	21'6" 19'9" 5'00"
Lot Coverage	40%	35%
Height	30'	20'5" (top of beam roof deck)
Pervious Area	35%	43%

K. Horowitz 4/29/19
SIGNATURE OF OWNER DATE

Jeffrey R. Rose 4-29-19
SIGNATURE OF AGENT DATE



TOWN OF SURFSIDE
SINGLE-FAMILY and TWO-FAMILY SITE PLAN APPLICATION
PLANNING AND ZONING BOARD Rules and Procedures (June 2002)

The Planning and Zoning Board shall generally meet the last **Thursday** of each month at 7:00 pm. at Town Hall.

Plans and completed applications (including all supporting documentation) must be submitted to the Building Department at least 21 days prior to the meeting, with the payment of applicable fees (example: \$200.00 for Plan Review for Zoning), at which time they will be considered. Incomplete plans and applications will not be processed.

The applicant or duly authorized agent (per ownership affidavit) must be present at the meeting. If there are no applications for consideration by the Planning and Zoning Board, the monthly meeting may be cancelled at the discretion of the Chairman of the Board.

Please advise the name of the Representative who will attend the hearing on behalf of this application:

Jeffrey A. Roca
NAME OF REPRESENTATIVE

7-25-15
DATE

524 92nd St, Surfside, FL

Town of Surfside Zoning Code. Applicable Requirements

Sec. 90.43 Maximum building heights

Height	Required Maximum	Proposed
H30B	30 feet	20'9" to tie beam, top of pitch at 25

Sec. 90-45. Setbacks

H30A UPPER STORY FLOOR AREA IS LESS THAN 50% OF FIRST STORY FLOOR AREA	Required	Proposed
<i>Maximum Lot Coverage</i>	40%	35% Existing
FIRST STORY		
Primary Frontage	Minimum 20 feet	21'6" Existing
Interior side (lots greater than 50 feet in width)	10% of Frontage (61.25 feet = 6.125 feet)	11'10" Existing
Secondary Frontage	Minimum 10 feet	5'00" Existing
Rear	Minimum 20 feet	19'9" Existing
UPPER STORY		
Primary frontage	Minimum 20 feet/Average 22.5 feet	Existing N/A
Interior side (lots greater than 50 feet in width)	Minimum 10% of Frontage (61.25 feet = 6.125)	Existing N/A
Secondary Frontage	Minimum 10 feet/Average 12.5 feet	Existing N/A
Rear	Minimum 20 feet/Average n/a	Existing N/A

Sec. 90.49 Lot standards

Lot Standards H30B	Required	Proposed
Minimum Lot width	50 feet	50 feet
Minimum lot area	5,600 square feet	6,057.8
Maximum lot coverage	40%	35%
Pervious area	35% (minimum)	43%

Sec. 90.50 Architecture and roof decks

	Required	Proposed
Unique Elevation	A unique elevation from the main buildings of the adjacent two (2) homes shall be created through the modulation of at least three (3) of the following architectural features: (a)Length, width and massing of the structure; (b)Number of stories; (c)Façade materials; (d)Porches and other similar articulation of the front façade; (e)Number and location of doors and windows; and (f)Roof style and pitch.	Existing N/A
Wall openings	10% for all elevations	Existing. All elevations are 10% or greater for wall openings.

Roof Material	<p>(a) Clay Tile;</p> <p>(b) White concrete tile;</p> <p>(c) Solid color cement tile which color is impregnated with the same color intensity throughout, provided said color if granted approval by the Design Review Board;</p> <p>(d) Architecturally embellished metal if granted approval by the Design Review Board; or</p> <p>(e) Other Florida Building Code approved roof material(s) if granted approval by the Design Review Board.</p>	Existing, Concrete Tile Roof
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Sec. 90.61.1 Paving in front and rear yards in H30 and H40 Districts

Paving Yards	Required	Proposed
Front setback permeability	50% minimum	> 50%
Front yard landscaped	30% minimum	> 30%
Rear yard landscaped	20% minimum	> 20%
Number of Curb Cuts	One minimum	One
Curb Cut side set back	5 feet minimum	> 5 feet
Curb cut width	18 feet width maximum	11'6"
Driveway Materials	Limited to the following 1. Pavers 2. Color and texture treated concrete, including stamped concrete 3. Painted concrete shall not be permitted.	Existing pavers

Sec. 90-77 Off-Street Parking Requirements

Required	Minimum Space Requirements	Proposed
Single-family	2 spaces	2 spaces are provided.

Town of Surfside Adopted Residential Design Guidelines

Building Massing

Required	Proposed
Building forms should be varied enough to avoid monotony and to avoid pyramidal massing and should be compatible with surrounding houses.	Existing Consistent

Decorative Features

Required	Proposed
Decorative features should be stylistically consistent throughout the entire building.	Existing Consistent.

Overall Architectural Style

Required	Proposed
The overall style of each house should be consistent on all sides of the building, as well as among all portions of the roof.	Existing Consistent.

Wall Materials and Finishes

Required	Proposed
The same material should be used on all building elevations unless multiple materials are a legitimate expression of the particular style.	Existing Consistent

Roof Materials, Types, and Slopes

Required	Proposed
Roof types and slopes should be generally the same over all parts of a single building.	Existing Consistent

<p>Restricted materials for roofs are pre-determined in the Town's Building Code, which restricts roofing materials to:</p> <ol style="list-style-type: none"> 1. Clay tile; 2. White concrete tile; 3. Solid color cement tile which color is impregnated with the same color intensity throughout, provided said color is first approved by the planning and zoning board; and 4. Metal. 	<p>Existing No Variation</p>
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Windows and Trims

Required	Proposed
<p>Window styles should always be consistent among all elevations of a building.</p>	<p>Consistent.</p>
<p>Frame materials should never vary on a single building.</p>	<p>No variation.</p>
<p>Window, door and eave trim should be consistent on all elevations of the house</p>	<p>Consistent.</p>



MEMORANDUM

To: Planning and Zoning Board
Thru: Guillermo Olmedillo, Town Manager
From: Sarah Sinatra Gould, AICP, Town Planner
CC: Lillian Arango, Town Attorney
Date: May 23, 2019
Re: 8826 Froude Avenue – New Home

The property is located at 8826 Froude Avenue, within the H30B zoning. The applicant is requesting to build a 2,247 square foot two-story new home. The plans include new driveway, walkways, pool, deck, covered porch and front courtyard.



Staff has reviewed the current application for consideration by the Design Review Board. In this report Staff presents the following:

- Applicable Zoning Code regulations, along with the results of the review
- Applicable Design Guideline standards, along with the results of the review
- Staff Recommendation

STANDARDS / RESULTS

Town of Surfside Zoning Code, Applicable Requirements

Sec. 42.92 Lowest Floor Elevation

Residential	Lowest Floor	Proposed
Single-Family Residential	Base Flood +2	Base Flood (8 Feet) +2 (10 Feet)

Sec. 90.43 Maximum building heights

Height	Required Maximum	Proposed
H30B	30 feet	26'4" from crown of road to top of tie beam.

Sec. 90-45. Setbacks

H30A AND H30B UPPER STORY FLOOR AREA IS LESS THAN 50% OF FIRST STORY FLOOR AREA	Required	Proposed
<i>Maximum Lot Coverage</i>	40%	39%
FIRST STORY (UP TO 15 FT IN HEIGHT)		
Primary frontage	Minimum 20 FT	20'
Interior side (lots equal to or less than 50 feet in width)	Minimum 5 FT	5'0"/5'9"
Rear	Minimum 20 FT	32'
UPPER STORY OR WALL PLANES GREATER THAN 15 FT IN HEIGHT		
Primary frontage	Minimum 20 FT / Average 22.5	20'
Interior side (lots equal to or less than 50 feet in width)	Minimum 5 FT / Average n/a	5'0"/5'9"
Rear	Minimum 20 FT / Average n/a	32'

Sec. 90-47. – Yards generally, allowable projections

	Required	Proposed
Open, unenclosed building entrance porches, platforms, stairs or paved terraces, not covered by a roof or canopy, and which do	a) May extend or project into the required front or side yard no more than six feet b) and the encroachments shall not provide less than a 24-	a) Extends more than 6' into the front setback b) Setback 3' from the property line

not extend above the level of the grade or entrance floor of the building	inch setback to the property line.	
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Sec. 90.49 Lot standards

Lot Standards H30B	Required	Proposed
Minimum Lot width	50 feet	50 feet
Minimum lot area	5,600 feet	5,625 square feet
Maximum lot coverage	40%	39.94%
Pervious area	35% (minimum)	33.82%. Does not comply

Sec. 90.50 Architecture and roof decks

	Required	Proposed
Unique Elevation	A unique elevation from the main buildings of the adjacent two (2) homes shall be created through the modulation of at least three (3) of the following architectural features: (a)Length, width and massing of the structure; (b)Number of stories; (c)Façade materials; (d)Porches and other similar articulation of the front façade; (e)Number and location of doors and windows; and (f)Roof style and pitch.	The proposed two-story structure is a unique design and different than adjacent homes. The second-floor balcony and entryway articulation are utilized to add uniqueness to the front façade. Façade materials include stone cladding which is unique to the adjacent homes.
Wall openings	10% for all elevations	Not provided. North elevation does not appear to meet the 10% wall openings minimum
Roof Material	(a) Clay Tile; (b) White concrete tile; (c) Solid color cement tile which color is impregnated with the same color intensity throughout, provided said color if granted approval by the Design Review Board; (d)Architecturally embellished metal if granted approval by the Design Review Board; or (e)Other Florida Building Code approved roof material(s) if granted approval by the Design Review Board.	Proposing Standing seam metal roof bronze

Sec. 90.54 Accessory Structures

Accessory buildings	Required	Proposed
	90-54.2 Accessory swimming pools and decks, open and unenclosed, or covered by a screen	Swimming Pool and Deck (a) Rear: 5'0"

	enclosure, may occupy a required rear, front, or side setback, subject to the following minimum setbacks: (a) Rear: Five feet. (b) Interior side: Five feet. (c) Primary (front) and secondary (Corner): Ten feet.	(b) Interior Side: 5'9"/5'0" (c) Primary front: +10'
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Sec. 90-56.4 Front yard and corner yard fences and ornamental walls—Table.

Frontage	Maximum Height (Feet)	Maximum Opacity (Percent)	Proposed
50 feet	4.0 feet	All wall and fence surfaces above two (2) feet measured from grade shall maintain a maximum opacity of fifty (50) percent	A 5' high concrete block privacy wall with a portion of the wall containing a wood slate fence atop. Opacity & height do not conform to the code.

Sec. 90.61.1 Paving in front and rear yards in H30 and H40 Districts

Paving Yards	Required	Proposed
Front setback permeability	50% minimum	> 50%
Front yard landscaped	30% minimum	> 30%
Rear yard landscaped	20% minimum	Not provided and does not appear to be 20%
Number of Curb Cuts	One minimum	One
Curb Cut side set back	5 feet minimum	>5 feet
Curb cut width	18 feet maximum	11'7"
Driveway Materials	Limited to the following 1. Pavers 2. Color and texture treated concrete, including stamped concrete 3. Painted concrete shall not be permitted. 4. Asphalt shall not be permitted.	Pavers

Sec. 90-77 Off-Street Parking Requirements

Required	Minimum Space Requirements	Proposed
Single-family	2 spaces	2 spaces are provided (1 in driveway 1 in garage)

Sec. 90-89.4(6). Street Tree Requirements

Required	Required	Proposed

Street trees shall be required at one shade tree/palm tree per 20 linear feet of street frontage thereof along all public or private street right-of-ways in all zoning districts.	2 trees	2 trees
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Sec. 90-95. Single-family H30A and H30B district landscape requirements.

Required	Required	Proposed
A minimum of five trees of two different species and 25 shrubs shall be planted per lot.	5 trees, 25 shrubs	6 palms and more than 25 shrubs are provided.

Town of Surfside Adopted Residential Design Guidelines

Building Massing

Required	Proposed
Building forms should be varied enough to avoid monotony and to avoid pyramidal massing and should be compatible with surrounding houses.	Consistent

Decorative Features

Required	Proposed
Decorative features should be stylistically consistent throughout the entire building.	Consistent.

Overall Architectural Style

Required	Proposed
The overall style of each house should be consistent on all sides of the building, as well as among all portions of the roof.	Consistent.

Wall Materials and Finishes

Required	Proposed
The same material should be used on all building elevations unless multiple materials are a legitimate expression of the particular style.	Consistent

Roof Materials, Types, and Slopes

Required	Proposed
Roof types and slopes should be generally the same over all parts of a single building.	Consistent
Restricted materials for roofs are pre-determined in the Town's Building Code, which restricts roofing materials to: 1. Clay tile; 2. White concrete tile;	(4) Architecturally embellished metal if granted approval by the Design Review Board – Proposing standing seam metal roof bronze

3. Solid color cement tile which color is impregnated with the same color intensity throughout, provided said color is first approved by the planning and zoning board; and 4. Metal.	
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Windows and Trims

Required	Proposed
Window styles should always be consistent among all elevations of a building.	Consistent.
Frame materials should never vary on a single building.	No variation.
Window, door and eave trim should be consistent on all elevations of the house	Consistent.

FINDINGS

Staff finds the application meets the Code subject to the following:

- 1) Adjust and correct the distance in which the courtyard extends into the front setback. Open, unenclosed building entrance porches, platforms, stairs or paved terraces, not covered by a roof or canopy, and which do not extend above the level of the grade or entrance floor of the building, may extend or project into the required front or side yard no more than six feet. **(Code Section 90-47.5)**
- 2) Provide the setback distance from the side property line to the courtyard showing that it provides no less than a 24" setback. **(Code Section 90-47.5)**
- 3) Adjust and provide the required minimum 35% pervious area coverage. Currently, the site plan shows 33.82% pervious coverage. **(Code Section 90.49)**
- 4) Provide for a minimum of 10% wall openings on all elevations. **(Code Section 90.50)**
- 5) Adjust the height of proposed ornamental wall/fence in the front yard. The maximum height is 4 feet for an ornamental wall or fence in the front yard or corner. The proposed fence is 5 feet high **(Code Section 90-56.4)**
- 6) Adjust and provide the opacity calculation of the proposed ornamental wall/fence in the front yard. All wall and fence surfaces above 2 feet measured from grade shall maintain a maximum opacity of 50%. **(Code section 90-56.4)**
- 7) Adjust and provide a minimum of 20% landscaping in the rear yard. **(Code Section 90-61)**
- 8) Provide details for a minimum of 5 trees and 25 shrubs at building permit.



MAY 19 12:25 PM

TOWN OF SURFSIDE

DRB Meeting	5/23/2019
Application / Plans Due	___/___/20__

TOWN OF SURFSIDE
SINGLE-FAMILY and TWO-FAMILY SITE PLAN APPLICATION

A complete submittal includes all items on the "Single-Family and Two-Family Site Plan Application Submission Checklist" document as well as completing this application in full. The owner and agent must sign the application with the appropriate supplemental documentation attached. Please print legibly in ink or type on this application form.

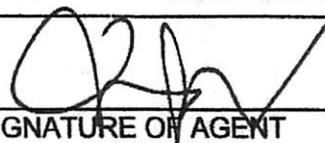
PROJECT INFORMATION	
OWNER'S NAME	SURFSIDE 8826, LLC
PHONE / FAX	786.338.8377
AGENT'S NAME	MARCI VARCA
ADDRESS	280 W. HILLSBORO BLVD. DEERFIELD BOX FL 33441
PHONE / FAX	786.338.8377
PROPERTY ADDRESS	8826 FROUDE AVE. SURFSIDE, FL 33154
ZONING CATEGORY	RS-2
DESCRIPTION OF PROPOSED WORK	NEW HOME SINGLE FAMILY 2 STORY

INTERNAL USE ONLY			
Date Submitted	_____	Project Number	_____
Report Completed	_____	Date	_____
Fee Paid	\$ _____		

ZONING STANDARDS	Required	Provided
Plot Size	5625 sq ft	
Setbacks (F/R/S)	20' 15' 5'	20' 32.7' 5'-8" / 5'-9"
Lot Coverage	40%	39.94%
Height	30' HIGHEST CROWN RD.	26'-4"
Pervious Area		33.82% (1,902 S.F.)


 SIGNATURE OF OWNER

4.18.19
 DATE


 SIGNATURE OF AGENT

4.18.19
 DATE



MEMORANDUM

To: Planning & Zoning Board
 Thru: Guillermo Olmedillo, Town Manager
 From: Sarah Sinatra Gould, AICP, Town Planner
 CC: Lillian Arango, Town Attorney
 Date: May 23, 2019
 Re: 9472 Harding Avenue – “Mesa” Bar-Fish-Meat

The subject property is located at 9472 Harding Avenue and is within the SD-B40 zoning district. The applicant is requesting the change of face on one (1) existing illuminated Individually-Mounted Push Through Letter Sign for the Mesa Restaurant. The applicant has indicated on the plans it is a cabinet sign and has not demonstrated with updated graphics that this is an Individually-Mounted Push Through Letter Sign. In addition, the applicant is requesting four (4) Permanent Window Signs.

Staff has reviewed the current application for consideration by the Design Review Board. In this report, Staff presents the following:

- Applicable Zoning Code regulations, along with the results of the review
- Staff Recommendation

STANDARDS / RESULTS

Town of Surfside Zoning Code, Applicable Requirements

Sec. 90-73

Signs	Permitted	Proposed
Area	<u>Individually Mounted Letter Sign</u> 45 square feet <u>Window Signs</u> 20 percent of the area of the glass window or door in which the sign is displayed.	<u>Individually Mounted Letter Sign</u> 31.3 square feet <u>Window Signs</u> 1) 3 sq. ft. (13% of the area) 2) 3 sq. ft. (13% of the area) 3) 3 sq. ft. (13% of the area) 4) 3 sq. ft. (13% of the area)



<p>Location</p>	<p>With the exception of theater marquees and V-box signs, no sign shall be erected so that any portion thereof shall project over a dedicated street or sidewalk or so that any portion thereof shall project more than five feet from any main building wall.</p>	<p><u>Individually Mounted Letter Sign</u> Sign does not project over the sidewalk or street.</p> <p><u>Window Signs</u> Sign does not project over the sidewalk or street</p>
<p>Illumination</p>	<p>All signage, lettering, logos or trademarks shall be required to be lit with white illumination from dusk to dawn. The illumination may be either internal illumination or external illumination, however, all walls below the sign shall be illuminated with white wall wash LED lighting. It shall be located and directed solely at the sign. The light source shall not be visible from or cast into the right-of-way, or cause glare hazards to pedestrians, motorists, or adjacent properties.</p>	<p><u>Individually Mounted Letter Sign</u> Illuminated Push Thru White Letter on Aluminium Mounted on Aluminum</p> <p><u>Window Signs</u> Sign does not utilize illumination</p>
<p>Permanent window sign</p>	<p>Lettering shall not exceed eight inches in height. Acceptable materials include painted gold leaf or silver leaf, silk-screened, cut or polished metal, cut or frosted vinyl, and etched glass.</p>	<p>Information on lettering sizes and material was not received.</p>

RECOMMENDATION

Staff recommends denial of the cabinet sign. If the applicant can demonstrate that this is a push through signage, the following conditions shall apply:

- 1) Demonstrate with up-to-date graphics that the sign is an individually mounted push through letter sign.

Staff recommends approval of the windows signs subject to the following conditions:

- 1) Provide the lettering sizes. Information on the lettering size is not identified.



DRB Meeting	___/___/20__
Application / Plans Due	___/___/20__

TOWN OF SURFSIDE
APR 22 10 25 56 AM

TOWN OF SURFSIDE
MULTI-FAMILY AND NON-RESIDENTIAL DESIGN REVIEW APPLICATION

(Signs, awnings, store fronts, fences, and walls etc)

A complete submittal includes all items on the "Multi-family and Non-Residential Design Review Application Submission Checklist" document as well as completing this application in full. The owner and agent must sign the application with the appropriate supplemental documentation attached. Please print legibly in ink or type on this application form.

<u>PROJECT INFORMATION</u>	
OWNER'S NAME	212 OF Miami LLC
PHONE / FAX	954-439-7800
AGENT'S NAME	Carlos Blanco
ADDRESS	13758 SW 170 TH LN, MIAMI, FL 33177
PHONE / FAX	305 323 8354
PROPERTY ADDRESS	9472 Harding Ave, Surfside FL 33160
ZONING CATEGORY	
DESCRIPTION OF PROPOSED WORK	Change of Face on Existing Sign "Mesa" BAR. FIS. MEAT

<u>INTERNAL USE ONLY</u>			
Date Submitted	_____	Project Number	_____
Report Completed	_____	Date	_____
Fee Paid	\$ _____		

<u>ZONING STANDARDS</u>	Required	Provided
Sign Area (if applicable)	_____	_____
Awning Size (if applicable)	_____	_____
Fence Height (if applicable)	_____	_____
Wall Height (if applicable)	_____	_____

(X) [Signature] 4/20/19 Carlos Blanco 4/30/19
 SIGNATURE OF OWNER DATE SIGNATURE OF AGENT DATE



To: Planning & Zoning Board

From: Sarah Sinatra Gould, AICP, Town Planner

Date: May 23, 2019

Subject: Florida Friendly Landscape

The purpose of this memorandum is to summarize the Florida Friendly landscape requirements.

The current Town of Surfside Landscape Code utilizes xeriscaping landscape requirements, which are a set of seven principles (Planning and Design, Soil Improvements, Practical Turf Area, Efficient Irrigation, Mulch, Low Water Use Plants and Appropriate Maintenance) for water-wise landscaping. These principles utilize the concept of planning, design and maintenance of the landscaping with a sensible approach for water efficiency that allows the conservation of water while providing an attractive landscape.

It is recommended that the Town adopt a Florida Friendly landscape ordinance, which provides more robust standards than the Town's current regulations. This program has nine principles and is aimed at Florida's unique natural resources. It utilizes planning, design, installation and maintenance (Right Plant-Right Place, Water Efficiency, Fertilize Appropriately, Mulch, Attract Wildlife, Manage Yard Pest Responsibility, Recycle, Prevent Storm Runoff and Protection of Waterfronts). These principles seek to reduce environmental impacts from landscaping by properly applying water, fertilizer and pesticides, creating a wildlife habitat, preventing erosion and recycling yard wastes.

The proposed ordinance provides regulations for fertilizer and pesticides. Herbicides are not addressed in this ordinance as it is not a principal regulated by Florida Friendly. However, and a separate ordinance regulating herbicides is currently being researched and once prepared, will be presented to the Town Commission.

The proposed ordinance has provided efficient irrigation design standards, fertilizer standards, pesticide management and the requirement to utilize Florida Friendly

principles as identified in Florida Friendly Landscaping Guide to Plant Selection & Landscape Design.

The current landscape code is set up to be very site specific, functional, sustainable, irrigation efficient, water conservation focused, protective of the natural native habitat while providing a cohesive, distinctive lush design theme. The proposed modifications expand the current standards by seeking to reduce the environmental impact of fertilizers and pesticides, create a wildlife habitat and further encourage water conservation through efficiencies.

Staff has prepared an ordinance which exceeds the minimum requirements in Miami-Dade County and meets the Florida Friendly requirements. Modifying the existing ordinance to incorporate Florida Friendly principles will enhance, strengthen and provide a safer environment for the Town.

Enforcement of fertilizer and pesticides requires additional staff, particularly at the beginning when all properties must be inspected for compliance.

Only the sections that are in strike through and underline within the attached ordinance are being modified, which primarily relate to fertilization and irrigation. The existing landscape code has very specific requirements for the installation of landscaping, however this is applicable only to new construction and substantial improvements as defined in the code. The Planning and Zoning Board reviews the proposed landscaping, which requires a certain amount of trees and shrubs per lot. The Town also has an approved species list. This has been in the code for over 10 years and has been enforced when sites develop. This ordinance does not modify any of the required landscaping. Instead, it brings the Town into compliance with Florida Friendly provisions for fertilization and irrigation.

This ordinance was approved by the Town Commission on first reading on May 14, 2019. Minor, non-substantive changes were made which will be included in the second reading ordinance to the Commission.

Staff recommends that the Planning and Zoning Board recommend the ordinance to the Town Commission.

- 62 (2) To create and enhance the aesthetic subtropical character and identity distinctiveness of
63 the Town of Surfside;
- 64 (3) To design landscaping to enhance architectural features, relate structure design to the
65 site, visually screen sites and unsightly views, reduce noise impacts from major
66 roadways and incompatible uses, strengthen important vistas and reinforce neighboring
67 site design and architecture,
- 68 (4) To prevent the expansion of the listed pest plant species by prohibiting the use of
69 noxious exotic plants which invade native plant communities;
- 70 (5) To promote the use of more wind tolerant trees and proper horticultural planting
71 methods in order to maintain a more sustainable landscape;
- 72 (6) To promote ~~landscape~~ Florida Friendly principles through the use of drought-tolerant
73 landscape species, grouping of plant material by water requirements, right plant in the
74 right place, appropriate fertilization, the use of irrigation systems that conserve the use
75 of potable and non-potable water supplies, mulching and restrictions on the amount of
76 lawn areas;
- 77 (7) To utilize landscape material, specifically street trees, to visually define the hierarchy of
78 roadways, and to provide shade and a visual edge along roadways;
- 79 (8) To prevent the destruction of the town's existing tree canopy and promote its expansion
80 to be valued and preserved for present and future generations;
- 81 (9) To provide for the preservation of existing natural plant communities and re-establish
82 native habitat where appropriate, and encourage the appropriate use of native plant and
83 salt tolerant plant material in the landscape and where applicable, encourage appropriate
84 wildlife habitat areas;
- 85 (10) To promote the use of trees and shrubs for energy conservation by encouraging
86 cooling through the provision of shade and the channeling of breezes, thereby helping to
87 offset global warming and local heat island effects through the added absorption of
88 carbon dioxide and reduction of heat islands;
- 89 (11) To contribute to the processes of air movement, air purification, oxygen
90 generation, ground water recharge, and stormwater runoff retention, while aiding in the
91 abatement of noise, glare, heat, air pollution and dust generated by major roadways and
92 intense use areas;
- 93 (12) To improve the aesthetic appearance of the town through the use of plant material,
94 thereby protecting and increasing property values within the community;
- 95 (13) To promote the concept of planting the right tree or plant in the right place to
96 avoid problems such as clogged sewers, cracked sidewalk and power services
97 interruptions;
- 98 (14) To provide the physical benefits of using plant material as a function and integral
99 part of the Town of Surfside's development;
- 100 (15) To provide minimum standards for landscaping new developments or for
101 redevelopment;

- 102 (16) To promote water conservation and vegetation protection objectives by providing
103 for:
- 104 a. The preservation of existing plant communities pursuant to the requirements of
105 the Miami-Dade's Tree Preservation and Protection Ordinance;
 - 106 b. The reestablishment of native plant communities;
 - 107 c. The use of site-specific plant materials; and
 - 108 d. The implementation of ~~Xeriscape~~ Florida Friendly principles as identified in
109 Florida-Friendly Landscaping-Guide to Plant Selection & Landscape Design
110 South Florida Water Management District's Xeriscape Plant Guide II, as
111 amended, and as provided by law.

112 **90-85.2 Definitions.**

113 *Accessway*: A private vehicular roadway intersecting a public right-of-way.

114 *Applicant*: The owner or the authorized agent of the subject property.

115 *Application* or *apply* means the actual physical deposition of fertilizer to turf or landscape
116 plants.

117 *Applicator* means any person who applies fertilizer on turf and/or landscape plants.

118 *Approved test* means a soil test from the University of Florida, government, or other
119 commercial licensed laboratory that regularly performs soil testing and recommendations.

120 *Automatic controller* means a mechanical or electronic device, capable of automated
121 operation of valve stations to set the time, duration and frequency of a water application.

122 *Berm*: A linear earthen mound measured from the crown of the road or abutting finish floor
123 elevation and has a maximum slope of three to one. The berm shall consist of clean fill
124 composed of planting soil.

125 *Best management practices (BMP's)* means turf and landscape practices or combination of
126 practices based on research, field-testing, and expert review, determined to be the most
127 effective and practical site-specific means, including economic and technological
128 considerations, for improving water quality, conserving water supplies and protecting
129 natural resources.

130 *Buffer, perimeter landscape*: An area of flat a grade or bermed land which is set aside along
131 the perimeters of a parcel of land in which landscaping is required to provide an aesthetic
132 transition between adjacent plots to eliminate or reduce the adverse environmental impact,
133 and incompatible land use impacts.

134 *Canopy*: The upper portion of a tree consisting of limbs, branches and leaves.

135 *Clear trunk*: The distance between the top of the root ball along the vertical trunk or trunks
136 of a tree to the point at which lateral branching or fronds begin.

137 *Clear wood ("gray wood")*: The portion of the palm trunk which is mature hardwood
138 measured from the top of the root ball to the base of green terminal growth or fronds.

139 *Code enforcement officer, official, or inspector* means any designated employee or agent of
140 the Town of Surfside whose duty is to enforce codes and ordinances enacted by the Town.

141 Commercial applicator except as provided in F.S. § 482.1562(9), means any person who
142 applies fertilizer for payment or other consideration to property not owned by the person or
143 firm applying the fertilizer or the employer of the applicators.

144 Commercial fertilizer applicator means any person who applies fertilizer on turf and/or
145 landscape plants in the Town in exchange for money, goods, services or other valuable
146 consideration.

147 *CPTED*: The acronym crime prevention through environmental design; design approach to
148 reduce crime and fear of crime by creating a safe climate within a building environment.

149 *Diameter breast height (DBH)*: The diameter of the tree trunk(s) measured at 4½ feet above
150 grade.

151 *Disturbed land/ground*: Any land where the original natural vegetation has been removed,
152 displaced, overtaken or raked.

153 Emitter primarily refers to devices used in microirrigation systems.

154 Fertilizing or fertilization means the act of applying fertilizer to turf, specialized turf or
155 landscape plants.

156 Fertilizer means any substance or mixture of substances that contains one or more
157 recognized plant nutrients and which promotes plant growth, controls soil acidity or
158 alkalinity, provides other soil enrichment, or provides other corrective measures to the soil.

159 Florida-friendly landscape. The principles of Florida-friendly landscaping include planting
160 the right plant in the right place, efficient watering, appropriate fertilization, mulching,
161 attraction of wildlife, responsible management of yard pests, recycling yard waste, reduction
162 of stormwater runoff, and waterfront protections. Additional components of Florida-friendly
163 landscape include planning and design, soil analysis, the uses of solid waste compost,
164 practical use of turf, and proper maintenance.

165 *Functional landscaping*: The combination of living and nonliving materials that, when
166 installed or planted, creates an ongoing system providing aesthetic and environmental
167 enhancement to a particular site and surrounding area.

168 *Groundcover*: A dense, low-growing plant, other than turf, that, by the nature of its growth
169 characteristics completely covers the ground and does not usually exceed two feet in height.

170 Guaranteed analysis means the percentage of plant nutrients or measures of neutralizing
171 capability claimed to be present in a fertilizer.

172 *Hedge*: A dense row of evenly spaced shrubs planted to form a continuous, unbroken visual
173 screen.

174 Hydrozone means a distinct grouping of plants with similar water needs and climatic
175 requirements.

176 *Impervious area*: An area covered by a material which does not permit infiltration or
177 percolation of water directly into the ground.

178 Infiltration rate means the rate of water entry into the soil expressed as a depth of water per
179 unit of time (inches per hour).

180 Irrigated landscape area means all outdoor areas that require a permanent irrigation system.

181 Irrigation zone means a grouping of sprinkler heads, soakers, bubblers, or microirrigation
182 emitters operated simultaneously by the control of one valve.

183 Institutional applicator means any person, other than a private person applying fertilizer on
184 their own residential property or a commercial applicator (unless such definitions also apply
185 under the circumstances), that applies fertilizer for the purpose of maintaining turf and/or
186 landscape plants. Institutional applicators shall include, but shall not be limited to, owners,
187 managers, or employees of public lands, schools, parks, religious institutions, utilities,
188 industrial or business sites, and any residential properties maintained in condominium and/or
189 common ownership.

190 *Irrigation:* The method of supplying plant materials with water other than by natural
191 rainfall.

192 *Landscape/landscaping:*

193 (1) When used as a noun, this term shall mean living plant materials such as grasses,
194 groundcover, shrubs, vines, trees or palms and nonliving durable materials
195 commonly used in environmental design such as, but not limited to, walls or fences,
196 aesthetic grading or mounding, but excluding pavers, paving, artificial turf, turf
197 block, rocks and structures.

198 (2) When used as a verb, this term shall mean the process of installing or planting
199 materials commonly used in landscaping or environmental design.

200 *Mulch:* Organic, arsenic free, material such as wood chips, pine straw or bark placed on the
201 soil to reduce evaporation, prevent soil erosion, control weeds and enrich the soil.

202 *Multi-trunk trees:* A tree that has a minimum of three trunks with no more than five trunks
203 of equal diameters originating from the ground and with angles no greater than forty-five
204 (45) degrees. ;b1; *NOTE:* The town can require either multi-trunk or single trunk on certain
205 trees.

206 Microclimate means the climate of a specific area in the landscape that has substantially
207 differing sun exposure, temperature, or wind, than surrounding areas or the area as a whole.

208 Microirrigation (low volume) means the application of small quantities of water directly on
209 or below the soil surface, usually as discrete drops, tiny streams, or miniature sprays through
210 emitters placed along the water delivery pipes (laterals). Microirrigation encompasses a
211 number of methods or concepts including drip, subsurface, bubbler, and spray irrigation,
212 previously referred to as trickle irrigation, low volume, or low flow irrigation that deliver
213 water directly to plant root zones with a high degree of efficiency, no runoff, and little to no
214 evaporation.

215 Moisture sensing device or soil moisture sensor means a device to indicate soil moisture in
216 the root zone for the purpose of controlling an irrigation system based on the actual needs of
217 the plant.

218 *Native habitat:* An area enhanced or landscaped with an appropriate mix of native tree,
219 shrub and groundcover species that resembles a native plant community in structure and
220 composition or is naturally occurring.

221 *Native plant community:* A natural association of plants dominated by one or more
222 prominent native plant species, or a characteristic physical attribute as indicated by the
223 Town of Surfside.

224 *Native plant species:* Native plant species shall be those plant species indigenous to the
225 ecological communities of South Florida, as indicated on lists provided by Town of
226 Surfside, or that can be scientifically documented to be native to South Florida.

227 *Open space:* All pervious landscape planting areas of the site.

228 *Overall height:* The height measured from the ground to the bend of the top most branch of
229 the tree. Overall height on palms: the measurement from the ground to the bend of the
230 topmost frond.

231 *Pervious areas:* Any portion of the ground unobstructed by a non landscape planting surface
232 which prevents or slows down the natural seepage of water into the ground.

233 *Planting soil/topsoil:* A medium composed of 50 percent sand and 50 percent muck. Palm
234 planting soils shall compose of no more than 80 percent sand and remainder soil consisting
235 of muck. It must be clear and free of construction debris, weeds and rocks, with a pH
236 between 6.5 and 7.

237 Person means any natural person, business, corporation, limited liability company,
238 partnership, limited partnership, association, club, organization and/or any group of people
239 acting as an organized entity.

240 Point of connection (POC) means the location where an irrigation system is connected to a
241 water supply.

242 Pop-up sprays means spray heads that pop up with water pressure and provide a continuous
243 spray pattern throughout a given arc of operation.

244 Pressure tank means a pressurized holding tank for irrigation water coming from wells to
245 minimize cycling of the water pump.

246 Pump cycling means irrigation pump coming on and shutting off frequently during operation
247 of irrigation systems.

248 Prohibited application period means the time period during which application of fertilizer is
249 prohibited due to the potential of run-off to negatively impact the environment, including
250 tropical storms and hurricane warnings, or for any portion of the Town where heavy rain has
251 been forecasted.

252 Rain sensor device means a low voltage electrical or mechanical component placed in the
253 circuitry of an automatic irrigation system that is designed to turn off a sprinkler controller
254 when precipitation has reached a pre-set quantity.

255 *Runoff* means water that is not absorbed by the soil or landscape and flows from the area.

256 *Redevelopment:* Any proposed expansion, addition, or facade change to an existing building,
257 structure, or parking facility. Redevelopment may also mean any rebuilding activity which
258 has no net increase in built-upon area or which provides equal or greater stormwater control
259 than the previous development. Exception to this definition, single family dwelling

260 redevelopment would be considered when 75 percent or greater of the existing structure is
261 knocked down.

262 Saturated soil means a soil in which the voids are filled with water. Saturation does not
263 require flow. For the purposes of this article, soils shall be considered saturated if standing
264 water is present or the pressure of a person standing on the soil causes the release of free
265 water.

266 Slow-release means nitrogen in a form which delays its availability for vegetative uptake
267 and use after application, or which extends its availability to the vegetation longer than a
268 reference rapid or quick release product. It includes the terms "controlled release", "timed
269 release," "slowly available" and "water insoluble nitrogen."

270 *Shrub*: A self-supporting, woody plant full to the ground with three or more branches
271 produced from the ground which could be maintained in a healthy state to the height
272 indicated on the landscape plans.

273 Soil moisture sensor . See Moisture sensing device .

274 Soil texture means the classification of soil based on the percentage of sand, silt, and clay in
275 the soil.

276 *Site-specific plant materials*: The use of plant species selected to minimize supplemental
277 irrigation, fertilization and pest control.

278 *Town*: The department or division of the Town of Surfside government that the town
279 manager has designated to enforce the landscaping requirements of this section.

280 *Tree*: A self-supporting, woody perennial plant, usually with one vertical stem or main
281 trunk, which naturally develops a distinct, elevated crown and provides, at maturity, natural
282 characteristics of the species.

283 (1) *Tree, Dicotyledonous (Dicot)* is a tree having a woody stem and branches and leaves
284 with net venation and having a separate, distinct outer bark which can be peeled from
285 the tree.

286 (2) *Tree, Monocotyledonous (Monocot)* is a palm or a tree having fronds with parallel
287 venation and no true woody bark with a minimum overall natural height of ten feet at
288 maturity.

289 *Tree abuse*:

290 (1) Hat racking, flat-cutting the top of a tree, severing leader or leaders of a tree.

291 (2) Pruning that reduces the total height or spread of a tree canopy by more than 30
292 percent in one year.

293 (3) Cutting upon a tree which destroys its natural habit of growth.

294 (4) Pruning that leaves stubs or results in a flush cut or splitting of limb ends.

295 (5) Peeling or stripping of bark or the removal of bark to the extent that if a line is drawn
296 at any height around the circumference of the tree, over one-third of the length of the
297 line falls on portions of the tree where the bark remains.

- 298 (6) The use of climbing spikes, nails or hooks with the exception for the purposed of
 299 total tree removal.
- 300 (7) Pruning that does not conform to the standards set by the American National
 301 Standards Institute (ASI A300), as amended, with the exception of palm pruning
 302 which shall allow no pruning of fronds above the horizontal plane.
- 303 (8) Using nails or other piercing devices for the purpose of attaching signage or any
 304 objects to a tree.
- 305 (9) Girdling of trees by guying, staking, support, string trimmers, or non-removal of
 306 planting materials from the root balls.
- 307 (10) Lawn mower string trimmer or deck damage inflicted on any portion of a tree.
- 308 (11) Vehicular damage inflicted causing bark removal, tree leaning and/or destruction.
 309 Also, any damage and/or compaction of the roots by vehicular usage.
- 310 (12) Structures being placed or constructed within a tree.
- 311 (13) Utilizing any portion of a tree as a fence or similar structural support.
- 312 (14) The use of oils, chemicals or other materials poured on the roots and/or trees.
 313 Also, the painting of trees with paint and/or other similar material.

314 *Turf:* The upper layer of soil matted with roots of grass and covered by viable grass blades.

315 *Urban landscape* means pervious areas on residential, commercial, industrial, institutional,
 316 road rights-of-way or other nonagricultural lands that are planted with turf or landscape
 317 plants.

318 *Vegetation:* Angiosperms, gymnosperms, ferns and mosses.

319 *Vehicular encroachment:* Any protrusion of a motor vehicle outside of the boundaries of a
 320 vehicular use area into a landscape area.

321 *Vehicular use area (VUA):* An area used for loading, circulation, access, storage, parking, or
 322 display of any type of vehicle, boat, or construction equipment whether self-propelled or
 323 not.

324 *Vine:* Any plant with a long, slender stem that trails or creeps on the ground or climbs by
 325 winding itself on a support.

326 ~~*Xeriscape:* A landscaping method that maximizes the conservation of water by use of site-~~
 327 ~~appropriate plants and an efficient watering system.~~

328 **Sec. 90-86. - Landscape permit plans.**

329 ***

330 **90-86.3** The irrigation plan shall meet the following requirements:

- 331 (1) The same scale of the site plan, but no smaller than one inch equals 50 feet.
- 332 (2) Location of existing trees, vegetation and native plant communities to remain, if
 333 applicable.

- 334 (3) Location of existing buildings, paving, and site improvements to remain.
- 335 (4) Location of proposed buildings, paving, site improvements, and water bodies.
- 336 (5) Main location with sleeves, size and specifications.
- 337 (6) Valve location, size and specifications.
- 338 (7) Pump location, size and specifications or water source.
- 339 (8) Backflow prevention device type and specifications.
- 340 (9) Controller locations and specifications.
- 341 (10) Zone layout plan (minimum scale 1" = 20"):
- 342 (11) Provide 100 percent coverage and 100 percent overlap.
- 343 (12) Indicating head-type, specifications and spacing.
- 344 (13) Indicate location and details of rain sensor, second water meter, and rainwater
345 citrons; and
- 346 (14) Indicating methods used to achieve compliance with ~~xeriscape~~ Florida Friendly
347 principles as required by F. S. ~~§ 166.048.~~ 373.228.
- 348 (15) Efficient Irrigation Design. All new irrigation installations shall meet the irrigation
349 standards identified per §373.228, F.S. These include:
- 350 1. Irrigation systems, including the use of micro-irrigation as appropriate, shall be
351 designed to meet the needs of the plants in the landscape.
- 352 2. When feasible, irrigation systems shall be designed to separately serve turf and
353 non-turf areas.
- 354 3. The irrigation system plans, and specifications shall identify the material to be
355 used and the construction methods.
- 356 4. The design shall consider soil, slope and other site characteristics in order to
357 minimize water waste, including overspray, the watering of all impervious
358 surfaces and other non-vegetated areas, and off-site runoff.
- 359 5. The system shall be designed to minimize free flow conditions in case of
360 damage or other mechanical failure.
- 361 6. The system shall be designed to use the lowest quality water feasible.
- 362 7. Rain switches or other approved devices, such as soil moisture sensors to
363 prevent unnecessary irrigation, shall be incorporated. (Section 373.62, F.S.)
- 364 9. A recommended seasonal operating schedule and average precipitation rate for
365 each irrigation zone for both establishment and maintenance conditions shall
366 be provided.
- 367 10. Control systems shall provide the following minimum capabilities:
- 368 i. Ability to be programmed in minutes, by day of week, season, time of
369 day.

- 370 ii. Ability to accommodate multiple start times and programs,
371 iii. Automatic shut off after adequate rainfall,
372 iv. Ability to maintain time during power outages for a minimum of three
373 (3) days, and
374 v. Operational flexibility to meet applicable year-round water
375 conservation requirements and temporary water shortage restrictions.
- 376 11. Recommended maintenance activities and schedules shall be included.
- 377 12. Precipitation rates for sprinklers and all other emitters in the same zone shall
378 be matched, except that micro irrigation emitters may be specified to meet the
379 requirements of individual plants.
- 380 13. Irrigation systems shall be designed to maximize uniformity, considering
381 factors such as:
- 382 i. Emitter types.
383 ii. Head spacing.
384 iii. Sprinkler pattern.
385 iv. Water pressure at the emitter.
- 386 14. Irrigation systems with main lines larger than two (2) inches or designed to
387 supply more than seventy (70) gallons per minute shall incorporate a means to
388 measure irrigation water use, at a minimum of ninety-five (95) percent
389 accuracy across the flow range.
- 390 15. Irrigation system plans and specifications shall require the system installer to
391 conduct final testing and adjustments to achieve design specifications prior to
392 completion of the system and acceptance by the owner or owner's
393 representative.
- 394 16. The irrigation system shall be designed to correlate to the organization plants
395 into zones as described in section 12-102 above. The water use zones shall be
396 shown in the irrigation plan. All plants (including turf) require watering during
397 establishment. Temporary facilities may be installed to facilitate establishment.
- 398 17. Rain shut-off switch equipment shall be required on automatic irrigation
399 systems to avoid irrigation during periods of sufficient soil moisture, in
400 accordance with Florida Law ([Section] 373.62, F.S.). Said equipment shall
401 consist of an automatic mechanical or electronic sensing device or switch that
402 will override the irrigation cycle of the sprinkler system when adequate rainfall
403 has occurred.
- 404 18. The installation of tracer wire along main lines and laterals shall be required to
405 permit easy location and prevent inadvertent cutting of pipes.
- 406 19. If the water supply for the irrigation system is from a well, a constant pressure
407 flow control device or pressure tank with adequate capacity shall be required to
408 minimum pump "cycling".

- 409 20. Check valves must be installed at irrigation heads as needed to prevent low
410 head drainage and puddling.
- 411 21. Nozzle precipitation rates for all heads within each valve circuit must be
412 matched to within twenty (20) percent of one another.
- 413 22. A pressure-regulating valve shall be installed and maintained if static service
414 pressure exceeds eighty (80) pounds per square inch. The pressure regulating
415 valve shall be located between the meter and the first point of division in the
416 pipe and set at a not more than fifty (50) pounds per square inch when
417 measured at the most elevated fixture in the structure served. This requirement
418 may be waived if satisfactory evidence is provided that high pressure is
419 necessary in the design and that no water will be wasted as a result of high-
420 pressure operation.
- 421 23. To assist the end user to operate the system property, in addition to the
422 minimum requirements of [Section] 373.228, F.S., the following are
423 encouraged to be provided to the owner at the time of installation. The map
424 shall be attached inside each irrigation controller or be kept in another readily
425 available location if it is not practical to insert into a small container.
- 426 1. Irrigation schedule information, with instructions for seasonal timer
427 and sensor changes;
- 428 2. Irrigation system plans and specifications including as-constructed
429 drawings, recommended maintenance activities and schedules;
- 430 3. Operations schedules, design precipitation rates, and instructions on
431 adjusting the systems to apply less water after the landscape is
432 established;
- 433 4. Maintenance schedule, water source, water shut-off method, and the
434 manufacturing operational guide for their irrigation controller;
- 435 5. To the extent feasible, similar information should be made available
436 for subsequent property transfers.
- 437 24. Reduced-pressure-principle backflow preventers shall be recertified
438 yearly.

439 **Sec. 90-87. - Installation of landscaping and irrigation.**

440 All landscaping and irrigation shall be installed according to accepted horticultural planting
441 procedures with the quality of plant materials as hereinafter described, including:

- 442 (1) Planting soil/topsoil shall be of the minimum quality as specified in the plant materials
443 section of this Code. All trees, palms, shrubs, and ground covers shall be planted with a
444 minimum of 12 inches or two times the root ball of planting soil around root ball. A
445 minimum of three inches of shredded, approved arsenic free, organic mulch or
446 groundcover shall be installed around each tree planting for a minimum of 18 inches
447 beyond its trunk in all directions, including palms, and throughout all hedge, shrub, and
448 groundcover planting. The use of mulch obtained from Melaleuca, Eucalyptus, or other

449 invasive plant species is encouraged in order to reduce their impact on the environment
450 and to preserve the remaining native plant communities.

451 (2) All trees/palms shall be properly guyed and staked at the time of planting until one year
452 from landscape final or establishment. The use of nails, wire or rope, or any other
453 method which damages the trees or palm, is prohibited. All plants shall be installed so
454 that the top of the root ball remains even with the soil grade or ten percent of the root
455 flare is visible above the surrounding grade. All synthetic string, synthetic burlap, cords,
456 or wire baskets shall be removed before planting. 90-87(3)

457 (3) All parking islands, medians, and other landscape areas shall be installed with
458 continuous Type "D" curbing to prevent damage to the plant material and the
459 displacement of topsoil and mulch. Also, all landscape islands, divider medians, and
460 planters shall be excavated of limerock and/or compacted soil to a depth of 30 inches
461 and backfilled with specified planting mix to the top of curb. Additionally, all areas
462 along buildings shall be excavated to a depth of 12 inches and backfilled with specified
463 planting mix. No mulch shall be permitted in adjacent swales or right-of-way.

464 (4) *Reserved.*

465 (5) All proposed multi-trunk trees shall have a minimum of three trunks with no more than
466 five trunks of equal diameters originating from the base of the tree and with angles no
467 greater than forty-five (45) degrees.

468 *NOTE:* The town can require either multi-trunk or single trunk on certain trees.

469 (6) All proposed trees and palms shall not be planted under roof over hangs or balconies.

470 (7) All proposed trees and palms within or overhanging pedestrian areas shall have a clear
471 trunk high enough to allow unobstructed pedestrian movement under or around.

472 ~~All proposed landscaping shall be installed with fertilizer which has trace minor
473 elements in addition to a minimum six percent Nitrogen (N) — six percent Phosphorus
474 (P) — six percent Potassium (K) of which 50 percent of the nitrogen must be derived
475 from an organic source. *Reserved.*~~

476 (9) All proposed tot lots or pools shall be required to have a minimum shade requirement to
477 allow persons to seek refuge from the sun.

478 (10) Salt tolerant plant species are encouraged in all areas of the town.

479 (11) The concepts of Green Building Design and LEED are encouraged to help reduce
480 water consumption, decrease fossil fuel burning, channel breezes, assist in cooling,
481 create more pervious areas for drainage and promote more environmentally conscious.

482 (12) All plant root ball sizes shall conform or exceeded the minimum standards in the
483 current edition of Florida Grades and Standards.

484 (13) All landscape areas with the exception of H30A, H30B and H30C (for single
485 family and two family only) shall be provided with an automatically operating,
486 underground, and rust free irrigation system designed to have 100 percent coverage
487 with 100 percent overlap. Drip, trickle or other low-volume irrigations systems shall be
488 permitted if designated on approved landscape plans and approved by the town.

489 Irrigation systems shall be designed to minimize application of water to impervious
490 areas. All PVC risers shall be painted flat black.

491 a. Pursuant to F.S. § 373.62, any irrigation system installed after May 1, 1991,
492 shall install a rain sensor device or switch which will override the irrigation
493 cycle of the sprinkler system when adequate rainfall has occurred.

494 b. Use of non-potable water, including, but not limited to, water from a canal,
495 lake or a treated water source, in the irrigation of landscaped areas is required
496 when determined to be available and safe.

497 c. Automatic controlling devices shall be used on all irrigation systems.

498 i. Preserved native habitats or native plant communities shall not be
499 irrigated unless required by the town.

500 ii. Recommend the use of a second water meter for irrigation to help
501 reduce the cost of the watering the landscape.

502 *NOTE:* The sewer usage cost is eliminated with this added meter.

503 iii. Encourage the use of rainwater cisterns to help save water, one of our
504 greatest natural resources. Also, rainwater cisterns will help on
505 reducing watering costs and the impacts of water restrictions on the
506 landscaping. Cisterns shall be provided below grade and are permitted
507 in all zoning districts.

508 (14) Inspections of sites for landscape and irrigation installation:

509 a. A pre-inspection of the site with the landscape and irrigation contractor will be
510 required to discuss all the town requirements, answer any questions and
511 determine site conditions for appropriate use and selection of landscape
512 material prior to installation.

513 b. A final landscape and irrigation inspection will be required upon completion.

514 **Sec. 90-88. - Maintenance of landscaped areas.**

515 (1) An owner of land subject to this Code shall be responsible for the maintenance of said land
516 and landscaping so as to present a healthy, vigorous and neat appearance free from refuse
517 and debris. All landscaped areas shall be sufficiently fertilized and irrigated to maintain the
518 plant material in a healthy and viable condition.

519 ~~*NOTE:* All fertilizer shall be safe and environmentally friendly. Also, the applications shall
520 conform to the manufacturer's specifications.~~

521 (2) Florida Friendly Fertilizer Use To regulate the proper use of fertilizers by any person who
522 applies fertilizer on turf and/or landscape or plants; requires proper training of commercial
523 and institutional fertilizer applicators; establishes training and licensing requirements;
524 establishes a prohibited application period; specifies allowable application fertilizer
525 application rates and methods, fertilizer-free and low maintenance zones, and exceptions. It
526 requires the use of Best Management Practices for the application of fertilizer to minimize

527 negative environmental effects associated with excessive nutrients in water bodies. These
528 environmental effects have been observed in Dade County's natural and constructed
529 stormwater conveyances, canals, lakes, estuaries and other water bodies. Collectively, these
530 water bodies are an important asset to the environmental, recreational, cultural and
531 economic well-being of Town of Surfside residents and their public health. Overgrowth of
532 algae and vegetation hinder the effectiveness of flood attenuation provided by natural and
533 constructed stormwater conveyances. Regulation of nutrients, including both phosphorus
534 and nitrogen contained in fertilizer, is anticipated to help improve and maintain water and
535 habitat quality.

536 Timing of fertilizer applications.

537 (1) No applicator shall apply fertilizers containing nitrogen and/or phosphorus to turf
538 and/or landscape plants during the time period in which a flood watch or warning, a
539 tropical storm watch or warning, or a hurricane watch or warning is in effect for any
540 portion of Town of Surfside, issued by the National Weather Service.

541 (2) No applicator shall apply fertilizers containing nitrogen and/or phosphorus to turf
542 and/or landscape plants if heavy rain two inches or more within a 24-hour period is
543 likely.

544 (3) No applicator shall apply fertilizers containing nitrogen and/or phosphorus to
545 saturated soils.

546 (4) Fertilizer containing nitrogen and/or phosphorus shall not be applied before seeding
547 or sodding a site and shall not be applied for the first 30 days after seeding or
548 sodding, except when hydro-seeding for temporary or permanent erosion control in
549 an emergency situation (wildfire, etc), or in accordance with the stormwater
550 pollution prevent plan for the site.

551 Fertilizer free zones.

552 Fertilizer shall not be applied within ten feet of any water body or canal as defined by the
553 Florida Department of Environmental Protection in Chapter 62-340, Florida
554 Administrative Code, or from the top of a seawall or lake bulkhead. Newly planted turf or
555 landscape plants may be fertilized in this zone only for a 60-day period beginning no
556 sooner than 30 days after planting if needed to allow the vegetation to become well
557 established. Caution shall be used to prevent direct deposition of fertilizer into the water.

558 Fertilizer content and application rates.

559 (1) Fertilizers applied to turf shall be applied in accordance with requirements and
560 directions provided by Rule 5E-1.003(2), Florida Administrative Code, Labeling
561 Requirements for Urban Turf Fertilizers. Under Rule 5E-1.003(2), Florida
562 Administrative Code, required application rate and frequency maximums, which
563 vary by plant and turf types, are found on the labeled fertilizer bag or container.

564 (2) Nitrogen or phosphorus fertilizer shall not be applied to turf or landscape plants
565 except as provided in subsection (1) above for turf, or in UF/IFAS recommendations

566 for landscape plants, vegetable gardens, and fruit trees and shrubs, unless a soil or
567 tissue deficiency has been verified by an approved test.

568 (3) Fertilizer used for sports turf at golf courses shall be applied in accordance with the
569 recommendations in "Best Management Practices for the Enhancement of
570 Environmental Quality on Florida Golf Courses," published by the Florida
571 Department of Environmental Protection, dated January 2007, as may be amended.
572 Fertilizer used at park or athletic fields shall be applied in accordance with Rule 5E-
573 1.003(2), Florida Administrative Code.

574 Fertilizer application practices.

575 (1) Spreader deflector shields shall be used when fertilizing via rotary (broadcast)
576 spreaders. Deflectors must be positioned such that fertilizer granules are deflected
577 away from all impervious surfaces, fertilizer-free zones and water bodies, including
578 wetlands. Any fertilizer applied, spilled or deposited, either intentionally or
579 accidentally, on any impervious surface shall be immediately and completely
580 removed to the greatest extent practicable.

581 (2) Fertilizer released on an impervious surface must be immediately contained and
582 either legally applied to turf or any other legal site or returned to the original or other
583 appropriate container.

584 (3) In no case shall fertilizer be washed, swept, or blown off impervious surfaces into
585 stormwater drains, ditches, conveyances, or water bodies.

586 (4) Property owners and managers are encouraged to use an Integrated Pest Management
587 (IPM) strategy as currently recommended by the University of Florida Cooperative
588 Extension Service publications.

589 Training.

590 (1) All commercial and institutional applicators of fertilizer shall abide by and
591 successfully complete the six-hour training program in the "Florida-Friendly Best
592 Management Practices for Protection of Water Resources by the Green Industries"
593 offered by the Florida Department of Environmental Protection through the
594 University of Florida/Broward County Cooperative Extension Service "Florida-
595 Friendly Landscapes" program or an approved equivalent program. A trained
596 applicator shall have identification or other evidence of successful completion of the
597 training program on their person at all times while applying fertilizer.

598 (2) Non-commercial and non-institutional applicators not otherwise required to be
599 certified, such as private citizens on their own residential property, are encouraged to
600 follow the recommendations of the University of Florida/IFAS "Florida-Friendly
601 Landscape Program" and label instructions when applying fertilizers.

602 Licensing of commercial applicators.

603 (1) All businesses applying fertilizer to turf or landscape plants (including, but not
604 limited to, residential lawns, golf courses, commercial properties, multi-family and
605 condominium properties) must ensure that the business owner or his/her designee

606 and at least (1) employee holds the appropriate "Florida-Friendly Best Management
607 Practices for Protection of Water Resources by the Green Industries" training
608 certificate prior to the business owner obtaining a Town business tax receipt.
609 Standard business tax receipt (BTR) and transaction fees shall apply. Owners for any
610 category of occupation which may apply any fertilizer to Turf and/or Landscape
611 Plants shall provide proof of completion of the program to the Town of Surfside. It is
612 the responsibility of the business owner to maintain the "Florida-Friendly Best
613 Management Practices for Protection of Water Resources by the Green Industries"
614 certificate to receive their business tax receipt annually.

615 (2) After adoption of this ordinance, all commercial applicators of fertilizer within the
616 Town of Surfside, shall have and carry in their possession at all times when applying
617 fertilizer, evidence of certification by the Florida Department of Agriculture and
618 Consumer Services as a Commercial Fertilizer Applicator per Rule 5E-14.117(18),
619 Florida Administrative Code.

620 (3) Pesticide Management.

621 1. All landscape applications of pesticides, including "Weed and Feed" products, for
622 hire shall be made in accordance with State and Federal Law and with the most
623 current version of the Florida-Friendly Best Management Practices for Protection of
624 Water Resources by the Green Industries, as amended.

625 2. When using pesticides, all label instructions of State and Federal law shall be
626 adhered to. The Florida Department of Agriculture and Consumer Services is
627 responsible for enforcement of pesticide laws.

628 (4) Management of grass clippings and vegetative matter.

629 In no case shall grass clippings, vegetative material, and/or vegetative debris intentionally
630 be washed, swept or blown on to or into storm-water drains, ditches, conveyances, water
631 bodies, wetlands, sidewalks or roadways. Any material that is accidentally so deposited
632 shall be immediately removed to the maximum extent practicable.

633 ~~(2)~~ (5) Three inches of clean, weed-free, arsenic free, organic mulch shall be maintained over all
634 areas originally mulched at all times. Turfgrass shall be kept trimmed and/or mowed
635 regularly to a height not exceeding eight inches above the ground. The use of mulch in
636 swales or right-of-way is prohibited.

637 *NOTE:* If weeds, noxious grasses or underbrush are in excess of the eight inches; it too will
638 need to be cut and the weeds, noxious grasses and underbrush removed and re-sodded if
639 necessary.

640 ~~(3)~~ (6) Irrigation systems shall be maintained to eliminate water loss due to damaged, missing or
641 improperly operating sprinkler heads, emitters, pipes and all other portions of the irrigation
642 system.

643 ~~(4)~~ (7) Preserved and created native plant communities shall be maintained in a natural state
644 without the use of mechanical equipment.

645 ~~(5)~~ (8) An owner is responsible to ensure that landscaping that has been required to be planted
646 pursuant to this Code, or installed in compliance with the landscape requirements previously

647 in effect, be maintained in Florida Grade One condition, including but not limited to single-
648 family residences, multifamily, or business sites. If landscaping is found to be in a state of
649 decline, dead, damaged, or missing, it must be replaced with equivalent landscape material.
650 If total replacement is required, species conforming to this Code shall be used. If any
651 preserved vegetation dies which is being used to satisfy current landscape code
652 requirements, such vegetation shall be replaced with the same landscape material selected
653 from nursery-grown native stock only.

654 ~~(6)~~ (9) All trees shall be trimmed in accordance to Miami-Dade County tree preservation code.
655 Any type of tree abuse/hatracking is prohibited with in the Town.

656 ~~(7)~~ (10) Any trees and/or palms that are diseased (including dead palms with lethal yellowing) or
657 trees and/or palms causing a possible safety hazard as determined by the town are
658 considered to be a public nuisance. The town shall enforce the provisions of this section.
659 Any property owner of any lot or parcel of land in the town shall promptly remove any such
660 tree and/or palm after being notified by the town. The town is authorized and empowered to
661 enter on any lot or parcel of land in the town at any reasonable hour for the purpose of
662 inspecting such trees and/or palms.

663 ~~(8)~~ (11) Shrubs and hedges shall be maintained that such plant materials do not obstruct clear
664 sight triangles and promote vehicular and pedestrian visibility. Also, hedges planted along
665 property lines shall be maintained and trimmed to prevent branches from extending over
666 and/or touching structures on adjacent properties.

667 ~~(9)~~ (12) Any plastic or similar artificial landscape materials shall be prohibited with the
668 exception of seasonal holiday decorative displays of less than 60 days duration.

669 ~~(10)~~ (13) All property owners shall keep such property and the adjoining unpaved portions of the
670 public rights-of-way, swales and bulkheads clean and free from any accumulation of
671 garbage, trash, liter or debris.

672 ~~(11)~~ (14) All property owners with in the town shall not permit unattended vegetation upon the
673 property, adjoining portions of the rights-of-ways, swales and canal banks.

674 ~~(12)~~ (15) All non-compliance with section of the ordinance shall be enforced in accordance with
675 the Town's Code Enforcement Rules and Regulations.

676 ***

677 **Sec. 90-90. - Vegetative provisions.**

678 ***90-90-1 ~~Xeriscape~~ Florida Friendly.***

679 (1) A minimum of 20 percent of the pervious area on single family and duplex dwellings
680 must be in ~~xeriscape~~ Florida Friendly landscape.

681 (2) A minimum of 40 percent of the pervious area of multifamily dwellings must be
682 ~~xeriscape~~ Florida Friendly landscape.

683 (3) A minimum of 50 percent of the pervious area of all other development uses must be
684 in ~~xeriscape~~ Florida Friendly landscape.

685 ***90-90.2 Use of site specific plant material:***

686 Plants used in the landscape design shall be to the greatest extent, appropriate to the soil
687 and other environmental conditions in which they are planted.

688 ***90-90.3 Invasive exotic plant material:***

689 As a condition of approval, the property owner shall remove all invasive exotic species
690 from the property prior to final.

691 **Sec. 90-91. - Landscape buffer areas between residential and non-residential properties and**
692 **vehicular use areas.**

693 ***90-91.1 Applicability:***

694 All proposed development or redevelopment sites and vehicular use areas serving H30C,
695 H40, H120, or municipal uses shall conform to the minimum landscaping requirements
696 hereinafter provided. Interior parking landscape requirements under or within buildings and
697 parking areas serving H30A and H30B districts are exempt. Additionally, SD-B40 shall be
698 exempt. Expansive concrete or paver areas shall require landscaping to soften and scale the
699 buildings.

700 ***90-91.2 Required buffer landscaping adjacent to streets and abutting properties:***

701 On any proposed, redeveloped site, or open lot providing a vehicular use area for H30C,
702 H40, H120, adjacent or contiguous to H40, or municipal plots where such area is abutting
703 street(s) and/or property lines, including dedicated alleys, landscaping shall be provided
704 between such area and such perimeters as follows:

- 705 (1) A flat ground level or bermed strip of land at least ten feet in depth, located along all
706 the property lines of abutting street(s) and abutting property line(s) shall be
707 landscaped. Such landscaping shall include three trees for each 50 linear feet or
708 fraction thereof. The first tree shall be set back from the intersection of the
709 ingress/egress and the street. The setback area shall be limited to groundcover only.
710 In addition, a hedge, berm, wall or other durable landscape barrier shall not create a
711 sight hazard by being placed along the inside perimeter of such landscape strip and
712 shall be maintained at a maximum height of three feet, if contiguous to a pedestrian
713 walkway, to meet crime prevention through environmental design (CPTED)
714 principles. If such durable barriers including walls or fences are of nonliving
715 material, it shall be screened to the height of the durable barrier with a hedge along
716 the street side of such barrier. If a fence or wall is utilized along an abutting property
717 line it must be installed at the property line and screened to the height of the durable
718 barrier with a hedge from the inside. The remainder of the required landscape area
719 shall be landscaped with turf grass, groundcover or other landscape treatment,
720 excluding paving, turf grass not to exceed the maximum amount allowable in the
721 ~~landscape~~ Florida Friendly requirements. This buffer may not be counted toward
722 meeting the interior landscape requirements.
- 723 (2) All property other than the required landscaped strip lying between the streets and
724 abutting property lines shall be landscaped with turf grass or other groundcover; if
725 turf grass is used, it shall not exceed the ~~landscape~~ Florida Friendly requirements.
- 726 (3) All town approved necessary accessways from the public street through all such
727 landscaping shall be permitted to service the site.

728 (4) Parking area interior landscaping. An area, or a combination of areas, equal to 20
729 percent of the total vehicular use area exclusive of perimeter landscape buffers
730 required under this subsection shall be devoted to interior landscaping. Any
731 perimeter landscaping provided in excess of that required by this section shall be
732 counted as part of the interior landscaping requirements, as long as such landscaping
733 is contiguous to the vehicular use area and fulfills the objective of this subsection.

734 (5) All parking areas shall be so arranged so that if there are ten or less contiguous
735 parking stalls along the same parking aisle, the eleventh space shall be a landscaped
736 peninsula a minimum of 11 feet in width with a minimum of ten feet wide landscape
737 area. Also, all rows of parking shall be terminated with 11 feet in width landscape
738 islands with ten feet wide landscape area. In addition, there shall be a minimum
739 requirement of one shade tree and 25 shrubs planted for every landscaped island. If
740 landscaped divider medians are utilized, they must be a minimum of six feet wide.
741 The minimum dimensions of all proposed landscaped areas not mentioned in this
742 chapter shall be six feet wide. In addition, any town approved grass parking areas
743 will meet the same requirements as paved parking and will not be calculated in the
744 pervious space requirements.

745 (6) Landscaped areas, walls, structures and walks shall require protection from vehicular
746 encroachment through appropriate wheel stops or curbs located a minimum of
747 2½feet from any landscaped area

748 *NOTE:* The town encourages the use of Type "D" curbing in parking area that abut
749 landscape areas to provide more green area and lessen the chance of tripping
750 hazards. This cannot be utilized to count for buffer or divider median requirements
751 but can be utilized for pervious and landscaping in the VUA percentages.

752 (7) Where any plot zoned or used for H120 is contiguous to the bulkhead line, a
753 landscape area consisting of the bulkhead line, the erosion control line, and the
754 property lines shall be provided or restored. The proposed landscape material for the
755 required landscape area shall be 100 percent landscape material used on the barrier
756 island dune system and shall be composed of native plants adapted to the soil and
757 climatic conditions occurring on-site. Additionally, all plant species, amount of plant
758 material, plant spacing and design shall be approved by the town.

759 **Sec. 90-92. - Reserved.**

760 **Sec. 90-93. - Open space.**

761 All open space on any site shall conform to the following requirements:

762 (1) *General landscape treatment:*

763 a. Groundcover, shrubs, and other landscape materials (not including rocks,
764 gravel, pavers, turf blocks, artificial turf, or other items) shall be installed to
765 cover all open space areas not covered by paving or structures, using the
766 required percentages specified in the plant material section. No substance
767 including rocks, gravel, pavers, turf blocks, artificial turf or other materials
768 which prevents water percolation shall be used in areas not approved for

769 paving or structures. Proper horticultural planting practices shall comply with
770 ~~landscape~~ Florida Friendly requirements.

771 b. Along all buildings and structures, mature landscaping at installation shall be
772 installed at one-half the height of the building or structure at one tree per 25
773 linear feet of each building's facade on all sides for scaling and softening. On
774 buildings over 75 feet in height the proposed trees/palms shall be at least 35
775 to 38 feet tall at time of installation.

776 *NOTE:* If the landscape buffer is contiguous to the building then the
777 landscape buffer requirement will supersede, with the exception of one tree
778 per 25 feet being one-half the height of the building at installation.
779 Additionally, shrubs and groundcovers shall be added to enhance the
780 building. In all districts except the SD-B40 district, a minimum six-foot-wide
781 landscape strip shall be provided not including overhands or awnings around
782 all the buildings.

783 (2) *Shrub and tree requirements:* Shrubs and trees shall be planted in the open spaces to
784 meet the following requirements:

Percent of Site in Open Space (Amount of Pervious Landscape Planting Area)	Tree and Shrub Requirements
Less than 30%	1 tree and 10 shrubs per 1,000 sf
30—39%	1 tree and 8 shrubs per 1,500 sf
40—49%	1 tree and 6 shrubs per 2,000 sf
50% or more	1 tree and 6 shrubs per 2,500 sf

785 (3) *Screening of equipment:* Dumpsters, mechanical equipment, A/C units, electrical
786 transformers, generators and all above ground equipment shall be screened on at
787 least three sides by landscape material that equal to the height of the element at
788 installation. Such screening shall not interfere with normal operation of equipment
789 and shall be maintained at the height of the element or no more than one foot above.
790 In addition, bus shelters which are located within property lines shall be screened
791 with plant material a minimum of two feet in height on three sides, and one canopy
792 tree, 14 feet in height or three palms.

793 (4) *Signs:* All freestanding sign installations require the installation and establishment of
794 plant material to enhance the structure, at a minimum of one shrub for every two feet
795 of lineal width of the sign structure on each side; and groundcover, a minimum of

796 five feet around the perimeter of the sign base, designed in such a manner so as to
797 not block the message on the sign. Trees or palms shall be required to enhance the
798 sign with blocking it.

799 (5) *Minimum landscape credits and adjustments:* An owner shall receive credit against
800 the minimum landscape code requirements of this Code for preservation,
801 replacement or relocation of existing trees as determined by the town.

802 ***

803 **Sec. 90-95. - Single-family H30A and H30B district landscape requirements.**

804 All new H30A and H30B dwellings shall conform to the following minimum landscaping
805 requirements:

806 (1) *Landscape plans:* H30A and H30B dwellings may submit landscape plans in the form
807 of a H30A and H30B landscape data table, on a form provided by the town at time of
808 permit application for review. This form shall include the required minimum landscape
809 requirements, specifications and acceptable plant material choices to be chosen by the
810 applicant. After the applicant has submitted a completed and signed form, a review of
811 the form will be done to verify that all the requirements have been met. Landscape
812 drawings are not required for H30A and H30B dwellings, however, plans are
813 recommended.

814 (2) *General landscape treatment:* Trees, turf grass, groundcover, shrubs and other
815 decorative landscape material shall be used to cover all disturbed ground not covered by
816 building and paving; with ~~xeriscape~~ Florida Friendly to be a minimum of 20 percent of
817 the open space of the site.

818 (3) *Shrub and tree requirements:*

819 a. A minimum of five trees of two different species and 25 shrubs shall be
820 planted per lot. On corner lots an additional one tree and 10 shrubs shall be
821 required. For all lots larger than 8,000 square feet in area, additional shrubs
822 and trees shall be provided at the rate of one tree and ten shrubs per 2,000
823 square feet of lot area; however, there shall be no more than 15 trees and 100
824 shrubs required per acre.

825 b. Where possible, a minimum of two trees shall be required in the front of the
826 lot. Shrubs shall be incorporated in a manner on the site so as to be a visual
827 screen for mechanical equipment or other accessories to the residence.

828 c. The required shade tree in this subsection shall be a minimum of 30 percent at
829 an overall height of 12 feet to 14 feet with a minimum canopy spread of five
830 feet and a DBH of 2½ inches. The small trees can be a maximum of 30 percent
831 at 12 to 14 feet and minimum canopy spread of six feet and DBH of 2½ inches.
832 Palm trees shall have a minimum of six feet of grey wood or clear wood and
833 are counted as three for one (unless from the one for one list) and total palms
834 can not make up more than 40 percent of the total trees.

835 d. Street trees are required and additional to this subsection. Refer to plant
836 material section for street tree requirements.

856 **PASSED** on first reading on the _____ day of _____, 2019.

857 **PASSED AND ADOPTED** on second reading on the _ day of _____, 2019.

858 **On Final Reading Moved By:** _____

859 **On Final Reading Second By:** _____

860 **FINAL VOTE ON ADOPTION**

861 Commissioner Barry Cohen _____

862 Commissioner Michael Karukin _____

863 Commissioner Tina Paul _____

864 Vice Mayor Daniel Gielchinsky _____

865 Mayor Daniel Dietch _____

866

867

868

869 _____
Daniel Dietch

870 Mayor

871 **ATTEST:**

872

873

874 _____

875 Sandra Novoa, MMC

876 Town Clerk

877

878 **APPROVED AS TO FORM AND LEGALITY FOR THE USE**
879 **AND BENEFIT OF THE TOWN OF SURFSIDE ONLY:**

880

881

882 _____

883 Weiss Serota Helfman Cole & Bierman, P.L.

884 Town Attorney



MEMORANDUM

To: Planning and Zoning Board

From: Sarah Sinatra Gould, AICP, Town Planner

Agenda Date: May 23, 2018

Subject: Freeboard, Base Flood Elevation and Finished Floor Elevation

At the March 28, 2019 Planning and Zoning Board (Board) meeting, staff presented graphics detailing the Base Flood Elevation (BFE), Finished Floor Elevation (FFE) and its relationship to mean sea level. Also depicted were the projected storm surge forecasts of the last two major storm events (Irma and Matthew) to show what the potential storm surge could have been if either storm had a direct impact to the Town. Discussion regarding these graphics led to the Board requesting additional information. At the April 30, 2019 Planning and Zoning Board meeting, the Board requested additional graphics depicting the projected storm surge of these two storm events. These graphics are included as Attachment 1.

Staff has also included the prior graphic demonstrating that under the current code, an elevated option is permitted without a change to the code. This would provide approximately 10 feet of elevation before the first habitable floor. A two story home could be constructed within this concept, although it would consist of lower ceilings and a pitched roof. This graphic is included as Attachment 2.

Also, a graphic has been prepared to demonstrate a storm hardening option rather than increasing freeboard. The storm hardening option would keep the freeboard at two feet and would provide for hardening for flood. This option does not require any adjustments to the Code and homeowners can utilize these features now by simply applying for permitting. However, the Board could consider requiring this flood hardening option to encourage a longer lifespan of new structures. This graphic is included as Attachment 3.

Staff is requesting direction by the Board on the following options:

Option 1: To explore a referendum to increase height to accommodate additional freeboard. If so, workshops will be scheduled.

Option 2: To provide further details on the storm hardening option. If this is the direction, Staff suggests a possible code amendment requiring the storm hardening on new construction, including the modifications as described in Attachments 2 & 3.

Reviewed by: GO

Prepared by: SSG

FEMA Flood Elevation

+8.00

House A

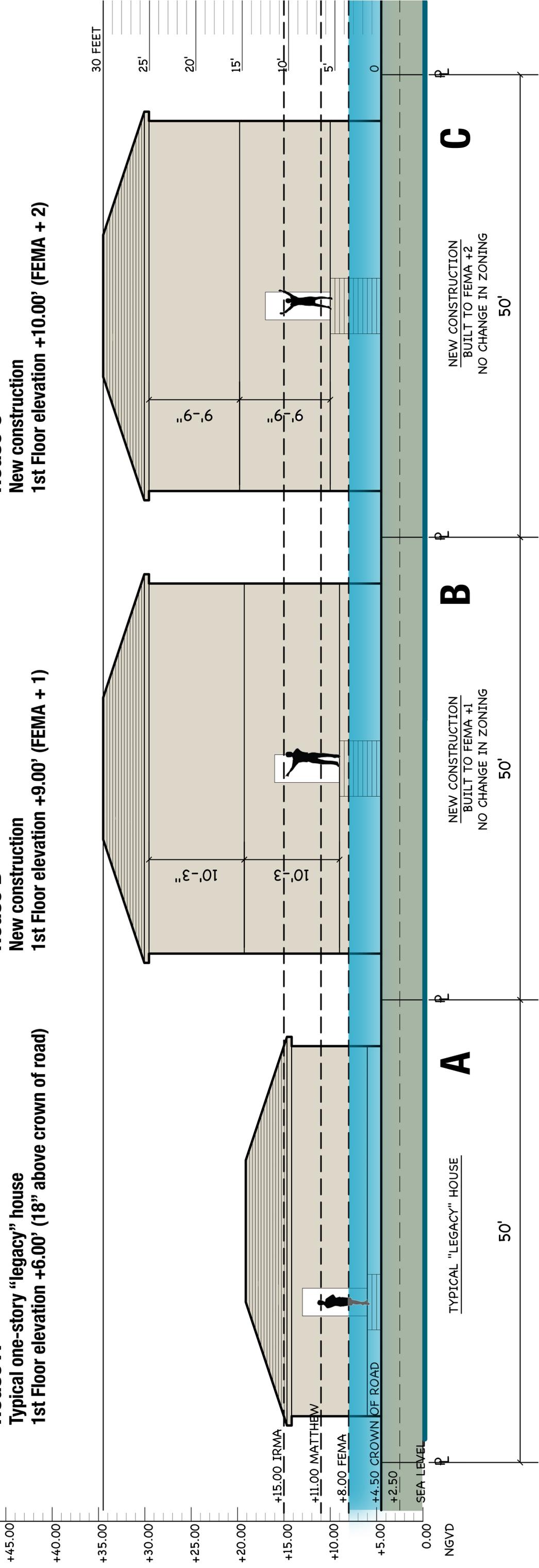
Typical one-story "legacy" house
1st Floor elevation +6.00' (18" above crown of road)

House B

New construction
1st Floor elevation +9.00' (FEMA + 1)

House C

New construction
1st Floor elevation +10.00' (FEMA + 2)



Hurricane Irma forecast

+15.00

House A

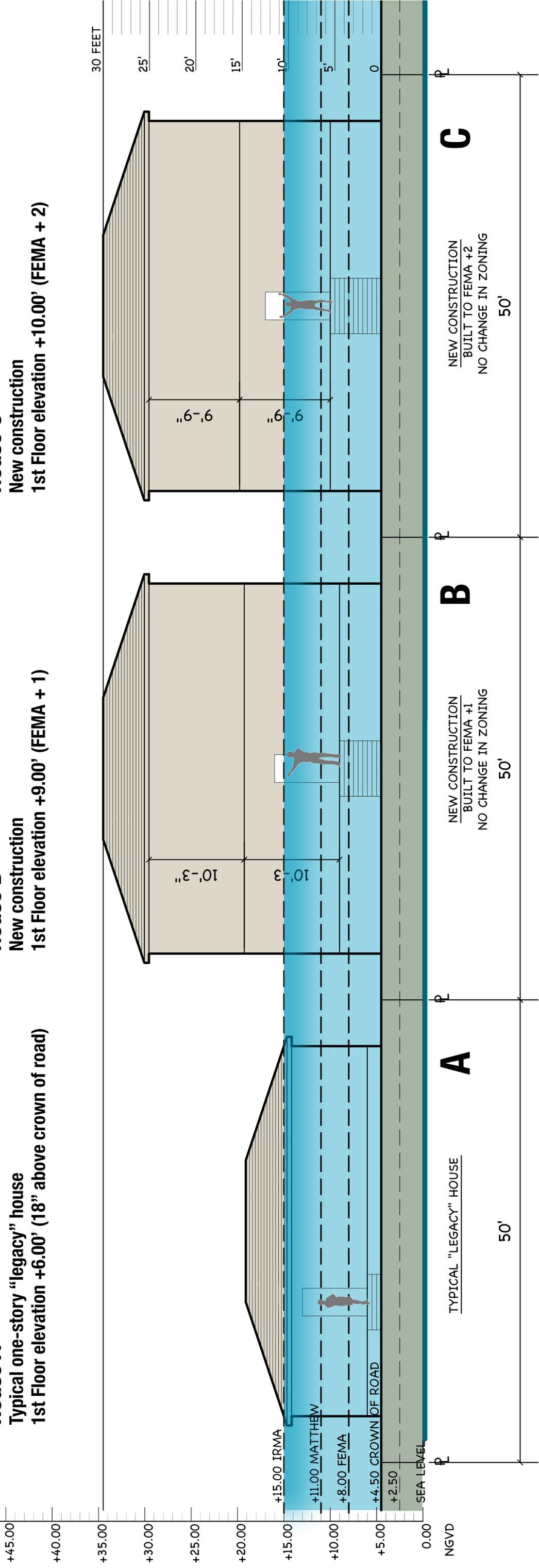
Typical one-story "legacy" house
1st Floor elevation +6.00' (18" above crown of road)

House B

New construction
1st Floor elevation +9.00' (FEMA + 1)

House C

New construction
1st Floor elevation +10.00' (FEMA + 2)



Hurricane Matthew forecast

+11.00

House A

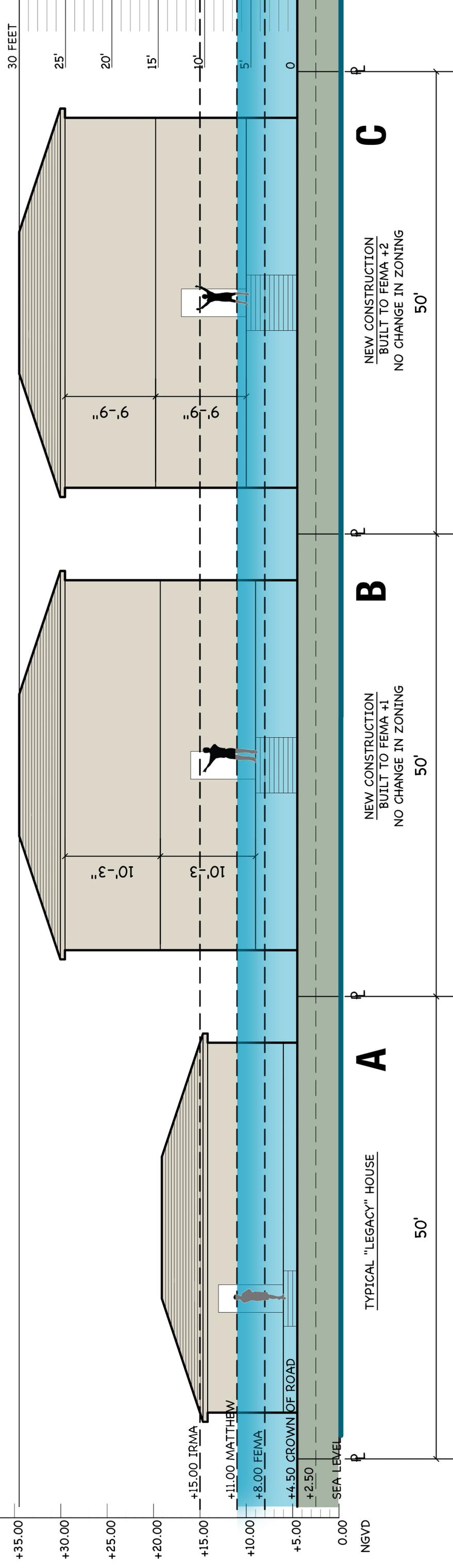
Typical one-story "legacy" house
1st Floor elevation +6.00' (18" above crown of road)

House B

New construction
1st Floor elevation +9.00' (FEMA + 1)

House C

New construction
1st Floor elevation +10.00' (FEMA + 2)

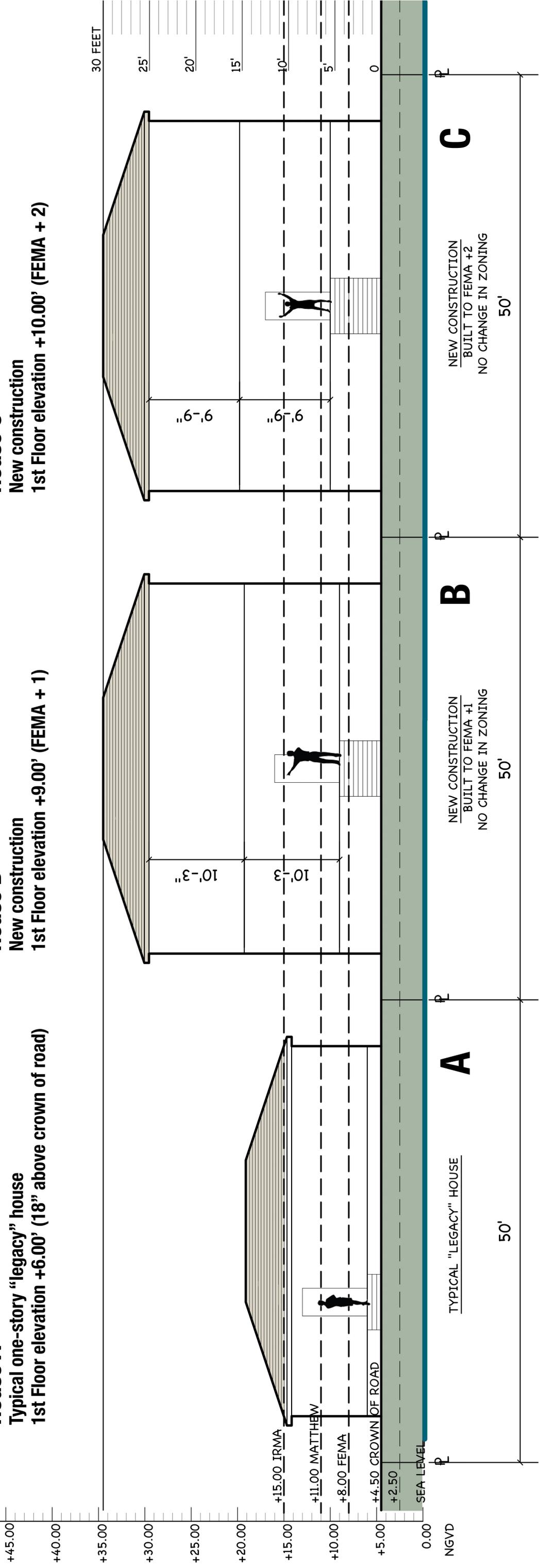


No Flood Condition

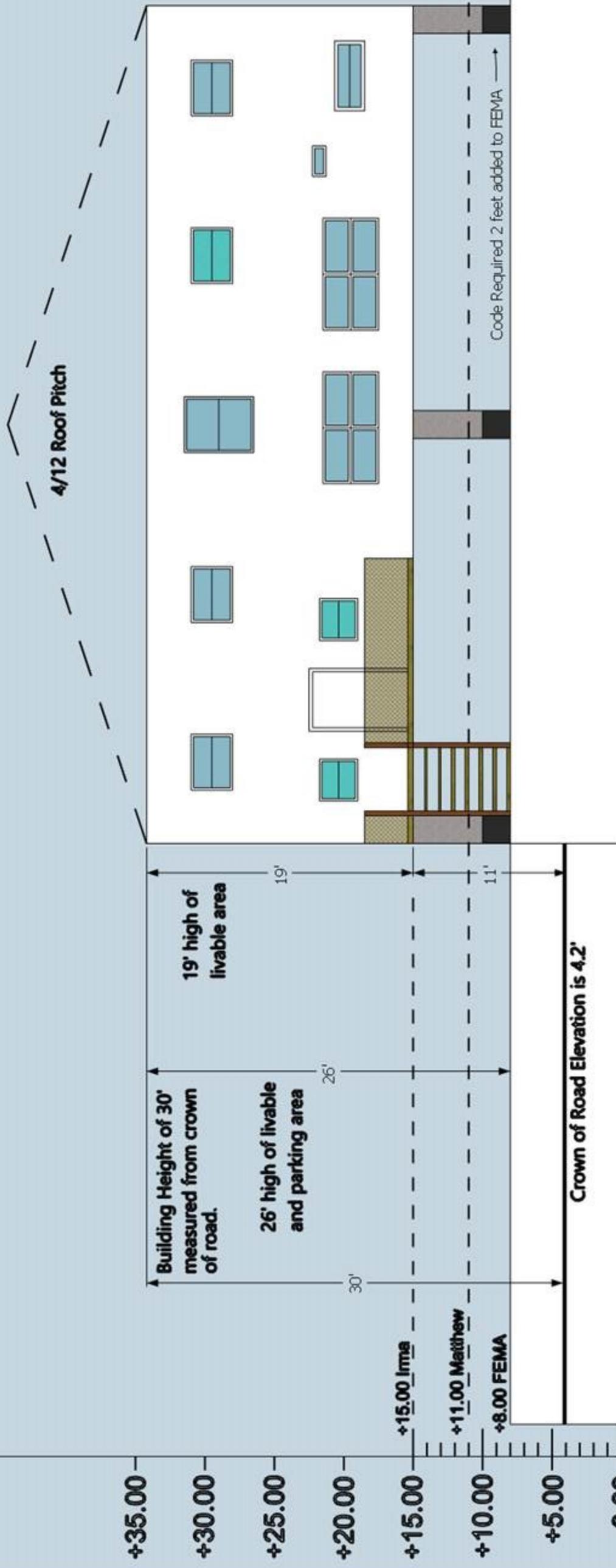
House A
Typical one-story "legacy" house
1st Floor elevation +6.00' (18" above crown of road)

House B
New construction
1st Floor elevation +9.00' (FEMA + 1)

House C
New construction
1st Floor elevation +10.00' (FEMA + 2)



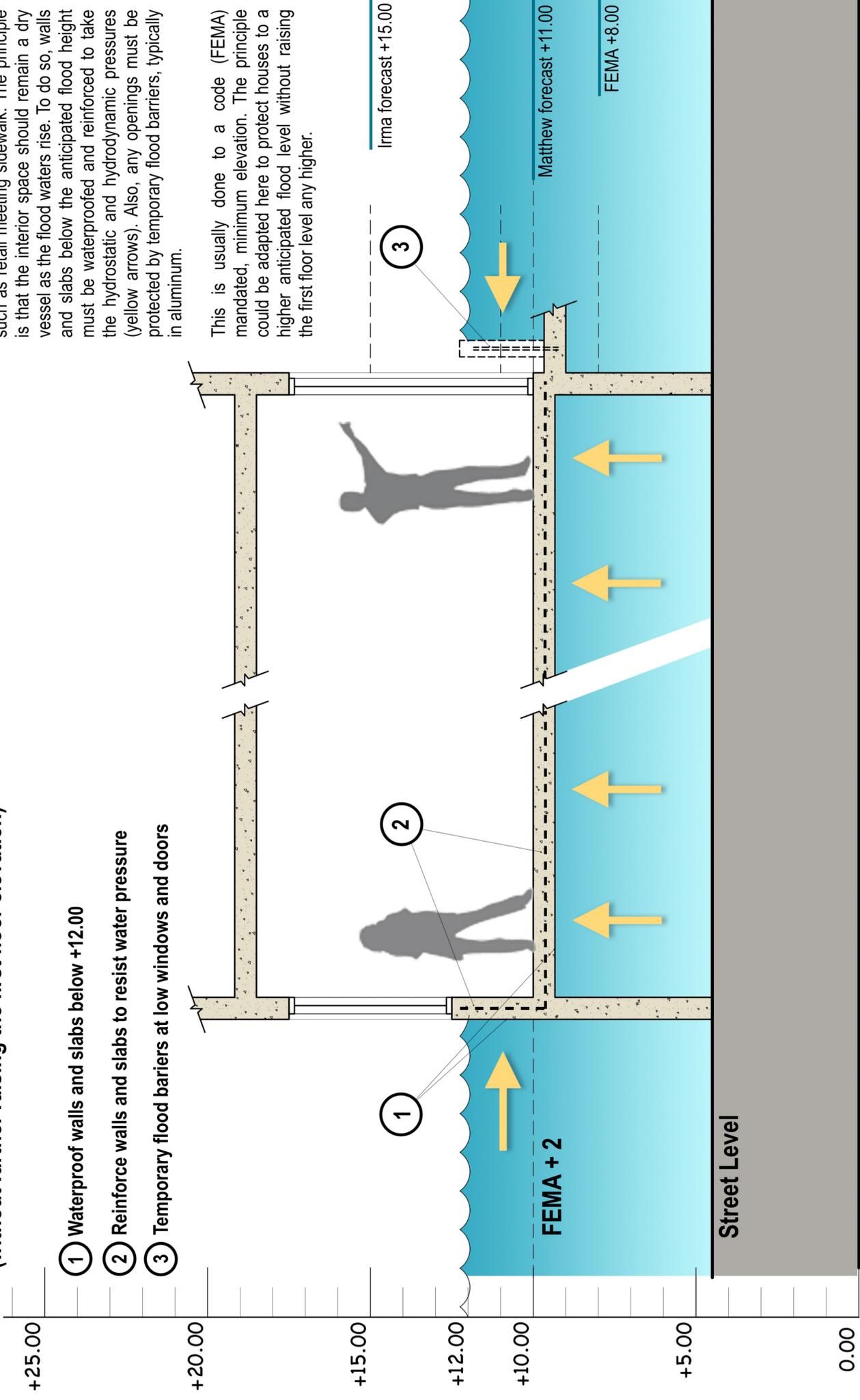
Base Flood Elevation: 8+2



Mean Sea Level

Flood Protection above FEMA + 2

(without further raising the first floor elevation)



The techniques illustrated here are often used in commercial construction where the priority is a direct relationship to the adjacent grade, such as retail meeting sidewalk. The principle is that the interior space should remain a dry vessel as the flood waters rise. To do so, walls and slabs below the anticipated flood height must be waterproofed and reinforced to take the hydrostatic and hydrodynamic pressures (yellow arrows). Also, any openings must be protected by temporary flood barriers, typically in aluminum.

This is usually done to a code (FEMA) mandated, minimum elevation. The principle could be adapted here to protect houses to a higher anticipated flood level without raising the first floor level any higher.