



**Town of Surfside
Planning and Zoning Board Meeting
AGENDA
Thursday, February 29, 2024
6:00 PM
Town Commission Chambers**

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.

Rule 6.06 (a)3 Agenda. The good and welfare portion of the agenda set for 8:15 p.m. shall be restricted to discussion on subjects not already specifically scheduled on the agenda for discussion and debate. In no event shall this portion of the agenda be allotted more than 45 minutes with each speaker to be given no more than three minutes, unless by vote of a majority of the members of the commission present, it is agreed to extend the time frames. Likewise, commission members shall be restricted to speaking three minutes each unless an extension is granted in the same manner as set forth in the prior sentence.

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 this capacity has been reached, people will be asked to watch the meeting from the first floor.

1. **Call to Order/Roll Call**
2. **Town Commission Liaison Report**
3. **Approval of Minutes**
 - 3.A **January 18, 2024 Planning and Zoning Board Meeting Minutes** - Sandra N. McCready, Town Clerk
[January 18, 2024 Planning and Zoning Board Meeting Minutes.pdf](#)

4. **Applications**

- 4.A **8935 Froude Avenue - New Single-Family House** - Judith Frankel AICP, Town Planner
[8935 FROUDE AVE Plans Set](#)
[Attachment A: Images and Zoning Tables](#)
- 4.B **8841 Garland Avenue - Addition** - Judith Frankel AICP, Town Planner
[Attachment A: Images and Zoning Tables.pdf](#)
[8841 Garland Plans Packet.pdf](#)
- 4.C **9472 Byron Avenue - New Single-Family Home** - Judith Frankel AICP, Town Planner
[Attachment A: Images and Zoning Tables Application](#)
[9472 Byron Plans Set](#)
[9472 Byron Ave Landscape Plan](#)
- 4.D **9466 Harding Avenue - Wall Sign** - Judith Frankel AICP, Town Planner
[9466 Harding Plan Set](#)
[9466 Harding Survey](#)

5. **Ordinances**

- 5.A **Amending Section 90-74. - "Temporary Signs"** - Judith Frankel AICP, Town Planner

AN ORDINANCE OF THE TOWN COMMISSION OF THE TOWN OF SURFSIDE, FLORIDA, AMENDING THE TOWN OF SURFSIDE CODE OF ORDINANCES BY AMENDING SECTION 90-74. – TEMPORARY SIGNS” TO REMOVE SUBSECTION (3) LIMITATION ON REAL ESTATE SIGNS PERTAINING TO COLOR AND LOGO; PROVIDING FOR INCLUSION IN THE CODE; PROVIDING FOR CONFLICTS; AND PROVIDING FOR AN EFFECTIVE DATE.

[Ord Amend Sec. 90-74 Temporary Real Estate Signs](#)

- 5.B **Roof Replacement Materials in the Single-Family Residential Area** - Judith Frankel AICP, Town Planner

AN ORDINANCE OF THE TOWN COMMISSION OF THE TOWN OF SURFSIDE, FLORIDA, AMENDING THE TOWN OF SURFSIDE CODE OF ORDINANCES BY

AMENDING SECTION 14-31 – “REQUIRED ROOFING MATERIALS” AND SECTION 90-50.1 – “ARCHITECTURE” OF SECTION 90-50. – “ARCHITECTURE AND ROOF DECKS” TO CLARIFY REQUIREMENTS AND ALLOW RE-ROOFS AND REPLACEMENTS WITH THE SAME EXISTING MATERIAL WITHOUT DESIGN REVIEW APPROVAL BY THE PLANNING AND ZONING BOARD; PROVIDING FOR INCLUSION IN THE CODE; PROVIDING FOR CONFLICTS; AND PROVIDING FOR AN EFFECTIVE DATE.

[Ord Amend 14-31 and 90-50.1 of Code Re-Roof Replacement with Same Materials](#)

5.C Comprehensive Plan Update (Local Planning Agency Item) - Judith Frankel AICP, Town Planner

AN ORDINANCE OF THE TOWN COMMISSION OF THE TOWN OF SURFSIDE, FLORIDA, AMENDING THE TOWN OF SURFSIDE COMPREHENSIVE PLAN BY ADOPTING THE EVALUATION AND APPRAISAL REVIEW (EAR) BASED COMPREHENSIVE PLAN AMENDMENTS; PROVIDING FOR INITIAL AND POST-ADOPTION TRANSMITTAL; PROVIDING FOR SEVERABILITY; INCLUSION IN THE COMPREHENSIVE PLAN; CONFLICTS; AND FOR AN EFFECTIVE DATE.

[Attachment A: 2018 Comprehensive Plan](#)

[Attachment B: Comp Plan EAR Update and Summary](#)

[Ordinance Amending Town Comp Plan Adopting EAR Amendments - P&Z](#)

[Exhibit A1: 1 Future Land Use](#)

[Exhibit A2: 3 Housing 2024](#)

[Exhibit A3: 4 Infrastructure Element 2024](#)

[Exhibit A4: Water Supply Work Plan 2024-Appendix to Infrastructure](#)

[Exhibit A5: 5 Coastal Management Element 2024](#)

[Exhibit A6: 7 Recreation and Open Space 2024](#)

[Exhibit A7: 9 Capital Improvements Element 2024](#)

[Exhibit A8: 11 Property Rights Elements 2024](#)

6. Next Meeting Date

7. Discussion Items

7.A Design Guidelines Update - Judith Frankel, AICP, Town Planner

8. Adjournment

Respectfully submitted,

Hector R. Gomez
Town Manager

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.townofsufsidefl.gov.

TWO OR MORE MEMBERS OF THE TOWN COMMISSION AND/OR TOWN BOARDS MAY ATTEND 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 and Zoning Board Meeting
MINUTES
January 18, 2024
6:00 PM
Town Commission Chambers**

1. Call to Order/Roll Call

Chair Baumel called the meeting to order at 6:05 p.m.

Former Deputy Clerk Herbello called the roll with the following members present:

Present: Chair Carolyn Baumel, Vice Chair David Forbes, Board Member Ruben Bravo, Board Member Lindsey Lecour and Alternate Board Member Andrew Bales.

Absent: Board Member Jonathan Edderai

Also Present: Town Attorney Tony Recio, Town Planner Judith Frankel, Consultant Town Planner Walter Keller, and Building Official James McGuinness.

2. Town Commission Liaison Report

Commissioner Fred Landsman provided his Commission Liaison Report.

3. Approval of Minutes

3.A November 16, 2023 Special Planning and Zoning Board Meeting Minutes and November 30, 2023 Planning and Zoning Board Meeting Minutes - Sandra N. McCready, Town Clerk

A motion was made by Board Member Lecour to approve the November 16, 2023 Special Planning and Zoning Board Meeting Minutes and the November 30, 2023 Planning and Zoning Board Meeting Minutes, seconded by Vice Chair Forbes. The motion carried with a 5-0 vote.

[November 16, 2023 Special Planning and Zoning Board Meeting Minutes.pdf](#)
[November 30, 2023 Planning and Zoning Board Meeting Minutes.pdf](#)

4. Ordinances

4.A Stormwater Retention and Drainage in H30A and H30B - Hector Gomez, Town Manager

Town Administration recommends the implementation of explicit requirements for on-site stormwater retention through drainage planning and retaining wall structures when appropriate.

Former Deputy Clerk Herbello read the title of the ordinance into the record.

Town Planner Frankel provided a presentation and explanation of the ordinance and staff recommendations.

Building Official McGuinness provided his staff recommendations as follows: Please amend Sec. 90-56 1.B as stated: a. Line 157 remove the word *stuccoed*, after the words *finished on all sides* and add the words *to the satisfaction of the Town Planner*.

Board Member Bravo left the meeting at 6:50 p.m.

Alternate Board Member Bales asked regarding the cap.

Board Member Lecour asked regarding the code and the abutting properties.

Town Planner Frankel addressed the comments made.

Vice Chair Forbes left the meeting at 6:52 p.m.

Discussion took place among the Board and staff regarding the specifics of the ordinance, possible zoning code changes, questions regarding the pavers, the finishes to the walls and surfaces as well as the standards required.

Town Attorney Recio and Town Planner Frankel addressed all the comments and questions asked by the Board Members.

Chair Baumel opened the floor to public comments.

The following individuals from the public spoke:

George Kousoulas

Laurie Swedroe suggested staying with what they have now and gave her explanation.

Chair Baumel closed the floor to public comments.

Alternate Board Member Bales asked what it would do to the flood plain if they pulled back the wall and would the stormwater system be able to handle it.

Building Official McGuinness addressed the comment made by Alternate Board Member Bales.

Town Attorney Recio stated they have not had that requirement however this ordinance, lines 77-81 imposes a requirement on single family homes to maintain all the water on their property.

After a lengthy discussion by the Board Members and staff regarding the ordinance, recommended changes to the code to include maintaining stormwater on the property, the following motion was made.

A motion was made by Alternate Board Member Bales to recommend to the Town Commission to approve the ordinance as written on second reading with all staff recommendations to include: Lines 150-151 recommendation as to where the wall is built from "maximum height of six feet measured from the existing grade of the abutting property but in no event higher than " ____ " feet (to be filled in by staff) from the crown of road; staff to define a maximum height from a fixed reference point; line 157 delete "stuccoed and" with "finished on all sides to the satisfaction of the building official"; line 77-83 add engineering field check of stormwater retention before CO, seconded by Board Member Lecour. The motion carried with a 3-0 vote with Vice Chair Forbes and Board Member Bravo absent.

The meeting recessed at 7:44 p.m.

The meeting resumed at 7:52 p.m.

Former Deputy Clerk Herbello called the roll with the following members present: Chair Carolyn Baumel, Board Member Lindsey Lecour and Alternate Board Member Andrew Bales. Absent were Vice Chair David Forbes and Board Member Ruben Bravo.

[Ordinance On-Site Retention of Stormwater and Retention Wall Standards](#)

4.B Code Amendment for Submerged Lands and Pointe Lake Development - Hector Gomez, Town Manager

Town Administration recommends approval of this ordinance in order to clarify the prohibitions on development in Point Lake and Biscayne Bay for the protection of adjacent properties, the general public and marine life.

Former Deputy Clerk Herbello read the title of the ordinance into the record.

Town Planner Frankel introduced the item and provided an overview of the ordinance and staff recommendations.

Chair Baumel opened the floor to public comments.

There were no public speakers.

Chair Baumel closed the floor to public comments.

Board Member Lecour thanked the Town for addressing these ugly problems and asked if the folio shows correctly on Miami Dade County Property Appraiser.

Town Planner Frankel stated the Miami Dade County Property Appraiser does not have the ability to set our zoning.

Town Attorney Recio stated the lake does not have a zone itself.

Board Member Lecour asked if they could create a category for the zoning of that lake.

Town Attorney Recio explained that they could, while they are cleaning up the comprehensive plan, put it in the plan.

Board Member Lecour wants to close any loopholes.

Town Attorney Recio explained this ordinance is to clarify the regulations on this lake and what they are stating is to address the ownership issue. He stated the ownership issue is its own issue between private properties and the Town cannot get involved in that dispute.

Chair Baumel asked if the homes are protected from the owner of the submerged lands.

Board Member Lecour spoke regarding what took place with the owner of the submerged lands and the history.

Discussion took place among the Board Members and staff regarding the owner of the submerged lands, the issues at hand and the reason for this ordinance with its specifics.

A motion was made by Alternate Board Member Bales to recommend to the Town Commission to approve the ordinance as written on second reading with staff recommendations, seconded by Board Member Lecour. The motion carried with a 3-0 vote with Vice Chair Forbes and Board Member Bravo absent.

[Ordinance No Development on Point Lake](#)

4.C Code Amendment for Outdoor Lighting in the Single-Family Residential Districts - Hector Gomez, Town Manager

Town Administration recommends that the Planning and Zoning Board review this ordinance to modify Section 90-62 Outdoor Lighting of the Town Code to addresses the specific requirements of the single-family districts.

Former Deputy Clerk Herbello read the title of the ordinance into the record.

Town Planner Frankel provided an overview of the ordinance and staff recommendations.

Chair Baumel opened the floor to public comments.

The following individual from the public spoke:
George Kousoulas

Chair Baumel closed the floor to public comments.

Chair Baumel asked if the ordinance addresses the color of lights and provided

examples of Christmas and Hanukkah lights and at times individuals put colored lights when a bulb goes out.

Alternate Board Member Bales asked if it regulates the intensity of the light.

Town Attorney Recio stated this ordinance does not address color of lights or intensity of the light.

Board Member Lecour stated she agrees with the color of the lights, and they should keep it white in the exterior. She asked if they could enforce this ordinance on the new homes that are currently already built and in violation of this ordinance.

Town Attorney Recio stated they would have to set up a process to avoid someone challenging it if they do it retroactively.

Board Member Lecour stated to leave it to the neighbor to go to the Town if they have an issue with the lighting of a neighbor's home.

A motion was made by Board Member Lecour to recommend to the Town Commission to approve the ordinance as written on second reading to include the limitation of fixed lighting on the exterior of the house to only white light in the exterior, seconded by Alternate Board Member Bales. The motion carried with a 3-0 vote with Vice Chair Forbes and Board Member Bravo absent.

[Ordinance Amending Section 90-62 Outdoor Lighting for Single-Family Dwellings](#)

5. Applications

Consensus was reached from the Board Members to hear all the applications before the ordinances.

Town Attorney Recio opened the floor to public comment for anyone that would like to speak on any of the items that are being approved as consent (items 5A (9455 Harding Avenue), 5B (9561 Harding Avenue), 5C (9485 Harding Avenue), 5D (9501 Harding Avenue a/k/a 225 95th Street and 5E (9040 Abbott Avenue).

There were no public speakers.

A motion was made by Board Member Lecour to approve as Consent items 5A, 5B, 5C, 5D and 5E with staff recommendations, seconded by Board Member Bravo. The motion carried with a 5-0 vote.

Town Attorney Recio read his quasi-judicial statement into the record.

Former Deputy Clerk Herbello swore in all the members of the public and applicants that will be speaking tonight on all applications.

Town Attorney Recio asked Former Deputy Clerk Herbello if all applicable applications

met notice requirements.

Former Deputy Clerk Herbello confirmed notice requirements were met.

Town Attorney Recio polled the members of the Board for any ex-parte communication.

Chair Baumel spoke with Laurie Swedroe and Mr. Shapiro on their application, item 5F (9260 Carlyle Avenue).

No other members of the board had any ex-parte communications with any of the applicants.

5.A 9455 Harding Avenue - Wall Sign - Judith Frankel AICP, Town Planner

Staff recommends approval with the following conditions:

- All illumination must be white.
- All exposed raceways must be painted to match finish of wall face of the building.

Approved as consent with staff recommendations.

[9455 Harding application and plans](#)

5.B 9561 Harding Avenue - Wall Sign - Judith Frankel AICP, Town Planner

Staff recommends approval with the following conditions:

- The size of the sign must be reduced from 28 SF to a maximum of 25 SF.
- The sign must be off set from the facade wall a minimum of one quarter inch to a maximum of two inches to permit rainwater to flow down the face of the wall. This should be indicated on the plans.
- All illumination must be white.

Approved as consent with staff recommendations.

[9561 Harding application and plans.pdf](#)

5.C 9485 Harding Avenue - Wall Sign - Judith Frankel AICP, Town Planner

Town Administration recommends approval with the following conditions:

- All illumination must be white.

Approved as consent with staff recommendations.

[9485 Harding sign application and plan.pdf](#)

5.D 9501 Harding Avenue (aka 225 95th Street) - Wall Sign - Judith Frankel AICP, Town Planner

Staff recommends approval with the following conditions:

- The sign be off set from the facade wall a minimum of one quarter inch to a maximum of two inches to permit rainwater to flow down the face of the wall. This should be indicated on the plans.
- All illumination must be white.

Approved as consent with staff recommendations.

[9501 Harding application and plans.pdf](#)

5.E 9040 Abbott Avenue- Additions, Facade Alterations and Window openings -
Judith Frankel AICP, Town Planner

Staff finds this application for a front addition, two rear additions, façade changes and new window openings meets the zoning code. The Planning and Zoning Board should determine whether the new additions, front façade alterations and new windows are "consistent with and in conformance with the design guidelines set forth in the Town Code".

Staff recommends approval with the following conditions:

- Sheet A-2 notes that windows and doors will be tinted. The design guidelines require that "glass may be clear or lightly tinted but should never be darkly tinted or should never have a reflective finish."
- The proposed driveway must provide for two on-site parking spaces.
- Landscaping information must be provided for the space in front of the garage door wall. This may be a planter.
- The converted garage space must have a FFE equaling the existing FFE for the home.
- The proposed pool must be permitted separately. Pervious lot coverage will be verified at permitting.

Approved as consent with staff recommendations to include Building Official McGuinness' recommendations as follows: 1. An elevation certificate shall be required at the time of building permitting to certify the existing finish floor elevation of the structure; 2. A FEMA 50% Rule Analysis will be performed at time of building permitting using the Miami-Dade County Tax Appraiser's valuation unless a professional appraisal is provided.

[Attachment A: Images and Zoning Tables](#)

[9040 Abbott Agenda Packet.pdf](#)

5.F 9260 Carlyle Avenue - New Single-Family Home - Judith Frankel AICP, Town Planner

Staff finds this application for a new single-family home meets the zoning code. The Planning and Zoning Board should determine whether the new home is "consistent with and in conformance with the design guidelines set forth in the Town Code". Staff recommends approval with the following conditions:

- The plant species table must be expanded to note the Florida Friendly status of each species.

- Applicant to provide average setback calculations per ordinance no. 2023-1752.
- Applicant to provide full manufacturer's specifications for wood-like deck and basketball court to confirm permeability and correct pervious area calculation.
- A Florida Building Code compatible retaining wall is required in areas with a raised grade level. Permitting plans must note existing and proposed grade, wall construction details and overall height. A drainage plan will also be required.

Town Planner Frankel introduced the item and provided a presentation and overview of the application with staff recommendations.

Laurie Swedroe, applicant provided an overview of the project.

Board Member Lecour asked regarding the decking and turf work into the pervious area.

Ms. Swedroe stated it would be 100% pervious and the wood decking is only considered 50%.

Town Planner Frankel stated that synthetic turf is considered 100%. She continued providing an overview of the project.

Chair Baumel thanked them for such a great project.

Chair Baumel opened the floor to public comments.

The following individual from the public spoke:

George Kousoulas spoke regarding the elevations and the presence of a gable.

Chair Baumel closed the floor to public comments.

Building Official McGuinness provided his staff recommendations as follows: 1. Provide elevation certification for the proposed structure and the elevation of lowest floor at the garage in feet NGVD; and 2. Provide flood vents (hydrostatic reliefs) at garage at a rate of 1 square inch of net opening to 100 square feet of floor area vented, with a minimum of two vents per enclosed area located on opposing walls.

A motion was made by Alternate Board Member Bales to approve the application with staff recommendations, seconded by Vice Chair Forbes. The motion carried with a 5-0 vote.

[Attachment A: Images and Tables](#)

[9260 Carlyle Ave Application](#)

[9260 Carlyle Ave Plans Package](#)

[9260 Carlyle-Survey](#)

5.G 8927 Harding Avenue - New Single-Family House - Judith Frankel AICP, Town Planner

Staff finds this application for a new single-family home complies with the zoning code. The Planning and Zoning Board should determine whether the new home is "consistent with and in conformance with the design guidelines set forth in the Town Code". Staff recommends approval with the following conditions:

- Applicant to provide neighbor's grade to ascertain allowable wall/fence height. Height of rear yard wall/fence to be verified at time of permitting.
- A site drainage plan is required to demonstrate the maintenance of stormwater on site.

Town Planner Frankel introduced the item and provided a presentation and overview of the application with staff recommendations.

Building Official McGuinness provided his staff recommendations as follows: 1. Plans are based on the incorrect version of the Florida Building Code. The 2023 FBC 8th edition went into effect on January 1, 2024. Please amend the plans and all future submittals accordingly; 2. Provide an elevation certificate for the proposed principal and accessory structures and provide elevation marks at each floor level on the floor plans in feet NGVD; 3. The plans indicate potential occupied areas in the accessory structure below design flood elevation 10'-0" NGVD. All occupied areas must be above DFE; and 4. Provide flood vents (hydrostatic reliefs) at garage and all enclosed areas below DFE at a rate of 1 square inch of net opening to 100 square feet of floor area vented, with a minimum of two vents per enclosed area located on opposing walls.

Yefim Massarsky, architect provided an overview of the project and addressed the staff recommendations provided.

Chair Baumel opened the floor to public comments.

There were no public speakers.

Chair Baumel closed the floor to public comments.

Board Member Lecour stated she is confused with the zoning code and would like to know why we have no footprint limit on lots like these.

Town Planner Frankel addressed the comments made and explained how it applies to a lot like this.

Board Member Lecour asked regarding the side setback of the property.

Town Planner Frankel addressed the comments made and stated it was due to the accessory structure.

Chair Baumel asked if it changes its designation on the Miami Dade County Property Appraiser.

Town Planner Frankel stated it does not.

Discussion continued among the Board Members regarding the zoning code as it relates to this type of property and lot size as well as the design of the home.

Town Attorney Recio stated it will remain zoned as an H30C.

A motion was made by Vice Chair Forbes to approve the application with staff recommendations, seconded by Alternate Board Member Bales. The motion carried with a 5-0 vote.

[Attachment A: Images and Tables.pdf](#)

[8927 Harding Ave-Tree Survey](#)

[8927 Harding Ave - Site Plan Application.pdf](#)

[8927 HARDING AVE - Plans Package](#)

[8927 Harding Ave Landscape Plan](#)

6. Next Meeting Date

6.A Next Meeting: February 29, 2024 at 6:00 p.m. - Sandra N. McCreedy, Town Clerk

Former Deputy Clerk Herbello advised the Board Members of their next meeting being on February 29, 2024 at 6:00 p.m.

Consensus was reached by the Board to hold the meeting on that date and time.

7. Discussion Items

7.A Design Review Guidelines - Judith Frankel, AICP, Town Planner

A motion was made by Board Member Lecour to defer this item to the February 29, 2024 Planning and Zoning Board Meeting, seconded by Alternate Board Member Bales. The motion carried with a 3-0 vote with Vice Chair Forbes and Board Member Bravo absent.

Town Attorney Recio explained that the Design Review Guidelines will be adopted by the Commission via a resolution and not an ordinance.

Board Member Lecour requested to have the draft of the design review guidelines sent to the Board Members prior to the meeting.

7.B Comprehensive Plan and EAR Update - Judith Frankel, Town Planner

Consultant Town Planner Keller provided an overview of the item and provided his suggestions and update.

Alternate Board Member Bales asked regarding parking including structure.

Consultant Town Planner Keller stated there are no changes to the parking nor the requirements that go with those sites. He went over the housing element. He went over the recreation and open space element.

Chair Baumel opened the floor to public comments.

The following individual from the public spoke:

George Kousoulas stated the housing section is fascinating. He spoke regarding future land use and planning.

Chair Baumel closed the floor to public comments.

Alternate Board Member Bales asked who sets up the criteria.

Consultant Town Planner Keller stated it is the State and there is a section in the Florida Statutes that dictates what needs to be in the comprehensive plan.

Discussion among the Board Members took place regarding the topics addressed by Consultant Town Planner Keller and what can be addressed to include parking and what the Comprehensive Plan covers.

8. Board Member Comments

Chair Baumel wanted to make a statement and thanked Evelyn Herbello (former Deputy Town Clerk for the Town of Surfside) for being here and her leaving is a sign of what is happening in Surfside and our loss is someone else's gain. She read the following statement into the record: "First my background: I am not new to Surfside or Miami Beach. I was born & raised here - I am the third generation - My family arrived in the early 1930's building some of the first Hotels on Miami Beach. Mt Sinai Hospital was founded by a group of men looking for a place for the Jewish Physician to be allowed to practice - my grandfather, Leonard Wien Sr was apart of that group of men who purchased Carl Fisher's Nautilus Hotel and Mt Sinai Hospital was born and continues to flourish today. I have been licensed in real estate since 1994. Real estate, architecture, renovation & development is not new to me. In fact, my home purchases in Surfside began before the Pandemic, before the past Mayor & Commission was elected.

The Planning and Zoning Board collectively is a volunteer, appointed position by the current Mayor & Commissioners. We are not paid. We all have our primary residences in Surfside and It is unmistakably clear that we love our town and we only want the best for our residents. There is nothing illegal about owning, designing & developing real estate here or anywhere and being a PZ board member. There is no advantage financially nor a real estate gain in this volunteer position. We are chosen because of our background, education, experiences and alignment of having our community improve in a positive way that allows existing and new owners (residential & commercial) to come in and have their real estate land & property values improved and not become tired and depreciate.

It is stated on the Town of Surfside's site that the "Planning and zoning plays a key role in the look and feel of Surfside's streets, buildings, houses, and businesses." That is what we do.

This is what happened: Tina Paul was Vice-Mayor in the prior commission and she appointed me where I sat as a Planning & Zoning board member Alternate and had voting privileges when needed. It is funny how a person selectively omits the truth of how current Commissioner Fred Landsman and back then the Vice-Chair of Planning & Zoning board member Landsman was appointed by the untruthful former Mayor Charles Burkett III.

Here's the problem: There is a Former Mayor, a current Commissioner and former Commissioners that insist on lying publicly and in print - Former Surfside Mayor Charles Burkett III You are both destructive & selfish You are a darkness that gives no light to our community. Every word you speak, write, text or publicize through social media networks is filled with poison and lies. Your conspiracy theory concoctions are evil, insidious, hurtful and mean. Your selfishness has brought people into your world that is filled with your own desire for political gains through your efforts to promote destruction and hatred.

As we were told by Dr Martin Luther King: "Every person must decide whether they walk in the light of creative altruism or in the darkness of destructive selfishness."

9. Adjournment

There being no further business to discuss before the Board, a motion was made by Board Member Lecour to adjourn the meeting at 8:44 p.m., seconded by Alternate Board Member Bales. The motion carried with a 3-0 vote with Vice Chair Forbes and Board Member Bravo absent.

Accepted this ____ day of _____, 2024.

Chair Carolyn Baumel

Attest:

Sandra N. McCreedy, MPA, MMC
Town Clerk



**Town of Surfside
Planning and Zoning Board Meeting
February 29, 2024**

DISCUSSION ITEM MEMORANDUM

Agenda #: 4.A

Date: February 29, 2024

From: Judith Frankel AICP, Town Planner

Subject: 8935 Froude Avenue - New Single-Family House

Suggested Action: – Staff finds this application for a new single-family home meets the zoning code. The Planning and Zoning Board should determine whether the new home is “consistent with and in conformance with the design guidelines set forth in the Town Code”. Staff recommends approval with the following conditions:

- Front facade window glass may not be darkly tinted.
- Pervious area calculation must be consistent on the Landscape Plan and site Plan. A separate permit is required for the Landscape Plan at the time of Building permit application.
- Outdoor lighting plan compliant with Ordinance No.24-1767 must be provided at the time of Building permit application.
- A grading and drainage plan (with appropriate retaining wall) must be provided to comply with Ordinance No.24-1769 at the time of Building permit application.
- Pool, driveway and fences must apply for separate permitting.

Background/Analysis: – This application is a request to construct a new two-story single-family home. The subject property is located at 8835 Froude Avenue in the H30B zoning district. The proposed home is 29 feet 10 inches in height with a 1-foot-high parapet. No rooftop mechanical equipment or roof deck is proposed at this time. The lot coverage for the home is slightly under the maximum of 40% for a two-story home. The house has an F.A.R. of 0.719 (just below the 0.72 maximum) and provides the required additional average setbacks for a home with this F.A.R. See **Attachment A and Sheet A-1.6** for calculations.

The calculation for pervious provided on the Landscape Plan on L-1 does not match the pervious calculation shown on Sheet A-1.5. The lot will have 38% pervious/landscaped space as shown on Sheet A-1.5. The driveway is larger on the Landscape Plan than on the Site Plan, which likely contributes to the discrepancy. This must be corrected prior to permitting. A separate Landscaping permit is required.

The exterior design elements on the front façade include grey oak composite wood on the garage door wall, a black aluminum pivot swing front entry door, beige porcelain stone on the first-floor wall and white stucco on the second-floor to frame the space. The windows and doors will have black aluminum frames which will match the black aluminum fencing for the side yards. Grey glass is proposed for the front facade. The Town's Design Guidelines state: "Glass may be clear or lightly tinted but should never be darkly *tinted* or should never have a

reflective finish." The proposed grey windows provide contrast with the lighter colors featured on the facade, but the tint may not be a dark grey tone. See page 4 of **Attachment A** for Design Guideline review.

New landscaping is proposed as part of this application. The Landscape Plan shows greater than the minimum requirements for trees and shrubs. The tree and shrub species provided exceeds the 40% minimum for Florida Friendly Landscaping requirements. Two Live Oaks are proposed to meet the street tree requirement. These are appropriately located at the property line.

Applicant has provided an outdoor lighting plan on Sheet LL-1 as now required for permitting of new houses. This will be reviewed by the Town Building official during the permitting process however it does not include exterior fixtures mounted to the structure. The exterior lighting plan is required to comply with Ordinance No.24-1767.

SURFSIDE RESIDENCE

8935 FROUDE AVE, SURFSIDE, FL 33154



20% LANDSCAPING MUST BE FLORIDA FRIENDLY
 LIGHT NOTES
 LIGHTING AROUND THE HOUSE SHOULD BE IN A LOW VOLUME DIM MODE
 LIGHTING SHOULD NOT SPILL INTO ADJACENT NEIGHBORS
 LIGHTING SHOULD NOT SPILL INTO THE FRONT STREET

LOCATION MAP

PROPERTY LOCATION



DRAWING INDEX

SHEET NUMBER	SHEET NAME
ARCHITECTURAL	
A-1.1	COVER SHEET
L-1	LANDSCAPE PLAN
L-2	LANDSCAPE DETAILS
LL-1	LANDSCAPE LIGHTING DETAILS
TD-1	TREE DISPOSITION PLAN
A-1.2	NEIGHBORHOOD ANALYSIS - CONTEXT
A-1.3	SURVEY
A-1.4	EXISTING BUILDING
A-1.5	SITE PLAN
A-1.6	ZONING DIAGRAMS & CALCULATIONS
A-2.1	GROUND FLOOR PLAN
A-2.2	SECOND FLOOR PLAN
A-3.1	ROOF PLAN
A-4.1	EAST ELEVATIONS
A-4.2	NORTH ELEVATION
A-4.3	SOUTH ELEVATION
A-4.4	WEST ELEVATION
A-4.5	EAST COLORED ELEVATION
A-4.6	NORTH COLORED ELEVATION
A-4.7	SOUTH COLORED ELEVATION
A-4.8	WEST COLORED ELEVATION
A-5.1	RENDERING
A-5.2	RENDERING - AXONOMETRIC
A-5.3	MATERIAL SCHEDULES
A-5.4	DETAILS
A-5.5	WALL TYPES
A-6.1	SECTION VIEWS



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 800 SE 4th Ave, Suite 709
 Hallandale Beach, FL 33009

DESIGNER:

ANDREU STUDIO
 1025 92nd Street, Unit 701
 Bay Harbor Islands, FL 33154

PROJECT:

8935 FROUDE AVE,
 SURFSIDE, FL 33154

FOLIO NUMBER:14-2235-005-2520

DATE: 2/8/2024

REVISION

NO.	DESCRIPTION

DATE:

2/8/2024

DRAFTED BY:

SCALE:

CONSULTANTS:



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 by Dennis Lytkine
 Date: 2024.02.12
 07:02:12 -05'00'

COVER SHEET

A-1.1
 19

DRAWN BY: T.A.



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DATE:
DRAFTED BY:
SCALE:

CONSULTANTS:



Digitally signed by
Dennis Lytkine
Date: 2024.02.12
07:03:37 -05'00'

SURVEY

DRAWN BY: T.A.

A-1.3
25

LOT 4 - BLK 17
NORMANDY BEACH
2ND AMD. PLT.
P.B. 16- PG.44

N86°57'19"E
112.50'

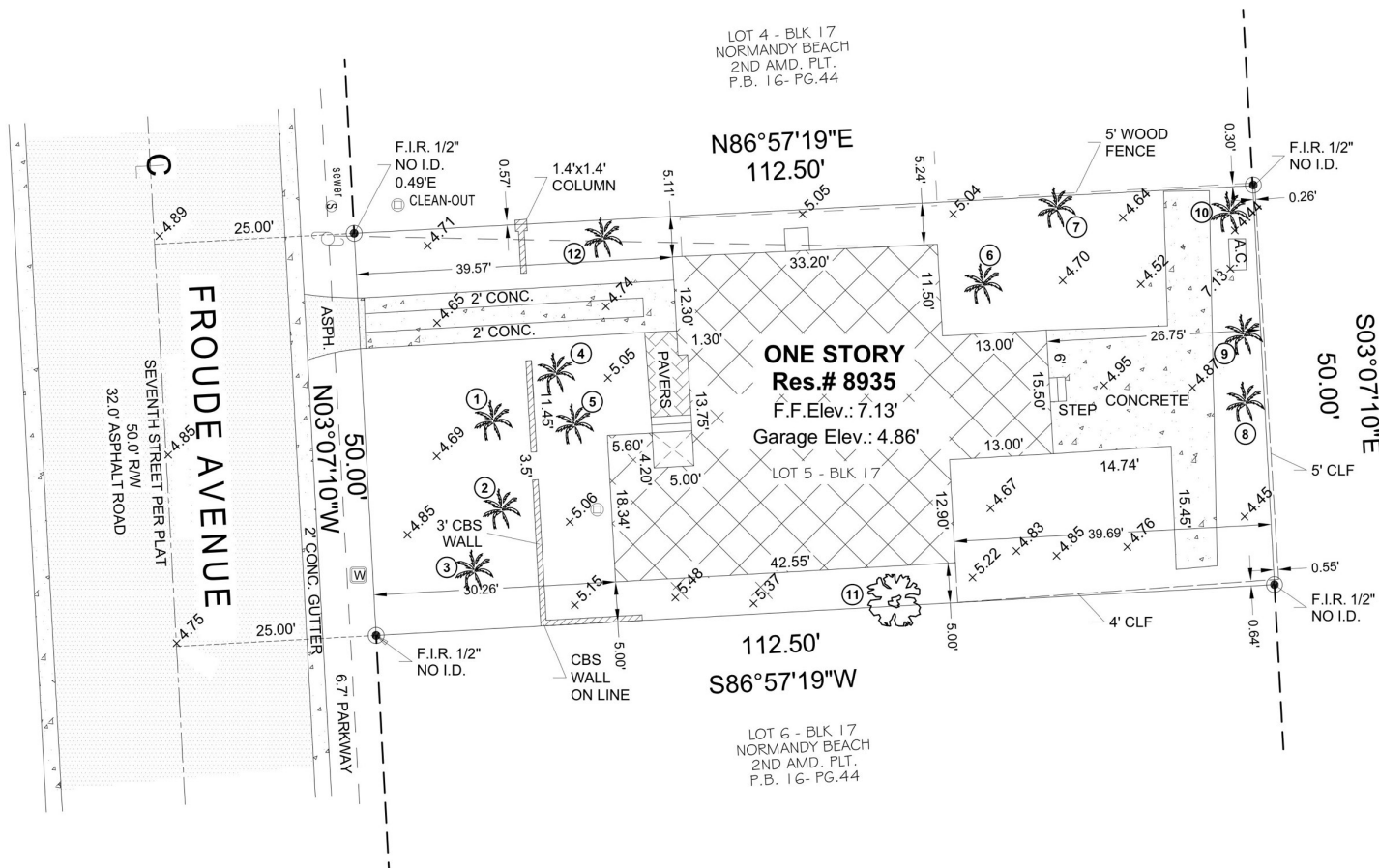
ONE STORY
Res.# 8935
F.F.Elev.: 7.13'
Garage Elev.: 4.86'

112.50'
S86°57'19"W

LOT 6 - BLK 17
NORMANDY BEACH
2ND AMD. PLT.
P.B. 16- PG.44

LOT 14 - BLK 17
NORMANDY BEACH
2ND AMD. PLT.
P.B. 16- PG.44

S03°07'10"E
50.00'



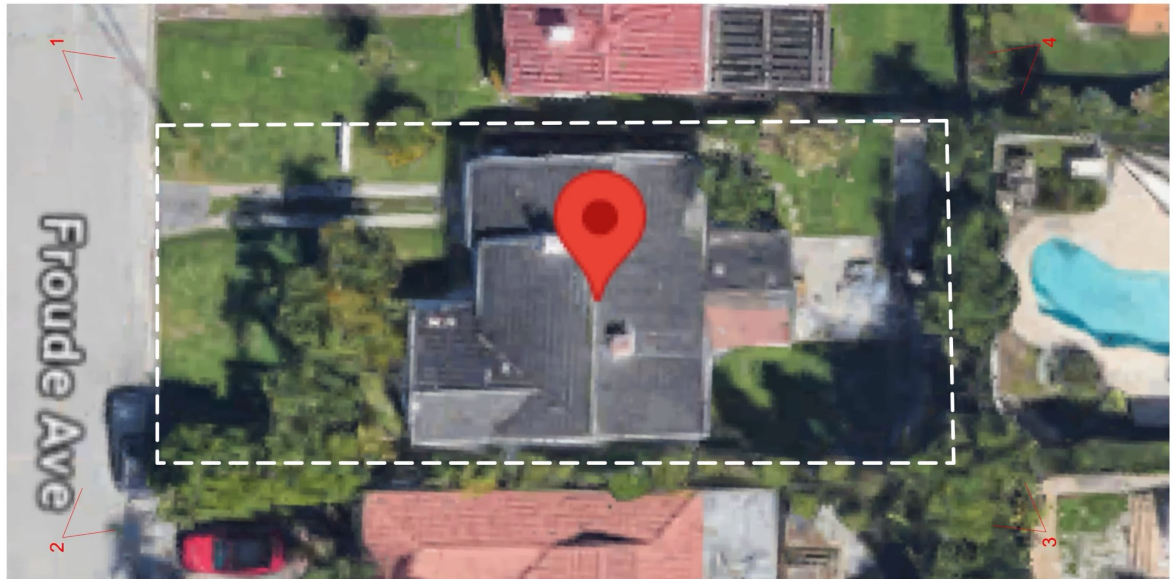
1
A-1.3 8935 FROUDE SURVEY
SCALE: 1/8" = 1'-0"



TREE INVENTORY

Tree #	Common Name	Diameter (in)	Height	Canopy
1	Palm	12"	22'	8'
2	Palm	14"	4'	10'
3	Palm	10"	15'	10'
4	Palm	10"	15'	8'
5	Palm	10"	15'	8'
6	Palm	9"	24'	5'
7	Palm	10"	14'	10'
8	Palm	10"	24'	8'
9	Palm	10"	24'	8'
10	Palm	10"	20'	7'
11	Umbrella	8"	20'	8'
12	Palm	6"	10'	8'

- Tree location and dimension are approximate.
- For proper and scientific tree name an arborist should be contacted.



KEY PLAN



AERIAL VIEW 8935 FROUDE AVE, SURFSIDE, FL 33154

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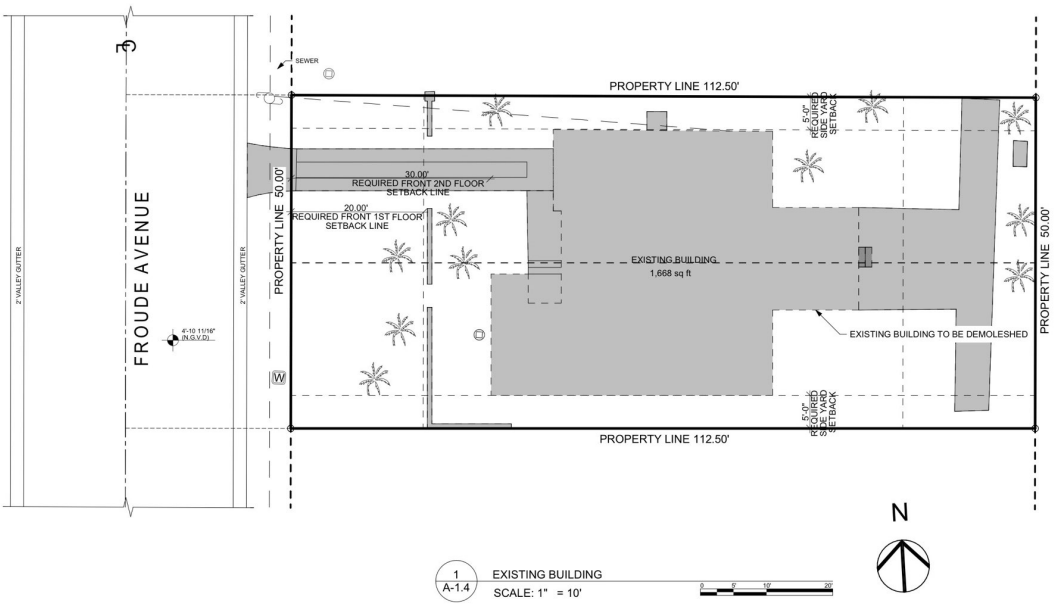


Digitally signed
by Dennis Lytkine
Date: 2024.02.12
07:05:17 -05'00'

EXISTING BUILDING

A-1.4
26

DRAWN BY: T.A.



1 EXISTING BUILDING
A-1.4 SCALE: 1" = 10'



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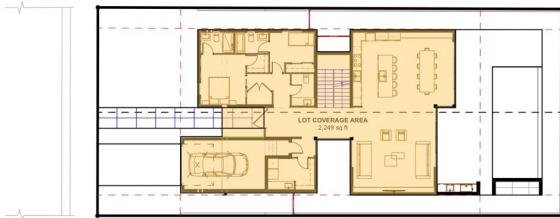


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Date: 2024.02.12
07:06:03 -05'00'

ZONING DIAGRAMS &
CALCULATIONS

A-1.6 28

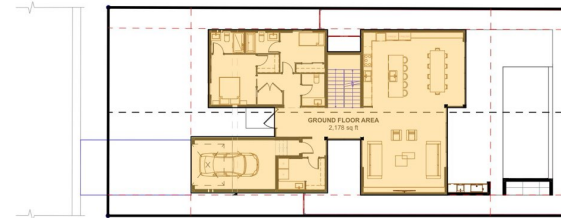
DRAWN BY: T.A.



LOT COVERAGE BREAKDOWN

0 TOTAL AREA	=	5,625.00 SQ FT
REQUIRED LOT COVERAGE	=	
1 AREA(40.0% MAX. OF TOTAL LOT AREA)	=	2,250.00 SQ FT
2 LOT COVERAGE AREA	=	2,248.82 SQ FT

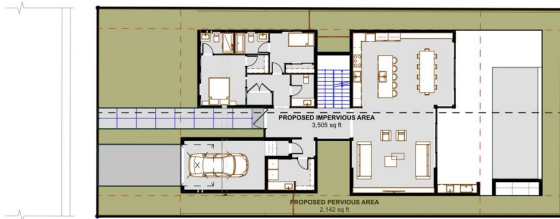
1
A-1.6 LOT COVERAGE
SCALE: 1/16" = 1'-0"



GROUND FLOOR AREA

1 GROUND FLOOR AREA	=	2,177.66 SQ FT
---------------------	---	----------------

3
A-1.6 GROUND FLOOR AREA
SCALE: 1/16" = 1'-0"

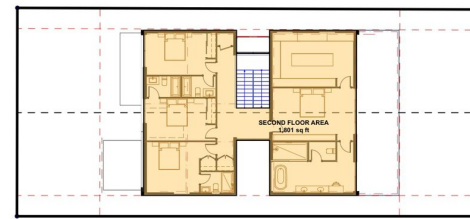
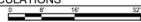


SITE - PERVIOUS/ IMPERVIOUS CALCULATIONS

1 REQUIRED PERVIOUS AREA (35.0% MAX. OF TOTAL LOT AREA)	=	1,968.75 SQ FT
2 PROPOSED PERVIOUS AREA	=	2,141.73 SQ FT (38.08%)

TOTAL = 38.08% OF LOT AREA (EXCEEDS MIN. REQUIREMENT)

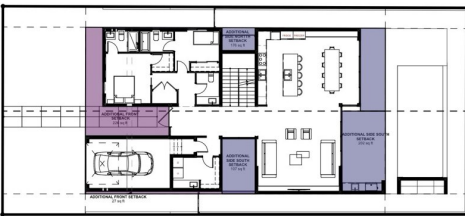
2
A-1.6 SITE - PERVIOUS/ IMPERVIOUS CALCULATIONS
SCALE: 1/16" = 1'-0"



SECOND FLOOR AREA

1 SECOND FLOOR AREA	=	1,800.97 SQ FT
---------------------	---	----------------

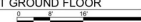
4
A-1.6 SECOND FLOOR AREA PERCENTAGE
SCALE: 1/16" = 1'-0"



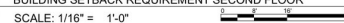
BUILDING SETBACK REQUIREMENT

LOT SIZE -	5,646.90 S.F.
REQUIRED FRONT SETBACK -	20'-0"
REQUIRED ADDITIONAL FRONT SETBACK -	5'-0"
REQUIRED SIDE SETBACK -	5'-0"
REQUIRED ADDITIONAL SIDE SETBACK -	2'-6"
REQUIRED ADDITIONAL FRONT SETBACK -	400 S.F.
PROVIDED ADDITIONAL FRONT SETBACK -	413 S.F.
REQUIRED ADDITIONAL SIDE SETBACK -	362.5 S.F. (EACH)
PROVIDED ADDITIONAL SIDE SETBACK -	430 S.F. (NORTH)
PROVIDED ADDITIONAL SIDE SETBACK -	614 S.F. (SOUTH)

5
A-1.6 BUILDING SETBACK REQUIREMENT GROUND FLOOR
SCALE: 1/16" = 1'-0"



6
A-1.6 BUILDING SETBACK REQUIREMENT SECOND FLOOR
SCALE: 1/16" = 1'-0"





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FOLIO NUMBER:14-2235-005-2520

DATE: 2/8/2024

REVISION

DATE:
DRAFTED BY:
SCALE:

CONSULTANTS:



Digitally signed
by Dennis Lytkine
Date: 2024.02.12
07:10:25 -05'00'

GROUND FLOOR PLAN

A-2.1
29

DRAWN BY: T.A.





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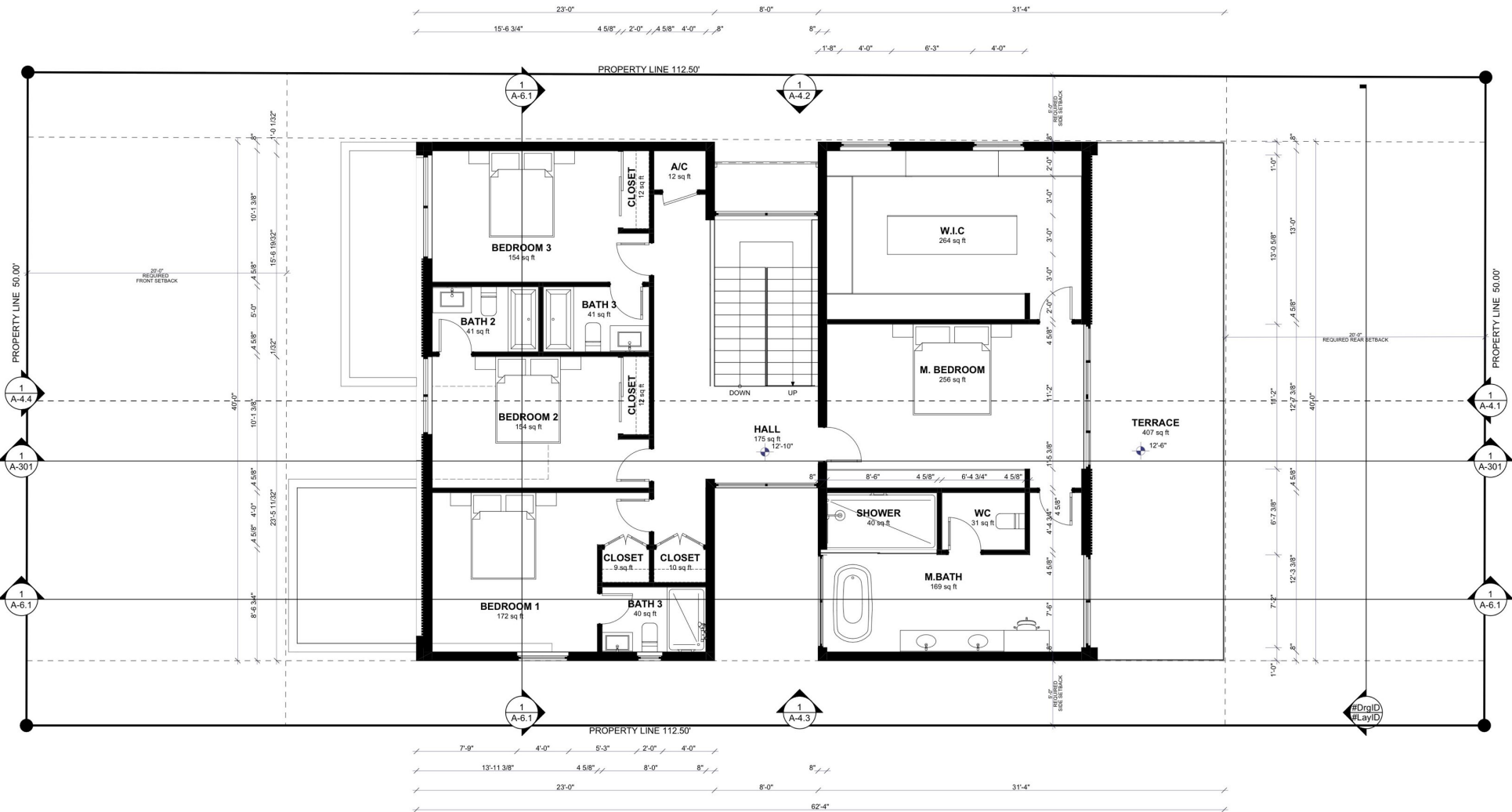


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Dennis Lytkine
Date: 2024.02.12
07:10:55 -05'00'

SECOND FLOOR
PLAN

A-2.2₃₀

DRAWN BY: T.A.



3
A-2.2 SECOND FLOOR PLAN
SCALE: 1/4" = 1'-0"





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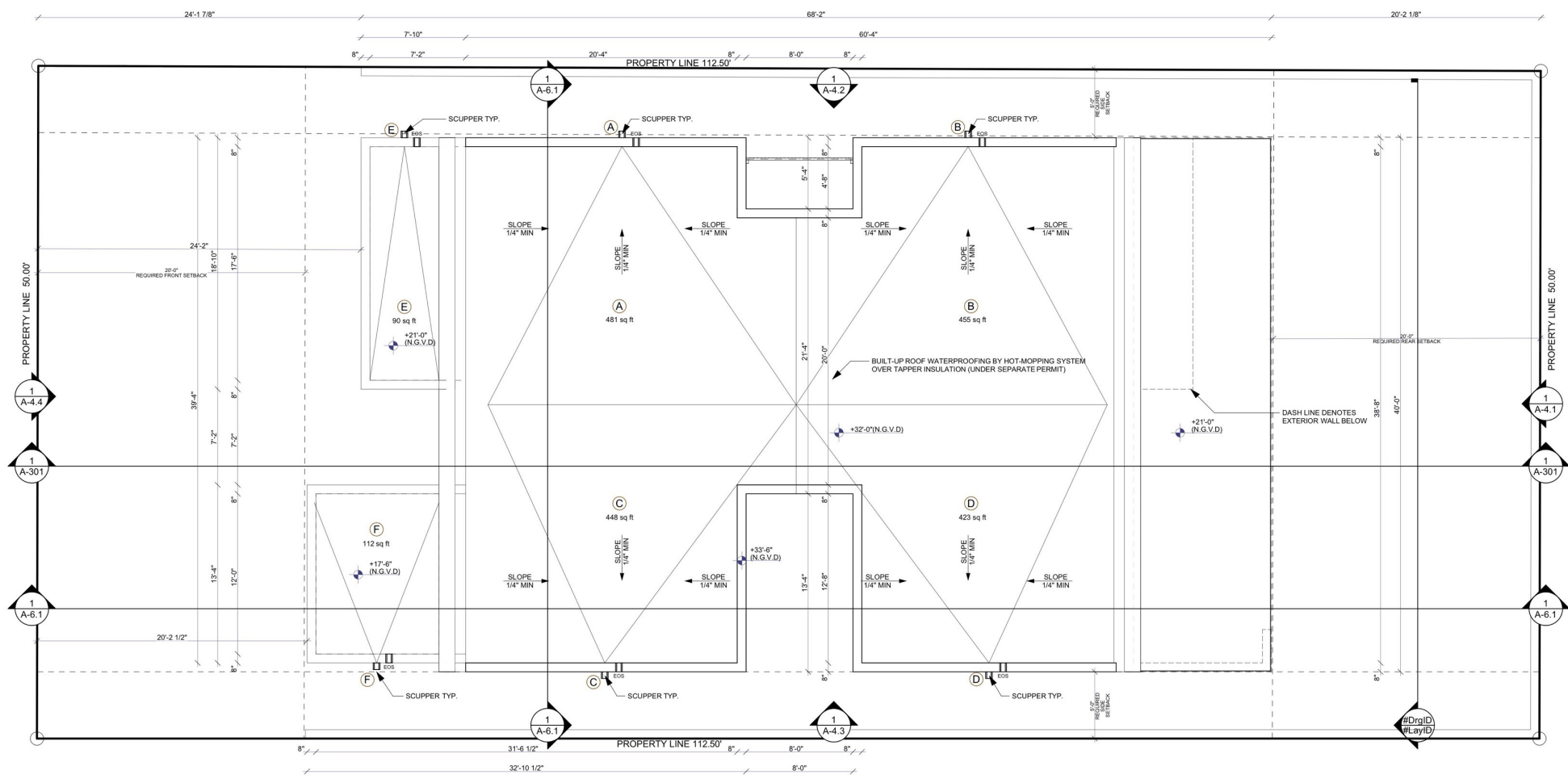
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Dennis
Lytikine
Date:
2024.02.12
07:11:40
05:00



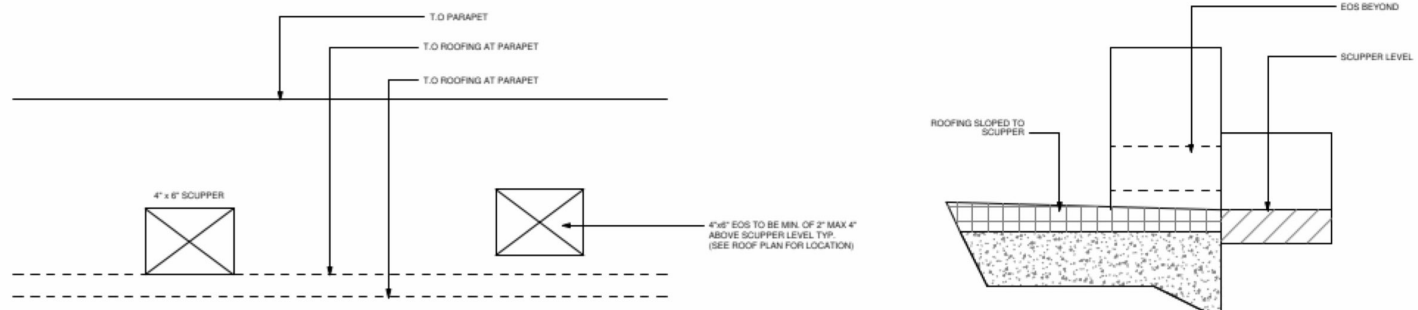
ROOF PLAN

A-3.1
31

DRAWN BY: T.A.



1 ROOF PLAN
A-3.1 SCALE: 1/4" = 1'-0"



SCUPPER & EOS DETAILS
3" = 1'-0"



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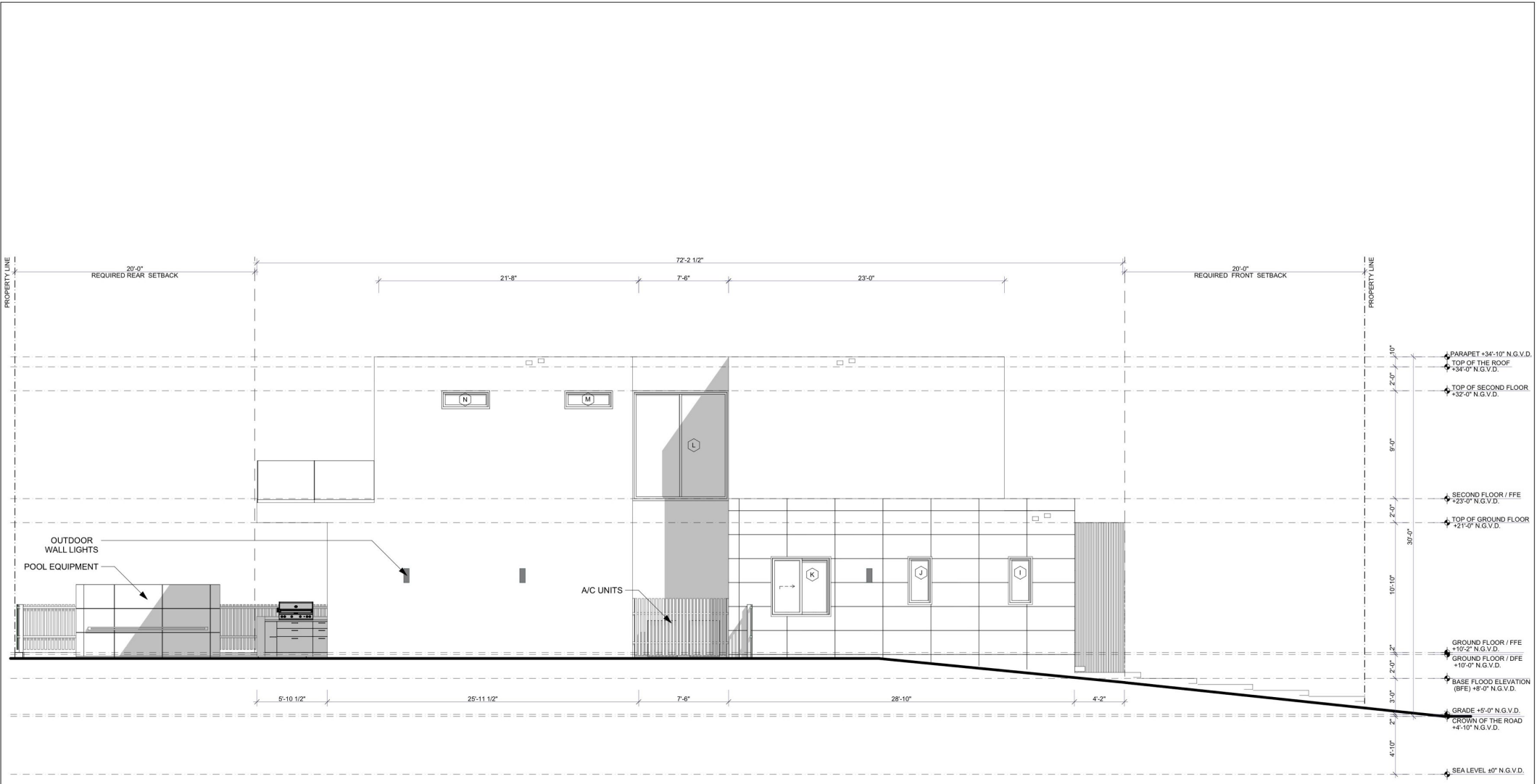


Digitally signed
by Dennis Lytkine
Date: 2024.02.12
07:12:32 -05'00'

NORTH ELEVATION

A-4.2₃₃

DRAWN BY: T.A.



1 NORTH ELEVATION
A-4.2 SCALE: 1/4" = 1'-0"
0 2 4 6



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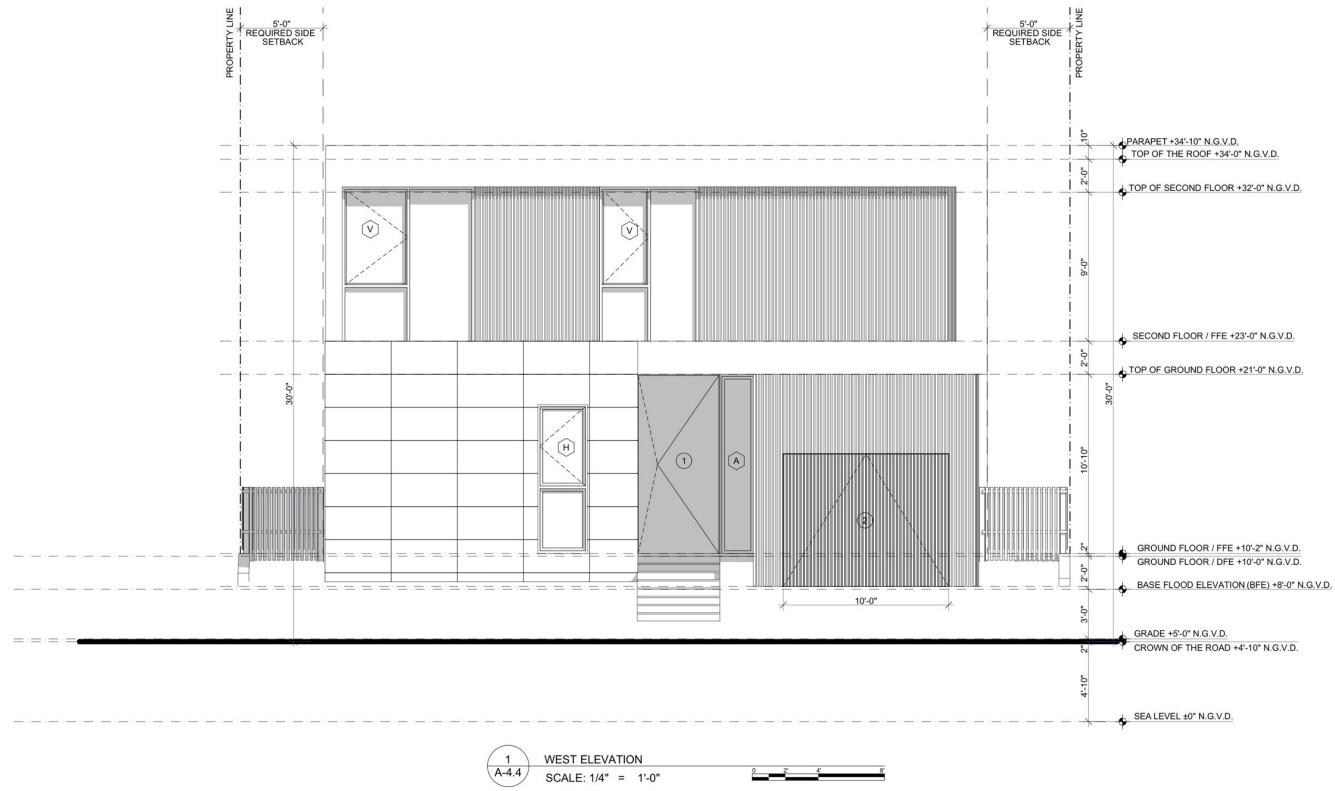
REVISION	

CONSULTANTS:

Digitally signed by
Dennis
Lytikine
Date:
2024.02.12
07:13:21
-05'00'

WEST ELEVATION

A-4.4 35
DRAWN BY: T.A.



1 WEST ELEVATION
A-4.4 SCALE: 1/4" = 1'-0"



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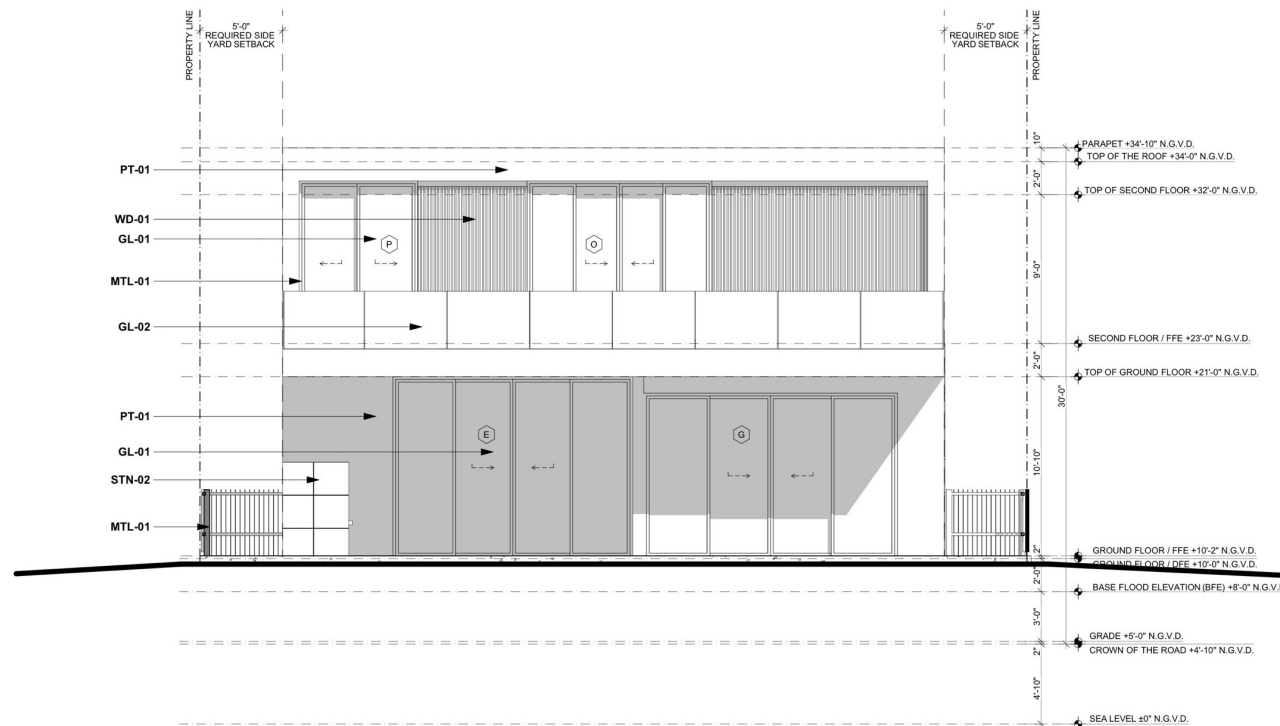


Digitally signed by
Dennis Lytkine
Date: 2024.02.12
07:14:00 -05'00'

EAST COLORED
ELEVATION

A-4.5
36

DRAWN BY: T.A.



1 EAST COLORED ELEVATION
A-4.5 SCALE: 1/4" = 1'-0"





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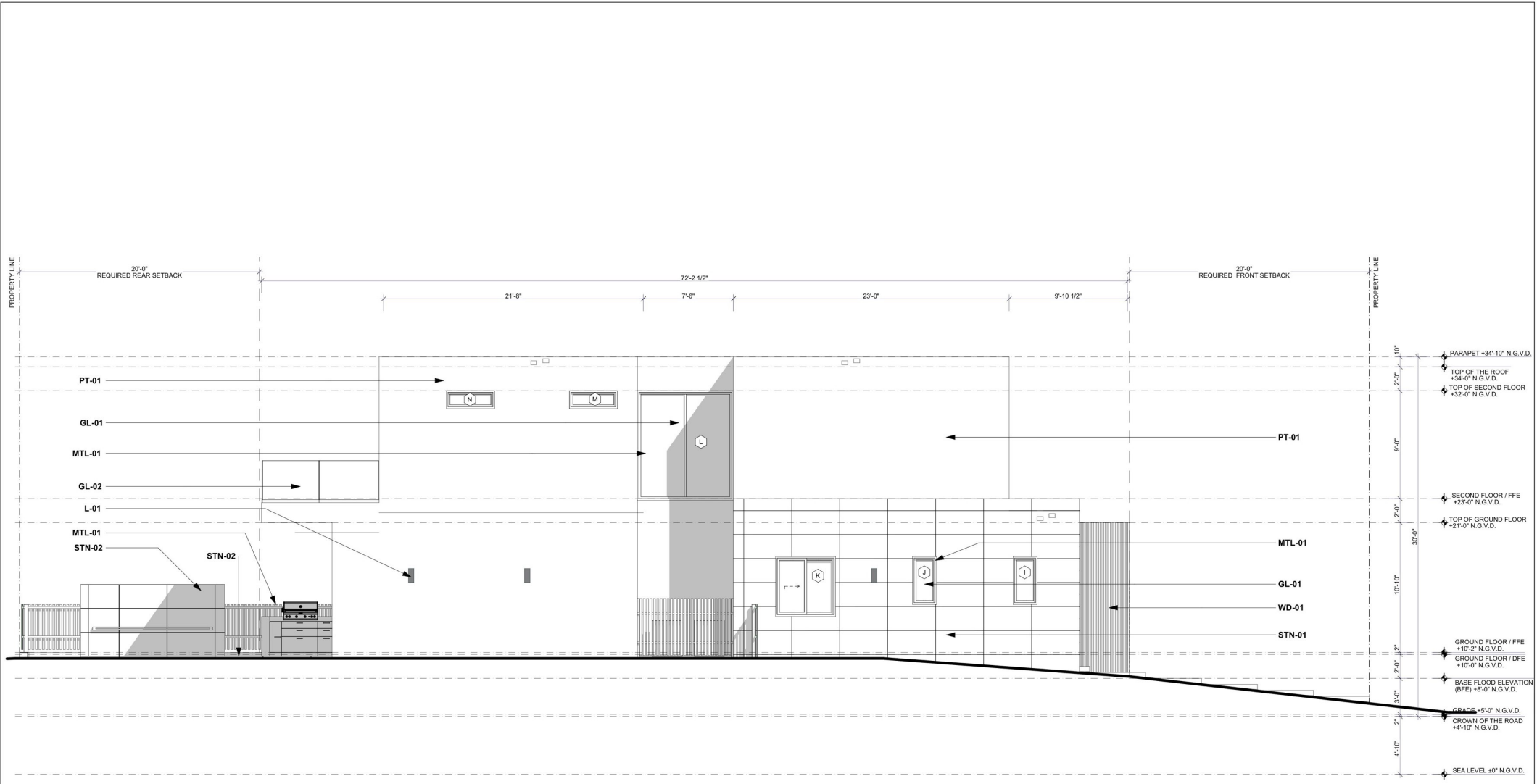


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Dennis Lytkine
Date: 2024.02.12
07:14:26 -05'00'

NORTH COLORED
ELEVATION

A-4.6
37

DRAWN BY: T.A.



1 NORTH COLORED ELEVATION
A-4.6 SCALE: 1/4" = 1'-0"



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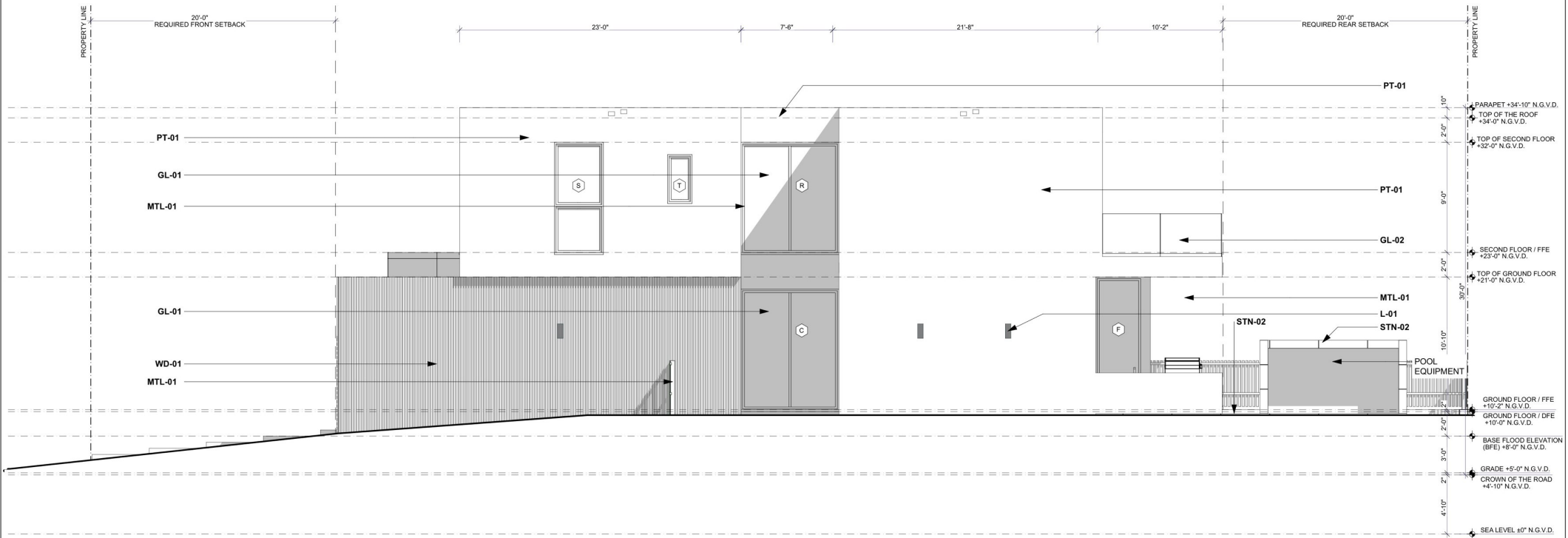


Digitally signed by
Dennis Lytkine
Date: 2024.02.12
07:14:53 -05'00'

SOUTH COLORED
ELEVATION

A-4.7
38

DRAWN BY: T.A.



1 SOUTH COLORED ELEVATION
A-4.7 SCALE: 1/4" = 1'-0"



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SURFSIDE, FL 33154

FOLIO NUMBER:14-2235-005-2520

DATE: 2/8/2024

REVISION

DATE:
DRAFTED BY:
SCALE:

CONSULTANTS:

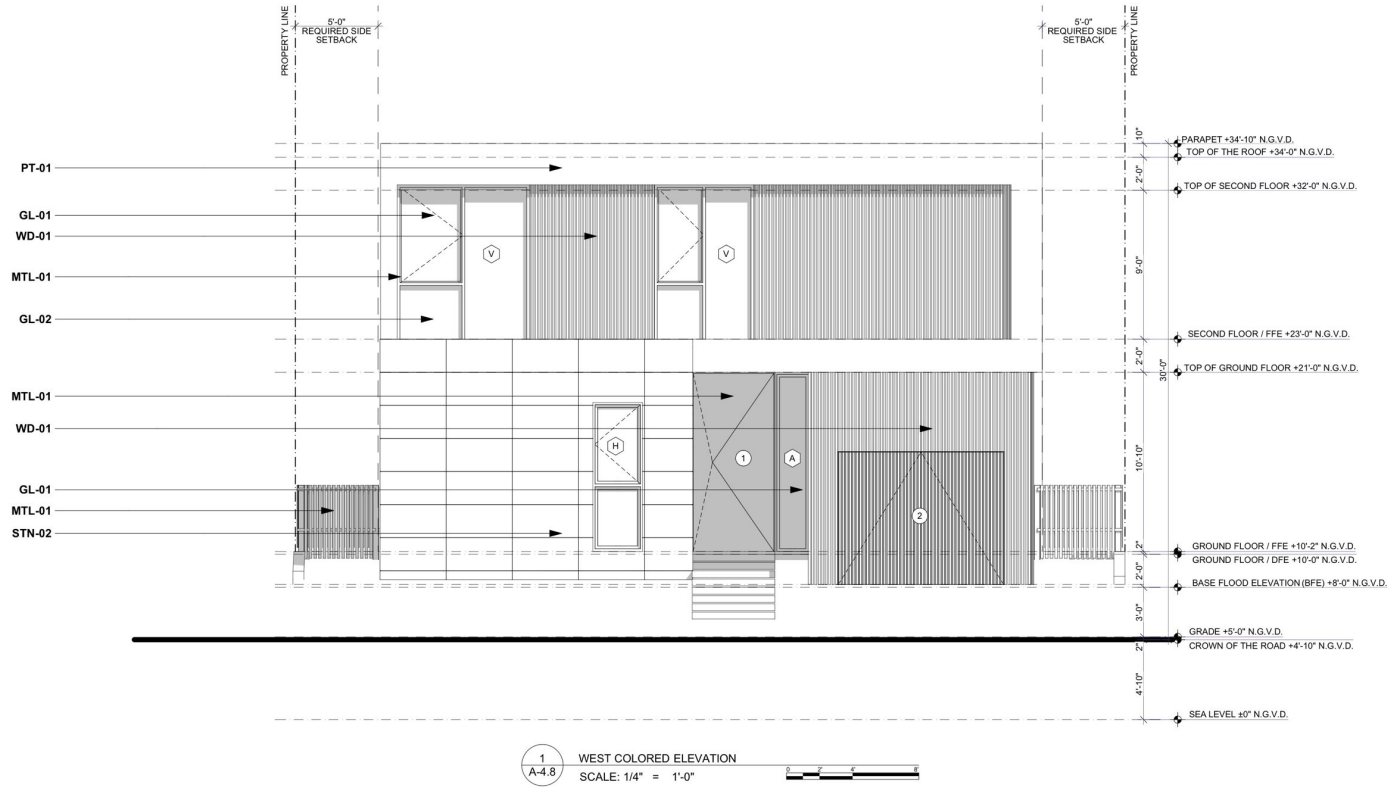


Digitally signed by
Dennis Lytkine
Date: 2024.02.12
07:15:19 -05'00'

WEST COLORED
ELEVATION

A-4.8₃₉

DRAWN BY: T.A.





AndreuStudio
www.andreustudio.com

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OWNER/CLIENT:
8935 Froude Ave LLC
800 SE 4th Ave, Suite 709
Hollandale Beach, FL 33009

DESIGNER:
ANDREU STUDIO
1025 92nd Street, Unit 701
Bay Harbor Islands, FL 33154

PROJECT:
8935 FROUDE AVE,
SURFSIDE, FL 33154

FOLIO NUMBER:14-2235-005-2520

DATE: 2/8/2024

REVISION

DATE:
DRAFTED BY:
SCALE:

CONSULTANTS:



Digitally signed by
Dennis Lytkine
Date: 2024.02.12
07:15:53 -05'00'

RENDERING

A-5.1
40

DRAWN BY: T.A.



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FOLIO NUMBER:14-2235-005-2520

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REVISION

DATE:
DRAFTED BY:
SCALE:

CONSULTANTS:



Digitally signed by
Dennis Lytkine
Date: 2024.02.12
07:16:26 -05'00'

RENDERING -
AXONOMETRIC

FIXED WINDOW

www.eswindows.com

ES-MX1500



System description

- ES-MX1500 is an impact-rated fixed window.
- LMJ (Large missile impact) and SMI (Small missile impact).
- Frame depth: 2 5/16"
- Designed for 5/16" annealed glass and 7/16" heat strengthened glass.

Features

- Flange frame available.
- Low-E Solarban 70 available.
- PVB laminated glass with coating options available.
- Architectural shapes available.

Test & Certifications

- Water infiltration: 15 psf.
- Design load: +70/-80 psf (LM) +100/-140 psf (SM)

Configurations



ESWINDOWS
©2020 ESWindows. All rights reserved.

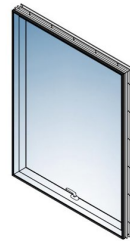
Version 1
FT20-136

August 09-2020

PROJECT OUT WINDOW

www.eswindows.com

GW2650



System Description

- Large missile impact. Small missile impact.
- Frame depth: 3 1/4"
- Sill height: 2 1/2"
- Designed for laminated and insulating-laminated glass.

Features

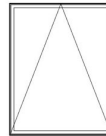
- Heavy duty stainless steel four bar hinge.
- Fully weatherstripped.
- Anodized, painted or wood grain finishes available.

Test

- Air infiltration: 00 psf
- Water infiltration: 00 psf
- Design load: +100/-132 psf

Configurations

STANDARD



ESWINDOWS

Version 1
FT-DD-136

November 09-2017

SLIDING GLASS DOOR

www.eswindows.com

ES-EL400



System Description

- Large missile impact.
- Frame depth: 4 9/16", 5 11/16" (3 Tracks), 7 1/2" (4 Tracks)
- Frame sight line: 3 13/16"
- Sill height: 2" (standard), 2 5/8" (with sill raiser).

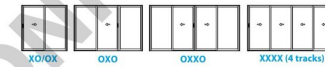
Features

- Reinforced interlocks.
- Optional sill raiser.
- Two point lock.
- Three and four tracks frame.
- Optional screen for two tracks frame.

Test

- Air infiltration: 6.24 psf
- Water infiltration: 13 psf
- Design load: +80/-80 psf with reinforcement, +60/-60 W/D reinforcement

Configurations



Configurations: XO/OX, XX-PX-XP, OXO (Left/OXO (Right), OXX (3 Tracks), XXO (3 Tracks), PXXX (3 Tracks), PXXXXP (3 Tracks).

ESWINDOWS

Version 1
FT-DD-115

March 11-2017

PIVOT SWING DOOR

www.eswindows.com

ES-PSD5030T



System description

- Pivot swing door system.
- Frame depth: 5"
- Impact door.
- Threshold ADA.
- Desing for multiple options of glass and panel phenolic.

Features

- Thermal break system for improved performance and insulation.
- Multipoint lock.
- Available in multiple finishes, anodized, painted or with wood grain.

Configurations



Phenolic panel door



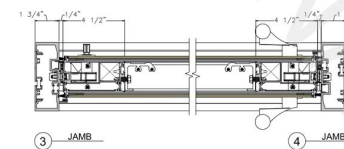
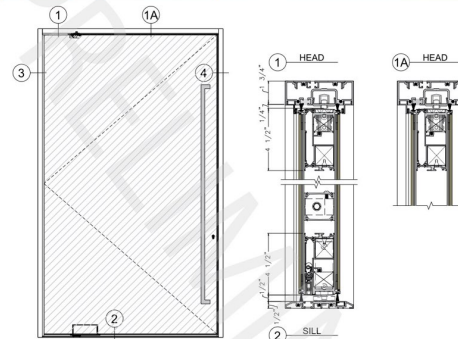
Glass door

ESWINDOWS
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Version 1
FT20-216

Sept 23th-2021

System details



ESWINDOWS

For further information about products consult: www.eswindows.com

ES-PSD5030T



AndreuStudio
www.andreustudio.com

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DESIGNER:

ANDREU STUDIO
1025 92nd Street, Unit 701
Bay Harbor Islands, FL 33154

PROJECT:

8935 FROUDE AVE,
SURFSIDE, FL 33154

FOLIO NUMBER:14-2235-005-2520

DATE: 2/8/2024

REVISION

NO.	DESCRIPTION	DATE

DATE:
DRAFTED BY:
SCALE:

CONSULTANTS:



Digitally signed
by Dennis Lytkine
Date: 2024.02.12
07:17:20 -05'00'

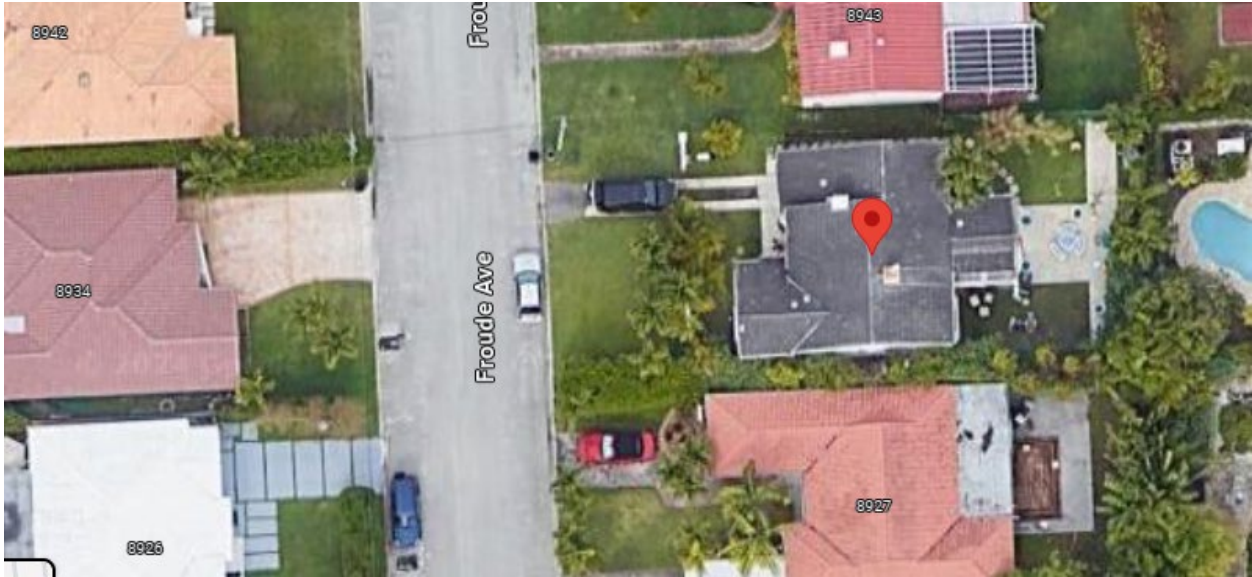
DETAILS

A-5.4
43

DRAWN BY: T.A.



Existing Conditions



Aerial view of 8935 Froude Avenue



West Elevation of 8935 Froude Avenue



Town of Surfside, Florida Development Review

Site Characteristics

Address	8935 Froude Avenue
General Location	Central Area of Town
Property Size	5,625 SF per Survey dimensions
Zoning District	H30B
Floors	2
Total SF	4,049.8 SF

Zoning Code Tables

Building Heights

Zoned Height in NGVD	Maximum	Proposed
H30B	30 FT from Crown of Road	29 FT 10 IN
Modification in height	3 FT	1 FT parapet
Mechanical Equip. height	6 FT	NA

Ordinance No. 2023-1754 Setbacks

Minimum Setbacks	Required	Proposed
Primary Frontage	20 feet	20 FT
Interior Side - north	5 FT	5 FT
Interior Side - south	5 FT	5 FT
Rear	20 feet	20 FT
Additional Average Setbacks		
Front	400 SF	413 SF
North Side**	362.5 SF	430 SF
South Side	362.5 SF	614 SF
Structure Volume		
F.A.R	.72 Max	0.719
Wall Plane articulation	Max 50% of lot depth	Provided

Lot Standards

Lot Standards for H30 B	Required	Proposed
Minimum Lot Width	50 ft	50 FT
Minimum Lot Area	5,600 SF	5,625 SF
Maximum Lot Coverage	40% or 2,250	2,248.82 (39.98%)*
Total Pervious Area	35% or 1,969 SF Min	2,141.73 SF (38.08%)
Front Yard Paved	50% Max.	Less than 50%
Rear Yard Landscaped	20% Min.	Provided
Roof Deck	10 FT Setback	NA

*Includes entry space as it is enclosed on more than two sides and covered.



Town of Surfside, Florida Development Review

Landscaping

	Required	Provided
Street Trees	2	2 Live Oaks
Trees	5	7
Shrubs	25	163
Florida Friendly Landscaping	40%	Greater than 40%

DRAFT



Town of Surfside, Florida Development Review

Town of Surfside Adopted Residential Design Guidelines

Design Element	Required	Proposed
Building Massing	Building forms should be varied enough to avoid monotony and to avoid pyramidal massing and should be compatible with surrounding houses	Planning and Zoning Board to provide determination
Decorative Features	Decorative features should be stylistically consistent throughout the entire building.	Planning and Zoning Board to provide determination
Overall Architectural Style	The overall style of each house should be consistent on all sides of the building, as well as among all portions of the roof.	Planning and Zoning Board to provide determination
Wall Material and Finishes	The same material should be used on all building elevations unless multiple materials are a legitimate expression of the particular style.	White Stucco with Grey Oak Composite wood features
Roof Types	Roof types and slopes should be generally the same over all parts of a single building	Flat roof
Window Style	Window styles should always be consistent among all elevations of a building	Consistent
Frame Materials	Frame Materials should never vary on a single building	Black Aluminum
Window, Door and Eave	Window, door and eave trim should be consistent on all elevations of the house.	Consistent



**Town of Surfside
Planning and Zoning Board Meeting
February 29, 2024**

DISCUSSION ITEM MEMORANDUM

Agenda #: 4.B

Date: February 29, 2024

From: Judith Frankel AICP, Town Planner

Subject: 8841 Garland Avenue - Addition

Suggested Action: – Staff finds this application for a front addition, rear addition, and rear terrace meets the zoning code. The Planning and Zoning Board should determine whether the new additions are "consistent with and in conformance with the design guidelines set forth in the Town Code". Staff recommends approval with the following conditions:

- The existing accessory structure is demolished prior to the application for a building permit.
- The additional space must have a FFE equaling the existing FFE for the home.
- The proposed pool, driveway and fence must be permitted separately. Pervious lot coverage will be verified at permitting.

Background/Analysis: – The subject property is located at 8841 Garland Avenue in the H30B zoning district. The applicant is seeking to build a 74 SF front porch addition, a 909 SF rear addition, and a 208 SF rear terrace with a pool and deck. The front addition creates a small, roofed porch to provide rain and sun cover to the front entry. This adds visual interest to the front facade as well. The porch has a pitched face to match the existing style of the home. The space will be open on the north and south sides to allow light to reach the existing front windows.

The rear addition will add a bedroom and additional living space for the home. The roof of the addition is flat, unlike the existing roof. However, as it is in the rear of the home the addition will not be seen from the street. The rear terrace is covered, but open on two sides so it does not contribute towards the lot coverage calculation.

The existing home and the additions meet or exceed the minimum setbacks. The additional average setbacks are not applicable because the F.A.R. is 0.47 and the additional average setbacks only apply with an F.A.R. greater than 0.5. The lot coverage is 47%. The pervious area is 37.6% of the lot, which is above the minimum requirement.

The garage at the property is not proposed to be converted to living space. The garage counts as a parking space and one additional space is provided in the front driveway to provide the required two off-street parking spaces.

See **Attachment A** for location and additional zoning details.

Plans indicate a proposed pool, but complete dimensions are not provided. A rear yard pool may be permitted without Planning and Zoning Board review. All pool and A/C equipment must be setback at least 5 feet from all property lines, which is shown on the provided site plan. The edge of the pool coping, or deck must also be at least 5 feet from all side and rear property lines. The pool, deck, and driveway are excluded in the pervious area calculation for the property. The pool and rear deck dimensions will be verified at the time of permitting.



Existing Conditions



Aerial view of 8841 Garland Avenue



East Elevation of 8841 Garland Avenue



Town of Surfside, Florida Development Review

Site Characteristics

Address	8841 Garland Avenue
General Location	Central Area of Town
Property Size	5,625 SF per Property Survey
Zoning District	H30B
Floors	1

Zoning Code Tables

Sec. 90.43 Maximum Building Heights

Zoned Height	Maximum	Proposed Addition
H30B	30 ft from Crown of Road	18.3 NGVD

Ordinance No. 2023-1754

Minimum Setbacks	Required	Proposed Additions
Primary Frontage	20 FT	20 FT
Interior Side - north	5 FT	5 FT
Interior Side - south	5 FT	5 FT
Rear	20 FT	20 FT
Additional Average Setbacks		
Front	400 SF	Not Applicable
North Side	362.5 SF	Not Applicable
South Side	362.5 SF	Not Applicable
Structure Volume		
F.A.R.	.72 Max	0.47

Lot Standards

Lot Standards for H30 B	Required	Proposed
Minimum Lot Width	50 ft	50 FT
Minimum Lot Area	5,600 SF	5,625 SF
Maximum Lot Coverage	50%	2,667 SF (47%)
Total Pervious Area	35%	2,116 SF (37.6%)
Front Yard Paved	50% Max.	329 SF (33%)
Rear Yard Landscaped	20% Min.	582 SF (48%)
Roof Deck	10 FT Setback	Not Applicable



Town of Surfside, Florida Development Review

Town of Surfside Adopted Residential Design Guidelines

Design Element	Required	Proposed
Building Massing	Building forms should be varied enough to avoid monotony and to avoid pyramidal massing and should be compatible with surrounding houses	Planning and Zoning Board to provide determination
Decorative Features	Decorative features should be stylistically consistent throughout the entire building.	Planning and Zoning Board to provide determination
Overall Architectural Style	The overall style of each house should be consistent on all sides of the building, as well as among all portions of the rood.	Planning and Zoning Board to provide determination
Wall Material and Finishes	The same material should be used on all building elevations unless multiple materials are a legitimate expression of the particular style.	Consistent; white smooth stucco; black metal light fixtures with black metal railings
Roof Types	Roof types and slopes should be generally the same over all parts of a single building	Flat Roof on rear addition; Existing roof is pitched with barrel tile; front addition to match existing
Window Style	Window styles should always be consistent among all elevations of a building	Front existing windows are consistent with existing
Frame Materials	Frame Materials should never vary on a single building	Aluminum with white finish
Window, Door and Eave	Window, door and eave trim should be consistent on all elevations of the house.	Consistent

TOWN OF SURFSIDE
 JAN 19 '24 2:04PM



Pre-Application Mtg.	___/___/20__
Application / Plans Due	___/___/20__

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

A complete submittal includes all documents on the "Single-Family and Two-Family Site Plan Application Submission Checklist" 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. A pre-application meeting with the Town Planner is required prior to submitting this application. Town Planner, Judith Frankel jfrankel@townofsurfsidefl.gov

PROJECT INFORMATION ALL INFORMATION IS REQUIRED

PROPERTY ADDRESS: 8841 Garland Avenue

OWNER'S NAME: Josic Thepaut & Valeria Zabala

PHONE: ~~786~~⁷⁰³ 855-0820 Email: valzabala@gmail.com

AGENT'S NAME: ~~Jeff~~ Valeria Lorenzo

ADDRESS: _____

PHONE: 305-815-4649 Email: _____

ZONING CATEGORY: H30B

DESCRIPTION OF PROPOSED WORK: Rear addition: Master Suite, family room, terrace, and kitchen. Facade modification

Application Meeting Date: _____

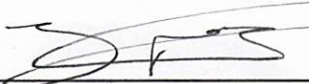
INTERNAL USE ONLY

Date Submitted _____ Project Number 23-5188

Report Completed _____ Date _____

Fee Paid \$ _____

ZONING STANDARDS	Required			Provided		
Plot Size	5,600			5,625		
Setbacks (F/R/S)	20	20	5	20	20	5
Lot Coverage	50%			2,666.50 sq.ft.		
Height	30'-0"			14'-6"		
Pervious Area	35%			2,193 (40%)		


 _____ 11/28/2023 _____
 SIGNATURE OF OWNER DATE 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 shall generally meet the last Thursday of each month at 6:00 p.m. at Town Hall in the Commission Chambers.

Zoning compliant plans and completed applications (including all supporting documentation) must be submitted to the Building Department at least 30 days prior to the Planning and Zoning Meeting with the applicable fees (example: \$200.00 for Plan Review for Zoning), at which time they will be considered. Incomplete or non-compliant plans and applications will not be processed. Please note that some applications require public notice (incl. new homes and substantial additions). Note the application will not be scheduled unless a complete application, including the Submission Checklist, and plans that meet all zoning requirements is submitted 30 days before the meeting.

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 Chair of the Board.

11/28/2023

Signature of Agent or Owner

DATE

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

Valeria Lorenzo

11/28/2023

Name of Representative

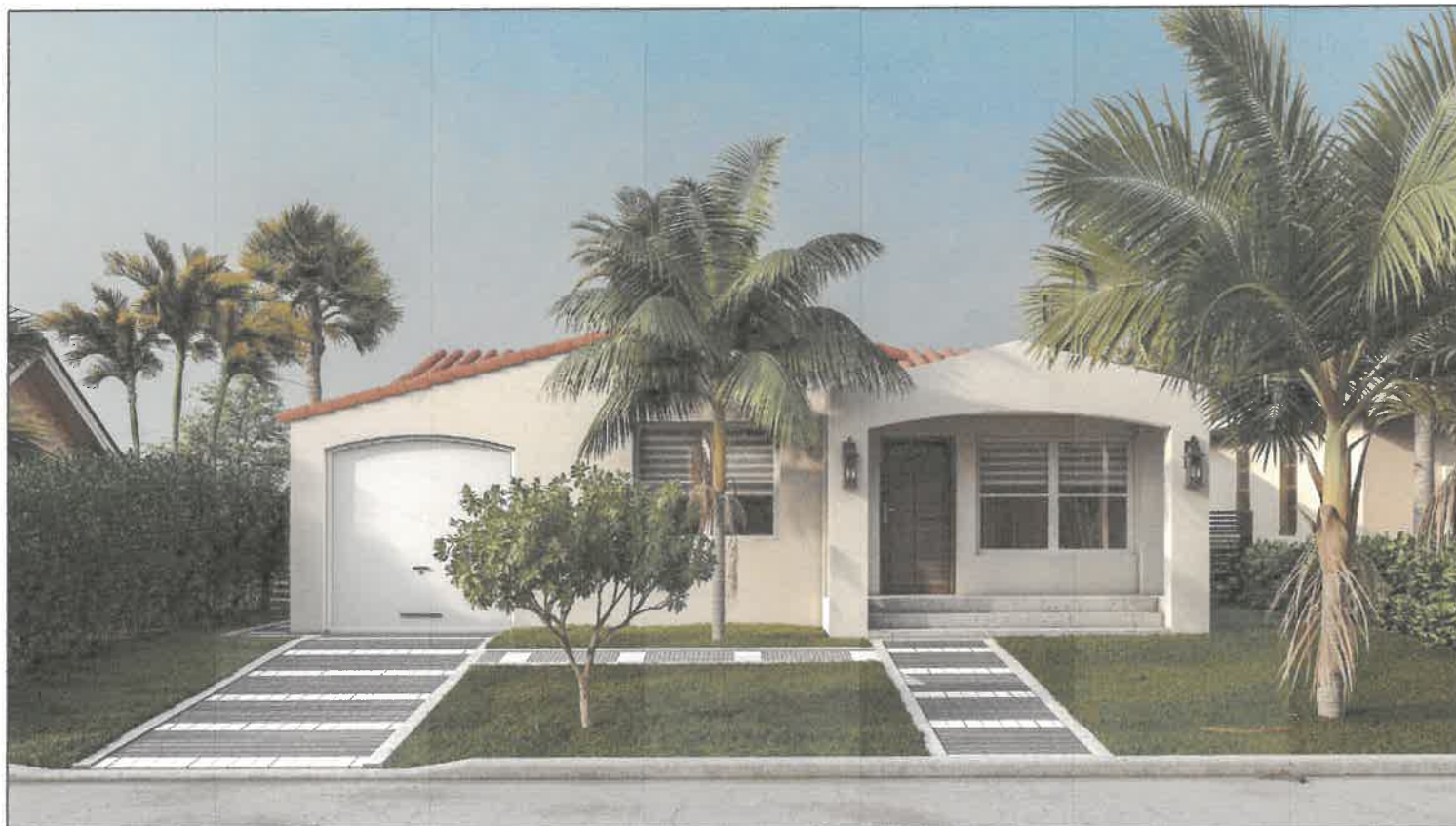
DATE

Josic Thepaut

Name of Owner

11/28/23

DATE



8841 GARLAND AVENUE



LOCATION MAP
NOT TO SCALE



Digitally signed by
Jorge D Mantilla
Date: 2024.01.18 15:42:08 -05'00'

This document has been digitally signed and sealed by Jorge D. Mantilla, R.A. on his behalf as stated in the seal. Printed copies of this document are not considered digital and sealed and the signature must be verified on the website's website.

JORGE D. MANTILLA
ARCHITECT

5501 SW 85th COURT SOUTH MIAMI FL 33143
STATE OF FLORIDA LICENSE NO. 14320
P. (305) 615-4849
E-mail: jdmantillaarchitect@gmail.com

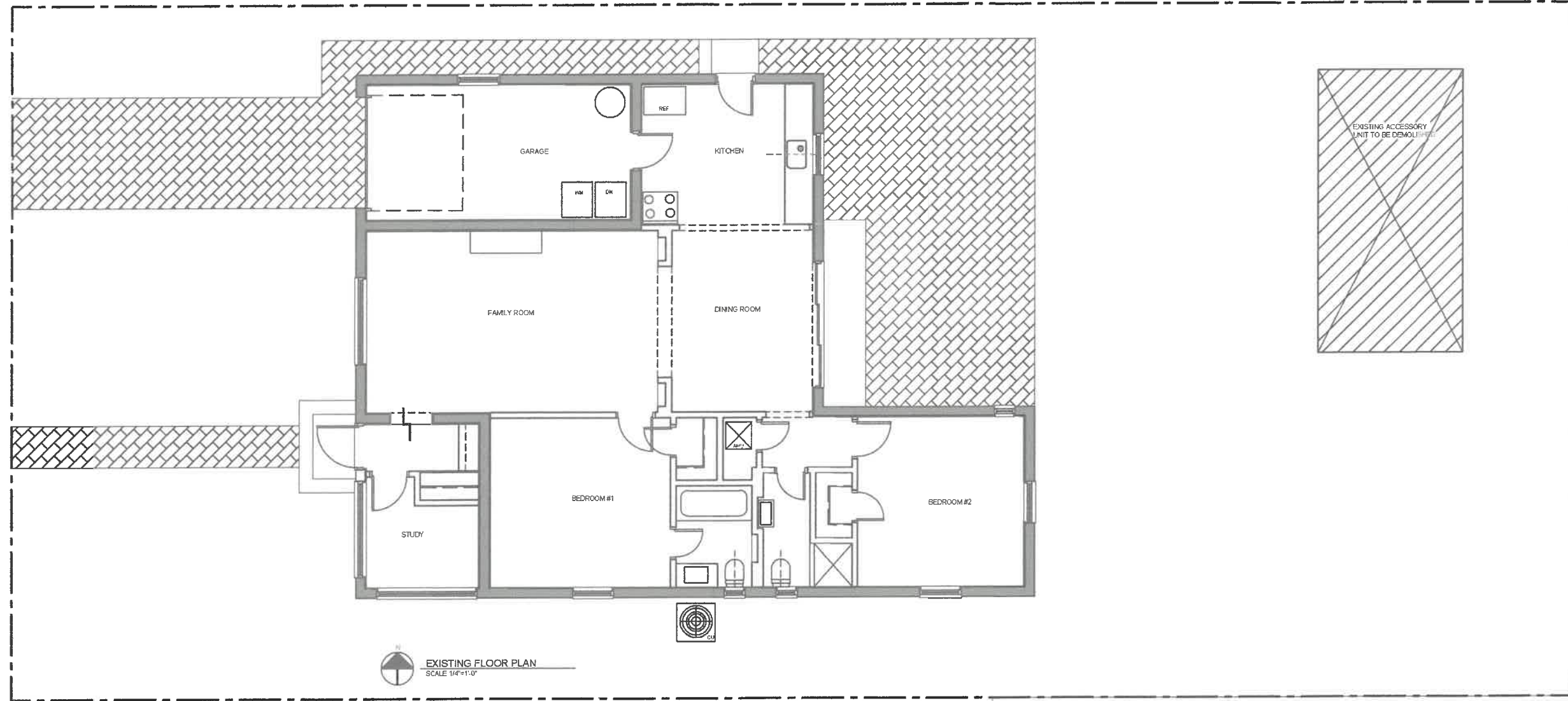
DRAWING LOG:	DATE:

SINGLE FAMILY HOME ADDITION
OWNER: MR. JOSIC THEPAUT & MRS. VALERIA ZABALA
8841 GARLAND AVENUE
SURFSIDE, FLORIDA 33154

- DRAWING INDEX:**
- A-000 COVER INDEX/LOCATION SKETCH
 - A-100 EXISTING FLOOR PLAN/EXISTING AREAS
 - A-101 EXISTING ROOF PLAN
 - A-102 EXISTING ELEVATIONS AND PICTURES
 - A-200 PROPOSED SITE PLAN AND ZONING DATA
 - A-201 PROPOSED FLOOR PLAN
 - A-302 ROOF PLAN
 - A-301 BUILDING ELEVATIONS
 - A-302 BUILDING ELEVATIONS

CONSULTANT
scale: 1/8" = 1'-0"
release date: 01/19/2023
drawn by: JLM
checked by: JM

A-000
COLOR PICTURE



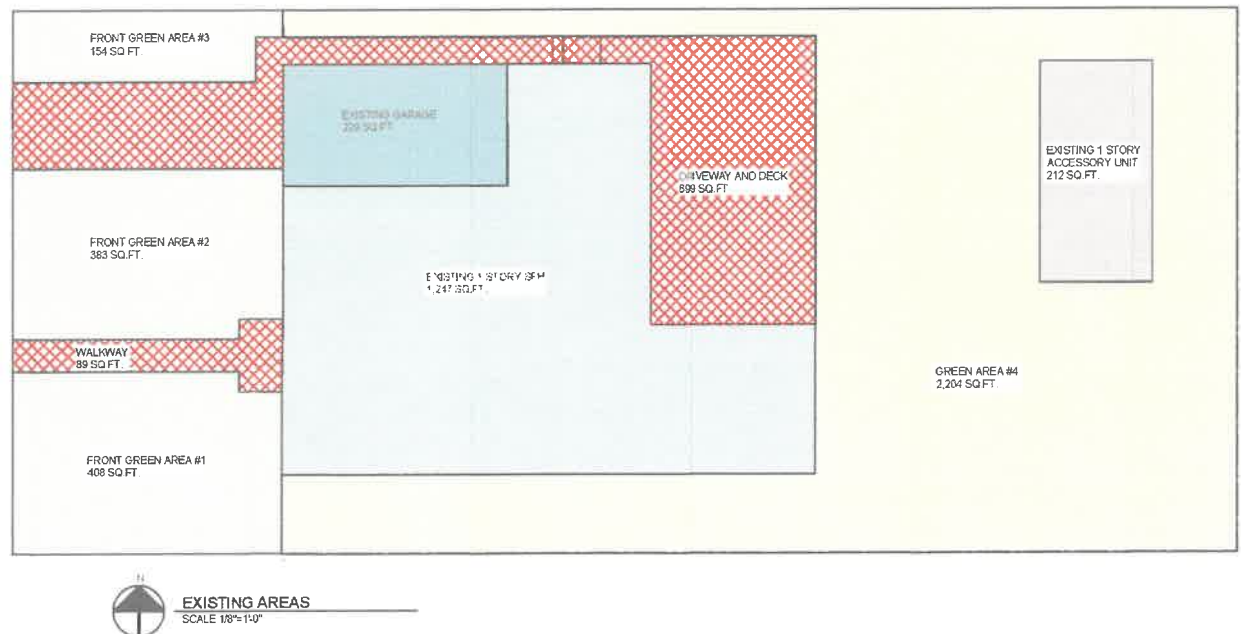
This form has been digitally signed and created by Jorge D. Mantilla, P.E. on the date expressed in the text. Printed copies of this document are valid and are not subject to a signature audit and the signature must be verified on any electronic copies.

JORGE D. MANTILLA
ARCHITECT

5901 SW 85th COURT SOUTH MIAMI FL 33143
STATE OF FLORIDA LICENSE NO. 14320
P. (305) 415-4849
E-mail: jdm@jdmarchitect.com

DRAWING LOG:	DATE:
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

SINGLE FAMILY HOME ADDITION
OWNER: MR. JOSIC THEPAUT & MRS. VALERIA ZABALA
8841 GARLAND AVENUE
SURFSIDE, FLORIDA 33154



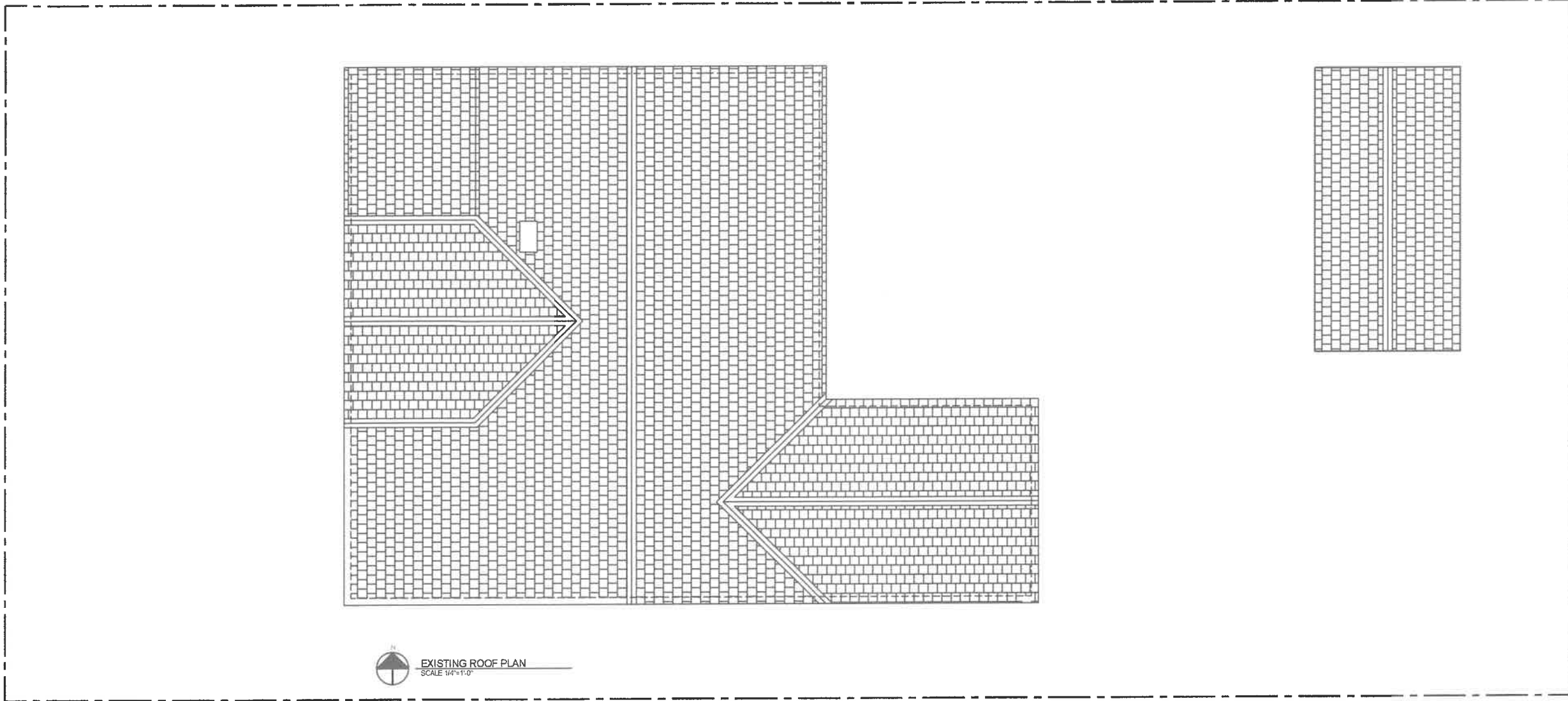
AREAS CALCULATIONS

TOTAL LOT 5,625 SQ.FT.(100%)
EXISTING HOUSE 1,476 SQ.FT.+ ACCESSORY UNIT 212 SQ.FT. = 1,688 SQ.FT.(30%)
TOTAL LOT _____ 5,625 SQ.FT

EXIST. AREA UNDER A/C _____	1,247 SQ.FT	<input type="checkbox"/>
EXIST. GARAGE _____	229 SQ.FT	<input type="checkbox"/>
EXISTING ACC. UNIT _____	212 SQ.FT.	<input type="checkbox"/>
EXISTING DRIVEWAY & DECK _____	699 SQ.FT.	<input type="checkbox"/>
EXISTING WALKWAY _____	89 SQ.FT	<input type="checkbox"/>
EXIST. GREEN AREA FRONT _____	226 SQ.FT	<input type="checkbox"/>
EXIST. GREEN AREA BACK & SIDES _____	2,204 SQ.FT.	<input type="checkbox"/>

CONSEQUENT
scale: 1/2" = 1'-0"
release date: 02/13/2023
drawn by: VJ
checked by: JM

A-100
EXISTING FLOOR PLAN
SHEET NO. 2 OF 9




EXISTING ROOF PLAN
 SCALE 1/4"=1'-0"



Digitally signed by
 Jorge D Mantilla
 Date: 2024.01.18
 15:43:10
 -05'00'

The Seal has been digitally signed and verified by Jorge D. Mantilla. It can be only released to the seal holder as part of the document and the seal cannot be copied, modified and the signature must be visible on a PDF document.

JORGE D. MANTILLA
 ARCHITECT

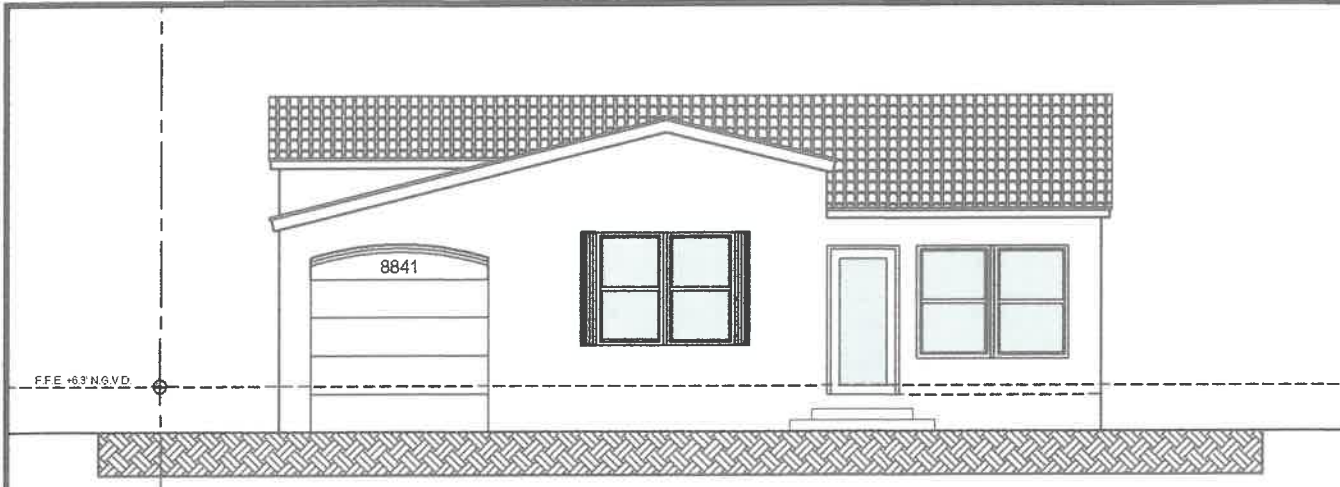
8801 SW 83rd COURT, SOUTH MIAMI FL, 33143
 STATE OF FLORIDA LICENSE NO. 14220
 P. (305) 412-4540
 E-mail: jmantillaarchitect@gmail.com

DRAWING LOG:	DATE:
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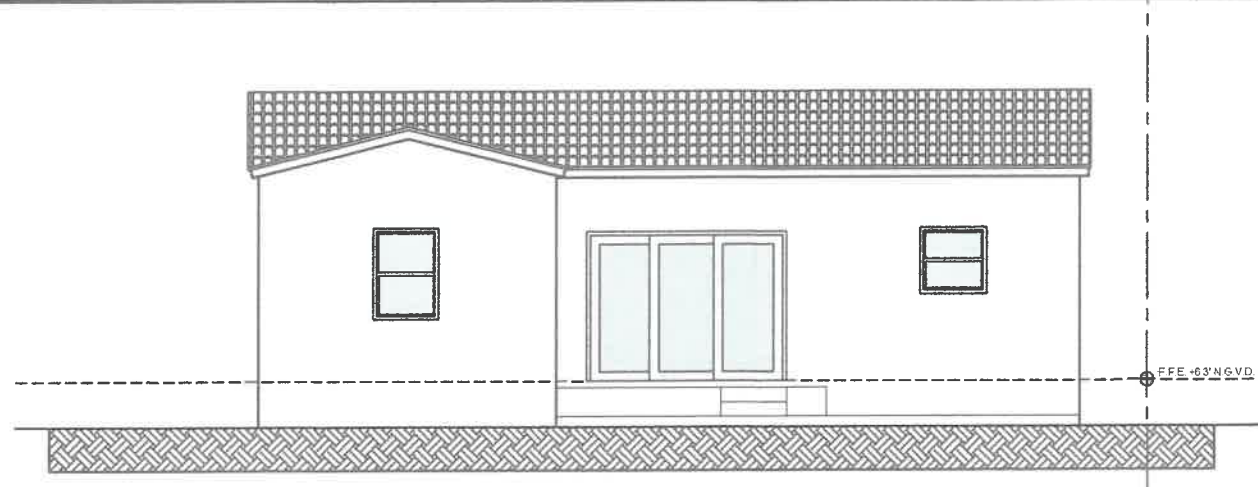
SINGLE FAMILY HOME ADDITION
 OWNER: MR. JOSIC THEPAUT & MRS. VALERIA ZABALA
 8841 GARLAND AVENUE
 SURFSIDE, FLORIDA 33154

CONSULTANT
 scale: 1/4" = 1'-0"
 release date: 02/15/2023
 drawn by: JLM
 checked by: JLM

A-101
 EXISTING ROOF
 PLAN



EXISTING FRONTWEST ELEVATION
SCALE 1/4"=1'-0"



EXISTING REAR/EAST ELEVATION
SCALE 1/4"=1'-0"



Digitally signed by
Jorge D Mantilla
Date:
2024.01.18
15:43:35
-05'00'

I, _____, am the owner of the project and I hereby certify that the information provided in this drawing is true and correct to the best of my knowledge and belief. I understand that any false information provided in this drawing may constitute a crime under the laws of the State of Florida and the United States of America.

JORGE D. MANTILLA
ARCHITECT

5901 BIVERT COURT, SOUTH MIAMI, FL 33143
STATE OF FLORIDA LICENSE NO. 14220
P. (305) 833-8849
E-mail: jdmantillaarchitect@gmail.com

DRAWING LOG:	DATE:



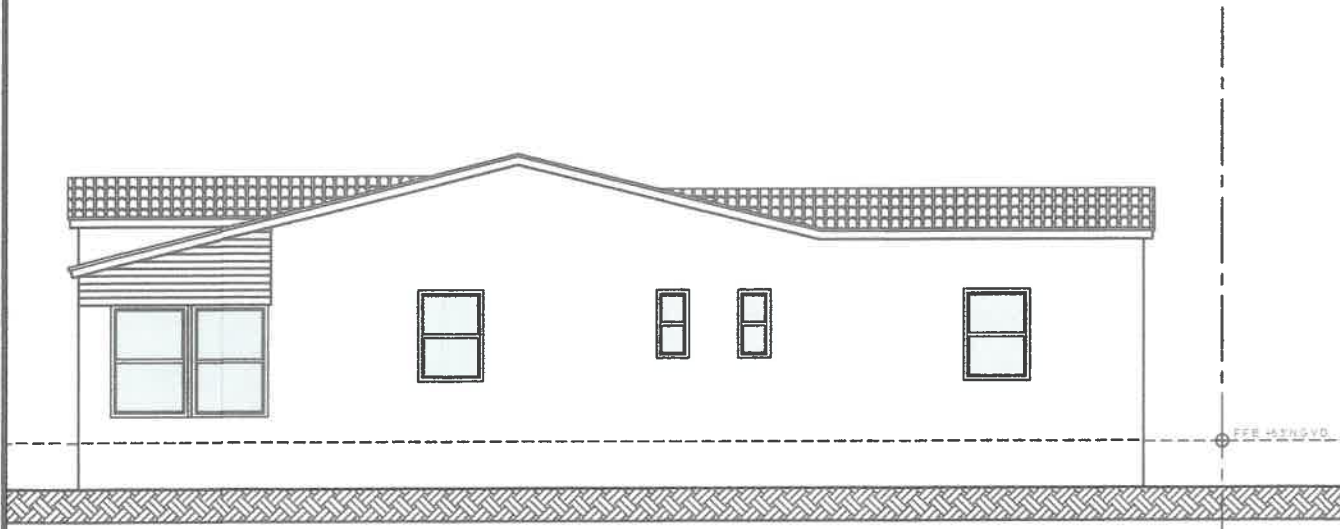
FRONT FACING GARLAND AVENUE



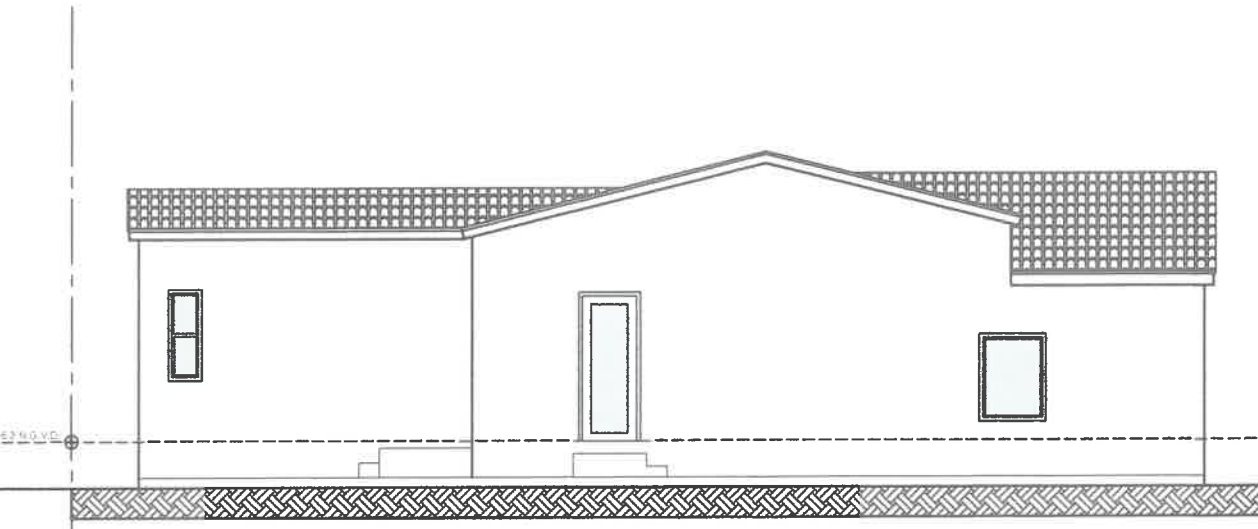
SOUTH SIDE



PARTIAL BACK PATIO



EXISTING SIDE/SOUTH ELEVATION
SCALE 1/4"=1'-0"

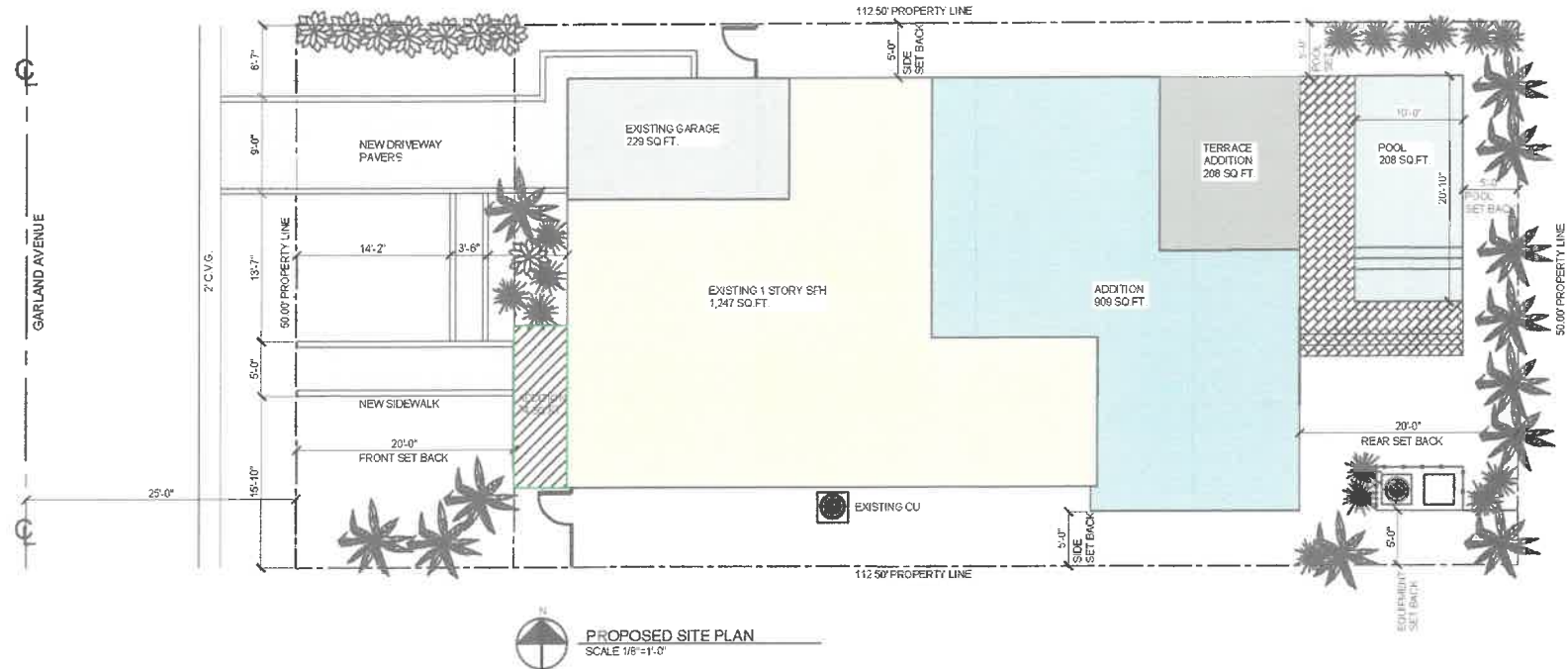


EXISTING SIDE/NORTH ELEVATION
SCALE 1/4"=1'-0"

SINGLE FAMILY HOME ADDITION
OWNER: MR. JOSIC THEPAUT & MRS. VALERIA ZABALA
8841 GARLAND AVENUE
SURFSIDE, FLORIDA 33154

CONVERSION
SCALE: 1/4"=1'-0"
release date: 01/15/2023
drawn by: VI
checked by: AM

A-102
EXISTING ELEVATIONS



PROPOSED SITE PLAN
SCALE 1/8"=1'-0"

ZONING REQUIREMENTS: H30B
FOLIO: 14-2235-005-2840
 LOT SIZE: 112.50 X 50.00 = 5,625 SQ.FT.
 MAX. LOT COVERAGE: 50% (5,625) = 2,812 SQ.FT.
 LOT COVERAGE PROPOSED: 2,667 SQ.FT.

BUILDING SET BACKS	REQUIRED	PROPOSED
FRONT SET BACK	20'-0"	20'-0" NEW
SOUTH SET BACK	5'-10"	5'-10" NEW
NORTH SET BACK	5'-0"	5'-0" EXISTING
REAR SET BACK	20'-0"	20'-10" EXISTING
LOT COVERAGE	2,812 SQ.FT.	2,013 SQ.FT.

MAX. HEIGHT FROM CROWN OF ROAD	2 STORIES 30'-0"	1 STORY
MIN. PERVIOUS AREA (35% OF 5,625 SQ.FT.)	1,969 SQ.FT.	2,116 SQ.FT.
FRONT SET BACK PERMEABILITY (50% OF 1,000 SQ.FT.)	500 SQ.FT.	871 SQ.FT.
REAR SET BACK PERMEABILITY (40% OF 1,000 SQ.FT.)	400 SQ.FT.	582 SQ.FT.

FLOOD LEGEND

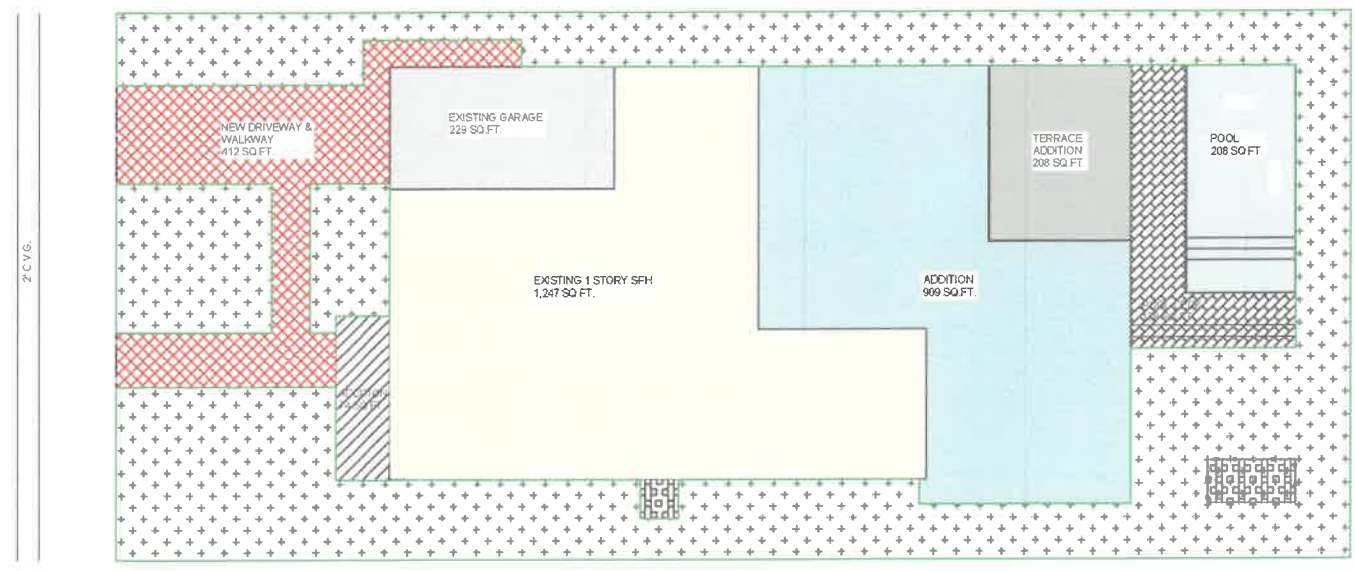
FOUD: 14-2235-005-2840 ADDRESS: 8841 GARLAND AVENUE

LOT/UNIT: 5 BLOCK/BLDG: 19

SUBDIVISION: 2ND AMENDED PLAT OF PLAT BOOK: 18 PAGE: 44
 NORMANDY BEACH

FLOOD ZONE: AE BASE FLOOD ELEVATION 8.00'
 FIRE: 12086C- PANEL C307

CROWN OF ROAD: N/A
 PROPOSED FINISH FLOOR ELEVATION: 8.3' N.G.V.D.
 PROPOSED LOWER FLOOR ELEVATION (GARAGE): 5.1' N.G.V.D.
 PROPOSED ADJACENT DRADE ELEVATION: 5.2' N.G.V.D.



PROPOSED AREAS
SCALE 1/8"=1'-0"

AREAS CALCULATIONS

TOTAL LOT 5,625 SQ.FT(100%)
 EXISTING HOUSE 1,476 SQ.FT.+ ACCESSORY UNIT 212 SQ.FT. = 1,688 SQ.FT(30%)
 TOTAL LOT _____ 5,625 SQ.FT

EXIST. AREA UNDER A/C	1,247 SQ.FT	<input type="checkbox"/>
EXIST. GARAGE	229 SQ.FT	<input type="checkbox"/>
ADDITION	909 SQ.FT.	<input type="checkbox"/>
DRIVEWAY & WALKWAY	412 SQ.FT.	<input checked="" type="checkbox"/>
NEW TERRACE	208 SQ.FT	<input type="checkbox"/>
NEW POOL	208 SQ.FT	<input type="checkbox"/>
POOL DECK	178 SQ.FT.	<input checked="" type="checkbox"/>
EQUIPMENT	44 SQ.FT.	<input checked="" type="checkbox"/>
GREEN AREA	2,116 SQ.FT.	<input checked="" type="checkbox"/>
FRONT ADDITION	74 SQ.FT.	<input checked="" type="checkbox"/>

Digitally signed by Jorge D Mantilla
 Date: 2024.01.18 15:46:54 -05'00'



JORGE D. MANTILLA
 ARCHITECT

5801 SW 85th COURT SOUTH MIAMI FL 33143
 STATE OF FLORIDA LICENSE NO. 14320
 P. (305) 815-4648
 E. mantilla@architect.com

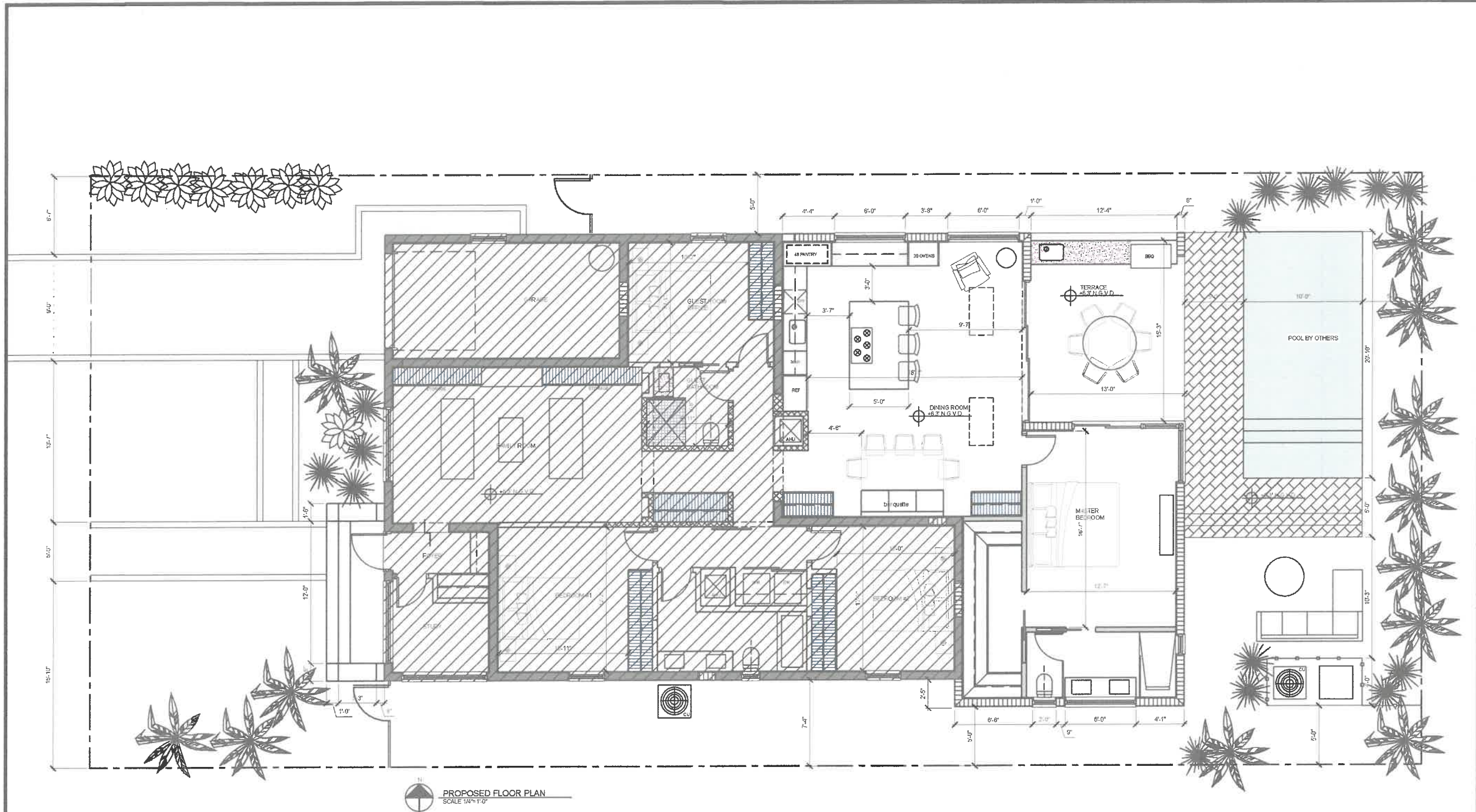
DRAWING LOG: _____ DATE: _____

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

SINGLE FAMILY HOME ADDITION
 OWNER: MR. JOSIC THEPAUT & MRS. VALERIA ZABALA
 8841 GARLAND AVENUE
 SURFSIDE, FLORIDA 33154

CONSULTANT
 scale: 1/8" = 1'-0"
 release date: 03/15/2023
 drawn by: VL
 checked by: JM

A-200
 SITE PLAN & ZONING DATA
 SHEET NO. 5 OF 8



PROPOSED FLOOR PLAN
SCALE 1/4" = 1'-0"

Digitally signed by
Jorge D Mantilla
Date: 2024.01.18
15:50:09
-05'00'



This form has been digitally signed and sealed by Jorge D. Mantilla. It is a true and correct copy of the original. No alterations or changes have been made to this document and the signature must be verified on any electronic copies.

JORGE D. MANTILLA
ARCHITECT

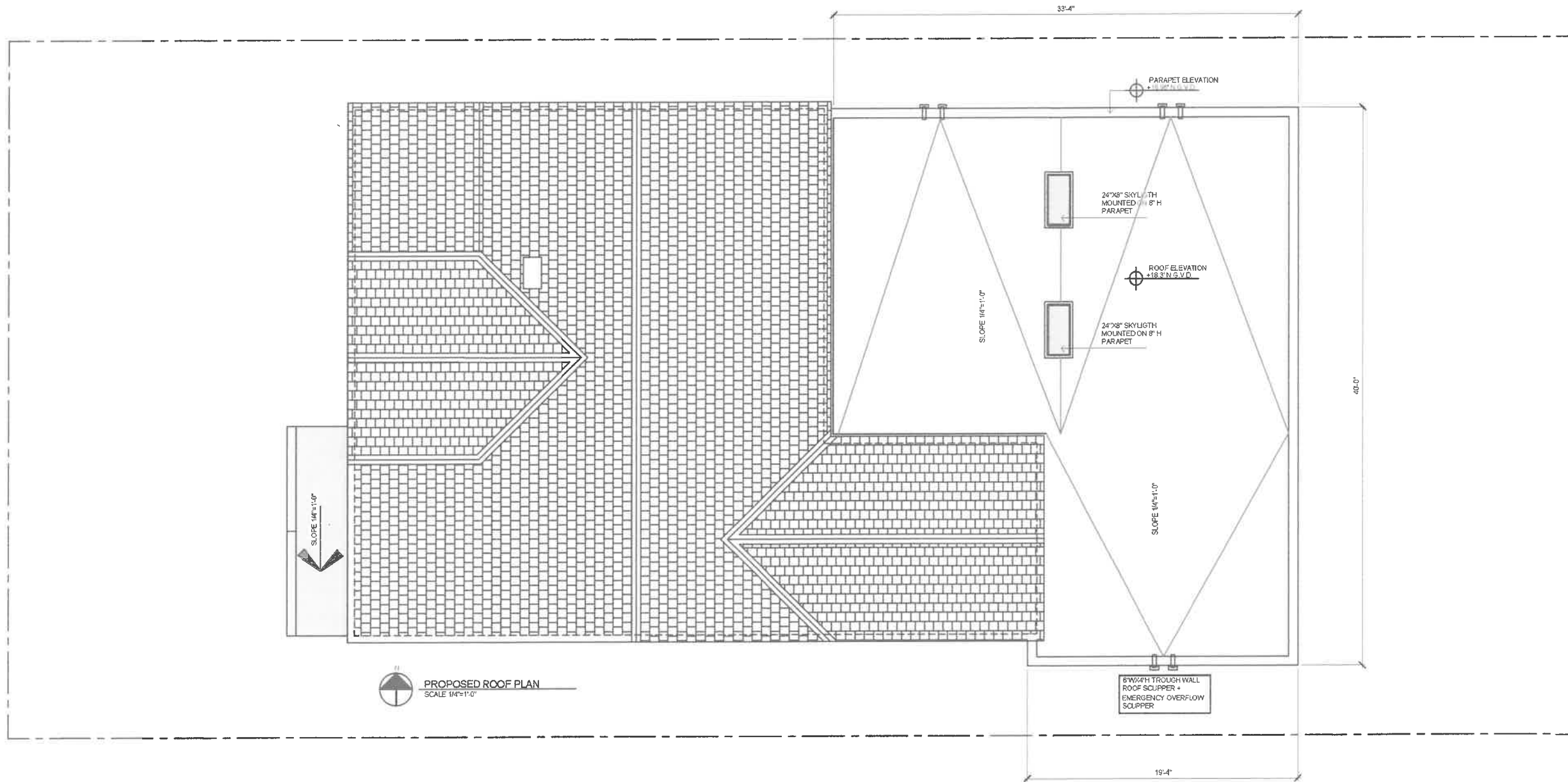
5601 SW 63RD COURT SOUTH MIAMI FL 33143
STATE OF FLORIDA LICENSE NO. 14113
P. (305) 555-4840
E-mail: jormantillaarchitect@gmail.com

DRAWING LOG:	DATE:
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

SINGLE FAMILY HOME ADDITION
OWNER: MR. JOSIC THEPAUT & MRS. VALERIA ZABALA
8841 GARLAND AVENUE
SURFSIDE, FLORIDA 33154

CONSULTANT
scale: 3/4" = 1'-0"
release date: 02/15/2023
drawn by: YL
checked by: JM

A-201
PROPOSED FLOOR PLAN
SHEET NO. 6 OF 8



PROPOSED ROOF PLAN
SCALE 1/4"=1'-0"



Digitally signed by
Jorge D
Mantilla
Date:
2024.01.18
15:49:39
-05'00'

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JORGE D. MANTILLA
ARCHITECT

5901 SW 62nd COURT SOUTH MIAMI FL 33143
STATE OF FLORIDA LICENSE No. 14358
P. (305) 615-4646
E-mail: jdmantillaarchitect@gmail.com

DRAWING LOG:	DATE:

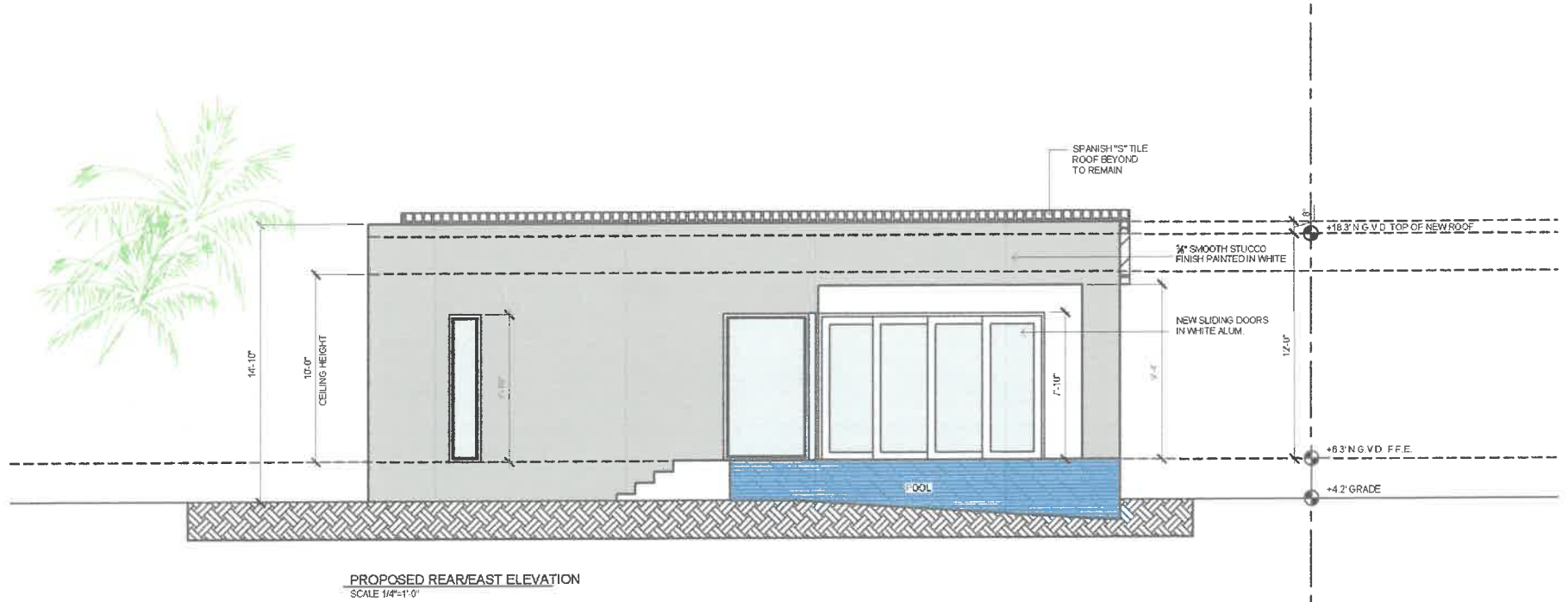
SINGLE FAMILY HOME ADDITION
OWNER: MR. JOSIC THEPAUT & MRS. VALERIA ZABALA
8841 GARLAND AVENUE
SURFSIDE, FLORIDA 33154

CONSULTANT
scale: 1/4" = 1'-0"
release date: 02/15/2023
drawn by: VL
checked by: ML

A-202
PROPOSED
ROOF PLAN



PROPOSED FRONTWEST ELEVATION
SCALE 1/4"=1'-0"



PROPOSED REAR/EAST ELEVATION
SCALE 1/4"=1'-0"



Digitally signed by
Jorge D Mantilla
Date: 2024.01.18 15:49:13 -05'00'

This form has been digitally signed and sealed by Jorge D. Mantilla, P.A. as the authorized signatory. Printed copies of this document are not considered valid and a seal and the signature must be verified on any electronic copies.

JORGE D. MANTILLA
ARCHITECT

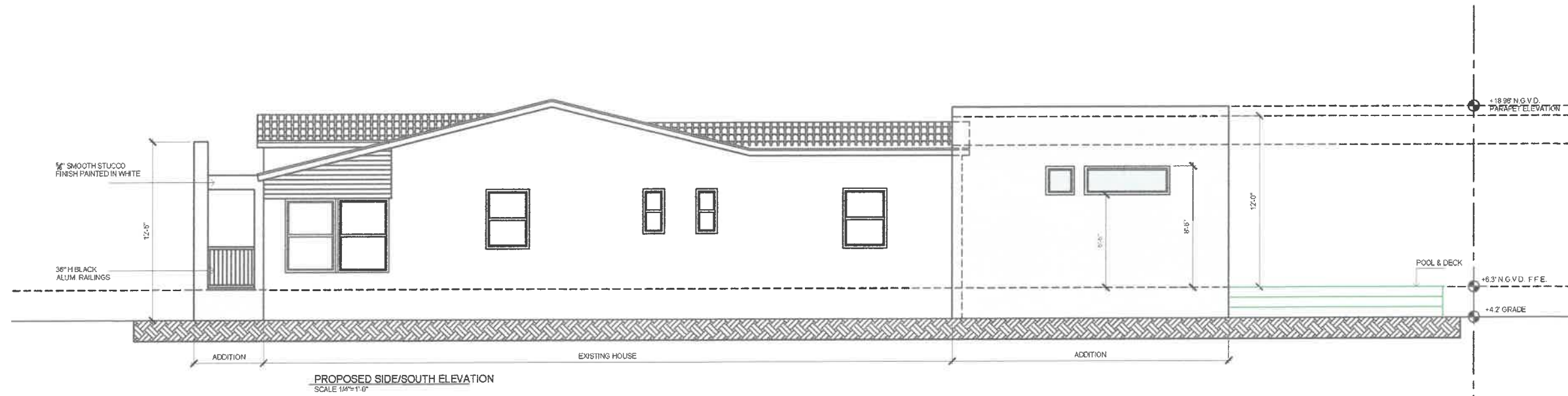
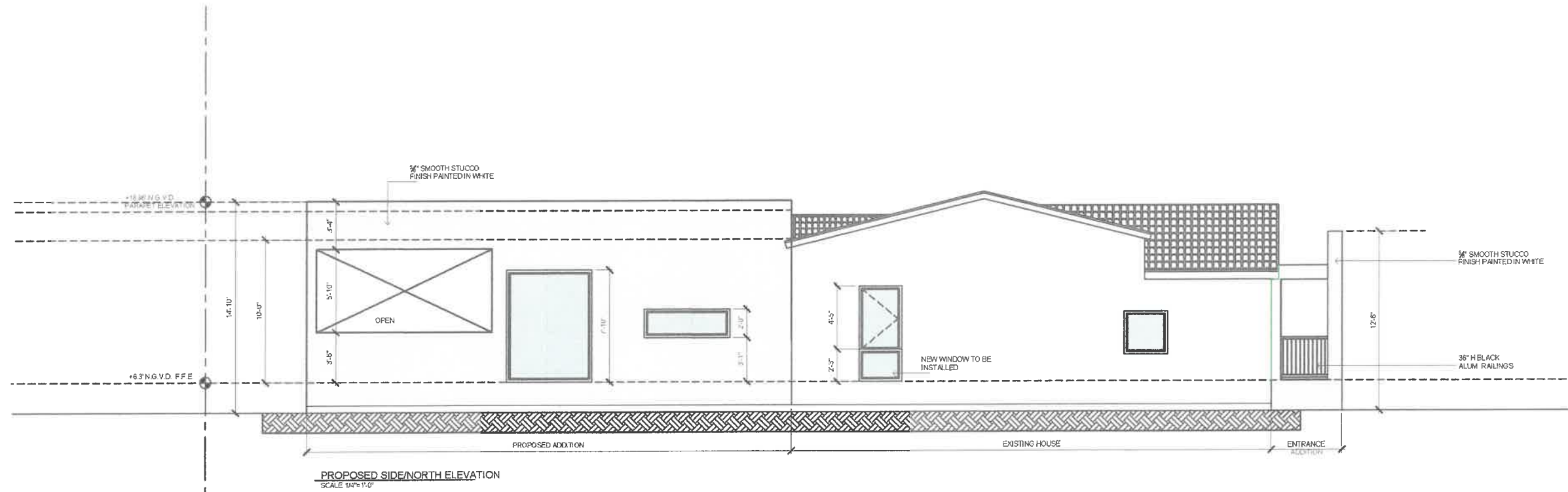
5901 SW 85th COURT SOUTH MIAMI FL 33143
STATE OF FLORIDA LICENSE NO. 14200
P. (305) 615-4646
E-mail: jdmantillaarchitect@gmail.com

DRAWING LOG	DATE

SINGLE FAMILY HOME ADDITION
OWNER: MR. JOSIC THEPAUT & MRS. VALERIA ZABALA
8841 GARLAND AVENUE
SURFSIDE, FLORIDA 33154

CONSTANT	
scale:	1/4" = 1'-0"
release date:	02/15/2023
drawn by:	VI
checked by:	JM

A-301
PROPOSED ELEVATIONS
SHEET NO. 8 OF 8



Digitally signed by
 Jorge D Mantilla
 Date: 2024.01.18 15:48:51 -05'00'

The document has been digitally signed and sealed by Jorge D. Mantilla. To view the time stamp to the seal, please click on the document for software that supports digital signatures and the signature must be verified on the electronic version.

JORGE D. MANTILLA
 ARCHITECT

5901 SW 85th COURT SOUTH MIAMI FL 33143
 STATE OF FLORIDA LICENSE NO. 14320
 P. (305) 55-4949
 E-mail: jdmantillaarchitect@gmail.com

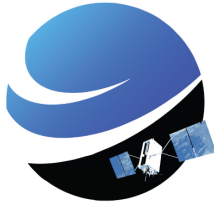
DRAWING LOG	DATE

SINGLE FAMILY HOME ADDITION
 OWNER: MR. JOSIC THEPAUT & MRS. VALERIA ZABALA
 8841 GARLAND AVENUE
 SURFSIDE, FLORIDA 33154

CONSULTANT
 scale: 1/4" = 1'-0"
 release date: 02/13/2023
 drawn by: VL
 checked by: JM

A-302
 PROPOSED ELEVATIONS

PREPARED BY:



G.T.T. Surveyors & Mappers, Inc.



PROPERTY ADDRESS: 8841 GARLAND AVE, SURFSIDE, FLORIDA 33154

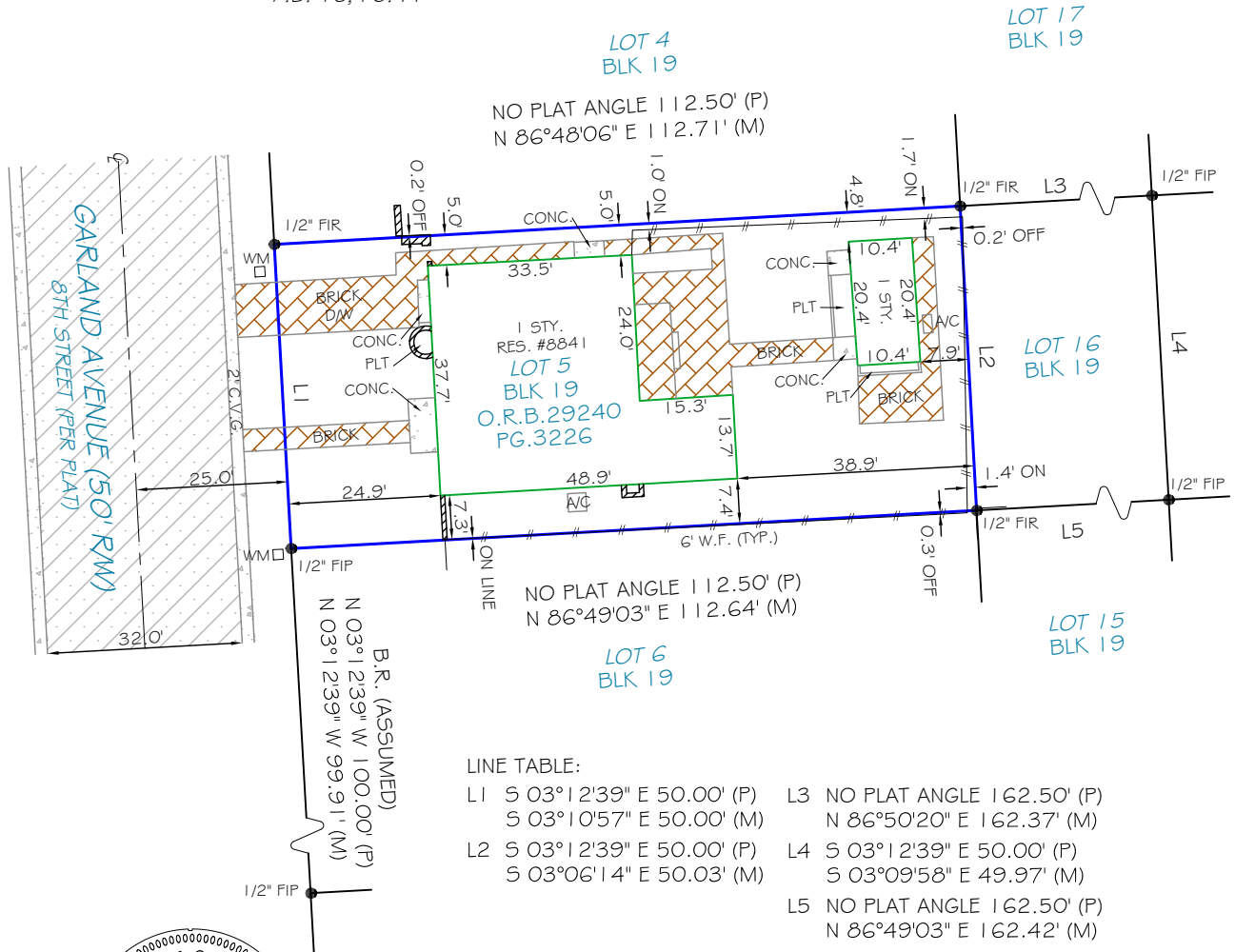
SURVEY NUMBER: 2105.0073-01

FIELD WORK DATE: 7/6/2023

REVISION DATE(S): (REV0 7/10/2023)

2105.0073-01
BOUNDARY SURVEY
MIAMI-DADE COUNTY

2ND AMENDED PLAT OF
NORMANDY BEACH
P.B. 16, PG.44

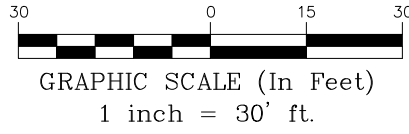


I hereby certify that the Boundary Survey of the herein described property has been made under my direction, and to the best of my knowledge and belief, it is a true and accurate representation of the actual conditions that meets the Standards of Practice set forth by the Florida Board of Professional Surveyors & Mappers in Chapter 5J-17 of the Florida Administrative Code.

FELIPE M. CARVALHO
State of Florida Professional Surveyor
and Mapper License No. 7137



NOTE:
- LOT APPEARS TO BE SERVICED BY CITY WATER AND SEWER



Use of This Survey for Purposes other than Intended, Without Written Verification, will be at the User's Sole Risk and Without Liability to the Surveyor. Nothing hereon shall be Construed to Give ANY Rights or Benefits to Anyone Other than those Certified.

FLOOD INFORMATION:
BY PERFORMING A SEARCH WITH THE LOCAL GOVERNING MUNICIPALITY OR WWW.FEMA.GOV, THE PROPERTY APPEARS TO BE LOCATED IN ZONE AE (WITH A BASE FLOOD ELEVATION OF 8'). THIS PROPERTY WAS FOUND IN TOWN OF SURFSIDE, COMMUNITY NUMBER 120659, DATED 09/11/2009.

POINTS OF INTEREST
NONE VISIBLE

CLIENT NUMBER: DATE: 07/10/23

BUYER:

SELLER:

CERTIFIED TO: JOSIC THEPAUT

PHOTO NOT AVAILABLE

Jorge Rojas
AGENT

E-mail: jorgeara83@gmail.com
Phone: 954-655-6687

This is page 1 of 2 and is not valid without all pages.

G.T.T. Surveyors & Mappers, Inc.

Florida Land Title Association
FLTA
PROUD MEMBER

LEGAL DESCRIPTION:

LOT 5, BLOCK 19, SECOND AMENDED PLAT OF NORMANDY BEACH, ACCORDING TO THE PLAT THEREOF, RECORDED IN PLAT BOOK 16, PAGE 44, OF THE PUBLIC RECORDS OF MIAMI-DADE COUNTY, FLORIDA.

JOB SPECIFIC SURVEYOR NOTES:

THE ASSUMED BEARING REFERENCE OF NORTH 03 DEGREES 12 MINUTES 39 SECONDS WEST IS BASED ON THE EASTERLY RIGHT-OF-WAY LINE OF GARLAND AVENUE (8TH STREET AS PER PLAT) LOCATED WITHIN SECOND AMENDED PLAT OF NORMANDY BEACH, ACCORDING TO THE PLAT THEREOF, RECORDED IN PLAT BOOK 16, PAGE 44, OF THE PUBLIC RECORDS OF MIAMI-DADE COUNTY, FLORIDA.

GENERAL SURVEYOR NOTES:

1. The Legal Description used to perform this survey was supplied by others. This survey does not determine or imply ownership.
2. This survey only shows improvements found above ground. Underground footings, utilities and encroachments are not located on this survey map.
3. If there is a septic tank, or drain field shown on this survey, the location is approximate as the location was either shown to Surveyor by a third party or it was estimated by metal detection, probing rods, and visual above ground inspection only. No excavation was performed in order to determine the exact and accurate location.
4. This survey is exclusively for the use of the parties to whom it is certified.
5. Additions or deletions to this survey map and report by other than the signing party or parties is prohibited without written consent of the signing party or parties.
6. Dimensions are in feet and decimals thereof.
7. Due to varying construction standards, house dimensions are approximate.
8. Any FEMA flood zone data contained on this survey is for informational purposes only. Research to obtain such data was performed at www.fema.gov.
9. All corners marked as set are at a minimum a 1/2" diameter, 18" iron rebar with a cap stamped LB#8200.
10. If you are reading this survey in an electronic format, the information contained on this document is only valid if this document is electronically signed as specified in Chapter 5J-17.062 (3) of the Florida Administrative Code. The Electronic Signature File related to this document is prominently displayed on the invoice for this survey, which is sent under separate cover. Manually signed and sealed logs of all survey signature files are kept in the office of the performing surveyor. If this document is in paper format, it is not valid without the signature and original raised seal of a Florida Licensed Surveyor.
11. Unless otherwise noted, an examination of the abstract of title was NOT performed by the signing surveyor to determine which instruments, if any, are affecting this property.
12. The symbols reflected in the legend and on this survey may have been enlarged or reduced for clarity. The symbols have been plotted at the center of the field location, and may not represent the actual shape or size of the feature.
13. Points of Interest (POI's) are selected above-ground improvements which may be in conflict with boundary, building setback or easement lines, as defined by the parameters of this survey. There may be additional POI's which are not shown, not called-out as POI's, or which are otherwise unknown to the surveyor. These POI's may not represent all items of interest to the viewer.
14. Utilities shown on the subject property may or may not indicate the existence of recorded or unrecorded utility easements.
15. The information contained on this survey has been performed exclusively, and is the sole responsibility, of Geomatics Top Team Inc.

LEGEND:

SURVEYOR'S LEGEND

LINE TYPES: (UNLESS OTHERWISE NOTED)

- BOUNDARY LINE
- STRUCTURE
- CENTERLINE
- CHAIN-LINK or WIRE FENCE
- EASEMENT
- EDGE OF WATER
- IRON FENCE
- OVERHEAD LINES
- SURVEY TIE LINE
- WALL OR PARTY WALL
- WOOD FENCE
- VINYL FENCE

SURFACE TYPES: (UNLESS OTHERWISE NOTED)

- ASPHALT
- CONCRETE
- WATER
- WOOD
- BRICK or TILE
- COVERED AREA
- WOOD

SYMBOLS: (UNLESS OTHERWISE NOTED)

- BENCH MARK
- CENTERLINE
- CENTRAL ANGLE or DELTA
- COMMON OWNERSHIP
- CONTROL POINT
- CONCRETE MONUMENT
- CATCH BASIN
- ELEVATION
- FIRE HYDRANT
- FIND OR SET MONUMENT
- GUYWIRE or ANCHOR
- MANHOLE
- TREE
- UTILITY or LIGHT POLE
- WELL

- A/C AIR CONDITIONING
- B.R. BEARING REFERENCE
- B.C. BLOCK CORNER
- B.F.P. BACKFLOW PREVENTOR
- BLK. BLOCK
- BLDG. BUILDING
- BM BENCHMARK
- B.R.L. BUILDING RESTRICTION LINE
- BSMT. BASEMENT
- BW BAYBOX WINDOW
- (C) CALCULATED
- C CURVE
- CATV CABLE TV RISER
- C.B. CONCRETE BLOCK
- CHIM. CHIMNEY
- C.L.F. CHAIN LINK FENCE
- C.O. CLEAN OUT
- CONC. CONCRETE
- COR. CORNER
- CSW CONCRETE SIDEWALK
- C.V.G. CONCRETE VALLEY GUTTER
- C/L CENTER LINE
- C/P COVERED PORCH
- C/S CONCRETE SLAB
- (D) DEED
- D.F. DRAIN FIELD
- D.H. DRILL HOLE
- D/W DRIVEWAY
- ELEV. ELEVATION
- ENCL. ENCLOSURE
- ENT. ENTRANCE
- EM ELECTRIC METER
- F.O.P. EDGE OF PAVEMENT
- E.O.W. EDGE OF WATER
- EUB ELECTRIC UTILITY BOX
- (F) FIELD
- FCM FND. CONCRETE MONUMENT
- FDH FOUND DRILL HOLE
- FN FINISHED FLOOR
- FIP FOUND IRON PIPE
- FIPC FOUND IRON PIPE & CAP
- FIR FOUND IRON ROD
- FIRC FOUND IRON ROD & CAP
- FN FOUND NAIL
- FNAD FOUND NAIL AND DISC
- FND. FOUND
- FPKN FOUND PARKER-KALON NAIL
- FPKND FOUND PK NAIL & DISC
- FRRSPK FOUND RAILROAD SPIKE
- GAR. GARAGE
- GM GAS METER
- ID. IDENTIFICATION
- ILL. ILLEGIBLE
- INST. INSTRUMENT
- INT. INTERSECTION
- L LENGTH
- LB# LICENSE # - BUSINESS
- LS# LICENSE # - SURVEYOR
- (M) MEASURED
- M.B. MAP BOOK
- M.E.S. MITERED END SECTION
- M.F. METAL FENCE
- N.R. NON RADIAL
- N.T.S. NOT TO SCALE
- O.C.S. ON CONCRETE SLAB
- O.G. ON GROUND
- OFF OUTSIDE OF SUBJECT PARCEL
- OH. OVERHANG
- OHL OVERHEAD LINES
- ON INSIDE OF SUBJECT PARCEL
- O.R.B. OFFICIAL RECORD BOOK
- O.R.V. OFFICIAL RECORD VOLUME
- O/A OVERALL
- O/S OFFSET
- (P) PLAT
- P.B. PLAT BOOK
- P.C. POINT OF CURVATURE
- P.C.C. POINT OF COMPOUND CURVATURE
- P.C.P. PERMANENT CONTROL POINT
- P/E POOL EQUIPMENT
- PG. PAGE
- P.I. POINT OF INTERSECTION
- PLS PROFESSIONAL LAND SURVEYOR
- PLT PLANTER
- P.O.B. POINT OF BEGINNING
- P.O.C. POINT OF COMMENCEMENT
- P/P PINCHED POPE
- P.R.C. POINT OF REVERSE CURVATURE
- P.R.M. PERMANENT REFERENCE MONUMENT
- PSM PROFESSIONAL SURVEYOR AND MAPPER
- P.T. POINT OF TANGENCY
- R RADIUS or RADIAL
- (R) RECORD
- RGE RANGE
- RES. RESIDENCE
- R/W RIGHT OF WAY
- (S) SURVEY
- S.B.L. SET BACK LINE
- S.C.L. SURVEY CLOSURE LINE
- SCR. SCREEN
- SEC. SECTION
- SEP. SEPTIC TANK
- SEW. SEWER
- SG/D SET GLUE DISC
- SIRC SET IRON ROD & CAP
- SN&D SET NAIL & DISC
- SQ.FT. SQUARE FEET
- STY. STORY
- S.T.L. SURVEY TIE LINE
- SV SEWER VALVE
- S/W SIDEWALK
- S.W. SEAWALL
- TBM TEMPORARY BENCHMARK
- TEL. TELEPHONE FACILITIES
- T.O.B. TOP OF BANK
- TWP. TOWNSHIP
- TX TRANSFORMER
- TYP. TYPICAL
- U.R. UTILITY RISER
- W/C WITNESS CORNER
- W/F WATER FILTER
- W.F. WOODEN FENCE
- WM WATER METER/VALVE BOX
- WV WATER VALVE
- V.F. VINYL FENCE

- A.E. ACCESS EASEMENT
- AN.E. ANCHOR EASEMENT
- C.M.E. CANAL MAINTENANCE ESMT.
- C.U.E. COUNTY UTILITY ESMT.
- D.E. DRAINAGE EASEMENT
- D.U.E. DRAINAGE AND UTILITY ESMT.
- ESMT. EASEMENT
- I.E./E.E. INGRESS/EGRESS ESMT.
- IRR.E. IRRIGATION EASEMENT
- L.A.E. LIMITED ACCESS ESMT.
- L.B.E. LANDSCAPE BUFFER ESMT.
- L.E. LANDSCAPE ESMT.
- L.M.E. LAKE OR LANDSCAPE MAINTENANCE EASEMENT
- M.E. MAINTENANCE EASEMENT
- P.U.E. PUBLIC UTILITY EASEMENT
- R.O.E. ROOF OVERHANG ESMT.
- S.W.E. SIDEWALK EASEMENT
- S.W.M.E. STORM WATER MANAGEMENT EASEMENT
- T.U.E. TECHNOLOGICAL UTILITY ESMT.
- U.E. UTILITY EASEMENT

ELECTRONIC SIGNATURE:

In complete accordance with Florida Statute 472.025 and Pursuant to the Electronic Signature Act of 1996 or Florida Statute TITLE XXXIX, Chapter 668, if this document was received electronically via PDF, then it has been lawfully Electronically Signed. Therefore, this survey PDF, if authentic, is completely official and insurable. In order to validate the "Electronic Signature" of PDF surveys sent via www.surveystars.com you must use a hash calculator. A free hash calculator is available for download at: www.softpedia.com/get/System/File-Management/Hash-Calculator-Kirill.html

In order to validate the Electronic Signature of any survey PDF sent via www.surveystars.com:

1. Download the Hash Calculator available at: www.softpedia.com/get/System/File-Management/Hash-Calculator-Kirill.shtml
2. Save the Survey PDF onto your computer from www.surveystars.com or from the email sent from www.surveystars.com.
3. Click the square Browse button in the upper right hand corner of the Hash Calculator to find and select the saved Survey PDF document, and click the COMPUTE button in the lower right hand corner of the Hash Calculator.
4. Compare the 40 digit string of characters in the SHA-1 line to the 40 digit SHA-1 characters for the survey in the job file in www.surveystars.com which is also printed on the invoice for that survey.
5. If the 40 digit string of SHA-1 characters are exactly the same on the invoice (or in the survey file at www.surveystars.com) as they are in the Hash Calculator, then this PDF is authentic. If the 40 digit string of characters does not match exactly, then this PDF has been tampered with and it is not authentic.

PRINTING INSTRUCTIONS:

1. While viewing the survey in Adobe Reader, select the "Print" button under the "File" tab.
 2. Select a printer with legal sized paper.
 3. Under "Print Range", click select the "All" toggle.
 4. Under the "Page Handling" section, select the number of copies that you would like to print.
 5. Under the "Page Scaling" selection drop down menu, select "None."
 6. Uncheck the "Auto Rotate and Center" checkbox.
 7. Check the "Choose Paper size by PDF" checkbox.
 8. Click OK to print.
- TO PRINT IN BLACK + WHITE:**
1. In the main print screen, choose "Properties".
 2. Choose "Quality" from the options.
 3. Change from "Auto Color" or "Full Color" to "Gray Scale".

POWERED BY:



ELEVATION CERTIFICATE

2105.0073EC

Important: Follow the instructions on pages 1–9.

Copy all pages of this Elevation Certificate and all attachments for (1) community official, (2) insurance agent/company, and (3) building owner.

SECTION A – PROPERTY INFORMATION				FOR INSURANCE COMPANY USE	
A1. Building Owner's Name JOSIC JEAN JACQUES THEPAUT AND VALERIA ZABALA				Policy Number:	
A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 8841 GARLAND AVE				Company NAIC Number:	
City SURFSIDE		State FLORIDA		ZIP Code 33154	
A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.) TAX PARCEL ID: 14-2235-005-2890					
A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.) <u>RESIDENTIAL</u>					
A5. Latitude/Longitude: Lat. <u>25.8738583</u> Long. <u>-80.1280177</u> Horizontal Datum: <input type="checkbox"/> NAD 1927 <input checked="" type="checkbox"/> NAD 1983					
A6. Attach at least 2 photographs of the building if the Certificate is being used to obtain flood insurance.					
A7. Building Diagram Number <u>g</u>					
A8. For a building with a crawlspace or enclosure(s):					
a) Square footage of crawlspace or enclosure(s) <u>1172</u> sq ft					
b) Number of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above adjacent grade <u>14</u>					
c) Total net area of flood openings in A8.b <u>800 +/-</u> sq in					
d) Engineered flood openings? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
A9. For a building with an attached garage:					
a) Square footage of attached garage <u>300 +/-</u> sq ft					
b) Number of permanent flood openings in the attached garage within 1.0 foot above adjacent grade <u>N/A</u>					
c) Total net area of flood openings in A9.b <u>N/A</u> sq in					
d) Engineered flood openings? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
SECTION B – FLOOD INSURANCE RATE MAP (FIRM) INFORMATION					
B1. NFIP Community Name & Community Number <u>TOWN OF SURFSIDE 120659</u>			B2. County Name <u>MIAMI-DADE</u>		B3. State <u>FLORIDA</u>
B4. Map/Panel Number <u>12086C - 0307</u>	B5. Suffix <u>L</u>	B6. FIRM Index Date <u>9/11/2009</u>	B7. FIRM Panel Effective/ Revised Date <u>09/11/2009</u>	B8. Flood Zone(s) <u>AE</u>	B9. Base Flood Elevation(s) (Zone AO, use Base Flood Depth) <u>8'</u>
B10. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in Item B9: <input type="checkbox"/> FIS Profile <input checked="" type="checkbox"/> FIRM <input type="checkbox"/> Community Determined <input type="checkbox"/> Other/Source: _____					
B11. Indicate elevation datum used for BFE in Item B9: <input checked="" type="checkbox"/> NGVD 1929 <input type="checkbox"/> NAVD 1988 <input type="checkbox"/> Other/Source: _____					
B12. Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Designation Date: <u>N/A</u> <input type="checkbox"/> CBRS <input type="checkbox"/> OPA					

ELEVATION CERTIFICATE

2105.0073EC

OMB No. 1660-0008
Expiration Date: November 30, 2022

IMPORTANT: In these spaces, copy the corresponding information from Section A.			FOR INSURANCE COMPANY USE
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.			Policy Number:
8841 GARLAND AVE			
City	State	ZIP Code	Company NAIC Number
SURFSIDE	FLORIDA	33154	

SECTION C – BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)

C1. Building elevations are based on: Construction Drawings* Building Under Construction* Finished Construction
 *A new Elevation Certificate will be required when construction of the building is complete.

C2. Elevations – Zones A1–A30, AE, AH, A (with BFE), VE, V1–V30, V (with BFE), AR, AR/A, AR/AE, AR/A1–A30, AR/AH, AR/AO. Complete Items C2.a–h below according to the building diagram specified in Item A7. In Puerto Rico only, enter meters.

Benchmark Utilized: FDOT REAL TIME GPS NETWORK ; TBM ; 2.47 Vertical Datum: NAVD 1988

Indicate elevation datum used for the elevations in items a) through h) below.

NGVD 1929 NAVD 1988 Other/Source: N/A

Datum used for building elevations must be the same as that used for the BFE.



Check the measurement used.

- | | | | |
|---|------|--|---------------------------------|
| a) Top of bottom floor (including basement, crawlspace, or enclosure floor) | 4.2 | <input checked="" type="checkbox"/> feet | <input type="checkbox"/> meters |
| b) Top of the next higher floor | 6.3 | <input checked="" type="checkbox"/> feet | <input type="checkbox"/> meters |
| c) Bottom of the lowest horizontal structural member (V Zones only) | N/A. | <input checked="" type="checkbox"/> feet | <input type="checkbox"/> meters |
| d) Attached garage (top of slab) | 5.1 | <input checked="" type="checkbox"/> feet | <input type="checkbox"/> meters |
| e) Lowest elevation of machinery or equipment servicing the building
(Describe type of equipment and location in Comments) | 4.6 | <input checked="" type="checkbox"/> feet | <input type="checkbox"/> meters |
| f) Lowest adjacent (finished) grade next to building (LAG) | 4.2 | <input checked="" type="checkbox"/> feet | <input type="checkbox"/> meters |
| g) Highest adjacent (finished) grade next to building (HAG) | 5.2 | <input checked="" type="checkbox"/> feet | <input type="checkbox"/> meters |
| h) Lowest adjacent grade at lowest elevation of deck or stairs, including structural support | N/A. | <input checked="" type="checkbox"/> feet | <input type="checkbox"/> meters |

SECTION D – SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION

This certification is to be signed and sealed by a land surveyor, engineer, or architect authorized by law to certify elevation information. I certify that the information on this Certificate represents my best efforts to interpret the data available. I understand that any false statement may be punishable by fine or imprisonment under 18 U.S. Code, Section 1001.

Were latitude and longitude in Section A provided by a licensed land surveyor? Yes No Check here if attachments.

Certifier's Name	License Number	
FELIPE CARVALHO	7137	
Title		
PROFESSIONAL SURVEYOR AND MAPPER		
Company Name		
GEOMATICS TOP TEAM		
Address		
6224 MOHAWK TERRACE		
City	State	ZIP Code
MARGATE	FLORIDA	33063
Signature	Date	Telephone
	5/17/2021	P: (754)303-7703

Copy all pages of this Elevation Certificate and all attachments for (1) community official, (2) insurance agent/company, and (3) building owner.

Comments (including type of equipment and location, per C2(e), if applicable)

NOTE: A5. COORDINATES OBTAINED FROM GOOGLE MAPS. C2.E = AC UNIT PAD. NOTE: THIS ELEVATION CERTIFICATE IS ONLY VALID FOR THE PERSON OR PERSONS NAMED ON THIS CERTIFICATE. THIS CERTIFICATE IS FOR FLOOD INSURANCE PURPOSES ONLY. THE INFORMATION ON THIS CERTIFICATE SHOULD NOT BE USED FOR CONSTRUCTION OR PLANNING. THE ELEVATIONS SHOWN HEREON HAVE BEEN CONVERTED TO NGVD 1929 WITH A DATUM SHIFT OF + 1.55' (CONVERTED ONLINE WITH VERTCON).

CENTERLINE ROAD ELEVATION: N/A

ELEVATION CERTIFICATE

2105.0073EC

OMB No. 1660-0008
Expiration Date: November 30, 2022

IMPORTANT: In these spaces, copy the corresponding information from Section A.	FOR INSURANCE COMPANY USE
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 8841 GARLAND AVE	Policy Number:
City SURFSIDE	State FLORIDA
ZIP Code 33154	Company NAIC Number

SECTION E – BUILDING ELEVATION INFORMATION (SURVEY NOT REQUIRED) FOR ZONE AO AND ZONE A (WITHOUT BFE)

For Zones AO and A (without BFE), complete Items E1–E5. If the Certificate is intended to support a LOMA or LOMR-F request, complete Sections A, B, and C. For Items E1–E4, use natural grade, if available. Check the measurement used. In Puerto Rico only, enter meters.

- E1. Provide elevation information for the following and check the appropriate boxes to show whether the elevation is above or below the highest adjacent grade (HAG) and the lowest adjacent grade (LAG).
- a) Top of bottom floor (including basement, crawlspace, or enclosure) is _____ N/A . _____ feet meters above or below the HAG.
 - b) Top of bottom floor (including basement, crawlspace, or enclosure) is _____ N/A . _____ feet meters above or below the LAG.
- E2. For Building Diagrams 6–9 with permanent flood openings provided in Section A Items 8 and/or 9 (see pages 1–2 of Instructions), the next higher floor (elevation C2.b in the diagrams) of the building is _____ N/A . _____ feet meters above or below the HAG.
- E3. Attached garage (top of slab) is _____ N/A . _____ feet meters above or below the HAG.
- E4. Top of platform of machinery and/or equipment servicing the building is _____ N/A . _____ feet meters above or below the HAG.
- E5. Zone AO only: If no flood depth number is available, is the top of the bottom floor elevated in accordance with the community's floodplain management ordinance? Yes No Unknown. The local official must certify this information in Section G.

SECTION F – PROPERTY OWNER (OR OWNER'S REPRESENTATIVE) CERTIFICATION

The property owner or owner's authorized representative who completes Sections A, B, and E for Zone A (without a FEMA-issued or community-issued BFE) or Zone AO must sign here. The statements in Sections A, B, and E are correct to the best of my knowledge.

Property Owner or Owner's Authorized Representative's Name

Address City State ZIP Code

Signature Date Telephone

Comments

Check here if attachments.

ELEVATION CERTIFICATE

2105.0073EC

OMB No. 1660-0008
Expiration Date: November 30, 2022

IMPORTANT: In these spaces, copy the corresponding information from Section A.			FOR INSURANCE COMPANY USE
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 8841 GARLAND AVE			Policy Number:
City SURFSIDE	State FLORIDA	ZIP Code 33154	Company NAIC Number

SECTION G – COMMUNITY INFORMATION (OPTIONAL)

The local official who is authorized by law or ordinance to administer the community's floodplain management ordinance can complete Sections A, B, C (or E), and G of this Elevation Certificate. Complete the applicable item(s) and sign below. Check the measurement used in Items G8–G10. In Puerto Rico only, enter meters.

- G1. The information in Section C was taken from other documentation that has been signed and sealed by a licensed surveyor, engineer, or architect who is authorized by law to certify elevation information. (Indicate the source and date of the elevation data in the Comments area below.)
- G2. A community official completed Section E for a building located in Zone A (without a FEMA-issued or community-issued BFE) or Zone AO.
- G3. The following information (Items G4–G10) is provided for community floodplain management purposes.

G4. Permit Number	G5. Date Permit Issued	G6. Date Certificate of Compliance/Occupancy Issued
-------------------	------------------------	---

G7. This permit has been issued for: New Construction Substantial Improvement

G8. Elevation of as-built lowest floor (including basement) of the building: _____ feet meters Datum _____

G9. BFE or (in Zone AO) depth of flooding at the building site: _____ feet meters Datum _____

G10. Community's design flood elevation: _____ feet meters Datum _____

Local Official's Name	Title
-----------------------	-------

Community Name	Telephone
----------------	-----------

Signature	Date
-----------	------

Comments (including type of equipment and location, per C2(e), if applicable)

Check here if attachments.

BUILDING PHOTOGRAPHS

See Instructions for Item A6. 2105.0073EC

OMB No. 1660-0008
Expiration Date: November 30, 2022

ELEVATION CERTIFICATE

IMPORTANT: In these spaces, copy the corresponding information from Section A.			FOR INSURANCE COMPANY USE
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.			Policy Number:
8841 GARLAND AVE			Company NAIC Number
City	State	ZIP Code	
SURFSIDE	FLORIDA	33154	

If using the Elevation Certificate to obtain NFIP flood insurance, affix at least 2 building photographs below according to the instructions for Item A6. Identify all photographs with date taken; "Front View" and "Rear View"; and, if required, "Right Side View" and "Left Side View." When applicable, photographs must show the foundation with representative examples of the flood openings or vents, as indicated in Section A8. If submitting more photographs than will fit on this page, use the Continuation Page.



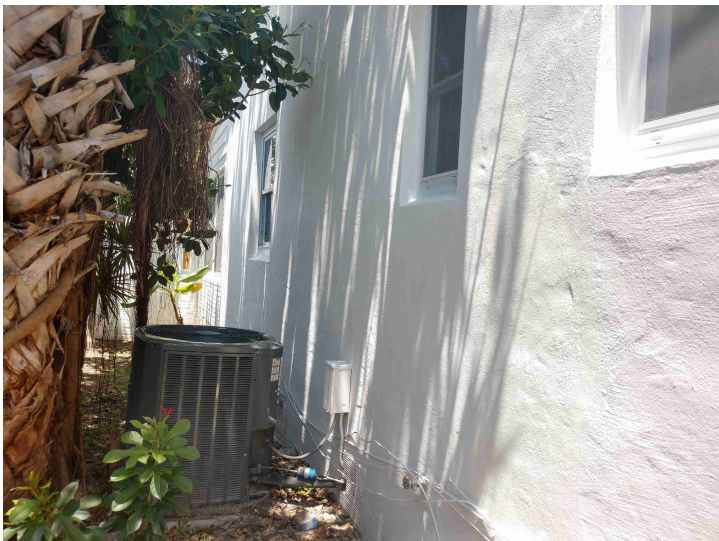
Front View

Front View Date: 5/17/2021



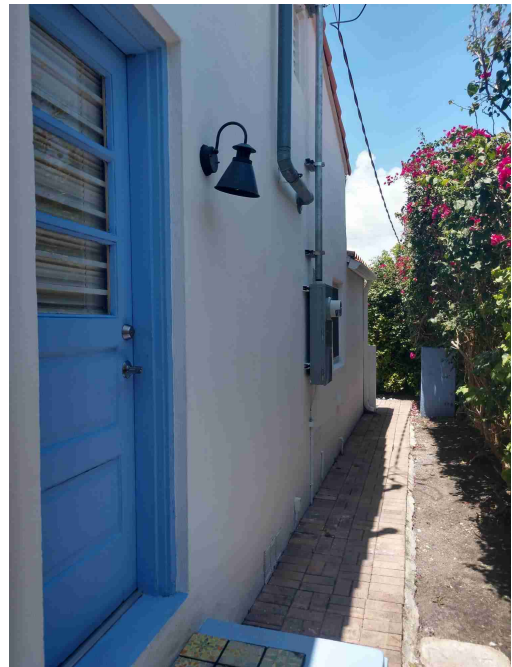
Rear View

Rear View Date: 5/17/2021



Right Side View

Right Side View: 5/17/2021



Left Side View

Left Side View: 5/17/2021

BUILDING PHOTOGRAPHS

ELEVATION CERTIFICATE

Continuation Page 2105.0073EC

OMB No. 1660-0008
Expiration Date: November 30, 2022

IMPORTANT: In these spaces, copy the corresponding information from Section A.			FOR INSURANCE COMPANY USE
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 8841 GARLAND AVE			Policy Number:
City SURFSIDE	State FLORIDA	ZIP Code 33154	Company NAIC Number

If submitting more photographs than will fit on the preceding page, affix the additional photographs below. Identify all photographs with: date taken; "Front View" and "Rear View"; and, if required, "Right Side View" and "Left Side View." When applicable, photographs must show the foundation with representative examples of the flood openings or vents, as indicated in Section A8.

Photo One	Photo Two
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Photo Three	Photo Four
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**Town of Surfside
Planning and Zoning Board Meeting
February 29, 2024**

DISCUSSION ITEM MEMORANDUM

Agenda #: 4.C

Date: February 29, 2024

From: Judith Frankel AICP, Town Planner

Subject: 9472 Byron Avenue - New Single-Family Home

Suggested Action: – Staff finds this application for a new single-family home generally meets the zoning code with the exception of the F.A.R. calculation. The proposed home as represented in the submitted plans package, has an F.A.R. of 0.75, which exceeds the maximum F.A.R. of 0.72. This represents approximately 190 SF that would need to be reduced. This may be a calculation error, but it must be resolved. Staff recommends deferral of the application to allow the applicant to reduce the F.A.R.

At this time the Planning and Zoning Board may determine whether the new home is “consistent with and in conformance with the design guidelines set forth in the Town Code”. Once the F.A.R. concern is resolved, staff would recommend approval with the following conditions:

- Height of the decorative parapet and mechanical equipment on the roof must be provided.
- Dimensions for the entry overhand and roof trim must be provided to demonstrate compliance with 90-47.1.
- Outdoor lighting plan compliant with Ordinance No.24-1767 must be provided at the time of Building permit application.
- A grading and drainage plan (with appropriate retaining wall) must be provided to comply with Ordinance No.24-1769 at the time of Building permit application.
- A Landscape Permit is required.
- Pool, driveway and fences must apply for separate permitting.

Background/Analysis: – This application is a request to construct a new two-story single-family home. The subject property is located at 9472 Byron Avenue in the H30B zoning district. The proposed home is 30 feet in height with a parapet. Rooftop mechanical equipment and a roof deck is proposed. Height notations are not provided for the rooftop mechanical screens and the parapet. The lot coverage for the home is at the maximum of 40% for a two-story home. The plans show the house has a total of 4,239.9 SF which is an F.A.R. of 0.75 (above the 0.72 maximum). Sheet S-01 shows the first floor as including some open areas, which is incorrect and may account for the discrepancy in the F.A.R. Sheet S-02 provides the required additional average setbacks for a home with an F.A.R. of 0.72. See **Attachment A and Sheet S-02** for calculations.

The calculation for pervious provided on the zoning table on Sheet S-01 shows 1,973 SF or 35% pervious space at the property. The Landscape Plan provides 3 Florida Royal Palms as street trees, 5 on-site trees and 109 shrubs. Greater than 40% of the required trees and shrubs are Florida Friendly Landscaping species. A separate Landscaping permit will be required at the time of permitting.

The exterior design elements on the front façade include white stucco walls, black mullion windows, roof trim accent, glass railing and light gray stone entry steps. The covering for the entryway extends slightly into the front setback. At the time of permitting, it will be verified that this is less than 24-inches. The roof trim must also extend less than the maximum 8-inch encroachment into the setbacks permitted for cornices. See page 3 of **Attachment A** for Design Guideline review.

Applicant has not provided an outdoor lighting plan as now required for permitting of new houses. The plan must include all lighting fixed to the house as well as landscape lighting. The exterior lighting plan is required to comply with Ordinance No.24-1767. Also, a grading and drainage plan (with appropriate retaining wall if needed) must be provided to comply with Ordinance No.24-1769 at the time of Building permit application. These plans will be reviewed by the Town Building official during the permitting process.



Town of Surfside, Florida Development Review

Existing Conditions



Aerial view of 9472 Byron Avenue



West Elevation of 9472 Byron Avenue





Town of Surfside, Florida Development Review

Site Characteristics

Address	9472 Byron Avenue
General Location	Central Area of Town
Property Size	5,625 SF per Property Survey
Zoning District	H30B
Floors	2
Total SF	4,239.9 SF

Zoning Code Tables

Building Heights

Zoned Height in NGVD	Maximum	Proposed
H30B	30 FT from Crown of Road	30 FT
Modification in height	3 FT	Not Provided for parapet
Mechanical Equip. height	6 FT	Not provided*

*Line-of-sight diagram provided on Sheet S-03

Ordinance No. 2023-1754 Setbacks

Minimum Setbacks	Required	Proposed
Primary Frontage	20 feet	20 FT
Interior Side - north	5 FT	5 FT
Interior Side - south	5 FT	5 FT
Rear	20 feet	20 FT
Additional Average Setbacks		
Front	400 SF	400 SF
North Side	362.5 SF	363 SF
South Side	362.5 SF	558 SF
Structure Volume		
F.A.R.	.72 Max	0.75

Lot Standards

Lot Standards for H30 B	Required	Proposed
Minimum Lot Width	50 ft	50 FT
Minimum Lot Area	5,600 SF	5,625 SF
Maximum Lot Coverage	40%	2,249.53 (40%)
Total Pervious Area	35% or 1,969 SF Min	1,973.3 (35.1%)
Front Yard Paved	50% Max.	329.7 SF (33%)
Rear Yard Landscaped	20% Min.	Provided
Roof Deck	10 FT Setback	Provided

*Include entry space as it is enclosed on more than two sides and covered.



Town of Surfside, Florida Development Review

Town of Surfside Adopted Residential Design Guidelines

Design Element	Required	Proposed
Building Massing	Building forms should be varied enough to avoid monotony and to avoid pyramidal massing and should be compatible with surrounding houses	Planning and Zoning Board to provide determination
Decorative Features	Decorative features should be stylistically consistent throughout the entire building.	Planning and Zoning Board to provide determination
Overall Architectural Style	The overall style of each house should be consistent on all sides of the building, as well as among all portions of the rood.	Planning and Zoning Board to provide determination
Wall Material and Finishes	The same material should be used on all building elevations unless multiple materials are a legitimate expression of the particular style.	Consistent; white stucco
Roof Types	Roof types and slopes should be generally the same over all parts of a single building	Flat Roof with parapet
Window Style	Window styles should always be consistent among all elevations of a building	Black Mullion Windows
Frame Materials	Frame Materials should never vary on a single building	Black Aluminum
Window, Door and Eave	Window, door and eave trim should be consistent on all elevations of the house.	Consistent



Pre-Application Mtg.	12 / 26 / 20 23
Application / Plans Due	1 / 31 / 20 24



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

A complete submittal includes all documents on the "Single-Family and Two-Family Site Plan Application Submission Checklist" 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. A pre-application meeting with the Town Planner is required prior to submitting this application. Town Planner, Judith Frankel jfrankel@townofsurfsidefl.gov

PROJECT INFORMATION ALL INFORMATION IS REQUIRED	
PROPERTY ADDRESS:	9472 Byron Avenue
OWNER'S NAME:	9472 Byron Ave LLC
PHONE:	917-440-6306 Email: aroth@rothmetalworks.com
AGENT'S NAME:	Jeff Akerman, RA
ADDRESS:	210 North University Drive
PHONE:	561-831-7443 Email: Jeff@risearchitecture.com
ZONING CATEGORY:	H - 30B
DESCRIPTION OF PROPOSED WORK :	PROPOSED NEW 1-FAMILY HOME
	First floor: 2,236 Sq. Ft. AC Area + Second floor: 1,792 Sq. Ft., 5 bedrooms , 4 bathrooms
Application Meeting Date:	1/31/2024

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

ZONING STANDARDS	Required	Provided
Plot Size	2,236 Sq. Ft	2,236 Sq. Ft
Setbacks (F/R/S)	20' 20' 5' 5'	20' 20' 5' 5'
Lot Coverage	First floor: 40% = 2,236 sq. ft. Second floor: 80% of 1st = 1792 sq. ft.	First floor: 2,235 Sq. Ft. Second floor: 1,785 Sq. Ft.
Height	30'	30'
Pervious Area	5,590.05 SQ. FT. 35% 1,960 SQ. FT.	1,975 SQ. FT.

SIGNATURE OF OWNER _____ DATE 01/31/2024 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 shall generally meet the last Thursday of each month at 6:00 p.m. at Town Hall in the Commission Chambers.

Zoning compliant plans and completed applications (including all supporting documentation) must be submitted to the Building Department at least 30 days prior to the Planning and Zoning Meeting with the applicable fees (example: \$200.00 for Plan Review for Zoning), at which time they will be considered. Incomplete or non-compliant plans and applications will not be processed. Please note that some applications require public notice (incl. new homes and substantial additions). Note the application will not be scheduled unless a complete application, including the Submission Checklist, and plans that meet all zoning requirements is submitted 30 days before the meeting.

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 Chair of the Board.

Arnold Roth

01/31/2024

Signature of Agent or Owner

DATE

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

Jeff Akerman

01/31/2024

Name of Representative

DATE

9472 BYRON LLC c/o

Name of Owner

DATE

ARNOLD ROTH

01/31/2024



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

Project Address _____

Project Number _____

SUBMITTAL REQUIREMENTS FOR REVIEW:

- Pre-Application Meeting
- Completed "Single-Family and Two-Family Site Plan Application" form
- Application fee: \$_____ made out to "Town of Surfside"
- Ownership Affidavit
- Survey less than one (1) year old. A survey over one (1) year is sufficient as long as the property has not changed ownership and the owner provides an affidavit that no changes have occurred since the date of the survey.
- Recent photographs, as visible from the street, of the subject property and of the adjacent two (2) homes on each side of the subject property on the same side of street. If the adjacent lot(s) are vacant then the next adjacent home(s) shall be utilized.
- Site Plan (Minimum scale of 1" = 20').
Please show / provide the following:
 - Tabulations of total square footage, lot coverage, setbacks and acreage
 - Entire parcel(s) with dimensions and lot size in square feet
 - Existing and proposed buildings with square footage
 - Buildings to be removed
 - Setbacks for all floors. If there is a 2nd floor average side setback must be shown.
 - Dimensions and locations of all existing and proposed right-of-ways, easements and street frontage, including sidewalks, curb and gutter and planting strips
 - All existing and proposed site improvements, including, but not limited to, all utilities, retaining walls, fences, decks and patios, driveways and sidewalks, signs, parking areas, erosion control features, pools and accessory buildings
 - Locations and dimensions of parking spaces and driveways and lot layout
 - Driveway entrance width and setbacks from property line
 - Mechanical equipment (A/C; pool) must be identified on site plan with dimension to the nearest house
- Architectural Elevations (Minimum scale of 1/8" = 1):
Please show / provide the following:
 - Provide color elevations, showing all material finishes, textures and landscaping for all elevations of the proposed building(s). They should include, at a minimum:
 - All exterior materials, colors and finishes, keyed to samples provided
 - Roof plan including mechanical equipment and screening if applicable

Cont.



- Roof slopes with materials and color
- Detail of doors, windows, garage doors
- Lighting locations and details
- Dimensions of structure(s) – height, width, and length
 - Building Height as measured from the Crown of the Road
 - Finished Floor Elevation in NGVD
- Deck, railing, stair details including materials, colors, finishes, and decorative details
- Exposed foundation treatment
- Gutters and eaves
- Abutting structure heights

- Landscape Plan (Minimum scale of 1" = 20').
Please show / provide the following:
 - Tabulations of total property pervious square footage, Front Yard pervious, Rear Yard pervious
 - Tabulations of the required number and location of lot trees, streets trees and shrubs
 - Size of Trees and Shrubs
 - Tabulations of the required Florida Friendly landscaping
 - Location of all existing and proposed trees, vegetation, palms and note tree species

- Provide descriptions and images of colors and/or materials to be used

- Such additional data, maps, plans, or statements as the Town may require to fully describe and evaluate the particular proposed plan

All above documents must be provided in the following format after the pre-application meeting:

- One (1) USB Flash Drive, (must contain exactly what is being provided in the physical sets and physical sets cannot be signature protected or password protected). The site plans must be in PDF format. Plans must be digitally signed and sealed
- *Provided prior to Planning & Zoning Board Meeting – Two (2) reduced sized sets (11" x 17" sheets) of the complete design development drawings. Plans must be digitally signed and sealed.*

For ask questions or to schedule a pre-application meeting please contact:

Judith Frankel
Town Planner
Town of Surfside
9293 Harding Avenue
Surfside, FL 33154
Main: 305-861-4863 ext 497
jfrankel@townofsurfsidefl.gov



RESIDE
ARCHITECTURE

ARCHITECT: RESIDE ARCHITECTURE, LLC
 NYC OFFICE: 440 241 37TH STREET SUITE 440
 BROOKLYN, NEW YORK 11232
 JEFF AKERMAN, RA
 JEFF@RSEARCHITECTURE.COM
 516-249-3746
 NJ OFFICE: 36 AIRPORT RD SUITE 402
 LAKEWOOD, NJ 08701
 SHIMON GREENEBAUM, RA
 SHIMON@RSEARCHITECTURE.COM
 908-674-8717

CLIENT:

REVISIONS:

DESCRIPTION	DATE	NO.
-------------	------	-----

PROJECT NAME / LOCATION:

81
FL#015 - ROTH

DRAWING TITLE:

COVER

EXAMINER'S SIGNATURE:

PROFESSIONAL SEAL:

JEFF AKERMAN, RA
 FL LIC. NO.
 AR101225

SCALE:

DATE:

PROJECT NO.:

A-01

DRAWING NO.:

1 OF

THE GENERAL CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND REPORT ALL ERRORS AND OMISSIONS TO THE ARCHITECTS. DO NOT SCALE DRAWING. THE DRAWING SHALL NOT BE USED UNLESS SIGNED BY CONSULTANTS.

2/14/2024 5:26:45 PM

PROPOSED NEW 1-FAMILY HOME

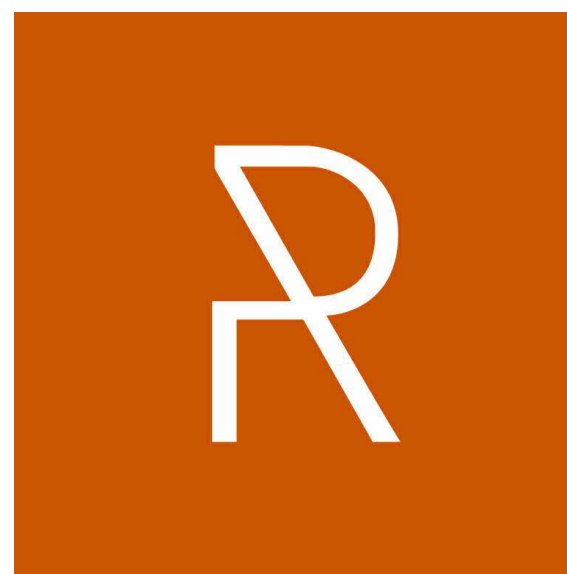
ROTH RESIDENCE

9472 BYRON AVENUE,
SUFSIDE, FL 33154

LOT 10 BLOCK 9

LIST OF DRAWINGS

A-01	COVER
A-02	SURVEY & DEMO
A-03	FIRST FLOOR PLAN
A-04	SECOND FLOOR PLAN
A-05	ROOF FLOOR PLAN
A-06	ELEVATIONS - FRONT & REAR
A-07	ELEVATIONS - RIGHT & LEFT
R-01	RENDERINGS
R-02	PROPOSED EXTERIOR MATERIALS
S-01	SITE DIAGRAM AND ZONING DATA
S-02	SITE DIAGRAM AND SETBACK CALCULATIONS
S-03	LINE OF SITE DIAGRAM
S-04	CONTEXT IMAGES
L-01	REMOVAL PLAN & EXISTING TREES CHART
L-02	LANDSCAPING PLAN, PLANT SCHEDULE, CODE CHART
L-03	NOTES & DETAILS
L-04	IRRIGATION PLAN & SCHEDULES
L-05	IRRIGATION NOTES & DETAILS



RISE | FL
architecture

ARCHITECT
RESIDE ARCHITECTURE, LLC
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SHIMON GREENEBAUM, RA
SHIMON@RISEARCHITECTURE.COM
908-674-8717
FL OFFICE:
36 AIRPORT RD SUITE 402
LAKEWOOD, NJ 08701
SHIMON GREENEBAUM, RA
SHIMON@RISEARCHITECTURE.COM
908-674-8717

CLIENT

REVISIONS

DESCRIPTION	DATE	NO.
-------------	------	-----

PROJECT NAME/LOCATION
FL#015 - ROTH

DRAWING TITLE
SURVEY & DEMO

EXAMINER'S SIGNATURE

PROFESSIONAL SEAL

JEFF AKERMAN, RA
FL LIC. NO.
ARI01225

SCALE
As indicated

DATE

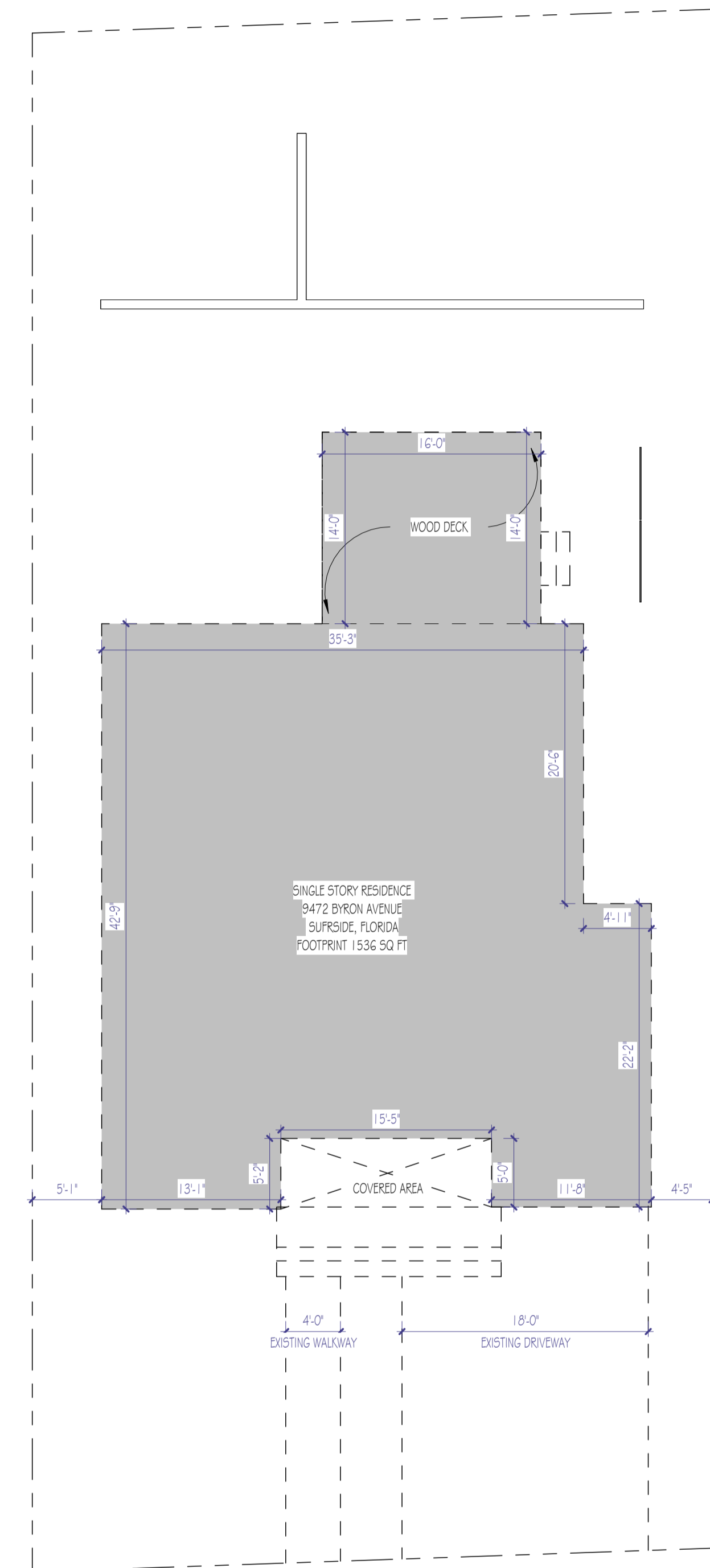
PROJECT NO.

DRAWING NO.
A-02

2 OF

THE GENERAL CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND REPORT ALL ERRORS AND OMISSIONS TO THE ARCHITECTS. DO NOT SCALE DRAWING. THE DRAWING SHALL NOT BE USED UNTIL SIGNED BY CONSULTANTS.

LOT 10 BLOCK 9

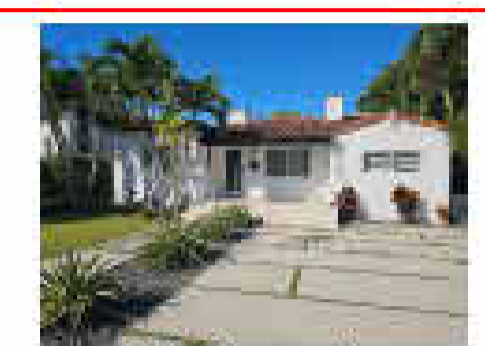


PROPOSED & NEW SQ. FT.

EXISTING BUILDING SQ. FT.	1,536 SQ. FT.
NEW PROPOSED BUILDING SQ. FT.	2,236 SQ. FT.

DEMO KEY
[Hatched Box] TO BE DEMOLISHED

DEMO PLAN
1/8" = 1'-0"



8472 Byron Avenue
Surfside, Florida 33154

National Flood Insurance
Community Panel: 12088C0144L
Flood Zone: AE
Base Flood Elevation: 8'
Firm Date: 09/11/2009

Certified to:
8472 BYRON LLC

Survey Date: 10/30/23
Job Number: 23-2129
Order Number:
Revision:

Property Location
Legal Description
Lot 10, Block 9 of ALTOS DEL MAR NO 6, according to the Plat thereof, as recorded in Plat Book 8, Page 106, of the Public Records of Miami-Dade County, Florida.

SURVEYORS NOTES

- This is a Topographic survey.
- Legal description used for this survey was provided by others.
- This Survey has been prepared for the exclusive use of the entities named herein and do not extend to any unnamed parties.
- The lands shown herein were not abstracted for easement or other recorded encumbrances not shown on the plat. Obtain current title work and verify easements before constructing improvements.
- This survey does not determine or imply ownership.
- This survey only shows above ground improvements, underground improvements and utilities were not located.
- Bearings, if any, shown herein are based on Plat Book 8, Page 106, of the Public Records of Miami-Dade County, Florida.
- All dimensions and directions shown herein are in substantial agreement with record values unless otherwise noted.
- Due to varying construction standards, house dimensions are approximate.
- All ties to property line are perpendicular to it, unless otherwise noted.
- In all cases dimensions shall control location over angled positions.
- Elevations, if shown, are based of NGVD29, Benchmark F.D.O.T. N.T.R.I.P. stations (FLMB & FLND).
- If there is a septic tank, well, or drain field marked on this survey, the location of such items was shown to us by others and the information was not verified.
- Not valid without the signature & raised seal of a Florida licensed surveyor and mapper.

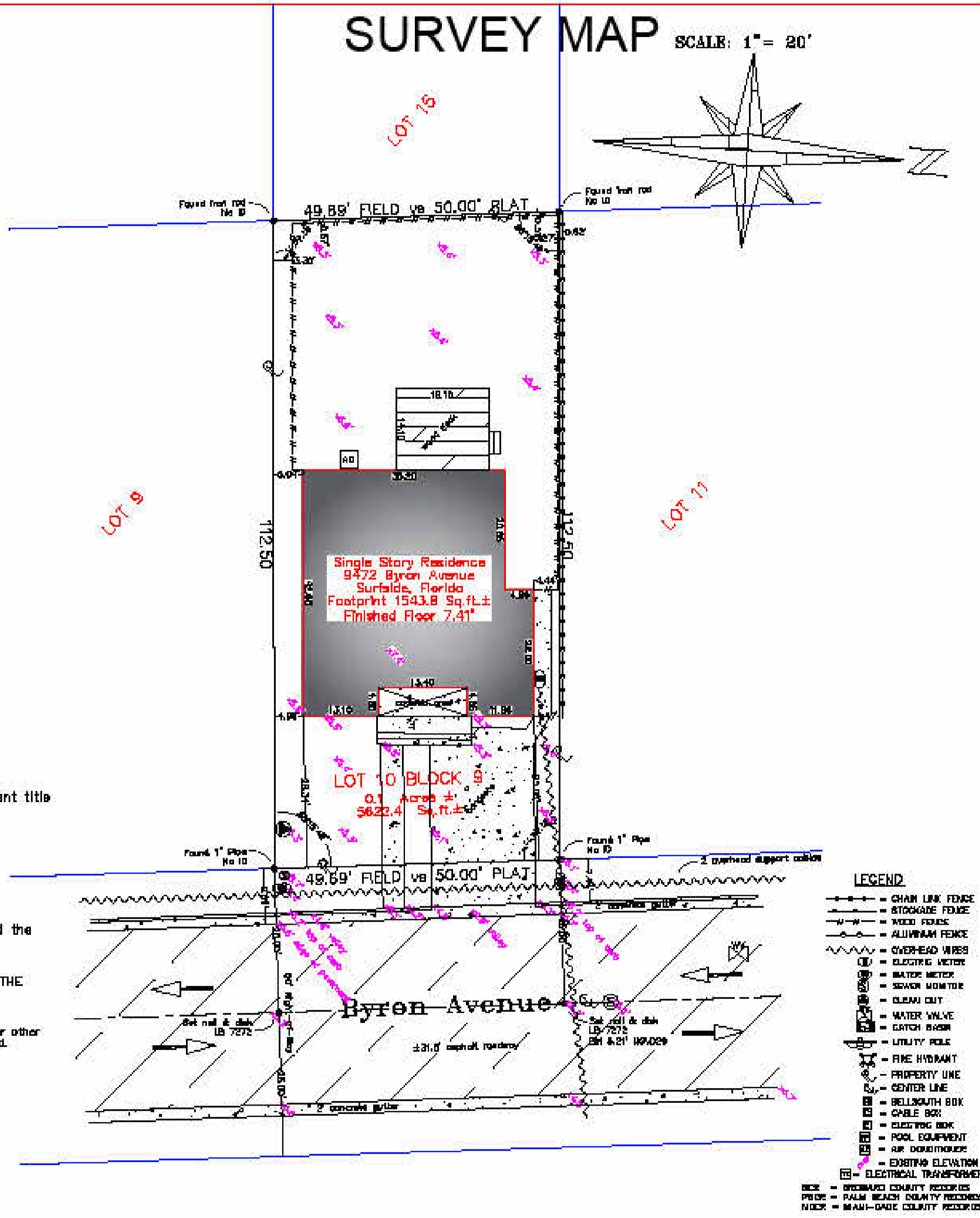
I HEREBY CERTIFY THAT THE SURVEY REPRESENTED HEREON, AS RECENTLY SURVEYED AND DRAWN UNDER MY SUPERVISION, MEETS THE MINIMUM TECHNICAL STANDARDS AS SET FORTH IN CHAPTER 5J-17 OF THE FLORIDA ADMINISTRATIVE CODE FOR THE BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS PURSUANT TO SECTION 472.027 OF THE FLORIDA STATUTES.

No part of this drawing may be reproduced by photocopying, recording or by any other means, or stored, processed or transmitted in or by any computer or other systems without the prior written permission of R. Minguell Land Surveyors. Copies of this plan without an original signature and impression seal are not valid.

11/03/23
Richard J. Minguell
Registered Land Surveyor & Mapper
No. 6408, State of Florida



R. Minguell, Inc.
Land Surveyors & Planners L37872
899 E.W. 113 Avenue
Plantation, Florida 33324
954-408-2885
Minguell@rllsurveyors.com
Rllsurveyors.com



- LEGEND**
- CHAIN LINK FENCE
 - STOCKADE FENCE
 - WOOD FENCE
 - ALUMINUM FENCE
 - OVERHEAD WIRES
 - ELECTRIC METER
 - WATER METER
 - SEWER MONITOR
 - CLEAN OUT
 - WATER VALVE
 - CATCH BASIN
 - UTILITY POLE
 - FIRE HYDRANT
 - PROPERTY LINE
 - CENTER LINE
 - BELL SOUTH BOX
 - CABLE BOX
 - ELECTRIC BOX
 - POOL EQUIPMENT
 - AIR DUCT/POUR
 - EXISTING ELEVATION
 - ELECTRICAL TRANSFORMER
- SEEK = BROWARD COUNTY RECORDS
PRIDE = PALM BEACH COUNTY RECORDS
WDCY = MIAMI-DADE COUNTY RECORDS



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CLIENT

REVISIONS	DESCRIPTION	DATE	NO.

PROJECT NAME / LOCATION

FL#015 - ROTH

DRAWING TITLE

FIRST FLOOR PLAN

EXAMINER'S SIGNATURE

PROFESSIONAL SEAL

JEFF AKERMAN, RA
FL LIC. NO.
AR101225

SCALE As indicated

DATE

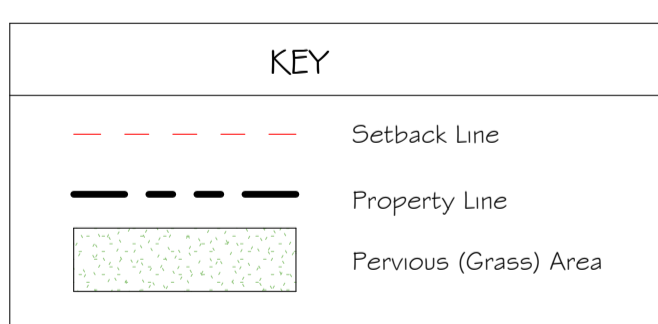
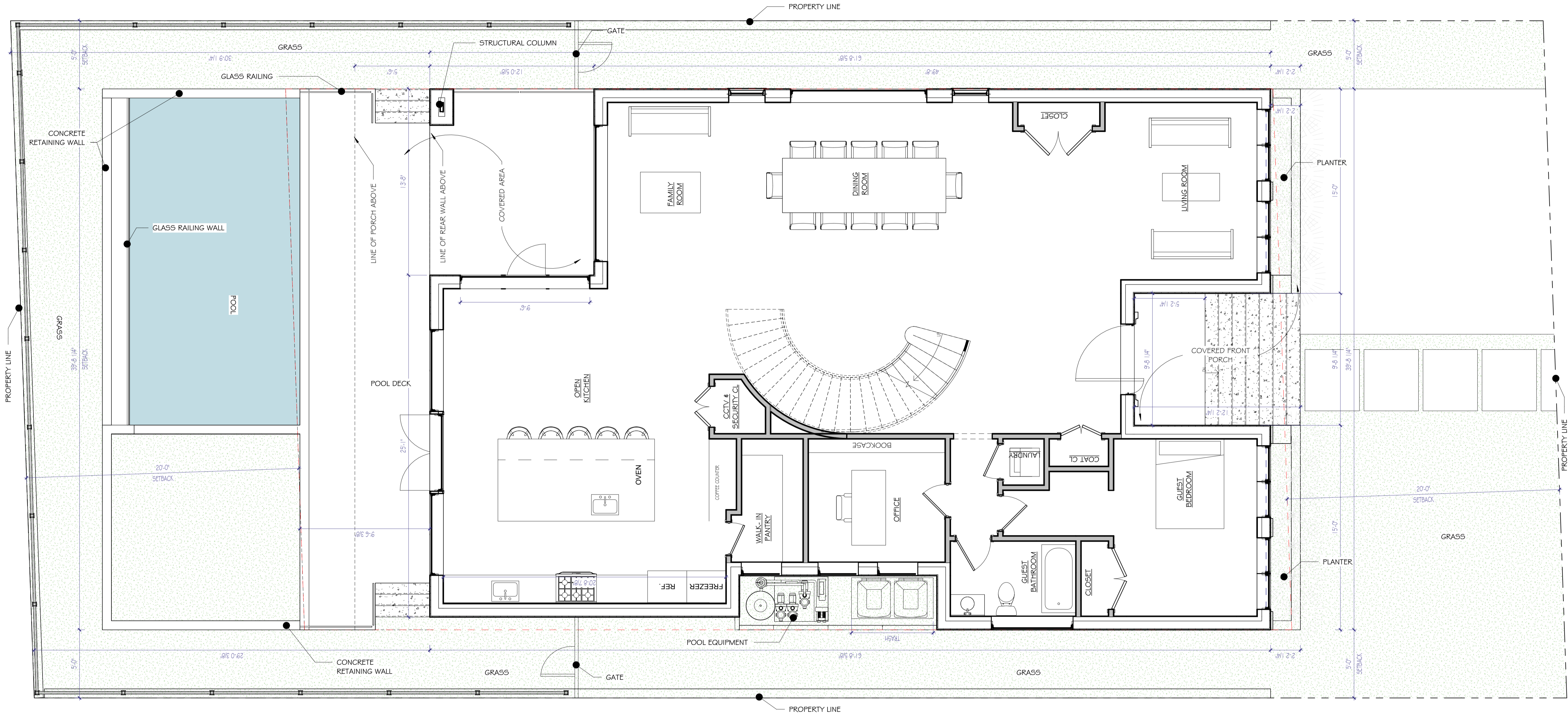
PROJECT NO.

DRAWING NO. A-03

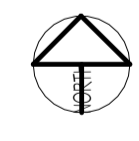
3 OF

THE GENERAL CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND REPORT ALL ERRORS AND OMISSIONS TO THE ARCHITECTS. DO NOT SCALE DRAWING. THE DRAWING SHALL NOT BE USED UNTIL SIGNED BY CONSULTANTS.

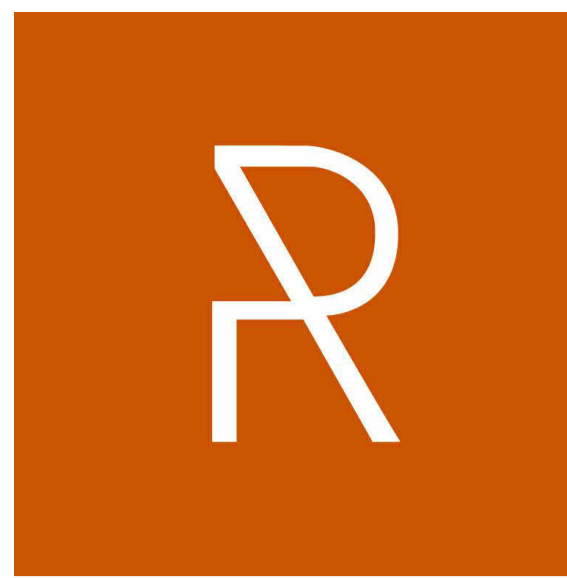
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LEVEL 1 FLOOR PLAN
1/4" = 1'-0"



83



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REVISIONS	DESCRIPTION	DATE	NO.

PROJECT NAME/LOCATION

FL#015 - ROTH

DRAWING TITLE

SECOND FLOOR PLAN

EXAMINER'S SIGNATURE

PROFESSIONAL SEAL

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SCALE As indicated

DATE

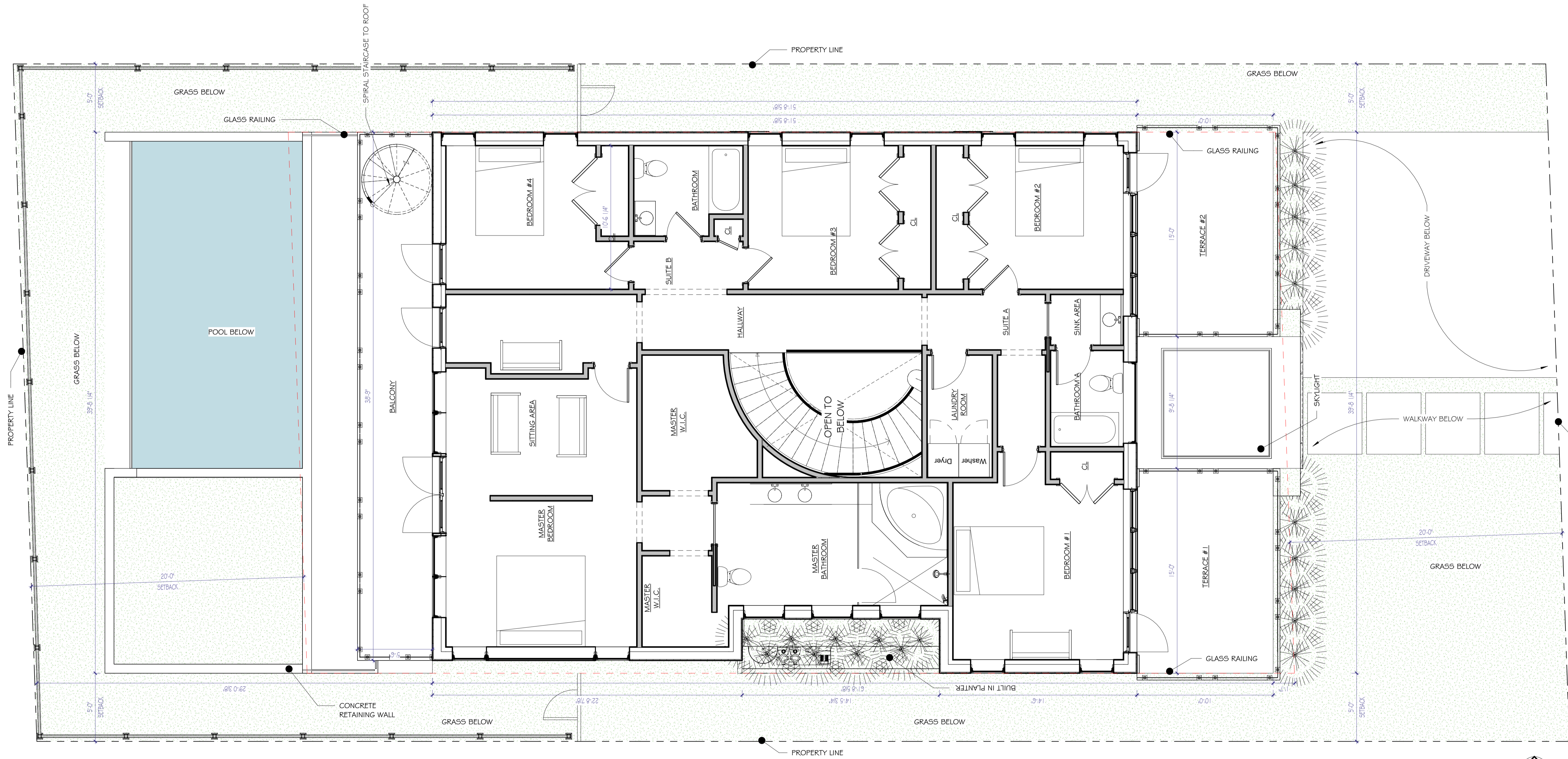
PROJECT NO.

DRAWING NO. A-04

4 OF

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LEVEL 2 FLOOR PLAN
1/4" = 1'-0"



KEY	
	Setback Line
	Property Line
	Pervious (Grass) Area



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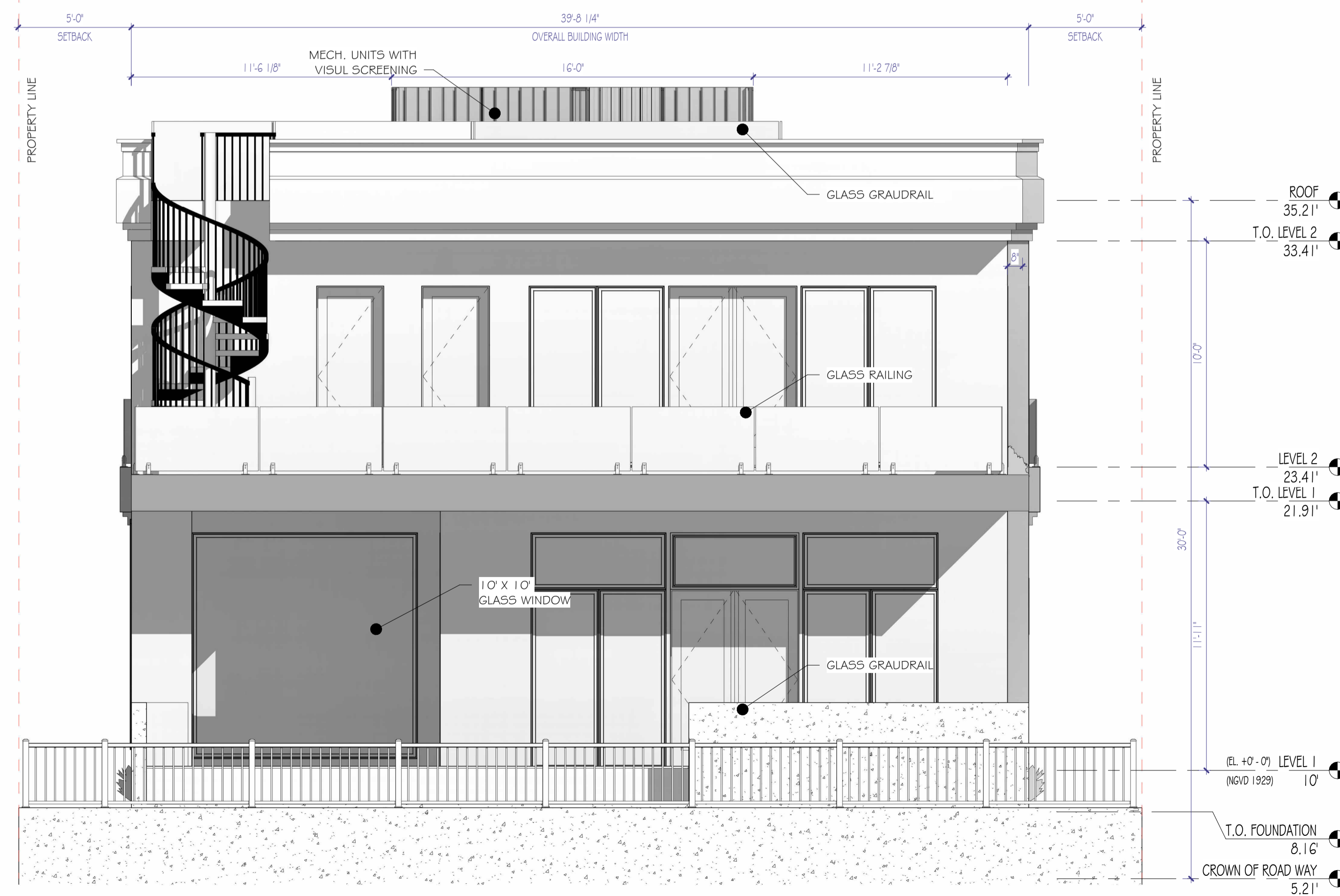
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REVISIONS	DESCRIPTION	DATE	NO.



1 FRONT ELEVATION
1/4" = 1'-0"



2 REAR ELEVATION
1/4" = 1'-0"

PROJECT NAME / LOCATION

FL#015 - ROTH

DRAWING TITLE

ELEVATIONS -
FRONT & REAR

EXAMINER'S SIGNATURE

PROFESSIONAL SEAL

JEFF AKERMAN, RA
FL LIC. NO.
AR101225

SCALE 1/4" = 1'-0"

DATE

PROJECT NO.

A-06

DRAWING NO. 6 OF 6

THE GENERAL CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND REPORT ALL ERRORS AND OMISSIONS TO THE ARCHITECTS. DO NOT SCALE DRAWING. THE DRAWING SHALL NOT BE USED UNLESS SIGNED BY CONSULTANTS.

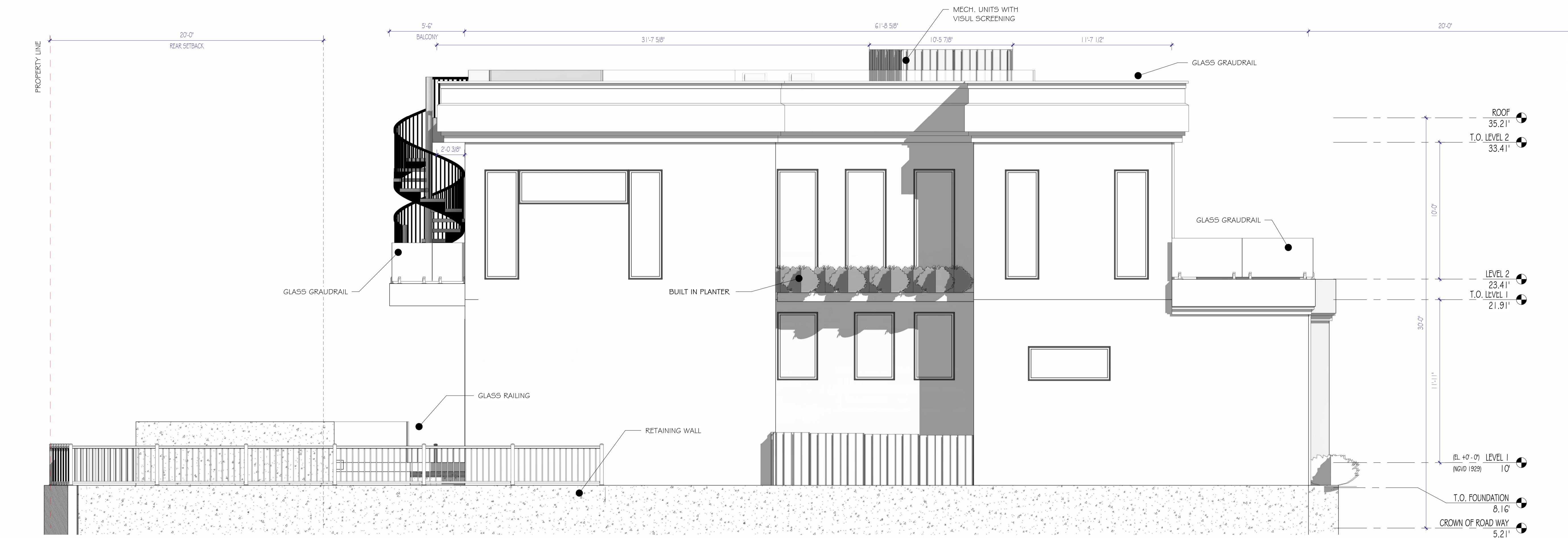


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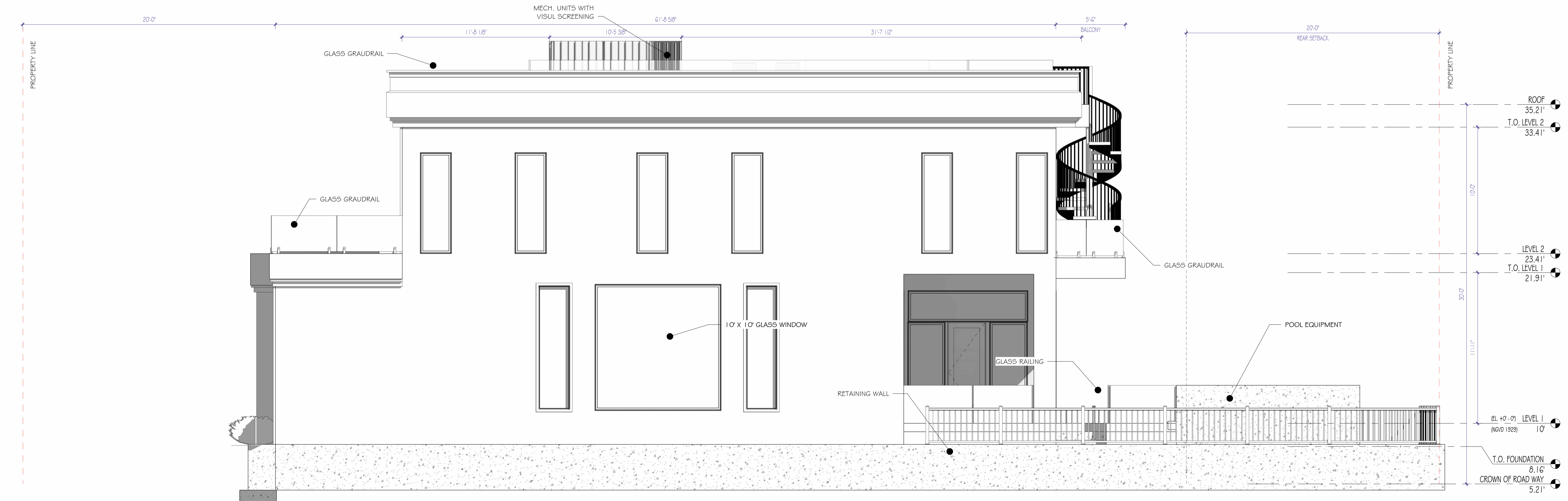
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REVISIONS	DESCRIPTION	DATE	NO.



1 LEFT ELEVATION
1/4" = 1'-0"



2 RIGHT ELEVATION
1/4" = 1'-0"

87

PROJECT NAME / LOCATION

FL#015 - ROTH

DRAWING TITLE

ELEVATIONS - RIGHT & LEFT

EXAMINER'S SIGNATURE

PROFESSIONAL SEAL

JEFF AKERMAN, RA
FL LIC. NO.
ARI01225

SCALE 1/4" = 1'-0"

DATE

PROJECT NO.

A-07

DRAWING NO. 7 OF 7

THE GENERAL CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND REPORT ALL ERRORS AND OMISSIONS TO THE ARCHITECTS. DO NOT SCALE DRAWING. THE DRAWING SHALL NOT BE USED UNLESS SIGNED BY CONSULTANTS.

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FRONT VIEW ELEVATION



LEFT SIDE ELEVATION



RIGHT SIDE ELEVATION



REAR VIEW ELEVATION



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REVISIONS

DESCRIPTION	DATE	NO.

88

PROJECT NAME/LOCATION

FL#015 - ROTH

DRAWING TITLE

RENDERINGS

EXAMINER'S SIGNATURE

PROFESSIONAL SEAL

JEFF AKERMAN, RA
FL LIC. NO.
AR101225

SCALE

DATE

PROJECT NO.

R-01

DRAWING NO.

8 OF

THE GENERAL CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND REPORT ALL ERRORS AND OMISSIONS TO THE ARCHITECTS. DO NOT SCALE DRAWING. THE DRAWING SHALL NOT BE USED UNLESS SIGNED BY CONSULTANTS.

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MATERIALS



BALCONY GLASS RAILING



WHITE STUCCO



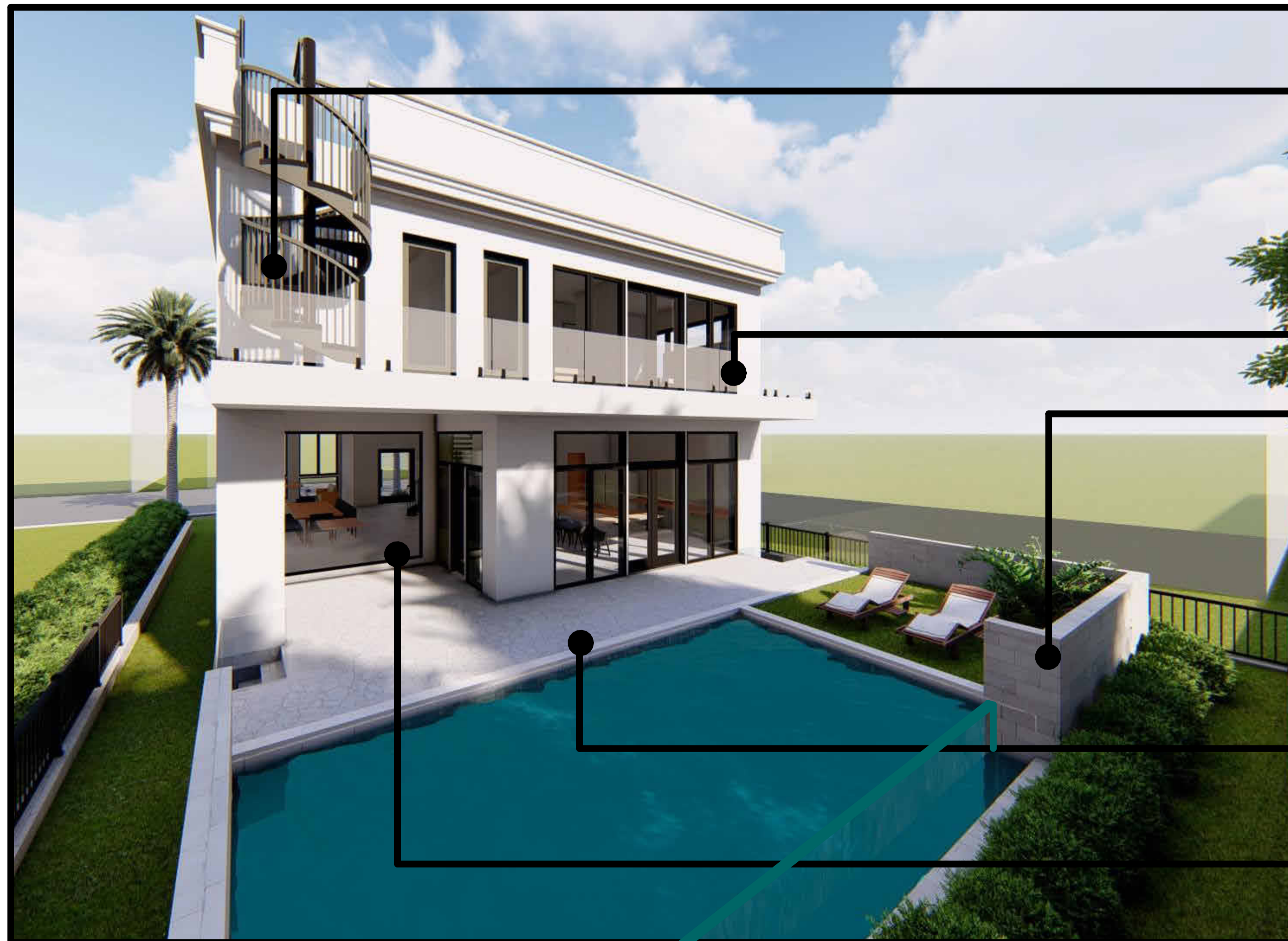
PAVERS



LIGHT GRAY STONE



PAVERS



METAL RAILING



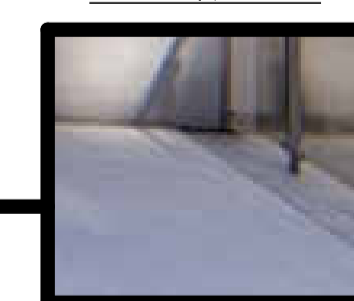
GLASS RAILING



DARK GRAY STONE



LIGHT GRAY STONE



BLACK MULLION WINDOW TYPICAL



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ARCHITECTURE

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CLIENT:

REVISIONS:

DESCRIPTION	DATE	NO.

PROJECT NAME / LOCATION:

89
FL#015 - ROTH

DRAWING TITLE:

**PROPOSED
EXTERIOR
MATERIALS**

EXAMINER'S SIGNATURE:

PROFESSIONAL SEAL:

JEFF AKERMAN, RA
 FL LIC. NO.
 AR101225

SCALE:

DATE:

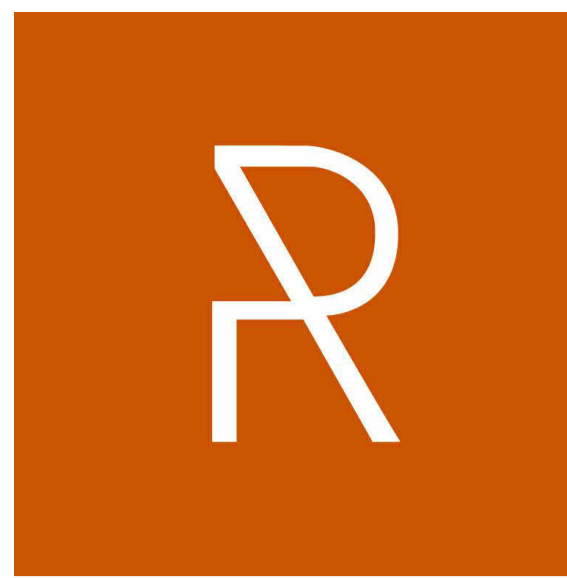
PROJECT NO.

DRAWING NO. **R-02**

9 OF

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REVISIONS

DESCRIPTION	DATE	NO.

PROJECT NAME / LOCATION

FL#015 - ROTH

DRAWING TITLE

SITE DIAGRAM AND ZONING DATA

EXAMINER'S SIGNATURE

PROFESSIONAL SEAL

JEFF AKERMAN, RA
FL LIC. NO.
ARI01225

SCALE 1/8" = 1'-0"

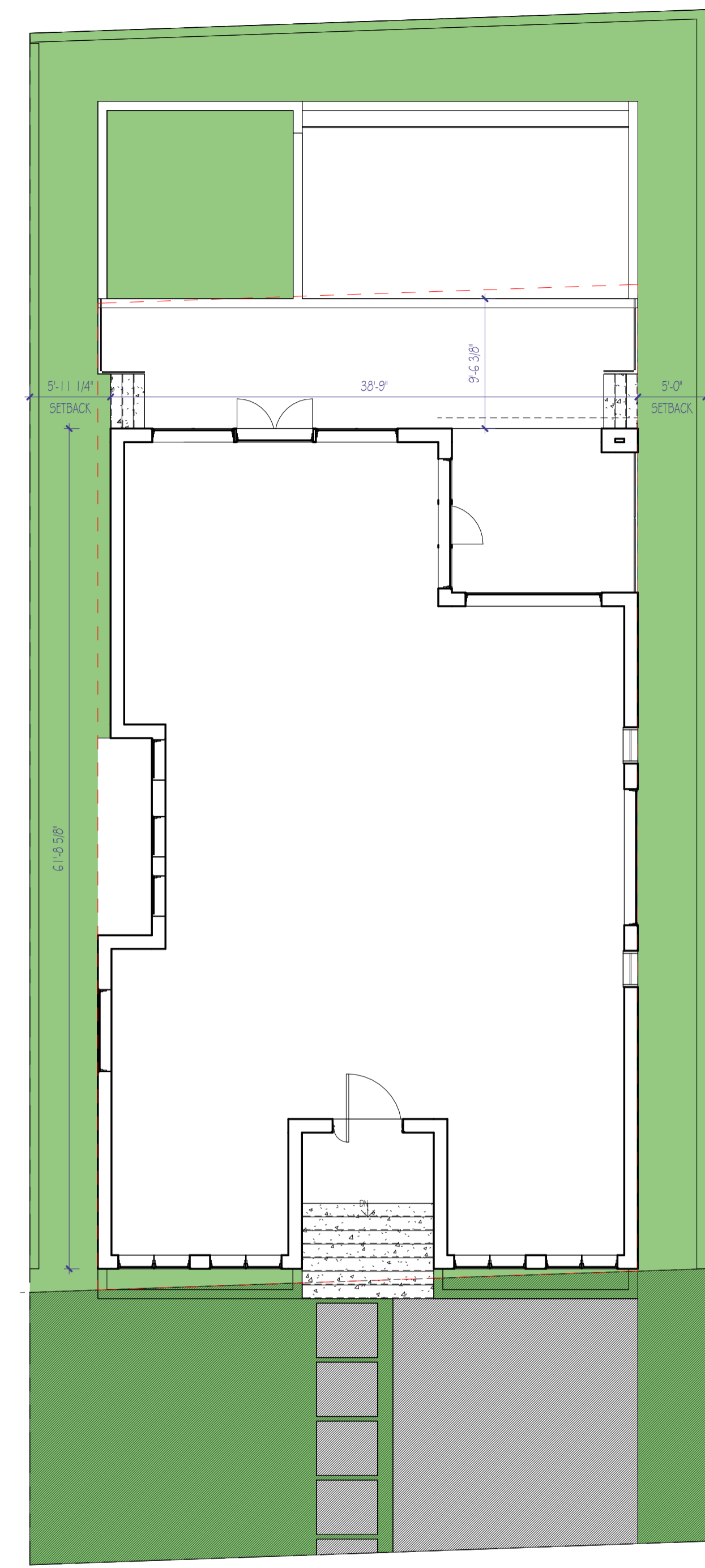
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PROJECT NO.

DRAWING NO. S-01

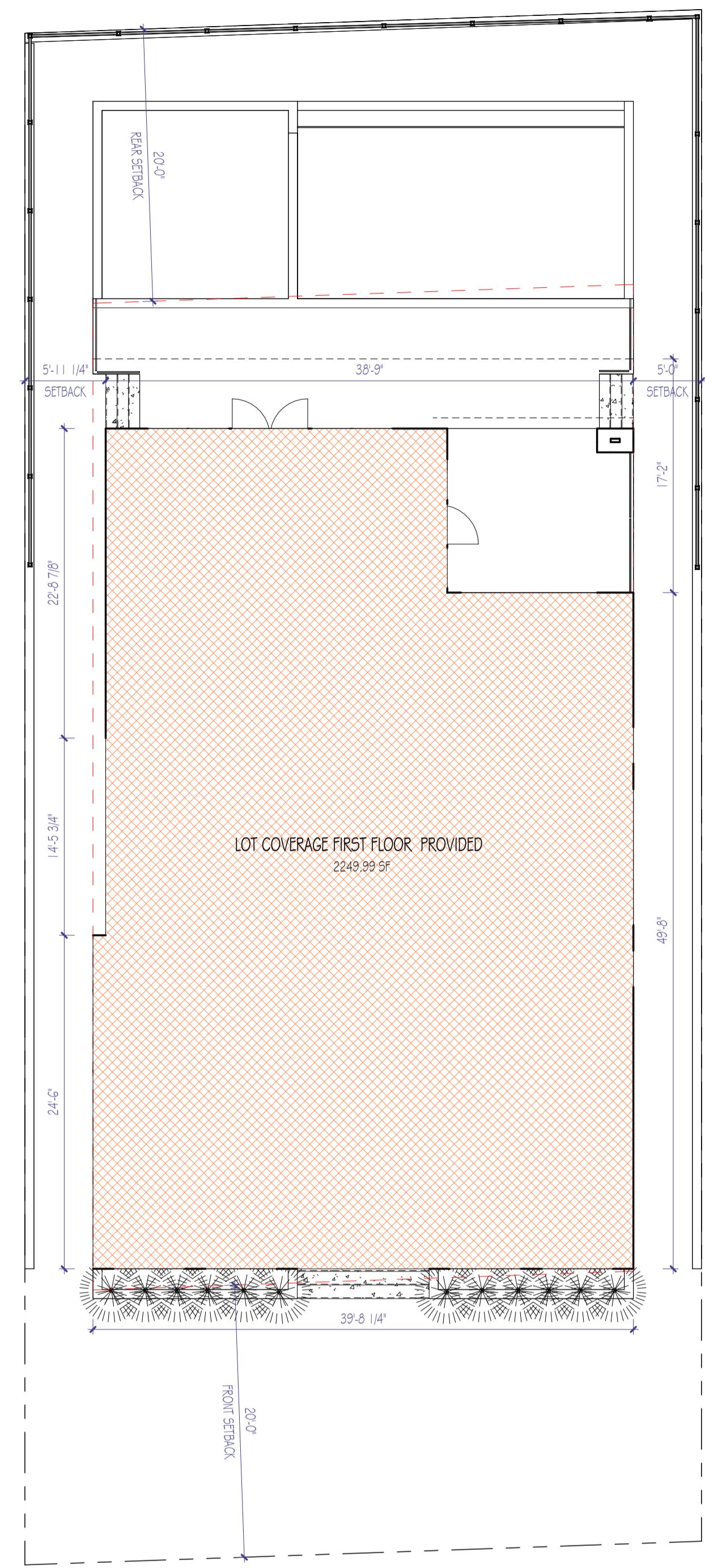
10 OF

THE GENERAL CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND REPORT ALL ERRORS AND OMISSIONS TO THE ARCHITECTS. DO NOT SCALE DRAWING. THE DRAWING SHALL NOT BE USED UNLESS SIGNED BY CONSULTANTS.



LOT COVERAGE DIAGRAM # CALCULATIONS
GROUND LEVEL
1/8" = 1'-0"

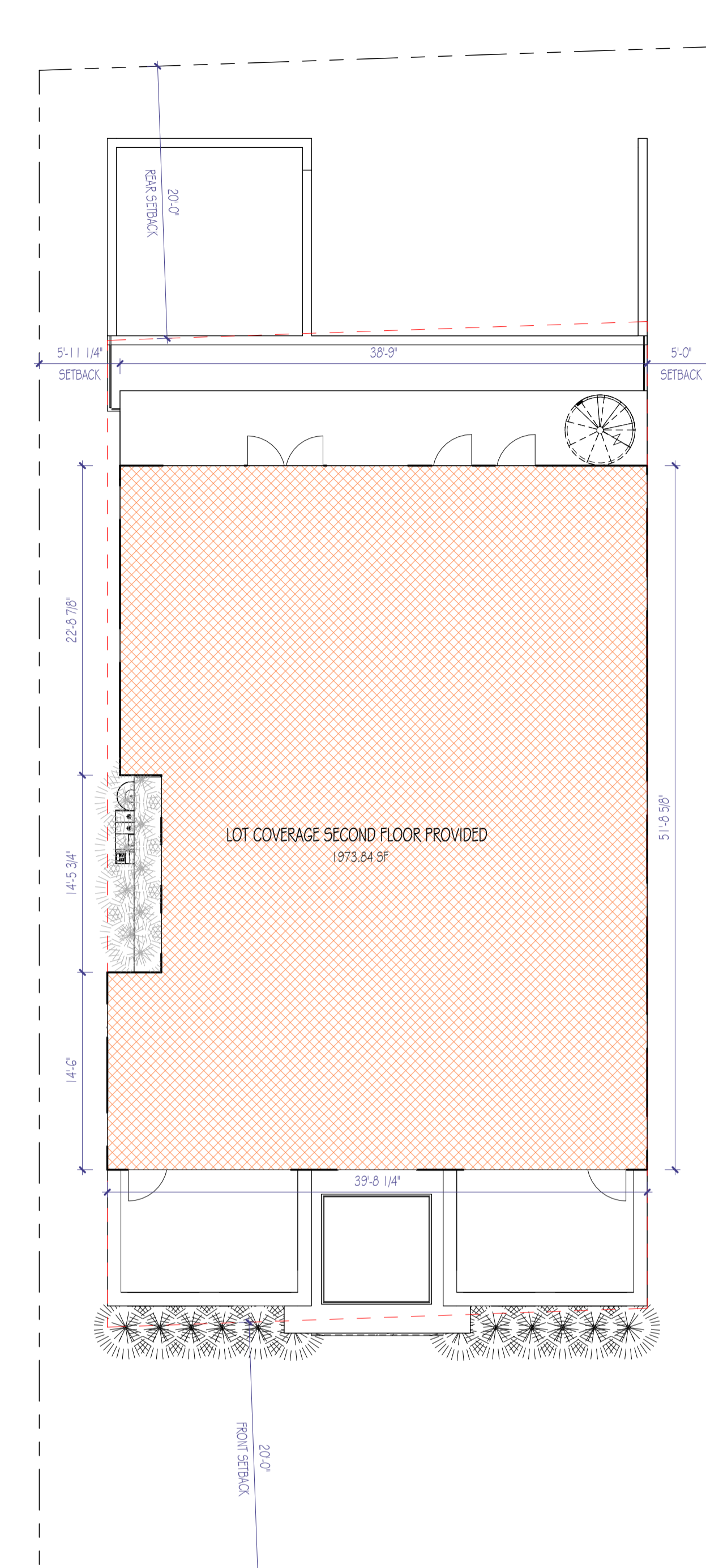
NET LOT AREA: 5,625 SQ. FT.
PERVIOUS AREA REQUIRED: 35% 1,968.75 SQ. FT.
TOTAL PERVIOUS AREA PROVIDED: 1,973.3 SQ. FT.
FRONT YARD PERVIOUS AREA: 894.41 SQ. FT.
FRONT YARD AREA: 50% 497.21 SQ. FT.
REAR PERVIOUS AREA: 575 SQ. FT.
DRIVEWAY WALK WAY PALER AREA - NOT CALCULATED AS PERVIOUS AREA: 329.66 SQ. FT.



LOT COVERAGE DIAGRAM # CALCULATIONS
LEVEL 1
1/8" = 1'-0"

NET LOT AREA: 5,625 SQ. FT.
LOT COVERAGE 1ST FLOOR ALLOWED: 40% 2,250 SQ. FT.
LOT COVERAGE FIRST FLOOR INTERIOR PROVIDED: 2,249.53 SQ. FT.

LOT COVERAGE SECOND FLOOR PROVIDED: 1,990.16 SQ. FT.

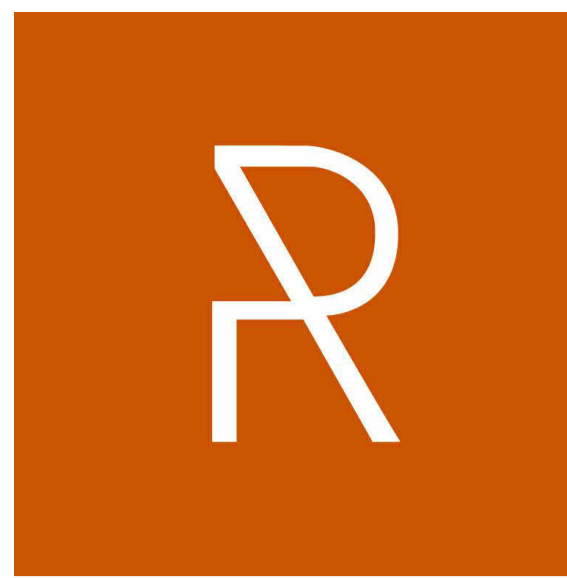


LOT COVERAGE DIAGRAM # CALCULATIONS
LEVEL 2
1/8" = 1'-0"

ZONING DATA SHEET H-30B:

UPPER STORY FLOOR AREA IS 65% TO 80% OF STORY FLOOR AREA
SURFSIDE, FLORIDA - CODE OF ORDINANCES

ADDRESS: 9472 BYRON AVENUE	PROPERTY SIZE: 5,625 SQ. FT.	ZONING DISTRICT: H30B	LOWEST FLOOR ELEVATION REQ'D: BASE FLOOD ELEVATION 1'0" NGVD	LOWEST FLOOR ELEVATION PROP.: BASE FLOOD ELEVATION 1'0" NGVD	
LOT COVERAGE	ZONING CODE REQ'D.	PROPOSED	%	ENCROACHMENT	ZONING CODE REQ'D. AND PROPOSED
MAXIMUM LOT COVERAGE	40% = 2,250 SQ. FT.	2,249.72 SQ. FT.	40%	EAVES AND ORNAMENTAL FEATURES: FRONT & SIDES	24 INCHES MAX
MAXIMUM UPPER STORY LOT COVERAGE	35% = 1,968.75 SQ. FT.	1,990.16 SQ. FT.	79.7%	REAR	8 INCHES MAX
MINIMUM PERVIOUS AREA	30 FT	1,970 SQ. FT.	35%		
MAXIMUM HEIGHT FROM CROWN OF ROAD		30 FT			
SETBACKS				ACCESSORY BUILDINGS	
PRIMARY: 20 FT	20 FT	20 FT		MAXIMUM AGGREGATE AREA	500 SQ. FT.
INTERIOR SIDE: 5 FT (1ST FLOOR)	5 FT	5 FT (1ST FLOOR)		POOL & UNCOVERED DECK SETBACKS	REAR AND INTERIOR - 5 FT
REAR: 20 FT	20 FT	20 FT		DRIVEWAY SIZE	SECONDARY FRONTAGE - 10 FT
UPPER STORY PRIMARY FRONTAGE AVERAGE	AVG: 25 FT	AVG: 25 FT			18' WIDE X 18' DEEP
UPPER STORY INTERIOR SIDE AVERAGE (LOTS > 50 FEET IN WIDTH & WALL LENGTH > 20% OF THE LOT DEPTH)	AVG: 7.5 FT (2ND FLOOR)	AVG: 7.5 FT (2ND FLOOR)			



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REVISIONS
DESCRIPTION DATE NO.

PROJECT NAME / LOCATION

FL#015 - ROTH

DRAWING TITLE

SITE DIAGRAM AND
SETBACK
CALCULATIONS

EXAMINER'S SIGNATURE

PROFESSIONAL SEAL

JEFF AKERMAN, RA
FL LIC. NO.
AR101225

SCALE 1/8" = 1'-0"

DATE

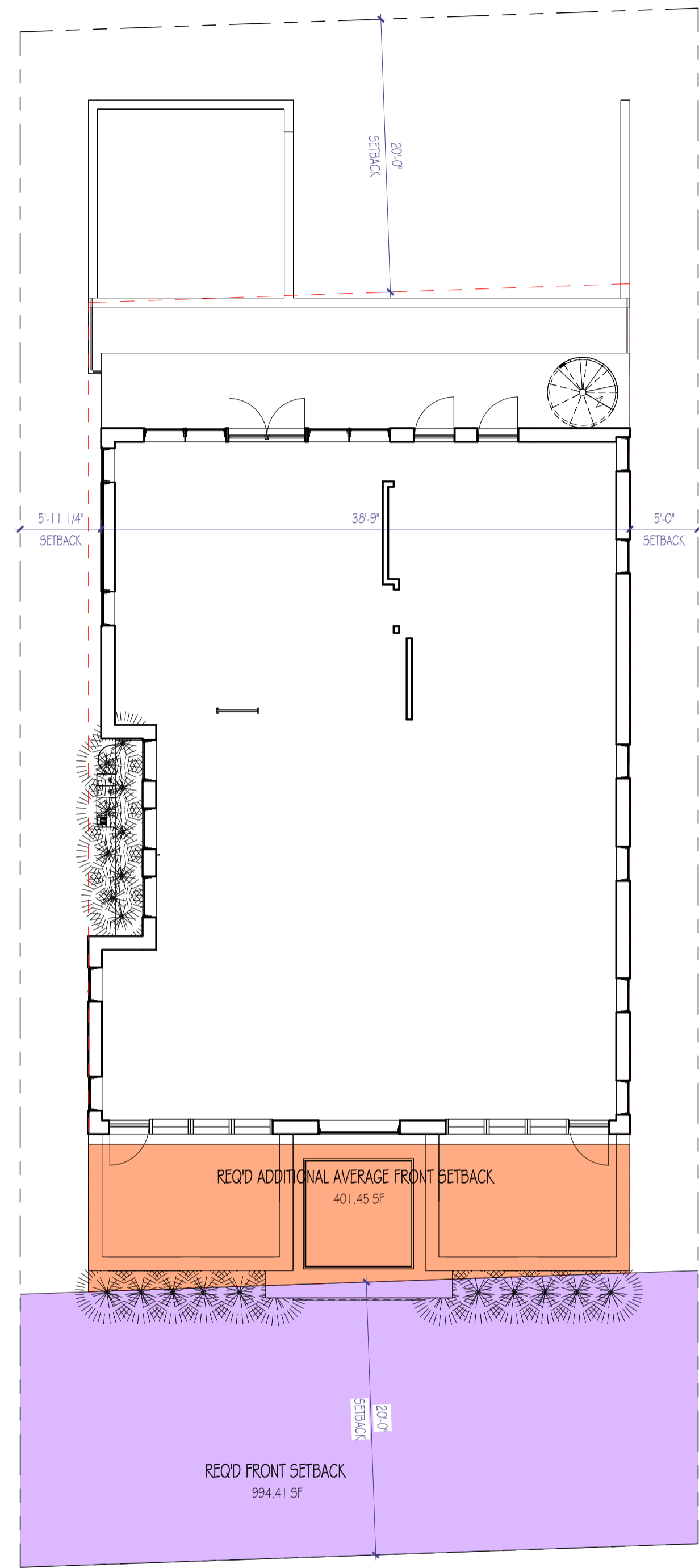
PROJECT NO.

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10 OF

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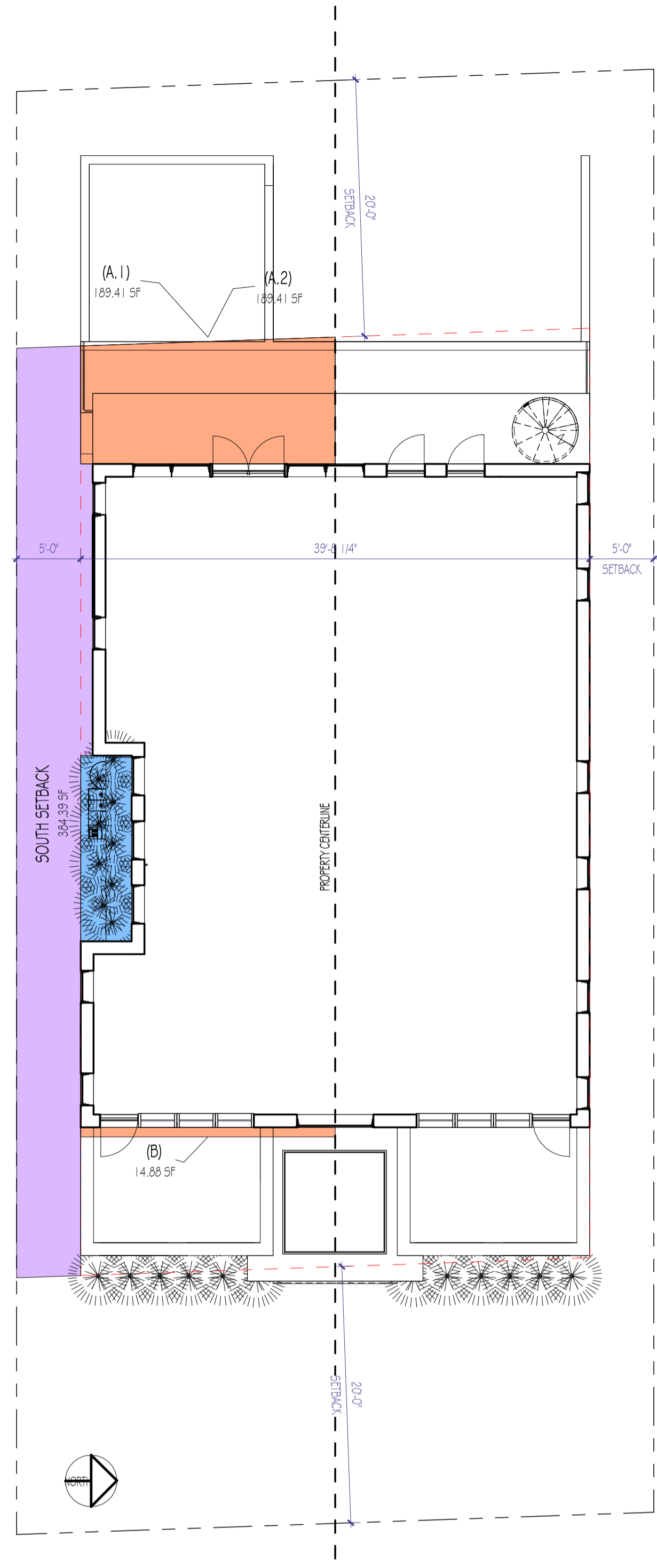
REQD FRONT SETBACK: 20 FT
REQD ADDITIONAL AVERAGE FRONT SETBACK: 5 FT

CALCULATIONS:
Req'd additional avg. front setback - 5
Width of allowable building - X 40
Number of stories - X 2
Total req'd additional avg. front setback - 400 SQ. FT.

PROVIDED:
REQD SETBACK: 20 FT
REQD ADDITIONAL AVERAGE FRONT SETBACK: 400 SQ FT

REQD SETBACK
REQD ADDITIONAL AVERAGE FRONT SETBACK

4 FRONT SETBACK DIAGRAM
1/8" = 1'-0"



REQD SIDE SETBACK: 5 FT
REQD ADDITIONAL AVERAGE SIDE SETBACK: 2.5 FT

CALCULATIONS:
Req'd additional avg. side setback - 2.5
Depth of allowable building - X 72.5
Number of stories - X 2
Total req'd additional avg. south setback - 362.5 SQ. FT.

PROVIDED ADDITIONAL AVERAGE SOUTH SETBACK:

REAR LEVEL 1 (A.1) 174 SQ FT
REAR LEVEL 2 (A.2) +174 SQ FT
FRONT (B) +15 SQ FT
TOTAL 363 SQ FT

REQD SETBACK
REQD ADDITIONAL AVERAGE SOUTH SETBACK
NOT CALCULATED TOWARD AVERAGE SIDE SETBACK

2 SOUTH SIDE SETBACK DIAGRAM
1/8" = 1'-0"

REQD LEFT SETBACK: 5 FT
REQD ADDITIONAL AVERAGE SIDE SETBACK: 2.5 FT

CALCULATIONS:
Req'd additional avg. side setback - 2.5
Depth of allowable building - X 72.5
Number of stories - X 2
Total req'd additional avg. north setback - 362.5 SQ. FT.

PROVIDED ADDITIONAL AVERAGE NORTH SETBACK:

REAR LEVEL 1 (A.1) 340.54 SQ FT
REAR LEVEL 2 (A.2) +203.16 SQ FT
FRONT (B) +15 SQ FT
TOTAL 558.7 SQ FT

REQD SETBACK
REQD ADDITIONAL AVERAGE NORTH SETBACK

3 NORTH SIDE SETBACK DIAGRAM
1/8" = 1'-0"

SETBACK DATA SHEET H-30B:

ADDITIONAL AVERAGE SETBACK CALCULATIONS
AS PER CODE ORDINANCE NO. 2023-1752 SECTIONS 90-2 & 90-45

SETBACK	SQ FT REQD ADDITIONAL AVG. SETBACK	PROPOSED
FRONT SETBACK 20 FT + 5FT AVG	400 SQ FT	400 SQ FT
SIDE SETBACK NORTH: 5 FT + 2.5FT AVG	362.5 SQ FT	525 SQ FT
SIDE SETBACK SOUTH: 5 FT + 2.5FT AVG	362.5 SQ FT	363 SQ FT



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CLIENT

REVISIONS
DESCRIPTION DATE NO.

PROJECT NAME / LOCATION

FL#015 - ROTH

DRAWING TITLE

LINE OF SITE
DIAGRAM

EXAMINER'S SIGNATURE

PROFESSIONAL SEAL

JEFF AKERMAN, RA
FL LIC. NO.
AR101225

SCALE 1/8" = 1'-0"

DATE

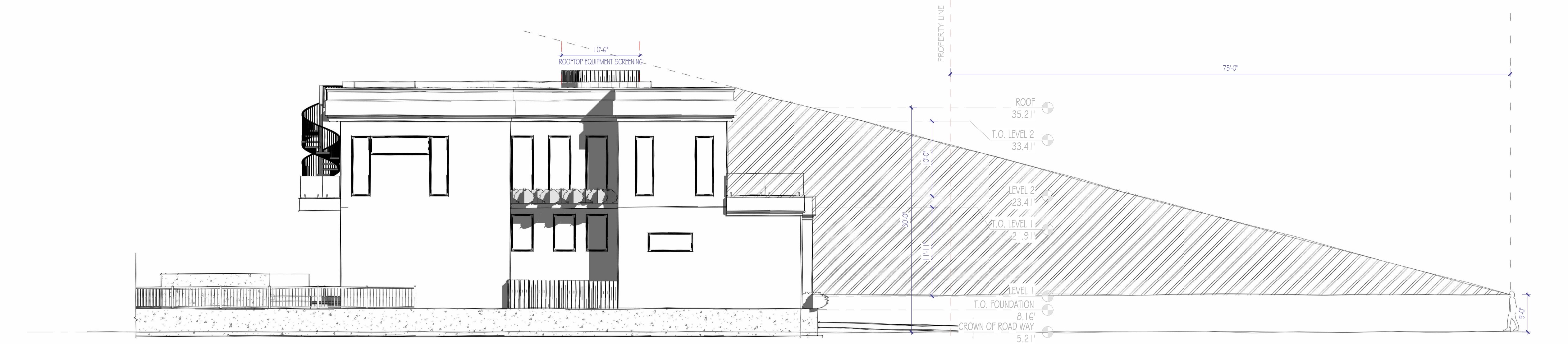
PROJECT NO.

S-03

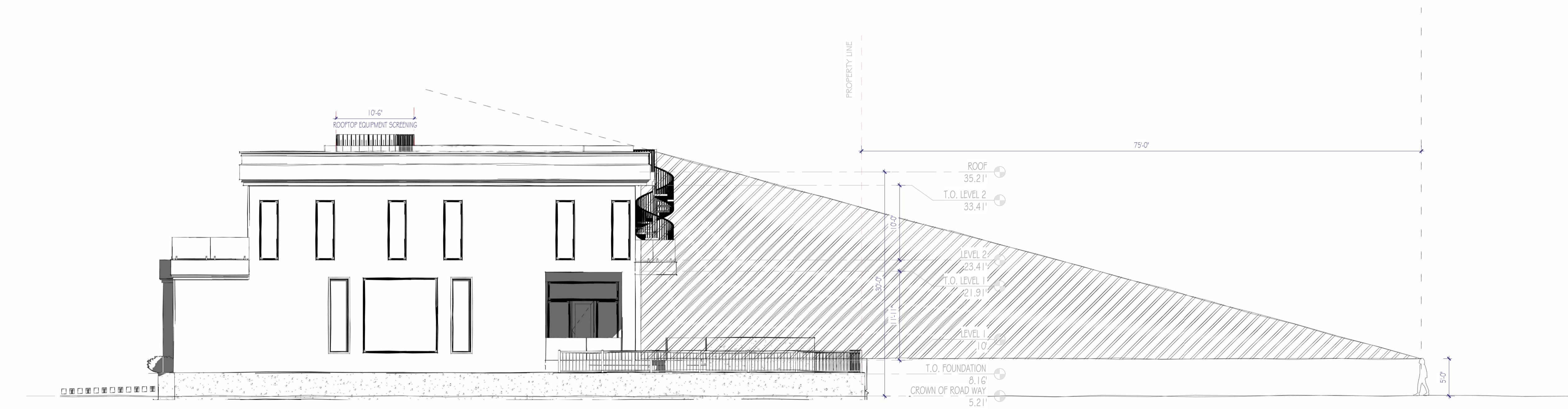
DRAWING NO. 11 OF

THE GENERAL CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND REPORT ALL ERRORS AND OMISSIONS TO THE ARCHITECTS. DO NOT SCALE DRAWING. THE DRAWING SHALL NOT BE USED UNLESS SIGNED BY CONSULTANTS.

2/14/2024 5:28:34 PM



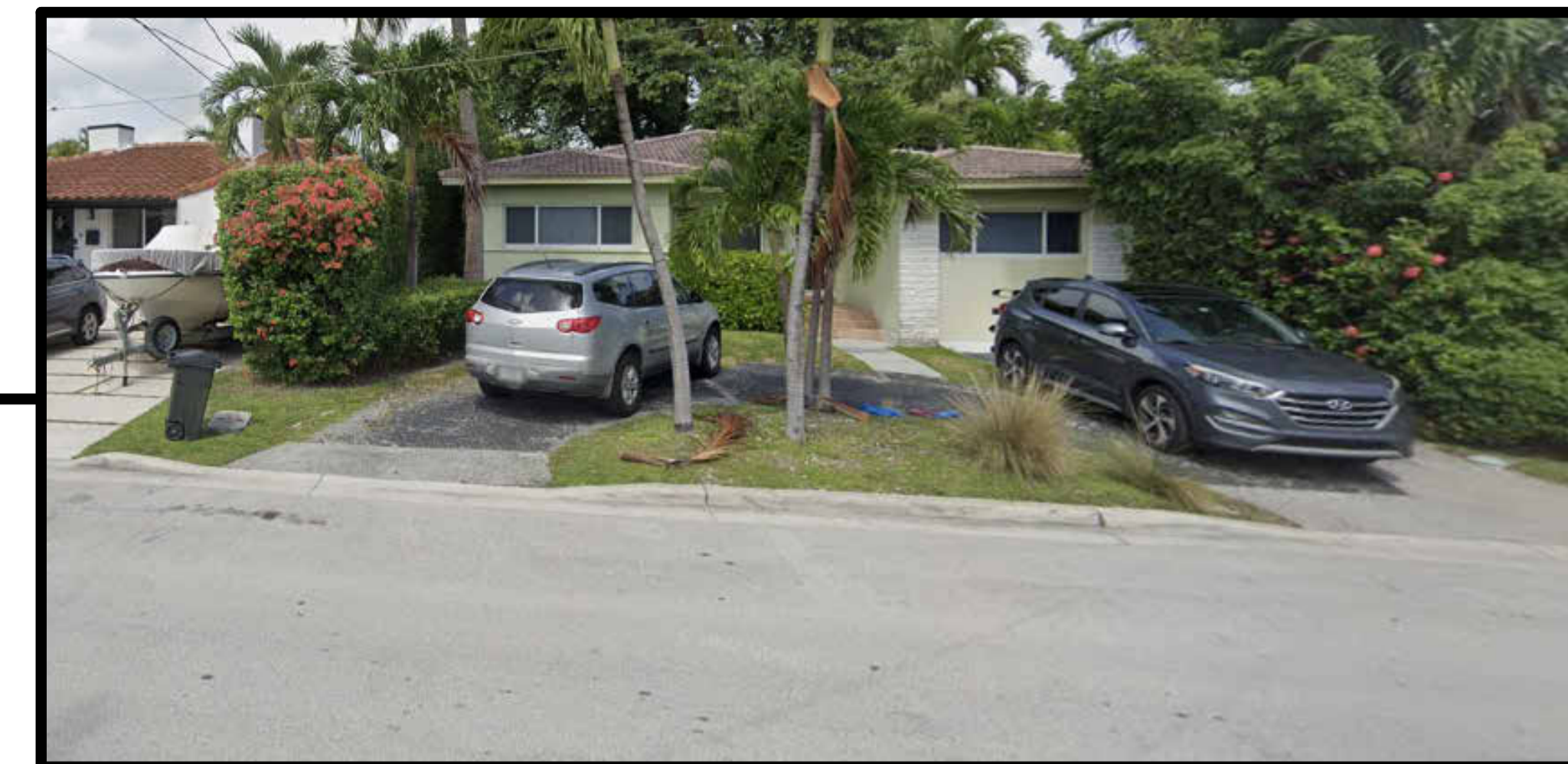
2 LEFT ELEVATION LINE OF SIGHT
1/8" = 1'-0"



3 RIGHT ELEVATION LINE OF SIGHT
1/8" = 1'-0"



1 FRONT ELEVATION LINE OF SIGHT
1/8" = 1'-0"



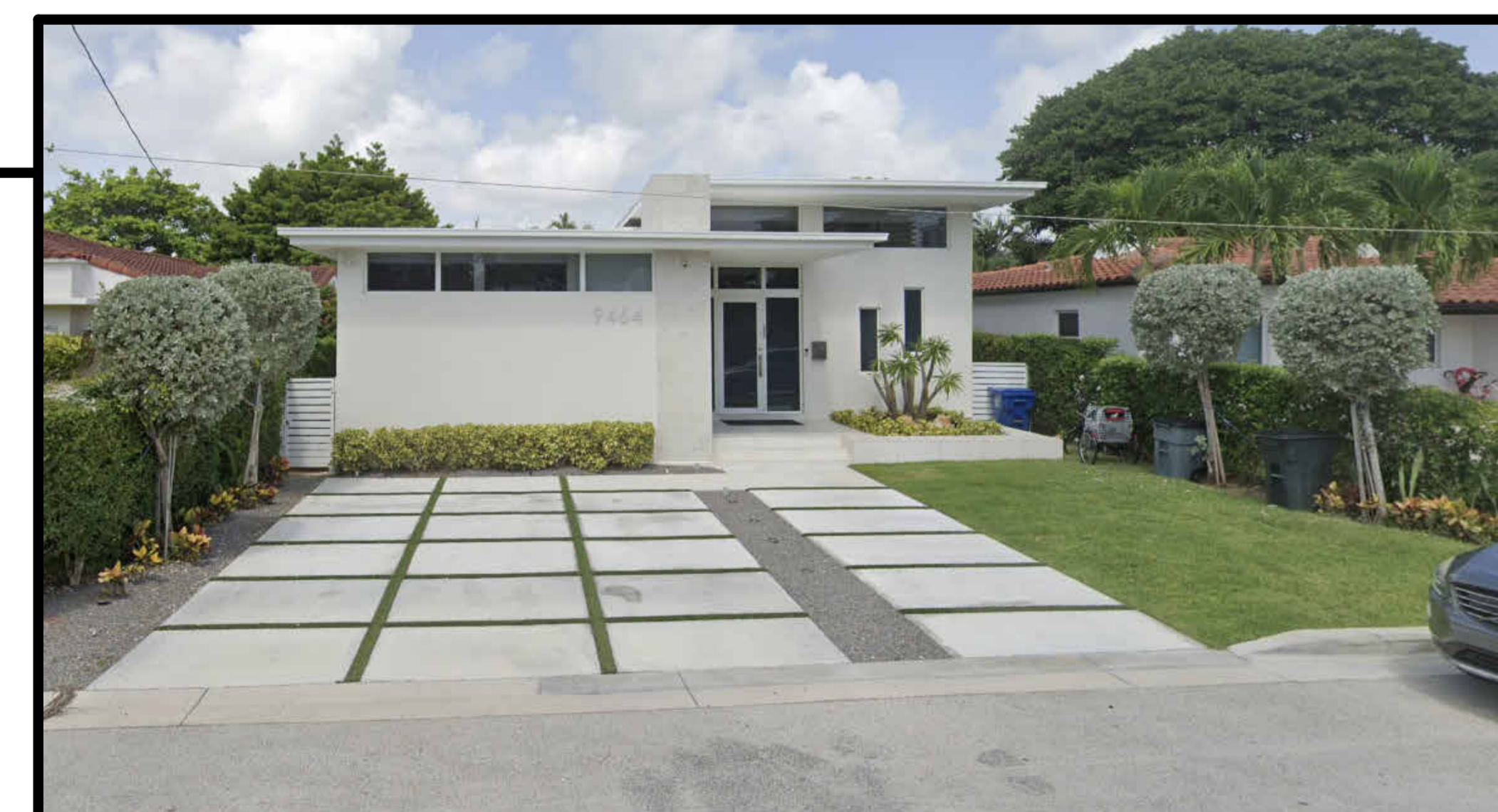
9480 BYRON AVE.



9472 BYRON AVE.



9473 CARLYLE AVE



9464 BYRON AVE.



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architecture

ARCHITECT: RESIDE ARCHITECTURE, LLC
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 908-674-8717

CLIENT:

REVISIONS	DESCRIPTION	DATE	NO.
			93

PROJECT NAME/LOCATION:

FL#015 - ROTH

DRAWING TITLE:

CONTEXT IMAGES

EXAMINER'S SIGNATURE:

PROFESSIONAL SEAL:

JEFF AKERMAN, RA
 FL LIC. NO.
 AR101225

SCALE:

DATE:

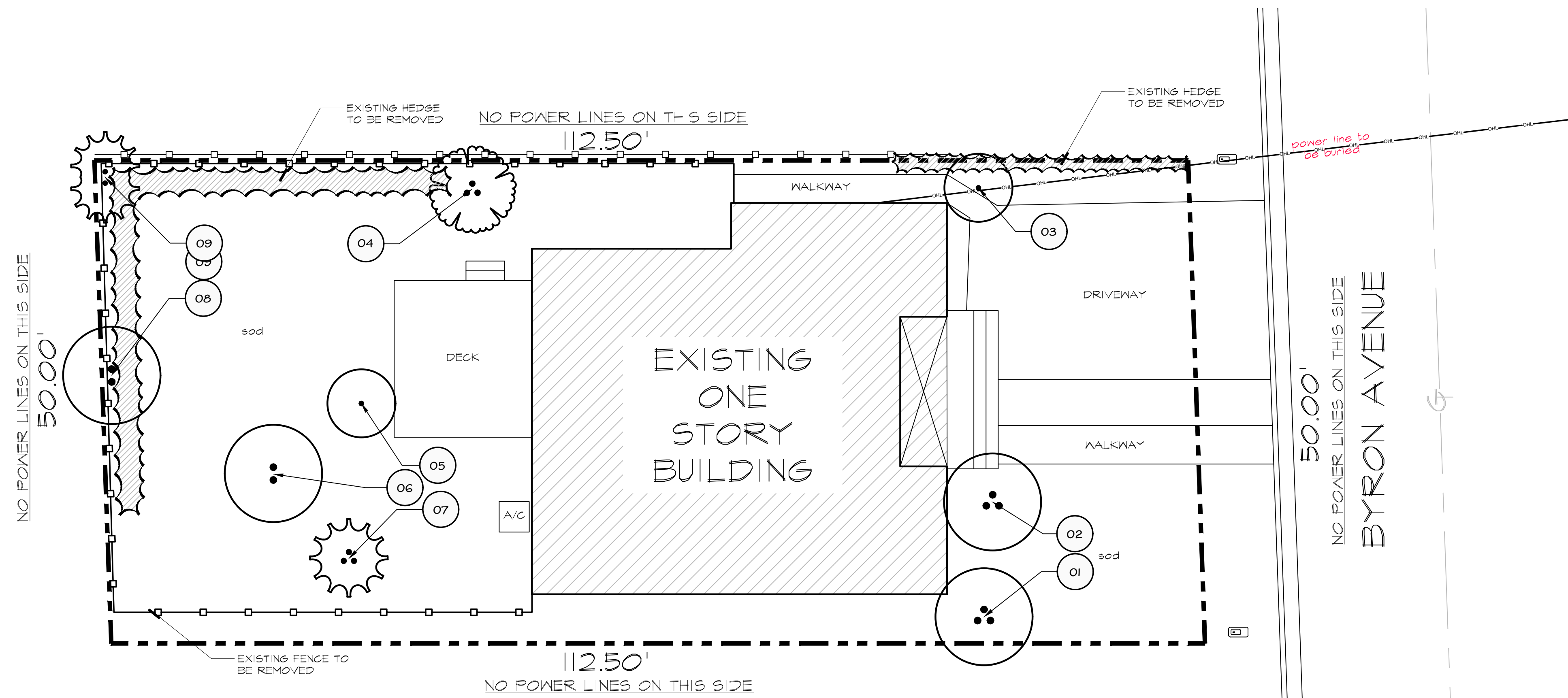
PROJECT NO.

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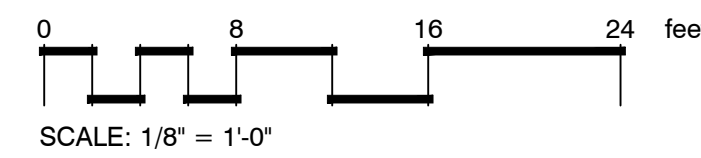
DRAWING NO.

12 OF

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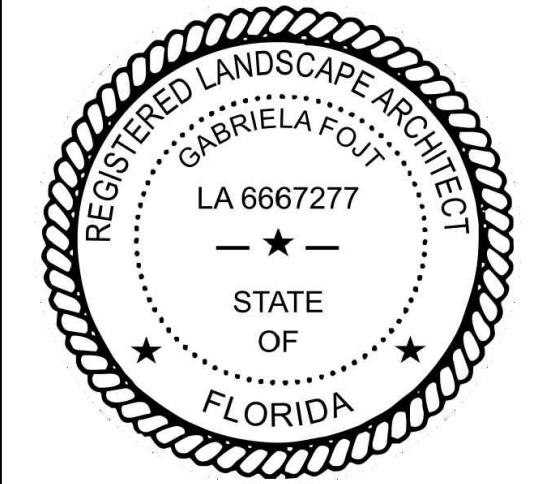
A GENERAL LAYOUT
scale 1/8" = 1'-0"



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NOTE:
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COMMENCEMENT OF ANY WORK.
LANDSCAPE ARCHITECT ASSUMES NO LIABILITY
FOR UTILITY DAMAGE.

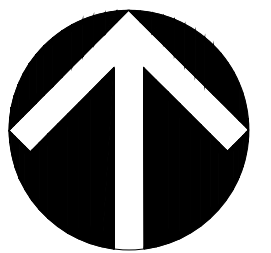
PLANT SCHEDULE								
SYMBOL	CODE	BOTANICAL NAME	COMMON NAME	DBH	HEIGHT/CT	SPREAD	CONDITION	ACTION
TREES								
	01	Adonidia merrillii	Christmas Palm	-	11'-14' CT, triple	10'	70%	REMOVE
	02	Adonidia merrillii	Christmas Palm	-	11'-14' CT, triple	10'	70%	REMOVE
	03	Adonidia merrillii	Christmas Palm	-	14' CT, singl	7'	50%	REMOVE
	04	Strelitzia nicolai	Giant Bird of Paradise	-	16' OA	9'	40%	REMOVE
	05	Adonidia merrillii	Christmas Palm	-	14' CT, singl	7'	50%	REMOVE
	06	Adonidia merrillii	Christmas Palm	-	14CT, dbl	8'	50%	REMOVE
	07	Ptychosperma elegans	Alexander Palm	-	18'-20' CT, triple	8'	40%	REMOVE
	08	Adonidia merrillii	Christmas Palm	-	16' CT	8'	40%	REMOVE
	09	Ptychosperma elegans	Alexander Palm	-	18' CT, dbl	7'	30%	REMOVE



The Mirror of Paradise

Gabriela Fojt
LA 6667277
LC 26000628

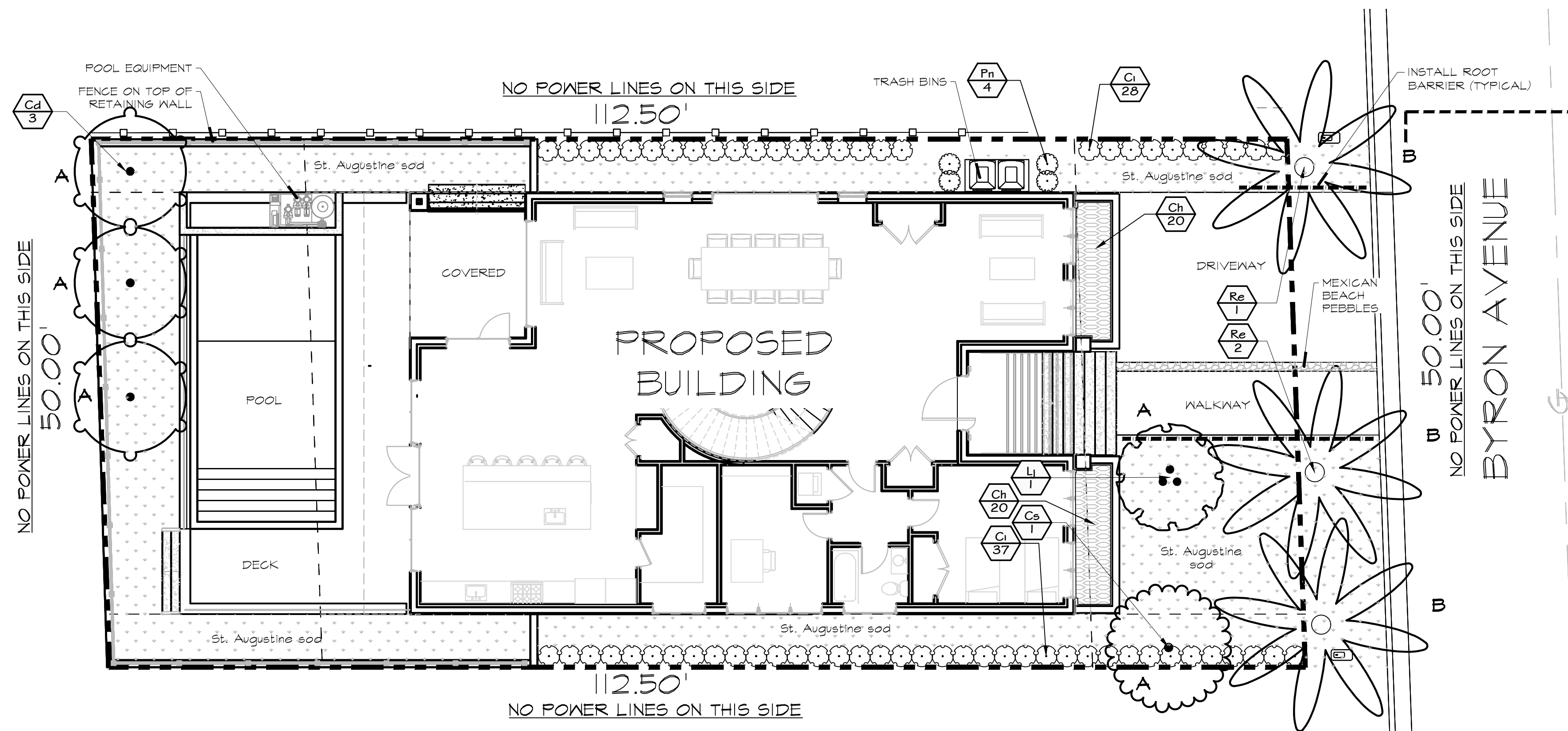
2700 E Oakland Park Blvd
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Fort Lauderdale
FL 33306
c (954) 478 3064
www.florida-landscape.com
gabriela@themirrorofparadise.com



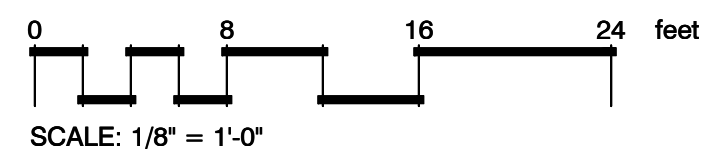
SCALE 1/8"=1'-0"
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CAD DWG.
DATE 01.30.2024
REVISIONS

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Florida

REMOVAL PLAN & EXISTING TREES CHART



A GENERAL LAYOUT
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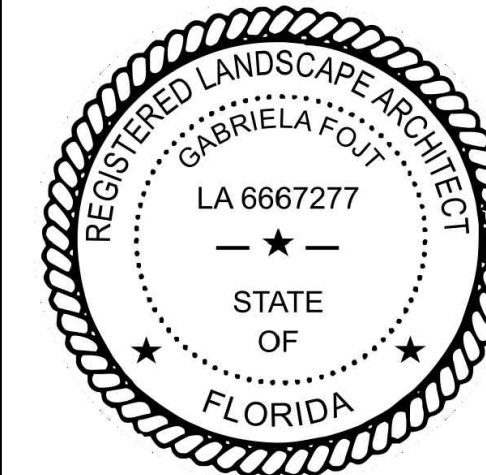
PLANT SCHEDULE

SYMBOL	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	NATIVE	DROUGHT RESIST.
TREES								
	Cd	3	Coccoloba diversifolia	Pigeon Plum	12'-14' OA x 5' spr, 2.5" dbh, matched	AS SHOWN	YES	HIGH
	Cs	1	Conocarpus erectus f. sericeus	Silver Buttonwood	min. 10' OA, 4.5' spr, 1.5" dbh	AS SHOWN	YES	HIGH
	Lj	1	Ligustrum japonicum	Japanese Privet	10' OA, 4.5' spr, 1.5" dbh, 3-max.5 stems	AS SHOWN	NO	HIGH
	Re	3	Roystonea elata	Florida Royal Palm	8' CT, matched	AS SHOWN	YES	HIGH
SHRUBS								
	Ci	65	Chrysobalanus icaco	Coco Plum	24"x24" ftb	24" OC	YES	HIGH
	Pn	4	Psychotria nervosa	Wild Coffee	3'-4' OA, ftb	24" OC	YES	HIGH
SHRUB AREAS								
	Ch	40	Chrysobalanus icaco 'horizontalis'	Horizontal Coco Plum	3 gal, full	18" OC	YES	HIGH
GROUND COVERS								
	Ss	1,494 sf	Stenotaphrum secundatum	St. Augustine Grass	sod			

NOTES:

- SOD AS INDICATED.
- MULCH ALL BEDS AS INDICATED ON DETAIL.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY PLANT, SOD AND MULCH AMOUNTS FOR BIDDING PURPOSES.
- PLAN DRAWING TAKES PRECEDENCE OVER ANY QUANTITY SCHEDULES.

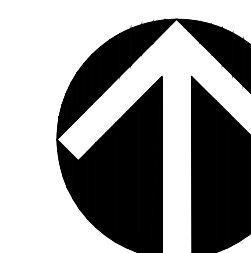
LANDSCAPE REQUIREMENTS H30B	Required	Proposed	Total Provided
A LOT TREES min. 5 trees/lot min. 2 trees species min. 40% of required trees to be Florida native min. 25 shrubs/lot min. 40% of required shrubs to be Florida native	5 2 2 25 shrubs 10	1 Silver Buttonwood, 1 Ligustrum, 3 Pigeon plum 3 (+25 shrubs (+10 shrubs	5 provided 3 provided (+25 provided (+10 provided
2 trees to be in front-yard shade trees to be min. 30% of required trees small trees to be max. 30% of required trees palms to be max. 40% of required trees max. 80% of landscaped areas to be sod (1,548 sf x .8 = 1,238.4 sf)	2 in front min. 2 max. 2 max. 2 max. 2 max. 1,239 sf sod	2 3 2 0 1,151 sf of sod	2 provided 3 provided 2 provided 0 provided 1,151 sf (=74%) provided
B STREET TREES 1 tree/each 20 lf of frontage (50/20=2.5)	3	3 Royal palms	3 provided



The Mirror of Paradise

Gabriela Fojt
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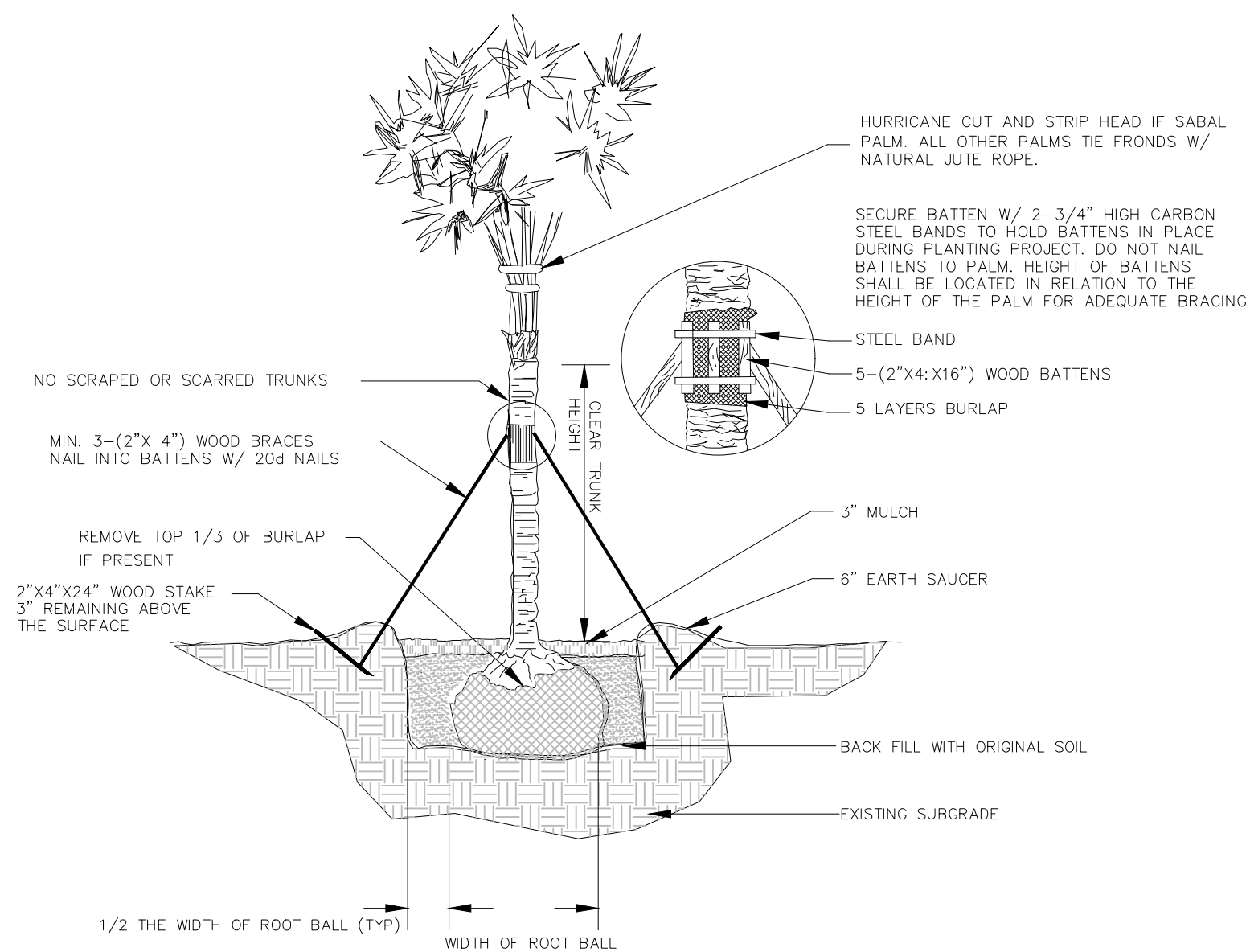
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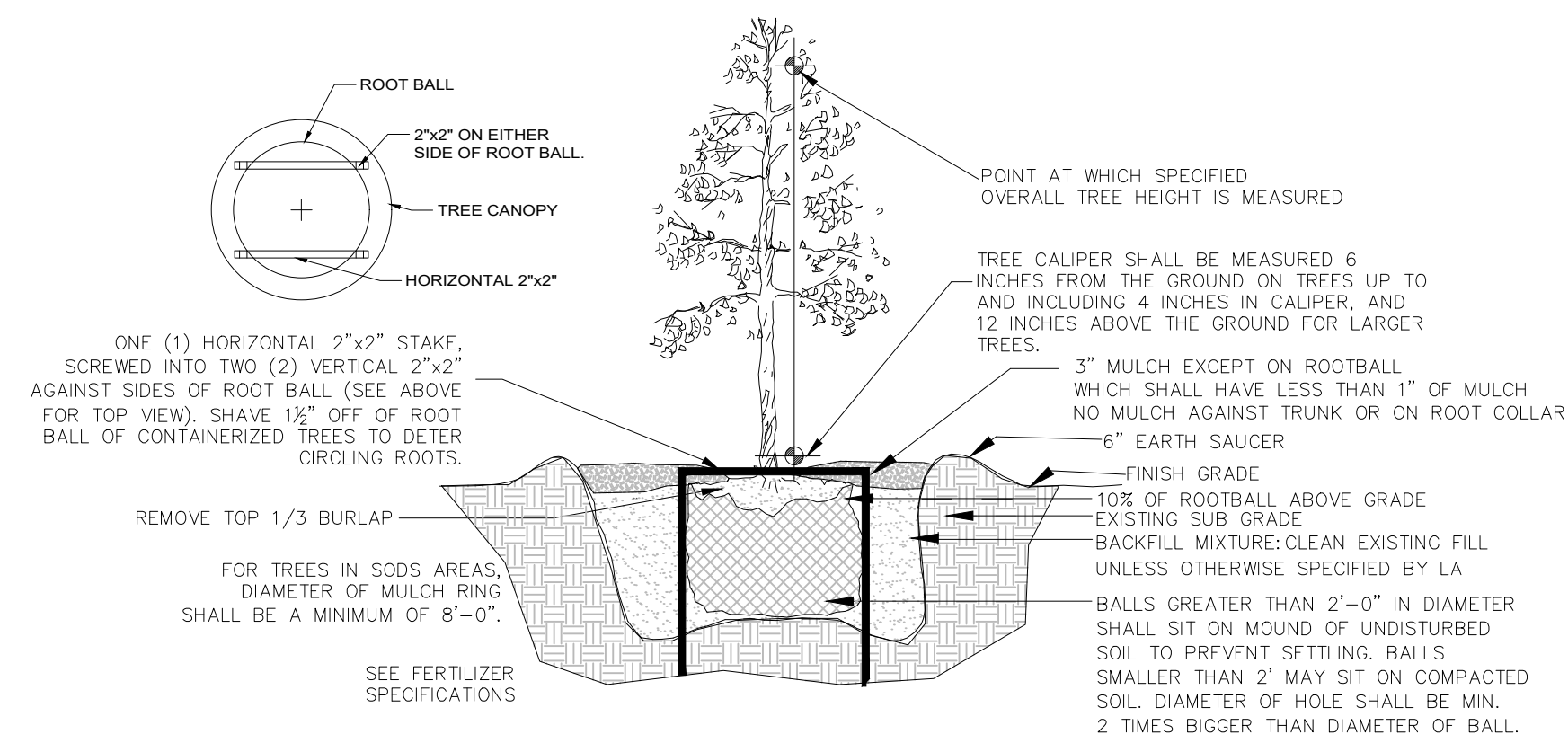
SCALE	1/8" = 1'-0"
DESIGNED BY	GF
DRAWN BY	...
CHECKED BY	GF
CAD DWG.	
DATE	01.30.2024
REVISIONS	

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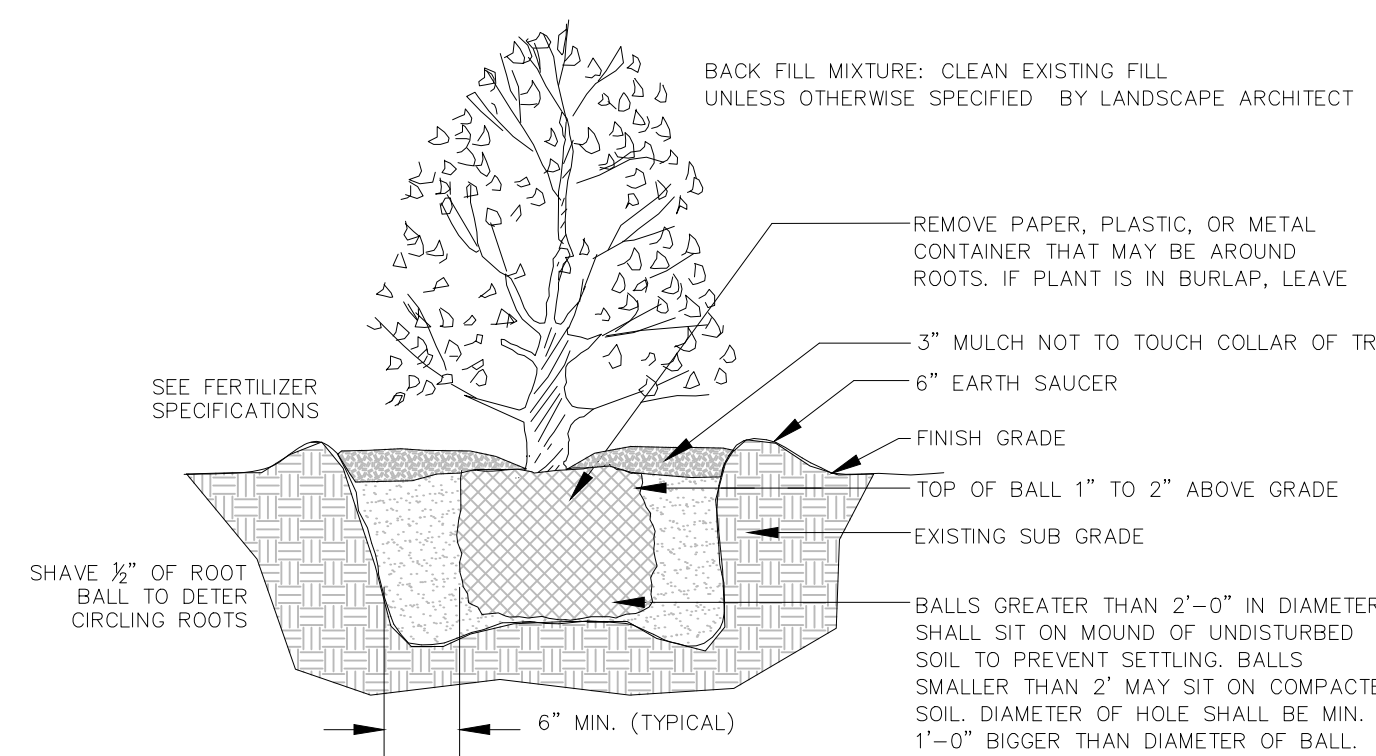
LANDSCAPE PLAN, PLANT SCHEDULE, CODE CHART



PALM PLANTING DETAIL



TREE PLANTING DETAIL



SHRUB PLANTING DETAIL

JOB CONDITIONS:

Any building construction material or foreign material shall be removed from planting areas and replaced with acceptable top soil.

Care shall be taken not to disturb or damage any underground construction or utilities. Any damage to these facilities during the planting operations will be repaired at the expense of the Landscape Contractor in a manner approved by the Owner. Where underground obstructions will not permit the planting materials in accordance with the plans, new locations shall be approved by the Landscape Architect.

Landscape work shall be coordinated with the landscape irrigation work. Landscape Contractor shall ensure that no plantings will interfere with the proper coverage. Landscape Contractor shall point out situations where minor adjustments or relocation or addition of sprinklers heads may be most beneficial for the landscape work as a whole.

PLANT MATERIAL:

Plant species and size shall conform to those indicated on the drawings. Nomenclature shall conform to STANDARDIZED PLANT NAMES, LATEST EDITION. All plant material shall be in accordance with GRADES AND STANDARDS FOR NURSERY PLANTS, latest edition published by the Florida Department Agriculture and Consumer Services. All plants not otherwise specified as Florida Fancy, or Specimen, shall be Florida Grade Number 1 or better as determined by the Florida Grade Plant Industry. Specimen means an exceptionally heavy, symmetrical, tightly-knit plant, so trained or favored in its development that its appearance is unquestionable and outstandingly superior in form, number of branches, compactness and symmetry. All plants shall be sound, healthy, vigorous, well branched and free of disease and insect eggs and larvae and shall have adequate root systems. Trees and shrubs for planting rows shall be uniform in size and shape. All materials shall be subject to approval by the Landscape Architect. Where any requirements are omitted from the Plant List, the plants furnished shall be normal for the variety.

All container grown material shall be healthy, vigorous, well-rooted plants and established in the container. The plants shall have tops which are good quality and are in a healthy growing condition. An established container grown plant shall be transplanted into a container and grown in that container long enough for the new fibrous roots to have developed enough to hold the root mass together when removed from the container. Root bound plants will not be accepted.

Site water shall be verified by Contractor prior to submission of bids.

The use of natural material is strongly encouraged for balled and burlapped plants. All synthetic material shall be completely removed from root ball PRIOR to planting.

At time of bid, Contractor shall submit a written schedule of all sources for coconut palms as well as seed sources for coconuts. Coconuts shall be certified Malayan Green with a certified seed source from Jamaica.

TREES:

The most critical factor for selecting a healthy Florida Number 1 tree is the structure. This consists of one central main trunk and leader. Branches are considered competing if they are 2/3 the diameter of the leader or greater. Competing branches may be acceptable if they occur above 50% of the overall height of the tree. Caliper of tree should meet specifications. Leader (center trunk) may have slight (<15 degree) bow (Tabebuia caraiba excluded), but must be intact with apical (leading) bud.

Branches should be spread evenly (staggered, alternating) through the tree branches spaced no closer than 4".

Canopy should be full to specifications with little or no openings or holes. A thinning canopy will be taken into consideration with field dug plant material.

Trees should have no open wounds or damage, flush cuts, chlorosis, shorter or taller than specified height, girdling roots, undersize loose root ball, crossing branches, smaller than normal leaves.

10% of root ball shall be above grade after planting. Root ball tying ropes removed from trunk and top of root ball.

MULTIPLE TRUNK TREES:

Trees having no distinct leader. Trunks on these trees should not be touching and free of damage and similar in size. Canopy should be full and uniform.

IRRIGATION

Provide bubblers on separate zones for all newly planted and transplanted trees unless alternate approach to provide additional water is approved by owner and Landscape Architect.

MATERIALS LIST:

Landscape Contractor shall be responsible for verifying all quantities for material shown on drawings prior to submitting a bid. Planting plan shall take precedence over the plant list. Final quantity of sod and mulch shall be verified.

SUBSTITUTIONS:

No substitutions shall be made without the approval from the Landscape Architect and/or the Owner. Intended substitutions shall be indicated on the bid.

MEASUREMENTS:

Canopy Trees- Height shall be measured from the ground to the average height of canopy. Spread shall be measured to the end of branching equally around the crown from the center of the trunk. Caliper (d.b.h.) will be measured 4'-6" above grade.

Shrubs- Height shall be measured from the ground. Spread shall be measured to the end of branching equally around the shrub mass.

Palms- Clear trunk (C.T.) shall be measured from the ground to the point where the mature aged trunk joins the immature or green part of the trunk or head.

Overall height (O.A.) shall be measured from the ground to the tip of the unopened bud.

IRRIGATION:

100% irrigation coverage shall be provided. Provide bubblers on separate zones for all newly planted and transplanted trees unless alternate approach to provide additional water is approved by Owner and Landscape Architect.

GUARANTEE:

All new plant materials shall be guaranteed for one year from the time of acceptance and shall be alive and in satisfactory growth for each specific kind of plant at the end of the guarantee period. The Landscape Contractor shall not be responsible for damage caused by vandalism, violent wind storms or other acts of God beyond control. Replacement shall occur within two weeks of rejection and guaranteed six months from date of installation. Landscape Contractor shall repair damage to other plants or lawns during plant replacements at no additional cost.

MULCH:

Mulch shall not contain sticks 1/4" in diameter or stones. Apply 3" of mulch except on top of tree rootballs and against woody shrubs. Rootballs will receive less than 1" mulch with no mulch touching trunk or root collar. Do not apply mulch against the trunks of woody shrubs.

SOD:

All sod shall be installed in such a manner that there is an even surface, staggered pattern. Sod will be green in color and in good health. NO overlap, gaps, damage, insects, disease and less than 10% chlorosis will be permitted. All gaps will be filled with clean native soil.

STAKING:

Landscape Contractor to suggest alternate means of staking for approval with Landscape Architect if staking methods shown are not feasible due to site conditions.

FERTILIZER:

Manufacturer's Specification: Submit manufacturer's specification sheet(s) for approval of product. Submit tags from bags of fertilizer used on site to the Architect. Submit copies of the manufacturer's specifications or analysis of all fertilizer for approval.

Composition and Quality: All fertilizer shall be uniform in composition and dry. Granular fertilizer shall be free flowing and delivered in unopened bags. Tablet fertilizer shall be delivered in unopened containers or boxes. All bags, containers or boxes shall be fully labeled with the manufacturer's analysis.

Fertilizer shall be slow release with ratio greater than 3 to 1 nitrogen to phosphorous applied on top of backfill, per manufacturer's recommendations.

All shall comply with the State of Florida fertilizer laws.

CLEANUP:

Landscape Contractor shall at all times keep job site clean and free from accumulation of waste material, debris and rubbish.

INSPECTION:

Upon written request from the Contractor, Owner and/or Landscape Architect shall perform inspection to determine completion of Contract.

ACCEPTANCE:

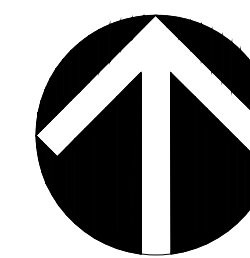
Following inspection, Contractor will be notified, in writing, by Owner and/or Landscape Architect of acceptance of completion with regards to plant material and workmanship according to Contract.



The Mirror of Paradise

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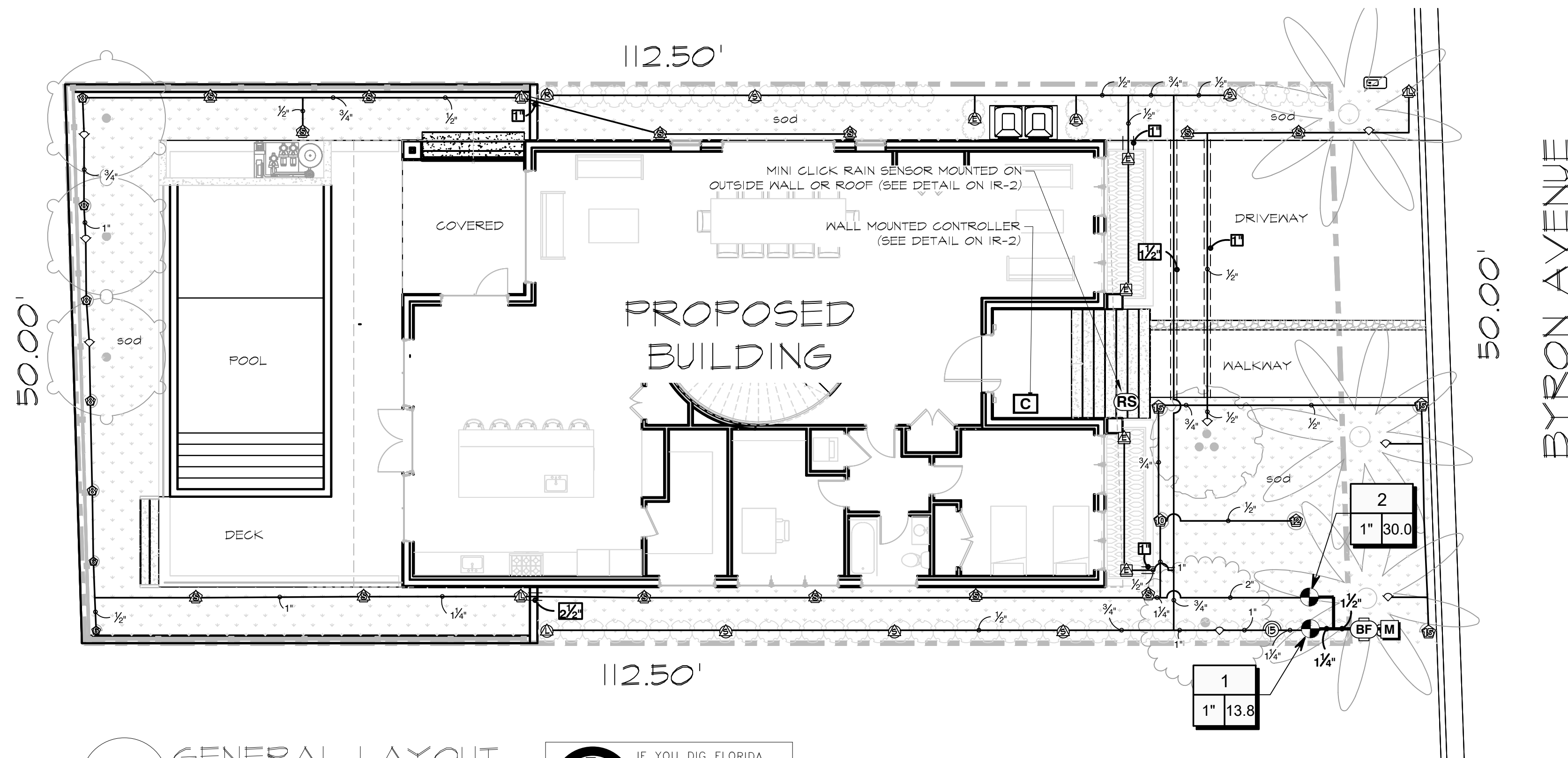
SCALE	as noted
DESIGNED BY	GF
DRAWN BY	...
CHECKED BY	GF
CAD DWG.	
DATE	01.30.2024
REVISIONS	

9472 Byron Ave

Town of Surfside

Florida

NOTES & DETAILS



SPRAY PATTERNS MAY CHANGE. CONTRACTOR TO MAKE NECESSARY ADJUSTMENT IN FIELD TO PREVENT OVER SPRAY

DIRECT SPRAY INTO PLANTERS SYMBOLS DO NOT REPRESENT THE DIRECTION OF SPRAY

LATERAL AND MAIN PIPE LOCATION IS SHOWN FOR CLARITY PURPOSE ONLY. INSTALL PIPES WITHIN PLANTING BEDS.

THE CONTRACTOR SHALL MAKE ALL ADJUSTMENTS TO THE IRRIGATION SYSTEM TO ENSURE 100% COVERAGE.

THE CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT OF ANY DISCREPANCIES IMMEDIATELY.

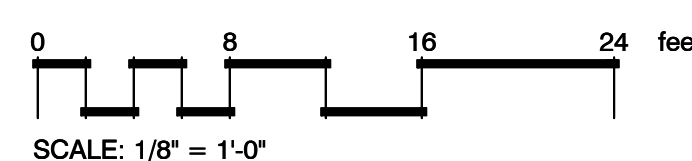
THE CONTRACTOR SHALL PROVIDE FULL SIZE "AS BUILT" DRAWINGS AS WELL AS A REDUCED SIZE WITH COLOR CODED ZONES SHOWING ZONES AND LIMITS, IN A WATERPROOF CLEAR SHEET PROTECTOR FOR CONTROLLER.

LAWN AND PLANTING BEDS SHALL BE ON SEPARATE ZONES.

CONTRACTOR SHALL REVIEW VALVE, CONTROLLER AND RAIN SWITCH LOCATION WITH GENERAL CONTRACTOR OR OWNER PRIOR TO CONSTRUCTION.

WHEN LOCATING ONE VALVE BOX NEXT TO ANOTHER, THERE SHALL BE A MIN. OF 18" SEPARATION TO ALLOW SOD TO GROW BETWEEN.

A GENERAL LAYOUT
scale 1/8" = 1'-0"

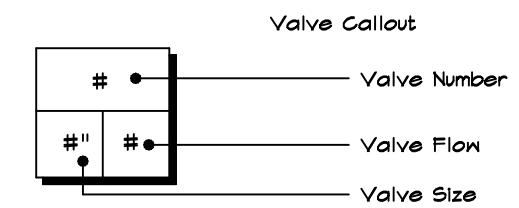


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IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL	QTY	PSI
22 24 42 44 62 64	Hunter PRO5-04 short radius nozzles	2	30
ES LCS RCS CS SS	Hunter PRO5-04 5' strip spray	16	30
Q T H F	Hunter PRO5-04 8' radius	5	30
Q T H F	Hunter PRO5-04 10' radius	1	30
Q T H TT T2 F	Hunter PRO5-04 12' radius	1	30
Q T H TT T2 F	Hunter PRO5-04 15' radius	3	30
ES LCS RCS CS SS	Hunter PRO5-12 5' strip spray	4	30
ES LCS RCS CS SS	Hunter PRO5-00 5' strip spray	4	30
Q T H TT T2 F	Hunter PRO5-00 15' radius	1	30
25 30 10 20	Hunter AFB 10	8	30
SYMBOL	MANUFACTURER/MODEL	QTY	
●	Hunter P6V-1016	2	
BF	Zurn T20A 1"	1	
C	Hunter Pro-C	1	
RS	Hunter FLOW-CLIK-100	1	
M	Water Meter 1"	1	
—	Irrigation Lateral Line: PVC Schedule 40	578.0 l.f.	
---	Irrigation Mainline: PVC Schedule 40	12.0 l.f.	
----	Pipe Sleeve: PVC Class 200 SDR 21	50.6 l.f.	



VALVE SCHEDULE

NUMBER	MODEL	SIZE	TYPE	GPM	WIRE	PSI	PSI @ POC	PRECIP
1	Hunter P6V-1016	1"	Shrub Spray	13.01	33.2	34.8	39.8	1.19 in/h
2	Hunter P6V-1016	1"	Turf Spray	30.01	33.3	41.9	52.5	1.41 in/h
	Common Wire				12.0			

CRITICAL ANALYSIS

Generated: 2024-01-30 15:12

P.O.C. NUMBER: 01
Water Source Information:

FLOW AVAILABLE
Water Meter Size: 1"
Flow Available: 37.5 GPM

PRESSURE AVAILABLE
Static Pressure at POC: 60 PSI
Elevation Change: 2.00 ft
Service Line Size: 2"
Length of Service Line: 20 ft
Pressure Available: 59 PSI

DESIGN ANALYSIS
Maximum Station Flow: 30.01 GPM
Flow Available at POC: 37.5 GPM
Residual Flow Available: 7.49 GPM

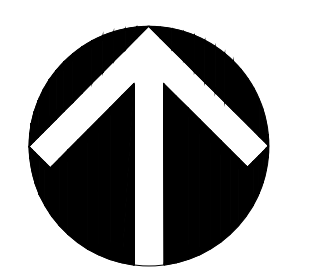
Critical Station: 2
Design Pressure: 30 PSI
Friction Loss: 5.24 PSI
Fittings Loss: 0.53 PSI
Elevation Loss: 0 PSI
Loss through Valve: 6.1 PSI
Pressure Req. at Critical Station: 41.9 PSI
Loss for Fittings: 0.02 PSI
Loss for Main Line: 0.24 PSI
Loss for POC to Valve Elevation: 0 PSI
Loss for Backflow: 5.0 PSI
Loss for Water Meter: 5.3 PSI
Critical Station Pressure at POC: 52.5 PSI
Pressure Available: 59 PSI
Residual Pressure Available: 6.51 PSI



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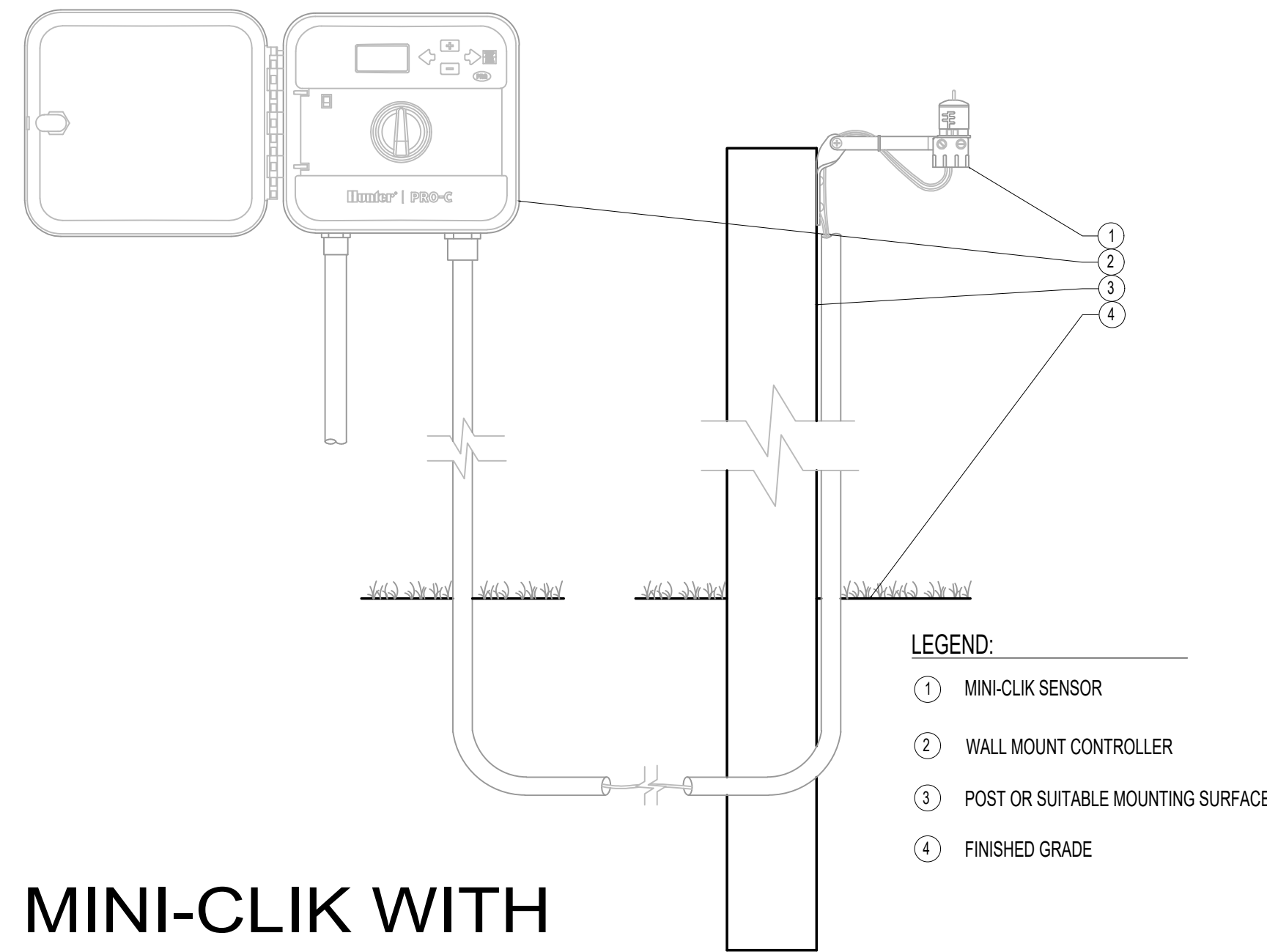
CAD DWG.

DATE 01.30.2024

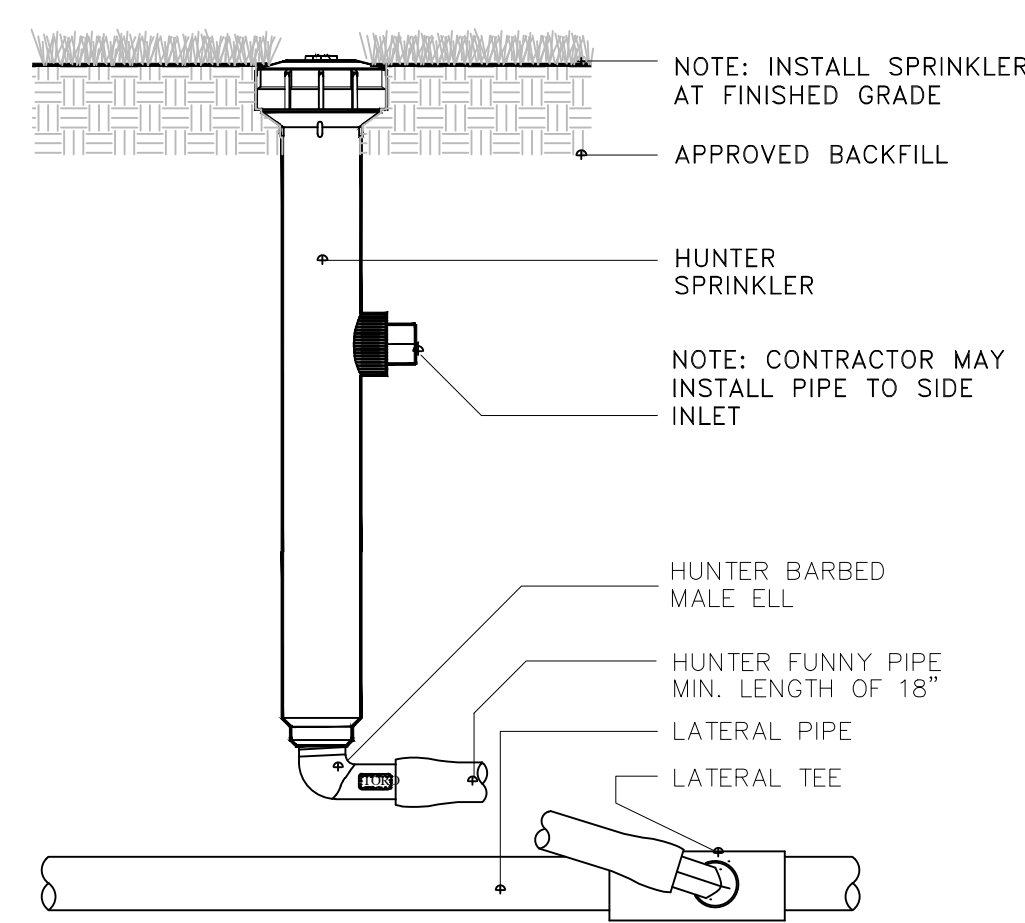
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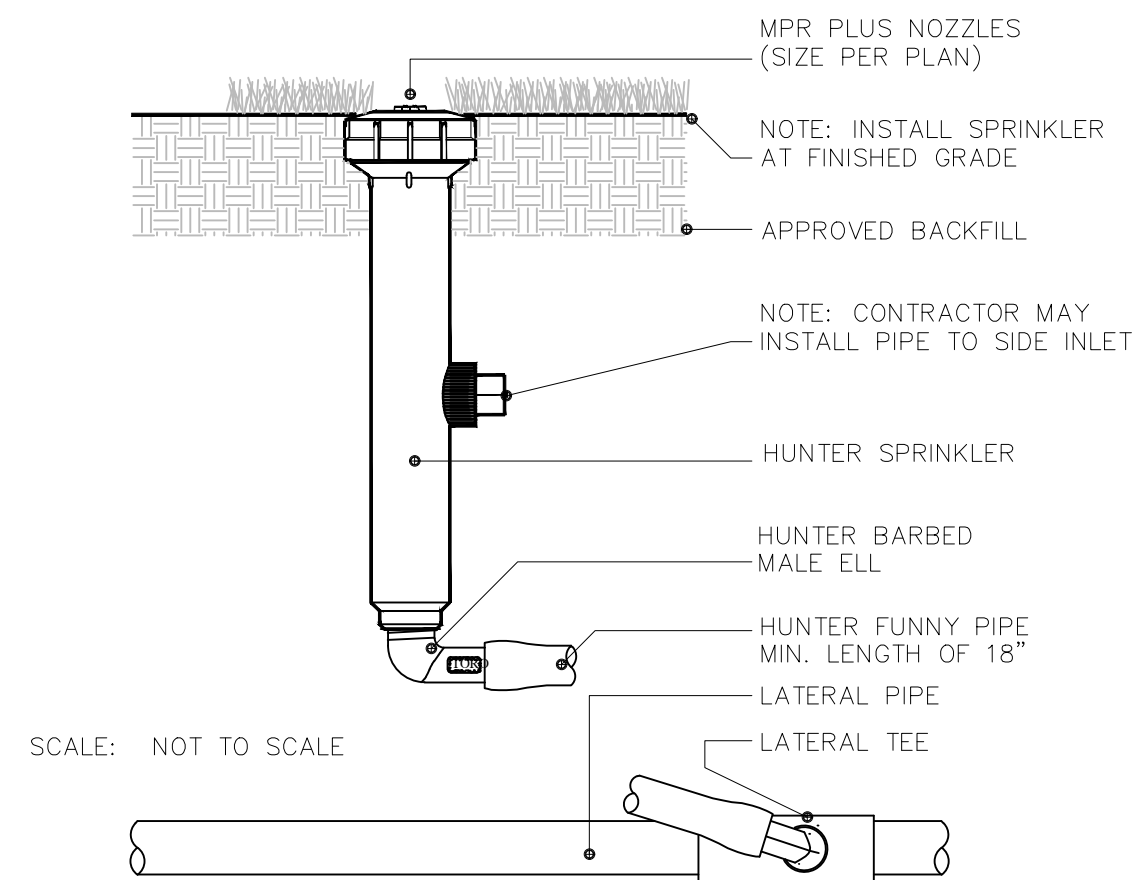
IRRIGATION PLAN & SCHEDULES



MINI-CLK WITH PRO-C WALL MOUNT CONTROLLER Hunter® (NOT TO SCALE)

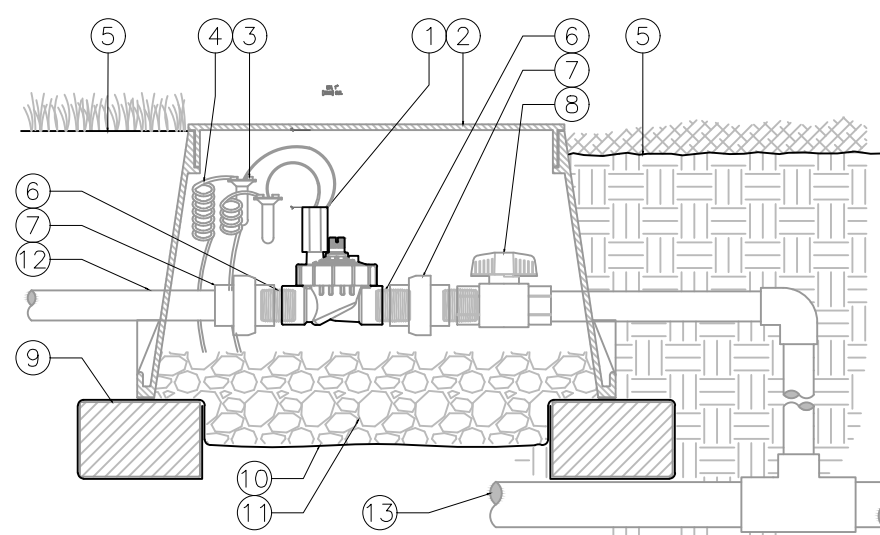


12" POP UP HUNTER (NOT TO SCALE)

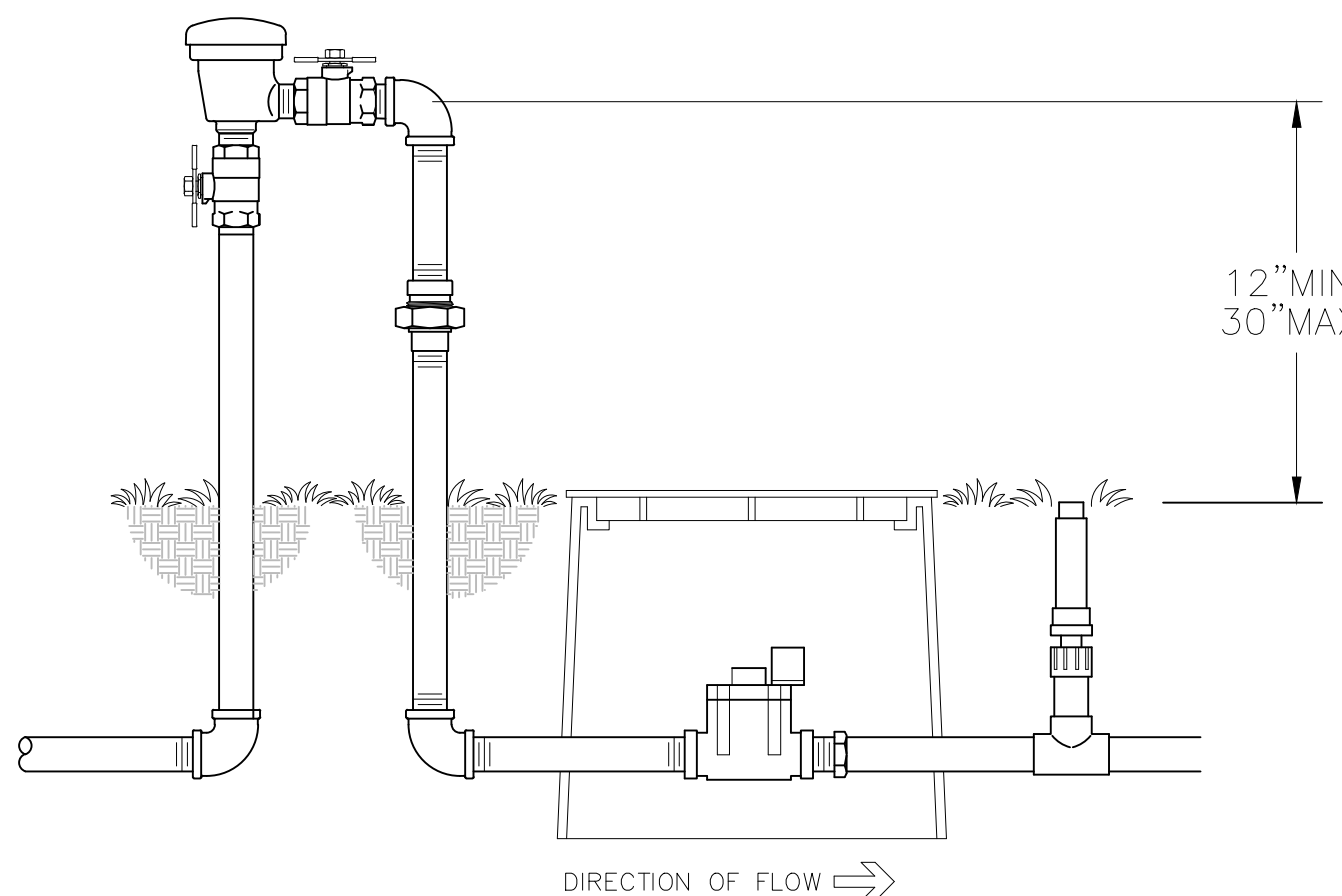


4" POP UP HUNTER (NOT TO SCALE)

- LEGEND**
- 1 HUNTER REMOTE CONTROL VALVE (RCV)
 - 2 IRRIGATION VALVE BOX - HEAT STAMP LID WITH "RCV" IN 2" LETTERS
 - 3 WATERPROOF CONNECTORS (2)
 - 4 18"-24" COILED WIRE TO CONTROLLER
 - 5 FINISH GRADE AT ADJACENT SURFACE (TURF OR MULCH)
 - 6 SCH. 80 CLOSE NIPPLE, MATCH SIZE TO VALVE
 - 7 PVC SLP. (OR FPP) X FPP UNION
 - 8 ISOLATION VALVE, SIZE AND TYPE PER PLAN
 - 9 BRICK SUPPORTS (4)
 - 10 FILTER FABRIC - WRAP TWICE AROUND BRICK SUPPORTS
 - 11 3/4" BRISSED GRAVEL - 4" MIN. DEPTH (OR MULCH)
 - 12 IRRIGATION LATERAL
 - 13 MAINLINE AND FITTINGS



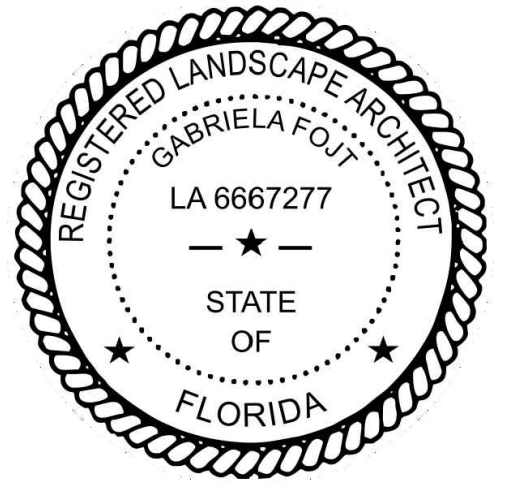
IN-LINE VALVE (PGV-101JT-G) WITH UNIONS AND ISOLATION VALVE (NOT TO SCALE)



ZURN 720A PRESSURE VACUUM BREAKER ASSEMBLY OUTDOOR HORIZONTAL INSTALLATION

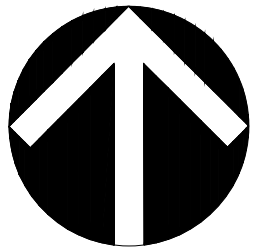
IRRIGATION SPECIFICATIONS

- A. EXTENT:**
Includes furnishing all labor, materials and equipment for the proper installation of the irrigation system. The work includes, but is not limited to the following: (1) Trenching and Backfill; (2) Automatically Controlled Irrigation System; (3) Test All Systems and Make Operative; (4) "As-Built" Drawings.
- B. GENERAL:**
- Permits and Fees: Obtain all permits and pay required fees to any governmental agency having jurisdiction over the work. Inspections required by local ordinances during the course of construction shall be arranged as required. On completion of the work, satisfactory evidence (on representative to show shall be furnished to the Tenant's construct that all work has been installed in accordance with the ordinances and code requirements.
 - Approval: Wherever the terms "approve" or "approved" are used in the specifications, they shall mean the approval of the tenant's construction representative in writing.
 - Before any work is started, a conference shall be held between the contractor and the Tenant's construction representative concerning the work under this Contract.
 - Coordination: Coordinate and cooperate with other contractors to enable the work to proceed as rapidly and efficiently as possible.
 - Inspection of Site:
 - Contractor shall acquaint himself with all site conditions. Submission of his proposal shall be considered evidence that the examination has been conducted. Should utilities not shown on the plans be found during excavations, Contractor shall promptly notify the Tenant's as to further action. construction representative for instructions. Failure to do so will make contractor liable for any and all damage thereto arising from his operations subsequent to discovery of such utilities not shown in plans.
 - Contractor shall make necessary adjustments in the layout as may be required to connect to existing stubouts, should such stubs not be located exactly as shown, and as may be required to work around existing work at no increase in cost to the Tenant's construction representative.
 - Protection of Existing Plants and Site Conditions: The Contractor shall take necessary precautions to protect site conditions to remain. Should damage be incurred, this Contractor shall repair the damage to its original condition at his own expense.
 - The owner reserves the right to substitute, add, or delete any material or work as the work progresses. Adjustments to the contract price shall be negotiated if deemed necessary by the Owner on a per diem basis. material or work which does not conform
 - The Owner reserves the right to reject Rejected work shall be removed or corrected to the Contract Documents. time possible, at the earliest
 - Work Schedule: Within 10 days after award of the Contract, the contractor shall submit to the Owner a work schedule.
 - "As-Built" Irrigation Drawings: Prepare an "As-Built" drawing on a blueprint which shall show deviations from the bid documents made during construction affecting the main line pipe, controller locations, remote control valves and quick coupling valves. The drawings shall also indicate size, material and manufacturers name and show approved substitutions and catalog name and catalog number. The drawings shall be delivered to the Tenant's construction representative before final acceptance of Final Acceptance: Final acceptance of the work may be obtained from the Tenant's construction representative upon the satisfactory work, completion of all work.
 - Warranty: All work shall be guaranteed for one year from date of acceptance against all defects in material, equipment and workmanship. Guarantee shall also cover repair of damage to any part of the premises resulting from leaks or other defects in material, equipment and 's construction representative. workmanship to the satisfactory of the Tenant Repairs, if required, shall be done promptly at no cost to the Owner.
- C. MATERIALS:**
- General: All materials throughout the system shall be new and in perfect condition.
 - Plastic Piping: All main lines shall be Sch. 40 Type 1120-1220 polyvinyl chloride (PVC) pipe and shall conform to CS-256-63 All lateral piping shall be class 40 Type 1120-1220 polyvinyl chloride (PVC) pipe and shall conform to CS-256-63
 - Plastic Fittings: Sch. 80 solvent weld, polyvinyl chloride (PVC) for mainline and Sch. 40 solvent weld, polyvinyl chloride (PVC) for zone laterals, as manufactured by Sloane, Losco, or approved equal.
 - Solvent Cement: Compatible with PVC pipe, of proper consistency, and color.
 - Sprinkler Head Risers: Sch. 40 PVC for risers. Pipe shall be cut in a standard pipe cutting tool with sharp cutters. Ream only to full diameter of pipe and clean all rough edges or burrs. Cut all threads accurately with sharp dies. Not more than three(3) full threads shall show beyond fittings when pipe is made up. Assemblies shall be as detailed.
 - Automatic Controllers: See Legend
 - Remote Control Valves:
 - Control Wiring: 24 volt solid UL approved for direct burial in ground. Minimum wire size: 14 gauge.
 - Sleeves for Control Wiring: Under all walks and paved areas and where indicated on drawings. Minimum PVC 1220-160 psi plastic pipe. See Legend
 - Sprinkler Heads.
- D. WORKMANSHIP:**
- Lay out work as accurately as possible to the drawings. The drawings, though carefully drawn, are generally diagrammatic to the extent that swing joints, offsets, and all fittings are not shown.
 - The Contractor shall be responsible for full and complete coverage of all irrigated areas and shall make any necessary minor adjustments at no additional cost to the Tenant's construction representative.
 - Any major revisions to the irrigation system must be submitted and answered in written form, along with any change in contract price.
- E. INSTALLATION:**
- Excavation and Trenching:
 - Perform all excavations as required for the installation of the work, including under this section, including shoring of earth banks to prevent cave-ins. Restore all surfaces, existing underground installations, etc., damaged or cut as a result of the excavations to their original condition and in a manner approved by the Owner.
 - Trenches shall be made wide enough to allow a minimum of 6 inches between parallel pipe lines. Trenches for pipe lines shall be made of sufficient depths to provide the minimum cover from finish grade as follows:
 - 18" minimum cover over main lines
 - 18" minimum cover over control wiring from controller to valves.
 - 12" minimum cover over lateral lines to heads.
 - Maintain all warning signs, shoring, barricades, flares and red lanterns as required by the Safety Orders of the Division of Industrial Safety and local ordinances.
 - Pipe Line Assembly:
 - Install remote control valves where shown and group together where practical; place no closer than 6 inches to walk edges, buildings and
 - Plastic pipe and fittings shall be solvent welded using solvents and methods recommended by manufacturer of the pipe, except where screwed connections are required. Pipe and fittings shall be thoroughly cleaned of dirt, dust and moisture before applying solvent with a non-synthetic bristle brush.
 - Pipe may be assembled and welded on the surface. Snake pipe from side to side of trench bottom to allow for expansion and contraction.
 - Make all connections between plastic pipe and metal valves or steel pipe with threaded fittings using plastic male adapters.
 - Sprinkler Heads:
 - Do not scale plans for exact head location.
 - Flushing Lines:
 - Thoroughly flush out all water lines before installing valves and sprinkler heads.
 - Upon completion of the flushing and installing valves and heads, the contractor adjust sprinkler heads for proper distribution to the landscape areas, limiting unnecessary overspray.
 - Automatic Controllers:
 - Connect remote control valves to controller in a clockwise sequence to correspond with station setting beginning with Stations 1, 2, 3, etc.
 - Automatic Control Wiring:
 - Install control wiring, sprinkler mains and laterals in common Tie wires in bundles trenches wherever possible.
 - Install control wires at least 24" below finish grade and lay to the side and below the main line. Provide looped slack at valves and snake wires in trench to allow for contraction of wires at intervals.
 - Control wire splices will be allowed only runs over 500 ft.
 - All wiring passing under existing or future paving, construction, etc., shall be encased in plastic or galvanized steel conduit extending beyond edges of paving or construction, at least 12"
 - Backfill and Compacting:
 - After system is operating and required tests and inspections have been made, backfill excavations and trenches with clean soil, free of rubbish.
 - Backfill for all trenches, regardless of the type of pipe covered, shall be compacted to minimum 90% density.
 - Compact trenches in areas to be planted by thoroughly flooding the backfill. Jetting process may be used in those areas.
 - Dress off all areas to finish grades.
- F. CLEAN-UP:** Remove from the site all debris resulting from work of this section.



The Mirror of Paradise
Gabriela Fojt
LA 6667277
LC 26000628

2700 E Oakland Park Blvd
Suite C
Fort Lauderdale
FL 33306
c (954) 478 3064
www.florida-landscape.com
gabriela@themirrorofparadise.com



SCALE	as noted
DESIGNED BY	GF
DRAWN BY	...
CHECKED BY	GF
CAD DWG.	
DATE	01.30.2024
REVISIONS	

9472 Byron Ave
Town of Surfside
Florida

IRRIGATION NOTES & DETAILS



**Town of Surfside
Planning and Zoning Board Meeting
February 29, 2024**

DISCUSSION ITEM MEMORANDUM

Agenda #: 4.D

Date: February 29, 2024

From: Judith Frankel AICP, Town Planner

Subject: 9466 Harding Avenue - Wall Sign

Suggested Action: – Staff recommends approval with the following condition:

- All illumination must be white.

Background/Analysis: – This application is a request to place a wall sign centered on the storefront facade at 9466 Harding Avenue in the SD-B40 zoning district. The business was recently sold and the new owner has changed the business name to "D'Nails Lounge". The facade is 25.02 feet wide which allows for a maximum sign size of 25 square feet. The proposed sign 25.7 SF. The sign size complies with code section 90-73(a)(3)b.

The applicant is proposing back lit LED illumination reverse channel letters, which is permitted according to code section 90-73(a)(3)b. All lighting must be white. The sign is off-set 1.5 inches to allow rainwater to flow down the wall face.

Per zoning code section 90-71, signs are required to be professional in appearance and designed to complement the building facade. The proposed sign is mainly black with a gold nail polish bottle which contrasts against the gray facade wall. The sign reads "D'Nails Lounge". In addition to this Memorandum, an application and plan set were submitted by the Applicant.

ILLUMINATED REVERSE CHANNEL LETTERS

1 UNIT WEST ELEVATION EXTERIOR SIGN



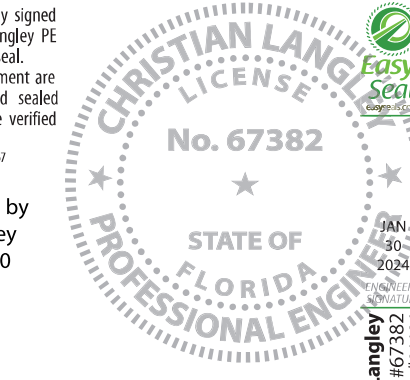
TOTAL AREA SQ FT. 520 FT



PROPOSED SIGN LOCATION

This item has been digitally signed and sealed by Christian Langley PE on the date adjacent to the seal. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.
Serial: 4A 49 8F 53 22 18 30 0D 22 9D 96 67

Digitally signed by Christian Langley
Date: 2024.01.30 11:19:14 -05'00'



CONTRACTOR / DESIGNER: **Signscenter**
 LICENSE: **ES12001900**
 ADDRESS: **1607 NW 79th Ave. Miami, FL 33126**

PROJECT: **D'Nails Lounge**
 Folio: **14-2235-007-0710**

LOCATION: **9466 Harding Ave, Surfside, FL 33154**
 Owner: **STOWE PLAZA II LLC**
 Mailing Address: **PO BOX 546086 SURFSIDE, FL 33154**

DATE: **11-08-2023** PAGE #: **1**

Underwriters Laboratories Inc. ELECTRICAL TO USE U.L. LISTED COMPONENTS AND SHALL MEET ALL N.E.C. STANDARDS

ALL ELECTRICAL SIGNS ARE TO COMPLY WITH U.L. 48 AND ARTICLE 600 OF THE N.E.C STANDARDS, INCLUDING THE PROPER GROUNDING AND BONDING OF ALL SIGNS.

General • Design is in accordance with the requirements of the Fla Bldg Code 8th Ed (2023) for use within & outside the High Velocity Hurricane Zone (HVHZ). • This engineering certifies only the structural integrity of those systems, components, and/or other construction explicitly specified herein. • Electrical notes, details, & specifications are provided by and are the sole responsibility of the electrical contractor. No electrical review has been performed and no certification of such is intended. • Structural design meets requirements of ACI 318-19, AISC 360-16, ADM1-20, & NDS-18, as applicable. • Steel components shall be coated, painted, or otherwise protected against corrosion per FBC Sec 2203.2/2222.6. • Alum components in contact with steel or embedded in concrete shall be painted or protected as prescribed in ADM1-20(1a), or plastic/neoprene spacers provided. • All exposed fasteners shall be S.S. or have a protective coating for corrosion protection. • All welding shall comply with AWS requirements. • Steel welds: E70xx electrodes. • Aluminum welds: 4043 filler alloy. • Alum extrusions: 6063-T6 or stronger, U.N.O.

Notes: • Exposure 'D'. • ASD Load Coeff = 0.6 • Kzt=1.0, Kd=0.85, G=0.85 • Zone 4: ± 51.4 psf • Zone 5: ± 65.4 psf

LOADS • V=175 mph • Risk Category 2 Struct. • Sign Height = 30 ft max • Wall components & cladding: Design for Tornado Loads is NOT Required

TORNADO LOADS: Design for Tornado Loads is NOT Required

Christian Langley 1200 N Federal Hwy, #200 Boca Raton, FL 33432 Florida PE #67382 Cert of Auth #11124 T-8888-371-3113

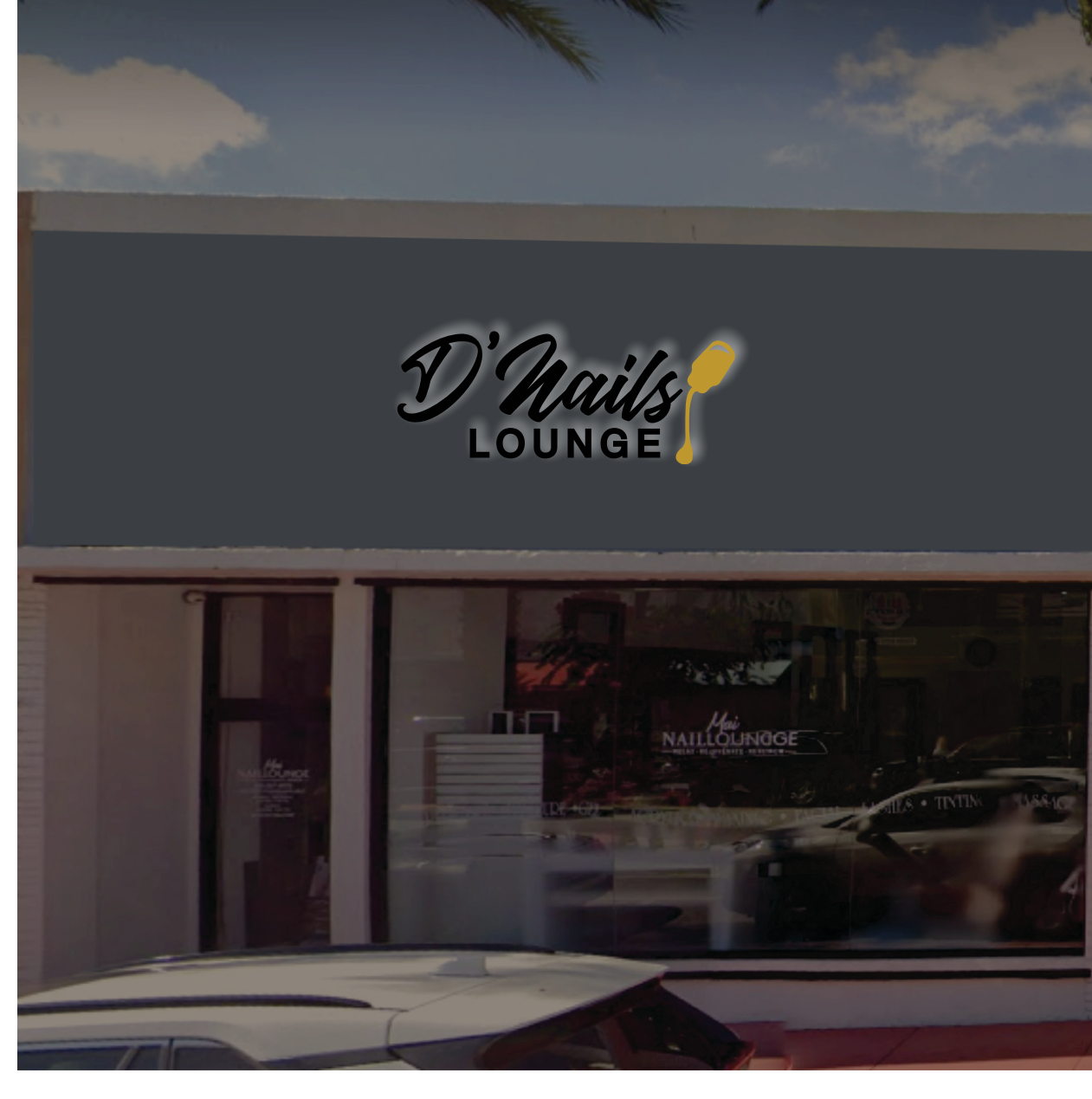
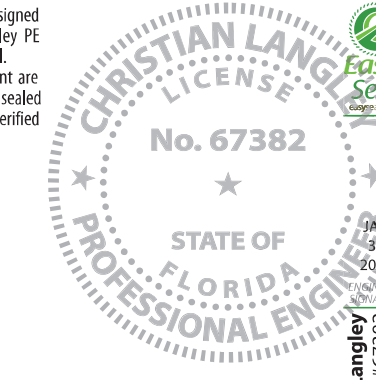
ILLUMINATED REVERSE CHANNEL LETTERS

1 UNIT

WEST ELEVATION

EXTERIOR SIGN

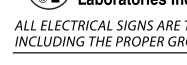
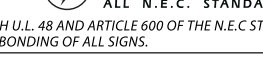
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DATE: **11-08-2023** PAGE #: **2**


 ALL ELECTRICAL SIGNS ARE TO COMPLY WITH U.L. 48 AND ARTICLE 600 OF THE N.E.C STANDARDS, INCLUDING THE PROPER GROUNDING AND BONDING OF ALL SIGNS.

TORNADO LOADS: Design for Tornado Loads is NOT Required
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1200 N Federal Hwy, #200
 Boca Raton, FL 33432
 1-888-371-3113
Christian Langley
 Florida PE #67382
 Cert of Auth #31124

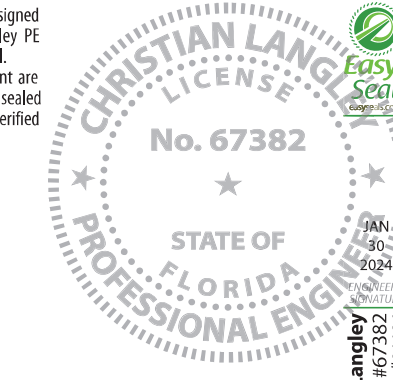
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1 UNIT

WEST ELEVATION

EXTERIOR SIGN

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PROP. SQ. FT.:24.7



DIMENSIONS
95"X37.5"

BLACK & GOLD FACES

Black: R:1 G:1 B:1 (#010101)

Gold: R:190 G:152 B:46 (#BE982E)

BLACK & GOLD RETURNS

Black: R:1 G:1 B:1 (#010101)

Gold: R:190 G:152 B:46 (#BE982E)

MOUNTING METHOD
WALL MOUNT

CONTRACTOR / DESIGNER: **Signscenter**
LICENSE: **ES12001900**
ADDRESS: **1607 NW 79th Ave. Miami, FL 33126**

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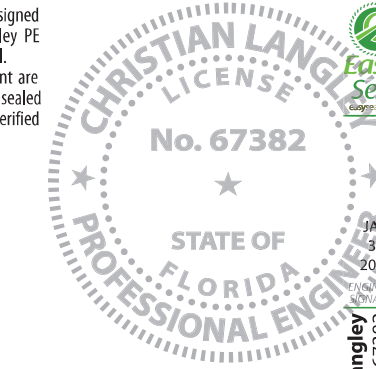
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TORNADO LOADS: Design for tornado Loads is NOT Required
 1200 N Federal Hwy, #200 Boca Raton, FL 33432 1-888-371-3113
Christian Langley Florida PE #67382 Cert of Auth #31124
 102 (ASCE 7-22) • Risk Category 2 Struct. • Sign Height = 30 ft max Wall components & cladding: • Exposure 'D' • ASD Load Coeff = 0.6 • Kzt=1.0, Kd=0.85, G=0.85 • Zone 4: ± 51.4 psf • Zone 5: ± 65.4 psf

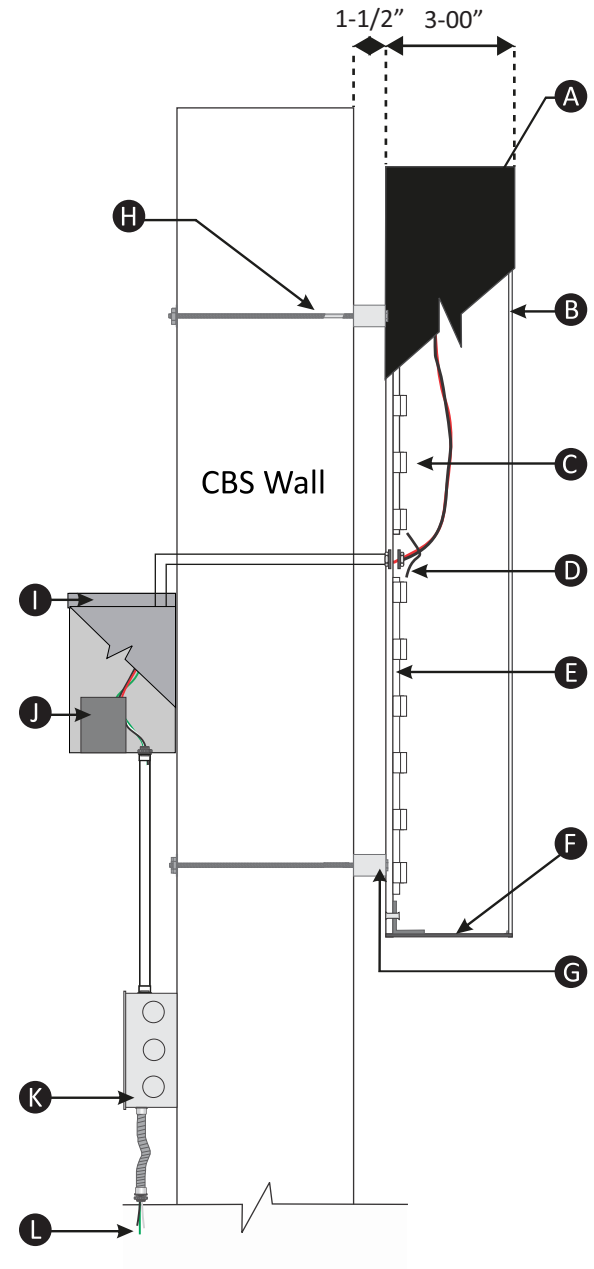
ILLUMINATED REVERSE CHANNEL LETTERS

ELECTRICAL & STRUCTURAL DETAILS

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Serial: 4A 49 8F 53 22 18 30 0D 22 9D 96 67



SPECIFICATIONS



ILLUMINATED RREVERCHANNEL LETTERS FLUSH MOUNTED

- A** 0.063 Aluminum Returns
- B** 0.090" Aluminum Faces
- C** LED module supported attached w/3M by manufacturing suggested system as per NEC600-41
- D** Low voltage cable PLTC no metallic conduit required pass thru PVC system
- E** 0.187" Polycarbonate Backs
- F** 1/4" Drain holes with light baffle
- G** 1.5" Spacers
- H** See fasteners Table
- I** Transformer box
- J** UL Power Supply Class 2. 120 Volts for LED controlled by lockable Disconnect Switch as per NEC 600.6
- K** 1-20 Amp. Disconnect Switch enclosed in a weather proof junction box w/lockable cover before entering to sign must be accessible and painted to match building color
- L** To existing primary line

CODES IN EFFECT AT THE TIME OF THIS PLAN SUBMISSION ARE NEC 2023 & FBC 2023 8TH EDITION.
PERMIT NUMBER AFFIX TO THE SIGN AS PER FBC 3108.1.4

MASTER POWER SUPPLY SPECIFICATIONS	
Table 4 - Master Power Supply (MPS) Main Characteristics	
Input Voltage	120 VAC ± 10% 60 Hz
Maximum Input Current (Full Load)	3.2 A (max)
Power Factor	Very High Power Factor > 0.95
Operating Temperature	0°C to 40°C (32 - 104°F)
Operating Environment	Indoor & Outdoor non-weatherproof
Output Voltage (Open Circuit Voltage)	165 VAC @ 30 Hz
Maximum Output Current	3.2 A
Weight	3.3 lb (1.5 kg)

ANCHOR SCHEDULE <small>**ALL FASTENERS SHALL BE SPACED EVENLY**</small>		
WALL MATERIAL	ANCHOR TYPE	QTY or SPACING
CONCRETE (3ksi) or HOLLOW MASONRY	1/4" THREADED RODS WITH MIN 2" EMBED IN ADHESIVE	--- NOT --- APPLICABLE ---
	1/4" TAPCONS (OR EQUIV) WITH 1.75" EMBED	MIN (3) PER LTR/LOGO
	1/4" EXPANSION ANCHORS WITH 2.5" EMBED	MIN (3) PER LTR/LOGO
1/2" PLYWOOD (NO ACCESS BEHIND)	1/4" TOGGLE BOLTS	MIN (3) PER LTR/LOGO
	1/4" WOOD SCREWS, FULL EMBED	MIN (3) PER LTR/LOGO
METAL STUDS OR METAL PANELS	#14 METAL SCREWS TO MIN 18ga STEEL OR 0.090" ALUM	MIN (3) PER LTR/LOGO
HOLLOW WALL (BLOCKING BEHIND)	1/4" THRU BOLTS OR LAGS TO SOLID BLOCKING BEHIND	MIN (3) PER LTR/LOGO

GENERAL NOTES:

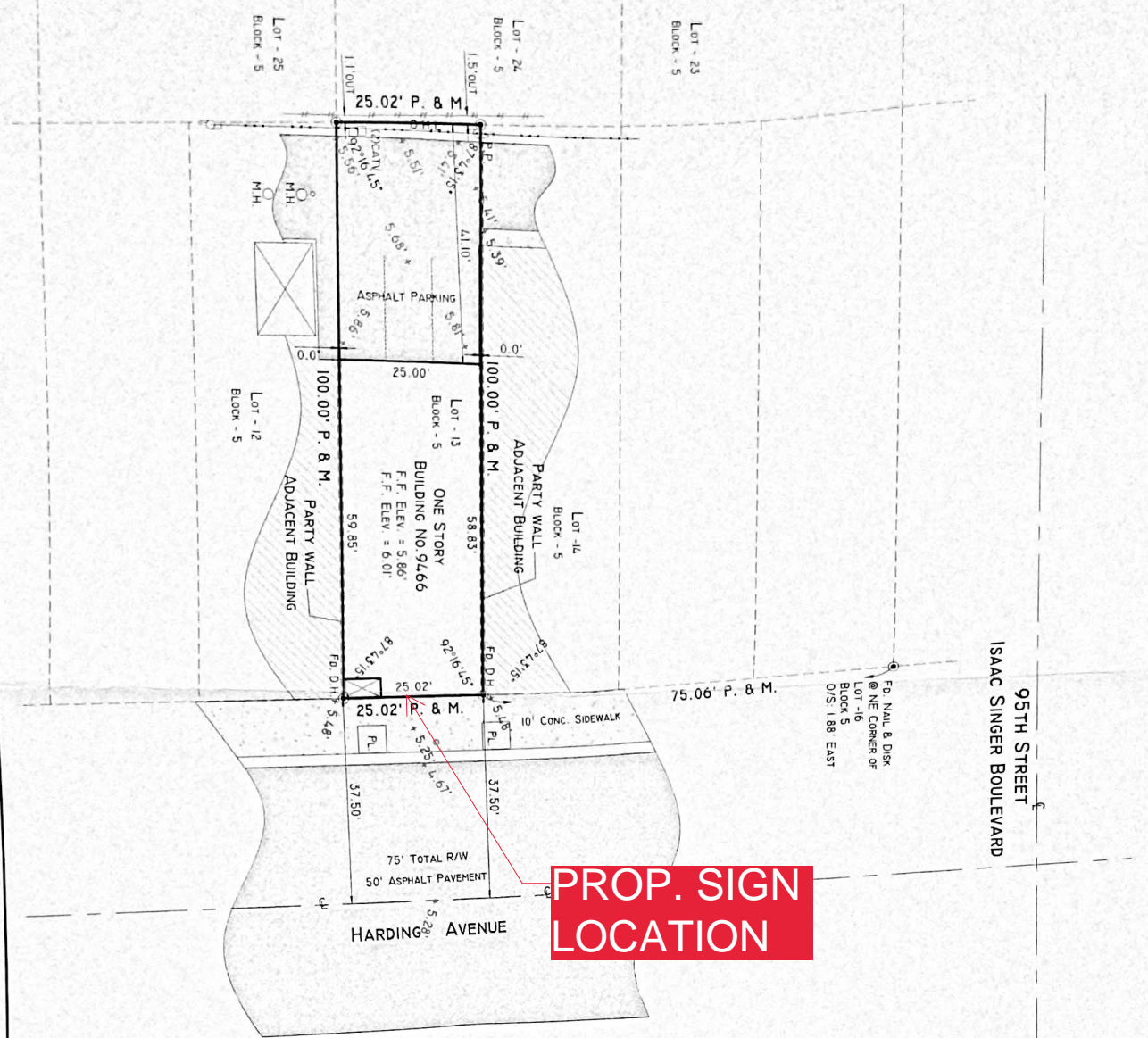
- A)** Led Power units 60 watts 0.8 amps
- B)** All elect. components are U.L. Listed
- C)** 120 Volts w/#12 THWN wire
- D)** Lockable Disconnect Switch
Nec 600.6 Disconnects the disconnect must be within sight of the sign or outline lighting system it controls. If the disconnect is out of the line of sight from any section of the sign or outline lighting able to be energized, the disconnect must be lockable with provisions for locking to remain in place whether the lock is installed or not (110.25). A permanent field-applied warning label, having sufficient durability to withstand the environment involved and complying with 110.21(b) that identifies the location of the disconnect is required on the sign at a location visible during service.
- E)** Sign grounded & bonded according to nec 600.7/nec 250.
- F)** Dedicated 20 amps, circuit # on electrical panel in compliance w/nec 600.5.
- G)** Primary wiring in nec complaint conduit.
- H)** Pltg ul listed secondary wiring per nec 600-32.
- I)** Hereby certify that the existing service and panel have enough capacity to accommodate the new/added load".
Exception: remote parts of a sign outline lighting system only supplied by a remote class 2 power supply shall not be required to be bonded to an equipotent grounding conductor.
- Primary:** exterior sign to be connected to an existing circuit dedicate for the exterior sign.
- Photocell or timer:** all outdoor sign lighting shall be controlled with a photocontrol in addition to an automatic time-switch control, or an astronomical time-switch control.
- Circuits:** circuits must be identified, numbered and related to panel schedule.

CONTRACTOR / DESIGNER: **Signscenter**
LICENSE: **ES12001900**
ADDRESS: **1607 NW 79th Ave. Miami, FL 33126**

PROJECT: **D'Nails Lounge** LOCATION: **9466 Harding Ave, Surfside, FL 33154**
Folio: **14-2235-007-0710** Owner: **STOWE PLAZA II LLC**
Mailing Address: **PO BOX 546086 SURFSIDE, FL 33154**

DATE: **11-08-2023** PAGE #: **4**
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Christian Langley PE #200 Florida PE #67382 Cert of Auth #31124
 1200 N Federal Hwy #200 Boca Raton, FL 33432 T-888-371-3113
TORNADO LOADS: Design for Tornado Loads is NOT Required
 Risk Category 2 Struct. • Sign Height = 30 ft max Wall components & cladding:
 Exposure 'D' • ASD Load Coeff = 0.6 • Kzt=1.0, Kd=0.85, G=0.85 • Zone 4: ± 51.4 psf • Zone 5: ± 65.4 psf
 V=175 mph • ASD Load Coeff = 0.6 • Kzt=1.0, Kd=0.85, G=0.85 • Zone 4: ± 51.4 psf • Zone 5: ± 65.4 psf
 103



MAP OF BOUNDARY SURVEY

FOR: 9466 HARDING AVENUE, SURFSIDE, FLORIDA 33154

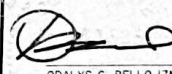
LEGAL DESCRIPTION:
 LOT 13, BLOCK 5, ALTOS DEL MAR No. 6, ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 8, PAGE 106 OF THE PUBLIC RECORDS OF MIAMI-DADE COUNTY, FLORIDA.

CERTIFIED TO:
 STOWE PLAZA II, LLC.

GENERAL NOTES

1. LEGAL DESCRIPTION PROVIDED BY OTHERS, UNLESS OTHERWISE NOTED.
2. THIS SURVEY DOES NOT DETERMINE OR IMPLY REAL PROPERTY OWNERSHIP.
3. THE LANDS SHOWN HEREIN ARE SUBJECT TO RESTRICTIONS OF PLAT (S) OF RECORD. THERE MAY BE ADDITIONAL RESTRICTIONS THAT MAY BE FOUND IN THE PUBLIC RECORDS OF THIS COUNTY, AFFECTING THESE LANDS.
4. MEASURED VALUES OF BOUNDARY DISTANCES, DIRECTIONS AND INTERIOR ANGLES HAVE BEEN FOUND CONSISTENT WITH VALUES OF RECORD, UNLESS OTHERWISE SHOWN.
5. ELEVATIONS, IF SHOWN, ARE REFERRED TO N.G.V.D. 1929.
6. UNDERGROUND IMPROVEMENTS, FOOTINGS AND UTILITIES ARE NOT LOCATED ON THIS SURVEY MAP.
7. FENCE OWNERSHIP NOT DETERMINED, APPARENT CLEARANCES AND/OR ENCROACHMENTS ARE NOTED BY VISUAL MEANS ONLY.
8. NO IDENTIFICATION CAPS FOUND ON SURVEY MONUMENTS, UNLESS OTHERWISE NOTED.
9. THE SCALE, AS SHOWN IS THE INTENDED PLOTTING SCALE OF THIS MAP.
10. THIS SURVEY IS EXCLUSIVELY FOR THE USE OF THE PARTIES TO WHOM IT IS CERTIFIED.
11. THIS SURVEY MAP AND THE COPIES THEREOF, ARE NOT VALID WITHOUT THE SIGNATURE AND RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.
12. ADDITIONS OR DELETIONS TO SURVEY MAPS OR REPORTS BY OTHER THAN THE SIGNING PARTY OR PARTIES IS PROHIBITED WITHOUT WRITTEN CONSENT OF THE SIGNING PARTY OR PARTIES.

I HEREBY CERTIFY THAT THIS SKETCH OF SURVEY OF THE HERON DESCRIBED PROPERTY IS A TRUE AND CORRECT REPRESENTATION OF A SURVEY MADE UNDER MY DIRECTION AND SAID SURVEY MEETS THE MINIMUM TECHNICAL STANDARDS AS SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS IN CHAPTER 5J-17 FLORIDA ADMINISTRATIVE CODE PURSUANT TO SECTION 472.027 FLORIDA STATUTES AND IS ACCURATE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.



 ODALYS C. BELLO-IZNAGA
 PROFESSIONAL SURVEYOR
 & MAPPER No. 6169
 STATE OF FLORIDA
 FIELD WORK DATE: 04/15/2016
 COMPLETION DATE: 04/20/2016

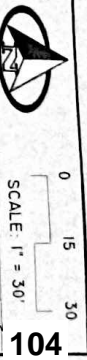
LEGEND & ABBREVIATIONS

<ul style="list-style-type: none"> CONCRETE CONC. BLOCK WALL WOOD DECK COVERED AREA ASPHALT CHAIN LINK FENCE (CLF) WOOD FENCE (WF) IRON FENCE (IF) A - ARC DISTANCE L - LENGTH A - CENTRAL ANGLE / DELTA H - HUBS T - TANGENT P.T. - POINT OF TANGENCY P.C. - POINT OF CURVATURE P.C.C. - POINT OF CURVATURE CURVE P.R.C. - POINT OF REVERSE CURVE CH - CHORD C.M. BEG. - CHORD BEARING B.M. - BENCH MARK R.M. - READING REFERENCE T.B.M. - TEMPORARY BENCH MARK P.P. - POWER POLE D.M. - DRAINAGE & MAINTENANCE EASEMENT 	<ul style="list-style-type: none"> B.C. - BLOCK CORNER E - PROPERTY LINE C.L. - CENTER LINE M. - MONUMENT LINE CL.C. - CALCULATED M. - FIELD MEASURED P. - PER PLAT TYP. - TYPICAL P.P.M. - PERMANENT R.P.M. - PERMANENT REFERENCE MONUMENT P.C.P. - PERMANENT CONTROL POINT FO. NAIL - FOUND NAIL FO. DISK - FOUND IRON DISK FO. I.P.P. - FOUND IRON PIPE V.P. - VAPOR C.M. - CONCRETE MONUMENT FO. IR. - FOUND IRON REBAR FO. P. NAIL - FOUND PAPER NAIL ON NAIL P.S.M. - PROFESSIONAL SURVEYOR AND MAPPER AW. - AIR CONDITIONER PAD T.O. - TRANSFORMER ± - EXISTING ELEVATION 	<ul style="list-style-type: none"> A.E. - ANCHOR EASEMENT D.E. - DRAINAGE EQUIPMENT ENC. - ENCROACHMENT F.F. - FINISHED FLOOR ELEVATION N.T.S. - NOT TO SCALE P.B. - PLAT BOOK M.H. - MAN HOLE D.B. - OFFICIAL RECORD BOOK D.H. - CONCRETE BLOCK STRUCTURE D.H.C. - OVERHEAD UTILITY LINES TTL. - TELEPHONE FACILITIES C.B. - CATCH BASIN C.A.F. - CABLE UTILITY BOX W.M. - WATER METER W.M. - WHEEL OF WAX ELEV. - ELEVATION SEC. - SECTION TWP. - TOWNSHIP Rd. - ROAD W.P. - WALKWAY
---	--	--

FLOOD INSURANCE RATE MAP (FIRM) INFORMATION:
 COMMUNITY NUMBER: 120659 PANEL NUMBER: 0163
 SUFFIX: L PANEL REVISED DATE: 09/11/2009
 FLOOD ZONE: AE BASE FLOOD ELEV.: -8'

BENCH MARKS USED:
 MIAMI-DADE COUNTY B.M. No. S-243 ELEV. = 11.77' AND
 B.M. No. Z-313 ELEV. = +9.59'


BELLO & BELLO
 LAND SURVEYING CORPORATION (L.B. No. 7262)
 12250 S.W. 131 AVENUE SUITE 201
 MIAMI, FL 33186
 PH (305) 291-9606 FAX (305) 291-6057
 RBELLO@BELLONDSURVEYING.COM
 PROJECT No. 16091





MEMORANDUM

ITEM NO. 5.A

To: Planning & Zoning Board
From: Judith Frankel AICP, Town Planner
Date: February 29, 2024
Subject: **Amending Section 90-74. - "Temporary Signs"**

Town Administration recommends that the Planning and Zoning Board discuss the proposed changes and make a recommendation to approve for Town Commission's second reading.

At the Town Commission meeting held on January 9th, 2024, the Town Commission directed Town Administration to present an ordinance amending Section 90-74. – “Temporary Signs” of the Code to remove subsection (3) which states: "All real estate signs shall be black and white and may include a trademarked logo or symbol".

The proposed ordinance eliminates the current restrictive color, artistic and graphical requirements for real estate signs. This ordinance was approved by the Town Commission without changes at first reading on February 13th, 2024.

[Ord Amend Sec. 90-74 Temporary Real Estate Signs](#)

ORDINANCE NO. 2024 - _____

AN ORDINANCE OF THE TOWN COMMISSION OF THE TOWN OF SURFSIDE, FLORIDA, AMENDING THE TOWN OF SURFSIDE CODE OF ORDINANCES BY AMENDING SECTION 90-74. – TEMPORARY SIGNS” TO REMOVE SUBSECTION (3) LIMITATION ON REAL ESTATE SIGNS PERTAINING TO COLOR AND LOGO; PROVIDING FOR INCLUSION IN THE CODE; PROVIDING FOR CONFLICTS; AND PROVIDING FOR AN EFFECTIVE DATE.

1 **WHEREAS**, Article VIII, Section 2 of the Florida Constitution, and Chapter 166,
2 Florida Statutes, provide municipalities with the authority to exercise any power for
3 municipal purposes, except where prohibited by law, and to adopt ordinances in
4 furtherance of such authority; and

5 **WHEREAS**, the Town Commission of the Town of Surfside (“Town”) finds it
6 periodically necessary to amend its Code of Ordinances and Land Development Code
7 (“Code”) in order to update regulations and procedures to maintain consistency with state
8 law, to implement municipal goals and objectives, to clarify regulations and address
9 specific issues and needs that may arise; and

10 **WHEREAS**, the Town Commission desires to amend Section 90-74. – “Temporary
11 Signs” of the Code to remove the limitations in subsection (3) on real estate signs
12 providing for black and white signs and inclusion of a trademark logo or symbols; and

13 **WHEREAS**, at a regular meeting of the Town Commission held on January 16,
14 2024, the Town Commission directed the Town Attorney to present an ordinance
15 amending Section 90-74. – “Temporary Signs” of the Code to remove subsection (3)
16 limiting the color of real estate signs to black and white and eliminating the current
17 restrictive color, artistic and graphical requirements for real estate signs; and

18 **WHEREAS**, the Town Commission held its first public hearing on February 13,
19 2024, and having complied with the notice requirements in the Florida Statutes,
20 recommended approval of the proposed amendments to the Code; and

21 **WHEREAS**, the Planning and Zoning Board, serving as the local planning agency
22 for the Town, held its hearing on the proposed amendment to the Code on

23 _____, 2024 with due public notice and input, and recommended _____
24 of the proposed amendments to the Code; and

25 **WHEREAS**, the Town Commission has conducted a second duly noticed public
26 hearing on these Code amendments as required by law on _____, 2024
27 and further finds the proposed changes to the Code are necessary and in the best interest
28 of the Town.

29 **NOW, THEREFORE, BE IT ORDAINED BY THE TOWN COMMISSION OF THE**
30 **TOWN OF SURFSIDE, FLORIDA¹:**

31
32 **Section 1. Recitals.** The above Recitals are true and correct and are
33 incorporated herein by this reference:

34 **Section 2. Town Code Amended.** Section 90 -74. - “Temporary Signs” of the
35 Town Code is hereby amended as follows:

36 * * *

37 **Sec. 90-74. - Temporary signs.**

38 (a) *Real estate sign.*

39 (1) *SD-B40 district.* One professionally lettered real estate sign shall be
40 permitted per building frontage. The maximum sign area shall be three square
41 feet. The sign shall be mounted flat against the building wall or a minimum of 12
42 inches from a window, and shall not project above the eave line of the building.

43 (2) *All other zoning districts.* One professionally lettered real estate sign shall be
44 permitted per street frontage. The sign shall be wall mounted flat against the
45 building wall or securely fastened to a wood or metal freestanding stake or post
46 of sufficient strength. The maximum sign panel area shall be 18 inches by 24
47 inches. A maximum of two riders shall be permitted to attach above or below the
48 main sign panel not to exceed six inches by 24 inches per rider for in-ground
49 signs. The maximum sign height for in-ground signs including support frame shall
50 not exceed 42 inches from the ground to the top of the sign. Such sign shall be
51 located outside of any sight visibility triangle. No portion of the sign shall extend
52 across the property line.

¹ Coding: ~~Strikethrough words~~ are deletions to the existing words. Underlined words are additions to the existing words. Changes between first and second reading are indicated with highlighted double-strikethrough and double underline.

53 ~~(3) All real estate signs shall be black and white and may include a trademarked~~
54 ~~logo or symbol.~~

55 (43) Sign shall be constructed of rigid, weather proof materials.

56 (54) Sign shall not be lighted or illuminated in any manner.

57 (65) Sign shall be removed within seven days of a lot, building, residence or
58 tenant space being leased, rented or sold.

59 * * *

60 **Section 3. Severability.** If any section, sentence, clause or phrase of this
61 Ordinance is held to be invalid or unconstitutional by any court of competent jurisdiction,
62 then said holding shall in no way affect the validity of the remaining portions of this
63 Ordinance.

64 **Section 4. Inclusion in the Code.** It is the intention of the Town Commission,
65 and it is hereby ordained that the provisions of this Ordinance shall become and made a
66 part of the Town of Surfside Code of Ordinances, that the sections of this Ordinance may
67 be renumbered or re-lettered to accomplish such intentions; and the word "Ordinance" may
68 be changed to "Section" or other appropriate word.

69 **Section 5. Conflicts.** Any and all ordinances and resolutions or parts of
70 ordinances or resolutions in conflict herewith are hereby repealed.

71 **Section 6. Effective Date.** This ordinance shall become effective upon adoption
72 on second reading.
73

74 **PASSED** on first reading on the ____day of _____, 2024.

75 **PASSED AND ADOPTED** on second reading on the ___day of _____, 2024.

76 **First Reading:**
77 Motion by: _____
78 Second by: _____
79

80
81 **Second Reading:**
82 Motion by: _____
83 Second by: _____
84

85
86 **FINAL VOTE ON ADOPTION**
87
88 Commissioner Fred Landsman _____

89 Commissioner Marianne Meisheid _____
90 Commissioner Nelly Velasquez _____
91 Vice Mayor Jeff Rose _____
92 Mayor Shlomo Danzinger _____

93
94
95

Shlomo Danzinger, Mayor

97 **ATTEST:**

98
99

100 _____
101 Sandra N. McCready, MMC
102 Town Clerk

103

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

106

107

108

109 _____
Weiss Serota Helfman Cole & Bierman, P.L.
110 Town Attorney



MEMORANDUM

ITEM NO. 5.B

To: Planning & Zoning Board

From: Judith Frankel AICP, Town Planner

Date: February 29, 2024

Subject: **Roof Replacement Materials in the Single-Family Residential Area**

Town Administration recommends approval of this ordinance to allow homeowners to re-roof with their existing roofing material.

On January 9th 2024 the Town Commission directed Town Administration to present an ordinance that would allow existing homes to be re-roofed with their existing materials. A home's roof is one of its most importance defenses in case of a storm or other wind event. Re-roofing is a costly renovation that can be required by insurance companies. In an effort to reduce barriers for homeowners, this ordinance if approved would no longer require review by the Planning and Zoning Board for the replacements of existing roofs with the same materials. At present existing homes with asphalt shingle roofs may not replace their roof with the same material unless granted approval by the Planning and Zoning Board. This approval process adds time and cost to a necessary undertaking. New houses and additions would still be required to utilize clay tile, white concrete tile, colored cement tile or architecturally embellished metal.

This ordinance was approved without changes at first reading by the Town Commission on February 13th, 2024.

[Ord Amend 14-31 and 90-50.1 of Code Re-Roof Replacement with Same Materials](#)

ORDINANCE NO. 2024 - _____

AN ORDINANCE OF THE TOWN COMMISSION OF THE TOWN OF SURFSIDE, FLORIDA, AMENDING THE TOWN OF SURFSIDE CODE OF ORDINANCES BY AMENDING SECTION 14-31 – “REQUIRED ROOFING MATERIALS” AND SECTION 90-50.1 – “ARCHITECTURE” OF SECTION 90-50. – “ARCHITECTURE AND ROOF DECKS” TO CLARIFY REQUIREMENTS AND ALLOW RE-ROOFS AND REPLACEMENTS WITH THE SAME EXISTING MATERIAL WITHOUT DESIGN REVIEW APPROVAL BY THE PLANNING AND ZONING BOARD; PROVIDING FOR INCLUSION IN THE CODE; PROVIDING FOR CONFLICTS; AND PROVIDING FOR AN EFFECTIVE DATE.

1 **WHEREAS**, Article VIII, Section 2 of the Florida Constitution, and Chapter 166,
2 Florida Statutes, provide municipalities with the authority to exercise any power for
3 municipal purposes, except where prohibited by law, and to adopt ordinances in
4 furtherance of such authority; and

5 **WHEREAS**, the Town Commission of the Town of Surfside (“Town”) finds it
6 periodically necessary to amend its Code of Ordinances and Land Development Code
7 (“Code”) in order to update regulations and procedures to maintain consistency with state
8 law, to implement municipal goals and objectives, to clarify regulations and address
9 specific issues and needs that may arise; and

10 **WHEREAS**, the Town Commission desires to amend Sections 14-31 “Required
11 Roofing Materials” and Section 90-50.1 – “Architecture” of Section 90-50. – “Architecture
12 and Roof Decks” to clarify requirements and streamline and simplify the process for re-
13 roofs and replacements with the same existing material, as a straight change out with the
14 same material, without the necessity of design review by the Planning and Zoning Board;
15 and

16 **WHEREAS**, at a regular meeting of the Town Commission held on January 16,
17 2024, the Town Commission directed the Town Attorney to present an ordinance
18 amending the Code to allow for re-roofs and replacement without design review before
19 the Planning and Zoning Board; and

20 **WHEREAS**, the Town Commission held its first public hearing on February 13,
21 2024, and having complied with the notice requirements in the Florida Statutes,
22 recommended approval of the proposed amendments to the Code; and

23 **WHEREAS**, the Planning and Zoning Board, serving as the local planning agency
24 for the Town, held its hearing on the proposed amendment to the Code on
25 _____, 2024 with due public notice and input, and recommended _____
26 of the proposed amendments to the Code; and

27 **WHEREAS**, the Town Commission has conducted a second duly noticed public
28 hearing on these Code amendments as required by law on _____, 2024
29 and further finds the proposed changes to the Code are necessary and in the best interest
30 of the Town.

31 **NOW, THEREFORE, BE IT ORDAINED BY THE TOWN COMMISSION OF THE**
32 **TOWN OF SURFSIDE, FLORIDA¹:**

33
34 **Section 1. Recitals.** The above Recitals are true and correct and are
35 incorporated herein by this reference:

36 **Section 2. Town Code Amended.** Section 14-31. - "Required Roofing
37 Materials" of the Town Code is hereby amended as follows:

38 **Sec. 14-31. - Required roofing materials.**

39 (a) Except as otherwise specifically provided in this section, all roofs and mansard
40 facias shall be constructed of or replaced with the following materials:

- 41 (1) Clay tile;
- 42 (2) White concrete tile;
- 43 (3) Solid color cement tile which color is impregnated with the same color intensity
44 throughout, provided said color is first approved by the planning and zoning
45 board;
- 46 (4) Architecturally Embellished Metal.
- 47 (5) Other Building Code approved roof materials if granted design review approval
48 by the planning and zoning board.

¹ Coding: ~~Strikethrough words~~ are deletions to the existing words. Underlined words are additions to the existing words. Changes between first and second reading are indicated with ~~highlighted double-strikethrough~~ and double underline.

49 (6) Re-roofing or replacement of the roof with the same or existing material shall
50 be allowed and shall not require design review approval by the planning and zoning board.
51 All new single-family homes or additions to existing homes shall comply with the permitted
52 or required roofing materials and all applicable sections of the Florida Building Code(s).

53 (b) Flat Low slope roofs with a minimum pitch of 2% (1/4 inch per foot) are
54 permitted on additions to existing pitched roof structures, provided:

55 (1) The roof required by this section is not practical, as determined by the town
56 manager;

57 (2) The addition shall not exceed 15 percent of the ground area of the pitched roof
58 section of the existing buildings or a maximum of 500 square feet, whichever
59 is greater (with any existing flat roof sections counting against allowable new
60 area);

61 (3) The addition is not visible from the front elevation of a building on an interior
62 lot or is not visible from the front or side elevations on a corner lot.

63 (c) All existing roofs having an incline of less than two inches per foot shall have
64 covering of built-up roofing material, ~~and~~ gravel, or thermoplastic single ply membrane
65 (TPO), or fiberglass and shall require the approval of the planning and zoning board as
66 being harmonious with other buildings in the area.

67 (d) Unless otherwise provided by resolution, any person, persons, firm or
68 corporation violating any of the provisions of this section, shall, upon conviction thereof,
69 be punished by a fine not to exceed the maximum penalty as determined by Florida
70 Statute. Each day that a violation is permitted to exist shall constitute a separate offense.

71 **Section 3. Town Code Amended.** Section 90-50.1 – “Architecture” of Section
72 90-50. – “Architecture and Roof Decks” of the Town Code is hereby amended as follows:

73 **Sec. 90-50. - Architecture and roof decks.**

74 *90-50.1 Architecture.*

75 (1) Elevation and facade articulation variations.
76 a. The architectural design of proposed main buildings shall create a unique
77 elevation compared to the main buildings of the adjacent two buildings on
78 each side of the subject property on the same side of street. If the adjacent
79 lot is vacant then the next adjacent lot shall be utilized. A unique elevation
80 shall be created through the modulation of at least three of the following
81 architectural features:

- 82 1. Length, width and massing of the structure;

- 83 2. Number of stories;
- 84 3. Facade materials;
- 85 4. Porches and other similar articulation of the front facade;
- 86 5. Number and location of doors and windows; and
- 87 6. Roof style and pitch.

88 (2) In the H30C, H40 and H120 districts: when more than one building is provided,
89 buildings shall be designed in such a way that they are not monotonous.

90 (3) All elevations for new structures and multi-story additions (additions greater
91 than 15 feet in height) shall provide for a minimum of ten-percent wall openings including
92 windows, doors or transitional spaces defined by porches, porticoes or colonnades per
93 story.

94 (4) All elevations for single story additions to existing structures shall result in a
95 zero percent net loss of wall openings including windows, doors or transitional spaces
96 defined by porches, porticoes or colonnades.

97 (5) Roof materials are limited as follows:

- 98 a. Clay tile; or
- 99 b. White concrete tile; or
- 100 c. Solid color cement tile which color is impregnated with the same color
101 intensity throughout, provided said color is granted design review
102 approval by the planning and zoning board;
- 103 d. Architecturally embellished metal; or
- 104 e. Other Florida Building Code approved roof material(s) if granted design
105 review approval by the planning and zoning board.
- 106 f. Re-roofing or replacement of the roof with the same or existing material
107 shall be allowed and shall not require design review approval by the
108 planning and zoning board. All new single-family homes or additions to
109 existing homes shall comply with the permitted or required roofing
110 materials and all applicable sections of the Florida Building Code(s).

111 (6) Garage facades. Attached garages located at the front of a single-family home
112 shall not exceed 50 percent of the overall length of the facade.

113 (7) Converting single-family attached garages. When an attached garage is
114 converted for any other use, the garage door or doors may be replaced by a solid exterior

115 wall and access to the former garage area must be provided from the main premises, in
116 addition to any other permitted access. At least one window shall be provided. If the
117 garage entrance is located at the front or primary corner of the property, landscaping shall
118 be provided along the base of the new exterior wall. When the installation of landscaping
119 results in insufficient off-street parking, a landscaped planter shall be permitted in lieu of
120 the required landscaping. It is intended hereby to prohibit and prevent any violation of the
121 single-family classification and to minimize the burden upon the administrative forces of
122 the town in policing and enforcing the provisions hereof. Changes to the appearance of
123 the residence shall not constitute a change prohibited by the "home office" provision of
124 this Code. If the exterior door of the garage conversion is no longer level with grade, stairs
125 may be installed and the exterior door must be accordingly corrected to comply with the
126 Florida Building Code. The stairs shall be permitted to encroach no more than 24 inches
127 into the side or rear setbacks.

128 (8) Notwithstanding the foregoing, some of the architecture provisions in this
129 section, while specific to zoning districts H30A and H30B, may also be applicable to single
130 family homes in other zoning districts.

131 (9) Paint colors. Structures in the H30A and H30B zoning districts shall be
132 permitted to be painted the four lightest colors for the structure's primary color on the color
133 swatch on file in the building department. All other colors may be accent colors. A paint
134 swatch shall be submitted to the building department for approval by the town manager
135 or designee. The planning and zoning board shall make a design determination in cases
136 of uncertainty.

137 * * *

138 **Section 4. Severability.** If any section, sentence, clause or phrase of this
139 Ordinance is held to be invalid or unconstitutional by any court of competent jurisdiction,
140 then said holding shall in no way affect the validity of the remaining portions of this
141 Ordinance.

142 **Section 5. Inclusion in the Code.** It is the intention of the Town Commission,
143 and it is hereby ordained that the provisions of this Ordinance shall become and made a
144 part of the Town of Surfside Code of Ordinances, that the sections of this Ordinance may
145 be renumbered or re-lettered to accomplish such intentions; and the word "Ordinance" may
146 be changed to "Section" or other appropriate word.

147 **Section 6. Conflicts.** Any and all ordinances and resolutions or parts of
148 ordinances or resolutions in conflict herewith are hereby repealed.

149 **Section 7. Effective Date.** This ordinance shall become effective upon adoption
150 on second reading.
151

152 **PASSED** on first reading on the ____ day of _____, 2024.

153 **PASSED AND ADOPTED** on second reading on the ____ day of _____, 2024.

154 **First Reading:**

155 Motion by: _____

156 Second by: _____

157

158

159 **Second Reading:**

160 Motion by: _____

161 Second by: _____

162

163

164 **FINAL VOTE ON ADOPTION**

165

166 Commissioner Fred Landsman _____

167 Commissioner Marianne Meisheid _____

168 Commissioner Nelly Velasquez _____

169 Vice Mayor Jeff Rose _____

170 Mayor Shlomo Danzinger _____

171

172

173

174

Shlomo Danzinger, Mayor

175 **ATTEST:**

176

177

178

Sandra N. McCready, MMC

180 Town Clerk

181

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

184

185

186

Weiss Serota Helfman Cole & Bierman, P.L.

188 Town Attorney



MEMORANDUM

ITEM NO. 5.C

To: Planning & Zoning Board

From: Judith Frankel AICP, Town Planner

Date: February 29, 2024

Subject: **Comprehensive Plan Update (Local Planning Agency Item)**

Town Administration asks the Planning and Zoning Board, sitting as the Local Planning Agency (LPA), to review the proposed updates to the Town's Comprehensive Plan. The LPA may suggest revisions and provide comments if desired or recommend transmittal to the Town Commission with any comments or recommendations.

Presentations on the update of the Town's Comprehensive Plan were made at the November 16, 2023 and January 18, 2024 Planning and Zoning Board meetings. A Public Hearing will be held at the February 29, 2024 Planning and Zoning Board meeting. The Planning and Zoning Board is designated as the Town's Local Planning Agency (LPA) and serves as the LPA on items such as the Comprehensive Plan update. The 2018 Comprehensive Plan is provided in **Attachment A**.

The current update of the Comprehensive Plan is required by State Law and referred to as the Evaluation and Appraisal Report (EAR) or EAR Based Amendments. The proposed amendments are generally minor and the overall emphasis of the current Comprehensive Plan is intact. A summary of the proposed changes are in **Attachment B**. Major items being updated include the addition of a Property Rights Element (a new State requirement), update of the Town's Water Supply Facility Work Plan (a State requirement), update of the Base Floor Flood Elevation to 8.00 + 2.00 Feet, Address changes to statutory requirements of Chapter 163 and minor updates to the Comprehensive Plan and Socio-Economic Characteristics. The review process requires a marked-up version of the Comprehensive Plan be provided with underlines (additions) and strikethroughs (deletions).

Revisions have been provided for the following Plan Elements:

- 1 Future Land Use - **Exhibit A1**
- 3 Housing - **Exhibit A2**
- 4 Infrastructure (including Water Supply Facilities Work Plan) - **Exhibits A3 and A4**
- 5 Coastal Management - **Exhibit A5**
- 7 Recreation and Open Space - **Exhibit A6**
- 9 Capital Improvements - **Exhibit A7**

- 11 Property Rights - **Exhibit A8**

The following Plan Elements are not going to be updated at this time:

- 2 Transportation
- 6 Conservation
- 8 Intergovernmental Coordination
- 10 Public School Facilities

Copies of the current (2018) Comprehensive Plan and the marked-up versions of the proposed Plan Elements have been provided as attachments. The LPA is holding a Public Hearing on the draft documents. The LPA can make revisions if desired or recommend transmittal to the Town Commission with any comments or recommendations. The Town Commission is scheduled to hold a Public Hearing on the draft documents and LPA recommendation on March 12, 2024. The 1st reading of the Ordinance adopting the EAR Based Amendments will be considered at the March 12, 2024 Public Hearing. If the Town Commission approves the 1st reading, the EAR Based Amendments will be sent out to be reviewed under the State Coordinated Review Process.

If the State determines the Amendment package is complete, State agencies, the South Florida Regional Planning Council, Miami-Dade County and adjacent municipalities will have 30 days to review the Amendment package and provide written comments. The State Community Planning Office has to issue an Objections, Recommendations and Comments Report (ORC) on the Amendment package. The Town Commission will then have 180 days to adopt the Amendment package. It is expected the Town Commission will request an additional review by the LPA prior to holding an adoption hearing at 2nd reading of the Ordinance. The Amendment package can be revised during this period. The State will perform a Compliance review of the adopted Amendment package.

A few revisions have been made in the Future Land Use Element since the printing of the Amendment package (Attachments I through J). A 3-page summary (pages 3,4 and 5) in **Attachment B** describes the revisions made in the Future Land Use Table 1-2. Copies of the Existing and Future Land Use Maps are provided in **Attachments B**.

[Attachment A: 2018 Comprehensive Plan](#)

[Attachment B: Comp Plan EAR Update and Summary](#)

[Ordinance Amending Town Comp Plan Adopting EAR Amendments - P&Z](#)

[Exhibit A1: 1 Future Land Use](#)

[Exhibit A2: 3 Housing 2024](#)

[Exhibit A3: 4 Infrastructure Element 2024](#)

[Exhibit A4: Water Supply Work Plan 2024-Appendix to Infrastructure](#)

[Exhibit A5: 5 Coastal Management Element 2024](#)

Exhibit A6: 7 Recreation and Open Space 2024

Exhibit A7: 9 Capital Improvements Element 2024

Exhibit A8: 11 Property Rights Elements 2024



Town of Surfside Comprehensive Plan

Adopted Update
June 2018

Submitted by:



Calvin, Giordano & Associates, Inc.
EXCEPTIONAL SOLUTIONS™

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FUTURE LAND USE ELEMENT

DATA INVENTORY AND ANALYSIS

PURPOSE

The purpose of the Future Land Use Element is the designation of future land use patterns as reflected in the goals, objectives and policies contained in the Town of Surfside's Comprehensive Plan. The supporting data provides a broad survey of current land use patterns, natural land features, and availability of public facilities for existing and future development. Future land use patterns are depicted on the *Future Land Use Map* (Map FLU 7).

PLANNING TIMEFRAMES

The Town of Surfside Comprehensive Plan provides guidance on development and redevelopment over two planning periods: a 5-Year short term planning period ending FY 2022 and a long term planning period ending FY 2035.

EXISTING LAND USE CONDITIONS

The Town of Surfside is located in the eastern section of Miami-Dade County. Located on the barrier island, the Town is bordered by water on both its western and eastern boundaries. The western boundary is the Biscayne Bay and Indian Creek and the eastern boundary is the Atlantic Ocean. The Town is nearly built out. The Future Land Use Element supports the Town's desire to maintain its stable single family residential neighborhood, encourage redevelopment of the Harding Avenue business area, and limit density and intensity of beach front properties.

Existing land use patterns are depicted on *Map FLU 1 Existing Land Use*. An analysis of Existing Land Use indicates that single family residential uses make up approximately 47.4 % and multi-family uses make up 11.3% of the total land area. Vacant lands make up 0.5% of the total town acreage.

The Town has 99.5% of its land developed. Residential development makes up 58.7% of total Town acreage. General retail / service business development makes up 1.87% of the total Town acreage.

Table 1-1
Existing Land Use

EXISTING Land Use	Acres	Percentage of Total Acres
Beach Area	34.76	9.43%
Community Facilities	9.26	2.43%
General Retail/Services	6.90	1.87 %
Multi-Family Residential	41.46	11.34 %
Parking	4.92	1.34%
Private Recreation	6.07	1.65 %
Single Family Residential	174.80	47.43 %
Vacant	1.89	0.51 %
ROW	79.57	21.59 %
Water	8.90	2.42%
TOTAL ACREAGE	368.53	100.00%

Source: Miami-Dade County GIS Services; Calvin, Giordano & Associates

FUTURE LAND USE DESIGNATIONS

Map FLU 7 Future Land Use designates future land uses in the Town. The Future Land Use Map guides future development according to the vision of residents and businesses in the Town. The Future Land Use Map reflects a planning horizon of at least 10 years. The Future Land Use Map serves as the basis for zoning designations provided in the Zoning Code. Table 1-2 shows the distribution of future land uses in the Town.

**Table 1-2
Future Land Use**

FUTURE LAND USE DESIGNATION	Acres	Percentage of Total Acres
Community Facility	1.46	0.40%
General Retail /Services	5.84	1.58 %
High Density Residential / Tourist	26.27	7.13 %
Low Density Residential	176.48	47.89 %
Moderate Low Density Residential	3.09	0.84%
Moderate High Density Residential	14.81	4.02 %
Moderate Density Residential / Tourist	4.72	1.28 %
Parking	4.23	1.15%
Public Buildings and Grounds	2.05	0.56 %
Public Recreation	40.54	11.00 %
Private Recreation	4.69	1.27 %
Non-designated Right Of Way	84.35	22.89 %
TOTAL	368.53	100.00%

Source: Miami-Dade County GIS Services; Calvin, Giordano & Associates

Approximately 61.16 % of the total land area is designated for residential uses with the majority of the residential uses designated as Low Density Residential. Commercial uses added up to 1.58% and Recreation uses, both public and private, made up nearly 12.27% of the total land area. Non-designated Right of Way makes up 22.89% of the overall land area.

POPULATION

Population and Projections

The Town's population according to the 2010 U.S. Census was 5,744. By 2035, the Town is expected to continue to be built-out with virtually no vacant residential lands or change in density or intensity; at which time the population is expected to be approximately 6,556 residents. According to the Florida Housing Data Clearinghouse (FHDC), between 2010 and 2035 the Town is projected to see an additional 812 residents, which represents 14.1% growth from 2010. The Town views the population projections from the FHDC as high considering the built-out current condition of the Town. Potential population increases are expected to come from seasonal units being used as full time units and increases in persons per household.

**Table 1-3
Projections: Population, Surfside, 2010 - 2030**

Year	Population	% Change from 2010 Population
2010*	5,744	0
2015**	5,705	- 0.67%
2020**	5,952	+3.6%
2025**	6,181	+7.6%
2030**	6,398	+11.3%
2035**	6,556	+14.1%

Source: *2010 U.S. Census; **Florida Housing Data Clearinghouse (FHDC), 2016

Annexation

No annexations are being considered at this time.

Analysis of Land Needed to Accommodate Population

The Town is almost built-out with only 1.89 acres of vacant land. The only development that is expected over the next planning horizon is redevelopment of existing developed properties. Redevelopment is expected to be at or near existing densities however, most projects which have redeveloped in the past 10 years have been below current densities. As discussed above in the Population and Projections section, the only changes in population are expected through seasonal unit conversion to full time use and increases in persons per household.

The Town does not support the Florida Housing Data Clearinghouse (FHDC) projects for 2035. The Town’s Charter limits density, intensity, and height to the existing maximums in the Zoning Code or Comprehensive Plan, whichever is more restrictive. Therefore, the FHDC projection for 2035 is not anticipated.

FACILITIES ANALYSIS

Sanitary Sewer Facilities

The Town’s sanitary sewer system is interconnected with the Miami-Dade County Water and Sewer Department (MDWASD) system. Surfside maintains its own sewer collection system and two pumping stations. By agreement, the City of Miami Beach transmits the sewage via force mains to the MDWASD system and eventually to the treatment plant and disposal.

The Town of Surfside is located in the MDWASD Central District Sanitary sewer system; however MDWASD operates two additional regional wastewater treatment plants in the North and South Districts. Because the system is interconnected, the service districts have flexible boundaries, and some flows from one district can be diverted to other plants in the system. Surfside’s sewer system is treated by a secondary treatment facility on Virginia Key owned and operated by the Miami-Dade County Water and Sewer Department (MDWASD).

According to the Town of Surfside Consumption Analysis, in 2014/2015 approximately 258 million gallons of wastewater were treated by the County system from the Town of Surfside and 260 million in 2015/2016. There is sufficient capacity to serve Surfside residents in the short and long term planning time frame.

Potable Water Facilities

The Town of Surfside's potable water is provided by the Miami-Dade County Water and Sewer Department (MDWASD). The water is distributed to residents and commercial business by approximately 11 miles of cast iron pipe installed in 1938. The Town of Surfside is serviced by the Hialeah-Preston Water Treatment Plant service area which includes the northern part of Miami-Dade County. A new upper Floridan Aquifer Reverse Osmosis (RO) water treatment plant was constructed in 2013, and is located at 4250 W. 114th Terrace in the City of Hialeah. The WTP was constructed pursuant to a joint Participation Agreement between the City of Hialeah and the County which was approved by the Board of County Commissioners on July 24, 2007 and called for the design, construction, and operation of a water treatment plant constructed in the annexation area and supplied by the brackish Floridan aquifer to produce initially 10 mgd with the capacity to expand to 17.5 mgd. Approval from the Florida Department of Health to produce and distribute water was received in November 2013. The WTP utilizes the Floridan Aquifer as the alternative water supply using RO treatment to remove the salt. The initial operational phase of the Plant is 7.5 mgd, increasing to 10 mgd by the end of 2015 when construction of additional wells is expected to be completed. The quantity of water available to serve MDWASD's North District, as reflected in permitted withdrawal allocations, provides more than adequate capacity.

The MDWASD system wide finished water rate is 137.2 gallons per capita per day (gpcd). The gpcd value for the Town of Surfside is higher than the system wide average at 148.04 gallons per capita per day. The Town adopted its most recent 15-year Water Supply Facilities Work Plan in 2015.

The level of service will be met for Surfside in the short term and long term planning periods.

Solid Waste

The Town's Public Works Department has three garbage trucks which collect trash and garbage on a weekly basis and haul it to Miami-Dade County's Resource Recovery Plant west of Miami International Airport and other Miami-Dade County landfills. Last year (FY 15/16) Surfside deposited approximately 4,932 tons of waste material at the county's facility. The Town, as of June 2, 2016, discontinued recycling services with Miami-Dade County for residential properties. The Town now collects recycling. Between June 2, 2016 and December 29, 2016 the Town collected a total of 218.9 tons of recycling. Based on information supplied by the Miami-Dade County Department of Solid Waste Management (See Infrastructure Element), the existing disposal capacity at the North Dade Landfill and the South Dade Landfill and the Resource Recovery Plan appear to have adequate capacity to meet Surfside's needs for the foreseeable future.

Stormwater Drainage Facilities

Surfside's existing storm drainage system consists of a network of underground storm sewers that collect and direct stormwater to Indian Creek and Biscayne Bay. A pumping station at the western end of 92nd Street assists the drainage of water from that street by pumping to an outfall. Equipment which currently serves the 92nd Street pump station was replaced by FDOT and maintained by the Town; however, even with these modifications, water may still reach curb level in various locations due to tidal fluctuations.

In 2006, the Town of Surfside initiated additional stormwater projects, which consist of retrofitting three of the Town's outfall pipes to reduce pollutants and fresh water entering Biscayne Bay. The project addressed long-term concerns regarding water backing into the streets and poor water quality in the adjacent Biscayne Bay along the Town's shores.

The recently constructed retrofitted stormwater management system of the Town consists of a network of underground storm sewers along with outfall control structures discharging into the Indian Creek and Biscayne Bay, and three additional pump stations discharging into 9 drainage wells. The newly constructed control structures facilitate well discharge before discharging to Biscayne Bay. The project addressed long-term concerns regarding water backing into the streets and poor water quality in the adjacent Biscayne Bay along the Town's shores. The project directly addressed The Trust for Public Land's Biscayne Bay Accessibility report, supported the SFWMD's Biscayne Bay Partnership Initiative (BBPI), and enhanced the level of service.

In 2015, the Town completed drainage improvements for Biscaya Island along 88th Street. The Town constructed new check valves to prevent back flow into the existing roadways and upsized one 12-inch outfall to a 24-inch diameter outfall. Since the Town completed the retrofit of the existing drainage system in the recent past, there are currently no additional level of service projects required or needed for the Town's drainage system.

Transportation

The major north-south traversing roadways for the Town are Collins Avenue and Harding Avenue, both state arterial roadways. The major east-west traversing roadway is 96th Street. The level of service analysis for existing conditions indicates that all the roadways within the Town are operating at the adopted level of service.

Six bus routes from Miami-Dade Transit travel through the Town. The Town has its own bus system which complements the Miami-Dade County Transit. The Town's mini buses circulate between the business district and residential areas.

Parks and Recreation

The Town has an adopted Level of Service of six (6) acres of publicly-owned lands per 1,000 permanent population. The Town has approximately 40 acres of publicly-owned parks space and will continue to meet their level of service through the short term and long term planning periods.

There are five Town-owned recreation facilities; namely the Veterans Park/Surfside Tennis Center, Hawthorne Park Tot Lot, 96th Street Park, and the Surfside Community Center, and Paws Up Dog Park. The majority of the park land within the Town is the state-owned public beach.

Public Schools

There are no public schools located within the Town. In 2008 the Town entered into an Interlocal Agreement for Public School Facility Planning in Miami-Dade County with the Miami-Dade County School Board and adopted a Public Schools Facilities Element. The Miami-Dade County School Board provides figures for current and projected student enrollment and capacity by school. There are currently 1 elementary school, 1 middle school, and 1 high school serving the Town of Surfside. These are:

Elementary:

Broad, Ruth K./Bay Harbor K-8 Center (Town of Bay Harbor Islands)

Middle:

Nautilus Middle (City of Miami Beach)

High:

Miami Beach Senior High School (City of Miami Beach)

These schools are currently and projected to have sufficient capacity to meet level of service standards in the short term and long term planning time frames.

Capital Improvements

The Town prepares a Schedule of Capital Improvements (SCI) in the Capital Improvement Element. For FY 2017/2018 the Town has no deficiencies or LOS issues that need to be addressed. With the completion of the Capital Enhancement project several years ago the Water, Wastewater and drainage systems within the Town were completely replaced and modernized.

HISTORIC PRESERVATION

The Bureau of Archaeological Research within the Florida Office of Cultural and Historic Preservation maintains the Florida Master Site File (MSF), a database that contains information on archaeological and historic resources in Florida. The MSF includes 33 records for the Town of Surfside: three (3) archaeological sites; three (3) resource groups; and 27 structures of which seven (7) are no longer in existence. The Indian Creek Bridge, adjacent to the Town, is also listed on the MSF.

The Florida Department of Historic Resources has jurisdiction over historic and archaeological sites if there are human remains or if a state or federal permit is requested. If a private property owner develops or redevelops their property and their property is listed on the MSF, the state historic preservation officer should be contacted for guidance.

Miami-Dade County Office of Historic Preservation within the Regulatory and Economic Resources Department also identifies historic resources and designates historic properties and districts. The County has designated three (3) properties and one (1) district within the Town of Surfside.

The aforementioned County designated historic resources are displayed in Table 1-4.

**Table 1-4
County Designated Historic Properties**

Classification	Name	Address	Year Built	Additional Information
Historical Structures	Surf Club	9011 Collins Ave	1930	Architectural Style - Mediterranean Revival ca. 1880-1940
Historical Structures	Bougainvillea Apartments	9340 Collins Ave	1940	Architectural Style – Streamline Modern
Historical Structures	Seaway Villas	9149 Collins Ave	1936	Architectural Style – Masonry Vernacular with Mediterranean
Historical District	Collins Avenue Historic District	90 th Street to 91 st Street	1946-1957	Architectural Style – Streamline Modern and Miami Modern (MiMo)

Source: Miami-Dade County Office of Historic Preservation; Calvin, Giordano & Associates, 2017

LAND COVER

Map FLU 2 Soils identifies and maps native habitat within the Town. The land coverage can be categorized as Developed and Beach. Other than the beach and beach dune system, the Town is built out. There are no native preserves or remaining native habitats or wetlands within the Town. The beach and dune system, although created through a beach renourishment program, is owned by the State and maintained in a natural condition.

Water Resources

The predominant water resources that are present in the Town are the Atlantic Ocean and Biscayne Bay. Additionally there are Indian Creek and Point Lake. Indian Creek is a channel that separates the Town from the Islands of Indian Creek Village and Bay Harbor Islands. Point Lake, the dredged channel and water body that separates Biscaya Island from the remainder of the Town, is considered part of Biscayne Bay. *Map FLU 5 Water Bodies* highlights water resources.

Wellfield Protection

There are no public wellfields or wellfield protection zones located in the Town of Surfside.

Soils

Map FLU 2 Soils provides the general distribution of soils/coverage in the Town as mapped by the Natural Resource Conservation Service (NRCS). The U.S. Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) identifies Urban Land and Beaches as the only two coverage types found within the Town. The NRCS describes Urban Lands as areas that are more than 70% covered by buildings, streets, sidewalks and other structures so the natural soil is not readily accessible. The NRCS describes beaches as nearly level to sloping, narrow, sandy strips along the Atlantic Ocean of fine to coarse sand mixed with shell fragments.

Soil Erosion

The entire length of ocean shoreline along the barrier island the Town is located on is recognized as 'Critically Eroded' by the Florida Department of Environmental Protection's Bureau of Beaches and Coastal Systems and is part of a long term beach renourishment program. The Bureau defines critically eroded as a segment of the shoreline where natural processes or human activity have caused or contributed to erosion and recession of the beach or dune system to such a degree that upland development, recreational interests, wildlife habitat, or important cultural resources are threatened or lost. Critically eroded areas may also include peripheral segments or gaps between identified critically eroded areas which, although they may be stable or slightly erosional now, their inclusion is necessary for continuity of management of the coastal system or for the design integrity of adjacent beach management projects.

The entirety of the Town's bayside shoreline, inclusive of Indian Creek and Point Lake is bulkheaded, and the remainder of the Town is developed and does not experience erosion problems.

Commercially Valuable Minerals

There are no extractable, commercially valuable minerals in the Town.

Development and Redevelopment on Flood Prone Areas

Map FLU 4 FEMA Flood Zones locates the flood zones within the Town. Nearly the entirety of the Town is an AE zone; this zone falls generally west of Collins Avenue. The X zone falls generally east of Collins Avenue; the VE zone is located in a narrow strip along the beach; and the X-500 is represented as a narrow strip located along the north end of Collins Avenue and also along the beach. Existing land uses found within these flood zones are illustrated in the Future Land Use map and described in the Future Land Use Element.

Topography

Map FLU 3 Topography, identifies the topography of the Town. The Town is nearly flat with elevations ranging only from 0 to 10 feet. The vast majority of the Town has an elevation of 5 feet or less. The lowest elevation is found along the oceanfront coastline. The highest elevation is a narrow linear strip that runs approximately along Collins Avenue.

Hazard Mitigation

Within the Town there is the potential for impacts from lightning, floods, tornadoes and tropical storms, but the most significant natural disaster threat the Town needs to plan for is the event of a hurricane. Records indicate that the Town has been brushed by or hit by a tropical storm or a hurricane 73 times in a 143 year period ending in 2016.

During a hurricane evacuation, a significant number of vehicles will have to be moved across the local and regional road network. There are limited route choices, *Map CST 1 Evacuation Routes* identifies the designated evacuation route for the Town. There are no emergency shelters located within the Town. The Miami-Dade County Office of Emergency Management has identified the Town and the entire barrier island as a Zone B evacuation area. The Town has developed a Comprehensive Emergency Management Plan (CEMP).

Future Land Use Element Goals, Objectives and Policies

Goal 1: Ensure that the character and location of future land uses provides high economic and quality of life benefits to the Town's residents and business people while preserving the Town's natural resources, residential character and appropriate levels of public services.

Objective 1 – Coordination of land uses with topography and soils: Maintain existing development and achieve new development and redevelopment which is consistent with the goal above and which otherwise coordinates future land uses with the appropriate topography and soil conditions and the availability of facilities and services. This objective shall be measured by implementation of its supporting policies.

Policy 1.1 – The Town shall maintain, improve and strictly enforce provisions which are consistent with the Future Land Use Map, including the land uses and densities and intensities specified thereon and including the following:

Low Density Residential: up to 8 dwelling units per acre and not more than 30 feet in height. Permitted uses are single family residential use and parks and open space.

Moderate Low Density Residential: up to 17 dwelling units per acre and not more than 30 feet in height. The permitted uses are single family, duplex, and multi-family residential uses, public schools, places of public assembly, and parks and open spaces. This category is the buffer between Harding Avenue commercial uses and single family residential uses on west side of Abbott Avenue.

Moderate-High Density Residential: up to 79 residential dwelling units per acre or up to 108 hotel units per acre and not more than 40 feet in height. The permitted uses are single family, duplex, and multi-family residential uses, hotels, public schools, places of public assembly, and parks and open spaces.

High Density Residential/Tourist: up to 109 dwelling or hotel units per acre and not more than 120 feet in height. The permitted uses are single family, duplex, and multi-family residential uses, hotels, public schools, places of public assembly, and parks and open spaces.

Moderate Density Residential/Tourist: up to 58 residential dwelling units per acre or up to 108 hotel units per acre and not more than 40 feet in height. The permitted uses are single family, duplex, and multi-family residential uses, hotels, and parks and open space.

General Retail/Services: up to a floor area ratio of 3.0 and not more than 40 feet in height. The permitted uses are commercial uses (professional, retail, office and related parking).

Public Recreation: up to a floor area ratio of 0.05 and not more than 30 feet in height. The permitted uses are Town-owned public parks and state-owned beachfront east of the erosion control line and immediately adjacent to the Atlantic Ocean.

Private Recreation: up to a floor area ratio of 0.05 and not more than 30 feet in height. The permitted uses are privately owned open space and land between bulkhead and erosion control line (privately owned land).

Public Buildings and Grounds: up to a floor area ratio of 3.0 and not more than 40 feet in height. The permitted uses are Town-owned and publicly-owned land, parks and facilities.

Parking: up to a floor area ratio of 3.0 and not more than 40 feet in height. The permitted use is parking.

Community Facilities: up to a floor area ratio of 3.0 and not more than 70 feet in height. The permitted use is Town-owned facilities for community use.

Policy 1.2 - The Town shall work towards the elimination of existing land uses which are inconsistent with the Town's development pattern and not compatible with the future land uses.

Policy 1.3 – The Town shall continue to utilize the Miami-Dade County Subdivision Regulations and will consider adopting provisions governing subdivisions in the Code of Ordinances. Such provisions shall be consistent with this plan and with the applicable Florida statutory and administrative code guidelines and otherwise conform to the following standards.

Subdivision regulations shall establish rules for platting and subdividing land consistent with the Future Land Use Map and other goals, objectives, and policies of this Comprehensive Plan. They shall establish a plat approval process consisting of preliminary and final plat approval. Final plat approval shall be required prior to construction of subdivision improvements. General and specific design standards shall be included to ensure: 1) appropriate continuity between new streets and existing street; 2) appropriate continuity between new and existing pedestrian accessways; 3) rights-of-way appropriate to traffic carrying characteristics, stormwater management needs, and other pertinent considerations; 4) that access to Collins Avenue and Harding Avenue is controlled and limited; 5) grades, alignments and other design characteristics in accord with the State of Florida *Manual of Uniform Minimum Standards for the Design, Construction and Maintenance of Streets and Highways* plus such additional highway engineering standards as the Town may determine are necessary from time to time; 6) appropriate configuration of blocks and lots; 7) adequate utility easements; 8) installation of certain utilities underground. The enumeration of specific features of the subdivision regulations contained herein shall be interpreted as establishing minimum guidelines for subdivision regulations, not as precluding additional or higher standards which may have a legitimate public purpose.

Policy 1.4 – The Town shall maintain and enhance as necessary zoning code provisions governing signs including size, placement, and design in order to limit visual clutter.

Policy 1.5 – The Town shall maintain and enhance as necessary existing municipal code provisions regulating storm drainage and in particular regulations that govern floodplain protection and water management design standards. Such provisions shall be consistent with this plan, applicable standards promulgated by the South Florida Water Management District, the South Florida Regional Planning Council, the Miami-Dade County Department of Environmental Resource Management, the Florida Department of Environmental Protection, and with the applicable Florida statutory and administrative code guidelines.

Policy 1.6 – The Town shall participate in the Community Rating System of the National Flood Insurance Program. Through its building permit and development review process, the Town shall continue to review projects to determine and require conformance with FEMA’s National Flood Insurance Program’s “50% Rule”.

Policy 1.7 – The Town shall maintain a concurrency management system which meets the requirements of Chapter 163, Florida Statutes. The concurrency management system shall specify that no development permit shall be issued unless the public facilities necessitated by a development (in order to meet level of service standards specified in the Transportation, Recreation and Open Space, Public School Facilities, and Infrastructure Policies) will be in place concurrent with the impacts of the development or the permit is conditional to assure that they will be in place.

Policy 1.8 – The Town shall maintain zoning code standards for new development and/or redevelopment that meet high standards for open space, landscaping, on-site circulation, parking and other performance standards.

Policy 1.9 – The Town shall consider the abundance, status and distribution of environmentally sensitive lands and endangered ecosystems when reviewing land use proposals and acquisitions.

Policy 1.10 – By 2019, the Town shall prepare a study analyzing the use of net density instead of gross density within the Zoning Code.

Policy 1.11 – By 2019, the Town shall prepare a study analyzing the implementation of FAR for residential land use categories.

Objective 2 – Protection of single family residential areas: Direct future growth and development so as to minimize the intrusion of incompatible land uses into single family residential areas. Achievement of this objective shall be quantified by the implementation of the following policies:

Policy 2.1 – The Town shall maintain a future land use map pattern and zoning pattern which keeps two-family and other incompatible uses out of single family residential areas.

Policy 2.2 – The Town shall maintain a future land use map pattern and other development regulations which provide effective buffers between single family residential areas and adjacent uses.

Policy 2.3 – The Town shall maintain a future land use map pattern and a traffic circulation pattern which directs through traffic to Collins Avenue and Harding Avenue (State Road A1A).

Policy 2.4 – The Town shall maintain and enhance zoning code standards that regulate massing and scale in order to maintain the historic character and protect the single family residential district.

Objective 3 – Redevelopment and renewal: Encourage the redevelopment and renewal of blighted areas. The Town shall coordinate public and private resources necessary to initiate needed improvements to prevent decline and/or redevelopment within currently defined redevelopment areas as well as areas that may in the future exhibit indications of blight or decline.

Policy 3.1 – The Town shall maintain, and improve where appropriate, zoning code regulations which permit the concentration of commercial uses in and around the established Harding Avenue business area.

Policy 3.2 – The Town shall maintain, and improve where appropriate, zoning regulations which permit residential complexes which provide a variety of housing unit sizes and types.

Policy 3.3 – The Town shall maintain, and improve where appropriate, zoning regulations which encourage and/or permit the assemblage of large lots at selected locations on Collins Avenue and Harding Avenue.

Policy 3.4 – The Town shall maintain, and improve where appropriate, zoning regulations which require landscape treatments to improve the appearance of at grade parking areas.

Policy 3.5 – The Town shall maintain, and improve where appropriate, zoning regulations which facilitate the use of plazas, recreational amenities, and abundant landscaping and other open space.

Policy 3.6 – The Town shall maintain a future land use map pattern and other development regulations which limit new tourist facilities to properties in the Moderate Density Residential/Tourist, Moderate-High Residential, and High Density Residential/Tourist land use categories.

Policy 3.7 – The Town shall adopt, maintain, and improve where appropriate, zoning code regulations which help secure a high quality of environment, regarding livability, visual interest, identity and sense of place by implementing the recommendations as presented in the Town's adopted Design Guidelines.

Objective 4 – Elimination or reduction of uses which are inconsistent with community character: In general, encourage the elimination or reduction of uses which are inconsistent with the community's character and future land uses. In particular, achieve the elimination of all inconsistent land uses. This objective shall be measured by implementation of its supporting policies. ~~{9J-5.006(3)(b)3}~~

Policy 4.1 – Inconsistent uses as referred to in Policy 1.3 are hereby defined as any uses which are located on a site where they would not be permitted by this comprehensive plan.

Policy 4.2 – The Town shall maintain and improve land development regulations which protect the rights of property owners to continue non-conforming uses, but which, at a minimum, provide for the termination of such rights upon the abandonment of a non-conforming use for an extended period of time. Land development regulations which require the elimination of non-conforming uses after a period of amortization shall be consistent with this policy and this comprehensive plan in general.

Objective 5 – Ensure protection of natural resources: In general, ensure protection of natural resources. In particular, ensure that stormwater systems which discharge into surface water bodies do not degrade the ambient water quality, particularly the Biscayne Bay Aquatic Preserve.

Policy 5.1–The Town shall monitor the Town's storm drainage system to determine what additional actions may be necessary to improve the storm drainage system.

Policy 5.2 – The Town shall maintain and enforce a storm water management ordinance which requires that future development provide for onsite-storm water retention.. The enacted provisions shall be consistent with applicable standards promulgated by the South Florida Water Management District, the South Florida Regional Planning Council, the Miami-Dade County Department of Environmental Resource Management, the Florida Department of Environmental Protection, and/or other agencies with relevant jurisdiction and/or information.

Policy 5.3 – The Town shall prohibit the deposit of solid waste or industrial waste including spent oils, gasoline by-products or greases accumulated at garages, filling stations and similar establishments that create a health or environmental hazard upon any vacant, occupied or unoccupied premises, parkway or park, and in any canal or waterway within the Town

Policy 5.4 – The Town shall cooperate with the Florida Department of Environmental Protection to provide effective and timely reviews of local development proposals for sites east of Collins Avenue, particularly with respect to the requirements of the State Coastal Construction Line.

Policy 5.5 – No new point source discharge of stormwaters into coastal waters shall be permitted.

Policy 5.6 – The Town shall seek the acquisition of property to provide increased permeable surface and other opportunities to control run-off into surface waters including coastal waters so as to protect aquatic vegetation. All publicly-owned property shall be graded and otherwise improved to ensure maximum protection of surface waters.

Policy 5.7 – Consistent with public health and safety, sanitary sewer, solid waste, drainage, adequate water supplies, and potable water facilities shall be in place and available to serve new development no later than the issuance of a certificate of occupancy. Prior to approval of a building permit, the Town shall consult with the water supplier to determine whether adequate water supplies to serve the new development will be available no later than the anticipated date of issuance of a certificate of occupancy.

Policy 5.8 – Proposed future land use map amendments shall be supported with data and analysis from the adopted Town of Surfside 15-Year Water Supply Facilities Work Plan demonstrating that adequate water supplies and associated public facilities will be available to meet the projected growth demands.

Policy 5.9 – The Town shall ensure coordination between land use and future water supply planning with the adoption and implementation of the Surfside 15-Year Water Supply Facilities Work Plan within 18 months of the adoption of the Lower East Coast Water Supply Plan, or its update, as required by Chapter 163, Florida Statutes.

Policy 5.10 – The Town shall coordinate land uses and future land use changes with available and projected fiscal resources and a financially feasible schedule of capital improvements for water supply and facility projects.

Policy 5.11 – The Town shall adopt level of service standards to evaluate whether adequate potable water service will be available concurrent with development.

Policy 5.12 – Ensure the adopted Town of Surfside 15-Year Water Supply Facilities Work Plan is consistent with the Lower East Coast Water Supply Plan and the Miami-Dade County 20-Year Water Supply Facilities Work Plan.

Policy 5.13 – The Town shall adopt by reference the 15-Year Water Supply Facilities Work Plan containing projects and an implementation schedule. The Work Plan shall be updated, at a minimum, every five years.

Policy 5.14 – The Town shall provide for the protection of water quality in the traditional and new alternative water supply sources.

Policy 5.15 – No development order shall be issued unless the Miami-Dade Water and Sewer Department (WASD) certifies that adequate potable water supply is available for new development. The Town shall provide monthly reports to WASD, as required, to track the amount of water to be allocated for new uses.

Policy 5.16 – WASD shall determine if adequate potable water supply is available for new development within the Town’s service area.

Objective 6 – Protection of historic resources: The Town shall provide protection of historic resources. In particular, identify and conserve local structures and sites which are of historic significance.

Policy 6.1 – The Town shall provide for appropriate use and protection of known historic structures through the site plan review process.

Policy 6.2 – Prior to commencing any public construction or issuing any permits for private construction, not to include minor construction such as resurfacing of an existing street, construction of a residential fence and/or any other such improvement which will not disturb the archeological assets which lie well below the surface of these areas, within the areas identified as the Surfside Midden and the Surfside Mound, the Town shall notify Miami-Dade County's Historic Preservation Division.

Policy 6.3 – The Town shall coordinate historic resource protection activities, procedures and programs with applicable state and federal laws, policies and guidelines.

Objective 7 – Coordination of population with hurricane evacuation plans: Coordinate population densities with the applicable local or regional coastal evacuation plan and coordinate future land uses by encouraging the elimination or reduction of land uses which are inconsistent with applicable interagency hazard mitigation report recommendations. This objective shall be measured by implementation of its supporting policies.

Policy 7.1 – The Town Manager or designee shall annually assess the Town's existing and permitted population densities to determine if changes are significant enough to transmit such data to the Miami-Dade County Department of Emergency Management and Homeland Security to assist in their hurricane evacuation planning.

Policy 7.2 – The Town shall regulate all future development within its jurisdiction in accordance with the goals and objectives of the “The Local Mitigation Strategy for Miami-Dade County and its Municipalities, Departments and Private Sector Partners” (June 2008). The Town shall periodically review and revise the Future Land Use Map in light of future interagency hazard mitigation reports in order to reduce or eliminate uses which are inconsistent therewith.

Policy 7.3 – Enhance the efforts of the Miami-Dade County Department of Emergency Management and Homeland Security by providing it with all relevant information.

Objective 8 – Discourage the proliferation of urban sprawl: The Town shall consider changes to the future land use plan based upon energy-efficient land use patterns and discourage the proliferation of urban sprawl. This objective shall be measured by implementation of its supporting policy.

Policy 8.1 – The Town shall support and preserve the Town’s Future Land Use Map and existing land use pattern which provides for a walkable, compact layout of accessible shopping, entertainment, recreation, and employment opportunities for Town residents

Policy 8.2 – The Town shall support and preserve the Town’s existing diverse housing stock which includes both single family and multi-family housing options.

Policy 8.3 – The Town shall continue to allow home based businesses to the extent that impacts are compatible with a residential community.

Policy 8.4 – The Town shall ensure the comprehensive plan and zoning code do not prevent the construction of electric substations within the Town.

Policy 8.5 – The zoning code shall allow for use of alternate, renewable sources of energy including the use of solar panels.

Objective 9 – Drainage and sewer system land needs: Ensure the availability of suitable land for drainage and sanitary sewer system facilities needed to support planned infrastructure improvements. This objective shall be measured by implementation of its supporting policies.

Policy 9.1 – The Town shall maintain and improve code of ordinance provisions for sewer lift stations, stormwater lift stations and collection/infiltration mechanisms and other utility land requirements.

Policy 9.2 – The Town shall not vacate any road right-of-way without first obtaining an engineering opinion determining that the vacated right-of-way is not necessary to accommodate future storm and/or sanitary sewer facilities, all of which are expected to be needed in the future can be accommodated in such rights-of-way.

Objective 10 – Innovative development regulations: Encourage the use of innovative land development regulations. This objective shall be measured by implementation of its supporting policy.

Policy 10.1 – Through its building permit and development review process, the Town shall encourage residents and developers to adhere to the design recommendations as set forth in the Town’s adopted design guidelines.

Policy 10.2 – As necessary, the Town shall review the zoning code’s current permitted uses to determine appropriate revisions or new categories.

Policy 10.3 – The Town shall utilize Best Practices planning research to review and modify zoning code regulations.

Policy 10.4 – The Town shall continue to monitor updates to sea level rise forecasts and take into consideration the most current data when making decisions regarding land use amendments, capital improvements, infrastructure or critical public facilities projects.

Policy 10.5 – The Town shall maintain land development regulations requiring the use of Crime Prevention through Environmental Design.

Policy 10.6 – The Town shall maintain land development regulations that allow reasonable relief from the Town land development regulations or the use restrictions of this Comprehensive Plan in order to address possible unintended violations of the Religious Land Use and Institutionalized Persons Act of 2000 or the Florida Religious Freedom Restoration Act of 1998. For the purpose of allowing such relief, the land development regulations shall provide that religious land uses may be permitted in the areas of the Town as depicted on Map FLU-8 of this Comprehensive Plan.

Objective 11 – Greenhouse gas reduction strategies: The Town shall implement greenhouse gas reduction strategies.

Policy 11.1 – In accordance with Section 255.2575, F.S. the Town will construct all future municipal buildings to meet the United States Green Building Council (USGBC) Leadership in Energy and Environmental Design (LEED) rating system, the Green Building Initiative’s Green Globes rating system, the Florida Green Building Coalition standards, or a nationally recognized, high-performance green building rating system as approved by the Florida Department of Management Services.

Policy 11.2 – The Town shall maintain and improve adopted Design Guideline provisions which encourage the use of the United States Green Building Council (USGBC) Leadership in Energy and Environmental Design (LEED) rating system, the Green Building Initiative’s Green Globes rating system, the Florida Green Building Coalition standards, or a nationally recognized, high-performance green building rating system for both residential and commercial properties. Within two (2) years of adoption of this element, the Town shall explore incentives for use of green building standards in new development and redevelopment.

Policy 11.3 – Continue to investigate the financial feasibility of conducting a “Pedestrian and Bicycle Network Study” to evaluate the cost, funding techniques and sources, and timeline to create a pedestrian and bicycle network that links the Town’s parks, recreational and natural amenities, and business district.

Policy 11.4 – Continue to support and provide bicycle parking facilities at strategic beach access points and at public parks.

Policy 11.5 – The Town shall continue to support transit ready commercial and multi-family development along major transportation corridors.

Policy 11.6 – The Town shall continue to support the existing Miami-Dade County Transit bus routes that service the Town.

Policy 11.7 – The Town shall continue to participate in Miami-Dade County’s curbside recycling program.

Objective 12 - Increase Community resiliency: The Town shall increase community resiliency through land use and built environment decisions.

Policy 12.1 - The Town of Surfside shall encourage greener, more energy-efficient and climate resilient construction practices by:

- a) requiring that the construction or renovation of Town-owned facilities meets Florida Green Building Coalition, US Green Building Council Leadership in Energy and Environmental Design (LEED), or other acceptable commercial building standards;
- b) encouraging commercial builders to require that the construction or renovation of commercial facilities meets Florida Green Building Coalition, US Green Building Council Leadership in Energy and Environmental Design (LEED), or other acceptable commercial building standards;
- c) encouraging licensed Town personnel to maintain LEED Green Associate certification;
- d) re-evaluating finish floor elevation standards with respect to projected sea level rise scenarios and flooding potential, and;
- e) incorporating building design specifications that increase resistance to more frequent and/or intense storm events.
- f) requiring development activities be consistent with, or more stringent than, the flood-resistant construction requirements in the Florida Building Code and applicable Floodplain Management regulations set forth in 44 C.F.R. Part 60.

Policy 12.2 - The Town, shall review and evaluate by 2020 the zoning code according to sustainable community development practices, such as those outlined in the criteria recommended by the United States Green Building Council's Leadership in Energy and Environmental Design for Neighborhood Development (LEED-ND) certification, Smart Growth Principals, the Urban Land Institute, or by application of a national rating system for local governments, such as the STAR Community Index TM (STAR) and make recommendations on feasible revisions for incorporating increased sustainability.

Policy 12.3 - An integral part of the Town planning processes shall be considerations for adapting the built environment to the impacts of sea level rise including resource management, flood control and stormwater management, coastal management, community development and capital planning. Adaptation strategy options may include but are not limited to: protection; accommodation; managed retreat; avoidance, and/or; other options.

Objective 13 – Resiliency and sea level rise: Increase opportunities for the community to learn about and participate in decision-making processes regarding resiliency and sea level rise.

Policy 13.1 - The Town of Surfside shall provide information to the public and community stakeholders about the current and potential impacts of climate change and sea level rise, as well as mitigation, protection, accommodation and adaptation strategies.

Policy 13.2 - The Town of Surfside shall continue to support public education and outreach programs addressing issues including but not limited to: energy efficiency; water conservation; solid waste reduction and recycling; urban forests; native landscaping; air quality, greenhouse gas reduction, and climate change adaptation and response planning.



Surfside Comprehensive Plan

Map: FLU 1
Existing Land Use

Legend

- Surfside City Limits
- Adjacent City Limits
- Existing Land Use**
- Beach Area
- Community Facilities
- General Retail/Services
- Multi Family Residential
- Parking
- Private Recreation
- Right of Way
- Single Family Residential
- Vacant
- Water



0 240 480 960 Feet

Print: 6-6-2017

Source: Miami Dade
GIS Self Services

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Geographic Information Systems Services







Surfside Comprehensive Plan

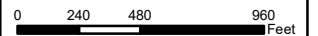
Map: FLU 2
Soils

Legend

-  Surfside City Limits
-  Adjacent City Limits

Soils

-  Beaches
-  St. Augustine sand
-  Urban land
-  Water
-  Waters of Atlantic Ocean



Print: 6-6-2017

Source: United States
Department of
Agriculture



Produced and maintained by the CGA
Geographic Information Systems Services






Surfside Comprehensive Plan

Map: FLU 3

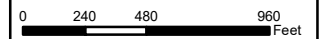
Topography

Legend

-  Surfside City Limits
-  Adjacent City Limits
-  Water

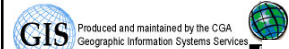
Contours

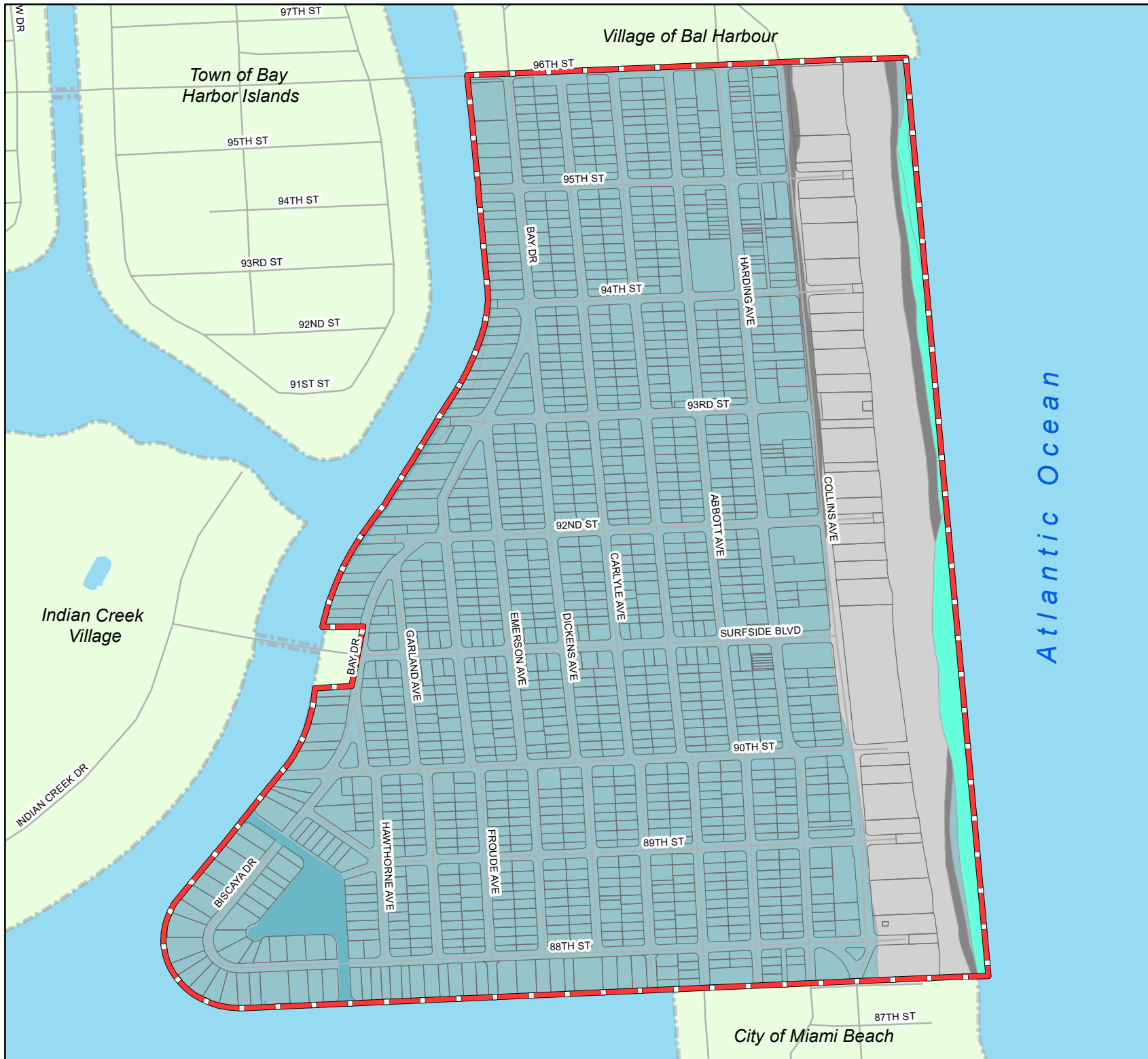
-  5
-  10
-  15



Print: 6-6-2017

Source: Miami Dade
GIS Self Services





Surfside Comprehensive Plan

Map: FLU 4
Flood Zones

Legend

Surfside City Limits

Adjacent City Limits

Water

Flood Zones

AE

Base Flood Elevations determined

VE

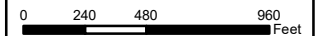
Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined

X

Areas determined to be outside the 0.2% annual chance floodplain

X (SHADED)

Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood



Print: 6-6-2017

Source: Florida Emergency Management Agency





Produced and maintained by the CGA
Geographic Information Systems Services



Surfside Comprehensive Plan

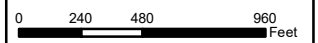
Map: FLU 5
Water Bodies

Legend

-  Surfside City Limits
-  Adjacent City Limits

Water Bodies

-  Atlantic Ocean
-  Intercoastal
-  Point Lake



Print: 6-6-2017

Source: Miami Dade GIS Services



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Surfside Comprehensive Plan

Map: FLU 6

Aerial Map

Legend

 SurfsideCityLimits




0 230 460 920 Feet

Print: 6-6-2017

Source: ArcGIS Services

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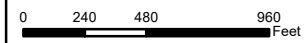
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Geographic Information Systems Services

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



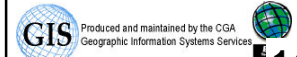
Surfside Comprehensive Plan
Future Land Use Element
Future Land Use (2036)

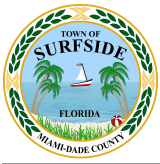
- Legend**
- Surfside City Limits
 - Adjacent City Limits
 - Future Land Use**
 - Community Facility
 - General Retail/Services
 - High Density Residential/Tourist
 - Low Density Residential
 - Moderate Density Residential/Tourist
 - Moderate High Density Residential
 - Moderate Low Density Residential
 - Parking
 - Private Recreation
 - Public Buildings and Grounds
 - Public Recreation



Print: 3-27-2017

Source: Miami Dade GIS Self Services





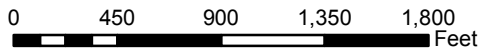
Religious Land Use Relief Procedures



Note: The Charter for the Town of Surfside defines the eastern Town boundary as the low water line of the Atlantic Ocean, which is a non-locatable line. Therefore, based on conditions of tide, erosion or accretion the eastern boundary may shift.

Legend

- Surfside Boundary
- Surfside Streets
- Beach Area
- Allowable Area for Application of Religious Land Use Relief Procedures



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Map Number: FLU 8

Print Date: May 2013

Produced and maintained by the CGA
Geographic Information Systems Services

Map ID: TS-13-01

TRANSPORTATION ELEMENT

DATA INVENTORY AND ANALYSIS

PURPOSE

A local government which has all or part of its jurisdiction included within the urban area of a Metropolitan Planning Organization (MPO) pursuant to Section 339.175, F.S., shall prepare and adopt a transportation element consistent with the provisions of this Rule and Chapter 163.3177(6)(b) F.S. Within a designated MPO area, the transportation elements of the local plans shall be coordinated with the long range transportation plan of the MPO. The purpose of the transportation element shall be to plan for a multimodal transportation system that places emphasis on public transportation systems.

TRANSPORTATION PLANNING AREA

Surfside is located within the Beach/Central Business District (CBD) Transportation Planning Area defined by the Miami-Dade's Transportation Planning Organization (TPO). The Beach/CBD Transportation Planning Area has unique characteristics due to the presence of various islands and causeways. The Town of Surfside falls under Miami-Dade County's designated Transportation Concurrency Exception Areas (TCEA). A TCEA is a compact geographic area designated to support the urban infill and redevelopment to circumvent the adverse impacts of concurrency requirements. The Miami-Dade County MPO projects a 16% increase in population in the Beach/CBD Planning Area; but since the Town is almost 100% developed, not much change is expected, and the anticipated future growth will be mostly redevelopment.

As part of the TCEA, the Level of Service for major state roadways in Surfside is LOS E+20, meaning that where mass transit service having headways of 20 minutes or less is provided within a ½-mile distance, roadways shall operate at no greater than 120 percent of their capacity.

EXISTING TRANSPORTATION SYSTEM

The Town is responsible for maintaining the local network program. The Town's street system is configured in a grid with most blocks 250-feet wide and 660-feet long. Surfside has two state arterials, five collectors, and fifteen local roads. The regional road network is under the State of Florida's jurisdiction. Collins Avenue and Harding Avenue are the major north-south corridors through the Town, while 96th Street is the main east-west roadway.

State Roadways

State arterial roadways include Collins Avenue, Harding Avenue and 96th Street which are all functioning at level of service standard 'D' and therefore are meeting level of service standards. Because of the compact nature of the Town, these roadways are within a ½-mile of mass transit. There are no FIHS or SIS facilities within the Town of Surfside.

SR A1A/Collins Avenue

SR A1A/Collins Avenue is a major principal arterial which runs parallel to Harding Avenue. The three-lane facility serves only northbound traffic.

SR A1A/Harding Avenue

SR A1A/Harding Avenue is a major principal arterial which runs parallel to Collins Avenue. The three-lane facility serves only southbound traffic.

SR 922/96th Street

SR 922/96th Street is a minor principal arterial and runs east-west. SR-922/96th Street connects Surfside with Bay Harbor Islands and Bal Harbour.

Primary Local Roads

The collectors are 88th Street, Bay Drive, Dickens Avenue, and Byron Avenue south of 88th Street. The major local roads are 91st Street/ Surfside Boulevard, Abbott Avenue, 95th Street, 94th Street, and 93rd Street. 91st Street/Surfside Boulevard is the only gateway to Indian Creek. A two-lane bridge on the south connects Biscaya Island to the rest of the Town.

Existing Roadway Level of Service

The following table 2-1 shows the existing level of service for the state arterial roadways in Surfside.

Table 2-1 Roadway Existing Level of Service

Roadway Name	Location		Classification	Adopted Level of Service	Lanes	Adopted LOS E+20 Capacity	Pk Hr Pk Dir Volumes 2015	Existing Level of Service 2015
	From	To						
SR-922/96th Street	Harding Ave	West of Harding Ave	State Minor Arterial	E+20	2 lanes in each direction	1,992	1,290	D
SR-A1A/Collins Avenue	87th Avenue	SR-922/96th Street	State Major Arterial	E+20	3 lanes-one way	2,988	2,205	D
SR-A1A/Harding Avenue	88th Avenue	SR-922/96th Street	State Major Arterial	E+20	3 lanes-one way	2,988	2,326	D
Note:								
1) The peak hour peak direction volume are directly taken from the <i>FDOT Traffic Information DVD 2015</i> .								
2) The adopted level of service standard thresholds are based on the <i>FDOT Generalized Table 4-7 for Peak Hour Directional Volumes</i> .								

Future Short Term Level of Service

As shown in Table 2-3, the state roadways within Surfside shall maintain their levels of service through 2020.

Table 2-2 Future (2020) Peak Hour Peak Direction Level of Service Analysis

Roadway Name	Location		Classification	Adopted Level of Service	Lanes	Adopted LOS E+20 Capacity	Pk Hr Pk Dir Volumes 2015	Existing Level of Service 2015
	From	To						
SR-922/96th Street	Harding Ave	West of Harding Ave	State Minor Arterial	E+20	2 lanes in each direction	1,992	1,316	D
SR-A1A/Collins Avenue	87th Avenue	SR-922/96th Street	State Major Arterial	E+20	3 lanes-one way	2,988	2,249	D
SR-A1A/Harding Avenue	88th Avenue	SR-922/96th Street	State Major Arterial	E+20	3 lanes-one way	2,988	2,373	D
Note:								
1) The peak hour peak direction volume are directly taken from the <i>FDOT Traffic Information DVD 2015</i> .								
2) The adopted level of service standard thresholds are based on the <i>FDOT Generalized Table 4-7 for Peak Hour Directional Volumes</i> .								

Future Long Range Level of Service

As shown in Table 2-2, the state roadways within Surfside shall maintain their levels of service through 2040.

Table 2-3 Future (2040) Peak Hour Peak Direction Level of Service Analysis

Roadway Name	Location		Classification	Adopted Level of Service	Lanes	Adopted LOS E+20 Capacity	2040 Daily Volumes	K	D	Pk Hr Pk Dir Volumes 2040	Future Level of Service 2040
	From	To									
SR-922/96th Street	Harding Ave	West of Harding Ave	State Minor Arterial	E+20	2 lanes in each direction	1,992	36,220	0.095	0.5500	1,811	D
SR-A1A/Collins Avenue	87th Avenue	SR-922/96th Street	State Major Arterial	E+20	3 lanes-one way	2,988	28,691	0.095	-	2,869	D
SR-A1A/Harding Avenue	88th Avenue	SR-922/96th Street	State Major Arterial	E+20	3 lanes-one way	2,988	28,391	0.095	-	2,839	D

Note:

- 1) The bi-directional volumes are directly taken from the *Miami Dade County MPO 2040 Long Range Transportation Plan (LRTP)*.
- 2) The adopted level of service standards are based on the *FDOT Generalized Table 4-7 for Peak Hour Directional Volumes*.
- 3) The peak hour factor (K) and directional factor (D) are directly taken from the *FDOT Quality/Level of Service Handbook*.

Capital Improvement Projects

Currently, the only roadway capital improvements planned in Surfside are a bridge rehabilitation project, multimodal trail project and transit improvement project along Collins Avenue that does not affect level of service.

Table 2-4 FDOT Five Year Work Plan (FY17-FY21)

FDOT Projects							
Project Name	Location	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Total
Indian Creek Bridge #876100 PD&E	91 st Street/ Surfside					\$1,515,001	\$1,515,001
Total Cost of FDOT Projects						\$1,515,001	\$1,515,001

Source: FY2018-2023 FDOT Work Program

Miami Dade Transportation Planning Organization - Transportation Improvement Projects							
Project Name	Location	FY 2017	FY 2018	FY 2019	FY 2020	FY 2031-2040	Total
Collins Avenue Enhanced Bus	Collins Avenue					\$54,210,000	
Atlantic Trail	North of Miami Beach					\$ 4,082,000	
Total Cost of Miami-Dade MPO Projects						\$58,292,000	

Neighborhood Traffic

The Town of Surfside is currently facing the challenges of fast growth in the South Florida area. The Town of Surfside was not designed and built to accommodate high speed and high volume traffic. As a result, the Town is experiencing high speed cut-through traffic on the Town’s local streets in an attempt to avoid the congested arterials. The Town is striving to provide excellent quality of living for its residents and visitors, while maintaining the character of the Town. Some traffic calming has been used to address

the issues of speeding and cut-through traffic problems. The Town conducted a series of public input meetings to identify the existing problems and solutions to achieve the Town’s vision. The Town of Surfside had a Townwide Traffic Study completed in December of 2012 that evaluated the neighborhood traffic intrusion and recommended a list of traffic mitigation improvements on the local road network.

Bicycle and Pedestrian Ways

There are sidewalks on Collins Avenue, Harding Drive, and parts of Abbot Avenue. Map TRN-5 shows the existing and future sidewalks. No new sidewalks or bike paths are planned.

Transit

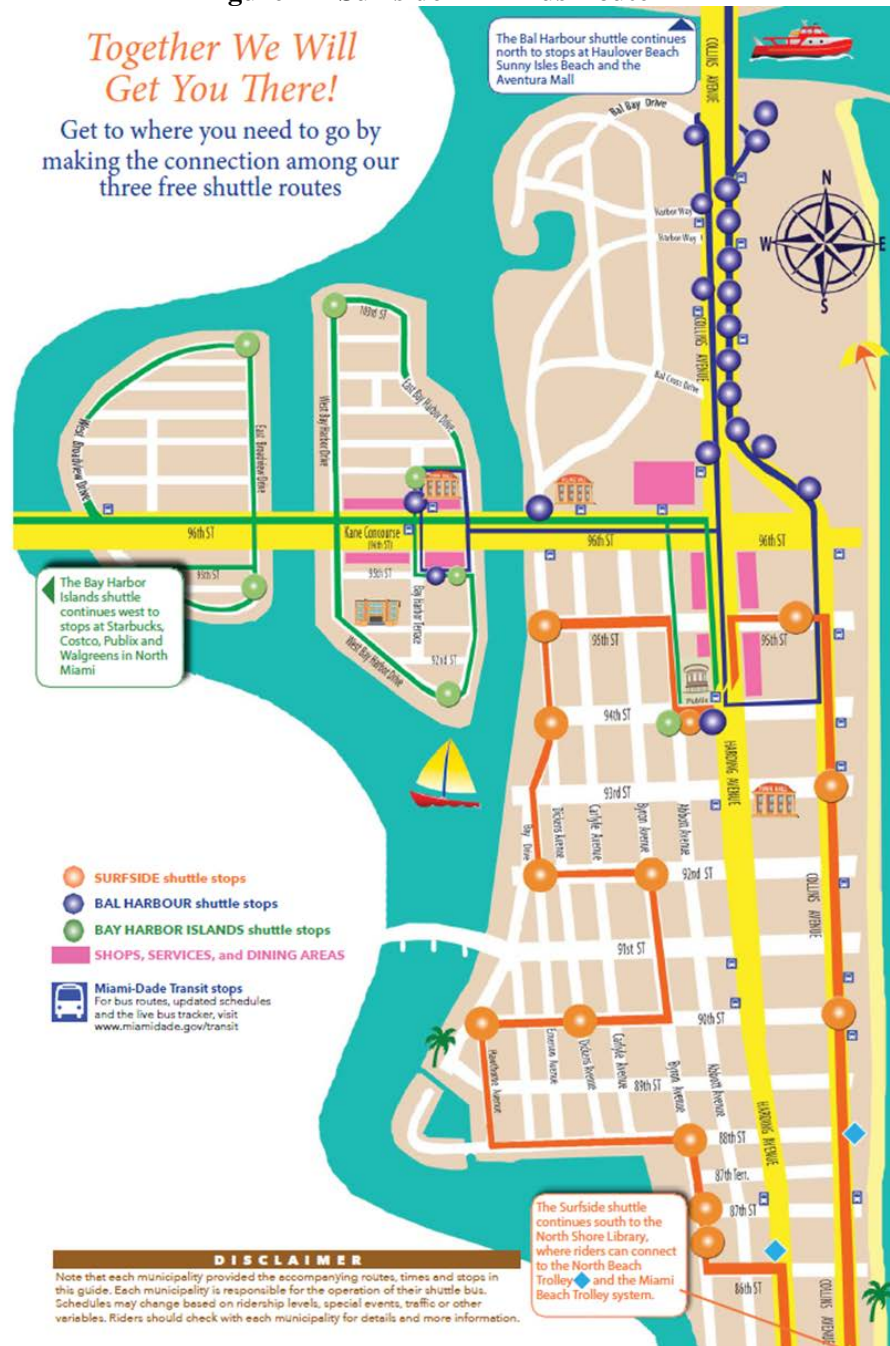
PUBLIC TRANSPORTATION SYSTEM

Six bus routes from Miami-Dade Transit travel through the Town, most of which run along Collins Avenue. The following are the route numbers, service areas and features.

Route	Service Areas	Features
E	Golden Glades Park & Ride Lot, Jackson North, The Mall at 163rd Street, City of North Miami Beach, Eastern Shores, Winston Towers, Aventura Mall, Turnberry Isle, Diplomat Mall/Hallandale	Wheelchair Bike
G	NW 27 Avenue/163 Street, Bunche Park, Opa-locka, Bal Harbour, Collins Avenue, City of Miami Beach, Lincoln Road, Convention Center Drive	Wheelchair Bike
H	North Miami Beach, Skylake Mall, The Mall at 163rd Street, Sunny Isles Boulevard, Bal Harbour, Bal Harbour Shops, City of Miami Beach, Collins Avenue, Lincoln Road Mall, South Beach, Rebecca Towers	Wheelchair
S	Downtown (Miami) Bus Terminal, Main Library, Historical Museum, Miami Art Museum, Government Center Metrorail Station, Omni Bus Terminal, MacArthur Causeway, City of Miami Beach, South Beach, Lincoln Road, Collins Avenue, 192 Street Causeway, Aventura, Aventura Mall	Wheelchair
120 Beach MAX	Downtown (Miami) Bus Terminal, Main Library, Historical Museum, Miami Art Museum, Government Center Metrorail Station, Miami-Dade College Wolfson Campus, Omni Bus Terminal, Julia Tuttle Causeway, City of Miami Beach, Collins Avenue, Surfside, Bal Harbour, Haulover Park Marina	Wheelchair Bike Metrorail
Mid-North Beach Connection	Harding/88 St., Alton Road, Sheridan Avenue, Lincoln/Washington, Mt. Sinai Medical Center, 17 St./Washington Ave.	Wheelchair Bike

Additionally, the Town has its own bus system which complements the Miami-Dade County Transit system. The Town’s mini-buses circulate between the business district and residential areas.

Figure 2-1 Surfside Mini-Bus Route



Source: Town of Surfside (<http://www.townofsurfsidefl.gov>)

FUTURE TRANSIT

The MPO Long Range Transportation Plan (2040) indicates that premium transit is planned for A1A from 81st Street to the Broward County line. However, at this time it is a Priority IV unfunded project and therefore, because of the uncertainty of implementation, the route has not been added to the Existing and Future (2040) Transit map.

EXISTING MODAL SPLIT AND VEHICLE OCCUPANCY RATES

According to journey-to-work data collected in the 2010 census, single-occupant automobile trips account for approximately 72.7% of all trips to and from work reported by residents in Surfside. Carpools account for approximately 11.6%, public transit for approximately 6.8%, and walking for approximately 3.6% of all trips. Residents working at home total 5.1% of the population. For those commuting by private automobile, including carpooling, average vehicle occupancy for Town residents was 1.14 persons, which is less than the 1.49 reported for Miami-Dade County.

The Southeast Florida Regional Travel Characteristics Study, completed in 2000, reported that the average vehicle occupancy for Miami-Dade County was 1.34 persons per vehicle.

PARKING FACILITIES

The Town conducted a survey of parking facilities within the Town in 2008. The following is an updated estimates of the existing parking facilities in the Town:

Metered Parking - 638 spaces

Non-metered - 31 Spaces

Residential - 1545 Spaces

Private – 217 Spaces

Map FLU 1 Existing Land Uses shows the locations of parking within the Town. Surfside businesses have indicated a desire for more parking. The Town has adopted a Downtown Parking Trust Fund Ordinance in December of 2010. The Town also completed a Parking Structure Feasibility Study in March of 2013 and Parking Solution The Next Step Study in April of 2014.

EVACUATION

Miami-Dade County has identified five hurricane evacuation/storm surge planning zones based upon potential storm surge. The Town of Surfside is located in Zone B, as designated by the Miami-Dade Department of Emergency Management and Homeland Security, with Miami Beach and all islands lying within Biscayne Bay, including Sunny Isles Beach, Bal Harbour, Bay Harbor Islands, Indian Creek Village, Surfside, and North Bay Village. *Map CST-2* shows the evacuation route along 96th Street/Broad Causeway. The Zones are designated based upon the SLOSH model developed by the storm surge group at the National Hurricane Center working with the U.S. Army Corps of Engineers, the U.S. Geological Survey and the Federal Emergency Management Agency in cooperation with state and local offices of emergency management. (Note: SLOSH is an acronym for "Sea Lake and Overland Surge from Hurricanes.")

Miami-Dade Transit will activate specific Emergency Evacuation Bus Pick-Up Sites by zone. These buses will only travel between the Emergency Evacuation Bus Pick-Up Site and the Hurricane Evacuation Center. The Surfside Town Hall is an evacuation pick up site in Zone B. The closest Evacuation Center designated by Miami-Dade County is North Miami Senior High School at 13110 NE 8th Avenue, North Miami, FL. 33161.

EVACUATION TIMES

The Miami-Dade County Comprehensive Emergency Management Plan (CEMP) dated June 2013 provides clearance times for critical evacuation routes. The closest evacuation route is 96th Street/Broad Causeway.

Transportation Element Goals, Objectives and Policies

Goal: Provide a transportation system that meets the needs of the Town of Surfside and the larger community of which Surfside is a part with minimal negative community and environmental impacts on the quality of life for Surfside residents and businesses.

Objective 1 – Multi-Modal transportation system: In general, provide for a safe, convenient, and efficient Multi-Modal transportation system. In particular, achieve acceptable level of service for roads, and a well connected bicycle, pedestrian and transit facility network that promotes alternative modes of transportation. This objective shall be made measurable by its implementing policies.

Policy 1.1 – The Town shall regulate the timing of development to maintain at least the following peak hour Level of Service standards on roadways that lie within its municipal boundaries:

<i>Local roads:</i>	D
<i>Collector roads:</i>	D
<i>State Roadways:</i>	

A Level of Service of LOS E+20 shall be established (where mass transit service having headways of 20 minutes or less is provided within 1/2-mile distance, roadways shall operate at no greater than 120 percent of their capacity.)

Policy 1.2 – The Town shall review all proposed developments and issue development orders only when it finds that a proposed development will not cause roadway levels of service to fall below the above standards or cause further degradation of service if conditions at the time of the review indicate that standards are already below the above standards.

Policy 1.3 – As a condition for development approval, the Town may require that proposed new developments provide roadway improvements necessary to meet the level of service standards established above.

Policy 1.4 – The Town shall utilize State Gas Tax funds and other available funding sources for a roadway repaving and reconstruction program and other transportation activities. Among the items which are specifically authorized and encouraged by this policy are the following: sidewalk repair and replacement; public transportation operations and maintenance; roadway and right-of-way maintenance and equipment; roadway and right-of-way drainage improvements; street lighting, traffic signs, traffic engineering, signalization, and pavement markings; bridge maintenance and operations; and debt service and current expenditures for transportation capital projects in each and all of the foregoing program areas.

Policy 1.5 – The Town shall enact and enforce land development code standards and a review process to control roadway access points, on-site traffic flow and on-site parking. The land development code will require the use of joint access drives for adjacent uses. It will also set minimum design standards for: 1) the spacing and design of driveway curb cuts; 2) the size of ingress and egress lanes for major land uses; 3) the spacing and design of median openings; and 4) the provision of service roads. State highway access management standards will be utilized in developing roadway access point controls, particularly on State Road A1A. The access management controls will be tailored to achieve the ends set forth in Objective 1.

Policy 1.6 – The Town shall seek quick action by Miami-Dade County to replace missing road signs and repair malfunctioning traffic signals.

Policy 1.7 – The Town shall continue a program to trim or remove roadside shrubbery which blocks visibility at intersections.

Policy 1.8 – The Town shall maintain safe, handicapped accessible walkways to the fullest extent possible.

Policy 1.9 The feasibility of developing bike routes shall be determined in all roadway, transit, and park and recreation projects.

Policy 1.10 – On-site circulation and parking requirements shall be designed to ensure safe and efficient traffic circulation, and adequate turning radii and parking spaces. On-site traffic flow and on-site parking standards will be designed to encourage high levels of pedestrian and bicycle use, including requiring bike racks under certain conditions. Pedestrian access-ways will be required through large parking lots to connect building areas to public sidewalks. Bicycle parking racks shall be required for large scale uses. Parking regulations will establish the minimum number of parking spaces which will be required to serve uses; minimums will be based on intensity measures such as building square feet. Parking regulations will establish appropriate minimum parking space dimensions and provide for appropriate traffic circulation. General standards will provide for review of parking lot layout in order to ensure that the layout will be safe.

Policy 1.11 – The Town shall monitor the impact of the Transportation Concurrency Exception Area (TCEA) in coordination with Miami-Dade County and the MPO.

Policy 1.12 – The Town shall evaluate opportunities to improve walkability throughout the Town by separating pedestrians from vehicle traffic. This will include looking at pedestrian connectivity of the Town to key points of interest including street ends that lead to the beach.

Policy 1.13 – The Town shall continue to support transit ready commercial and multi-family development along major transportation corridors.

Policy 1.14 – Continue to investigate the financial feasibility of conducting a “Pedestrian and Bicycle Network Study” to evaluate the cost, funding techniques and sources, and timeline to create a pedestrian and bicycle network that links the Town’s parks, recreational and natural amenities, and business district.

Objective 2 – Coordination of transportation with land use: In general, coordinate the traffic circulation system with land uses shown on the future land use map. This objective shall be made measurable by its implementing policies.

Policy 2.1 – The Town shall approve no alteration in the existing traffic circulation system which materially reduces the continuity and rights-of-way of arterial or collector roadways.

Policy 2.2 – The Town shall consider alterations in traffic flow which serve to reduce non local traffic through residential areas as well as improve alternative modes of transportation including pedestrian, bicycle and transit facilities.

Policy 2.3 – The Town shall evaluate locations of mid-block crossings in order to ensure safe pedestrian movements where necessary. The Town will coordinate with FDOT regarding locations along SR A1A Collins Avenue, SR A1A Haridng Avenue and 96th Street.

Policy 2.4 – Maintain a financially feasible traffic calming program that includes studies of local roadways with significant cut-through traffic and implementation programs.

Policy 2.5 – Ensure roadway signage follows guidelines set forth in the Manual on Uniform Traffic Control Devices (MUTCD).

Policy 2.6 – The Town shall support County and State comprehensive traffic data collection efforts for annually monitoring roadway levels of service and to coordinate concurrency management with the County and FDOT.

Policy 2.7 – The Town shall support the County’s implementation of a transportation demand management (TDM) program to reduce overall peak-hour demand and use of single occupant vehicles (SOV). This program will include such TDM strategies as the following:

- 1) van pooling and employer-based car pooling;
- 2) employer-based staggered and/or flexible work hours;
- 3) parking management;
- 4) telecommunicating;
- 5) congestion pricing;
- 6) park and ride lots;
- 7) high occupancy vehicle lanes;
- 8) trip reduction ordinances;
- 9) transportation management associations (TMA's); and
- 10) subsidies for transit riders.

Policy 2.8- The Town shall support the County’s efforts to improve the operating efficiency of the existing thoroughfare system and reduce peak hour congestion by encouraging the application of low-cost transportation system management techniques including, but not limited to, improved signal timing, pavement marking and signage modifications, channelization, and on-street parking restrictions.

Policy 2.9-The Town shall evaluate neighborhood intersection operations, as financially feasible, to improve the safety of local roadways.

Objective 3 – Intergovernmental Coordination: Coordinate the transportation system with the plans and programs of the Miami-Dade Transportation Planning Organization (TPO), South Florida Regional Transportation Authority, and the Florida Department of Transportation.

Policy 3.1 – The Town staff shall annually review and evaluate the Florida Department of Transportation 5-Year Transportation Plan, the Miami-Dade County Transportation Improvement Program and the traffic circulation plans and programs of Miami Beach Indian Creek Islands, and Bal Harbour to determine if plans and programs contained therein necessitate any revision to this or other elements of this Comprehensive Plan.

Policy 3.2 – Appropriate Town staff shall attend selected meetings of Miami-Dade Transportation Planning Organization and related ad hoc committees pertaining to traffic and transportation issues affecting the Town.

Policy 3.3 – The Town shall revise this Transportation Element as necessary in response to results from Policy 3.1.

Policy 3.4 – The Town shall include statements of findings in support of all modifications to this Transportation Element.

Policy 3.5 - The Town shall coordinate with Miami-Dade County, local governments and regional and state agencies in the implementation of the Transportation Element, through mechanisms such as established by the Miami-Dade County TPO, FDOT Districts 4 and 6, the South Florida Regional Transportation Authority, and the South Florida Regional Planning Council.

Policy 3.6 - The Town will continue to coordinate with Miami-Dade County regarding traffic operational improvements along the 96th Street corridor.

Objective 4 – Coordination with transit authority: In general, coordinate with the plans and programs of the Miami-Dade Transit. This objective shall be made measurable by its implementing policy.

Policy 4.1 – Appropriate Town staff shall attend selected meetings of Miami-Dade Transit pertaining to levels of service for buses and other transit.

Objective 5 – Right-of-way protection: In general, protect existing rights-of-way and future rights-of-way from building encroachment including rights-of-way for mass transit. In particular, achieve zero net loss of right-of-way from building encroachment throughout the period during which this plan is in effect.

Policy 5.1 – The Town shall use the land development code as enacted, the land development code enforcement procedures and the building code enforcement procedures to protect existing rights-of-way through setback requirements which prohibit right-of-way encroachments of any kind. The Town shall evaluate opportunities to obtain easements for sufficient ADA sidewalk infrastructure from new developments or redevelopment projects.

Objective 6 – Adequate Parking: The Town shall help provide an adequate supply of parking to serve the business area and major community facilities. Achievement of this objective shall be quantified by the implementation of the following policy.

Policy 6.1 The Town will continue to administer the Downtown Parking Trust Fund Ordinance adopted in December of 2010. The Town will evaluate recommendations for Parking as outlined in the 2013 Parking Structure Feasibility Study and the 2014 Parking Solution The Next Step.

Objective 7 – Greater use of mass transit: The Town shall encourage greater use of existing mass transit facilities. Achievement of this objective shall be measured by the implementation of the following policies:

Policy 7.1 – The Town shall stay updated regarding bus service demand and notify Miami-Dade Transit of required service changes as necessary.

Policy 7.2 – The Town shall monitor its mini-bus system and accommodate increasing ridership as necessary.

Objective 8 – Provision of transit and coordination of transit planning: In general, provide efficient mass transit and paratransit services based on existing and proposed major trip generators. In particular,

provide the Miami-Dade County transportation planning agencies with ad hoc periodic development reports and other input on the status of any development or redevelopment which could alter the need for bus and paratransit services. This objective shall be made measurable by its implementing policies.

Policy 8.1 – The Town shall prepare a written report to be transmitted to the Transportation Planning Technical Advisory Committee of the Miami-Dade Transportation Planning Organization outlining the locations, characteristics and/or special transit needs that have developed or been identified in the year preceding the annual request for the Transportation Improvement Program Update. This report shall include: 1) estimated new employment by income; 2) estimated new patrons; 3) estimated new residential occupancy. Potential current and future mass transit needs will be suggested.

Policy 8.2 – The Town shall support proposals for increased frequency of bus service on arterial roads as a means to relieve congestion for over capacity transportation facilities during peak hours. Such service should be restricted to arterial and collector roads and should not be provided on local roads because it could be detrimental to residential neighborhoods.

Objective 9 – Coordinate with plans for “transportation disadvantaged people:” On a continual basis and throughout the effective period of this plan, the Town shall coordinate with Miami-Dade County Transit, the Transportation Planning Organization, the Florida Department of Transportation and any public transportation agency offering special services for “transportation disadvantaged people.” This objective shall be made measurable by its implementing policies.

Policy 9.1 – Appropriate Town staff shall attend selected meetings of Miami-Dade Transit, the Transportation Planning Organization, the Florida Department of Transportation and any other public transportation agency offering special services for the disadvantaged.

Policy 9.2 – The Town shall encourage the increased use of wheelchair accessible buses on Town routes.

Policy 9.3 – Continue to provide sidewalks within two blocks of bus stops on arterials when costs permit.



Surfside Comprehensive Plan

Map: TRN 1

Existing and Future Number of Lanes

Legend

- Surfside City Limits
- Adjacent City Limits
- Water

Total Number of Lanes

- 1
- 2
- 3
- 4



0 240 480 960 Feet

Print: 6-7-2017

Source: Florida Department of Transportation (Revised)

Calvin, Giordano & Associates, Inc. EXCEPTIONAL SOLUTIONS

GIS Produced and maintained by the CGA Geographic Information Systems Services




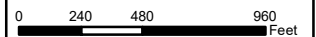
Surfside Comprehensive Plan

Map: TRN 2

Existing and Future Functional Classification

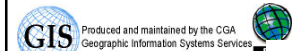
Legend

-  Surfside City Limits
-  Adjacent City Limits
-  Water
- Functional Classification**
-  Collector Road
-  State Major Arterial
-  State Minor Arterial



Print: 6-7-2017

Source: Florida Department of Transportation





Surfside Comprehensive Plan

Map: TRN 3

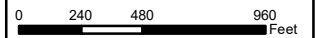
Existing Roadway Level of Service

Legend

- Surfside City Limits
- Adjacent City Limits
- Water

Level of Service

- D



Print: 6-7-2017

Source: Town of Surfside
Miami Dade MPO

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Surfside Comprehensive Plan

Map: TRN 4

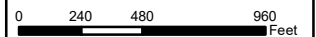
Future Roadway Level of Service (2040)

Legend

- Surfside City Limits
- Adjacent City Limits
- Water

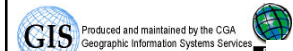
Level of Service

- D



Print: 6-7-2017

Source: Town of Surfside
Miami Dade MPO










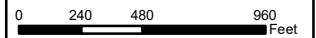
Surfside Comprehensive Plan

Map: TRN 5

Existing and Future Pedestrian Facilities

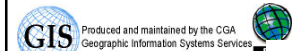
Legend

-  Surfside City Limits
-  Adjacent City Limits
-  Water
- Pedestrian Facilities**
-  Beachwalk
-  Sidewalk



Print: 6-7-2017

Source: Town of Surfside
Miami Dade MPO








Surfside Comprehensive Plan




Map: TRN 6

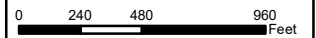
Existing and Future Transit Routes

Legend

-  Surfside City Limits
-  Adjacent City Limits
-  Water

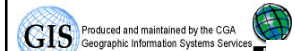
Bus Routes

-  Beach Max, Route's G, H, S
-  City Shuttle
-  Route E, Mid-North Beach Connection



Print: 6-7-2017

Source: Miami Dade County GIS Services





Surfside Comprehensive Plan

Map: TRN 7

Existing and Future Traffic Generators

Legend

- Surfside City Limits
- Adjacent City Limits
- Water
- Traffic Generators**
- Public Recreation
- Business District
- Community Center
- Town Hall



0 240 480 960 Feet

Print: 6-7-2017

Source: Town of Surfside

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GIS Produced and maintained by the CGA
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Surfside Comprehensive Plan

Map: TRN 8

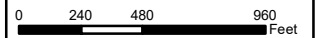
Future Roadway Level of Service (2020)

Legend

-  Surfside City Limits
-  Adjacent City Limits
-  Water

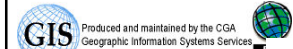
Level of Service

-  D



Print: 6-12-2017

Source: Town of Surfside
Miami Dade MPO



HOUSING ELEMENT

DATA INVENTORY AND ANALYSIS

PURPOSE

The purpose of the Housing Element is to provide guidance for development of appropriate plans and policies to meet identified or projected deficits in the supply of housing for moderate income, low income and very-low income households, group homes, foster care facilities and households with special housing needs. These plans and policies address government activities, as well as provide direction and assistance to the efforts of the private sector.

Assuring the continued provision of affordable housing is an ongoing challenge as the Town is almost completely built out. Moreover, half of the Town is in a coastal high hazard area, and Florida Statutes compel local governments to direct population concentrations away from known coastal high hazard areas and limit public expenditures that subsidize development permitted in these areas. However, the Town of Surfside has made efforts to maintain an affordable housing stock through infrastructure improvements and proactive code compliance which extend the lifespan of the Town and provide for continuance of a quality area.

HOUSING INVENTORY

Information from the U.S. Census Bureau and the Florida Housing Data Clearinghouse (Shimberg Center) has been used to provide many of the following comparative characteristics between Surfside and Miami-Dade County as this is the best available data.

Housing Type: Residential use is a major development characteristic of Surfside. The 4,035 total housing units reported for the Town in 2015 comprised 0.40 percent of the County's total housing stock of 998,833 reported units. As of March 2017, there were 216.26 acres that had an existing land use of residential. This represents approximately 58.7 percent of the Town's total land area of 368.5 acres.

The 2011-2015 American Community Survey (U.S. Census) determined approximately 68 percent (2,691 units) of housing units in Surfside were multi-family (2 or more), while single-family homes made up 32 percent (1,287 units) of the Town's housing stock. The same survey by the Census Bureau identified 57 mobile home units in Surfside. However, there are no mobile homes existing today. Total units and the percentage of housing inventory by type of unit are shown in Table 3-1.

**Table 3-1
Dwelling Units by Structure Type, 2015**

Dwelling Units	Surfside	Surfside	Miami-Dade County	Miami-Dade County
	Number	Percent	Number	Percent
SINGLE FAMILY:	1,287	32%	504,330	50.4%
<i>1, detached</i>	1,236		405,953	
<i>1, attached</i>	51		98,377	
MULTI-FAMILY:	2,691	68%	494,503	49.6%
2	21		20,666	
3 or 4	13		35,242	
5 to 9	20		51,791	
10 to 19	186		67,651	
20 or more	2,451		305,520	
MOBILE HOMES	57	0%	13,144	0%
OTHER	0	0%	489	0%
TOTAL	4,035	100%	998,833	100%

Source: 2011-2015 American Community Survey 5-Year Estimates (U.S. Census)

Housing Tenure: Housing tenure refers to the occupancy of a unit, either owner-occupied or renter-occupied. The 2010 U.S. Census reported 70 percent of households in Surfside were owner-occupied in 2010. (Statewide, Florida’s homeownership rate is 67.7 percent.) The remaining 30 percent were renter-occupied households. Housing tenure characteristics are detailed in Table 3-2.

**Table 3-2
Households by Tenure, 2010**

Tenure	Surfside	Surfside	Miami-Dade County	Miami-Dade County
	# of Households	Percent	# of Households	Percent
Owner Occupied	1,830	70%	483,874	55.6%
Renter Occupied	771	30%	383,478	44.2%
Total Occupied Units	2,609	100%	867,352	100%

Source: 2010 U.S. Census

Housing Vacancy: Table 3-3 shows the housing vacancy characteristics for Surfside and Miami-Dade County as reported in the 2010 Census. At the time of the Census, 1,281 housing units in Surfside were vacant out of 3,890 total units reported. This represents a vacancy rate of 32.9 percent for the Town, which is significantly more than the overall Miami-Dade County rate of 12.3 percent. This high vacancy rate is largely attributed to Surfside’s seasonal residents. If units which had been rented or sold that were awaiting occupancy and units held for occasional/seasonal use were eliminated from this figure, Surfside’s vacancy rate was 4.7 percent as shown in Table 3-3. There were 43 vacant housing units for sale and 140 vacant units for rent.

**Table 3-3
Housing Vacancy, 2010**

Status	Surfside	Surfside	Miami-Dade County	Miami-Dade County
	# of Units	Percent	# of Units	Percent
For rent	140	10.9%	37,848	31.0%
For sale	43	3.4%	16,156	13.2%
Other	105	8.2%	24,425	20.0%
For migrant workers	0	0%	41	0%
Seasonal, recreational, occasional use	962	75.1%	38,302	31.4%
Rented or sold, not occupied	31	2.4%	5,311	4.4%
TOTAL	1,281	100%	122,083	100%

Source: 2010 U.S. Census

Housing Age: The age of housing structures is distributed relatively evenly throughout the past several decades, with units built in the 1990s being the high percentage at 27%. Table 3-4 lists the age of housing structures reported by the U. S. Census Bureau. Approximately 38% of all housing units are over 50 years old. Many of these are in sound condition, others have gone through renovations, and some are being demolished and replaced with new structures. Overall, the older structures are well maintained, demonstrating that the Town has been successful in maintaining adequate housing, thus minimizing any potential of deterioration.

**Table 3-4
Age of Housing Structures**

Year Built	Surfside	Surfside	Miami-Dade County	Miami-Dade County
	# of Units	Share by Decade	# of Units	Share by Decade
2010-2015	7*	0.2%	9,227	0.9%
2000-2009	499	12%	143,228	14.3%
1990-1999	1,071	27%	120,731	12.1%
1980-1989	600	15%	154,249	15.4%
1970-1979	301	7.4%	191,022	19.1%
1960-1969	437	11%	133,681	13.4%
1950-1959	528	13%	148,946	14.9%
1940-1949	463	11.4%	59,113	5.9%
1939 or earlier	136	3%	38,636	3.9%
TOTAL	4,042**	100%	998,833	100%

Source: 2011-2015 American Community Survey 5-Year Estimates (U.S. Census Bureau); *Town of Surfside Building Department; **U.S. Census and Town of Surfside

Monthly Housing Rent: Table 3-5 compares the monthly gross rents for specified renter-occupied housing units in the Town with the Miami-Dade County totals for the year 2015. The median rent paid by Surfside households in 2010 was \$1,897 per month, compared to a countywide median rent of \$1,112, and a statewide median rent of \$1,002. Rents in the Town of Surfside are significantly higher than in the County as a whole. In Miami-Dade County and the surrounding metro area, the HUD Fair Market Rent in 2016, representing rent for a typical modest apartment, was \$774 for a studio apartment, \$975 for a one-bedroom, \$1,250 for a two-bedroom, \$1,671 for a three-bedroom, and \$1,987 for a four-bedroom unit. Municipality-specific information for 2016 is not available.

**Table 3-5
Monthly Gross Rent, Renter-Occupied Housing Units, 2015**

Contract Rent	Surfside	Surfside	Miami-Dade County	Miami-Dade County
	# of Units	Percent	# of Units	Percent
Less than \$500	0	0%	32,247	8.6%
\$500-999	18	2.0%	118,453	31.5%
\$1,000-1,499	146	16.2%	138,105	36.7%
\$1,500-1,999	360	40.0%	57,888	15.4%
\$2,000-2,499	315	35.0%	17,762	4.8%
\$2,500-2,999	18	2.0%	5,571	1.5%
\$3,000 or more	43	14.8%	5,333	1.5%
TOTAL	900	100%	375,359	100%
Median rent per month	\$1,897		\$1,112	

Source: 2011-2015 American Community Survey 5-Year Estimates (U.S. Census)

Housing Value: Based on figures delineated from the Miami-Dade County Property Appraiser, the average just value (fair market value) for a single family home in Surfside in 2016 was \$690,004, which is significantly more than the countywide average (\$335,332). Statewide, the average value of a single family home in Florida in 2016 was \$219,681. Condominiums also had a significantly higher value in Surfside. In 2016, the average value of condominiums in Surfside was \$528,783, compared with the County average condominium value of \$288,271. Table 3-6 shows the value of owner-occupied housing units in the Town as reported by the U.S. Census Bureau.

**Table 3-6
Median Home Value of Owner-Occupied Housing Units, 2015**

Value	Surfside	Surfside
	# of Units	Percent
Less than \$50,000	45	3.5%
\$50,000-99,999	29	2.3%
\$100,000-149,999	40	3.1%
\$150,000-199,999	63	5.0%
\$200,000-299,999	41	3.2%
\$300,000-499,999	382	30.1%
\$500,000-999,999	525	41.3%
\$1,000,000 or more	146	11.5%
TOTAL	1,271	100%

Source: 2011-2015 American Community Survey 5-Year Estimates (U.S. Census)

Median Sales Price: The average sales price for a single family home in Surfside was \$1,028,696 in 2016. The median sales price that year was \$717,250, compared to a countywide and statewide median sales price of \$289,000 and \$212,000 respectively. Table 3-7 charts the median sales price for single family homes and condominiums in Surfside and Miami-Dade County from 2010 through 2016. Sale prices have steadily risen since the 2008 Recession and have now past the 2006 previous high mark.

**Table 3-7
Median Home Sales Prices, 2010-2016**

Year	Single Family		Condominium	
	Surfside	Miami-Dade County	Surfside	Miami-Dade County
2010	\$350,000	\$210,000	\$230,000	\$185,000
2011	\$372,500	\$199,000	\$220,000	\$165,000
2012	\$427,000	\$210,000	\$300,000	\$170,000
2013	\$500,000	\$245,000	\$417,500	\$200,000
2014	\$540,000	\$261,990	\$440,000	\$221,000
2015	\$679,000	\$281,000	\$814,100	\$248,500
2016	\$717,250	\$289,000	\$675,000	\$225,000

Source: Miami-Dade County Property Appraiser tax roles, compiled by Shimberg Center – Florida Housing Data Clearinghouse

Monthly Owner-Occupied Costs: Of the total number of owner-occupied housing units in Surfside, 41.7% (530 units) were mortgaged and 58.3% (741 units) were not mortgaged according to the U.S. Census Bureau in 2015. Table 3-8 shows the monthly owner costs of owner-occupied housing units in the Town in 2015. Over 50% of the Town’s owners with mortgaged units are paying over \$3,000 in monthly cost compared to only 13.2% of owners in Miami-Dade County overall.

**Table 3-8
Monthly Costs of Owner-Occupied Housing Units, 2015**

Mortgage Status and Elected Monthly Costs	Surfside	Surfside	Miami-Dade County	Miami-Dade County
	# of Units	Percent	# of Units	Percent
Mortgaged Units	530	100%	294,099	100%
<i>Less than \$500</i>	0	0.0%	2,887	1.0%
<i>\$500-999</i>	22	4.2%	34,725	11.8%
<i>\$1,000-1,499</i>	53	10.0%	78,273	26.7%
<i>\$1,500-1,999</i>	83	15.7%	73,270	24.9%
<i>\$2,000-2,499</i>	65	12.3%	43,192	14.7%
<i>\$2,500-2,999</i>	41	7.7%	22,705	7.7%
<i>More than \$3,000</i>	266	50.2%	39,047	13.2%
Non-Mortgaged Units	741	100%	158,727	100%
<i>Less than \$250</i>	0	0%	15,378	9.7%
<i>\$250-399</i>	55	7.4%	31,615	19.9%
<i>\$400-599</i>	73	9.9%	39,824	25.1%
<i>\$600-799</i>	84	11.3%	26,386	16.6%
<i>\$800-999</i>	147	19.8%	15,329	9.7%
<i>More than \$1,000</i>	382	51.6%	30,195	19.0%
TOTAL REPORTED UNITS	1,271	100%	452,826	100%

Source: 2011-2015 American Community Survey 5-Year Estimates (U.S. Census)

AFFORDABLE HOUSING NEEDS

Cost Burden: Cost-burdened households pay more than 30 percent of income for rent or mortgage costs. Data for this section has been supplied by the Florida Housing Data Clearinghouse. The data indicates that 1098 households within the Town (42%) paid more than 30% of income for housing compared to 53% of County households paid more than 30% of income for housing. Statewide, 42% of households are considered cost burdened.

**Table 3-9
Amount of Income Paid for Housing
Household by Cost Burden, 2015**

A. Owner-Occupied Households, 2015								
	NO COST BURDEN		COST BURDEN				Total Owners	
	0% - 30%		30% - 50%		50% or more			
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Surfside	1,194	64.5%	236	12.7%	421	22.7%	1,851	100%
Miami-Dade County	288,027	55.0%	111,915	21.2%	126,575	24.0%	526,517	100%
B. Renter-Occupied Households, 2015								
	0% - 30%		30% - 50%		50% or more		Total Renters	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Surfside	323	42.3%	217	28.4%	224	29.3%	764	100%
Miami-Dade County	155,027	37.4%	107,612	26.0%	151,963	36.6%	414,602	100%

Source: Miami-Dade County and Town of Surfside data taken from Shimberg Center – Florida Housing Data Clearinghouse.

Per Table 3-9, Surfside had lower percentages of residents with a housing cost burden than Miami-Dade County. In addition, according to the U.S. Census Bureau, the 2015 median household income in Surfside was almost twice that of Miami-Dade County (\$78,443 compared to \$43,129). Many Surfside residents choose to purchase homes at a higher value, resulting in a self-imposed cost burden, rather than the forced cost burden experienced throughout Miami-Dade County.

Household Income: In Table 3-10, household income is measured as a percentage of the median income for the County or area, adjusted for size. In Surfside and the surrounding metro area, the HUD-estimated median income for a family of four is \$48,100 in 2016. Data for this section has been supplied by the Florida Housing Data Clearinghouse. Of the 2,398 households identified by the U.S. Census Bureau in Surfside in 2015, 478 (20 percent) were both cost-burdened and in the low or very-low income bracket.

Table 3-10
Households by Tenure, Income, and Cost Burden, 2015

Households, 2015			
	Household Income as a Percentage of Area Median Income (AMI)		
	0 – 50% AMI	50.01 – 80% AMI	80.01 +
	Very Low	Low	Moderate +
No Cost Burden	63	82	1,333
At 30% or More Cost Burden	83	51	319
At 50% or More Cost Burden	241	103	123

Source: Florida Housing Data Clearinghouse (Shimberg Center)

Elderly Households: According to the Florida Housing Data Clearinghouse, 985 households in Surfside (37.7 percent) were headed by a person age 65 or older in 2015. In comparison, 29.6 percent of households statewide were headed by elderly persons. In Surfside, 839 of elderly households (85.2 percent) own their homes, while 399 elderly households (40.5 percent) pay more than 30 percent of income for rent or mortgage costs.

HOUSING CONDITIONS

Substandard Housing: Individual housing units may be considered substandard if the unit lacks of complete plumbing for exclusive use of the residents, lack of complete kitchen facilities, lack of central heating, and overcrowding. The U.S. Census Bureau provides data regarding these interior conditions of the housing stock. Table 3-11 contains a summary of the measures of substandard housing conditions for Surfside and Miami-Dade County. In 2015, the American Community Survey 5-Year Estimates indicated that out of 2,220 occupied housing units 160 housing units (7.3 percent of all units) in Surfside were statistically overcrowded, meaning they housed more than one person per room, compared to a countywide percentage of 5.9 percent. Surfside has more homes without heating than average of the county, which may be due to the age of the homes. However, because Surfside is a coastal community in the subtropics, the Town does not consider units without heating a substandard condition. Code enforcement operations have proven effective in ensuring that substandard housing conditions are taken care of in a timely manner.

Table 3-11
Condition of Housing Stock Summary, 2015

Substandard Condition	Surfside	Surfside	Miami-Dade County	Miami-Dade County
	# of Units	Percent	# of Units	Percent
Overcrowded (more than one person per room)	160	7.3%	49,683	5.9%
Lacking complete kitchen facilities	0	0%	5,964	0.7%
Lacking central heating (No Fuel Used)	177	8.0%	41,251	4.9%
Lacking complete plumbing facilities	0	0%	3,107	0.4%

Source: 2011-2015 American Community Survey 5-Year Estimates (U.S. Census)

Subsidized Housing: Chapter 163.3177(f), F.S. requires local housing elements to provide an inventory of renter-occupied housing developments currently using federal, state, or local subsidies. Surfside has no such facilities.

Community Residential Facilities: Chapter 163.3177(f), F.S. requires local housing elements to provide an inventory of group homes licensed by the Florida Department of Children and Family Services. A “community residential home” means a dwelling unit licensed to serve residents who are clients of the Department of Elderly Affairs, the Agency for Persons with Disabilities, the Department of Juvenile Justice, or the Department of Children and Family Services. Surfside has no such facilities.

Mobile Homes: Chapter 163.3177(f), F.S. requires local housing elements to provide an inventory of existing mobile home. Although 57 mobile homes were identified by the U.S.Census Bureau in the 2011-2015 American Community Survey, the Town has neither mobile home parks nor any more mobile homes.

Historically Significant Housing: Chapter 163.3177(f), F.S. requires local housing elements to provide an inventory of historically significant housing listed on the Florida Master Site File, National Register of Historic Places, or designated as historically significant by a local ordinance. The Florida Master Site File, includes 33 records for the Town of Surfside: three (3) archaeological sites; three (3) resource groups; and 27 structures of which seven (7) are no longer in existence. Miami-Dade County Office of Historic Preservation within the Regulatory and Economic Resources Department also identifies historic resources and designates historic properties and districts. The County has designated three (3) properties and one (1) district within the Town of Surfside. The aforementioned County designated historic resources are discussed further in the Future Land Use Element in Table 1-6.

Farmworker Housing: There are no rural or farmworker households within the Town.

NEEDS ASSESSMENT

Population Projections: Chapter 163.3177(f), F.S. requires that an affordable housing assessment be performed.

The Florida Housing Data Clearinghouse (Shimberg Center) has supplied data to be used in this section of the Housing Element. The data suggests that the Town population will remain fairly stable over the next 20 years with the possibility of a modest 14.1% growth rate between 2010 and 2035. Table 3-12 illustrates the population projections prepared by the Shimberg Center.

**Table 3-12
Population Projections, 2010-2035**

	2010	2015	2020	2025	2030	2035
Surfside	5,744	5,705	5,952	6,181	6,398	6,556

Source: Florida Housing Data Clearinghouse (Shimberg Center)

Although the Town is expected to have an adequate supply of existing and newly constructed residential units to meet future demand, some of the households will be faced with a cost burden. The following tables provide a more detailed needs assessment as supplied by the Florida Housing Data Clearinghouse.

Affordable Housing Demand: Table 3-13 presents the very-low, low, and moderate income housing needs estimates and projections through 2035.

**Table 3-13
Projected Housing Affordability by Income, Surfside, 2010-2035**

Household Income as a Percentage of Area Median Income (AMI)				
	0-50% AMI	50.01-80% AMI	80.01-120% AMI	120.01+% AMI
Year	Very-Low	Low	Moderate	Above Moderate
2010	595	235	783	1,000
2015	604	236	781	994
2020	639	248	818	1,032
2025	674	257	852	1,070
2030	709	268	886	1,092
2035	735	275	909	1,110

Source: Florida Housing Data Clearinghouse (Shimberg Center)

The analysis suggests that 180 of the additional households projected through 2035 will have an income less than 80 percent of the area median income. Overall, these projections point out the stability of income and population in the Town.

CONCLUSION

A major goal of the Town is to achieve a range of housing that accommodates both existing and future residents’ affordable opportunities. The Town’s demographics are shifting from an aging snowbird population to young families. Many of the newer residents are adding new additions and tearing down older homes to building new single family structures. Fortunately, many senior residents purchased their homes 20 to 30 years ago, when prices were much lower. While many seniors have held on to their homes and have not been negatively affected by the soaring real estate prices, many of the newcomers are in the high and upper high ranges of income, having less of a need for low and moderate income housing.

The Town has several hotels and two blocks of commercial in its jurisdictional boundaries. This has limited the number of workers entering the Town and needing housing. Previously, there were a number of hotels, which would have generated the need for additional housing. These hotels have either been torn down to make way for new condominiums or they have been converted into condominiums. This has reduced the need for low and moderate income housing in the Town. Moreover, the large numbers of well maintained small single family units and older multi-family units have provided a variety of housing choices for this area.

Despite these realities, the Town recognizes the need for affordable housing in order to support economic development and sustainability of the region. The Town’s geography—a barrier island bounded by the Atlantic Ocean on the east, Indian Creek and Biscayne Bay on the west—makes the provision of affordable housing even more of a challenge. Due to the area surroundings, it contains unusually high property values. Compounding the situation, 47% of the Town is within the Coastal High Hazard Area and Chapter 163 F.S. does not permit jurisdictions to direct affordable housing into coastal high hazard areas.

The Harding Avenue and Collins Avenue corridors have several older multi-family dwelling units which provide some of the most affordable housing opportunities in Surfside. The Town has made efforts to maintain an affordable housing stock in these corridors through the completion of several roadway, and drainage. These infrastructure improvements, along with proactive code enforcement activities, have contributed to extending the lifespan of the neighborhood, providing for continuance of a quality area. The age and size of the units along Harding Avenue and Collins Avenue provide a decent amount of affordable housing in the Town and through Surfside's continuing improvement efforts, this area can maintain its affordable status. However, a number of properties are undergoing redevelopment. To help preserve the nature and character of the corridor, Miami-Dade County Historic Preservation has designated a historic district along one of the blocks.

Housing Element Goals, Objectives and Policies

Goal: Provide decent, safe and sanitary housing in suitable locations at affordable costs to meet the needs of the Town's existing and future residents.

Objective 1 – Development of new dwelling units: The Town of Surfside shall provide for adequate and affordable housing for existing and future residents, households with special housing needs, and very low, low, and moderate income households through the short term and long term planning timeframes.

Policy 1.1 – The Town shall provide information and assistance to the private sector to maintain a housing production capacity sufficient to meet the identified demands.

Policy 1.2 – The Town Code shall provide processes in an effort to provide more efficient mechanisms for reviewing proposed housing developments.

Policy 1.3 – The Town Code shall maintain appropriate regulations which enable Town officials to work with the private sector to renovate buildings as needed.

Objective 2 – Creation of affordable housing: In general, create affordable housing for all current and anticipated future residents. In particular, facilitate development of as much new affordable housing as the market economics and available subsidies can generate. This objective shall be made measurable by its implementing policies.

Policy 2.1 – The Town manager or designee shall monitor the housing and related activities of the Miami-Dade County Housing Within Reach Taskforce, Miami-Dade Housing Agency (MDHA), the South Florida Regional Council and nearby local jurisdictions. The Town Manager shall inform the Town Commission of these activities and shall recommend, as appropriate, Town actions that could help encourage the provision of adequate sites for the distribution of very low income, low income and moderate income families in nearby communities with land values that can reasonably accommodate such housing. Among the actions that may be considered are specific agreements with other local governments concerning the provision of affordable housing.

Policy 2.2 – The Town shall maintain and improve where appropriate land development code provisions which are consistent with the Future Land Use Map including the land uses and the densities and intensities specified thereon and the descriptions of the requirements of those categories, which appear in this Future Land Use Element under the heading “Future Land Use Category Descriptions.”

Policy 2.3 – The Town shall periodically review: 1) its own development permitting procedures; 2) best current practice employed by other jurisdictions; and 3) best current practice reported in relevant professional literature. The purpose of the review shall be to determine if there are appropriate procedural and substantive changes which could facilitate more expeditious development application processing.

Policy 2.4 – Manufactured housing shall not be prohibited in any area designated by this plan for residential use. Mobile homes shall not be permitted in the Town unless they meet the same standards as manufactured homes.

Policy 2.5 – Housing for very low income, low income and moderate income households shall not be prohibited per se in any area designated by this plan for residential use.

Objective 3 – Preservation of affordable housing: In general, preserve affordable housing for all current and anticipated future residents. In particular, preserve the existing housing stock in sound condition. This objective shall be made measurable by its implementing policies.

Policy 3.1 – The Town shall maintain as part of its own land development code the County minimum housing standards code or an appropriate modification thereof.

Policy 3.2 – The Town shall from time to time informally evaluate alternate strategies to guide enforcement of the County minimum housing standards code so as to achieve maximum effectiveness. It is recognized by this policy that systematic and ad hoc inspections might be most appropriate at different times and in different sub areas of the Town.

Policy 3.3 – Through land development code regulations including minimum unit sizes, maximum building heights, and setback standards, the Town shall help assure the continuation of stable residential neighborhoods.

Objective 4 – Eliminate substandard housing; structurally and aesthetically improve housing; conserve, rehabilitate and demolish housing: In general, eliminate substandard housing conditions structurally and aesthetically improve housing, conserve, rehabilitate and demolish housing. In particular, encourage private property owners to maintain and improve their properties so as to protect property values and ensure safe and sanitary housing. This objective shall be made measurable by its implementing policies and by the existence of no substandard housing units in the Town.

Policy 4.1 – Require owners of substandard structures to promptly renovate or remove such structures.

Policy 4.2 – The Town shall assist owners of substandard historic housing to obtain financial assistance for renovation from Miami-Dade County, State of Florida or Federal sources.

Policy 4.3 – The Town shall work with Miami-Dade County officials to maintain an effective housing code enforcement program.

Policy 4.4 – On a continuous basis, the Town’s Building Department shall maintain an accurate inventory of the housing units within the Town via the utility billing process.

Objective 5 – Provision of adequate sites for very low, low and moderate income households: In general, provide adequate sites for very low, low and moderate income households. In particular, facilitate development of as much new affordable housing as the market economics and available subsidies can generate. This objective shall be made measurable by its implementing policies.

Policy 5.1 – Monitor the actions of the Miami-Dade County Government relative to the development of very low, low and moderate income housing facilities to serve County residents. The purpose of such monitoring shall be to identify activities to which the Town of Surfside may make a specific contribution.

Policy 5.2 – Assist Miami-Dade County to identify housing units which may be eligible for participation in the Miami-Dade Housing Finance Authority’s Multi-Family Rental Program.

Objective 6 – Adequate sites for group homes: Accommodate community residential homes and foster care facilities in residential areas. This objective shall be made measurable by its implementing policies.

Policy 6.1 – Notify the Florida Department of Children and Family Services of applications to construct Community Residential Facilities.

Policy 6.2 – The Town shall maintain and improve land development code regulations which permit Children and Family Services licensed group homes, including foster care facilities. Such regulations shall permit community residential homes and foster care facilities in residential areas and areas with residential character and shall otherwise be designed to meet State law in general and Chapter 419, F.S., in particular. Prior to enactment of such regulations, the Town shall interpret and enforce applicable existing regulations in a manner which is fully consistent with State law and administrative code requirements pertaining to group homes.

Objective 7 – Housing coordination and implementation: The Town Manager shall be responsible for achieving housing policy implementation.

Policy 7.1 – The Town shall maintain formal communications with appropriate public and private and non-profit housing agencies to assure that adequate information on Town housing policies flows to housing providers. This list shall include the Miami-Dade Housing Agency, Housing Finance Authority of Miami-Dade County, the Miami-Dade Affordable Housing Foundation, the Board of Realtors and the Home Builders Association.

Policy 7.2 – The Town shall fully cooperate with any developer using County Surtax funds, the Housing Finance Authority of Miami-Dade County or other subsidy mechanisms.

Objective 8 – Greenhouse Gas Reduction. The Town shall support energy efficiency and the use of renewable energy resources in existing housing and in the design and construction of new housing.

Policy 8.1 – The Town shall encourage support for residential construction that meets the United States Green Building Council (USGBC) Leadership in Energy and Environmental Design (LEED) rating system, the Green Building Initiative's Green Globes rating system, the Florida Green Building Coalition standards, or other nationally recognized, high-performance green building rating system as recognized by the Florida Department of Management Services.

Policy 8.2 – The Town shall educate Surfside residents on home energy reduction strategies.

Policy 8.3 – The Town shall not prohibit the appropriate placement of photovoltaic panels. The Town shall develop and adopt review criteria to establish the standards for the appropriate placement of photovoltaic panels.

Policy 8.4 – The Town shall provide educational materials on the strategic placement of landscape materials to reduce energy consumption.

INFRASTRUCTURE ELEMENT

DATA INVENTORY AND ANALYSIS

POTABLE WATER

This section evaluates the potable water system serving the Town of Surfside inclusive of all structures designed to collect, treat, and distribute potable water in addition to water wells, treatment plants, reservoirs and distribution mains.

Miami Dade County Water and Sewer Department Geographic Service Area

The Town of Surfside's potable water is provided by a system operated by the Miami-Dade County Water and Sewer Department (MDWASD) which provides service for approximately 2.6 million customers in Miami-Dade County. The MDWASD water service area illustrated in Figure 3.1 (Appendix 4-A Town of Surfside 15-Year Water Supply Facilities Work Plan) is interconnected and functions as a single service area. The Town of Surfside is serviced by the Hialeah-Preston Water Treatment Plant service area which includes the northern part of Miami-Dade County.

The water is distributed to residents and commercial business by approximately 11 miles of cast iron pipe installed in 1938. Primary mains feeding the system run under the Town's streets and vary in size from 6-inch to 16-inches in diameter, which feed three-inch and four-inch water lines located along the rear property lines.

Water Source

The source water for the Hialeah Water Treatment Plant (WTP) is from the Hialeah-Miami Springs Wellfields, supplemented by the Northwest Wellfield. There are three active wells located in the Hialeah Wellfield constructed in 1936. Each well is 14 inches in diameter, 115 feet deep and have casing depths of 80 feet. The total wellfield capacity is 12.54 mgd or 8,700 gpm (2,900 gpm for each well). The twenty active wells located in the Miami Springs Wellfield were constructed between 1924 and 1954. These wells are 14 inches and 30 inches in diameter, 80 to 90 feet deep and have casing depths of 80 feet. The total wellfield capacity is 79.30 mgd or 55,070 gpm (ranging between or 2,500 and 5,000 gpm for each well). The Northwest Wellfield has fifteen active wells that were constructed in 1980. The wells are 40 inches and 48 inches diameter and 80 to 100 feet deep, with casing depths ranging from 46 to 57 feet. These wells have two-speed motors. The total nominal capacity of the wells at the low speed flow rate is 149.35 mgd. The capacity of each well, except well No. 10, is 10 mgd at the low speed flow rate. Well No. 10 has a low speed capacity of 9.35 mgd. The total nominal capacity for the wells at the high speed flow is 220.94 mgd.

The seven active wells located in the John E. Preston Wellfield were constructed in 1966 and 1972. Each well is 42 inches in diameter, 107 feet deep and have casing depths of 66. The capacity of wells No. 1 through No. 6 is 5,000 gallons per minute (gpm) each and the capacity of well No. 7 is 7,000 gpm. The total wellfield capacity is 53.28 mgd.

Water Treatment Plants (WTPs)

The Hialeah WTP was originally designed in 1924 with a total capacity of 10 mgd. By 1935, the plant’s capacity totaled 40 mgd. In 1946, capacity was increased to 60 mgd. Air strippers with a capacity of 84 mgd were added to the treatment process in 1991 to remove volatile organics from the finished water. A 3.2 MG storage reservoir for both the Hialeah and John E. Preston WTPs was also added in 1991. The Hialeah WTP has a current rated capacity of 60 mgd and there are plans to rerate and upgrade the Hialeah WTP to a capacity of 70 mgd, if necessary. The treatment process for this WTP includes lime softening with sodium silicate activated by chlorine, recarbonation, chlorination, ammoniation, fluoridation, filtration, and air stripping. The plant site is relatively small, and is surrounded by residential areas.

The John E. Preston WTP was originally designed as a 60 mgd plant in 1968 and upgraded to 110 mgd in 1980. The plant was re-rated to a total capacity of 130 mgd in 1984. The plant reached its present capacity of 165 mgd with another addition in 1988. In 1991, the plant was modified with an air stripping capacity of 185 mgd to remove VOCs. In 2005, plant process modifications to provide enhanced softening for reduction of color and total organic carbon came on line. The main source of water for the Preston WTP is from the Northwest Wellfield. The current rated capacity is 165 mgd with a treatment process similar to that of the Hialeah WTP. This includes lime softening with ferric and other coagulant and chemicals added prior to lime for enhanced softening, recarbonation, chlorination, ammoniation, fluoridation, filtration, and air stripping. The Preston plant is also located in a residential area of Hialeah.

Potable Water Level of Service

The Town of Surfside currently coordinates with MDWASD and the South Florida Water Management District to meet existing and projected demands based on level of service (LOS). MDWASD’s projected water demands shown in **Table 4-1** below were developed utilizing an average gallons per capita per day (gpcd) value of 137.2 gpcd.

**Table 4-1
Miami-Dade Water and Sewer Department (MDWASD) Water Demand Projection**

Year	Population	Finished Water Use (gpcd)	AADD Finished Water Use (MGD)	Water Conservation Credit (MGD)	Reuse Reclaimed Water Credit	Adjusted Finished Water Demand (MGD)	Adjusted Finished Water Use (gpcd)
2015	2,266,092	137.2	310.84	2.04	0.00	308.80	136.27
2020	2,370,769	137.2	325.20	5.44	0.00	319.76	134.88
2025	2,475,446	137.2	339.56	8.84	0.00	330.72	133.60
2030	2,580,123	137.2	353.92	9.55	0.00	344.37	133.47

Source: MDWASD’s 20 year water supply plan (2014-2033)

Table 4.2 provides the projected water use for Year 2015 through Year 2030 for the Town of Surfside utilizing the finished water use rate of 148.04 gallons per capita per day.

**Table 4-2
Town of Surfside Water Demand Projection**

Year	Population	Per Capita Consumption	Projected Consumption	Projected Consumption
		GPCD	GPD	MGD
2015	5,866	148.04	868,399	.87
2020	6,019	148.04	891,073	.89
2025	6,173	148.04	913,747	.91
2030	6,326	148.04	936,421	.94

Figure 4.1 in the Town of Surfside 15-Year Water Supply Facilities Work Plan indicates that there will be no deficit of finished water through 2030.

To assure adequate level of service, potable water facilities shall meet the following level of service standards as identified in the MDWASD goals for potable water:

- (a) The regional treatment system shall operate with a rated maximum daily capacity no less than 2 percent above the maximum daily flow for the preceding year, and an average daily capacity 2 percent above the average daily system demand for the preceding 5 years. The maximum daily flow shall be determined by calculating the average of the highest five single day flows for the previous 12 months.
- (b) Water shall be delivered to users at a pressure no less than 20 pounds per square inch (psi) and no greater than 100 psi. Unless otherwise approved by the Miami-Dade Fire Rescue Department, minimum fire flows based on the land use served shall be maintained as follows:

Land Use	Min. Fire Flow (gpm)
Single Family Residential Estate	500
Single Family and Duplex; Residential on minimum lots of 7,500 sf	750
Multi-Family Residential;	1,500
Semiprofessional Offices	1,500
Hospitals; Schools	2,000
Business and Industry	3,000

Source: Miami-Dade County Adopted 2014 Water, Sewer and Solid Waste Element

Storage Capacity

The finished water storage facilities for the Hialeah-Preston subarea consist of both “in-plant” and remote storage facilities. The total combined storage capacity between both plants inclusive of remote storage facilities is 56.0 MG. Additional information on MDWASD’s finished water storage facility capacities can be found in Table 3.1 of Appendix A (Town of Surfside 15-Year Water Supply Facilities Work Plan).

Water Supply Facilities Work Plan

The purpose of the Town of Surfside 15-Year Water Supply Facilities Work Plan (Work Plan) is to identify and plan for the water supply sources, as well as facilities needed to serve the existing and new development within the local government’s jurisdiction. Chapter 163, Part II, F.S., requires local governments to prepare and adopt Work Plans into their Comprehensive Plans

within 18 months after the water management district approves a regional water supply plan. Surfside adopted their Work Plan in December 2015.

On a regional level, the Town falls within the South Florida Water Management District (SFWMD) and within the SFWMD's Lower East Coast (LEC) Planning Area. The *2013 Lower East Coast Water Supply Plan Update* (2013 LEC Plan Update), approved by the SFWMD in September 2013, is one of five, long-term comprehensive regional water supply plan updates the SFWMD has developed for its planning areas. The planning horizon for the 2013 LEC Plan Update is 2010-2030.

SANITARY SEWER

The sanitary sewer system is defined as structures or systems designed for the collection, transmission, treatment, or disposal of sewage and may include trunk mains, interceptors, treatment facilities, and disposal systems. The Town's sanitary sewer system is interconnected with the Miami-Dade County Water and Sewer Department (MDWASD) system. Surfside maintains its own sewer collection system and two pumping stations. By agreement, the Town of Surfside and Bal Harbour share a sanitary force main that connects to the City of Miami Beach transmission system. The tri-party agreement provides for the transmission of sewage via force mains to the MDWASD system and eventually to the treatment plant and disposal.

Geographic Service Area

The Town of Surfside's sanitary sewer system is part of a system run by MDWASD. The Town's system is coextensive with the Town's boundaries. The County system includes unincorporated and incorporated areas of Miami-Dade County inside the 2005 Urban Development Boundary that have an agreement with MDWASD. The system also incorporates a small number of facilities, mostly State or County owned, outside of the Urban Development Boundary.

Treatment Facilities and Capacity

There has been a significant reduction in average flow into the regional system as a result of extensive infiltration and inflow (groundwater and rainwater) prevention projects conducted by MDWASD in recent years. Infiltration and inflow within the sewer system should be kept at a minimum to avoid hydraulic overload to the receiving treatment plant. It is pertinent for an operation and maintenance plan to be part of the county's sanitary sewer system. As a result, the regional wastewater treatment plants operating capacity can remain in compliance with Miami-Dade County MDWASD and Florida Department of Environmental Protection (FDEP) standards.

The Town of Surfside is located in the MDWASD Central District Sanitary sewer system; however, MDWASD operates two additional regional wastewater treatment plants in the North and South Districts. Because the system is interconnected, the service districts have flexible boundaries, and some flows from one district can be diverted to other plants in the system.

The Town of Surfside's sewer system is treated by a secondary treatment facility on Virginia Key owned and operated by the Miami-Dade County Water and Sewer Department (MDWASD). The Town's sanitary sewer collection system is divided into two basins. Sanitary sewer pipes range in size from 8 to 15 inches with flows directed to two pump stations. Pump Station 1 receives sewage from the area of Surfside north of 91st Street, which includes the Business District and a majority of the high rise buildings. Pump Station 2 serves the remainder of the Town, including most of the waterfront lots. The sewage is pumped via the force main which runs along 89th Street, 93rd Street, Collins Avenue and connects to the City of Miami Beach's system near 74th street. Sewage continues under pressure through MDWASD force mains to Virginia Key.

Current Facility Demand

According to the Town of Surfside Consumption Analysis, in 2014/2015 approximately 258 million gallons of wastewater were treated by the County system from the Town of Surfside and 260 million in 2015/2016.

In FY08, the Town began mapping all sewer and potable water lines within the municipal boundary to enhance maintenance. Also in FY09, the Town identified infiltration issues to the sanitary sewer system and has begun a program to seal manholes and smoke/video testing to identify and repair broken lines. Table 4-2A shows projected sewage flow demand for the Town of Surfside and Table 4-2B show current and projected waste water capacity for the entire county.

In 2010 to 2014, the Town completed a sanitary sewer rehabilitation plan. All existing gravity sewer mains and laterals were lined or reconstructed in accordance with the approved plan. All sanitary manholes were rehabilitated. The Town also completed rehabilitation of the existing sanitary sewer pump stations, and construction of 12” Force Mains along 93rd Street and 89th Street. The Force Mains were tied-in to the newly constructed 16” Force Main along Collins Avenue. The existing Force Main that runs along Byron Avenue is not currently in use and only remains as a stand-by facility.

Since the Town completed the sanitary sewer rehabilitation plan of the existing system in the recent past, there are currently not additional level of service projects required or needed for the Town’s sanitary sewer system.

**Table 4-2A
Projected Sewage Flows**

PROJECTED SEWAGE FLOWS			
Year	2010 (actual)	2020	2030
Population	5,744	5,952	6,398
Per Capita (gallons per day finished sewage)	155	155	155
(all potable volumes are finished sewage)	MGD	MGD	MGD
Sewage Total Flow (daily average annual)	0.89	0.92	0.99

Source: Calvin, Giordano & Associates, Inc. 2017

The County’s LOS standard requires that the “system” component of the wastewater facility operate below 102 percent of the previous year’s average daily flow. A comparison of the projected treatment capacity to the 102 percent of the previous year’s average annual daily flow (AADF) requirement, from 2016 to 2026, is presented below. According to the County’s data, the capacity of the MDWASD sanitary sewer system will continue to remain below the 102 percent requirement through 2026. The below table confirms the availability of the sanitary sewer system to meet the needs of Surfside in the short term and long term planning period.

Table 4-2B
Miami-Dade County Current and Projected Wastewater System Capacity 2016-2026

County WWTP Capacities		Actual County Flow (mgd)	Total Permitted Capacity / Projected County Flows (mgd)		
	2016 Plant Capacity (mgd)	Dec. 2015	2022	2024	2026
North	120.0	89.3	120.0 / N/A ¹	120.0 / N/A ¹	85.0 / N/A ¹
Central	143.0	120.0	143.0 / N/A ¹	143.0 / N/A ¹	83.0 / N/A ¹
South	112.5	97.1	121.0 / N/A ¹	131.0 / N/A ¹	131.0 / N/A ¹
West	N/A	N/A	N/A	N/A	102.0 / N/A ¹
Total	375.5	306.4	384.0 / 321.1	394.0 / 326.3	401.1 / 331.6

Source: Miami-Dade Water and Sewer Department, 2016; ¹County only has projected data for total regional system

DRAINAGE

In 2013, the Town completed a major retrofit of the existing drainage systems. The existing storm drainage system consisted of a network of underground storm sewers and outfalls discharging directly into Indian Creek and Biscayne Bay. An existing pumping station at the western end of 92nd Street assisted the drainage of water from that street by pumping to an outfall. Storm sewers in the existing system ranged in diameter from 10 inches to 36 inches.

Town of Surfside has two state roadways within the Town; a north-south pair SR A1A/Collins Ave (northbound) and Harding Avenue (southbound); and one east-west SR-922/96th Street. The Florida Department of Transportation (FDOT) provided storm drainage improvements on Harding and Collins Avenue in the early 1990's. Equipment which currently serves the 92nd Street pump station were replaced by FDOT and maintained by the Town; however, even with these modifications, water may still reach curb level in various locations due to tidal fluctuations. The water level of Biscayne Bay is higher than normal during storm periods and high tide, creating a back up in the outfall pipes. The Harding and Collins storm drainage improvements utilize on-site wells and control structures to provide additional capacity.

In 2002, FDOT completed the Stormwater Pump Station System Operational Evaluation and Recommended Improvements (OERI) Report which provided three alternatives to improve stormwater pump systems along Harding. It was determined that the most feasible alternatives are those that have an appropriate overflow capacity, once the wells reach capacity. This was achieved by introducing an emergency gravity bypass in the event that the pumps fail. The alternative consists of new pump stations at the existing vault locations. These new stations required the existing gravity system to be extended to the Intracoastal Waterway seawalls (at 88th Street and 94th Street), a new 36-inch force main to connected to the existing wells; new pumps, structures, controls, and a new gravity bypass drainage pipe.

In 2006, the Town of Surfside initiated another stormwater project, which consists of retrofitting three of the Town's outfall pipes to reduce pollutants and fresh water entering Biscayne Bay. The facilities at each location will consist of three new stormwater pump stations which pump water into drainage wells. In order to address pollution concerns for a Florida Department of

Environmental Protection (FDEP) drainage well permit, the Town installed Nutrient Separating Baffle Boxes upstream of the pump station to provide treatment before the runoff enters the groundwater which was included in this retrofit project.

The recently constructed retrofitted stormwater management system of the Town consists of a network of underground storm sewers along with outfall control structures discharging into Indian Creek and Biscayne Bay, and three additional pump stations discharging into 9 drainage wells. The newly constructed control structures facilitate well discharge before discharging to Biscayne Bay. The project addressed long-term concerns regarding water backing into the streets and poor water quality in the adjacent Biscayne Bay along the Town’s shores. The project directly addressed The Trust for Public Land’s Biscayne Bay Accessibility report, supported the SFWMD’s Biscayne Bay Partnership Initiative (BBPI), and enhanced the level of service.

In 2015, the Town completed drainage improvements for Biscaya Island along 88th Street. The Town constructed new check valves to prevent back flow into the existing roadways and upsized one 12-inch outfall to a 24-inch diameter outfall. Since the Town completed the retrofit of the existing drainage system in the recent past, there are currently not additional level of service projects required or needed for the Town’s drainage system.

SOLID WASTE

The Town’s Public Works Department has three garbage trucks which collect trash and garbage on a weekly basis and haul it to Miami-Dade County’s Resource Recovery Plant west of Miami International Airport and other Miami-Dade County landfills. Last year (FY15/16) Surfside deposited approximately 4,932 tons of waste material at the County’s facility. Based on the 2010 U.S. Census population of 5,744 a volume of just 4.7 pounds per person per day was calculated. The Town, as of June 2, 2016, discontinued recycling services with Miami-Dade County for residential properties. The Town now collects recycling. Between June 2, 2016 and December 29, 2016 the Town collected a total of 218.9 tons of recycling. Based on information supplied by the Miami-Dade County Department of Solid Waste Management (Table 4-3), the existing disposal capacity at the North Dade Landfill and the South Dade Landfill and the Resource Recovery Plan appear to have adequate capacity to meet Surfside’s needs for the foreseeable future.

**Table 4-3
Miami-Dade County Solid Waste Facility Capacity**

	South Dade Landfill	North Dade Landfill	Resources Recovery Facility and Ashfill
Built out Capacity in Tons	23,208,000	13,526,000	8,060,000
Tons in Place (June 30, 2016)	17,547,000	11,984,000	5,765,000
Remaining Capacity in Tons	1,261,000	1,541,000	2,295,000
Last Year’s Disposal Tonnage (7/1/15 – 6/30/16)	390,626	190,478	160,879
Estimated Average Disposal Rate per Year in Tons	400,800	183,900	168,500

Source: Miami-Dade County Department of Solid Waste Management, 2016; Landfill Capacity Analysis for DSWM Active Landfills, July 1, 2016.

There is sufficient capacity in Miami-Dade County landfills to meet the Town’s needs for solid waste disposal for the short term and long term planning horizons.

NATURAL GROUNDWATER AQUIFER RECHARGE

The principal ground water resources for the Lower East Coast (LEC) Planning Area are the Surficial Aquifer System (SAS), including the Biscayne Aquifer, and the Floridan Aquifer System (FAS). The Surficial and Biscayne aquifers provide more than 1 billion gallons a day for public water supply and other uses such as agriculture and landscape irrigation within the LEC Planning Area.

Although the Biscayne Aquifer is part of the Surficial Aquifer System (SAS), it exists only along the coastal areas in Miami-Dade, Broward and southern Palm Beach counties. The Biscayne Aquifer is highly productive with high-quality fresh water. The extension of the SAS through central and northern Palm Beach County is less productive, but is still used for consumptive uses, including potable water. These aquifers are shallow, generally located within 200 feet of ground surface, and are connected to surface water systems, including canals, lakes and wetlands.

The Biscayne Aquifer and the extension of the SAS into northern Palm Beach County provide more than 1 billion gallons per day of high-quality, inexpensive fresh water for the populations of Palm Beach, Broward and Miami-Dade counties and the Florida Keys portion of Monroe County. In 2010, fresh groundwater accounted for 94 percent of potable water produced by public water supply utilities.

This volume is heavily supported, especially during the annual dry season, as well as in periodic droughts, by water from the regional system, primarily the Everglades. During droughts, water from Lake Okeechobee has been required to supplement water from the Everglades to meet the needs of the coastal counties. In 2008, the United States Army Corps of Engineers (USACE) implemented the “2008 Lake Okeechobee Federal Regulation Schedule,” lowering the operation levels at the lake to reduce the risk of dike failure and minimize impacts to the lake’s ecology. This resulted in a projected decline in the level of certainty for agriculture users to rely on the lake, and increased the expectation that the lake would exceed its minimum flow and levels criteria more frequently. In response, the South Florida Water Management District (SFWMD) adopted regulatory criteria to limit future additional withdrawals from Lake Okeechobee and connected water bodies to protect the lake and prevent further erosion to the level of certainty for existing legal users. The Okeechobee Utility Authority in the Kissimmee Basin Planning Area is the only remaining utility using water directly from Lake Okeechobee. Since the 2005-2006 LEC Plan update, Clewiston, South Bay, Belle Glade, and Pahokee have all discontinued the use of Lake Okeechobee as their supply source and now use Floridan Aquifer System water treated by reverse osmosis.

The Biscayne Aquifer is designated as a sole source aquifer by the U.S. Environmental Protection Agency (USEPA) under the *Safe Drinking Water Act* because it is a principal source of drinking water and is highly susceptible to contamination due to its high permeability and proximity to land surface in many locations. As of the 2013 LEC Plan Update, SFWMD has placed limitations on additional allocations from the Biscayne Aquifer. As a result, use of alternative water sources has expanded and a Comprehensive Water Conservation Program has been adopted by SFWMD.

The Floridan Aquifer System (FAS) exists not just in the LEC Planning Area, but throughout the entire state and portions of adjacent states. The Upper Floridan Aquifer in southeast Florida contains brackish water, and is increasingly being tapped as a source of raw water for treatment with reverse osmosis (RO) to create potable water. Brackish water from the Floridan Aquifer is also blended with fresh water prior to conventional water treatment to expand water supplies during the dry season. Additionally, the Floridan Aquifer is used for seasonal storage of treated

fresh water within aquifer storage and recovery (ASR) systems. Until recent years, the Floridan Aquifer was more extensively developed in the Upper East Coast (UEC) and Lower West Coast (LWC) planning areas of the South Florida Water Management District (SFWMD or District) than in the LEC Planning Area.

From Jupiter to southern Miami, water from the FAS is highly mineralized and not suitable for drinking water without specialized treatment. More than 600 feet of low permeability sediments confine this aquifer and create artesian conditions in the LEC Planning Area. Although the potentiometric surface of the aquifer is above land surface, the low permeability units of the intermediate confining unit prevent significant upward migration of saline waters into the shallower freshwater aquifers.

The top of the Upper Floridan Aquifer is approximately 900 feet in southeast Florida, and the base of the Upper Floridan extends as deep as 1,500 feet. At the base of the Lower Floridan Aquifer, there are cavernous zones with extremely high transmissivities collectively known as the boulder zone. Because of their depth and high salinity, these deeper zones of the Lower Floridan Aquifer are used primarily for disposal of treated wastewater.

The Miami-Dade Water Supply Facilities Work Plan outlines a number of Alternative Water Supply (AWS) and conservation strategies designed to protect water sources and comply with recent regulations limiting withdrawals and allocations and eliminating the use of existing ocean outfalls.

Wellfield Protection Areas

There are no wellfield protection areas within the Town of Surfside.

Infrastructure Element Goals, Objectives and Policies

Goal 1: Public utilities capacity shall be provided to adequately serve residents, visitors and business people.

Objective 1 –Ensure sufficient capacity of potable water and sanitary sewer facilities:

In general, ensure sufficient potable water and sanitary sewer system capacity in the most cost effective manner possible. This objective shall be made measurable by its implementing policies.

Policy 1.1 – The Town shall continue use of Miami-Dade County Water and Sewer Department facilities at the Central District Wastewater Treatment Plant on Virginia Key and the Hialeah/Preston Water Treatment Plant or such other Miami-Dade County facilities as may be appropriate.

Policy 1.2 – The Town shall upgrade the potable water distribution system and the sanitary sewer collection system through ongoing maintenance.

Policy 1.3 – The Town shall continue to follow the Sanitary Sewer Evaluation Study (SSES) protocols for Phases I, II, and III, including the testing and implementation of improvements/repairs of the collection system.

Policy 1.4 – Projects and programs shall be funded to maintain adequate levels of service.

Policy 1.5 – The Town shall maintain a minimum of a five-year schedule of capital improvements for the expansion and upgrade in the capacity of water and sanitary sewage facilities in accordance with the Water Supply Facilities Work Plan.

Policy 1.6 – The Town shall maintain a Water Supply Facilities Work Plan with a minimum planning horizon of at least 10 years, and shall ensure coordination between land uses and future water supply planning within 18 months of the adoption of the Lower East Coast Water Supply Plan, or its update, as required by Chapter 163, Florida Statute.

Policy 1.7 – The Town of Surfside 15-Year Water Supply Facilities Work Plan dated December 2015 is hereby adopted by reference into the Comprehensive Plan, along with the Miami Dade Water and Sewer Department 20-Year Water Supply Facilities Work Plan (2014–2033) inclusive of all potable water projects. The Work Plan will be updated as needed, or concurrent with any updates to the Miami-Dade Water and Sewer Department 20-Year Water Supply Facilities Work Plan (2014-2033).

Policy 1.8 – The Town of Surfside 15-Year Water Supply Facilities Work Plan shall be consistent with the Potable Water Level of Service standards as established in the Comprehensive Plan.

Policy 1.9 – The Town’s 15-Year Water Supply Facilities Work Plan shall guide future expansion and upgrade of facilities needed to transmit and distribute potable water to meet current and future demands. The Town shall research and identify alternative, renewable sources of water to the projected increases in demand.

Policy 1.10 – The Town shall provide for the protection of water quality when using traditional and new alternative water supply sources.

Policy 1.11 – The Town shall identify traditional and alternative water supply projects and the conservation and reuse programs to meet current and future water use demands within the Town’s jurisdiction consistent with the Miami-Dade County 20-Year Water Supply Facilities Work Plan and the South Florida Water Management District’s Water Supply Plan.

Policy 1.12 – The Town shall issue no development order unless the Miami-Dade Water and Sewer Department (MDWASD) certifies that adequate potable water supply is available for new development. The Town shall provide monthly reports to MDWASD, as required, to track the amount of water to be allocated for new uses.

Objective 2 – Correct deficiencies and increase capacity of drainage facilities: Optimize the utilization of water resources through the provision of stormwater management for the Town which reduces damage and inconvenience from flooding, promotes aquifer recharge, and minimizes degradation of water quality in surface water bodies.

Policy 2.1 – For site plan approval, the Town shall require that surface water management systems be designed and operated consistent with the Town’s adopted drainage level of service.

Policy 2.2 – Financially feasible projects and programs shall be implemented in order to maintain adequate level of service standards, and to make preventative improvements to the system.

Policy 2.3 – The Town shall implement the stormwater improvement projects specified in the State of Florida Department of Environmental Protection (DEP) Agreement No. LP6768.

Policy 2.4 – The Town shall construct the Stormwater Treatment Trains and Rehabilitation projects specified in the State of Florida Department of Environmental Protection (DEP) Agreement No. S0374.

Policy 2.5 – The Town shall adhere to the National Pollution Discharge Elimination System-Municipal Separate Storm Sewer System (NPDES-MS4) Permit and shall implement the permit conditions including monitoring of outfalls and improving stormwater management practices.

Policy 2.6 – The Town shall use Best Management Practices (BMPs) in accordance with its regulations and those of the South Florida Water Management District (SFWMD) and DERM.

Policy 2.7 – The Town shall coordinate and cooperate with all applicable local, regional, state and federal agencies relating to the protection and enhancement of the Biscayne Bay Aquatic Preserve.

Objective 3: Maintain sufficient solid waste capacity. The Town shall support Miami-Dade County in its provision of solid waste management facilities available to meet the Town’s short-term and long-term future needs.

Policy 3.1 – The Town shall require in the land development regulations that applicants for development permits demonstrate adequacy of solid waste disposal sites or facilities prior to occupancy.

Policy 3.2 – The Town shall cooperate with Miami-Dade County to further preserve landfill space, examine the need for a comprehensive countywide yard waste program and establish clear policies regarding the construction and debris waste stream.

Objective 4 – Level of service: Achieve adequate facility capacity to serve existing development and new development concurrent with the impact of that development. Achievement of this objective shall be measured by the implementation of the following policies:

Policy 4.1 – The Town will enforce the following level of service standards as identified in the MDWASD goals for potable water:

Sanitary Sewers: The County-wide “maximum day flow” of the preceding year shall not exceed 102 percent of the County treatment system's rated capacity. The sewage generation standard shall be 155 average gallons per capita per day.

Potable Water:

- (a) the regional treatment system shall operate with a rated maximum daily capacity no less than 2 percent above the maximum daily flow for the preceding year, and an average daily capacity 2 percent above the average daily system demand for the preceding 5 years. The maximum daily flow shall be determined by calculating the average of the highest five single day flows for the previous 12 months.
- (b) Water shall be delivered to users at a pressure no less than 20 pounds per square inch (psi) and no greater than 100 psi. Unless otherwise approved by the Miami-Dade Fire Rescue Department, minimum fire flows based on the land use served shall be maintained as follows:

Land Use	Min. Fire Flow (gpm)
Single Family Residential Estate	500
Single Family and Duplex; Residential on minimum lots of 7,500 sf	750
Multi-Family Residential	1,500
Semiprofessional Offices	
Hospitals; Schools	2,000
Business and Industry	3,000

Drainage: All nonresidential development and redevelopment shall adequately accommodate runoff to meet all Federal, state and local requirements. Stormwater shall be treated in accordance with the provisions of Chapter 17-25, FAC in order to meet receiving water standards in Chapter 17-302.500, FAC. One inch of runoff shall be retained on site. Post-development runoff shall not exceed peak pre development runoff.

Solid Waste: The County solid waste disposal system shall maintain a minimum of five years capacity. For Town planning purposes, a generation rate of 5.2 pounds per person per calendar day shall be used.

Objective 5 – Water conservation: Conserve and protect potable water resources by optimizing the utilization of water resources through effective water management practices.

Policy 5.1 – The Town shall maintain and improve land development code and other regulations that include: 1) water conservation-based irrigation requirements; 2) water conservation-based plant species requirements derived from the South Florida Water Management District's list of native species and other appropriate sources; 3) lawn watering restrictions; 4) mandatory use of high-efficiency water saving devices for substantial rehabilitation and new construction; and 5) other water conservation measures, as feasible.

Policy 5.2 – The Town shall promote education programs for residential, commercial and other uses which will discourage waste and conserve potable water.

Objective 6 – Infrastructure resiliency: Ensure resiliency of existing and future water resources, and water, wastewater and storm water infrastructure to the impacts of climate change and consider the development of adaptation for areas vulnerable to climate change-related impacts.

Policy 6.1 – Coordinate with Miami-Dade County to assess the adequacy of water supply and water/wastewater facilities and infrastructure to effectively capture, store, treat, and distribute potable water and reuse under variable climate conditions, including changes in rainfall patterns, sea level rise, and flooding, with potential water quality and quantity impacts.

Policy 6.2 – Coordinate adaptive management implementation strategies for water and wastewater resources that address the potential impacts of climate change for long term operations.

Policy 6.3 – Evaluate cost/benefit analysis for implementing adaptive management strategies including; planning, siting, construction, replacement and maintenance of public infrastructure as well as fortification or retrofitting of existing infrastructure.

Policy 6.4 – Work with Miami-Dade County to develop water demand projection scenarios that account for potential changes in demands if temperatures increase and drought conditions become more frequent or persistent.

Policy 6.5 – Evaluate infiltration and inflow programs to strategically reduce the flow of groundwater and stormwater and stormwater to wastewater collection and treatment facilities.

Policy 6.6 - The Town of Surfside shall continue to conduct a review and identify feasible regulations that require new construction, redevelopment, additions, retrofits or modifications of property to incorporate porous materials, reduce total impervious area, and employ other techniques to reduce run-off, capture and reuse rain water, and recharge the Biscayne Aquifer.

Policy 6.7 - The Town shall continue to identify public investments and infrastructure at risk from sea level rise and other climate change related impacts, and update this assessment every 5 years. Specifically, the Town shall analyze vulnerability to facilities and services, including but not limited to: buildings; water and wastewater infrastructure, transmission lines and pumping stations; stormwater systems; roads, bridges, and all transportation and transit infrastructure; power generation facilities and power transmission infrastructure; critical infrastructure such as city hall, police and fire stations.

Policy 6.8 - The Town shall coordinate with Miami-Dade County in improving the resiliency of existing water resources and water and wastewater infrastructure to climate change impacts, while improving energy efficiency and reducing greenhouse gas emissions.

Policy 6.9 - The Town of Surfside shall consider the installation of backflow preventers on drainage systems that discharge to Biscayne Bay in coordination with the appropriate agencies.

Policy 6.10 - The Town of Surfside shall construct the additional stormwater drainage infrastructure necessary to accommodate projected increases in stormwater, including drainage wells, injection wells, swales, bioswales, and other related structures.

COASTAL MANAGEMENT ELEMENT

DATA INVENTORY AND ANALYSIS

PURPOSE

The purpose of the Coastal Management Element is to protect human life and to limit public expenditures in areas that are subject to destruction by natural disaster. It is also to plan for, and where appropriate, restrict development activities where such activities would damage or destroy coastal resources.

COASTAL PLANNING AREA

Surfside is an Atlantic Ocean coastal community located on a barrier island along the southeast coast of the Florida peninsula in Miami-Dade County. The barrier island the Town is located on is separated from the mainland by the north end of the Biscayne Bay estuary. The Hurricane Storm Surge Evacuation Map prepared by the Miami-Dade County Office of Emergency Management has identified the Town and the entire barrier island as hurricane vulnerable, and classified the entire barrier island as a Zone B evacuation area. Zone B is at greatest risk for storm surge for Category 2 and higher storms., The entirety of the Town is recognized as the Coastal Planning Area (CPA).

LAND USE IN THE COASTAL PLANNING AREA

The existing land uses in the Town are identified on *Map FLU 1 Existing Land Use*. The Future Land Uses within the Town are identified on *Map FLU 7 Future Land Use*. The Future Land Use Element inventories and provides greater detail on these uses. The Town has no identified blighted areas in need of redevelopment, and has no Community Redevelopment Agency.

NATURAL RESOURCES IN THE COASTAL AREA

The natural conditions of this barrier island have been highly altered. The Town is nearly built out with only a few vacant lots. The entirety of the Town's Bayside shoreline, inclusive of Indian Creek and Point Lake, has been significantly altered and is bulkheaded, and the adjacent nearshore waters have been dredged.

The one mile length of beach and dune along the Town's ocean frontage is created from a beach renourishment program. The restoration of the federally-authorized Dade County Shore Protection Project, which included the Town of Surfside, began in 1978 and was completed in January 1982 using sand from offshore borrow sites. The project included restoration of a 20 foot wide dune at elevation +10.7 ft NGVD and a 50 foot wide level berm at elevation +8.2 ft NGVD. Additional fill material, equivalent to ten years of advance nourishment, was placed seaward of the design berm. At the time of the compilation of this data in 2017, there is still approximately 38 acres of beach area seaward of the erosion control line within the Town. This beach area is maintained in a natural state and the vegetated dune serves as nesting habitat to marine turtles.

ACCESS FACILITIES

The entirety of the Town's one mile length of oceanfront beach is under the ownership of the State and is open to the public for recreational use. The erosion control line, which runs approximately along the crest of the dune, defines the limits of private property and the beginning of the state owned beach. The state

owned beach is comprised of approximately 38 acres. Ample access to this public beach is provided via the platted public right of ways for 88th, 89th, 90th, 92nd, 94th, 95th and 96th Streets; the eastern ends of which terminate at the State-owned beach. Beach access is also provided from the Town's beach front Community Center site located near 93rd Street. The beach and dune system is maintained by the Miami-Dade County Park and Recreation Department in a natural condition. There are no piers, marinas or structures other than a lifeguard station along the beach.

The Town has established an ocean bulkhead line that applies to the private beach front properties east of Collins Avenue. The zoning code prohibits development or any redevelopment seaward of the bulkhead line. Seaward of this bulkhead line there are approximately 19 acres that are undeveloped that lie adjacent to the State owned beach. Within this undeveloped ocean bulkhead setback area, along the landward side of the dune, there is an unimproved maintenance path that is utilized by the State, the County and the Town that runs the entire length of the Town. This maintenance path is, and has historically been, a popular public walking and biking path. The landward side of the dune in this area is more sparsely vegetated than the seaward side, and the property owners have landscaped the area nearest the bulkhead on many of the properties.

To limit impacts to the dune and dune vegetation, seventeen (17) dune cross-over locations have been established and are maintained by the Town. Eight of these cross-overs correspond to the termination of the platted public right-of-ways and one is in front of the Town Community Center site. Although the remaining cross-overs are located in front of private properties, the established maintenance path provides access to these cross-overs also.

The entire shoreline along Biscayne Bay, which includes Point Lake and Indian Creek, is bulkheaded. There are approximately 1.5 miles of shoreline along the barrier island portion of the Town and approximately 0.7 miles of shoreline around the Biscaya Island neighborhood. The western ends of the platted public right of ways for 90th and 92nd through 95th Streets terminate at the Indian Creek bulkhead; the southern ends of the platted right of ways for Froude and Carlyle Avenues terminate at the Biscayne Bay bulkhead, and the platted right of ways of Biscaya Drive, Bay Drive and the west end of 89th Street each terminate at the Point Lake bulkhead. At this time there are no docks, platforms or specific improvements to facilitate water accessibility; however, the Town intends to retain these platted right of ways as public access.

ESTUARINE POLLUTION CONDITIONS

Biscayne Bay, a sub-tropical estuary, is located along the coast of Miami-Dade and northeastern Monroe Counties; it is a marine ecosystem comprised of about 428 square miles with a watershed area of about 938 square miles. The bay can generally be divided into the north, central and south Biscayne Bay areas. North Biscayne Bay extends from Dumfoundling Bay (approximately NE 192nd Street) south to the Rickenbacker Causeway. The Town of Surfside is located along the north portion of Biscayne Bay. The bayou, referred to as Indian Creek, that separates the Town from Bay Harbor Islands and the Island of Indian Creek Village, and the dredged channels and water body referred to as Point Lake that separates Biscaya Island from the remainder of the Town are considered parts of Biscayne Bay. The northern portion of Biscayne Bay retains the most estuarine habitat that can be found throughout the bay, but it is also the most altered by dredging and bulkheading. Although remaining shallow areas contain some productive seagrass beds, roughly 40 percent of the northern bay area is too deep or too turbid to support a productive estuarine ecosystem. The entirety of the Town's bayside shoreline, inclusive of Indian Creek and Point Lake is bulkheaded and the near shore waters have been significantly altered through dredging. The mainland and barrier island of the north Biscayne Bay area are highly urbanized.

The Atlantic Intracoastal Waterway (ICW) runs through Biscayne Bay in a north south direction. The ICW is managed and maintained by the Florida Inland Navigation District (FIND), which is a special state taxing district. The increased vessel traffic and maintenance dredging, which has created spoil islands that run along the edge of the ICW, also contribute to the impacts to the estuary.

The Town has developed and adopted a Stormwater Management Master Plan (SMMP). The SMMP identifies 9 separate basins within the Town and proposed improvements for each basin. The Town's drainage includes thirteen outfalls into the bay; eleven are Town maintained and two are Florida Department of Transportation (FDOT) outfalls. Under Financial Project Number 249561-2-52-01, FDOT completed improvements to retrofit their existing pump stations and injection wells whereby only during emergency bypass situations will discharges to the bay occur from the FDOT outfalls, which are located at 94th Street and at Carlyle Avenue. This FDOT drainage system, addressed the drainage from the area along Collins Avenue and east of Harding Avenue.

With assistance from grant monies under FDEP Agreements S0374 and LP6787, the Town completed retrofitting three outfall locations to install stormwater pump stations and injection wells to re-direct runoff into the groundwater, for water quality. Nutrient separating baffle boxes were installed upstream of the pump stations to provide treatment before the runoff enters the groundwater. These improvements occurred at the ends of 95th Street (Basin 1), Carlyle Avenue (Basin 6) and Surfside Boulevard (Basin 4). The SMMP identifies how basins 1 through 6 and 8 will interconnect for better quality control and hydraulic performance.

Surveying the Town for elevations and Street alignments has been completed and an inventory of all the components of the stormwater drainage system was completed. The Town also sealed all manhole covers and repaired or replaced the sanitary sewer lines, where necessary, to decrease transmigration of e-coli and other contaminants to Biscayne Bay..

HISTORIC RESOURCES

The Bureau of Archaeological Research within the Florida Office of Cultural and Historic Preservation maintains the Florida Master Site File (MSF); a database that contains information on archaeological and historic resources in Florida. The state MSF also contains those sites listed on the National Register. There are six (6) listed sites within the Town; a prehistoric mound, a prehistoric midden, and four (4) structures. The Indian Creek Bridge, adjacent to the Town, is also listed on the MSF.

The Town regulates the type of earth disturbing activities that may occur in the location of the midden and mound. The four structures listed on the MSF are all located along Collins Avenue and include the Surf Club lodge constructed circa 1930, a private residence also constructed circa 1930, and the Van Rel and Nichols apartment buildings constructed in 1947. The historic status of these structures should be considered when reviewing any applications for modifications or redevelopment of these structures.

INFRASTRUCTURE IN THE COASTAL AREA

The Town has an atlas with a complete inventory of the water distribution system and the sanitary sewer collection system in the Town. The Town recently completed an inventory of all signage and traffic control devices in the Town, as well as an inventory of all the components of the stormwater drainage system. Surveying the Town for elevations and street alignments has also been completed. The Town has current data on the infrastructure, which is addressed in greater detail in the Infrastructure Element of this plan.

COASTAL HIGH HAZARD AREA

Pursuant to Chapter 163.3178(2)(h)F.S. the “Coastal High Hazard Areas” (also referred to as “high-hazard coastal areas”) means the area below the elevation of the category 1 storm surge line as established by a Sea, Lakes, and Overland Surges from Hurricanes (SLOSH) computerized storm surge model. Map CST 1 Storm Tides shows the tide during a Category 1 storm from the US Army Corps of Engineers Hurricane Storm Tide Atlas printed in 2018.

Miami-Dade County storm surge planning zones have been drawn in relation to updated data which supersedes the previously-used SLOSH model. The newest generation of SLOSH model reflects major improvements, including higher resolution basin and grid data. The Storm Surge Planning Zones are used to identify risk of storm surge and is based on all directions of storms. As a storm is approaching, Miami-Dade County Emergency Management will identify which areas should evacuate for that particular storm. Evacuation Zones will be all of or a portion of the Storm Surge Planning Zones. The entire Town of Surfside is recognized as a Zone B. Surge Planning Zone B is defined as at greatest risk for storm surge for Category 2 and higher storms. A Surge Planning Zone A is at risk for for storm surge for Category 1 and higher storms. The Miami-Dade County website provides an on-line mapping tool to determine if a specific location is within a storm surge planning zone, the mapping tool can be found at:

<http://gisweb.miamidade.gov/communityservices/?ShowWhat=OEM>

INFRASTRUCTURE IN THE COASTAL HIGH HAZARD AREA

The current SLOSH model indicates a significant portion of the western side of the Town falls within the CHHA. This area falls along Indian Creek and Point Lake. The land within the CHHA is built out. Other than the surface parking lot along Abbot Avenue between 95th and 96th Streets and the 96th Street Park, there is private residential development in the CHHA. These homes are served by public roads, sewer and water.

DISASTER PLANNING

Within the Town there is the potential for impacts from lightning, floods, tornadoes and tropical storms, but the most significant natural disaster threat the Town needs to plan for is the event of a hurricane. Hurricanes have the potential to occur from June through November; heavy rainfall, high winds, storm surge and widespread flooding may accompany these storms. Records indicate that the Town has been brushed by or hit by a tropical storm or a hurricane 73 times from 1871 through 2016.

During a hurricane evacuation, a significant number of vehicles will have to be moved across the local and regional road network. The quantity of evacuating vehicles will vary depending upon the magnitude of the hurricane, publicity and warnings provided about the storm and particular behavioral response characteristics of the vulnerable population. The Town and County must be prepared to evacuate highly vulnerable populations on critical routes, often concurrently with evacuees from outside the County. There are limited route choices; *Map CST 2 Evacuation Routes* identifies the designated evacuation route for the Town. The Miami-Dade County Office of Emergency Management has identified the Town and the entire barrier island as a Zone B evacuation area.

The Town of Surfside is within the 50-mile Emergency Planning Zone (EPZ) for the Turkey Point Nuclear Power Facility located in southern Miami-Dade County. This EPZ includes the ingestion exposure pathway in which the population and animals are vulnerable to the long-term health effects associated with the ingestion of contaminated food and water. Additional manmade disasters that the Town may be subject to include other hazardous materials contamination, civil disturbances and mass migration events, terrorism, biological epidemics or coastal oil spills.

The Town has developed a Comprehensive Emergency Management Plan (CEMP). The CEMP identifies that the Emergency Planning Committee, as directed by the Public Works Director, will be responsible for annually reviewing the CEMP. The Public Works Director will be responsible for annually updating all annexes which reference contact information and other changing information. The Basic Plan and Functional Annexes will be updated once every four years unless substantial deficiencies are demonstrated through an actual or simulated disaster response incident. The Town Manager may also direct more frequent updates as the environment, conditions, or assumptions within the Town change. The Town of Surfside is also a participant in the Miami-Dade County Local Mitigation Strategy Planning Group. The Town coordinates their Post Disaster Redevelopment with the County Emergency Management Office.

The Town has identified publicly owned locations to be utilized as temporary debris storage and reduction sites in the event of a hurricane, and has had these sites reviewed by the Miami-Dade Department of Environmental Resource Management and has forwarded this site information to FDEP. The Town has also selected a disaster management/recovery services firm and debris monitoring services firm.

RESILIENCY PLANNING

The Town of Surfside is an older, built-out community that has been addressing resiliency concerns on an ongoing basis. This is a commitment by this Town and continues to be an ongoing process. Below is a brief overview of some of the action taken that began at least a decade ago.

By the end of 2009 the Town completed a Stormwater Management Master Plan to address water quality issues and to reduce flooding within the Town. The Master Plan included a complete engineering analysis based on engineered computer models. The report included the best approach to reduce or eliminate pollutant discharge loadings into Biscayne Bay and targeted improvement in hydraulic performance of the Town's drainage system to reduce stormwater flooding. The report informed the actions of the significant drainage system improvements the Town then undertook.

The storm sewer improvements were a part of an overall utility rehabilitation project that included the sanitary sewer and potable water systems. This was a significant project that consisted of the replacement of over 32,000 linear feet of water main, 1,587 water services, 1,278 new water meters and 46 additional fire hydrants. The sanitary sewer upgrades included over 50,000 linear feet of sanitary sewer main being CIPP lined or replaced, two (2) sewage pump stations being completely rebuilt with updated and more efficient pumps including SCADA controls, the force mains from the pump stations to the shared transmission main being replaced, and placing full dish gaskets on all manhole openings.

The storm sewer system was upgraded to include 3 SCADA controlled pump stations, 9 shallow injection drainage wells, 20 control structures and the required RCP pipeline to interconnect the existing gravity drainage system with the newly installed pumped well system. It also included the installation of over 45,000 linear feet of curb and 167,000 square yards of asphalt roadway resurfacing, sealing all stormwater manholes and installing back flow preventers on outfalls.

The Town searched for and obtained funding assistance for this project, which included the Miami Dade Building Better Communities General Obligation Bond, FDEP Grants, Regions Bank publically bid bond issuance and the FDEP's State Revolving fund program.

The Town obtained two Florida Inland Navigation District (FIND) grants to financially assist in replacing and elevating all Town owned seawalls. This project was completed by the end of 2017. The Town also adopted an ordinance that specifically requires the following: “The elevation for the top of shore end of all groins or other shore protective work shall be plus five feet above mean low water; the elevation for the top of seaward end of all groins and other shore protective work shall be plus 2&half feet above mean low water; and the elevation of the top of all seawalls fronting on the waters of Biscayne Bay, Indian Creek and Point Lake shall be plus five feet above mean low water.” This ordinance provides for an initial, and for an ever increasing height as the mean low water line increases.

Reflective of recommendations of the Regional Climate Action Plan, in April of 2016, the Town Commission officially formed the Sustainability Subcommittee of the Planning and Zoning Board. The purpose of the Subcommittee is to study and recommend policies and programs that strengthen the resiliency of the community. The Subcommittee's goals include:

1. Adapting and mitigating to climate change and sea level rise;
2. Promoting green and sustainable building, construction and operations;
3. Protecting, restoring, optimizing and creating green spaces;
4. Improving alternative transportation and mobility; and
5. Increased environmental awareness and stewardship of our treasured ecosystems.

The Town amended their flood ordinance to specify the following within the A zones:

- Residential construction. All new construction and substantial improvements of any residential building (including manufactured home) shall have the lowest floor, including basement, elevated to no lower than one foot above the base flood elevation.
- Nonresidential construction. All new construction and substantial improvements of any commercial, industrial, or nonresidential building (including manufactured home) shall have the lowest floor, including basement, elevated to no lower than one foot above the base flood elevation.

Additionally, all new construction and substantial improvements in V zones shall be elevated on pilings or columns so that:

- The bottom of the lowest horizontal structural member of the lowest floor (excluding the pilings or columns) is elevated to no lower than one foot above the base flood elevation.

The Town also requires all development other than single family residential be developed in accordance with Leadership in Energy & Environmental Design (LEED) or Florida Green Building Coalition (FGBC) building design and construction standards to ensure the incorporation of sustainable development practices.

In the Town’s ongoing efforts to develop accurate, effective and comprehensive flood peril strategies, the Town has obtain and reviewed a proposal for the following project and will be including the funding for this project in the fiscal year 2019 budget.

Project: Obtain elevation data at all of the street centerline intersections of public rights-of-way within the Town, and obtain beach dune height topographic survey with a grid of cross section elevations traversing from the Bulkhead line to the edge-of-water along the Atlantic coastline. The Town will also produce a Beach and Dune Use Best Management Practices document and develop Beach Use regulations.

The street intersection data will produce specific and accurate information on the lowest (most vulnerable) locations within the Town. This data will be incorporated into the Town’s GIS database to cross reference FIRM data, infrastructure data, historic site data and all other data layers the Town has developed. The analysis of this data will enable the Town to direct planning

efforts and strategies toward the infrastructure, critical facilities and adjacent properties in these locations; direct Capital Improvements funds most effectively; and assist the Town in assessing and developing effective freeboard criteria as needs arise.

The Town recognizes the protective value of the beach and dune system, particularly to the Town's commercial corridor, and main thorough fairs that are also main thorough fairs for the entire barrier island. The baseline data obtained on the current geo/topographic conditions of the dune and beach will also be incorporated into the Town GIS database; allowing the data to be placed over a current aerial photograph to identify the limits of the dune vegetation. Analysis of the survey information will enable the Town to identify any vulnerable areas that may need restoration or replanting, provide the baseline for the Town to be able to monitor changes, and to establish geo/topographic goals to strive for. The Town will research best protective management practices for the beach and dune system and produce a Beach and Dune Use Best Management Practices document. The information obtained will also guide the Town in the development of beach use regulations to ensure this natural resource remains an effective protection system for the Town.

The Town has also reviewed the requirements, feasibility and resource allocations associated with pursuing and obtaining a Certification through the Florida Green Building Coalitions. The will be pursuing FGBC certification and will additionally be putting funding for this project in the fiscal year 2019 budget.

Coastal Management Element Goals, Objectives and Policies

Goal 1: Provide for conservation and environmentally sound use of natural resources and the protection of human life and property. To plan for, and where appropriate, restrict development activities where such activities would damage or destroy coastal resources, and to limit public expenditures in areas that are subject to destruction by natural disaster.

Objective 1 – Protect living marine resources and maintain and improve estuarine water: The Town shall limit the specific and cumulative impacts of development or redevelopment upon water quality by requiring that surface water management systems be designed and operated consistent with state and regional standards and the Town’s adopted level of service.

Policy 1.1 – The Town shall continue to coordinate and cooperate with all applicable agencies in the appropriate management of the Biscayne Bay Aquatic Preserve, including, but not limited to, the Miami-Dade County Department of Environmental Resource Management, the Florida Department of Environmental Protection, the National Park Service and the Biscayne Bay Shoreline Development Review Committee.

Policy 1.2 – For site plan approval, the Town shall require that surface water management systems be designed and operated consistent with the Towns adopted drainage level of service.

Policy 1.3 – The Town shall continue to review and update as needed the adopted Stormwater Management Master Plan.

Policy 1.4 – The Town shall coordinate and cooperate with all applicable local, regional, state and federal agencies relating to the protection of Atlantic Ocean coastal waters, particularly relating to beach renourishment projects and Coastal Construction Control Line permitting.

Policy 1.5 – The Town shall cooperate and coordinate with the applicable agencies to assure that solid and hazardous wastes generated within the Town are properly managed to protect the environment and the near shore waters. The Town shall report any hazardous waste violation they may become aware of to the appropriate jurisdictional agency.

Policy 1.6 – The Town shall adhere to the Nation Pollution Discharge Elimination System – Municipal Separate Storm Sewer System (NPDES-MS4) Permit and shall implement the permit conditions including monitoring of outfalls and improving stormwater management practices.

Policy 1.7 – When applicable, the Town shall provide development proposal information to the Biscayne Bay Shoreline Development Review Committee for review.

Objective 2 – Protect living marine resources including manatees and sea turtles: In general, protect, conserve, or enhance living marine resources. In particular, limit impacts to manatees, sea turtle eggs, fisheries, wildlife, wildlife habitat, marine habitat and environmentally sensitive land.

Policy 2.1 – The Town police shall maintain communications with County and State marine police in order to report any violations of the boat speed limits in the adjacent waters which are a manatee protection area. The Miami-Dade County manatee telephone hotline shall also be publicized by Town officials.

Policy 2.2 – The Town shall enact and enforce land development provisions which regulate the location and screening of lights along the beach in a way which is practical to water dependent and water related uses to assist in protecting sea turtles by minimizing the amount of light on beach locations where sea turtles may nest. In addition, the Town shall actively cooperate with Miami-Dade County efforts to protect sea turtle nests. Cooperative actions to be taken by Miami-Dade County and/or Surfside shall include the following: 1) prohibiting horseback riding and campfires on and seaward of the dune during nesting; 2) prohibiting taking, killing, touching or otherwise interfering with sea turtle nests and nesting activities; 3) regulation of coastal construction so as to minimize negative impacts on sea turtles; and 4) beach and dune stabilization and preservation.

Policy 2.3 – The Town shall contact the Miami-Dade County Division of Environmental Management (DERM) if any adverse impact is observed relative to the sea grass beds in adjacent waters.

Policy 2.4 – The Town shall cooperate with the U.S. Army Corps of Engineers for beach renourishment if such becomes necessary. Where beach restoration or renourishment is necessary, the project should be designed and managed to minimize damage to offshore grass flats, terrestrial and marine animal habitats and dune vegetation. Native dune and beach plants should be planted and maintained.

Policy 2.5 – The Town shall maintain and enforce land development code provisions requiring minimum building setbacks from the ocean. Specifically, the Town shall retain the ocean bulkhead line setback criteria established in the zoning code.

Policy 2.6 – The Town shall require all new shoreline development affecting marine habitats to be reviewed by the Miami-Dade County Division of Environmental Resource Management or other applicable jurisdictional agency.

Policy 2.7 –The Town shall coordinate with existing resource protection plans of other governmental agencies, including the Miami-Dade County Division of Environmental Resource Management, the South Florida Water Management District, the Florida Fish and Wildlife Conservation Commission, the Florida Department of Environmental Protection, the U.S. Army Corps of Engineers, the U.S. Fish and Wildlife Service and others.

Policy 2.8 – The Town shall cooperate with Federal, state and county programs designed to ensure the required use, proper maintenance and proper functioning of dockside pump out facilities.

Objective 3 – Prioritize water-related and water dependent uses: The amount of shoreline devoted to water dependent and/or water-related uses shall be maintained.

Policy 3.1 – The Town shall continue to permit water dependent hotel uses and water-oriented residential uses east of Collins Avenue. The regulations of this area shall be consistent with the density limits established by the Future Land Use Map of this plan.

Policy 3.2 – Those public access areas including street ends, municipal parking facilities and municipal parks along and near coastal waters will be maintained or redesigned to provide greater public access to Biscayne Bay and the Atlantic Ocean beach areas.

Policy 3.3 – The Town shall design and construct signage along major thoroughfares to direct the public's attention to public shoreline parks and water-related facilities.

Policy 3.4 – The Town shall require water-dependent uses to meet the following criteria:

- a) Construction or subsequent operation shall not destroy or degrade sea grass or hard bottom communities, or habitats used by endangered or threatened species.
- b) Where applicable, all external agency approvals shall be obtained.
- c) The proposed facility shall be: 1) compatible with existing, surrounding land uses, and 2) of sufficient size to accommodate project and the required parking.
- d) The proposed facility shall: 1) preserve or improve traditional public shoreline uses and public access to estuarine and coastal waters, 2) preserve or enhance the quality of the estuarine and coastal waters, water circulation, tidal flushing and light penetration, 3) preserve archaeological artifacts or zones and preserve, or sensitively incorporate historic sites, and 4) where applicable, provide a hurricane contingency plan.

Objective 4 – Protect and enhance beaches and dunes: The Town shall protect beaches and dunes, establish construction standards which minimize the impacts of manmade structures on beach or dune systems, and restore altered beaches and dunes where feasible.

Policy 4.1 – The Town shall continue to maintain the posted signs prohibiting walking on vegetated dune and/or uprooting or otherwise damaging plants.

Policy 4.2 – The Town shall maintain the provisions contained in the zoning code restricting development seaward of the ocean bulkhead line on the properties east of Collins Avenue and shall require all construction activities seaward of the coastal construction control lines established pursuant to s. 161.053 be consistent with chapter 161.

Policy 4.3 – The Town shall enforce and maintain the adopted landscape provisions contained in the zoning code requiring the installation of native beach dune landscape materials seaward of the ocean bulkhead line with any new or redevelopment.

Policy 4.4 – The Town shall continue to coordinate and cooperate with the Florida Department of Environmental Protection's Bureau of Beaches and Coastal Systems and with the Miami-Dade County Park and Recreation Department regarding access to and the appropriate maintenance of the beach area seaward of the erosion control line.

Policy 4.5 – The Town shall regulate the property adjacent to beaches and dunes to ensure the protection of the ecological value of beach and dune areas.

Policy 4.6 – No new dune cross over locations shall be established. The Town shall limit the dune crossovers providing access to the beach to the seventeen crossover locations that currently exist.

Policy 4.7 – The Town shall enforce and maintain the adopted Beach Sand Quality Ordinance.

Objective 5 – Direct population concentrations away from coastal high hazard areas and limit coastal high hazard area infrastructure expenditures: The Town shall, through land use designation and development review, regulate and limit the type of uses in the predicted Coastal High Hazard Area. The Town shall direct population concentrations away from known or predicted High Hazard Areas.

Policy 5.1 – The Town shall require development activities be consistent with, or more stringent than, the flood-resistant construction requirements in the Florida Building Code and applicable floodplain Management regulations set forth in 44 C.F.R. part 60, and shall require all construction activities seaward of the coastal construction control lines established pursuant to s. 161.053 be consistent with chapter 161.

Policy 5.2 – The Town shall limit future public expenditure for new infrastructure which will subsidize growth within the Coastal High Hazard Area; expenditures for restoration and maintenance are exempt from these limitations and expenditures for the enhancement and protection of natural resources or for public land acquisition is encouraged.

Policy 5.3 – Objective 5 and Policy 5.2 above shall not be implemented in such a way as to preclude the Town's plans to improve drainage facilities or reconfigure streets in order to provide adequate infrastructure to serve the Future Land Use Plan development pattern, adapt to climate change, or development for which rights were vested prior to enactment of this Plan.

Policy 5.4 – Pursuant to Chapter 163.3178(2)(h) of the Florida Statutes, the “Coastal High Hazard Areas” (also referred to as “high-hazard coastal areas”) means the area below the elevation of the category 1 storm surge line as established by a Sea, Lakes, and Overland Surges from Hurricanes (SLOSH) computerized storm surge model.

Policy 5.5 – Consideration for the relocation, mitigation or replacement of any of the existing infrastructure in the Coastal High Hazard Area, as may be deemed appropriate by the Town, shall be coordinate with the state when state funding is anticipated to be needed for implementation of the project.

Objective 6 – Hurricane Preparedness: The Town shall coordinate with the County to maintain a 12-hour hurricane evacuation clearance time to shelter for a category 5 storm event as measured on the Saffir-Simpson scale.

Policy 6.1 – To provide for safe and efficient evacuation of the residents of the Town and other local communities in the event of a hurricane, the Town shall continue to plan and coordinate with Miami-Dade County in updates of the County’s Comprehensive Emergency Management Plan, including evacuation planning. This update shall enable the County and incorporated municipalities to plan for future population densities to ensure compliance with adopted level of service standards established in this Plan.

Policy 6.2 – The Town shall continue to coordinate with the County in updating hurricane evacuation shelter assignments and in disseminating information concerning evacuation routes and evacuation scheduling.

Policy 6.3 – The Town shall conduct an ongoing hurricane evacuation information program to make all residents aware of evacuation needs and plans.

Policy 6.4 – The Town shall maintain its traffic level of service which in turn is based upon the Future Land Use Map, thereby achieving a reasonable hurricane evacuation time.

Policy 6.5 – The Town shall continue to update its Comprehensive Emergency Management Plan in order to be prepared for, respond to, and recover from potential hazard.

Policy 6.6 – The Town shall maintain a contingency fund in order to cover the Town’s required match for disaster assistance grants.

Objective 7 – Emergency Preparedness: The Town shall plan and coordinate response for emergency preparedness and/or post-disaster management in the context of climate change.

Policy 7.1 – The Town shall ensure adequate planning and response for emergency management in the context of climate change by maximizing the resilience and self-sufficiency of, and providing access to, public structures, schools, hospitals and other shelters and critical facilities.

Policy 7.2 – The Town shall continue to communicate and collaboratively plan with other local, regional, state and federal agencies on emergency preparedness and disaster management strategies including incorporating climate change impacts into updates of local mitigation plans, water management plans, shelter placement and capacity, review of major trafficways and evacuation routes, and cost analysis of post disaster redevelopment strategies.

Policy 7.3 – The Town shall consider the public health consequences of climate change, such as extreme temperatures and vector-borne diseases, and take steps to build capacity to respond to or support other agency responders.

Objective 8 –Ensure public access to beach and shorelines: The Town shall maintain all existing public access to the beach and shorelines, particularly the Atlantic Ocean and the Atlantic Ocean beach.

Policy 8.1 – The Town shall maintain all existing street ends and public access points to the Atlantic beach and to the waters of Biscayne Bay.

Policy 8.2 – The Town shall beautify and enhance beach accesses at the public street ends east of Collins Avenue when funds are available and conditions merit.

Policy 8.3 – The Town shall regulate public parking near beach access points to facilitate its use by beach visitors, particularly during nonbusiness days and hours.

Policy 8.4 – The Town shall continue to provide beach access from of the Surfside Community Center.

Policy 8.5 – The Town shall apply for State and Federal grant funds, such as the Florida Recreation Development Assistance Program, and the Land and Water Conservation Fund for the improvement of public recreation and open space.

Policy 8.6 – The Town shall design and install signage along Collins Avenue and Harding Avenue to identify the public access locations to the beach.

Objective 9 – Protect historic properties: The Town shall provide for protection, preservation or sensitive reuse of historic structures.

Policy 9.1 – The Town shall provide for appropriate use and protection of known historic structures through the site plan review process.

Policy 9.2 – Prior to commencing any significant public construction or issuing any permits for significant private construction, not to include minor construction such as resurfacing of an existing street, construction of a residential fence and/or any other such improvement which will not disturb the archeological assets which lie well below the surface of these areas within the areas identified as the Surfside Midden and the Surfside Mound, the Town shall notify Miami-Dade County's Historic Preservation Division.

Policy 9.3 – The Town shall coordinate historic resource protection activities, procedures and programs with applicable state and federal laws, policies and guidelines.

Objective 10 – Level of service and public facility timing: The Town shall achieve and maintain Level-of-Service standards through a concurrency management system with a phased capital improvement schedule.

Policy 10.1 – The Town shall implement the concurrency management system contained in this plan and the Town shall supplement the concurrency management system with which will be further detailed in land development code capital improvements when appropriate and necessary to meet Level-of- Service standards concurrent with the impact of development.

Policy 10.2 – Priority shall be given to drainage system improvements for State Road AIA because it serves as a primary evacuation route.

Policy 10.3 – Potential rise in sea level shall be taken into consideration in the design of all infrastructure.

Objective 11 – Hazard mitigation: In general, the Town shall regulate development so as to minimize and mitigate hazard resulting from hurricanes. In particular, the Town shall ensure that all construction and reconstruction complies with applicable regulations designed to minimize hurricane impact on buildings and their occupants.

Policy 11.1 – The Town shall maintain consistency with the program policies of the National Flood Insurance Program (NFIP) administered by the Federal Emergency Management Agency (FEMA) and shall monitor new cost effective programs for minimizing flood damage. Such programs may include modifications in construction setback requirements or other site design techniques, as well as upgraded building and construction techniques. The Town's adopted flood protection regulations shall be amended as necessitated by changes in FEMA regulations.

Policy 11.2 – When structures are renovated at a cost in excess of fifty (50) percent of the structure's pre-renovation market value, the structure shall be brought into conformance to meet all current laws and ordinances, including those enacted since construction of the subject structure.

Policy 11.3 – The City shall ensure that its code compliance process continues to identify and require the removal and/or rehabilitation of structures that are deemed to be a hazard to the public health, safety and welfare.

Policy 11.4 – The Town shall participate in the Community Rating System of the National Flood Insurance Program

Policy 11.5 – The Town shall continue to enforce regulations and codes which provide for hazard mitigation, including but not limited to, land use, building construction, placement of fill, flood

elevation, sewer, water and power infrastructure, and stormwater facilities. These regulations shall be applied to eliminate unsafe conditions, inappropriate uses and reduce hazard potentials.

Policy 11.6 – The Town shall increase public awareness of hazards and their impacts by providing hazard mitigation information to the public. Information shall address evacuation, sheltering, building techniques to reduce hazards as well as other hazard mitigation issues that could help prevent loss of life and property.

Policy 11.7 – The Town shall continue to monitor updates to sea level rise forecasts and take into consideration the most current data when making decisions regarding land use amendments, capital improvements, infrastructure or critical public facilities projects.

Policy 11.8 – The Town shall, as deemed appropriate, incorporate the recommendation of the hazard mitigation annex of the local emergency management plan and shall analyze and consider the recommendations from interagency hazard mitigation reports.

Policy 11.9 – The Town shall include criteria in the five (5) year schedule of Capital Improvement projects to include consideration for and prioritization for projects that are hazard mitigation initiatives.

Objective 12 – Sea Level Rise: The Town shall plan for and prepare for the impacts of sea level rise.

Policy 12.1 – The Town shall support the efforts of state environmental and planning agencies to jointly develop, assess, and recommend a suite of planning tools and climate change adaptation strategies for local municipalities to maximize opportunities to protect the beach and dune systems and other coastal resources from the impacts of sea level rise and shall require all construction activities seaward of the coastal construction control lines established pursuant to s. 161.053 be consistent with chapter 161.

Policy 12.2 – The Town shall cooperate with federal and State agencies on any beach and dune renourishment programs, and any coral reef protection or establishment programs to enhance coastal resiliency and storm protection.

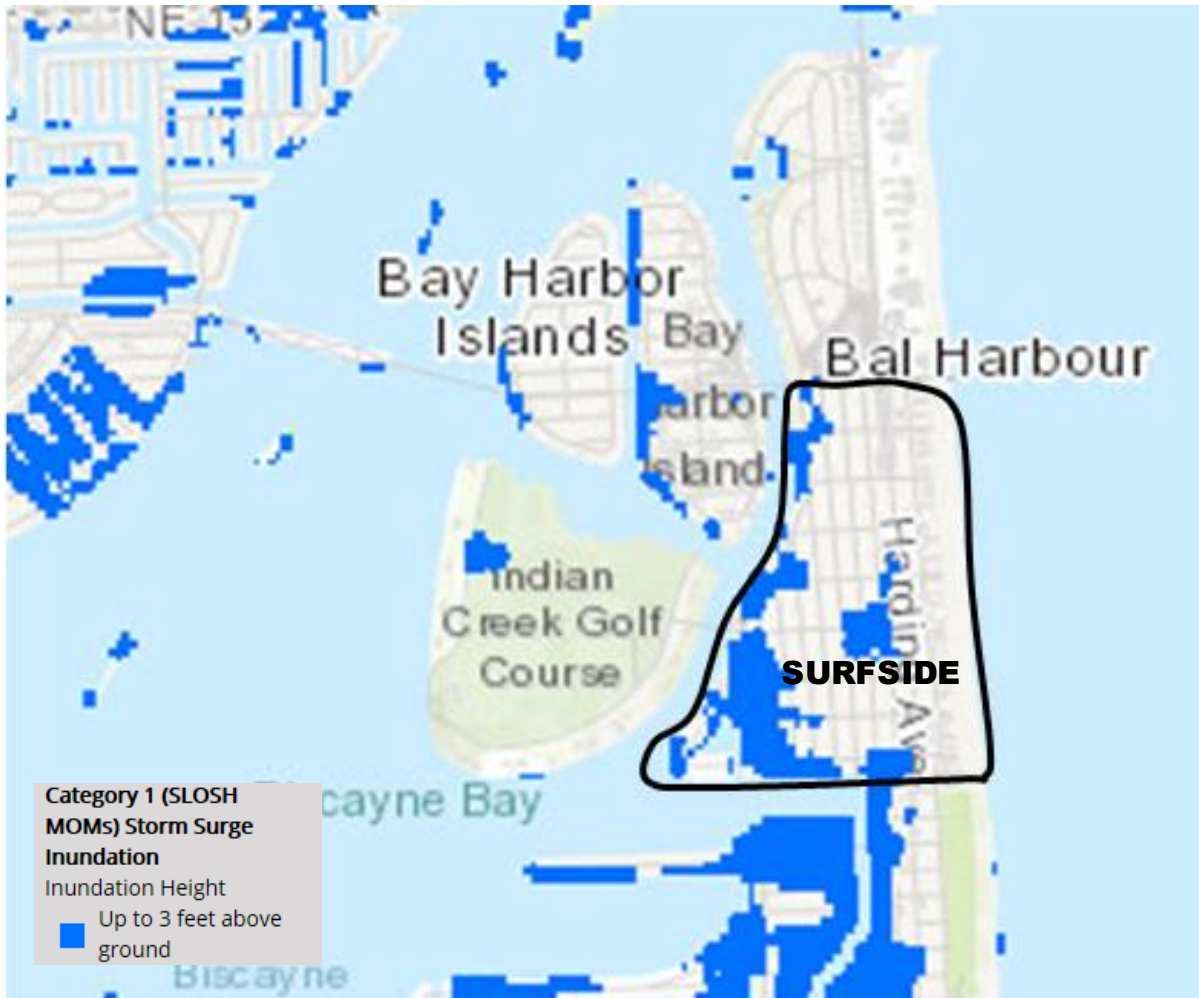
Policy 12.3 – The Town shall continue to review updated mapping studies to aid in identifying areas of the Town most vulnerable to sea level rise, tidal flooding, and other impacts of climate change.

Policy 12.4 – The Town shall continue to review the best available data and designate areas that are at increased risk of flooding due to, or exacerbated by, sea level rise over the next 50 years, and work to make these areas more climate resilient by discouraging density increases and encouraging the use of adaptation and mitigation strategies.

Policy 12.5 – The Town shall continue to review and implement available data that is applicable to the Town from governmental entities such as the Regional Climate Compact or the County that identifies development and redevelopment principles, strategies, and engineering solutions that reduce the flood risk in coastal areas which results from high-tide events, storm surge, flash floods, stormwater runoff, and the related impacts of sea-level rise.

Policy 12.6 – The Town shall continue its program to replace all Town owned seawalls and continue to implement the increased elevations for seawalls and groins as specified in the Town code of ordinances.

CST 1 Storm Tides: NATIONAL STORM SURGE HAZARD MAPS - SLOSH CATEGORY 1 MAP



Source: NOAA/NWS/NHC Storm Surge Unit







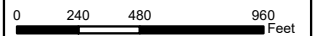
Surfside Comprehensive Plan

Map: CST 2

Evacuation Routes

Legend

-  Surfside City Limits
-  Adjacent City Limits
-  Evacuation Route
-  Water



Print: 6-7-2017

Source: Miami Dade GIS Self Services



CONSERVATION ELEMENT

DATA INVENTORY AND ANALYSIS

PURPOSE

The purpose of the Conservation Element is to promote the conservation, use, and protection of natural resources in the Town.

NATURAL ENVIRONMENT

Climate

The Southeast Regional Climate Center identifies that from 1927 to 2012, the average annual maximum temperature is 81.1 F° and the average annual minimum temperature is 71.4 F° for the barrier island the Town is located on. The average annual total precipitation is 47.82 inches. Precipitation is not distributed evenly throughout the year. Precipitation ranges from an average monthly low of 1.85 inches in December, to 7.13 inches in September. Precipitation is heaviest from May through October with 71% of the rainfall occurring during these six months. No snowfall has been reported during this recording period.

Thunderstorms are common during the summer months. Hurricanes, which occur less frequently, have the potential to occur from June through November; heavy rainfall, high winds, and widespread flooding may accompany these storms. Records indicate that the Town has been brushed by or hit by a tropical storm or hurricane 73 times in a 143 year period ending in 2016. Two of the more devastating hurricanes which occurred struck in 1926 and in 1992 when Hurricane Andrew, a category 5 hurricane, made landfall in South Miami-Dade County. The most recent hurricane events occurred in 2005 with Hurricanes Katrina and Wilma. Both of these storms caused moderate damage to the area.

Soils

The U.S. Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) identifies Urban Land and Beaches as the only two coverage types found within the Town. The NRCS describes Urban Lands as areas that are more than 70% covered by buildings, streets, sidewalks and other structures so the natural soil is not readily accessible. The NRCS describes beaches as nearly level to sloping, narrow, sandy strips along the Atlantic Ocean of fine to coarse sand mixed with shell fragments. *Map FLU 2 Soils*, provides the general distribution of soils/coverage in the Town as mapped by the NRSC.

The beach along the Town's ocean frontage is created from a beach renourishment program. The deposit material utilized for the renourishment program was sand that was harvested from off-shore borrow sites that is similar to the beach sand which would naturally occur on this barrier island.

Physiography

Surfside is an Atlantic Ocean coastal community located on a barrier island on the southeast coast of the Florida peninsula in Miami-Dade County. The Town is separated from the mainland by the north end of the Biscayne Bay. The Biscayne Bay Inlet (Bakers Haulover Cut), less than one mile north of the Town, is the northern end of the barrier island, and Government Cut, approximately seven and one half miles

south of the Town, is the southern end. The Town itself is one mile in length from its north to south end and is approximately three-fourths of a mile wide at its widest point on the south end of Town. Biscaya Island, also a part of the Town, is a small residential neighborhood at the southwest corner of the Town that is separated from the barrier island by the dredged water feature referred to as Point Lake, but connectivity is maintained via a short bridge segment, referred to as Biscaya Bridge, on Eighty-Eighth Street.

The natural conditions of this barrier island have been highly altered. The one mile length of beach and dune along the Town's ocean frontage is created from a beach renourishment program. The restoration of the federally-authorized Dade County Shore Protection Project, which included the Town of Surfside, began in 1978 and was completed in January 1982. The project utilized sand from offshore borrow sites. The project included restoration of a 20 foot wide dune at elevation +10.7 ft NGVD and a 50 foot wide level berm at elevation +8.2 ft NGVD. Additional fill material equivalent to ten years of advance nourishment was placed seaward of the design berm. Though nourishment of several areas of the initial project was conducted between 1987 and 1990, the overall project has exceeded performance expectations. At the time of the compilation of this data in 2017, there is approximately 38.2 acres of beach seaward of the erosion control line within the Town.

The entirety of the Town's bay side shoreline, inclusive of Indian Creek and Point Lake, has been significantly altered and is bulkheaded, and the adjacent nearshore waters have been dredged. *Map FLU 5 Water Bodies*, identifies the water bodies that abut the limits of the Town.

Map FLU 3 Topography identifies the topography of the Town. The Town is nearly flat with elevations ranging only from 0 to 10 feet. The vast majority of the Town is 5 feet or less. The lowest elevation is found along the oceanfront coastline. The highest elevation is a narrow linear strip that runs approximately along Collins Avenue.

Soil Erosion

The entire length of ocean shoreline along the barrier island the Town is located on is recognized as 'Critically Eroded' by the Florida Department of Environmental Protection's Bureau of Beaches and Coastal Systems and is part of a long term beach renourishment program. The Bureau defines critically eroded as a segment of the shoreline where natural processes or human activity have caused or contributed to erosion and recession of the beach or dune system to such a degree that upland development, recreational interests, wildlife habitat, or important cultural resources are threatened or lost. Critically eroded areas may also include peripheral segments or gaps between identified critically eroded areas which, although they may be stable or slightly erosional now, their inclusion is necessary for continuity of management of the coastal system or for the design integrity of adjacent beach management projects.

The entirety of the Town's bayside shoreline, inclusive of Indian Creek and Point Lake is bulkheaded and the remainder of the Town is developed and does not experience erosion problems.

Commercially Valuable Minerals

There are no extractable, commercially valuable minerals in the Town.

Floodplains

The National Flood Insurance Program administered by the Federal Emergency Management Agency (FEMA) has identified the following flood zones within the Town:

Table 6-1. National Flood Insurance Program Flood Zones	
Zone	Description
VE	Special Flood Hazard Area coastal flood zone with velocity hazard (wave action); base flood elevations determined.
AE	Special Flood Hazard Area subject to inundation by the 1 percent annual chance of flood; base flood elevations determined..
X	Areas determined to be outside the 2 percent annual chance floodplain.
X shaded	Areas of 2 percent annual chance flood; areas of 1 percent annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from the 1 percent annual chance flood.

Map FLU 4 FEMA Flood Zones, locates the flood zones within the Town. Nearly the entirety of the Town is an AE zone; this zone falls generally west of Collins Avenue. The X zone falls generally east of Collins Avenue. Existing land uses found within these flood zones are illustrated in the *Future Land Use* map and described in the Future Land Use Element.

Land use, as it relates to the discharge of stormwater and to the use of natural drainage, is regulated through the South Florida Water Management District and Miami-Dade County. The Florida Building Code regulates construction as it relates to flood zones.

Air

Air quality in the Town is generally considered good by the Florida Department of Environmental Protection (FDEP) other than for ozone. The *FDEP 2012 AIR MONITORING REPORT* states that “The national ambient air quality standards (NAAQS) are met throughout Florida, (with the exception of a small area in Tampa where the lead standard is violated). Florida counties are in attainment for all pollutants with the exception of Orange County, Duval County, the Tampa Bay area including Hillsborough and Pinellas Counties, and Southeast Florida including Miami-Dade, Broward, and Palm Beach Counties which continue to be classified by the Environmental Protection Agency as attainment/maintenance areas for the pollutant ozone, and a portion of Hillsborough County which is classified as a nonattainment area for lead.”

The *FDEP 2016 Annual Air Monitoring Network Plan* reports that Florida has created a robust and comprehensive air monitoring network comprised of more than 220 monitors at 101 sites that are strategically positioned across the state to measure air quality, including in Miami-Dade County.

The Air Quality Index (AQI) was developed by the Environmental Protection Agency (EPA) to provide accurate and easily understandable information to the community about daily air pollution levels. The AQI provides EPA with a uniform system of measuring pollution levels for the major air pollutants regulated under the Clean Air Act (CAA). The Clean Air Act of 1970 defined six criteria pollutants and established ambient concentration limits to protect public health and welfare. The criteria pollutants are (1) ozone, (2) carbon monoxide, (3) nitrogen dioxide, (4) particulates, (5) sulfur dioxide and (6) lead. FDEP takes the lead in the state of Florida for monitoring and regulating the major pollutants under the Clear Air act. Miami Dade County offers its residents an Air Quality Notification Service that can be customized for each resident’s own needs. Air quality is a matter that must be addressed at a regional level requiring the local, County and regional entities to coordinate air quality maintenance and improvement efforts.

Water Resources

The predominant water resources that are present are the Atlantic Ocean and Biscayne Bay. Indian Creek is a channel that separates the Town from the Islands of Indian Creek Village and Bay Harbor Islands,

and Point Lake, the dredged channel and water body that separate Biscaya Island from the remainder of the Town, is considered part of Biscayne Bay.

Biscayne Bay, a sub-tropical estuary, is located along the coast of Miami-Dade and northeastern Monroe Counties. It is a marine ecosystem comprised of about 428 square miles with a watershed area of about 938 square miles. The bay can be divided into three general areas, north, central and south Biscayne Bay. North Biscayne Bay extends from Dumfoundling Bay (approximately NE 192nd Street) south to the Rickenbacker Causeway. The Town of Surfside is located adjacent to the north portion of Biscayne Bay. This northern portion of the bay retains the most estuarine habitat found throughout the bay, but it is also the most altered by dredging and bulkheading. Although remaining shallow areas contain some productive seagrass beds, roughly 40 percent of this area is too deep or too turbid to support a productive estuarine ecosystem. The entirety of the Town's bayside shoreline, inclusive of Indian Creek and Point lake has been significantly altered through dredging and is bulkheaded.

Central Biscayne Bay, extending from the Rickenbacker Causeway south to Black Point, is more of a marine system that is heavily influenced by daily tidal flushing. Estuarine areas are limited to near shores areas close to major sources of freshwater inflow (canals). Seagrass meadows are extensive. A narrow band of mangrove-forested coastal wetlands begins at Matheson Hammock Park and extends southward along the shoreline.

Southern Biscayne Bay extends from Black Point to Jewfish Creek. This southern area is most profoundly affected by the reduction in historical freshwater flows and tends to become hypersaline during periods of low rainfall. The near shore freshwater wetlands have been significantly reduced and a transition to mangrove species is occurring. This southern area encompasses Biscayne National Park as well as Card and Barnes Sounds, which are both included in the Florida Keys National Marine Sanctuary.

The Bay supports a wide variety of plants and animals, some of which are important for fisheries. Many rare, threatened and endangered species inhabit this estuarine ecosystem including manatees and crocodiles. Historically, it's clear water supported a diversity of productive communities of seagrass, corals and sponges, and prior to settlement, mangroves and coastal wetlands rimmed the bay. Oyster bars and estuarine species like red and black drum were common. However, intensive development of the watershed has altered the natural cycle of freshwater inflows into the bay. Northern and central Biscayne Bay are strongly affected by the urban development associated with the growth of Miami-Dade County. Southern Biscayne Bay is influenced by drainage from the Everglades, which has been altered by canals and agricultural activities. Overall, Biscayne Bay shows increasing signs of distress; declines in fisheries, increased pollution and dramatic changes in near shore vegetation. Today, the bay is a pulsed system that alternates between marine conditions and extreme low salinities near the discharges of 19 major canals.

Biscayne Bay is now designated as an Outstanding Florida Water and an Aquatic Preserve under Florida statutes. The Biscayne Bay Aquatic Preserve was established by the Florida Legislature in 1974 and covers approximately 69,000 acres of state submerged land. The Aquatic Preserve consists of two separate areas of the bay, the northern part and the southern portion which is separated by Biscayne National Park, a submerged lands park encompassing the central portion of the bay. A variety of organizations have monitoring and research underway in Biscayne Bay and its watershed. The western edge of the Town abuts the northern portion of the Biscayne Bay Aquatic Preserve.

The Bay area off of the Town is also recognized as an Impaired Waterbody (WBID 3226H). The parameters for the impaired waterbody is Mercury in fish tissue.

Land Cover

Map FLU 6 Aerial, best exemplifies the land coverage within the Town. The land coverage can be categorized as Developed and Beach. Other than the beach and beach dune system, the Town is built out.

There are no native preserves or remaining native habitats or wetlands within the Town. The beach and dune system, although created through a beach renourishment program, is owned by the State and maintained in a natural condition.

Natural Habitats

There is 38.2 acres of state owned beach (approximately 1 mile in length) seaward of the erosion control line, which runs approximately along the crest of the dune. This beach is maintained under an agreement with the State by the Miami-Dade Park, Recreation and Open Spaces Department. The seaward face of the dune is vegetated. The beach is recognized as nesting habitat for the federally listed loggerhead, green, hawksbill, and leatherback sea turtles. Sea turtles typically nest at night from March through November, with incubation lasting approximately 55 days. Threats to sea turtle nests are both man-made and naturally occurring. Detrimental activities include: physical disturbance of dune systems by development; the placement of physical obstructions on the beach entrapping adults and hatchlings; high raccoon predator populations; nest disturbance by stray or unleashed pets; or the disorientation of hatchlings from direct lighting of the beaches at night. Natural occurring coastal erosion which can cause cliffing and, although not frequent, hurricanes causing serious beach erosion or accretion are also detrimental to nesting success.

Along beachfront private properties, the Town has an established ocean bulkhead line. The zoning code prohibits development or any redevelopment seaward of this ocean bulkhead line. Seaward of the ocean bulkhead line there is approximately 19 acres that are undeveloped that lie adjacent to the State owned beach. Within this undeveloped ocean bulkhead setback area along the landward side of the dune, there is an unimproved maintenance path that is utilized by the State, the County and the Town that runs the entire length of the Town. This maintenance path is a popular public walking and biking path. The landward side of the dune in this area is more sparsely vegetated than the seaward side, and the property owners have landscaped the area nearest the bulkhead on many of the properties.

To limit impacts to the dune and dune vegetation, access to the beach is limited to seventeen (17) dune cross-over locations. Eight of these cross-overs correspond to the termination of the platted public right of ways that terminate at the State beach area and one is in front of the Town's Community Center site providing direct public access to the beach. Although the remaining cross-overs are located in front of private properties, the established maintenance path provides open public access to these cross-overs also.

Appendix 6-A. *List of Federal State and County Endangered, Threatened, Rare, and Special Concern Fauna in Miami Dade County* as presented in the Conservation, Aquifer Recharge and Drainage Element of the Miami-Dade Comprehensive Development Master Plan including amendments adopted up through November 18, 2015. Although most of these species may not occur within the Town, the table proves useful to understand the listed species that may be within the proximity of the Town. Due to the highly urbanized nature of the Town the listed species that may occur are limited to those that utilize the bay or coastal waters, or beach habitat.

Appendix 6-B. *List of Federal, State and County Endangered, Threatened, Rare, and Special Concern Flora in Miami-Dade County* as presented in the Conservation, Aquifer Recharge and Drainage Element of the Miami-Dade Comprehensive Development Master Plan including amendments adopted up through November 18, 2015. Although most of these species may not occur within the Town, the table proves useful to understand the listed species that may be within the proximity of the Town.

Appendix 6-C. *Invasive Pest Plant Species* identifies the plants listed on the Florida Exotic Pest Plant Council's 2017 List of Invasive Plant Species. Due to the highly urbanized nature of the Town occurrence of these pest plant species will be limited, but may still occur and create problems on the beach and within landscaped areas if not maintained.

Conservation Opportunities

Conservation opportunities are enhanced through the public ownership of land. There is approximately 38 acres of state owned beach seaward of the erosion control line. The beach is maintained under an agreement with the State by the Miami-Dade Park, Recreation and Open Space Department. The beach is maintained in a natural state. The Town has been built out since the 1980's; there are no preserves, wetlands or natural habitats within the Town other than the beach habitat. The Park and Recreation Element inventories and identified the parks located in the Town.

Potable Water

The Town of Surfside purchases their potable water supply directly from the Miami-Dade County Water and Sewer Department (WASD). Under this arrangement, the Town of Surfside coordinates with Miami-Dade County to ensure that adequate capacity is available for existing and future customers. The Biscayne Aquifer, an underground geologic formation, is the source of raw water for WASD. See the Infrastructure Element for more details on water supply.

The Town is served by the WASD Hialeah-Preston subarea, which lies generally north of Flagler Street. The Hialeah and the John E. Preston water treatment plants (WTPs) serving this subarea are located at 200 W. 2nd Avenue and 1100 W. 2nd Avenue, respectively. These adjacent facilities located in Hialeah share interconnected source water and finished water storage capacity and have similar treatment processes. There are no public wellfields or wellfield protection zones located in the Town of Surfside.

On a regional level the Town falls within the South Florida Water Management District (SFWMD) and within the SFWMD's Lower East Coast (LEC) Planning Area. The *Lower East Coast Water Supply Plan Update 2013*, is one of four, long-term comprehensive regional water supply plan updates the District has developed for its planning areas.

As the state agency responsible for water supply in the region, including the Lower East Coast planning area, the SFWMD plays a vital role in resource protection. As a component of the District's Consumptive Use Permitting Program, the Regional Water Availability Rule mandates the development of alternative water supplies, and increasing conservation and reuse to reduce the reliance on the regional system for future water supply needs. The Town of Surfside is working with WASD's Water Use Efficiency Section to identify the water conservation best management practices (BMPs) applicable to the Town to develop the Town's Water Conservation Plan as required by Miami-Dade County Ordinance 06-177.

Ground Water

The principal ground water resources for the LEC Planning Area are the Surficial Aquifer System (SAS), including the Biscayne aquifer, and the Floridian Aquifer System (FAS). The Surficial and Biscayne aquifers provide most of the fresh water for public water supply and agriculture within the LEC Planning Area. The 2005-2006 LEC Plan Update identifies the following:

Although the Biscayne Aquifer is part of the Surficial Aquifer System (SAS), it exists only along the coastal areas in Miami-Dade, Broward and southern Palm Beach counties. The Biscayne Aquifer is highly productive with high-quality fresh water. The extension of the SAS through central and northern Palm Beach County is less productive, but is still used for consumptive uses, including potable water. These aquifers are shallow, generally located within 200 feet of ground surface, and are connected to surface water systems, including canals, lakes and wetlands.

The Biscayne Aquifer and the extension of the SAS into northern Palm Beach County provide more than 1 billion gallons per day of high-quality, inexpensive fresh water for the populations of Palm Beach, Broward and Miami-Dade counties and the Florida Keys portion of Monroe County. This volume is heavily supported, especially during the annual dry season, as well as in periodic droughts, by water from the regional system, primarily the Everglades. During droughts, water from Lake Okeechobee has been required to supplement water from the Everglades to meet the needs of the coastal counties.

The Biscayne Aquifer is designated as a sole source aquifer by the U.S. Environmental Protection Agency (USEPA) under the *Safe Drinking Water Act* because it is a principal source of drinking water and is highly susceptible to contamination due to its high permeability and proximity to land surface in many locations. Protection of the Biscayne Aquifer is provided for through the District's *Basis of Review for Water Use Permit Applications* (SFWMD 2003) and in Chapter 373, Florida Statutes (F.S.), which limit the water availability for consumptive uses.

The Floridan Aquifer System (FAS) exists not just in the LEC Planning Area, but throughout the entire state and portions of adjacent states. The Upper Floridan Aquifer in southeast Florida contains brackish water and is increasingly being tapped as a source of raw water for treatment with reverse osmosis (RO) to create potable water. Brackish water from the Floridan Aquifer is also blended with fresh water prior to conventional water treatment to expand water supplies during the dry season. Additionally, the Floridan Aquifer is used for seasonal storage of treated fresh water within aquifer storage and recovery (ASR) systems. The Floridan Aquifer has been more extensively developed in the Upper East Coast (UEC) and Lower West Coast (LWC) planning areas of the South Florida Water Management District (SFWMD or District) than in the LEC Planning Area.

From Jupiter to southern Miami, water from the FAS is highly mineralized and not suitable for drinking water without specialized treatment. More than 600 feet of low permeability sediments confine this aquifer and create artesian conditions in the LEC Planning Area. Although the potentiometric surface of the aquifer is above land surface, the low permeability units of the intermediate confining unit prevent significant upward migration of saline waters into the shallower freshwater aquifers.

The top of the Upper Floridan Aquifer is approximately 900 feet in southeast Florida, and the base of the Upper Floridan extends as deep as 1,500 feet. At the base of the Lower Floridan Aquifer, there are cavernous zones with extremely high transmissivities collectively known as the boulder zone. Because of their depth and high salinity, these deeper zones of the Lower Floridan Aquifer are used primarily for disposal of treated wastewater.

Surface Water

Surface waters tend to contain silts and suspended sediments, algae, dissolved organic matter from topsoil, and chemical and microbiological contaminants from municipal wastewater discharges, stormwater runoff, and industrial and agricultural activities. Traditionally, surface water has not been used extensively for public supply in the LEC planning area.

Storm water throughout the developed areas of the SFWMD is often captured in constructed stormwater drainage and retention/detention systems. Water from these systems can be directly used to meet many

non-potable water needs, such as golf course irrigation and other irrigation water needs. Stormwater, because of its diffuse and intermittent nature, is generally not considered a viable option for direct public-supply applications where reliability is a major consideration.

Pollutants

Waste generators, solid waste facilities, above and underground storage tanks, and dry cleaning facilities are licensed by the Florida Department of Environmental Protection (FDEP). Current information on these facilities is available through the Florida Department of Environmental Protection Division of Waste Management. Information on contaminated sites is also available through the U.S. Environmental Protection Agency (EPA) Resource Conservation Recovery Act (RCRA), Superfund, National Priorities List and the brownfield databases.

Within Miami-Dade County the Division of Environmental Resource Management (DERM) Pollution Remediation Section is currently contracted with the Florida Department of Environmental Protection (FDEP) to inspect all petroleum storage facilities in the County and oversee the cleanup of petroleum contamination in accordance with Chapters 62-761 and 62-770, Florida Administrative Code (F.A.C.), the stationary tank rule and the petroleum contamination cleanup criteria rule, respectively. The primary responsibility of DERM is to provide the technical oversight, management, and administrative activities necessary to prioritize, assess, and clean up sites contaminated by discharges of petroleum and petroleum products from stationary petroleum storage systems.

A database search identifies that at this time there are no sites in the Town listed on the U.S. Environmental Protection Agency's (EPA) Federal Superfund list or the National Priorities List (NPL). There are no designated or candidate brownfields in the Town. Within the Town several sites are recognized by FDEP as having or had contamination issues..

The Town's Sanitary Department has three garbage trucks which collect trash and garbage on a weekly basis and haul it to Miami-Dade County's Resource Recovery Plant west of Miami International Airport and other Miami-Dade County landfills. The Town can provide public information regarding the safe disposal of household chemicals for its residents. Specifically, information can be made available on the free disposal of household hazardous wastes, information on disposal contractors available to small businesses and the special waste programs available for landfill disposal of non-typical materials, such as spill clean-ups and contaminated soils. Additionally the Town may consider contracting with a licensed hazardous waste hauler to execute a *Household Hazardous Waste Mobil Collection Event*. The Contractor would receive, catalog, inventory and prepare the manifest of disposal for the household products that are dropped off, as well as place them in appropriate containers and haul them away. Setting-up a system where the residents just drive up and 'pop the trunk' and let the contractor deal with the products from that point is an effective means to reduce the potential of contaminants being disposed of in inappropriate or detrimental ways. The Town could do this in conjunction with distributing informational handouts or gathering survey data from the event participants. Running it near Earth Day or in conjunction with spring cleaning drives has proven to increase participation. It is optimal to hold such an event in a paved area, and not near a school or park or an environmentally sensitive area to avoid the perception of putting environmentally sensitive sites at risk.

Greenhouse Gas Reduction Strategies

Climate change is largely attributed to the buildup of carbon dioxide and other greenhouse gas (GHG) concentrations in the atmosphere. In the *Policy Guide on Planning and Climate Change*, updated in 2011, the APA provides guidance for local governments toward the reduction of GHG emissions and on energy efficient land use decisions. The APA document indicates that effective actions to address GHG

emissions should include a mix of education, incentives, subsidies, and regulation. Among others, the APA has suggested the following strategies for local governments to facilitate a reduction in GHG emissions: providing shopping, recreational and employment opportunities near residential areas, energy efficient buildings, convenient intermodal transportation systems, and the reduction of heat island effects through green spaces.

As currently developed, the Town of Surfside is a compact, walkable community that provides recreational, shopping, and employment opportunities completely within the municipality. The Future Land Use Element provides that the Town support green building standards through the Design Guidelines, consider all new residential development utilize green building standards and that all new municipal buildings will be build with nationally recognized green building standards.

Surfside already has convenient access to Miami-Dade Transit bus routes. The Future Land Use Element and Transportation Elements propose developing a Pedestrial and Bicycle Network Study to enhance links to parks, the business district and other Town amenities. The Town will also continue to support transit ready development and coordinate with Miami-Dade County on transit. To further reduce greenhouse gas production through transportation, the Town will continue to allow home based businesses and continue curbside recycling programs.

In addition, the Town has open space and landscape requirements to diminish heat island effects. The Comprehensive Plan also includes policies to educate the public on the placement of canopy trees and other landscape materials to strategically provide shade, and educating the public on home energy reduction strategies and automobile idling.

Other policies that support energy efficiency include allowing for electric charging stations and use of solar panels.

Conservation Element Goals, Objectives and Policies

Goal 1: Regulate the development and use of land in such a manner as to maintain and enhance environmental quality.

Objective 1 – Air quality and Greenhouse Gas Reduction: In general, protect air quality. In particular, promote improved air quality for the region.

Policy 1.1 – Support Miami-Dade County's efforts to conduct regular monitoring of air quality.

Policy 1.2 – Educate residents and business owners on the cost and environmental effects of automobile idling.

Policy 1.3 – Facilitate more efficient transportation services and facilities (including public transit facilities, bicycle facilities and pedestrian facilities) by pursuing the objectives and policies set forth in the Transportation Element.

Policy 1.4 – Enforce all adopted measures to contain and stabilize exposed or destabilized soil surfaces at construction sites to prevent erosion and the degradation of ambient air quality caused by the generation of dust particles.

Policy 1.5 – Require oxygen nourishing landscaping as a part of new private development.

Policy 1.6 – Provide oxygen nourishing landscaping for public grounds.

Policy 1.7 – Maintain, and improve where appropriate, zoning or other development code regulations which protect existing trees in a way consistent with the standards of the broader community.

Policy 1.8– The zoning code shall allow for use of alternate, renewable sources of energy including the use of solar panels.

Policy 1.9 – In accordance with Section 255.2575, F.S. the Town will construct all future municipal buildings to meet the United States Green Building Council (USGBC) Leadership in Energy and Environmental Design (LEED) rating system, the Green Building Initiative's Green Globes rating system, the Florida Green Building Coalition standards, or a nationally recognized, high-performance green building rating system as approved by the Florida Department of Management Services.

Policy 1.10 – The Town shall maintain and improve adopted Design Guideline provisions which encourage the use of the United States Green Building Council (USGBC) Leadership in Energy and Environmental Design (LEED) rating system, the Green Building Initiative's Green Globes rating system, the Florida Green Building Coalition standards, or a nationally recognized, high-performance green building rating system for both residential and commercial properties. Within two (2) year of adoption of this element, the Town shall explore incentives for use of green building standards in new development and redevelopment.

Policy 1.11 – Within two (2) years of the adoption of this element the Town shall consider the feasibility of requiring all new single family and multi-family structures to meet the United States Green Building Council (USGBC) Leadership in Energy and Environmental Design (LEED) rating system, the Green Building Initiative’s Green Globes rating system, the Florida Green Building Coalition standards, or a nationally recognized, high-performance green building rating system as approved by the Florida Department of Management Services.

Objective 2 – Water quality: Conserve, appropriately use, and protect the quality and quantity of current and projected water sources and waters that flow into estuarine waters or oceanic waters.

Policy 2.1 – For site plan approval, the Town shall require that surface water management systems be designed and operated consistent with the Town’s adopted drainage level of service.

Policy 2.2 – The Town shall coordinate and cooperate with all applicable local, regional, state and federal agencies relating to the protection and enhancement of the Biscayne Bay Aquatic Preserve.

Policy 2.3 – The Town shall coordinate and cooperate with all applicable local, regional, state and federal agencies relating to the protection of Atlantic Ocean coastal waters, particularly relating to beach renourishment projects.

Policy 2.4 – The Town shall cooperate and coordinate with the applicable agencies to assure that solid and hazardous wastes generated within the Town are properly managed to protect the environment and near shore waters. The Town shall report any hazardous waste violation they may become aware of to the appropriate jurisdictional agency.

Policy 2.5 – The Town shall adhere to the National Pollution Discharge Elimination System-Municipal Separate Storm Sewer System (NPDES-MS4) Permit and shall implement the permit conditions including monitoring of outfalls and improving stormwater management practices.

Objective 3 – Water quantity: Conserve, appropriately use, and protect the quality and quantity of current and projected water sources.

Policy 3.1 – The Town shall maintain or improve an emergency water conservation ordinance based on both the South Florida Water Management District model ordinance and any specific South Florida Water Management District requirements of the emergency in question.

Policy 3.2 – The Town shall assess projected water needs and sources for the 20-year planning period by creating and maintaining a 20-Year Water Supply Facilities Work Plan. Future water supply planning shall emphasize the efficient use of water resources and where possible and financially feasible, utilize alternative water sources.

Policy 3.3 – The Town shall submit a Water Conservation Plan to the County’s Water and Sewer Department’s Water Use Efficiency Section, pursuant to the Miami-Dade County Code Section 32-83.1. The Plan shall be updated for the County’s approval every five years following submittal, and Conserve Florida Guide generated reports shall be filed annually at the close of the fiscal year.

Policy 3.4 – The Town shall participate in the development of the Regional Water Supply Plan in conjunction with the South Florida Water Management District.

Policy 3.5 – The Town shall conserve potable water resources and implement reuse programs and potable water conservation strategies and techniques consistent with the Miami Dade County 20-Year Water Supply Facilities Work Plan.

Policy 3.6 – The Town shall ensure coordination between land use and future water supply planning by implementation of the 15-Year Water Supply Facilities Work Plan.

Policy 3.7 – The Town shall work towards the further education of the public regarding various methods of water conservation at the household and small business level.

Policy 3.8 – The Town shall support water conservation goals through the support and enforcement of landscape and irrigation ordinances, inclusive of all applicable Miami-Dade Ordinances.

Objective 4 – Vegetative communities and soils, wildlife habitat and wildlife: Conserve, appropriately use and protect native vegetative communities for their own sake and to protect soils, wildlife habitat and wildlife.

Policy 4.1 – The Town shall encourage and educate the public in the planting and maintenance of trees.

Policy 4.2 – The Town shall require the owner/applicant to remove all Class I and II invasive exotic vegetation, as recognized by the Florida Exotic Pest Plant Council, from the subject site as a condition for new development or redevelopment.

Policy 4.3 – The Town shall maintain a survey of vegetation on property for which it has maintenance responsibility. The Town administration shall make recommendations for enhancing native vegetation.

Policy 4.4 – The Town shall evaluate the feasibility of incorporating recommendations derived from the implementation of Policy 4.3 above into the Capital Improvements Budget or the operating budget.

Policy 4.5 – The Town shall strictly enforce the adopted landscape standards which require the preservation of existing native species, the removal of invasive species and the promotion of native plant materials.

Policy 4.6 – The Town shall continue to coordinate and cooperate with the County, the State and the U.S. Fish and Wildlife Service on the protection of the beach dune system which is nesting habitat for marine turtles.

Objective 5 – Floodplain protection: Protect and conserve the natural functions of existing floodplains.

Policy 5.1 – The Town shall maintain and improve land development code provisions governing floodplain protection. *Floodplain protection regulations* shall be consistent with applicable standards promulgated by the South Florida Water Management District, the South Florida Regional Planning Council, the Miami-Dade County Department of Environmental Resource Management, the Florida Department of Environmental Protection, and/or other agencies with relevant jurisdiction and/or information. The Town shall revise as necessary and enforce flood hazard reduction regulations.

Policy 5.2 - The Town shall continue to participate in the National Flood Insurance Program's Community Rating System and require development be consistent with, or more stringent, than the flood-resistant construction requirements in the Florida Building Code and applicable floodplain management regulations set forth in 44C.F.R. part 60.

Policy 5.3 - The Town shall continue to identify site development techniques and best practices that may reduce losses due to flooding and claims made under flood insurance policies and implement these techniques and best practices through the Community Rating System to increase resiliency.

Objective 6 – Community Resiliency: Increase community resiliency by reducing heat island effect, increasing carbon sequestration, managing stormwater runoff and conserving freshwater.

Policy 6.1 - To reduce heat island effect and encourage carbon sequestration, the Town shall continue to maintain and enhance its tree canopy through such efforts as implementation and periodic updates of the zoning code and land development regulations, urban forestry grants, and other actions.

Policy 6.2 - By 2020, the Town shall explore and report on feasible options to increase the number of new street trees planted, and increase the tree canopy coverage by at least 20% between 2020 and 2025.

Policy 6.3 - The Town shall encourage and accommodate the use of Low Impact Development (LID) where feasible to preserve open space.

Policy 6.4 - The Town of Surfside shall evaluate stormwater management operations in the context of sea level rise to improve the ability of these systems to adapt.

Policy 6.5 - The Town shall encourage and accommodate the use of green roofs to contribute to reduced heat island effect and enhanced stormwater management.

Policy 6.6 - When source water is available, the Town shall support the use of reclaimed water for irrigation and other uses, with the goal of reducing demands on the Biscayne Aquifer.

Policy 6.7 - The Town of Surfside shall continue to participate in regional water conservation initiatives in coordination with the South Florida Water Management District, Miami-Dade County and other agencies.

Appendix 6-A. List of Federal State and County Endangered, Threatened, Rare, and Special Concern Fauna in Miami Dade County

Scientific Name	Name Common	State	Federal	County
FISH				
<i>Acipenser brevirostrum</i>	Shortnose sturgeon	FE	E	Y
<i>Acipenser oxyrinchus desotoi</i>	Gulf sturgeon	FT	T	Y
<i>Acipenser oxyrinchus oxyrinchus</i>	Atlantic sturgeon	FE	E	Y
<i>Etheostoma olmstedii maculaticeps</i>	Southern tessellated darter	SSC	NL	Y
<i>Fundulus jenkinsi</i>	Saltmarsh topminnow	SSC	N	Y
<i>Menidia conchorum</i>	Key silverside	ST	NL	Y
<i>Pristis pectinata</i>	Smalltooth sawfish	FE	E	Y
<i>Rivulus marmoratus</i>	Mangrove rivulus	SSC	NL	Y
AMPHIBIANS AND REPTILES				
<i>Alligator mississippiensis</i>	American alligator	FT(S/A)	T(S/A)	Y
<i>Caretta caretta</i>	Loggerhead sea turtle	FT	T	
<i>Chelonia mydas</i>	Green sea turtle	FE	E	
<i>Crocodylus acutus</i>	American crocodile	FT	E	Y
<i>Dermochelys coriacea</i>	Leatherback sea turtle	FE	E	
<i>Drymarchon corais couperi</i>	Eastern indigo snake	FT	T	Y
<i>Elaphe guttata guttata</i>	Red rat snake	NL	NL	Y
<i>Eretmochelys imbricata</i>	Hawksbill sea turtle	FE	E	
<i>Eumeces egregieus egregioeus</i>	Florida Keys mole skink	SSC	NL	Y
<i>Gopherus polyphemus</i>	Gopher tortoise	ST	C	Y
<i>Kinosternon baurii</i>	Striped mud turtle	ST	NL	Y
<i>Lepidochelys kempii</i>	Kemp's ridley sea turtle	FE	E	
<i>Malaclyemys terrapin</i>	Mangrove terrain turtle	NL	Y	
<i>Neoseps reynoldsi</i>	Sand skink	FT	T	
<i>Nerodia clarkii taeniata</i>	Atlantic salt marsh snake	FT	T	Y
<i>Pituophis melanoleucus mugitus</i>	Florida pine snake	SSC	NL	Y
<i>Pseudemys concinna suwanniensis</i>	Suwannee cooter	SSC	NL	Y
<i>Lithobates capito</i>	Gopher frog	SSC	NL	Y
<i>Sitlosima extenuatum</i>	Short-tailed snake	ST	NL	Y
<i>Tantilla oolitica</i>	Rim rock crowned snake	ST	NL	Y
<i>Thamnophis sauritus sackeni</i>	Florida ribbon snake	NL	NL	Y
BIRDS				
<i>Accipiter cooperii</i>	Cooper's hawk	NL	NL	Y
<i>Aimophila aestivalis</i>	Bachman's sparrow	NL	NL	Y
<i>Ammodramus maritimes pennisulae</i>	Scott's seaside sparrow	SSC	NL	Y
<i>Ammodramus maritimus mirabilis</i>	Cape sable seaside sparrow	FE	E	Y
<i>Aphelocoma coerulescens coerulescens</i>	Florida scrub jay	FT	T	
<i>Aramus guarauna</i>	Limpkin	SSC	NL	Y
<i>Ardea herodias</i>	Great blue heron	NL	NL	Y
<i>Athene cunicularia</i>	Florida burrowing owl	SSC	NL	Y
<i>Botaurus lentiginosus</i>	American bittern	NL	NL	Y
<i>Buteo brachyurus</i>	Short-tailed hawk	NL	NL	Y
<i>Calidris canutus rufa</i>	Red knot	NL	C	Y
<i>Campephilus principalis principalis</i>	Ivory-billed woodpecker	FE	E	Y
<i>Charadrius melodus</i>	Piping plover	FT	T	Y

Scientific Name	Name Common	State	Federal	County
<i>Charadrius alexandrinus</i>	Southeastern (Cuban) snowy plover	ST	NL	Y
<i>Chordeiles minor</i>	Antillean nighthawk	NL	NL	Y
<i>Circus cyaneus</i>	Northern harrier	NL	NL	Y
<i>Cistothorus palustris griseus</i>	Worthington's marsh wren	SSC	NL	Y
<i>Cistothorus palustris marianae</i>	Marian's marsh wren	SSC	NL	Y
<i>Coccyzus minor</i>	Mangrove cuckoo	NL	NL	Y
<i>Dendroica kirtlandii</i>	Kirtland's warbler	FE	E	
<i>Dendroica petechia gundlachi</i>	Cuban yellow throated warbler	NL	NL	Y
<i>Egretta caerulea</i>	Little blue heron	SSC	NL	Y
<i>Egretta rufescens</i>	Reddish egret	SSC	NL	Y
<i>Egretta thula</i>	Snowy egret	SSC	NL	Y
<i>Egretta tricolor</i>	Tricolored heron	SSC	NL	Y
<i>Elanoides forficatus</i>	Swallow-tailed kite	NL	NL	Y
<i>Elanus leucurus</i>	White-tailed kite	NL	NL	Y
<i>Eudocimus albus</i>	White ibis	SSC	NL	Y
<i>Falco columbarius</i>	Merlin	NL	NL	Y
<i>Falco peregrinus</i>	Peregrine falcon	NL	NL	Y
<i>Falco sparverius paulus</i>	Southeastern American kestrel	ST	NL	Y
<i>Frigata magnificens</i>	Magnificent frigate bird	NL	NL	Y
<i>Grus canadensis pratensis</i>	Florida sandhill crane	ST	NL	Y
<i>Grus americana</i>	Whooping crane	FE/XN	E/XN	
<i>Haematopus palliatus</i>	American oyster catcher	SSC	NL	Y
<i>Haliaeetus leucocephalus</i> *	Bald eagle	NL*	NL	Y
<i>Ixobrychus exilis</i>	Least bittern	NL	NL	Y
<i>Laterallus jamaicensis</i>	Black rail	NL	NL	Y
<i>Mycteria americana</i>	Wood stork	FE	E	Y
<i>Nyctanassa violacea</i>	Yellow-crowned night heron	NL	NL	Y
<i>Nycticorax nycticorax</i>	Black-crowned night heron	NL	NL	Y
<i>Pandion haliaetus</i>	Osprey	NL	NL	Y
<i>Passerina ciris</i>	Painted bunting	NL	NL	Y
<i>Patagioenas leucocephala</i>	White crowned pigeon	ST	NL	Y
<i>Pelecanus occidentalis</i>	Brown pelican	SSC	NL	
<i>Picoides borealis</i>	Red-cockaded woodpecker	FE	E	Y
<i>Picoides villosus</i>	Hairy woodpecker	NL	NL	Y
<i>Platalea ajaja</i>	Roseate spoonbill	SSC	NL	Y
<i>Polyborus plancus audubonii</i>	Audobon's crested caraca	FT	T	Y
<i>Pterodroma hasitata</i>	Black-capped petrel	NL	NL	Y
<i>Rallus longirostris insularum</i>	Mangrove clapper rail	NL	NL	Y
<i>Rostrhamus sociabilis plumbeus</i>	Everglade snail kite	FE	E	Y
<i>Rynchops niger</i>	Black skimmer	SSC	C	Y
<i>Setophaga discolor</i>	Prairie warbler	NL	NL	Y
<i>Sterna antillarum</i>	Least tern	ST	NL	Y
<i>Sterna dougallii dougallii</i>	Roseate tern	FT	T	Y
<i>Thalasseus sandvicensis</i>	Sandwich tern	NL	NL	Y
<i>Vermivora bachmanii</i>	Bachman's warbler	FE	E	Y
<i>Vireo altiloquus</i>	Black-whiskered vireo	NL	NL	Y

MAMMALS

Scientific Name	Name Common	State	Federal	County
<i>Balaenoptera borealis</i>	Sei whale	FE	E	
<i>Balaenoptera physalus</i>	Finback whale	FE	E	
<i>Eubalaena glacialis</i>	North Atlantic right whale	FE	E	
<i>Eumops glaucinus floridanus</i>	Florida mastiff bat	ST	C	Y
<i>Lutra canadensis</i>	River otter	NL	NL	Y
<i>Megaptera novaeangliae</i>	Humpback whale	FE	E	
<i>Monachus tropicalis</i>	Caribbean monk seal	NL	NL	Y
<i>Neotoma floridana smalli</i>	Key Largo woodrat	FE	E	Y
<i>Neovision vision evergladensis</i>	Everglades mink	ST	NL	Y
<i>Peromyscus gossypinus allapaticola</i>	Key Largo cotton mouse	FE	E	Y
<i>Peromyscus polionotus niveiventris</i>	Southeastern beach mouse	FT	T	Y
<i>Physeter catodon</i>	Sperm whale	FE	E	
<i>Plecotus rafinesquii</i>	Rafinesque's big eared bat	NL	NL	Y
<i>Podomys floridanus</i>	Florida mouse	SSC	NL	Y
<i>Puma (= Felis) concolor coryi</i>	Florida panther	FE	E	Y
<i>Sciurus niger avicennia</i>	Big Cypress fox squirrel	ST	NL	Y
<i>Sciurus niger shermani</i>	Sherman's fox squirrel	SSC	NL	Y
<i>Trichechus manatus latirostris</i>	Florida manatee	E	E	Y
<i>Ursus americanus floridanus</i>	Florida black bear	NL*	NL	Y

INVERTEBRATES/CRUSTACEANS

<i>Crangonyx gradimanus</i>	Florida cave amphipod	NL	NL	Y
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CORALS

<i>Acropora cervicornis</i>	Staghorn coral	FT	T	Y
<i>Acropora palmata</i>	Elkhorn coral	FT	T	Y
<i>Agaricia lamarcki</i>	Lamarck's sheet coral	NL	NL	Y
<i>Agaricia spp</i>	Lettuce corals	NL	NL	Y
<i>Colpophyllia natans</i>	Boulder brain coral	NL	NL	Y
<i>Dendrogyra cylindrus</i>	Pillar coral	ST	NL	Y
<i>Diploria cilvosa</i>	Knobby brain coral	NL	NL	Y
<i>Diploria labyrinthiformis</i>	Grooved brain coral	NL	NL	Y
<i>Dipolria strigosa</i>	Symmetrical brain coral	NL	NL	Y
<i>Eusmilia fastigiata</i>	Smooth flower coral	NL	NL	Y
<i>Meandrina meandrites</i>	Maze coral	NL	NL	Y
<i>Montastrea annularis</i>	Boulder star coral	NL	NL	Y
<i>Montastrea cavernosa</i>	Great star coral	NL	NL	Y
<i>Montastera faveolata</i>	Mountainous star coral	NL	NL	Y
<i>Montastrea franksi</i>	Star coral	NL	NL	Y
<i>Mussa angulosa</i>	Spiny flower coral	NL	NL	Y
<i>Mycetophyllia aliciae</i>	Knobby cactus coral	NL	NL	Y
<i>Mycetophyllia ferox</i>	Rough cactus coral	NL	NL	Y
<i>Mycetophyllia lamarckiana</i>	Lamarck's cactus coral	NL	NL	Y
<i>Siderastera siderea</i>	Elliptical star coral	NL	NL	Y

INSECTS

Scientific Name	Name Common	State	Federal	County
<i>Anaea troglodyta floridalis</i>	Florida leafwing butterfly	NL	C	Y
<i>Aphodius troglodytes</i>	Scarab beetle, a Gopher tortoise aphodius commensal	NL	NL	Y
<i>Atrytone agros argos</i>	Eastern beard-grass skipper	NL	NL	Y
<i>Ceraclea floridana</i>	Florida ceracleon long horn caddishfly	NL	NL	Y
<i>Cyclargus thomasi bethunebakeri</i>	Miami blue butterfly	FE	E	Y
<i>Cyclophala miamiensis</i>	Miami roundhead scarab beetle	NL	C	Y
<i>Eumaeus atala floridana</i>	Florida atala butterfly	NL	C	Y
<i>Heracles aristodemus ponceanus</i>	Schaus swallowtail butterfly	FE	E	Y
<i>Micronaspsis floridana</i>	Florida intertidal firefly	NL	Y	
<i>Mixogaster delongi</i>	Delong's mixogaster flower fly	NL	NL	Y
<i>Mycotrupes pedester</i>	Scrub island burrowing scarab beetle	NL	NL	Y
<i>Oxyethira florida</i>	Florida oxyethiran microcaddishfly	NL	NL	Y
<i>Photuris brunnipennis floridana</i>	Everglades brownwing firefly	NL	NL	Y
<i>Strymon acis bartrami</i>	Bartram's scrub-hairstreak butterfly	NL	C	Y

MOLLUSCS

<i>Liguus fasciatus</i>	Florida tree snail	SSC	NL	Y
<i>Orthalicus reses reses</i>	Stock Island tree snail	FT	T	Y
<i>Strombus gigas</i>	Queen conch	NL	C	Y

Key:

NL = Not Listed

1) Federal Listings:

E = Listed as Endangered Species in the List of Endangered and Threatened Wildlife and Plants under the provisions of the Endangered Species Act. Defined as any species that is in danger of extinction throughout all or a significant portion of its range.

T(S/A) = Listed only because of similarity in appearance to the American crocodile.

FE/FX = Experimental population in Florida.

T = Listed as Threatened Species. Defined as any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

C = Candidate Species for addition to the List of Endangered and Threatened Wildlife and Plants. Includes taxa for which: the US Fish and Wildlife Service (USFWS) currently has substantial information on hand to support the biological appropriateness of proposing to list the species as endangered or threatened; or the USFWS currently possesses information indicating that proposing to list the species as endangered or threatened is possibly appropriate, but for which conclusive data on biological vulnerability and threat(s) are not currently available to support proposed rules at this time.

2) State Listings:

FE/FT= Listed as Federally-designated Endangered and Threatened Species. Defined as species of fish or wild animal life, subspecies or isolated populations of species or subspecies, whether vertebrate or invertebrate, that are native to Florida and are classified as Endangered and Threatened under the Fish and Wildlife Conservation Commission (Commission) rule by virtue of designation by the United States Departments of Interior or Commerce as endangered or threatened under the Federal Endangered Species Act, 16 U.S.C. §1531 et seq. and rules thereto; the definition of Federally-designated Endangered and Threatened Species does not include species that are not within the Commission's constitutional authority.

FT(S/A) = Listed only because of similarity in appearance to the American crocodile.

FE/FX = Experimental population in Florida

ST= Listed as State-designated Threatened Species by the Fish and Wildlife Conservation Commission (Commission). Defined as species of fish or wild animal life, subspecies, or isolated population of a species or subspecies, whether vertebrae or invertebrate, that are native to Florida and are classified as Threatened as determined by paragraph (a), (b), (c), (d), or (e) in accordance with Rule 68A-27.0012, F.A.C. The designation of a species as threatened shall include all subspecies unless stated otherwise in Commission rule.

SSC= Listed as a Species of Special Concern by the Fish and Wildlife Conservation Commission under an earlier listing process. Either the species is being evaluated for listing as a State-designated Threatened species or not enough data currently exist to make a listing determination.

C= A species of fish or wild animal life, subspecies, or isolated populations of species or subspecies, whether invertebrate or vertebrate, that the Fish and Wildlife Conservation Commission (Commission) has determined warrants listings as a State-designated Threatened Species in accordance with Rule 68A-27.0012, F.A.C., and is awaiting final Commission action to be added to the list of Florida Endangered and Threatened Species in Rule 68A-27.003, F.A.C.

* = The Fish and Wildlife Conservation Commission has delisted these species; however, the bald eagle continues to be under the protection of the state in accordance to rule 68A-16.002, F.A.C., and its Bald Eagle Management Plan, adopted on April 9, 2008, and the bear is protected under rule 68A-4.009, F.A.C., and the Florida Black Bear Management Plan, approved on June 27, 2012.

3) County Listings:

Y = Miami-Dade County endangered, threatened, rare or special concern fauna species as updated from previously adopted CDMP lists, due to low population numbers or limited/localized population; impacts resulting from habitat destruction or environmental contamination; or nesting destruction/disturbance/failures.

Table from the Conservation, Aquifer Recharge and Drainage Element of the Miami-Dade Comprehensive Development Master Plan including amendments adopted up through November 18, 2015

Appendix 6-B. List of Federal, State and County Endangered, Threatened, Rare, and Special Concern Flora in Miami-Dade County

Scientific Name	Common Name	State	Federal	County
<i>Acacia choriophylla</i>	Tamarindillo; cinnecord	E	NL	Y
<i>Acanthocereus tetragenus</i>	Triangle cactus	T	NL	Y
<i>Acoelorrhaphe wrightii</i>	Everglades palm	T	NL	Y
<i>Acrostichum aureum</i>	Golden leather fern	T	NL	Y
<i>Adiantum capillus-veneris</i>	Venus hair fern;			
	southern maidenhair fern	NL	NL	Y
<i>Adiantum melanoleucum</i>	Fragrant maidenhair fern	E	NL	Y
<i>Adiantum tenerum</i>	Brittle maidenhair fern	E	NL	Y
<i>Aeschynomene pratensis</i>	Meadow joint-vetch	E	NL	Y
<i>Agalinis filifolia</i>	Seminole false fox glove	NL	NL	Y
<i>Aletris bracteata</i>	White colic root	E	NL	Y
<i>Alvaradoa amorphoides</i>	Mexican alvaradoa	E	NL	Y
<i>Amorpha herbacea</i> var. <i>crenulata</i>	Crenulate (=Miami) leadplant	E	E	Y
<i>Amphitecna latifolia</i>	Black calabash	NL	NL	Y
<i>Anemia wrightii</i>	Wright's pineland fern	E	NL	Y
<i>Angadenia berteroi</i>	Pineland golden trumpet	T	NL	Y
<i>Argusia gnaphalodes</i>	Sea rosemary	E	NL	Y
<i>Argythamnia blodgettii</i>	Blodgett's silverbush	E	C	Y
<i>Aristolochia pentandra</i>	Marsh's dutchmans pipe	E	NL	Y
<i>Asplenium abscissum</i>	Cutleaf spleenwort	NL	NL	Y
<i>Asplenium dentatum</i>	Toothed spleenwort	E	NL	Y
<i>Asplenium serratum</i>	Wild bird nest fern	E	NL	Y
<i>Asplenium verecundum</i>	Modest spleenwort	E	NL	Y
<i>Asplenium x biscaynianum</i>	Biscayne spleenwort	NL	NL	Y
<i>Asteraea lobata</i>	Lobed croton; Florida treefern	NL	NL	Y
<i>Baccharis dioica</i>	Broombush falsewillow	E	NL	Y
<i>Basiphyllaea corallicola</i>	Carter's orchid	E	NL	Y
<i>Bletia patula</i>	Flor de Pismo	NL	NL	Y
<i>Bletia purpurea</i>	Pinepink orchid	T	NL	Y
<i>Bourreria cassinifolia</i>	Smooth strongback	E	NL	Y
<i>Bourreria succulenta</i>	Bahama strongback	E	NL	Y
<i>Brassia caudata</i>	Spider orchid	E	NL	Y
<i>Brickellia eupatorioides</i> var. <i>floridana</i>	Brickell-brush; Mosier's false boneset	E	C	Y
<i>Brickellia mosieri</i>				
<i>Byrsonima lucida</i>	Locustberry	T	NL	Y
<i>Caesalpinia major</i>	Yellow nickerbean	E	NL	Y
<i>Calopogon multiflorus</i>	Many-flowered grass pink	E	NL	Y
<i>Calyptanthus pallens</i>	Spicewood; pale lid flower	T	NL	Y
<i>Calyptanthus zuzygium</i>	Myrtle-of-the-river	E	NL	Y
<i>Campyloneurum angustifolium</i>	Narrow strap fern	E	NL	Y
<i>Campyloneurum costatum</i>	Tailed strap fern	E	NL	Y
<i>Campyloneurum latum</i>	Broad strap fern	E	NL	Y
<i>Canella winterana</i>	Pepper cinnamon bark	E	NL	Y
<i>Catopsis berteroniana</i>	Powdery strap airplant	E	NL	Y
<i>Catopsis floribunda</i>	Florida strap airplant	E	NL	Y
<i>Cayaponia americana</i>	American melonleaf	NL	NL	Y

Scientific Name	Common Name	State	Federal	County
<i>Ceropteris pteridoides</i>	Water horn fern	NL	NL	Y
<i>Celosia nitida</i>	West Indian cock's comb	E	NL	Y
<i>Chamaesyce deltoidea</i> ssp.adherens	Gould's wedge sandmat	E	NL	Y
<i>Chamaesyce deltoidea deltoidea</i>	Wedge sandmat;			
	rockland spurge	E	E	Y
<i>Chamaesyce deltoidea garberi</i>	Garber's sandmat;			
	Garber's spurge	E	T	Y
<i>Chamaesyce deltoidea pinetorum</i>	Pineland sandmat	E	C	Y
<i>Chamaesyce pergamena</i>	Southern Florida sandmat	T	NL	Y
<i>Chamaesyce porteriana</i>	Porter's sandmat	E	NL	Y
<i>Chaptalia albicans</i>	White sunbonnets	T	NL	Y
<i>Cheilanthes microphylla</i>	Southern lip fern	E	NL	Y
<i>Chrysophyllum oliviforme</i>	Satin leaf	T	NL	Y
<i>Cissampelos pareira</i>	Velvet leaf; pareira brava	E	NL	Y
<i>Clitoria mariana</i>	Butterfly pea;			
	Atlantic pigeonwings	NL	T	Y
<i>Coccothrinax argentata</i>	Florida silver palm	T	NL	Y
<i>Colubrina cubensis</i> var. floridana	Cuban nakedwood	E	NL	Y
<i>Colubrina elliptica</i>	Soldierwood	E	NL	Y
<i>Conradina grandiflora</i>	Large flowered false rosemary	T	NL	Y
<i>Cordia globosa</i>	Curacao bush	E	NL	Y
<i>Cranichis muscosa</i>	Cypress knee helmet orchid;			
	moss orchid	E	NL	Y
<i>Crossopetalum ilicifolium</i>	Christmas berry	T	NL	Y
<i>Crossopetalum rhacoma</i>	Rhacoma maidenberry	T	NL	Y
<i>Croton humilis</i>	Pepperbush	E	NL	Y
<i>Ctenitis sloanei</i>	Red-hair comb fern	E	NL	Y
<i>Ctenitis submarginalis</i>	Brown-hair comb fern	E	NL	Y
<i>Cupania glabra</i>	Florida toadwood	E	NL	Y
<i>Cuscuta amerciana</i>	American dodder	NL	NL	Y
<i>Cynanchum blodgettii</i>	Blodgett's swallowwort	T	NL	Y
<i>Cyperus pendunculatus</i>	Beach star	E	NL	Y
<i>Cyrtopodium punctatum</i>	Cow-horn orchid; cigar orchid	E	NL	Y
<i>Dalbergia brownei</i>	Browne's Indian rosewood	E	NL	Y
<i>Dalea carthagenensis</i> var. Floridana	Florida prairie clover	E	C	Y
<i>Dendrophylax lindenii</i>	Ghost orchid	E	NL	Y
<i>Desmodium floridanum</i>	Florida ticktrefoil	NL	NL	Y
<i>Desmodium strictum</i>	Pinebarren ticktrefoil	NL	NL	Y
<i>Digitaria filiformis</i> var. Dolichophylla	Caribbean crabgrass	T	NL	Y
<i>Digitaria pauciflora</i>	Two-spike crabgrass;			
	Florida pineland crabgrass	E	C	Y
<i>Drypetes diversifolia</i>	White wood; milkbark	E	NL	Y
<i>Drypetes lateriflora</i>	Guiana plum	T	NL	Y
<i>Eleocharis albida</i>	White albida	NL	NL	Y
<i>Eleocharis rostellata</i>	Beaked spikerush	E	NL	Y
<i>Eltroplectris calcarata</i>	Long-clawed orchid;			
	spurred neottia	E	NL	Y
<i>Encyclia tampensis</i>	Butterfly orchid	CE	NL	Y

Scientific Name	Common Name	State	Federal	County
<i>Epidendrum anceps</i>	Dingy-flowered star orchid; dingy-flowered epidendrum	E	NL	Y
<i>Epidendrum floridense</i>	Umbrella star orchid; umbrella epidendrum	E	NL	Y
<i>Epidendrum nocturnum</i>	Night scented epidendrum	E	NL	Y
<i>Epidendrum rigidum</i>	Stiff-flowered star orchid; rigid epidendrum	E	NL	Y
<i>Erithalis fruticosa</i>	Black torch	T	NL	Y
<i>Ernodea cokeri</i>	Coker's beach creeper; one nerved ernodea	E	NL	Y
<i>Eugenia confusa</i>	Redberry stopper; redberry Eugenia	E	NL	Y
<i>Eugenia rhombea</i>	Red stopper	E	NL	Y
<i>Eupatorium compositifolium</i>	Yankee weed	T	NL	Y
<i>Evolvulus convolvuloides</i>	Bindweed dwarf morning glory; dwarf bindweed	E	NL	Y
<i>Exostema caribaeum</i>	Caribbean princewood	E	NL	Y
<i>Galactia smallii</i>	Small's milkpea	E	E	Y
<i>Galeandra bicarinata</i>	Helmet orchid; two keeled hooded orchid	E	NL	Y
<i>Glandularia maritima</i>	Coastal mock vervain	E	NL	Y
<i>Gossypium hirsutum</i>	Upland cotton; wild cotton	E	NL	Y
<i>Govenia floridana</i>	Gowen's orchid; Florida govenia	E	NL	Y
<i>Guaiaacum sanctum</i>	Hollywood lignumvitae	E	NL	Y
<i>Guzmania monostachia</i>	Fuch's bromeliad; West Indian tufted airplant	E	NL	Y
<i>Gyminda latifolia</i>	West Indian false box	E	NL	Y
<i>Gymnopogon ambiguus</i>	Bearded skeleton grass	NL	NL	Y
<i>Gymnopogon brevifolius</i>	Shortleaf skeleton grass	NL	NL	Y
<i>Habenaria nivea</i>	Snowy orchid	T	NL	Y
<i>Halophila johnsonii</i>	Johnson's seagrass	T	T	Y
<i>Harrisia fragrans</i>	Caribbean apple cactus; Indian River prickly-apple; Simpson's applecactus	E	E	Y
<i>Harrisela porrecta</i>	Needleroot airplant	T	NL	Y
<i>Helenium flexuosum</i>	Purple sneeze weed	NL	NL	Y
<i>Hibiscus poeppigii</i>	Poeppigg's rosemallow	E	NL	Y
<i>Hippomane mancinella</i>	Manchineel	E	NL	Y
<i>Hypelate trifoliata</i>	White ironwood	E	NL	Y
<i>Hypericum myrtifolium</i>	Myrtle leaf St. John's wort	NL	NL	Y
<i>Ilex krugiana</i>	Krug's holly	T	NL	Y
<i>Indigofera trita ssp.Scabra keyensis</i>	Florida Keys indigo	E	C	Y
<i>Ipomoea microdactyla</i>	Bejuco colorado; man-in-the-ground wild potato morning glory;	E	NL	Y
<i>Ipomoea tenuissima</i>	Rockland morning glory	E	NL	Y
<i>Isoetes flaccida</i>	Florida quillwort	NL	NL	Y
<i>Jacquemontia curtisii</i>	Pineland jacquemontia	T	NL	Y
<i>Jacquemontia havanensis</i>	Havana clustervine	E	NL	Y

Scientific Name	Common Name	State	Federal	County
<i>Jacquemontia pentanthos</i>	Skyblue clustervine	E	NL	Y
<i>Jacquemontia reclinata</i>	Beach clustervine; Beach jacquemontia	E	E	Y
<i>Jacquinia keyensis</i>	Joewood	T	NL	Y
<i>Koanophyllon villosum</i>	Florida shrub thoroughwood	E	NL	Y
<i>Lantana canescens</i>	Hammock shrub verbena	E	NL	Y
<i>Lantana depressa</i>	Rockland shrub verbena	E	NL	Y
<i>Lactuca floridana</i>	Woodland lettuce	NL	NL	Y
<i>Lechea divaricata</i>	Drysand pinweed; spreading pinweed	E	NL	Y
<i>Leptochloa fusca</i> var. <i>uninervia</i>	Mexican sprangletop	NL	NL	Y
<i>Leptochloa virgata</i>	Tropical sprangletop	NL	NL	Y
<i>Licaria triandra</i>	Pepper leaf sweetwood	E	NL	Y
<i>Linum arenicola</i>	Sand flax	E	C	Y
<i>Linum carteri</i>	Everglades flax	E	C	Y
<i>Linum carteri</i> var. <i>carterii</i>	Carter's Everglades flax	E	C	Y
<i>Linum carteri</i> var. <i>smallii</i>	Small's flax	E	NL	Y
<i>Linum floridanum</i>	Florida yellow flax	NL	NL	Y
<i>Lippia stoechadifolia</i>	Southern fogfruit; southern matchsticks	E	NL	Y
<i>Liparis nervosa</i>	Pantropical widelip orchid; tall twayblade	E	NL	Y
<i>Lomariopsis kunzeana</i>	Hollyvine fern; climbing holly fern	E	NL	Y
<i>Macradenia lutescens</i>	Long-gland orchid; Trinidad macradenia	E	NL	Y
<i>Manilkara jaimiqui</i> ssp. <i>emarginata</i>	Wild dilly	T	NL	Y
<i>Matelea floridana</i>	Florida milkvine; Florida spiny pod	E	NL	Y
<i>Maytenus phyllanthoides</i>	Florida mayten	T	NL	Y
<i>Melanthera parvifolia</i>	Small leaved cat-tongue	T	NL	Y
<i>Microgramma heterophylla</i>	Climbing vine fern	E	NL	Y
<i>Mosiera longpipes</i>	Mangrove berry	T	NL	Y
<i>Myrcianthes fragrans</i>	Simpson's stopper	T	NL	Y
<i>Nephrolepis biserrata</i>	Giant swordfern	T	NL	Y
<i>Nevrodium lanceolatum</i>	Ribbon fern	E	NL	Y
<i>Nymphaea mexicana</i>	Yellow waterlily	NL	NL	Y
<i>Ocimum campechianum</i>	Wild sweet basil; wild mosquito plant	E	NL	Y
<i>Odontosoria clavata</i>	Wedgelet fern	E	NL	Y
<i>Okenia hypogaea</i>	Burrowing four-o'clock; beach peanut	E	NL	Y
<i>Oncidium ensatum</i>	Florida dancing lady orchid; Florida oncidium	E	NL	Y
<i>Ophioglossum palmatum</i>	Hand fern	E	NL	Y
<i>Ophioglossum nudicaule</i>	Slender adders tongue	NL	NL	Y
<i>Opuntia corallicola</i>	Semaphore cactus pricklypear cactus	E	NL	Y
<i>Opuntia stricta</i>	Erect or shellmound pricklypear	T	NL	Y

Scientific Name	Common Name	State	Federal	County
<i>Osmunda cinnamomea</i>	Cinnamon fern	CE	NL	Y
<i>Osmunda regalis</i>	Royal fern	CE	NL	Y
<i>Paspalidium chapmanii</i>	Coral panicum; coral panicgrass	E	NL	Y
<i>Passiflora multiflora</i>	White-flower passionflower; Whiteflowered passionvine	E	NL	Y
<i>Passiflora pallens</i>	Pineland passionflower; pineland passionvine	E	NL	Y
<i>Passiflora sexflora</i>	Goats foot	E	NL	Y
<i>Pavonia paludicola</i>	Swampbush	E	NL	Y
<i>Pecluma dispersa</i>	Widespread polypody	E	NL	Y
<i>Pecluma plumula</i>	Plume polypody	E	NL	Y
<i>Pecluma ptilodon</i> var. <i>bourgeanuana</i>	Comb polypody; swamp plume polypody; plumed rockcap fern; palmleaf rockcap fern	E	NL	Y
<i>Pelexia adnata</i>	Hachuela pelexia	E	NL	Y
<i>Peperomia amplexicaulis</i>	Jackie's saddle; clasping peperomia	E	NL	Y
<i>Peperomia humilis</i>	Low peperomia	E	NL	Y
<i>Peperomia magnoliifolia</i>	Spoonleaf or spatulate peperomia	E	NL	Y
<i>Peperomia obtusifolia</i>	Florida peperomia; baby rubberplant	E	NL	Y
<i>Phoradendron rubrum</i>	Mahogany mistletoe	E	NL	Y
<i>Physalis cordata</i>	Heartleaf ground cherry	NL	NL	Y
<i>Picramnia pentandra</i>	Florida bitterbush	E	NL	Y
<i>Pithecellobium keyense</i>	Florida Keys blackbead	T	NL	Y
<i>Poinsettia pinetorum</i>	Pineland spurge; Everglades poinsettia	E	NL	Y
<i>Polygala polygama</i>	Racemed milkwort	NL	NL	Y
<i>Polygala smallii</i>	Small's milkwort; tiny polygala	E	E	Y
<i>Polygonella gracilis</i>	Tall jointweed	NL	NL	Y
<i>Polygonum setaceum</i>	Bog smartweed	NL	NL	Y
<i>Polystachya concreta</i>	Greater yellow spike orchid	E	NL	Y
<i>Ponthieva brittoniae</i>	Britton's shadowwitch	E	NL	Y
<i>Prescotia oligantha</i>	Small prescott orchid; small flowered orchid	E	NL	Y
<i>Prosthechea boothiana</i> var. <i>Erythronoides</i>	Dollar orchid	E	NL	Y
<i>Prosthechea cochleata</i>	Clamshell orchid; Florida cockleshell orchid	E	NL	Y
<i>Prunus myrtifolia</i>	West Indian cherry	T	NL	Y
<i>Pseudophoenix sargentii</i> Seargants	cherry palm; buccaneer palm	E	NL	Y
<i>Psidium longipes</i>	Mangrove berry	T	NL	Y
<i>Psychotria ligustrifolia</i>	Bahama wild coffee; smooth wild coffee	E	NL	Y
<i>Pteris bahamensis</i>	Bahama ladder brake	T	NL	Y
<i>Pteroglossaspis encristata</i> <i>ecristata</i>	Giant orchid	T	NL	Y
<i>Remirea maritima</i>	Beach star	E	NL	Y

Scientific Name	Common Name	State	Federal	County
<i>Reynosia septentrionalis</i>	Darling plum	T	NL	Y
<i>Rhipsalis baccifera</i>	Mistletoe cactus	E	NL	Y
<i>Rhynchosia parvifolia</i>	Small leaf snoutbean	T	NL	Y
<i>Rhynchosia swartzii</i>	Swartz's snoutbean	E	NL	Y
<i>Rhynchospora pusilla</i>	Fairy beaksedge	NL	NL	Y
<i>Nasturtium floridanum</i>	Florida watercress	NL	NL	Y
<i>Roystonea regia</i>	Florida royal palm	E	NL	Y
<i>Sachsia polycephala</i>	Bahama sachsia	T	NL	Y
<i>Sacoila lanceolata</i>	Leafless beaked ladiestresses	T	NL	Y
<i>Sacoila lanceolata</i> var. <i>paludicola</i>	Leafy beaked ladiestresses	T	NL	Y
<i>Salvia misella</i>	Southern river sage; river sage	NL	NL	Y
<i>Scaevola plumieri</i>	Beachberry; inkberry; gullfeed	T	NL	Y
<i>Schaefferia frutescens</i>	Florida boxwood	E	NL	Y
<i>Schizaea pennulata</i>	Ray fern	E	NL	Y
<i>Scleria ciliata</i> var. <i>curtissii</i>	Fringed nutrush	NL	NL	Y
<i>Scleria lithosperma</i>	Florida Keys nutrush	E	NL	Y
<i>Scutellaria havanensis</i>	Havana scullcap	E	NL	Y
<i>Selaginella armata</i> var. <i>eatonii</i>	Eaton's spike-moss; pygmy spike-moss	E	NL	Y
<i>Senna mexicana</i> var. <i>chapmanii</i>	Chapman's sensitive plant	T	NL	Y
<i>Sericarpus tortifolius</i>	White top aster	NL	NL	Y
<i>Smilax havanensis</i>	Everglades greenbrier	T	NL	Y
<i>Sideroxylon reclinatum</i> ssp. <i>Austrofloridense</i>	Everglades bully	NL	C	Y
<i>Solanum donianum</i>	Mullein nightshade	T	NL	Y
<i>Solanum chenopodioides</i>	Black nightshade	NL	NL	Y
<i>Spermacoce terminalis</i>	False buttonwood	T	NL	Y
<i>Spiranthes brevilabris</i>	Texas or small ladiestresses	E	NL	Y
<i>Spiranthes costaricensis</i>	Costa Rican ladiestresses	E	NL	Y
<i>Spiranthes elata</i> Tall neottia;	tall ladiestresses	E	NL	Y
<i>Spiranthes laciniata</i>	Lace lip ladiestresses	T	NL	Y
<i>Spiranthes longilabris</i>	Long lip ladiestresses	T	NL	Y
<i>Spiranthes lucayana</i>	Gray ladiestresses	E	NL	Y
<i>Spiranthes torta</i>	Southern ladiestresses	E	NL	Y
<i>Sporobolus compositus</i> var. <i>Clandestinus</i>	Hidden dropseed	NL	NL	Y
<i>Stylosanthes calicicola</i>	Everglades Key pencilflower	E	NL	Y
<i>Swietenia mahagoni</i>	Mahogany	T	NL	Y
<i>Tectaria coriandrifolia</i>	Hairy halberd fern; Hattie Bauer halberd fern	NL	NL	Y
<i>Tectaria fibriata</i>	Least halberd fern	E	NL	Y
<i>Tectaria heracleifolia</i>	Broad halberd fern	T	NL	Y
<i>Tephrosia angustissima</i>	Narrowleaf hoarypea	E	NL	Y
<i>Tephrosia angustissima</i> var. <i>Corallicola</i>	Coral hoarypea	E	NL	Y
<i>Tephrosia spicata</i>	Spiked hoarypea	NL	NL	Y
<i>Tetrazygia bicolor</i>	Florida clover ash	T	NL	Y
<i>Thelypteris augescens</i>	Abrupt tipped maiden fern	T	NL	Y
<i>Thelypteris hispidula</i> var. <i>versicolor</i>	Hairy maiden fern	NL	NL	Y
<i>Thelypteris patens</i>	Grid-scale maiden fern	E	NL	Y

Scientific Name	Common Name	State	Federal	County
<i>Thelypteris reptans</i>	Creeping star-hair fern	E	NL	Y
<i>Thelypteris reticulata</i>	Lattice vein fern	E	NL	Y
<i>Thelypteris sclerophylla</i>	Stiff star-hair fern	E	NL	Y
<i>Thelypteris serrata</i>	Toothed lattice-vein fern	E	NL	Y
<i>Thrinax morissii</i>	Brittle thatch palm;			
	Silver thatch palm	E	NL	Y
<i>Thrinax radiata</i>	Florida thatch palm	E	NL	Y
<i>Tillandsia balbisiana</i>	Northern needleleaf	T	NL	Y
<i>Tillandsia fasciculata</i>	Cardinal airplant;			
	common wildpine	E	NL	Y
<i>Tillandsia fasciculata</i> var. <i>clavispicata</i>	Clubspike cardinal airplant	E	NL	Y
<i>Tillandsia fasciculata</i> var. <i>densispica</i>	Mez stiff-leaved wild pine	E	NL	Y
<i>Tillandsia flexuosa</i>	Twisted air plant	T	NL	Y
<i>Tillandsia utriculata</i>	Giant airplant; giant wild pine	E	NL	Y
<i>Tillandsia variabilis</i>	Leatherleaf airplant	T	NL	Y
<i>Tournefortia hirsutissima</i>	Chiggery grapes	E	NL	Y
<i>Tragia saxicola</i>	Rockland noseburn	T	NL	Y
<i>Trema lamarckiana</i>	West Indian trema;			
	Lamarck's trema	E	NL	Y
<i>Trichomanes krausii</i>	Kraus' bristle fern	E	NL	Y
<i>Trichomanes lineolatum</i>	Lined bristle fern	E	NL	Y
<i>Trichomanes punctatum</i> ssp. <i>Floridanum</i>	Florida bristle fern	E	C	Y
<i>Tricocentrum undulata</i>	Mule-eared oncidium;			
	Cape Sable			
	dancing lady orchid	E	NL	Y
<i>Tridens flavus</i>	Tall redtop; purple tridens	NL	NL	Y
<i>Triplasis americana</i>	Perennial sandgrass	NL	NL	Y
<i>Tripsacum floridanum</i>	Florida gamagrass	T	NL	Y
<i>Tropidia polystachya</i>	Young palm orchid	E	NL	Y
<i>Utricularia juncea</i>	Southern bladderwort	NL	NL	Y
<i>Vallesia antillana</i>	Tearshrub	E	NL	Y
<i>Vanilla barbellata</i>	Worm-vine orchid	E	NL	Y
<i>Vanilla dilloniana</i>	Leafless vanilla;			
	Dillon's vanilla	E	NL	Y
<i>Vanilla mexicana</i>	Mexican vanilla; unscented			
	vanilla; Fuch's vanilla	E	NL	Y
<i>Voyria parasitica</i>	Parasitic ghostplant	E	NL	Y
<i>Warea carteri</i>	Carter's pinelandcress;			
	Carter's mustard	E	E	Y
<i>Zamia pumila</i>	Florida arrowroot; coontie	CE	NL	Y
<i>Zanthoxylum coriaceum</i>	Biscayne pricklyash;			
	leathery pricklyash	E	NL	Y
<i>Zaphranthes atamasca</i>	Atamasco lily	T	NL	Y
<i>Zornia bracteata</i>	Viperina	NL	NL	Y

Key:
NL = Not Listed

1) Federal Listings:

E = Listed as Endangered Species in the List of Endangered and Threatened Wildlife and Plants under the provisions of the Endangered Species Act. Defined as any species which is in danger of extinction throughout all or a significant portion of its range.

T = Listed as Threatened Species. Defined as any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

C = Candidate Species for addition to the List of Endangered and Threatened Wildlife and Plants. Includes taxa for which: the US Fish and Wildlife Service (USFWS) currently has substantial information on hand to support the biological appropriateness of proposing to list the species as endangered or threatened; or the USFWS currently possesses information indicating that proposing to list the species as endangered or threatened is possibly appropriate, but for which conclusive data on biological vulnerability and threat(s) are not currently available to support proposed rules at this time.

2) State Listings:

E = Listed as Endangered Plants in the Preservation of Native Flora of Florida Act. Defined as species of plants native to the State that are in imminent danger of extinction within the State, the survival of which is unlikely if the causes of a decline in the number of plants continue, and includes all species determined to be endangered or threatened pursuant to the Federal Endangered Species Act of 1973, as amended.

T = Listed as Threatened Plants in the Preservation of Native Flora of Florida Act. Defined as species native to the State that are in rapid decline in the number of plants within the State, but which have not so decreased in such number as to cause them to be endangered.

CE = Listed as a Commercially Exploited Plant in the Preservation of Native Flora of Florida Act. Defined as species native to the State, which are subject to being removed in significant numbers from native habitats in the State and sold or transported for sale.

3) County Listings:

Y = Miami-Dade County endangered, threatened, rare or special concern flora species as updated from previously adopted CDMP lists, due to low population numbers or limited/localized population; impacts resulting from habitat destruction or environmental contamination; or nesting destruction/disturbance/failures.

Table from the Conservation, Aquifer Recharge and Drainage Element of the Miami-Dade Comprehensive Development Master Plan including amendments adopted up through November 18, 2015

Appendix 6-C. Invasive Pest Plant Species: Florida Exotic Pest Plant Council's 2017 List of Invasive Plant Species

CATEGORY I: Invasive exotics that are altering native plant communities by displacing native species, changing community structures or ecological functions, or hybridizing with natives. This definition does not rely on the economic severity or geographic range of the problem, but on the documented ecological damage caused.

Scientific Name	Common Name	Gov. List	Zone
<i>Abrus precatorius</i>	rosary pea	F	C, S
<i>Acacia auriculiformis</i>	earleaf acacia		C, S
<i>Albizia julibrissin</i>	mimosa, silk tree		N, C
<i>Albizia lebbbeck</i>	woman's tongue		C, S
<i>Ardisia crenata</i>	coral ardisia	F	N, C, S
<i>Ardisia elliptica</i> shoebuttton	ardisia	F	C, S
<i>Asparagus aethiopicus</i> (<i>A. sprengeri</i> , <i>A. densiflorus</i>)	asparagus-fern		N, C, S
<i>Bauhinia variegata</i>	orchid tree		C, S
<i>Bischofia javanica</i>	bishopwood		C, S
<i>Calophyllum antillanum</i> (<i>C. calaba</i>)	Santa Maria, mast wood		S
<i>Casuarina equisetifolia</i>	Australian-pine	F	N, C, S
<i>Casuarina glauca</i> suckering	Australian-pine	F	C, S
<i>Cinnamomum camphora</i>	camphor tree		N, C, S
<i>Colocasia esculenta</i>	wild taro		N, C, S
<i>Colubrina asiatica</i>	lather leaf	F	S
<i>Cupaniopsis anacardioides</i>	carrotwood	F	C, S
<i>Deparia petersenii</i>	Japanese false spleenwort		N, C
<i>Dioscorea alata</i>	winged yam	F	N, C, S
<i>Dioscorea bulbifera</i>	air-potato	F	N, C, S
<i>Eichhornia crassipes</i>	water-hyacinth	F	N, C, S
<i>Eugenia uniflora</i>	Surinam cherry		C, S
<i>Ficus microcarpa</i> (<i>F. nitida</i> and <i>F. retusa</i> var. <i>nitida</i>) ¹	laurel fig		C, S
<i>Hydrilla verticillata</i>	hydrilla	F, U	N, C, S
<i>Hygrophila polysperma</i>	green hygro	F, U	N, C, S
<i>Hymenachne amplexicaulis</i>	West Indian marsh grass		N, C, S
<i>Imperata cylindrica</i>	cogon grass	F, U	N, C, S
<i>Ipomoea aquatica</i>	water-spinach	F, U	C
<i>Jasminum dichotomum</i>	Gold Coast jasmine		C, S
<i>Jasminum fluminense</i>	Brazilian jasmine		C, S
<i>Lantana camara</i> (<i>L. strigocamara</i>)	lantana, shrub verbena		N, C, S
<i>Ligustrum lucidum</i>	glossy privet		N, C
<i>Ligustrum sinense</i>	Chinese privet	F ³	N, C, S
<i>Lonicera japonica</i>	Japanese honeysuckle		N, C, S
<i>Ludwigia hexapetala</i>	Uruguay waterprimrose		N, C
<i>Ludwigia peruviana</i>	Peruvian primrosewillow		N, C, S
<i>Lumnitzera racemosa</i>	black mangrove		S
<i>Luziola subintegra</i>	tropical American watergrass		S

Scientific Name	Common Name	Gov. List	Zone
<i>Lygodium japonicum</i>	Japanese climbing fern	F	N, C, S
<i>Lygodium microphyllum</i>	Old World climbing fern	F,U	N, C, S
<i>Macfadyena unguis-cati</i> (<i>Dolichandra unguis-cati</i>)	catclawvine		N, C, S
<i>Manilkara zapota</i>	sapodilla		S
<i>Melaleuca quinquenervia</i>	melaleuca, paper bark	F,U	C, S
<i>Melinis repens</i> (<i>Rhynchelytrum repens</i>)	Natal grass		N, C, S
<i>Microstegium vimineum</i> *	Japanese stiltgrass,		N
<i>Mimosa pigra</i> catclaw	mimosa	F,U	C, S
<i>Nandina domestica</i> nandina,	heavenly bamboo		N, C
<i>Nephrolepis brownii</i> (<i>N. multiflora</i>)	Asian sword fern		C, S
<i>Nephrolepis cordifolia</i>	sword fern		N, C, S
<i>Neyraudia reynaudiana</i>	Burma reed	F	S
<i>Nymphoides cristata</i>	crested floating heart	F	C, S
<i>Paederia cruddasiana</i>	sewer vine	F	S
<i>Paederia foetida</i>	skunk vine	F	N, C, S
<i>Panicum repens</i>	torpedo grass		N, C, S
<i>Pennisetum purpureum</i>	Napier grass, elephant grass		N, C, S
<i>Phymatosorus scolopendria</i> (<i>Microsorium grossum</i>)	serpent fern, wart fern		S
<i>Pistia stratiotes</i>	water-lettuce	F	N, C, S
<i>Psidium cattleianum</i> (<i>P. littorale</i>)	strawberry guava		C, S
<i>Psidium guajava</i>	guava		C, S
<i>Pueraria montana</i> var. <i>lobata</i>	kudzu	F	N, C, S
<i>Rhodomyrtus tomentosa</i>	downy rose-myrtle		C, S
<i>Ruellia simplex</i> ²	Mexican-petunia		N, C, S
<i>Salvinia minima</i>	water spangles		N, C, S
<i>Sapium sebiferum</i> (<i>Triadica sebifera</i>)	popcorn tree, Chinese tallow tree		N, C, S
<i>Scaevola taccada</i> (<i>S. sericea</i> , <i>S. frutescens</i>)	half-flower, beach naupaka		N, C, S
<i>Schefflera actinophylla</i> (<i>Brassaia actinophylla</i>)	schefflera, Queensland umbrella tree		C, S
<i>Schinus terebinthifolius</i>	Brazilian-pepper	F	N, C, S
<i>Scleria lacustris</i>	Wright's nutrush		C, S
<i>Senna pendula</i> var. <i>glabrata</i> Christmas senna	Christmas cassia,		C, S
<i>Solanum tampicense</i>	wetland nightshade	F,U	C, S
<i>Solanum viarum</i>	tropical soda apple	F,U	N, C, S
<i>Sporobolus jacquemontii</i> (<i>S. indicus</i> var. <i>pyramidalis</i>)	West Indian dropseed		C, S
<i>Syngonium podophyllum</i>	arrowhead vine		N, C, S
<i>Syzygium cumini</i>	Java-plum		C, S
<i>Tectaria incisa</i>	incised halberd fern		S

Scientific Name	Common Name	Gov. List	Zone
<i>Thelypteris opulenta</i> *	jeweled maiden fern		S
<i>Thespesia populnea</i>	seaside mahoe		C, S
<i>Tradescantia fluminensis</i>	small-leaf spiderwort		N, C
<i>Urena lobata</i>	Caesar's weed		N, C, S
<i>Urochloa mutica</i> (<i>Brachiaria mutica</i>)	para grass		N, C, S
<i>Vitex rotundifolia</i>	beach vitex		N

CATEGORY II: Invasive exotics that have increased in abundance or frequency but have not yet altered Florida plant communities to the extent shown by Category I species. These species may become ranked Category I if ecological damage is demonstrated.

Scientific Name	Common Name	Gov. List	Zone
<i>Adenanthera pavonina</i>	red sandalwood		S
<i>Agave sisalana</i>	sisal hemp		C, S
<i>Aleurites fordii</i> (<i>Vernicia fordii</i>)	tung-oil tree		N, C
<i>Alstonia macrophylla</i>	devil tree		S
<i>Alternanthera philoxeroides</i>	alligator-weed	F	N, C, S
<i>Antigonon leptopus</i>	coral vine		N, C, S
<i>Ardisia japonica</i>	Japanese ardisia		N
<i>Aristolochia littoralis</i> (<i>A. elegans</i>)	elegant Dutchman's pipe, calico flower		N, C, S
<i>Asystasia gangetica</i>	Ganges primrose		C, S
<i>Begonia cucullata</i>	wax begonia		N, C, S
<i>Broussonetia papyrifera</i>	paper mulberry		N, C, S
<i>Bruguiera gymnorhiza</i>	large-leaved mangrove		S
<i>Callistemon viminalis</i> (<i>Melaleuca viminalis</i>)	bottlebrush		C, S
<i>Callisia fragrans</i>	inch plant, spironema		C, S
<i>Casuarina cunninghamiana</i>	Australian-pine	F	C, S
<i>Cecropia palmata</i>	trumpet tree		S
<i>Cestrum diurnum</i>	day jessamine		C, S
<i>Chamaedorea seifrizii</i>	bamboo palm		S
<i>Clematis terniflora</i>	Japanese clematis		N, C
<i>Cocos nucifera</i>	coconut palm		S
<i>Crassocephalum crepidioides</i>	redflower ragleaf, Okinawa spinach		C, S
<i>Cryptostegia madagascariensis</i>	rubber vine		C, S
<i>Cyperus involucratu</i> (<i>C. alternifolius</i>)	umbrella plant		C, S
<i>Cyperus prolifer</i>	dwarf papyrus		C, S
<i>Dactyloctenium aegyptium</i>	Durban crowfoot grass		N, C, S
<i>Dalbergia sissoo</i>	Indian rosewood, sissoo		C, S
<i>Elaeagnus pungens</i>	silverthorn, thorny olive		N, C

Scientific Name	Common Name	Gov. List	Zone
<i>Elaeagnus umbellata</i>	silverberry, autumn olive		N
<i>Epipremnum pinnatum</i> cv. <i>Aureum</i>	pothos		C, S
<i>Eulophia graminea</i>	Chinese crown orchid		C, S
<i>Ficus altissima</i>	false banyan, council tree		S
<i>Flacourtia indica</i>	governor's plum		S
<i>Hemarthria altissima</i>	limpo grass		C, S
<i>Heteropterys brachiata</i>	red wing, Beechey's withe		S
<i>Hyparrhenia rufa</i>	jaragua		N, C, S
<i>Ipomoea carnea</i> ssp. <i>fistulosa</i> (<i>I. fistulosa</i>)	shrub morning-glory	F	C, S
<i>Kalanchoe x houghtonii</i> *	mother-of-millions		N, C, S
<i>Kalanchoe pinnata</i> (<i>Bryophyllum pinnatum</i>)	life plant		C, S
<i>Koelreuteria elegans</i>	flamegold tree		C, S
<i>Landoltia punctata</i>	spotted duckweed		N, C, S
<i>Leucaena leucocephala</i>	lead tree	F	N, C, S
<i>Limnophila sessiliflora</i>	Asian marshweed	F,U	N, C, S
<i>Livistona chinensis</i>	Chinese fan palm		C, S
<i>Macroptilium lathyroides</i>	phasey bean		N, C, S
<i>Melia azedarach</i>	Chinaberry		N, C, S
<i>Melinis minutiflora</i>	molasses grass		C, S
<i>Merremia tuberosa</i>	wood-rose		C, S
<i>Mikania micrantha</i>	mile-a-minute vine	F,U	S
<i>Momordica charantia</i>	balsam apple		N, C, S
<i>Murraya paniculata</i>	orange-jessamine		S
<i>Myriophyllum spicatum</i>	Eurasian water-milfoil	F	N, C, S
<i>Panicum maximum</i> (<i>Urochloa maxima</i>)	Guinea grass		N, C, S
<i>Passiflora biflora</i>	two-flowered passion vine		S
<i>Pennisetum setaceum</i>	green fountain grass		S
<i>Pennisetum polystachion</i> * (<i>Cenchrus polystachos</i>)	mission grass, West Indian Pennisetum		C, S
<i>Phoenix reclinata</i>	Senegal date palm		C, S
<i>Phyllostachys aurea</i>	golden bamboo		N, C
<i>Pittosporum pentandrum</i>	Taiwanese cheesewood		S
<i>Platynerium bifurcatum</i> *	common staghorn fern		S
<i>Praxelis clematidea</i>	praxelis		C
<i>Pteris vittata</i>	Chinese brake fern		N, C, S
<i>Ptychosperma elegans</i>	solitaire palm		S
<i>Richardia grandiflora</i>	large flower Mexican clover		N, C, S
<i>Ricinus communis</i>	castor bean		N, C, S
<i>Rotala rotundifolia</i>	roundleaf toothcup, dwarf Rotala, redweed		S
<i>Ruellia blechum</i> (<i>Blechum brownei</i>)	green shrimp plant Browne's blechum		N, C, S

Scientific Name	Common Name	Gov. List	Zone
<i>Sansevieria hyacinthoides</i>	bowstring hemp		C, S
<i>Sesbania punicea</i>	rattlebox		N, C, S
<i>Sida planicaulis</i> *	mata-pasto		C, S
<i>Solanum diphyllum</i>	two-leaf nightshade		N, C, S
<i>Solanum torvum</i>	turkeyberry	F,U	N, C, S
<i>Spermacoce verticillata</i>	shrubby false buttonweed		C, S
<i>Sphagneticola trilobata</i> wedelia (<i>Wedelia trilobata</i>)	creeping oxeye		N, C, S
<i>Stachytarpheta cayennensis</i> (<i>S. urticifolia</i>)	nettle-leaf porterweed		S
<i>Syagrus romanzoffiana</i> (<i>Arecastrum romanzoffianum</i>)	queen palm		C, S
<i>Syzygium jambos</i>	Malabar plum, rose-apple		N, C, S
<i>Talipariti tiliaceum</i> mahoe, (<i>Hibiscus tiliaceus</i>)	sea hibiscus		C, S
<i>Terminalia catappa</i>	tropical-almond		C, S
<i>Terminalia muelleri</i>	Australian-almond		C, S
<i>Tradescantia spathacea</i> (<i>Rhoeo spathacea</i> , <i>Rhoeo discolor</i>)	oyster plant		C, S
<i>Tribulus cistoides</i>	puncture vine, burr-nut		N, C, S
<i>Vitex trifolia</i>	simple-leaf chaste tree		C, S
<i>Washingtonia robusta</i>	Washington fan palm		C, S
<i>Wisteria sinensis</i>	Chinese wisteria		N, C
<i>Xanthosoma sagittifolium</i>	malanga, elephant ear		N, C, S

Government List (Gov. List): Possession, propagation, sale, and/or transport of these plants is regulated by:
F=Florida Department of Agriculture and Consumer Services;
U=United States Department of Agriculture

Zone: refers to each species' general distribution in regions of Florida (not its potential range in the state).
N = north
C = central,
S = south

¹ Does not include *Ficus microcarpa* subsp. *fuyuensis*, which is sold as "Green Island Ficus"

² Many names are applied to this species in Florida because of a complicated taxonomic and nomenclatural history. Plants cultivated in Florida, all representing the same invasive species, have in the past been referred to as *Ruellia brittoniana*, *R. tweediana*, *R. caerulea*, and *R. simplex*.

³ Chinese privet is a FLDACS Noxious Weed except for the cultivar 'Variegatum'

* Added to the FLEPPC List of Invasive Plant Species in 2017

** Plant names are those published in "Guide to Vascular Plants of Florida Third Edition." Richard P. Wunderlin and Bruce F. Hansen, University of Florida Press, 2011. Plant names in parentheses are synonyms or misapplied names that have commonly occurred in the literature or indicate a recent name change. Not all synonyms are listed.

RECREATION AND OPEN SPACE ELEMENT

DATA INVENTORY AND ANALYSIS

PURPOSE

The purpose of the Recreation and Open Space Element as set forth in Section 163.3177(6)(e), Florida Statutes (F.S.), is to plan for a comprehensive system of public and private sites for recreation, including, but not limited to, natural reservations, parks and playgrounds, parkways, beaches and public access to beaches, open spaces, waterways, and other recreational facilities.

An assessment of current and projected levels of service and recreation needs provides a basis for standards defining the level of services desired by the Town. Statements of a goal, objectives, and policies for guiding the Town's implementation actions conclude the element. These statements provide direction for the municipal recreation programs and maintenance of parks, open space, and recreation facilities to assure that the needs of Surfside residents will be met in the future.

EXISTING FACILITIES

As shown in Map 7-1, the Town is served by five Town-owned recreation facilities. These include (1) Hawthorne Park Tot Lot on Hawthorne Avenue and 90th Street, (2) Veterans Park/Surfside Tennis Center on 87th Terrace between Collins and Harding Avenues, (3) 96th Street Park on Bay Drive and 96th Street, and (4) the Surfside Community Center on the ocean at 93rd Street, and (5) Paws Up Dog Park on 93rd Street and Byron Avenue. A description of these facilities is provided below.

Hawthorne Park Tot Lot: This facility serves as a neighborhood tot lot. In addition, the park has one playground, three picnic tables, and four benches.

Veterans Park/Surfside Tennis Center: This park includes three tennis courts (with six court lights), six benches, Veterans memorial, three flag poles, an office, a restroom, and a WWII cannon.

96th Street Park: Facilities provided at this site include a ball field (with six field lights), two basketball courts, two raquetball courts, a tot lot, a playground, restrooms, six benches, an office, and an irrigation system. The 5-Year Parks Improvement Plan is proposing improvements to 96th Street Park over the next several years.

Surfside Community Center: In 1962, the Town of Surfside built a community center on the ocean at 93rd Street. In 2008, that building was demolished due to building and safety concerns. The current Community Center was completed in 2011 and houses the Aquatic Facility which includes a recreation pool with lap lanes, plunge pool and slide, children's activity pool, and a jacuzzi pool. Additional amenities include two multipurpose rooms which can host a variety of activities and programs for all ages. The Community Center also includes locker room facilities, restrooms, administrative offices, an outdoor green area, and a snack bar and grill.

Paws Up Dog Park: This facility is a fenced in area for residents' pets to enjoy active play time. Several benches are also included.

Other Recreation Facilities: In addition to these facilities, other public recreation and open space lands in Surfside include the State-owned beachfront which comprises approximately 38 acres and stretches for just over a mile along the Atlantic Ocean, a community garden at 89th Street and Dickens Avenue, and several existing street ends and associated rights-of-way allowing for beach access. Private recreation facilities include the Surf Club on Collins Avenue between 90th and 92nd Streets, and beachfront property west of the erosion control line, paralleling the State owned beach. Moreover, additional public recreational opportunities can be found within a three mile radius of the Town including Haulover Beach Park and Oleta River State Park.

ANALYSIS OF THE NEED FOR FACILITIES

The Surfside Parks and Recreation Department operates a number of Town facilities and a wide range of community programs. Facilities include the aforementioned Hawthorne Park Tot Lot, 96th Street Park, Veterans Park/Surfside Tennis Center, Paws Up Dog Park, Community Center with Aquatic facilities, as well as the Administrative Offices and 93rd Street Beach Lifeguard Stand. The Parks and Recreation Department sponsors adult education classes, holiday celebrations, youth programs and sports, and special events designed to provide entertainment, education, and recreation for all Town residents and visitors.

The Town, recognizes that parks and recreation are vital components of the overall community. Following is an acreage inventory of Surfside’s public recreation facilities.

**Table 7-1
Parks and Recreation Inventory**

FACILITY	ACREAGE
Hawthorne Park Tot Lot	0.22
Veterans Park/Surfside Tennis Center	0.99
96 th Street Park	0.99
Surfside Community Center	1.27
Paws Up Dog Park	0.10
public beach	34.76
pocket parks and r-o-w dead ends	1.44
TOTAL:	39.77

Source: Calvin, Giordano & Associates, Inc. 2017

While the public beach does not generally offer Parks and Recreation Department programming, this acreage will be included for the level of service (LOS) analysis because it is an integral part of the Town. Using the 39.77 acres of public recreation, along with population projections, Surfside’s LOS for recreation can be projected through 2035. The LOS standard for publicly-owned recreation lands in Surfside is six (6) acres per one thousand (1,000) permanent population. As the following table shows, this standard will be met through 2035.

**Table 7-2
Projected Park LOS**

Year	Population (Projected)	LOS Standard	Acres Needed	Town Park Acreage	Surplus Acreage
2010	5,744*	6.0/1,000	34.46	39.77	5.31
2015	5,705**	6.0/1,000	34.23	39.77	5.54
2020	5,952**	6.0/1,000	35.71	39.77	4.06
2025	6,181**	6.0/1,000	37.08	39.77	2.69
2030	6,398**	6.0/1,000	38.39	39.77	1.38
2035	6,556**	6.0/1,000	39.34	39.77	0.43

Sources: * 2010 U.S. Census; ** Florida Housing Data Clearinghouse (FHDC), 2016

Recreation and Open Space Element Goals, Objectives and Policies

Goal 1: Provide adequate recreation and open space facilities to serve the Town's residents.

Objective 1 – Access to recreation sites: In general, ensure public access to identified recreation sites by creating a pedestrian and bicycle network that links the Town’s parks, recreational, and natural amenities into an “emerald necklace.” This objective shall be measured by implementing its supporting policies.

Policy 1.1 – The Town shall give priority to maintaining and upgrading existing public access sites, but it shall acquire new sites when resources are available. Priority shall be given to sites which offer the potential for: 1) creating natural area greenways consisting of environmentally sensitive lands or lands in which plant species characteristic of and/or compatible with environmentally sensitive lands predominate or can be cultivated; and 2) removing invasive or otherwise undesirable plant species including those listed in Conservation Element Policy 4.2.

Policy 1.2 – All beach access facilities shall be accessible from public roads. The Town shall map all road rights-of-way that dead-end at the Atlantic beach and shall provide benches, picnic tables or other improvements at these sites to create “pocket parks.”

Policy 1.3 – The Town shall continue to support the existing and explore the feasibility of enhancing each of the street-ends east of Collins Avenue to create “pocket parks” where appropriate.

Policy 1.4 – The Town shall provide barrier-free access for the handicapped to all public recreation facilities.

Policy 1.5 – The Town shall continue to support bicycle parking facilities provided at strategic beach access points and at public parks.

Objective 2 – Public-private coordination: In general, coordinate public and private resources to meet recreation demand. This objective shall be measured by implementing its supporting policies.

Policy 2.1 – The Town of Surfside shall work with public agencies, such as Miami-Dade County Department of Environmental Resources Management, the Army Corps of Engineers, the Florida Department of Environmental Protection and private sector organizations and corporations, through the zoning process, to enhance and improve existing recreation/open space facilities in the Town.

Objective 3 – Adequate and efficient provision of public recreation facilities and open space: In general, ensure that parks and recreation facilities are adequately and efficiently provided. In particular, maintain a system of public park and recreation lands which provides at least 6.0 acres per 1,000 people permanent population together with an appropriate range of facilities. This standard is based on existing resources and the anticipated population.

Policy 3.1 – The Town shall reserve for recreation use all of the Town-owned land designated for recreation on the Future Land Use Map, including the following specific facilities: 1) Hawthorne Park Tot Lot, 2) Veterans Park/Surfside Tennis Center, 3) 96th Street Park, 4) Surfside

Community Center, and 5) Paws Up Dog Park. These facilities shall remain as public recreation facilities unless comparable facilities are provided to replace them.

Policy 3.2 – The Town shall continue to seek State and Federal grant funds for Town park enhancements.

Policy 3.3 – The Town shall give priority to upgrading existing public recreation lands, but it shall acquire new sites when resources are available.

Policy 3.4 – For public recreational sites, a minimum level of service standard shall be set at six (6) acres per one thousand (1,000) permanent population.

Policy 3.5- The Town shall continue to ensure high quality and safe recreational facilities for Town residents.

Policy 3.6 – The Town shall continue to implement the current 5-Year Parks Improvement Plan.

Objective 4 – Provision of private open space: Assure the provision of open space by private enterprise. This objective shall be measured by implementing its supporting policy.

Policy 4.1 – The Town shall maintain and improve land development code standards and incentives to achieve open space and landscaping requirements. Open space and landscaping requirements shall specify above average quantities of plant and other landscaping material and extensive use of xeriscape plant materials and design techniques for non-residential uses. Landscaping regulations shall include, but not necessarily be limited to, establishing a minimum number of trees based on lot size and/or lot frontage, establishing minimum requirements for other plant material, and establishing irrigation restrictions which minimize water loss due to evaporation. Regulations shall address site perimeters, parking lots and residential buffers.

Objective 5 – Provision of open space: Assure the provision and preservation of open space to aid in community resiliency to climate change. This objective shall be measured by implementing its supporting policy.

Policy 5.1 – The Town shall maintain and improve land development code standards and incentives to achieve and maintain open space. Regulations shall address site perimeters, parking lots and buffers related to open space.



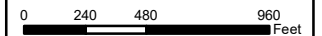
Surfside Comprehensive Plan

Map: REC 1

Town Parks and Recreation Facilities

Legend


-  Surfside City Limits
-  Adjacent City Limits
-  Public Beach
-  Municipal Parks
-  Water



Print: 6-7-2017

Source: Miami Dade GIS Services

 Calvin, Giordano & Associates, Inc.
EXCEPTIONAL SOLUTIONS

 Produced and maintained by the CGA
Geographic Information Systems Services

INTERGOVERNMENTAL COORDINATION ELEMENT

DATA INVENTORY AND ANALYSIS

PURPOSE

The purpose of the Intergovernmental Coordination element is to identify and resolve incompatibilities between Surfside's comprehensive planning processes and those of other governmental entities with interests in or related to the Town's area of concern. The areas of concern for Surfside include adjacent municipalities, Miami-Dade County, Miami-Dade County Public Schools, the South Florida Water Management District, South Florida Regional Planning Council, state government, federal government, and utility companies.

Specific coordination needs within each of the elements of the Surfside comprehensive plan that would benefit from improved or additional intergovernmental coordination and mechanisms for satisfying these needs are also identified, as appropriate.

EXISTING DATA AND CONDITIONS

Surfside currently has either formal or informal coordination agreements, or interacts through standard operating procedures under statutory authority, with the following agencies or jurisdictions:

Municipal Government

- Bal Harbour Village
- Town of Bay Harbor Islands
- Indian Creek Village
- City of Miami Beach
- Miami Shores Village
- Various other Municipalities

Miami-Dade County Departments

- Biscayne Bay Shoreline Development Review Committee
- Fire Rescue Department (FRD)
 - Office of Emergency Management (EM)
- Miami Dade Property Appraiser (MDPA)
- Parks, Recreation and Open Spaces Department (PROSD)
- Police Department (PD)
- Public Housing and Community Development (PHCD)
- Regulatory and Economic Resources Department (RERD)
 - Environmental Resource Management Division (DERM)
 - Planning Division (Plan)
 - Office of Historic Preservation (HP)
- Solid Waste Management Department (SWMD)
- Transportation and Public Works Department (TPWD)
 - Miami Dade Transit (MDT)
- Transportation Planning Organization (TPO)
- Water and Sewer Department (WASD)

Schools

Miami-Dade County Public Schools

Other

Miami-Dade League of Cities

Florida Departments and Agencies

Division of Emergency Management
Department of Business and Professional Regulation
Department of Children and Family Services
Department of Economic Opportunity
Department of Environmental Protection (DEP)
Department of Transportation
Division of Historic Resources
Fish and Wildlife Conservation Commission
South Florida Regional Planning Council
South Florida Water Management District

United States Departments and Agencies

Army Corps of Engineers
Commerce, Census Bureau
Environmental Protection Agency
Federal Emergency Management Agency
U.S. Fish and Wildlife Service
U.S. Postal Service
Transportation

Regulated Utilities

AT&T
Comcast
Florida Power & Light

EVALUATION OF EXISTING COORDINATION MECHANISMS

For each agency listed above, Table 8-1 briefly describes the existing coordination mechanisms indicating the subject, nature of the relationship and the office with primary responsibility for coordination.

JOINT PLANNING AREAS**Comparison with Regional Policy Plan**

The Strategic Regional Policy Plan for South Florida has been reviewed and considered during the process of writing this Comprehensive Plan. The Comprehensive Plan conforms to the Regional Policy Plan.

Specific Coordination Issues in Each Element

Following is a summary the interagency coordination needs associated with each element of this Comprehensive Plan.

Future Land Use

Within this element interagency coordination includes communicating development projections with the Miami-Dade Department of Emergency Management (DEM) and Homeland Security (HS) in order to assist in their hurricane evacuation planning. Further, the Town requires development along the bulkheads to be in accordance with State and County regulations. In particular the Town continues to work with the Florida Department of Environmental Protection and Miami-Dade Department of Environmental Resource Management (DERM) for review of permits within the bulkhead areas.

Coastal Management

This element's efforts are largely related to the management of the Biscayne Bay Aquatic Preserve. Coordinating agencies for this include the Miami-Dade County Department of Environmental Resource Management, the Florida Department of Environmental Protection, the National Park Service and the Biscayne Bay Shoreline Development Review Committee. Additionally, the Town is working with the Florida Department of Transportation (FDOT) to ensure the installation of the improvements to the DOT stormwater systems currently discharging into Biscayne Bay waters. When applicable, the Town shall provide development proposal information to the Biscayne Bay Shoreline Development Review Committee for review. Regarding coastal management law enforcement, Town police shall maintain communications with County and State marine police in order to report any violations of the boat speed limits in the adjacent waters which are a manatee protection area. The Town shall contact DERM if any adverse impact is observed relative to the sea grass beds in adjacent waters.

Beach maintenance and restoration requires intergovernmental coordination efforts. To that end, the Town shall cooperate with U.S. Army Corps of Engineers for beach renourishment as needed. Similarly, the Town shall continue to coordinate and cooperate with the Florida Department of Environmental Protection's Bureau of Beaches and Coastal Systems and with the Miami-Dade County Park and Recreation Department regarding access to and the appropriate maintenance of the beach area seaward of the erosion control line. The Town will also coordinate with relevant agencies on planning for sea level rise.

Transportation

The Town coordinates with the Miami-Dade Metropolitan Planning Organization (MPO) and the Florida Department of Transportation on capital improvements and level of service for SR AIA/Harding Avenue and SR 922/96th Street. Miami-Dade County Transit (MDT) provides six routes through the Town connecting residents and employees to Miami Beach, downtown Miami, and the MetroRail. As needed, the Town will also coordinate with the Southeast Florida Transportation Council.

Housing

The Town shall monitor the housing and related activities of the Miami-Dade County Housing Within Reach Taskforce, Miami-Dade Housing Agency (MDHA), South Florida Regional Planning Council and nearby local jurisdictions. The Town shall work with the US Department of Commerce to ensure accurate population and housing information is provided for the 2020 Census. Additionally, the Town shall dialogue with the Florida Department of Children and Family Services to ensure an accurate inventory for any subsidized rental housing, and group homes that may exist within the Town. An inventory of historically significant housing is required for the Comprehensive Plan, and therefore periodic coordination and communication with the State's Division of Historic Resources, Florida Master Site File is necessary.

Infrastructure

The Town of Surfside purchases its water directly from the Miami-Dade County Water and Sewer Department (WASD). The Town's Water Supply Facilities Work Plan was adopted in December 2015 and coordinated with the Miami-Dade County Water and Sewer Department 20-Year Water Supply Facilities Work Plan (2014 – 2033) and the South Florida Water Management District's 2013 Lower East Coast Water Supply Plan Update. Further coordination with the Florida Department of Environmental Protection (DEP) will be important to ensure stormwater quality and impacts on the Biscayne Bay.

Recreation and Open Space

There is approximately 35 acres of state-owned beach seaward of the erosion control line, which runs approximately along the crest of the dune. This beach is maintained under an agreement with the State by the Miami-Dade Park and Recreation Department.

Conservation

The Florida DEP's Bureau of Beaches and Coastal Systems considers Surfside's beach to be "critically eroded". As part of the beach renourishment program coordination efforts with this and other agencies are required. Land use, as it relates to the discharge of stormwater and to the use of natural drainage, is regulated through the South Florida Water Management District (SFWMD).

The Town of Surfside purchases their potable water supply directly from Miami-Dade WASD. The Town is also working with WASD's Water Use Efficiency Section to identify the water conservation best management practices (BMPs) applicable to the Town, which is a water wholesaler, and to develop the Town's Water Conservation Plan as required by Miami-Dade County Ordinance 06-177.

Capital Improvements

The Town shall coordinate with Miami-Dade County Public Schools, WASD, the MPO, and FDOT to ensure projects affecting level of service are included in the annual update of the Capital Improvements Element.

Areas of Critical State Concern

There are no areas of critical state concern in the Town of Surfside.

The following abbreviations are used in Table 8-1.

AE - Advise and Encourage

CA - Town Agency

FN - Formal Notice

OA - Outside Agencies

TA - Technical Assistance

AP - Approval, Permit

FA – Formal Agreement

IN - Informal Notice

PM - Periodic Meetings to Coordinate Programs

**TABLE 8-1
COORDINATING AGENCIES**

Agency	Subject Coordination	Nature of Relations	Existing and Anticipated Coordination Mechanisms	Effectiveness of Existing Coordination Mechanisms	Surfside Office with Primary Responsibility For Coordination
MUNICIPALITIES:					
Bal Harbour Village	Comprehensive planning	AE	Informal coordination	Effective	Planning, Town Manager
Town of Bay Harbor Islands	Comprehensive planning	AE	Informal coordination	Effective	Planning, Town Manager
Indian Creek Village	Comprehensive planning	AE	Informal coordination	Effective	Planning, Town Manager
City of Miami Beach	Comprehensive planning	AE	Informal coordination	Effective	Planning, Town Manager
Miami Shores Village	Aquatic Center	FA	Interlocal Agreement	Effective	Parks and Recreation
Various Other Municipalities	Police Assistance	FA	Responsive upon Requests	Effective	Police Department
MIAMI-DADE COUNTY DEPARTMENTS AND AGENCIES:					
Biscayne Bay Shoreline Development Review Committee	Shoreline environmental and conservation issues	AE, TA	Informal coordination	Effective	Public Works, Town Manager
Fire Rescue Department	Fire-rescue services	FA	Interlocal Agreement	Effective	Police Department
Office of Emergency Management (EM)	Emergency Management	PM, AE	Informal Coordination	Effective	Town Manager

Agency	Subject Coordination	Nature of Relations	Existing and Anticipated Coordination Mechanisms	Effectiveness of Existing Coordination Mechanisms	Surfside Office with Primary Responsibility For Coordination
	Planning				
Miami-Dade Property Appraiser	Tax revenues	PM, TA	Interlocal Agreement	Effective	Town Manager, Finance
Parks, Recreation and Open Spaces Department	Beach Maintenance, Open space areas, regional plans	PM, AE	Informal coordination	Effective	Parks and Recreation
Police Department	Police Resources	FA	Responsive upon Requests	Effective	Police Department
Public Housing and Community Development	Affordable housing	AE	Informal coordination	Effective	Town Manager
Regulatory and Economic Resources Department					
Environmental Resources Management (DERM) Division	Water quality, air quality, noise impact, septic tanks, water use permits, wastewater management	IN, PM	Interlocal Agreement	Effective	Public Works, Town Manager
Planning Division	Comprehensive Planning	AE	Informal coordination	Effective	Planning Director
Office of Historic Preservation	Historic Preservation	AE, FN	Informal coordination	Effective	Town Manager, Planning
Solid Waste Management	Waste management	FA	Interlocal Agreement – Curbside Recycling Program	Effective	Public Works
Transportation Public Works Department	Highway construction, right of way, alignments, access control transit	PM, TA	Informal coordination	Effective	Public Works

Agency	Subject Coordination	Nature of Relations	Existing and Anticipated Coordination Mechanisms	Effectiveness of Existing Coordination Mechanisms	Surfside Office with Primary Responsibility For Coordination
Miami-Dade Transit (MDT)	Transit	AE	Informal coordination with Surfside Mini-Bus	Effective	Town Manager
Transportation Planning Organization (TPO)	Transportation planning	PM, AE	Informal coordination	Effective	Planning
Water and Sewer Department (WASD)	Water quality, water facility development, wastewater treatment, wastewater management	AP, TA	Interlocal Agreement	Effective	Public Works
SCHOOLS:					
Miami-Dade County Public Schools	School facilities and concurrency	FA	Interlocal Agreement	Effective	Town Manager, Finance
OTHER:					
Miami-Dade League of Cities	Intergovernmental issues	AE, PM	Monthly meetings	Effective	Town Mayor
FLORIDA DEPARTMENTS AND AGENCIES:					
Division of Emergency Management	Mutual Aid Agreement	OA, TA	Informal coordination	Effective	Town Manager
Department of Business and Professional Regulation	Various licenses	AP	Informal coordination	Effective	Planning
Department of Children and Family Services	Group homes, foster care facilities	FN, OA	Informal coordination	Effective	Building and Zoning
Department of Economic Opportunity	Comprehensive Plan	AP, TA	Oversight of Comprehensive Plan, EAR, Regulation of Land Development	Effective	Planning

Agency	Subject Coordination	Nature of Relations	Existing and Anticipated Coordination Mechanisms	Effectiveness of Existing Coordination Mechanisms	Surfside Office with Primary Responsibility For Coordination
			Code		
Department of Environmental Protection	Water management, water quality, air quality, beaches/land, solid waste, septic tanks, water facility development, water use permits, wastewater management	AP	Permitting, informal coordination	Effective	Public Works, Town Manager
Division Of Historic Resources	Historic lands and buildings	TA, AE	Informal coordination	Effective	Planning
Department of Transportation	Transportation planning, highway construction, right of way, alignments, access control transit	AE, TA	Informal coordination	Effective	Public Works
Fish and Wildlife Conservation Commission	Conservation issues	AE, TA	Permitting, informal coordination	Effective	Town Manager
South Florida Regional Planning Council	Comprehensive planning	TA, AE, AP	Review of Comprehensive Plan and EAR	Effective	Planning
South Florida Water Management District	Stormwater management, wetlands mitigation, water use	TA, AE, AP	Quarterly meetings	Effective	Public Works
UNITED STATES DEPARTMENTS AND AGENCIES:					
Army Corps of Engineers	Beach erosion control	AE, PM, TA, AP	Informal coordination	Effective	Public Works

Agency	Subject Coordination	Nature of Relations	Existing and Anticipated Coordination Mechanisms	Effectiveness of Existing Coordination Mechanisms	Surfside Office with Primary Responsibility For Coordination
Commerce, Census Bureau	Decennial Census	TA	Informal coordination	Effective	Planning
Environmental Protection Agency	Hazardous waste sites	TA, AP	Informal coordination	Effective	Public Works
Federal Emergency Management Agency	Hurricane mitigation	AE, PM, TA	Informal coordination	Effective	Public Works, Planning
U.S. Fish and Wildlife Service	Coastal conservation	AE, TA	Informal coordination	Effective	Public Works
U.S. Postal Service	Address development, mail delivery	OA	Informal coordination	Effective	Town Manager, Planning
Transportation	Transportation planning	AE, AP, PM, TA	Informal coordination	Effective	Public Works, Planning
REGULATED UTILITIES:					
AT&T	Telephone service	OA	Informal coordination	Effective	Public Works
Comcast Cable Television	Cable services, underground utilities	OA	Informal coordination	Effective	Public Works
Florida Power and Light Company	Underground utilities	OA	Informal coordination	Effective	Public Works

Source: Town of Surfside

Intergovernmental Coordination Element Goals, Objectives, and Policies

Goal 1: Establish and maintain processes to help assure coordination with other governmental entities where necessary to implement this plan.

Objective 1.1 – Coordination with Miami-Dade County and other agencies: In general, coordinate the Town of Surfside Comprehensive Plan with the plans of the Miami-Dade County School Board, Miami-Dade County and adjacent municipalities. In particular, achieve maximum feasible levels of consistency between the plans for Surfside, the Miami-Dade County School Board, Miami-Dade County, City of Miami Beach, Bal Harbour Village, Indian Creek Village, and Town of Bay Harbor Islands. This objective shall be measured by implementing its implementing policy.

Policy 1.1.1 – The Town shall monitor the Miami-Dade County Comprehensive Plan process as the County Plan is updated and revised in conjunction with its Evaluation and Appraisal Report. The Town will also review the comprehensive plans of Miami Beach, Bal Harbour, Indian Creek, and Bay Harbor Islands.

Policy 1.1.2 – The Town of Surfside and Miami-Dade County Public Schools shall follow the procedures established in the adopted “Amended and Restated Interlocal Agreement for Public Schools Facilities Planning in Miami-Dade County” (Interlocal Agreement) and the Comprehensive Land Use Plan’s Educational Element and Capital Improvements Element for coordination and collaborative planning and decision making of land uses, public school facilities siting, decision making on population projections, and the location and extension of public facilities subject to concurrency. The Town shall implement the Interlocal Agreement with Miami-Dade County Public Schools, Miami-Dade County, and other nonexempt municipalities pursuant to Section 163.3177, Florida Statutes, and the Comprehensive Plan’s Public School Facilities Element, Intergovernmental Coordination Element, and Capital Improvements Element. Coordination of the Interlocal Agreement, and the Town’s obligations therein, shall be achieved via participation in the established Working Group of the Interlocal Agreement.

Policy 1.1.3 – The Town shall consider as appropriate the informal mediation process of the South Florida Regional Council in order to try to resolve annexation and other conflicts with other governmental entities; the Town will enter into mediations on a nonbinding basis.

Policy 1.1.4 – The Town will thoroughly review and compare proposed development in Miami-Dade County, City of Miami Beach, Bal Harbour Village, Indian Creek Village, and Town of Bay Harbor Islands with proposed development in the Surfside Comprehensive Plan for consistencies and conflicts between identical elements and between plans as a whole. Where appropriate, Surfside will respond at public hearings, through memoranda, or through the regional planning council's mediation process.

Policy 1.1.5 – The Town shall continue to ensure coordination of activities in its Comprehensive Plan with the plans of Miami-Dade County Public Schools, Miami-Dade County, and other state

or regional entities through regular exchange of information. This information shall include, but not be limited to, building permits, zoning cases, planned land use amendments, engineering plans, demographics, proposed annexation areas, socio-economic information, and utility service areas and capacity.

Policy 1.1.6 – The Town will continue participation in the Miami-Dade Planner’s Technical Committee in order to coordinate local comprehensive planning issues and processes.

Policy 1.1.7- The Town shall coordinate with relevant agencies on planning for sea level rise considering the best available and credible data.

Objective 1.2 – Comprehensive Plan Impact and Implementation Coordination: Establish mechanisms to coordinate the impact of development proposed in the Surfside Comprehensive Plan with other jurisdictions.

Policy 1.2.1 – Surfside shall maintain and revise where appropriate interlocal agreements generally of the type described below:

Potable Water: An agreement with Miami-Dade Water and Sewer Department for potable water service.

Sewers: An agreement with Miami-Dade Water and Sewer Department for wastewater treatment.

Solid Waste: An agreement to cooperate and coordinate with the County Solid Waste Management Department for the disposal of solid waste generated in the Town.

Transit: Miami-Dade Transit bus schedules for routes within the Town.

Schools: “Amended and Restated Interlocal Agreement for Public School Facility Planning in Miami-Dade County” – pursuant to Section 163.3177 FS and Section 163.3180(g) F.S.

Policy 1.2.2 – The Town shall assist the County in providing information to the residents of the Town about services provided directly or indirectly by the County, e.g., solid waste, potable water, sewers, transit and hurricane response planning. Such information may be disseminated through a Town newsletter, Town Hall counter handouts, notices posted at the Town Hall, and/or other appropriate means.

Policy 1.2.3 – The Town shall contribute to the improvement of the water quality of Biscayne Bay through implementation of outfall improvements described in the Infrastructure Element.

Policy 1.2.4 – The Town shall cooperate with the regulatory functions of the Florida Department of Environmental Protection.

Policy 1.2.5 – As required by the Interlocal Agreement, The Town shall notify Miami-Dade Public Schools of all new residential development projects or modifications to existing residential developments which increase density as part of the review process for school concurrency.

Policy 1.2.6 – The Town shall coordinate and cooperate with all applicable local, regional, state and federal agencies relating to the protection and enhancement of the Biscayne Bay Aquatic Preserve.

Policy 1.2.7 – The Town shall coordinate and cooperate with all applicable local, regional, state and federal agencies relating to the protection of Atlantic Ocean coastal waters and beach renourishment projects.

Policy 1.2.8 – The Town will utilize the following procedures to identify and implement joint planning areas (JPAs) for the purpose of addressing issues related to joint infrastructure service areas:

- a) Use the South Florida Regional Planning Council’s informal mediation process to resolve conflicts with other local governments, when agreed to by all affected parties;
- b) Siting of facilities with county-wide significance including locally unwanted land uses;
- c) Making demographic and social-economic information and services available for county, school board and municipal planning activities.

Policy 1.2.9 – The Town shall consider and evaluate the establishment of a cooperative interlocal agreement with Indian Creek Village to convert the empty lot on the north side of the 91st Street bridge into a park for general use by both communities, providing additional recreational opportunities along the bay.

Policy 1.2.10 - The Towns shall continue coordination with Miami-Dade Transit on energy efficient modes of transportation.

Policy 1.2.11- The Town shall coordinate with neighboring jurisdictions and the South Florida Regional Planning Council in regards to affordable housing.

Objective 1.3 – Level of service standards coordination: Ensure coordination with Miami-Dade County in establishing level-of-service standards for sewage, and potable water.

Policy 1.3.1 – The Town shall monitor changes to the adopted level-of-service standards of Miami-Dade County, the Florida Department of Transportation, and Miami-Dade Public Schools, and appropriately adjust its own level-of-service standards accordingly.

Objective 1.4 – The Town shall coordinate with all applicable local, State and Federal agencies regarding implementation of the 20-Year Water Supply Facilities Work Plan.

Policy 1.4.1 – The Town shall review the most recently published Lower East Coast Water Supply Plan and coordinate with the South Florida Water Management District staff in projecting the future supply and demand of potable water and alternative sources and preparing amendments to the Water Supply Facilities Work Plan on an as-needed basis by sharing and updating information.

Policy 1.4.2 – The Town shall participate in continuing and on-going collaborative efforts with the Miami-Dade Water and Sewer Department and other governments and agencies regarding water supply needs, long-term alternative water supply projects, sharing of information and establishing level of service standards. The Town shall participate in, at a minimum, annual

meetings with water providers and the South Florida Water Management District to discuss population projections, land use changes and implementation of conservation reuse programs and alternative water supplies.

Policy 1.4.3 – The Town shall coordinate with Miami-Dade County Water and Sewer Department in the implementation of alternative water supply projects, establishment of level-of-service-standards and resource allocations.

Policy 1.4.4 – The Town shall coordinate land uses and future land use changes with the availability of water supplies and water supply facilities.

Policy 1.4.5 – The Town shall coordinate with Miami-Dade County in the implementation of alternative water supply projects, establishment of level-of-service standards and resource allocations and changes in service areas.

Policy 1.4.6 – The Town shall coordinate with the Miami-Dade County Water and Sewer Department's Water Use Efficiency Section in the implementation of water conservation efforts and preparation of a Water Conservation Plan through regular and on-going communication and information sharing.

Goal 2: Community Resiliency: Increase community resiliency through continued coordination and cooperation.

Objective 2.1 – The Town shall strive to make sustainability and climate resiliency decisions on the most current, applicable and credible information available; and through coordination and cooperation make sustainability and climate resiliency efforts more impactful.

Policy 2.1.1: The Town of Surfside shall coordinate with Miami-Dade County and other appropriate agencies in the implementation of adaptive management strategies to improve the climate change resiliency of water and wastewater infrastructure and resources.

Policy 2.1.2: The Town shall continue to coordinate with local, County, regional, State and federal agencies and other non-governmental entities and academic institutions in the ongoing assessment of climate change and sea level rise, and continue to collaborate in the identification and implementation of appropriate mitigation, protection, accommodation and adaptation strategies.

Policy 2.1.3: The Town shall coordinate with Miami-Dade County and other participating counties in the Southeast Florida Regional Climate Change Compact in the identification of modeling resources and development of initiatives and goals to address climate change.

Policy 2.1.4: The Town shall continue to coordinate regionally with southeast Florida counties and municipalities, academia, and local, regional, State and federal agencies in the analysis of sea level rise, drainage, storm surge and hurricane impacts and the planning of mitigation and adaptation measures.

Policy 2.1.5: The Town shall continue to actively monitor the Southeast Florida Regional Climate Change Compact, and shall coordinate with neighboring municipalities to share technical

expertise, assess regional vulnerabilities, advance agreed upon mitigation and adaptation strategies and develop policies and programs.

Policy 2.1.6: The Town shall seek to and support cooperative efforts to engage the support of federal agencies, such as National Oceanic and Atmospheric Administration, U.S. Geological Survey, Federal Emergency Management Agency, Environmental Protection Agency, the U.S. Department of Interior, U.S. Department of Energy, and the U.S. Army Corps of Engineers, that can provide technological and logistical support to further state, regional, county, and local planning efforts in the assessment of climate change vulnerabilities and adaptation strategies.

Policy 2.1.7: The Town shall promote partnerships between local government agencies, universities, professionals and practitioners, to foster an environment for connecting scientific research and education with practical applications that will contribute to the resiliency and adaptation within the built and natural environments to the impacts of climate change.

CAPITAL IMPROVEMENTS ELEMENT

DATA INVENTORY AND ANALYSIS

PURPOSE

The purpose of the Capital Improvements Element is to evaluate the need for public facilities as identified in the other comprehensive plan elements and as defined in the applicable definitions for each type of public facility, to estimate the cost of improvements for which the local government has fiscal responsibility, to analyze the fiscal capability of the local government to finance and construct improvements, to adopt financial policies to guide the funding of improvements and to schedule the funding and construction of improvements in a manner necessary to ensure that capital improvements are provided when required based on needs identified in the other comprehensive plan elements. The element shall also include the requirements to ensure that an adequate concurrency management system will be implemented by the Town.

PLANNING TIMEFRAMES

The Town of Surfside Comprehensive Plan provides guidance on development and redevelopment over two planning periods: a 5-Year period ending FY 2022 (short term) and a long term planning period ending FY 2035.

Public Facility Needs

TRANSPORTATION

The Town is responsible for maintaining the local network program. The regional road network is under the State of Florida's jurisdiction. Collins Avenue and Harding Avenue are the major north-south corridors through the Town, while 96th Street is the main east-west roadway.

The Town of Surfside comes under the Miami-Dade County's Transportation Concurrency Exception Area (TCEA) to promote urban infill and redevelopment in the area. The Level of Service for major, state roadways in Surfside is LOS E+20, meaning that where mass transit service having headways of 20 minutes or less is provided within a ½ mile distance, roadways shall operate at no greater than 120 percent of their capacity.

State arterial roadways include Collins Avenue, Harding Avenue and 96th Street which are all functioning at Level of Service Standard D and are meeting level of service standards. There are no FIHS or SIS facilities within the Town of Surfside.

Roadway performance conditions are measured by Level of Service (LOS) which is represented by letters "A" or most favorable through "F" or least favorable conditions. Roadway LOS standards are the ratio of the number of vehicles to the road capacity during peak time periods. The Town monitors roadway concurrency and currently all roadways are meeting level of service standards.

Currently, the only roadway capital improvements planned in the Surfside area by FDOT is the Indian Creek Bridge Rehabilitation Project.

To accommodate the impacts of new development, alternative modes of transportation are required to reduce traffic congestion. Six bus routes from Miami-Dade Transit travel through the Town; all the routes run along Collins Avenue and Harding Avenue. The Town has its own bus system which complements the Miami-Dade County Transit. The Town's mini buses circulate between the business district and residential areas.

De Minimis Impacts

The Town does not allow for exceptions for de minimis impacts. Also, the Town lies completely within a Transportation Concurrency Exception Area.

Gas Tax Projects

Per F.S. 336.025 (1)(a)3 municipal governments shall use local option gas taxes for transportation expenditures to meet the requirements of the capital improvements element of an adopted comprehensive plan or for expenditures needed to meet immediate local transportation problems and for other transportation-related expenditures that are critical for building comprehensive roadway networks by local governments. Such expenditures are required to be included in the Comprehensive Plan.

The Schedule of Capital Projects to be partially funded by gas taxes are identified in Table 9-10D. The related projects are not planned to alleviate level of service issues, but are included to meet statutory requirements for listing local option gas tax projects in the Capital Improvement Element.

POTABLE WATER

The Town of Surfside's potable water is provided by the Miami-Dade County Water and Sewer Department (MDWASD) which provides service for approximately 2.6 million customers in Miami Dade County. The Town of Surfside is serviced by the Hialeah-Preston Water Treatment Plant service area which includes the northern part of Miami-Dade County.

The water is distributed to residents and commercial business by approximately 11 miles of cast iron pipe installed in 1938. Primary mains feeding the system run under the Town's streets and vary in size from 6-inch to 16-inches in diameter, which feed three-inch and four-inch water lines located along the rear property lines.

Water Source

The source water for Hialeah Water Treatment Plant (WTP) is from the Hialeah Miami Springs Wellfields, supplemented by the Northwest Wellfield. There are three active wells located in the Hialeah Wellfield constructed in 1936. Each well is 14 inches in diameter, 115 feet deep and have casing depths of 80 feet. The total wellfield capacity is 12.54 mgd or 8,700 gpm (2,900 gpm for each well). The twenty active wells located in the Miami Springs Wellfield were constructed between 1924 and 1954. These wells are 14 inches and 30 inches in diameter, 80 to 90 feet deep and have casing depths of 80 feet. The total wellfield capacity is 79.30 mgd or 55,070 gpm (ranging between or 2,500 and 5,000 gpm for each well). The Northwest Wellfield has fifteen active wells that were constructed in 1980. The wells are 40 inches and 48 inches diameter and 80 to 100 feet deep, with casing depths ranging from 46 to 57 feet. These wells have two-speed motors. The total nominal capacity of the wells at the low speed flow rate is 149.35 mgd. The capacity of each well, except well No. 10, is 10 mgd at the low speed flow rate. Well 10 has a low speed capacity of 9.35 mgd. The total nominal capacity for the wells at the high speed flow is 220.94 mgd.

The seven active wells located in the John E. Preston Wellfield were constructed in 1966 and 1972. Each well is 42 inches in diameter, 107 feet deep and have casing depths of 66. The capacity of wells No. 1 through No. 6 is 5,000 gallons per minute (gpm) each and the capacity of well No. 7 is 7,000 gpm. The total wellfield capacity is 53.28 mgd.

Water Treatment Plants (WTPs)

The Hialeah WTP was originally designed in 1924 with a total capacity of 10 mgd. By 1935, the plant’s capacity totaled 40 mgd. In 1946, capacity was increased to 60 mgd. Air strippers with a capacity of 84 mgd were added to the treatment process in 1991 to remove volatile organics from the finished water. A 3.2 MG storage reservoir for both the Hialeah and John E. Preston WTPs was also added in 1991. The Hialeah WTP has a current rated capacity of 60 mgd and there are plans to rerate and upgrade the Hialeah WTP to a capacity of 70 mgd, if necessary. The treatment process for this WTP includes lime softening with sodium silicate activated by chlorine, recarbonation, chlorination, ammoniation, fluoridation, filtration, and air stripping. The plant site is relatively small, and is surrounded by residential areas.

The John E. Preston WTP was originally designed as a 60 mgd plant in 1968 and upgraded to 110 mgd in 1980. The plant was re-rated to a total capacity of 130 mgd in 1984. The plant reached its present capacity of 165 mgd with another addition in 1988. In 1991, the plant was modified with an air stripping capacity of 185 mgd to remove VOCs. In 2005, plant process modifications to provide enhanced softening for reduction of color and total organic carbon came on line. The main source of water for the Preston WTP is from the Northwest Wellfield. The current rated capacity is 165 mgd with a treatment process similar to that of the Hialeah WTP. This includes lime softening with ferric and other coagulant and chemicals added to prior to lime for enhanced softening, recarbonation, chlorination, ammoniation, fluoridation, filtration, and air stripping. The Preston plant is also located in a residential area of Hialeah.

Potable Water Level of Service

The Town of Surfside currently coordinates with MDWASD and the South Florida Water Management District to meet existing and projected demands based on level of service (LOS). The Town’s projected water demands shown in Table 9-1 below were developed utilizing the Town’s average per capita value of 148.04 gallons per capita per day.

**Table 9-1
Town of Surfside Water Demand Projection**

Year	Population	Per Capita Consumption	Projected Consumption	Projected Consumption
		GPCD	GPD	MGD
2015	5,866	148.04	868,399	.87
2020	6,019	148.04	891,073	.89
2025	6,173	148.04	913,747	.91
2030	6,326	148.04	936,421	.94

Source: MDWASD’s 20 year water supply plan (2014-2033)

Figure 4.1 in the Town of Surfside 15 Year Water Supply Facilities Work Plan indicates that there will be no deficit of finished water through 2030.

The existing LOS for the Town of Surfside based on MDWASD goals for potable water is as follows:

- (a) The regional treatment system shall operate with a rated maximum daily capacity no less than 2 percent above the maximum daily flow for the preceding year, and an average daily capacity 2 percent above the average daily system demand for the preceding 5 years. The maximum daily

flow shall be determined by calculating the average of the highest five single day flows for the previous 12 months.

- (b) Water shall be delivered to users at a pressure no less than 20 pounds per square inch (psi) and no greater than 100 psi. Unless otherwise approved by the Miami-Dade Fire Rescue Department, minimum fire flows based on the land use served shall be maintained as follows:

Land Use	Min. Fire Flow (gpm)
Single Family Residential Estate	500
Single Family and Duplex; Residential on minimum lots of 7,500 sf	750
Multi-Family Residential	1,500
Semiprofessional Offices	
Hospitals; Schools	2,000
Business and Industry	3,000

Storage Capacity

The finished water storage facilities for the Hialeah-Preston subarea consist of both “in-plant” and remote storage facilities. The total combined storage capacity between both plants inclusive of all potable water 56.0 MG.

SANITARY SEWER

The sanitary sewer system is defined as structures or systems designed for the collection, transmission, treatment, or disposal of sewage and may include trunk mains, interceptors, treatment facilities, and disposal systems. The Town’s sanitary sewer system is interconnected with the Miami-Dade County Water and Sewer Department (MDWASD) system. Surfside maintains its own sewer collection system and two pumping stations. By agreement, the Town of Surfside and Bal Harbour share a sanitary force main that connects to the City of Miami Beach transmission system. The tri-party agreement provides for the transmission of sewage via force mains to the MDWASD system and eventually to the treatment plant and disposal.

Geographic Service Area

The Town’s system is coextensive with the Town’s boundaries, while the County system includes unincorporated and incorporated areas of Miami-Dade County inside the 2005 Urban Development Boundary that have an agreement with MDWASD. The system also incorporates a small number of facilities, mostly State or County owned, outside of the Urban Development Boundary.

Treatment Facilities and Capacity

There has been a significant reduction in average flow into the regional system as a result of extensive infiltration and inflow (groundwater and rainwater) prevention projects conducted by MDWASD in recent years. Infiltration and inflow within the sewer system should be kept at a minimum to avoid hydraulic overload to the receiving treatment plant. It is pertinent for an operation and maintenance plan to be part of the county’s sanitary sewer system. As a result, the regional wastewater treatment plants operating capacity can remain in compliance with Miami-Dade County MDWASD and Florida Department of Environmental Protection (FDEP) standards.

The Town of Surfside is located in the MDWASD Central District Sanitary sewer system; however, MDWASD operates two additional regional wastewater treatment plants in the North and South Districts. Because the system is interconnected, the service districts have flexible boundaries, and some flows from one district can be diverted to other plants in the system.

Surfside’s sewer system is treated by a secondary treatment facility on Virginia Key owned and operated by the Miami-Dade County Water and Sewer Department (MDWASD). The Town’s sanitary sewer collection system is divided into two basins. Sanitary sewer pipes range in size from 8 to 15 inches with flows directed to two pump stations. Pump Station 1 receives sewage from the area of Surfside north of 91st Street, which includes the Business District and a majority of the high rise buildings. Pump Station 2 serves the remainder of the Town, including most of the waterfront lots. The sewage is pumped via the force main which runs along 89th Street, 93rd Street, Collins Avenue and connects to the City of Miami Beach’s system near 74th street. Sewage continues under pressure through MDWASD force mains to Virginia Key.

Current Facility Demand

According to the Town of Surfside Consumption Analysis, in 2014/2015 approximately 258 million gallons of wastewater were treated by the County system from the Town of Surfside and 260 million in 2015/2016.

In FY08, the Town began mapping all sewer and potable water lines within the municipal boundary to enhance maintenance. Also in FY09, the Town identified infiltration issues to the sanitary sewer system and has completed a program to seal manholes to identify and inventory broken lines. Table 9-2 shows projected sewage flow demands for the Town of Surfside and Table 9-2B show current and projected wastewater capacity for the entire county.

In 2010 to 2014, the Town completed a sanitary sewer rehabilitation plan. All existing gravity sewer mains and laterals were lined or reconstructed in accordance with the approved plan. All sanitary manholes were rehabilitated. The Town also completed rehabilitation of the existing sanitary sewer pump stations, and construction of 12” Force Mains along 93rd Street and 89th Street. The Force Mains were tied-in to the newly constructed 16” Force Main along Collins Avenue. The existing Force Main that runs along Byron Avenue is not currently in use and only remains as a stand-by facility.

Since the Town completed the sanitary sewer rehabilitation plan of the existing system in the recent past, there are currently no additional level of service projects required or needed for the Town’s sanitary sewer system.

**Table 9-2A
Projected Sewage Flows**

PROJECTED SEWAGE FLOWS			
Year	2010	2015	2020 2030
Population	5,744	5,952	6,398
Per Capita (gallons per day finished sewage)	155	155	155
(all potable volumes are finished sewage)	MGD	MGD	MGD
Sewage Total Flow (daily average annual)	0.89	0.92	0.99

Source: Calvin, Giordano & Associates, Inc. 2017

Table 9-2B
Miami-Dade County Current and Projected Wastewater System Capacity 2016-2026

County WWTP Capacities		Actual County Flow (mgd)	Total Permitted Capacity / Projected County Flows (mgd)		
	2016 Plant Capacity (mgd)	Dec. 2015	2022	2024	2026
North	120.0	89.3	120.0 / N/A ¹	120.0 / N/A ¹	85.0 / N/A ¹
Central	143.0	120.0	143.0 / N/A ¹	143.0 / N/A ¹	83.0 / N/A ¹
South	112.5	97.1	121.0 / N/A ¹	131.0 / N/A ¹	131.0 / N/A ¹
West	N/A	N/A	N/A	N/A	102.0 / N/A ¹
Total	375.5	306.4	384.0 / 321.1	394.0 / 326.3	401.1 / 331.6

Source: Miami-Dade Water and Sewer Department, 2016; ¹County only has projected data for total regional system

DRAINAGE

In 2013, the Town completed a major retrofit of the existing drainage systems. The existing storm drainage system consisted of a network of underground storm sewers and outfalls discharging directly into the Indian Creek and Biscayne Bay. An existing pumping station at the western end of 92nd Street assisted the drainage of water from that street by pumping to an outfall. Storm sewers in the existing system ranged in diameter from 10 inches to 36 inches.

Town of Surfside has two state roadways within the Town; a north-south pair SR A1A/Collins Ave (northbound) and Harding Avenue (southbound); and one east-west SR-922/96th Street. The Florida Department of Transportation (FDOT) provided storm drainage improvements on Harding and Collins Avenue in the early 1990's. Equipment which currently serves the 92nd Street pump station were replaced by FDOT and will be maintained by the Town; however, even with these modifications, water may still reach curb level in various locations due to tidal fluctuations. The water level of Biscayne Bay is higher than normal during high- high tide, creating a back up in the outfall pipes. The Harding and Collins storm drainage improvements utilize on-site wells and control structures to provide additional capacity.

In 2002 FDOT completed the Stormwater Pump Station System Operational Evaluation and Recommended Improvements (OERI) Report which provided three alternatives to improve stormwater pump systems along Harding. It was determined that the most feasible alternatives are those that have an appropriate overflow capacity, once the wells reach capacity. This was achieved by introducing an emergency gravity bypass in the event that the pumps fail. The alternative consists of new pump stations at the existing vault locations. These new stations required the existing gravity system to be extended to the Intracoastal Waterway seawalls (at 88th Street and 94th Street), a new 36-inch force main to connect to existing wells; new pumps, structures, controls, and a new gravity bypass drainage pipe.

In 2006, the Town of Surfside initiated another stormwater project, which consists of retrofitting the Town's outfall pipes to reduce pollutants entering Biscayne Bay. The facilities at each location consists of three new stormwater pump stations which pump water into drainage wells. In order to address pollution concerns for a Florida Department of Environmental Protection (FDEP) drainage well permit, the Town installed Nutrient Separating Baffle Boxes upstream of the pump station to provide treatment before the runoff enters the groundwater which was included in this retrofit project.

The recently constructed retrofitted stormwater management system of the Town consists of a network of underground storm sewers along with outfall control structures discharging into the Indian Creek and Biscayne Bay, and three additional pump stations discharging into 9 drainage wells. The newly constructed control structures facilitate well discharge before discharging to Biscayne Bay. The project addressed long-term concerns regarding water backing into the streets and poor water quality in the adjacent Biscayne Bay along the Town's shores. The project directly addressed The Trust for Public Land's Biscayne Bay Accessibility report, supported the SFWMD's Biscayne Bay Partnership Initiative (BBPI), and enhanced the level of service.

In 2015, the Town completed drainage improvements for Biscaya Island along 88th Street. The Town constructed new check valves to prevent back flow into the existing roadways and upsized one 12-inch outfall to a 24-inch diameter outfall. Since the Town completed the retrofit of the existing drainage system in the recent past, there are currently not additional level of service projects required or needed for the Town's drainage system.

SOLID WASTE

The Town's Public Works Department has three garbage trucks which collect trash and garbage on a weekly basis and haul it to Miami-Dade County's Resource Recovery Plant west of Miami International Airport and other Miami-Dade County landfills. Last year (FY15/16) Surfside deposited approximately 4,932 tons of waste material at the county's facility. Based on the 2010 U.S. Census population of 5,744 approximately 4.7pounds per person per day was collected. The Town, as of June 2, 2016, discontinued recycling services with Miami-Dade County for residential properties. The Town now collects recycling. Between June 2, 2016 and December 29, 2016 the Town collected a total of 218.9 tons of recycling. Based on information supplied by the Miami-Dade County Department of Solid Waste Management (Table 9-2C), the existing disposal capacity at the North Dade Landfill and the South Dade Landfill and the Resource Recovery Plan appear to have adequate to meet Surfside's needs for the foreseeable future.

**Table 9-2C
Miami-Dade County Solid Waste Facility Capacity**

	South Dade Landfill	North Dade Landfill	Resources Recovery Facility and Ashfill
Built out Capacity in Tons	23,208,000	13,526,000	8,060,000
Tons in Place (June 30, 2016)	17,547,000	11,984,000	5,765,000
Remaining Capacity in Tons	1,261,000	1,541,000	2,295,000
Last Year's Disposal Tonnage (7/1/15 – 6/30/16)	390,626	190,478	160,879
Estimated Average Disposal Rate per Year in Tons	400,800	183,900	168,500

Source: Miami-Dade County Department of Solid Waste Management, 2016; Landfill Capacity Analysis for DSWM Active Landfills, July 1, 2016.

There is sufficient capacity Miami-Dade County landfills to meet the Town's needs for solid waste disposal for the short term and long term planning horizons.

PARKS

The following is an acreage inventory of Surfside’s public recreation facilities:

**Table 9-3
Park Inventory**

FACILITY	ACREAGE
Hawthorne Park Tot Lot	0.22
Veterans Park/Surfside Tennis Center	0.99
96 th Street Park	0.99
Surfside Community Center	1.27
Paws Up Dog Park	0.10
Public beach	34.76
Street ends	1.44
TOTAL:	39.77

Source: Calvin, Giordano & Associates, Inc., 2017

While the public beach does not generally offer Parks and Recreation Department programming, this acreage will be included for the level of service (LOS) analysis because it is an integral part of the Town. Using the 39.77 acres of public recreation, along with population projections, Surfside’s LOS for recreation can be projected through 2035. The LOS standard for publicly-owned recreation lands in Surfside is six (6) acres per one thousand (1,000) permanent population. As the following table shows, this standard will be met through 2035.

**Table 9-4
Projected Park LOS**

Year	Population (Projected)	LOS Standard	Acres Needed	Town Park Acreage	Surplus Acreage
2010	5,744*	6.0/1,000	34.46	39.77	5.31
2015	5,705**	6.0/1,000	34.23	39.77	5.54
2020	5,952**	6.0/1,000	35.71	39.77	4.06
2025	6,181**	6.0/1,000	37.08	39.77	2.69
2030	6,398**	6.0/1,000	38.39	39.77	1.38
2035	6,556**	6.0/1,000	39.34	39.77	0.43

Sources: * 2010 U.S. Census; ** Florida Housing Data Clearinghouse (FHDC), 2016

It should be noted this analysis does not take into account private recreation facilities such as the Surf Club and private beach frontage west of the erosion control line.

SCHOOLS

Surfside is within District 3 of the Miami-Dade County School District.

The following table shows student enrollment and capacity in 2016 for the schools serving Surfside. Each school is operating at or above capacity.

**Table 9-5
Public Schools Serving Surfside
Capacity and Enrollment (2016)**

School	Enrollment	Capacity	Percent Capacity Utilized
Elementary Schools			
Ruth K. Broad Bay Harbor K-8 Center	1,385	990	140%
Middle School			
Nautilus	1,028	1,050	98%
High School			
Miami Beach Senior High	2,469	2,110	117% 96.3%

Source: Miami-Dade Public Schools, 2016

PUBLIC HEALTH SYSTEM

Capital Improvement Element must also include the location of public health systems within the local jurisdiction. There are no major public health facilities within Surfside. The hospitals and public health centers located nearby and accessible to Surfside residents are as follows:

Aventura Hospital & Medical Center
20900 Biscayne Blvd, Aventura

The Miami-Dade Health Department (Florida Department of Health) has offices in various location in Miami-Dade County with the following offices closest to Surfside:

Miami-Dade County Health Department
Main Complex
1350 NW 14th St.
Miami, FL 33125

LOCAL POLICIES AND PRACTICES

The Town annually prepares and adopts operating budgets for its various departments. Through the budget process, capital improvement needs are considered and funds are allocated.

Timing and location of public facilities is determined by needs projected by the various departments of the Town, and in the case of multi-jurisdictional facilities such as state roads or potable water, by coordination with the affected agencies. Capital facilities will be planned and constructed in accordance with the established Schedule of Capital Improvements. This program is a five year schedule of improvements which is supported by a projection of revenues to ensure its feasibility. Improvements included in the 5-year program include those items called for by the various departments of the Town.

There are four stimuli which prompt Town departments to call for capital improvements; demand created from outside the Town as well as within the Town:

- Anticipated demand through growth
- Coordination of Town plans with those of State agencies and water management districts, and other outside agencies
- Demand for improvements created by facility breakdown or by life expectancy of the facility

- Maintenance of level of service standards

FUNDING SOURCES

Existing Revenue Sources

Ad Valorem Tax

The Miami-Dade County Property Appraiser's Office sets the Town's assessed and taxable values of property. Ad valorem translates from Latin, "according to value." This is the property tax paid based upon the appraised value of one's property and it is calculated by a millage rate. Each mill generates \$1 of tax revenue for every \$1,000 of taxable property value. Taxable value may differ from assessed value because of exemptions, the most common of which is the \$25,000 homestead exemption, and another \$50,000 in exemption for homeowners aged 65 or greater, subject to income requirements. The maximum millage a Town may levy is 10 mills, but this can only be accomplished through a unanimous vote of all Commissioners (not just those present).

Sales and Use Taxes

This category of taxes includes the local option sales tax and resort taxes. These are taxes generated by local jurisdictions under authorization by the State of Florida.

Franchise & Utility Taxes

The Town collects three types of franchise and utility taxes: electric utility taxes, gas utility taxes, and Surfside Occupational License Taxes. Since Fiscal Year 2002, the Town has been prohibited from collecting taxes on telephone franchises, telephone utility taxes, and cable television franchise taxes. These taxes are now collected by the State of Florida's Department of Revenue and re-distributed to municipalities according to use records at a rate of 5.22%.

Permits/licenses/and inspections

Licenses, permits and inspection fees are collected for services performed at specific properties for the benefit of particularly property owners. Building permit categories include: structural, electrical, plumbing, roofing and mechanical permits. As the Town is substantially at build out, little revenue is generated above a base level unless there is commercial development underway.

Intergovernmental Revenue

The Town receives recurring revenues from revenue sharing programs with the State of Florida. The Town receives periodic intergovernmental revenues from the federal government in the form of assistance grants for specific projects. All disbursements of State revenues are based on receipts by the State and the Town's population.

Services Revenues

This category includes all fees generated from services provided by the Town. This includes recreation fees, solid waste collection fees, stormwater collection fees, lien search services, stormwater utility fees, and similar items.

Fines and Forfeitures

Funds to promote public safety and other projects are received by the Town from fines, forfeitures, and/or seizures connected with illegal behavior in the community. Those funds are restricted to, and accounted for, in the Town's fines and forfeiture fund. Fines for the general fund derive from parking violations.

Miscellaneous Revenues

Any revenues that the Town receives which do not reasonably conform to any of the above identified categories is included in this category. This category includes interest earnings, receipts from the

disposition of assets by sale, and similar items. Interfund Transfers between other funds may also be captured here.

Revenue and Expense Projections

The Town of Surfside develops operating costs based on a zero-based budget model. Departments are encouraged to review prior spending as a way of reminding themselves of on-going obligations. Each request for funding must, however, be accompanied by a detailed justification. The practice of incremental budgeting (identifying operational budgets by increasing/decreasing the prior years' expenditures by a percentage) is an option which the Town has rejected. The following tables illustrate the Town's projected revenue and expense. Projections for FY2017-FY2021 based upon a projected 1% increase in property values and an overall 3% increase of revenues and expenditures.

**Table 9-6
Projected General Fund Revenues (FY17-FY21)**

Department	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Property Tax	8,047,948	8,289,386	8,538,068	8,794,210	9,058,036
Sales and Use Taxes	1,411,477	1,453,821	1,497,436	1,542,359	1,588,630
Franchise and Utility Tax	1,364,515	1,405,450	1,447,614	1,491,042	1,535,773
Permits/Licenses/Inspection	70,700	72,821	75,006	77,256	79,574
Intergovernmental-Federal/State	601,812	619,866	638,462	657,616	677,344
Services Revenues	486,100	500,683	515,703	531,174	547,109
Fines & Forfeitures	712,000	733,360	755,361	778,022	801,363
Misc. Revenues	31,525	32,471	33,445	34,448	35,481
Transfers - In	446,116	459,499	473,284	487,483	502,108
Total General Fund	13,172,193	13,567,357	13,974,379	14,393,610	14,825,419

Source: Calvin, Giordano and Associates, Inc. (Based upon Town of Surfside Adopted Budget Fiscal Year 2017)

**Table 9-7
Projected General Fund Expenditures (FY17-FY21)**

Department	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Personnel	8,257,679	8,505,409	8,760,571	9,023,388	9,294,090
Operating Expenses	3,985,657	4,105,227	4,228,384	4,355,236	4,485,893
Capital Outlay	99,500	102,485	105,560	108,727	111,989
Debt Service	50,669	52,187	53,753	55,366	57,027
Non-Operating Expenses	8,000	8,240	8,487	8,742	9,004
Transfers - Out	770,688	793,809	817,623	842,152	867,417
Total General Fund	13,172,193	13,567,357	13,974,379	14,393,610	14,825,419

Source: Calvin, Giordano and Associates, Inc. (Based upon Town of Surfside Adopted Budget Fiscal Year 2017)

Debt Capacity

The Town is expecting to pay debt service on State revolving loans for stormwater, wastewater, and potable water projects

Stormwater Utility Fund

Table 9-8 shows the available revenue funds for the Stormwater Projects shown in the Schedule of Capital Improvements and the ability to manage debt service for the projects. As a result of the rate increases, the Storm Water Fund for period forecasted 2018 through 2022 provides net positive results,

and both debt coverage ratios will be well above the required 110% (Senior Debt – 2011 Utility Bonds) and 115% (Subordinate Debt – SRF Loan).

**Table 9-8
Stormwater Utility Fund Budget and Projected (FY18 – FY 22)**

	2018	2019	2020	2021	2022
Annual Growth Rate	21.50%	11.50%	11.50%	11.50%	1.50%
Revenue	\$ 613,575	\$ 684,136	\$ 762,812	\$ 850,535	\$ 863,293
Expenses	\$ 691,106	\$ 711,839	\$ 733,194	\$ 755,190	\$ 777,846
Operating Margin	\$ (77,531)	\$ (27,703)	\$ 29,618	\$ 95,345	\$ 85,447
Operating Margin %	-12.5%	-4.05%	3.88%	11.21%	9.90%

Source: Town of Surfside Finance Department

Water and Sewer Fund

Table 9-9 shows the current and projected revenues and expenditures for the the Water and Sewer Fund. It shows the Town’s ability to fund wastewater and potable water improvements as shown in the Schedule of Capital Improvements and the ability to manage debt service payments.

**Table 9-9
Water and Sewer Fund Budget and Projected (FY 2018 – FY 2022)**

	2018	2019	2020	2021	2022
Revenue	\$ 3,677,158	\$3,777,158	\$ 3,877,158	\$ 3,977,158	\$ 4,077,158
Expenses	\$ 3,677,158	\$3,777,158	\$ 3,877,158	\$ 3,977,158	\$ 4,077,158

Source: Town of Surfside Finance Department

Financial Feasibility Analysis

The Town’s Schedule of Capital Improvements is financially feasible with funds committed throughout the five year period.

The Town’s scheduled projects and related funding sources show a positive or zero balance. The purpose of this comparison is to test and demonstrate the financial feasibility of the Comprehensive Plan. The Plan has been determined to be financially feasible because this comparison demonstrates the ability of the Town to finance capital improvements necessitated by the anticipated population and revenues.

Capital Improvement Element Goals, Objectives and Policies

Goal 1: Undertake capital improvements necessary to provide adequate infrastructure and a high quality of life within sound fiscal practices.

Objective 1 – In general, use the capital improvements element as a means to meet the needs for capital facilities necessary to meet existing deficiencies, accommodate desired future growth and replace obsolete or worn-out facilities. In particular achieve annual Town Commission use of this element as the framework to monitor public facility needs as a basis for annual capital budget and five-year program preparation.

Policy 1.1 – In setting priorities, the following kinds of criteria shall be used by the Town Commission; in all cases, financial feasibility or budget impact will be assessed:

Public safety projects: any project to ameliorate a threat to public health or safety.

Quality of life projects: any project that would enhance the quality of life, such as a public streetscape improvement project.

Level of service or capacity projects: any project needed to maintain an adopted or otherwise desirable Level of Service.

Redevelopment projects: any project that would assist in the revitalization of deteriorated non-residential properties.

Environmental enhancement projects: any project which would enhance the environmental quality of the Atlantic Ocean, the Atlantic Ocean beach and dune system, Biscayne Bay or other natural resources.

Potable water projects:

Update the capital improvements schedule to maintain consistency with its 20-Year Water Supply Facilities Work Plan.

Use funds for the expansion, enhancement, and upgrade of the water supply facilities in accordance with the 15-Year Water Supply Facilities Work Plan.

Coordinate planning for the Town's infrastructure improvements related to water supply with the plans of state agencies, the South Florida Water Management District and Miami-Dade County.

Revision of priorities for the replacement of facilities, correction of existing water supply and facility deficiencies, and provision for future water supply and facility needs.

The Capital Improvement Element shall be reviewed and revised, as necessary, on an annual basis. The annual update shall demonstrate that the level of service standards will be maintained during the next five-year planning period.

In order to coordinate land uses with available and projected fiscal resources and a financially feasible schedule of capital improvements for water supply and facility projects, the Town shall include in its annual update of the its financially feasible five (5) year capital improvement project listing the first five (5) years of Water Supply Facilities Work Plan to ensure consistency between the Potable Water Sub-Element of the Infrastructure Element and the Capital Improvements Element.

The Town hereby incorporates by reference into its Comprehensive Plan the Miami-Dade 20-Year Water Supply Facilities Work Plan (2014-2033) adopted November 2014 inclusive of all potable water projects.

Policy 1.2 – The Town shall prudently limit the amount of debt it assumes for capital improvements or other purposes. At a minimum, the Town shall not assume debt obligations which would result in the Town exceeding the debt ratios established by state law.

Policy 1.3 – The Town shall maintain a current inventory of all Town-owned capital facilities, to include information on type, capacity, location and condition.

Policy 1.4 – The Town shall regularly schedule inspections of all capital facilities to monitor and record the condition of each.

Policy 1.5 – The Town shall use designated funding mechanisms such as the sewer assessments thereby freeing up general funds (and general obligation bonds) for such Town-wide projects identified in the policies of other Comprehensive Plan elements.

Policy 1.6 – The Town shall prepare and adopt each year a five year capital improvements program and a one-year capital budget, to include all projects which entail expenditures of at least \$10,000 and a life of at least three years. Staff studies, engineering studies and other appropriate studies shall form the basis for preparation of a five-year capital improvement program, including one year capital budget. Among items which are specifically authorized and encouraged by this policy are the following: sidewalk repair and replacement; roadway and right-of-way drainage; street lighting; traffic signs, traffic engineer, signalization, and pavement markings; parking improvements serving the Harding Avenue Business District, and debt service and current expenditures for transportation capital projects in the foregoing program areas (including construction or reconstruction of roads). The preceding list is intended to be illustrative of appropriate expenditure categories. Other capital expenditures in related and different projects are hereby authorized.

Policy 1.7 – The Town shall utilize the following implementation schedule to aid state requirements for annual updates and to ensure level of service standards are maintained.

- Preliminary meetings in April with the Building, Public Works, and Finance department to discuss capital improvement planning and revenues
- Capital improvement plan/budget workshop in July with the Town Commission for discussion of proposed projects and financing
- Prepare capital improvement plan in coordination with Town budget for approval in June.
- Public hearing on capital improvement plan/budget in September.
- Revise Schedule of Capital Improvements and update Capital Improvement Element in October.

Policy 1.8 – The Town will implement the projects listed in the capital improvement program and in the Implementation Schedule of this capital improvements element according to the schedule listed in this Element.

Policy 1.9 –Capital improvements associated with the construction of educational facilities are not addressed in the Town’s Capital Improvement Plan or Schedule of Capital Improvements, but rather are the responsibility of the Miami-Dade County Public Schools. To address financial feasibility associated with school concurrency, the current Miami-Dade County Public School Facilities Work Program for educational facilities is incorporated by reference into the CIE.

Policy 1.10 – The Town, in conjunction with Miami-Dade County and Miami-Dade County Public Schools, has the responsibility for providing school concurrency related to capital improvements and should continually seek to expand funding sources available to meet those requirements.

Policy 1.11 – For public school facilities, a proportionate share mitigation agreement, is subject to approval by Miami-Dade County Public Schools and the Town and must be identified in the adopted Miami-Dade County Public School Facilities Work Program.

Policy 1.12 – The Town shall update its Capital Improvements Element and Program annually, to include the annual update of the Miami-Dade County Public Schools 5-Year District Facilities Work Plan.

Policy 1.13 – The annual update of the Capital Improvement Element shall include reflect proportionate fair-share contributions for transportation projects if applicable.

Policy 1.14 – The Town shall evaluate the costs and benefits of adaptation alternatives in the location and design of new infrastructure as well as the fortification or retrofitting of existing infrastructure.

Policy 1.15 – The Town shall commit funding to climate change adaptation and resiliency projects.

Objective 2 – In general, coordinate land use decisions and available or projected fiscal resources with a schedule of capital improvements which maintains adopted level of service standards and meets existing and future facility needs. In particular, achieve coordinated Town use of: 1) existing and already approved development; 2) the Future Land Use Plan; 3) the financial analyses in this Element, and 4) the established Level of Service Standards in both reviewing development applications and in preparing the annual schedule of capital improvements.

Policy 2.1 – The following Level of Service (LOS) standards shall be maintained:

Streets:

Local roads: D

Collector roads: D

State Roadways

A Level of Service of LOS E+20 shall be established (where mass transit service having headways of 20 minutes less is provided within 1/2-mile distance, roadways shall operate at no greater than 120 percent of their capacity.)

Sanitary Sewers: The County-wide “maximum day flow” of the preceding year shall not exceed 102 percent of the County treatment system’s rated capacity. The sewage generation standard shall be 155 average gallons per capita per day.

Potable Water:

- (a) The regional treatment system shall operate with a rated maximum daily capacity no less than 2 percent above the maximum daily flow for the preceding year, and an average daily capacity 2 percent above the average daily system demand for the preceding 5 years. The maximum daily flow shall be determined by calculating the average of the highest five single day flows for the previous 12 months.
- (b) Water shall be delivered to users at a pressure no less than 20 pounds per square inch (psi) and no greater than 100 psi. Unless otherwise approved by the Miami-Dade Fire Rescue Department, minimum fire flows based on the land use served shall be maintained as follows:

Land Use	Min. Fire Flow (gpm)
Single Family Residential Estate	500
Single Family and Duplex; Residential on minimum lots of 7,500 sf	750
Multi-Family Residential	1,500
Semiprofessional Offices	1,500
Hospitals; Schools	2,000
Business and Industry	3,000

Sources: Miami-Dade County Adopted 2014, Water, Sewer and Solid Waste Element

Drainage: All nonresidential development and redevelopment shall adequately accommodate runoff to meet all Federal, state and local requirements. Stormwater shall be treated in accordance with the provisions of Chapter 17-25, FAC in order to meet receiving water standards in Chapter 17-302.500, FAC. One inch runoff shall be retained on site. Post-development runoff shall not exceed peak pre development runoff.

Solid Waste: The County solid waste disposal system shall maintain a minimum of five years’ capacity. For Town planning purposes, a generation rate of 5.6 pounds per person per calendar day shall be used.

Parks: The Town shall achieve and maintain a Level of Service standard of at least 6 acres of public recreation sites per 1,000 permanent population.

Public Schools: The adopted level of service (LOS) standard for all public school facilities is 100% utilization of Florida Inventory of School Houses (FISH) Capacity (with Relocatable Classrooms). This LOS standard, except for Magnet Schools, shall be applicable in each public school concurrency service area (CSA), defined as the public school attendance boundary established by the Miami-Dade County Public Schools. The adopted LOS standard for Magnet Schools is 100% of FISH (with Relocatable

Classrooms), which shall be calculated on a districtwide basis. Level of Service standards for public school facilities apply to those traditional educational facilities, owned and operated by the Miami-Dade County Public Schools, that are required to serve the residential development within their established Concurrency Service Area. Levels of Service standards do not apply to charter schools. However, the capacity of both charter and magnet schools will be credited against the impact of development.

Policy 2.2 – The concurrency management system formulas shall include the public facility demands to be created by “committed” development and the capital improvement schedule shall include the project implications of such committed development to assure facilities are provided concurrent with the impact of development.

Policy 2.3 – The Town shall not give development approval to any new construction, redevelopment, or renovation project which creates a need for new or expanded public capital improvement unless the project pays a proportional share of the costs of these improvements.

Policy 2.4 – The Town shall maintain and improve as part of the land development code a concurrency management system which meets the requirements of state statutes. The concurrency management system shall specify that no development permit shall be issued unless the public facilities necessitated by a development (in order to meet level of service standards specified in the Transportation, Recreation and Open Space, Infrastructure and Public School Facilities) will be in place concurrent with the impacts of the development or the permit is conditional to assure that they will be in place. The requirement that no development permit shall be issued unless public facilities necessitated by the project are in place concurrent with the impacts of development shall be effective immediately and shall be interpreted pursuant to the provisions of Policy 1.4 of the Future Land Use Element.

CAPITAL IMPROVEMENT ELEMENT IMPLEMENTATION SYSTEMS

Five-Year Schedule of Capital Improvements: See schedule nearby in this element.

Other Programs: The other principal programs needed to implement this Element are as follows:

- Continue the annual capital programming and budgeting including use of the project selection criteria contained on Policy 1.1; related thereto will be the annual review of the Element.
- Amendments to the existing land development code to assure conformance to the “concurrency” requirements relative to development orders, levels of service and public facility timing as outlined in C below.

Monitoring and Evaluation: The Town Manager or designee shall annually prepare a status report on this Capital Improvement Element for submittal to the Town Commission. The primary purpose is to update the five-year schedule including the basis for next year’s capital budget. The project evaluation criteria shall be used in the project list review and special attention shall be devoted to maintenance of the level of service standards. This entire evaluation process shall be integrated into the Town’s annual budget process.

Concurrency Management: Concurrency management shall be implemented as articulated in Future Land Use Element and the Capital Improvement Element.

MONITORING, UPDATING AND EVALUATION PROCEDURES

Annual Monitoring: In conjunction with one of the plan amendment cycles, the Local Planning Agency may annually conduct a public workshop on the Comprehensive Plan. A status report shall be provided by the Town Manager or designee and then citizen comment shall be solicited. This meeting shall be publicized by a legal notice in the newspaper plus efforts to have a news story in the Miami Herald and flyer announcements at the Town Hall. The LPA will then submit a report on the status of the Plan to the Town Commission. This report may be accompanied by recommended amendments, using the normal amendment process.

Evaluation and Appraisal Review (EAR): , the Town Manager or designee shall prepare an Evaluation and Appraisal Review in conformance with statutory requirements and with special emphasis on the extent to which the Comprehensive Plan objectives and policies have been achieved. The report will pinpoint obstacles to plan implementation and update baseline data.

Revised Objectives and Policies: As part of this EAR process, amendments to the goals, objectives and policies based upon the above review, focusing short and long term community objectives. The citizen participation procedures used in preparing the Comprehensive Plan (plus any future modifications thereto) shall be used in amending the Plan.

Concurrency Management System Standards

Facility Capacity Determinations: The determination that there is adequate facility capacity for a proposed project shall be based on a formulation such as $(A+B) \text{ minus } (C+D+E)$ shall be greater than zero, where

“A” equals the total ***design capacity*** of existing facilities;

“B” equals the total ***design capacity*** of any ***planned new facilities*** that will become available concurrent with the impact of the proposed development;

“C” equals existing demand on facilities measured as traffic volumes, sewer and water flows, utilization of FISH capacity (for schools) or population;

“D” equals committed demand from approved projects that are not yet constructed; and

“E” equals the demand anticipated to be created by a proposed project.

Criteria for Measuring the Design Capacity of Existing and Planned New Facilities: The design capacity of existing and planned new facilities shall be determined as follows:

Sewage: the capacity of the County sewage treatment system.

Water: the capacity of the County water treatment and storage system.

Solid Waste: the capacity of the County disposal system.

Drainage: the on-site detention capability and/or storm sewer capacity.

Roadways: The standard for measuring highway capacities shall be the Florida DOT Table of Generalized Two-Way Peak Hour Volumes for Urbanized Areas or other techniques that are compatible to the maximum extent feasible with FDOT standards and guidelines. The measurement of capacity may also be determined by engineering studies provided that analysis techniques are technically sound and acceptable to the Town engineer.

Recreation: Measurement shall be based on recreation data in the Comprehensive Plan plus the latest Town population estimate with any necessary interpretation provided by the Town Manager or designee thereof.

Transit: The County Transit Agency bus schedules for routes within the Town.

Criteria for Counting the Capacity of Planned New Facilities: The capacity of planned new facilities may be counted only if the following timing requirements to ensure that adequate public facilities are available to meet level of service standards with the impact of development:

- (a) Sanitary sewer, solid waste, drainage, adequate water supplies, and potable water facilities shall be in place and available to serve new development no later than the issuance by the local government of a certificate of occupancy or its functional equivalent. Prior to approval of a building permit or its functional equivalent, the Town shall determine whether adequate water supplies to serve the new development will be available no later than the anticipated date of issuance by the Town of a certificate of occupancy or its functional equivalent.
- (b) Parks and recreation facilities to serve new development shall be in place or under actual construction no later than 1 year after issuance by the local government of a certificate of occupancy or its functional equivalent. However, the acreage for such facilities shall be dedicated or be acquired by the Town prior to issuance of a certificate of occupancy or its functional equivalent, or funds in the amount of the developer's fair share shall be committed no later than the local government's approval to commence construction.

- (c) Transportation facilities needed to serve new development shall be in place or under actual construction within 3 years after the Town approves a building permit that results in traffic generation.

Responsibility for Concurrency Monitoring System: The manager or designee thereof shall be responsible for monitoring facility capacities and development activity to ensure that the concurrency management system data base is kept current, i.e., includes all existing and committed development. This data base shall be used to systematically update the formulas used to assess projects. An annual report shall be prepared.

Capacity Reservation: Any development permit application which includes a specific plan for development, including densities and intensities, shall require a concurrency review. Compliance will be finally calculated and capacity reserved at time of final action on a **design review** or **building permit** if no **design review** is required or enforceable developers agreement. Phasing of development is authorized in accordance with Rule 9J-5.0055. Applications for development permits shall be chronologically logged upon approval to determine rights to available capacity. A capacity reservation shall be valid for a time to be specified in the land development code; if construction is not initiated during this period, the reservation shall be terminated.

Public School Concurrency Review : Prior to the issuance of any development order for new residential development or redevelopment, public school facilities needed to support the development at adopted school LOS standards must meet the following requirements:

1. The necessary public school facilities and services are in place or under actual construction within three years after issuance of final subdivision or site plan approval, or the functional equivalent.
2. The necessary facilities and services are guaranteed in an enforceable development agreement, pursuant to Section 163.3220, F.S., or an agreement or development order issued pursuant to Chapter 380, F.S., to be in place or under actual construction not more than three years after issuance of a certificate of occupancy or its functional equivalent.

School concurrency approval for the development and anticipated students shall be valid for up to two (2) years, beginning from the date the application received final approval from the Town.

Project Impact or Demand Measurement: The concurrency management user's procedural guide (a supplement to the land development code) will contain the formulas for calculating compliance plus tables which provide generation rates for water use, sewer use, solid waste and traffic, by land use category. Alternative methods are acceptable to the Town Manager or designee thereof may also be used by the applicant. For example, traffic generation may be based upon the Institute of Transportation Engineer's "Trip Generation" manual.

Schedule of Capital Improvements by Category and Funding Sources

Tables 9-10 A-D make up the Town's schedule of Capital Improvements. Funding sources are shown where applicable.

**Table 9-10A
Stormwater Projects**

No Projects

**Table 9-10B
Wastewater and Potable Water Projects**

No projects

**Table 9-10C
FDOT Projects**

FDOT Projects							
Project Name	Location	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Total
Indian Creek Bridge #876100 PD&E	91 st Street/ Surfside					\$1,515,001	\$1,515,001
Total Cost of FDOT Projects						\$1,515,001	\$1,515,001

Source: FY2018-2023 FDOT Work Program

**Table 9-10D
Gas Tax Projects**

Forecasted Municipal Transportation Funding (CITT)						
Capital Projects						
	2018	2019	2020	2021	2022	Total
Traffic Signal Loop Detectors	\$ 50,000	\$ -	\$ -	\$ -	\$ -	\$ 50,000
Harding Avenue Downtown Street Improvements	\$ 100,000	\$ -	\$ -	\$ -	\$ -	\$ 100,000
91 Street Improvement Project	\$ -	\$ 100,000	\$ -	\$ -	\$ -	\$ 100,000
West Side Street Improvements	\$ -	\$ -	\$ 100,000	\$ -	\$ -	\$ 100,000
Traffic & Pedestrian Management Program				\$ 95,000	\$ 95,000	\$ 190,000
Total Annual Municipal Transp. Source Funding	\$ 150,000	\$ 100,000	\$ 100,000	\$ 95,000	\$ 95,000	\$ 350,000
Funding Sources						
	2018	2019	2020	2021	2022	Total
Transit Surtax Proceeds	\$ 223,000	\$ 225,230	\$ 227,482	\$ 229,757	\$ 232,055	\$ 1,137,524
Balance	\$ 73,000	\$ 125,230	\$ 127,482	\$ 134,757	\$ 137,055	\$ 597,524

Note: Transit Surtax Proceeds listed above is only part of total required planned project funding.

Source: Town of Surfside Finance Department

Public School Facilities Goals, Objectives, and Policies

Goal: Assist Miami-Dade County Public Schools in developing, operating, and maintaining a system of quality public education in Surfside through the provision of adequate public educational facilities.

Objective 1 - Significantly Reduce Overcrowding: Work with the Miami-Dade County Public Schools (MDCPS) to reduce overcrowding in schools where overcrowding exists and prevent overcrowding where it does not exist while striving to attain an optimum level of service pursuant to Objective 2.

Policy 1.1 - Cooperate with the Miami-Dade County Public Schools in their efforts to continue to provide new student stations through the Capital Outlay program, insofar as funding is available.

Policy 1.2 - Cooperate with the Miami-Dade County Public Schools in their efforts to locate public school facilities.

Policy 1.3 - Miami-Dade County Public Schools comments shall be sought and considered in comprehensive plan amendments and other land use and zoning decisions which could impact the school district, in order to be consistent with the terms of the state mandated Amended and Restated Interlocal Agreement for Public School Facility Planning (Interlocal Agreement) pursuant to Sections 1013.33 and 163.31777, Florida Statutes.

Policy 1.4 - Cooperate with the Miami-Dade County Public Schools in their efforts to develop and implement alternative educational facilities, such as primary learning centers, which can be constructed on small parcels of land and relieve overcrowding at elementary schools, in so far as funding and rules permit.

Policy 1.5 - Cooperate with the Miami-Dade County Public Schools in their efforts to provide public school facilities to the students of the Town. Operational alternatives may be developed and implemented, where appropriate, which mitigate the impacts of overcrowding while maintaining the instructional integrity of the educational programs.

Policy 1.6 - Cooperate with the Miami-Dade County Public Schools in their efforts to maintain and/or improve the established level of service (LOS), for Public Educational Facilities, as established for the purposes of school concurrency.

Policy 1.7 - Cooperate and coordinate with Miami-Dade County and Miami-Dade County Public Schools through the Staff Working Group of the Interlocal Agreement for Public School Facility Planning to review annually the Public School Facilities Element and school enrollment projections, and the Town will make amendments if necessary.

Objective 2 - Maintain Level of Service for Public School Concurrency: Work with Miami-Dade County School Board to coordinate new residential development with the future availability of public school facilities consistent with the adopted level of service standards for public school concurrency, to ensure the inclusion of those projects necessary to address existing deficiencies in the most current 5-year Public School Facilities Work Program, as referenced, and to meet the future needs based upon achieving and maintaining the adopted level of service standards throughout the planning period.

Policy 2.1 - Level of Service standards for public school facilities apply to those traditional educational facilities, owned and operated by the Miami-Dade County Public Schools, that are required to serve the residential development within their established Concurrency Service Area. Level of Service standards do not apply to charter schools. However, the capacity of both charter and magnet schools will be credited against the impact of development.

Policy 2.2 - The adopted level of service (LOS) standard for all public school facilities is 100% utilization of Florida Inventory of School Houses (FISH) Capacity (with Relocatable Classrooms). This LOS standard, except for Magnet Schools, shall be applicable in each public school concurrency service area (CSA), defined as the public school attendance boundary established by the Miami-Dade County Public Schools.

Policy 2.3 - The adopted LOS standard for Magnet Schools is 100% of FISH (With Relocatable Classrooms), which shall be calculated on a district-wide basis.

Policy 2.4 – Support the goal of Miami-Dade County Public Schools and the Town, for all public school facilities to achieve 100% utilization of Permanent FISH (No Relocatable Classrooms) by January 2018. To help achieve the desired 100% utilization of Permanent FISH by 2018, Miami-Dade County Public Schools should continue to decrease the number of relocatable classrooms over time. Public school facilities that achieve 100% utilization of Permanent FISH capacity should, to the extent possible, no longer utilize relocatable classrooms except as an operational solution.

Policy 2.5 - Relocatable classrooms may be used by the Miami-Dade County Public Schools as an operational solution to achieve the level of service standard during replacement, remodeling, renovation or expansion of a public school facility; and in the event of a disaster or emergency which prevents the School Board from using a portion of the affected school facility.

Policy 2.6 - In the event the adopted LOS standard of a CSA cannot be met as a result of a proposed development's impact, the development may proceed provided at least one of the following conditions is met:

- a) The development's impact can be shifted to one or more contiguous CSAs that have available capacity and is located, either in whole or in part, within the same Geographic Areas (Northwest, Northeast, Southwest, Southeast, see Figure 1A through 1D) as the proposed development; or
- b) The developments' impact is mitigated, proportionate to the demand for public schools it created, through a combination of one or more appropriate proportionate share mitigation options, as defined in Section 163.3180 (13) (e) 1, Florida Statutes. The intent of these options is to provide for the mitigation of residential development impacts on public school facilities, guaranteed by a legally binding agreement, through mechanisms that include, one or more of the following: contribution of land; the construction, expansion, or payment for land acquisition or construction of a permanent public school facility; or the creation of a mitigation bank based on the construction of a permanent public school facility in exchange for the right to sell capacity credits. The proportionate share mitigation agreement, is subject to approval by Miami Dade County School Board and the Town and must be identified in the most current Miami-Dade County Public School Facilities Work Program.
- c) The development's impacts are phased to occur when sufficient capacity will be available.

If none of the conditions are met, the development shall not be approved.

Policy 2.7 - Concurrency Service Areas (CSA) shall be delineated to: 1) maximize capacity utilization of the facility, 2) limit maximum travel times and reduce transportation costs, 3) acknowledge the effect of court-approved desegregation plans, 4) achieve socio-economic, racial, cultural and diversity objectives, and 5) achieve other relevant objectives as determined by the School Board's policy on maximization of capacity. Periodic adjustments to the boundary or area of a CSA may be made by the School Board to achieve the above stated factors. Other potential amendments to the CSAs shall be considered annually at the Staff Working Group meeting to take place each year no later than April 30 or October 31, consistent with Section 9 of the Interlocal Agreement for Public School Facilities Planning.

Policy 2.8 - The Town through the implementation of the concurrency management system and the most current Miami-Dade County Public School Facilities Work Program for educational facilities, shall ensure that existing deficiencies are addressed and the capacity of schools is sufficient to support residential development at the adopted level of service (LOS) standards throughout the planning period in the 5-year Schedule of Capital Improvements.

Policy 2.9 - The Miami-Dade County Public School Facilities Work Program, which is adopted by reference into the Capital Improvements Element, will be evaluated on an annual basis to ensure that the level of service standards will continue to be achieved and maintained throughout the planning period.

Policy 2.10 - The Miami-Dade County Public School Facilities Work Program shall be amended on an annual basis to: 1) add a new fifth year; 2) reflect changes in estimated capital revenues, planned capital appropriations costs, planned capital facilities projects, CSAs and school usage; and, 3) ensure the Miami-Dade Public School Facilities Work Program continues to be financially feasible for the five-year planning period.

Objective 3 - Obtain Suitable Public Educational Facility Sites: Assist Miami-Dade County Public Schools in obtaining suitable sites to meet the level-of-service and, facility needs of the public education system.

Policy 3.1 - In the selection of sites for future educational facilities development, the Town should encourage Miami-Dade County Public Schools to consider whether a school is in close proximity to residential areas and is in a location that would provide a logical focal point for community activities and be in close proximity to Town neighborhoods.

Policy 3.2 - Where possible, Miami-Dade County Public Schools should seek sites that are adjacent to existing or planned public recreation areas, community centers, libraries, or other compatible civic uses or the purpose of encouraging joint use facilities.

Policy 3.3 - The Town acknowledges and concurs that, when selecting a site, Miami-Dade County Public Schools will consider if the site meets the minimum size criteria as recommended by the State Department of Education or as determined to be necessary for an effective educational environment.

Policy 3.4 - When considering a site for possible use as an educational facility, Miami-Dade County Public Schools should review the adequacy and proximity of other public facilities and services necessary to the site such as roadway access, bus stops for existing and proposed public school facilities, transportation, potable water, sanitary sewers, drainage, solid waste, and police and fire services, and means by which to assure safe access to schools, including sidewalks, bicycle paths, turn lanes, and signalization.

Policy 3.5 - When considering a site for possible use as an educational facility, ~~the~~ Miami-Dade County Public Schools should consider whether the present and projected surrounding land uses are compatible with the operation of an educational facility.

Objective 4 - Establish Effective Coordination - Establish mechanisms for ongoing coordination, communications and implementation between the School Board, Miami-Dade County, and the Town to ensure the adequate provision of public educational facilities.

Policy 4.1 - The Town shall coordinate with Miami-Dade County Public Schools to develop or modify rules and regulations in order to simplify and expedite proposed new educational facility developments and renovations.

Policy 4.2 - Future educational facilities should be located where the capacity of other public facilities and services is available to accommodate the infrastructure needs of the educational facility.

Policy 4.3 - The Town will encourage Miami-Dade County Public Schools to coordinate school capital improvement plans with the planned capital improvement projects of the Town if applicable.

Policy 4.4 - The Town shall coordinate with Miami-Dade County Public Schools to eliminate infrastructure deficiencies surrounding existing school sites if applicable.

Policy 4.5 - The Town and Miami-Dade County Public Schools shall coordinate efforts to ensure the availability of adequate sites for the required educational facilities.

Policy 4.6 - The Town will account for the infrastructure needs of new, planned or expanded educational facilities when formulating and implementing the Town's capital improvements plans.

Policy 4.7 - Coordinate the Town land use planning and permitting processes with the Miami-Dade County Public Schools site selection and planning process to ensure future school facilities are consistent and compatible with land use categories and the surrounding land uses.

Policy 4.8 - The Town will notify Miami-Dade County Public Schools of land use and zoning decisions as outlined in the Interlocal Agreement.

Policy 4.9 - The Town and the Miami-Dade County Public Schools shall coordinate to prepare projections of future development and public school enrollment growth and to ensure such projections are consistent with the Town's future land use maps and the School Board's Long Range Public School Facilities Map consistent with the procedures and requirements identified in the Interlocal Agreement.

Policy 4.10 - The Town shall coordinate with adjacent local governments and the school district on emergency preparedness issues, including the use of public schools to serve as emergency shelters.

Figure 10A – Northwest Area Educational Facilities

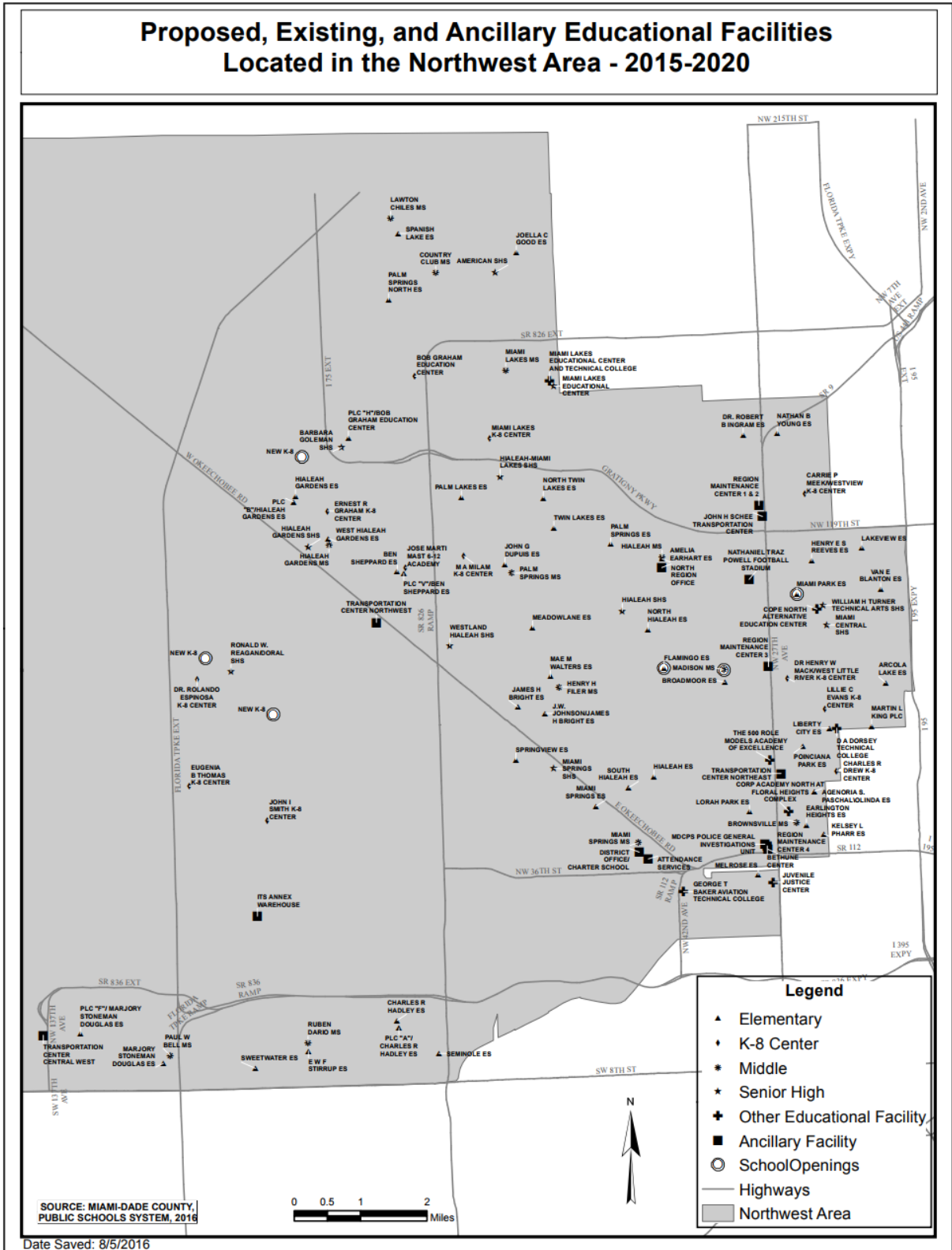


Figure 10B – Northeast Area Educational Facilities

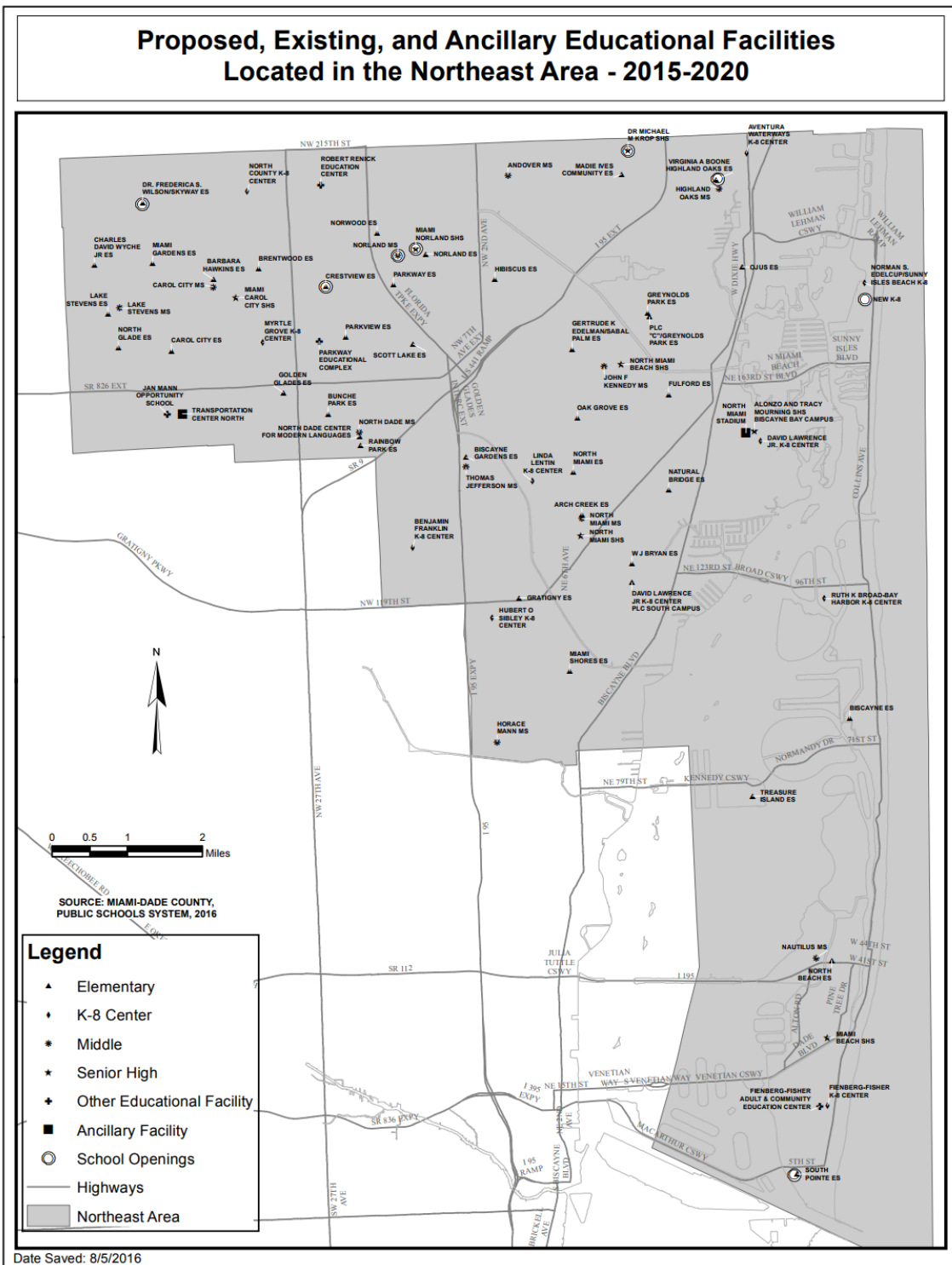
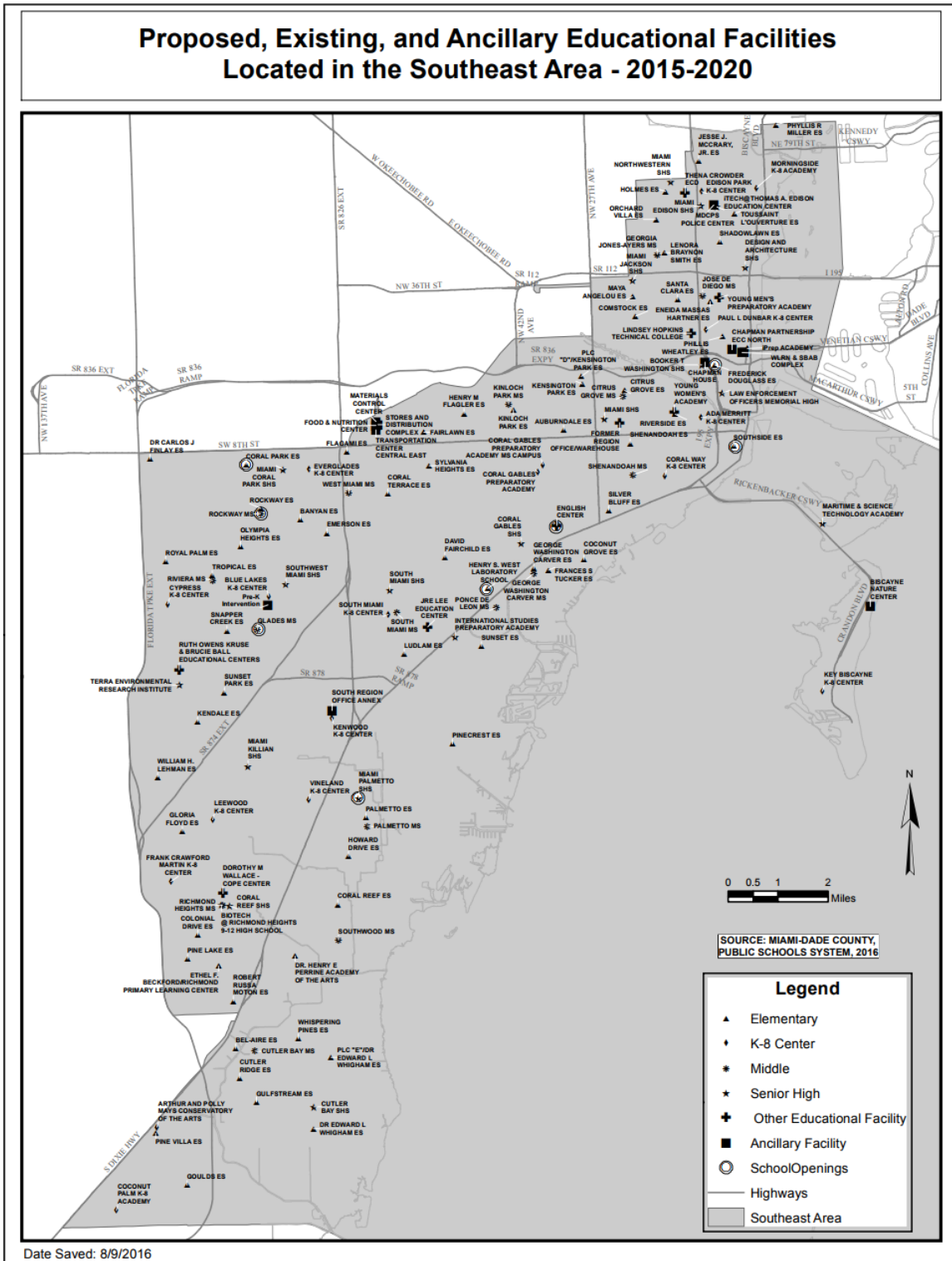


Figure 10D – Southeast Area Educational Facilities





Memorandum

To: Planning and Zoning Board
Thru: Hector Gomez, Town Manager
Thru: Judith Frankel, Town Planner
From: Walter Keller, PE, AICP., Consultant Planner
Marlin Engineering, Inc.
CC: Lillian Arango, Town Attorney
Tony Recio, Town Zoning Attorney
James McGuinness, Town Building Official
Date: February 21, 2024
RE: Town Comprehensive Plan and Evaluation & Appraisal Update
Proposed Updates to the Town's Comprehensive Plan

Presentations on the update of the Town's Comprehensive Plan were made at the November 16, 2023 and January 18, 2024 Planning and Zoning Board meetings. A Public Hearing will be held at the February 29, 2024 Planning and Zoning Board meeting. The Planning and Zoning Board is designated as the Town's Local Planning Agency (LPA) and serves as the LPA on items such as the Comprehensive Plan update.

The current update of the Comprehensive Plan is required by State Law and referred to as the Evaluation and Appraisal Report (EAR) or EAR Based Amendments. The proposed amendments are generally minor and the overall emphasis of the current Comprehensive Plan is intact. Major items being updated include the addition of a Property Rights Element (a new State requirement), update of the Town's Water Supply Facility Work Plan (a State requirement), update of the Base Floor Flood Elevation to 8.00 + 2.00 Feet, Address changes to statutory requirements of Chapter 163 and minor updates to the Comprehensive Plan and Socio-Economic Characteristics. The review process requires a marked-up version of the Comprehensive Plan be provided with underlines (additions) and strike-thrus (deletions).

Revisions have been provided for the following Plan Elements:

- 1 Future Land Use
- 3 Housing
- 4 Infrastructure (including Water Supply Facilities Work Plan)
- 5 Coastal Management
- 7 Recreation and Open Space
- 9 Capital Improvements
- 11 Property Rights

continued



Town of Surfside, Florida Development Review

The following Plan Elements are not going to be updated at this time:

- 2 Transportation
- 6 Conservation
- 8 Intergovernmental Coordination
- 10 Public School Facilities

Copies of the current (2018) Comprehensive Plan and the marked up versions of the proposed Plan Elements have been or will be provided shortly. The LPA will hold a Public Hearing on the draft documents. The LPA can make revisions if desired or recommend transmittal to the Town Commission with any comments or recommendations. The Town Commission is scheduled to hold a Public Hearing on the draft documents and LPA recommendation on March 12, 2024. The 1st reading of the Ordinance adopting the EAR Based Amendments will be considered at the March 12, 2024 Public Hearing. If the Town Commission approves the 1st reading, the EAR Based Amendments will be sent out to be reviewed under the State Coordinated Review Process.

If the State determines the Amendment package is complete, State agencies, the South Florida Regional Planning Council, Miami-Dade County and adjacent municipalities will have 30 days to review the Amendment package and provide written comments. The State Community Planning Office has to issue an Objections, Recommendations and Comments Report (ORC) on the Amendment package. The Town Commission will then have 180 days to adopt the Amendment package. It is expected the Town Commission will request an additional review by the LPA prior to holding an adoption hearing at 2nd reading of the Ordinance. The Amendment package can be revised during this period. The State will perform a Compliance review of the adopted Amendment package.

A few revisions have been made in the Future Land Use Element since the printing of the Amendment package. A 3-page attachment describes the revisions made in the Future Land Use Table 1-2. Copies of the Existing and Future Land Use Maps will be provided separately.

Town of Surfside 2024 Comprehensive Plan Update
Comprehensive Plan Revisions Not Currently included in the Documents

1 Future Land Use Element

Table 1-2 (p 1-03) – Table revised presenting residential uses first by density and non-residential uses presented after residential. There are no revisions to the residential uses. See attached updated Table 1-2 with underlines which are additions and or changes in the size of the land use.

There are revisions in the non-residential uses.

“Public Buildings and Grounds” includes the Town Hall and associated parking areas on the south side of 93rd Street. The parking areas are included and not separated out. The Post Office building and fenced in area are included in this category. The parking area in Surfside for the St. Joseph Catholic Church in Miami Beach is included in this category. The FPL property on Harding Avenue across from the Tennis Center is also included in this grouping.

“Parking” includes the following properties: the Town’s Abbott Street parking lot; the parking areas around the Post Office; the parking area on the south side of the Shul; and, the Town’s 94th Street parking lot and the Town Hall parking lot on the north side of 93rd Street.

“Community Facility” now includes three Town properties: the Community Center; the 96th Street Park; and, the Tennis Center/Veterans Park. This category allows a floor area ratio of 3.0 and not more than 70 feet in height. The permitted uses are Town-owned facilities for community use and recreation.

“Public Recreation” are Town-owned public parks and the state-owned beachfront east of the erosion control line and immediately adjacent to the Atlantic Ocean. Properties included are the beachfront, the Hawthorne Tot Lot, the Paws Up Dog Park and 3 street terminations (92nd St, 93rd St and 94th St).

“Water” is a new use in the Future Land Use Map. Previously provided in the existing land use map and table it was not included in the Future Land Use. This category includes Point Lake and water adjacent to the beachfront. The permitted use includes docks and marine structures.

“Right of Way” is re-named from the prior listing of “Non-designated Right of Way”.

Future Land Use Designations

Map FLU 7 Future Land Use designates future land uses in the Town. The Future Land Use Map guides future development according to the vision of residents and businesses in the Town. The Future Land Use Map reflects a planning horizon of at least 10 years. The Future Land Use Map serves as the basis for zoning designations provided in the Zoning Code. Table 1-2 shows the distribution of future land uses in the Town.

Table 1-2. Future Land Use

Future Land Use Designation	Acres	Percentage of Total Acres
Community Facility	1.46 <u>3.44</u>	0.40% <u>0.93%</u>
General Retail /Services	5.84	1.58%
High Density Residential / Tourist	26.27	7.13%
Low Density Residential	176.48	47.89%
Moderate Low Density Residential	3.09	0.84%
Moderate High Density Residential	14.81	4.02%
Moderate Density Residential / Tourist	4.72	1.28%
Parking	4.23	1.15%
Public Buildings and Grounds	2.05	0.56%
Public Recreation	40.54 <u>38.56</u>	11.00% <u>10.46%</u>
Private Recreation	4.69	1.27%
Non-designated Right of Way	84.35	22.89%
TOTAL	368.53	100.00%

Source: Miami-Dade County GIS Services; Calvin, Giordano & Associates, Marlin Engineering, Inc.

Approximately 61.16 % of the total land area is designated for residential uses with the majority of the residential uses designated as Low Density Residential. Commercial uses added up to 1.58% and Recreation uses, both public and private, made up nearly 12.27% of the total land area. Non-designated Right of Way makes up 22.89% of the overall land area.

Population

Population and Projections

The Town’s population according to the ~~2010~~ 2020 U.S. Census was ~~5,689~~ 5,744. By ~~2045~~ 2035, the Town is expected to continue to be built-out with virtually no vacant residential lands or change in density or

Table 1-2 Future Land Use (**New**)

Future Land Use Designation	Acres	% Total Acres
Residential		
Low Density Residential (8 du/ac)	176.48	47.89%
Moderate Low Density Residential (17 du/ac)	3.09	0.84%
Moderate Density Residential/Tourist (58 du/ac)*	4.72	1.28%
Moderate High Density Residential (79 du/ac)	14.81	4.02%
High Density Residential / Tourist (109 du/ac)	26.27	7.13%
Non-Residential		
General Retail /Services	5.84	1.58%
Public Buildings and Grounds	<u>2.70</u>	<u>0.73%</u>
Parking	<u>3.97</u>	<u>1.08%</u>
Community Facility	<u>4.00</u>	<u>1.09%</u>
Public Recreation	<u>35.58</u>	<u>9.65%</u>
Private Recreation	<u>6.07</u>	<u>1.65%</u>
<u>Water</u>	<u>8.90</u>	<u>2.42%</u>
<u>Right of Way</u>	<u>76.1</u>	<u>20.65%</u>
TOTAL	368.53	100.00%

Source: MDC GIS, MDC Property Appraiser & Marlin Engineering, Inc.

Notes: * or up to 108 hotel units per acre.

For Additional Information see Future Land Use Objective 1 and Policy 1.1

ORDINANCE NO. 2024 - _____

AN ORDINANCE OF THE TOWN COMMISSION OF THE TOWN OF SURFSIDE, FLORIDA, AMENDING THE TOWN OF SURFSIDE COMPREHENSIVE PLAN BY ADOPTING THE EVALUATION AND APPRAISAL REVIEW (EAR) BASED COMPREHENSIVE PLAN AMENDMENTS; PROVIDING FOR INITIAL AND POST-ADOPTION TRANSMITTAL; PROVIDING FOR SEVERABILITY; INCLUSION IN THE COMPREHENSIVE PLAN; CONFLICTS; AND FOR AN EFFECTIVE DATE.

WHEREAS, Section 163.3191, Florida Statutes, directs local governments to periodically conduct an Evaluation and Appraisal Review (the “EAR”) every seven years to comprehensively evaluate their Comprehensive Plan to determine if amendments are necessary to reflect changes in state law requirements, and to enact such amendments as are necessary to reflect changes in local conditions; and

WHEREAS, the Town of Surfside (the “Town”) Comprehensive Plan (the “Comprehensive Plan”) was last amended through the EAR process in 2018 pursuant to Ordinance No. 2018-1685 adopted on June 12, 2018; and

WHEREAS, the Town has reviewed its Comprehensive Plan and proposed amendments to the Comprehensive Plan based on the EAR, attached hereto as Exhibit “A” (the “EAR-Based Amendments”), to reflect changes in state law requirements and to also address current conditions within the Town; and

WHEREAS, the Town has considered the EAR-Based Amendments in the manner prescribed by Section 163.3191(2) and 163.3184(4), Florida Statutes; and

WHEREAS, the Planning and Zoning Board, serving as the local planning agency for the Town, held its public hearing on the EAR-Based Amendments on _____, 2024 with due public notice and input, and recommended they [be/not be] transmitted [with/without] changes; and

WHEREAS, the Town Commission held its first public hearing on _____, and having complied with the notice requirements in the Florida Statutes, approved transmittal of the EAR-Based Amendments [with/without] changes; and

WHEREAS, the Town transmitted the EAR-Based Amendments to Florida Commerce and other appropriate state, regional, county, and municipal review agencies in accordance with Section 163.3184(3), Florida Statutes; and

WHEREAS, the Town Commission has conducted a second duly noticed public hearing on the EAR-Based Amendments as required by law on _____, and further finds them necessary and in the best interest of the Town.

NOW, THEREFORE, BE IT ORDAINED BY THE TOWN COMMISSION OF THE TOWN OF SURFSIDE, FLORIDA:

Section 1. Recitals. The above Recitals are true and correct and are incorporated herein by this reference.

Section 2. EAR-Based Amendments [Adopted/Not Adopted]. The EAR-Based Amendments, attached hereto as Exhibit "A," are hereby [adopted/not adopted].

Section 3. Initial Transmittal. Following the first public hearing by the Town Commission, the Town Planner is directed to transmit the EAR-Based Amendments to the state land planning agency and other appropriate state, regional, county, and municipal review agencies in accordance with Section 163.3184(4), Florida Statutes ("Initial Transmittal").

Section 4. Post-Adoption Transmittal. Following the second public hearing on adoption, the Town Planner is directed to transmit the adopted EAR-Based Amendments to the state land planning agency and other state, regional, county, and municipal review agencies that provided timely comments following Initial Transmittal.

Section 5. Severability. If any section, sentence, clause or phrase of this Ordinance is held to be invalid or unconstitutional by any court of competent jurisdiction, then said holding shall in no way affect the validity of the remaining portions of this Ordinance.

Section 6. Inclusion in the Code. It is the intention of the Town Commission, and it is hereby ordained that the provisions of this Ordinance shall become and made a part of the Comprehensive Plan, that the sections of this Ordinance may be renumbered or re-lettered to accomplish such intentions; and the word "Ordinance" may be changed to "Section" or other appropriate word.

Section 7. Conflicts. Any and all ordinances and resolutions or parts of ordinances or resolutions in conflict herewith are hereby repealed.

Section 8. Effective Date. This Ordinance shall be effective upon adoption on second reading, except that the effective date of the EAR-Based Amendments approved by this Ordinance shall be upon the state land planning agency's Notice of Intent issued pursuant to Section 163.3184(4)(e), Florida Statutes, or if a petition to challenge the EAR-Based Amendments is filed with the Division of Administrative

Hearings pursuant to Sections 163.3184(5)(a), Florida Statutes, or 163.3184(5)(b), Florida Statutes, then, as to such challenged amendment(s), this Ordinance shall become effective upon issuance of a final order finding the challenged amendment(s) in compliance.

PASSED on first reading on the ____ day of _____, 2024.

PASSED AND ADOPTED on second reading on the ____ day of _____, 2024.

First Reading:

Motion by: _____

Second by: _____

Second Reading:

Motion by: _____

Second by: _____

FINAL VOTE ON ADOPTION

Commissioner Fred Landsman _____

Commissioner Marianne Meisheid _____

Commissioner Nelly Velasquez _____

Vice Mayor Jeff Rose _____

Mayor Shlomo Danzinger _____

Shlomo Danzinger, Mayor

ATTEST:

Sandra N. McCready, MMC
Town Clerk

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

Weiss Serota Helfman Cole & Bierman, P.L.
Town Attorney

Exhibit “A”

Includes sections:

A1, A2, A3, A4, A5,

A6, A7 and A8

1 FUTURE LAND USE ELEMENT

Data Inventory and Analysis

Purpose

The purpose of the Future Land Use Element is the designation of future land use patterns as reflected in the goals, objectives and policies contained in the Town of Surfside Comprehensive Plan. The supporting data provides a broad survey of current land use patterns, natural land features, and availability of public facilities for existing and future development. Future land use patterns are depicted on the Future Land Use Map (Map FLU 7).

Planning Timeframes

The Town of Surfside Comprehensive Plan provides guidance on development and redevelopment over two planning periods: a ~~5~~ 10-Year short term planning period ending FY ~~2034~~ 2022 and a long-term planning period ending FY ~~2044~~ 2035.

Existing Land Use Conditions

The Town of Surfside is located in the eastern section of Miami-Dade County. Located on the barrier island, the Town is bordered by water on both its western and eastern boundaries. The western boundary is the Biscayne Bay and Indian Creek and the eastern boundary is the Atlantic Ocean. The Town is ~~nearly~~ essentially built out. The Future Land Use Element supports the Town's desire to maintain its stable single family residential neighborhood, encourage redevelopment of the Harding Avenue business area, and limit density and intensity of beach front properties.

Existing land use patterns are depicted on Map FLU 1 Existing Land Use. An analysis of existing land use indicates that single family residential uses make up approximately ~~47.4~~ 45.8 % and multi-family uses make up ~~11.3~~ 8.5 % of the total land area. Vacant lands make up ~~0.5~~ 4.8 % of the total town acreage.

Significant redevelopment activity is underway within the Town. There are five vacant H120 parcels on the beach with three (3) of the parcels under construction. Of the 2 other parcels: one has site plan approval, and the other is in the process. All of the parcels are being developed with reduced densities but with larger sized dwelling units. Six (6) lower density multi-family parcels are also vacant, and several have development approvals.

There are thirty (30) single family vacant lots in the Town. Approximately 5 of the lots are under construction and many of the other lots have development approvals. Seventeen (17) of the lots are on the water (H30A) and 13 are not on the water (H30B).

~~The Town has 99.5% of its land developed.~~ Residential development makes up ~~58.7~~ 59.1 % of total Town acreage. General retail / service business development makes up ~~1.87~~ 1.9 % of the total Town acreage.

Table 1-1. Existing Land Use (Old)

Existing Land Use	Acres	Percentage of Total Acres
Beach Area	34.76	9.43%
Community Facilities	9.26	2.43%
General Retail/Services	6.90	1.87%
Multi-Family Residential	41.46	11.34 %
Parking	4.92	1.34%
Private Recreation	6.07	1.65%
Single Family Residential	174.80	47.43%
Vacant	1.89	0.51 %
ROW	79.57	21.59%
Water	8.90	2.42%
TOTAL ACREAGE	368.53	100.00%

Source: Miami-Dade County GIS Services; Calvin, Giordano & Associates

Table 1-1. Existing Land Use (New)

Existing Land Use	Acres	Percentage of Total Acres
Beach Area	<u>34.76</u>	<u>9.4%</u>
Community Facilities	<u>9.26</u>	<u>2.5%</u>
General Retail/Services	<u>6.90</u>	<u>1.9%</u>
Multi-Family Residential	<u>31.25</u>	<u>8.5 %</u>
Parking	<u>5.62</u>	<u>1.5%</u>
Private Recreation	<u>6.07</u>	<u>1.6%</u>
Single Family Residential	<u>168.94</u>	<u>45.8%</u>
Vacant	<u>17.26</u>	<u>4.7 %</u>
ROW	<u>79.57</u>	<u>21.6%</u>
Water	<u>8.90</u>	<u>2.4%</u>
TOTAL ACREAGE	368.53	100.00%

Source: Miami-Dade County Property Appraiser 2022 Aerial Photo & Property Records, Marlin Engineering, Inc.

Future Land Use Designations

Map FLU 7 Future Land Use designates future land uses in the Town. The Future Land Use Map guides future development according to the vision of residents and businesses in the Town. The Future Land Use Map reflects a planning horizon of at least 10 years. The Future Land Use Map serves as the basis for zoning designations provided in the Zoning Code. Table 1-2 shows the distribution of future land uses in the Town.

Table 1-2. Future Land Use

Future Land Use Designation	Acres	Percentage of Total Acres
Community Facility	1.46 <u>3.44</u>	0.40% <u>0.93%</u>
General Retail /Services	5.84	1.58%
High Density Residential / Tourist	26.27	7.13%
Low Density Residential	176.48	47.89%
Moderate Low Density Residential	3.09	0.84%
Moderate High Density Residential	14.81	4.02%
Moderate Density Residential / Tourist	4.72	1.28%
Parking	4.23	1.15%
Public Buildings and Grounds	2.05	0.56%
Public Recreation	40.54 <u>38.56</u>	11.00% <u>10.46%</u>
Private Recreation	4.69	1.27%
Non-designated Right of Way	84.35	22.89%
TOTAL	368.53	100.00%

Source: Miami-Dade County GIS Services; Calvin, Giordano & Associates, Marlin Engineering, Inc.

Approximately 61.16 % of the total land area is designated for residential uses with the majority of the residential uses designated as Low Density Residential. Commercial uses added up to 1.58% and Recreation uses, both public and private, made up nearly 12.27% of the total land area. Non-designated Right of Way makes up 22.89% of the overall land area.

Population

Population and Projections

The Town’s population according to the ~~2010~~ 2020 U.S. Census was ~~5,689~~ 5,744. By ~~2045~~ 2035, the Town is expected to continue to be built-out with virtually no vacant residential lands or change in density or

intensity; at which time the population is expected to be approximately 4,710 ~~6,556~~ residents. According to the Florida Housing Data Clearinghouse (FHDC), between 2020 ~~2010~~ and 2045 ~~2035~~ the Town is projected to lose ~~see an additional~~ 979 ~~812~~ residents, which represents a 17.2% ~~14.1%~~ decrease in year ~~round residents~~ growth from 2020 ~~2010~~. The Town questions ~~views~~ the population projections from the FHDC as high ~~high~~ considering the built-out current condition of the Town. Potential population increases are expected to come from the redevelopment in single family and multifamily dwelling units, and from ~~seasonal units converting to being used as full-time units and increases in persons per household.~~

Annexation

No annexations are being considered at this time.

Table 1-3. Projections: Population, Surfside, 2010 – 2035 (Old)

Year	Population	% Change from 2010 Population
2010*	5,744	0
2015**	5,705	-0.67%
2020**	5,952	+3.6%
2025**	6,181	+7.6%
2030**	6,398	+11.3%
2035**	6,556	+14.1%

Source: *2010 U.S. Census; **Florida Housing Data Clearinghouse (FHDC), 2016

Table 1-3. Projections: Population, Surfside, 2010 – 2030 (New)

Year	Population	% Change from <u>2020</u> Population
2020*	<u>5,689</u>	<u>0</u>
2025**	<u>5,466</u>	<u>-3.9%</u>
2030**	<u>5,293</u>	<u>-7.0%</u>
2035**	<u>5,105</u>	<u>-10.3%</u>
2040**	<u>4,908</u>	<u>-13.7%</u>
2045**	<u>4,710</u>	<u>-17.2%</u>

Source: *2020 U.S. Census; **Florida Housing Data Clearinghouse (FHDC), 2023

Analysis of Land Needed to Accommodate Population

The Town is almost built-out with only 1.89 acres of vacant land. The only development that is expected over the next planning horizon is redevelopment of existing developed properties. Redevelopment is

expected to be at or near existing densities however, most projects which have redeveloped in the past 10 years have been below current densities. As discussed above in the Population and Projections section, the only changes in population are expected through seasonal unit conversion to full time use and increases in persons per household.

The Town does not support the Florida Housing Data Clearinghouse (FHDC) population projections projects for 2045 2035. The Town's Charter limits density, intensity, and height to the existing maximums in the Zoning Code or Comprehensive Plan, whichever is more restrictive. The Town is being redeveloped and the drop in resident population around 2020 is due to the redevelopment of single family and multifamily redevelopment. Therefore, the FHDC projection for 2045 2035 is expected to be higher than the FHDC estimates not anticipated.

Facilities Analysis

Sanitary Sewer Facilities

The Town's sanitary sewer system is interconnected with the Miami-Dade County Water and Sewer Department (MDWASD) system. Surfside maintains its own sewer collection system and two pumping stations. By agreement, the City of Miami Beach transmits the sewage via force mains to the MDWASD system and eventually to the treatment plant and disposal.

The Town of Surfside is located in the MDWASD Central District Sanitary sewer system; however, MDWASD operates two additional regional wastewater treatment plants in the North and South Districts. Because the system is interconnected, the service districts have flexible boundaries, and some flows from one district can be diverted to other plants in the system. Surfside's sewer system is treated by a secondary treatment facility on Virginia Key owned and operated by the Miami-Dade County Water and Sewer Department (MDWASD).

According to the Town of Surfside Consumption Analysis, in FY 2018 to FY2022 2014/2015 approximately 305 to 342 258 million gallons of wastewater were treated by the County system from the Town of Surfside and 260 million in 2015/2016. There is sufficient capacity to serve Surfside residents in the short- and long-term planning time frame.

Potable Water Facilities

The Town of Surfside's potable water is provided by the Miami-Dade County Water and Sewer Department (MDWASD). The water is distributed to residents and commercial business by approximately 11 miles of cast iron pipe installed in 1938. The Town of Surfside is serviced by the Hialeah-Preston Water Treatment Plant service area which includes the northern part of Miami-Dade County. A new upper Floridan Aquifer Reverse Osmosis (RO) water treatment plant was constructed in 2013, and is located at 4250 W. 114th Terrace in the City of Hialeah. The WTP was constructed pursuant to a joint Participation Agreement between the City of Hialeah and the County which was approved by the Board of County Commissioners on July 24, 2007 and called for the design, construction, and operation of a water treatment plant constructed in the annexation area and supplied by the brackish Floridan aquifer to produce initially 10 mgd with the capacity to expand to 17.5 mgd. Approval from the Florida Department of Health to produce and distribute water was received in November 2013. The WTP utilizes the Floridan Aquifer as the alternative water supply using RO treatment to remove the salt. The initial operational phase of the Plant is 7.5 mgd, increasing to 10 mgd by the end of 2015 when construction of additional wells is expected to be completed. The 2022 finished water storage capacity at Hialeah-Preston subarea

ground storage tanks and clear wells is 64.0 MGD with a total systemwide storage capacity for finished water of 129.60 MGD. The quantity of water available to serve MDWASD's North District, as reflected in permitted withdrawal allocations, provides more than adequate capacity.

The highest MDWASD system wide finished water rate is 137.2 gallons per capita per day (gpcd) between 2017 and 2021 was 139 gpcd. The gpcd value for the Town of Surfside is higher than the MDWASD system wide average at 148.04 gallons per capita per day. Analysis of the Town's water use based on gallons purchased between fiscal year 2018 through FY 2022 indicates the highest resident gpcd occurred in FY 2018 when it was 179 gpcd. The Town adopted its most recent last 15-year Water Supply Facilities Work Plan (WSFWP) in 2015. The WSFWP is being updated in 2024.

The level of service will be met for Surfside in the short term and long-term planning periods.

Solid Waste

The Town's Public Works Department has three garbage trucks which collect trash and garbage on a weekly basis and haul it to Miami-Dade County's Resource Recovery Plant west of Miami International Airport and other Miami-Dade County landfills. Between FY2018 and FY2022 ~~Last year (FY 15/16)~~ Surfside deposited ~~approximately 4,932~~ 5,240 to 6,743 tons of waste material at the county's facility. ~~The Town, as of June 2, 2016, discontinued recycling services with Miami-Dade County for residential properties. The Town now collects recycling. Between June 2, 2016 and December 29, 2016, the Town collected a total of 218.9 tons of recycling.~~ Based on information supplied by the Miami-Dade County Department of Solid Waste Management (See Infrastructure Element), the existing disposal capacity at the North Dade Landfill and the South Dade Landfill and the Resource Recovery Plan appear to have adequate capacity to meet Surfside's needs for the foreseeable future.

Stormwater Drainage Facilities

Surfside's existing storm drainage system consists of a network of underground storm sewers that collect and direct stormwater to Indian Creek and Biscayne Bay. A pumping station at the western end of 92nd Street assists the drainage of water from that street by pumping to an outfall. Equipment which currently serves the 92nd Street pump station was replaced by FDOT and maintained by the Town; however, even with these modifications, water may still reach curb level in various locations due to tidal fluctuations.

In 2006, the Town of Surfside initiated additional stormwater projects, which consist of retrofitting three of the Town's outfall pipes to reduce pollutants and fresh water entering Biscayne Bay. The project addressed long-term concerns regarding water backing into the streets and poor water quality in the adjacent Biscayne Bay along the Town's shores.

The recently constructed retrofitted stormwater management system of the Town consists of a network of underground storm sewers along with outfall control structures discharging into the Indian Creek and Biscayne Bay, and three additional pump stations discharging into 9 drainage wells. The newly constructed control structures facilitate well discharge before discharging to Biscayne Bay. The project addressed long-term concerns regarding water backing into the streets and poor water quality in the adjacent Biscayne Bay along the Town's shores. The project directly addressed The Trust for Public Land's Biscayne Bay Accessibility report, supported the SFWMD's Biscayne Bay Partnership Initiative (BBPI), and enhanced the level of service.

In 2015, the Town completed drainage improvements for Biscaya Island along 88th Street. The Town constructed new check valves to prevent back flow into the existing roadways and upsized one 12-inch outfall to a 24-inch diameter outfall. Since the Town completed the retrofit of the existing drainage system in the recent past, there are currently no additional level of service projects required or needed for the Town’s drainage system.

The Town received \$2.83 million dollars from the 2021 American Rescue Plan Act for drainage and infrastructure improvements. The Town also received a State grant for a Town-wide drainage study. The Federal grant and the Town’s Stormwater Fund are funding a FY2024 Abbott Avenue drainage improvement totaling \$3.85 million dollars.

Transportation

The major north-south traversing roadways for the Town are Collins Avenue and Harding Avenue, both state arterial roadways. The major east-west traversing roadway is 96th Street. The level of service analysis for existing conditions indicates that all the roadways within the Town are operating at the adopted level of service.

Six bus routes from Miami-Dade Transit travel through the Town. The Town has its own bus system which complements the Miami-Dade County Transit. The Town’s mini buses circulate between the business district and residential areas.

Parks and Recreation

The Town has an adopted Level of Service of six (6) acres of publicly-owned lands per 1,000 permanent population. The Town has approximately 40 acres of publicly-owned parks space and will continue to meet their level of service through the short term and long-term planning periods.

There are five Town-owned recreation facilities. Three (3) larger facilities: the Surfside Community Center; 96th Street Park; and, ~~namely~~ Veterans Park/Surfside Tennis Center. There are two (2) small facilities: Hawthorne Park Tot Lot, ~~96th Street Park, and the Surfside Community Center,~~ and Paws Up Dog Park. The majority of the park land within the Town is the state-owned public beach.

Major park improvements are underway and or being planned throughout the Town. These items are further discussed in the Recreation and Open Space Element.

Public Schools

There are no public schools located within the Town. In 2008 the Town entered into an Interlocal Agreement for Public School Facility Planning in Miami-Dade County with the Miami-Dade County School Board and adopted a Public Schools Facilities Element. The Miami-Dade County School Board provides figures for current and projected student enrollment and capacity by school. There are currently 1 elementary school, 1 middle school, and 1 high school serving the Town of Surfside. These are:

Elementary:

Broad, Ruth K./Bay Harbor K-8 Center (Town of Bay Harbor Islands)

Middle:

Nautilus Middle (City of Miami Beach)

High:

Miami Beach Senior High School (City of Miami Beach)

These schools are currently and projected to have sufficient capacity to meet level of service standards in the short term and long-term planning time frames.

Capital Improvements

The Town annually updates the ~~prepares a~~ Schedule of Capital Improvements (SCI) ~~in the Capital Improvement Element.~~ The FY2024 to FY2028 project list is provided in the Capital Improvements Element. ~~For FY 2017/2018 the Town has no deficiencies or LOS issues that need to be addressed. With the completion of the Capital Enhancement project several years ago the Water, Wastewater and drainage systems within the Town were completely replaced and modernized.~~

Historic Preservation

The Bureau of Archaeological Research within the Florida Office of Cultural and Historic Preservation maintains the Florida Master Site File (MSF), a database that contains information on archaeological and historic resources in Florida. The MSF includes 33 records for the Town of Surfside: three (3) archaeological sites; three (3) resource groups; and 27 structures of which seven (7) are no longer in existence. The Indian Creek Bridge, adjacent to the Town, is also listed on the MSF.

The Florida Department of Historic Resources has jurisdiction over historic and archaeological sites if there are human remains or if a state or federal permit is requested. If a private property owner develops or redevelops their property and their property is listed on the MSF, the state historic preservation officer should be contacted for guidance.

Miami-Dade County Office of Historic Preservation within the Regulatory and Economic Resources Department also identifies historic resources and designates historic properties and districts. The County has designated four (4) ~~three (3)~~ properties and one (1) district within the Town of Surfside.

The ~~forementioned~~ County designated historic resources are displayed in Table 1-4.

Table 1-4. County Designated Historic Properties

Classification	Name	Address	Year Built	Additional Information
Historical Structures	Surf Club	9011 Collins Ave	1930	Architectural Style – Mediterranean Revival ca. 1880-1940
Historical Structures	Bougainvillea Apartments	9340 Collins Ave	1940	Architectural Style – Streamline Modern
Historical Structures	Seaway Villas	9149 Collins Ave	1936	Architectural Style – Masonry Vernacular with Mediterranean
Historical Structure	<u>Fisher Sapero Residence</u>	<u>9200 Carlyle Ave</u>	<u>1954</u>	<u>Architectural Style – Ranch Style and Miami Modern (MiMo)</u>
Historical District	Collins Avenue Historic District	90th Street to 91st Street	1946-1957	Architectural Style – Streamline Modern and Miami Modern (MiMo)

Source: Miami-Dade County Office of Historic Preservation; Calvin, Giordano & Associates, Marlin Engineering, Inc.

Land Cover

Map FLU 2 Soils identifies and maps native habitat within the Town. The land coverage can be categorized as Developed and Beach. Other than the beach and beach dune system, the Town is built out. There are no native preserves or remaining native habitats or wetlands within the Town. The beach and dune system, although created through a beach renourishment program, is owned by the State and maintained in a natural condition.

Water Resources

The predominant water resources that are present in the Town are the Atlantic Ocean and Biscayne Bay. Additionally, there are Indian Creek and Point Lake. Indian Creek is a channel that separates the Town from the Islands of Indian Creek Village and Bay Harbor Islands. Point Lake, the dredged channel and water body that separates Biscaya Island from the remainder of the Town, is considered part of Biscayne Bay. Map FLU 5 Water Bodies highlights water resources.

Wellfield Protection

There are no public wellfields or wellfield protection zones located in the Town of Surfside.

Soils

Map FLU 2 Soils provides the general distribution of soils/coverage in the Town as mapped by the Natural Resource Conservation Service (NRCS). The U.S. Department of Agriculture (USDA) Natural Resource

Conservation Service (NRCS) identifies Urban Land and Beaches as the only two coverage types found within the Town. The NRCS describes Urban Lands as areas that are more than 70% covered by buildings, streets, sidewalks and other structures so the natural soil is not readily accessible. The NRCS describes beaches as nearly level to sloping, narrow, sandy strips along the Atlantic Ocean of fine to coarse sand mixed with shell fragments.

Soil Erosion

The entire length of ocean shoreline along the barrier island the Town is located on is recognized as 'Critically Eroded' by the Florida Department of Environmental Protection's Bureau of Beaches and Coastal Systems and is part of a long-term beach renourishment program. The Bureau defines critically eroded as a segment of the shoreline where natural processes or human activity have caused or contributed to erosion and recession of the beach or dune system to such a degree that upland development, recreational interests, wildlife habitat, or important cultural resources are threatened or lost. Critically eroded areas may also include peripheral segments or gaps between identified critically eroded areas which, although they may be stable or slightly erosional now, their inclusion is necessary for continuity of management of the coastal system or for the design integrity of adjacent beach management projects.

The entirety of the Town's bayside shoreline, inclusive of Indian Creek and Point Lake is bulkheaded, and the remainder of the Town is developed and does not experience erosion problems.

Commercially Valuable Minerals

There are no extractable, commercially valuable minerals in the Town.

Development and Redevelopment on Flood Prone Areas

Map FLU 4 FEMA Flood Zones locates the flood zones within the Town. Nearly the entirety of the Town is an AE zone; this zone falls generally west of Collins Avenue. The X zone falls generally east of Collins Avenue; the VE zone is located in a narrow strip along the beach; and the X-500 is represented as a narrow strip located along the north end of Collins Avenue and also along the beach. Existing land uses found within these flood zones are illustrated in the Future Land Use map and described in the Future Land Use Element.

Topography

Map FLU 3 Topography, identifies the topography of the Town. The Town is nearly flat with elevations ranging only from 0 to 10 feet. The vast majority of the Town has an elevation of 5 feet or less. The lowest elevation is found along the oceanfront coastline. The highest elevation is a narrow linear strip that runs approximately along Collins Avenue.

Hazard Mitigation

Within the Town there is the potential for impacts from lightning, floods, tornadoes and tropical storms, but the most significant natural disaster threat the Town needs to plan for is the event of a hurricane. Records indicate that the Town has been brushed by or hit by a tropical storm or a hurricane 73 times in a 143-year period ending in 2016. During a hurricane evacuation, a significant number of vehicles will have to be moved across the local and regional road network. There are limited route choices, Map CST 1 Evacuation Routes identifies the designated evacuation route for the Town. There are no emergency shelters located within the Town. The Miami-Dade County Office of Emergency Management has identified the Town and the entire barrier island as a Zone B evacuation area. The Town has developed a Comprehensive Emergency Management Plan (CEMP).

Goals, Objectives and Policies

Goal 1: *Ensure that the character and location of future land uses provides high economic and quality of life benefits to the Town's residents and business people while preserving the Town's natural resources, residential character and appropriate levels of public services.*

Objective 1 – Coordination of land uses with topography and soils: Maintain existing development and achieve new development and redevelopment which is consistent with the goal above and which otherwise coordinates future land uses with the appropriate topography and soil conditions and the availability of facilities and services. This objective shall be measured by implementation of its supporting policies.

Policy 1.1 – The Town shall maintain, improve and strictly enforce provisions which are consistent with the Future Land Use Map, including the land uses and densities and intensities specified thereon and including the following:

Low Density Residential: up to 8 dwelling units per acre and not more than 30 feet in height. Permitted uses are single family residential use and parks and open space.

Moderate Low Density Residential: up to 17 dwelling units per acre and not more than 30 feet in height. The permitted uses are single family, duplex, and multi-family residential uses, public schools, places of public assembly, and parks and open spaces. This category is the buffer between Harding Avenue commercial uses and single-family residential uses on west side of Abbott Avenue.

Moderate-High Density Residential: up to 79 residential dwelling units per acre or up to 108 hotel units per acre and not more than 40 feet in height. The permitted uses are single family, duplex, and multi-family residential uses, hotels, public schools, places of public assembly, and parks and open spaces.

High Density Residential/Tourist: up to 109 dwelling or hotel units per acre and not more than 120 feet in height. The permitted uses are single family, duplex, and multi-family residential uses, hotels, public schools, places of public assembly, and parks and open spaces.

Moderate Density Residential/Tourist: up to 58 residential dwelling units per acre or up to 108 hotel units per acre and not more than 40 feet in height. The permitted uses are single family, duplex, and multi-family residential uses, hotels, and parks and open space.

General Retail/Services: up to a floor area ratio of 3.0 and not more than 40 feet in height. The permitted uses are commercial uses (professional, retail, office and related parking).

Public Recreation: up to a floor area ratio of 0.05 and not more than 30 feet in height. The permitted uses are smaller Town-owned public parks and the state-owned beachfront east of the erosion control line and immediately adjacent to the Atlantic Ocean.

Private Recreation: up to a floor area ratio of 0.05 and not more than 30 feet in height. The permitted uses are privately owned open space and land between bulkhead and erosion control line (privately owned land).

Public Buildings and Grounds: up to a floor area ratio of 3.0 and not more than 40 feet in height. The permitted uses are Town-owned and publicly-owned land, parks and facilities.

Parking: up to a floor area ratio of 3.0 and not more than 40 feet in height. The permitted use is parking.

Community Facilities: up to a floor area ratio of 3.0 and not more than 70 feet in height. The permitted use is Town-owned facilities for community use. These facilities include the 96th Street Park, Veterans Park/Surfside Tennis Center and the Surfside Community Center.

Policy 1.2 - The Town shall work towards the elimination of existing land uses which are inconsistent with the Town's development pattern and not compatible with the future land uses.

Policy 1.3 – The Town shall continue to utilize the Miami-Dade County Subdivision Regulations and will consider adopting provisions governing subdivisions in the Code of Ordinances. Such provisions shall be consistent with this plan and with the applicable Florida statutory and administrative code guidelines and otherwise conform to the following standards.

Subdivision regulations shall establish rules for platting and subdividing land consistent with the Future Land Use Map and other goals, objectives, and policies of this Comprehensive Plan. They shall establish a plat approval process consisting of preliminary and final plat approval. Final plat approval shall be required prior to construction of subdivision improvements. General and specific design standards shall be included to ensure: 1) appropriate continuity between new streets and existing street; 2) appropriate continuity between new and existing pedestrian accessways; 3) rights-of-way appropriate to traffic carrying characteristics, stormwater management needs, and other pertinent considerations; 4) that access to Collins Avenue and Harding Avenue is controlled and limited; 5) grades, alignments and other design characteristics in accord with the State of Florida Manual of Uniform Minimum Standards for the Design, Construction and Maintenance of Streets and Highways plus such additional highway engineering standards as the Town may determine are necessary from time to time; 6) appropriate configuration of blocks and lots; 7) adequate utility easements; 8) installation of certain utilities underground. The enumeration of specific features of the subdivision regulations contained herein shall be interpreted as establishing minimum guidelines for subdivision regulations, not as precluding additional or higher standards which may have a legitimate public purpose.

Policy 1.4 – The Town shall maintain and enhance as necessary zoning code provisions governing signs including size, placement, and design in order to limit visual clutter.

Policy 1.5 – The Town shall maintain and enhance as necessary existing municipal code provisions regulating storm drainage and in particular regulations that govern floodplain protection and water management design standards. Such provisions shall be consistent with this plan, applicable standards promulgated by the South Florida Water Management District, the South Florida Regional Planning Council, the Miami-Dade County Department of Environmental

Resource Management, the Florida Department of Environmental Protection, and with the applicable Florida statutory and administrative code guidelines.

Policy 1.6 – The Town shall participate in the Community Rating System of the National Flood Insurance Program. Through its building permit and development review process, the Town shall continue to review projects to determine and require conformance with FEMA’s National Flood Insurance Program’s “50% Rule”.

Policy 1.7 – The Town shall maintain a concurrency management system which meets the requirements of Chapter 163, Florida Statutes. The concurrency management system shall specify that no development permit shall be issued unless the public facilities necessitated by a development (in order to meet level of service standards specified in the Transportation, Recreation and Open Space, Public School Facilities, and Infrastructure Policies) will be in place concurrent with the impacts of the development or the permit is conditional to assure that they will be in place.

Policy 1.8 – The Town shall maintain zoning code standards for new development and/or redevelopment that meet high standards for open space, landscaping, on-site circulation, parking and other performance standards.

Policy 1.9 – The Town shall consider the abundance, status and distribution of environmentally sensitive lands and endangered ecosystems when reviewing land use proposals and acquisitions.

~~Policy 1.10 – By 2019, the Town shall prepare a study analyzing the use of net density instead of gross density within the Zoning Code.~~

Policy 1.11 – By 2019, the Town shall prepare a study analyzing the implementation of FAR for residential land use categories.

Objective 2 – Protection of single-family residential areas: Direct future growth and development so as to minimize the intrusion of incompatible land uses into single family residential areas. Achievement of this objective shall be quantified by the implementation of the following policies:

Policy 2.1 – The Town shall maintain a future land use map pattern and zoning pattern which keeps two-family and other incompatible uses out of single-family residential areas.

Policy 2.2 – The Town shall maintain a future land use map pattern and other development regulations which provide effective buffers between single family residential areas and adjacent uses.

Policy 2.3 – The Town shall maintain a future land use map pattern and a traffic circulation pattern which directs through traffic to Collins Avenue and Harding Avenue (State Road A1A).

Policy 2.4 – The Town shall maintain and enhance zoning code standards that regulate massing and scale in order to maintain the historic character and protect the single-family residential district.

Objective 3 – Redevelopment and renewal: Encourage the redevelopment and renewal of blighted areas. The Town shall coordinate public and private resources necessary to initiate needed improvements to

prevent decline and/or redevelopment within currently defined redevelopment areas as well as areas that may in the future exhibit indications of blight or decline.

Policy 3.1 – The Town shall maintain, and improve where appropriate, zoning code regulations which permit the concentration of commercial uses in and around the established Harding Avenue business area.

Policy 3.2 – The Town shall maintain, and improve where appropriate, zoning regulations which permit residential complexes which provide a variety of housing unit sizes and types.

Policy 3.3 – The Town shall maintain, and improve where appropriate, zoning regulations which encourage and/or permit the assemblage of large lots at selected locations on Collins Avenue and Harding Avenue.

Policy 3.4 – The Town shall maintain, and improve where appropriate, zoning regulations which require landscape treatments to improve the appearance of at grade parking areas.

Policy 3.5 – The Town shall maintain, and improve where appropriate, zoning regulations which facilitate the use of plazas, recreational amenities, and abundant landscaping and other open space.

Policy 3.6 – The Town shall maintain a future land use map pattern and other development regulations which limit new tourist facilities to properties in the Moderate Density Residential/Tourist, Moderate-High Residential, and High Density Residential/Tourist land use categories.

Policy 3.7 – The Town shall adopt, maintain, and improve where appropriate, zoning code regulations which help secure a high quality of environment, regarding livability, visual interest, identity and sense of place by implementing the recommendations as presented in the Town’s adopted Design Guidelines.

Objective 4 – Elimination or reduction of uses which are inconsistent with community character: In general, encourage the elimination or reduction of uses which are inconsistent with the community's character and future land uses. In particular, achieve the elimination of all inconsistent land uses. This objective shall be measured by implementation of its supporting policies. ~~{9} 5.006 (3) (b) 3}~~

Policy 4.1 – Inconsistent uses as referred to in Policy 1.3 are hereby defined as any uses which are located on a site where they would not be permitted by this comprehensive plan.

Policy 4.2 – The Town shall maintain and improve land development regulations which protect the rights of property owners to continue non-conforming uses, but which, at a minimum, provide for the termination of such rights upon the abandonment of a non-conforming use for an extended period of time. Land development regulations which require the elimination of non-conforming uses after a period of amortization shall be consistent with this policy and this comprehensive plan in general.

Objective 5 – Ensure protection of natural resources: In general, ensure protection of natural resources. In particular, ensure that stormwater systems which discharge into surface water bodies do not degrade the ambient water quality, particularly the Biscayne Bay Aquatic Preserve.

Policy 5.1–The Town shall monitor the Town's storm drainage system to determine what additional actions may be necessary to improve the storm drainage system.

Policy 5.2 – The Town shall maintain and enforce a storm water management ordinance which requires that future development provide for onsite-storm water retention. The enacted provisions shall be consistent with applicable standards promulgated by the South Florida Water Management District, the South Florida Regional Planning Council, the Miami-Dade County Department of Environmental Resource Management, the Florida Department of Environmental Protection, and/or other agencies with relevant jurisdiction and/or information.

Policy 5.3 – The Town shall prohibit the deposit of solid waste or industrial waste including spent oils, gasoline by-products or greases accumulated at garages, filling stations and similar establishments that create a health or environmental hazard upon any vacant, occupied or unoccupied premises, parkway or park, and in any canal or waterway within the Town

Policy 5.4 – The Town shall cooperate with the Florida Department of Environmental Protection to provide effective and timely reviews of local development proposals for sites east of Collins Avenue, particularly with respect to the requirements of the State Coastal Construction Line.

Policy 5.5 – No new point source discharge of stormwaters into coastal waters shall be permitted.

Policy 5.6 – The Town shall seek the acquisition of property to provide increased permeable surface and other opportunities to control run-off into surface waters including coastal waters so as to protect aquatic vegetation. All publicly-owned property shall be graded and otherwise improved to ensure maximum protection of surface waters.

Policy 5.7 – Consistent with public health and safety, sanitary sewer, solid waste, drainage, adequate water supplies, and potable water facilities shall be in place and available to serve new development no later than the issuance of a certificate of occupancy. Prior to approval of a building permit, the Town shall consult with the water supplier to determine whether adequate water supplies to serve the new development will be available no later than the anticipated date of issuance of a certificate of occupancy.

Policy 5.8 – Proposed future land use map amendments shall be supported with data and analysis from the adopted Town of Surfside ~~15~~ 10-Year Water Supply Facilities Work Plan demonstrating that adequate water supplies and associated public facilities will be available to meet the projected growth demands.

Policy 5.9 – The Town shall ensure coordination between land use and future water supply planning with the adoption and implementation of the Surfside ~~15~~ 10-Year Water Supply Facilities Work Plan within 18 months of the adoption of the Lower East Coast Water Supply Plan, or its update, as required by Chapter 163, Florida Statutes.

Policy 5.10 – The Town shall coordinate land uses and future land use changes with available and projected fiscal resources and a financially feasible schedule of capital improvements for water supply and facility projects.

Policy 5.11 – The Town shall adopt level of service standards to evaluate whether adequate potable water service will be available concurrent with development.

Policy 5.12 – Ensure the adopted Town of Surfside ~~15~~ 10-Year Water Supply Facilities Work Plan is consistent with the Lower East Coast Water Supply Plan and the 2022 Miami-Dade County 10-~~20~~ Year Water Supply Facilities Work Plan.

Policy 5.13 – The Town shall adopt by reference the ~~15~~ 10-Year Water Supply Facilities Work Plan containing projects and an implementation schedule. The Work Plan shall be updated, at a minimum, every five years.

Policy 5.14 – The Town shall provide for the protection of water quality in the traditional and new alternative water supply sources.

Policy 5.15 – No development order shall be issued unless the Miami-Dade Water and Sewer Department (WASD) certifies that adequate potable water supply is available for new development. The Town shall provide monthly reports to WASD, as required, to track the amount of water to be allocated for new uses.

Policy 5.16 – WASD shall determine if adequate potable water supply is available for new development within the Town’s service area.

Objective 6 – Protection of historic resources: The Town shall provide protection of historic resources. In particular, identify and conserve local structures and sites which are of historic significance.

Policy 6.1 – The Town shall provide for appropriate use and protection of known historic structures through the site plan review process.

Policy 6.2 – Prior to commencing any public construction or issuing any permits for private construction, not to include minor construction such as resurfacing of an existing street, construction of a residential fence and/or any other such improvement which will not disturb the archeological assets which lie well below the surface of these areas, within the areas identified as the Surfside Midden and the Surfside Mound, the Town shall notify Miami-Dade County's Historic Preservation Division.

Policy 6.3 – The Town shall coordinate historic resource protection activities, procedures and programs with applicable state and federal laws, policies and guidelines.

Objective 7 – Coordination of population with hurricane evacuation plans: Coordinate population densities with the applicable local or regional coastal evacuation plan and coordinate future land uses by encouraging the elimination or reduction of land uses which are inconsistent with applicable interagency hazard mitigation report recommendations. This objective shall be measured by implementation of its supporting policies.

Policy 7.1 – The Town Manager or designee shall annually assess the Town's existing and permitted population densities to determine if changes are significant enough to transmit such data to the Miami-Dade County Department of Emergency Management and Homeland Security to assist in their hurricane evacuation planning.

Policy 7.2 – The Town shall regulate all future development within its jurisdiction in accordance with the goals and objectives of the “The Local Mitigation Strategy for Miami-Dade County and its Municipalities, Departments and Private Sector Partners” (June 2008). The Town shall periodically

review and revise the Future Land Use Map in light of future interagency hazard mitigation reports in order to reduce or eliminate uses which are inconsistent therewith.

Policy 7.3 – Enhance the efforts of the Miami-Dade County Department of Emergency Management and Homeland Security by providing it with all relevant information.

Objective 8 – Discourage the proliferation of urban sprawl: The Town shall consider changes to the future land use plan based upon energy-efficient land use patterns and discourage the proliferation of urban sprawl. This objective shall be measured by implementation of its supporting policy.

Policy 8.1 – The Town shall support and preserve the Town’s Future Land Use Map and existing land use pattern which provides for a walkable, compact layout of accessible shopping, entertainment, recreation, and employment opportunities for Town residents

Policy 8.2 – The Town shall support and preserve the Town’s existing diverse housing stock which includes both single family and multi-family housing options.

Policy 8.3 – The Town shall continue to allow home based businesses to the extent that impacts are compatible with a residential community.

Policy 8.4 – The Town shall ensure the comprehensive plan and zoning code do not prevent the construction of electric substations within the Town.

Policy 8.5 – The zoning code shall allow for use of alternate, renewable sources of energy including the use of solar panels.

Objective 9 – Drainage and sewer system land needs: Ensure the availability of suitable land for drainage and sanitary sewer system facilities needed to support planned infrastructure improvements. This objective shall be measured by implementation of its supporting policies.

Policy 9.1 – The Town shall maintain and improve code of ordinance provisions for sewer lift stations, stormwater lift stations and collection/infiltration mechanisms and other utility land requirements.

Policy 9.2 – The Town shall not vacate any road right-of-way without first obtaining an engineering opinion determining that the vacated right-of-way is not necessary to accommodate future storm and/or sanitary sewer facilities, all of which are expected to be needed in the future can be accommodated in such rights-of-way.

Objective 10 – Innovative development regulations: Encourage the use of innovative land development regulations. This objective shall be measured by implementation of its supporting policy.

Policy 10.1 – Through its building permit and development review process, the Town shall encourage residents and developers to adhere to the design recommendations as set forth in the Town’s adopted design guidelines.

Policy 10.2 – As necessary, the Town shall review the zoning code’s current permitted uses to determine appropriate revisions or new categories.

Policy 10.3 – The Town shall utilize Best Practices planning research to review and modify zoning code regulations.

Policy 10.4 – The Town shall continue to monitor updates to sea level rise forecasts and take into consideration the most current data when making decisions regarding land use amendments, capital improvements, infrastructure or critical public facilities projects.

Policy 10.5 – The Town shall maintain land development regulations requiring the use of Crime Prevention through Environmental Design.

Policy 10.6 – The Town shall maintain land development regulations that allow reasonable relief from the Town land development regulations or the use restrictions of this Comprehensive Plan in order to address possible unintended violations of the Religious Land Use and Institutionalized Persons Act of 2000 or the Florida Religious Freedom Restoration Act of 1998. For the purpose of allowing such relief, the land development regulations shall provide that religious land uses may be permitted in the areas of the Town as depicted on Map FLU-8 of this Comprehensive Plan.

Objective 11 – Greenhouse gas reduction strategies: The Town shall implement greenhouse gas reduction strategies.

Policy 11.1 – In accordance with Section 255.2575, F.S. the Town will construct all future municipal buildings to meet the United States Green Building Council (USGBC) Leadership in Energy and Environmental Design (LEED) rating system, the Green Building Initiative’s Green Globes rating system, the Florida Green Building Coalition standards, or a nationally recognized, high-performance green building rating system as approved by the Florida Department of Management Services.

Policy 11.2 – The Town shall maintain and improve adopted Design Guideline provisions which encourage the use of the United States Green Building Council (USGBC) Leadership in Energy and Environmental Design (LEED) rating system, the Green Building Initiative’s Green Globes rating system, the Florida Green Building Coalition standards, or a nationally recognized, high-performance green building rating system for both residential and commercial properties. Within two (2) years of adoption of this element, the Town shall explore incentives for use of green building standards in new development and redevelopment.

Policy 11.3 – Continue to investigate the financial feasibility of conducting a “Pedestrian and Bicycle Network Study” to evaluate the cost, funding techniques and sources, and timeline to create a pedestrian and bicycle network that links the Town’s parks, recreational and natural amenities, and business district.

Policy 11.4 – Continue to support and provide bicycle parking facilities at strategic beach access points and at public parks.

Policy 11.5 – The Town shall continue to support transit ready commercial and multi-family development along major transportation corridors.

Policy 11.6 – The Town shall continue to support the existing Miami-Dade County Transit bus routes that service the Town.

~~Policy 11.7 – The Town shall continue to participate in Miami Dade County’s curbside recycling program.~~

Objective 12 - Increase Community resiliency: The Town shall increase community resiliency through land use and built environment decisions.

Policy 12.1 - The Town of Surfside shall encourage greener, more energy-efficient and climate resilient construction practices by:

- a) requiring that the construction or renovation of Town-owned facilities meets Florida Green Building Coalition, US Green Building Council Leadership in Energy and Environmental Design (LEED), or other acceptable commercial building standards;
- b) encouraging commercial builders to require that the construction or renovation of commercial facilities meets Florida Green Building Coalition, US Green Building Council Leadership in Energy and Environmental Design (LEED), or other acceptable commercial building standards;
- c) encouraging licensed Town personnel to maintain LEED Green Associate certification;
- d) re-evaluating finish floor elevation standards with respect to projected sea level rise scenarios and flooding potential, and;
- e) incorporating building design specifications that increase resistance to more frequent and/or intense storm events.
- f) requiring development activities be consistent with, or more stringent than, the flood-resistant construction requirements in the Florida Building Code and applicable Floodplain Management regulations set forth in 44 C.F.R. Part 60.

Policy 12.2 - The Town, shall review and evaluate by ~~2020~~ the zoning code according to sustainable community development practices, such as those outlined in the criteria recommended by the United States Green Building Council’s Leadership in Energy and Environmental Design for Neighborhood Development (LEED-ND) certification, Smart Growth Principals, the Urban Land Institute, or by application of a national rating system for local governments, such as the STAR Community Index™ (STAR) and make recommendations on feasible revisions for incorporating increased sustainability.

Policy 12.3 - An integral part of the Town planning processes shall be considerations for adapting the built environment to the impacts of sea level rise including resource management, flood control and stormwater management, coastal management, community development and capital planning. Adaptation strategy options may include but are not limited to: protection; accommodation; managed retreat; avoidance, and/or; other options.

Objective 13 – Resiliency and sea level rise: Increase opportunities for the community to learn about and participate in decision-making processes regarding resiliency and sea level rise.

Policy 13.1 - The Town of Surfside shall provide information to the public and community stakeholders about the current and potential impacts of climate change and sea level rise, as well as mitigation, protection, accommodation and adaptation strategies.

Policy 13.2 - The Town of Surfside shall continue to support public education and outreach programs addressing issues including but not limited to: energy efficiency; water conservation; solid waste reduction and recycling; urban forests; native landscaping; air quality, greenhouse gas reduction, and climate change adaptation and response planning.



Surfside Comprehensive Plan

Map: FLU 1

Existing Land Use

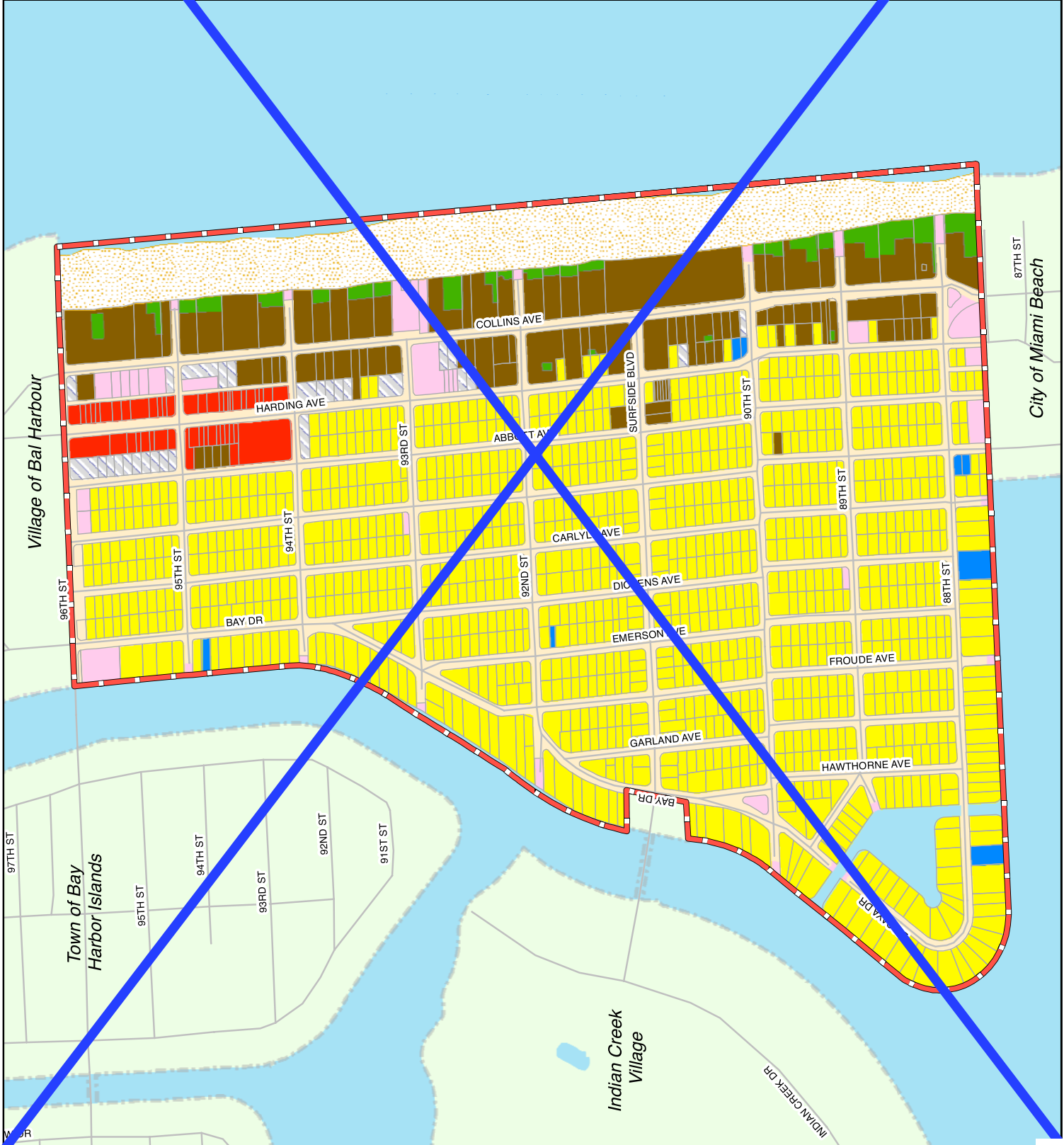
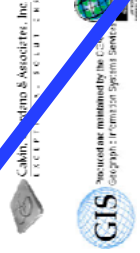
Legend

- Surfside City Limits
- Adjacent City Limits
- Existing Land Use**
- Beach Area
- Community Facilities
- General Retail/Services
- Multi-Family Residential
- Parking
- Private Recreation
- Right of Way
- Single Family Residential
- Vacant
- Water



Print: 6-6-2017

Source: Miami Dade GIS Self Services





Surfside Comprehensive Plan

Map: FLU 1
Existing Land Use

Legend

- Surfside City Limits
- Adjacent City Limits
- Existing Land Use**
- Beach Area
- Community Facilities
- General Retail/Services
- Multi Family Residential
- Parking
- Private Recreation
- Right of Way
- Single Family Residential
- Vacant
- Water



Print: 1-10-2024

Source: Miami-Dade
Property Appraiser 2022
Aerial Photo

Marlin Engineering, Inc.





Surfside Comprehensive Plan

Map: FLU 2

Soils

Legend

Surfside City Limits

Adjacent City Limits

Soils

Beaches

St. Augustine sand

Urban land

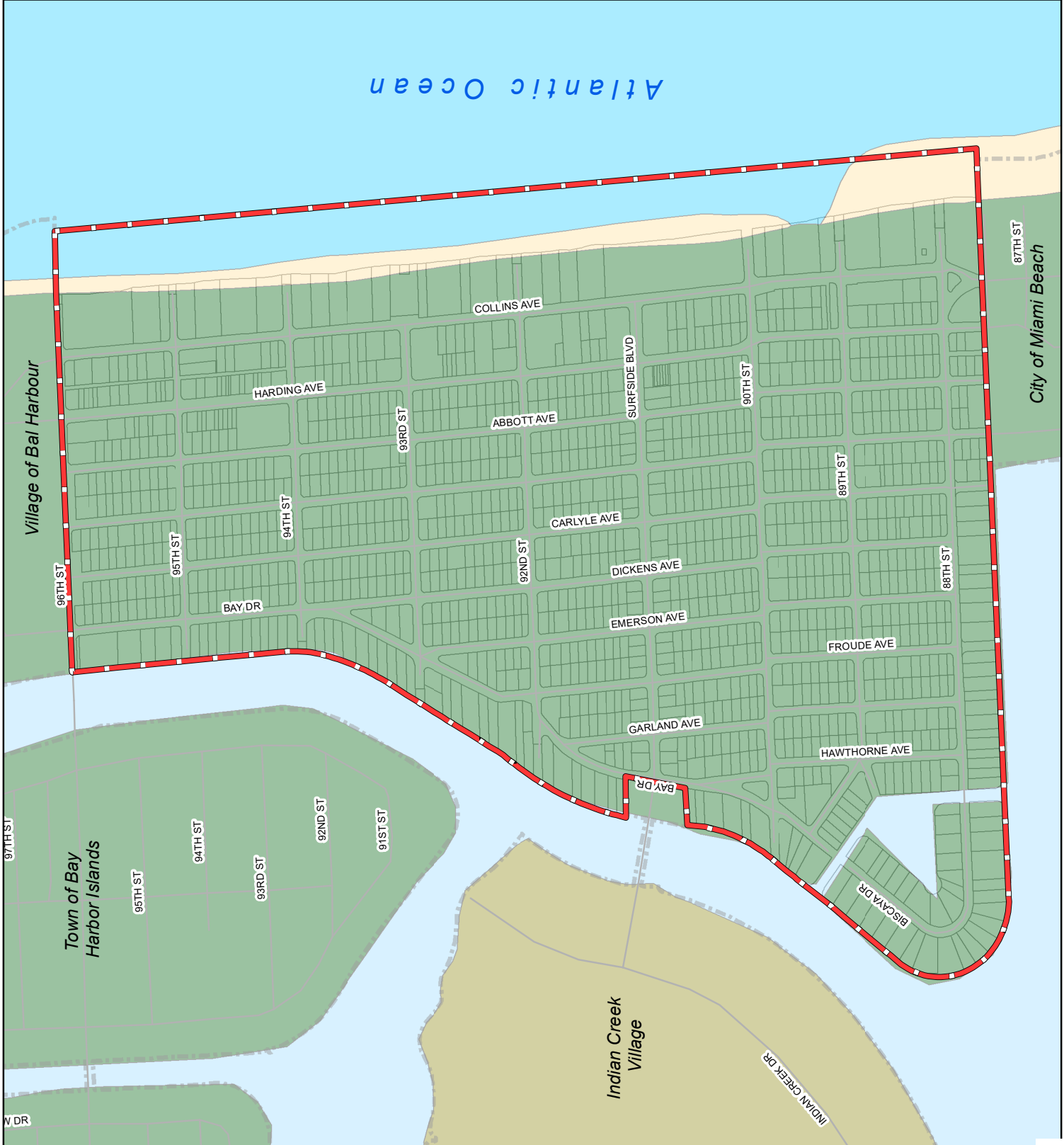
Water

Waters of Atlantic Ocean



Print: 6-6-2017

Source: United States
Department of
Agriculture











Surfside Comprehensive Plan

Map: FLU 3
Topography

Legend

-  Surfside City Limits
-  Adjacent City Limits
-  Water
- Contours**
-  5
-  10
-  15



Print: 6-6-2017

Source: Miami Dade
GIS Self Services

Calvin Giovannone & Associates, Inc.
EXCELLENCE IN SOLUTIONS





Surfside Comprehensive Plan

Map: FLU 4
Flood Zones

Legend

- Surfside City Limits
 - Adjacent City Limits
 - Water
- ### Flood Zones
- AE
 - VE
- Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined
- X
- Areas determined to be outside the 0.2% annual chance floodplain
- X (SHADED)
- Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood



Print: 6-6-2017

Source: Florida Emergency Management Agency





Surfside Comprehensive Plan

Map: FLU 5

Water Bodies

Legend

Surfside City Limits

Adjacent City Limits

Water Bodies

Atlantic Ocean

Intercoastal

Point Lake



Print: 6-6-2017

Source: Miami Dade
GIS Services





Surfside Comprehensive Plan

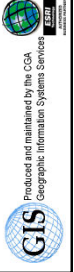
Map: FLU 6
Aerial Map

Legend



Print: 6-6-2017

Source: ArcGIS Services



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



Surfside Comprehensive Plan

Future Land Use Element

Future Land Use (2036)

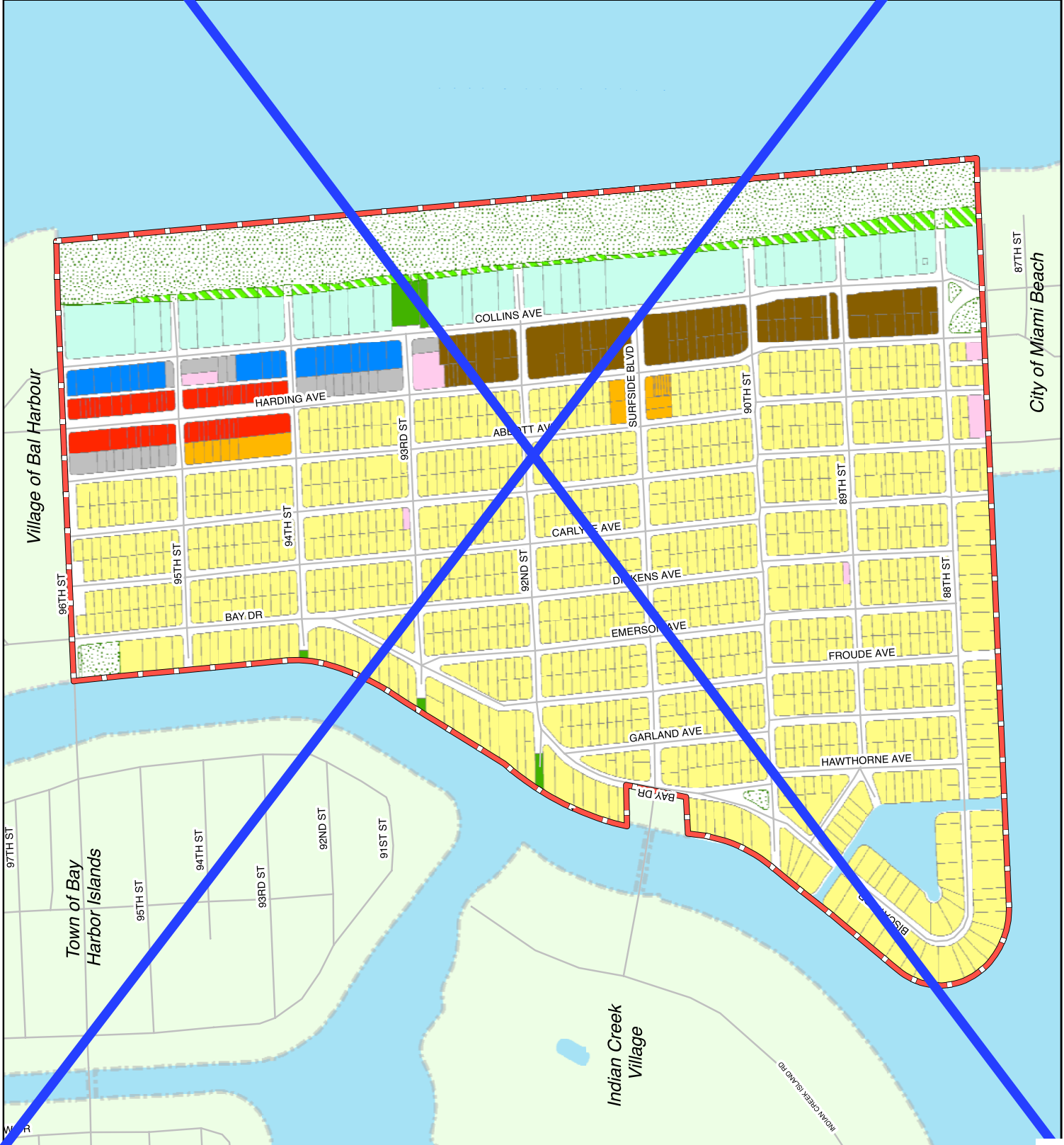
Legend

- Surfside City Limits
- Adjacent City Limits
- Future Land Use**
- Community Facility
- General Retail/Services
- High Density Residential/Tourist
- Low Density Residential
- Moderate Density Residential/Tourist
- Moderate High Density Residential
- Moderate Low Density Residential
- Parking
- Private Recreation
- Public Buildings and Grounds
- Public Recreation



Print: 3-27-2017

Source: Miami Dade GIS Self Services





Surfside Comprehensive Plan

Future Land Use Element

Future Land Use (2044)

Legend

- Surfside City Limits
- Adjacent City Limits
- Future Land Use**
- Community Facility
- General Retail/Services
- High Density Residential/Tourist
- Low Density Residential
- Moderate Density Residential/Tourist
- Moderate High Density Residential
- Moderate Low Density Residential
- Parking
- Private Recreation
- Public Buildings and Grounds
- Public Recreation

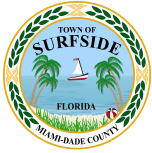


Print: 1-10-2024

Source:
Marlin Engineering, Inc.

Marlin Engineering, Inc.





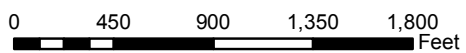
Religious Land Use Relief Procedures



Note: The Charter for the Town of Surfside defines the eastern Town boundary as the low water line of the Atlantic Ocean, which is a non-locatable line. Therefore, based on conditions of tide, erosion or accretion the eastern boundary may shift.

Legend

- Surfside Boundary
- Surfside Streets
- Beach Area
- Allowable Area for Application of Religious Land Use Relief Procedures



Calvin, Giordano & Associates, Inc.
EXCEPTIONAL SOLUTIONS

Map Number: FLU 8
Print Date: May 2013

Produced and maintained by the CGA
Geographic Information Systems Services

Map ID: TS-13-01

3 HOUSING ELEMENT

Data Inventory and Analysis

Purpose

The purpose of the Housing Element is to provide guidance for development of appropriate plans and policies to meet identified or projected deficits in the supply of housing for moderate income, low income and very-low-income households, group homes, foster care facilities and households with special housing needs. These plans and policies address government activities, as well as provide direction and assistance to the efforts of the private sector.

Assuring the continued provision of affordable housing is an ongoing challenge as the Town is almost completely built out. Moreover, half of the Town is in a coastal high hazard area, and Florida Statutes compel local governments to direct population concentrations away from known coastal high hazard areas and limit public expenditures that subsidize development permitted in these areas. However, the Town of Surfside has made efforts to maintain an affordable housing stock through infrastructure improvements and proactive code compliance which extend the lifespan of the Town and provide for continuance of a quality area.

Housing Inventory

Information from the U.S. Census Bureau and the Florida Housing Data Clearinghouse (Shimberg Center) has been used to provide many of the following comparative characteristics between Surfside and Miami-Dade County as this is the best available data.

Housing Type: Residential use is a major development characteristic of Surfside. The 4,035 total housing units reported for the Town in 2015 comprised 0.40 percent of the County's total housing stock of 998,833 reported units. As of March 2017, there were 216.26 acres that had an existing land use of residential. This represents approximately 58.7 percent of the Town's total land area of 368.5 acres. Since the Town's portion of units is still less than one percent of the County total, comparisons are not included in the new tables.

The 5 Year data for the American Community Survey (ACS) for 2016-2020 was utilized to estimate the housing characteristics for the Housing Element. The 2011-2015 American Community Survey (U.S. Census) determined approximately 68 percent (2,691 units) of housing units in Surfside were multi-family (2 or more), while single family homes made up 32 percent (1,287 units) of the Town's housing stock. The same survey by the Census Bureau identified 57 mobile home units in Surfside. However, there are no mobile homes existing today. Total units and the percentage of housing inventory by type of unit are shown in Table 3-1.

Table 3-1. Dwelling Units by Structure Type, 2015 (Old)

Dwelling Units	Surfside		Miami-Dade County	
	Number	Percent	Number	Percent
SINGLE FAMILY:	1,287	32%	504,330	50.4%
<i>1, detached</i>	1,236		405,953	
<i>1, attached</i>	51		98,377	
MULTI-FAMILY:	2,691	68%	494,503	49.6%
<i>2</i>	21		20,666	
<i>3 or 4</i>	13		35,242	
<i>5 to 9</i>	20		51,791	
<i>10 to 19</i>	186		67,651	
<i>20 or more</i>	2,451		305,520	
MOBILE HOMES	57	0%	13,144	0%
OTHER	0	0%	489	0%
TOTAL	4,035	100%	998,833	100%

Source: 2011-2015 American Community Survey 5-Year Estimates (U.S. Census)

Table 3-1. Dwelling Units by Structure Type, 2020 (New)

Dwelling Units	Surfside	
	Number	Percent
SINGLE FAMILY:	<u>1,138</u>	<u>29.2%</u>
<i>1, detached</i>	<u>1,032</u>	
<i>1, attached</i>	<u>106</u>	
MULTI-FAMILY:	<u>2,762</u>	<u>70.8%</u>
2	<u>43</u>	
3 or 4	<u>68</u>	
5 to 9	<u>132</u>	
10 to 19	<u>424</u>	
20 or more	<u>2,105</u>	
MOBILE HOMES	<u>0</u>	<u>0%</u>
OTHER	<u>0</u>	<u>0%</u>
TOTAL	<u>3,900</u>	<u>100.0%</u>

Source: 2016-2020 American Community Survey 5-Yr Est (U.S. Census)

Housing Tenure: Housing tenure refers to the occupancy of a unit, either owner-occupied or renter-occupied. The 2010 U.S. Census reported 70 percent of households in Surfside were owner-occupied in 2010. (Statewide, Florida’s homeownership rate ~~was~~ is 67.7 percent.) ~~The remaining 30 percent were renter-occupied households.~~ Housing tenure characteristics are detailed in Table 3-2. The owner-occupied units totaled 59.1% in 2020 based on the 2016-2020 ACS results.

Table 3-2. Households by Tenure, 2010

Tenure	Surfside		Miami-Dade County	
	# of Households	Percent	# of Households	Percent
Owner Occupied	1,830	70%	483,874	55.6%
Renter Occupied	771	30%	383,478	44.2%
Total Occupied Units	2,609	100%	867,352	100%

Source: 2010 U.S. Census

Table 3-2. Households by Tenure, 2020

Tenure	Surfside	
	# of Households	Percent
Owner Occupied	1,350	59.1%
Renter Occupied	935	40.9%
Total Occupied Units	2,285	100.0%

Source: 2016-2020 American Community Survey 5-Year Estimates (U.S. Census)

Housing Vacancy: Table 3-3 shows the housing vacancy characteristics for Surfside and Miami-Dade County as estimated in the 2016-2020 ACS survey, reported in the 2010 Census. At the time of the 2010 Census, 1,281 housing units in Surfside were vacant out of 3,890 total units reported. This represents a vacancy rate of 32.9 percent for the Town, which is significantly more than the overall Miami-Dade County rate of 12.3 percent. This high vacancy rate is largely attributed to Surfside’s seasonal residents. If units which had been rented or sold that were awaiting occupancy and units held for occasional/seasonal use were eliminated from this figure, Surfside’s vacancy rate was 4.7 percent as shown in Table 3-3. There were 43 vacant housing units for sale and 140 vacant units for rent. Table 3-3 estimates that 41.7% of Surfside’s residential units were vacant. Based on prior Census counts, seasonal or occasional use would be the major reason for this situation.

Table 3-3. Housing Vacancy, 2010 (Old)

Status	Surfside		Miami-Dade County	
	# of Units	Percent	# of Units	Percent
For rent	140	10.9%	37,848	31.0%
For sale	43	3.4%	16,156	13.2%
Other	105	8.2%	24,425	20.0%
For migrant workers	0	0%	41	0%
Seasonal, recreational, occasional use	962	75.1%	38,302	31.4%
Rented or sold, not occupied	31	2.4%	5,311	4.4%
TOTAL	1,281	100%	122,083	100%

Source: 2010 U.S. Census

Table 3-3. Housing Vacancy, 2020 (New)

Status	Surfside	
	# of Units	Percent
For rent	<u>51</u>	<u>3.1%</u>
For sale	<u>0</u>	<u>0.0%</u>
Other	<u>262</u>	<u>16.1%</u>
For migrant workers	<u>0</u>	<u>0.0%</u>
Seasonal, recreational, occasional use	<u>1,224</u>	<u>75.3%</u>
Rented or sold, not occupied	<u>88</u>	<u>5.4%</u>
TOTAL	<u>1,625</u>	<u>100%</u>

Source: 2016-2020 American Community Survey 5-Year Estimates (U.S. Census)

Tables 3-4 through 3-11 and 3-13 will be updated at the next update of the Comprehensive Plan.

Housing Age: The age of housing structures is distributed relatively evenly throughout the past several decades, with units built in the 1990s being the high percentage at 27%. Table 3-4 lists the age of housing structures reported by the U. S. Census Bureau. Approximately 38% of all housing units are over 50 years old. Many of these are in sound condition, others have gone through renovations, and some are being demolished and replaced with new structures. Overall, the older structures are well maintained, demonstrating that the Town has been successful in maintaining adequate housing, thus minimizing any potential of deterioration.

Table 3-4. Age of Housing Structures

Year Built	Surfside		Miami-Dade County	
	# of Units	Share by Decade	# of Units	Share by Decade
2010-2015	7*	0.2%	9,227	0.9%
2000-2009	499	12%	143,228	14.3%
1990-1999	1,071	27%	120,731	12.1%
1980-1989	600	15%	154,249	15.4%
1970-1979	301	7.4%	191,022	19.1%
1960-1969	437	11%	133,681	13.4%
1950-1959	528	13%	148,946	14.9%
1940-1949	463	11.4%	59,113	5.9%
1939 or earlier	136	3%	38,636	3.9%
TOTAL	4,042**	100%	998,833	100%

Source: 2011-2015 American Community Survey 5-Year Estimates (U.S. Census Bureau); *Town of Surfside Building Department; **U.S. Census and Town of Surfside

Monthly Housing Rent: Table 3-5 compares the monthly gross rents for specified renter-occupied housing units in the Town with the Miami-Dade County totals for the year 2015. The median rent paid by Surfside households in 2010 was \$1,897 per month, compared to a countywide median rent of \$1,112, and a statewide median rent of \$1,002. Rents in the Town of Surfside are significantly higher than in the County as a whole. In Miami-Dade County and the surrounding metro area, the HUD Fair Market Rent in 2016, representing rent for a typical modest apartment, was \$774 for a studio apartment, \$975 for a one-bedroom, \$1,250 for a two-bedroom, \$1,671 for a three-bedroom, and \$1,987 for a four-bedroom unit. Municipality-specific information for 2016 is not available.

Table 3-5. Monthly Gross Rent, Renter-Occupied Housing Units, 2015

Contract Rent	Surfside		Miami-Dade County	
	# of Units	Percent	# of Units	Percent
Less than \$500	0	0%	32,247	8.6%
\$500-999	18	2.0%	118,453	31.5%
\$1,000-1,499	146	16.2%	138,105	36.7%
\$1,500-1,999	360	40.0%	57,888	15.4%
\$2,000-2,499	315	35.0%	17,762	4.8%
\$2,500-2,999	18	2.0%	5,571	1.5%
\$3,000 or more	43	14.8%	5,333	1.5%
TOTAL	900	100%	375,359	100%
Median rent per month	\$1,897		\$1,112	

Source: 2011-2015 American Community Survey 5-Year Estimates (U.S. Census)

Housing Value: Based on figures delineated from the Miami-Dade County Property Appraiser, the average just value (fair market value) for a single-family home in Surfside in 2016 was \$690,004, which is significantly more than the countywide average (\$335,332). Statewide, the average value of a single-family home in Florida in 2016 was \$219,681. Condominiums also had a significantly higher value in Surfside. In 2016, the average value of condominiums in Surfside was \$528,783, compared with the County average condominium value of \$288,271. Table 3-6 shows the value of owner-occupied housing units in the Town as reported by the U.S. Census Bureau.

Table 3-6. Median Home Value of Owner-Occupied Housing Units, 2015

Value	Surfside	
	# of Units	Percent
Less than \$50,000	45	3.5%
\$50,000-99,999	29	2.3%
\$100,000-149,999	40	3.1%
\$150,000-199,999	63	5.0%
\$200,000-299,999	41	3.2%
\$300,000-499,999	382	30.1%
\$500,000-999,999	525	41.3%
\$1,000,000 or more	146	11.5%
TOTAL	1,271	100%

Source: 2011-2015 American Community Survey 5-Year Estimates (U.S. Census)

Median Sales Price: The average sales price for a single-family home in Surfside was \$1,028,696 in 2016. The median sales price that year was \$717,250, compared to a countywide and statewide median sales price of \$289,000 and \$212,000 respectively. Table 3-7 charts the median sales price for single family homes and condominiums in Surfside and Miami-Dade County from 2010 through 2016. Sale prices have steadily risen since the 2008 Recession and have now past the 2006 previous high mark.

Table 3-7. Median Home Sales Prices, 2010-2016

Year	Single Family		Condominium	
	Surfside	Miami-Dade County	Surfside	Miami-Dade County
2010	\$350,000	\$210,000	\$230,000	\$185,000
2011	\$372,500	\$199,000	\$220,000	\$165,000
2012	\$427,000	\$210,000	\$300,000	\$170,000
2013	\$500,000	\$245,000	\$417,500	\$200,000
2014	\$540,000	\$261,990	\$440,000	\$221,000
2015	\$679,000	\$281,000	\$814,100	\$248,500
2016	\$717,250	\$289,000	\$675,000	\$225,000

Source: Miami-Dade County Property Appraiser tax roles, compiled by Shimberg Center – Florida Housing Data Clearinghouse

Monthly Owner-Occupied Costs: Of the total number of owner-occupied housing units in Surfside, 41.7% (530 units) were mortgaged and 58.3% (741 units) were not mortgaged according to the U.S. Census Bureau in 2015. Table 3-8 shows the monthly owner costs of owner-occupied housing units in the Town in 2015. Over 50% of the Town’s owners with mortgaged units are paying over \$3,000 in monthly cost compared to only 13.2% of owners in Miami-Dade County overall.

Table 3-8. Monthly Costs of Owner-Occupied Housing Units, 2015

Mortgage Status and Elected Monthly Costs	Surfside		Miami-Dade County	
	# of Units	Percent	# of Units	Percent
Mortgaged Units	530	100%	294,099	100%
<i>Less than \$500</i>	0	0.0%	2,887	1.0%
<i>\$500-999</i>	22	4.2%	34,725	11.8%
<i>\$1,000-1,499</i>	53	10.0%	78,273	26.7%
<i>\$1,500-1,999</i>	83	15.7%	73,270	24.9%
<i>\$2,000-2,499</i>	65	12.3%	43,192	14.7%
<i>\$2,500-2,999</i>	41	7.7%	22,705	7.7%
<i>More than \$3,000</i>	266	50.2%	39,047	13.2%
Non-Mortgaged Units	741	100%	158,727	100%
<i>Less than \$250</i>	0	0%	15,378	9.7%
<i>\$250-399</i>	55	7.4%	31,615	19.9%
<i>\$400-599</i>	73	9.9%	39,824	25.1%
<i>\$600-799</i>	84	11.3%	26,386	16.6%
<i>\$800-999</i>	147	19.8%	15,329	9.7%
<i>More than \$1,000</i>	382	51.6%	30,195	19.0%
TOTAL REPORTED UNITS	1,271	100%	452,826	100%

Source: 2011-2015 American Community Survey 5-Year Estimates (U.S. Census)

Affordable Housing Needs

Cost Burden: Cost-burdened households pay more than 30 percent of income for rent or mortgage costs. Data for this section has been supplied by the Florida Housing Data Clearinghouse. The data indicates that 1098 households within the Town (42%) paid more than 30% of income for housing compared to 53% of County households paid more than 30% of income for housing. Statewide, 42% of households are considered cost burdened.

Table 3-9. Amount of Income Paid for Housing Household by Cost Burden, 2015

A. Owner-Occupied Households, 2015								
	NO COST BURDEN		COST BURDEN				Total Owners	
	0% - 30%		30% - 50%		50% or more			
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Surfside	1,194	64.5%	236	12.7%	421	22.7%	1,851	100%
Miami-Dade County	288,027	55.0%	111,915	21.2%	126,575	24.0%	526,517	100%
B. Renter-Occupied Households, 2015								
	0% - 30%		30% - 50%		50% or more		Total Renters	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Surfside	323	42.3%	217	28.4%	224	29.3%	764	100%
Miami-Dade County	155,027	37.4%	107,612	26.0%	151,963	36.6%	414,602	100%

Source: Miami-Dade County and Town of Surfside data taken from Shimberg Center – Florida Housing Data Clearinghouse.

Per Table 3-9, Surfside had lower percentages of residents with a housing cost burden than Miami-Dade County. In addition, according to the U.S. Census Bureau, the 2015 median household income in Surfside was almost twice that of Miami-Dade County (\$78,443 compared to \$43,129). Many Surfside residents choose to purchase homes at a higher value, resulting in a self-imposed cost burden, rather than the forced cost burden experienced throughout Miami-Dade County.

Household Income: In Table 3-10, household income is measured as a percentage of the median income for the County or area, adjusted for size. In Surfside and the surrounding metro area, the HUD-estimated median income for a family of four is \$48,100 in 2016. Data for this section has been supplied by the Florida Housing Data Clearinghouse. Of the 2,398 households identified by the U.S. Census Bureau in Surfside in 2015, 478 (20 percent) were both cost-burdened and in the low or very-low-income bracket.

Table 3-10. Households by Tenure, Income, and Cost Burden, 2015

Households, 2015			
	Household Income as a Percentage of Area Median Income (AMI)		
	0 – 50% AMI	50.01 – 80% AMI	80.01 +
	Very Low	Low	Moderate +
No Cost Burden	63	82	1,333
At 30% or More Cost Burden	83	51	319
At 50% or More Cost Burden	241	103	123

Source: Florida Housing Data Clearinghouse (Shimberg Center)

Elderly Households: According to the Florida Housing Data Clearinghouse, 985 households in Surfside (37.7 percent) were headed by a person age 65 or older in 2015. In comparison, 29.6 percent of households statewide were headed by elderly persons. In Surfside, 839 of elderly households (85.2 percent) own their homes, while 399 elderly households (40.5 percent) pay more than 30 percent of income for rent or mortgage costs.

Housing Conditions

Substandard Housing: Individual housing units may be considered substandard if the unit lacks of complete plumbing for exclusive use of the residents, lack of complete kitchen facilities, lack of central heating, and overcrowding. The U.S. Census Bureau provides data regarding these interior conditions of the housing stock. Table 3-11 contains a summary of the measures of substandard housing conditions for Surfside and Miami-Dade County. In 2015, the American Community Survey 5-Year Estimates indicated that out of 2,220 occupied housing units 160 housing units (7.3 percent of all units) in Surfside were statistically overcrowded, meaning they housed more than one person per room, compared to a countywide percentage of 5.9 percent. Surfside has more homes without heating than average of the county, which may be due to the age of the homes. However, because Surfside is a coastal community in the subtropics, the Town does not consider units without heating a substandard condition. Code enforcement operations have proven effective in ensuring that substandard housing conditions are taken care of in a timely manner.

Table 3-11. Condition of Housing Stock Summary, 2015

Substandard Condition	Surfside		Miami-Dade County	
	# of Units	Percent	# of Units	Percent
Overcrowded (more than one person per room)	160	7.3%	49,683	5.9%
Lacking complete kitchen facilities	0	0%	5,964	0.7%
Lacking central heating (No Fuel Used)	177	8.0%	41,251	4.9%
Lacking complete plumbing facilities	0	0%	3,107	0.4%

Source: 2011-2015 American Community Survey 5-Year Estimates (U.S. Census)

Subsidized Housing: Chapter 163.3177(f), F.S. requires local housing elements to provide an inventory of renter-occupied housing developments currently using federal, state, or local subsidies. Surfside has no such facilities.

Community Residential Facilities: Chapter 163.3177(f), F.S. requires local housing elements to provide an inventory of group homes licensed by the Florida Department of Children and Family Services. A “community residential home” means a dwelling unit licensed to serve residents who are clients of the Department of Elderly Affairs, the Agency for Persons with Disabilities, the Department of Juvenile Justice, or the Department of Children and Family Services. Surfside has no such facilities.

Mobile Homes: Chapter 163.3177(f), F.S. requires local housing elements to provide an inventory of existing mobile home. Although 57 mobile homes were identified by the U.S. Census Bureau in the 2011-2015 American Community Survey, the Town has neither mobile home parks nor any more mobile homes.

Historically Significant Housing: Chapter 163.3177(f), F.S. requires local housing elements to provide an inventory of historically significant housing listed on the Florida Master Site File, National Register of Historic Places, or designated as historically significant by a local ordinance. The Florida Master Site File, includes 33 records for the Town of Surfside: three (3) archaeological sites; three (3) resource groups; and 27 structures of which seven (7) are no longer in existence. Miami-Dade County Office of Historic Preservation within the Regulatory and Economic Resources Department also identifies historic resources and designates historic properties and districts. The County has designated three (3) properties and one (1) district within the Town of Surfside. The aforementioned County designated historic resources are discussed further in the Future Land Use Element in Table 1-6.

Farmworker Housing: There are no rural or farmworker households within the Town.

Needs Assessment

Population Projections: Chapter 163.3177(f), F.S. requires that an affordable housing assessment be performed.

The Florida Housing Data Clearinghouse (Shimberg Center) has supplied data to be used in this section of the Housing Element. The data suggests that the Town population will decrease for the ~~remain fairly stable over the next 20 years with the possibility of a modest 14.1% growth rate between 2010 and 2035.~~ Table 3-12 illustrates the population projections prepared by the Shimberg Center. Note, the Town believes these resident population estimates to be low based on redevelopment activity over the last 3 years.

Table 3-12. Population Projections, 2010-2035

	2010	2015	2020	2025	2030	2035
Surfside	5,744	5,705	5,952	6,181	6,398	6,556

Source: Florida Housing Data Clearinghouse (Shimberg Center)

Table 3-12. Population Projections, 2020-2045

	2020	2025	2030	2035	2040	2045
Surfside	5,689	5,466	5,293	5,105	4,908	4,710

Source: 2020 US Census, others by Florida Housing Data Clearinghouse (Shimberg Center)

Although the Town is expected to have an adequate supply of existing and newly constructed residential units to meet future demand, some of the households will be faced with a cost burden. The following tables provide a more detailed needs assessment as supplied by the Florida Housing Data Clearinghouse.

Affordable Housing Demand: Table 3-13 presents the very-low-, low-, and moderate-income housing needs estimates and projections through 2035.

Table 3-13. Projected Housing Affordability by Income, Surfside, 2010-2035

Year	Household Income as a Percentage of Area Median Income (AMI)			
	0-50% AMI	50.01-80% AMI	80.01-120% AMI	120.01+% AMI
	Very-Low	Low	Moderate	Above Moderate
2010	595	235	783	1,000
2015	604	236	781	994
2020	639	248	818	1,032
2025	674	257	852	1,070
2030	709	268	886	1,092
2035	735	275	909	1,110

Source: Florida Housing Data Clearinghouse (Shimberg Center)

The analysis suggests that 180 of the additional households projected through 2035 will have an income less than 80 percent of the area median income. Overall, these projections point out the stability of income and population in the Town.

Conclusion

A major goal of the Town is to achieve a range of housing that accommodates both existing and future residents’ affordable opportunities. The Town’s demographics are shifting from an aging snowbird population to young families. Many of the newer residents are adding new additions and tearing down older homes to building new single-family structures. Fortunately, many senior residents purchased their homes 20 to 30 years ago, when prices were much lower. While many seniors have held on to their homes and have not been negatively affected by the soaring real estate prices, many of the newcomers are in the high and upper high ranges of income, having less of a need for low- and moderate-income housing.

The Town has several hotels and two blocks of commercial in its jurisdictional boundaries. This has limited the number of workers entering the Town and needing housing. Previously, there were a number of hotels, which would have generated the need for additional housing. These hotels have either been torn down to make way for new condominiums or they have been converted into condominiums. This has reduced the need for low- and moderate-income housing in the Town. Moreover, the large numbers of well-maintained small single-family units and older multi-family units have provided a variety of housing choices for this area.

Despite these realities, the Town recognizes the need for affordable housing in order to support economic development and sustainability of the region. The Town’s geography—a barrier island bounded by the Atlantic Ocean on the east, Indian Creek and Biscayne Bay on the west—makes the provision of affordable housing even more of a challenge. Due to the area surroundings, it contains unusually high property values. Compounding the situation, 47% of the Town is within the Coastal High Hazard Area and Chapter 163 F.S. does not permit jurisdictions to direct affordable housing into coastal high hazard areas.

The Harding Avenue and Collins Avenue corridors have several older multi-family dwelling units which provide some of the most affordable housing opportunities in Surfside. The Town has made efforts to maintain an affordable housing stock in these corridors through the completion of several roadway, and drainage. These infrastructure improvements, along with proactive code enforcement activities, have contributed to extending the lifespan of the neighborhood, providing for continuance of a quality area. The age and size of the units along Harding Avenue and Collins Avenue provide a decent amount of affordable housing in the Town and through Surfside’s continuing improvement efforts, this area can maintain its affordable status. However, a number of properties are undergoing redevelopment. To help preserve the nature and character of the corridor, Miami-Dade County Historic Preservation has designated a historic district along one of the blocks.

Goals, Objectives and Policies

Goal: *Provide decent, safe and sanitary housing in suitable locations at affordable costs to meet the needs of the Town's existing and future residents.*

Objective 1 – Development of new dwelling units: The Town of Surfside shall provide for adequate and affordable housing for existing and future residents, households with special housing needs, and very low-, low-, and moderate-income households through the short term and long-term planning timeframes.

Policy 1.1 – The Town shall provide information and assistance to the private sector to maintain a housing production capacity sufficient to meet the identified demands.

Policy 1.2 – The Town Code shall provide processes in an effort to provide more efficient mechanisms for reviewing proposed housing developments.

Policy 1.3 – The Town Code shall maintain appropriate regulations which enable Town officials to work with the private sector to renovate buildings as needed.

Policy 1.4 – Update Housing Element Tables 3-4 through 3-11 and 3-13 at the next update of the Comprehensive Plan.

Objective 2 – Creation of affordable housing: In general, create affordable housing for all current and anticipated future residents. In particular, facilitate development of as much new affordable housing as the market economics and available subsidies can generate. This objective shall be made measurable by its implementing policies.

Policy 2.1 – The Town manager or designee shall monitor the housing and related activities of the Miami-Dade County Housing Within Reach Taskforce, Miami-Dade Housing Agency (MDHA), the South Florida Regional Council and nearby local jurisdictions. The Town Manager shall inform the Town Commission of these activities and shall recommend, as appropriate, Town actions that could help encourage the provision of adequate sites for the distribution of very low income, low income and moderate-income families in nearby communities with land values that can reasonably accommodate such housing. Among the actions that may be considered are specific agreements with other local governments concerning the provision of affordable housing.

Policy 2.2 – The Town shall maintain and improve where appropriate land development code provisions which are consistent with the Future Land Use Map including the land uses and the densities and intensities specified thereon and the descriptions of the requirements of those categories, which appear in this Future Land Use Element under the heading “Future Land Use Category Descriptions.”

Policy 2.3 – The Town shall periodically review: 1) its own development permitting procedures; 2) best current practice employed by other jurisdictions; and 3) best current practice reported in relevant professional literature. The purpose of the review shall be to determine if there are appropriate procedural and substantive changes which could facilitate more expeditious development application processing.

Policy 2.4 – Manufactured housing shall not be prohibited in any area designated by this plan for residential use. Mobile homes shall not be permitted in the Town unless they meet the same standards as manufactured homes.

Policy 2.5 – Housing for very low income, low income and moderate-income households shall not be prohibited per se in any area designated by this plan for residential use.

Objective 3 – Preservation of affordable housing: In general, preserve affordable housing for all current and anticipated future residents. In particular, preserve the existing housing stock in sound condition. This objective shall be made measurable by its implementing policies.

Policy 3.1 – The Town shall maintain as part of its own land development code the County minimum housing standards code or an appropriate modification thereof.

Policy 3.2 – The Town shall from time to time informally evaluate alternate strategies to guide enforcement of the County minimum housing standards code so as to achieve maximum effectiveness. It is recognized by this policy that systematic and ad hoc inspections might be most appropriate at different times and in different sub areas of the Town.

Policy 3.3 – Through land development code regulations including minimum unit sizes, maximum building heights, and setback standards, the Town shall help assure the continuation of stable residential neighborhoods.

Objective 4 – Eliminate substandard housing; structurally and aesthetically improve housing; conserve, rehabilitate and demolish housing: In general, eliminate substandard housing conditions structurally and aesthetically improve housing, conserve, rehabilitate and demolish housing. In particular, encourage private property owners to maintain and improve their properties so as to protect property values and ensure safe and sanitary housing. This objective shall be made measurable by its implementing policies and by the existence of no substandard housing units in the Town.

Policy 4.1 – Require owners of substandard structures to promptly renovate or remove such structures.

Policy 4.2 – The Town shall assist owners of substandard historic housing to obtain financial assistance for renovation from Miami-Dade County, State of Florida or Federal sources.

Policy 4.3 – The Town shall work with Miami-Dade County officials to maintain an effective housing code enforcement program.

Policy 4.4 – On a continuous basis, the Town’s Building Department shall maintain an accurate inventory of the housing units within the Town via the utility billing process.

Objective 5 – Provision of adequate sites for very low-, low- and moderate-income households: In general, provide adequate sites for very low-, low- and moderate-income households. In particular, facilitate development of as much new affordable housing as the market economics and available subsidies can generate. This objective shall be made measurable by its implementing policies.

Policy 5.1 – Monitor the actions of the Miami-Dade County Government relative to the development of very low-, low- and moderate-income housing facilities to serve County residents. The purpose of such monitoring shall be to identify activities to which the Town of Surfside may make a specific contribution.

Policy 5.2 – Assist Miami-Dade County to identify housing units which may be eligible for participation in the Miami-Dade Housing Finance Authority’s Multi-Family Rental Program.

Objective 6 – Adequate sites for group homes: Accommodate community residential homes and foster care facilities in residential areas. This objective shall be made measurable by its implementing policies.

Policy 6.1 – Notify the Florida Department of Children and Family Services of applications to construct Community Residential Facilities.

Policy 6.2 – The Town shall maintain and improve land development code regulations which permit Children and Family Services licensed group homes, including foster care facilities. Such regulations shall permit community residential homes and foster care facilities in residential areas and areas with residential character and shall otherwise be designed to meet State law in general and Chapter 419, F.S., in particular. Prior to enactment of such regulations, the Town shall interpret and enforce applicable existing regulations in a manner which is fully consistent with State law and administrative code requirements pertaining to group homes.

Objective 7 – Housing coordination and implementation: The Town Manager shall be responsible for achieving housing policy implementation.

Policy 7.1 – The Town shall maintain formal communications with appropriate public and private and non-profit housing agencies to assure that adequate information on Town housing policies flows to housing providers. This list shall include the Miami-Dade Housing Agency, Housing Finance Authority of Miami-Dade County, the Miami-Dade Affordable Housing Foundation, the Board of Realtors and the Home Builders Association.

Policy 7.2 – The Town shall fully cooperate with any developer using County Surtax funds, the Housing Finance Authority of Miami-Dade County or other subsidy mechanisms.

Objective 8 – Greenhouse Gas Reduction. The Town shall support energy efficiency and the use of renewable energy resources in existing housing and in the design and construction of new housing.

Policy 8.1 – The Town shall encourage support for residential construction that meets the United States Green Building Council (USGBC) Leadership in Energy and Environmental Design (LEED) rating system, the Green Building Initiative’s Green Globes rating system, the Florida Green Building Coalition standards, or other nationally recognized, high-performance green building rating system as recognized by the Florida Department of Management Services.

Policy 8.2 – The Town shall educate Surfside residents on home energy reduction strategies.

Policy 8.3 – The Town shall not prohibit the appropriate placement of photovoltaic panels. The Town shall develop and adopt review criteria to establish the standards for the appropriate placement of photovoltaic panels.

Policy 8.4 – The Town shall provide educational materials on the strategic placement of landscape materials to reduce energy consumption.

4 INFRASTRUCTURE ELEMENT

Data Inventory and Analysis

Potable Water

This section evaluates the potable water system serving the Town of Surfside inclusive of all structures designed to collect, treat, and distribute potable water in addition to water wells, treatment plants, reservoirs and distribution mains.

Miami Dade County Water and Sewer Department Geographic Service Area

The Town of Surfside's potable water is provided by a system operated by the Miami-Dade County Water and Sewer Department (MDWASD) which provides service for approximately 2.6 million customers in Miami-Dade County. The MDWASD water service area illustrated in Figure 3.1 (Appendix 4-A Town of Surfside 15-Year Water Supply Facilities Work Plan) is interconnected and functions as a single service area. The Town of Surfside is serviced by the Hialeah-Preston Water Treatment Plant service area which includes the northern part of Miami- Dade County.

The water is distributed to residents and commercial business by approximately 11 miles of cast iron pipe installed in 1938. Primary mains feeding the system run under the Town's streets and vary in size from 6-inch to 16-inches in diameter, which feed three-inch and four-inch water lines located along the rear property lines.

Water Source

The source water for the Hialeah Water Treatment Plant (WTP) is from the Hialeah-Miami Springs Wellfields, supplemented by the Northwest Wellfield. There are three active wells located in the Hialeah Wellfield constructed in 1936. Each well is 14 inches in diameter, 115 feet deep and have casing depths of 80 feet. The total wellfield capacity is 12.54 mgd or 8,700 gpm (2,900 gpm for each well). The twenty active wells located in the Miami Springs Wellfield were constructed between 1924 and 1954. These wells are 14 inches and 30 inches in diameter, 80 to 90 feet deep and have casing depths of 80 feet. The total wellfield capacity is 79.30 mgd or 55,070 gpm (ranging between or 2,500 and 5,000 gpm for each well). The Northwest Wellfield has fifteen active wells that were constructed in 1980. The wells are 40 inches and 48 inches diameter and 80 to 100 feet deep, with casing depths ranging from 46 to 57 feet. These wells have two-speed motors. The total nominal capacity of the wells at the low-speed flow rate is 149.35 mgd. The capacity of each well, except well No. 10, is 10 mgd at the low-speed flow rate. Well No. 10 has a low-speed capacity of 9.35 mgd. The total nominal capacity for the wells at the high-speed flow is 220.94 mgd.

The seven active wells located in the John E. Preston Wellfield were constructed in 1966 and 1972. Each well is 42 inches in diameter, 107 feet deep and have casing depths of 66. The capacity of wells No. 1 through No. 6 is 5,000 gallons per minute (gpm) each and the capacity of well No. 7 is 7,000 gpm. The total wellfield capacity is 53.28 mgd.

Water Treatment Plants (WTPs)

The Hialeah WTP was originally designed in 1924 with a total capacity of 10 mgd. By 1935, the plant's capacity totaled 40 mgd. In 1946, capacity was increased to 60 mgd. Air strippers with a capacity of 84 mgd were added to the treatment process in 1991 to remove volatile organics from the fished water. A 3.2 MG storage reservoir for both the Hialeah and John E. Preston WTPs was also added in 1991. The

Hialeah WTP has a current rated capacity of 60 mgd and there are plans to rerate and upgrade the Hialeah WTP to a capacity of 70 mgd, if necessary. The treatment process for this WTP includes lime softening with sodium silicate activated by chlorine, recarbonation, chlorination, ammoniation, fluoridation, filtration, and air stripping. The plant site is relatively small, and is surrounded by residential areas.

The John E. Preston WTP was originally designed as a 60 mgd plant in 1968 and upgraded to 110 mgd in 1980. The plant was re-rated to a total capacity of 130 mgd in 1984. The plant reached its present capacity of 165 mgd with another addition in 1988. In 1991, the plant was modified with an air stripping capacity of 185 mgd to remove VOCs. In 2005, plant process modifications to provide enhanced softening for reduction of color and total organic carbon came on line. The main source of water for the Preston WTP is from the Northwest Wellfield. The current rated capacity is 165 mgd with a treatment process similar to that of the Hialeah WTP. This includes lime softening with ferric and other coagulant and chemicals added prior to lime for enhanced softening, recarbonation, chlorination, ammoniation, fluoridation, filtration, and air stripping. The Preston plant is also located in a residential area of Hialeah.

Potable Water Level of Service

The Town of Surfside currently coordinates with MDWASD and the South Florida Water Management District to meet existing and projected demands based on level of service (LOS). MDWASD's actual projected water demands (2017 thru 2021) are shown in Table 4-1 below. ~~were developed utilizing an average gallon per capita per day (gpcd) value of 137.2 gpcd.~~

Table 4-1. Miami-Dade Water and Sewer Department (MDWASD) Water Demand Projection

Year	Population	Finished Water Use (gpcd)	AADD Finished Water Use (MGD)	Water Conservation Credit (MGD)	Reuse Reclaimed Water Credit	Adjusted Finished Water Demand (MGD)	Adjusted Finished Water Use (gpcd)
2015	2,266,092	137.2	310.84	2.04	0.00	308.80	136.27
2020	2,370,769	137.2	325.20	5.44	0.00	319.76	134.88
2025	2,475,446	137.2	339.56	8.84	0.00	330.72	133.60
2030	2,580,123	137.2	353.92	9.55	0.00	344.37	133.47

Source: MDWASD's 20-year water supply plan (2014-2033)

Table 4-1. Miami-Dade Water and Sewer Department Potable Water Demand (New)

<u>Year</u>	<u>Population</u>	<u>Annual Average Daily Flows (MGD)</u>	<u>Gallons per Capita per Day (GPCPD)</u>
2017	<u>2,331,959</u>	<u>323.68</u>	<u>138.80</u>
2018	<u>2,357,013</u>	<u>328.08</u>	<u>139.19</u>
2019	<u>2,382,067</u>	<u>323.00</u>	<u>135.60</u>
2020	<u>2,407,121</u>	<u>324.26</u>	<u>134.71</u>
2021	<u>2,432,406</u>	<u>327.02</u>	<u>134.44</u>

Source: MDWASD 2022 WSFWP

Table 4.2 provides the ~~actual~~ projected water use for ~~Fiscal Year 2018~~ 2015 through Year ~~2022~~ 2030 for the Town of Surfside utilizing the ~~finished~~ purchased water use rate of 148.04 gallons per capita per day.

Table 4-2. Town of Surfside Water Demand Projection

<u>Year</u>	<u>Population</u>	<u>Per Capita Consumption GPCD</u>	<u>Projected Consumption GPD</u>	<u>Projected Consumption MGD</u>
2015	5,866	148.04	868,399	.87
2020	6,019	148.04	891,073	.89
2025	6,173	148.04	913,747	.91
2030	6,326	148.04	936,421	.94

Table 4-2. Town of Surfside Purchased Water Flows

<u>Fiscal Year</u>	<u>Resident Population (BEBR)</u>	<u>Annual Average Daily Flows (MGD)</u>	<u>Gallons per Capita per Day (GPCPD)</u>
2018	<u>5,934</u>	<u>1.060</u>	<u>179</u>
2019	<u>6,015</u>	<u>0.984</u>	<u>164</u>
2020	<u>5,689</u>	<u>0.932</u>	<u>164</u>
2021	<u>5,593</u>	<u>0.926</u>	<u>166</u>
2022	<u>5,446</u>	<u>0.920</u>	<u>169</u>

Source: Town of Surfside Finance Department

Figure ~~2.5.1-10~~ ~~4.1~~ in the Town of Surfside ~~15~~ 10-Year Water Supply Facilities Work Plan indicates that there will be no deficit of finished water through 2030.

To assure adequate level of service, potable water facilities shall meet the following Level of Service standards as identified in the MDWASD goals for potable water:

- a) The regional treatment system shall operate with a rated maximum daily capacity no less than 2 percent above the maximum daily flow for the preceding year, and an average daily capacity 2 percent above the average daily system demand for the preceding 5 years. The maximum daily flow shall be determined by calculating the average of the highest five single day flows for the previous 12 months.
- b) Water shall be delivered to users at a pressure no less than 20 pounds per square inch (psi) and no greater than 100 psi. Unless otherwise approved by the Miami-Dade Fire Rescue Department, minimum fire flows based on the land use served shall be maintained as follows:

Land Use	Min. Fire Flow (gpm)
Single Family Residential Estate	500
Single Family and Duplex; Residential on minimum lots of 7,500 sf	750
Multi-Family Residential (<u>Low Medium Density</u>)	1,500
Semiprofessional Offices	1,500
<u>Multi-Family Residential (Medium and High Density)</u>	<u>2,000</u>
Hospitals; Schools	2,000
Business and Industry	3,000

Source: Miami-Dade County Adopted ~~2022~~ 2014 Water, Sewer and Solid Waste Element

Storage Capacity

The finished water storage facilities for the Hialeah-Preston subarea consist of both “in-plant” and remote storage facilities. The total combined storage capacity between both plants inclusive of remote storage facilities is ~~56.0~~ 64.0 MG. Additional information on MDWASD’s finished water storage facility capacities can be found in Table 3.1 of Appendix A (Town of Surfside ~~15~~ 10-Year Water Supply Facilities Work Plan).

Water Supply Facilities Work Plan

The purpose of the Town of Surfside ~~15~~ 10-Year Water Supply Facilities Work Plan (Work Plan) is to identify and plan for the water supply sources, as well as facilities needed to serve the existing and new development within the local government’s jurisdiction. Chapter 163, Part II, F.S., requires local governments to prepare and adopt Work Plans into their Comprehensive Plans within 18 months after the water management district approves a regional water supply plan. Surfside adopted their last Work Plan in December ~~2018~~ 2015. An updated Work Plan is attached to this Element in the Appendix.

On a regional level, the Town falls within the South Florida Water Management District (SFWMD) and within the SFWMD’s Lower East Coast (LEC) Planning Area. The ~~2013~~ 2018 Lower East Coast Water Supply

Plan Update (~~2013~~ 2018 LEC Plan Update), approved by the SFWMD in November 2018 ~~September 2013~~, is one of the most recent five, long-term comprehensive regional water supply plan updates the SFWMD has developed for its planning areas. The planning horizon for the ~~2013~~ 2018 LEC Plan Update is 2016-2040 ~~2010-2030~~.

Sanitary Sewer

The sanitary sewer system is defined as structures or systems designed for the collection, transmission, treatment, or disposal of sewage and may include trunk mains, interceptors, treatment facilities, and disposal systems. The Town's sanitary sewer system is interconnected with the Miami-Dade County Water and Sewer Department (MDWASD) system. Surfside maintains its own sewer collection system and two pumping stations. By agreement, the Town of Surfside and Bal Harbour share a sanitary force main that connects to the City of Miami Beach transmission system. The tri-party agreement provides for the transmission of sewage via force mains to the MDWASD system and eventually to the treatment plant and disposal.

Geographic Service Area

The Town of Surfside's sanitary sewer system is part of a system run by MDWASD. The Town's system is coextensive with the Town's boundaries. The County system includes unincorporated and incorporated areas of Miami-Dade County inside the 2005 Urban Development Boundary that have an agreement with MDWASD. The system also incorporates a small number of facilities, mostly State or County owned, outside of the Urban Development Boundary.

Treatment Facilities and Capacity

There has been a significant reduction in average flow into the regional system as a result of extensive infiltration and inflow (groundwater and rainwater) prevention projects conducted by MDWASD in recent years. Infiltration and inflow within the sewer system should be kept at a minimum to avoid hydraulic overload to the receiving treatment plant. It is pertinent for an operation and maintenance plan to be part of the county's sanitary sewer system. As a result, the regional wastewater treatment plants operating capacity can remain in compliance with Miami- Dade County MDWASD and Florida Department of Environmental Protection (FDEP) standards.

The Town of Surfside is located in the MDWASD Central District Sanitary sewer system; however, MDWASD operates two additional regional wastewater treatment plants in the North and South Districts. Because the system is interconnected, the service districts have flexible boundaries, and some flows from one district can be diverted to other plants in the system.

The Town of Surfside's sewer system is treated by a secondary treatment facility on Virginia Key owned and operated by the Miami-Dade County Water and Sewer Department (MDWASD). The Town's sanitary sewer collection system is divided into two basins. Sanitary sewer pipes range in size from 8 to 15 inches with flows directed to two pump stations. Pump Station 1 receives sewage from the area of Surfside north of 91st Street, which includes the Business District and a majority of the high-rise buildings. Pump Station 2 serves the remainder of the Town, including most of the waterfront lots. The sewage is pumped via the force main which runs along 89th Street, 93rd Street, Collins Avenue and connects to the City of Miami Beach's system near 74th street. Sewage continues under pressure through MDWASD force mains to Virginia Key.

Current Facility Demand

According to the Town of Surfside Consumption Analysis, in ~~2014/2015~~ 2020/2021 approximately ~~258~~ 316.8 million gallons of wastewater were treated by the County system from the Town of Surfside and ~~260~~ 305.2 million in 2021/2022 ~~2015/2016~~.

In FY08, the Town began mapping all sewer and potable water lines within the municipal boundary to enhance maintenance. Also, in FY09, the Town identified infiltration issues to the sanitary sewer system and has begun a program to seal manholes and smoke/video testing to identify and repair broken lines. Table 4-2A shows projected sewage flow demand for the Town of Surfside and Table 4-2B show current and projected waste water capacity for the entire county.

In 2010 to 2014, the Town completed a sanitary sewer rehabilitation plan. All existing gravity sewer mains and laterals were lined or reconstructed in accordance with the approved plan. All sanitary manholes were rehabilitated. The Town also completed rehabilitation of the existing sanitary sewer pump stations, and construction of 12" Force Mains along 93rd Street and 89th Street. The Force Mains were tied-in to the newly constructed 16" Force Main along Collins Avenue. The existing Force Main that runs along Byron Avenue is not currently in use and only remains as a stand-by facility.

Since the Town completed the sanitary sewer rehabilitation plan of the existing system in the recent past, there are currently not additional level of service projects required or needed for the Town's sanitary sewer system.

Table 4-2A. Projected Sewage Flows

Year	2010 (actual)	2020	2030
Population	5,744	5,952 <u>5,684</u>	6,398
Per Capita (gallons per day finished sewage)	155	155 <u>154.6</u>	155
(All potable volumes are finished sewage)	MGD	MGD	MGD
Sewage Total Flow (daily average annual)	0.89	0.92 <u>0.879</u>	0.99

Source: Calvin, Giordano & Associates, Inc. 2017

The County's LOS standard requires that the "system" component of the wastewater facility operate below 102 percent of the previous year's average daily flow. A comparison of the projected treatment capacity to the 102 percent of the previous year's average annual daily flow (AADF) requirement, from 2016 to 2026, is presented below. According to the County's data, the capacity of the MDWASD sanitary sewer system will continue to remain below the 102 percent requirement through 2026. The below table confirms the availability of the sanitary sewer system to meet the needs of Surfside in the short term and long-term planning period.

Table 4-2B. Miami-Dade County Current and Projected Wastewater System Capacity 2016-2026

County WWTP Capacities		Actual County Flow (mgd)	Total Permitted Capacity / Projected County Flows (mgd)		
	2016 Plant Capacity (mgd)	Dec. 2015	2022	2024	2026
North	120.0	89.3	120.0 / N/A1	120.0 / N/A1	85.0 / N/A1
Central	143.0	120.0	143.0 / N/A1	143.0 / N/A1	83.0 / N/A1
South	112.5	97.1	121.0 / N/A1	131.0 / N/A1	131.0 / N/A1
West	N/A	N/A	N/A	N/A	102.0 / N/A1
Total	375.5	306.4	384.0 / 321.1	394.0 / 326.3	401.1 / 331.6

Source: Miami-Dade Water and Sewer Department, 2016; 1County only has projected data for total regional system

Drainage

In 2013, the Town completed a major retrofit of the existing drainage systems. The existing storm drainage system consisted of a network of underground storm sewers and outfalls discharging directly into Indian Creek and Biscayne Bay. An existing pumping station at the western end of 92nd Street assisted the drainage of water from that street by pumping to an outfall. Storm sewers in the existing system ranged in diameter from 10 inches to 36 inches.

Town of Surfside has two state roadways within the Town; a north-south pair SR A1A/Collins Ave (northbound) and Harding Avenue (southbound); and one east-west SR-922/96th Street. The Florida Department of Transportation (FDOT) provided storm drainage improvements on Harding and Collins Avenue in the early 1990's. Equipment which currently serves the 92nd Street pump station were replaced by FDOT and maintained by the Town; however, even with these modifications, water may still reach curb level in various locations due to tidal fluctuations. The water level of Biscayne Bay is higher than normal during storm periods and high tide, creating a backup in the outfall pipes. The Harding and Collins storm drainage improvements utilize on-site wells and control structures to provide additional capacity.

In 2002, FDOT completed the Stormwater Pump Station System Operational Evaluation and Recommended Improvements (OERI) Report which provided three alternatives to improve stormwater pump systems along Harding. It was determined that the most feasible alternatives are those that have an appropriate overflow capacity, once the wells reach capacity. This was achieved by introducing an emergency gravity bypass in the event that the pumps fail. The alternative consists of new pump stations at the existing vault locations. These new stations required the existing gravity system to be extended to the Intracoastal Waterway seawalls (at 88th Street and 94th Street), a new 36-inch force main to connected to the existing wells; new pumps, structures, controls, and a new gravity bypass drainage pipe.

In 2006, the Town of Surfside initiated another stormwater project, which consists of retrofitting three of the Town's outfall pipes to reduce pollutants and fresh water entering Biscayne Bay. The facilities at each

location will consist of three new stormwater pump stations which pump water into drainage wells. In order to address pollution concerns for a Florida Department of

Environmental Protection (FDEP) drainage well permit, the Town installed Nutrient Separating Baffle Boxes upstream of the pump station to provide treatment before the runoff enters the groundwater which was included in this retrofit project.

The recently constructed retrofitted stormwater management system of the Town consists of a network of underground storm sewers along with outfall control structures discharging into Indian Creek and Biscayne Bay, and three additional pump stations discharging into 9 drainage wells. The newly constructed control structures facilitate well discharge before discharging to Biscayne Bay. The project addressed long-term concerns regarding water backing into the streets and poor water quality in the adjacent Biscayne Bay along the Town's shores. The project directly addressed The Trust for Public Land's Biscayne Bay Accessibility report, supported the SFWMD's Biscayne Bay Partnership Initiative (BBPI), and enhanced the level of service.

In 2015, the Town completed drainage improvements for Biscaya Island along 88th Street. The Town constructed new check valves to prevent back flow into the existing roadways and upsized one 12-inch outfall to a 24-inch diameter outfall. Since the Town completed the retrofit of the existing drainage system in the recent past, there are currently not additional level of service projects required or needed for the Town's drainage system.

The Town received \$2.83 million dollars from the 2021 American Rescue Plan Act for drainage and infrastructure improvements. The Town also received a State grant for a Town-wide drainage study. The Federal grant and the Town's Stormwater Fund are funding a FY2024 Abbott Avenue drainage improvement totaling \$3.85 million dollars.

Solid Waste

The Town's Public Works Department has three garbage trucks which collect trash and garbage on a weekly basis and haul it to Miami-Dade County's Resource Recovery Plant west of Miami International Airport and other Miami-Dade County landfills. Last year (FY15/16) Surfside deposited approximately 4,932 tons of waste material at the County's facility. Based on the 2010 U.S. Census population of 5,744 a volume of just 4.7 pounds per person per day was calculated. The Town, as of June 2, 2016, discontinued recycling services with Miami-Dade County for residential properties.

The Town now collects recycling. Between June 2, 2016 and December 29, 2016, the Town collected a total of 218.9 tons of recycling. Based on information supplied by the Miami-Dade County Department of Solid Waste Management (Table 4-3), the existing disposal capacity at the North Dade Landfill and the South Dade Landfill and the Resource Recovery Plan appear to have adequate capacity to meet Surfside's needs for the foreseeable future.

Table 4-3. Miami-Dade County Solid Waste Facility Capacity

	South Dade Landfill	North Dade Landfill	Resources Recovery Facility and Ashfill
Built out Capacity in Tons	23,208,000	13,526,000	8,060,000
Tons in Place (June 30, 2016)	17,547,000	11,984,000	5,765,000
Remaining Capacity in Tons	1,261,000	1,541,000	2,295,000
Last Year's Disposal Tonnage (7/1/15 – 6/30/16)	390,626	190,478	160,879
Estimated Average Disposal Rate per Year in Tons	400,800	183,900	168,500

Source: Miami-Dade County Department of Solid Waste Management, 2016; Landfill Capacity Analysis for DSWM Active Landfills, July 1, 2016.

There is sufficient capacity in Miami-Dade County landfills to meet the Town's needs for solid waste disposal for the short term and long-term planning horizons.

Natural Groundwater Aquifer Recharge

The principal ground water resources for the Lower East Coast (LEC) Planning Area are the Surficial Aquifer System (SAS), including the Biscayne Aquifer, and the Floridan Aquifer System (FAS). The Surficial and Biscayne aquifers provide more than 1 billion gallons a day for public water supply and other uses such as agriculture and landscape irrigation within the LEC Planning Area.

Although the Biscayne Aquifer is part of the Surficial Aquifer System (SAS), it exists only along the coastal areas in Miami-Dade, Broward and southern Palm Beach counties. The Biscayne Aquifer is highly productive with high-quality fresh water. The extension of the SAS through central and northern Palm Beach County is less productive, but is still used for consumptive uses, including potable water. These aquifers are shallow, generally located within 200 feet of ground surface, and are connected to surface water systems, including canals, lakes and wetlands.

The Biscayne Aquifer and the extension of the SAS into northern Palm Beach County provide more than 1 billion gallons per day of high-quality, inexpensive fresh water for the populations of Palm Beach, Broward and Miami-Dade counties and the Florida Keys portion of Monroe County. In 2010, fresh groundwater accounted for 94 percent of potable water produced by public water supply utilities.

This volume is heavily supported, especially during the annual dry season, as well as in periodic droughts, by water from the regional system, primarily the Everglades. During droughts, water from Lake Okeechobee has been required to supplement water from the Everglades to meet the needs of the coastal counties. In 2008, the United States Army Corps of Engineers (USACE) implemented the "2008 Lake

Okeechobee Federal Regulation Schedule,” lowering the operation levels at the lake to reduce the risk of dike failure and minimize impacts to the lake’s ecology. This resulted in a projected decline in the level of certainty for agriculture users to rely on the lake, and increased the expectation that the lake would exceed its minimum flow and levels criteria more frequently. In response, the South Florida Water Management District (SFWMD) adopted regulatory criteria to limit future additional withdrawals from Lake Okeechobee and connected water bodies to protect the lake and prevent further erosion to the level of certainty for existing legal users. The Okeechobee Utility Authority in the Kissimmee Basin Planning Area is the only remaining utility using water directly from Lake Okeechobee. Since the 2005-2006 LEC Plan update, Clewiston, South Bay, Belle Glade, and Pahokee have all discontinued the use of Lake Okeechobee as their supply source and now use Floridan Aquifer System water treated by reverse osmosis.

The Biscayne Aquifer is designated as a sole source aquifer by the U.S. Environmental Protection Agency (USEPA) under the Safe Drinking Water Act because it is a principal source of drinking water and is highly susceptible to contamination due to its high permeability and proximity to land surface in many locations. As of the 2013 LEC Plan Update, SFWMD has placed limitations on additional allocations from the Biscayne Aquifer. As a result, use of alternative water sources has expanded and a Comprehensive Water Conservation Program has been adopted by SFWMD.

The Floridan Aquifer System (FAS) exists not just in the LEC Planning Area, but throughout the entire state and portions of adjacent states. The Upper Floridan Aquifer in southeast Florida contains brackish water, and is increasingly being tapped as a source of raw water for treatment with reverse osmosis (RO) to create potable water. Brackish water from the Floridan Aquifer is also blended with fresh water prior to conventional water treatment to expand water supplies during the dry season. Additionally, the Floridan Aquifer is used for seasonal storage of treated fresh water within aquifer storage and recovery (ASR) systems. Until recent years, the Floridan Aquifer was more extensively developed in the Upper East Coast (UEC) and Lower West Coast (LWC) planning areas of the South Florida Water Management District (SFWMD or District) than in the LEC Planning Area.

From Jupiter to southern Miami, water from the FAS is highly mineralized and not suitable for drinking water without specialized treatment. More than 600 feet of low permeability sediments confine this aquifer and create artesian conditions in the LEC Planning Area. Although the potentiometric surface of the aquifer is above land surface, the low permeability units of the intermediate confining unit prevent significant upward migration of saline waters into the shallower freshwater aquifers.

The top of the Upper Floridan Aquifer is approximately 900 feet in southeast Florida, and the base of the Upper Floridan extends as deep as 1,500 feet. At the base of the Lower Floridan Aquifer, there are cavernous zones with extremely high transmissivities collectively known as the boulder zone. Because of their depth and high salinity, these deeper zones of the Lower Floridan Aquifer are used primarily for disposal of treated wastewater.

The Miami-Dade Water Supply Facilities Work Plan outlines a number of Alternative Water Supply (AWS) and conservation strategies designed to protect water sources and comply with recent regulations limiting withdrawals and allocations and eliminating the use of existing ocean outfalls.

Wellfield Protection Areas

There are no wellfield protection areas within the Town of Surfside.

Goals, Objectives and Policies

Goal 1: Public utilities capacity shall be provided to adequately serve residents, visitors and business people.

Objective 1 –Ensure sufficient capacity of potable water and sanitary sewer facilities: In general, ensure sufficient potable water and sanitary sewer system capacity in the most cost-effective manner possible. This objective shall be made measurable by its implementing policies.

Policy 1.1 – The Town shall continue use of Miami-Dade County Water and Sewer Department facilities at the Central District Wastewater Treatment Plant on Virginia Key and the Hialeah/Preston Water Treatment Plant or such other Miami-Dade County facilities as may be appropriate.

Policy 1.2 – The Town shall upgrade the potable water distribution system and the sanitary sewer collection system through ongoing maintenance.

Policy 1.3 – The Town shall continue to follow the Sanitary Sewer Evaluation Study (SSES) protocols for Phases I, II, and III, including the testing and implementation of improvements/repairs of the collection system.

Policy 1.4 – Projects and programs shall be funded to maintain adequate levels of service.

Policy 1.5 – The Town shall maintain a minimum of a five-year schedule of capital improvements for the expansion and upgrade in the capacity of water and sanitary sewage facilities in accordance with the Water Supply Facilities Work Plan.

Policy 1.6 – The Town shall maintain a Water Supply Facilities Work Plan with a minimum planning horizon of at least 10 years, and shall ensure coordination between land uses and future water supply planning within 18 months of the adoption of the Lower East Coast Water Supply Plan, or its update, as required by Chapter 163, Florida Statute.

Policy 1.7 – The Town of Surfside ~~15~~ 10-Year Water Supply Facilities Work Plan dated December 2015 is hereby adopted by reference into the Comprehensive Plan, along with the Miami Dade Water and Sewer Department ~~20~~ 10-Year Water Supply Facilities Work Plan (2020-2030) (2014–~~2033~~) inclusive of all potable water projects. The Work Plan will be updated as needed, or concurrent with any updates to the Miami-Dade Water and Sewer Department ~~20~~ 10-Year Water Supply Facilities Work Plan (~~2014-2033~~).

Policy 1.8 – The Town of Surfside ~~15~~ 10-Year Water Supply Facilities Work Plan shall be consistent with the Potable Water Level of Service standards as established in the Comprehensive Plan.

Policy 1.9 – The Town’s ~~15~~ 10-Year Water Supply Facilities Work Plan shall guide future expansion and upgrade of facilities needed to transmit and distribute potable water to meet current and future demands. The Town shall research and identify alternative, renewable sources of water to the projected increases in demand.

Policy 1.10 – The Town shall provide for the protection of water quality when using traditional and new alternative water supply sources.

Policy 1.11 – The Town shall identify traditional and alternative water supply projects and the conservation and reuse programs to meet current and future water use demands within the Town’s jurisdiction consistent with the Miami-Dade County ~~20~~ 10-Year Water Supply Facilities Work Plan and the South Florida Water Management District’s Water Supply Plan.

Policy 1.12 – The Town shall issue no development order unless the Miami-Dade Water and Sewer Department (MDWASD) certifies that adequate potable water supply is available for new development. The Town shall provide monthly reports to MDWASD, as required, to track the amount of water to be allocated for new uses.

Objective 2 – Correct deficiencies and increase capacity of drainage facilities: Optimize the utilization of water resources through the provision of stormwater management for the Town which reduces damage and inconvenience from flooding, promotes aquifer recharge, and minimizes degradation of water quality in surface water bodies.

Policy 2.1 – For site plan approval, the Town shall require that surface water management systems be designed and operated consistent with the Town’s adopted drainage level of service.

Policy 2.2 – Financially feasible projects and programs shall be implemented in order to maintain adequate level of service standards, and to make preventative improvements to the system.

Policy 2.3 – The Town shall implement the stormwater improvement projects specified in the State of Florida Department of Environmental Protection (DEP) Agreement No. LP6768.

Policy 2.4 – The Town shall construct the Stormwater Treatment Trains and Rehabilitation projects specified in the State of Florida Department of Environmental Protection (DEP) Agreement No. S0374.

Policy 2.5 – The Town shall adhere to the National Pollution Discharge Elimination System-Municipal Separate Storm Sewer System (NPDES-MS4) Permit and shall implement the permit conditions including monitoring of outfalls and improving stormwater management practices.

Policy 2.6 – The Town shall use Best Management Practices (BMPs) in accordance with its regulations and those of the South Florida Water Management District (SFWMD) and DERM.

Policy 2.7 – The Town shall coordinate and cooperate with all applicable local, regional, state and federal agencies relating to the protection and enhancement of the Biscayne Bay Aquatic Preserve.

Objective 3: Maintain sufficient solid waste capacity. The Town shall support Miami-Dade County in its provision of solid waste management facilities available to meet the Town’s short-term and long-term future needs.

Policy 3.1 – The Town shall require in the land development regulations that applicants for development permits demonstrate adequacy of solid waste disposal sites or facilities prior to occupancy.

Policy 3.2 – The Town shall cooperate with Miami-Dade County to further preserve landfill space, examine the need for a comprehensive countywide yard waste program and establish clear policies regarding the construction and debris waste stream.

Objective 4 – Level of service: Achieve adequate facility capacity to serve existing development and new development concurrent with the impact of that development. Achievement of this objective shall be measured by the implementation of the following policies:

Policy 4.1 – The Town will enforce the following level of service standards as identified in the MDWASD goals for potable water:

Sanitary Sewers: The County-wide “maximum day flow” of the preceding year shall not exceed 102 percent of the County treatment system's rated capacity. The sewage generation standard shall be 155 average gallons per capita per day.

Potable Water:

- a) the regional treatment system shall operate with a rated maximum daily capacity no less than 2 percent above the maximum daily flow for the preceding year, and an average daily capacity 2 percent above the average daily system demand for the preceding 5 years. The maximum daily flow shall be determined by calculating the average of the highest five single day flows for the previous 12 months.
- b) Water shall be delivered to users at a pressure no less than 20 pounds per square inch (psi) and no greater than 100 psi. Unless otherwise approved by the Miami-Dade Fire Rescue Department, minimum fire flows based on the land use served shall be maintained as follows:

Land Use	Min. Fire Flow (gpm)
Single Family Residential Estate	500
Single Family and Duplex; Residential on minimum lots of 7,500 sf	750
Multi-Family Residential (<u>Low Medium Density</u>)	<u>1,500</u>
Semiprofessional Offices	1,500
Multi-Family Residential (<u>Medium and High Density</u>)	<u>2,000</u>
Hospitals; Schools	2,000
Business and Industry	3,000

Drainage: All nonresidential development and redevelopment shall adequately accommodate runoff to meet all Federal, state and local requirements. Stormwater shall be treated in accordance with the provisions of Chapter 17-25, FAC in order to meet receiving water standards in Chapter 17-302.500, FAC. One inch of runoff shall be retained on site. Post-development runoff shall not exceed peak pre development runoff.

Solid Waste: The County solid waste disposal system shall maintain a minimum of five years capacity. For Town planning purposes, a generation rate of 5.2 pounds per person per calendar day shall be used.

Objective 5 – Water conservation: Conserve and protect potable water resources by optimizing the utilization of water resources through effective water management practices.

Policy 5.1 – The Town shall maintain and improve land development code and other regulations that include: 1) water conservation-based irrigation requirements; 2) water conservation-based plant species requirements derived from the South Florida Water Management District's list of native species and other appropriate sources; 3) lawn watering restrictions; 4) mandatory use of high-efficiency water saving devices for substantial rehabilitation and new construction; and 5) other water conservation measures, as feasible.

Policy 5.2 – The Town shall promote education programs for residential, commercial and other uses which will discourage waste and conserve potable water.

Objective 6 – Infrastructure resiliency: Ensure resiliency of existing and future water resources, and water, wastewater and storm water infrastructure to the impacts of climate change and consider the development of adaptation for areas vulnerable to climate change-related impacts.

Policy 6.1 – Coordinate with Miami-Dade County to assess the adequacy of water supply and water/wastewater facilities and infrastructure to effectively capture, store, treat, and distribute potable water and reuse under variable climate conditions, including changes in rainfall patterns, sea level rise, and flooding, with potential water quality and quantity impacts.

Policy 6.2 – Coordinate adaptive management implementation strategies for water and wastewater resources that address the potential impacts of climate change for long term operations.

Policy 6.3 – Evaluate cost/benefit analysis for implementing adaptive management strategies including; planning, siting, construction, replacement and maintenance of public infrastructure as well as fortification or retrofitting of existing infrastructure.

Policy 6.4 – Work with Miami-Dade County to develop water demand projection scenarios that account for potential changes in demands if temperatures increase and drought conditions become more frequent or persistent.

Policy 6.5 – Evaluate infiltration and inflow programs to strategically reduce the flow of groundwater and stormwater and stormwater to wastewater collection and treatment facilities.

Policy 6.6 - The Town of Surfside shall continue to conduct a review and identify feasible regulations that require new construction, redevelopment, additions, retrofits or modifications of property to incorporate porous materials, reduce total impervious area, and employ other techniques to reduce run-off, capture and reuse rain water, and recharge the Biscayne Aquifer.

Policy 6.7 - The Town shall continue to identify public investments and infrastructure at risk from sea level rise and other climate change related impacts, and update this assessment every 5 years. Specifically, the Town shall analyze vulnerability to facilities and services, including but not limited

to: buildings; water and wastewater infrastructure, transmission lines and pumping stations; stormwater systems; roads, bridges, and all transportation and transit infrastructure; power generation facilities and power transmission infrastructure; critical infrastructure such as city hall, police and fire stations.

Policy 6.8 - The Town shall coordinate with Miami-Dade County in improving the resiliency of existing water resources and water and wastewater infrastructure to climate change impacts, while improving energy efficiency and reducing greenhouse gas emissions.

Policy 6.9 - The Town of Surfside shall consider the installation of backflow preventers on drainage systems that discharge to Biscayne Bay in coordination with the appropriate agencies.

Policy 6.10 - The Town of Surfside shall construct the additional stormwater drainage infrastructure necessary to accommodate projected increases in stormwater, including drainage wells, injection wells, swales, bioswales, and other related structures.

2024 WATER SUPPLY FACILITIES WORK PLAN

1.0 INTRODUCTION

The purpose of the Town of Surfside ~~45~~ 10-Year Water Supply Facilities Work Plan (Work Plan) is to identify and plan for the water supply sources and facilities needed to serve existing and new development within the Town's jurisdiction. Chapter 163, Part II, F.S., requires local governments to prepare and adopt Work Plans into their Comprehensive Plans within 18 months after the water management district approves a regional water supply plan. The ~~2018~~ 2013 Lower East Coast Water Supply Plan Update was approved by the South Florida Water Management District (SFWMD) in ~~September~~ November 2018 ~~2013~~; therefore, the deadline for local governments within the Lower East Coast jurisdiction to amend their comprehensive plans, and adopt a Work Plan is April 2020 ~~March 2015~~.

Residents of the Town of Surfside purchase their water directly from Miami Dade Water and Sewer Department (WASD). Under this arrangement, the Town of Surfside Public Works Department coordinates with Miami Dade to ensure that adequate capacity is available for existing and future customers and that supporting infrastructure, such as the water lines, are adequately maintained.

The Town of Surfside Water Supply Facilities Work Plan will reference data from WASD's ~~20~~ 10 year water supply plan dated April 2022 (2022-2030 ~~2014-2033~~), since the Town is a wholesale customer. The intent is to meet the statutory requirements outlined in subsection 1.2 below, and to coordinate WASD's water supply initiatives with the ~~2018~~ 2013 Lower East Coast Water Supply Plan Update, prepared by the South Florida Water Management District.

According to Florida Statutes, the Work Plan and any corresponding comprehensive plan amendment must address the development of traditional and alternative water supplies, bulk sales agreements and conservation and reuse programs that are necessary to serve existing and new development for a minimum of a 10-Year planning period. This plan has a planning horizon of ~~45~~ 10 years for the Town from ~~2015~~ 2020-2030.

The Town's Work Plan is divided into six sections:

1. Introduction
2. Background Information
3. Data Analysis
4. Capital Improvements
5. Goals, Objectives, and Policy Discussion
6. Conclusion

1.1 Statutory History

In 2002, 2004, and 2005 and 2011 the Florida Legislature enacted bills to address the State's water supply needs. These bills, especially Senate Bills 360 and 444 (2005 legislative session), significantly changed Chapter 163 and 373 Florida Statutes (F.S.) by strengthening the statutory links between the regional water supply plans prepared by the water management districts and the comprehensive plans prepared by local governments. The bills require local governments to identify how future water supply needs will be met through preparation of a Water Supply Facilities Work Plan with a minimum planning horizon of 10 years. The Work Plan must also be incorporated into a state approved local comprehensive plan. These bills established the basis for improving coordination between the local land use planning and water supply planning.

1.2 Statutory Requirements

The following highlights the statutory requirements:

1. Coordinate appropriate aspects of ~~its~~ the Town of Surfside's comprehensive plan with the South Florida Water Management District (SFWMD) ~~2013~~ 2018 Lower East Coast Water Supply Plan Update (~~2013~~ 2018 LEC Plan). [163.3177(4) (a), F.S.]
2. Ensure the Town's future land use plan is based upon availability of adequate water supplies and public facilities and services. [s.163.3177 (6) (a), F.S., effective July 1, 2005.] Data and analysis demonstrating that adequate water supplies and associated public facilities will be available to meet projected growth demands must accompany all proposed Future Land Use Map amendments submitted to the Department of Economic Opportunity (DEO) for review. The submitted package must also include an amendment to the Capital Improvements Element, if necessary, to demonstrate that adequate public facilities will be available to serve the proposed Future Land Use Map modification.
3. Ensure that adequate water supplies and facilities are available to serve new development no later than the date on which the local government anticipates issuing a certificate of occupancy and consult with the applicable water supplier prior to approving building permit, to determine whether adequate water supplies will be available to serve the development by the anticipated issuance date of the certificate of occupancy. [s.163.3180 (2) (a), F.S., effective July 1, 2005.]
4. For local governments subject to a regional water supply plan, revise the General Sanitary Sewer, Solid Waste, Drainage, Potable Water, and Natural Groundwater Aquifer Recharge Element (the "Infrastructure Element"), within 18 months after the water management district approves an updated regional water supply plan, to:
 - a. Identify and incorporate the alternative water supply project(s) selected by the local government from projects identified in the updated regional water supply plan, pursuant to S. 373.709(2)(a), F.S., or alternative project(s) proposed by the local government under S. 373.709(8)(b), F.S.;

- b. Identify the traditional and alternative water supply projects, bulk sales agreements, and the conservation and reuse programs necessary to meet current and future water use demands within the local government's jurisdiction [s. 163.3177(6)(c), F.S.]; and
 - c. Include a water supply facilities work plan for at least a 10-year planning period for constructing the public, private, and regional water supply facilities identified in the element as necessary to serve existing and new development. [s. 163.3177(6) (c), F.S.]] The Work Plan must address the water supply sources necessary to meet and achieve the existing and projected water use demand for the region through the 2030 planning period as established by the 2018 ~~2013~~ LEC Plan [s. 163.3167(9), F.S.].
5. Revise the 5-Year Schedule of Capital Improvements to include any water supply, reuse, and conservation projects and programs to be implemented during the five-year period [s. 163.3177(3)(a)4, F.S.].
 6. To the extent necessary to maintain internal consistency after making changes described in Paragraph 1 through 5 above, revise the Conservation Element to assess projected water needs and sources for at least a 10-year planning period, considering the ~~2013~~ 2018 LEC Plan, as well as applicable consumptive use permit(s)- [s.163.3177(6)(d)3, F.S.]
 7. To the extent necessary to maintain internal consistency after making changes described in Paragraphs 1 through 5 above, revise the Intergovernmental Coordination Element to ensure coordination of the comprehensive plan with applicable regional water supply plans and regional water supply authorities' plans. [s.163.3177 (6) (h) 1. F.S.]
 8. While an Evaluation and Appraisal Report is not required, local governments are encouraged to comprehensively evaluate, and as necessary, update comprehensive plans to reflect changes in local conditions. The evaluation could address the extent to which the local government has implemented the need to update their Work Plan, including the development of alternative water supplies, and determine whether the identified alternative water supply projects, traditional water supply projects, and conservation and reuse programs are meeting local water use demands [s.163.3191(3), F.S.].
 9. A local government that does not own, operate, or maintain its own water supply facilities, including, but not limited to, wells, treatment facilities, and distribution infrastructure, and is served by a public water utility with a permitted allocation of greater than 300 million gallons per day is not required to amend its comprehensive plan in response to an updated regional water supply plan or to maintain a work plan if any such local government's usage of water constitutes less than 1 percent of the public water utility's total permitted allocation. However, any such local government is required to cooperate with, and provide relevant data to, any local government or utility provider that provides and natural groundwater aquifer recharge element updated in accordance with s. 163.3191. Any local government may verify its qualifications for the exemption with the Florida Department of Economic Opportunity (DEO) [s.163.3177(6)(c)4., F.S.]

2.0 – BACKGROUND INFORMATION

2.1 Overview

The Town of Surfside is located between Miami Beach to the south and Bal Harbour to the north with the Atlantic Ocean to the east and the Village of Indian Creek and Bay Harbor Islands, separated by Indian Creek to the west. The Town of Surfside was incorporated on May 18, 1935 by 35 residents who signed the incorporation documents as members of the private Surf Club, which remains a significant landmark in Surfside.

The Town of Surfside is an evolving municipality consisting of approximately 367.45 acres. Approximately 58.33% is comprised of residential uses, 1.84% General Retail Services, 1.83% Community Facilities and 38% of all other uses as shown in **Table 2.1 Existing Land Use**.

Figure 2.1 illustrates the Town of Surfside existing land use and **Figure 2.2** illustrates future land use.

Table 2.1 Existing Land Use (Old)

EXISTING Land Use	Acres	% of Total Acres
Community Facilities	6.72	1.83%
General Retail Services	6.76	1.84%
Multi-Family Residential	39.10	10.64%
Parking	5.45	1.48%
Private Recreation	5.72	1.56%
Single Family Residential	175.25	47.69%
Vacant	7.07	1.93%
ROW	121.38	33.03%
TOTAL ACREAGE	367.45	100.00%

Source: Town of Surfside 2010 Comprehensive Plan

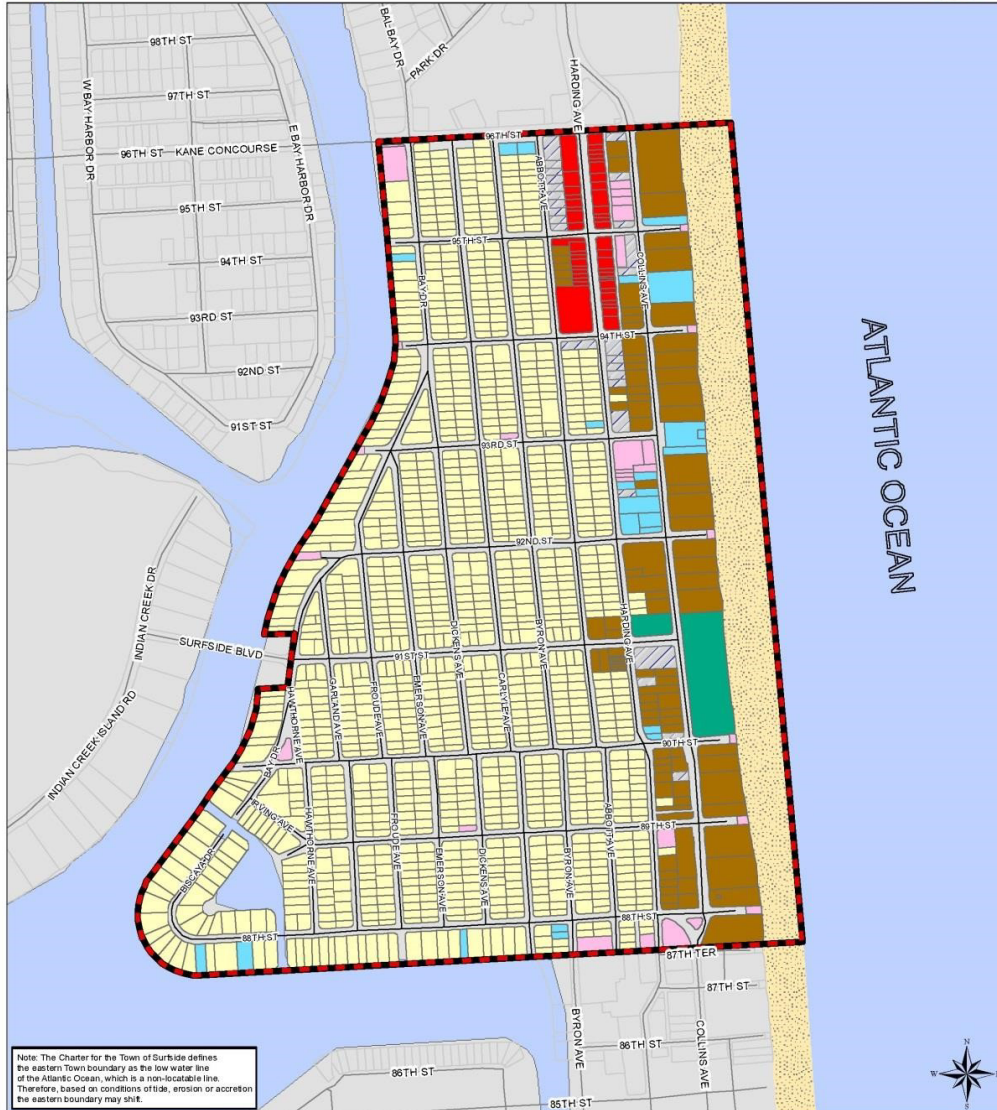
Table 2.1 Existing Land Use (New)

Existing Land Use	Acres	Percentage of Total Acres
<u>Beach Area</u>	<u>34.76</u>	<u>9.4%</u>
<u>Community Facilities</u>	<u>9.26</u>	<u>2.5%</u>
<u>General Retail/Services</u>	<u>6.90</u>	<u>1.9%</u>
<u>Multi-Family Residential</u>	<u>31.25</u>	<u>8.5 %</u>
<u>Parking</u>	<u>5.62</u>	<u>1.5%</u>
<u>Private Recreation</u>	<u>6.07</u>	<u>1.6%</u>
<u>Single Family Residential</u>	<u>168.94</u>	<u>45.8%</u>
<u>Vacant</u>	<u>17.26</u>	<u>4.7 %</u>
<u>ROW</u>	<u>79.57</u>	<u>21.6%</u>
<u>Water</u>	<u>8.90</u>	<u>2.4%</u>
TOTAL ACREAGE	368.53	100.00%

Source: 2022 Aerial Photo, Miami Dade County Property Appraiser, Marlin Engineering, Inc.

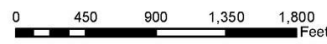


Existing Land Use



Note: The Charter for the Town of Surfside defines the eastern Town boundary as the low water line of the Atlantic Ocean, which is a non-locatable line. Therefore, based on conditions of tide, erosion or accretion the eastern boundary may shift.

- Legend**
- Surfside Boundary
 - Existing Land Use
 - Community Facilities
 - General Retail Services
 - Multi Family Residential
 - Private Recreation
 - Single Family Residential
 - Vacant
 - Parking
 - Beach Area



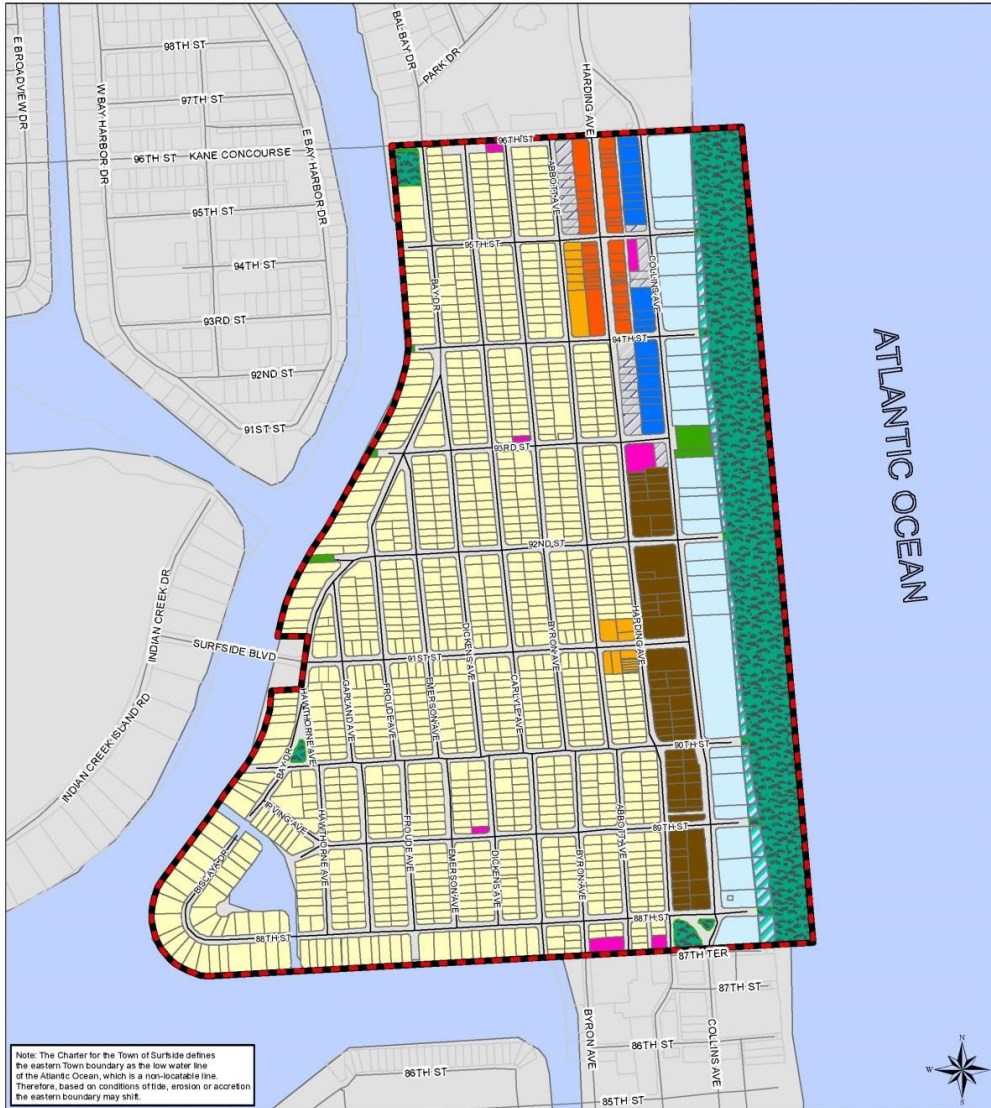
Map Number : FLU 1
 Print Date : November 2008
 Source : Calvin Giordano and Associates



Source: [Town of Surfside 2010 Comprehensive Plan](#)



Future Land Use (2030)



- Legend**
- Surfside Boundary
 - Surfside Streets
 - Future Land Use: Community Facility
 - General Retail / Services
 - High Density Residential / Tourist
 - Low Density Residential
 - Moderate Low Density Residential
 - Moderate Density Residential / Tourist
 - Moderate High Density Residential
 - Parking
 - Private Recreation
 - Public Buildings
 - Public Recreation

0 450 900 1,350 1,800 Feet

Map Number : FLU 7
 Print Date : November 2008
 Source : Calvin Giordano and Associates



Source: Town of Surfside 2010 Comprehensive Plan

2.2 Relevant Regional Issues

As the state agency responsible for water supply planning within the Lower East Coast region, the South Florida Water Management District (SFWMD) plays a pivotal role in ensuring an adequate supply of water to protect, enhance and restore natural systems; meet population demands; and address all other existing and projected needs for water supply. The SFWMD ~~2018~~ 2013 LEC Plan identified several current issues of importance to the region's water supply including:

1. Identify sufficient sources of water and water supply projects to meet reasonable-beneficial consumptive uses projected through 2040 under 1-in-10 year drought conditions without causing harm to natural resources.
2. Increase the efficiency of water use through water conservation actions, and encourage the development of alternative water supply sources to meet projected demands.
3. Protect and enhance natural systems and water resources, including the Everglades, estuarine and riverine systems, and other federal, state and local natural resource areas.
4. Support local government coordination by providing information for updates to the required Water Supply Facilities Work Plans (Work Plans).
5. Achieve compatibility and integration with related activities within the region.

- ~~1. The need to reduce reliance on the regional system for future water supply needs by developing alternative water supplies.~~
- ~~2. The need for increased conservation, reclamation and re-use methods in order to reduce per capita use and delay or avoid adding capacity.~~
- ~~3. The need to better integrate energy and water management.~~
- ~~4. The need to consider climate change and its hydrogeological effects such as sea level rise and salt water intrusion in water supply planning.~~
- ~~5. The need to limit withdrawals from both the Surficial Aquifer System and surface water from Lake Okeechobee.~~
- ~~6. The need to relieve pressure on the Everglades ecosystem by seeking alternative water supply sources that are not dependent upon the Everglades for recharge as per the 2007 Regional Water Availability Rule.~~
- ~~7. The need to reduce nutrient loadings to the environment by eliminating the use of six ocean outfalls in southeastern Florida as the primary means of disposal for treated domestic wastewater by December 20, 2025 as per the 2008 Leah G. Schad Ocean Outfall Program.~~

The Town of Surfside ~~45~~ 10-Year Water Supply Facilities Work Plan aids in addressing regional challenges by providing data and analysis to SFWMD, and by collaborating with other local municipalities and the Miami Dade Water and Sewer Department (WASD) to strengthen the water supply planning process. The Town fully supports regulatory changes, water conservation programs and alternative water supply projects under the purview of SFWMD and the WASD, inclusive of actions which help to address climate change such as salt water intrusion monitoring, groundwater modeling and infrastructure assessments.

~~The Town works closely with the WASD to achieve targeted goals as outlined in the “Miami Dade Water and Sewer Department 20-year Water Use Efficiency Goal Based Plan” approved by SFWMD in May 2007. Included in the water use efficiency plan are the Water Conservation Best Management Practices (BMP) along with a countywide BMP implementation schedule, costs and water savings projections. Water conservation within the WASD service area is in accordance with SFWMD Water Use Permit No. 13-00017-W, expiring February 9, 2035.~~

The Town has already implemented several of its own water saving policies and procedures as identified below:

- ~~●~~ In an attempt to reduce overall water consumption, Surfside adopted a tiered structure water billing plan. This unit rate billing discourages high consumption users by charging a higher unit rate each time a tier of consumption is reached.
- ~~●~~ Surfside installed automated water meters Town-wide. These meters monitor daily consumption and alert Public Works staff via email and text message of any water leaks 24 hours per day 7 days per week. This automated response reduces the duration of an active water leak or line break, thus reducing overall water consumption and waste.
- ~~●~~ Established policies within the Comprehensive Plan to improve the Town’s Code of Ordinances by incorporating water conservation based irrigation requirements, native species list, lawn watering restrictions, and use of high efficiency water saving devices for substantial rehabilitation and new construction.

The Town will continue to implement practices, update its Code of Ordinances and expand existing goals, objectives and policies within the Comprehensive Plan which support and promote water conservation in a cost-effective and environmentally sensitive manner such as:

- ~~●~~ Establish a graphic water demand model which provides information on pipe data and pump data, captures water meter readings, records changes in demand for existing development, simulates future flow contributions for proposed development, and identifies any system deficiencies within the Town.
- ~~●~~ Incorporation of goals, objectives and policies within the Comprehensive Plan that ensure resiliency of existing and future water resources in areas vulnerable to climate change related impacts (see Objective 6 and Policy 6.1 thru 6.5 of Chapter 4: Infrastructure Element).
- ~~●~~ Utilize water bills as a tool to educate residential, commercial and other potable water consumers about water conservation and water reuse.
- ~~●~~ Adopt a Florida Friendly landscape ordinance requiring the use of Florida friendly landscaping materials.
- ~~●~~ Research strategies which assist in reducing the per capita water demand rate for the Town from 148.04 gpcd to be more on par with the system wide average of 137.2 gpcd.
- ~~●~~ Research opportunities for partnership with large consumers of water such as hotels to reduce water consumption and waste.

3.0 DATA AND ANALYSIS

3.1 Water Supply Providers

The Town of Surfside is one of fifteen wholesale customers who purchase their finished water directly from the Miami Dade Water and Sewer Department (WASD) under 20-year water use agreements.

The WASD's service area is all of Miami-Dade County within the Urban Development Boundary (UDB), excluding portions of North Miami, North Miami Beach, Homestead and Florida City which have their own water supply facilities.

The Application ~~No. 14-627-12~~ for modification to the Miami Dade WASD ~~20~~ 10 Year Water Use Permit (WUP) No. 13-00017-W was approved by the SFWMD Governing Board on March 8, 2022 ~~February 9, 2015~~. The permit limits the annual allocation to 148,018 ~~140,915.50~~ million gallons (405 ~~386.07~~ MGD) and the maximum monthly allocation to 12,330.11 million gallons until the permit expires on 2042 ~~February 9, 2035~~.

The Miami-Dade Water and Sewer Department (WASD) water service area contains interconnected systems and thus, for the most part, function as a regional system. The service area includes the Hialeah-Preston/Hialeah-RO area serving the northern part of Miami-Dade County, the Alexander Orr, Jr. area serving the central and portions of the southern part of Miami-Dade County and the South Dade area (formerly known as the Rex Utility District) serving the southern part of Miami-Dade County. The Biscayne Aquifer is the major source of drinking water, supplying ±97% of the County's potable water needs. Groundwater from the brackish Floridan Aquifer is the drinking water source for the Hialeah Reverse Osmosis Water Treatment Plant. Detailed information on the WASD water service area and water supplies is provided in the Miami- Dade County Water Supply Facilities Work Plan (April 2022), Appendix 1.

Figure 2.5.1-1 indicates that the 2020 WASD service area, shown in red hatch marks, coincides with the area located inside the Urban Development Boundary. WASD provides water directly to over 450,000 retail customers and also sells water "wholesale" to thirteen city owned utilities that maintain their own water distribution infrastructure. The thirteen wholesale customers are listed by number on Figure 2.5.1-1, with the corresponding numbers shown on the map. Figure 2.5.1-1 also indicates that there are four municipal water supply utilities that have water treatment plants serving certain areas of Miami-Dade County, including Florida City, Homestead, North Miami Beach, and North Miami. North Miami also buys some of the water provided within its service area from WASD, and North Miami Beach buys water from WASD for emergency purposes only. Eighteen properties located outside of the Urban Development Boundary that are served by WASD are listed by number on Figure 2.5.1-1, with the corresponding numbers shown on the map.

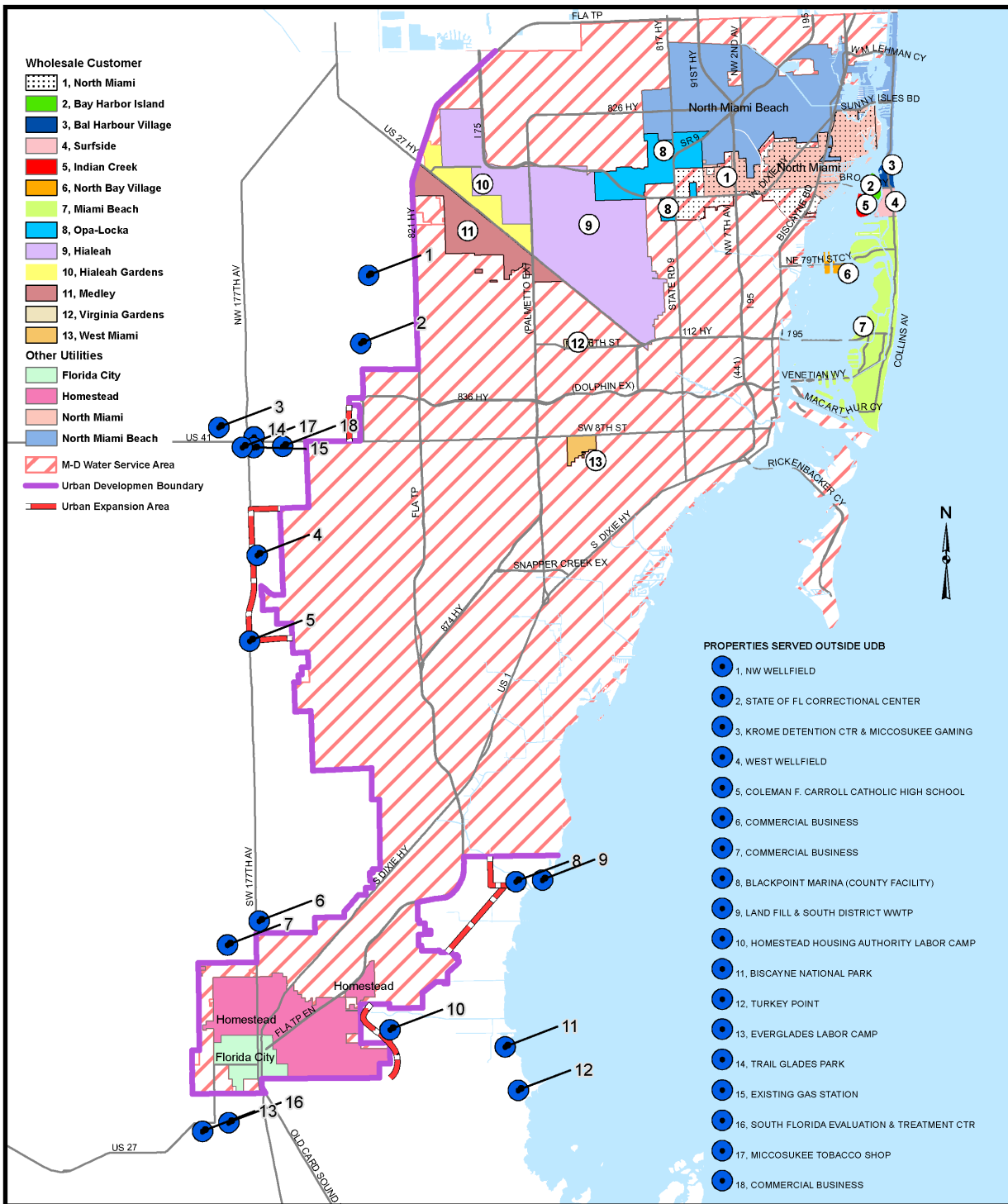


Figure 2.5.1-1

2020 WAsD WATER SERVICE AREAS



Source: Miami-Dade County Water and Sewer Department

DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES

Potable Water. The first component of the LOS standards for potable water requires that the regional water supply treatment system operate with a capacity no less than 2 percent above the maximum daily flow for the preceding year, and with an average daily capacity 2 percent above the average daily system demand for the preceding 5 years. Table 2.5.1-1 illustrates that the County has achieved this aspect of Objective WS-2. The WASD has also developed projections estimating demand and capacity through 2040. This data is provided in Table 2.5.1-2 below which illustrates that adequate capacity is projected to be available to meet future potable water needs.

Table 2.5.1-1
Miami-Dade WASD Water System
Historical Capacity and Level of Service 2010-2020 (New)

YEAR	Plant Rated Capacity (MGD)	2 Pct. Above the Max. Day Flow (MGD) for the Preceding Year Finished Water***	2 Pct. Above the Average Day Demand (MGD) for the Preceding 5 Years Finished Water
2010	452.01	338.54	328.46
2011	452.01	340.86	321.39
2012*	453.93	339.99	314.06
2013	453.93	340.25	310.19
2014**	463.93	336.46	309.66
2015	463.93	332.31	308.99
2016	463.93	340.84	309.86
2017	463.93	350.56	313.11
2018	463.93	354.29	318.59
2019	463.93	356.92	323.45
2020	463.93	348.26	327.62

* Re-Rate of Everglades WTP from 0.96 mgd to 2.88 mgd December 2011

** Hialeah RO Plant on-line November 2013

*** Max day is the avg of the highest 5 single day finished water flows for prior 12 months

Table 2.5.1-2		
MDWASD Water System Capacity and Demand Comparison		
YEAR	Plant Rated Capacity (MGD)	Finished Water Demand (MGD)
2021	463.93	336.12
2025	463.93	350.03
2030	463.93	366.16
<i>Source: Miami Dade Water and Sewer Department</i>		
<i>MGD= Million Gallons per Day</i>		

The County's current Water Use Permit No. 13-00017-W, issued on March 8, 2022, limits WASD's annual allocation to 148,018 million gallons (405.53 MGD) and the maximum monthly allocation to 12,951.61 million gallons through 2042. These allocations are further limited by the wellfield operational plan described in Exhibit 8 of the WUP. The anticipated demands in the County's Water Use Permit will be addressed through optimization of Biscayne Aquifer water supplies through improved wellfield operations, the C-51 Reservoir project and withdrawals from the Floridan Aquifer. Prior to the C-51 Phase 1 Project being operational, withdrawals from the Biscayne aquifer are limited to the established base condition of 127,567.5 MGY (349.5 MGD). Based on the withdrawal limitations of the County's Water Use Permit, there is currently \pm 19 MGD of available water from the Biscayne Aquifer for future projects.

~~In February 2007, the SFWMD adopted the Regional Water Availability Rule which limits the amount of water that can be withdrawn from the Biscayne Aquifer for future water supply to protect the region's natural resources. The amount of water that MDWASD is allowed to withdraw from the Biscayne Aquifer is capped by the South Florida Water Management Water Use permit. Consequently, MDWASD is allowed to withdraw less water than can be treated at the water treatment plants that draw from freshwater sources. The County's current Water Use Permit, dated February 9, 2015, limits annual withdrawals from the Biscayne Aquifer to 349.5 MGD. Based on limitations contained in the County's Water Use Permit, there is currently \pm 40 MGD of available water from the Biscayne Aquifer for future projects. The water demands associated with new growth must be met through alternative water supply sources, which may include, withdrawals from the Floridan Aquifer, implementation of water conservation methods, and development of reclaimed and wastewater reuse strategies. Alternative water supply projects are discussed in more detail under Objective WS-7.~~

Along the coast of southeast Florida, and several miles inland, groundwater supplies and potable wells are vulnerable to saltwater contamination. The Biscayne Aquifer, which serves as Miami-Dade County's primary water supply, is a shallow, surficial, unconfined aquifer characterized by limestone karst geology which is highly porous and transmissive. Saltwater intrusion is defined by the South Florida Water Management District (SFWMD) as chloride concentrations that exceed the drinking water standard of 250 mg/l.

The SFWMD has identified utilities with water supply sources near the saltwater interface that could be vulnerable to saltwater intrusion or reduced availability during severe drought conditions (SFWMD LECWSP 2018 Appendix D). The South Dade Water Supply System, which is comprised of five smaller water treatment plants that serve residents south of S.W. 248 Street in the unincorporated areas of the County, has been identified as one such utility. This system includes wells near the saltwater interface and does not include a western well located further inland, has not developed alternative water sources, and/or has limited ability during a drought to meet user needs through interconnects with other utilities. The Miami Springs and Hialeah Preston wellfields were also identified as being near the saltwater interface, but these wellfields have access to other water sources during drought conditions.¹

Saltwater intrusion in Miami-Dade County is monitored through a network of small diameter wells drilled to the base of the aquifer. The salt front is identified as the location, at the base of the aquifer, of the 1,000 milligrams/per liter isochlor, or line of equal chloride concentration of 1,000 mg/L. The data derived from sampling is used to identify any significant movement of the salt front, and to delineate the location of the salt front as needed. Additional wells have been drilled to monitor areas

¹ Miami-Dade County Water Supply Facilities Work Plan (2014-2022)

where the salt front is moving, and sampling of wells already by-passed by the salt front has been discontinued. Other wells have been drilled around the operating wellfields to provide additional protection. The network of monitoring wells will continue to be adjusted, depending on the evolving needs of the county and changing hydrologic conditions.

The second component of the LOS standards for potable water requires that water be delivered to users at a pressure no less than 20 pounds per square inch (psi) and no greater than 100 psi. In 2013, WASD completed a systemwide pressure analysis to identify areas that require improvement. WASD is in the process of implementing the recommendations from the report which includes pipeline improvements, completing a second update to the hydraulic model, and model calibration to identify and rank system improvement projects.

The third component of LOS standards for potable water requires that the County's public water supply meet all federal, state, and County standards. WASD water managers test raw and finished water more than 100,000 times annually both before and after treatment at water treatment plants. WASD publishes an annual Water Quality Report that provides public information on water treatment and the parameters (contaminants) that are monitored through regular testing by WASD³. For 2010-2020, WASD reports no violations of state or federal standards for drinking water. Depending on the water treatment plant, WASD uses treatment systems including disinfection, filtration, fluoridation, and air stripping towers (for the removal of volatile organic compounds) to maintain high quality water for Miami-Dade County customers.

The fourth component of the potable water LOS standard requires that Countywide storage capacity for finished (or treated) water shall equal no less than 15 percent of the Countywide average daily demand. This standard helps to ensure that the County has sufficient water during daily peak demand hours, during prolonged fire events, and during source or pump failures. The Countywide projected annual average daily demand for 2020 is approximately 332 million gallons per day. Fifteen percent of 332 MGD would be 50 MGD and the system-wide storage capacity, as shown in Table 2.5.1-3, is 129.6 million gallons. The County has achieved and surpassed this Level of Service monitoring measure.

Table 2.5.1-3
Miami-Dade WASD Finished Water Storage Capacity

Finished Water Storage Facility Location Name	Capacity (MGD)
Hialeah-Preston Subarea Ground Storage Tanks and Clear Wells	64.00
Alexander-Orr Subarea Ground Storage Tanks and Clear Well	65.60
South Dade Subarea	N/A
Finished Water Storage Facility Location Name	Capacity (MGD)
Total Systemwide Storage Capacity for Finished Water	129.60

*Source: Miami Dade Water and Sewer Department
MGD= Million Gallons per Day*

The fifth and final component of the potable water LOS standard requires the capacity per unit of demand. The gallons per capita per day fluctuates on a yearly basis and is a function of both population and water flows. WASD is therefore utilizing the highest per capita demand observed during the five-year period of 2017 to 2021 as the Level of Service standard for potable water. As shown in Table 2.5.1-4 on the following page, the highest per capita demand for potable water during this time period was approximately 139 gallons per capita per day in 2018 . This figure is slightly higher than the per capital demand of 137.86 gpcd utilized for WASD’s Water Use Permit. The per capita demand will be monitored yearly and revised as necessary.

Table 2.5.1-4
Per Capita Potable Water Demand

<u>Year</u>	<u>Population</u>	<u>Annual Average Daily Flows (MGD)</u>	<u>Gallons Per Capita per Day (GPCD)</u>
<u>2017</u>	<u>2,331,959</u>	<u>323.68</u>	<u>138.80</u>
<u>2018</u>	<u>2,357,013</u>	<u>328.08</u>	<u>139.19</u>
<u>2019</u>	<u>2,382,067</u>	<u>323.00</u>	<u>135.60</u>
<u>2020</u>	<u>2,407,121</u>	<u>324.26</u>	<u>134.71</u>
<u>2021</u>	<u>2,432,406</u>	<u>327.02</u>	<u>134.44</u>

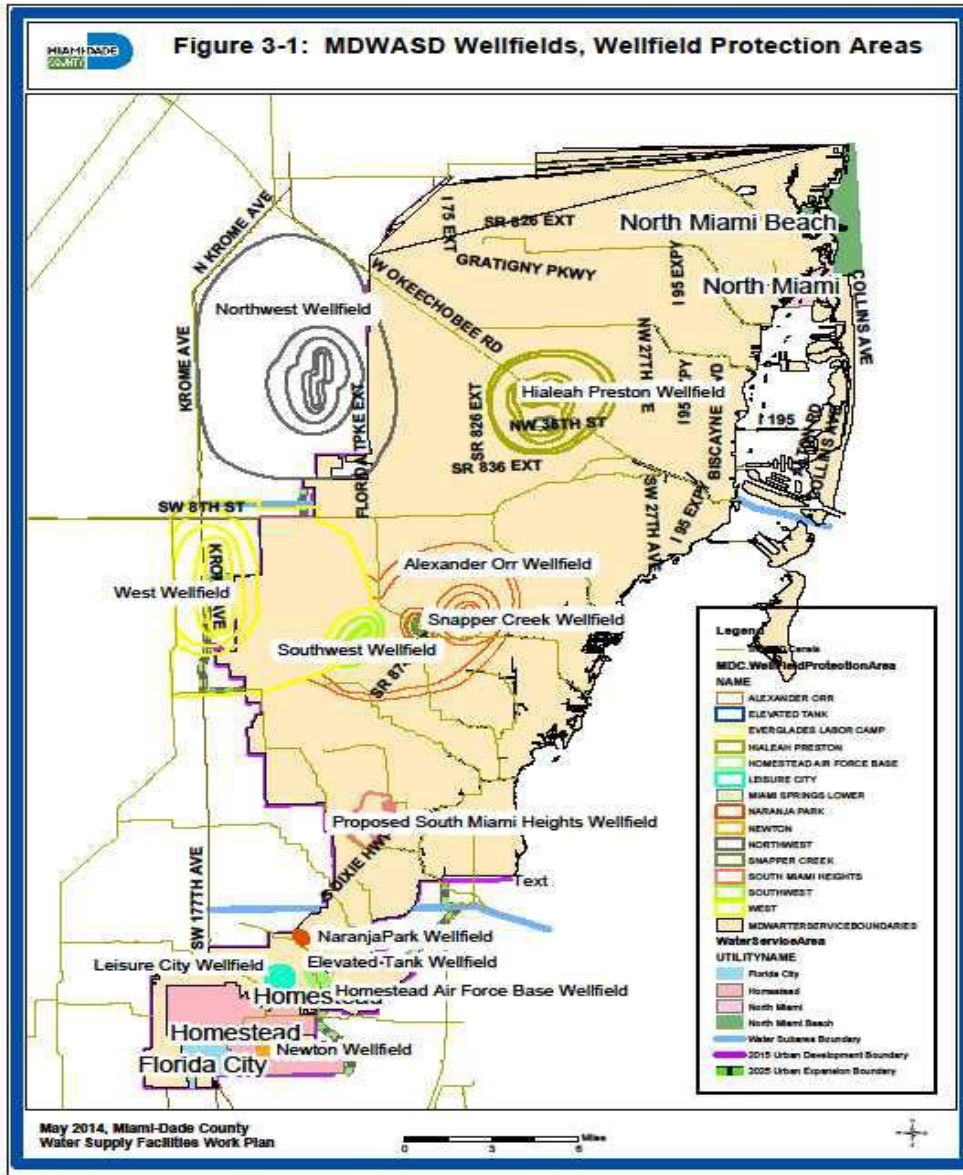
Source: Miami Dade Water and Sewer Department
MGD = Million Gallons per Day

Additional monitoring measures include water treatment plant capacity for the system and reserve capacity of raw water. “Plant rated capacity (MGD)” figures can be reviewed in the first column of Table 2.5.1-1 for 2010-2020. Reserve capacity of raw water is reported within the analysis provided for Objective 6 in conjunction with a discussion of the County’s efforts to utilize Aquifer Storage and Recovery systems.

~~As will be shown in more detail in the “Data Analysis” section, the WASD water supply and treatment systems have sufficient installed capacity to produce more potable water than is currently required within its service area to meet current demands and future projections.~~

3.2 Hialeah Preston Water Service Area and Facilities

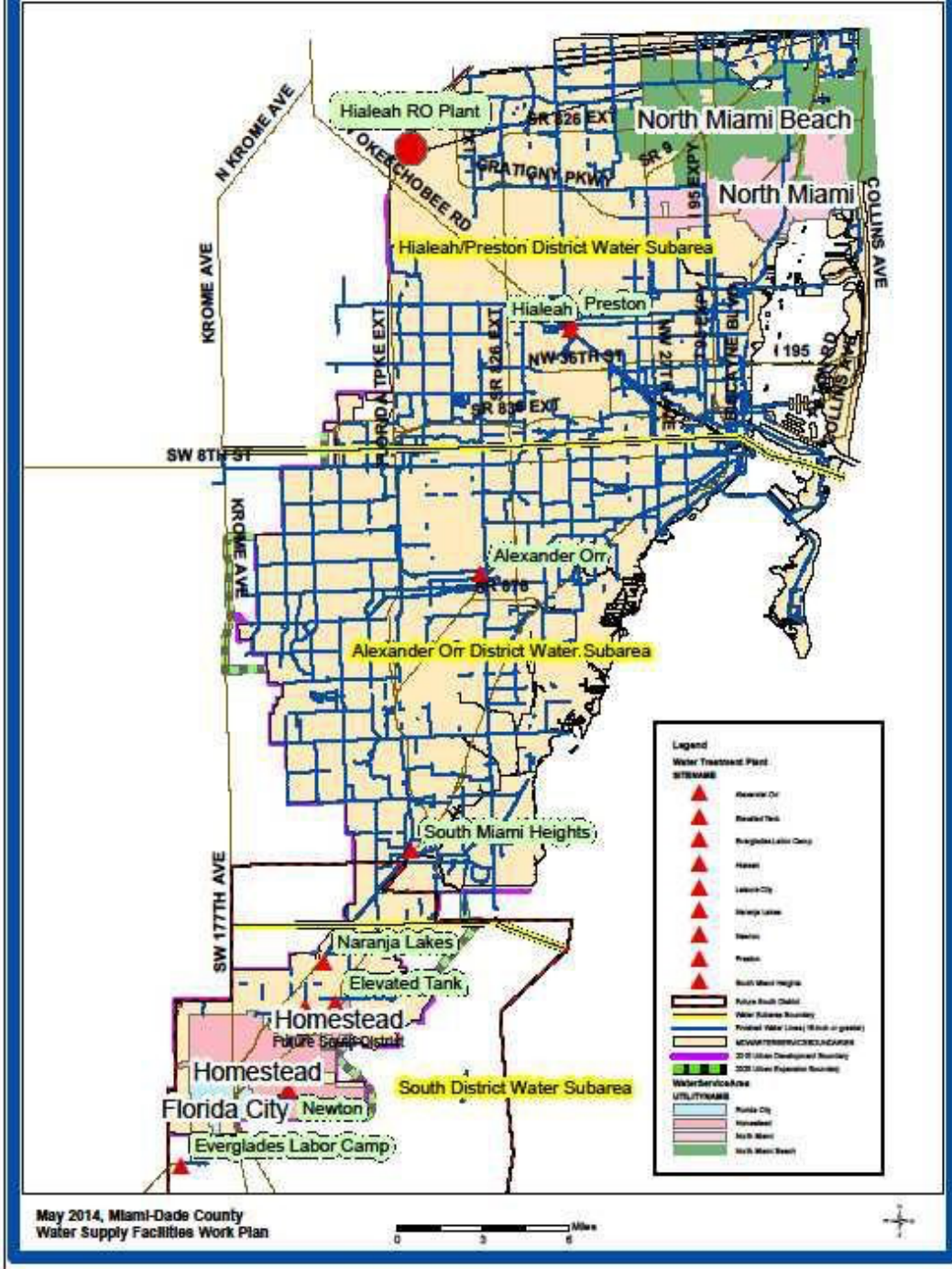
~~The Town of Surfside is a wholesale customer and receives water from the Miami Dade Water and Sewer Department’s Hialeah Preston service area. The Hialeah Preston Water Treatment Plants (WTPs) and their associated wellfields and finished water lines are illustrated in **Figure 3.1** and **Figure 3.2** respectively.~~



Source: Miami-Dade County 2008 Water Supply Facilities Work Plan.
 Source: WASD's 20 year water supply plan (2014 -2033)

Figure 3.2

Figure 3-2: MDWASD Water Treatment Plants and Finished Water Lines



Source: WASD's 20 year water supply plan (2014 -2033)

Hialeah Water Treatment Plant (WTP)

The Hialeah WTP was originally designed in 1924 with a total capacity of 10 mgd. By 1935, the plant's capacity totaled 40 mgd. In 1946, capacity was increased to 60 mgd. Air strippers with a capacity of 84 mgd were added to the treatment process in 1991 to remove volatile organics from the finished water. A 3.2 MG storage reservoir for both the Hialeah and John E. Preston WTPs was also added in 1991. The Hialeah WTP has a current rated capacity of 60 mgd and there are plans to rorate and upgrade the Hialeah WTP to a capacity of 70 mgd, if necessary. The treatment process for this WTP includes lime softening with sodium silicate activated by chlorine, recarbonation, chlorination, ammoniation, fluoridation, filtration, and air stripping. The plant site is relatively small, and is surrounded by residential areas.

Hialeah WTP Wellfields

The source water for the Hialeah WTP is from the Hialeah-Miami Springs Wellfields, supplemented by the Northwest Wellfield. There are three active wells located in the Hialeah Wellfield constructed in 1936. Each well is 14 inches in diameter, 115 feet deep and have casing depths of 80 feet. The total wellfield capacity is 12.54 mgd or 8,700 gpm (2,900 gpm for each well). The twenty active wells located in the Miami Springs Wellfield were constructed between 1924 and 1954. These wells are 14 inches and 30 inches in diameter, 80 to 90 feet deep and have casing depths of 80 feet. The total wellfield capacity is 79.30 mgd or 55,070 gpm (ranging between or 2,500 and 5,000 gpm for each well). The Northwest Wellfield has fifteen active wells that were constructed in 1980. The wells are 40 inches and 48 inches diameter and 80 to 100 feet deep, with casing depths ranging from 46 to 57 feet. These wells have two-speed motors. The total nominal capacity of the wells at the low speed flow rate is 149.35 mgd. The capacity of each well, except well No. 10, is 10 mgd at the low speed flow rate. Well No. 10 has a low speed capacity of 9.35 mgd. The total nominal capacity for the wells at the high speed flow is 220.94 mgd.

John E. Preston Water Treatment Plant (WTP)

The John E. Preston WTP was originally designed as a 60 mgd plant in 1968 and upgraded to 110 mgd in 1980. The plant was re-rated to a total capacity of 130 mgd in 1984. The plant reached its present capacity of 165 mgd with another addition in 1988. In 1991, the plant was modified with an air stripping capacity of 185 mgd to remove VOCs. In 2005, plant process modifications to provide enhanced softening for reduction of color and total organic carbon came on line. The main source of water for the Preston WTP is from the Northwest Wellfield. The current rated capacity is 165 mgd with a treatment process similar to that of the Hialeah WTP. This includes lime softening with ferric and other coagulant and chemicals added prior to lime for enhanced softening, recarbonation, chlorination, ammoniation, fluoridation, filtration, and air stripping. The Preston plant is also located in a residential area of Hialeah.

John E. Preston WTP Wellfields

The seven active wells located in the John E. Preston Wellfield were constructed in 1966 and 1972. Each well is 42 inches in diameter, 107 feet deep and have casing depths of 66. The capacity of wells No. 1 through No. 6 is 5,000 gallons per minute (gpm) each and the capacity of well No. 7 is 7,000 gpm. The total wellfield capacity is 53.28 mgd.

Hialeah-Preston Water Distribution Facilities

Finished water from the Hialeah and John E. Preston WTPs is pumped through a system of dedicated low-pressure pipelines to remote storage tanks and pumping facilities. This system provides water service to the southeastern part of the Hialeah Preston subarea. The low-pressure system starts at the Hialeah WTP with a 42-inch diameter main heading due east along N.W. 62nd Street, and 36-inch and 42-inch diameter mains running southeast along Okeechobee Road then parallel to the Miami River. The main on N.W. 62nd Street connects to the N.W. 67th Street pumping station, which pumps the water to the south through a 30-inch diameter main running along N.W. 10th Ave. The 30-inch diameter main continues south and connects into the N.W. 36th Street pumping station. This main continues further south and connects into the golf ground pump station.

The 36-inch and 42-inch diameter mains combine into a 54-inch diameter main at N.W. 42nd Avenue. They split again into a 36-inch and a 42-inch diameter main at N.W. 32nd Avenue. These mains connect to the 30th Avenue pump station. The 30th Avenue pump station feeds two 36-inch diameter mains that connect to the 20th Street pumping station to complete the loop. The pipe loop is made predominantly of concrete and cast iron pipes that were installed in the early 1930s. Some segments of this loop having been in service for more than 60 years. Replacement of these pipes are scheduled in the WASD maintenance program.

The remaining part of this subarea is served by a high-pressure system. Water is pumped into the system by five high service in-plant pumps with a total capacity of 34.1 mgd at 167 feet total dynamic head (TDH). The high-pressure system delivers water service to Hialeah, Miami Springs, and a high-pressure main connected to the City of Miami. The northern section of the subarea is supplied by one major piping loop. The loop begins at the plant with a 72-inch diameter main heading north along West 2nd Avenue, next it turns west at West 20th Street, and then it turns North along West 4th Avenue to NW 191st Street. At this location, it turns east until it reaches N.E. 18th Avenue. It then turns south and connects into a 54-inch diameter main that connects to the N.W. 67th Street pumping station.

The southwestern portion of the subarea is supplied by a 36-inch diameter main that connects to the 54-inch diameter main heading out of the John E. Preston WTP at West 25th Street. The main heads west on N.W. 74th Street then turns south on N.W. 107th Avenue. It eventually interconnects with the Alexander Orr, Jr. subarea piping network on S.W. 56th Street around S.W. 117th Avenue.

Hialeah-Preston Finished Water Storage Facilities

The finished water storage facilities for the Hialeah-Preston subarea consist of both “in-plant” and remote storage facilities. The storage facilities are summarized below in **Table 3.1**.

Table 3.1
Hialeah-Preston Finished Water Storage Facilities

<u>Location</u>	<u>Description</u>	<u>Capacity (MG)</u>
<u>Hialeah WTP</u>	<u>Reservoir — Ground Storage</u>	3.0
<u>Hialeah WTP</u>	<u>Clearwell</u>	1.7
<u>John E. Preston WTP</u>	<u>Ground Storage Tank No. 1</u>	9.0
<u>John E. Preston WTP</u>	<u>Ground Storage Tank No. 2</u>	14.0
<u>John E. Preston WTP</u>	<u>Clearwell</u>	1.1
<u>N.W. 20th Street</u>	<u>Ground Storage Tank</u>	7.5
<u>N.W. 36th Street</u>	<u>Ground Storage Tank</u>	5.0
<u>N.W. 67th Street</u>	<u>Ground Storage Tank</u>	8.2
<u>N.W. 30th Street</u>	<u>Ground Storage Tank</u>	2.5
<u>N.E. 79th Street</u>	<u>Elevated Storage Tank</u>	2.0
<u>Carol City</u>	<u>Ground Storage Tank</u>	2.0
<u>Total Storage</u>		56.0

Source: WASD's 20-year water supply plan (2014-2033)

3.3 Potable Water Level of Service Standard

The Town of Surfside currently coordinates with WASD to meet existing and projected demands based on level of service (LOS). The existing LOS for the Town of Surfside based on WASD goals for potable water is as follows:

(a) The regional treatment system shall operate with a rated maximum daily capacity no less than 2 percent above the maximum daily flow for the preceding year, and an average daily capacity 2 percent above the average daily system demand for the preceding 5 years. The maximum daily flow shall be determined by calculating the average of the highest five single day flows for the previous 12 months.

(b) Water shall be delivered to users at a pressure no less than 20 pounds per square inch (psi) and no greater than 100 psi. Unless otherwise approved by the Miami-Dade Fire Rescue Department, minimum fire flows based on the land use served shall be maintained as follows:

Land Use	Min. Fire Flow (gpm)
Single Family Residential Estate	500
Single Family and Duplex; Residential on minimum lots of 7,500 sf	750
Multi-Family Residential; Semiprofessional Offices	1,500
Hospitals; Schools	2,000
Business and Industry	3,000

3.4 Population and Potable Water Demand Projections

The Town of Surfside does not provide its own water supply and as a result it purchases water from WASD. The following projections are based on the WASD 20 Year Water Supply Facilities Work Plan.

Historic Population

~~This section presents historical and projected population projections from Year 2004 through Year 2030 for WASD's service area. Population data were obtained from the Miami-Dade County Department of Regulatory and Economic Resources (RER) Planning Division, based on the 2010 Census and derived from Traffic Analysis Zones (TAZ). On June 20, 2014 February 9, 2015, WASD submitted SFWMD approved an application for modification and extension of the 20-year Water Use Permit (WUP) No. 13-00017-W. The modification and extension to the current WUP are request was a result of revised population projections based on the 2010 Census and the continued successful implementation of the County's Water Conservation Plan. The requested modification to the WUP included new population data, revised water demand projections and alternative water supply projects to support water demands through the year 2033. WASD's~~

Reuse projects were listed but they are not required to address water supply. The revised population projections for the Water Use Permit expiring February 9, 2035 are consistent with or slightly lower than the projections in the SFWMD 2013 Lower East Coast Water Supply Plan Update.

Historical populations served by the WASD system were previously provided are shown in ~~Table 2.5.1-4~~ ~~3.2~~ in one year increments from Year ~~2017~~ 2004 to Year ~~2021~~ 2013. The population in the WASD's service area grew approximately 2.8% between Year 2010 and year 2013. The WASD system served approximately 86% of the County's total population in 2013. Table 3.2 also provides a summary of Surfside's recent resident population, annual daily flows from purchased water and per capita water use. ~~historical use for both finished water and raw water.~~

**Table 3.2
TOWN OF SURFSIDE HISTORIC WATER DATA
MIAMI DADE WATER AND SEWER DEPARTMENT HISTORIC
POPULATION AND WATER USE**

Municipality	Water Consumptions (MGD)			Municipal Population			Per Capita		
	2005	2006	2007	2005	2006	2007	2005	2006	2007
Town of Surfside	1.06	1.09	1.06	5078	5119	5159	209	214	206

Source: Miami Dade County WASD.

Table 3.2 TOWN OF SURFSIDE POPULATION AND WATER FLOWS

<u>Fiscal Year</u>	<u>Resident Population (BEBR)</u>	<u>Annual Average Daily Flows (MGD)</u>	<u>Gallons per Capita per Day (GPCPD)</u>
2018	<u>5,934</u>	<u>1.060</u>	<u>179</u>
2019	<u>6,015</u>	<u>0.984</u>	<u>164</u>
2020	<u>5,689</u>	<u>0.932</u>	<u>164</u>
2021	<u>5,593</u>	<u>0.926</u>	<u>166</u>
2022	<u>5,446</u>	<u>0.920</u>	<u>169</u>

Source: Town of Surfside Finance Department

Water and Sewer Department (WASD).

1	2	3	4	5	6	7	8	9	10	11	12	13
Year	FINISHED WATER HISTORICAL USE						RAW WATER HISTORICAL USE (a)					
	Population Served *	Per Capita Usage (gpcd)	Total Annual Use (MG)	Average Month Use (MG)	Max Month Use (MG)	Ratio Max: Aver. Month	Per Capita Usage (gpcd)	Total Annual Use (MG)	Average Month Use (MG)	Max Month Use (MG)	Ratio Max: Aver. Month	Ratio Finished:Raw (Total Annual Use)
TOTAL WASD WATER SYSTEM SERVICE AREA **												
2004	2,090,099	162.5	124,301	10,358	10,861.1	1.05	165.6	126,685	10,557	11,063	1.05	1.019
2005	2,101,772	161.8	124,098	10,342	10,734.8	1.04	165.1	126,670	10,556	11,031	1.04	1.021
2006	2,113,445	161.6	124,677	10,390	10,988.6	1.06	164.7	127,019	10,585	11,170	1.06	1.019
2007	2,125,118	150.3	116,602	9,717	10,485.4	1.08	151.6	117,585	9,799	10,648	1.09	1.008
2008	2,136,791	138.1	108,029	9,002	9,583.0	1.06	149.4	116,820	9,735	10,508	1.08	1.081
2009	2,148,464	142.3	111,627	9,302	9,662.7	1.04	151.2	118,575	9,881	10,550	1.07	1.062
2010	2,160,138	141.4	111,453	9,288	9,700.0	1.04	151.0	119,056	9,921	10,346	1.04	1.068
2011	2,181,073	140.2	111,585	9,299	9,597.6	1.03	149.2	118,768	9,897	10,273	1.04	1.064
2012	2,202,008	134.8	108,626	9,052	9,693.9	1.07	142.5	114,807	9,567	10,223	1.07	1.057
2013	2,222,944	136.5	110,388	9,199	9,483.7	1.03	144.6	117,623	9,802	10,252	1.05	1.066
3-year Average (2011-2013)	-	137.2	-	-	-	1.04	145.4	-	-	-	1.05	1.062

Population Projections

Population projections for WASD's service area in five year increments from Year 2020 2015 to 2035 2030 are shown in **Table 3.3**.

Table 3.3
Population Projections to be Served by WASD

Year	Total WASD	Total* County
2015	2,266,092	2,631,629
2020	2,370,769	2,766,823
2025	2,475,446	2,902,018
2030	2,580,123	3,037,212

Source: WASD's 20 year water supply plan (2014-2033)

Table 3.3
Population Projections to be Served by WASD

Year	Total WASD	Total* County
<u>2020</u>	<u>2,361,344</u>	<u>2,701,767</u>
<u>2025</u>	<u>2,445,436</u>	<u>2,800,485</u>
<u>2030</u>	<u>2,532,174</u>	<u>2,914,784</u>
<u>2035</u>	<u>2,620,629</u>	<u>3,021,275</u>

Source: 2023-2024 SFWMD LEC Plan Appendices, Draft

Population projections for the Town of Surfside in 5-year increments from the year 2020 2015 to 2035 2030 are shown in Table 3.4.

Table 3.4
Town of Surfside Population

Year	Population
2015	5,866
2020	6,019 <u>5,262</u>
2025	6,173 <u>6,493</u>
2030	6,326 <u>6,725</u>
<u>2035</u>	<u>6,956</u>

Source: SFWMD LEC Appendix C, Final 2022

Water Demand Projections

Table 3.5 provides the projected water use for Year 2015 through Year 2030 for the WASD service area. The water demand projections are based on a system wide finished water daily per capita use rate of 137.2 gallons per capita per day (gpcd). The per capita use rate was determined by taking a 3-year average from 2011 to 2013.

**Table 3.5
Miami-Dade Water and Sewer Department (WASD) Water Demand
Projection**

Year	Population ¹	Finished Water Use (gpcd)	AADD ² Finished Water Use (MGD)	Water ³ Conservation Credit (MGD)	Reuse ⁴ Reclaimed Water Credit	Adjusted ⁵ Finished Water Demand (MGD)	Adjusted Finished Water Use (gpcd)
2015	2,266,092	137.2	310.84	2.0	0.00	308.80	136.27
2020	2,370,769	137.2	325.20	4 5.4	0.00	319.76	134.88
2025	2,475,446	137.2	339.56	8.84	0.00	330.72	133.60
2030	2,580,123	137.2	353.92	9.55	0.00	344.37	133.47

Source: Miami-Dade County Planning and Zoning Department, WASD 20 Year Water Supply Plan.

Source: WASD's 20 year water supply plan (2014-2033)

Footnotes

- (1) Population Served represents the TAZ population projections based on 2010 Census Data provided by the MDC RER Planning Division.
- (2) Annual Average Daily Demand (AADD) Finished Water Projections between 2015 and 2030 assume 137.2 gpcd (a decrease from 145.4 gpcd) total water system demand prior to application of credits (e.g. conservation).
- (3) WASD has implemented a 20-year water use efficiency plan and is experiencing reductions in per capita water consumption. Water Conservation projections were revised based on the 2010 Annual Water Conservation Plan Conserve Florida Report (March 2011). Real losses in non-revenue water (e.g. unaccounted-for-water) are assumed to remain at less than 10%. The conservation amounts experienced through 2010 (6.54 MGD) were deducted from the 20-year conservation amount in the Conserve Florida Report and the remaining conservation amounts were distributed for the balance of the 20-year period (2011-2027).
- (4) Not Used
- (5) Adjusted after taking credit in finished water demand projections for reductions in finished water use associated with water conservation.

Table 3.6 provides the projected water use for Year ~~2020~~ 2015 through Year ~~2035~~ 2030 for the Town of Surfside utilizing the Town's 5-year average finished water use rate of 168.4 ~~148.04~~ gallons per capita per day, which is higher than the system wide 5-year peak average of 139.2 ~~137.2~~ gallons per capita per day (gpcd) in Table 2.5.1-4.

Table 3.6
Town of Surfside Water Demand Projection

Year	Population	Per-Capita Consumption GPCD	Projected Consumption	
			GPD	MGD
2015	5,866	148.04	868,399	.87
2020	6,019	148.04	891,073	.89
2025	6,173	148.04	913,747	.91
2030	6,326	148.04	936,421	.94

Source: WASD's 20-year water supply plan (2014-2033)

Year	Population	Per Capita Consumption GPCD	Projected Consumption	
			GPD	MGD
2020	6,262	168.4	1,054,521	1.055
2025	6,493	168.4	1,093,421	1.093
2030	6,725	168.4	1,132,490	1.132
2035	6,956	168.4	1,171,390	1.171

4.0 CAPITAL IMPROVEMENTS

As shown in the water demand projections presented above, the WASD's projected finished water demands are now significantly lower than anticipated when the first 20-year water use permit application was submitted to South Florida Water Management District (SFWMD) in 2007. The updated water demand projections have resulted in 71 million gallons per day decrease by the year 2030. This demand reduction has eliminated the anticipated supply shortages which were the basis for an ambitious schedule of several costly alternative water supply projects which are no longer required or needed. As such, reuse projects to address water supply have been eliminated. However, WASD will be implementing a total of 117.5 mgd of reuse to address the Ocean Outfall Legislation which includes 27.6 mgd of Floridan Aquifer Recharge and up to 90 mgd of reuse water to FPL for Turkey Point Units 5, and 6.

4.1 Work Plan Projects

The following proposed alternative water supply (AWS) projects are based on the projected decrease in water demands reflected in the County's modified 20-Year Water Use Permit (WUP)

No. 1300017-W expiring February 9, 2035. Water conservation activities are funded annually through the operations and maintenance budget and are therefore not included in the capital budget.

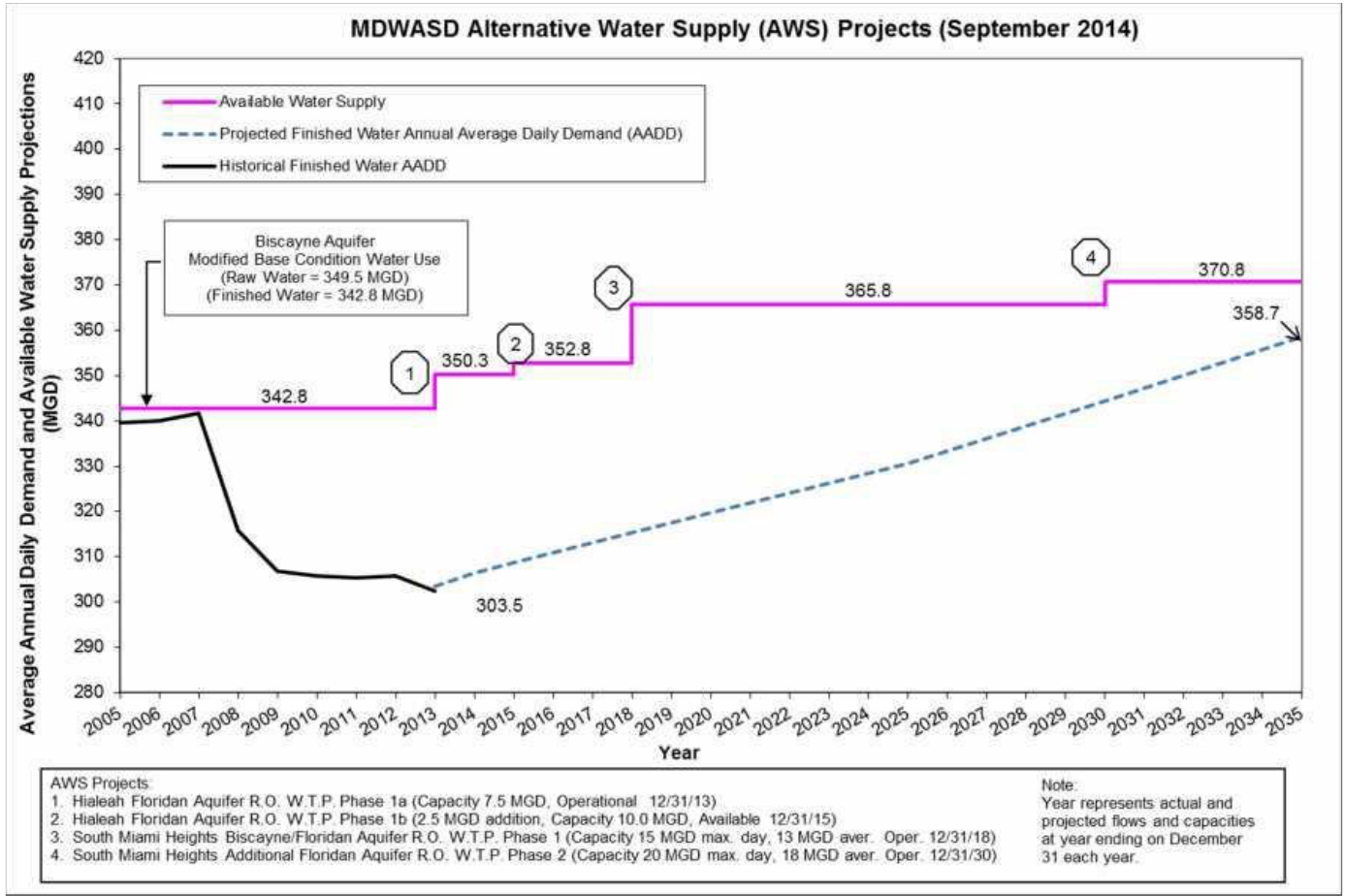
The improvements described herein in **Table 4.1** and illustrated in **Figure 4.1** will be sufficient to meet water demand through the County’s 20 10-year planning horizon and the Town’s 45 10-year planning horizon. These projects assume that all current wholesalers will remain on the WASD system.

Table 4.1
Proposed Alternative Water Supply Projects

<u>Year</u>	<u>Project Title</u> <u>Annual Average Finished Water Quantity in MGD</u>		<u>Source</u>
<u>2013</u>	<u>7.5</u>	<u>Hialeah Floridan Aquifer RO WTP-Phase 1-a, 10 MGD & 6 Floridan Aquifer supply wells</u>	<u>AWS</u>
<u>2015</u>	<u>2.5</u>	<u>Hialeah Floridan Aquifer RO WTP-Phase 1-b, 4 Floridan Aquifer supply wells</u>	<u>AWS</u>
<u>2018</u>	<u>12.45</u>	<u>South Miami Heights WTP Phase 1(RO portion)</u>	<u>AWS</u>
<u>2030</u>	<u>5.0</u>	<u>South Miami Heights WTP Phase 2(RO portion)</u>	<u>AWS</u>
<u>Total</u>	<u>27.45</u>		

Source: WASD’s 20 year water supply plan (2014-2033)

Figure 4.1



Source: W.A.S.D.'s 20 year water supply plan (2013)

4.2 Capital Improvements/Schedule

As mentioned in the previous sections, the latest lower population projections based on the 2010 Census results and historically lower per capita daily finish water use have reduced the projected finish water demands, eliminating the need for other alternative water supply projects by several years. The WASD Water and Alternative Water Supply (AWS) projects to address water demands include the South Miami Water Treatment Plant and Wellfield and the Hialeah Reverse Osmosis Water Treatment Plant shown in **Figure 4.2**.

South Miami Heights W.T.P. and Wellfield (20 MGD) 17.45MGD Floridan Aquifer RO and 2.55 MGD Biscayne Aquifer Start 2014/Finish 2019

Design of the South Miami Heights (SMH) Water Treatment Plant (WTP) and Wellfield began commencement in 2014. The WTP will be located at 18800 SW 208 Street in Miami. The RO WTP and associated facilities will have a capacity to produce 20 mgd (max day) finished water using a combination of 17.45 mgd from the Floridan Aquifer and 2.55 mgd from the Biscayne Aquifer. Phase 1 will have a maximum capacity of 15 mgd to be operational by December 31, 2019, and Phase 2 will have a maximum capacity of 20 mgd, operational by December 31, 2030. A total of five (5) Biscayne Aquifer wells and seven (7) Floridan Aquifer wells are planned to be constructed.

Upon completion of the WTP, the Elevated Tank, Leisure City, and Naranja WTPs will be abandoned and their associated allocations will be transferred to the SMHs WTP. Everglades Labor Camp and Newton WTPs will remain on stand-by service.

Hialeah Floridan Aquifer R.O. W.T.P (10 MGD)

A new upper Floridan Aquifer Reverse Osmosis (RO) water treatment plant was constructed in 2013, and is located at 4250 W. 114th Terrace in the City of Hialeah. The WTP was constructed pursuant to a Joint Participation Agreement between the City of Hialeah and the County which was approved by the Board of County Commissioners on July 24, 2007 and called for the design, construction, and operation of a water treatment plant constructed in the annexation area and supplied by the brackish Floridan aquifer to produce initially 10 mgd with the capacity to expand to 17.5 mgd. Approval from the Florida Department of Health to produce and distribute water was received in November 2013. The WTP utilizes the Floridan Aquifer as the alternative water supply using the RO treatment to remove the salt. The initial operational phase of the Plant is 7.5 mgd, increasing to 10 mgd by the end of 2015 when construction of additional wells is expected to be completed.

Phase 1-a (7.5 MGD) - Completed 2013

Phase 1-a of the RO WTP included a 10 mgd plant and an initial six (6) Floridan Aquifer supply wells. The phase 1-a cost was about \$95 million.

Phase 1-b (2.5 MGD) - Start 2014/Finish 2015

Phase 1-b of the RO WTP will consist of the construction of four (4) Floridan Aquifer supply wells for a maximum treatment capacity of 10 mgd. The Phase 1b cost is estimated at approximately \$5 million.

Miscellaneous Projects

In addition to the Alternative Water Supply (AWS) projects described above, WASD will also utilize tools to evaluate and plan for sea level rise and climate change. The primary concern as it pertains to the WASD water supply is salt water intrusion into the freshwater Biscayne aquifer, the primary source of drinking water in Miami-Dade County. Results of initial evaluation and data analysis indicate that within the next thirty years WASD will be able to operate its wellfields and water treatment facilities as designed. Groundwater modeling indicates that even with a high level of projected sea level rise, the wellfields will not be impacted by salt water intrusion. Further modeling is currently underway to extend the planning scenarios fifty years out, and will include climate changes such as increases and decreases in annual precipitation and extreme weather events.

Water conservation projects are also currently being implemented by WASD as part of the County's 20-Year Water Use Efficiency Plan, expected to reduce potable water demand by 19.62 MGD over that time period. Examples of ongoing conservation projects include bathroom and kitchen retrofit, rebates for high efficiency toilets, and landscape irrigation evaluations for residential, commercial and governmental use.

Figure 4.12
WASD Water/Alternative Water Supply CIE Projects



MIAMI-DADE WATER AND SEWER DEPARTMENT
2014-2020 CAPITAL BUDGET AND MULTI-YEAR CAPITAL PLAN
Projection by Project Sub-project by Year - Water
As of: 9/30/2013

Version 4

Proj Sub-Proj Sub-Proj Description	Current Bond/Fund Allocation	Expenditures As of 9/30/2013	Remaining Bond/Fund Allocation	PROJECTIONS											
				2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023	Futu	
1075 101546 WATER TREATMENT MODIFICATIONS TO COMPLY WITH SURFACE WATER TREATMENT AND DISINFECTANT/INSPECTION BY PRODUCT REGULATIONS	532,824,088	13,204,885	519,622,203	500,000	1,000,000	7,500,000	20,000,000	20,000,000	176,682,053	180,710,573	135,430,377	0	0	0	0
101891 NEW NWWF HIGH SERVICE PUMP STATION	43,250,000	0	43,250,000	0	0	1,500,000	10,000,000	10,000,000	15,000,000	14,500,000	2,250,000	0	0	0	0
TOTAL - 1075	585,954,088	13,204,885	572,745,203	300,000	1,300,000	12,200,000	33,300,000	33,300,000	194,762,053	195,210,573	138,680,577	0	0	0	0
1077 101364 SOUTH MIAMI HEIGHTS WTP AND WF - NEW WATER TREATMENT PLANT	75,456,139	5,389,891	70,066,248	206,000	1,500,000	20,000,000	26,913,097	26,913,097	5,727,131	15,726,020	0	0	0	0	0
101365 SOUTH MIAMI HEIGHTS WTP AND WF - NEW WELLFIELD	20,878,062	2,836,758	18,041,304	100,000	1,500,000	7,500,000	8,941,305	8,941,305	0	0	0	0	0	0	0
101575 CONSTRUCTION MANAGEMENT AT SOUTH MIAMI HEIGHTS WTP	4,700,000	1,993,567	2,706,433	123,356	500,000	1,460,764	622,313	622,313	0	0	0	0	0	0	0
101778 DESIGN AND CONSTRUCTION OF PROPOSED 16 INCH WATER MAIN	4,500,000	1,477,596	3,022,404	144,249	1,400,000	1,478,155	0	0	0	0	0	0	0	0	0
102020 SOUTH MIAMI HEIGHTS FA MEMBRANES WTP	42,000,000	0	42,000,000	0	0	0	0	0	0	0	0	42,000,000	0	0	0
102021 SOUTH MIAMI HEIGHTS - FA WELLS AND PIPING	21,600,000	0	21,600,000	0	0	0	0	0	0	0	0	21,600,000	0	0	0
TOTAL - 1077	169,134,201	11,697,812	157,436,389	567,605	4,900,000	30,438,919	36,476,715	36,476,715	5,727,131	15,726,020	0	63,600,000	0	0	0
1078 101368 TELEMETERING SYSTEM - WATER	17,297,263	2,650,110	14,647,153	2,214,885	1,133,067	3,433,067	3,433,067	3,433,067	2,433,067	2,000,000	2,000,000	0	0	0	0

Prepared by Capital Planning and Coordination Section



**MIAMI-DADE WATER AND SEWER DEPARTMENT
2014-2020 CAPITAL BUDGET AND MULTI-YEAR CAPITAL PLAN**

Projection by Project Sub-project by Year - Water

As of: 9/30/2013

Version 4

Proj	Sub-Proj	Sub-Proj Description	Current Bond/Fund Allocation	Expenditures Remaining As of 9/30/2013	Allocation	PROJECTIONS										Total		
						2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023		Future	
		TOTAL - 1078	17,297,243	2,650,110	14,647,133	2,214,885	1,133,067	2,433,067	2,433,067	2,433,067	2,433,067	2,000,000	2,000,000	0	0	0	0	14,647,133
1080	101679	HIALEAH FLORIDAN AQUIFER R.O. W.T.P. PHASE 1 (10 MGD) - COB IN 1065,101956	45,608,637	44,756,907	851,730	851,730	0	0	0	0	0	0	0	0	0	0	0	851,730
		101737 HIALEAH FLORIDAN AQUIFER R.O. W.T.P. PHASE 2 (5 MGD)	12,816,075	0	12,816,075	0	0	0	0	0	0	0	0	12,816,075	0	0	0	12,816,075
		101738 HIALEAH FLORIDAN AQUIFER R.O. W.T.P. PHASE 3 (2.5 MGD)	6,099,000	0	6,099,000	0	0	0	0	0	0	0	0	6,099,000	0	0	0	6,099,000
		TOTAL - 1080	64,523,712	44,756,907	19,766,805	851,730	0	0	0	0	0	0	0	18,915,075	0	0	0	19,766,805
1081	101966	INSTALLATION OF 12-INCH DIWM ON EAST DRIVE FROM NW 36 ST. TO LABARON DR.	687,042	602,944	84,098	50,000	34,098	0	0	0	0	0	0	0	0	0	0	84,098
		TOTAL - 1081	687,042	602,944	84,098	50,000	34,098	0	0	0	0	0	0	0	0	0	0	84,098
1082	101989	WATER - PIPES AND INFRASTRUCTURE PROJECTS	83,608,444	29,122,567	54,485,877	10,775,476	8,000,000	14,906,409	6,201,688	5,547,738	4,374,170	4,180,396	4,180,396	0	0	0	0	54,485,877
		TOTAL - 1082	83,608,444	29,122,567	54,485,877	10,775,476	8,000,000	14,906,409	6,201,688	5,547,738	4,374,170	4,180,396	4,180,396	0	0	0	0	54,485,877
		TOTAL - Water	4,067,616,612	410,768,117	3,656,848,495	83,880,760	119,010,688	214,146,080	255,797,526	418,171,885	403,102,053	305,885,696	1,852,270,268	2,583,540	2,000,000	0	0	3,656,848,496

Each year, Department of Regulatory and Economic Resources staff coordinate with Water and Sewer Department staff to update the list of capital improvement projects that are in progress and planned for the County. This list is included in the CDMP's Capital Improvement Element and as Table 2.5.1-8 and Table 2.5.1-9 in this section. The tables show ongoing system maintenance, upgrades, and efficiency improvement projects. The tables indicate the "purpose" of each line item; the purpose may be "existing deficiency", "future growth", or "combined". Each line item generally represents multiple individual projects. These tables also include projects mandated through the County's Water Use Permit (WUP) from the South Florida Water Management District that was issued in 2022 and expires in 2065, with an annual allocation of 148,018 million gallons (405.53 MGD) to year 2042. Projects specifically mandated by the WUP are listed below:

Alternative Water Supply Projects

- i) Hialeah Floridan Aquifer RO WTP-Phase 1-a, 10 MGD & 6 Floridan Aquifer supply wells - completed
- ii) Hialeah Floridan Aquifer RO WTP-Phase 1-b, 4 Floridan Aquifer supply wells
- iii) C-51 Reservoir
- iv) South Miami Heights WTP Back Up Phase 1 (RO portion)
- v) South Miami Heights WTP Back Up Phase 2(RO portion)

**Table 2.5.1-8
Water Facilities Capital Improvements Plan 2020-2025 (New)**

Project Name and Location	Purpose*/ Estimated Year of Completion	Prior Years	Revenues Expenditures					Six Year Totals	Future Years	Project Totals	
			2019/20	2020/21	2021/22	2022/23	2023/24				2024/25
(In Thousands of Dollars)											
SYSTEM IMPROVEMENTS PROJECT (BBCBP)	3/2025	5,597	150	145	0	0	0	6,895	7,189	0	12,785
Various Sites (Water 50%)		5,597	150	145	0	0	0	6,895	7,189	0	12,785
NEEDS ASSESSMENT PROJECTS (BBCBP)	3/2023	8,650	1,115	631	403	261	0	0	2,410	0	11,060
Various Sites (Water 80%)		8,650	1,115	631	403	261	0	0	2,410	0	11,060
WATER TREATMENT PLANTS - AUTOMATION	N/2020	2,247	0	0	0	0	0	0	0	0	2,247
Systemwide		1,747	500	0	0	0	0	0	500	0	2,247
MIAMI SPRINGS CONSTRUCTION FUND - WATER	3/2020	8,657	4,653	0	0	0	0	0	4,653	0	13,310
Miami Springs		8,657	4,653	0	0	0	0	0	4,653	0	13,310
WATER TREATMENT PLANT - FLORIDIAN REVERSE OSMOSIS	3/2022	7,867	1,200	1,000	800	0	0	0	3,000	0	10,867
700 W 2 Ave		7,867	1,200	1,000	800	0	0	0	3,000	0	10,867
WATER - PIPES AND INFRASTRUCTURE PROJECTS	1/2025+	44,997	16,928	14,277	11,750	10,350	8,000	8,000	69,305	8,000	122,302
Countywide		38,369	17,928	15,277	12,750	11,350	9,000	9,628	75,933	8,000	122,302
SOUTH MIAMI-DADE - WATER TRANSMISSION MAINS IMPROVEMENTS	3/2023	400	500	379	3,735	149	0	0	4,763	0	5,163
South Miami-Dade County		400	500	379	3,735	149	0	0	4,763	0	5,163
WATER TREATMENT PLANT - ALEXANDER ORR, JR. EXPANSION	3/2025	24,569	15,462	13,864	12,001	14,826	24,908	22,938	103,994	0	128,568
6800 SW 87 Ave		24,569	15,462	13,864	12,001	14,826	24,908	22,938	103,994	0	128,568
WATER TREATMENT PLANT - HIALEAH/PRESTON IMPROVEMENTS	3/2023	13,190	21,358	9,019	1,914	1,011	0	0	33,302	0	46,492
700 W 2 Ave and 1100 W 2 Ave		13,190	21,358	9,019	1,914	1,011	0	0	33,302	0	46,492
WATER - EQUIPMENT	N/2025+	27,451	10,299	10,500	11,500	11,500	11,500	11,500	66,799	110,000	204,250
Systemwide		27,451	10,299	10,500	11,500	11,500	11,500	11,500	66,799	110,000	204,250
WATER TREATMENT PLANTS - REPLACEMENT AND RENOVATIONS	3/2025+	30,836	10,000	1,500	1,729	2,500	2,500	2,045	20,274	1,500	52,610
Water Treatment Plants		22,905	17,921	1,500	1,729	2,500	2,500	2,045	28,205	1,500	52,610
WATER - SYSTEM MAINTENANCE AND UPGRADES	3/2025+	36,920	16,485	14,304	15,000	15,000	15,000	15,000	90,789	15,000	142,709
Systemwide		34,524	18,185	15,000	15,000	15,000	15,000	15,000	93,185	15,000	142,709
WATER - REGIONAL GENERAL MAINTENANCE AND OFFICE FACILITIES	N/2025+	394	0	0	0	0	0	0	0	48,020	48,414
Systemwide		394	0	0	0	0	0	0	0	48,020	48,414
WATER - MAIN EXTENSIONS	1/2025	1,321	500	500	500	500	500	500	3,000	0	4,321
Systemwide		1,321	500	500	500	500	500	500	3,000	0	4,321
SOUTH MIAMI HEIGHTS - WATER TREATMENT PLANT AND WELLFIELD	3/2025	22,745	4,548	1,100	1,075	1,000	1,000	10,300	19,023	0	41,768
11800 SW 208 St		22,745	4,548	1,100	1,075	1,000	1,000	10,300	19,023	0	41,768
WATER - DISTRIBUTION SYSTEM EXTENSION ENHANCEMENTS	3/2025+	82,867	20,587	13,970	14,035	12,297	7,000	6,000	73,889	1,500	158,256
Systemwide		79,867	21,087	14,470	14,535	12,797	7,500	6,500	76,889	1,500	158,256
WATER SYSTEM - FIRE HYDRANT INSTALLATION	1/2025+	9,201	2,500	2,500	2,500	2,500	2,500	2,500	15,000	2,500	26,701
Systemwide		5,251	2,500	2,500	2,500	2,500	2,500	2,500	15,000	6,450	26,701
NORTH MIAMI-DADE - WATER TRANSMISSION MAIN IMPROVEMENTS	3/2025	32,184	18,603	32,245	12,364	1,731	551	386	65,880	0	98,064
North Miami-Dade County Area		32,184	18,603	32,245	12,364	1,731	551	386	65,880	0	98,064
CENTRAL MIAMI-DADE - WATER TRANSMISSION MAINS IMPROVEMENTS	3/2024+	266	0	0	254	700	1,000	4,220	6,174	4,271	10,711
Central Miami-Dade County Area		266	0	0	254	700	1,000	4,220	6,174	4,271	10,711
SAFE DRINKING WATER ACT MODIFICATIONS	3/2025	5,092	3,897	5,341	7,500	6,794	3,000	1,000	27,532	43,250	75,874
Systemwide		5,092	3,897	5,341	7,500	6,794	3,000	1,000	27,532	43,250	75,874
WATER - TELEMETERING SYSTEM ENHANCEMENTS	N/2025+	2,075	141	1,196	1,000	1,000	1,000	1,000	5,337	1,000	8,412
Systemwide		1,934	141	1,337	1,000	1,000	1,000	1,000	5,478	1,000	8,412
SMALL DIAMETER WATER MAINS - REPLACEMENT PROGRAM	1/2025+	105,859	30,355	28,003	33,545	33,964	25,508	22,096	173,471	30,101	309,431
Systemwide		80,860	35,354	33,003	38,545	38,964	30,508	22,096	198,470	30,101	309,431
TOTALS		473,384	179,281	150,474	131,605	116,083	103,962	114,380	795,784	265,142	1,534,310
		423,839	195,911	157,811	138,105	122,583	110,462	116,508	841,379	269,092	1,534,311

* 1 =Existing Deficiency; 2 =Future Growth; 3 =Combined Other; N = Not Applicable
Source: Miami-Dade Water and Sewer Department and Department of Regulatory and Economic Resources
Data provided by the Office of Management and Budget

Section 163.3191(2)(l) requires a discussion of alternative water supply projects, including conservation and reuse, to illustrate that water needs to serve existing and new development will be satisfied. Further, Section 163.3177(d)(3), Florida Statutes requires analysis of the current and projected needs and sources for at least a 10-year period based on the demands for industrial, agricultural, and potable water use and the quality and quantity of water available to meet these demands including consideration of the existing levels of water conservation.

Section 373.227, Florida Statutes states that, as part of a consumptive use permit, a public water supply utility may propose a goal-based water conservation plan that is tailored to its individual circumstances. The MDWASD 20-year Water Use Efficiency Plan, which included a goal-based water conservation program, was approved by the SFWMD in May 2007. The program includes implementation of water conservation best management practices such as indoor high efficiency plumbing fixture rebate programs, an outdoor landscape irrigation rebate program, public education outreach campaigns and water loss reduction efforts. The Plan also includes implementation of legislative policy measures that encourage water conservation including permanent landscape irrigation restrictions, Florida Friendly landscaping in new construction and right of ways, water use efficiency standards for plumbing fixtures in new residential and commercial developments and creation of water conservation education material on the relationship between water conservation and saltwater intrusion into the Biscayne Aquifer.

Implementation of the Water Use Efficiency Plan has been successful. Through the end of fiscal year 2020, 15.94 MGD has been saved through implementation of the Plan. Table 2.5.1-10 illustrates that the water usage has decreased by 9.06 million - gallons per day for the period 2010-2020 and the per capita has decreased by 6.65 gallons per capita per day from 2010 to 2020. The Table 2.5.1-9 also shows that the peak day to average day ratio for this reporting period (2010-2020) is lower than during the last reporting period (2003-2009). This indicates that spikes in water consumption were less frequent and smaller in volume; this measure is a second indication that water conservation efforts have been successful. Water conservation activities are funded annually through the operations and maintenance budget and are therefore not included in capital budgets.

Table 2.5.1-10
Historical Finished Water Use 2010-2020

Year	Population Served	Max Day Use MGD	Average Annual Use MGD	Gallons Per Capita Per Day	Peak to Average Ratio
<u>2010</u>	<u>2,160,138</u>	<u>361.20</u>	<u>305.35</u>	<u>141.36</u>	<u>1.18</u>
<u>2011</u>	<u>2,181,073</u>	<u>355.50</u>	<u>305.71</u>	<u>140.17</u>	<u>1.16</u>
<u>2012</u>	<u>2,202,008</u>	<u>344.40</u>	<u>296.79</u>	<u>134.78</u>	<u>1.16</u>
<u>2013</u>	<u>2,222,944</u>	<u>332.32</u>	<u>304.25</u>	<u>136.87</u>	<u>1.09</u>
<u>2014</u>	<u>2,243,879</u>	<u>339.68</u>	<u>302.56</u>	<u>134.84</u>	<u>1.12</u>
<u>2015</u>	<u>2,266,092</u>	<u>345.04</u>	<u>309.61</u>	<u>136.63</u>	<u>1.11</u>
<u>2016</u>	<u>2,287,027</u>	<u>347.65</u>	<u>321.63</u>	<u>140.63</u>	<u>1.08</u>
<u>2017</u>	<u>2,307,962</u>	<u>356.72</u>	<u>323.68</u>	<u>140.24</u>	<u>1.10</u>
<u>2018</u>	<u>2,359,179</u>	<u>361.37</u>	<u>328.08</u>	<u>139.07</u>	<u>1.10</u>
<u>2019</u>	<u>2,382,067</u>	<u>346.42</u>	<u>323.00</u>	<u>135.60</u>	<u>1.07</u>
<u>2020</u>	<u>2,407,121</u>	<u>352.14</u>	<u>324.26</u>	<u>134.71</u>	<u>1.09</u>

MGD = Million Gallons per Day

Source: Miami-Dade Water and Sewer Department, 2021

Elements of the County's Real Water Loss Reduction Plan include implementation of capital improvement projects i.e., rehabilitation and replacement of aging pipes, system management improvements i.e., shortening leak response time, utilization of new technologies such as Geographic Information Systems (GIS) to identify deficiencies and improve system performance, methods for calculating fire department water use and development of appropriate water meter sizing criteria.

Expansion of traditional and innovative sources of raw water. Recommended measures include: reserve capacity of raw water and capacity of the aquifer storage and recovery system, and other future innovative projects once implemented as specified in the County's Water Use Permit. No alternative measurements are recommended.

Currently, the County continues to reuse approximately the same amount of water/wastewater as was reported in the last EAR. Approximately 16 million gallons per day (MGD) of wastewater is reclaimed and used for process water at the County's three regional wastewater treatment plants (WWTPs). In 2017, the public access reuse treatment system for Florida International University (FIU) Biscayne Bay campus was inactivated as repairs needed to the system would cost more than supplying potable water to FIU.

The current Water Use Permit specifies that if the County's freshwater withdrawals from the Biscayne Aquifer total more than 349.5 MGD, then the County must utilize alternative water supplies to augment withdrawals above the base condition water use. The alternative water supply projects included in the County's WUP are detailed under Objective 7. WASD has noted significant challenges with meeting the reuse requirements of the WUP. For example, the use of reclaimed water for environmental restoration land applications or aquifer recharge require a significant level of treatment in Miami-Dade due to its ecological sensitivity.²

WASD planned to meet a portion of the reuse goal through a joint agreement with Florida Power and Light (FPL) to provide reuse water to be used for cooling water at Turkey Point in connection with a project to install two new proposed nuclear reactors, however, the project is not anticipated to move forward in the near future. In June 2020, the Board of County Commissioners adopted Resolution No. R-579-20 approving an agreement between Miami-Dade County and FPL for the processing, treatment and use of reclaimed water at the Turkey Point Complex. The agreement provides for up to 15 MGD of reclaimed wastewater to be provided to the Turkey Point Complex for use in the cooling towers for the existing Unit 5 power generating unit.

Section 163.3177(6)(c) of the Florida Statutes requires local governments to prepare and adopt a water supply work plan into their comprehensive plans at least every 5 years, within 18 months after the water management district adopts a regional water supply plan. The work plan must identify alternative water supply projects, traditional water supply projects and conservation and reuse measures necessary to meet projected water demand for at least a 10-year planning period.

The County's most recent Water Use Permit modification (#13-00017-W) was issued by the SFWMD on March 8, 2022 with an expiration date of December 27, 2065, with an annual allocation of 148,018 million gallons (405.53 MGD) to year 2042 The WUP modification includes optimization of Biscayne Aquifer (BA) water supplies through improved wellfield operations and the C-51 Reservoir project. It also includes a total annual allocation from the Upper Floridan Aquifer of 13.30 MGD and the South Miami Heights RO WTP as a back-up to the C-51 reservoir project.

The SFWMD designated the C-51 Reservoir Phase 1 Project as pilot alternative water supply development project. On March 6, 2020, WASD submitted a letter of intent to the SFWMD indicating its intention to participate in the C-51 Reservoir project. In addition to participation in C51, WASD intends to optimize wellfield operations to maximize use of wet and dry season nonregional flows throughout Miami-Dade County by leveraging operational flexibility between Miami-Dade WASD's water treatment plants and wellfields.

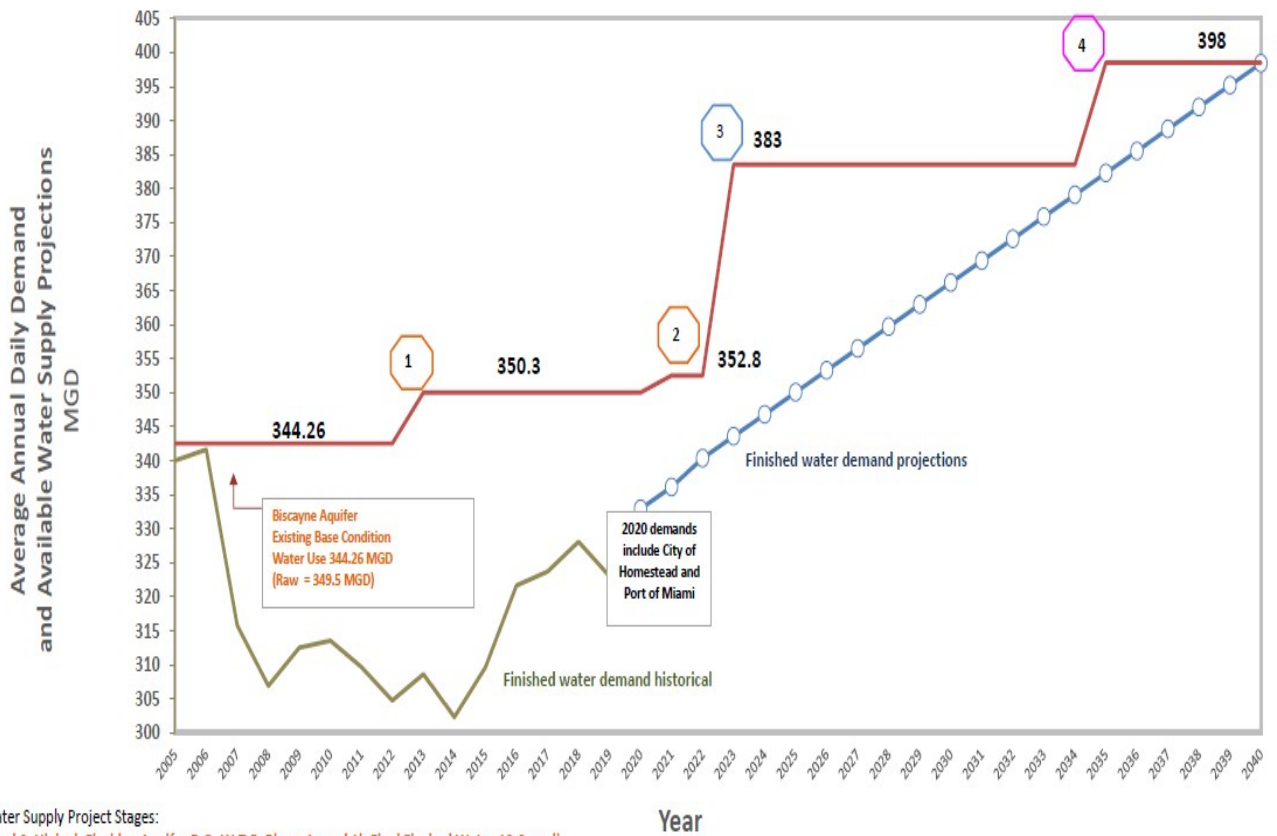
The Lower East Coast (LEC) Water Supply Plan update was adopted by the South Florida Water Management District (SFWMD) Governing Board in November 2018. To comply with the requirements of Section 163.3177, Florida Statutes, this amendment adopts by reference the Miami-Dade County Water Supply Facilities Work Plan dated April 2022 (Appendix 1). The Work Plan is consistent with the County's Water Use Permit and the South Florida Water Management District's (SFWMD) Lower East Coast Regional Water Supply Plan. The Work Plan covers a 10 year period to provide consistency with the County's current Water Use Permit which expires on December 27, 2065, with an annual allocation of 148,018 million gallons (405.53 MGD) to year 2042. The County's Water Supply Facility Work Plan projects are also reported in the Capital Improvements Element of this document. Table 1 under Objective WS-7 identifies the alternative water supply projects necessary to meet projected demand. Figure 2.5.1-10 demonstrates that the projects outlined in Table 1 will be sufficient to accommodate projected increases in water demand through 2030.

Total All Sources Finished Water 2020 Permit
 2020 WUP Modification Total Finished 398.42 MGD
 394 MGD raw Biscayne Aquifer Water = 388.42 MGD Finished Water
 10 MGD Finished Floridan Aquifer water

WASD Water Supply Chart

November 2020

All Sources Finished Water with C-51 Reservoir (15 mgd)



Water Supply Project Stages:

- 1 and 2. Hialeah Floridan Aquifer R.O. W.T.P. Phase 1a and 1b Final Finished Water 10.0 mgd)
3. Optimized water allocation incorporating operational flexibility between WASD treatment plant and wellfields and C-51 (15 MGD purchased water allocation)
4. Optimized water allocation incorporating operational flexibility, C-51 future and Cluster 10 (15 MGD)
5. SMH RO WTP remains on permit as backup water supply in the event C-51 does not become operational

Figure 2.5.1-10: Water Demand and Available Supply Projections

5.0 GOALS, OBJECTIVES AND POLICIES

The Town of Surfside has adopted several goals, objectives and policies into the Future Land Use, Potable Water, Conservation, Capital Improvement and Intergovernmental Coordination Elements of the Comprehensive Plan that address water supply sources and facilities and climate change adaptation strategies., The Town of Surfside intends to implement and monitor compliance with this ~~45~~ 10-Year Water Supply Facilities Work Plan throughout the 2030 planning horizon.

The Town will continue to ensure and coordinate with Miami-Dade WASD and the SFWMD to provide sufficient water to the residents of the Town throughout the planning period. The Town will also periodically review goals, objectives and policies related to water supply planning and consider whether or not there is a need for updates, revisions, or changes based on newly adopted statutory requirements or input from the County or SFWMD. In addition, through annual reporting the Town will provide updates on progress made towards implementation of the Work Plan and the LEC plan.

6.0 CONCLUSION

Miami Dade County Water and Sewer Department currently supplies potable water services to the Town of Surfside through a mutual agreement. Miami Dade County Water and Sewer Department has evaluated the impact of implementing new alternative water sources projects to meet the projected water demands for all their existing and proposed customers, inclusive of the Town of Surfside. The Water Supply Work Plan demonstrates that the Miami Dade County Water and Sewer Department has the capacity to provide potable water to the Town of Surfside and all other ~~their~~ wholesale customers over the Town's ~~45~~ 10-year planning period. The Town of Surfside will continue to coordinate with Miami Dade Water and Sewer Department and the South Florida Water Management District in regional efforts to reduce water consumption, conserve potable water supplies, address climate change and sea level rise, and strengthen the water supply planning process.

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The Town will continue to ensure and coordinate with Miami-Dade WASD and the SFWMD to provide sufficient water to the residents of the Town throughout the planning period. The Town will also periodically review goals, objectives and policies related to water supply planning and consider whether or not there is a need for updates, revisions, or changes based on newly adopted statutory requirements or input from the County or SFWMD. In addition, through annual reporting the Town will provide updates on progress made towards implementation of the Work Plan and the LEC plan.

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5 COASTAL MANAGEMENT ELEMENT

Data Inventory and Analysis

Purpose

The purpose of the Coastal Management Element is to protect human life and to limit public expenditures in areas that are subject to destruction by natural disaster. It is also to plan for, and where appropriate, restrict development activities where such activities would damage or destroy coastal resources.

Coastal Planning Area

Surfside is an Atlantic Ocean coastal community located on a barrier island along the southeast coast of the Florida peninsula in Miami-Dade County. The barrier island the Town is located on is separated from the mainland by the north end of the Biscayne Bay estuary. The Hurricane Storm Surge Evacuation Map prepared by the Miami-Dade County Office of Emergency Management has identified the Town and the entire barrier island as hurricane vulnerable, and classified the entire barrier island as a Zone B evacuation area. Zone B is at greatest risk for storm surge for Category 2 and higher storms., The entirety of the Town is recognized as the Coastal Planning Area (CPA).

Land Use in the Coastal Planning Area

The existing land uses in the Town are identified on Map FLU 1 Existing Land Use. The Future Land Uses within the Town are identified on Map FLU 7 Future Land Use. The Future Land Use Element inventories and provides greater detail on these uses. The Town has no identified blighted areas in need of redevelopment, and has no Community Redevelopment Agency.

Natural Resources in the Coastal Area

The natural conditions of this barrier island have been highly altered. The Town is nearly built out with only a few vacant lots. The entirety of the Town's Bayside shoreline, inclusive of Indian Creek and Point Lake, has been significantly altered and is bulkheaded, and the adjacent nearshore waters have been dredged.

The one-mile length of beach and dune along the Town's ocean frontage is created from a beach renourishment program. The restoration of the federally-authorized Dade County Shore Protection Project, which included the Town of Surfside, began in 1978 and was completed in January 1982 using sand from offshore borrow sites. The project included restoration of a 20-foot-wide dune at elevation +10.7 ft NGVD and a 50-foot-wide level berm at elevation +8.2 ft NGVD. Additional fill material, equivalent to ten years of advance nourishment, was placed seaward of the design berm. At the time of the compilation of this data in 2017, there is still approximately 38 acres of beach area seaward of the erosion control line within the Town. This beach area is maintained in a natural state and the vegetated dune serves as nesting habitat to marine turtles.

Access Facilities

The entirety of the Town's one mile length of oceanfront beach is under the ownership of the State and is open to the public for recreational use. The erosion control line, which runs approximately along the crest of the dune, defines the limits of private property and the beginning of the state-owned beach. The state owned beach is comprised of approximately 38 acres. Ample access to this public beach is provided via the platted public right of ways for 88th, 89th, 90th, 92nd, 94th, 95th and 96th Streets; the eastern ends of which terminate at the State-owned beach. Beach access is also provided from the Town's beach

front Community Center site located near 93rd Street. The beach and dune system is maintained by the Miami- Dade County Park and Recreation Department in a natural condition. There are no piers, marinas or structures other than a lifeguard station along the beach.

The Town has established an ocean bulkhead line that applies to the private beach front properties east of Collins Avenue. The zoning code prohibits development or any redevelopment seaward of the bulkhead line. Seaward of this bulkhead line there are approximately 19 acres that are undeveloped that lie adjacent to the State-owned beach. Within this undeveloped ocean bulkhead setback area, along the landward side of the dune, there is an unimproved maintenance path that is utilized by the State, the County and the Town that runs the entire length of the Town. This maintenance path is, and has historically been, a popular public walking and biking path. The landward side of the dune in this area is more sparsely vegetated than the seaward side, and the property owners have landscaped the area nearest the bulkhead on many of the properties.

To limit impacts to the dune and dune vegetation, seventeen (17) dune cross-over locations have been established and are maintained by the Town. Eight of these cross-overs correspond to the termination of the platted public right-of-ways and one is in front of the Town Community Center site. Although the remaining cross-overs are located in front of private properties, the established maintenance path provides access to these cross-overs also.

The entire shoreline along Biscayne Bay, which includes Point Lake and Indian Creek, is bulkheaded. There are approximately 1.5 miles of shoreline along the barrier island portion of the Town and approximately 0.7 miles of shoreline around the Biscaya Island neighborhood. The western ends of the platted public right of ways for 90th and 92nd through 95th Streets terminate at the Indian Creek bulkhead; the southern ends of the platted right of ways for Froude and Carlyle Avenues terminate at the Biscayne Bay bulkhead, and the platted right of ways of Biscaya Drive, Bay Drive and the west end of 89th Street each terminate at the Point Lake bulkhead. At this time there are no docks, platforms or specific improvements to facilitate water accessibility; however, the Town intends to retain these platted right of ways as public access.

Estuarine Pollution Conditions

Biscayne Bay, a sub-tropical estuary, is located along the coast of Miami-Dade and northeastern Monroe Counties; it is a marine ecosystem comprised of about 428 square miles with a watershed area of about 938 square miles. The bay can generally be divided into the north, central and south Biscayne Bay areas. North Biscayne Bay extends from Dumfoundling Bay (approximately NE 192nd Street) south to the Rickenbacker Causeway. The Town of Surfside is located along the north portion of Biscayne Bay. The bayou, referred to as Indian Creek, that separates the Town from Bay Harbor Islands and the Island of Indian Creek Village, and the dredged channels and water body referred to as Point Lake that separates Biscaya Island from the remainder of the Town are considered parts of Biscayne Bay. The northern portion of Biscayne Bay retains the most estuarine habitat that can be found throughout the bay, but it is also the most altered by dredging and bulkheading. Although remaining shallow areas contain some productive seagrass beds, roughly 40 percent of the northern bay area is too deep or too turbid to support a productive estuarine ecosystem. The entirety of the Town's bayside shoreline, inclusive of Indian Creek and Point Lake is bulkheaded and the near shore waters have been significantly altered through dredging. The mainland and barrier island of the north Biscayne Bay area are highly urbanized.

The Atlantic Intracoastal Waterway (ICW) runs through Biscayne Bay in a north south direction. The ICW is managed and maintained by the Florida Inland Navigation District (FIND), which is a special state taxing district. The increased vessel traffic and maintenance dredging, which has created spoil islands that run along the edge of the ICW, also contribute to the impacts to the estuary.

The Town has developed and adopted a Stormwater Management Master Plan (SMMP). The SMMP identifies 9 separate basins within the Town and proposed improvements for each basin. The Town's drainage includes thirteen outfalls into the bay; eleven are Town maintained and two are Florida Department of Transportation (FDOT) outfalls. Under Financial Project Number 249561-2-52-01, FDOT completed improvements to retrofit their existing pump stations and injection wells whereby only during emergency bypass situations will discharges to the bay occur from the FDOT outfalls, which are located at 94th Street and at Carlyle Avenue. This FDOT drainage system, addressed the drainage from the area along Collins Avenue and east of Harding Avenue.

With assistance from grant monies under FDEP Agreements S0374 and LP6787, the Town completed retrofitting three outfall locations to install stormwater pump stations and injection wells to re-direct runoff into the groundwater, for water quality. Nutrient separating baffle boxes were installed upstream of the pump stations to provide treatment before the runoff enters the groundwater. These improvements occurred at the ends of 95th Street (Basin 1), Carlyle Avenue (Basin 6) and Surfside Boulevard (Basin 4). The SMMP identifies how basins 1 through 6 and 8 will interconnect for better quality control and hydraulic performance.

Surveying the Town for elevations and Street alignments has been completed and an inventory of all the components of the stormwater drainage system was completed. The Town also sealed all manhole covers and repaired or replaced the sanitary sewer lines, where necessary, to decrease transmigration of e-coli and other contaminates to Biscayne Bay.

Historic Resources

The Bureau of Archaeological Research within the Florida Office of Cultural and Historic Preservation maintains the Florida Master Site File (MSF); a database that contains information on archaeological and historic resources in Florida. The state MSF also contains those sites listed on the National Register. There are six (6) listed sites within the Town; a prehistoric mound, a prehistoric midden, and four (4) structures. The Indian Creek Bridge, adjacent to the Town, is also listed on the MSF.

The Town regulates the type of earth disturbing activities that may occur in the location of the midden and mound. The four structures listed on the MSF are all located along Collins Avenue and include the Surf Club lodge constructed circa 1930, a private residence also constructed circa 1930, and the Van Rel and Nichols apartment buildings constructed in 1947. The historic status of these structures should be considered when reviewing any applications for modifications or redevelopment of these structures.

Infrastructure in the Coastal Area

The Town has an atlas with a complete inventory of the water distribution system and the sanitary sewer collection system in the Town. The Town recently completed an inventory of all signage and traffic control devices in the Town, as well as an inventory of all the components of the stormwater drainage system. Surveying the Town for elevations and street alignments has also been completed. The Town has current data on the infrastructure, which is addressed in greater detail in the Infrastructure Element of this plan.

Coastal High Hazard Area

Pursuant to Chapter 163.3178(2)(h) F.S. the “Coastal High Hazard Areas” (also referred to as “high- hazard coastal areas”) means the area below the elevation of the category 1 storm surge line as established by a Sea, Lakes, and Overland Surges from Hurricanes (SLOSH) computerized storm surge model. Map CST 1 Storm Tides shows the tide during a Category 1 storm from the US Army Corps of Engineers Hurricane Storm Tide Atlas printed in 2018.

Miami-Dade County storm surge planning zones have been drawn in relation to updated data which supersedes the previously-used SLOSH model. The newest generation of SLOSH model reflects major improvements, including higher resolution basin and grid data. The Storm Surge Planning Zones are used to identify risk of storm surge and is based on all directions of storms. As a storm is approaching, Miami-Dade County Emergency Management will identify which areas should evacuate for that particular storm. Evacuation Zones will be all of or a portion of the Storm Surge Planning Zones. The entire Town of Surfside is recognized as a Zone B. Surge Planning Zone B is defined as at greatest risk for storm surge for Category 2 and higher storms. A Surge Planning Zone A is at risk for storm surge for Category 1 and higher storms. The Miami-Dade County website provides an on-line mapping tool to determine if a specific location is within a storm surge planning zone, the mapping tool can be found at:

<http://gisweb.miamidade.gov/communityservices/?ShowWhat=OEM>

The current FEMA Flood Zone Map for the Town is provided in CST3. This map will be superceded in the near future.

Infrastructure in the Coastal High Hazard Area

The current SLOSH model indicates a significant portion of the western side of the Town falls within the CHHA. This area falls along Indian Creek and Point Lake. The land within the CHHA is built out. Other than the surface parking lot along Abbot Avenue between 95th and 96th Streets and the 96th Street Park, there is private residential development in the CHHA. These homes are served by public roads, sewer and water.

Disaster Planning

Within the Town there is the potential for impacts from lightning, floods, tornadoes and tropical storms, but the most significant natural disaster threat the Town needs to plan for is the event of a hurricane. Hurricanes have the potential to occur from June through November; heavy rainfall, high winds, storm surge and widespread flooding may accompany these storms. Records indicate that the Town has been brushed by or hit by a tropical storm or a hurricane 73 times from 1871 through 2016.

During a hurricane evacuation, a significant number of vehicles will have to be moved across the local and regional road network. The quantity of evacuating vehicles will vary depending upon the magnitude of the hurricane, publicity and warnings provided about the storm and particular behavioral response characteristics of the vulnerable population. The Town and County must be prepared to evacuate highly vulnerable populations on critical routes, often concurrently with evacuees from outside the County. There are limited route choices; Map CST 2 Evacuation Routes identifies the designated evacuation route for the Town. The Miami-Dade County Office of Emergency Management has identified the Town and the entire barrier island as a Zone B evacuation area.

The Town of Surfside is within the 50-mile Emergency Planning Zone (EPZ) for the Turkey Point Nuclear Power Facility located in southern Miami-Dade County. This EPZ includes the ingestion exposure pathway

in which the population and animals are vulnerable to the long-term health effects associated with the ingestion of contaminated food and water. Additional manmade disasters that the Town may be subject to include other hazardous materials contamination, civil disturbances and mass migration events, terrorism, biological epidemics or coastal oil spills.

The Town has developed a Comprehensive Emergency Management Plan (CEMP). The CEMP identifies that the Emergency Planning Committee, as directed by the Public Works Director, will be responsible for annually reviewing the CEMP. The Public Works Director will be responsible for annually updating all annexes which reference contact information and other changing information. The Basic Plan and Functional Annexes will be updated once every four years unless substantial deficiencies are demonstrated through an actual or simulated disaster response incident. The Town Manager may also direct more frequent updates as the environment, conditions, or assumptions within the Town change. The Town of Surfside is also a participant in the Miami-Dade County Local Mitigation Strategy Planning Group. The Town coordinates their Post Disaster Redevelopment with the County Emergency Management Office.

The Town has identified publicly owned locations to be utilized as temporary debris storage and reduction sites in the event of a hurricane, and has had these sites reviewed by the Miami-Dade Department of Environmental Resource Management and has forwarded this site information to FDEP. The Town has also selected a disaster management/recovery services firm and debris monitoring services firm.

Resiliency Planning

The Town of Surfside is an older, built-out community that has been addressing resiliency concerns on an ongoing basis. This is a commitment by this Town and continues to be an ongoing process. Below is a brief overview of some of the action taken that began at least a decade ago.

By the end of 2009 the Town completed a Stormwater Management Master Plan to address water quality issues and to reduce flooding within the Town. The Master Plan included a complete engineering analysis based on engineered computer models. The report included the best approach to reduce or eliminate pollutant discharge loadings into Biscayne Bay and targeted improvement in hydraulic performance of the Town's drainage system to reduce stormwater flooding. The report informed the actions of the significant drainage system improvements the Town then undertook.

The storm sewer improvements were a part of an overall utility rehabilitation project that included the sanitary sewer and potable water systems. This was a significant project that consisted of the replacement of over 32,000 linear feet of water main, 1,587 water services, 1,278 new water meters and 46 additional fire hydrants. The sanitary sewer upgrades included over 50,000 linear feet of sanitary sewer main being CIPP lined or replaced, two (2) sewage pump stations being completely rebuilt with updated and more efficient pumps including SCADA controls, the force mains from the pump stations to the shared transmission main being replaced, and placing full dish gaskets on all manhole openings.

The storm sewer system was upgraded to include 3 SCADA controlled pump stations, 9 shallow injection drainage wells, 20 control structures and the required RCP pipeline to interconnect the existing gravity drainage system with the newly installed pumped well system. It also included the installation of over 45,000 linear feet of curb and 167,000 square yards of asphalt roadway resurfacing, sealing all stormwater manholes and installing back flow preventers on outfalls.

The Town searched for and obtained funding assistance for this project, which included the Miami Dade Building Better Communities General Obligation Bond, FDEP Grants, Regions Bank publicly bid bond issuance and the FDEP's State Revolving fund program.

The Town obtained two Florida Inland Navigation District (FIND) grants to financially assist in replacing and elevating all Town owned seawalls. This project was completed by the end of 2017. The Town also adopted an ordinance that specifically requires the following: "The elevation for the top of shore end of all groins or other shore protective work shall be plus five feet above mean low water; the elevation for the top of seaward end of all groins and other shore protective work shall be plus 2&half feet above mean low water; and the elevation of the top of all seawalls fronting on the waters of Biscayne Bay, Indian Creek and Point Lake shall be plus five feet above mean low water." This ordinance provides for an initial, and for an ever-increasing height as the mean low water line increases.

Reflective of recommendations of the Regional Climate Action Plan, in April of 2016, the Town Commission officially formed the Sustainability Subcommittee of the Planning and Zoning Board. The purpose of the Subcommittee is to study and recommend policies and programs that strengthen the resiliency of the community. The Subcommittee's goals include:

1. Adapting and mitigating to climate change and sea level rise;
2. Promoting green and sustainable building, construction and operations;
3. Protecting, restoring, optimizing and creating green spaces;
4. Improving alternative transportation and mobility; and
5. Increased environmental awareness and stewardship of our treasured ecosystems.

The Town amended their flood ordinance to specify the following within the A zones:

- Residential construction. All new construction and substantial improvements of any single family residential building or structures (including manufactured home) shall have the lowest floor, including basement, elevated to no lower than two feet ~~one foot~~ above the base flood elevation.
- ~~Nonresidential construction. All new construction and substantial improvements of any commercial, industrial, or nonresidential building (including manufactured home) shall have the lowest floor, including basement, elevated to no lower than one foot above the base flood elevation.~~

Additionally, all new construction and substantial improvements in V zones shall be elevated on pilings or columns so that:

- The bottom of the lowest horizontal structural member of the lowest floor (excluding the pilings or columns) is elevated to no lower than one foot above the base flood elevation.

The Town also requires all development other than single family residential be developed in accordance with Leadership in Energy & Environmental Design (LEED) or Florida Green Building Coalition (FGBC) building design and construction standards to ensure the incorporation of sustainable development practices.

In the Town's ongoing efforts to develop accurate, effective and comprehensive flood peril strategies, the Town has obtained and reviewed a proposal for the following project and will be including the funding for this project in the fiscal year 2019 budget.

Project: Obtain elevation data at all of the street centerline intersections of public rights-of-way within the Town, and obtain beach dune height topographic survey with a grid of cross section elevations traversing from the Bulkhead line to the edge-of-water along the Atlantic coastline. The Town will also produce a Beach and Dune Use Best Management Practices document and develop Beach Use regulations.

The street intersection data will produce specific and accurate information on the lowest (most vulnerable) locations within the Town. This data will be incorporated into the Town's GIS database to cross reference FIRM data, infrastructure data, historic site data and all other data layers the Town has developed. The analysis of this data will enable the Town to direct planning

efforts and strategies toward the infrastructure, critical facilities and adjacent properties in these locations; direct Capital Improvements funds most effectively; and assist the Town in assessing and developing effective freeboard criteria as needs arise.

The Town recognizes the protective value of the beach and dune system, particularly to the Town's commercial corridor, and main thorough fairs that are also main thorough fairs for the entire barrier island. The baseline data obtained on the current geo/topographic conditions of the dune and beach will also be incorporated into the Town GIS database; allowing the data to be placed over a current aerial photograph to identify the limits of the dune vegetation. Analysis of the survey information will enable the Town to identify any vulnerable areas that may need restoration or replanting, provide the baseline for the Town to be able to monitor changes, and to establish geo/topographic goals to strive for. The Town will research best protective management practices for the beach and dune system and produce a Beach and Dune Use Best Management Practices document. The information obtained will also guide the Town in the development of beach use regulations to ensure this natural resource remains an effective protection system for the Town.

The Town has also reviewed the requirements, feasibility and resource allocations associated with pursuing and obtaining a Certification through the Florida Green Building Coalitions. They will be pursuing FGBC certification and will additionally be putting funding for this project in the fiscal year 2019 budget.

Goals, Objectives and Policies

Goal 1: Provide for conservation and environmentally sound use of natural resources and the protection of human life and property. To plan for, and where appropriate, restrict development activities where such activities would damage or destroy coastal resources, and to limit public expenditures in areas that are subject to destruction by natural disaster.

Objective 1 – Protect living marine resources and maintain and improve estuarine water: The Town shall limit the specific and cumulative impacts of development or redevelopment upon water quality by requiring that surface water management systems be designed and operated consistent with state and regional standards and the Town’s adopted level of service.

Policy 1.1 – The Town shall continue to coordinate and cooperate with all applicable agencies in the appropriate management of the Biscayne Bay Aquatic Preserve, including, but not limited to, the Miami-Dade County Department of Environmental Resource Management, the Florida Department of Environmental Protection, the National Park Service and the Biscayne Bay Shoreline Development Review Committee.

Policy 1.2 – For site plan approval, the Town shall require that surface water management systems be designed and operated consistent with the Towns adopted drainage level of service.

Policy 1.3 – The Town shall continue to review and update as needed the adopted Stormwater Management Master Plan.

Policy 1.4 – The Town shall coordinate and cooperate with all applicable local, regional, state and federal agencies relating to the protection of Atlantic Ocean coastal waters, particularly relating to beach renourishment projects and Coastal Construction Control Line permitting.

Policy 1.5 – The Town shall cooperate and coordinate with the applicable agencies to assure that solid and hazardous wastes generated within the Town are properly managed to protect the environment and the near shore waters. The Town shall report any hazardous waste violation they may become aware of to the appropriate jurisdictional agency.

Policy 1.6 – The Town shall adhere to the Nation Pollution Discharge Elimination System – Municipal Separate Storm Sewer System (NPDES-MS4) Permit and shall implement the permit conditions including monitoring of outfalls and improving stormwater management practices.

Policy 1.7 – When applicable, the Town shall provide development proposal information to the Biscayne Bay Shoreline Development Review Committee for review.

Objective 2 – Protect living marine resources including manatees and sea turtles: In general, protect, conserve, or enhance living marine resources. In particular, limit impacts to manatees, sea turtle eggs, fisheries, wildlife, wildlife habitat, marine habitat and environmentally sensitive land.

Policy 2.1 – The Town police shall maintain communications with County and State marine police in order to report any violations of the boat speed limits in the adjacent waters which are a manatee protection area. The Miami-Dade County manatee telephone hotline shall also be publicized by Town officials.

Policy 2.2 – The Town shall enact and enforce land development provisions which regulate the location and screening of lights along the beach in a way which is practical to water dependent and water related uses to assist in protecting sea turtles by minimizing the amount of light on beach locations where sea turtles may nest. In addition, the Town shall actively cooperate with Miami-Dade County efforts to protect sea turtle nests. Cooperative actions to be taken by Miami-Dade County and/or Surfside shall include the following: 1) prohibiting horseback riding and campfires on and seaward of the dune during nesting; 2) prohibiting taking, killing, touching or otherwise interfering with sea turtle nests and nesting activities; 3) regulation of coastal construction so as to minimize negative impacts on sea turtles; and 4) beach and dune stabilization and preservation.

Policy 2.3 – The Town shall contact the Miami-Dade County Division of Environmental Management (DERM) if any adverse impact is observed relative to the sea grass beds in adjacent waters.

Policy 2.4 – The Town shall cooperate with the U.S. Army Corps of Engineers for beach renourishment if such becomes necessary. Where beach restoration or renourishment is necessary, the project should be designed and managed to minimize damage to offshore grass flats, terrestrial and marine animal habitats and dune vegetation. Native dune and beach plants should be planted and maintained.

Policy 2.5 – The Town shall maintain and enforce land development code provisions requiring minimum building setbacks from the ocean. Specifically, the Town shall retain the ocean bulkhead line setback criteria established in the zoning code.

Policy 2.6 – The Town shall require all new shoreline development affecting marine habitats to be reviewed by the Miami-Dade County Division of Environmental Resource Management or other applicable jurisdictional agency.

Policy 2.7 – The Town shall coordinate with existing resource protection plans of other governmental agencies, including the Miami-Dade County Division of Environmental Resource Management, the South Florida Water Management District, the Florida Fish and Wildlife Conservation Commission, the Florida Department of Environmental Protection, the U.S. Army Corps of Engineers, the U.S. Fish and Wildlife Service and others.

Policy 2.8 – The Town shall cooperate with Federal, state and county programs designed to ensure the required use, proper maintenance and proper functioning of dockside pump out facilities.

Objective 3 – Prioritize water-related and water dependent uses: The amount of shoreline devoted to water dependent and/or water-related uses shall be maintained.

Policy 3.1 – The Town shall continue to permit water dependent hotel uses and water-oriented residential uses east of Collins Avenue. The regulations of this area shall be consistent with the density limits established by the Future Land Use Map of this plan.

Policy 3.2 – Those public access areas including street ends, municipal parking facilities and municipal parks along and near coastal waters will be maintained or redesigned to provide greater public access to Biscayne Bay and the Atlantic Ocean beach areas.

Policy 3.3 – The Town shall design and construct signage along major thoroughfares to direct the public's attention to public shoreline parks and water-related facilities.

Policy 3.4 – The Town shall require water-dependent uses to meet the following criteria:

- a) Construction or subsequent operation shall not destroy or degrade sea grass or hard bottom communities, or habitats used by endangered or threatened species.
- b) Where applicable, all external agency approvals shall be obtained.
- c) The proposed facility shall be: 1) compatible with existing, surrounding land uses, and 2) of sufficient size to accommodate project and the required parking.
- d) The proposed facility shall: 1) preserve or improve traditional public shoreline uses and public access to estuarine and coastal waters, 2) preserve or enhance the quality of the estuarine and coastal waters, water circulation, tidal flushing and light penetration, 3) preserve archaeological artifacts or zones and preserve, or sensitively incorporate historic sites, and 4) where applicable, provide a hurricane contingency plan.

Objective 4 – Protect and enhance beaches and dunes: The Town shall protect beaches and dunes, establish construction standards which minimize the impacts of manmade structures on beach or dune systems, and restore altered beaches and dunes where feasible.

Policy 4.1 – The Town shall continue to maintain the posted signs prohibiting walking on vegetated dune and/or uprooting or otherwise damaging plants.

Policy 4.2 – The Town shall maintain the provisions contained in the zoning code restricting development seaward of the ocean bulkhead line on the properties east of Collins Avenue and shall require all construction activities seaward of the coastal construction control lines established pursuant to s. 161.053 be consistent with chapter 161.

Policy 4.3 – The Town shall enforce and maintain the adopted landscape provisions contained in the zoning code requiring the installation of native beach dune landscape materials seaward of the ocean bulkhead line with any new or redevelopment.

Policy 4.4 – The Town shall continue to coordinate and cooperate with the Florida Department of Environmental Protection's Bureau of Beaches and Coastal Systems and with the Miami-Dade County Park and Recreation Department regarding access to and the appropriate maintenance of the beach area seaward of the erosion control line.

Policy 4.5 – The Town shall regulate the property adjacent to beaches and dunes to ensure the protection of the ecological value of beach and dune areas.

Policy 4.6 – No new dune cross over locations shall be established. The Town shall limit the dune crossovers providing access to the beach to the seventeen crossover locations that currently exist.

Policy 4.7 – The Town shall enforce and maintain the adopted Beach Sand Quality Ordinance.

Objective 5 – Direct population concentrations away from coastal high hazard areas and limit coastal high hazard area infrastructure expenditures: The Town shall, through land use designation and development review, regulate and limit the type of uses in the predicted Coastal High Hazard Area. The Town shall direct population concentrations away from known or predicted High Hazard Areas.

Policy 5.1 – The Town shall require development activities be consistent with, or more stringent than, the flood-resistant construction requirements in the Florida Building Code and applicable floodplain Management regulations set forth in 44 C.F.R. part 60, and shall require all construction activities seaward of the coastal construction control lines established pursuant to s.161.053 be consistent with chapter 161.

Policy 5.2 – The Town shall limit future public expenditure for new infrastructure which will subsidize growth within the Coastal High Hazard Area; expenditures for restoration and maintenance are exempt from these limitations and expenditures for the enhancement and protection of natural resources or for public land acquisition is encouraged.

Policy 5.3 – Objective 5 and Policy 5.2 above shall not be implemented in such a way as to preclude the Town's plans to improve drainage facilities or reconfigure streets in order to provide adequate infrastructure to serve the Future Land Use Plan development pattern, adapt to climate change, or development for which rights were vested prior to enactment of this Plan.

Policy 5.4 – Pursuant to Chapter 163.3178(2)(h) of the Florida Statutes, the “Coastal High Hazard Areas” (also referred to as “high-hazard coastal areas”) means the area below the elevation of the category 1 storm surge line as established by a Sea, Lakes, and Overland Surges from Hurricanes (SLOSH) computerized storm surge model.

Policy 5.5 – Consideration for the relocation, mitigation or replacement of any of the existing infrastructure in the Coastal High Hazard Area, as may be deemed appropriate by the Town, shall be coordinate with the state when state funding is anticipated to be needed for implementation of the project.

Objective 6 – Hurricane Preparedness: The Town shall coordinate with the County to maintain a 12- hour hurricane evacuation clearance time to shelter for a category 5 storm event as measured on the Saffir-Simpson scale.

Policy 6.1 – To provide for safe and efficient evacuation of the residents of the Town and other local communities in the event of a hurricane, the Town shall continue to plan and coordinate with Miami-Dade County in updates of the County’s Comprehensive Emergency Management Plan, including evacuation planning. This update shall enable the County and incorporated municipalities to plan for future population densities to ensure compliance with adopted level of service standards established in this Plan.

Policy 6.2 – The Town shall continue to coordinate with the County in updating hurricane evacuation shelter assignments and in disseminating information concerning evacuation routes and evacuation scheduling.

Policy 6.3 – The Town shall conduct an ongoing hurricane evacuation information program to make all residents aware of evacuation needs and plans.

Policy 6.4 – The Town shall maintain its traffic level of service which in turn is based upon the Future Land Use Map, thereby achieving a reasonable hurricane evacuation time.

Policy 6.5 – The Town shall continue to update its Comprehensive Emergency Management Plan in order to be prepared for, respond to, and recover from potential hazard.

Policy 6.6 – The Town shall maintain a contingency fund in order to cover the Town’s required match for disaster assistance grants.

Objective 7 – Emergency Preparedness: The Town shall plan and coordinate response for emergency preparedness and/or post-disaster management in the context of climate change.

Policy 7.1 – The Town shall ensure adequate planning and response for emergency management in the context of climate change by maximizing the resilience and self-sufficiency of, and providing access to, public structures, schools, hospitals and other shelters and critical facilities.

Policy 7.2 – The Town shall continue to communicate and collaboratively plan with other local, regional, state and federal agencies on emergency preparedness and disaster management strategies including incorporating climate change impacts into updates of local mitigation plans, water management plans, shelter placement and capacity, review of major trafficways and evacuation routes, and cost analysis of post disaster redevelopment strategies.

Policy 7.3 – The Town shall consider the public health consequences of climate change, such as extreme temperatures and vector-borne diseases, and take steps to build capacity to respond to or support other agency responders.

Objective 8 –Ensure public access to beach and shorelines: The Town shall maintain all existing public access to the beach and shorelines, particularly the Atlantic Ocean and the Atlantic Ocean beach.

Policy 8.1 – The Town shall maintain all existing street ends and public access points to the Atlantic beach and to the waters of Biscayne Bay.

Policy 8.2 – The Town shall beautify and enhance beach accesses at the public street ends east of Collins Avenue when funds are available and conditions merit.

Policy 8.3 – The Town shall regulate public parking near beach access points to facilitate its use by beach visitors, particularly during nonbusiness days and hours.

Policy 8.4 – The Town shall continue to provide beach access from of the Surfside Community Center.

Policy 8.5 – The Town shall apply for State and Federal grant funds, such as the Florida Recreation Development Assistance Program, and the Land and Water Conservation Fund for the improvement of public recreation and open space.

Policy 8.6 – The Town shall design and install signage along Collins Avenue and Harding Avenue to identify the public access locations to the beach.

Objective 9 – Protect historic properties: The Town shall provide for protection, preservation or sensitive reuse of historic structures.

Policy 9.1 – The Town shall provide for appropriate use and protection of known historic structures through the site plan review process.

Policy 9.2 – Prior to commencing any significant public construction or issuing any permits for significant private construction, not to include minor construction such as resurfacing of an existing street, construction of a residential fence and/or any other such improvement which will

not disturb the archeological assets which lie well below the surface of these areas within the areas identified as the Surfside Midden and the Surfside Mound, the Town shall notify Miami-Dade County's Historic Preservation Division.

Policy 9.3 – The Town shall coordinate historic resource protection activities, procedures and programs with applicable state and federal laws, policies and guidelines.

Objective 10 – Level of service and public facility timing: The Town shall achieve and maintain Level-of-Service standards through a concurrency management system with a phased capital improvement schedule.

Policy 10.1 – The Town shall implement the concurrency management system contained in this plan and the Town shall supplement the concurrency management system with which will be further detailed in land development code capital improvements when appropriate and necessary to meet Level-of-Service standards concurrent with the impact of development.

Policy 10.2 – Priority shall be given to drainage system improvements for State Road A1A because it serves as a primary evacuation route.

Policy 10.3 – Potential rise in sea level shall be taken into consideration in the design of all infrastructure.

Objective 11 – Hazard mitigation: In general, the Town shall regulate development so as to minimize and mitigate hazard resulting from hurricanes. In particular, the Town shall ensure that all construction and reconstruction complies with applicable regulations designed to minimize hurricane impact on buildings and their occupants.

Policy 11.1 – The Town shall maintain consistency with the program policies of the National Flood Insurance Program (NFIP) administered by the Federal Emergency Management Agency (FEMA) and shall monitor new cost-effective programs for minimizing flood damage. Such programs may include modifications in construction setback requirements or other site design techniques, as well as upgraded building and construction techniques. The Town's adopted flood protection regulations shall be amended as necessitated by changes in FEMA regulations.

Policy 11.2 – When structures are renovated at a cost in excess of fifty (50) percent of the structure's pre-renovation market value, the structure shall be brought into conformance to meet all current laws and ordinances, including those enacted since construction of the subject structure.

Policy 11.3 – The City shall ensure that its code compliance process continues to identify and require the removal and/or rehabilitation of structures that are deemed to be a hazard to the public health, safety and welfare.

Policy 11.4 – The Town shall participate in the Community Rating System of the National Flood Insurance Program

Policy 11.5 – The Town shall continue to enforce regulations and codes which provide for hazard mitigation, including but not limited to, land use, building construction, placement of fill, flood

elevation, sewer, water and power infrastructure, and stormwater facilities. These regulations shall be applied to eliminate unsafe conditions, inappropriate uses and reduce hazard potentials.

Policy 11.6 – The Town shall increase public awareness of hazards and their impacts by providing hazard mitigation information to the public. Information shall address evacuation, sheltering, building techniques to reduce hazards as well as other hazard mitigation issues that could help prevent loss of life and property.

Policy 11.7 – The Town shall continue to monitor updates to sea level rise forecasts and take into consideration the most current data when making decisions regarding land use amendments, capital improvements, infrastructure or critical public facilities projects.

Policy 11.8 – The Town shall, as deemed appropriate, incorporate the recommendation of the hazard mitigation annex of the local emergency management plan and shall analyze and consider the recommendations from interagency hazard mitigation reports.

Policy 11.9 – The Town shall include criteria in the five (5) year schedule of Capital Improvement projects to include consideration for and prioritization for projects that are hazard mitigation initiatives.

Policy 11.10 – Modify the Flood Plain Ordinance to require all buildings (residential and non-residential (except those in the H120 Zoning District) to require the finished floor to be 2 feet above the base flood elevation.

Objective 12 – Sea Level Rise: The Town shall plan for and prepare for the impacts of sea level rise.

Policy 12.1 – The Town shall support the efforts of state environmental and planning agencies to jointly develop, assess, and recommend a suite of planning tools and climate change adaptation strategies for local municipalities to maximize opportunities to protect the beach and dune systems and other coastal resources from the impacts of sea level rise and shall require all construction activities seaward of the coastal construction control lines established pursuant to s.161.053 be consistent with chapter 161.

Policy 12.2 – The Town shall cooperate with federal and State agencies on any beach and dune renourishment programs, and any coral reef protection or establishment programs to enhance coastal resiliency and storm protection.

Policy 12.3 – The Town shall continue to review updated mapping studies to aid in identifying areas of the Town most vulnerable to sea level rise, tidal flooding, and other impacts of climate change.

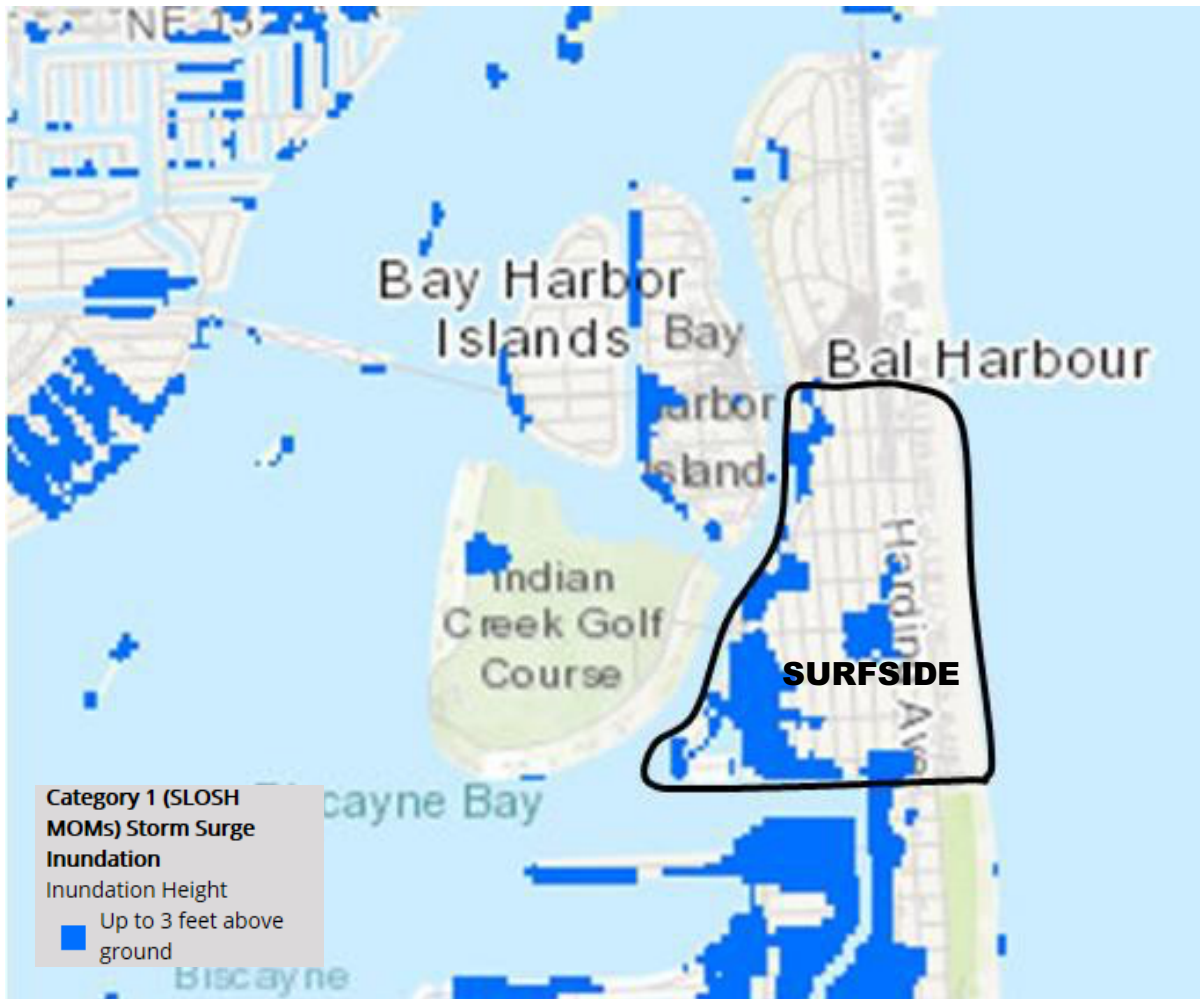
Policy 12.4 – The Town shall continue to review the best available data and designate areas that are at increased risk of flooding due to, or exacerbated by, sea level rise over the next 50 years, and work to make these areas more climate resilient by discouraging density increases and encouraging the use of adaptation and mitigation strategies.

Policy 12.5 – The Town shall continue to review and implement available data that is applicable to the Town from governmental entities such as the Regional Climate Compact or the County that identifies development and redevelopment principles, strategies, and engineering solutions that

reduce the flood risk in coastal areas which results from high-tide events, storm surge, flash floods, stormwater runoff, and the related impacts of sea-level rise.

Policy 12.6 – The Town shall continue its program to replace all Town owned seawalls and continue to implement the increased elevations for seawalls and groins as specified in the Town code of ordinances.

CST 1 Storm Tides: NATIONAL STORM SURGE HAZARD MAPS - SLOSH CATEGORY 1 MAP



Source: NOAA/NWS/NHC Storm Surge Unit







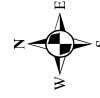
Surfside Comprehensive Plan

Map: CST 2

Evacuation Routes

Legend

-  Surfside City Limits
-  Adjacent City Limits
-  Evacuation Route
-  Water



Print: 6-7-2017

Source: Miami Dade GIS Self Services



Cahin, Giordano & Associates, Inc.
TECHNOLOGY PARTNERS



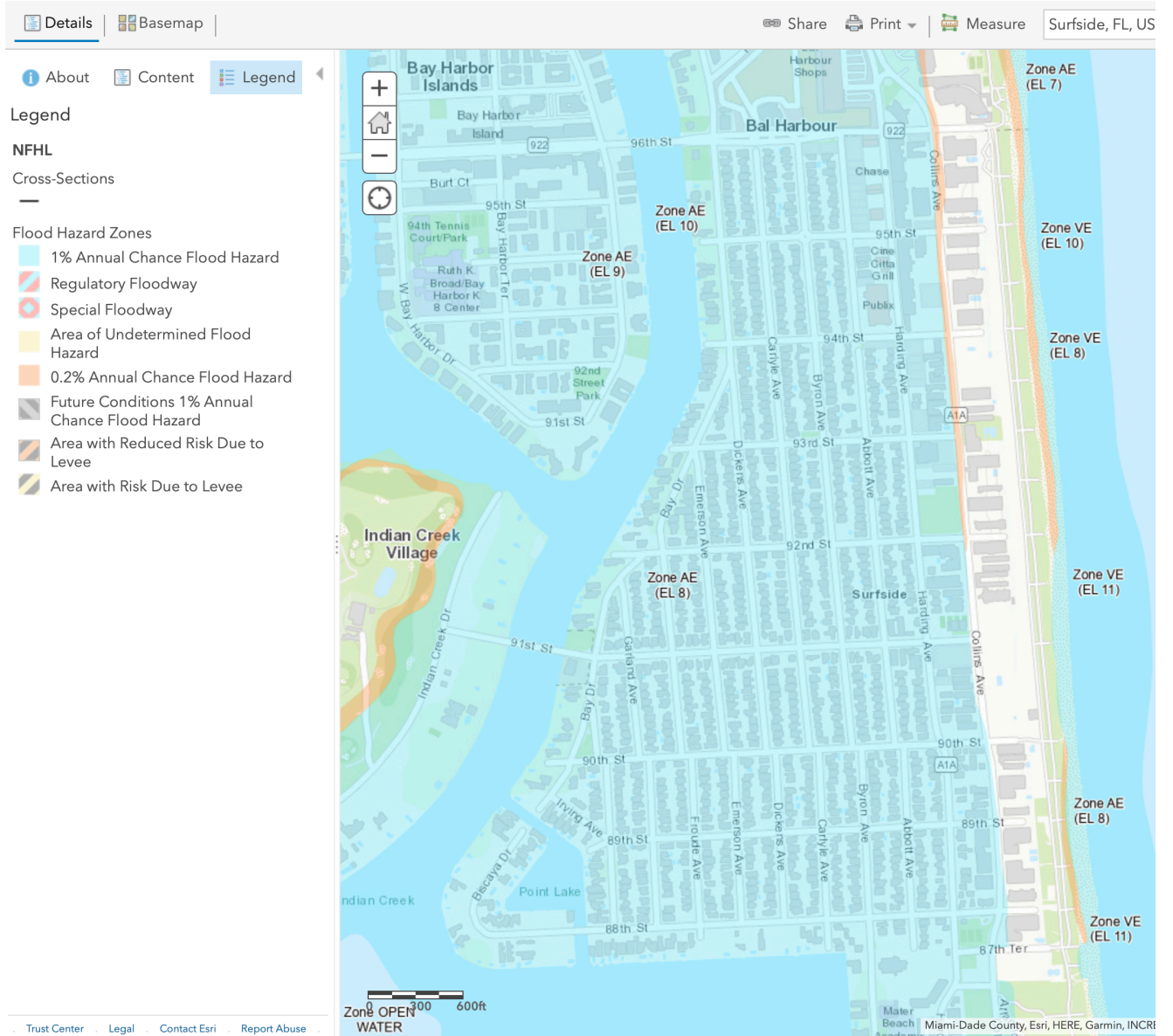
Produced and maintained by the CCA
Geographic Information Systems Services
ESRI



CST 3 - Current FEMA Flood Zone Map
Source: FEMA National Flood Hazard Layer

ArcGIS ▾ FEMA National Flood Hazard Layer (NFHL)

Open



7 RECREATION AND OPEN SPACE ELEMENT

Data Inventory and Analysis

Purpose

The purpose of the Recreation and Open Space Element as set forth in Section 163.3177(6)(e), Florida Statutes (F.S.), is to plan for a comprehensive system of public and private sites for recreation, including, but not limited to, natural reservations, parks and playgrounds, parkways, beaches and public access to beaches, open spaces, waterways, and other recreational facilities.

An assessment of current and projected levels of service and recreation needs provides a basis for standards defining the level of services desired by the Town. Statements of a goal, objectives, and policies for guiding the Town's implementation actions conclude the element. These statements provide direction for the municipal recreation programs and maintenance of parks, open space, and recreation facilities to assure that the needs of Surfside residents will be met in the future.

Existing Facilities

As shown in Map 7-1, the Town is served by five Town-owned recreation facilities. These include (1) Hawthorne Park Tot Lot on Hawthorne Avenue and 90th Street, (2) Veterans Park/Surfside Tennis Center on 87th Terrace between Collins and Harding Avenues, (3) 96th Street Park on Bay Drive and 96th Street, and (4) the Surfside Community Center on the ocean at 93rd Street, and (5) Paws Up Dog Park on 93rd Street and Byron Avenue. A description of these facilities is provided below.

Hawthorne Park Tot Lot: This facility serves as a neighborhood tot lot. In addition, the park has one playground, three picnic tables, and four benches.

Veterans Park/Surfside Tennis Center: This park includes three tennis courts (with six court lights), six benches, Veterans memorial, three flag poles, an office, a restroom, and a WWII cannon. The Town is currently investigating improvements to this facility with the possibility of a 2 story structure and roof-top pickle ball courts.

96th Street Park: Facilities provided at this site include a ball field (with six field lights), two basketball courts, two racquetball courts, a tot lot, a playground, restrooms, six benches, an office, and an irrigation system. The 5-Year Parks Improvement Plan is proposing improvements to 96th Street Park over the next several years. A major park improvement was initiated in FY 2023 which will totally upgrade the entire facility. The \$3.3 million dollar improvement includes a 2 story facility with a community meeting room, lockers, park office, new playground equipment, a kayak launch and new landscaping. The project will be completed in 2024.

Surfside Community Center: In 1962, the Town of Surfside built a community center on the ocean at 93rd Street. In 2008, that building was demolished due to building and safety concerns. The current Community Center was completed in 2011 and houses the Aquatic Facility which includes a recreation pool with lap lanes, plunge pool and slide, children's activity pool, and a jacuzzi pool. Additional amenities include two multipurpose rooms which can host a variety of activities and programs for all ages. The Community Center also includes locker room facilities, restrooms, administrative offices, an outdoor green area, and a snack bar and grill.

Paws Up Dog Park: This facility is a fenced in area for residents’ pets to enjoy active play time. Several benches are also included.

Other Recreation Facilities: In addition to these facilities, other public recreation and open space lands in Surfside include the State-owned beachfront which comprises approximately 38 acres and stretches for just over a mile along the Atlantic Ocean, a community garden at 89th Street and Dickens Avenue, and several existing street ends and associated rights-of-way allowing for beach access. Private recreation facilities include the Surf Club on Collins Avenue between 90th and 92nd Streets, and beachfront property west of the erosion control line, paralleling the State-owned beach. Moreover, additional public recreational opportunities can be found within a three-mile radius of the Town including Haulover Beach Park and Oleta River State Park.

Analysis of the Need for Facilities

The Surfside Parks and Recreation Department operates a number of Town facilities and a wide range of community programs. Facilities include the aforementioned Hawthorne Park Tot Lot, 96th Street Park, Veterans Park/Surfside Tennis Center, Paws Up Dog Park, Community Center with Aquatic facilities, as well as the Administrative Offices and 93rd Street Beach Lifeguard Stand. The Parks and Recreation Department sponsors adult education classes, holiday celebrations, youth programs and sports, and special events designed to provide entertainment, education, and recreation for all Town residents and visitors.

The Town recognizes that parks and recreation are vital components of the overall community. Table 7-1 provides ~~Following~~ is an acreage inventory of Surfside public recreation facilities.

Table 7-1. Parks and Recreation Inventory

FACILITY	ACREAGE
Hawthorne Park Tot Lot	0.22
Veterans Park/Surfside Tennis Center	0.99
96th Street Park	0.99
Surfside Community Center	1.27
Paws Up Dog Park	0.10
public beach	34.76
pocket parks and r-o-w dead ends	1.44
TOTAL:	39.77

Source: Calvin, Giordano & Associates, Inc. 2017

While the public beach does not generally offer Parks and Recreation Department programming, this acreage will be included for the level of service (LOS) analysis because it is an integral part of the Town. Using the 39.77 acres of public recreation, along with population projections, Surfside’s LOS for recreation can be projected through 2035. The LOS standard for publicly-owned recreation lands in Surfside is six (6) acres per one thousand (1,000) permanent population. As the following table shows, this standard will be

met through 2045 2035. While the Town believes the population projections are too low based on redevelopment in the last 3 years, the Town could support a population increase to 6,628 year round residents and still meet the 6 acres/1,000 population LOS.

Table 7-2. Projected Park LOS

Year	Population (Projected)	LOS Standard	Acres Needed	Town Park Acreage	Surplus Acreage
2010	5,744*	6.0/1,000	34.46	39.77	5.31
2015	5,705**	6.0/1,000	34.23	39.77	5.54
2020	5,952**	6.0/1,000	35.71	39.77	4.06
2025	6,181**	6.0/1,000	37.08	39.77	2.69
2030	6,398**	6.0/1,000	38.39	39.77	1.38
2035	6,556**	6.0/1,000	39.34	39.77	0.43

Sources: * 2010 U.S. Census; ** Florida Housing Data Clearinghouse (FHDC), 2016

Table 7-2. Projected Park LOS (New)

Year	Population (Projected)	LOS Standard	Acres Needed	Town Park Acreage	Surplus Acreage
2020	<u>5,689*</u>	6.0/1,000	<u>27.37</u>	39.77	<u>12.40</u>
2025	<u>5,466**</u>	6.0/1,000	<u>32.80</u>	39.77	<u>6.97</u>
2030	<u>5,293**</u>	6.0/1,000	<u>31.76</u>	39.77	<u>8.01</u>
2035	<u>5,105**</u>	6.0/1,000	<u>30.63</u>	39.77	<u>9.14</u>
2040	<u>4,908**</u>	6.0/1,000	<u>29.45</u>	39.77	<u>10.32</u>
2045	<u>4,710**</u>	6.0/1,000	<u>28.26</u>	39.77	<u>11.51</u>

Sources: * 2020 ACS U.S. Census; ** Florida Housing Data Clearinghouse (FHDC), 2023

Goals, Objectives and Policies

Goal 1: Provide adequate recreation and open space facilities to serve the Town's residents.

Objective 1 – Access to recreation sites: In general, ensure public access to identified recreation sites by creating a pedestrian and bicycle network that links the Town's parks, recreational, and natural amenities into an "emerald necklace." This objective shall be measured by implementing its supporting policies.

Policy 1.1 – The Town shall give priority to maintaining and upgrading existing public access sites, but it shall acquire new sites when resources are available. Priority shall be given to sites which offer the potential for: 1) creating natural area greenways consisting of environmentally sensitive lands or lands in which plant species characteristic of and/or compatible with environmentally sensitive lands predominate or can be cultivated; and 2) removing invasive or otherwise undesirable plant species including those listed in Conservation Element Policy 4.2.

Policy 1.2 – All beach access facilities shall be accessible from public roads. The Town shall map all road rights-of-way that dead-end at the Atlantic beach and shall provide benches, picnic tables or other improvements at these sites to create "pocket parks."

Policy 1.3 – The Town shall continue to support the existing and explore the feasibility of enhancing each of the street-ends east of Collins Avenue to create "pocket parks" where appropriate.

Policy 1.4 – The Town shall provide barrier-free access for the handicapped to all public recreation facilities.

Policy 1.5 – The Town shall continue to support bicycle parking facilities provided at strategic beach access points and at public parks.

Objective 2 – Public-private coordination: In general, coordinate public and private resources to meet recreation demand. This objective shall be measured by implementing its supporting policies.

Policy 2.1 – The Town of Surfside shall work with public agencies, such as Miami-Dade County Department of Environmental Resources Management, the Army Corps of Engineers, the Florida Department of Environmental Protection and private sector organizations and corporations, through the zoning process, to enhance and improve existing recreation/open space facilities in the Town.

Objective 3 – Adequate and efficient provision of public recreation facilities and open space: In general, ensure that parks and recreation facilities are adequately and efficiently provided. In particular, maintain a system of public park and recreation lands which provides at least 6.0 acres per 1,000 people permanent population together with an appropriate range of facilities. This standard is based on existing resources and the anticipated population.

Policy 3.1 – The Town shall reserve for recreation use all of the Town-owned land designated for recreation on the Future Land Use Map, including the following specific facilities: 1) Hawthorne Park Tot Lot, 2) Veterans Park/Surfside Tennis Center, 3) 96th Street Park, 4) Surfside Community Center, and 5) Paws Up Dog Park. These facilities shall remain as public recreation facilities unless comparable facilities are provided to replace them.

Policy 3.2 – The Town classifies the following larger parks as Community Facilities thereby allowing on-site community and recreational buildings to be developed.

Policy ~~3.3~~ ~~3.2~~ – The Town shall continue to seek State and Federal grant funds for Town park enhancements.

Policy ~~3.4~~ ~~3.3~~ – The Town shall give priority to upgrading existing public recreation lands, but it shall acquire new sites when resources are available.

Policy ~~3.5~~ ~~3.4~~ – For public recreational sites, a minimum level of service standard shall be set at six (6) acres per one thousand (1,000) permanent population.

Policy ~~3.6~~ ~~3.5~~ - The Town shall continue to ensure high quality and safe recreational facilities for Town residents.

Policy ~~3.7~~ ~~3.6~~ – The Town shall continue to implement the current 5-Year Parks Improvement Plan.

Objective 4 – Provision of private open space: Assure the provision of open space by private enterprise. This objective shall be measured by implementing its supporting policy.

Policy 4.1 – The Town shall maintain and improve land development code standards and incentives to achieve open space and landscaping requirements. Open space and landscaping requirements shall specify above average quantities of plant and other landscaping material and extensive use of xeriscape plant materials and design techniques for non-residential uses. Landscaping regulations shall include, but not necessarily be limited to, establishing a minimum number of trees based on lot size and/or lot frontage, establishing minimum requirements for other plant material, and establishing irrigation restrictions which minimize water loss due to evaporation. Regulations shall address site perimeters, parking lots and residential buffers.

Objective 5 – Provision of open space: Assure the provision and preservation of open space to aid in community resiliency to climate change. This objective shall be measured by implementing its supporting policy.

Policy 5.1 – The Town shall maintain and improve land development code standards and incentives to achieve and maintain open space. Regulations shall address site perimeters, parking lots and buffers related to open space.



Surfside Comprehensive Plan

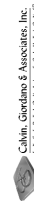
Map: REC 1
Town Parks and Recreation Facilities

- Legend**
- Surfside City Limits
 - Adjacent City Limits
 - Public Beach
 - Municipal Parks
 - Water



Print: 6-7-2017

Source: Miami Dade GIS Services



9 CAPITAL IMPROVEMENTS ELEMENT

Data Inventory and Analysis

Purpose

The purpose of the Capital Improvements Element is to evaluate the need for public facilities as identified in the other comprehensive plan elements and as defined in the applicable definitions for each type of public facility, to estimate the cost of improvements for which the local government has fiscal responsibility, to analyze the fiscal capability of the local government to finance and construct improvements, to adopt financial policies to guide the funding of improvements and to schedule the funding and construction of improvements in a manner necessary to ensure that capital improvements are provided when required based on needs identified in the other comprehensive plan elements. The element shall also include the requirements to ensure that an adequate concurrency management system will be implemented by the Town.

Planning Timeframes

The Town of Surfside Comprehensive Plan provides guidance on development and redevelopment over two planning periods: a 5-Year period ending FY 2022 (short term) and a long-term planning period ending FY 2035.

Public Facility Needs

Transportation

The Town is responsible for maintaining the local network program. The regional road network is under the State of Florida's jurisdiction. Collins Avenue and Harding Avenue are the major north-south corridors through the Town, while 96th Street is the main east-west roadway.

The Town of Surfside comes under the Miami-Dade County's Transportation Concurrency Exception Area (TCEA) to promote urban infill and redevelopment in the area. The Level of Service for major, state roadways in Surfside is LOS E+20, meaning that where mass transit service having headways of 20 minutes or less is provided within a ½ mile distance, roadways shall operate at no greater than 120 percent of their capacity.

State arterial roadways include Collins Avenue, Harding Avenue and 96th Street which are all functioning at Level of Service Standard D and are meeting level of service standards. There are no FIHS or SIS facilities within the Town of Surfside.

Roadway performance conditions are measured by Level of Service (LOS) which is represented by letters "A" or most favorable through "F" or least favorable conditions. Roadway LOS standards are the ratio of the number of vehicles to the road capacity during peak time periods. The Town monitors roadway concurrency and currently all roadways are meeting level of service standards.

Currently, the only roadway capital improvements planned in the Surfside area by FDOT is the ~~Indian Creek Bridge Rehabilitation~~ SR A1A Harding Avenue Resurfacing, Restoration and Rehabilitation Project.

To accommodate the impacts of new development, alternative modes of transportation are required to reduce traffic congestion. Six bus routes from Miami-Dade Transit travel through the Town; all the routes run along Collins Avenue and Harding Avenue. The Town has its own bus system which complements the

Miami-Dade County Transit. The Town's mini buses circulate between the business district and residential areas.

De Minimis Impacts

The Town does not allow for exceptions for de minimis impacts. Also, the Town lies completely within a Transportation Concurrency Exception Area.

Gas Tax Projects

Per F.S. 336.025 (1)(a)3 municipal governments shall use local option gas taxes for transportation expenditures to meet the requirements of the capital improvements element of an adopted comprehensive plan or for expenditures needed to meet immediate local transportation problems and for other transportation-related expenditures that are critical for building comprehensive roadway networks by local governments. Such expenditures are required to be included in the Comprehensive Plan.

The Town's Municipal Transportation Fund is funded primarily by the Town's pro-rata share of the half-cent discretionary sales surtax on purchases made in Miami-Dade County. This fund provides for the Town's Community Bus Service, bus shelter replacement, sidewalk replacement, transportation studies and maintenance.

~~The Schedule of Capital Projects to be partially funded by gas taxes are identified in Table 9-10D. The related projects are not planned to alleviate level of service issues, but are included to meet statutory requirements for listing local option gas tax projects in the Capital Improvement Element~~

Potable Water

The Town of Surfside's potable water is provided by the Miami-Dade County Water and Sewer Department (MDWASD) which provides service for approximately 2.6 million customers in Miami Dade County. The Town of Surfside is serviced by the Hialeah-Preston Water Treatment Plant service area which includes the northern part of Miami-Dade County.

The water is distributed to residents and commercial business by approximately 11 miles of cast iron pipe installed in 1938. Primary mains feeding the system run under the Town's streets and vary in size from 6-inch to 16-inches in diameter, which feed three-inch and four-inch water lines located along the rear property lines.

The Collins Avenue 8 inch water main between 88th Street and 96th Street is programmed to be replaced. Additional information on the Town's Water System can be found in the Infrastructure Element.

~~Water Source~~

~~The source water for Hialeah Water Treatment Plant (WTP) is from the Hialeah Miami Springs Wellfields, supplemented by the Northwest Wellfield. There are three active wells located in the Hialeah Wellfield constructed in 1936. Each well is 14 inches in diameter, 115 feet deep and have casing depths of 80 feet. The total wellfield capacity is 12.54 mgd or 8,700 gpm (2,900 gpm for each well). The twenty active wells located in the Miami Springs Wellfield were constructed between 1924 and 1954. These wells are 14 inches and 30 inches in diameter, 80 to 90 feet deep and have casing depths of 80 feet. The total wellfield capacity is 79.30 mgd or 55,070 gpm (ranging between or 2,500 and 5,000 gpm for each well). The Northwest Wellfield has fifteen active wells that were constructed in 1980. The wells are 40 inches and 48 inches diameter and 80 to 100 feet deep, with casing depths ranging from 46 to 57 feet. These wells~~

have two-speed motors. The total nominal capacity of the wells at the low-speed flow rate is 149.35 mgd. The capacity of each well, except well No. 10, is 10 mgd at the low-speed flow rate. Well 10 has a low-speed capacity of 9.35 mgd. The total nominal capacity for the wells at the high-speed flow is 220.94 mgd.

The seven active wells located in the John E. Preston Wellfield were constructed in 1966 and 1972. Each well is 42 inches in diameter, 107 feet deep and have casing depths of 66. The capacity of wells No. 1 through No. 6 is 5,000 gallons per minute (gpm) each and the capacity of well No. 7 is 7,000 gpm. The total wellfield capacity is 53.28 mgd.

Water Treatment Plants (WTPs)

The Hialeah WTP was originally designed in 1924 with a total capacity of 10 mgd. By 1935, the plant's capacity totaled 40 mgd. In 1946, capacity was increased to 60 mgd. Air strippers with a capacity of 84 mgd were added to the treatment process in 1991 to remove volatile organics from the finished water. A 3.2 MG storage reservoir for both the Hialeah and John E. Preston WTPs was also added in 1991. The Hialeah WTP has a current rated capacity of 60 mgd and there are plans to rerate and upgrade the Hialeah WTP to a capacity of 70 mgd, if necessary. The treatment process for this WTP includes lime softening with sodium silicate activated by chlorine, recarbonation, chlorination, ammoniation, fluoridation, filtration, and air stripping. The plant site is relatively small, and is surrounded by residential areas.

The John E. Preston WTP was originally designed as a 60 mgd plant in 1968 and upgraded to 110 mgd in 1980. The plant was re-rated to a total capacity of 130 mgd in 1984. The plant reached its present capacity of 165 mgd with another addition in 1988. In 1991, the plant was modified with an air stripping capacity of 185 mgd to remove VOCs. In 2005, plant process modifications to provide enhanced softening for reduction of color and total organic carbon came on line. The main source of water for the Preston WTP is from the Northwest Wellfield. The current rated capacity is 165 mgd with a treatment process similar to that of the Hialeah WTP. This includes lime softening with ferric and other coagulant and chemicals added to prior to lime for enhanced softening, recarbonation, chlorination, ammoniation, fluoridation, filtration, and air stripping. The Preston plant is also located in a residential area of Hialeah.

Potable Water Level of Service

The Town of Surfside currently coordinates with MDWASD and the South Florida Water Management District to meet existing and projected demands based on level of service (LOS). The Town's projected water demands are provided shown in Table 3.6 and in Figure 2.5.1-10 in the 2024 Water Supply Facility Work Plan (WSFWP) 9-1 below were developed utilizing the Town's average per capita value of 148.04 gallons per capita per day which indicates that there will be no deficit of finished water through 2030.

Table 9-1. Town of Surfside Water Demand Projection

Year	Population	Per Capita Consumption	Projected Consumption	Projected Consumption
		GPCD	GPD	MGD
2015	5,866	148.04	868,399	.87
2020	6,019	148.04	891,073	.89
2025	6,173	148.04	913,747	.91
2030	6,326	148.04	936,421	.94

Source: MDWASD's 20-year water supply plan (2014-2033)

Figure 4.1 in the Town of Surfside 15-Year Water Supply Facilities Work Plan indicates that there will be no deficit of finished water through 2030.

The existing LOS for the Town of Surfside based on MDWASD goals for potable water is as follows:

- a) The regional treatment system shall operate with a rated maximum daily capacity no less than 2 percent above the maximum daily flow for the preceding year, and an average daily capacity 2 percent above the average daily system demand for the preceding 5 years. The maximum daily flow shall be determined by calculating the average of the highest five single day flows for the previous 12 months.
- b) Water shall be delivered to users at a pressure no less than 20 pounds per square inch (psi) and no greater than 100 psi. Unless otherwise approved by the Miami-Dade Fire Rescue Department, minimum fire flows based on the land use served shall be maintained as follows:

Land Use	Min. Fire Flow (gpm)
Single Family Residential Estate	500
Single Family and Duplex; Residential on minimum lots of 7,500 sf	750
Multi-Family Residential	1,500
Semiprofessional Offices	
Hospitals; Schools	2,000
Business and Industry	3,000

Storage Capacity

The finished water storage facilities for the Hialeah Preston subarea consist of both "in plant" and remote storage facilities. The total combined storage capacity between both plants inclusive of all potable water 56.0 MG.

Sanitary Sewer

The sanitary sewer system is defined as structures or systems designed for the collection, transmission, treatment, or disposal of sewage and may include trunk mains, interceptors, treatment facilities, and disposal systems. The Town's sanitary sewer system is interconnected with the Miami-Dade County Water and Sewer Department (MDWASD) system. Surfside maintains its own sewer collection system and two pumping stations. By agreement, the Town of Surfside and Bal Harbour share a sanitary force main that connects to the City of Miami Beach transmission system. The tri-party agreement provides for the transmission of sewage via force mains to the MDWASD system and eventually to the treatment plant and disposal.

Geographic Service Area

The Town's system is coextensive with the Town's boundaries, while the County system includes unincorporated and incorporated areas of Miami-Dade County inside the 2005 Urban Development Boundary that have an agreement with MDWASD. The system also incorporates a small number of facilities, mostly State or County owned, outside of the Urban Development Boundary.

Additional information on the Town's Sanitary Sewer System can be found in the Infrastructure Element.

Treatment Facilities and Capacity

~~There has been a significant reduction in average flow into the regional system as a result of extensive infiltration and inflow (groundwater and rainwater) prevention projects conducted by MDWASD in recent years. Infiltration and inflow within the sewer system should be kept at a minimum to avoid hydraulic overload to the receiving treatment plant. It is pertinent for an operation and maintenance plan to be part of the county's sanitary sewer system. As a result, the regional wastewater treatment plants operating capacity can remain in compliance with Miami Dade County MDWASD and Florida Department of Environmental Protection (FDEP) standards.~~

~~The Town of Surfside is located in the MDWASD Central District Sanitary sewer system; however, MDWASD operates two additional regional wastewater treatment plants in the North and South Districts. Because the system is interconnected, the service districts have flexible boundaries, and some flows from one district can be diverted to other plants in the system.~~

~~Surfside's sewer system is treated by a secondary treatment facility on Virginia Key owned and operated by the Miami-Dade County Water and Sewer Department (MDWASD). The Town's sanitary sewer collection system is divided into two basins. Sanitary sewer pipes range in size from 8 to 15 inches with flows directed to two pump stations. Pump Station 1 receives sewage from the area of Surfside north of 91st Street, which includes the Business District and a majority of the high-rise buildings. Pump Station 2 serves the remainder of the Town, including most of the waterfront lots. The sewage is pumped via the force main which runs along 89th Street, 93rd Street, Collins Avenue and connects to the City of Miami Beach's system near 74th street. Sewage continues under pressure through MDWASD force mains to Virginia Key.~~

Current Facility Demand

~~According to the Town of Surfside Consumption Analysis, in 2014/2015 approximately 258 million gallons of wastewater were treated by the County system from the Town of Surfside and 260 million in 2015/2016.~~

In FY08, the Town began mapping all sewer and potable water lines within the municipal boundary to enhance maintenance. Also, in FY09, the Town identified infiltration issues to the sanitary sewer system and has completed a program to seal manholes to identify and inventory broken lines. Table 9-2 shows projected sewage flow demands for the Town of Surfside and Table 9-2B show current and projected wastewater capacity for the entire county.

In 2010 to 2014, the Town completed a sanitary sewer rehabilitation plan. All existing gravity sewer mains and laterals were lined or reconstructed in accordance with the approved plan. All sanitary manholes were rehabilitated. The Town also completed rehabilitation of the existing sanitary sewer pump stations, and construction of 12" Force Mains along 93rd Street and 89th Street. The Force Mains were tied in to the newly constructed 16" Force Main along Collins Avenue. The existing Force Main that runs along Byron Avenue is not currently in use and only remains as a stand-by facility.

Since the Town completed the sanitary sewer rehabilitation plan of the existing system in the recent past, there are currently no additional level of service projects required or needed for the Town's sanitary sewer system.

Table 9-2A. Projected Sewage Flows

Year	2010	2015	2030
Population	5,744	5,952	6,398
Per Capita (gallons per day finished sewage)	155	155	155
(All potable volumes are finished sewage)	MGD	MGD	MGD
Sewage Total Flow (daily average annual)	0.89	0.92	0.99

Source: Calvin, Giordano & Associates, Inc. 2017

Table 9-2B. Miami-Dade County Current and Projected Wastewater System Capacity 2016-2026

County WWTP Capacities	Actual County Flow (mgd)		Total Permitted Capacity / Projected County Flows (mgd)		
	2016 Plant Capacity (mgd)	Dec. 2015	2022	2024	2026
North	120.0	89.3	120.0 / N/A1	120.0 / N/A1	85.0 / N/A1
Central	143.0	120.0	143.0 / N/A1	143.0 / N/A1	83.0 / N/A1
South	112.5	97.1	121.0 / N/A1	131.0 / N/A1	131.0 / N/A1
West	N/A	N/A	N/A	N/A	102.0 / N/A1
Total	375.5	306.4	384.0 / 321.1	394.0 / 326.3	401.1 / 331.6

Source: Miami-Dade Water and Sewer Department, 2016; 1County only has projected data for total regional system

Drainage

In 2013, the Town completed a major retrofit of the existing drainage systems. The existing storm drainage system consisted of a network of underground storm sewers and outfalls discharging directly into the Indian Creek and Biscayne Bay. An existing pumping station at the western end of 92nd Street assisted the drainage of water from that street by pumping to an outfall. Storm sewers in the existing system ranged in diameter from 10 inches to 36 inches.

Town of Surfside has two state roadways within the Town; a north-south pair SR A1A/Collins Ave (northbound) and Harding Avenue (southbound); and one east-west SR-922/96th Street. The Florida Department of Transportation (FDOT) provided storm drainage improvements on Harding and Collins Avenue in the early 1990's. Equipment which currently serves the 92nd Street pump station were replaced by FDOT and will be maintained by the Town; however, even with these modifications, water may still reach curb level in various locations due to tidal fluctuations. The water level of Biscayne Bay is higher than normal during high- high tide, creating a backup in the outfall pipes. The Harding and Collins storm drainage improvements utilize on-site wells and control structures to provide additional capacity. Additional information on prior improvements of the Town's Drainage System can be found in the Infrastructure Element.

In 2002 FDOT completed the Stormwater Pump Station System Operational Evaluation and Recommended Improvements (OERI) Report which provided three alternatives to improve stormwater pump systems along Harding. It was determined that the most feasible alternatives are those that have an appropriate overflow capacity, once the wells reach capacity. This was achieved by introducing an emergency gravity bypass in the event that the pumps fail. The alternative consists of new pump stations at the existing vault locations. These new stations required the existing gravity system to be extended to the Intracoastal Waterway seawalls (at 88th Street and 94th Street), a new 36-inch force main to connect to existing wells; new pumps, structures, controls, and a new gravity bypass drainage pipe.

In 2006, the Town of Surfside initiated another stormwater project, which consists of retrofitting the Town's outfall pipes to reduce pollutants entering Biscayne Bay. The facilities at each location consists of

three new stormwater pump stations which pump water into drainage wells. In order to address pollution concerns for a Florida Department of Environmental Protection (FDEP) drainage well permit, the Town installed Nutrient Separating Baffle Boxes upstream of the pump station to provide treatment before the runoff enters the groundwater which was included in this retrofit project.

The recently constructed retrofitted stormwater management system of the Town consists of a network of underground storm sewers along with outfall control structures discharging into the Indian Creek and Biscayne Bay, and three additional pump stations discharging into 9 drainage wells. The newly constructed control structures facilitate well discharge before discharging to Biscayne Bay. The project addressed long-term concerns regarding water backing into the streets and poor water quality in the adjacent Biscayne Bay along the Town's shores. The project directly addressed The Trust for Public Land's Biscayne Bay Accessibility report, supported the SFWMD's Biscayne Bay Partnership Initiative (BBPI), and enhanced the level of service.

In 2015, the Town completed drainage improvements for Biscaya Island along 88th Street. The Town constructed new check valves to prevent back flow into the existing roadways and upsized one 12-inch outfall to a 24-inch diameter outfall. Since the Town completed the retrofit of the existing drainage system in the recent past, there are currently not additional level of service projects required or needed for the Town's drainage system.

Drainage capital improvements (see Table X) are proposed in 2023 on Abbott Avenue between 91 and 92 Streets. The project will upsize the existing FDOT conveyance system along Harding Avenue. Two new stormwater pump stations and 3 drainage wells will be constructed. The project will significantly improve flooding issues on Abbott Avenue.

Solid Waste

The Town's Public Works Department has three garbage trucks which collect trash and garbage on a weekly basis and haul it to Miami-Dade County's Resource Recovery Plant west of Miami International Airport and other Miami-Dade County landfills. Last year (FY15/16) Surfside deposited approximately 4,932 tons of waste material at the county's facility. Based on the 2010 U.S. Census population of 5,744 approximately 4.7pounds per person per day was collected. The Town, as of June 2, 2016, discontinued recycling services with Miami Dade County for residential properties.

The Town now collects recycling. Between June 2, 2016 and December 29, 2016, the Town collected a total of 218.9 tons of recycling. Based on information supplied by the Miami Dade County Department of Solid Waste Management (Table 9-2C), the existing disposal capacity at the North Dade Landfill and the South Dade Landfill and the Resource Recovery Plan appear to have adequate to meet Surfside's needs for the foreseeable future.

Table 9-2C. Miami-Dade County Solid Waste Facility Capacity

	South Dade Landfill	North Dade Landfill	Resources Recovery Facility and Ashfill
Built out Capacity in Tons	23,208,000	13,526,000	8,060,000
Tons in Place (June 30, 2016)	17,547,000	11,984,000	5,765,000
Remaining Capacity in Tons	1,261,000	1,541,000	2,295,000
Last Year's Disposal Tonnage (7/1/15 – 6/30/16)	390,626	190,478	160,879
Estimated Average Disposal Rate per Year in Tons	400,800	183,900	168,500

Source: Miami-Dade County Department of Solid Waste Management, 2016; Landfill Capacity Analysis for DSWM Active Landfills, July 1, 2016.

There are sufficient capacity in Miami-Dade County landfills to meet the Town's needs for solid waste disposal for the short term and long-term planning horizons. Additional information on Solid Waste is provided in the Infrastructure Element.

Parks

The following is an acreage inventory of Surfside's public recreation facilities:

Table 9-3. Park Inventory

FACILITY	ACREAGE
Hawthorne Park Tot Lot	0.22
Veterans Park/Surfside Tennis Center	0.99
96th Street Park	0.99
Surfside Community Center	1.27
Paws Up Dog Park	0.10
Public beach	34.76
Street ends	1.44
TOTAL:	39.77

Source: Calvin, Giordano & Associates, Inc., 2017

While the public beach does not generally offer Parks and Recreation Department programming, this acreage will be included for the level of service (LOS) analysis because it is an integral part of the Town. Using The 39.77 acres of public recreation, along with the future population projections, Surfside's LOS for recreation can be projected through 2035. The LOS standard for publicly-owned recreation lands in Surfside is six (6) acres per one thousand (1,000) permanent population. As the following table shows, this standard will be met through 2035. Additional information on Parks can be found in the Park and Recreation Element.

Table 9-4. Projected Park LOS

Year	Population (Projected)	LOS Standard	Acres Needed	Town Park Acreage	Surplus Acreage
2010	5,744*	6.0/1,000	34.46	39.77	5.31
2015	5,705**	6.0/1,000	34.23	39.77	5.54
2020	5,952**	6.0/1,000	35.71	39.77	4.06
2025	6,181**	6.0/1,000	37.08	39.77	2.69
2030	6,398**	6.0/1,000	38.39	39.77	1.38
2035	6,556**	6.0/1,000	39.34	39.77	0.43

Sources: * 2010 U.S. Census; ** Florida Housing Data Clearinghouse (FHDC), 2016

It should be noted this analysis does not take into account private recreation facilities such as the Surf Club and private beach frontage west of the erosion control line.

Schools

Surfside is within District 3 of the Miami-Dade County School District. The following table shows student enrollment and capacity in 2016 for the schools serving Surfside. Existing schools serving Surfside are at or above capacity. Additional information on schools can be found in the Public School Element.

Table 9-5. Public Schools Serving Surfside Capacity and Enrollment (2016)

School	Enrollment	Capacity	% Capacity Utilized
Elementary Schools			
Ruth K. Broad Bay Harbor K-8 Center	1,385	990	140%
Middle School			
Nautilus	1,028	1,050	98%
High School			
Miami Beach Sr High	2,469	2,110	117% 96.3%

Source: Miami-Dade Public Schools, 2016

Public Health System

Capital Improvement Element must also include the location of public health systems within the local jurisdiction. There are no major public health facilities within Surfside. The hospitals and public health centers located nearby and accessible to Surfside residents are as follows:

Aventura Hospital & Medical Center
20900 Biscayne Blvd, Aventura

The Miami-Dade Health Department (Florida Department of Health) has offices in various location in Miami–Dade County with the following offices closest to Surfside:

Miami-Dade County Health Department Main Complex
1350 NW 14th St.
Miami, FL 33125

Local Policies and Practices

The Town annually prepares and adopts operating budgets for its various departments. Through the budget process, capital improvement needs are considered and funds are allocated.

Timing and location of public facilities is determined by needs projected by the various departments of the Town, and in the case of multi-jurisdictional facilities such as state roads or potable water, by coordination with the affected agencies. Capital facilities will be planned and constructed in accordance with the established Schedule of Capital Improvements. This program is a five-year schedule of improvements which is supported by a projection of revenues to ensure its feasibility. Improvements included in the 5-year program include those items called for by the various departments of the Town.

There are four stimuli which prompt Town departments to call for capital improvements; demand created from outside the Town as well as within the Town:

- Anticipated demand through growth
- Coordination of Town plans with those of State agencies and water management districts, and other outside agencies
- Demand for improvements created by facility breakdown or by life expectancy of the facility
- Maintenance of level of service standards

Funding Sources

Existing Revenue Sources

Ad Valorem Tax

The Miami-Dade County Property Appraiser's Office sets the Town's assessed and taxable values of property. Ad valorem translates from Latin, "according to value." This is the property tax paid based upon the appraised value of one's property and it is calculated by a millage rate. Each mill generates \$1 of tax revenue for every \$1,000 of taxable property value. Taxable value may differ from assessed value because of exemptions, the most common of which is the \$25,000 homestead exemption, and another

\$50,000 in exemption for homeowners aged 65 or greater, subject to income requirements. The maximum millage a Town may levy is 10 mils, but this can only be accomplished through a unanimous vote of all Commissioners (not just those present).

Sales and Use Taxes

This category of taxes includes the local option sales tax and resort taxes. These are taxes generated by local jurisdictions under authorization by the State of Florida.

Franchise & Utility Taxes

The Town collects three types of franchise and utility taxes: electric utility taxes, gas utility taxes, and Surfside Occupational License Taxes. Since Fiscal Year 2002, the Town has been prohibited from collecting taxes on telephone franchises, telephone utility taxes, and cable television franchise taxes. These taxes are now collected by the State of Florida's Department of Revenue and re-distributed to municipalities according to use records at a rate of 5.22%.

Permits/licenses/and inspections

Licenses, permits and inspection fees are collected for services performed at specific properties for the benefit of particularly property owners. Building permit categories include: structural, electrical, plumbing, roofing and mechanical permits. As the Town is substantially at build out, little revenue is generated above a base level unless there is commercial development underway.

Intergovernmental Revenue

The Town receives recurring revenues from revenue sharing programs with the State of Florida. The Town receives periodic intergovernmental revenues from the federal government in the form of assistance grants for specific projects. All disbursements of State revenues are based on receipts by the State and the Town's population.

Services Revenues

This category includes all fees generated from services provided by the Town. This includes recreation fees, solid waste collection fees, stormwater collection fees, lien search services, stormwater utility fees, and similar items.

Fines and Forfeitures

Funds to promote public safety and other projects are received by the Town from fines, forfeitures, and/or seizures connected with illegal behavior in the community. Those funds are restricted to, and accounted for, in the Town's fines and forfeiture fund. Fines for the general fund derive from parking violations.

Miscellaneous Revenues

Any revenues that the Town receives which do not reasonably conform to any of the above identified categories is included in this category. This category includes interest earnings, receipts from the disposition of assets by sale, and similar items. Interfund Transfers between other funds may also be captured here.

Revenue and Expense Projections

The Town of Surfside develops operating costs based on a zero-based budget model. Departments are encouraged to review prior spending as a way of reminding themselves of on-going obligations. Each request for funding must, however, be accompanied by a detailed justification. The practice of incremental budgeting (identifying operational budgets by increasing/decreasing the prior years' expenditures by a percentage) is an option which the Town has rejected. The following tables illustrate the Town's projected revenue and expense. Projections for FY2017-FY2021 based upon a projected 1% increase in property values and an overall 3% increase of revenues and expenditures.

Table 9-6. Projected General Fund Revenues (FY17-FY21)

Department	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Property Tax	8,047,948	8,289,386	8,538,068	8,794,210	9,058,036
Sales and Use Taxes	1,411,477	1,453,821	1,497,436	1,542,359	1,588,630
Franchise and Utility Tax	1,364,515	1,405,450	1,447,614	1,491,042	1,535,773
Permits/Licenses/Inspection	70,700	72,821	75,006	77,256	79,574
Intergovernmental-Federal/State	601,812	619,866	638,462	657,616	677,344
Services Revenues	486,100	500,683	515,703	531,174	547,109
Fines & Forfeitures	712,000	733,360	755,361	778,022	801,363
Misc. Revenues	31,525	32,471	33,445	34,448	35,481
Transfers - In	446,116	459,499	473,284	487,483	502,108
Total General Fund	13,172,193	13,567,357	13,974,379	14,393,610	14,825,419

Source: Calvin, Giordano and Associates, Inc. (Based upon Town of Surfside Adopted Budget Fiscal Year 2017)

Table 9-7. Projected General Fund Expenditures (FY17-FY21)

Department	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Personnel	8,257,679	8,505,409	8,760,571	9,023,388	9,294,090
Operating Expenses	3,985,657	4,105,227	4,228,384	4,355,236	4,485,893
Capital Outlay	99,500	102,485	105,560	108,727	111,989
Debt Service	50,669	52,187	53,753	55,366	57,027
Non-Operating Expenses	8,000	8,240	8,487	8,742	9,004
Transfers - Out	770,688	793,809	817,623	842,152	867,417
Total General Fund	13,172,193	13,567,357	13,974,379	14,393,610	14,825,419

Source: Calvin, Giordano and Associates, Inc. (Based upon Town of Surfside Adopted Budget Fiscal Year 2017)

Debt Capacity

The Town is expecting to pay debt service on State revolving loans for stormwater, wastewater, and potable water projects

Stormwater Utility Fund

Table 9-8 shows the available revenue funds for the Stormwater Projects shown in the Schedule of Capital Improvements and the ability to manage debt service for the projects. As a result of the rate increases, the Storm Water Fund for period forecasted 2018 through 2022 provides net positive results, and both debt coverage ratios will be well above the required 110% (Senior Debt – 2011 Utility Bonds) and 115% (Subordinate Debt – SRF Loan).

Table 9-8. Stormwater Utility Fund Budget and Projected (FY18 – FY 22)

	2018	2019	2020	2021	2022
Annual Growth Rate	21.50%	11.50%	11.50%	11.50%	1.50%
Revenue	\$ 613,575	\$ 684,136	\$ 762,812	\$ 850,535	\$ 863,293
Expenses	\$ 691,106	\$ 711,839	\$ 733,194	\$ 755,190	\$ 777,846
Operating Margin	\$ (77,531)	\$ (27,703)	\$ 29,618	\$ 95,345	\$ 85,447
Operating Margin %	-12.5%	-4.05%	3.88%	11.21%	9.90%

Source: Town of Surfside Finance Department

Water and Sewer Fund

Table 9-9 shows the current and projected revenues and expenditures for the Water and Sewer Fund. It shows the Town’s ability to fund wastewater and potable water improvements as shown in the Schedule of Capital Improvements and the ability to manage debt service payments.

Table 9-9. Water and Sewer Fund Budget and Projected (FY 2018 – FY 2022)

	2018	2019	2020	2021	2022
Revenue	\$ 3,677,158	\$3,777,158	\$ 3,877,158	\$ 3,977,158	\$ 4,077,158
Expenses	\$ 3,677,158	\$3,777,158	\$ 3,877,158	\$ 3,977,158	\$ 4,077,158

Source: Town of Surfside Finance Department

Financial Feasibility Analysis

The Town’s Schedule of Capital Improvements is financially feasible with funds committed throughout the five-year period.

The Town’s scheduled projects and related funding sources show a positive or zero balance. The purpose of this comparison is to test and demonstrate the financial feasibility of the Comprehensive Plan. The Plan has been determined to be financially feasible because this comparison demonstrates the ability of the Town to finance capital improvements necessitated by the anticipated population and revenues.

Goals, Objectives and Policies

Goal 1: Undertake capital improvements necessary to provide adequate infrastructure and a high quality of life within sound fiscal practices.

Objective 1 – In general, use the capital improvements element as a means to meet the needs for capital facilities necessary to meet existing deficiencies, accommodate desired future growth and replace obsolete or worn-out facilities. In particular achieve annual Town Commission use of this element as the framework to monitor public facility needs as a basis for annual capital budget and five- year program preparation.

Policy 1.1 – In setting priorities, the following kinds of criteria shall be used by the Town Commission; in all cases, financial feasibility or budget impact will be assessed:

Public safety projects: any project to ameliorate a threat to public health or safety.

Quality of life projects: any project that would enhance the quality of life, such as a public streetscape improvement project.

Level of service or capacity projects: any project needed to maintain an adopted or otherwise desirable Level of Service.

Redevelopment projects: any project that would assist in the revitalization of deteriorated non-residential properties.

Environmental enhancement projects: any project which would enhance the environmental quality of the Atlantic Ocean, the Atlantic Ocean beach and dune system, Biscayne Bay or other natural resources.

Potable water projects:

Update the capital improvements schedule to maintain consistency with its ~~20~~ 10-Year Water Supply Facilities Work Plan.

Use funds for the expansion, enhancement, and upgrade of the water supply facilities in accordance with the ~~15~~ 10-Year Water Supply Facilities Work Plan.

Coordinate planning for the Town's infrastructure improvements related to water supply with the plans of state agencies, the South Florida Water Management District and Miami-Dade County.

Revision of priorities for the replacement of facilities, correction of existing water supply and facility deficiencies, and provision for future water supply and facility needs.

The Capital Improvement Element shall be reviewed and revised, as necessary, on an annual basis. The annual update shall demonstrate that the level of service standards will be maintained during the next five-year planning period.

In order to coordinate land uses with available and projected fiscal resources and a financially feasible schedule of capital improvements for water supply and facility projects, the Town shall include in its annual update of the its financially feasible five (5)

year capital improvement project listing the first five (5) years of Water Supply Facilities Work Plan to ensure consistency between the Potable Water Sub-Element of the Infrastructure Element and the Capital Improvements Element.

The Town hereby incorporates by reference into its Comprehensive Plan the Miami-Dade ~~20~~ 10-Year Water Supply Facilities Work Plan (2020-2030 ~~2014-2033~~) adopted ~~November 2022~~ 2014 inclusive of all potable water projects.

Policy 1.2 – The Town shall prudently limit the amount of debt it assumes for capital improvements or other purposes. At a minimum, the Town shall not assume debt obligations which would result in the Town exceeding the debt ratios established by state law.

Policy 1.3 – The Town shall maintain a current inventory of all Town-owned capital facilities, to include information on type, capacity, location and condition.

Policy 1.4 – The Town shall regularly schedule inspections of all capital facilities to monitor and record the condition of each.

Policy 1.5 – The Town shall use designated funding mechanisms such as the sewer assessments thereby freeing up general funds (and general obligation bonds) for such Town-wide projects identified in the policies of other Comprehensive Plan elements.

Policy 1.6 – The Town shall prepare and adopt each year a five-year capital improvements program and a one-year capital budget, to include all projects which entail expenditures of at least \$10,000 and a life of at least three years. Staff studies, engineering studies and other appropriate studies shall form the basis for preparation of a five-year capital improvement program, including one year capital budget. Among items which are specifically authorized and encouraged by this policy are the following: sidewalk repair and replacement; roadway and right-of-way drainage; street lighting; traffic signs, traffic engineer, signalization, and pavement markings; parking improvements serving the Harding Avenue Business District, and debt service and current expenditures for transportation capital projects in the foregoing program areas (including construction or reconstruction of roads). The preceding list is intended to be illustrative of appropriate expenditure categories. Other capital expenditures in related and different projects are hereby authorized.

Policy 1.7 – The Town shall utilize the following implementation schedule to aid state requirements for annual updates and to ensure level of service standards are maintained.

- Preliminary meetings in April with the Building, Public Works, and Finance department to discuss capital improvement planning and revenues
- Capital improvement plan/budget workshop in July with the Town Commission for discussion of proposed projects and financing
- Prepare capital improvement plan in coordination with Town budget for approval in June.
- Public hearing on capital improvement plan/budget in September.
- Revise Schedule of Capital Improvements and update Capital Improvement Element in October.

Policy 1.8 – The Town will implement the projects listed in the capital improvement program and in the Implementation Schedule of this capital improvements element according to the schedule listed in this Element.

Policy 1.9 –Capital improvements associated with the construction of educational facilities are not addressed in the Town’s Capital Improvement Plan or Schedule of Capital Improvements, but rather are the responsibility of the Miami-Dade County Public Schools. To address financial feasibility associated with school concurrency, the current Miami-Dade County Public School Facilities Work Program for educational facilities is incorporated by reference into the CIE.

Policy 1.10 – The Town, in conjunction with Miami-Dade County and Miami-Dade County Public Schools, has the responsibility for providing school concurrency related to capital improvements and should continually seek to expand funding sources available to meet those requirements.

Policy 1.11 – For public school facilities, a proportionate share mitigation agreement, is subject to approval by Miami-Dade County Public Schools and the Town and must be identified in the adopted Miami-Dade County Public School Facilities Work Program.

Policy 1.12 – The Town shall update its Capital Improvements Element and Program annually, to include the annual update of the Miami-Dade County Public Schools 5-Year District Facilities Work Plan.

Policy 1.13 – The annual update of the Capital Improvement Element shall include reflect proportionate fair-share contributions for transportation projects if applicable.

Policy 1.14 – The Town shall evaluate the costs and benefits of adaptation alternatives in the location and design of new infrastructure as well as the fortification or retrofitting of existing infrastructure.

Policy 1.15 – The Town shall commit funding to climate change adaptation and resiliency projects.

Objective 2 – In general, coordinate land use decisions and available or projected fiscal resources with a schedule of capital improvements which maintains adopted level of service standards and meets existing and future facility needs. In particular, achieve coordinated Town use of: 1) existing and already approved development; 2) the Future Land Use Plan; 3) the financial analyses in this Element, and 4) the established Level of Service Standards in both reviewing development applications and in preparing the annual schedule of capital improvements.

Policy 2.1 – The following Level of Service (LOS) standards shall be maintained:

Streets:

Local roads: D

Collector roads: D

State Roadways

A Level of Service of LOS E+20 shall be established (where mass transit service having headways of 20 minutes less is provided within 1/2-mile distance, roadways shall operate at no greater than 120 percent of their capacity.)

Sanitary Sewers: The County-wide “maximum day flow” of the preceding year shall not exceed 102 percent of the County treatment system’s rated capacity. The sewage generation standard shall be 155 average gallons per capita per day.

Potable Water:

- a) The regional treatment system shall operate with a rated maximum daily capacity no less than 2 percent above the maximum daily flow for the preceding year, and an average daily capacity 2 percent above the average daily system demand for the preceding 5 years. The maximum daily flow shall be determined by calculating the average of the highest five single day flows for the previous 12 months.
- b) Water shall be delivered to users at a pressure no less than 20 pounds per square inch (psi) and no greater than 100 psi. Unless otherwise approved by the Miami-Dade Fire Rescue Department, minimum fire flows based on the land use served shall be maintained as follows:

Land Use	Min. Fire Flow (gpm)
Single Family Residential Estate	500
Single Family and Duplex; Residential on minimum lots of 7,500 sf	750
Multi-Family Residential	1,500
Semiprofessional Offices	1,500
Hospitals; Schools	2,000
Business and Industry	3,000

Sources: Miami-Dade County Adopted 2014, Water, Sewer and Solid Waste Element

Drainage: All nonresidential development and redevelopment shall adequately accommodate runoff to meet all Federal, state and local requirements. Stormwater shall be treated in accordance with the provisions of Chapter 17-25, FAC in order to meet receiving water standards in Chapter 17-302.500, FAC. One inch runoff shall be retained on site. Post-development runoff shall not exceed peak pre development runoff.

Solid Waste: The County solid waste disposal system shall maintain a minimum of five years’ capacity. For Town planning purposes, a generation rate of 5.6 pounds per person per calendar day shall be used.

Parks: The Town shall achieve and maintain a Level of Service standard of at least 6 acres of public recreation sites per 1,000 permanent population.

Public Schools: The adopted level of service (LOS) standard for all public school facilities is 100% utilization of Florida Inventory of School Houses (FISH) Capacity (with Relocatable Classrooms). This LOS standard, except for Magnet Schools, shall be applicable in each public school concurrency service area (CSA), defined as the public school attendance boundary established by the Miami-Dade County Public Schools. The adopted LOS

standard for Magnet Schools is 100% of FISH (with Relocatable Classrooms), which shall be calculated on a districtwide basis. Level of Service standards for public school facilities apply to those traditional educational facilities, owned and operated by the Miami-Dade County Public Schools, that are required to serve the residential development within their established Concurrency Service Area. Levels of Service standards do not apply to charter schools. However, the capacity of both charter and magnet schools will be credited against the impact of development.

Policy 2.2 – The concurrency management system formulas shall include the public facility demands to be created by “committed” development and the capital improvement schedule shall include the project implications of such committed development to assure facilities are provided concurrent with the impact of development.

Policy 2.3 – The Town shall not give development approval to any new construction, redevelopment, or renovation project which creates a need for new or expanded public capital improvement unless the project pays a proportional share of the costs of these improvements.

Policy 2.4 – The Town shall maintain and improve as part of the land development code a concurrency management system which meets the requirements of state statutes. The concurrency management system shall specify that no development permit shall be issued unless the public facilities necessitated by a development (in order to meet level of service standards specified in the Transportation, Recreation and Open Space, Infrastructure and Public School Facilities) will be in place concurrent with the impacts of the development or the permit is conditional to assure that they will be in place. The requirement that no development permit shall be issued unless public facilities necessitated by the project are in place concurrent with the impacts of development shall be effective immediately and shall be interpreted pursuant to the provisions of Policy 1.4 of the Future Land Use Element.

Capital Improvement Element Implementation Systems

Five-Year Schedule of Capital Improvements: See schedule nearby in this element.

Other Programs: The other principal programs needed to implement this Element are as follows:

- Continue the annual capital programming and budgeting including use of the project selection criteria contained on Policy 1.1; related thereto will be the annual review of the Element.
- Amendments to the existing land development code to assure conformance to the “concurrency” requirements relative to development orders, levels of service and public facility timing as outlined in C below.

Monitoring and Evaluation: The Town Manager or designee shall annually prepare a status report on this Capital Improvement Element for submittal to the Town Commission. The primary purpose is to update the five-year schedule including the basis for next year’s capital budget. The project evaluation criteria shall be used in the project list review and special attention shall be devoted to maintenance of the level of service standards. This entire evaluation process shall be integrated into the Town’s annual budget process.

Concurrency Management: Concurrency management shall be implemented as articulated in Future Land Use Element and the Capital Improvement Element.

Monitoring, Updating and Evaluation Procedures

Annual Monitoring: In conjunction with one of the plan amendment cycles, the Local Planning Agency may annually conduct a public workshop on the Comprehensive Plan. A status report shall be provided by the Town Manager or designee and then citizen comment shall be solicited. This meeting shall be publicized by a legal notice in the newspaper plus efforts to have a news story in the Miami Herald and flyer announcements at the Town Hall. The LPA will then submit a report on the status of the Plan to the Town Commission. This report may be accompanied by recommended amendments, using the normal amendment process.

Evaluation and Appraisal Review (EAR): the Town Manager or designee shall prepare an Evaluation and Appraisal Review in conformance with statutory requirements and with special emphasis on the extent to which the Comprehensive Plan objectives and policies have been achieved. The report will pinpoint obstacles to plan implementation and update baseline data.

Revised Objectives and Policies: As part of this EAR process, amendments to the goals, objectives and policies based upon the above review, focusing short- and long-term community objectives. The citizen participation procedures used in preparing the Comprehensive Plan (plus any future modifications thereto) shall be used in amending the Plan.

Concurrency Management System Standards

Facility Capacity Determinations: The determination that there is adequate facility capacity for a proposed project shall be based on a formulation such as $(A+B)$ minus $(C+D+E)$ shall be greater than zero, where

“A” equals the total design capacity of existing facilities;

“B” equals the total design capacity of any planned new facilities that will become available concurrent with the impact of the proposed development;

“C” equals existing demand on facilities measured as traffic volumes, sewer and water flows, utilization of FISH capacity (for schools) or population;

“D” equals committed demand from approved projects that are not yet constructed; and “E” equals the demand anticipated to be created by a proposed project.

Criteria for Measuring the Design Capacity of Existing and Planned New Facilities: The design capacity of existing and planned new facilities shall be determined as follows:

Sewage: the capacity of the County sewage treatment system.

Water: the capacity of the County water treatment and storage system. Solid Waste: the capacity of the County disposal system.

Drainage: the on-site detention capability and/or storm sewer capacity.

Roadways: The standard for measuring highway capacities shall be the Florida DOT Table of Generalized Two-Way Peak Hour Volumes for Urbanized Areas or other techniques that are compatible to the maximum extent feasible with FDOT standards and guidelines. The measurement of capacity may also be determined by engineering studies provided that analysis techniques are technically sound and acceptable to the Town engineer.

Recreation: Measurement shall be based on recreation data in the Comprehensive Plan plus the latest Town population estimate with any necessary interpretation provided by the Town Manager or designee thereof.

Transit: The County Transit Agency bus schedules for routes within the Town.

Criteria for Counting the Capacity of Planned New Facilities: The capacity of planned new facilities may be counted only if the following timing requirements to ensure that adequate public facilities are available to meet level of service standards with the impact of development:

- a) Sanitary sewer, solid waste, drainage, adequate water supplies, and potable water facilities shall be in place and available to serve new development no later than the issuance by the local government of a certificate of occupancy or its functional equivalent. Prior to approval of a building permit or its functional equivalent, the Town shall determine whether adequate water supplies to serve the new development will be available no later than the anticipated date of issuance by the Town of a certificate of occupancy or its functional equivalent.
- b) Parks and recreation facilities to serve new development shall be in place or under actual construction no later than 1 year after issuance by the local government of a certificate of occupancy or its functional equivalent. However, the acreage for such facilities shall be dedicated or be acquired by the Town prior to issuance of a certificate of occupancy or its functional equivalent, or funds in the amount of the developer's fair share shall be committed no later than the local government's approval to commence construction.
- c) Transportation facilities needed to serve new development shall be in place or under actual construction within 3 years after the Town approves a building permit that results in traffic generation.

Responsibility for Concurrency Monitoring System: The manager or designee thereof shall be responsible for monitoring facility capacities and development activity to ensure that the concurrency management system data base is kept current, i.e., includes all existing and committed development. This data base shall be used to systematically update the formulas used to assess projects. An annual report shall be prepared.

Capacity Reservation: Any development permit application which includes a specific plan for development, including densities and intensities, shall require a concurrency review. Compliance will be finally calculated and capacity reserved at time of final action on a design review or building permit if no design review is required or enforceable developers' agreement. Phasing of development is authorized in accordance with Rule 9J-5.0055. Applications for development permits shall be chronologically logged upon approval to determine rights to available capacity. A capacity reservation shall be valid for a time to be specified in the land development code; if construction is not initiated during this period, the reservation shall be terminated.

Public School Concurrency Review: Prior to the issuance of any development order for new residential development or redevelopment, public school facilities needed to support the development at adopted school LOS standards must meet the following requirements:

1. The necessary public school facilities and services are in place or under actual construction within three years after issuance of final subdivision or site plan approval, or the functional equivalent.
2. The necessary facilities and services are guaranteed in an enforceable development agreement, pursuant to Section 163.3220, F.S., or an agreement or development order issued pursuant to

Chapter 380, F.S., to be in place or under actual construction not more than three years after issuance of a certificate of occupancy or its functional equivalent.

School concurrency approval for the development and anticipated students shall be valid for up to two (2) years, beginning from the date the application received final approval from the Town.

Project Impact or Demand Measurement: The concurrency management user's procedural guide (a supplement to the land development code) will contain the formulas for calculating compliance plus tables which provide generation rates for water use, sewer use, solid waste and traffic, by land use category. Alternative methods are acceptable to the Town Manager or designee thereof may also be used by the applicant. For example, traffic generation may be based upon the Institute of Transportation Engineer's "Trip Generation" manual.

Schedule of Capital Improvements by Category and Funding Sources

Table 9-10 on the following page identifies ~~Tables 9-10 A-D make up~~ the Town's schedule of Capital Improvements. Funding sources are shown where applicable.

Project Number	Department or Outside Lead	Project Name	Project			Project		Project Est Start	Project Est End	Project Total Cost	Overall Funded Status	Budget Fiscal Year	Grant Funded Status	Grant Highest Level
			Phase	Status	Type	Est Start	Est End							
1	Planning	Downtown Surfside Walkability and Design Study	Planning	Completed	Pedestrian Safety, Beautification	1-Jan-22	31-Dec-22	\$50,000	Yes	FY 2023	No	N/A		
2	Planning	Downtown Surfside Walkability Improvements	Design	Active	Pedestrian Safety, Beautification	1-Jan-23	30-Sep-23	\$120,000	Yes	FY 2023	No	N/A		
3	Capital	Downtown Walkability Improvements	Construction	Future (Planned)	Pedestrian Safety, Beautification	1-Jul-24	31-Dec-24	\$559,000	No	N/A	No	N/A		
4	Public Works	Surfside Boulevard Beautification	Design	Future (Planned)	Infrastructure Improvements, Beautification	1-Jul-23	30-Jun-24	\$150,000	Partially Funded	FY 2024	Partially Funded	State		
5	Capital	Surfside Boulevard Beautification	Construction	Future (Planned)	Pedestrian Safety, Beautification	1-Jul-24	31-Dec-25	\$900,000	Partially Funded	FY 2025	Partially Funded	State		
6	Public Works	Abbott Avenue Drainage Improvements	Design	Active	Infrastructure Improvements	1-Mar-22	30-Jun-23	\$422,654	Partially Funded	FY 2023	No	N/A		
7	Capital	Abbott Avenue Drainage Improvements	Construction	Future (Planned)	Infrastructure Improvements	1-Jul-23	31-May-24	\$3,200,091	Partially Funded	FY 2024	Partially Funded	Federal		
8	Public Works	Drainage and Flood Hazard Mitigation Plan	Planning	Active	Infrastructure Improvements	1-Jun-22	31-Aug-23	\$255,000	Yes	FY 2022	Partially Funded	State		
9	Public Works	Collins Water Main	Design	Active	Infrastructure Improvements	1-Oct-22	31-Jan-24	\$340,206	Yes	FY 2023	Partially Funded	Federal		
10	Capital	Collins Water Main	Construction	Future (Planned)	Infrastructure Improvements	1-Jul-24	30-Jun-26	\$4,600,000	No	N/A	Partially Funded	Federal		
11	Public Works	Dune Resiliency and Beautification Upgrade	Design	Future (Planned)	Resiliency and Sustainability, Beautification	1-Mar-23	30-Jun-24	\$126,500	Yes	FY 2023	Partially Funded	State		
12	Public Works	Dune Resiliency and Beautification Upgrade	Construction	Future (Planned)	Resiliency and Sustainability, Beautification	1-Jul-24	31-Dec-24	\$869,600	Yes	FY 2023	Partially Funded	State		

Table 9-10 - Town of Surfside 5 Year Capital Improvements (Page 1 of 2) New

Project Number	Department or Outside Lead	Project Name	Project			Project		Project Est Start	Project Est End	Project Est Total Cost	Overall Funded Status	Budget Fiscal Year	Grant Funded Status	Grant Highest Level
			Phase	Status	Type	Est Start	Est End							
13	Public Works	Townwide Utilities Undergrounding	Design	Active	Infrastructure Improvements	1-May-22	31-Dec-23	\$1,471,855	Yes	FY 2022	No	N/A		
14	Capital	Townwide Utilities Undergrounding	Construction	Future (Planned)	Infrastructure Improvements	1-Mar-24	31-Dec-28	\$37,178,512	Partially Funded	FY 2024	No	N/A		
15	Public Works	Townwide Traffic Study	Planning	Active	Pedestrian Safety, Traffic Calming	1-Sep-22	31-Oct-23	\$204,500	Yes	FY 2023	No	N/A		
16	Building	Front Lobby and Offices Renovation	Construction	Completed	Building Renovations, Beautification	1-Oct-21	31-Jan-23	\$298,471	Yes	FY 2022	No	N/A		
17	Parks and Recreation	Tennis and Recreation Center Improvements	Design	Active	Building Renovations, Beautification	1-Dec-22	31-Dec-23	\$358,872	Yes	FY 2023	No	N/A		
18	Parks and Recreation	Tennis and Recreation Center Improvements	Construction	Future (Planned)	Building Renovations, Beautification	1-Mar-24	31-Mar-25	\$2,045,000	Partially Funded	FY 2023	No	N/A		
19	Parks and Recreation	96th Street Park	Construction	Active	Building Renovations, Beautification	1-Jan-23	29-Feb-24	\$7,744,207	Yes	FY 2023	No	N/A		
20	Public Works	Townwide Manhole Rehabilitation	Construction	Active	Infrastructure Improvements	1-Nov-22	31-Mar-23	\$250,000	Yes	FY 2023	No	N/A		
21	Capital	Surfside Memorial	Design	Future (Planned)	Public Art	1-Jul-25	30-Jun-26	\$1,000,000	Yes	FY 2025	Yes	State		
22	Public Works	Transforming the Surfside Downtown Alleyway	Design	Future (Planned)	Safety, Beautification, Infrastructure	1-Jul-23	31-Dec-23	\$270,000	Partially Funded	FY 2022	No	N/A		
23	Capital	Transforming the Surfside Downtown Alleyway	Construction	Future (Planned)	Safety, Beautification, Infrastructure	1-Mar-24	31-Mar-25	\$830,000	Partially Funded	FY 2024	No	N/A		
24	FDOT	SR AIA Harding/Abbott Ave 87060001 3R	Construction	Programmed	Safety, Resurfacing, Signalization &	1-Nov-23	TBD	\$8,900,000	Yes	FY 2024	No	Federal		

Source: Town of Surfside Public Works Department - See Text for additional information.

Table 9-10 - Town of Surfside 5 Year Capital Improvements (Page 2 of 2) New

Table 9-10A. Stormwater Projects

No-Projects

Table 9-10B. Wastewater and Potable Water Projects

No-projects

Table 9-10C. FDOT Projects

FDOT Projects							
Project Name	Location	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Total
Indian Creek Bridge #876100 PD&E	91st Street/ Surfside					\$1,515,001	\$1,515,001
Total Cost of FDOT Projects						\$1,515,001	\$1,515,001

Source: FY2018-2023 FDOT Work Program

Table 9-10D. Gas Tax Projects

Forecasted Municipal Transportation Funding (CITT)						
Capital Projects	2018	2019	2020	2021	2022	Total
Traffic Signal Loop Detectors	\$ 50,000	\$ -	\$ -	\$ -	\$ -	\$ 50,000
Harding Avenue Downtown Street Improvements	\$ 100,000	\$ -	\$ -	\$ -	\$ -	\$ 100,000
91 Street Improvement Project	\$ -	\$ 100,000	\$ -	\$ -	\$ -	\$ 100,000
West Side Street Improvements	\$ -	\$ -	\$ 100,000	\$ -	\$ -	\$ 100,000
Traffic & Pedestrian Management Program				\$ 95,000	\$ 95,000	\$ 190,000
Total Annual Municipal Transp. Source Funding	\$ 150,000	\$ 100,000	\$ 100,000	\$ 95,000	\$ 95,000	\$ 350,000
Funding Sources	2018	2019	2020	2021	2022	Total
Transit Surtax Proceeds	\$ 223,000	\$ 225,230	\$ 227,482	\$ 229,757	\$ 232,055	\$ 1,137,524
Balance	\$ 73,000	\$ 125,230	\$ 127,482	\$ 134,757	\$ 137,055	\$ 597,524

Note: Transit Surtax Proceeds listed above is only part of total required planned project funding.

Source: Town of Surfside Finance Department

11 PROPERTY RIGHTS ELEMENT

House Bill 59 (2021), Chapter 2021-195, Laws of Florida became effective on July 1, 2021. The Bill requires each local government adopt a Property Rights Element into its comprehensive plan. The inclusion of this element is intended to acknowledge and respect private property rights and to ensure they are considered in the local decision-making processes of the Town of Surfside, Florida. In the following Goals, Objectives and Policies, the use of "Town" refers to the Town of Surfside, Florida.

Goals, Objectives and Policies

Goal 1: The Town will make decisions with respect for property rights and with respect for people's rights to participate in decisions which affect their lives and property.

Objective 1 - The Town will respect judicially acknowledged and constitutionally protected private property rights.

Policy 1.1 - The Town will consider in its decision-making the right of a property owner to physically possess and control his or her interests in the property, including easements, leases, or mineral rights.

Policy 1.2 - The Town will consider in its decision-making the right of a property owner to use, maintain, develop, and improve his or her property for personal use or for the use of any other person, subject to state law and local ordinances.

Policy 1.3 - The Town will consider in its decision-making the right of the property owner to privacy and to exclude others from the property to protect the owner's possessions and property.

Policy 1.4 - The Town will consider in its decision-making the right of a property owner to dispose of his or her property through sale or gift.