

TOWN OF BAY HARBOR ISLANDS
1175 MORRIS N. BROAD COMMUNITY CENTER
BAY HARBOR ISLANDS, FL 33154

DEVELOPMENT & REVIEW COMMITTEE MEETING AGENDA

THURSDAY, JUNE 8, 2023

11:00 A.M.

CALL TO ORDER: Set for approximately 11:00 AM

PLEDGE OF ALLEGIANCE:

ROLL CALL:

1. Review and discussion of Site Plan Application by Horizon Casa Verde, LLC, to construct a 43-unit Multi-Family Development to be located at 1130 - 1140 - 1150 93 Street. Enclosed are the Site Plans and the Staff Report prepared by Town Planner Michael Miller.

ADJOURNMENT:

AGENDA ITEM REPORT

June 8, 2023

ITEM NUMBER: 1.

ITEM: Review and discussion of Site Plan Application by Horizon Casa Verde, LLC, to construct a 43-unit Multi-Family Development to be located at 1130 - 1140 - 1150 93 Street. Enclosed are the Site Plans and the Staff Report prepared by Town Planner Michael Miller.

DESCRIPTION:

Owner's Name: Horizon Casa Verde, LLC

Folio: 13-2227-001-3150 / 13-2227-001-3151 / 13-2227-001-3160

Property Address: 1130 / 1140 / 1150 93 Street

Zoning District: RM-2 Medium High Density

Legal Description: Lots 3-5 Block 17

Enclosed is a copy of the application for site plan review.

RECOMMENDED ACTION:

FINANCIAL ANALYSIS:

BUDGET IMPACT:

Submitted By: Ayanidys Martinez

ATTACHMENTS

1.	BHI 1130-50 93 St MFR MMPA #2 DRC Staff Report June 8 2023
2.	SPR23-000019 DRC Application
3.	INDEX
4.	CASA VERDE LOI
5.	RESPONSE TO DRC COMMENTS
6.	CASA VERDE - Comment response submittal 05-16-23
7.	220150 - GEO - Casa Verde - Bay Harbor Islands - 02-01-2023
8.	Casa Verde DEVELOPMENT IMPACT ANALYSIS & TRAFFIC S&S
9.	Casa Verde Drainage Calculations
10.	CASA VERDE PLANS DRC 6.8.2023

**TOWN OF BAY HARBOR ISLANDS
COMMUNITY DEVELOPMENT
MEMORANDUM**

To: Development Review Committee (DRC)
Town of Bay Harbor Islands

From: Michael J. Miller, AICP 
Consultant Town Planner

Date: June 8th, 2023

Subject: Site Development Plan Application (2023 New Design) - 2nd Review
Casa Verde Condominiums – Multifamily Residential Complex (43 DU)
1130 – 1140 - 1150 93rd Street
Bay Harbor Islands Acct. No. SPR23-000019
MMPA Acct. No. 01-0702-1165

RECOMMENDED ACTION

MMPA recommends the Development Review Committee (DRC) **DEFER** action on the proposed Site Development Plan application at this time to allow the applicant's design team to address the listed comments. The submittal package appears to have several design / Code violation issues, and a few other items need to be corrected.

GENERAL PROJECT INFORMATION

Land Use Designation: MH – Medium-High Density Residential
Zoning District: RM-2 Multiple Family District
General Location: 1130 – 1140 - 1150 93rd Street
Legal Description: Lots 3, 4 and 5, all in Block 17, "Bay Harbor Island" Subdivision according to the Plat thereof, as recorded in Plat Book 46, at Page 5 of the Public Records of Miami-Dade County, Florida.

PROJECT DESCRIPTION

The project architectural firm, Frankel Benayoun Architects, Inc., as agent for the landowner, Horizon at Casa Verde, LLC has submitted a Site Development Plan application to allow for the construction of a forty-three (43) dwelling unit mid-rise residential development located at 1130–1140-1150 93rd Street. The proposed dwelling units would range from 1,401 to 2,377 square feet of A/C space plus balconies, etc.

**Town of Bay Harbor Islands
Site Development Plan Application - 2nd Review
Casa Verde Condominiums - Multi-Family Residential (43 DU)
1130 – 1140 - 1150 93rd Street
Development Review Committee (DRC) Staff Report
June 8th, 2023
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Lots 4 and 5 are currently cleared and vacant from an earlier (2013-14 & 2016 revision) planned redevelopment (BH Gardens) that never proceeded. Lot 3 has an existing two (2) story apartment building with four (4) existing apartment units that will be demolished as part of this redevelopment. The proposed site design incorporates one (1) east / west oriented rectangular-shaped building with a center breezeway (open through the building on Levels 2-7) dividing the building, with a parking garage / open parking lot on the ground level.

The site plan shows two (2) driveway connections to 93rd Street. A one-way looped driveway is proposed entering at the western driveway street connection, circulating throughout the parking garage, and exiting at the eastern driveway connection. Both of the driveway connections are shown as 20' in width that widen to 23' in width where the guest / loading spaces are shown in the front yard. Within the parking garage where parking spaces backout onto the driveway the driveway width is shown at 23' in width (normal Code minimum width). There are segments with wider driveway widths and a few short segments with a one lane wide driveways (no backout parking) – one at 17'+/- in width and the other at 12' in width. The vast majority of the required parking spaces are within the ground level parking garage, with several either outside in the side yard areas (10 spaces) or partially extending a few feet out from under the building into the side yards (6 spaces). Perimeter screening walls and landscaping are provided for the parking spaces located outside of the parking garage (NIC guest / loading spaces). A majority of the proposed parking spaces are shown in a tandem configuration, which requires the DRB to approve this alternative design to a standard side-by-side design. Some of the site features are not dimensioned to demonstrate Code compliance. The entrance / exit driveway to the parking garage shows overhead security gates - the gates need to be dimensioned.

Along 93rd Street the landscape buffer strip is dimensioned at 10' adjacent to the west entrance driveway; however, upon scaling the dimension it appears to be slightly less than that. The other landscape strips must be dimensioned to ensure they also meet / exceed the minimum 10' landscape buffer requirement (NIC curbs). The DRB has the ability to approve minor reductions based upon a demonstrated need – but strongly discourages this as there are ways to comply.

On the building rooftop is a recreational facility with a swimming pool, common terrace area, men's & women's bathrooms, a generator room and normal rooftop mechanical areas. A number of rooftop private terraces with spas for specified DU are shown. On Sheet A-1.08 Rooftop Plan a "red-lined" area is shown supposedly illustrating where the edge of Floor 7 is below the rooftop – if this were true most of the rooftop terraces would not be permitted as shown. We believe the "red line" as drawn is not shown correctly – please verify. **Note** - The applicant is advised the Town Council adopted significant Code amendments on May 10th, 2023, that we believe now ban / severely negatively affect this and all future project designs, as they would prohibit most currently allowed setback yard encroachments for decorative architecture features, like bands / eyebrows / planters / artistic attachments / etc. A final version of the adopted Ordinance is not yet available - only an earlier draft – and modifications were made the night of the TC public hearing – so the final version is not yet available. While the title to the draft Ordinance MMPA has states this is for the West Island, the Code Section that was revised (Sec. 23-12(15)(e)(v)) applies Town-wide. Based on the above we believe this project will need to be re-designed (need Town Attorney legal opinion).

**Town of Bay Harbor Islands
Site Development Plan Application - 2nd Review
Casa Verde Condominiums - Multi-Family Residential (43 DU)
1130 – 1140 - 1150 93rd Street
Development Review Committee (DRC) Staff Report
June 8th, 2023
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The proposed new building is 7-stories in height - six (6) floors of residential over one ground level parking garage @ max. 65-feet above BFE + 1' FBC freeboard (max. allowed for this area).

As stated above, according to the survey, Lots 4 & 5 are currently vacant. Lot 3 has an existing 2-story / 4 DU apartment building with a few existing trees – mostly palms and a few Ficus trees. The overall lot area of the property is 33,750 square feet / 0.774 acres. This would allow a maximum of twenty-six (26) dwelling units on the property at the maximum allowable base density of (34 DUA). The proposal is to build forty-three (43) residential units which would require the developer to obtain seventeen (17) TDR units. From our historical records we note the Town's PZB approved a redevelopment project on Lots 4 & 5 in 2013-14 – initially for 34 DU and later decreased to 30 DU. In 2016 more revisions were filed for that 30 DU complex. The project required the acquisition of twelve (12) TDR units for a 30 DU project (16 TDRs for the earlier 34 DU design). Our records indicate that on 5/12/14 the Town Council approved a sale of nine (9) public TDR units to this site (Res. #2011). On 4/11/16 an extension was requested and approved for more \$ per DU. In addition, on 4/07/14 the Town Council approved a private TDR sale for three (3) TDRs (Res. #2008) from the Montego Club site located at 10180 WBHD. Finally, on 5/12/14 the Town Council approved another private TDR sale for four (4) TDRs (Res. #2013) from the 9350 Condo site located at 9350 WBHD. Our records show that \$310,000 has been paid to the Town for the public TDR units (only 5 TDRs needed based on 30 DU). At the Town's May 11th, 2023 DRC meeting MMPA noted we could not locate a copy of the deed transferring ownership of the 5 public TDRs from the Town to the developer or any of the private TDR sales. Typically, the Town has some difficulty staying abreast of the status of all private TDR transactions as to closing / termination, except that at the time of building permits a developer must demonstrate by providing copies of deeds that enough DU have been acquired for number of DU in the project. Subsequent to the DRC meeting, the developer provided copies of the recorded deeds for both the private TDR sales (3 DU = 4 DU = 7 DU) and the public TDR sale (5 DU). Therefore, we believe the issue as to the 2014 TDR acquisitions has been resolved. Moving forward with the review of this new forty-three (43) DU development, the developer would need to acquire an additional five (5) TDR units. However, as stated previously all of the previous TDR transactions were limited to only the original 2014 development site (Lots 4-5). We believe an amendment to the TC approvals may be necessary.

The adjoining / nearby development sites currently include the Ruth K. Broad Bay Harbor K-8 Center to the north across 93rd Street. To the immediate east is an existing 2-story multi-family residential complex @ 24 DU / 46.1 DUA (no name available). To the immediate west is the 2-story Harbor Point multi-family residential complex @ 14 DU / 35 DUA. To the immediate south of Lots 4 & 5 is a vacant site approved for a 5 DU townhouse complex (9201 WBHD Townhomes) and a 2-story multi-family residential complex located at 1135 92nd Street @ 8 DU / 31 DUA 9 (Grove Chalet) on Lot 8. This area of the Town is predominated by a mixture of older low-rise residential complexes (2-3 stories) and mid-rise residential complexes (5-7 stories). The Town's 2002 Community Vision Master Plan identifies this area as being preferred for multifamily residential complexes (up to 7+/- stories). Therefore, the proposed development is deemed generally consistent with the Town's future vision for this area.

It is noted there are existing overhead power lines / poles / other utilities along the entire east and south property lines adjoining this site. Every effort should be made to underground all of these existing facilities in compliance with the Town Code provisions and FPL policy of allowing full block undergrounding.

BACKGROUND INFORMATION

The Town of Bay Harbor Islands completed major amendments to the Town's adopted Comprehensive Plan and Land Development Regulations (LDRs) in the last 20+/- years. The former RE zoned lands located on waterfront lots were rezoned into the RM-1 District, while interior (non-waterfront lots) are zoned RM-2. These interior lots are all zoned RM-2. The Town also adopted numerous other modifications to many other code provisions that affect yard encroachments, parking lot designs, building height limits and exceptions, building design standards, landscaping and other provisions. The submittal package has several design / Code compliance issues, some of the plans are inadequate / missing and a few others require items need to be corrected.

COMPREHENSIVE PLAN / ZONING

Comprehensive Plan – The property has a Future Land Use Map (FLUM) designation of "Medium-High Density Residential". The maximum allowable base density is 34 DUA. Additional dwelling units may be acquired to increase the base density if approved by the Town Commission. The developer is seeking to build 43 DU while 26 base DU are allowed. Therefore 17 additional TDR units must be acquired by the developer prior to construction commencing. See above discussion on previous public / private TDR transactions. If the Town Council approves the acquisition of the requested additional TDR units, the proposed development would be consistent with the applicable FLUM designation of the property.

Land Development Regulations / Zoning Code – The property has a Zoning classification of RM-2 Multiple Family Zoning District. The maximum building height allowed in this area is 65 feet (measured from BFE + 1' FBC freeboard to top of main roof deck). The proposed use of the property is consistent with this zoning classification; however, the proposed site design is not consistent with some provisions of the Code at present, and unless the Town Council allows the additional TDR units, the density would not be consistent.

PLATTING

The site will not require re-platting, as the site is currently platted as described above; however, as the expanded site is comprised of three (3) lots a Unity of Title will be required prior to BP.

RIGHT-OF-WAY, OFF-STREET PARKING AND ACCESS DESCRIPTION

As stated above, the site plan shows two (2) driveway connections to 93rd Street. A one-way looped driveway is proposed entering at the western driveway street connection, circulating throughout the parking garage, and exiting at the eastern driveway connection. Both of the driveway connections are shown as 20' in width that widen to 23' in width where the guest /

loading spaces are shown in the front yard. Within the parking garage where parking spaces backout onto the driveway the driveway width is shown at 23' in width (normal Code minimum width). There are segments with wider driveway widths and a few short segments with a one lane wide driveways (no backout parking) – one at 17'+/- in width and the other at 12' in width. No additional road right-of-way appears to be necessary as 93rd Street was platted as a 50-foot wide roadway – and previously all 11' parking right-of-way of was corrected (per survey info).

Based on 43 DU the Code requires two (2) parking spaces per unit plus one guest space for each whole platted lots (project has 3 whole platted lots), and a request is made for TDR units. ADA spaces and guest spaces are allowed to be a subset of the total number of required parking spaces; therefore, the total number of required parking spaces for the project is at least eighty-six (86) parking spaces. The development plans provide eighty-six (86) parking spaces, which includes three (3) guest spaces and two (2) ADA spaces. The vast majority of the required parking spaces are within the ground level parking garage, with several either outside in the side yard areas (10 spaces) or partially extending a few feet out from under the building into the side yards (6 spaces). Perimeter screening walls and landscaping are provided for the parking spaces located outside of the parking garage (NIC guest / loading spaces). A majority of the proposed parking spaces are shown in a tandem configuration, which requires the DRB to approve this alternative design to a standard side-by-side design. Thirty-six (36) tandem parking spaces are provided ($36 \times 2 = 72$). There are three (3) guest parking spaces and one delivery / loading space located outside the parking garage in the front yard area along 93rd Street. Some of the site features are not dimensioned to demonstrate Code compliance. The entrance / exit driveway to the parking garage shows overhead security gates - the gates need to be dimensioned.

The site plan depicts a proposed Fire Department staging area at each driveway connection to 93rd Street. Typically, the M-D Fire Dept. prefers such areas in the street adjoining the site (not allowed fully in swales due to drainage / landscaping requirements). The applicant should meet with the Miami-Dade Fire Department staff as soon as possible to identify an alternative staging area, as this may affect the site design. Any changes required by the Fire Department subsequent to the Town's site plan approval may cause the plans to be resubmitted to the DRC / DRB.

BUILDING DESIGN / BUILDING LENGTH / BREEZEWAY

The building design is modern with decorative vertical and horizontal design elements, expansive balconies and abundant use of glass. The building length exceeds one hundred twenty (120) feet in length; therefore, a breezeway or acceptable alternative approved by the DRB is required to break up the large building massing. The applicant is proposing that Floors 2-7 provide an open breezeway through the building. This would meet the Code requirement for a breezeway.

SITE PLAN COMMENTS

Following are comments based on the revised plans signed & sealed on May 24th, 2023, submitted to the Town for consideration:

- 1) TDRs – As per the discussion herein, evidence was provided (copies of recorded deeds) verifying the validity / status of previous TDR transactions related to portions of this development site. Due to an earlier proposed project in 2013-14 for 30 DU on Lots 4 & 5 there was a public TDR sale by the Town (5 DU) and 2 private TDR transactions (3 + 4 = 7 DU total). The remaining issue is related to the specific “receiver” site (Lots 4 & 5). The Town Attorney's office will need to review / opine on this issue. MMPA believes a modification to the previous 2014 TDR approvals may be required, as TDR approvals are site specific. Based on 43 DU in the new project an additional five (5) TDR units will need to be acquired.
- 2) This approval is based on the DRB's approval of the applicant's request to not fully close-in the sides of the above grade parking garage as specified in §23-24(d)(4) by providing metal louvers for portions of the exterior building facades in lieu thereof. If the DRB does not approve the requested parking garage facade alternative, the design must be modified to comply with the Town Code and/or an alternative design approved by the DRB.
- 3) The DRB must approve the proposed tandem parking arrangement of most of the parking spaces in the garage pursuant to §23-30(f). If the DRB does not approve the request the plans must be modified to provide an acceptable design layout.
- 4) New Comment - Provide a note that all storage units have a min. 7' clear internal height.
- 5) As previously requested, Site Plan Sheet A-1.01 shows a landscape strip along 93rd Street of 10' as required near the western driveway. However, no dimensions are shown for the other front yard parking areas. Scaling the landscape strips still finds a min. 10' width (landscaping only – not curbs) may not exist. Please dimension all the landscape strip widths and revise as necessary.
- 6) It is noted there are existing overhead power lines / poles / other utilities along the entire east and south property lines adjoining this site. Every effort should be made to underground all of these existing facilities in compliance with the Town Code provisions and FPL policy of allowing full block undergrounding.
- 7) A conceptual Fire Department staging area needs to be agreed to by the Miami-Dade Fire Department ASAP, as this could affect the design.
- 8) The site will not require re-platting; however, as the expanded site is comprised of three (3) lots a Unity of Title will be required prior to BP.
- 9) The Street Trees required by the Town for 93rd Street are “Gumbo Limbo” (15' x 6"). The project landscape plans show Mahogany trees. Please revise species.

- 10) Recent Code Amendments Affecting Setbacks – As stated above, the applicant is advised the Town Council adopted significant Code amendments on May 10th, 2023, that we believe now ban / severely negatively affect this and all future project designs, as they would prohibit most currently allowed setback yard encroachments for decorative architecture features, like bands / eyebrows / planters / artistic attachments / etc. A final version of the adopted Ordinance is not yet available - only an earlier draft – and modifications were made the night of the TC public hearing – so the final version is not yet available for staff / applicant use. While the title to the draft Ordinance MMPA has states this is for the “West Island” the Code Section that was revised (Sec. 23-12(15)(e)(v)) applies Town-wide (East & West Islands). Based on the above we believe this project will need to be re-designed (need Town Attorney legal opinion).
- a) On many of the Floor Level plan set pages, functional “eyebrows” are shown extending into the base side setback areas. As we understand the new Code these are no longer allowed. If the building footprint was made smaller these could be applied within the base setbacks.
 - b) On Pages A-106 and A-107 other building features appear to also extend into the base side / other setback areas. It is not clear if this is a balcony (still allowed) or an “architectural feature”. The previous Code section that allowed this was deleted.

trellis. Structures meeting this definition may project in the rear and side yard setback areas (or into the front and side yard setback areas of waterfront lots) to the lot line or seawall for waterfront lots, in accordance with the criteria and procedures set forth in section 5-23 of the Code and subsections thereto.

* { v. Architectural features such as canopies attached to structures, planting bins, decorative balconies, oriel windows and cornices, may project into setback areas which abut interior lot lines not more than two feet and into setback areas which abut on streets, alleys, or waterways not to exceed four feet; provided that there shall be no less than eight feet clear headroom under such projection. No decorative balcony may be enclosed or screened if it projects into the setback areas as above described, nor shall such balcony have any means of access from the building to which it is attached.

* * *

(g) Swimming pools, hot tubs, Jacuzzi, or spas may be constructed on any waterfront or nonwaterfront lot with following restrictions:

* * *

(h) Air conditioning equipment and duct work may be installed in the side yard setback areas with the following restrictions:

* * *

(19) No awning or canopy shall be erected on any land or building in the Town of Bay Harbor Islands without prior approval of the town manager of the town. No awning or canopy shall be erected in any side yard setback. No awning or canopy shall be erected in any front yard setback except in waterfront lots. No awning or canopy shall extend more than five feet into the front yard setback area in waterfront lots. No awning or canopy shall extend more than five feet into any rear yard setback area. No awning or canopy made of canvas shall be erected on any land or building in the town as a carport or shelter for parked vehicles.

* * *

(22) Walls and fences. The following provisions apply to the design, installation, location and maintenance of walls and fences:

APPLICATION FOR SITE PLAN REVIEW



Legal description of real property in the Town of Bay Harbor Islands, Florida for which site plan approval is requested.

LOT 3, BLOCK 17; LOT 4, BLOCK 17, LOT 5, BLOCK 17 AS RECORDED
IN PLAT BOOK 46, PAGE 5 OF PUBLIC RECORDS OF MIAMI-
DADE COUNTY

Folio # 13-2227-001-3150; 13-2227-001-3151; 13-2227-3160

Town Council

Robert H. Yaffe
Mayor

Jordan W. Leonard
Vice-Mayor

Stephanie Bruder
Council Member

Joshua D. Fuller
Council Member

Kelly Reid
Council Member

Solange M. Rousselot
Council Member

Isaac Salver
Council Member

Town Officials

Ronald J. Wasson
Town Manager

Marlene Marante
Town Clerk

Craig B. Sherman
Town Attorney

Size of described property 33,750 SF = ± 0.77 ACRES.

Project Description 7-STORY
MULTI-FAMILY RESIDENTIAL Units 43

Owner(s) Name HORIZON AT CATAVERDE, LLC

Mailing Address 53 BROADWAY, BROOKLYN, NY 11249

City BROOKLYN State NY Zip 11249

Phone Number 516.447.8887 Email DMAROM@HORIZONUS.COM
MICHAEL WITTOW@GMAIL.COM

Signature of Owner *David Marante*

Name of Applicant (if different from owner) _____

Mailing Address _____

City _____ State _____ Zip _____

Phone Number _____ Email _____

Signature of Applicant _____

Name of Representative FRANKEL BENAYON, INC.
MARKUS FRANKEL & FRANK BENAYON FISHMAN

Mailing Address 1166 KANE CONCOURSE, SUITE 200

City BAY HARBOR ISLANDS State FL Zip 33154

Phone Number 305.868.3665 Email If hat@fbamiami.com.

TO BE COMPLETED BY TOWN OF BAY HARBOR ISLANDS

Date Received 4/27/2023 By AM

Process Number SP23-000019 Fee Paid \$3,000.00 4/28/23 CC
06
#1792

MAYOR JOSEPH J. GARDNER GOVERNMENT CENTER

FRANKEL BENAYOUN
A R C H I T E C T S I N C

1177 Kane Concourse, Suite 120
Bay Harbor Islands, FL 33154
t: 305.868.3665 f: 305.868.3650
info@frankelbenayoun.com
Lic AA-C00149
May 24, 2023

TO: Mr. Michael Miller, City Planner

TOWN OF BAY HARBOR ISLANDS

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PLANS

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WRITTEN RESPONSE TO PLANNING AND BUILDING COMMENTS

LOI

DRAINAGE CALCULATIONS

GEOTECHNICAL REPORT

IMPACT ANALYSIS, INCLUDING TRAFFIC REPORT

TO: Mr. Michael Miller, City Planner

TOWN OF BAY HARBOR ISLANDS

RE: LETTER OF INTENT/SITE PLAN REVIEW/DRB SUBMISSION
1130-1150 93RD STREET, BAY HARBOR ISLANDS, FL 33154

Dear Mr. Miller

This writing shall constitute our Letter of Intent for the Site Plan Review of our New Development Project "CASA VERDE", a new Multi-Family Condominium Apartment Development. This submittal is for DRB review.

We are now committed to present to your DRB, our Design Submissions for the Casa Verde Project, for the Development of an "Upscale" 43-Unit Apartment Building. Our plans and illustrations exhibit all the Required Parking [86] Spaces and various amenities (including Lobby/Lounges, Fitness Gym, Multi-purpose Lounge, Swimming Pool, Spas & Private Rooftop Gardens) with roof gardens on Levels 2, 3 and Roof, and with significant Landscaped Enhancements to the Right-of-Way.

Our Clients, and Owners of the Horizon at Casa Verde, LLC are distinguished Developers from New York with many significant commercial developments. They are now committed to investing +/- \$54 Million into this Development Project, to produce such a quality upscale Condominium Apartment Complex of (+/- 84,997 GSF Sellable Apartment Areas, plus all the contemplated amenities and landscape enhancements.

As part of this DRB Submittal we include the following:

1. Existing Site Characteristics Photos & Map (Survey):
 - a. Certified property survey, showing the centerline height of the adjacent road relative to NGVD, at all locations where a property line extension would cross said adjacent road;
 - b. Existing natural features, including, but not limited to soils, topography, water areas, trees and other vegetation;
 - c. Existing structure at 1130 93rd Street to be demolished, and existing vegetation; and uses;
 - d. Existing utility lines.
2. Proposed Site development plan
 - a. Proposed structures, including, but not limited to their location, use, finished floor elevation of lowest floor relative to NGVD, height, size, dimensions and setbacks;
 - b. Please refer to the Landscape Plans for Proposed trees, plants and other landscape features and any existing trees and vegetation to be retained, including but not limited to their location, height, size and type by common and botanical name. Irrigation plans will be provided at time of permit.
 - c. Please refer to Sheets A-1.01 for proposed off-street parking and loading areas, and overall vehicular and pedestrian circulation patterns.
3. Tabular summary (Sheet A-0.00)
 - a. Total gross project acreage and net buildable area;
 - b. Total number of proposed residential units, including their characteristics by number of Bedrooms, Bathrooms, and Storage Rooms, and total gross square footage, including a listing of the number of each size of residential unit proposed;
 - c. Proposed residential densities, including both net and gross acre calculations;
 - d. Percentages of total gross project area proposed for pervious and impervious areas and building coverage;
 - e. Number, size and ratio of off-street parking and loading spaces, including ADA required spaces; see Article IX.

Once again, we look forward to receiving your comments, and on behalf of Horizon at Casa Verde, LLC, we are,

Sincerely

Ifhat B Fishman Digitally signed by Ifhat B Fishman
Date: 2023.05.01 16:08:58 -04'00'

Ifhat Benayoun Fishman & Markus Frankel
FRANKEL BENAYOUN ARCHITECTS, INC.

CC: Mr. David Marom, Mr. Michael Wittow
HORIZON AT CASA VERDE, LLC

FRANKEL BENAYOUN ARCHITECTS, INC.
1166 KANE CONCOURSE, SUITE 200
BAY HARBOR ISLANDS, FL 33154

May 16, 2023

RESPONSE TO DRC COMMENTS

SPR22-000019

Project address:

1130 93 STREET

RESPONSES TO DRC DEPARTMENT COMMENTS (REVISION 1):

COMMENTS BY BUILDING INSPECTOR REVIEW:

COMMENT 1

SHOW A COMPLETE FLOOD LEGEND (FINISHED FLOOR ELEVATION, LOWEST ELEVATION OF EQUIPMENT, FLOOD ZONE, PANEL NUMBER, BASE FLOOD ELEVATION, HIGHEST CROWN OF ROAD, LOWEST AND HIGHEST ADJACENT GRADE, ETC. AS PER FBC 107.3.5

RESPONSE 1

Please refer to the Revised Sheet A-1.01 for the Floodproofing Notes.

COMMENTS BY PLANNING REVIEW

COMMENT 1

SURVEY – THE SURVEY IS NOT SEALED/SIGNED, AND ALL SURVEYS SUBMITTED MUST BE DATED LAST UPDATED NO MORE THAN 6 MONTHS OLD. THE SURVEY IS DATED 6/08/22 (11 +/- MONTHS)

RESPONSE 1

COMMENT 2

THERE IS A DISCREPANCY BETWEEN THE SITE PLAN SHEET A-1.01 AND SHEET A-0.05 AERIAL RENDERING FROM NW. THE SITE PLAN DEPICTS A ONE WAY ENTRANCE AND EXIT DRIVEWAY. THE RENDERING DEPICTS EACH DRIVEWAY TO BE 2-WAY. PLEASE REVISE.

RESPONSE 2

Please refer to the revised Sheet A-0.05 to correspond to Sheet A-1.01.

COMMENT 3

TDRs – AS PER THE DISCUSSION HEREIN THERE ARE QUESTIONS ABOUT THE VALIDITY/STATUS OF PREVIOUS TDR TRANSACTIONS RELATED TO PORTIONS OF THIS DEVELOPMENT SITE. DUE TO AN EARLIER PROPOSED PROJECT IN 2013-14 FOR 30 DU ON LOTS 4 & 5 WE HAVE RECORDS OF A PUBLIC TDR SALE BY THE TOWN (5 DU) AND 2 PRIVATE TDR TRANSACTIONS (3 + 4 = 7 DU TOTAL). THERE ARE RECORDS THAT POSSIBLY THE TOWN'S PUBLIC TDRS WERE PAID FOR ALREADY (\$310,000) BUT WE COULD NOT FIND A RECORD OF A RECORDED TDR DEED. AS TO THE TWO PRIVATE TDR SALES APPROVED IN 2014 WE COULD NOT FIND ANY RECORDS OF TDR DEEDS RECORDED FOR EITHER THE DONOR SITES OR SUBJECT SITE (LOTS 4 & 5 ONLY). PLEASE

HAVE YOUR LEGAL PEOPLE RESEARCH/PROVIDE UP TO DATE INFORMATION ON THESE TDR ACTIONS. THIS INFORMATION AFFECTS THE NEW EXPANDED 3-LOT PROJECT.

RESPONSE 3

THE DEVELOPERS ARE ADDRESSING THIS ISSUE WITH THE CITY PLANNER AND TOWN OF BHI.

COMMENT 4

THIS APPROVAL IS BASED ON THE DRB'S APPROVAL OF THE APPLICANT'S REQUEST TO NOT FULLY CLOSE-IN THE SIDES OF THE ABOVE GRADE PARKING GARAGE AS SPECIFIED IN 23-24(d)(4) BY PROVIDING METAL LOUVERS FOR PORTIONS OF THE EXTERIOR BUILDING FACADES IN LIEU THEREOF. IF THE DRB DOES NOT APPROVE THE REQUESTED PARKING GARAGE FAÇADE ALTERNATIVE, THE DESIGN MUST BE MODIFIED TO COMPLY WITH THE TOWN CODE AND/OR AN ALTERNATIVE DESIGN APPROVED BY THE DRB.

RESPONSE 4

We understand.

COMMENT 5

THE DRB MUST APPROVE THE PROPOSED TANDEM PARKING ARRANGEMENT OF MOST OF THE PARKING SPACES IN THE GARAGE PURSUANT TO 23-30(f). IF THE DRB DOES NOT APPROVE THE REQUEST THE PLANS MUST BE MODIFIED TO PROVIDE AN ACCEPTABLE DESIGN LAYOUT.

RESPONSE 5

We understand.

COMMENT 6

DIMENSION THE PROPOSED SIDEWALK FROM THE LOBBY TO 93ED STREET – THE MAXIMUM ALLOWED WIDTH IS 5'. PROVIDE BETTER DETAILS FOR THE PROPOSED COVERED STRUCTURE OVER THAT WALKWAY.

RESPONSE 6

Please refer to the revised Sheet A-1.01, dimensioning this walkway as 5'. See enlarged renderings of canopy on Sheets A-0.07 & A-0.08

COMMENT 7

DIMENSION THE PROPOSED DROP-OFF / LOADING ZONE WALKWAY CONNECTING TO THE LOBBY

RESPONSE 7

Please refer to the revised Sheet A-1.01 for this dimension.

COMMENT 8

DIMENSION THE PROPOSED CONCRETE WALKWAY FROM THE PARKING GARAGE TO 93RD STREET ON THE WEST SIDE

RESPONSE 8

Please refer to the revised Sheet A-1.01 for this dimension.

COMMENT 9

HOW WILL SOLID WASTE RECEPTACLES BE MOVED FROM THE REFUSE ROOM IN THE GARAGE TO THE DUMPSTER AND THEN PICKED UP BY THE SOLID WASTE PROVIDER? TYPICALLY A TEMPORARY WALLED ENCLOSURE IS PROVIDED NEAR THE STREET – NONE IS PROVIDED.

RESPONSE 9

Please refer to Sheet A-1.01, there is a Dumpster enclosure (within the setbacks), between parking spaces 52 & 53. The bins will be wheeled from the Refuse room to the West side of this enclosure, and collection will be from the East side of this enclosure. We are providing solid aluminum roll-up gates on the East and West sides of this enclosure.

COMMENT 10

THE MIN. 10'X10' SITE TRIANGLES NEED TO BE SHOWN ON THE SITE PLAN DRAWINGS.

RESPONSE 10

Please refer to the revised Sheet A-1.01 for the Site Triangles, these are also shown on Sheet L-1 (Landscape Plan).

COMMENT 11

DECORATIVE 6' TALL ALUMINUM FENCES ARE SHOWN ON THE ELEVATION SHEETS BUT NOT ON SITE PLAN SHEET A-1.01. PLEASE SHOW AND LABEL.

RESPONSE 11

Please refer to the revised Sheet A-1.01 with location and labeling of the 6' high aluminum fences.

COMMENT 12

PROVIDE THE SIZE OF EACH UNIT STORAGE ROOM. THE MIN. AREA IS 25 SQUARE FEET WITH A 7' CLEAR HEIGHT REQUIREMENT.

RESPONSE 12

Please refer to Sheets A-1.02 to A-1.07 for the dimensions of each storage unit along with the area of 25 SF each.

COMMENT 13

SITE PLAN SHEET A-1.01 SHOWS A LANDSCAPE STRIP ALONG 93RD STREET OF 10' AS REQUIRED NEAR THE WESTERN DRIVEWAY. HOWEVER, NO DIMENSIONS ARE SHOWN FOR THE OTHER FRONT YARD PARKING AREAS. SCALING THE LANDSCAPE STRIPS FINDS A MIN. OF 10' WIDTH (LANDSCAPING ONLY – NOT CURBS) MAY NOT EXIST. PLEASE DIMENSION ALL THE LANDSCAPE STRIP WIDTHS AND REVISE AS NECESSARY.

RESPONSE 13

Please review the revised Sheet A1.01 with the added dimensions and compliance with the 10' landscape width.

COMMENT 14

PROVIDE ONE-WAY PAVEMENT MARKING ARROWS ON ALL SHEETS SHOWING THE DIRECTION OF THE ENTRANCE AND EXIT DRIVEWAYS

RESPONSE 14

Please refer to the revised Sheet A-1.01 and A-0.05 for arrows marking direction of traffic.

COMMENT 15

DIMENSION THE WIDTH OF THE PROPOSED BREEZEWAY OPENING – A MIN. WIDTH OF 20' IS REQUIRED. ALTHOUGH THE PLANS STATE THE BREEZEWAY IS "OPEN", WHICH MEANS BY CODE COMPLETELY OPEN TO THE AIR, THE ELEVATIONS/SOME PLANS SEEM TO INDICATE IT IS NOT OPEN – RATHER IT IS ENCLOSED – CLARIFY. IF IT IS ENCLOSED THE DRB WILL NEED TO REVIEW/APPROVE THIS ALTERNATIVE DESIGN.

RESPONSE 15

Please refer to Sheets A-1.03 to A-1.07 for the breezeway dimensions. On the North (Rear) the opening is 20'; on the South (Front) it is 23'-7 1/2". The plans indicate the areas that are open from Levels 2-7, and the corridors is labeled as Enclosed Corridor on all levels 2-7.

COMMENT 16

ON SHEET A-1.08 ROOFTOP PLAN A "RED LINED" AREA IS SHOWN SUPPOSEDLY ILLUSTRATING WHERE THE EDGE OF FLOOR 7 IS BELOW THE ROOFTOP. IF THIS WERE TRUE MOST OF THE ROOFTOP TERRACES WOULD NOT BE PERMITTED AS SHOWN. WE BELIEVE THE "RED LINE" AS DRAWN IS NOT SHOWN CORRECTLY – PLEASE VERIFY.

RESPONSE 16

We corrected Sheet A-1.08, the red line is now labeled "15' OFFSET FROM LINE OF BUILDING BELOW", and we added another red line that is labeled "LINE OF BUILDING BELOW".

COMMENT 17

IT IS NOTED THERE ARE EXISTING OVERHEAD POWER LINES/POLES/OTHER UTILITIES ALONG THE ENTIRE EAST AND SOUTH PROPERTY LINES ADJOINING THIS SITE. EVERY EFFORT SHOULD BE MADE TO UNDERGROUND ALL OF THESE EXISTING FACILITIES IN COMPLIANCE WITH THE TOWN CODE PROVISIONS AND FPL POLICY OF ALLOWING FULL BLOCK UNDERGROUNDING.

RESPONSE 17

Please note that the Owners / Developers are in conversations with FPL regarding the overhead power lines. It is their intention to make every effort to bury these lines in compliance with the Town provisions and with FPL. Please refer to the note regarding this item on Sheet A-1.01.

COMMENT 18

SOME OF THE PLANS (SITE PLAN) INDICATE A 6' WALL WILL BE BUILT AROUND PORTIONS OF THE PERIMETER OF THE SITE – WHILE OTHERS SHOW A PROPOSED 6' TALL ALUMINUM FENCE. CLARIFY AND PROVIDE A DETAIL IN THE PLANS SET.

RESPONSE 18

Please refer to the revised Sheet A-1.01 indicating a 6' high fence around portions of the site, and this now corresponds with the elevations.

COMMENT 19

SHEET A-0.00 HAS THE FOLLOWING COMMENTS:

- 20% OF LOT AREA MINIMUM UNDER "PROPOSED" SHOULD BE 20.4%

- PROVIDE CALCULATION FOR PERVIOUS AND IMPERVIOUS AREA IN SQUARE FOOTAGE/PERCENTAGE.
- SITE DATA FOR 15% OF ROOF AREA MINIMUM USED FOR RECREATION DOES NOT AGREE WITH SHEET A-1.08 ROOF PLAN REQUIRED 1,871 VS. 1,889. PLEASE REVISE.
- UNDER ARCHITECTURE ANALYSIS – UNIT 14 DOES NOT PROVIDE NET AREA. UNIT 24 NET AREA DOES NOT AGREE 2,161 VS. 2,181. UNIT 25 GROSS & NET DOES NOT AGREE.

RESPONSE 19

- We corrected the “proposed Site Landscape Area” as follows: $33,750 \times 0.20$: Required = 6,750 SF (20%); Provided 6,855 SF = 20.3%. Same is shown on Sheet A-1.01.
- The impervious area is shown as 26,895 SF = 79.7% of Site Area
- We corrected the required landscape area for the roof to match on Sheet A-0.00 & on A-1.08 to be $12,477 \text{ SF} \times 0.15 = 1,871 \text{ SF}$ (15%)
- Unit 14, is shown to be 2,377 NSF & 2,478 GSF. Unit 24 we corrected the Gross area to be 2,181 GSF. Unit 25 is 2,356 NSF & 2,459 GSF on both A-0.00 & A-1.05.

COMMENT 20

ON SHEET A-1.08 WHAT IS A “GENERATOR TOILETS AREA”? THERE ARE SEPARATE MEN’S/WOMEN’S BATHROOMS SHOWN TOO. PLEASE PROVIDE DETAILS.

RESPONSE 20

Please refer to the revised Sheet A-1.08 where this area is simply labeled Generator

COMMENT 21

A DETAIL FOR THE PRIVACY WALL, AS WELL AS THE DUMPSTER ENCLOSURE, NEED TO BE INCLUDED IN THE PLANS.

RESPONSE 21

Please refer to Sheet A-2.01 for the detail of the privacy wall. The Dumpster enclosure occurs within the building wall, shown on Elevations on Sheets A-2.01 & A-2.02.

COMMENT 22

NO PLAN SHEETS WITH BUILDING EXTERIOR COLORS/MATERIALS NOTED WAS IN THE PLAN SET SUBMITTED TO MMPA.

RESPONSE 22

Sheets A-4.01 and A-5.01 were previously submitted to show exterior colors and materials.

COMMENT 23

A CONCEPTUAL FIRE DEPARTMENT STAGING AREA NEEDS TO BE AGREED TO BY THE MIAMI-DADE FIRE DEPARTMENT ASAP, AS THIS COULD AFFECT THE DESIGN.

RESPONSE 23

Noted.

COMMENT 24

THE SITE WILL NOT REQUIRE RE-PLATTING; HOWEVER, AS THE EXPANDED SITE IS COMPRISED OF THREE (3) LOTS A UNITY OF TITLE WILL BE REQUIRED PRIOR TO BP.

RESPONSE 24

Owners will provide.

COMMENT 25

AS STATED HEREIN, THE APPLICANT IS ADVISED THE TOWN COUNCIL IS CURRENTLY CONSIDERING SEVERAL MAJOR CODE MODIFICATIONS THAT WOULD BAN/SEVERELY NEGATIVELY AFFECT THIS AND ALL FUTURE PROJECT DESIGNS, AS THEY WOULD PROHIBIT MOST CURRENTLY ALLOWED SETBACK YARD ENCROACHMENTS FOR DECORATIVE ARCHITECTURE FEATURES LIKE BANDS/EYEBROWS/PLANTERS/ARTISTIC ATTACHMENTS/ ETC. IF THE TC ADOPTS THESE CODE AMENDMENTS, THIS PROJECT WILL NEED TO BE RE-DESIGNED- AS THIS APPLICATION WAS FILED AFTER CHANGES WERE INITIALLY PROPOSED AND NO PRIOR REVIEWS OF THIS PROJECT HAVE OCCURRED.

RESPONSE 25

We received a draft of the Ordinance and spoke with the Town to obtain clarity on this matter. It is our understanding that the Ordinance Revisions pertain only to the West Island, and therefore do not impact this project.

Prepared by,

FRANKEL BENAYOUN ARCHITECTS

Ifhat B Fishman

Digitally signed by Ifhat B Fishman
DN: c=US, o=Frankel Benayoun Architects,
dnQualifier=A01410D000001860858E0780
002EATF, cn=Ifhat B Fishman
Date: 2023.05.22 10:55:26 -04'00'

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May 16, 2023

Rodney Carrero-Santana, PE., CFM, LEED AP
Town Engineer
Town of Bay Harbor Islands
9665 Bay Harbor Terrace
Bay Harbor Islands, FL 33154

RE: CASA VERDE - REVIEW COMMENTS 05-04-23
PERMIT #: SPR23-000019
1130 93rd Street Lot(s): 3 Block: 17
Parcel #: 13-2227-001-3150

Dear Mr. Carrero-Santana:

The previously submitted plans for the above-referenced project have been modified to address the Comments received. Attached are responses to the comments, along with re-submittal plans for review.

Please contact me at 954-367-0371 should you have any questions or need additional information.

Sincerely,

Ayitey Aryee
Engineer

Attachments



Response to Comments Dated 05-04-23

1. Drainage Calculations do not include provide Geotechnical Report reflecting soil characteristics with borings locations taken on site. Geotechnical Report must be signed and sealed by a Florida Licensed Geotechnical Engineer
Response: Geotechnical report is attached with this submittal for review.
2. Geotechnical Report is also to be provided and must be signed and sealed by a Florida Licensed Geotechnical Engineer. The Geotechnical Report reflecting soil characteristics showing borings locations taken on site.
Response: Signed & Sealed Geotechnical report is attached with this submittal for review.
3. Miami Dade County Exfiltration Trench typical detail to be provided; SD 1.1
Response: MDC Exfiltration Trench Detail SD 1.1 is now indicated on Sheet C-8.
4. Water Line, Fire Line and Sanitary Sewer tapping connections and roadway restoration in the public right of way shall have full lane restoration and follow MDC Public Works Section 40 Restoration of Trenches and Detail R21.1. The Detail R21.1 shall be included in Civil Plans . In addition to FOOT Standard pertaining to such connections.
Response: Proposed roadway restoration has been extended to the edge of pavement - to the North side of 93rd street – shown on Sheet's C-1 & C-2. Restoration Detail R21.1 is now indicated on Sheet C-6.
5. Drainage catch basins and/or wells table schedules to be provided with Civil Plans.
Response: Drainage structure table is now indicated on Sheet C-1.

February 1, 2023

Skyrise Project No. 220150

Mr. David Maron & Mr. Michael Wittow
Horizon BHI, LLC
53 Broadway
Brooklyn, New York 11249

Re: Report of Subsurface Investigation and Geotechnical Engineering
Casa Verde
1130-1150 93rd Street
Bay Harbor Islands, Florida

Dear Mr. Messrs. Maron & Wittow:

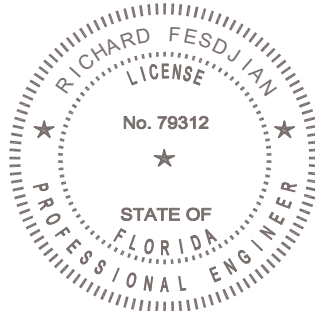
Thank you for the opportunity to provide our services for the above referenced project. Our work has been completed in fulfillment of the scope of work described in Skyrise Proposal 220150rev1. This report provides a summary of the project, describes our field exploration, presents our evaluations of the site conditions and provides our recommendations for the foundation design of the proposed construction at the site.

This report assumed structural loads and should be reviewed and resubmitted by Skyrise once loads are provided.

Sincerely,

SKYRISE ENGINEERING AND TESTING

Richard Fesdjian, P.E.
President
Florida License No. 79312



This document has been digitally
signed and sealed by:

Richard Fesdjian 2023.02.01
12:33:40-05'00'

Printed copies of this document are
not considered signed and sealed,
and the signature must be verified
on any electronic copies

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APPENDICES

Appendix A	Site Vicinity Map, Historical Aerial Photographs, and Test Location Plan
Appendix B	Boring Logs (B-1 through B-14)
Appendix C	Open-Hole Permeability Test Data (C-1)
Appendix D	Description of Field Services (D-1)

1. SITE DESCRIPTION

Site Location

- Site Address: 1130-1150 93rd Street, Bay Harbor Islands, FL
- Site Boundaries:
 - North: 93rd Street
 - South: 2-level condo and vacant parcel
 - East: 2-level condo
 - West: 2-level condo
- Folio Number(s): 13-2227-001-3160; 13-2227-001-3151; 13-2227-001-3150 (west to east)
- Site Dimensions: Approximately 150 feet (north-south) by 225 feet (east-west) based on ALTA survey
- Site Grades: Between +5 and +6 feet relative to the 1929 National Geodetic Vertical Datum (NGVD)

Site History and Current Use:

- Current Use: The parcel furthest to the east is occupied by a 2-level residential structure constructed in 1955 (Miami Dade County Property Appraiser website). The remaining parcels are vacant.
- Historic Aerial Photography: Google Earth aerial photography is available dating back to 1995. The oldest aerial imagery shows similar construction on the east portion of the site. The parcels that are presently vacant were occupied by low rise structures up to 2006, and after they were demolished these parcels have been vacant except in 2009 when the area was paved and used for parking.
- Changes to Site: No significant site filling, lake excavations, or major earthwork operations can be noted from the aerial photographic review.
- Foundations: We are not aware of the foundation system for the existing or adjacent buildings. If this information is available it should be provided to us.

A vicinity map and site historical aerials are presented in Appendix A.

2. PROJECT INFORMATION

Documents Review

- Survey: ALTA by Blanco Surveyors, Inc. dated June 7, 2022
- Site Plan: Not provided
- Architectural: Not provided
- Structural: Not provided
- Geotechnical Report: Not provided
- Phase 1 Report: Not provided
- As-built Drawings: Not provided
- Other: Test boring and percolation test location maps (identified in the ALTA survey drawing)

Project Scope

- General Description: Information about the proposed development is limited. We understand it consists in the construction of an 8-level condominium structure.
- Building(s) Footprint: Not provided
- Site Coverage: Not provided
- Parking: Levels 1 and 2 will include parking, a lobby, and shared amenities
- Basement Construction: Not planned
- Building Uses: Residential

Building Loads:

- Interior Columns: 800 to 1200 kips (assumed)
- Perimeter Walls: 10 kips per linear foot (assumed)
- Ground Floor Slabs: 150 pounds per square foot (assumed)

Actual structural loading should be provided when available.

3. PURPOSE AND SCOPE OF SERVICES

Purpose

The purpose of our scope of services is to perform a due diligence geotechnical subsurface exploration and engineering analyses to provide recommendations for design and construction of the proposed project. Specifically, our report provides:

- A brief description of the project based on information provided to us.
- An overview of our field exploration program, test procedures, and laboratory testing (if conducted).
- Discussion of the site-specific subsurface conditions, including groundwater and hydraulic conductivity.
- Evaluations and discussions of the geotechnical aspects of the proposed structure(s) and feasibility of constructing the proposed development at the site.
- Discussion of feasible foundation type(s) for the proposed construction.
- Design parameters for the recommended foundation type, including vertical and lateral load resistance.
- Estimates of foundation settlements.
- Modulus of subgrade reaction for any slabs on grade.
- Recommendations for site preparation and grading, including the suitability of on-site materials for use as structural fill, backfill placement recommendations, and slab subgrade preparation.
- Construction considerations including excavation support and dewatering, impacts of existing foundations, and impacts for adjacent structures.
- Drawings showing test locations, a graphic summary of the borings drilled, and individual boring logs with detailed descriptions of the materials encountered.

Scope of Services

Our scope of work for the proposed development is described below. Please refer to the Description of Field Services section in Appendix D for further details regarding the general procedures for our scope of services.

Geotechnical borings:	Five (5) SPT borings to a depth ranging between 50 and 65 feet below grade.
Drainage Tests:	One (1) test
Reasonable Assurance Report:	Excluded
Test Excavations (TEs):	Excluded
Private Locator:	Excluded

The approximate boring and percolation test locations are included in the Test Location Plan presented in Appendix A.

4. SUBSURFACE EXPLORATION

Borings

The materials encountered at the site can be generally classified as described below. The stratification of soils within the depths explored during this study are consistent with the anticipated geology within the project site. Additional information about the materials encountered at each location drilled can be found in the boring logs presented in Appendix B.

○ Layer 1 – Limestone Fragments and Sand:

Soil type:	Brown to dark brown sand with roots, shells, and concrete fragments.
Depth to top of layer:	Started from ground surface elevation.
Maximum depth to bottom of layer:	4 feet from grade.
Thickness:	Two (2) to four (4) feet.
Surface cover:	Up to 12 inches of topsoil.
Other characteristics of material:	None.
Laboratory testing:	Not performed.
N-Value range:	6 to 51 blows per foot (bpf).
N-Value average:	20 bpf.
Modulus of Elasticity (ksf):	250 to 350
Additional comments:	This layer was encountered in all the borings. Presence of concrete fragments indicates portions of the site may have been filled in the past.

○ Layer 2 – Silt, Silty Sand, Organic/Peaty Sand:

Soil type:	Gray silt, silty sand, and occasional organic/peaty sand.
Depth to top of layer:	Two (2) to four (4) feet from grade.
Maximum depth to bottom of layer:	8.5 feet.
Thickness:	6 feet thick.
Other characteristics of material:	Organic/peaty sand only present in borings B-1 and B-3, with a thickness of about 2 feet and in the bottom portion of the layer. Organic portion of the layer had traces of roots.
Laboratory testing:	Not performed
N-Value range:	Less than one (weight of hammer) to 11 bpf.
N-Value average:	5 bpf.
Modulus of Elasticity (ksf):	150 to 200
Additional comments:	This layer was encountered in all the borings.

○ Layer 3 – Sand:

Soil type:	Gray to dark gray sand, silty sand.
Depth to top of layer:	6.5 to 8.5 feet from grade.
Maximum depth to bottom of layer:	23 feet from grade.
Thickness:	16 feet thick.
Other characteristics of material:	Traces of shells throughout the entire layer. A 5-foot thick layer of gray silt was encountered in Boring B-4 at a depth of 19 feet below grade.
Laboratory testing:	Not performed.
N-Value range:	Less than one (weight of hammer) to 26 bpf.
N-Value average:	10 bpf.
Modulus of Elasticity (ksf):	200 to 350
Additional comments:	This layer was encountered in all the borings.

o Layer 4 – Limestone/Sandstone with Interbedded Sand Pockets:

Soil type:	Tan to light gray limestone/sandstone with some sand pockets.
Depth to top of layer:	23 feet from grade.
Maximum depth to bottom of layer:	65 feet from grade (termination depth of borings).
Thickness:	At least 27 feet thick.
Other characteristics of material:	Sand pockets are generally 5- to 8-feet thick.
Laboratory testing:	Not performed.
N-Value range:	Less than one (weight of hammer) to greater than 50 blows per 6-inches (refusal).
N-Value average:	36 bpf.
Modulus of elasticity (ksf):	2,000 to 10,000
Unconfined compressive strength (ksf):	200 to 500
Allowable side shear (ksf):	3 to 5
Additional comments:	This layer was encountered in all the borings.

Percolation Tests

The results of the percolation test performed is presented below and in further detail in Appendix C.

TEST NUMBER	HYDRAULIC CONDUCTIVITY (K) (cfs/ft ² - ft head)
P-1	1.42 x 10 ⁻⁰⁴

5. GROUNDWATER CONDITIONS

The groundwater was encountered in the borings at depths ranging between 4.8 and 5.8 feet below current site grades. These elevations correspond to about -0.3 to +0.9 feet relative to the 1929 National Geodetic Vertical Datum (NGVD). The elevations reported herein are approximate and are based on the elevations provided in the survey. If more accurate elevations are required Skyrise can install piezometers at the site and provide periodical readings.

In general, the groundwater table in the vicinity of the project is encountered at approximately 0 to +4 feet NGVD. It should be noted that variations to the previously mentioned elevations should be expected due to storm and hurricane events, tidal fluctuations, seasonal climate, surface runoff patterns, and construction activities.

6. SEISMIC CLASSIFICATION

Based on Chapter 20 of the 2016 ASCE-7 Standard and our geotechnical evaluation of the subsurface profile and data collected at the site, we recommend the use of as a Site Class D designation for the design of the project.

7. EVALUATION AND DISCUSSION

Based on our explorations at the site, the site is suitable for construction from a geotechnical perspective. The primary concerns for foundation design and construction include support of the proposed new structure loads without unacceptable settlement, and minimizing adverse impacts to adjacent structures. Methods for alleviating these concerns during development are further discussed in Sections 8 and 9 of this report.

Considering the borings encountered a layer of very soft silt, silty sand, and organic sands, we have discarded the possibility of supporting the proposed structure on a shallow foundation system or a mat foundation as these materials could likely settle when subjected to the anticipated loads of the structure. The most prudent alternative to mitigate settlement concerns would be to excavate and replace these soils. However, considering these materials extend a few feet below the water table, it would be very challenging to confirm the silt and organic materials have been completely removed. Other methods of ground improvement that would leave the silt and organic sand in place could result in less-than-optimal foundation performance. Based on our experience, other methods of ground improvement such as vibro-flotation or stone columns (vibro-replacement) could also underperform due to the presence of the silt and organic materials. Additionally, these ground improvement methods generate vibrations which could adversely affect nearby buildings and structures.

We also reviewed the feasibility of supporting the structure on shallow foundations after ground improvement by rigid inclusions (RI). This method consists of installing unreinforced grout columns across the entire building footprint on a 5-foot by 5-foot grid pattern. Column diameters generally range from 12 to 24 inches. The RIs would probably be tipped at depths ranging from 25 to 40 feet below grade. The RIs are then capped by a load transfer platform comprising a few feet of granular fill such as No. 57 stone or roadway base material, which allows for the transfer of the building loads to the RIs. The ground floor slab could be supported on grade with this method. *It should be noted that while this method may be considered feasible to support the proposed structure, further evaluation is required as the building layout details and final grades for the development have not been provided to us at this time.*

The proposed structure can be supported on a pile foundation system consisting of augered, cast-in-place (ACIP) piles after the site is prepared as recommended in this report. Our foundation design recommendations are further discussed in section 10 of this report.

8. SETTLEMENT AND IMPACTS TO ADJACENT STRUCTURES

8.1 SETTLEMENT

The geological formation in South Florida, combined with not having building loads for the proposed development, makes estimating settlement a complex task. Therefore, the development team should understand our settlement estimate is a probabilistic range of values based on our experience with the construction and performance of similar structures in the vicinity of the project.

Considering the lithologic formation immediately below the anticipated tip elevation of the proposed pile foundation consists of granular materials and rock, we estimate the building settlements could manifest during construction and continue occurring over a period of two to four months after construction.

Assuming the building foundations are designed and constructed as recommended in this report, it is probable that settlement of an 8-level structure could experience a primary settlement of under one (1) inch, and differential settlements would probably be on the order of ½ inch. The differential settlement range assumes the heaviest portion (core) of the structure is located at the center of the building.

8.2 IMPACTS TO ADJACENT STRUCTURES

At the time of preparing this report, the nearest buildings to the site boundaries are located approximately 5 to 10 feet from the south, east and west property lines. We are not aware of the foundation types that are supporting the adjacent buildings.

The adjacent structures could be impacted during construction by three sources. These are settlement, vibrations during demolition and construction, and ground movement due to adjacent excavations. We have evaluated these three sources in the paragraphs below. We recommend that pre- and post-construction observations of adjacent structures are performed prior to the start of construction activities at the site.

Settlement impacts

Adjacent structures can experience settlement due to the settlement of the new construction and due to dewatering.

The proposed construction is expected to experience some degree of settlement in the areas where the heaviest loads of the building(s) are transferred to the ground. This settlement diminishes gradually outward from the points of the load application. The radial dissipation of load generally depends on two main factors; the amount of load applied, and the capacity of the bearing materials below the bottom of the foundations to resist that load.

Considering the heaviest portion of the building could experience settlement of approximately one (1) inch, it is unlikely that adjacent structures may be impacted. However, we have not reviewed a site plan for the proposed construction and are not aware of where the heavier portions of the structure may be located. Additional evaluation for settlement impacts is recommended to be performed by Skyrise after the building design further advances.

Vibration impacts

Construction activities such as demolition, compaction, ground improvement techniques, installation of sheet piles, and excavation of near-surface limestone can negatively impact adjacent buildings and structures. Some of these activities may generate more off-site vibrations than others. We recognize the proposed development may include some of this work. While some of vibrations caused by these activities may only be felt by humans and not cause visible damage to buildings and structures, they can sometimes manifest in cosmetic or even structural damage.

Vibration impacts can be reduced by digging isolation trenches, modifying compaction techniques, and the use of non-vibratory methods of foundation construction. Notwithstanding, we encourage the development team to consider monitoring vibrations during construction activities. Skyrise can develop a vibration monitoring plan and design limits for offsite vibrations for this project.

Ground movement impacts

Yet another source of potential impact to adjacent buildings and structures is performing excavations in close proximity to property lines. Particularly, the concern arises when structures are directly supported on granular soils that could unravel into an open excavation.

The impacts to adjacent buildings due to excavations and ground movement can be reduced by installing trench boxes, benching the excavations, utilizing ground improvement techniques such as jet grouting, soil mixing, flowable fill, or by underpinning the structure(s) along the excavation.

While we have not reviewed civil drawings and are not aware of any deep utilities planned for the site, the development team should consider the proximity of open excavations to nearby buildings, roadways,

sidewalks, and ancillary features.

9. SITE PREPARATION

Site Stripping

After demolition of the existing structures, and removal of pavements, construction remnants, and landscaping areas, the proposed development areas plus a five-foot perimeter should be cleared, grubbed and stripped. Existing foundations should be removed if they are found to be in conflict with the proposed development. Any voids created by the removal of any underground structures or unsuitable materials should be backfilled as described below.

Proofrolling

After the site has been prepared as described above, proofrolling of building and pavement areas should be performed with a 20-ton roller or larger operating at its maximum vibrational frequency at a speed not exceeding 2 feet per second. The roller should perform overlapping passes of at least 25 percent. The proofrolling should be observed by a Skyrise representative, and any weak materials or yielding conditions identified during the process should be replaced in compacted lifts as described immediately below.

Structural fill

Structural fill soil should consist of material free of organics, roots and vegetation. Additionally, we recommend granular fill is used, with under 10 percent of its particles passing the U.S. Standard No. 200 sieve in its dry condition. In general, fill placed in building pads should not exceed a particle size of six (6) inches, and in the upper foot of the building pad the maximum particle size should not be larger than three (3) inches. Particles larger than one (1) inch should not be allowed to nest during the placement of the material. The use of "Cyclone Sand" is not permitted to be used as structural fill.

Based on the borings drilled at the site, the majority of the near-surface materials at the site meet the criteria described above. However, some of these materials might require localized sorting and moisture-conditioning prior to re-use. Organic and silty soils in their natural conditions should not be used for structural fill.

Structural fill materials should be placed in loose lifts not exceeding 12-inches in thickness. The lifts should be compacted to at least 95 percent of the Modified Proctor (ASTM D1557) maximum dry density value utilizing a large roller. If a small vibratory plate or walk-behind equipment is used, then loose lifts should not exceed 8 inches.

Density tests should be performed by a qualified technician working under the supervision of the geotechnical engineer. One test should be performed for each 2,500 square feet of building construction should be used to verify the suitability of the compacted materials.

It should be noted that the use of vibratory equipment during proofrolling and compaction could cause adverse effects on existing buildings, pavements and ancillary structures. The recommendations above should be reviewed and modified as approved by the geotechnical engineer to reduce offsite vibration impacts.

The civil engineer should consider the installation of flexible connections for site utilities if site grades are planned to be raised during development.

10. FOUNDATION RECOMMENDATIONS

The proposed 8-level tower can be supported on ACIP piles with the allowable axial and lateral capacities described in the table below:

ACIP Pile Diameter (in)	Pile Tip Elevation (feet NGVD)	Allowable Compression (kips)	Allowable Tension (kips)	Minimum Grout Strength (ksi)	Vertical Spring Constants (kpi)
14	-48	230	115	5.0	230
16	-53	300	150	5.0	300

1. The required grout strengths presented in the table above may be designed for 28- or 56-days from grout pouring.
2. Capacity recommendations provided above are based on the FBC Code Section 1810 which limits the maximum allowable stress to 0.3 f'c for cast-in-place foundations without permanent casing.
3. The minimum center-to-center spacing between piles should be at least three pile diameters.
4. The initial spring constant values provided above are based on our anticipated settlement of the tower. These values should be refined as the structural model is developed and the design of the structure is further advanced. A spring constant value of 1,200 kips can be used for analysis of transient loads. These values do not include any factor of safety.

Lateral Load Analysis

The lateral capacities presented in the table above were obtained from an LPIPE software analysis. Our analyses considered:

- a. Simultaneous loading application of tension and lateral loads.
- b. A fixed head condition for the pile.
- c. A pile reinforcement of approximately 2 percent.

The analysis was performed for a single pile. Modification factors were then applied to p-y soil resistance values to consider the effect of pile grouping. The allowable lateral capacities provided in the table above assume the pile cap sides are earth-formed and poured in the upper limestone formation or surrounded by No. 57 stone. A factor of safety of 1.5 has been included for lateral capacities. Higher capacities can be provided if required. If the pile reinforcement is significantly different than what we have assumed above, the lateral pile capacities may be required to be adjusted.

Our recommendations for allowable pile lateral capacities for the fixed head condition are presented in Table 3 below. These capacities are unfactored, and assume a maximum pile head movement ranging between ¼ to 3/8 inches.

Pile Diameter (in)	Allowable Lateral (kips)	Maximum Bending Moment (in-kips)	Depth to Max. Bending Moment (ft.)	Depth to Zero Moment from top of pile (ft.)
14	3	252	0	24
16	5	375	0	24

In addition to the lateral resistance of piles, the friction of the vertical faces of pile caps and grade beams also provide resistance to lateral loads. Frictional resistance between the soil and bottom of foundation elements should be ignored.

An equivalent fluid density of 110 pounds per cubic foot may be used to compute the passive pressures acting against the sides of the pile caps and grade beams. This value includes a factor of safety of 1.5.

Pile Reinforcement

The structural engineer should design the pile reinforcement for each pile based on the anticipated axial and lateral loads the foundation system will be subjected to. The reinforcement for piles designed to resist lateral loads should extend at a minimum to the depth of maximum bending moments listed above. As verification for cross-section of the grouted column, we recommend each pile is reinforced with at least one No. 7 bar throughout the entire length of the pile. The steel reinforcement should maintain a minimum of 3 inches of cover around the pile perimeter throughout the entire pile length.

Load Test Program

1. We recommend that at least one compressive, one tension, and one lateral load test be performed for each pile type and tip elevation for the project. Such program should be performed prior to the start of production foundation installation.
2. Pile load testing should be performed per ASTM D1143 (compression test), ASTM D3689 (tension test) and ASTM D3966 (lateral test). The test loads should be at least twice the pile working capacity. We also recommend overloading the compression pile to 2.5 times the design capacity.
3. Load tests should be performed and results interpreted in accordance with the most current edition of the Florida Building Code.
4. Test piles should be instrumented with strain gauge pairs in all test piles to evaluate load transfer. The depths at which the strain gauges are installed will be reviewed and approved by Skyrise prior to installation.
5. The pile contractor shall provide a submittal for review by the structural and geotechnical engineers. This submittal should include at a minimum the following information:
 - a. Plan indicating the test location
 - b. Pile reinforcement for each pile diameter, type, and tip elevation
 - c. Pile loading schedule for each pile diameter, type, and tip elevation
 - d. Test pile set up diagrams and frame layouts
 - e. Proposed strain gauge pair depths for each test pile
 - f. Grout mix design and any other documentation from the grout supplier

The pile contractor should not proceed with pile installation without an approved submittal.

6. Test piles should not be used as production piles. Reaction piles may be reused as production piles if such piles meet the installation specifications and are monitored for movement during load testing.
7. A load test report evaluating the results of the testing should be provided. This report should confirm the recommended working loads for the production piles or provide recommendations for updated pile capacities.

Pile Foundation Construction

1. ACIP piles should be installed by an experienced contractor that is familiar with the local geology.
2. A production pile submittal should be provided for the structural and geotechnical engineers to review. This submittal should contain at a minimum the following information:
 - a. A pile numbering plan
 - b. Pile reinforcement for each pile diameter, type, and tip elevation
 - c. Grout mix design and any other documentation from the grout supplier
3. The drilling contractor should be prepared to encounter hard drilling at the site and above the pile tip elevation(s) as disclosed in some of our borings. Such condition is indicated on the boring logs as refusal type material, where SPT N-values exceed 50 bpf. Hard rock may result in slower drilling, more frequent changing of drilling bits, and may require the contractor to mobilize a rig with a higher torque capacity.

Based on our knowledge of the lithologic formation within the vicinity of the site, some porous limestone may be encountered. Such condition may result in larger volume of grout being required to complete a pile.

4. During grouting of the pile excavation, the auger should be extracted slowly and in a continuous manner to ensure the entire pile shaft is uniformly grouted and to prevent caving of materials. Auger rotation shall be kept to a minimal rate to prevent upward movement of grout as the auger is being retrieved. The amount of grout required to grout each pile should be at least 15 percent greater than the theoretical pile volume.
5. A grout head of at least 10 feet should be maintained throughout the grouting of the pile shaft.
6. Pile centers should be installed within three (3) inches of specified plan location, and within two (2) percent of vertical or batter line.
7. Per the Florida Building Code, piles should not be installed closer than six (6) diameters within 12 hours.
8. The steel reinforcement should be installed into the pile shaft immediately upon withdrawal of the grouting auger.

Pile Foundation Quality Control and Acceptance of Installation

1. Piling operations should be observed by a Skyrise representative to ensure the recommendations described herein are followed.
2. Grout should be sampled during piling installation every 50 cubic yards of grout placed. Grout testing may include testing for plastic properties of the grout, along with casting at least six (6) cube samples per set for compressive strength in the laboratory. Sampling, field and laboratory curing, transportation, and testing should follow the manufacturer's recommendations and applicable ASTM standards.

A minimum of three (3) cube samples should be tested for compressive strength at the design age as recommended by the supplier. The average compressive strength of these three samples should exceed the strength requirements provided in this report. Remaining cubes can be tested at earlier stages as indication of early stages of grout curing or at later stages if necessary.

3. The special inspector representative may request the contractor to redrill a pile if:
 - a. The actual grout volume is less than the recommended percentage over the theoretical volume
 - b. The auger flight is retrieved rapidly and a continuous grout column is not being maintained during grouting operations
 - c. The grouting operations are suddenly stopped
 - d. An obstruction is encountered which prevents the pile reinforcement to reach the target tip elevation
4. It should be noted that additional piles may be required to be installed after piles have been completed for the following reasons:
 - a. The as-built location of the pile falls outside of an acceptable lateral range from the planned location, which may lead to excessive moments to the pile cap and/or reduced pile capacities.
 - b. A sudden grout drop is observed in adjacent piles during drilling of a new pile

Redrilling of piles as indicated in sections 3 and 4 above should be at the pile contractor's expense.
5. A daily record of pile installation should be maintained during piling operations.
6. A final letter by the special inspector will be issued certifying that the piles have been installed

Ground Floor Slabs

The slabs should be structurally supported to avoid any undesirable settlements of the ground floor slab, especially if site grades are planned to be raised.

Slabs should be reinforced for the loads that they will sustain. Precautions should be taken to reduce moisture vapor transmission through concrete as it could adversely affect floor coverings and other items directly in contact with the slab. A moisture vapor retarder should be placed between the slab subgrade and the slab to reduce moisture vapor intrusion through the slab. Slab reinforcement should be carefully placed so the membrane is not punctured.

11. EXCAVATIONS AND DEWATERING

Excavations

All excavations at the site should comply with Occupational Safety and Health Administration (OSHA) design and safety requirements. The contractor is the sole party responsible for the design and construction of temporary excavations, along with ensuring these excavations are stable for the period they are open.

The upper layer at the site consists of granular materials that are unable to remain vertically open when excavated. The excavation walls may naturally cave-in upon excavating, and over time the excavation slopes can become larger due to the unravelling of the materials caused by rain events, surface runoff, and construction vibrations. Excavations within the limestone formation are expected to remain vertical if exposed.

Dewatering

The natural groundwater at the site is expected to range between Elevation +0 to +4 feet NGVD. However, variations can be expected due to seasonal effects, storm surges and construction activities. Considering that basement construction is not planned, the majority of the construction activities can be completed without dewatering. However, it is possible that dewatering could be needed for the construction of some deep pile caps and the installation of some utilities. Considering these installations are localized, the groundwater table can likely be lowered to the required depths using sumps and pumps. If larger volumes of water are required to be mobilized, the installation of well points or larger pumps could be considered. When dewatering, the contractor should consider that all of the extracted water should be properly discharged in accordance with the requirements from all local jurisdictional agencies.

Dewatering of any excavation at the site is solely a responsibility of the contractor.

Our study did not include testing for dewatering purposes, discharging capabilities, or impacts to adjacent sites due to dewatering. If dewatering is planned for this site, a dewatering plan should be submitted for review prior to commencement of dewatering activities.

12. REPORT LIMITATIONS

Our report has been prepared for the exclusive use of the Owner and other members of the design team, and our recommendations solely apply to this site and for the proposed development described in this report. Any changes to the development of the project invalidate our recommendations herein, and Skyrise should be granted the opportunity to review and update our report accordingly.

The recommendations contained in this report are not applicable to any other site. The data included in this report as well as our foundation design and recommendations are based on data collected at discrete locations of the site at a specific time. Geological conditions in the vicinity of the site may vary, and the development team should consider that unusual site conditions not disclosed in this report may be present at the site and may not be evident until construction starts. If the conditions at the site or neighboring sites are altered between the issuance of our report and the time of starting construction, Skyrise should be contacted to review and update this report as such conditions may affect our recommendations.

An environmental study was not requested to be performed as part of this report. Skyrise did not perform any testing related to soil or groundwater contamination.

Our report has been prepared in general accordance with the standard of care practiced by members of Consultant's profession performing similar services on similar projects in similar localities; no other warranty is expressed or implied. We assume no responsibility for misinterpretations of the contents of this report.

We should be engaged to provide design consultation, document review, and construction observations on behalf of the owner and design team to ensure that our recommendations have been properly interpreted and implemented. If Skyrise is not retained to provide monitoring of foundation installation and construction-related activities, Client waives all responsibility against us for the interpretation of the contents of this report and for the foundation performance as we have no ability to verify the procedures of construction performed by others.

APPENDIX A

Site Vicinity Map

Historical Aerial Photographs

Test Location Plan

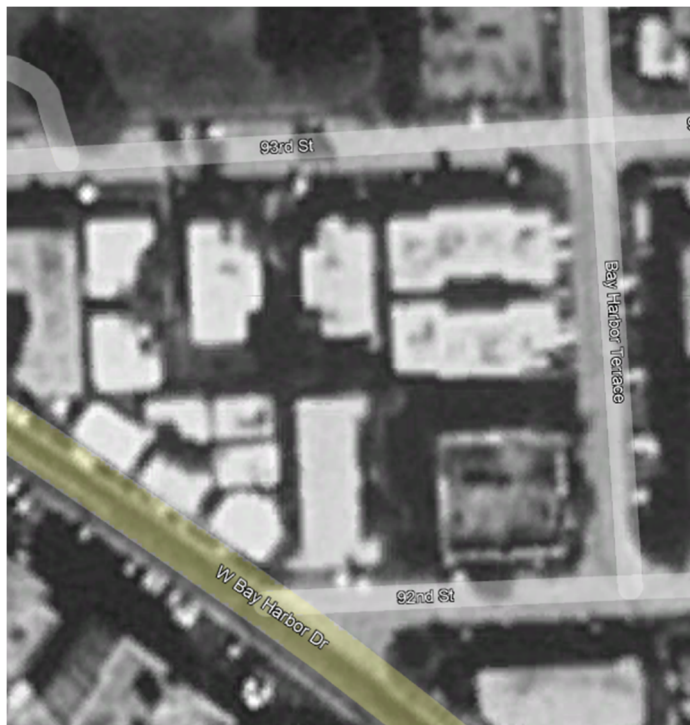


Taken from Miami-Dade Property Appraiser

DRAWING TITLE: Vicinity Map	PROJECT No.: 220150
PROJECT NAME: Casa Verde	
PROJECT LOCATION: 1130 - 1150 93rd Street, Bay Harbor Islands, FL	



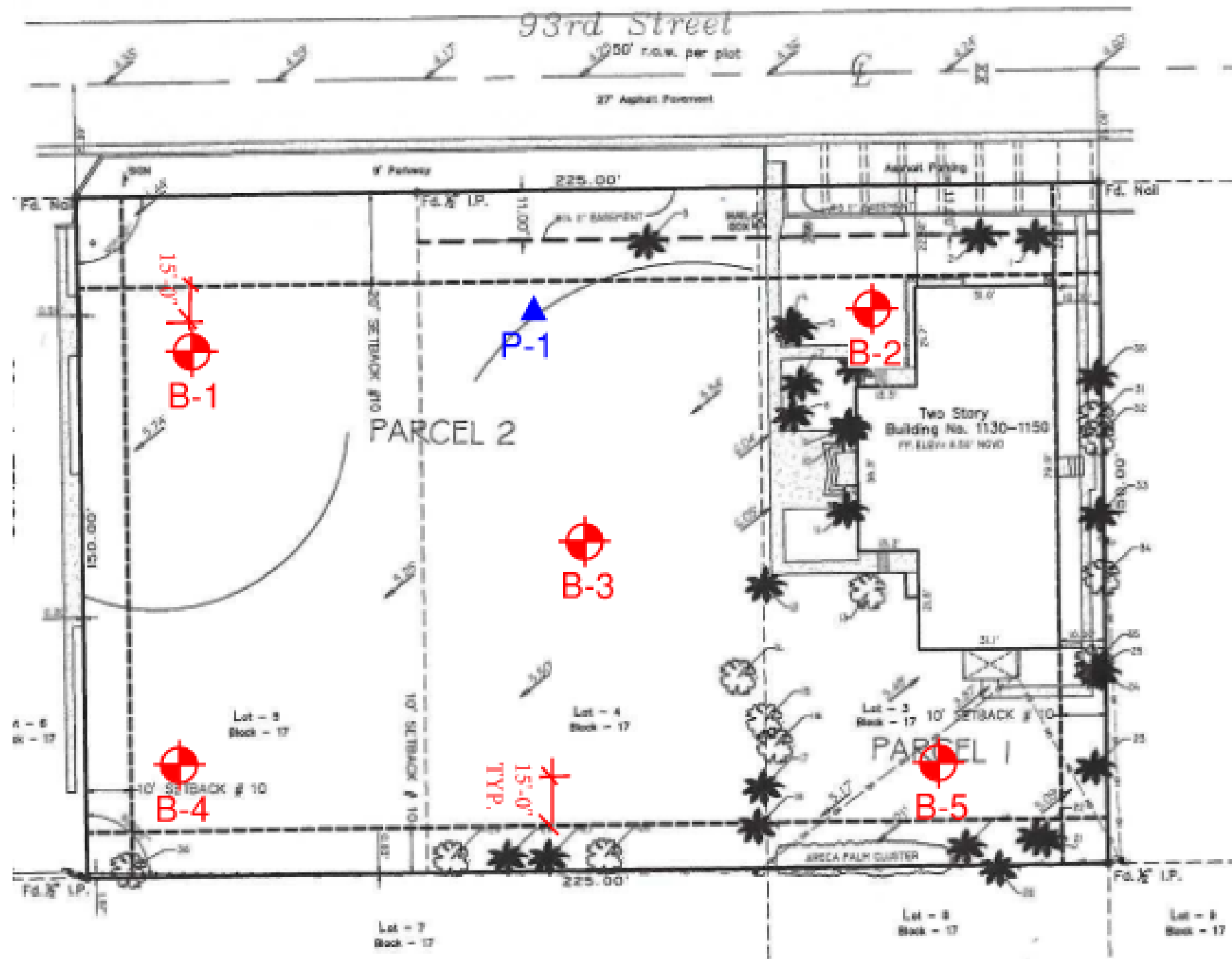
2022



1994

Taken from Google Earth 2023

DRAWING TITLE: Site Historical Aerial Photographs	PROJECT No.: 220150
PROJECT NAME: Casa Verde	
PROJECT LOCATION: 1130 - 1150 93rd Street, Bay Harbor Islands, FL	



Approximate Scale in Feet

LEGEND

-  Number and Approximate Location of SPT Boring
-  Number and Approximate Location of Percolation Test

NOTES

1. Test location symbols are approximate and not to scale.
2. Base drawing was provided by the client from an ALTA/NSPS Survey performed by Blanco Surveyors, Inc. dated 6/7/2022

DRAWING TITLE:	Test Location Plan	PROJECT NO.:	220150	 4121 SW 47th Avenue Suite 1301, Davie, Florida 33314 T: (305) 331-0890 - info@skyrise.engineering
PROJECT NAME:	Casa Verde	DRAWN BY:	RF	
PROJECT LOCATION:	1130-1150 93rd Street, Bay Harbor Islands, Florida	DATE:	1/31/2023	

APPENDIX B

Boring Logs



BORING NUMBER B-1

Page 1 of 3

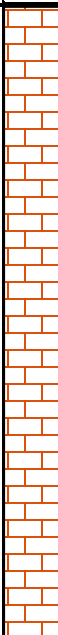
PROJECT NAME	Casa Verde	PROJECT NUMBER	220150
PROJECT ADDRESS	1130 - 1150 93rd Street, Bay Harbor Islands, FL		
CLIENT	Horizon BHI, LLC		
DRILLED BY	J&R	LOGGED BY	RF
LATITUDE		DATUM	1929 NGVD
HOLE DEPTH (ft.)	58.7	HOLE SIZE (in.)	3
NOTES		GROUND ELEVATION (ft)	5.5
		GROUNDWATER DEPTH (ft)	4.8
		GROUNDWATER ELEVATION (ft)	0.7

DEPTH (FEET)	ELEVATION (FEET)	SAMPLE	BLOWS PER 6" INCREMENT	N-VALUE	RECOVERY (INCHES)	USCS CLASSIFICATION	SYMBOL	WATER TABLE	MATERIAL DESCRIPTION	MOISTURE CONTENT (%)	-200 FINES CONTENT (%)	ORGANIC CONTENT (%)
0	5.5											
		X	7	9	4	SM			Topsoil			
		X	6									
		X	3									
		X	2			SP			SAND, loose, fine to medium, dark brown, with roots (Fill)			
		X	1	3	3							
		X	2									
		X	1			ML			SILT, soft, gray			
		X	2									
5	0.5	X	1	3	18	SP			ORGANIC SAND, very loose, fine to medium, dark brown			
		X	1									
		X	2									
		X	8	10	10				SAND, loose, medium to coarse, gray, with shells			
		X	8									
		X	4									
10	-4.5	X	6	9	15				SAND, loose, medium to coarse, gray, with shells, trace of roots			
		X	3									
		X	5			SP						
		X										
		X										
		X	4	12	21				SAND, medium dense, medium to coarse, gray, with shells			
		X	6									
15	-9.5	X	6									
		X	8									
		X										
		X										
		X	4	3	16				SILTY SAND, very loose, gray			
		X	2									
20	-14.5	X	1			SM						
		X	1									
		X										
		X										
		X	5	18	12				LIMESTONE, very soft, tan			
		X	10									
25	-19.5	X	8									
		X	8									

PROJECT NAME Casa Verde

PROJECT NUMBER 220150

PROJECT ADDRESS 1130 - 1150 93rd Street, Bay Harbor Islands, FL

DEPTH (FEET)	ELEVATION (FEET)	SAMPLE	BLOWS PER 6" INCREMENT	N-VALUE	RECOVERY (INCHES)	USCS CLASSIFICATION	SYMBOL	WATER TABLE	MATERIAL DESCRIPTION	MOISTURE CONTENT (%)	-200 FINES CONTENT (%)	ORGANIC CONTENT (%)
25	-19.5											
30	-24.5	X	2 3 3 8	6	12	LS			LIMESTONE, very soft, tan			
35	-29.5	X	5 4 3 13	7	10				LIMESTONE, very soft, light brown			
									<i>Loss of circulation at 33 feet. Not recovered.</i>			
40	-34.5	X	50/5"	100	4	SS			LIMESTONE, hard, light gray			
45	-39.5	X	8 8 11 11	19	15				SANDSTONE, very soft, light gray			
50	-44.5	X	9 9 5 5	14	10	LS			LIMESTONE, very soft, light gray			
55	-49.5	X	50/3"	100	3				LIMESTONE, very hard, light gray			



BORING NUMBER B-1

Page 3 of 3

PROJECT NAME Casa Verde

PROJECT NUMBER 220150

PROJECT ADDRESS 1130 - 1150 93rd Street, Bay Harbor Islands, FL

DEPTH (FEET)	ELEVATION (FEET)	SAMPLE	BLOWS PER 6" INCREMENT	N-VALUE	RECOVERY (INCHES)	USCS CLASSIFICATION	SYMBOL	WATER TABLE	MATERIAL DESCRIPTION	MOISTURE CONTENT (%)	-200 FINES CONTENT (%)	ORGANIC CONTENT (%)
55	-49.5											
58.7	-54.5	X	49 50/2"	100	6	LS			LIMESTONE, hard, light gray			

Boring terminated at 58.7 feet



BORING NUMBER B-2

Page 1 of 3

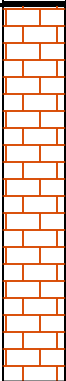
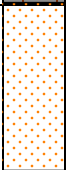
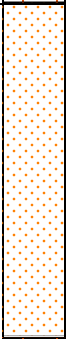
PROJECT NAME	Casa Verde	PROJECT NUMBER	220150
PROJECT ADDRESS	1130 - 1150 93rd Street, Bay Harbor Islands, FL		
CLIENT	Horizon BHI, LLC		
DRILLED BY	J&R	LOGGED BY	RF
LATITUDE		DATE STARTED	1/10/2023
LONGITUDE		DATE COMPLETED	1/10/2023
DATUM	1929 NGVD		
HOLE DEPTH (ft.)	58.1	HOLE SIZE (in.)	3
GROUND ELEVATION (ft)	5.5		
GROUNDWATER DEPTH (ft)	5.5		
GROUNDWATER ELEVATION (ft)	0		

DEPTH (FEET)	ELEVATION (FEET)	SAMPLE	BLOWS PER 6" INCREMENT	N-VALUE	RECOVERY (INCHES)	USCS CLASSIFICATION	SYMBOL	WATER TABLE	MATERIAL DESCRIPTION	MOISTURE CONTENT (%)	-200 FINES CONTENT (%)	ORGANIC CONTENT (%)
0	5.5											
		X	1	6	4	SM			Topsoil			
		X	3			SP			SAND, loose, medium, light brown, with a trace of shells, (Fill)			
		X	2									
		X	1	1	10				SILT, very soft, gray			
		X	0			ML						
		X	0						SILT, very soft, gray			
		X	0	0	14							
		X	0			SP			PEATY SAND, loose, dark brown, with fine roots			
		X	0	3	4							
		X	3									
		X	6									
		X	12	24	13				SAND, loose, medium to coarse, dark gray, with shells			
		X	12									
		X	5									
		X	8	13	11				SAND, medium dense, medium to coarse, gray, with shells			
		X	5									
		X	5									
		X	3									
		X	3	11	15				SAND, medium dense, medium to coarse, gray, with shells			
		X	3									
		X	8									
		X	3									
		X	12									
		X	16	34	6				LIMESTONE, medium hard, light brown, with sand			
		X	18									
		X	18									
25	-19.5											

PROJECT NAME Casa Verde

PROJECT NUMBER 220150

PROJECT ADDRESS 1130 - 1150 93rd Street, Bay Harbor Islands, FL

DEPTH (FEET)	ELEVATION (FEET)	SAMPLE	BLOWS PER 6" INCREMENT	N-VALUE	RECOVERY (INCHES)	USCS CLASSIFICATION	SYMBOL	WATER TABLE	MATERIAL DESCRIPTION	MOISTURE CONTENT (%)	-200 FINES CONTENT (%)	ORGANIC CONTENT (%)
25	-19.5											
30	-24.5	X	8 6 5 5	11	17	LS			LIMESTONE, very soft, tan			
35	-29.5	X	4 5 9 28	14	15	SP			SAND, medium dense, medium to coarse, light brown, with shells			
40	-34.5	X	15 50/5"	100	6	LS			LIMESTONE, hard, light brown, with trace of sand and shells <i>Loss of circulation at 43 feet. Not recovered.</i>			
45	-39.5	X	6 28 23 5	51	17	LS			LIMESTONE, moderately hard, light brown, with trace of sand and shells			
50	-44.5	X	0 0 0 0	0	0	SP			SAND, very loose, medium to coarse, light brown, with shells			
55	-49.5	X	50/2"	100	2	LS			LIMESTONE, hard, light brown			



BORING NUMBER B-2

Page 3 of 3

PROJECT NAME Casa Verde

PROJECT NUMBER 220150

PROJECT ADDRESS 1130 - 1150 93rd Street, Bay Harbor Islands, FL

DEPTH (FEET)	ELEVATION (FEET)	SAMPLE	BLOWS PER 6" INCREMENT	N-VALUE	RECOVERY (INCHES)	USCS CLASSIFICATION	SYMBOL	WATER TABLE	MATERIAL DESCRIPTION	MOISTURE CONTENT (%)	-200 FINES CONTENT (%)	ORGANIC CONTENT (%)
55	-49.5											
58.1	-54.5	☒	50/1"	1	1	LS			LIMESTONE, very hard, light gray			

Boring terminated at 58.1 feet

PROJECT NAME	Casa Verde
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PROJECT ADDRESS	1130 - 1150 93rd Street, Bay Harbor Islands, FL
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CLIENT	Horizon BHI, LLC
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DRILLED BY J&R

LOGGED BY	RF
-----------	----

DATE STARTED	1/10/2023
---------------------	-----------

DATE COMPLETED 1/10/2023

LATITUDE

LONGITUDE

DATUM 1929 NGVD

HOLE DEPTH (ft.)	65.0
-------------------------	------

HOLE SIZE (in.)	3
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GROUND ELEVATION (ft)	5.3
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NOTES

GROUNDWATER DEPTH (ft)	5
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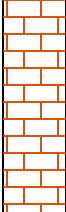
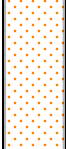
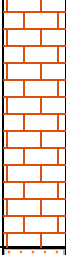
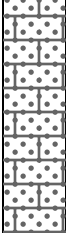
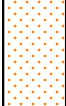
GROUNDWATER ELEVATION (ft)	0.3
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[illegible]

PROJECT NAME Casa Verde

PROJECT NUMBER 220150

PROJECT ADDRESS 1130 - 1150 93rd Street, Bay Harbor Islands, FL

DEPTH (FEET)	ELEVATION (FEET)	SAMPLE	BLOWS PER 6" INCREMENT	N-VALUE	RECOVERY (INCHES)	USCS CLASSIFICATION	SYMBOL	WATER TABLE	MATERIAL DESCRIPTION	MOISTURE CONTENT (%)	-200 FINES CONTENT (%)	ORGANIC CONTENT (%)
25	-19.7											
30	-24.7	X	7 8 8 3	16	16	LS			LIMESTONE, very soft, light brown, with sand			
35	-29.7	X	10 3 3 5	6	12	SP			LIMESTONE, very soft, light brown, with sand SAND, loose, medium to coarse, light brown, with shells			
40	-34.7	X	50/4"	100	2	LS			LIMESTONE, hard, gray			
45	-39.7	X	8 6 6 1	12	10	SP			LIMESTONE, very soft, gray SAND, medium dense, coarse, light gray, with shells			
50	-44.7	X	10 10 5 5	15	12	SS			SANDSTONE, very soft, light gray, with sand			
55	-49.7	X	6 6 5 8	11	11	SP			Loss of circulation at 53 feet. Not recovered. SAND, medium dense, fine to medium, light gray, with limestone fragments			



BORING NUMBER B-3

Page 3 of 3

PROJECT NAME Casa Verde

PROJECT NUMBER 220150

PROJECT ADDRESS 1130 - 1150 93rd Street, Bay Harbor Islands, FL

DEPTH (FEET)	ELEVATION (FEET)	SAMPLE	BLOWS PER 6" INCREMENT	N-VALUE	RECOVERY (INCHES)	USCS CLASSIFICATION	SYMBOL	WATER TABLE	MATERIAL DESCRIPTION	MOISTURE CONTENT (%)	-200 FINES CONTENT (%)	ORGANIC CONTENT (%)
55	-49.7											
						SP						
60	-54.7	X	33 7 8 5	15	13	SS			SANDSTONE, very soft, light gray, with sand			
65	-59.7	X	8 9 6 5	15	15				SANDSTONE, very soft, light gray, with sand			

Boring terminated at 65 feet



BORING NUMBER B-4

Page 1 of 3

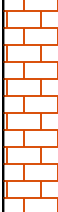
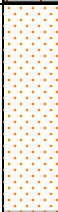
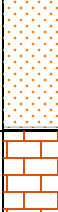
PROJECT NAME	Casa Verde	PROJECT NUMBER	220150
PROJECT ADDRESS	1130 - 1150 93rd Street, Bay Harbor Islands, FL		
CLIENT	Horizon BHI, LLC		
DRILLED BY	J&R	LOGGED BY	RF
LATITUDE		DATUM	1929 NGVD
HOLE DEPTH (ft.)	65.0	HOLE SIZE (in.)	3
NOTES		GROUND ELEVATION (ft)	5.5
		GROUNDWATER DEPTH (ft)	5.2
		GROUNDWATER ELEVATION (ft)	0.3

DEPTH (FEET)	ELEVATION (FEET)	SAMPLE	BLOWS PER 6" INCREMENT	N-VALUE	RECOVERY (INCHES)	USCS CLASSIFICATION	SYMBOL	WATER TABLE	MATERIAL DESCRIPTION	MOISTURE CONTENT (%)	-200 FINES CONTENT (%)	ORGANIC CONTENT (%)
0	5.5											
		X	13 12 7 7	19	12	SP			SAND, medium dense, fine to medium, brown, with limestone Fragments			
		X	7 5 2 7	7	11	ML			SILT, medium stiff, gray			
		X	8 6 3 3	9	18	PT			PEAT, medium stiff, dark brown, with wood fragments			
		X	2 2 3 4	5	17	ML			PEAT, medium stiff, dark brown, with wood fragments			
		X	4 6 5 3	11	15	SP			SILT, medium stiff, gray			
5	0.5								SAND, medium dense, medium to coarse, gray, with shells			
						SM						
		X	2 3 2 1	5	19				SILTY SAND, loose, fine to medium, gray, with shells			
10	-4.5											
		X	0 0 0 0	0	21	ML			SILT, very soft, gray, with organics			
15	-9.5											
		X	11 8 7 13	15	23	LS			LIMESTONE, very soft, tan			
20	-14.5											
25	-19.5											

PROJECT NAME Casa Verde

PROJECT NUMBER 220150

PROJECT ADDRESS 1130 - 1150 93rd Street, Bay Harbor Islands, FL

DEPTH (FEET)	ELEVATION (FEET)	SAMPLE	BLOWS PER 6" INCREMENT	N-VALUE	RECOVERY (INCHES)	USCS CLASSIFICATION	SYMBOL	WATER TABLE	MATERIAL DESCRIPTION	MOISTURE CONTENT (%)	-200 FINES CONTENT (%)	ORGANIC CONTENT (%)
25	-19.5											
30	-24.5	X	9 9 5 7	14	16	LS			LIMESTONE, very soft, tan			
35	-29.5	X	6 7 9 5	16	12	LS			LIMESTONE, very soft, tan			
40	-34.5	X	50/2"	100	2	LS			LIMESTONE, hard, tan			
45	-39.5	X	3 2 2 26	4	10	SP			SAND, very loose, medium to coarse, gray, with shells			
50	-44.5	X	11 28 12 12	40	12	LS			LIMESTONE, medium hard, gray			
55	-49.5	X	50/3"	100	11	LS			LIMESTONE, hard, gray			
Loss of circulation at 45 feet. Not recovered.												



BORING NUMBER B-4

Page 3 of 3

PROJECT NAME Casa Verde

PROJECT NUMBER 220150

PROJECT ADDRESS 1130 - 1150 93rd Street, Bay Harbor Islands, FL

DEPTH (FEET)	ELEVATION (FEET)	SAMPLE	BLOWS PER 6" INCREMENT	N-VALUE	RECOVERY (INCHES)	USCS CLASSIFICATION	SYMBOL	WATER TABLE	MATERIAL DESCRIPTION	MOISTURE CONTENT (%)	-200 FINES CONTENT (%)	ORGANIC CONTENT (%)
55	-49.5											
60	-54.5	X	14 21 10 8	31	13	SS			SANDSTONE, medium hard, gray			
65	-59.5	X	7 10 5 7	15	15				SANDSTONE, very soft, light gray			

Boring terminated at 65 feet



BORING NUMBER B-5

Page 1 of 2

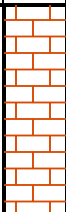
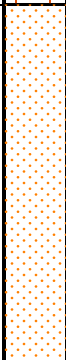
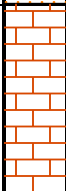
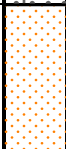
PROJECT NAME	Casa Verde	PROJECT NUMBER	220150
PROJECT ADDRESS	1130 - 1150 93rd Street, Bay Harbor Islands, FL		
CLIENT	Horizon BHI, LLC		
DRILLED BY	J&R	LOGGED BY	RF
LATITUDE		DATUM	1929 NGVD
HOLE DEPTH (ft.)	50	HOLE SIZE (in.)	3
NOTES		GROUND ELEVATION (ft)	5.5
		GROUNDWATER DEPTH (ft)	5.8
		GROUNDWATER ELEVATION (ft)	-0.3

DEPTH (FEET)	ELEVATION (FEET)	SAMPLE	BLOWS PER 6" INCREMENT	N-VALUE	RECOVERY (INCHES)	USCS CLASSIFICATION	SYMBOL	WATER TABLE	MATERIAL DESCRIPTION	MOISTURE CONTENT (%)	-200 FINES CONTENT (%)	ORGANIC CONTENT (%)
0	5.5											
		X	5	16	10	SM			Topsoil			
		X	12			SP			SAND, medium dense, medium, brown, with shells (Fill)			
		X	4									
		X	2	3	16				SILT, soft, gray			
		X	2									
		X	1									
		X	2									
		X	1									
5	0.5	X	2	6	24	ML			SILT, medium stiff, gray			
		X	1									
		X	5									
		X	2									
		X	5	10	24				SILT, stiff, gray			
		X	4									
		X	6			PT			PEAT, stiff dark brown, with wood fragments			
		X	7									
		X	14	26	24	SP			SAND, loose, medium to coarse, gray			
		X	11									
10	-4.5	X	15									
		X	17									
		X										
		X	5	4	24	SM			SILTY SAND, very loose, medium to coarse, dark gray, with trace of shells			
		X	3									
		X	1									
15	-9.5	X	1									
		X										
		X	4	81	20				LIMESTONE, hard, light brown, with sand			
		X	41									
		X	40			LS						
		X	33									
20	-14.5	X										
		X										
		X	14	20	20				LIMESTONE, very soft, light brown, with sand			
		X	11									
		X	9									
25	-19.5	X	9									

PROJECT NAME Casa Verde

PROJECT NUMBER 220150

PROJECT ADDRESS 1130 - 1150 93rd Street, Bay Harbor Islands, FL

DEPTH (FEET)	ELEVATION (FEET)	SAMPLE	BLOWS PER 6" INCREMENT	N-VALUE	RECOVERY (INCHES)	USCS CLASSIFICATION	SYMBOL	WATER TABLE	MATERIAL DESCRIPTION	MOISTURE CONTENT (%)	-200 FINES CONTENT (%)	ORGANIC CONTENT (%)
25	-19.5											
30	-24.5	X	11 12 8 9	20	16	LS			LIMESTONE, very soft, tan			
35	-29.5	X	5 10 15 7	25	20	SP			SAND, loose, coarse, brown, with limestone fragments			
40	-34.5	X	49 50/1"	100	5	LS			SAND, very dense, coarse, brown, with limestone fragments			
45	-39.5	X	15 7 11 28	18	17	SS			LIMESTONE, very hard, gray			
						SP			SANDSTONE, very soft, light gray, with sand			
		X	19 21 12 17	33	12	LS			SAND, dense, coarse, light gray, with limestone fragments			
50	-44.5								LIMESTONE, very soft, gray			

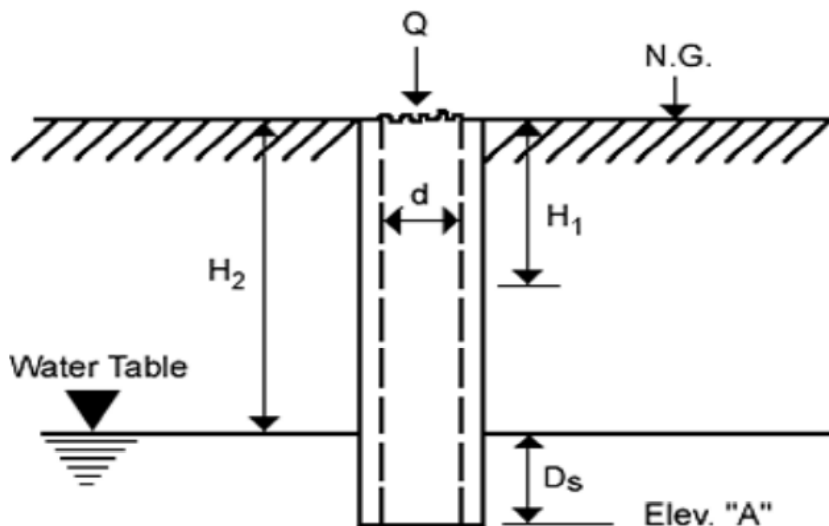
Boring terminated at 50 feet

APPENDIX C

Open-Hole Permeability Test Data

SUMMARY OF PERCOLATION TEST RESULTS
SOUTH FLORIDA WATER MANAGEMENT DISTRICT - "USUAL OPEN HOLE TEST"

TEST NUMBER	TEST DATE	SLOTTED PVC DIAMETER (d) (inches)	HOLE DEPTH (feet)	APPROX. ELEVATION (NGVD)	DEPTH TO WATER TABLE		HYDRAULIC HEAD (H ₂) (feet)	SATURATED HOLE DEPTH (D _s) (feet)	STABILIZED FLOW RATE (Q) (cfs)	HYDRAULIC CONDUCTIVITY (K) (cfs/ft ² - ft head)
					BEFORE TEST (feet)	DURING TEST (feet)				
P-1	1/10/2023	5	15	5.50	4.75	0.00	4.75	10.25	0.0112514	1.42E-04



$$K = \frac{4Q}{\pi d (2H_2^2 + 4H_2D_s + H_2d)}$$

K = Hydraulic Conductivity (cfs/ft.² – ft. head)

Q = "Stabilized" Flow Rate (cfs)

d = Diameter of Test Hole (feet)

H₂ = Depth to Water Table (feet)

D_s = Saturated Hole Depth (feet)

Elev. "A" = Proposed Trench Bottom Elev. (ft. – NGVD)

H₁ = Average Head on Unsaturated Hole Surface (ft. head)

PROJECT NAME:	Casa Verde Condominium				
PROJECT LOCATION:	1130-1150 93rd Street, Bay Harbor Islands, FL				
PROJECT No.:	220150	TESTED BY:	J&R	REVIEWED BY:	RF



APPENDIX D

Description of Field Services

Standard Penetration Test (SPT) Borings

Borings were performed using a 2-inch OD split-spoon to obtain soil/rock samples in general accordance with ASTM D-1586 and following the steps described below.

- Sampling for SPT borings consisted of taking 24-inch drive samples continuously for the first 10 feet from the ground surface, and subsequent 24-inch drives collected after rotary washing 3 feet below from the previous drive to the termination depth of the borings. Additional samples may have been obtained as determined necessary by the engineer based on the evaluation of the subsurface conditions encountered at the site.
- Drilling locations were abandoned with soil cuttings to the ground surface except in paved areas where the upper foot or so was grouted.
- Soil/rock samples retrieved from the borings were placed in clean, tight-sealed containers, and delivered to our main office.
- The samples collected at the site were visually classified by a Skyrise representative.
- If deemed necessary, select samples may have been subjected to laboratory testing to further characterize the material obtained. Laboratory tests may consist of obtaining natural moisture content, grain size analyses, organic content tests, percent minus 200 tests, and Atterberg limits. All laboratory tests were performed in general accordance with the latest versions of the ASTM Standards.

Percolation (Drainage) Tests

Percolation tests were performed in general accordance with the South Florida Water Management District (SFWMD) *Usual Condition Test* procedure and following the procedures described below.

- Each test was performed by advancing a roller bit along with a nominal 4-inch diameter casing to the specified test depth.
- The roller bit and casing yield an open hole of approximately 5 to 6 inches in diameter. Upon reaching the test depth, a slotted nominal 3-inch diameter PVC pipe was inserted in the hole.
- At this time, enough water was pumped into the borehole to develop a stabilized hydraulic head. Once the hydraulic head was stabilized, the average flow rate into the borehole was recorded.
- The hydraulic conductivity (k-value) was calculated utilizing a formula published in the SFWMD Volume IV Memorandum dated October 2012.
- The test locations were backfilled with soil cuttings to the ground surface except in paved areas where the upper foot or so was grouted.



HOLLAND ENGINEERING
CIVIL ENGINEERING SOLUTIONS

Holland Engineering, Inc
Civil Engineering Solutions
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Casa Verde

1130-1150 93rd Street
Bay Harbor Islands, Florida 33154

DEVELOPMENT IMPACT ANALYSIS REPORT

May 1, 2023

Prepared by:

Susan C. Holland, P.E.
Holland Engineering, Inc.
301 SW 7 Street
Ft. Lauderdale, FL 33015



This item has been digitally signed & sealed by Susan C. Holland, P.E. Printed copies of this document are not considered signed and sealed and the signatures must be verified on any electronic copies.

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HOLLAND ENGINEERING
CIVIL ENGINEERING SOLUTIONS

Holland Engineering, Inc
Civil Engineering Solutions
301 SW 7 Street, Ft. Lauderdale, FL 33315
(954) 367-0371 office
CA0007325 www.hei-heis.com

The following information and analysis are intended to demonstrate compliance with the requirements of Section 11-8 of the Town of Bay Harbor Islands, Florida Code of Ordinances to ensure that the Levels of Service (LOS) will be maintained as a result of this development.

1. POTABLE WATER

The water use requirements for this project are calculated based on the build-out information described on the attached Water Use Calculation Table. An increase in flow demand of **14,322 GPD** is expected from this project.

2. SANITARY SEWER:

The Sanitary Sewer flows generated by this project are calculated based on the build-out information described on the attached Sanitary Sewer Use Calculation Table. An increase in Sanitary Sewer flow of **11,171 GPD** is expected from this project.

3. SOLID WASTE:

The anticipated daily solid waste generation for this project are calculated based on the build-out information described on the attached Proposed Solid Waste Calculation Table. An increase in Solid Waste Generation of **45 TONS/YR** is expected from this project.

4. STORM DRAINAGE:

This project will require the installation of two drainage wells and exfiltration trench. Roof drainage and condensate will be routed to the drainage wells. All other surface drainage will be routed to the exfiltration trenches.

5. TRIP GENERATION ANALYSIS

The proposed development is expected to generate a net increase of 128 daily trips, 12 morning peak hour trips and 12 afternoon peak hour trips. The results of the trip comparison are detailed in the attached Trip Generation Analysis using the 11th Edition of the ITE Trip Generation Manual.

6. RECREATION FACILITIES:

The total population is estimated at 93.31 persons, based on a total of 43 dwelling units at 2.17 persons per unit.

- 1 tennis court for every 4,000 persons, 12-60 years old
- 1 lighted baseball field for every 6,000 persons, 10-40 years old
- 1 tot lot for every 5,000 persons, 3-12 years old

The proposed development is not anticipated to create significant impacts on the Town's current park system. Any recreation impacts that may occur will be mitigated by an impact fee paid by the developer to the Town.

PROPOSED POTABLE WATER USE CALCULATIONS

PROJECT : Casa Verde

DATE : May 1, 2023

TYPE OF BUILDING USE	ROOMS [EACH/SF](Avg. Household Size)	RATE [GPD/ROOM] [GPD/SF]	ADF [GPD]
<u>PROPOSED FLOWS:</u>			
Residential Condominiums	43(2.17per DU)	200	18,662
SUB-TOTAL			<u>18,662</u>
<u>PREVIOUS FLOWS:</u>			
	10(2.17 per DU)	200	4,340
SUB-TOTAL			<u>4,340</u>
NET INCREASE			14,322

PROPOSED SANITARY SEWER USE CALCULATIONS

PROJECT : Casa Verde

DATE : May 1, 2023

TYPE OF BUILDING USE	ROOMS [EACH/SF](Avg. Household Size)	RATE [GPD/ROOM] [GPD/SF]	ADF [GPD]
<u>PROPOSED FLOWS:</u>			
Residential Condominiums	43(2.17per DU)	156	14,556
SUB-TOTAL			<u>14,556</u>
<u>PREVIOUS FLOWS:</u>			
	10(2.17per DU)	156	3,385
SUB-TOTAL			<u>3,385</u>
NET INCREASE			11,171

PROPOSED SOLID WASTE CALCULATIONS

PROJECT : Casa Verde

DATE : May 1, 2023

TYPE OF BUILDING USE	AREA/UNITS [SF] [UNITS](Avg. Household Size)	RATE [LB/SF- DAY] [LB/UNIT- DAY]	SOLID WASTE GENERATED [TONS PER CAPITA/YR]	SOLOD WASTE GENERATED [TONS/YR]
<u>PROPOSED SOLID WASTE:</u> Residential Condominiums	43(2.17per DU)		0.632	59
SUB-TOTAL				<u>59</u>
<u>PREVIOUS SOLID WASTE:</u>	10(2.17per DU)		0.632	14
SUB-TOTAL				<u>14</u>
NET INCREASE				45

TRIP GENERATION ANALYSIS

PROJECT : Casa Verde

DATE : May 1, 2023

Daily

Land Use	ITE Code	Size	Trip Generation Rate	Total Trips				
				In	Out	In	Out	Total
Existing								
Multifamily housing (low rise)	220	10 DU	T=6.76(X)	50%	50%	33	34	67
Proposed								
Multifamily housing (mid rise)	221	43 DU	T=4.54(X)	50%	50%	97	98	195
Difference						64	64	128

Morning Peak Hour

Land Use	ITE Code	Size	Trip Generation Rate	Total Trips				
				In	Out	In	Out	Total
Existing								
Multifamily housing (low rise)	220	10 DU	T=0.40(X)	24%	76%	1	3	4
Proposed								
Multifamily housing (mid rise)	221	43 DU	T=0.37(X)	23%	77%	4	12	16
Difference						3	9	12

Afternoon Peak Hour

Land Use	ITE Code	Size	Trip Generation Rate	Total Trips				
				In	Out	In	Out	Total
Existing								
Multifamily housing (low rise)	220	10 DU	T=0.51(X)	63%	37%	3	2	5
Proposed								
Multifamily housing (mid rise)	221	43 DU	T=0.39(X) + 0.34	61%	39%	10	7	17
Difference						7	5	12

1130-1150 93rd Street, Bay Harbor Islands

Prepared by Susan C Holland, P.E.

Elevations are referenced to NGVD

Lic. No. 41831

Pre-Development Calculations

General Information

Total Project Area =	0.77 Acres	
Paved Area =	0.04 Acres	
Building Area =	0.08 Acres	
Lake Area =	0.00 Acres	
Recreation Area =	0.00 Acres	
Landscape Area =	0.65 Acres	
Total Impervious Area =	0.12 Acres	(15.6%)
Total Pervious Area (TPA) =	0.65 Acres	(84.4%)
Exist. Min. Floor Elevation =	NA	
Exist. Min. Crown of Road =	NA	
Exist. Average Finished Grade =	5.50 '	
Lake Control Stage =	0.00 '	
Flood Criteria (Dade County only) =	0.00 '	
October Water Table =	2.00 '	
<i>(Wet season water table)</i>		
Credit (Dade County only) =	0.00 "	
Discharge Off-site =		

Storm Event Information

10 year - 1 day event = 7.00 "

1130-1150 93rd Street, Bay Harbor Islands
Pre-Development

SCS Curve Number

Design Water Table Elevation = 2.00 '

Average Finished Grade = 5.50 '

Average Depth Water Table = 3.50 '

Compacted Water Storage - (CWS) = 6.57 "

Ground Storage Under Pervious Area

(CWS/12 in/ft) x (TMPA) = 0.36 AC-FT

Soil Storage (S) = 5.55 "

SCS Curve Number (CN) = 64.32

1130-1150 93rd Street, Bay Harbor Islands
Pre-Development

Stage / Storage

Area of Developed Site Grading = 0.69 Acres

(Linear from 5.5' - 6')

Stage	Site		Not Used	Not Used	Not Used	Not Used	Total
	Lake	Storage					
2.00 '	0.00 AC-FT	0.00 AC-FT	0.00 AC-FT	0.00 AC-FT	0.00 AC-FT	0.00 AC-FT	0.00 AC-FT
3.00 '	0.00 AC-FT	0.00 AC-FT	0.00 AC-FT	0.00 AC-FT	0.00 AC-FT	0.00 AC-FT	0.00 AC-FT
4.00 '	0.00 AC-FT	0.00 AC-FT	0.00 AC-FT	0.00 AC-FT	0.00 AC-FT	0.00 AC-FT	0.00 AC-FT
5.00 '	0.00 AC-FT	0.00 AC-FT	0.00 AC-FT	0.00 AC-FT	0.00 AC-FT	0.00 AC-FT	0.00 AC-FT
5.50 '	0.00 AC-FT	0.00 AC-FT	0.00 AC-FT	0.00 AC-FT	0.00 AC-FT	0.00 AC-FT	0.00 AC-FT
6.00 '	0.00 AC-FT	0.17 AC-FT	0.00 AC-FT	0.00 AC-FT	0.00 AC-FT	0.00 AC-FT	0.17 AC-FT
6.50 '	0.00 AC-FT	0.52 AC-FT	0.00 AC-FT	0.00 AC-FT	0.00 AC-FT	0.00 AC-FT	0.52 AC-FT
7.00 '	0.00 AC-FT	0.86 AC-FT	0.00 AC-FT	0.00 AC-FT	0.00 AC-FT	0.00 AC-FT	0.86 AC-FT

1130-1150 93rd Street, Bay Harbor Islands

Pre-Development

10 Year - 1 Day

10 year - 1 Day Event = 7.00 "

$$Q = \frac{[7.00 - 0.20 (5.55)]^2}{7.00 + 0.80 (5.55)} = 3.03 "$$

$$3.03 " - 0.00 " (Dade Co. Credit) = 3.03 "$$

$$\text{Volume} = \frac{3.03 "}{12 \text{ in/ft}} (0.77) = 0.19 \text{ AC-FT}$$

Corresponding Stage = 6.05 '

1130-1150 93rd Street, Bay Harbor Islands

Prepared by Susan C Holland, P.E.

Elevations are referenced to NGVD

Lic. No. 41831

Post-Development Calculations

General Information

Total Project Area =	0.77 Acres	
Paved Area =	0.06 Acres	
Building Area =	0.55 Acres	
Lake Area =	0.00 Acres	
Recreation Area =	0.00 Acres	
Landscape Area =	0.16 Acres	
Total Impervious Area =	0.61 Acres	(79.2%)
Total Pervious Area (TPA) =	0.16 Acres	(20.8%)
Prop. Min. Floor Elevation =	9.00 '	
Prop. Min. Crown of Road =	NA	
Prop. Average Finished Grade =	5.25 '	
Lake Control Stage =	0.00 '	
Flood Criteria (Dade County only) =	0.00 '	
October Water Table =	2.00 '	
<i>(Wet season water table)</i>		
Credit (Dade County only) =	0.00 "	
Discharge Off-site =		

Storm Event Information

10 year - 1 day event = 7.00 "

1130-1150 93rd Street, Bay Harbor Islands

Proposed Exfiltration Trench Data

Proposed Trench Length = 79.0 '

Trench Width = 4.0 '

Trench Depth = 15.0 '

Pipe Diameter = 1.50 '

K = 0.000142

Refer to geotechnical report

storm event = 7.00 "H2 (depth to water table) = 3.10 'Du (non-saturated trench depth) = 3.1 'Ds (saturated trench depth) = 11.9 '**C Factor**Pervious = 0.6Impervious = 0.9Weighted C Factor = **0.84**

$$\frac{(0.16) \times (0.60) + (0.61) \times (0.90)}{0.77} = 0.84$$

1130-1150 93rd Street, Bay Harbor Islands
Post-Development

SCS Curve Number

Design Water Table Elevation = 2.00 '
Average Finished Grade = 5.25 '
Average Depth Water Table = 3.25 '

Compacted Water Storage - (CWS) = 5.75 "

Ground Storage Under Pervious Area
(CWS/12 in/ft) x (TMPA) = 0.08 AC-FT

Soil Storage (S) = 1.19 "

SCS Curve Number (CN) = 89.33

1130-1150 93rd Street, Bay Harbor Islands
Post-Development

Stage / Storage

Area of Developed Site Grading = 0.22 Acres

(Linear from 4.5' - 5.15')

Stage	Lake	Site		Exfil. Trench		Not Used	Not Used	Total
		Storage	Storage	Storage	Storage			
2.00'	0.00 AC-FT	0.00 AC-FT	0.00 AC-FT	0.00 AC-FT	0.00 AC-FT	0.00 AC-FT	0.00 AC-FT	0.00 AC-FT
3.00'	0.00 AC-FT	0.00 AC-FT	0.00 AC-FT	0.10 AC-FT	0.00 AC-FT	0.00 AC-FT	0.00 AC-FT	0.10 AC-FT
4.00'	0.00 AC-FT	0.00 AC-FT	0.00 AC-FT	0.10 AC-FT	0.00 AC-FT	0.00 AC-FT	0.00 AC-FT	0.10 AC-FT
5.00'	0.00 AC-FT	0.00 AC-FT	0.06 AC-FT	0.10 AC-FT	0.00 AC-FT	0.00 AC-FT	0.00 AC-FT	0.16 AC-FT
5.50'	0.00 AC-FT	0.00 AC-FT	0.15 AC-FT	0.10 AC-FT	0.00 AC-FT	0.00 AC-FT	0.00 AC-FT	0.25 AC-FT
6.00'	0.00 AC-FT	0.00 AC-FT	0.26 AC-FT	0.10 AC-FT	0.00 AC-FT	0.00 AC-FT	0.00 AC-FT	0.36 AC-FT
6.50'	0.00 AC-FT	0.00 AC-FT	0.37 AC-FT	0.10 AC-FT	0.00 AC-FT	0.00 AC-FT	0.00 AC-FT	0.47 AC-FT
7.00'	0.00 AC-FT	0.00 AC-FT	0.48 AC-FT	0.10 AC-FT	0.00 AC-FT	0.00 AC-FT	0.00 AC-FT	0.58 AC-FT

1130-1150 93rd Street, Bay Harbor Islands

Post-Development

10 Year - 1 Day

10 year - 1 Day Event = 7.00 "

$$Q = \frac{[7.00 \quad -- 0.20 \quad (1.19)]^2}{7.00 \quad + 0.80 \quad (1.19)} = 5.75 "$$

$$5.75 " \quad - 0.00 " \text{ (Dade Co. Credit)} = 5.75 "$$

$$\text{Volume} = \frac{5.75 "}{12 \text{ in/ft}} (0.77) = 0.37 \text{ AC-FT}$$

Corresponding Stage = 6.05 '

Exfilt Trench Lenght

Casa Verde

3/27/2023

1130-1150 93rd Street, Bay Harbor Islands
Post-Development

Exfiltration Trench Length

C Pervious = 0.60

C Impervious = 0.90

Weighted C Factor = 0.84

Trench width = 4.00

H2 (depth to water table) = 3.10

Du (non-saturated trench depth) = 3.10

Ds (saturated trench depth) = 11.90

Capacity of existing system = 1.20 AC-IN (0.10 AC-FT)

$$L = \frac{1.20}{0.000142 \times [(3.1 \times 4) + (2 \times 3.1 \times 3.1) - (3.1)^2 + (2 \times 3.1 \times 11.9)] + [(0.000139 \times 4 \times 3.1)]}$$

$$L = 78.30'$$

Length of exfiltration system provided = 79 feet

CASA VERDE CONDOMINIUM

1130-1150 93RD STREET, BAY HARBOR ISLANDS, FLORIDA 33154

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ARCHITECT:
FRANKEL BENAYOUN
ARCHITECTS PLANNERS INTERIOR DESIGN
LICENSE NO. AA-C001494
MARKUS A. FRANKEL, LICENSE NO. AR0007143
IFHAT BENAYOUN FISHMAN, LICENSE NO. AR0017273
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LANDSCAPE ARCHITECT:
GEOMANTIC DESIGNS, INC.
6800 SW 81 STREET
Miami, Florida 33143
PH: (305) 665.9688

OWNER / DEVELOPER:
HORIZON BHI, LLC
53 BROADWAY, BROOKLIN, NY11249
T . 5 1 6 . 4 4 7 . 8 8 8 7
T . 7 1 8 . 3 8 8 . 8 2 1 0

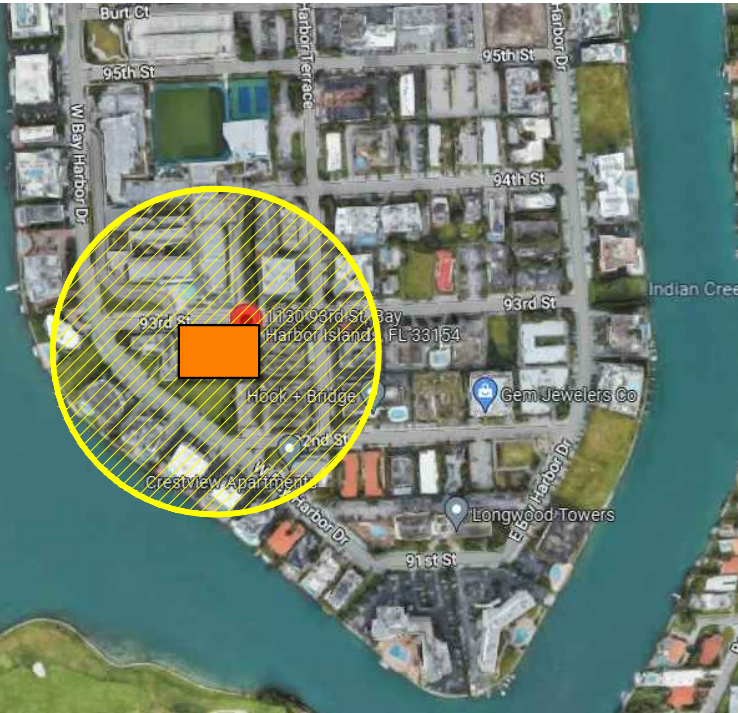
CIVIL ENGINEER:
HOLLAND ENGINEERING
111 South 21 Avenue
Hollywood, Florida 33020
PH: (954) 367.0371
FAX: (305) 367.0372

DRC SUBMITTAL APRIL 27, 2023
DRC RE-SUBMITTAL MAY 25, 2023



LOCATION/ZONING MAP
SCALE: N.T.S.

NOTE: FLUM LAND USE DESIGNATION FOR PROPERTIES WITHIN 300' RADIUS OF SITE EAST OF BAY HARBOR WATERWAY IS MEDIUM-HIGH DENSITY RESIDENTIAL; AND WEST OF BAY HARBOR WATERWAY IS LOW DENSITY RESIDENTIAL, SINGLE FAMILY. [HATCHED AREA INDICATES 300' RADIUS] EXCEPT LOTS 7 & 8 OF BLOCK 21 WHICH ARE COMMERCIAL



AERIAL MAP
SCALE: N.T.S.

NOTE: HATCHED AREA INDICATES A 300' RADIUS.

ARCHITECTURAL ANALYSIS							ZONING SUMMARY				
THE SITE IS VACANT							SF		ACRES		
							LOT AREA		33,750 0.77 +/-		
BUILDING OCCUPANCY				R1			LEGAL DESCRIPTION				
TYPE OF CONSTRUCTION				TYPE I-B			LOTS 3, 4 & 5 BLOCK 17 BAY HARBOR ISLAND, RECORDED IN PLAT BOOK 46 AT PAGE 5 OF THE PUBLIC RECORDS OF MIAMI-DADE COUNTY, FLORIDA.				
UNIT #	# OF UNITS	NSF PER UNIT	*GSF PER UNIT	BALCONY	SF	# OF BD / # OF BA	FLOOD ELEVATION				
UNIT 1	1	1,794	1,886	253	SF	2 BD / 2.5 BA + DEN	8.0' NGVD				
UNIT 2	1	1,870	1,960	285	SF	2 BD / 2.5 BA + DEN	THE SITE IS LOCATED IN FLOOD ZONE "AE", WITH A BFE OF 8.0' NGVD. MAP/PANEL				
UNIT 3	1	2,377	2,478	213	SF	3 BD / 3.5 BA + DEN	CROWN OF THE ROAD				
UNIT 4	1	1,401	1,480	131	SF	2 BD / 2.5 BA	ZONING CLASSIFICATION				
UNIT 5	1	1,401	1,480	131	SF	2 BD / 2.5 BA	RM2 - MULTI FAMILY RESIDENTIAL DISTRICT				
UNIT 6	1	2,377	2,478	213	SF	3 BD / 3.5 BA + DEN	FUTURE LAND USE DESIGNATION				
UNIT 7	1	1,762	1,851	284	SF	2 BD / 2.5 BA + DEN	MEDIUM-HIGH DENSITY RESIDENTIAL				
UNIT 8	1	2,181	2,279	343	SF	3 BD / 3.5 BA + DEN					
UNIT 9	1	2,356	2,459	388	SF	3 BD /3.5 BA + DEN					
UNIT 10	1	1,862	1,952	287	SF	2 BD /2.5 BA +DEN					
UNIT 11	1	2,377	2,478	213	SF	3 BD/3.5 BA + DEN					
UNIT 12	1	1,401	1,480	131	SF	2 BD/2.5 BA					
UNIT 13	1	1,401	1,480	131	SF	2 BD /2.5 BA					
UNIT 14	1	2,377	2,478	213	SF	3 BD / 3.5 BA + DEN					
UNIT 15	1	1,630	1,718	414	SF	2 BD /2.5 BA + DEN					
UNIT 16	1	2,181	2,279	231	SF	3 BD /3.5 BA + DEN					
UNIT 17	1	2,356	2,459	238	SF	3 BD/3.5 BA + DEN					
UNIT 18	1	1,735	1,821	416	SF	2 BD/2.5 BA + DEN					
UNIT 19	1	1,931	2,022	768	SF	3 BD / 3.5 BA + DEN					
UNIT 20	1	1,401	1,480	131	SF	2 BD / 2.5 BA					
UNIT 21	1	1,401	1,480	131	SF	2 BD /2.5 BA					
UNIT 22	1	1,931	2,022	768	SF	3 BD /3.5 BA + DEN					
UNIT 23	1	1,630	1,718	184	SF	2 BD/2.5 BA + DEN					
UNIT 24	1	2,181	2,279	191	SF	3 BD/3.5 BA + DEN					
UNIT 25	1	2,356	2,459	242	SF	3 BD/3.5 BA + DEN					
UNIT 26	1	1,735	1,821	185	SF	2 BD/2.5 BA + DEN					
UNIT 27	1	1,931	2,022	188	SF	3 BD/3.5 BA + DEN					
UNIT 28	1	1,401	1,480	131	SF	2 BD/2.5 BA					
UNIT 29	1	1,401	1,480	131	SF	2 BD/2.5 BA + DEN					
UNIT 30	1	1,931	2,022	188	SF	3 BD/3.5 BA + DEN					
UNIT 31	1	1,379	1,460	405	SF	2 BD/2.5 BA + DEN					
UNIT 32	1	2,063	2,167	267	SF	3 BD/3.5 BA + DEN					
UNIT 33	1	2,251	2,353	301	SF	3 BD/3.5 BA + DEN					
UNIT 34	1	1,449	1,533	381	SF	2 BD/2.5 BA + DEN					
UNIT 35	1	2,629	2,768	1072	SF	4 BD/4.5 BA + DEN					
UNIT 36	1	1,401	1,480	131	SF	2 BD/2.5 BA					
UNIT 37	1	1,327	1,406	863	SF	2 BD/2 BA + DEN					
UNIT 38	1	1,379	1,460	173	SF	2 BD/2.5 BA + DEN					
UNIT 39	1	2,063	2,167	207	SF	3 BD/3.5 BA + DEN					
UNIT 40	1	2,251	2,353	232	SF	3 BD/3.5 BA + DEN					
UNIT 41	1	1,449	1,533	170	SF	2 BD/2.5 BA + DEN					
UNIT 42	1	2,629	2,768	437	SF	4 BD/4.5 BA					
UNIT 43	1	2,629	2,768	437	SF	4 BD/4.5 BA					
TOTAL							43	80,968	84,997	12,829	SF
NOTE: DENS CAN NEVER BE CONVERTED OR USED AS BEDROOMS, UNLESS THE DU SIZE IS ADEQUATE AND BUILDING CODE REQUIREMENTS ARE MET.											
* GSF INDICATES SEALABLE AREAS											



	TREE NAME	Ø	H	C
1	ROYAL PALM	24"	50'	15'
2	ROYAL PALM	24"	45'	20'
3	ROYAL PALM	24"	53'	15'
4	ALEXANDER PALM TREE	4"	12'	8'
5	ALEXANDER PALM TREE	4"	25'	20'
6	ALEXANDER PALM TREE	7"	10'	8'
7	ALEXANDER PALM TREE	40"	12'	11'
8	ALEXANDER PALM TREE	6"	14'	4'
9	ALEXANDER PALM TREE	6"	20'	8'
10	ALEXANDER PALM TREE	6"	20'	8'
11	CHRISTMAS PALM	5"	20'	10'
12	CHRISTMAS PALM	5"	20'	15'
13	FICUS	12"	20'	23'
14	UNKNOWN TREE	12"	30'	20'
15	UNKNOWN TREE	12"	40'	20'
16	FICUS TREE	10"	40'	40'
17	ALEXANDER PALM TREE	6"	30'	10'
18	ALEXANDER PALM TREE	6"	25'	10'
19	CHRISTMAS PALM	6"	25'	10'
20	CHRISTMAS PALM	5"	25'	10'
21	CHRISTMAS PALM	5"	25'	10'
22	CHRISTMAS PALM	6"	20'	10'
23	CHRISTMAS PALM	6"	25'	10'
24	ALEXANDER PALM	5"	20'	10'
25	ALEXANDER PALM	5"	20'	10'
26	UNKNOWN TREE	21"	23'	20'
27	QUEEN PALM	10"	20'	10'
28	QUEEN PALM	8"	15'	10'
29	UNKNOWN TREE	18"	25'	20'
30	SABAL PALM	20"	15'	10'
31	UNKNOWN TREE	12"	20'	10'
32	UNKNOWN TREE	14"	20'	10'
33	ALEXANDER PALM	5"	20'	10'
34	UNKNOWN TREE	15"	25'	20'
35	UNKNOWN TREE	13"	25'	20'
36	UNKNOWN TREE	15"	20'	20'

PROPERTY ADDRESS:
1130 93 ST., BAY HARBOR ISLANDS, FL. 33154 (PARCEL 1)
1140 93 ST., BAY HARBOR ISLANDS, FL. 33154 (PARCEL 2)
1150 93 ST., BAY HARBOR ISLANDS, FL. 33154 (PARCEL 2)

FOLIO#’S: 13-2227-001-3150, 13-2227-001-3151, 13-2227-001-3160
 CERTIFIED TO: HORIZON AT CASA VERDE, LLC. A FLORIDA LIMITED LIABILITY COMPANY
 VALLEY NATIONAL BANK, ISAOA/ATIMA
 OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY
 RENNERT VOGEL MANDLER & RODRIGUEZ, P.A.

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2021 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1, 2, 3, 4, 7A, 7B, 8, 9 AND 11, 13, 14, 16 AND 17 OF TABLE A THEREOF. THE FIELD WORK WAS COMPLETED ON JUNE 6TH, 2022.

SURVEY DONE ACCORDING TO OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY FILE NO.: 5870007

- SCHEDULE B-II TITLE EXCEPTION #8 AFFECTS THE PROPERTY AND IS PLOTTED HEREON (ORB 29677 PG 2976 PARCEL 1)
- SCHEDULE B-II TITLE EXCEPTION #10 AFFECTS THE PROPERTY AND IS PLOTTED HEREON (DB 2848 PG 69 SETBACKS)
- SCHEDULE B-II TITLE EXCEPTION #14 AFFECTS THE PROPERTY AND IS PLOTTED HEREON (ORB 29783 PG 1799 PARCEL 2)
- ALL OTHER SCHEDULE B-II TITLE EXCEPTIONS ARE BLANKET IN NATURE AND NOT PLOTTABLE.
- THERE ARE NO ENCROACHMENTS ON THE PROPERTY.
- PROPERTY HAS DIRECT VEHICULAR ACCESS TO A PUBLICLY DEDICATED RIGHT OF WAY (93RD STREET)
- LAND AREA = 33,750 SQ. FEET (0.774 ACRES)

LEGAL DESCRIPTION:
 PARCEL 1: LOT 3, BLOCK 17, OF BAY HARBOR ISLAND, ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 46, PAGE 5, OF THE PUBLIC RECORDS OF MIAMI-DADE COUNTY, FLORIDA.
 PARCEL 2: LOT 4, BLOCK 17, OF BAY HARBOR ISLAND, ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 46, PAGE 5, OF THE PUBLIC RECORDS OF MIAMI-DADE COUNTY, FLORIDA.
 AND
 LOT 5, BLOCK 17, OF BAY HARBOR ISLAND, ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 46, PAGE 5, OF THE PUBLIC RECORDS OF MIAMI-DADE COUNTY, FLORIDA.

8) THERE MAY BE ADDITIONAL RESTRICTIONS NOT SHOWN ON THIS SURVEY THAT MAY BE FOUND IN THE PUBLIC RECORDS OF THIS COUNTY.

9) CONTACT THE APPROPRIATE AUTHORITY PRIOR TO ANY DESIGN WORK FOR BUILDING AND ZONING INFORMATION.

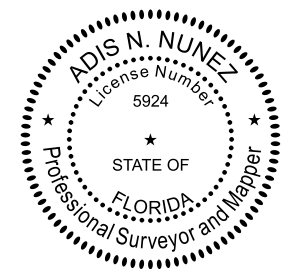
10) ELEVATIONS BASED OFF OF BM# R-243 LOCATOR: 2225 W ELEV: 6.61' NGVD

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.
BEARINGS WHEN SHOWN ARE REFERRED TO AN ASSUMED VALUE OF SAID PB: 46 PG: 5

LEGEND & ABBREVIATIONS:

- X - X = CHAIN LINK FENCE (CLF) - / - / = WOOD FENCE (WF) - O - O = IRON FENCE (IF) A = ARC DISTANCE L = LENGTH Δ = CENTRAL ANGLE / DELTA R = RADIUS T = TANGENT P.T. = POINT OF TANGENCY P.C. = POINT OF CURVATURE P.C.C. = POINT OF COMPOUND CURVE C.B. = CATCH BASIN CATV = CABLE UTILITY BOX	B.C. = BLOCK CORNER P. = PROPERTY LINE C. = CENTER LINE M. = MONUMENT LINE CALC. = CALCULATED M. = FIELD MEASURED P. = PER PLAT TYP. = TYPICAL P.R.M. = PERMANENT REFERENCE MONUMENT P.C.P. = PERMANENT CONTROL POINT FD. NAIL = FOUND NAIL FD. D/H = FOUND DRILL HOLE FD. 1/2" I.P. = FOUND IRON PIPE 1/2" DIAMETER C.M. = CONCRETE MONUMENT W.M. = WATER METER R/W = RIGHT OF WAY	U.E. = UTILITY EASEMENT A.E. = ANCHOR EASEMENT D.E. = DRAINAGE EASEMENT ENCR. = ENCROACHMENT F.F. ELEV. = FINISHED FLOOR ELEVATION N.T.S. = NOT TO SCALE P.B. = PLAT BOOK O.R.B. = OFFICIAL RECORD BOOK M.H. = MAN HOLE C.B.S. = CONCRETE BLOCK STRUCTURE BLDG = BUILDING O.H.L. = OVERHEAD UTILITY LINES TEL. = TELEPHONE FACILITIES	P.R.C. = POINT OF REVERSE CURVE CH = CHORD CH. BRG. = CHORD BEARING B.M. = BENCH MARK B.R. = BEARING REFERENCE P.O.C. = POINT OF COMMENCEMENT P.O.B. = POINT OF BEGINNING T.B.M. = TEMPORARY BENCH MARK P.O.B. = POINT OF BEGINNING T.B.M. = TEMPORARY BENCH MARK FD. I.R. = FOUND IRON REBAR FD. P.K.NAIL = FOUND PARKER-KALON NAIL P.S.M. = PROFESSIONAL SURVEYOR AND MAPPER A/C = AIR CONDITIONER PAD TX = TRANSFORMER P.P. = POWER POLE D.M.E. = DRAINAGE & MAINTENANCE EASEMENT + 0.0' = EXISTING ELEVATION	ELEV. = ELEVATION SEC. = SECTION TWS. = TOWNSHIP RG. = RANGE SWK = SIDEWALK	I HEREBY CERTIFY THAT THE SURVEY REPRESENTED THEREON MEETS THE MINIMUM TECHNICAL REQUIREMENTS ADOPTED BY THE STATE OF FLORIDA BOARD OF LAND SURVEYORS PURSUANT TO SECTION 472.027 FLORIDA STATUTES.THERE ARE NO ENCROACHMENTS, OVERLAPS, EASEMENTS APPEARING ON THE PLAT OR VISIBLE EASEMENTS OTHER THAN AS SHOWN HEREON. ADIS N. NUNEZ REGISTERED LAND SURVEYOR STATE OF FLORIDA #5924	SINCE 1987 BLANCO SURVEYORS INC. Engineers • Land Surveyors • Planners • LB # 0007059 555 NORTH SHORE DRIVE MIAMI BEACH, FL 33141 (305) 865-1200 Email: blancosurveyorsinc@yahoo.com Fax: (305) 865-7810	ADIS N. NUNEZ License Number 5924 STATE OF FLORIDA Professional Surveyor and Mapper FLOOD ZONE: AE PANEL: 0144 DATE: 6/7/22 SCALE: 1" = 30' SUFFIX: L FEMA DATE: 09 / 11 / 09 BASE: 8' COMMUNITY # 120637 DWN. BY: R.BELLO JOB No. 22-312
--	---	---	--	---	---	---	--

SURVEYOR'S SEAL





9280 - 93 STREET
ADJACENT EAST NEIGHBOR



1130 93 STREET
CASA VERDE SITE



1140 - 1150 - 93 STREET
CASA VERDE SITE

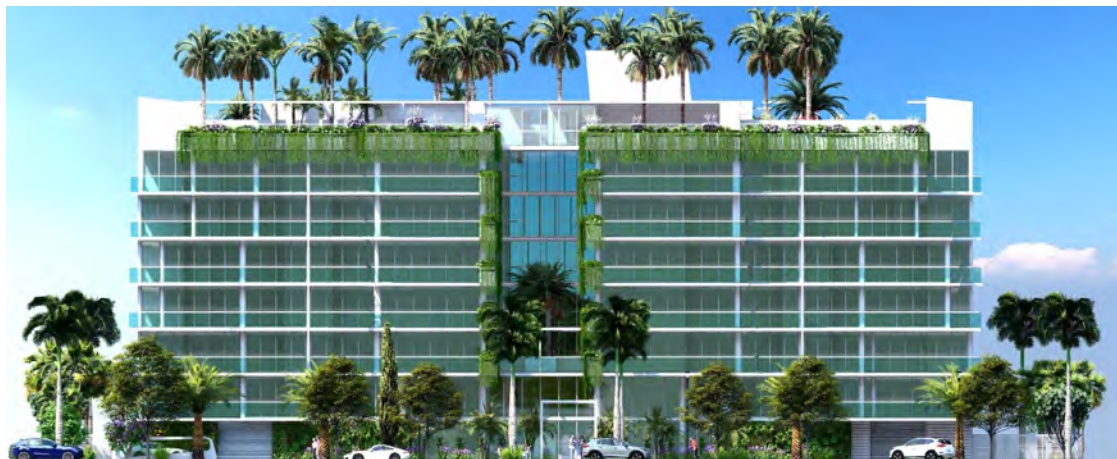


9271 WEST BAY HARBOR DRIVE

EXISTING PROPERTIES ALONG 93RD STREET



EAST PROPERTY NEIGHBOR



SUBJECT SITE DESIGN



WEST PROPERTY NEIGHBOR

CONTEXT ELEVATION

FRANKEL BENAYOUN
ARCHITECTS INC.
ARCHITECTS PLANNERS INTERIOR DESIGN
LICENSE NO. AA-C001494
MARKUS A. FRANKEL
LICENSE NO. AR0007143
PHAT BENAYOUN FISHMAN
LICENSE NO. AR0017273
1177 KANE CONCOURSE, SUITE 120
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OWNER / DEVELOPER
HORIZON AT CASA VERDE, LLC.
53 BROADWAY
BROOKLYN, NY 11249
T. 516.447.8887
T. 718.388.8210

Civil Eng.

LANDSCAPE ARCH.

STRUCTURAL ENG.

MEP ENG.

CASA VERDE
NEW CONDOMINIUM BUILDING
1130-1150 93RD STREET
BAY HARBOR ISLANDS, FLORIDA 33154

SIGNATURE		DATE	
NO.	PERSON	DATE	BY

DRAWING TITLE
CONTEXT PHOTOS
CONTEXT ELEVATION
SCALE: DATE: MAY 25, 2023
SHEET NUMBER
A-0.01



RENDERING

FRANKEL BENAYOUN
ARCHITECTS INC
ARCHITECTS PLANNERS INTERIOR DESIGN

LICENSE NO. AA-C001494

MARKUS A. FRANKEL
LICENSE NO. AR0007143
PHAT BENAYOUN FISHMAN
LICENSE NO. AR0017273

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CASA VERDE
NEW CONDOMINIUM BUILDING
1130-1150 93RD STREET
BAY HARBOR ISLANDS, FLORIDA 33154

SIGNATURE		DATE	
NO.	REVISION	DATE	BY

DRAWING TITLE

**LEVEL 1
RENDERING**

SCALE: DATE: MAY 25, 2023

SHEET NUMBER

A-0.03



RENDERING

FRANKEL BENAYOUN
ARCHITECTS INC
ARCHITECTS PLANNERS INTERIOR DESIGN

LICENSE NO. AA-C001494
MARKUS A. FRANKEL
LICENSE NO. AR0007143
PHAT BENAYOUN FISHMAN
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Civil Eng.

LANDSCAPE ARCH.

STRUCTURAL ENG.

MEP ENG.

CASA VERDE
NEW CONDOMINIUM BUILDING
1130-1150 93RD STREET
BAY HARBOR ISLANDS, FLORIDA 33154

SIGNATUREDATE

NO.	REVISION	DATE	BY

DRAWING TITLE

LEVEL 1
RENDERING

SCALEDATEMAY 25, 2023

SHEET NUMBER

A-0.04



AERIAL RENDERING FROM THE NORTH WEST

FRANKEL BENAYOUN
ARCHITECTS INC
ARCHITECTS PLANNERS INTERIOR DESIGN

LICENSE NO. AA-C001494

MARKUS A. FRANKEL
LICENSE NO. AR0007143
PHAT BENAYOUN FISHMAN
LICENSE NO. AR0017273

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OWNER / DEVELOPER

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53 BROADWAY
BROOKLYN, NY 11249
T. 516.447.8887
T. 718.388.8210

Civil Eng.

LANDSCAPE ARCH.

STRUCTURAL ENG.

MEP ENG.

CASA VERDE
NEW CONDOMINIUM BUILDING
1130-1150 93RD STREET
BAY HARBOR ISLANDS, FLORIDA 33154

SIGNATURE		DATE	
NO.	REVISION	DATE	BY

DRAWING TITLE

**AERIAL RENDERING
FROM NW**

SCALE: DATE: MAY 25, 2023

SHEET NUMBER

A-0.05



AERIAL RENDERING FROM THE SOUTH WEST

FRANKEL BENAYOUN
ARCHITECTS INC.
ARCHITECTS PLANNERS INTERIOR DESIGN

LICENSE NO. AA-C001494

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RENDERING - FRONT ENTRY AND CANOPY

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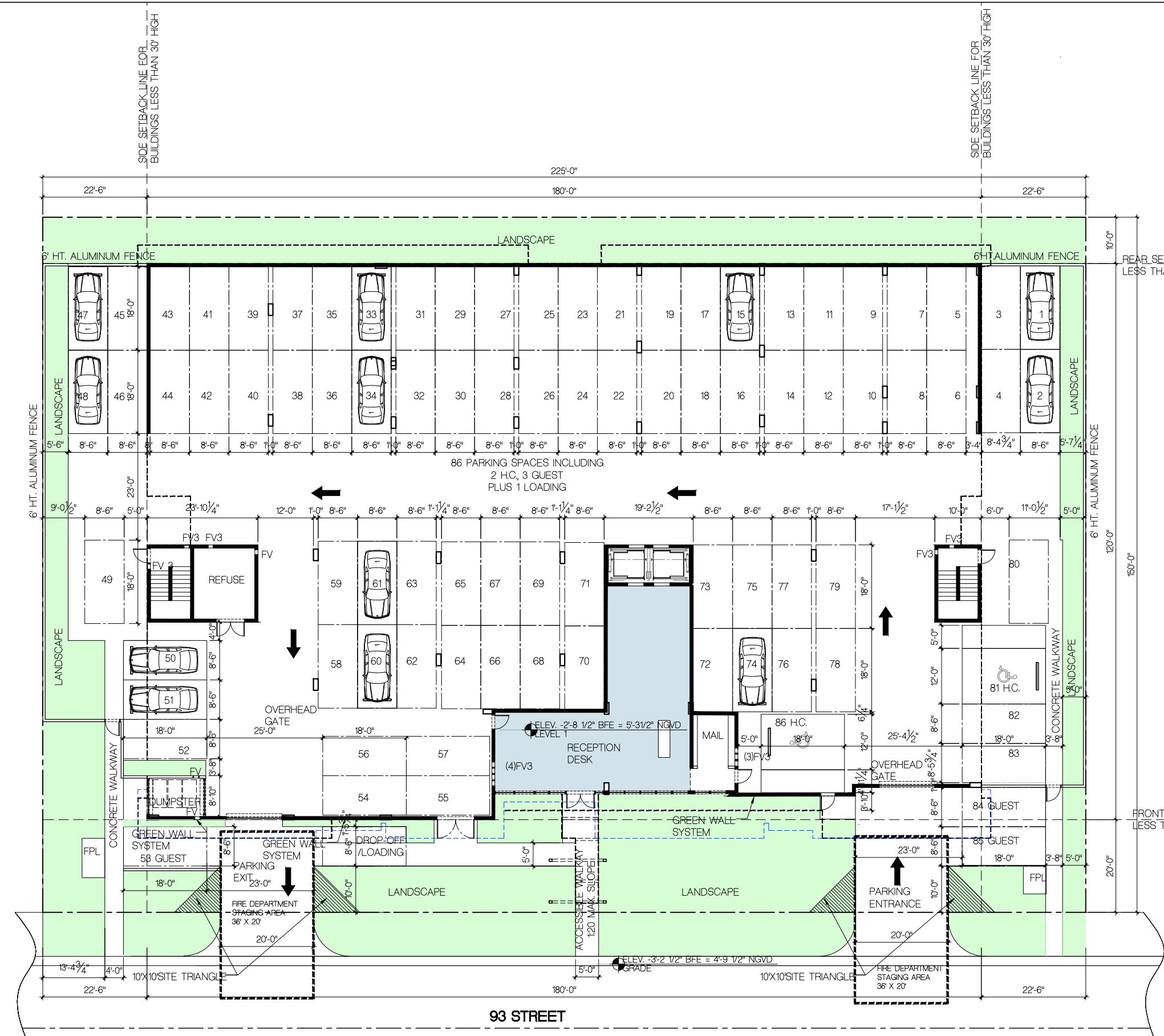
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A-0.08



EVERY EFFORT WILL BE MADE BY THE OWNERS/DEVELOPERS TO UNDERGROUND ALL EXISTING OVERHEAD POWER LINES AND OTHER UTILITIES ALONG THE ENTIRE EAST & SOUTH PL ADJOINING THIS SITE IN COMPLIANCE WITH THE TOWN CODE PROVISIONS AND FPL POLICY OF ALLOWING FULL BLOCK UNDERGROUNDING

TOTAL SITE AREA = 33,750 SF
LANDSCAPE AREA REQUIRED = 6,750 SF [20% OF SITE AREA]
LANDSCAPE AREA PROVIDED = 6,855 SF [20.3%]
TOTAL IMPERVIOUS AREA PROVIDED = 26,895 SF [79.7%]

TOTAL STORAGE UNITS PROVIDED 43 (1 PER UNIT)

TOTAL PARKING SPACES PROVIDED 86 (2 PER UNIT)
INCLUDING 3 GUEST SPACES AT FRONT SETBACK & 2 H.C. SPACES PLUS 1 LOADING SPACE

PROVIDE FLOOD VENTS FOR ALL ENCLOSED AREAS ON LEVEL 1 INCLUDING GARAGE, BUILDING ENTRY, REFUSE, STAIRS. PROVIDE WET FLOOD PROOFING IN ACCORDANCE WITH FEMA TECHNICAL BULLETIN #2, AND IN COMPLIANCE WITH ASCE 24

- FLOOD PROOFING NOTES:**
1. THE BUILDING IS DESIGNED BASED ON FBC 1625 FLOOD HAZARDS DOCUMENTATION ITEM (I)
 2. ASCE 24 TABLE 2-1 BFE + 1 ACCORDING TO THE WET FLOODPROOFING METHOD
 3. ASCE 24 2.6.2.2 ENGINEERED OPENINGS
 4. ASCE 24 2.6.3 INSTALLATION OF OPENINGS
 5. ASCE 24 SECTION 7.2 ELECTRICAL
 6. ASCE 24 SECTION 7.3 PLUMBING
 7. ASCE 24 SECTION 7.4 MECHANICAL
 8. ASCE 24 SECTION 7.5 ELEVATORS
 9. ASCE 24 SECTION 8.0 BUILDING ACCESS
 10. ASCE 24 SECTION 8.1 STAIRS AND RAMP
 11. 2. FLOOD ZONE: AE
 12. BASE FLOOD ELEVATION = 80' NGVD
 13. FLOOD PANEL NUMBER 0144
 14. FINISH FLOOR ELEVATION: ALL SPACES ON LEVEL 1 = ELEV. -2'-9" BFE / 53' NGVD.
 15. REFER TO THE SURVEY FOR GRADE ELEVATIONS INCLUDING CROWN OF ROAD AND ADJACENT GRADE AND AS FOLLOWS:
CROWN OF ROAD HIGHEST = 48' NGVD
ADJACENT GRADE AT EAST HIGHEST = NGVD
ADJACENT GRADE AT EAST LOWEST = NGVD
ADJACENT GRADE AT WEST HIGHEST = NGVD
ADJACENT GRADE AT WEST LOWEST = NGVD
ADJACENT GRADE AT NORTH HIGHEST = NGVD
ADJACENT GRADE AT NORTH LOWEST = NGVD
 16. THERE IS NO EQUIPMENT ON LEVEL 1 THE LOWEST ELEVATION OF EQUIPMENT IS AT ELEVATION 14'-7" NGVD = +5'-7" BFE
 17. ALL STORM WATER RUNOFF SHALL BE RETAINED ON SITE. SEE C-1 FOR DETAILS.
- FLOOD VENT LEGEND**
- FV 1 = MODEL #1540-520 FLOOD VENT
FV 2 = MODEL #1540-521 STACKED FLOOD VENT
FV 3 = MODEL #1540-530 UL 2 HOUR FIRE RESISTANT FLOOD VENT
- FLOOD VENT NOTES**
12. PROVIDE FLOOD VENTS (FV) BY SMART VENT OR EQUAL AS INDICATED ON PLAN.
 13. EACH FLOOD VENT ALLOWS FOR 200 SQ. IN. OPENING AND SATISFIES THE OPENING REQUIREMENT FOR 200 SQ. FT. OF INTERIOR SPACE
 14. FINISH TO BE SELECTED BY OWNER. ALL FLOOD VENTS TO HAVE NOA.
 15. THE FLOOD VENTS IN RATED WALLS SHALL BE UL FIRE RATED 2 HOURS.
 16. THE FLOOD VENTS IN RATED WALLS SHALL BE UL FIRE RATED 2 HOURS.
 17. THE FLOOD VENTS IN THE BUILDING ENTRY SHALL BE INSULATED.
 18. INSTALL FLOOD VENTS AT 12" ABOVE GRADE OR FLOOR.
 19. PROVIDE 1 SQ. IN. OF VENT FOR EACH 1 SF OF FLOOR AREA.
 20. SPACES AREA:
 - BUILDING ENTRY MAIL & STORAGE AREAS = 1363 SF: 7 FLOOD VENTS PROVIDED/7 REQUIRED
 - STAIR 1 = 133 SF: 2 FLOOD VENTS PROVIDED/2 REQUIRED
 - STAIR 2 = 133 SF: 2 FLOOD VENTS PROVIDED/2 REQUIRED
 - REFUSE = 202 SF: 2 FLOOD VENTS PROVIDED/2 REQUIRED
 - DUMPSTER ENCLOSURE = 97 SF: 2 FLOOD VENTS PROVIDED/2 REQUIRED
 - REFUSE = 233 SF: 2 FLOOD VENTS PROVIDED/2 REQUIRED
 - GARAGE = OPEN AT EAST AND WEST
 22. COMPLY WITH FEMA BULLETIN 2, TABLE 2
 23. THE INTERIOR FINISHES IN THE BUILDING ENTRY SHALL BE WATER RESISTANT UP TO BFE + 18" AND IN ACCORDANCE WITH THE WATERPROOFING CONSULTANTS RECOMMENDATIONS AND CERTIFICATION AND TABLE 2 OF FLOOD DAMAGE RESISTANT MATERIALS FOR WALLS:
 - GYPSUM MATERIALS SHALL BE NON PAPER-FACED GYPSUM BOARD.
 - RECYCLED PLASTER LUMBER COMINGLED, WITH 80-90% POLYETHYLENE (PE) OR HIGH DENSITY POLYETHYLENE (HDPE) UP TO 96%.
 - PAINT SHALL BE POLYESTER-EPPOXY AND OTHER OIL-BASED WATERPROOF TYPES OR LATEX.
 - FOR WALLS & FLOORS.
 - TILE/STONE NATURAL OR ARTIFICIAL NON-ABSORBENT SOLID OR VENEER, WATERPROOF GROUT.
- ELEVATOR NOTES:**
24. IN ACCORDANCE WITH ASCE-24 AND FEMA TECH BULLETIN NUMBER 4:
 - THE ELEVATOR MOTORS, ELECTRIC CONTROL PANELS, AND ASSOCIATED EQUIPMENT SHALL BE LOCATED ABOVE BFE + 1.
 - THE ELEVATOR SHALL BE EQUIPPED WITH CONTROLS THAT WILL PREVENT THE CAB FROM DESCENDING INTO FLOOD WATERS BELOW ELEVATION BFE + 1

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LEVEL 1 FLOOR PLAN
SCALE: 3/32" = 1'-0"
DATE: MAY 25, 2023
SHEET NUMBER
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FV 1 & FV3 MODEL #1540-520 INSULATED FLOOD VENT

FV 1 & FV3 MODEL #1540-520 INSULATED FLOOD VENT

CASA VERDE
NEW CONDOMINIUM BUILDING
1130-1150 93RD STREET
BAY HARBOR ISLANDS, FLORIDA 33564



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SUITE 378
GAINESVILLE, FL 32604
850.396.8078 FAX
850.744.8738 FAX
CONTACT@BUILDDROPS.COM

August 18, 2017

TO: Whom it May Concern
FROM: Hermes F. Norero, P.E.
Registered Florida Professional Engineer #73778

MANUFACTURER: Smart Vent Products, Inc.
430 Andbro Drive, Unit 1
Pitman, NJ 08071

Dear Sir (Madam),

To the best of my knowledge, the above-mentioned product conforms to the 6th Edition of the Florida Building Code:

Please note that I do not have, nor will I acquire, a financial interest in any company manufacturing or distributing the product(s) for which the reports are being issued.

I also do not have, nor will I acquire, any financial interest with the laboratory that performed the test(s), or with the Engineer witnessing the test(s) and sealing the test report(s).



Hermes F. Norero, P.E.
Florida Registered Professional Engineer #73778



877- 441- 8368
www.smartvent.com

INSTALLATION INSTRUCTIONS

1. REMOVE VENT DOOR FROM VENT FRAME. (TURN UPSIDE DOWN, ROTATE BOTTOM OF DOOR OUTWARD AND SLIDE OUT)
2. PREPARE A CLEAN 16.25" WIDE BY 8.25" HIGH ROUGH OPENING (APPROX. 1 BLOCK WIDE X 1 BLOCK HIGH) FOR EACH VENT. ENSURE THE BOTTOM OF THE ROUGH OPENING IS NO MORE THAN 12" ABOVE THE FINISHED GRADE.
3. APPLY A BEAD OF HURRIBOND GRIP & SEAL OR EQUIVALENT ADHESIVE AROUND THE BACK OF THE FLANGE ON THE VENT FRAME. (FIG. 2)
4. INSERT INSTALLATION CLIPS INTO THE TWO SLOTS ON THE TOP AND TWO SLOTS ON THE BOTTOM OF THE FRAME.
5. THE SPRING ARM OF THE CLIPS SHOULD BE ON THE OUTSIDE OF THE VENT FRAME. COMPRESS THE BOTTOM TWO CLIPS AND BEGIN SLIPPING THE FRAME INTO THE OPENING. ENSURE THAT THE BOTTOM CLIPS ARE IN THE OPENING BEFORE ALLOW THEM TO DECOMPRESS.
6. WITH THE FRAME NOW IN THE OPENING, AND THE BOTTOM SPRINGS IN PLACE, COMPRESS THE TOP SPRINGS AND PUSH THE VENT FRAME INTO THE OPENING COMPLETELY UNTIL THE FRAME IS FLUSH WITH THE WALL.
7. RE-CHECK THAT FRAME IS SQUARE AND SLOTS ARE CLEAR OF DEBRIS, AND CAULK.
8. INSTALL THE DOOR INTO FRAME BY GRASPING THE BOTTOM OF DOOR (WITH FLOAT PINS DOWN) AND FRONT (SMALL SCREEN IN FRONT). SLIDE DOOR INTO FRAME AND ROTATE UNTIL IT IS LATCHED.
9. TO OPEN THE DOOR INSERT TWO CREDIT CARDS INTO THE FLOAT SLOTS AS SHOWN IN THE DIAGRAM. THIS WILL UNLATCH THE DOOR FOR REMOVAL AND CLEANING.

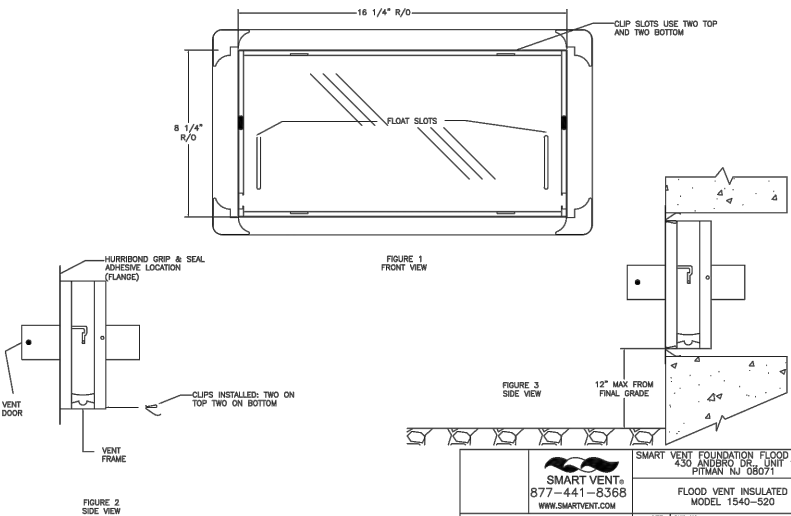
DETAIL SPECIFICATIONS:
MATERIAL: STAINLESS STEEL
OPERATION: AUTOMATIC NON-POWERED ACTIVATION AND OPERATION

INSTALLATION:
SECURED W/ 4 STAINLESS STEEL INSTALLATION CLIPS INCLUDED AND AN ADHESIVE
HYDROSTATIC RELIEF: 200 SQ. FT. PER VENT
REQUIREMENTS: MINIMUM OF 2 VENTS PER ENCLOSED AREA MOUNTED ON AT LEAST TWO DIFFERENT WALLS
COLORS: STAINLESS (STANDARD)
EXTERIOR POWDER COATED WHITE, WHEAT, GRAY, AND BLACK (AVAILABLE)

MEETS THE REQUIREMENTS FOR ENGINEERED OPENINGS AS SET FORTH BY:
FEMA, NFIP, ICC, & ASCE
SUPPORTIVE DOCUMENTS: TB 1-08, 44CFR 60.3(C)(3), ASCE 24-14
ICC EVALUATION # ESR-2074

SHEET 2 OF 2

DETAIL DIAGRAM
MODEL 1540-520
FLOOD VENT INSULATED



DIVISION: 08 00 00—OPENINGS
SECTION: 08 95 43—VENTS/FOUNDATION FLOOD VENTS

REPORT HOLDER:

SMART VENT PRODUCTS, INC.

EVALUATION SUBJECT:

SMART VENT® AUTOMATIC FOUNDATION FLOOD VENTS:
MODELS #1540-520; #1540-521; #1540-510; #1540-511; #1540-570; #1540-574;
#1540-524; #1540-514
FLOOD VENT SEALING KIT #1540-526



"2014 Recipient of Prestigious Western States Seismic Policy Council (WSSPC) Award in Excellence"

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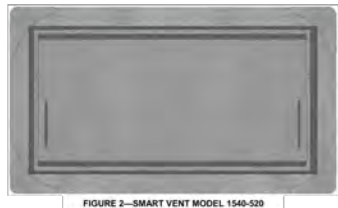


FIGURE 2—SMART VENT MODEL 1540-520



FIGURE 3—SMART VENT: SHOWN WITH FLOOD DOOR PIVOTED OPEN

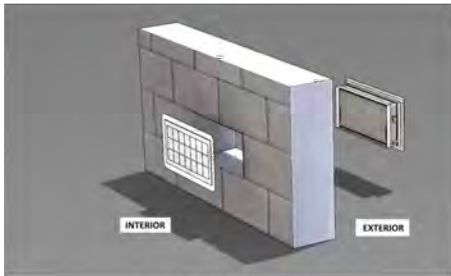


FIGURE 4—FLOOD VENT SEALING KIT



ICC-ES Evaluation Report

ESR-2074

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DIVISION: 08 00 00—OPENINGS

Section: 08 95 43—Vents/Foundation Flood Vents

REPORT HOLDER:

SMART VENT PRODUCTS, INC.

EVALUATION SUBJECT:

SMART VENT® AUTOMATIC FOUNDATION FLOOD VENTS: MODELS #1540-520; #1540-521; #1540-510; #1540-511; #1540-570; #1540-574; #1540-524; #1540-514
FLOOD VENT SEALING KIT #1540-526

1.0 EVALUATION SCOPE

Compliance with the following codes:

- 2018, 2015, 2012, 2009 and 2006 International Building Code® (IBC)
 - 2018, 2015, 2012, 2009 and 2006 International Residential Code® (IRC)
 - 2018 International Energy Conservation Code® (IECC)
 - 2013 Abu Dhabi International Building Code (ADIBC®)
- The ADIBC is based on the 2009 IBC, 2009 IRC code sections referenced in this report on the same sections in the ADIBC.

Properties evaluated:

- Physical operation
- Water flow

2.0 USES

The Smart Vent® units are engineered mechanically operated flood vents (FVs) employed to equalize hydrostatic pressure on walls of enclosures subject to rising or falling flood waters. Certain models also allow natural ventilation.

3.0 DESCRIPTION

3.1 General:

When subjected to rising water, the Smart Vent® FVs internal floats are activated, then pivot open to allow flow in either direction to equalize water level and hydrostatic pressure from one side of the foundation to the other. The FV pivoting door is normally held in the closed position by a buoyant release device. When subjected to rising water, the buoyant release device causes the unit to unlatch, allowing the door to rotate out of the way and allow flow. The water level stabilizes, equalizing the lateral forces.

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ICC-ES Evaluation Report

ESR-2074 CBC and CRC Supplement

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DIVISION: 08 00 00—OPENINGS

Section: 08 95 43—Vents/Foundation Flood Vents

REPORT HOLDER:

SMART VENT PRODUCTS, INC.

EVALUATION SUBJECT:

SMART VENT® AUTOMATIC FOUNDATION FLOOD VENTS: MODELS #1540-520; #1540-521; #1540-510; #1540-511; #1540-570; #1540-574; #1540-524; #1540-514
FLOOD VENT SEALING KIT #1540-526

1.0 REPORT PURPOSE AND SCOPE

Purpose:

The purpose of this evaluation report supplement is to indicate that Smart Vent® Automatic Foundation Flood Vents, recognized in ICC-ES master report ESR-2074, have also been evaluated for compliance with codes noted below.

Applicable code edition:

- 2016 California Building Code (CBC)
- 2016 California Residential Code (CRC)

2.0 CONCLUSIONS

2.1 CBC:

The Smart Vent® Automatic Foundation Flood Vents, described in Sections 2.0 through 7.0 of the master evaluation report ESR-2074, comply with 2016 CBC Chapter 12, provided the design and installation are in accordance with the 2015 International Building Code® (IBC) provisions noted in the master report and the additional requirements of CBC Chapters 12, 16 and 18A, as applicable.

The products recognized in this supplement have not been evaluated under CBC Chapter 7A for use in the exterior design and construction of new buildings located in any Fire Hazard Severity Zone within State Responsibility Areas or any Wildland-Urban Interface Fire Area.

2.2 CRC:

The Smart Vent® Automatic Foundation Flood Vents, described in Sections 2.0 through 7.0 of the master evaluation report ESR-2074, comply with the 2016 CRC, provided the design and installation are in accordance with the 2015 International Residential Code® (IRC) provisions noted in the master report.

The products recognized in this supplement have not been evaluated under 2016 CRC Chapter R337, for use in the exterior design and construction of new buildings located in any Fire Hazard Severity Zone within State Responsibility Areas or any Wildland-Urban Interface Fire Area.

The products recognized in this supplement have not been evaluated for compliance with the International Wildland-Urban Interface Code®.

This supplement expires concurrently with the master report, reissued February 2019.

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Page 2 of 5

feet (18.6 m³) of enclosed area, except that the SmartVENT® Stacking Model #1540-511 and FloodVENT® Stacking Model #1540-521 must be installed with a minimum of one FV for every 400 square feet (37.2 m²) of enclosed area.

- Below the base flood elevation.

■ With the bottom of the FV located a maximum of 12 inches (305.4 mm) above the higher of the final grade or floor and finished exterior grade immediately under each opening.

4.2 Flood Vent Sealing Kit

The Flood Vent Sealing Kit Model 1540-526 is used in conjunction with FloodVENT® Model #1540-520. When installed and tested in accordance with ASTM E285, the FV and Flood Vent Sealing Kit assembly have an air leakage rate of less than 0.2 cubic feet per minute per lineal foot (16.56 l/min per lineal meter) at a pressure differential of 1 pound per square foot (50 Pa) based on 12.58 lineal feet (3.8 lineal meters) contained by the Flood Vent Sealing Kit.

5.0 CONDITIONS OF USE

The Smart Vent® FVs described in this report comply with, or are suitable alternatives to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

5.1 The Smart Vent® FVs must be installed in accordance with this report, the applicable code and the manufacturer's installation instructions. In the event of a conflict, the instructions in this report govern.

5.2 The Smart Vent® FVs must not be used in the place of "breakaway walls" in coastal high hazard areas, but are permitted for use in conjunction with breakaway walls in other areas.

6.0 EVIDENCE SUBMITTED

6.1 Data in accordance with the ICC-ES Acceptance Criteria for Mechanically Operated Flood Vents (AC304), dated August 2015 (editorially revised October 2017).

6.2 Test report on air infiltration in accordance with ASTM E283.

7.0 IDENTIFICATION

7.1 The Smart Vent® models and the Flood Vent Sealing Kit recognized in this report must be identified by a label bearing the manufacturer's name (Smartvent Products, Inc.), the model number, and the evaluation report number (ESR-2074).

7.2 The report holder's contact information is the following:

SMART VENT PRODUCTS, INC.
430 ANDBRO DRIVE, UNIT 1
PITMAN, NEW JERSEY 08071
(877) 441-8368
www.smartvent.com
info@smartvent.com

TABLE 1—MODEL SIZES

MODEL NAME	MODEL NUMBER	MODEL SIZE (in.)	COVERAGE (sq. ft.)
FloodVENT®	1540-520	16 1/2" X 7 1/2"	200
SmartVENT®	1540-510	16 1/2" X 7 1/2"	200
FloodVENT® Overhead Door	1540-524	16 1/2" X 7 1/2"	200
SmartVENT® Overhead Door	1540-514	16 1/2" X 7 1/2"	200
Wood Wall FloodVENT®	1540-570	14" X 8 1/2"	200
Wood Wall FloodVENT® Overhead Door	1540-574	14" X 8 1/2"	200
SmartVENT® Stacker	1540-511	16" X 16"	400
FloodVENT® Stacker	1540-521	16" X 16"	400

For 8 ft: 1 inch = 25.4 mm; 1 square foot = m²



FIGURE 1—SMART VENT: MODEL 1540-510



ICC-ES Evaluation Report

ESR-2074 FBC Supplement

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DIVISION: 08 00 00—OPENINGS

Section: 08 95 43—Vents/Foundation Flood Vents

REPORT HOLDER:

SMART VENT PRODUCTS, INC.

EVALUATION SUBJECT:

SMART VENT® AUTOMATIC FOUNDATION FLOOD VENTS: MODELS #1540-520; #1540-521; #1540-510; #1540-511; #1540-570; #1540-574; #1540-524; #1540-514
FLOOD VENT SEALING KIT #1540-526

1.0 REPORT PURPOSE AND SCOPE

Purpose:

The purpose of this evaluation report supplement is to indicate that Smart Vent® Automatic Foundation Flood Vents, recognized in ICC-ES master report ESR-2074, have also been evaluated for compliance with the codes noted below.

Applicable code editions:

- 2017 Florida Building Code—Building
- 2017 Florida Building Code—Residential

2.0 CONCLUSIONS

The Smart Vent® Automatic Foundation Flood Vents, described in Sections 2.0 through 7.0 of the master evaluation report ESR-2074, comply with the Florida Building Code—Building and the FRC, provided the design and installation are in accordance with the 2015 International Building Code® provisions noted in the master report.

Use of the Smart Vent® Automatic Foundation Flood Vents has also been found to be in compliance with the High-Velocity Hurricane Zone provisions of the Florida Building Code—Building and the Florida Building Code—Residential.

For products falling under Florida Rule 9N-3, verification that the report holder's quality assurance program is audited by a quality assurance entity approved by the Florida Building Commission for the type of inspections being conducted is the responsibility of an approved validation entity (or the code official when the report holder does not possess an approval by the Commission).

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FLOOD VENTS
ICC-ES EVALUATION REPORT

SCALE DATE MAY 25, 2023

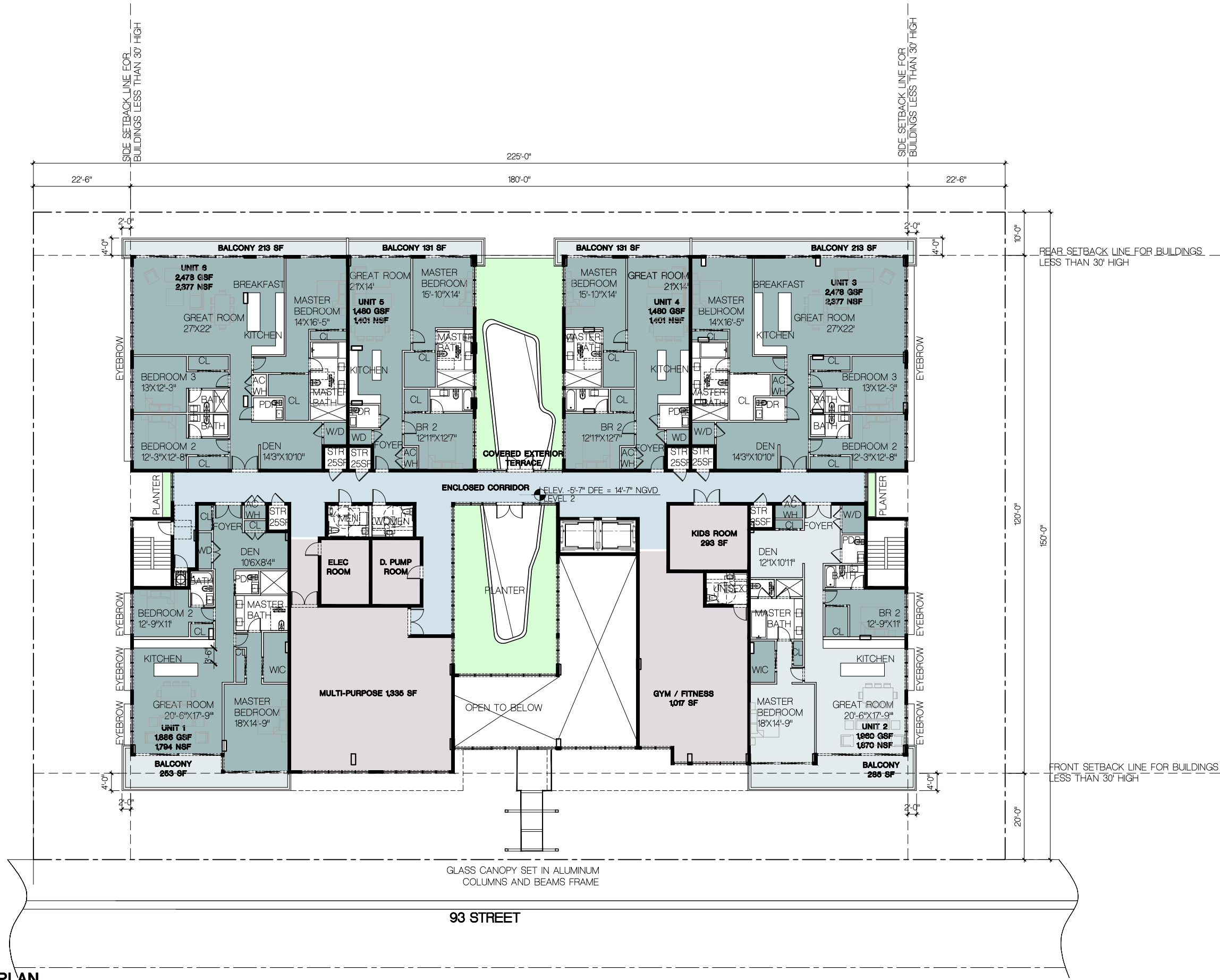
SHEET NUMBER

A-1.1B



LEVEL 2 FLOOR PLAN

SCALE: 3/32" = 1'-0"



FRANKEL BENAYOUN
ARCHITECTS PLANNERS INTERIOR DESIGN

LICENSE NO. AA-C001494

MARKUS A. FRANKEL
LICENSE NO. AR0007143
IFRAT BENAYOUN FISHMAN
LICENSE NO. AR0017273

1177 KANE CONCOURSE, SUITE 120
BAY HARBOR ISLANDS, FLORIDA 33154
PH: (305) 868-3665 FAX: (305) 868-3650
E-MAIL: INFO@FRANKELBENAYOUN.COM

OWNER / DEVELOPER

HORIZON AT CASA VERDE, LLC.
53 BROADWAY
BROOKLYN, NY 11249
T. 516.447.8887
T. 718.388.8210

Civil Eng.

Landscaping Arch.

Structural Eng.

MEP Eng.

CASA VERDE

NEW CONDOMINIUM BUILDING
1130-1150 93RD STREET
BAY HARBOR ISLANDS, FLORIDA 33154

SIGNATURE		DATE	
NO.	REVISION	DATE	BY

DRAWING TITLE

**LEVEL 2
FLOOR PLAN**

SCALE: 3/32" = 1'-0" DATE: MAY 25, 2023

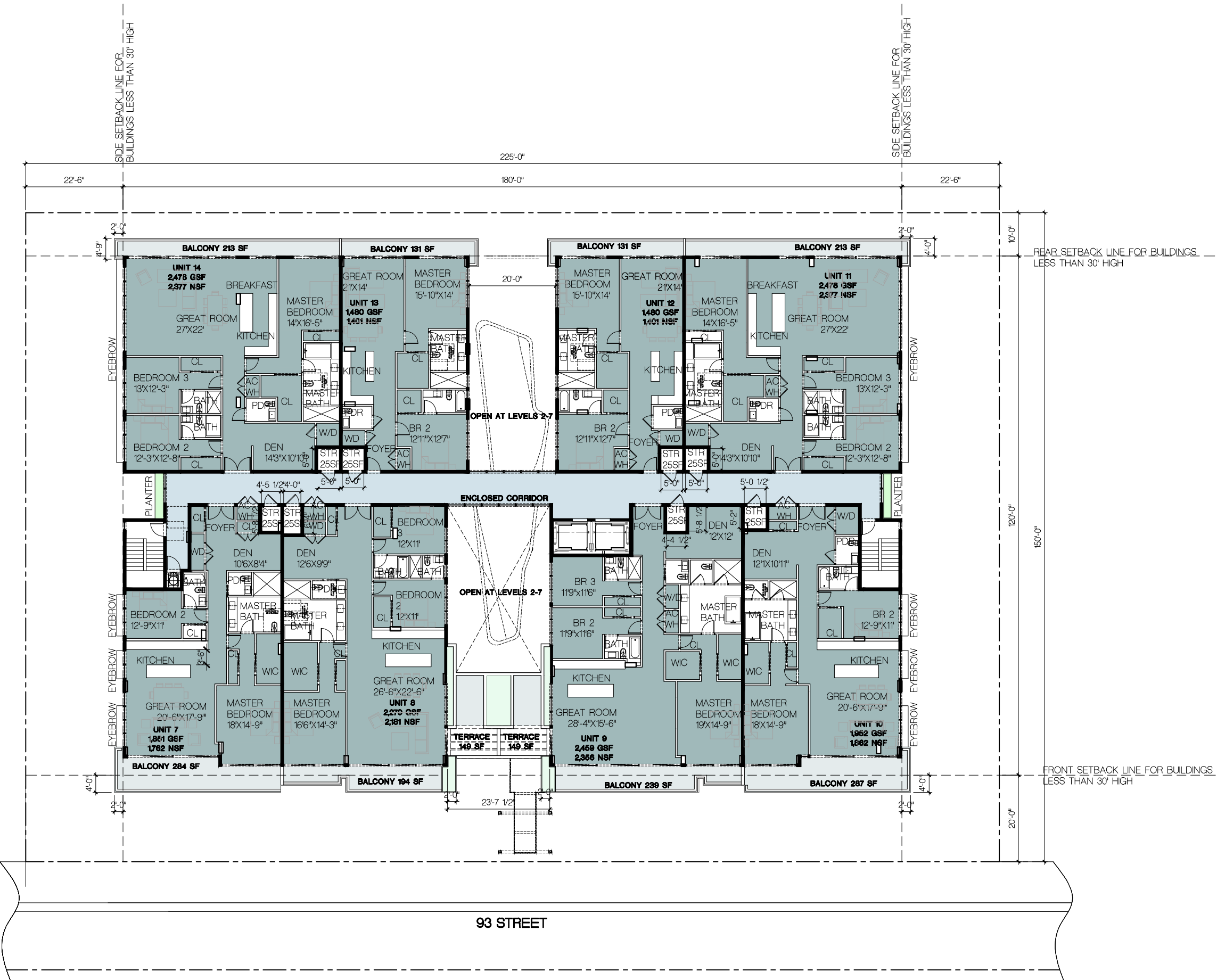
SHEET NUMBER

A-102



LEVEL 3 FLOOR PLAN

SCALE: 3/32" = 1'-0"



FRANKEL BENAYOUN
ARCHITECTS INC.
ARCHITECTS PLANNERS INTERIOR DESIGN

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LICENSE NO. AR0007143

PHAT BENAYOUN FISHMAN
LICENSE NO. AR0017273

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CIVIL ENG.

LANDSCAPE ARCH.

STRUCTURAL ENG.

MEP ENG.

CASA VERDE
NEW CONDOMINIUM BUILDING
1130-1150 93RD STREET
BAY HARBOR ISLANDS, FLORIDA 33154

SIGNATURE		DATE	
NO.	REVISION	DATE	BY

DRAWING TITLE

**LEVEL 3
FLOOR PLAN**

SCALE: 3/32" = 1'-0" DATE: MAY 25, 2023

SHEET NUMBER

A-103

OWNER / DEVELOPER
HORIZON AT CASA VERDE, LLC.
53 BROADWAY
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T. 516.447.8887
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CIVIL ENG.

LANDSCAPE ARCH.

STRUCTURAL ENG.

MEP ENG.

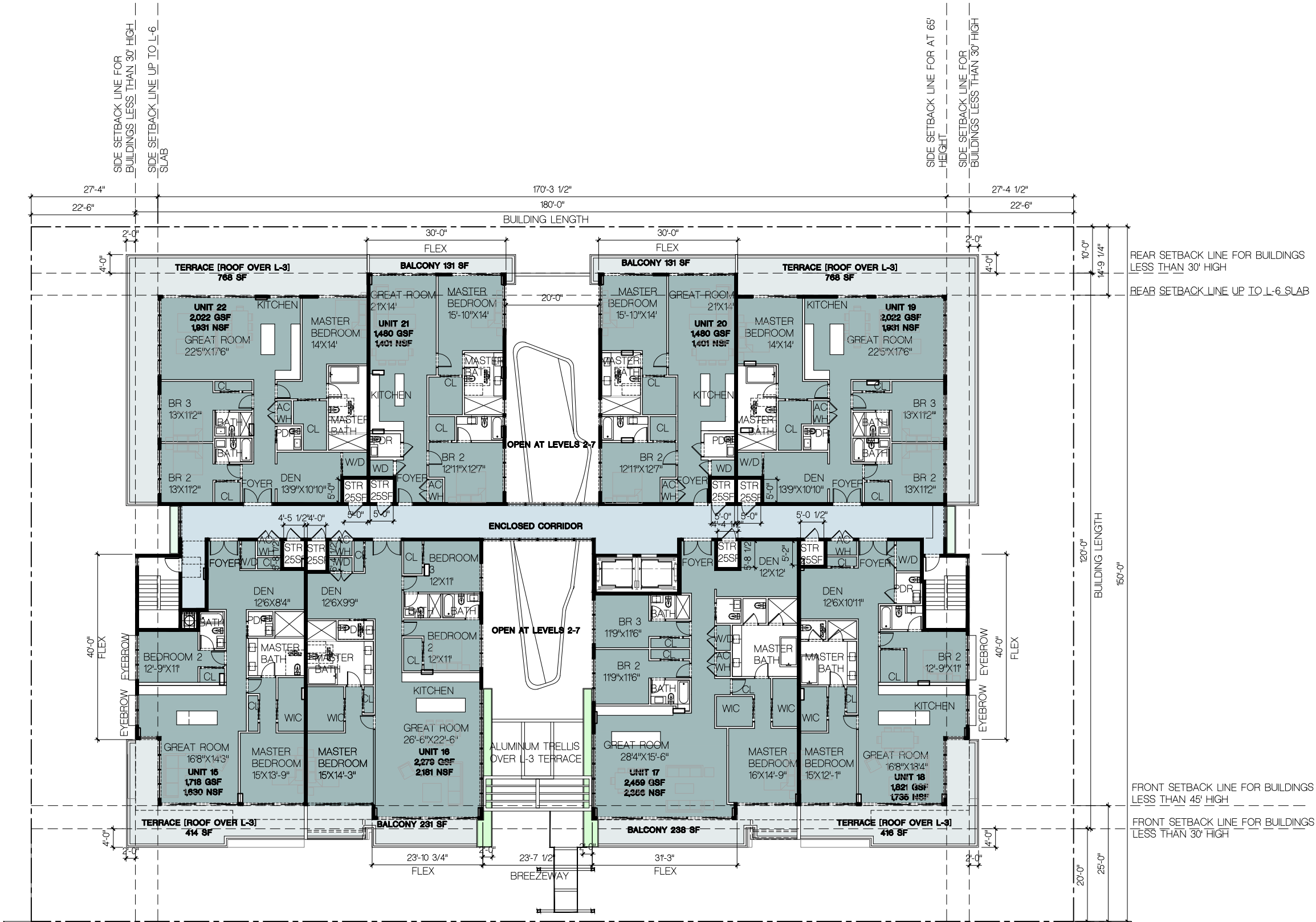
CASA VERDE

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1130-1150 93RD STREET
BAY HARBOR ISLANDS, FLORIDA 33154

SIGNATURE		DATE	
NO.	REVISION	DATE	BY

DRAWING TITLE
LEVEL 4 FLOOR PLAN

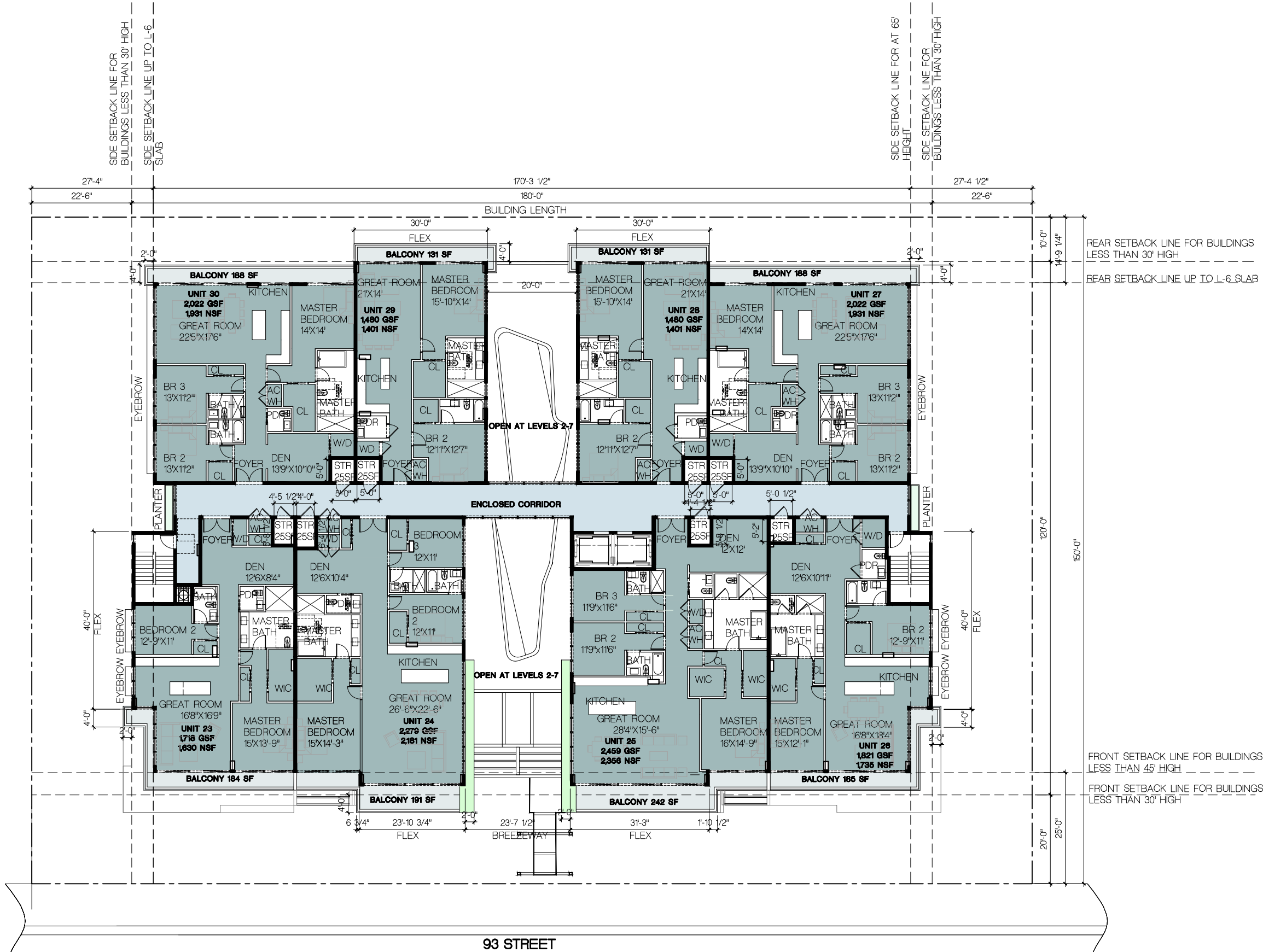
SCALE: 3/32" = 1'-0" DATE: MAY 25, 2023
SHEET NUMBER
A-104



LEVEL 4 FLOOR PLAN

SCALE: 3/32" = 1'-0"

93 STREET



LEVEL 5 FLOOR PLAN
SCALE: 3/32" = 1'-0"

FRANKEL BENAYOUN ARCHITECTS INC.
ARCHITECTS PLANNERS INTERIOR DESIGN
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MARKUS A. FRANKEL, LICENSE NO. AR0007143
PHAT BENAYOUN FISHMAN, LICENSE NO. AR0017273
1177 KANE CONCOURSE, SUITE 120
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CIVIL ENG.

LANDSCAPE ARCH.

STRUCTURAL ENG.

MEP ENG.

CASA VERDE
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BAY HARBOR ISLANDS, FLORIDA 33154

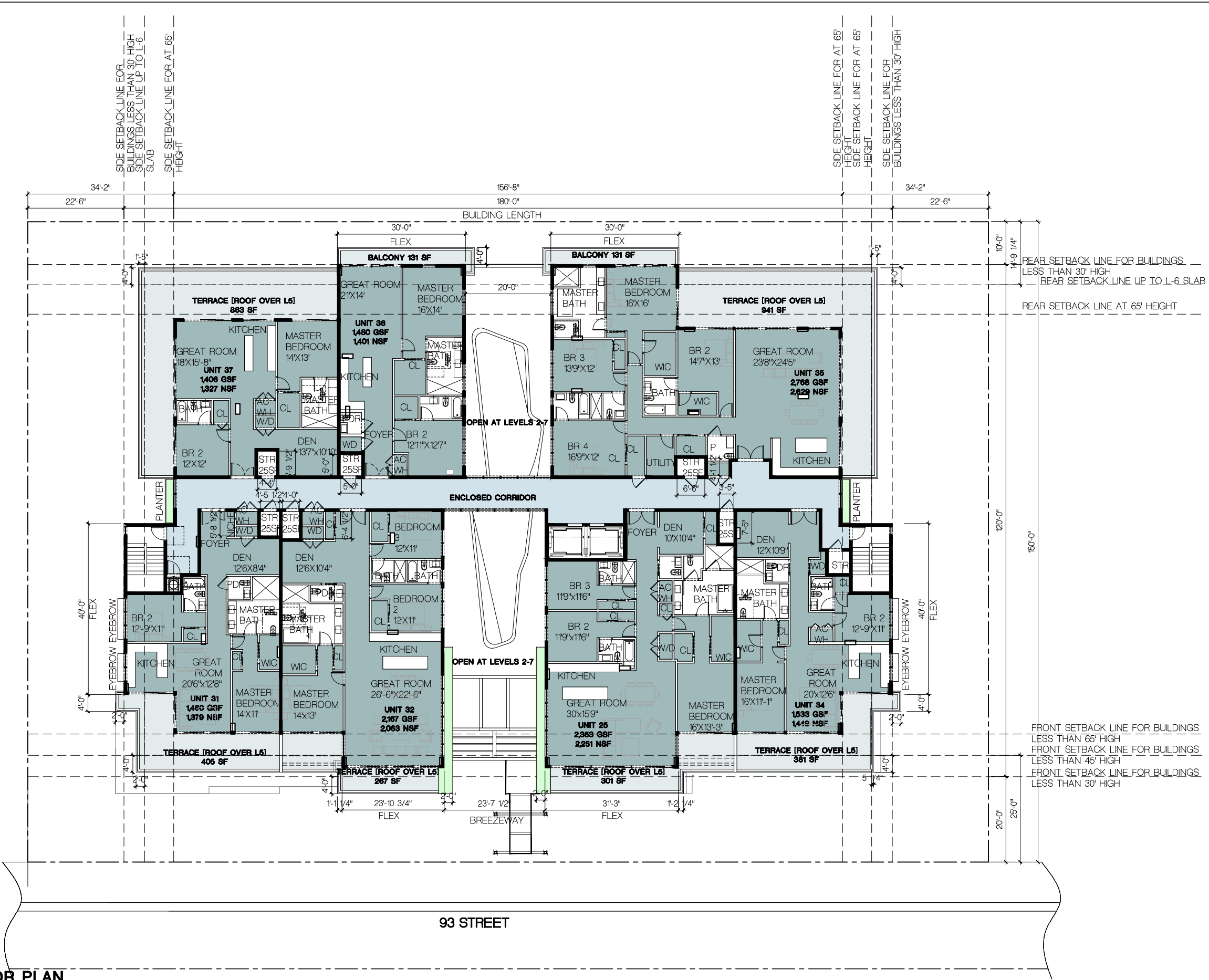
SIGNATURE		DATE	
NO.	REVISION	DATE	BY

DRAWING TITLE
LEVEL 5 FLOOR PLAN
SCALE: 3/32" = 1'-0" DATE: MAY 25, 2023
SHEET NUMBER
A-105



LEVEL 6 FLOOR PLAN

SCALE: 3/32" = 1'-0"



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IPHAT BENAYOUN FISHMAN
LICENSE NO. AR0017273

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CIVIL ENG.

LANDSCAPE ARCH.

STRUCTURAL ENG.

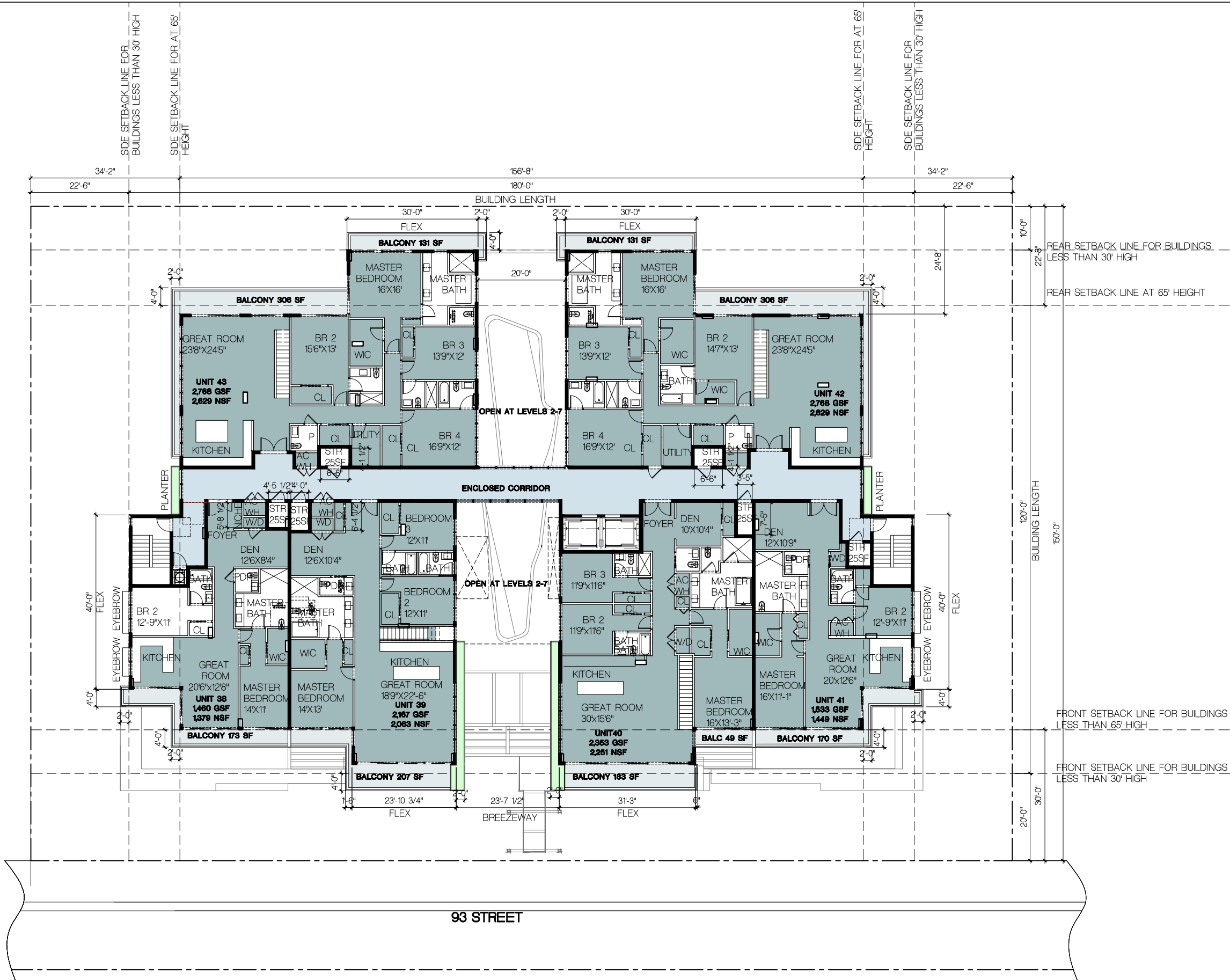
MEP ENG.

CASA VERDE
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1130-1150 93RD STREET
BAY HARBOR ISLANDS, FLORIDA 33154

SIGNATURE		DATE	
NO.	REVISION	DATE	BY

DRAWING TITLE
**LEVEL 6
FLOOR PLAN**

SCALE: 3/32" = 1'-0" DATE: MAY 25, 2023
SHEET NUMBER
A-106



LEVEL 7 FLOOR PLAN

SCALE: 3/32" = 1'-0"

FRANKEL BENAYOUN
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LICENSE NO. AR0007143

PHAT BENAYOUN FISHMAN
LICENSE NO. AR0017273

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OWNER / DEVELOPER

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T. 516.447.8887
T. 718.388.8210

CIVIL ENG.

LANDSCAPE ARCH.

STRUCTURAL ENG.

MEP ENG.

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BAY HARBOR ISLANDS, FLORIDA 33154

SIGNATURE		DATE	
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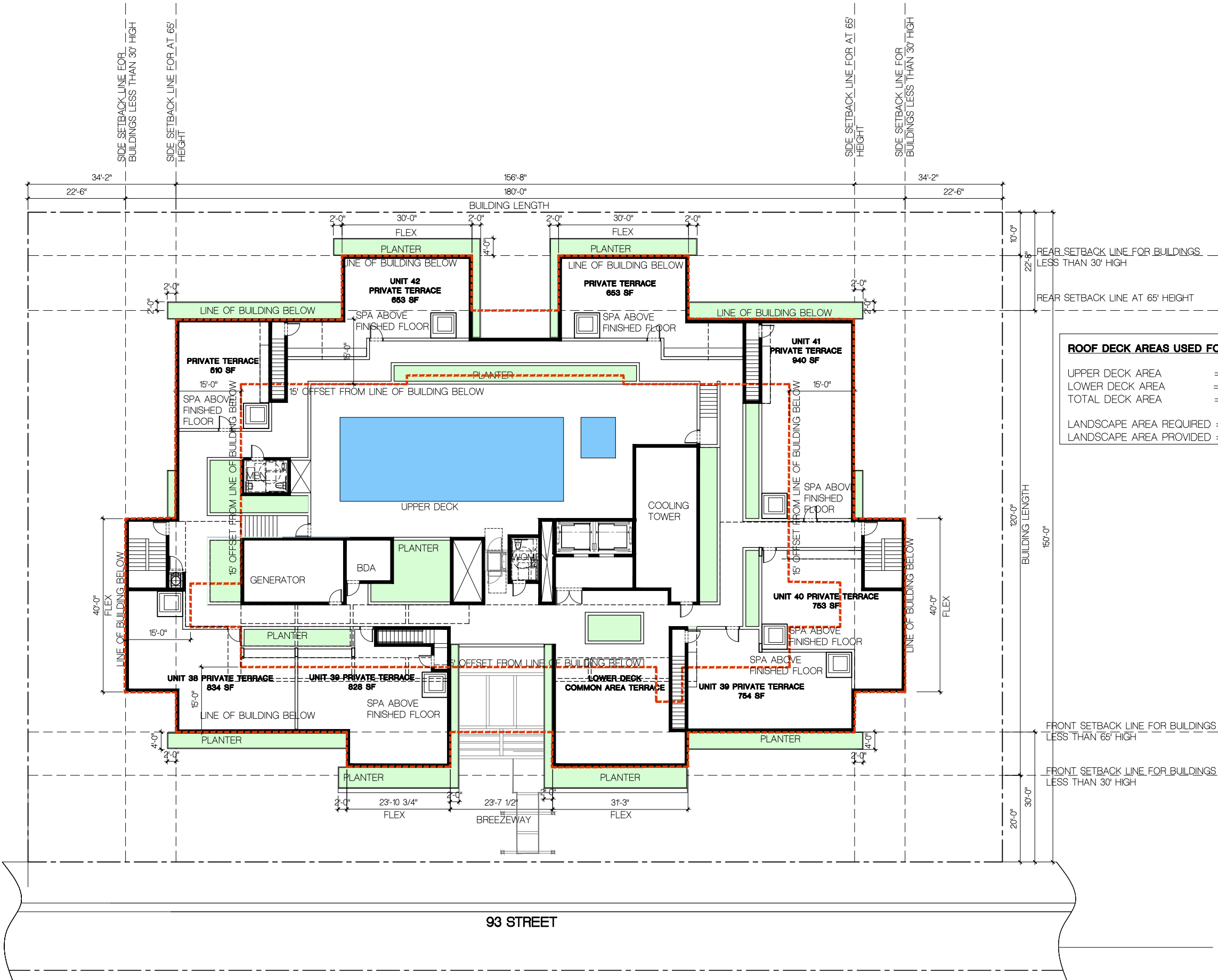
DRAWING TITLE

**LEVEL 7
FLOOR PLAN**

SCALE: 3/32" = 1'-0" DATE: MAY 25, 2023

SHEET NUMBER

A-107



ROOF DECK AREAS USED FOR RECREATION:

UPPER DECK AREA = **2,774 SF**
LOWER DECK AREA = **9,703 SF**
TOTAL DECK AREA = **12,477 SF**

LANDSCAPE AREA REQUIRED = 12,477 X 0.15 = **1,871 SF [15%]**
LANDSCAPE AREA PROVIDED = **2,407 SF [19%]**



ROOF PLAN [TOTAL ROOF AREA: 18,447 SF.]
SCALE: 3/32" = 1'-0"

FRANKEL BENAYOUN ARCHITECTS INC.
ARCHITECTS PLANNERS INTERIOR DESIGN

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LICENSE NO. AR0007143
PHAT BENAYOUN FISHMAN
LICENSE NO. AR0017273

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CIVIL ENG.

LANDSCAPE ARCH.

STRUCTURAL ENG.

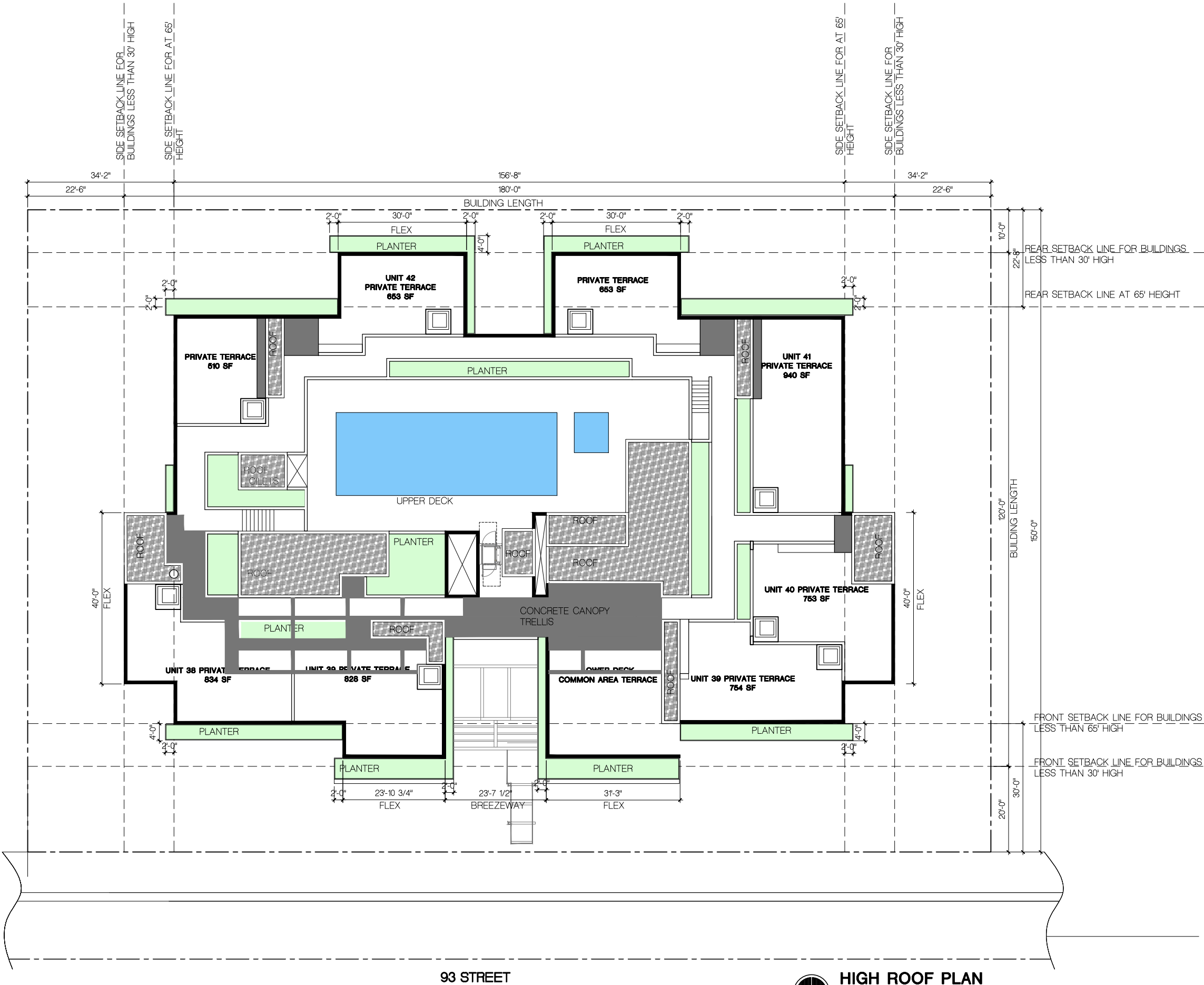
MEP ENG.

CASA VERDE
NEW CONDOMINIUM BUILDING
1130-1150 93RD STREET
BAY HARBOR ISLANDS, FLORIDA 33154

SIGNATURE		DATE	
NO.	REVISION	DATE	BY

DRAWING TITLE
ROOF PLAN

SCALE: 3/32" = 1'-0" DATE: MAY 25, 2023
SHEET NUMBER
A-108



93 STREET



HIGH ROOF PLAN

SCALE: 3/32" = 1'-0"

FRANKEL BENAYOUN
ARCHITECTS PLANNERS INTERIOR DESIGN

LICENSE NO. AA-C001494

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LICENSE NO. AR0007143

PHAT BENAYOUN FISHMAN
LICENSE NO. AR0017273

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OWNER / DEVELOPER

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53 BROADWAY
BROOKLYN, NY 11249
T. 516.447.8887
T. 718.388.8210

CIVIL ENG.

LANDSCAPE ARCH.

STRUCTURAL ENG.

MEP ENG.

CASA VERDE
NEW CONDOMINIUM BUILDING
1130-1150 93RD STREET
BAY HARBOR ISLANDS, FLORIDA 33654

SIGNATURE		DATE	
NO.	REVISION	DATE	BY

DRAWING TITLE

HIGH ROOF PLAN

SCALE: 3/32" = 1'-0" DATE: MAY 25, 2023

SHEET NUMBER

A-109

OWNER / DEVELOPER
HORIZON AT CASA VERDE, LLC.
53 BROADWAY
BROOKLYN, NY 11249
T. 516.447.8887
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CIVIL ENG.

LANDSCAPE ARCH.

STRUCTURAL ENG.

MEP ENG.

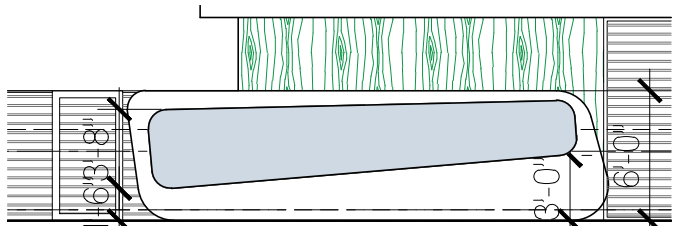
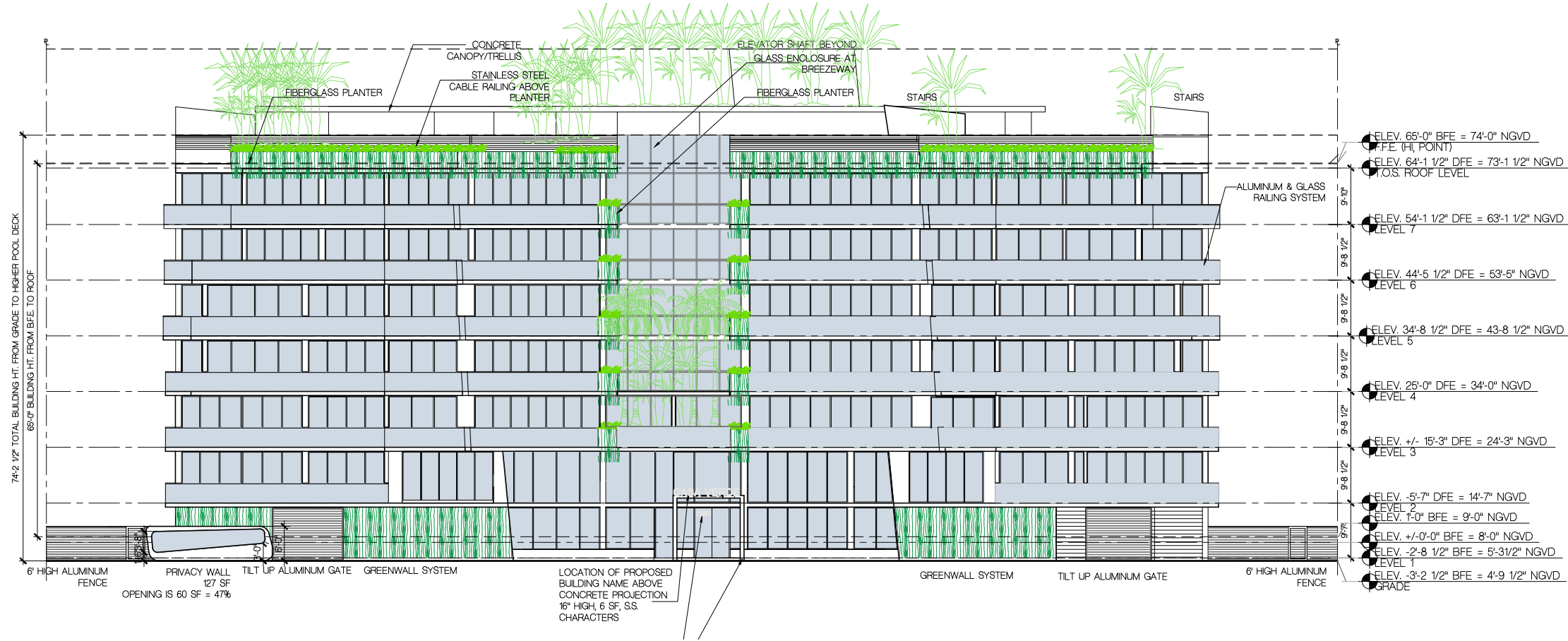
CASA VERDE
NEW CONDOMINIUM BUILDING
1130-1150 93RD STREET
BAY HARBOR ISLANDS, FLORIDA 33154

SIGNATURE		DATE	
NO.	REVISION	DATE	BY

DRAWING TITLE
NORTH ELEVATION

SCALE: 3/32" = 1'-0" DATE: MAY 25, 2023

SHEET NUMBER
A-2.01



PRIVACY WALL 127 SF
OPENING IS 60 SF = 47%

PRIVACY WALL

SCALE: 1/4"= 1'-0"

NORTH ELEVATION

SCALE: 3/32"= 1'-0"



NORTH ELEVATION

SCALE: 1/8"= 1'-0"

FRANKEL BENAYOUN
ARCHITECTS INC.
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CIVIL ENG.

LANDSCAPE ARCH.

STRUCTURAL ENG.

MEP ENG.

CASA VERDE
NEW CONDOMINIUM BUILDING
1130-1150 93RD STREET
BAY HARBOR ISLANDS, FLORIDA 33154

SIGNATURE		DATE	
NO.	REVISION	DATE	BY

DRAWING TITLE
NORTH ELEVATION
SCALE: 1/8" = 1'-0" DATE: MAY 25, 2023
SHEET NUMBER
A-2.01A



EAST ELEVATION

SCALE: 3/32" = 1'-0"

FRANKEL BENAYOUN
ARCHITECTS PLANNERS INTERIOR DESIGN

LICENSE NO. AA-C001494

MARKUS A. FRANKEL
LICENSE NO. AR0007143

PHAT BENAYOUN FISHMAN
LICENSE NO. AR0017273

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PH: (305) 868.3665 FAX: (305) 868.3650
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OWNER / DEVELOPER

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53 BROADWAY
BROOKLYN, NY 11249
T. 516.447.8887
T. 718.388.8210

CIVIL ENG.

LANDSCAPE ARCH.

STRUCTURAL ENG.

MEP ENG.

CASA VERDE
NEW CONDOMINIUM BUILDING
1130-1150 93RD STREET
BAY HARBOR ISLANDS, FLORIDA 33654

SIGNATURE		DATE	
NO.	REVISION	DATE	BY

DRAWING TITLE

EAST ELEVATION

SCALE: 3/32" = 1'-0" DATE: MAY 25, 2023

SHEET NUMBER

A-2.02



EAST ELEVATION

SCALE: 1/8"= 1'-0"

FRANKEL BENAYOUN
ARCHITECTS INC
ARCHITECTS PLANNERS INTERIOR DESIGN

LICENSE NO. AA-C001494

MARKUS A. FRANKEL
LICENSE NO. AR0007143
PHAT BENAYOUN FISHMAN
LICENSE NO. AR0017273

1177 KANE CONCOURSE, SUITE 120
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HORIZON AT CASA VERDE, LLC.
53 BROADWAY
BROOKLYN, NY 11249
T. 516.447.8887
T. 718.388.8210

CIVIL ENG.

LANDSCAPE ARCH.

STRUCTURAL ENG.

MEP ENG.

CASA VERDE
NEW CONDOMINIUM BUILDING
1130-1150 93RD STREET
BAY HARBOR ISLANDS, FLORIDA 33154

SIGNATURE		DATE	
NO.	REVISION	DATE	BY

DRAWING TITLE
EAST ELEVATION

SCALE: 1/8" = 1'-0" DATE: MAY 25, 2023

SHEET NUMBER
A-2.02A

CIVIL ENG

LANDSCAPE ARCH.

STRUCTURAL ENG:

MEP ENG

NEW CONDOMINIUM BUILDING
1130-1150 93RD STREET
BAY HARBOR ISLANDS, FLORIDA 33154

SIGNATUR

DATE _____

NO.

BP.19

DATE _____

B

DRAWING TITLE

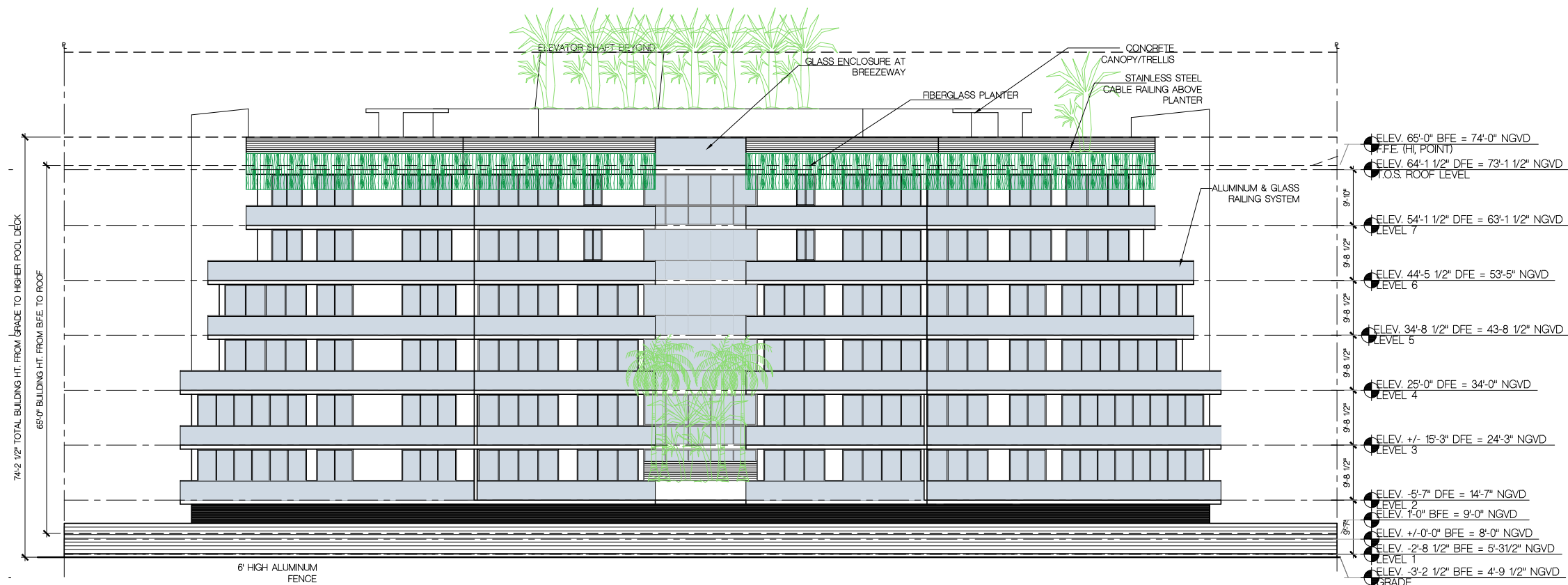
**SOUTH
ELEVATION**

SCALE: 3/32" = 1'-0" DATE: MAY 25, 2023

SHEET NUMBER

DATE: MAY 25, 2023

A-2.03



SOUTH ELEVATION

SCALE: 3/32"= 1'-0"



SOUTH ELEVATION

SCALE: 1/8"= 1'-0"

FRANKEL BENAYOUN
ARCHITECTS PLANNERS INTERIOR DESIGN

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PHAT BENAYOUN FISHMAN
LICENSE NO. AR0017273
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Civil Eng.

LANDSCAPE ARCH.

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MEP ENG.

CASA VERDE
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1130-1150 93RD STREET
BAY HARBOR ISLANDS, FLORIDA 33154

SIGNATURE		DATE	
NO.	REVISION	DATE	BY

DRAWING TITLE
SOUTH ELEVATION

SCALE: 1/8" = 1'-0" DATE: MAY 25, 2023

SHEET NUMBER
A-2.03A



WEST ELEVATION

SCALE: 3/32" = 1'-0"

FRANKEL BENAYOUN
ARCHITECTS PLANNERS INTERIOR DESIGN

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CIVIL ENG.

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1130-1150 93RD STREET
BAY HARBOR ISLANDS, FLORIDA 33654

SIGNATURE		DATE	
NO.	REVISION	DATE	BY

DRAWING TITLE
WEST ELEVATION

SCALE: 3/32" = 1'-0" DATE: MAY 25, 2023

SHEET NUMBER
A-2.04



WEST ELEVATION

SCALE: 1/8"= 1'-0"

FRANKEL BENAYOUN
ARCHITECTS INC
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SIGNATURE		DATE	
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DRAWING TITLE

**WEST
ELEVATION**

SCALE: 1/8" = 1'-0" DATE: MAY 25, 2023

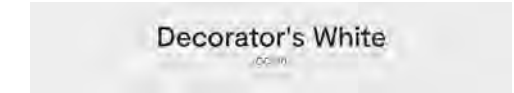
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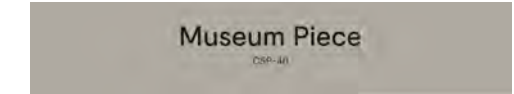
A-3.01



6 STAINLESS STEEL BUILDING SIGN



1 BUILDING PAINT COLOR - WHITE ALL STUCCO WALLS



2 ALUMINUM ELEMENTS PAINT COLOR - GRAY



REAR ELEVATION



FRONT RENDERING



LIGHT BOLLARD



CONCRETE PAVER DRIVEWAYS



GLASS ENTRY CANOPY



4 ALUMINUM AND GLASS RAILING SYSTEM



3 FIBERGLASS PLANTERS ABOVE CONCRETE SLAB



5 LIVING WALL

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Civil Eng.

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SIGNATURE		DATE	
NO.	REVISION	DATE	BY

DRAWING TITLE
PRESENTATION BOARD

SCALE: N.T.S. DATE: MAY 25, 2023
SHEET NUMBER
A-4.01



NORTH ELEVATION [FRONT]



EAST ELEVATION



SOUTH ELEVATION [REAR]



WEST ELEVATION

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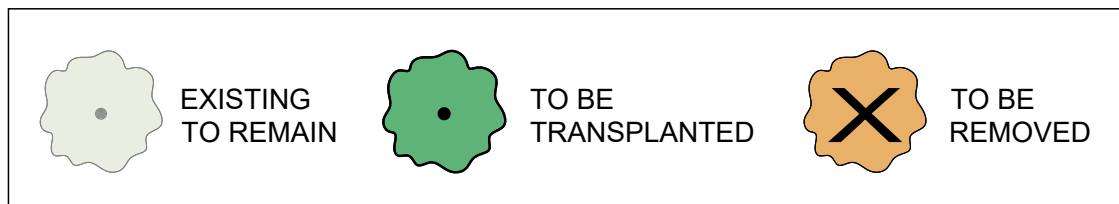
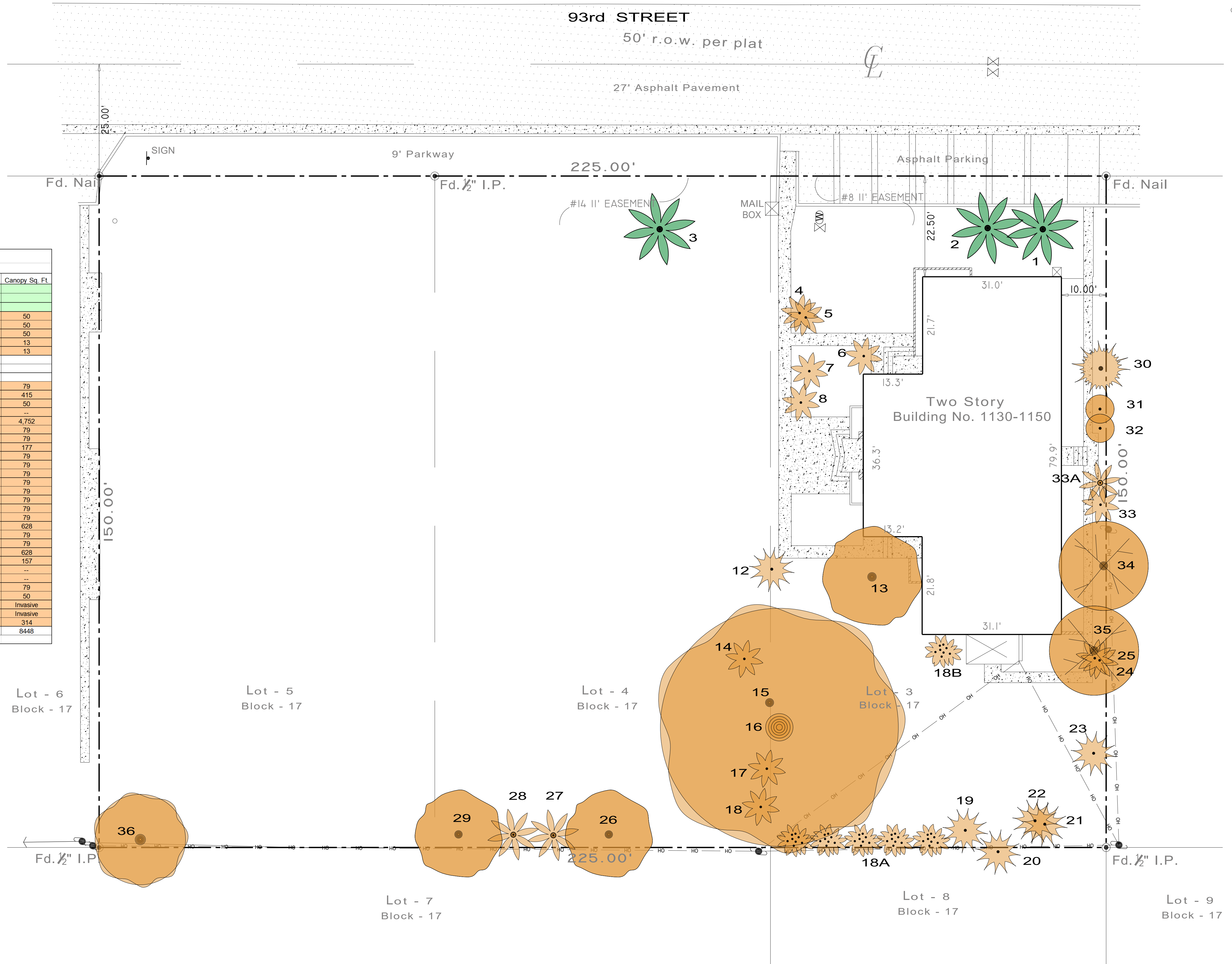
SIGNATURE		DATE	
NO.	REVISION	DATE	BY

DRAWING TITLE
**COMPOSITE OF 4-3D
ELEVATION RENDERINGS**

SCALE: DATE: MAY 25, 2023

SHEET NUMBER
A-5.01

Casa Verde								
Existing Tree Disposition List								
No.	Common Name	Botanical Name	Height (Ft)	Spread (Ft)	DBH (in.)	Condition	Disposition	Canopy Sq. Ft.
1	Royal Palm	<i>Roystonea regia</i>	50'	15'	24"	Good	Transplant	
2	Royal Palm	<i>Roystonea regia</i>	45'	20'	24"	Good	Transplant	
3	Royal Palm	<i>Roystonea regia</i>	53'	15'	24"	Good	Transplant	
4	Alexander Palm	<i>Ptychosperma elegans</i>	12'	8'	4"	Good	Remove	50
5	Alexander Palm	<i>Ptychosperma elegans</i>	25'	8'	4"	Good	Remove	50
6	Alexander Palm	<i>Ptychosperma elegans</i>	10'	8'	7"	Good	Remove	50
7	Alexander Palm	<i>Ptychosperma elegans</i>	12'	4'	7"	Good	Remove	13
8	Alexander Palm	<i>Ptychosperma elegans</i>	14'	4'	6"	Good	Remove	13
9	Not used							
10	Not used							
11	Not used							
12	Christmas Palm	<i>Veitchia merrillii</i>	20'	10'	5"	Good	Remove	79
13	Ficus tree	<i>Ficus benjamina</i>	20'	23'	12"	Fair/Poor	Remove	415
14	Alexander Palm	<i>Ptychosperma elegans</i>	30'	8'	7"	Fair	Remove	50
15	Air root of #16	--	--	--	--	--	Remove	--
16	Ficus tree	<i>Ficus aurea</i>	35'	55'	36"	Fair	Remove	4,752
17	Alexander Palm	<i>Ptychosperma elegans</i>	30'	10'	6"	Poor	Remove	79
18	Alexander Palm	<i>Ptychosperma elegans</i>	25'	10'	6"	Poor	Remove	79
18A	Areca Palm cluster	<i>Dypsis lutescens</i>	15'	15'	15"	Poor	Remove	177
18B	Areca Palm cluster	<i>Dypsis lutescens</i>	20'	10'	15"	Fair	Remove	79
19	Christmas Palm	<i>Veitchia merrillii</i>	25'	10'	6"	Fair	Remove	79
20	Christmas Palm	<i>Veitchia merrillii</i>	25'	10'	5"	Fair	Remove	79
21	Christmas Palm	<i>Veitchia merrillii</i>	25'	10'	5"	Fair	Remove	79
22	Christmas Palm	<i>Veitchia merrillii</i>	20'	10'	6"	Fair	Remove	79
23	Christmas Palm	<i>Veitchia merrillii</i>	25'	10'	6"	Fair	Remove	79
24	Alexander Palm	<i>Ptychosperma elegans</i>	20'	10'	5"	Good	Remove	79
25	Alexander Palm	<i>Ptychosperma elegans</i>	20'	10'	5"	Good	Remove	79
26	Ficus tree	<i>Ficus benjamina</i>	23'	20'	21"	Poor	Remove	628
27	Royal Palm	<i>Roystonea regia</i>	20'	10'	10"	Poor	Remove	79
28	Royal Palm	<i>Roystonea regia</i>	15'	10'	8"	Fair	Remove	79
29	Ficus tree	<i>Ficus benjamina</i>	25'	20'	18"	Poor	Remove	628
30	Sabal Palm	<i>Sabal palmetto</i>	15'	10'	20"	Good	Remove	157
31	Can Plant Dracaena	<i>Not a tree</i>	--	--	--	Fair	Remove	--
32	Can Plant Dracaena	<i>Not a tree</i>	--	--	--	Fair	Remove	--
33	Alexander Palm	<i>Ptychosperma elegans</i>	20'	10'	5"	Fair	Remove	79
33A	Royal Palm	<i>Roystonea regia</i>	10'	8'	8"	Fair	Remove	50
34	Hong Kong Orchid tree	<i>Bauhinia sp.</i>	25'	0'	15"	Dead	Remove	Invasive
35	Hong Kong Orchid tree	<i>Bauhinia sp.</i>	25'	0'	13"	Dead	Remove	Invasive
36	Ficus tree	<i>Ficus aurea</i>	20'	20'	15"	Fair/Poor	Remove	314
Total Canopy Sq. Ft. to be Removed								8448
			See Planting Plan for Tree Replacement / Mitigation Credits					



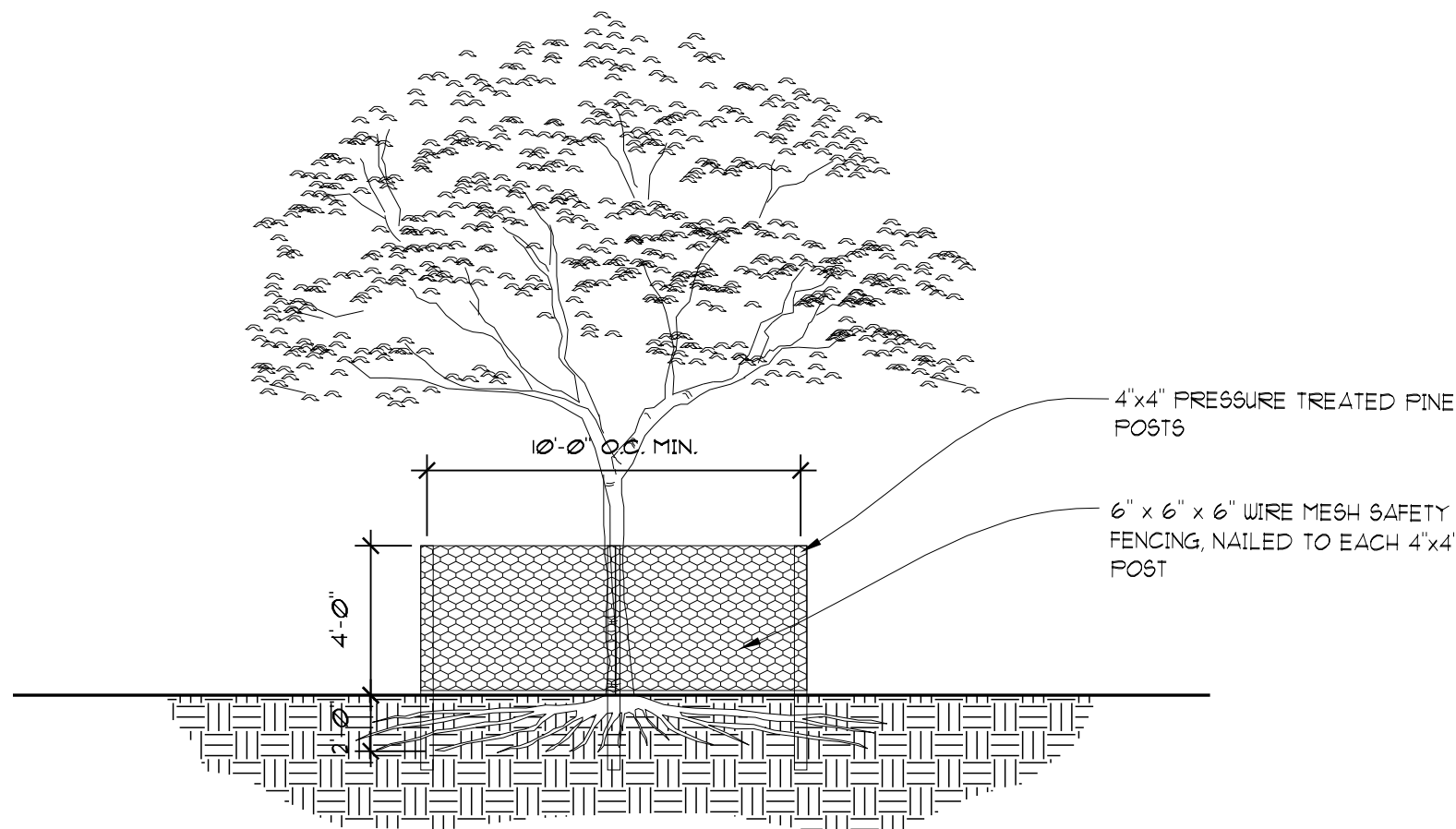
EXISTING TREE DISPOSITION PLAN

SCALE: 3/32" = 1'-0"



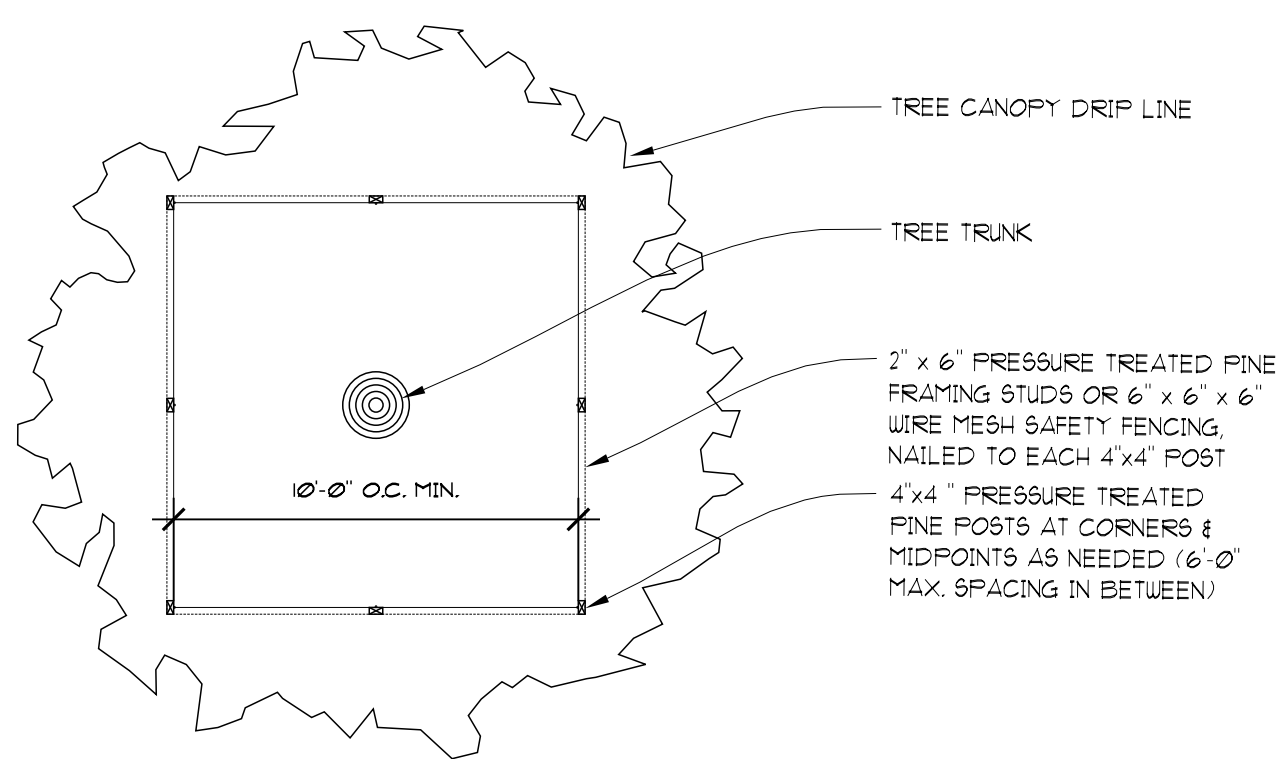
ROOT PRUNE & TRANSPLANTING SPECIFICATIONS

1. Root prune 50% of tree's root ball to a minimum depth of 30" - 48" as feasible. Root prune remaining 50% of root ball in 1/4 - 30 days. Allow ample root regeneration for a total of 2 months minimum prior to transplanting as feasible.
2. Trim all cut frayed roots with clippers leaving clean cuts. Use 'Sausal' or chainsaw with sharp blades for cutting large roots leaving no shredded root ends.
3. Wrap root balls with shrink wrap plastic & backfill with soil mixture (70% lake Wales silica sand & 30% Florida peat moss). Fill & pack tightly any remaining voids between plastic & root ball covering all cut roots with soil mixture.
4. Backfill the outside areas of root prune trench with existing soil to hold plastic firmly against newly wrapped root ball. Stake & mark out the excavation trench to be able to locate wrapped root ball to minimize any disturbance when harvesting for transplanting.
5. Water three times per week for next 2 months or until trees are ready to move.
6. Water daily for duration of overall job will be required. Having irrigation bubblers as part of automatic irrigation system for post construction can supplement additional drenching, but are not a substitution.
7. Use root stimulant root drenching solution on tree's root pruned areas, ('Superthrive' & 'Keyplex Polystart'), mixture per manufactures specifications based on application frequency.
8. Root prune drenching schedule every 2-3 weeks, 3 applications.
9. Harvest trees 8 to 10 weeks depending on size, consult with L.A. prior to moving on schedule.
10. Re-dig holes well outside the plastic plant wrap being careful not to disturb or tear, preserving root ball, re-wrap if needed for transplanting.
11. When digging trees, break off large piece of existing coral rock, 1/4 - 3/8" deep as feasible, by under cutting ball. Do not peel ball off rock. If necessary, the horizontal chipping or drilling may be required to break off specimen oak tree's root ball at a minimum 30" depth.
12. Replant transplanted trees and palms at correct height in new location, keeping original root ball crown exposed.
13. Properly wrap and strap trees and palms to lifting equipment in such a way as to not tear cambium layer and excessively disfigure appearance.
14. Trees that are not properly lifted and die due to girdling, compression or excessive damage to the cambium layer will be charged to the G.C. and Sub-contractor at a rate of 1500 per caliper inch.
15. Remove plastic, backfill with 50% existing soil blended with 50% planting soil plus 1/2 bale of Canadian peat moss. Backfill, sink, place in agriform fertilizer tablets per recommendations, brace, and trim broken branches and fronds as needed, brace per specification.
16. All Transplanted trees to have tree barrier protection installed prior to new development construction commencement.
17. See Mitigation / Planting Plans for all Tree transplanted locations and Tree mitigation requirements.



TREE BARRIER PROTECTION SECTION

NOT TO SCALE



TREE BARRIER PROTECTION PLAN

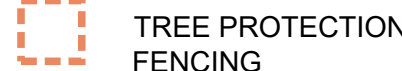
NOT TO SCALE

NOTE: BARRIER TO FORM CONTINUOUS CONNECTION AROUND THE TREE OR GROUP OF TREES

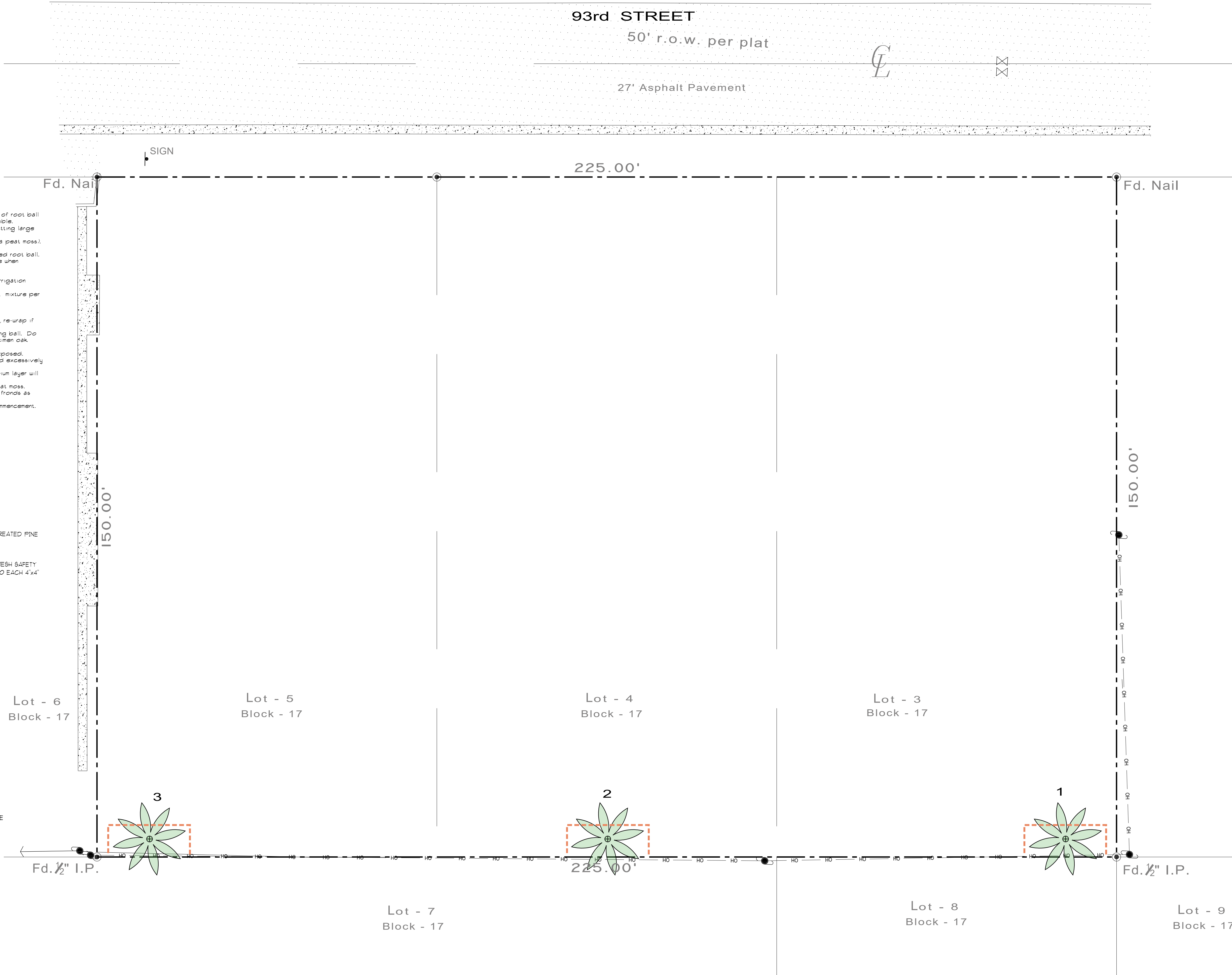
LEGEND



TRANSPLANTED TREES / PALMS



TREE PROTECTION FENCING



TREE TRANSPLANT & PROTECTION PLAN

SCALE: 3/32" = 1'-0"

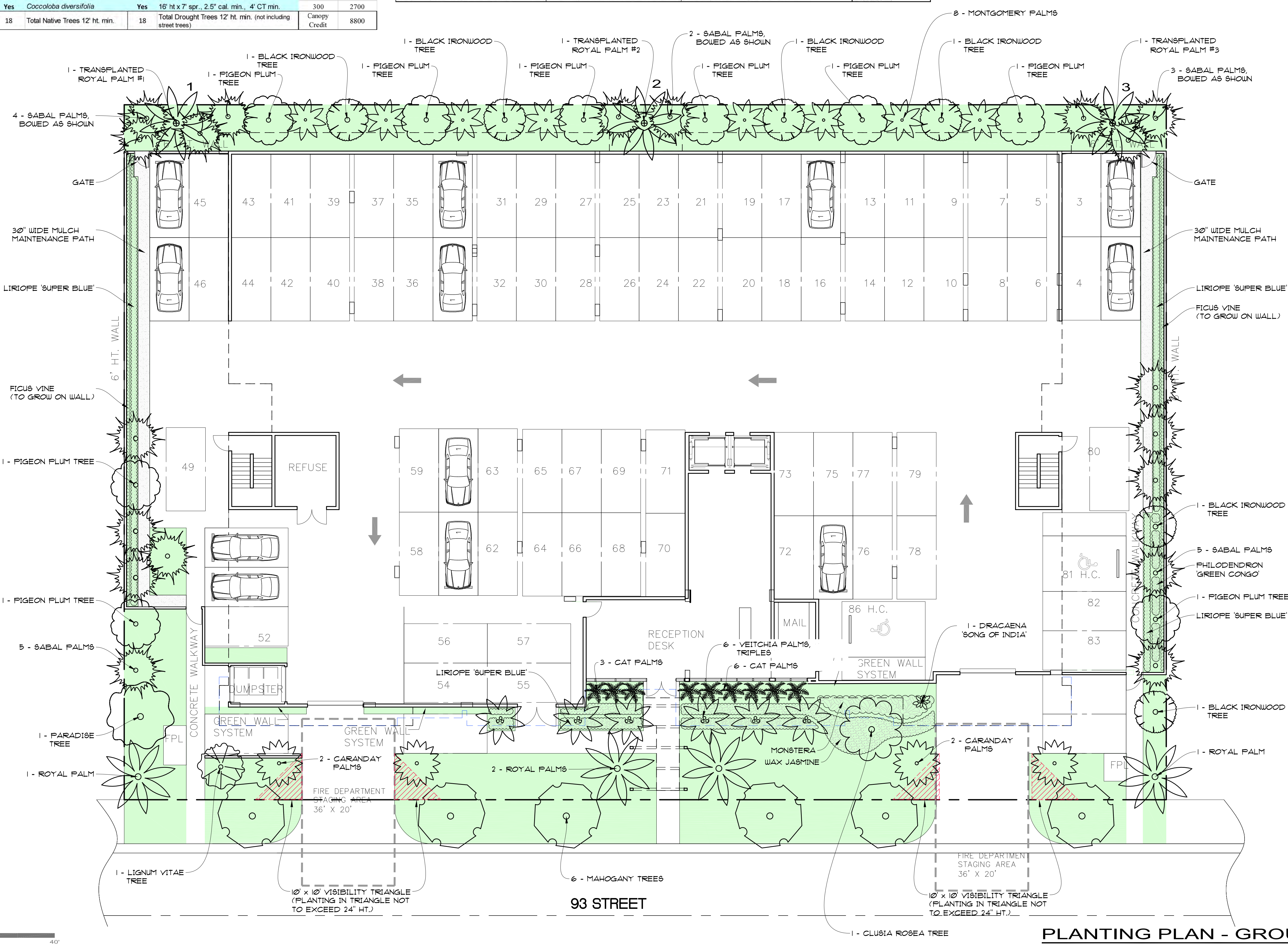


Ground Level Landscape - Plant List							
Legend							
Trees at 12' ht. min. per town's code							
Trees or palms at 16'-18' ht. min. per town's code							
Trees or palms at 18'-20' ht. min. per town's code							
Qty.	Common Name	Native	Botanical Name	Drought	Specs	Canopy Credit per tree/palm	Credit x Qty.
Street Trees							
6	Mahogany tree	Yes	<i>Swietenia mahagoni</i>	Yes	16' ht. min., 7" CT min., 5" cal. min.	500	3000
Trees							
6	Black Ironwood tree	Yes	<i>Krugiodendron ferreum</i>	Yes	12' ht x 5' spr.	300	1800
1	Clusia Rosea tree	Yes	<i>Clusia rosea</i>	Yes	16' ht x 7' spr., 4" cal., 5" CT	500	500
1	Lignum Vitae	Yes	<i>Guaiaacum sanctum</i>	Yes	12' ht x 7' spr.	300	300
1	Paradise tree	Yes	<i>Simarouba glauca</i>	Yes	16' ht x 7' spr., 4" cal., 5" CT	500	500
9	Pigeon Plum tree	Yes	<i>Coccoloba diversifolia</i>	Yes	16' ht x 7' spr., 2.5" cal. min., 4" CT min.	300	2700
18	Total Trees 12' ht. min. (not including street trees)	18	Total Native Trees 12' ht. min.	18	Total Drought Trees 12' ht. min. (not including street trees)	Canopy Credit	8800

Palms							
4	Caranday Palm		<i>Copernicia alba</i>	Yes	12' ht x 8', 7" CT		400
8	Montgomery Palm		<i>Veitchia montgomeryana</i>	Yes	16' o.a. ht		2400
6	Montgomery Palm		<i>Veitchia montgomeryana</i>	Yes	16' o.a. ht, triple		1800
4	Royal Palms	Yes	<i>Roystonea elata</i>	Yes	26' o.a. ht, 12' GW		300
9	Sabal Palms	Yes	<i>Sabal palmetto</i>	Yes	18' - 24' ht, 1/2 smooth 1/2 booted trunk, 20" cal., bowed		900
10	Sabal Palms	Yes	<i>Sabal palmetto</i>	Yes	18' - 24' ht, 1/2 smooth 1/2 booted trunk, 20" cal.		1000
37	Total Palms 15' ht. min.	23	Total Native Palms 15' ht. min.	37	Total Drought Palms 15' ht. min.	Canopy Credit	7700
12	Total Palms at 3:1, 15' ht. min.	8	Total Native Palms at 3:1, 15' ht. min.	12	Total Drought Palms at 3:1, 15' ht. min.		
6	25% Palms allowed (3:1, 15' ht. min.)	6	25% Native Palms allowed (3:1, 15' ht. min.)	6	25% Drought Palms allowed (3:1, 15' ht. min.)		
Grand Total Trees & Palms:		Grand Total Native:		Grand Total Drought Tolerant:		Grand Total Canopy Credit:	17100
24	Total Trees & Palms (25%)	24	Native Trees & Palms (25%)	24	Drought Trees & Palms (25%)		

Shrubs and Groundcovers					
9	Cat Palms		<i>Chamaedorea cataractarum</i>	4' x 4', 25 gal.	
•	Coontie	Yes	<i>Zamia pumila</i>	Yes	3 gal.
1	Dracaena 'Song of India'		<i>Dracaena 'Song of India'</i>	Yes	5-6' ht
•	Ficus vine		<i>Ficus pumila</i>	Yes	1 gal.
•	Golden Beach Creeper	Yes	<i>Errodea littoralis</i>	Yes	3 gal.
•	Liriope 'Super Blue'		<i>Liriope muscari 'Super Blue'</i>		15" x 15", 3 gal.
•	Locust Berry	Yes	<i>Byrsonima lucida</i>	Yes	3 gal.
•	Monstera		<i>Monstera deliciosa</i>	Yes	3 gal.
•	Philodendron 'Green Congo'		<i>Philodendron 'Green Congo'</i>		3 gal.
•	Wax Jasmine		<i>Jasminum simplicifolium</i>		16" x 16", 3 gal.
220 min.	Total Shrubs 24" ht. min.	66 min.	Native Shrubs 24" ht. min.	110 min.	Drought Shrubs 24" ht. min.

Notes: All plant material is to be approved by photo submittal to Landscape Architect prior to purchase and installation.
Plants listed in drought column are considered drought tolerant after fully rooted out and after +/- two growing seasons



PLANTING PLAN - GROUND LEVEL

Second Level Landscape - Plant List

Qty.	Common Name	Native	Botanical Name	Drought	Specs
Palms					
1	Chinese Fan Palm		<i>Livistona chinensis</i>	Yes	10' ht, single, bowed
1	Chinese Fan Palm		<i>Livistona chinensis</i>	Yes	12' ht, triple
9	Christmas Palm		<i>Veitchia merrillii</i>	Yes	10' ht, single, bowed, heavy caliper
8	Licuala Palm		<i>Licuala grandis</i>		15 gal.

Shrubs, Groundcovers, Accents, and Vines

•	Aglaonema		<i>Aglaonema sp.</i>		3 gal.
2	Aralia Fabian		<i>Polyscias scutellaria 'Fabian'</i>		7 gal. or 15 gal.
•	Calathea		<i>Calathea sp.</i>		3 gal.
6	Crinum Lily		<i>Crinum asiaticum</i>	Yes	4' x 4', 3 gal.
1	Dracaena 'Song of India'		<i>Dracaena 'Song of India'</i>	Yes	7 gal. or 15 gal.
•	Ficus Alii		<i>Ficus binnendijkii 'Alii'</i>		7 gal.
•	Glory Bower Clerodendrum vine		<i>Clerodendrum speciosissimum</i>	Yes	3 gal.
•	Homalomena		<i>Homalomena sp.</i>		3 gal.
10	Lady Palms		<i>Rhapis excelsa</i>		7 gal.
•	Philodendron		<i>Philodendron sp.</i>		3 gal.
1	Pleomele		<i>Dracaena reflexa</i>		7 gal. or 15 gal.
3	White Bird of Paradise		<i>Strelitzia nicolai</i>	Yes	15 gal.

Notes: All plant material to be approved by photo submittal to Landscape Architect prior to purchase and installation.
Plants listed in drought column are considered drought tolerant after fully rooted out and after +/- two growing seasons.

CONFEDERATE JASMINE VINE

24" oc

3'-6"

MIXED AGLAONEMA, HOMALOMENA, ANTHURIUMS, CALATHEA, AND PHILODENDRON SP.

8 - LICUALA PALMS

2 - LADY PALMS

3 - LADY PALMS

5 - CHRISTMAS PALMS

2 - LADY PALMS

CONFEDERATE JASMINE VINE

PLANTING PLAN - LEVEL 2
SCALE: 3/32" = 1'-0"

Third Level Landscape - Plant List

Qty.	Common Name	Native	Botanical Name	Drought	Specs
Vines					
•	Confederate Jasmine vine		<i>Trachelospermum jasminoides</i>	Yes	3 gal. (trellis to be removed upon installation)

Notes: All plant material to be approved by photo submittal to Landscape Architect prior to purchase and installation.
Plants listed in drought column are considered drought tolerant after fully rooted out and after +/- two growing seasons.

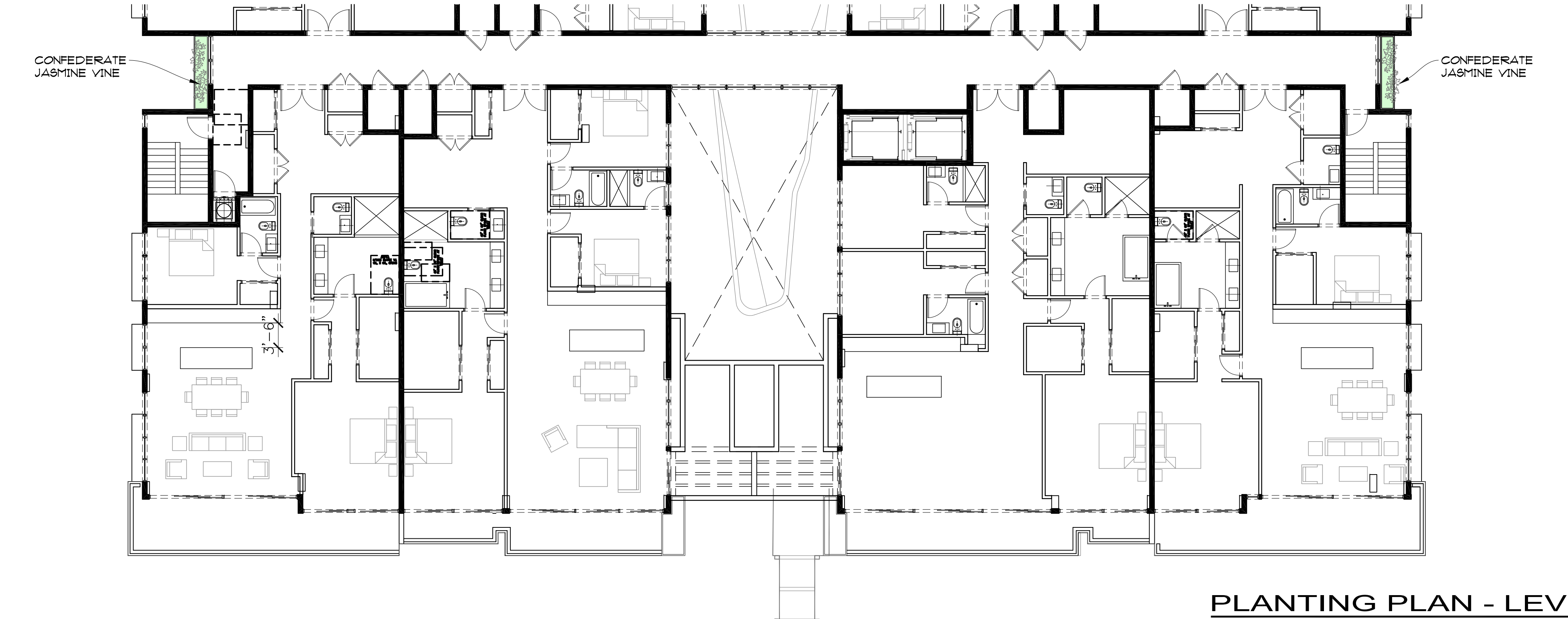
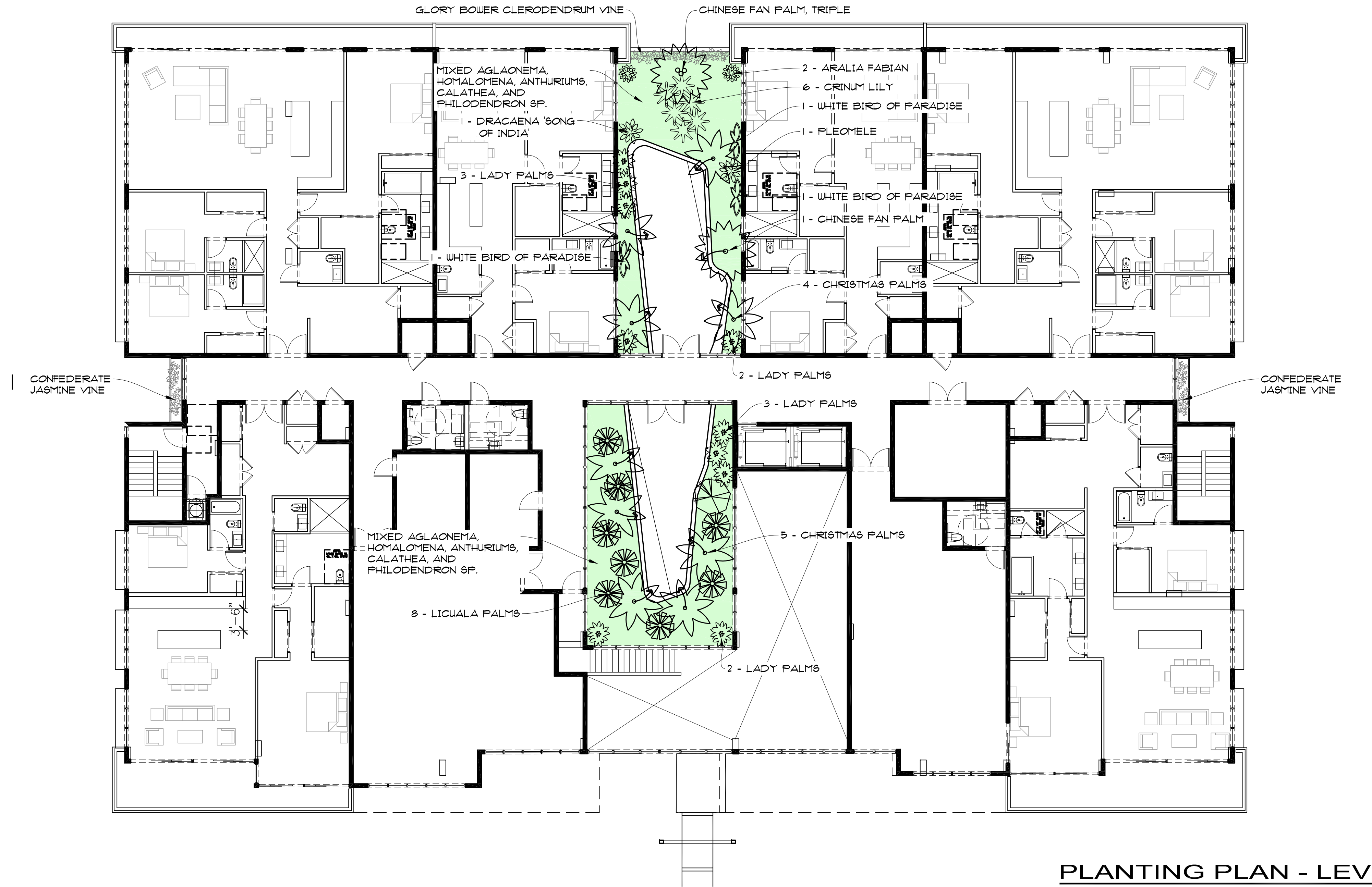
CONFEDERATE JASMINE VINE

20" oc

3'-6"

CONFEDERATE JASMINE VINE

PLANTING PLAN - LEVEL 3
SCALE: 3/32" = 1'-0"



0 8' 16' 24' 40'

Fourth Level Landscape - Plant List

Qty.	Common Name	Native	Botanical Name	Drought	Specs
Groundcovers, Accents, and Vines					
	Confederate Jasmine vine		<i>Trachelospermum jasminoides</i>	Yes	3 gal. (trellis to be removed upon installation)
	Perennial Peanut		<i>Arachis glabrata</i>	Yes	1 gal.
2	Ponytail Palm		<i>Beaucarnea recurvata</i>	Yes	4' ht., heavy base, 15 gal.

Notes: All plant material to be approved by photo submittal to Landscape Architect prior to purchase and installation.
Plants listed in drought column are considered drought tolerant after fully rooted out and after +/- two growing seasons.

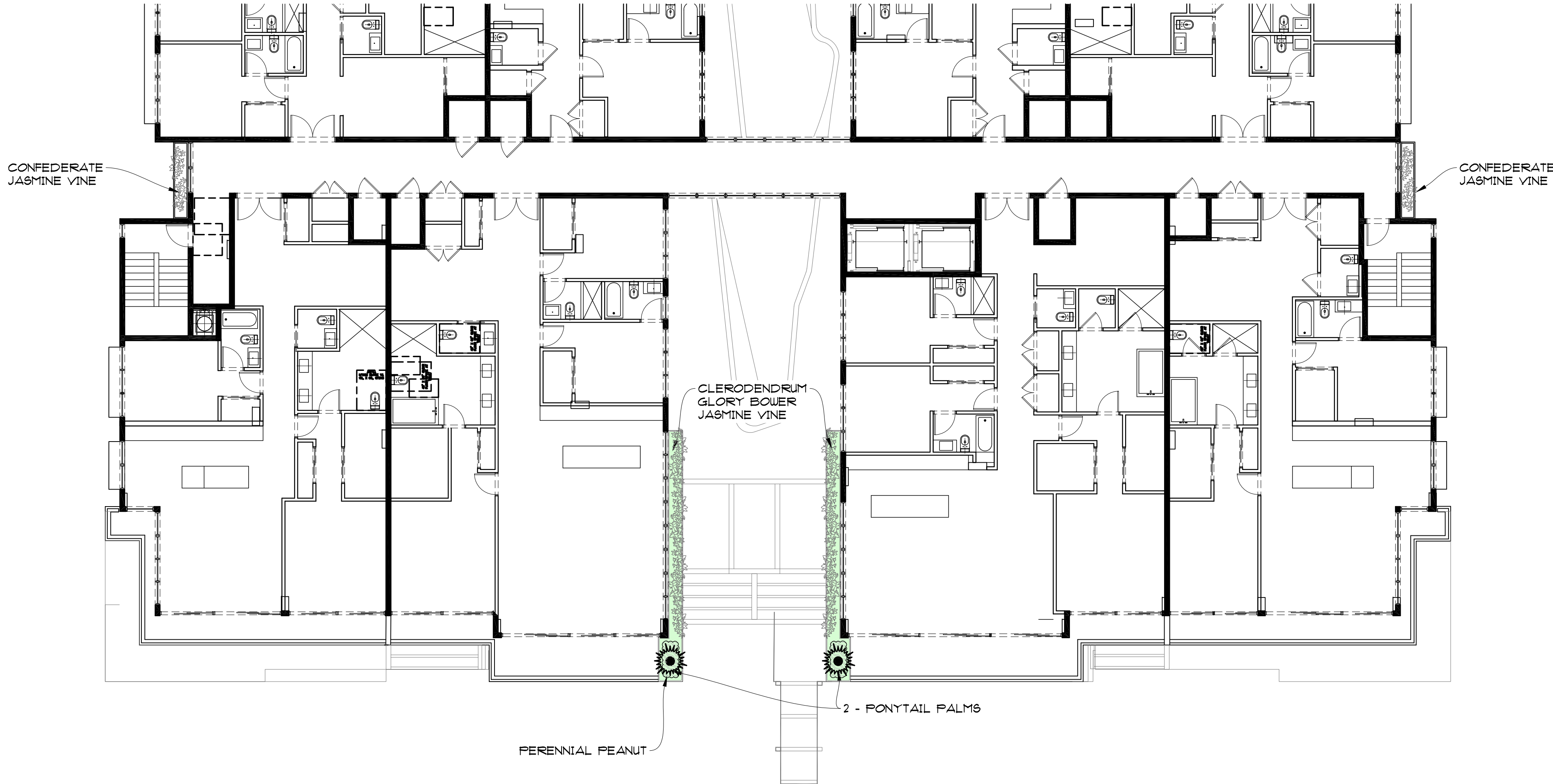
Fifth Level Landscape - Plant List

Qty.	Common Name	Native	Botanical Name	Drought	Specs
Groundcovers, Accents, and Vines					
	Confederate Jasmine vine		<i>Trachelospermum jasminoides</i>	Yes	3 gal. (trellis to be removed upon installation)
	Glory Bower Clerodendrum vine		<i>Clerodendrum speciosissimum</i>	Yes	3 gal.
	Perennial Peanut		<i>Arachis glabrata</i>	Yes	1 gal.
2	Ponytail Palm		<i>Beaucarnea recurvata</i>	Yes	4' ht., heavy base, 15 gal.

Notes: All plant material to be approved by photo submittal to Landscape Architect prior to purchase and installation.
Plants listed in drought column are considered drought tolerant after fully rooted out and after +/- two growing seasons.



PLANTING PLAN - LEVEL 4
SCALE: 3/32" = 1'-0"



PLANTING PLAN - LEVEL 5
SCALE: 3/32" = 1'-0"



Notes: All plant material to be approved by photo submittal to Landscape Architect prior to purchase and installation.
Plants listed in drought column are considered drought tolerant after fully rooted out and after +/- two growing seasons



Notes: All plant material to be approved by photo submittal to Landscape Architect prior to purchase and installation.
Plants listed in drought column are considered drought tolerant after fully rooted out and after +/- two growing seasons

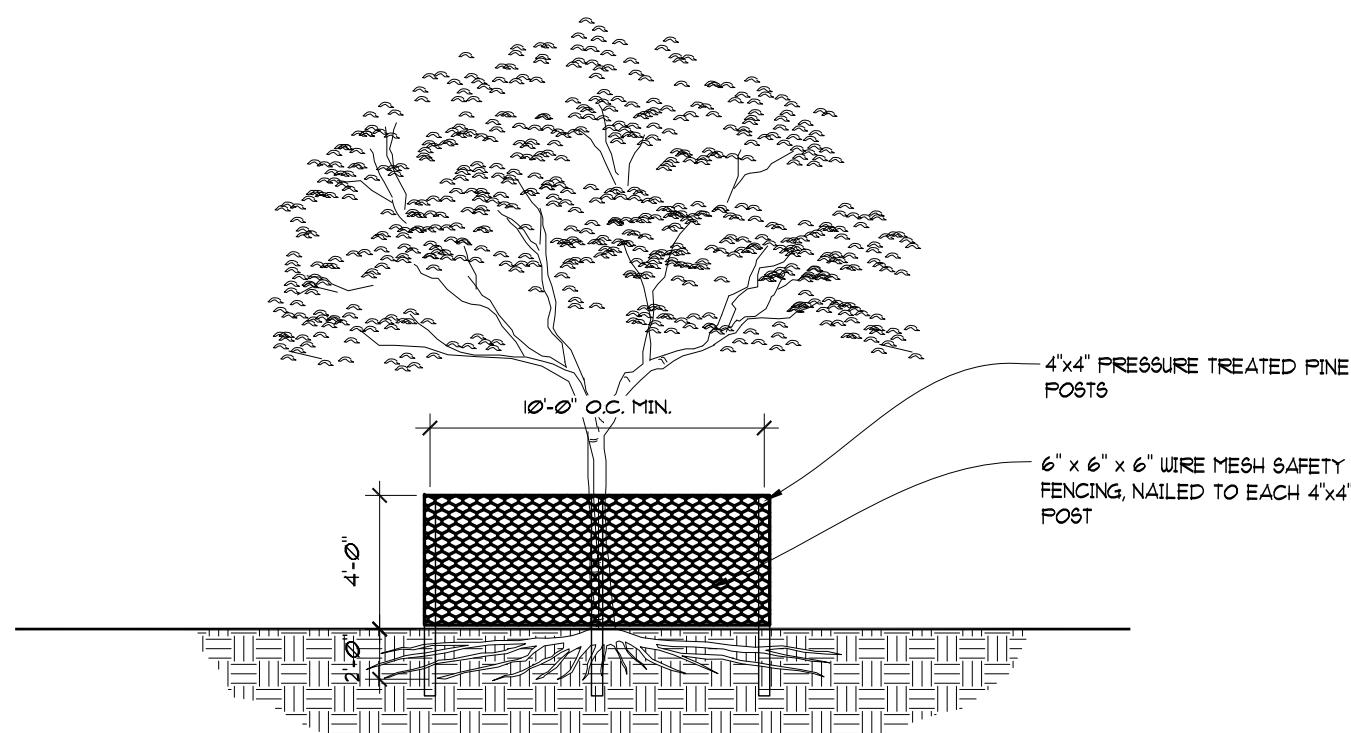


Qty.	Common Name	Native	Botanical Name	Drought	Specs
Trees					
3	Bay Cedar	Yes	<i>Suriana maritima</i>	Yes	25 gal.
4	Joewood	Yes	<i>Jacquinia keyensis</i>	Yes	25 gal.
3	Lignum vitae	Yes	<i>Guaiaacum sanctum</i>	Yes	3' x 3', 25 gal.
3	Silver Buttonwood	Yes	<i>Conocarpus erectus 'Sericeus'</i>	Yes	8' x 5', multi, 2' CT

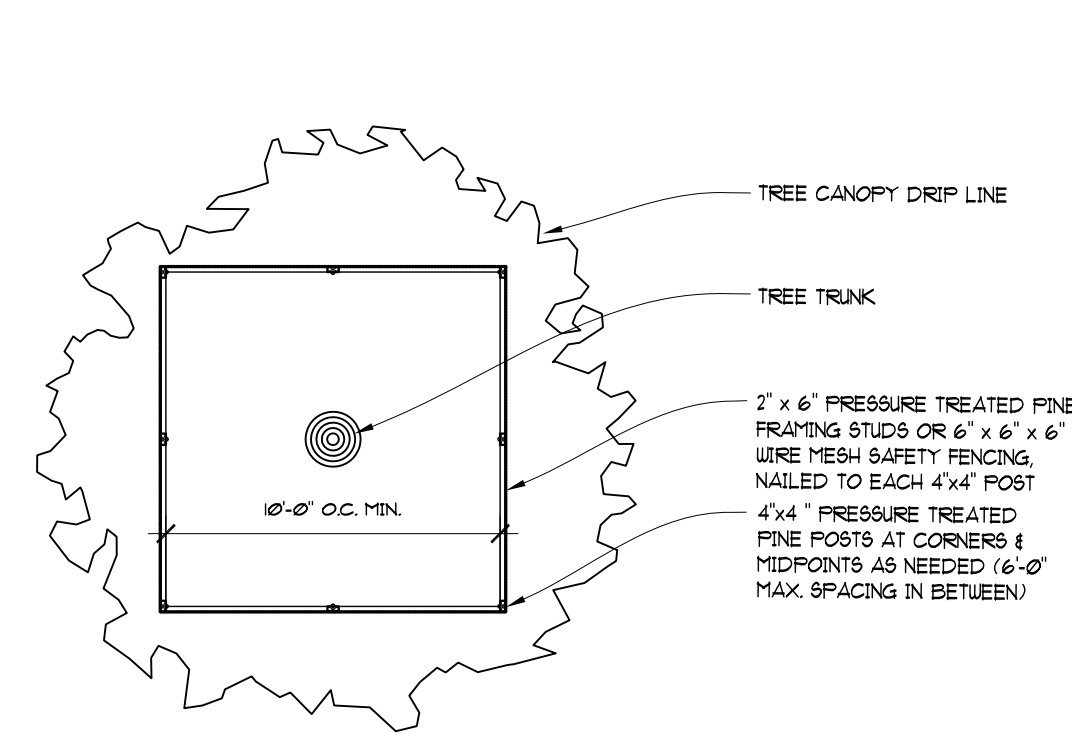
10	Florida Thatch Palm	Yes	<i>Thrinax radiata</i>	Yes	4' ht, single
6	High Plateau Palm		<i>Beccariorophoenix alfredii</i>	Yes	(2) 10', (1) 14', (1) 16', (1) 18', (1) 20'
1	Key Thatch Palm	Yes	<i>Thrinax morrisii</i>	Yes	5' ht, triple
2	Latan Palm (Blue)		<i>Latania loddigesii</i>	Yes	6' x 5'

•	Aloe		<i>Aloe barbadensis</i>	Yes	3 gal.
•	Bird of Paradise (Orange)		<i>Strelitzia reginae</i>	Yes	7 gal.
3	Cardboard Palm		<i>Zamia furfuracea</i>	Yes	4' x 4'
•	Clusia Rosea 'Nana'		<i>Clusia rosea 'Nana'</i>	Yes	18" x 18", 3 gal.
•	Confederate Jasmine vine		<i>Trachelospermum jasminoides</i>	Yes	3 gal. (trellis to be removed upon installation)
8	Crinum Lily		<i>Crinum asiaticum</i>		4' x 4', 3 gal.
3	Dracaena Arborea		<i>Dracaena arborea</i>	Yes	6' x 4', triple, 30 gal.
1	Dracaena 'Song of India'		<i>Dracaena 'Song of India'</i>	Yes	7 gal. or 15 gal.
4	European Fan Palm		<i>Chamaerops humilis</i>	Yes	4' x 4', 25 gal.
•	Foxtail Fern		<i>Asparagus densiflorus 'Meyerii'</i>		14" x 12", 3 gal.
•	Golden Beach Creeper	Yes	<i>Ermodia littoralis</i>	Yes	3 gal.
•	Jade Plant		<i>Crassula ovata</i>	Yes	3 gal.
•	Liriope 'Super Blue'		<i>Liriope muscari 'Super Blue'</i>	Yes	15" x 15", 3 gal.
8	Locust Berry	Yes	<i>Byrsnima lucida</i>	Yes	3 gal.
•	Natal Plum 'Emerald Blanket'		<i>Carissa macrocarpa 'Emerald Blanket'</i>	Yes	3 gal.
•	Perennial Peanut		<i>Arachis glabrata</i>	Yes	1 gal.
•	Podocarpus		<i>Podocarpus macrophyllus</i>	Yes	7 gal.
8	Ponytail Palms		<i>Baucarnea recurvata</i>	Yes	4' x 3', multi head, heavy caliper
•	White Fountain Grass		<i>Pennisetum setaceum</i>	Yes	24" x 24", 3 gal.

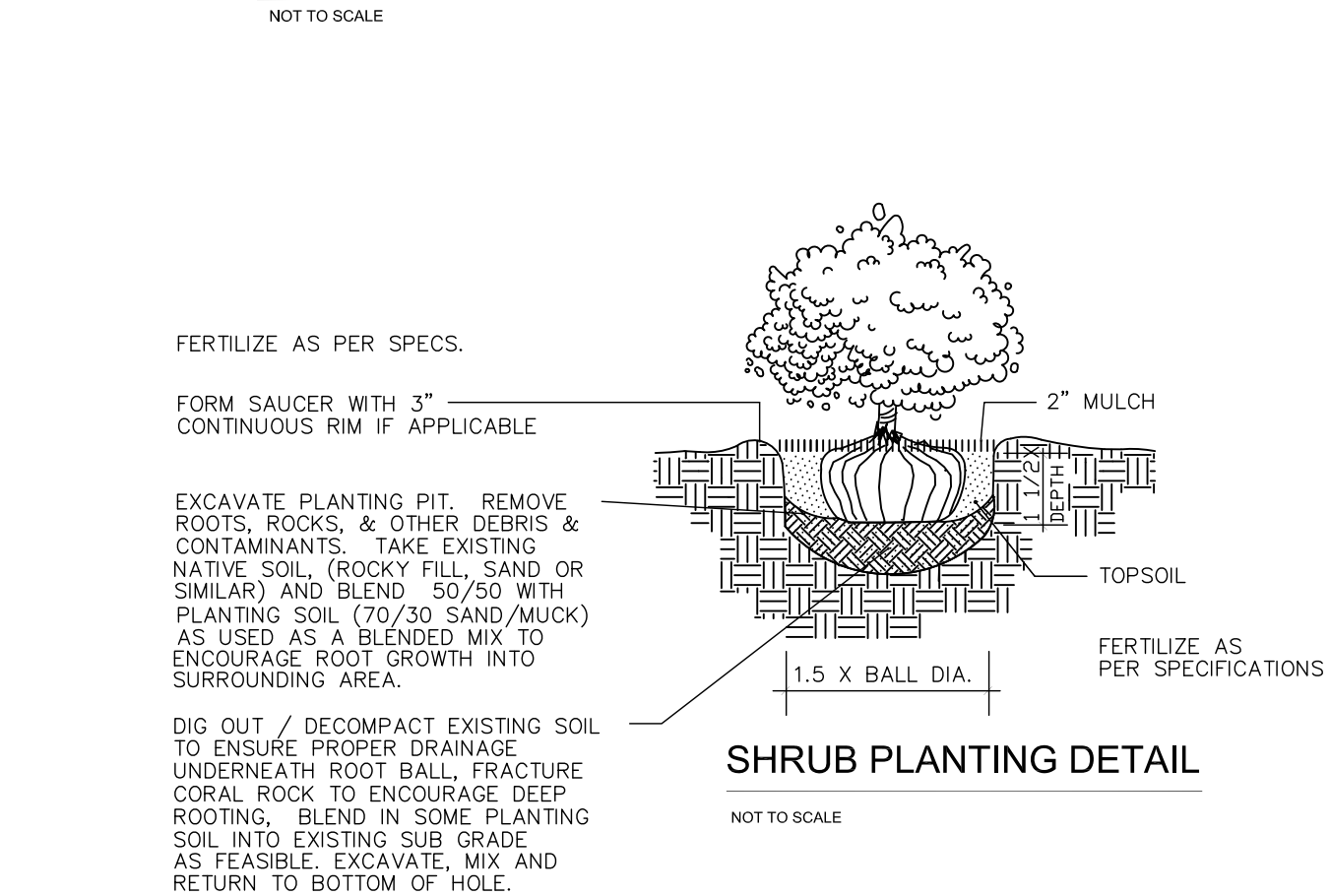




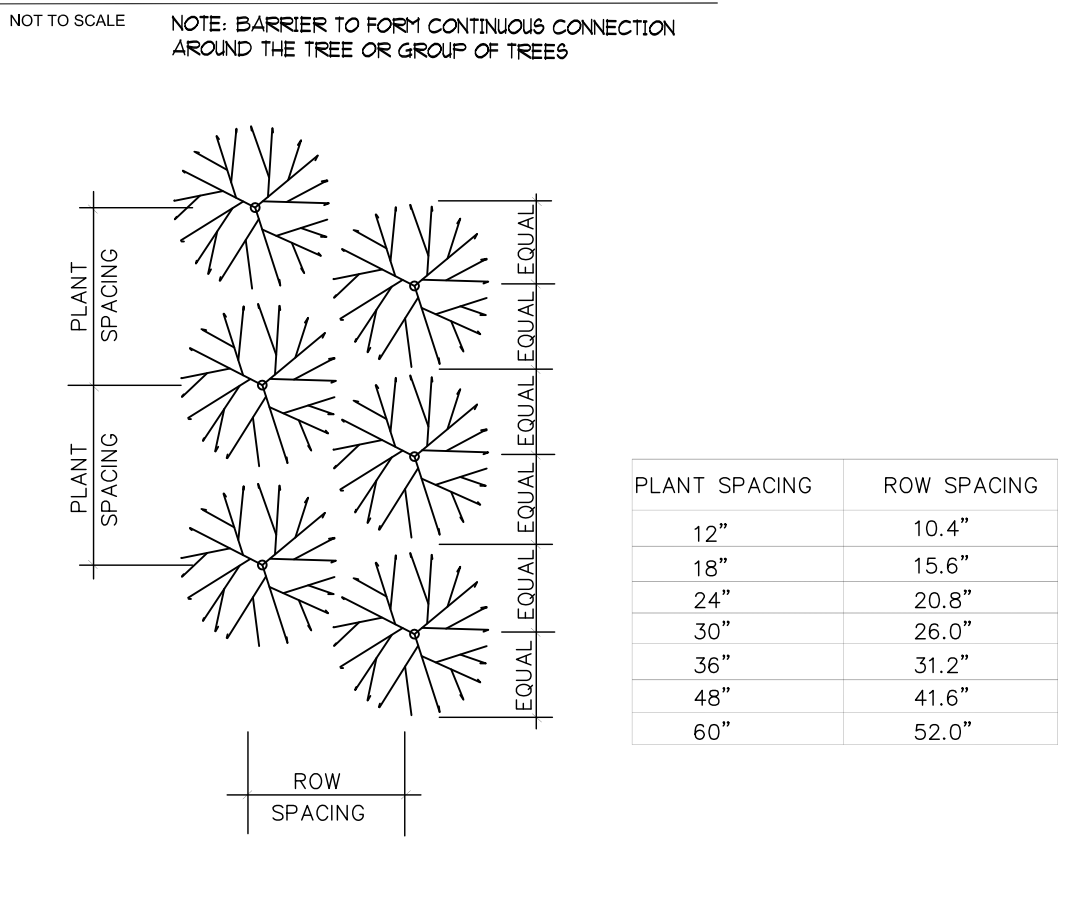
TREE BARRIER PROTECTION SECTION



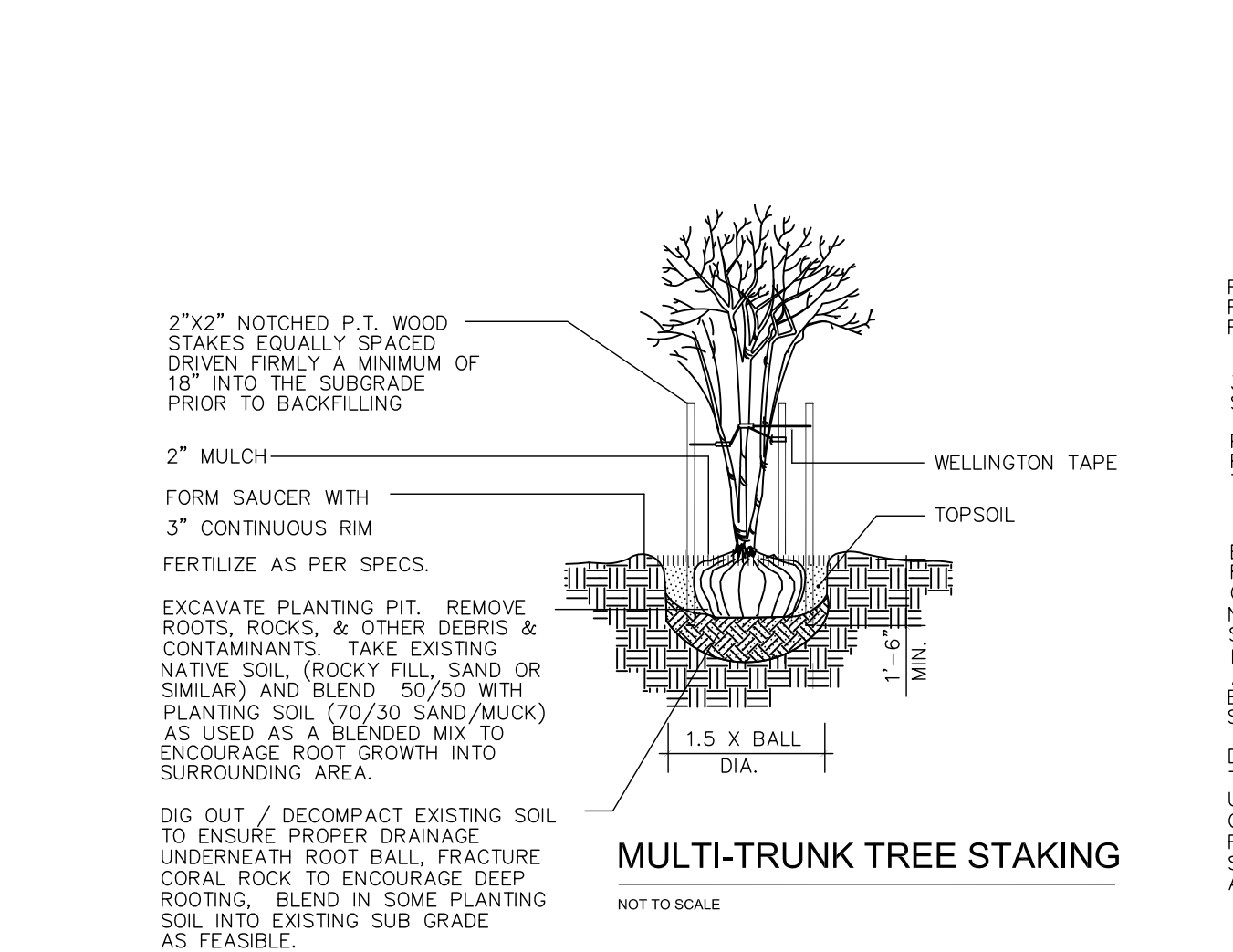
TREE BARRIER PROTECTION PLAN



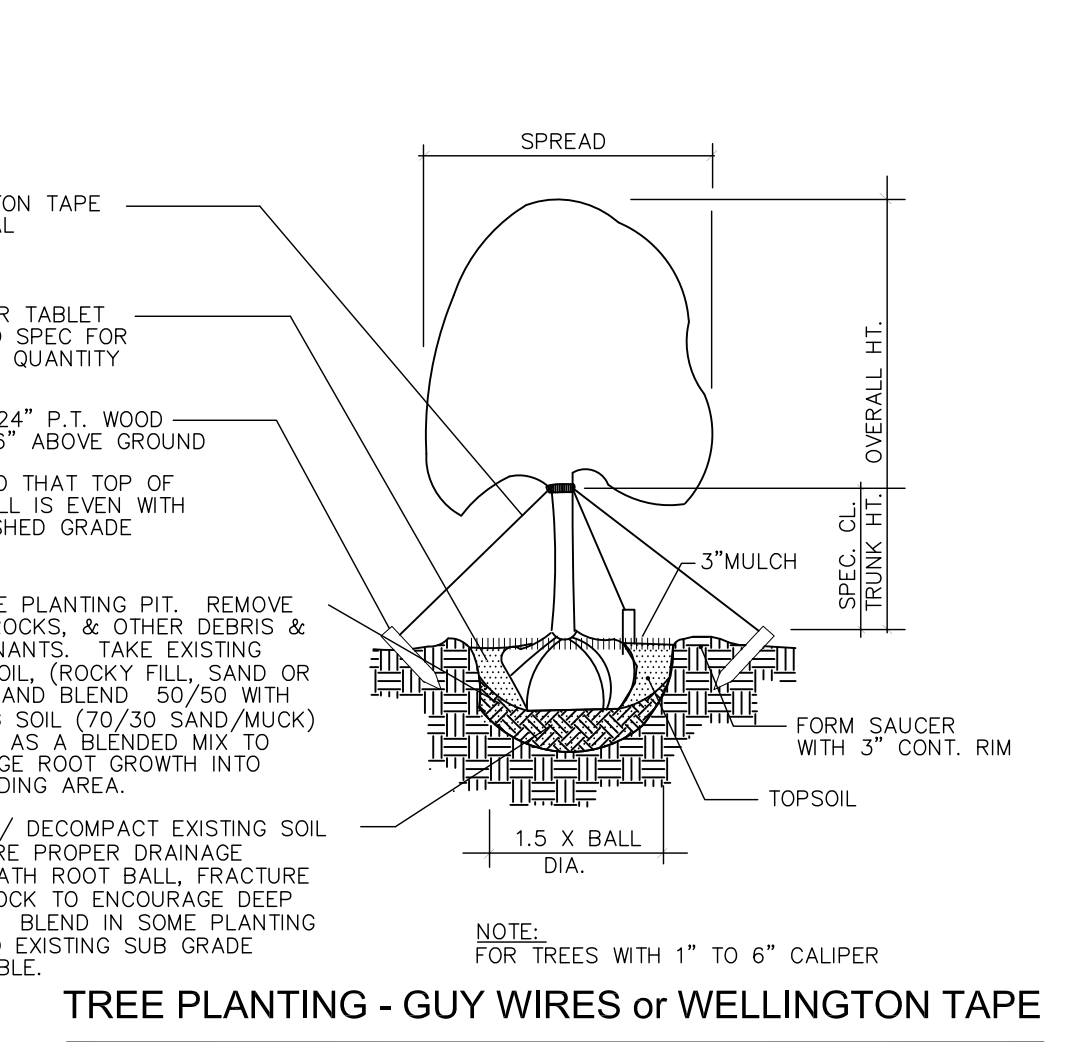
SHRUB PLANTING DETAIL



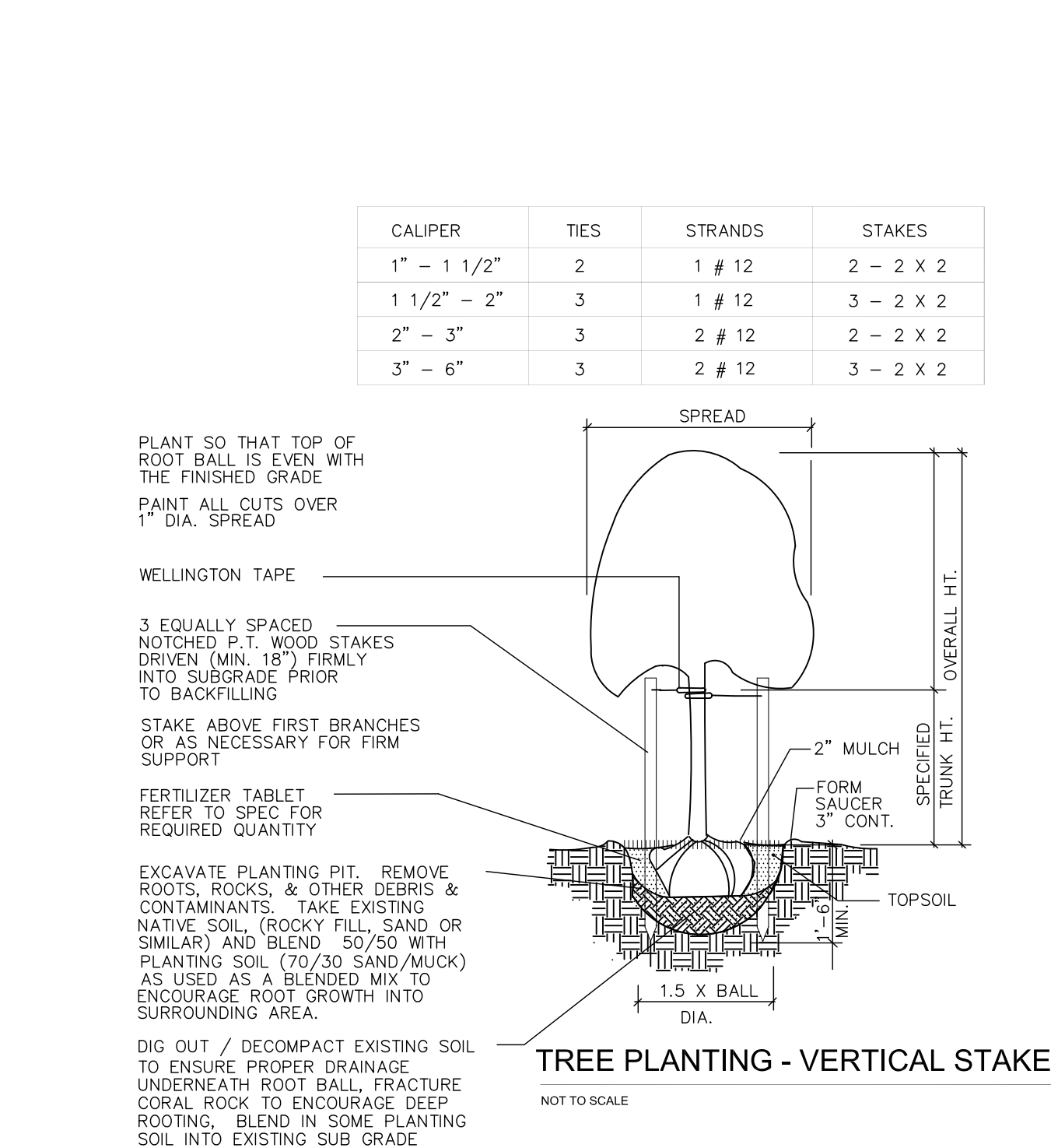
TREE PLANTING - GUY WIRES or WELLINGTON TAPE



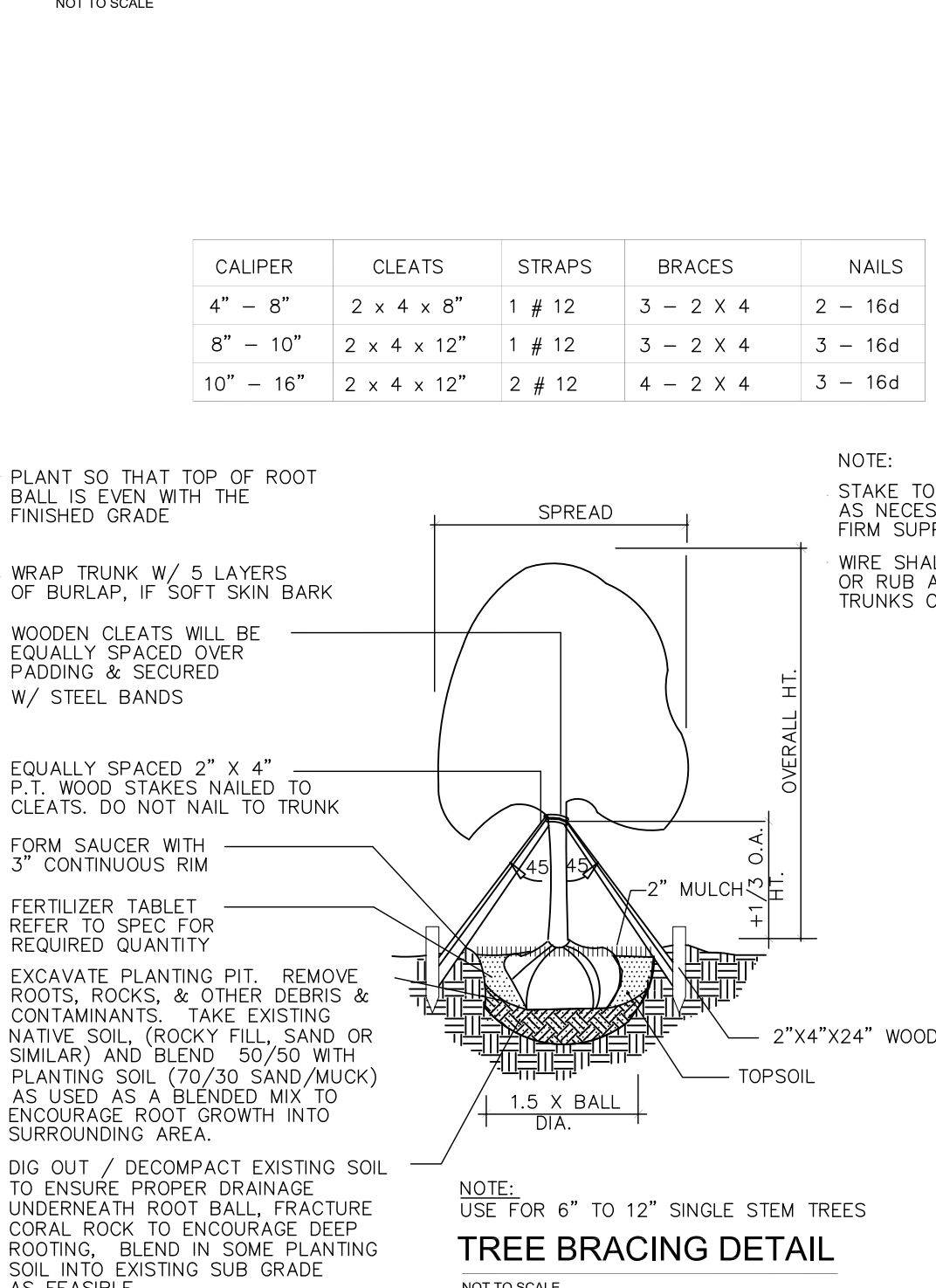
MULTI-TRUNK TREE STAKING



TREE PLANTING - VERTICAL STAKES



TREE PLANTING - VERTICAL STAKES



TREE BRACING DETAIL

STRUCTURAL SOIL NOTES - TYPICAL

SMALL TREE CALCULATIONS
TO ACHIEVE 100 CU. FT. THE FOLLOWING AREAS WOULD BE REQUIRED:
3" DEEP = 5.75' X 5.75' (33 S. F.)
2.5" DEEP = 6.3' X 6.3' (40 S.F.)
2" DEEP = 7.0' X 7.0' (50 S.F.)

MEDIUM TREE CALCULATIONS
TO ACHIEVE 308 CU. FT. THE FOLLOWING AREAS WOULD BE REQUIRED:
3" DEEP = 10.15' X 10.15' (103 S. F.)
2.5" DEEP = 11.0' X 11.0' (123 S.F.)
2" DEEP = 12.5' X 12.5' (154 S.F.)

LARGE TREE CALCULATIONS
TO ACHIEVE 1412 CU. FT. THE FOLLOWING AREAS WOULD BE REQUIRED:
3" DEEP = 21.60' X 21.60' (470 S. F.)
2.5" DEEP = 23.75' X 23.75' (564 S.F.)
2" DEEP = 26.50' X 26.50' (706 S.F.)

* = square footage required per designated soil depth, adjust for rectangle and free form areas accordingly.

CU-STRUCTURAL SOIL CALCULATION METHOD (BY CORNELL UNIVERSITY)
FOR A MEDIUM CANOPY TREES (TABERULA, SIMPSON STOPPER, ETC.) ASSUME 14" SPREAD = 7" RADIUS. (7' x 7' X 3.14 = 154 SQ. FT. OF CANOPY) 154 SQ. FT. x 2 = 308 CUBIC FEET OF COMBINED STRUCTURAL AND NATURAL SOIL REQUIRED.

EXAMPLE FOR MEDIUM CANOPY TREES:
A TOTAL OF 308 CUBIC FEET OF SOIL IS REQUIRED DIVIDED BY 3 FEET OF REQUIRED DEPTH OF SOIL = 103 SURFACE SQ. FT. OF ROOT SPACE.
IF 25 SQ. FT. OF AREA IS AVAILABLE IN AN OPEN BED (5'X5' TREE GRATE, FOR INSTANCE) THEN 78 SQ. FT. OF STRUCTURAL SOIL AREA IS REQUIRED UNDER ADJACENT PAVEMENT AREAS.

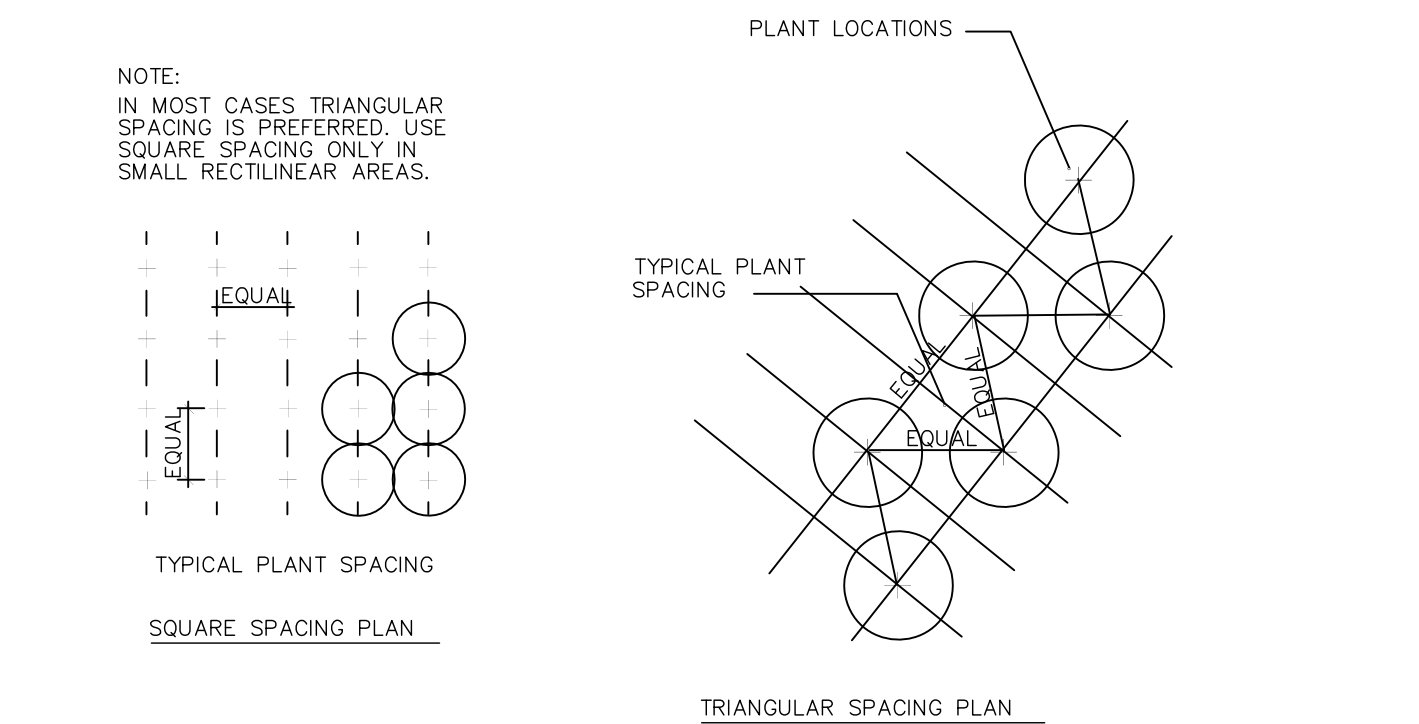
THIS EQUATES TO 2.7 CUBIC YARDS OF PLANTING SOIL (25 X 3 = 75/27 = 2.7 CU. YDS) AND 8.7 CUBIC YARDS OF STRUCTURAL SOIL (78 X 3 = 234/27 = 8.7 CU. YDS) FOR THIS TYPE OF INSTALLATION. (ENTIRE PLANTING SOIL MAY BE STRUCTURAL SOIL)

NOTE: LANDSCAPE CONTRACTOR TO ATTAIN CU-STRUCTURAL INSTALLATION SPECIFICATIONS. FROM ATLAS PEAT & SOIL. ATLAS PEAT & SOIL, INC. 9621 S.R. # 7, BOYNTON BEACH, FL 33472. PHONE: 561-734-7300

CU-STRUCTURAL SOIL STORAGE PROCEDURE & REQUIREMENTS:
DELIVERED CU-STRUCTURAL SOIL SHOULD NOT BE PLACED IN FROZEN, WET, OR MUDDY SITES.
PROTECT CU-STRUCTURAL SOIL FROM EXPOSURE TO EXCESS WATER AND FROM EROSION AT ALL TIMES.
DO NOT STORE UNPROTECTED. PROTECT CU-SOIL DURING DELAYS OF CONSTRUCTION WITH PLASTIC OR PLYWOOD AS DIRECTED BY ENGINEER OR LANDSCAPE ARCHITECT. DO NOT ALLOW EXCESS WATER TO ENTER SITE PRIOR TO COMPACTION. IF WATER IS INTRODUCED INTO CU-SOIL FRYER GRADING, ALLOW WATER TO DRAIN TO OPTIMUM COMPACTION MOISTURE CONTENT.

CU-STRUCTURAL INSTALLATION REQUIREMENTS:
INSTALL CU-STRUCTURAL SOIL IN 6" LIFTS AND COMPACT EACH LIFT.
COMPACT ALL MATERIALS TO AT LEAST 95% PROCTOR DENSITY FROM A STANDARD COMPACTION CURVE, AASHTO T 99 (ASTM D 698).

TREE ROOT BARRIERS:
INSTALL CONTINUOUS TREE ROOT BARRIERS TO THE FULL STRUCTURAL SOIL DEPTH, AS NEEDED TO KEEP FUTURE ROOT GROWTH FROM DAMAGING THE ADJACENT HARDSCAPES. USE DEEPROOF BRAND OR APPROVED EQUAL. SEE MANUFACTURERS SPECS FOR INSTALLATION GUIDELINES.



GROUND COVER PLANTING DETAIL

NEW TREE - 1 YEAR MAINTENANCE PLAN

- WATERS:
ALL NEW TREES TO BE ON AN AUTOMATED IRRIGATION SYSTEM WITH A RAIN SENSOR.
1ST MONTH - WATER EVERYDAY
2ND THROUGH 6TH MONTHS - EVERY OTHER DAY.
7TH THROUGH COMPLETE YEAR - 2 TIMES A WEEK.
NOTE: ADJUST IRRIGATION DURATION TIME TO ENSURE THAT TREE'S ROOT BALL IS COMPLETELY SATURATED WITH WATER.
IRRIGATION WATER FREQUENCY AND DURATIONS MAY VARY DUE TO TIME OF YEAR AND CLIMATE CONDITIONS.

- FERTILIZERS:
USE A PALM SPECIAL FERTILIZER, 8-2-12, FROM ATLANTIC FERTILIZER, 1 LBS. PER INCH CALIFER OF TREE EVERY 3 MONTHS.

- MULCH:
INSPECT AND REPLACE MULCH AFTER 6 MONTHS WITH APPROVED EUCALYPTUS OR MELALEUCA MULCH ONLY.
NO RED COLORED OR CYRESS MULCH TO BE USED.

- TRIMMING & BRACING:
PRUNE ONLY CRITICAL BRANCHES (DEAD OR BROKEN).
- STAKING AND BRACING:
INSPECT ALL TREE TIES AND STAKING AND ADJUST AS NEEDED. REMOVE ANY STAKING MATERIAL THAT IS IN CONTACT WITH TREE AFTER A PERIOD OF NO MORE THAN 6 MONTHS AFTER INITIAL PLANTING AS THE TREE SHOULD BE WELL ESTABLISHED BY THEN.

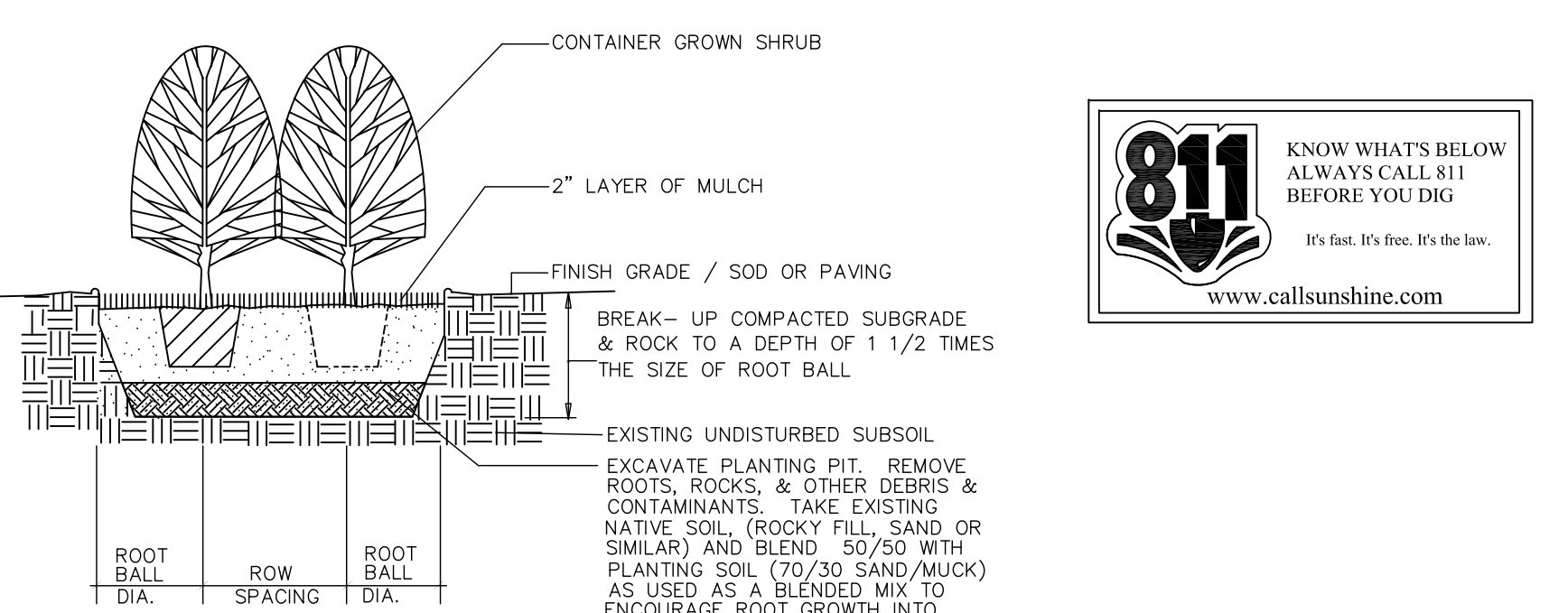
- MAINTENANCE:
ALL NEWLY INSTALLED PLANTING MATERIAL WILL BE MAINTAINED IN A CONDITION THAT MEETS OR EXCEEDS FLORIDA GRADE #1 AND HAS A (01) YEAR REPLACEMENT GUARANTEE.

PLANTING SPECIFICATIONS AND WARRANTIES

- The demolition of existing plant material must be marked with spray paint by Landscape Architect (L.A.)
- All trees and palms to be laid out by Landscape contractor in the field with stakes and spray paint. To be reviewed and approved by (L.A.)
- Plant list is for information only. If there are any discrepancies between "plant quantities" on plan versus "plant list", "the plans" will take priority. Notify L.A. of any discrepancies prior to planting.
- Only unit price installed planting bids based on Landscape Architect's planting plans and Plant List will be accepted. Owner retains the right to remove portions of the work from the contract and / or create separate contracts for phasing of the project. Landscape Architect reserves the right to deny any and all bids when such rejections are in the best interest of the owner.
- All plant material must be Florida #1 or better, unless specified as "character" or with written approval from L.A.
- Landscape contractor to submit planting product and / or sample submittals for L.A. approval prior to purchasing. Submittals to include nursery source for plant material & photographs with measuring tapes and / or person standing next to plant material for scale reference. Soils and mulch (w/ samples and supplier info) must be approved by submittal to L.A. prior to purchase.
- All planting beds must be free of surface rock over 1/2" diameter, prior to mulching.
- Planting beds should receive 12" of "Geomatic Mix" planting soil, 8" minimum if subgrade soils are of good quality and a thinner profile is approved by the L.A. in advance.
- Planting soil specification: "Geomatic General Planting Mix" (20% Florida Peat, 10% AtlasGrow, 20% Coarse Sand, 20% #1 Sand, and 30% Finebank). Landscape contractor to submit sample to be approved by L.A. - Found at: ATLAS Peat & Soil, Inc. 561-734-7300
- Roottop soil specification: "Geomatic Roottop Mix" (25% Coarse Ortona Sand, 25% Medium APB Sand, 20% Finebank, 20% FLA Peat, 6% Rice Rock, and 2% Perl), Landscape contractor to submit sample to be approved by L.A. - Found at: ATLAS Peat & Soil, Inc. 561-734-7300
- Fertilize all plants with Omocote "Sierra Blend" 18-7-10: 1/2 hand full for 1 - 3 gallons, 1 hand full for 7-20 gallon, and 4 hands full for ball and burlapped (B & B) material.
- Fertilize all B & B material with the L.A. "Agriform" tablets or equal.
- Mulch all landscape areas with 2-1/2" - 3" of Eucalyptus or Melaleuca mulch. (No cypress or red color mulch)
- All sod areas laid with St. Augustine "Palmetto" to be hand raked prior to installing the sod.
- All sod areas to be top dressed with 2" of 70/30 Coarse Construction Sand / Florida Peat - prior to sodding. Landscape contractor to submit sample to be approved by L.A.
- All Plant material, excluding Sod, to be submitted from date of acceptance, as follows: Shrubs and Groundcovers for 30 days, large shrubs (over 10 gal) and small palms for 60 days, and B&B material for 360 days provided that plant material is receiving proper maintenance prescribed by Landscape contractor.
Note: Acts of God (Hurricanes) and other causes beyond the control of the Landscape contractor are not covered. All warranties to run concurrently, beginning upon Landscape Architect's final acceptance of the installation, unless owner or general contractor (GC) requires construction phasing beyond control of the installer.
- Installer to notify Owner, G.C. and / or L.A. of any partial completion due to phasing.
- All materials stored on site are the property of the installer until accepted by owner. Owner is not responsible for theft, unless notified in writing prior to installation and security arrangement agreed to.
- Watering is the responsibility of the installer during the installation and until final acceptance.
- Landscape contractor is responsible for coordinating their work with irrigation contractor.
- Landscape contractor is responsible to assure irrigation installation is properly progressing, and in the end adequate for good growth. The owner or G.C. must be notified in writing of any problems with irrigation phasing or performance.
- Any existing irrigation to be brought to a good functioning standard to ensure proper watering of new material. Modify and repair as needed, to adapt to renovated plantings. Verify compliance with rain sensor & vacuum breaker.
- All landscape areas must have an automatic irrigation system from time of installation, with 100% coverage and 100% overlaps, with rain sensors per city codes.
- Landscape contractor to exercise extreme care when digging and performing other work so not to damage any existing work such as underground, and overhead utilities, (fiber optic, electrical, gas, sewage, irrigation, & plumbing). In the event of planting conflicts with L.A. or Owner's authorized representative to be notified to provide alternate locations of planting or utility / obstruction conflicts. ALWAYS call SUNSHINE-81 before any underground excavation.
- Landscape contractor is responsible for immediate repair of any damage caused by their installation. Landscape contractor is responsible for working with the general contractor to assure that all cementitious contaminants and other debris are removed from all soils.
- In planting beds, particularly by buildings, Landscape contractor to excavate existing soils to a minimum depth of 12" and backfilled with 12" of planting soil. In sod areas, Landscape contractor to de-compact soil with backhoe teeth to a depth of 6' and add 2" min. of top soil for sodding.
- All circular pits to be excavated with vertical sides for all plants, except for hedges & planting beds. The diameter of these pits for trees and shrubs to be 1/3 larger than the root ball of the tree and replaced with approved specified soil.
- All tree pits to have the soil removed in the amount of 1/3 larger than the root ball of the tree and replaced with approved specified soil.
- All Palm tree pits to have the soil removed in the amount of 1/3 larger than the root ball of the palm and replaced with clean yellow sand.
- All Tree & Palm pits to be excavated with a backhoe only. Absolutely no use of augers.
- All cyclone or fill sand left over from filling building pads or other construction - must be removed from landscape areas due to its very poor drainage characteristics.
- All trenches from electrical, gas, water, irrigation or any other utilities - must be back-filled with coarse sand or larger aggregate - No cyclone or fill sand within 36" of surface grade.
- Use root barriers as needed. By Deeproot from Hort Enterprises 800-366-4678 (or L.A. approved equal).

ROOT PRUNE & TRANSPLANTING SPECIFICATIONS

- Root prune 50% of trees root ball to a minimum depth of 30" - 48" as feasible. Root prune remaining 50% of root ball in 4-30 days. Allow ample time for roots to grow back to a minimum prior to transplanting as feasible.
- Trim all cut frayed roots with clippers leaving clean cuts. Use sawall or chainsaw with sharp blades for cutting large roots leaving no shredded root ends.
- Wrap root balls with shrink wrap plastic & backfill with soil mixture: (70% lake Wales silica sand & 30% Florida peat moss). Fill & pack tightly any remaining voids between plastic & root ball covering all cut roots with soil mixture.
- Backfill the outside areas of root prune trench with existing soil to hold plastic firmly against newly wrapped root ball. Stake & mark out the excavation trench to be able to locate wrapped root ball to minimize any disturbance when harvesting for transplanting.
- Water trees times per week for next 2 months or until trees are ready to move.
- Water daily for duration of overall job will be required. Having irrigation bubblers as part of automatic irrigation system for post construction can supplement additional drenching, but are not a substitution.
- Use root stimulant root drenching solution on trees root pruned areas, ("Superthrive" & "Keyplex Polystert"), mixture per manufactures specifications based on application frequency.
- Root prune drenching schedule: every 2-3 weeks, 3 applications.
- Harvest trees 8 to 10 weeks depending on size, consult with L.A. prior to moving on schedule.
- Re-dig holes well outside the plastic plant wrap being careful not to disturb or tear, preserving root ball, re-wrap if needed for transplanting.
- When digging trees, break off large piece of existing coral rock, 4- 36" deep as feasible, by under cutting ball. Do not peel ball off rock. If necessary, the horizontal chipping or drilling may be required to break off specimen oak tree's root ball at a minimum 30" depth.
- Replant, transplanted trees and palms at correct height in new location, keeping original root ball crown exposed.
- Properly wrap and strap trees and palms to lifting equipment in such a way as to not tear cambium layer and excessively disfigure appearance.
- Trees that are not properly lifted and die due to girdling, compression or excessive damage to the cambium layer will be charged to the G.C. and sub-contractor at a rate of \$600 per caliper inch.
- Remove plastic backfill with 50% existing soil blended with 50% planting soil plus 1/2 bale of Canadian peat moss. Backfill, sink place in agriform fertilizer tablets per recommendations, brace, and trim broken branches and fronds as needed, brace per specification.
- All transplanted trees to have tree barrier protection installed prior to new development construction commencement.
- See Mitigation / Planting Plans for all Tree transplanted locations and Tree mitigation requirements.



HEDGE & MASS PLANTING DETAIL

PLANTING DETAILS

Multi-Family Residential / Townhouse Sites (RM-1, RM-2, RM-3)
Town Landscape Code (Sec. 24-16) & Miami-Dade Landscape Code (Chapter 18A)

	Required	Provided
1. Open Space Requirement		
1. Net Lot Area = <u>33,750</u> SF x 20% = <u>6,750</u> SF (BHI – Sec. 23-11)	20% / <u>6,750</u> SF	<u>20.3</u> % / <u>6,855</u> SF
2. Maximum Lawn Area Allowed (MDC – Sec. 18A-6(A)(5))		
a. Req. open space <u>6,750</u> SF x 60% = <u>4,050</u> SF	60% Max / <u>4,050</u> SF	<u>3975</u> SF

A. Required

1. 28 shade trees/acre: $28 \times \frac{0.77}{1} \text{ acres} = \frac{21.5}{22} \frac{24}{24}$
 (Min. 12' in height / 4' clear wood / 2 1/2" caliper)
 (Palm trees substituted at a 3:1 ratio; max. 25% of required shade trees)
 (MDC – Sec. 18A-6(C)(5)) and BHI Sec. 24-16

- | | | |
|--|-----------|----------|
| B. Tree Species | | |
| 1. Number of shade trees required
(from Sec. II(A)(1) above) | <u>22</u> | |
| 2. Number of shade tree species required
(BHI – Sec. 24-16(a)(2)) | <u>6</u> | <u>6</u> |

Page 1 of 3

1-5 required shade trees	2 shade tree species
6-10 required shade trees	3 shade tree species
11-15 required shade trees	4 shade tree species
16-20 required shade trees	5 shade tree species
21-30 required shade trees	6 shade tree species
31 or more required shade trees	7 shade tree species

1. Number of Stories of building 8

2. Number of shade trees required 22
(from Sec. (II)(A)(1) above)

3. Shade tree heights required: 12 ft. - 25 % or 5.5 shade trees
14-16 ft. - % or shade trees
16-18 ft. - 50 % or 11 shade trees
18-20 ft. - 25 % or 5.5 shade trees

No. Stories	Min. Shade Tree Height (ft.)	Min. Spread (ft.)	Palm Height (ft.)
1-2	12	5	14-18
3	50% min. req.	5	14-18
	50% 14-16	6	18-22
4	50% min. req.	5	14-18
	25% 14-16	6	18-22
	25% 16-18	7	22-28
5 plus	25% min. req.	5	14-18
	50% 16-18	7	22-28
	25% 18-20	8	22-28

III. Street Trees	Required	Provided
1. Street Trees @ 1:35' = <u>6</u> Width of lot .225 / 35' = (15' min height / 6' clear wood / 2 1/4" caliper) (Street tree species determined by Street Tree Master Plan) (Street trees do not count toward required on site shade trees) (BHI – Sec. 24-16(a)(2)(a))	<u>6</u>	<u>6</u>

1. Street Trees @ 1:35' 6 6 6
Width of lot $\frac{225}{35} =$ 6
(15' min height / 6" clear wood / 2 1/4" caliper)
(Street tree species determined by Street Tree Master Plan)
(Street trees do not count toward required on site shade trees)
(BHI – Sec. 24-16(a)(2)(a))

Page 2 of 3

V. Buffers (If applicable)		
(BHI – Sec. 24-18)		
1. Parking Lot from ROW	N/A (yes / no)	N/A (yes / no)
2. Dissimilar Uses	N/A (yes / no)	N/A (yes / no)

1. 10 SF / parking space: 10 x _____ spaces = _____ SF (MDC – Sec. 18A-8(J))	N/A	N/A
2. Shade Trees Required (MDC – Sec. 18A-6(J))	N/A	N/A
3. Shrubs Required	N/A	N/A

(BHI – Sec. 24-16(a)(2)(f))

1. Number of trees near power lines (See attached FPL guidelines)	N/A
--	-----

All landscaping shall promote Florida Friendly landscaping principles through the use of drought-tolerant plant species, grouping of plant material by water requirements, the use of irrigation systems that conserve the use of potable and non-potable water supplies and restrictions on the amount of lawn areas. Florida Friendly landscape principles also promote planting the right plant in the right place and appropriate fertilization and mulching.

Page 3 of 3

Revised 12/09/14

REVISION DATE(S)

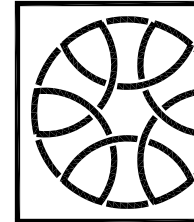
DATE: 5/19/2023

L-7

CASA VERDE
1130 - 1150 93 STREET RAY HARBOR ISLANDS FLORIDA 33154

SHEET TITLE

LANDSCAPE | LEGEND



REAL

THIS DRAWING IS TO BE USED FOR THIS PROJECT AND SET ONLY. THIS DRAWING IS THE PROPERTY OF THE LANDSCAPE ARCHITECT AND IS NOT TO BE REPRODUCED, COPIED, OR ALTERED IN ANY MANNER. IF IT IS, IT IS TO BE REPRODUCED EXACTLY AS IT APPEARS HEREIN AND NOT TO BE REPRODUCED IN ANY MANNER. THIS DRAWING IS TO BE USED FOR THIS PROJECT AND SET ONLY. THIS DRAWING IS THE PROPERTY OF THE LANDSCAPE ARCHITECT AND IS NOT TO BE REPRODUCED, COPIED, OR ALTERED IN ANY MANNER. IF IT IS, IT IS TO BE REPRODUCED EXACTLY AS IT APPEARS HEREIN AND NOT TO BE REPRODUCED IN ANY MANNER.	
PROJECT TITLE	
CASA VERDE	
1130 - 1150 93 STREET BAY HARBOR ISLANDS, FLORIDA 33154	
REVISION DATE(S)	
DATE	
5/19/2023	
L-7	



CARANDAY PALM



PARADISE TREE



CHINESE FAN PALM



KEY THATCH PALM



CHRISTMAS PALMS



MAHOGANY TREE



ROYAL PALMS



WAX JASMINE



DRACAENA 'SONG OF INDIA'



CLUSIA ROSEA 'NANA'



LATAN PALM



BLACK IRONWOOD TREE



LIRIOPE



LICUALA PALM



GOLDEN BEACH CREEPER



CLUSIA ROSEA TREE



SABAL PALMS



LIGNUM VITAE



PLEOMELE



CRINUM LILY



PONYTAIL PALM



SILVER BUTTONWOOD



WHITE FOUNTAIN GRASS



FLORIDA THATCH PALM



CARDBOARD PALM



EUROPEAN FAN PALM AND FOXTAIL FERN



PIGEON PLUM



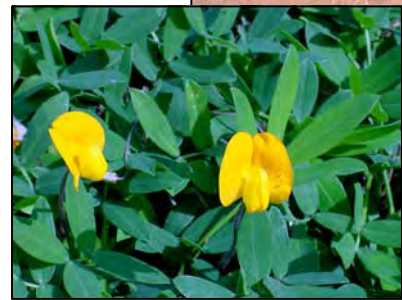
MONTGOMERY PALMS



CAT PALMS



PERENNIAL PEANUT



AGLAONEMA



DRACAENA ARBOREA



CONFEDERATE JASMINE VINE



GLORY BOWER CLERODENDRUM VINE



CONCEPT PLANTING IMAGES

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND SITE CONDITIONS BEFORE PROCEEDING WITH WORK. IF ANY DISCREPANCIES, ERRORS OR OMISSIONS SHOULD BE ENCOUNTERED ON PLANS, CONTRACTOR SHALL NOTIFY ARCHITECT BEFORE ANY PART OF THE WORK IS STARTED, SO THAT PROPER CORRECTIONS CAN BE MADE. IF ARCHITECT IS NOT NOTIFIED PRIOR TO COMMENCING OF THE WORK, THE CONTRACTOR SHALL BEAR FULL RESPONSIBILITY FOR ANY DISCREPANCIES, ERRORS OR OMISSIONS.

NOTE - ASPHALT MILL AND RESURFACING
RESTORATION SHALL BE IN ACCORDANCE WITH FOOT STANDARDS & SHALL BE UTILIZED TO PREVENT TRACKING OF BITUMEN ONTO EXISTING ROADWAY. TEMPORARY AND PERMANENT STRIPING SHALL BE PERFORMED IN ACCORDANCE WITH INDUSTRY STANDARDS.

- NOTES:**
1. MAXIMUM CROSS SLOPE ON WALKWAYS TO BE 2%.
 2. MAXIMUM LENGTH WISE SLOPE ON WALKWAYS TO BE 5%.
 3. CONNECT ALL ROOF DRAINS TO DRAINAGE WELL.
 4. CONTRACTOR TO COORDINATE CONSTRUCTION OF DRAINAGE SYSTEM WITH WATER, FIRE AND IRRIGATION PIPES.
 5. ALL EXISTING AND PROPOSED ELEVATIONS ARE REFERENCED TO NGVD 1929.
 6. ALL DRAINAGE PIPE TO HAVE MINIMUM 1% (1/8 INCH/FT) SLOPE.
 7. REFER TO PLUMBING PLANS FOR INFORMATION ON ROOF DRAINS AND CONDENSATE LINES.

DRAINAGE STRUCTURE TABLE			
STRUCTURE	RIM	INVERT	
1 CB #1	5.10	2.00	
2 CB #2	5.10	2.00	
3 DRAINAGE WELL #1	5.20	8" ROOF DRAIN=1.00 4" CONDENSATE=1.00	
4 DRAINAGE WELL #2	5.15	8" ROOF DRAIN=1.00 4" CONDENSATE=1.00	
5 AREA DRAIN #1	4.75	2.75	
6 AREA DRAIN #2	5.00	2.25	
7 AREA DRAIN #3	4.75	2.75	
8 AREA DRAIN #4	5.00	2.25	

FLOOD INFORMATION:

CONTROL PANEL NUMBER: 12086C0144L
FLOOD ZONE: "AE"
BASE FLOOD ELEVATION: 8.00' NGVD

ALL STORMWATER IS TO BE RETAINED ONSITE



LOCATION MAP
M.T.S.
SEC 27, TWP 52S, RNG 42E

NOTE:

ALL ELEVATIONS ARE REFERENCED TO N.G.V.D. 1929

GENERAL NOTES:

1. ALL EXISTING VALLEY GUTTER SHALL BE REPLACED WITH F-CURB EXCEPT WHERE VEHICULAR & PEDESTRIAN ACCESS IS ALLOWED. EXISTING VALLEY GUTTER SHALL BE COMPLETELY DEMOLISHED & REPLACED; MODIFICATION OF THE EXISTING VALLEY GUTTER IS NOT ALLOWED.
2. ALL WORK WITHIN THE BUILDING MUST BE PERFORMED BY A LICENSED CONTRACTOR PER THE FLORIDA BUILDING CODE. ALL MATERIALS MUST MEET THE REQUIREMENTS OF THE FLORIDA BUILDING CODE.
3. REFER TO SHEET C-2 FOR LOCATION OF FIRE DEPARTMENT STAGING AREA.
4. DRAINAGE TO BE RETAINED ON-SITE AND NOT DISCHARGE ONTO ADJACENT PROPERTY.
5. ONLY ROOF DRAINS AND CONDENSATE LINES CAN GO TO THE WELL. ALL OTHER DRAINS TO EXFILTRATION TRENCH.
6. RESTORATION SHALL BE IN ACCORDANCE WITH FOOT STANDARDS. ALL DAMAGED VALLEY GUTTER AND F-CURB SHALL BE REMOVED WITHOUT DAMAGING ADJACENT ROADWAY. THE FINISH ON THE NEW VALLEY GUTTER AND F-CURB SECTIONS SHALL MATCH EXISTING.

LEGAL DESCRIPTION:

LOTS 3, 4 AND 5, BLOCK 3, BAY HARBOR ISLAND, ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 46, PAGE 5, OF THE PUBLIC RECORDS OF MIAMI-DADE COUNTY, FLORIDA.

NOTE:

THE ENTIRE ROADWAY IN FRONT OF THE PROJECT TO BE MILLED & RESURFACED TO A MINIMUM 3/4" DEPTH. FRESHLY RESURFACED ROADWAY TO BE TEMPORARY STRIPED THE NEXT DAY AND PERMANENT THERMOPLASTIC STRIPING TO BE INSTALLED 30 DAYS LATER.

THE LOCATION AND SIZE OF ALL EXISTING UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE AND ARE BASED ON THE BEST AVAILABLE INFORMATION. ADDITIONAL UTILITIES MAY EXIST WHICH ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION OF ALL EXISTING UTILITIES. THE CONTRACTOR SHALL VERIFY ALL UTILITIES, BY ELECTRONIC METHODS AND BY HAND EXCAVATION IN COORDINATION WITH ALL UTILITY COMPANIES, PRIOR TO BEGINNING ANY CONSTRUCTION OPERATIONS. CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING OF DISCREPANCIES PRIOR TO BEGINNING WORK. ANY AND ALL CONFLICTS OF EXISTING UTILITIES WITH PROPOSED IMPROVEMENTS SHALL BE RESOLVED BY THE ENGINEER AND THE UTILITY OWNER PRIOR TO BEGINNING ANY CONSTRUCTION OPERATIONS. THIS WORK BY THE CONTRACTOR SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.

LEGEND

- PROPOSED CONCRETE
- PAVEMENT RESTORATION
- PROPOSED PAVERS
- PROPOSED MILL & RESURFACE
- PROPOSED ELEVATION
- PROPOSED SURFACE FLOW
- PROPOSED WATER METER
- PROPOSED CATCH BASIN
- PROPOSED SIGN (AS INDICATED)
- PROPOSED CLEANOUT
- PROPOSED RPZ BACKFLOW PREVENTER
- PROPOSED PIPING
- PROPOSED SILT FENCE
- EXISTING CONCRETE
- EXISTING PIPING AND APPURTENANCES
- EXISTING CATCH BASIN
- EXISTING ELEVATION
- EXISTING POWER POLE
- EXISTING MANHOLE (AS DESIGNATED)
- EXISTING WATER METER
- EXISTING FENCE

Sunshine

Call B11 or visit sunshineb11.com two full business days before digging to have buried facilities located and marked. Check positive response codes before you dig!

FRANKEL BENAYOUN ARCHITECTS INC.

ARCHITECTS PLANNERS INTERIOR DESIGN

LICENSE NO. AA-C001494

MARKUS A. FRANKEL

LICENSE NO. AR0007143

PHAT BENAYOUN FISHMAN

LICENSE NO. AR0017273

1177 KANE CONCOURSE, SUITE 120
BAY HARBOR ISLANDS, FLORIDA 33154
PH: (305) 868.3665 FAX: (305) 868.3650
E-MAIL: INFO@FRANKELBENAYOUN.COM

OWNER / DEVELOPER:

HORIZON AT CASA VERDE, LLC.

53 BROADWAY

BROOKLYN, NY 11249

T. 516.447.8887

T. 718.388.8210

CIVIL ENG.:

HOLLAND ENGINEERING

CIVIL ENGINEERING SOLUTIONS

301 S.W. 7th Street

Fort Lauderdale, Florida 33315

Phone: 954.397.0771

Certificate of Authorization 7385

SUSAN C. HOLLAND

STATE OF FLORIDA PROFESSIONAL ENGINEER

LICENSE No. 41831

LANDSCAPE ARCH.:

STRUCTURAL ENG.:

MEP ENG.:

CASA VERDE

NEW CONDOMINIUM BUILDING

1130 - 1150 93RD STREET

BAY HARBOR ISLANDS, FLORIDA 33154

SIGNATURE DATE

NO. REVISION DATE

1 CITY COMMENTS 05-16-23 AA

DRAWING TITLE:

PAVING, GRADING & DRAINAGE PLAN

SCALE: 1"=10' DATE: 04/27/23

SHEET NUMBER:

C-1

J:\CAD\22-53\CAD Files\22-53-WS Plan.dwg — 5/16/2023 12:50 PM

SEWAGE VOLUME
42 UNITS AT 300 GPD PER UNIT= 12,600 GPD

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND SITE CONDITIONS BEFORE PROCEEDING WITH WORK. IF ANY DISCREPANCIES, ERRORS OR OMISSIONS SHOULD BE ENCOUNTERED ON PLANS, CONTRACTOR SHALL NOTIFY ARCHITECT BEFORE ANY PART OF THE WORK IS STARTED, SO THAT PROPER CORRECTIONS BE MADE. IF ARCHITECT IS NOT NOTIFIED PRIOR TO COMMENCING OF THE WORK, THE CONTRACTOR SHALL BEAR FULL RESPONSIBILITY FOR ANY DISCREPANCIES, ERRORS OR OMISSIONS.

WATER AND SEWER TO MEET THE STANDARDS AND REQUIREMENTS OF MDWASD.

NOTE:
ALL ELEVATIONS ARE REFERENCED TO N.G.V.D. 1929

LEGAL DESCRIPTION:
LOTS 19 AND 20, BLOCK 3, BAY HARBOR ISLAND, ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 46, PAGE 5, OF THE PUBLIC RECORDS OF MIAMI-DADE COUNTY, FLORIDA.



LOCATION MAP
N.T.S.
SEC 27, TWSP 52S, RNG 42E

LEGEND

- PROPOSED CONCRETE
- PAVEMENT RESTORATION
- PROPOSED PAVERS
- PROPOSED MILL & RESURFACE
- PROPOSED ELEVATION
- PROPOSED SURFACE FLOW
- PROPOSED WATER METER
- PROPOSED CATCH BASIN
- PROPOSED SIGN (AS INDICATED)
- PROPOSED CLEANOUT
- PROPOSED RPZ BACKFLOW PREVENTER
- PROPOSED PIPING
- PROPOSED SILT FENCE
- EXISTING CONCRETE
- EXISTING PIPING AND APPURTENANCES
- EXISTING CATCH BASIN
- EXISTING ELEVATION
- EXISTING POWER POLE
- EXISTING MANHOLE (AS DESIGNATED)
- EXISTING WATER METER
- EXISTING FENCE

FRANKEL BENAYOUN ARCHITECTS INC
ARCHITECTS PLANNERS INTERIOR DESIGN

LICENSE NO. AA-C001494
MARKUS A. FRANKEL
LICENSE NO. AR0007143
PHAT BENAYOUN FISHMAN
LICENSE NO. AR0017273
1177 KANE CONCOURSE, SUITE 120
BAY HARBOR ISLANDS, FLORIDA 33154
PH: (305) 868.3665 FAX: (305) 868.3650
E-MAIL: INFO@FRANKELBENAYOUN.COM

OWNER / DEVELOPER:
HORIZON AT CASA VERDE, LLC.
53 BROADWAY
BROOKLYN, NY 11249
T. 516.447.8887
T. 718.388.8210

CIVIL ENG.:
HOLLAND ENGINEERING
CIVIL ENGINEERING SOLUTIONS
301 S.W. 7th Street
Fort Lauderdale, Florida 33315
Phone: 954.387.0071
Certificate of Authorization 7385

SUSAN C. HOLLAND
STATE OF FLORIDA PROFESSIONAL ENGINEER
LICENSE No. 41831

LANDSCAPE ARCH:

STRUCTURAL ENG.:

MEP ENG.:

CASA VERDE
NEW CONDOMINIUM BUILDING
1130 - 1150 93RD STREET
BAY HARBOR ISLANDS, FLORIDA 33154

NO.	REVISION	DATE	AA
1	CITY COMMENTS	05-16-23	AA

DRAWING TITLE:
WATER & SEWER PLAN

SCALE: 1"=10' DATE: 04/27/23

SHEET NUMBER:

C-2

Sunshine

Call 811 or visit sunshine811.com two full business days before digging to have buried facilities located and marked.
Check positive response codes before you dig!

LEGEND:

- PROPOSED CONCRETE
PAVEMENT RESTORATION
PROPOSED ELEVATION
PROPOSED SURFACE FLOW
PROPOSED WATER METER
PROPOSED CATCH BASIN
PROPOSED SIGN (AS INDICATED)
PROPOSED CLEANOUT
PROPOSED RPZ BACKFLOW PREVENTER
PROPOSED PIPING
- EXISTING CONCRETE
EXISTING PIPING AND APPURTENANCES
EXISTING CATCH BASIN
EXISTING ELEVATION
EXISTING POWER POLE
EXISTING MANHOLE (AS DESIGNATED)
EXISTING WATER METER
EXISTING FENCE
PROPOSED SILT FENCE



Call 811 or visit sunshine811.com two full business days before digging to have buried facilities located and marked.
Check positive response codes before you dig!

NOTES:

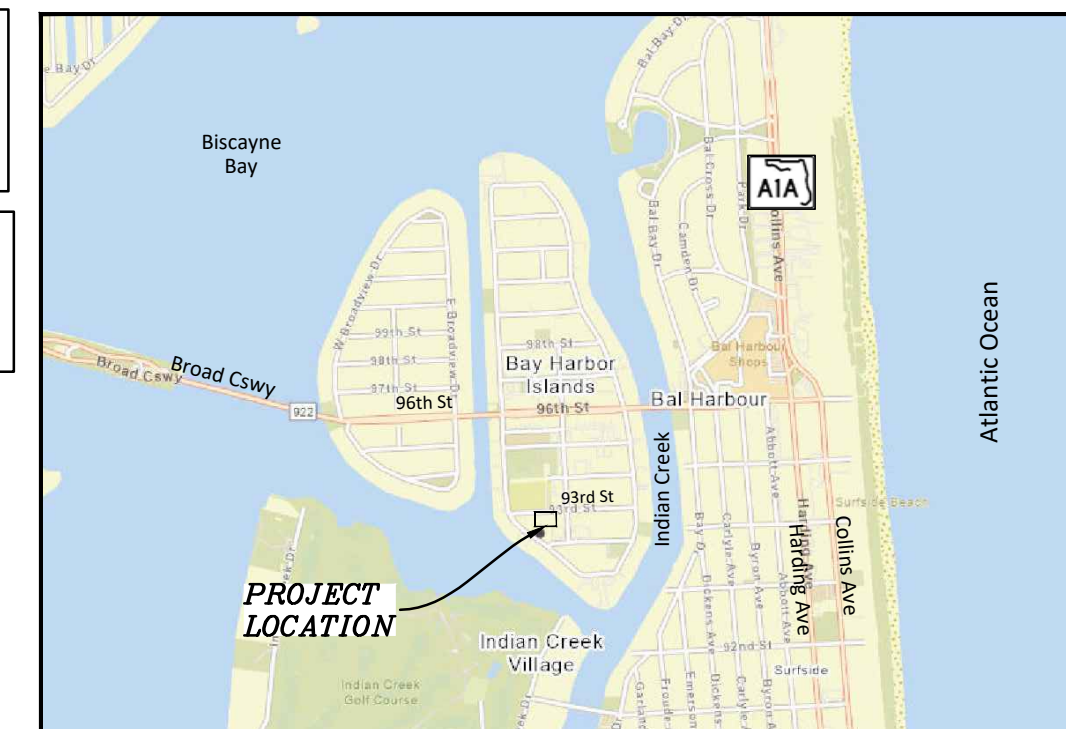
1. TOP PORTION OF SIGN SHALL HAVE A REFLECTORIZED BLUE BACKGROUND.
2. BOTTOM PORTION OF SIGN SHALL HAVE A REFLECTORIZED WHITE BACKGROUND WITH BLACK OPAQUE LEGEND AND BORDER.
3. LOCATE SIGN AT CENTERLINE AND HEAD OF EACH HANDICAP PARKING STALL, WHERE APPLICABLE.

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND SITE CONDITIONS BEFORE PROCEEDING WITH WORK. IF ANY DISCREPANCIES, ERRORS OR OMISSIONS SHOULD BE ENCOUNTERED ON PLANS, CONTRACTOR SHALL NOTIFY ARCHITECT BEFORE ANY PART OF THE WORK IS STARTED, SO THAT PROPER CORRECTIONS BE MADE. IF ARCHITECT IS NOT NOTIFIED PRIOR TO COMMENCING OF THE WORK, THE CONTRACTOR SHALL BEAR FULL RESPONSIBILITY FOR ANY DISCREPANCIES, ERRORS OR OMISSIONS.

LEGAL DESCRIPTION:

LOTS 3, 4 AND 5, BLOCK 3, BAY HARBOR ISLAND, ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 46, PAGE 5, OF THE PUBLIC RECORDS OF MIAMI-DADE COUNTY, FLORIDA.

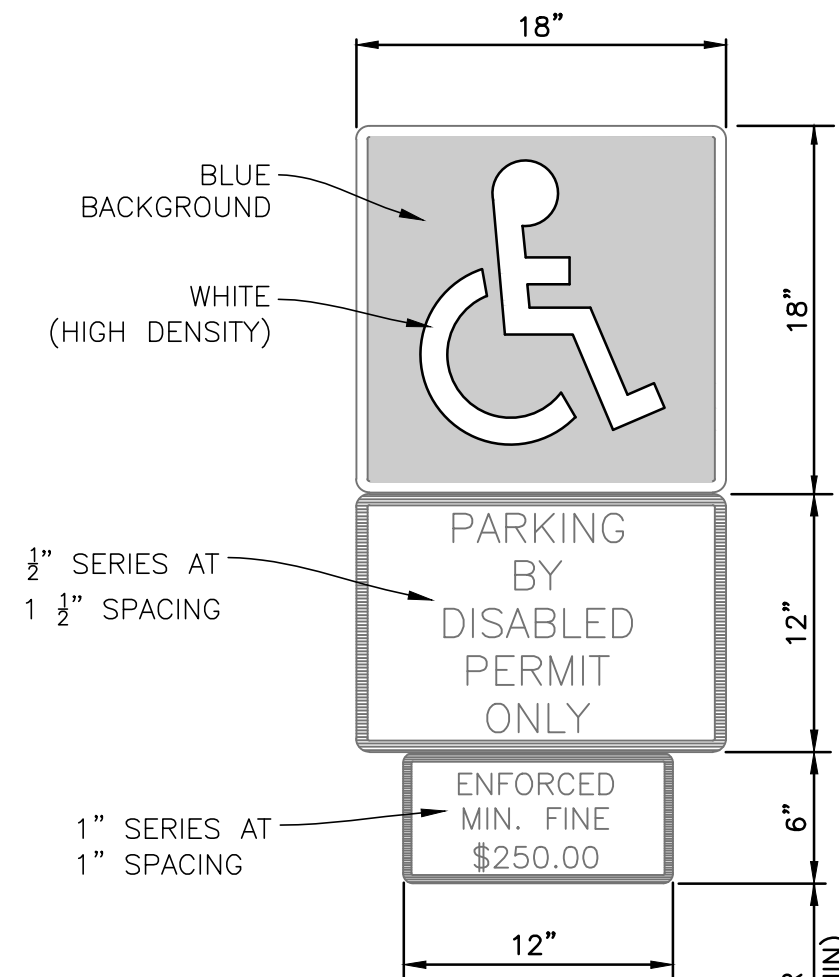
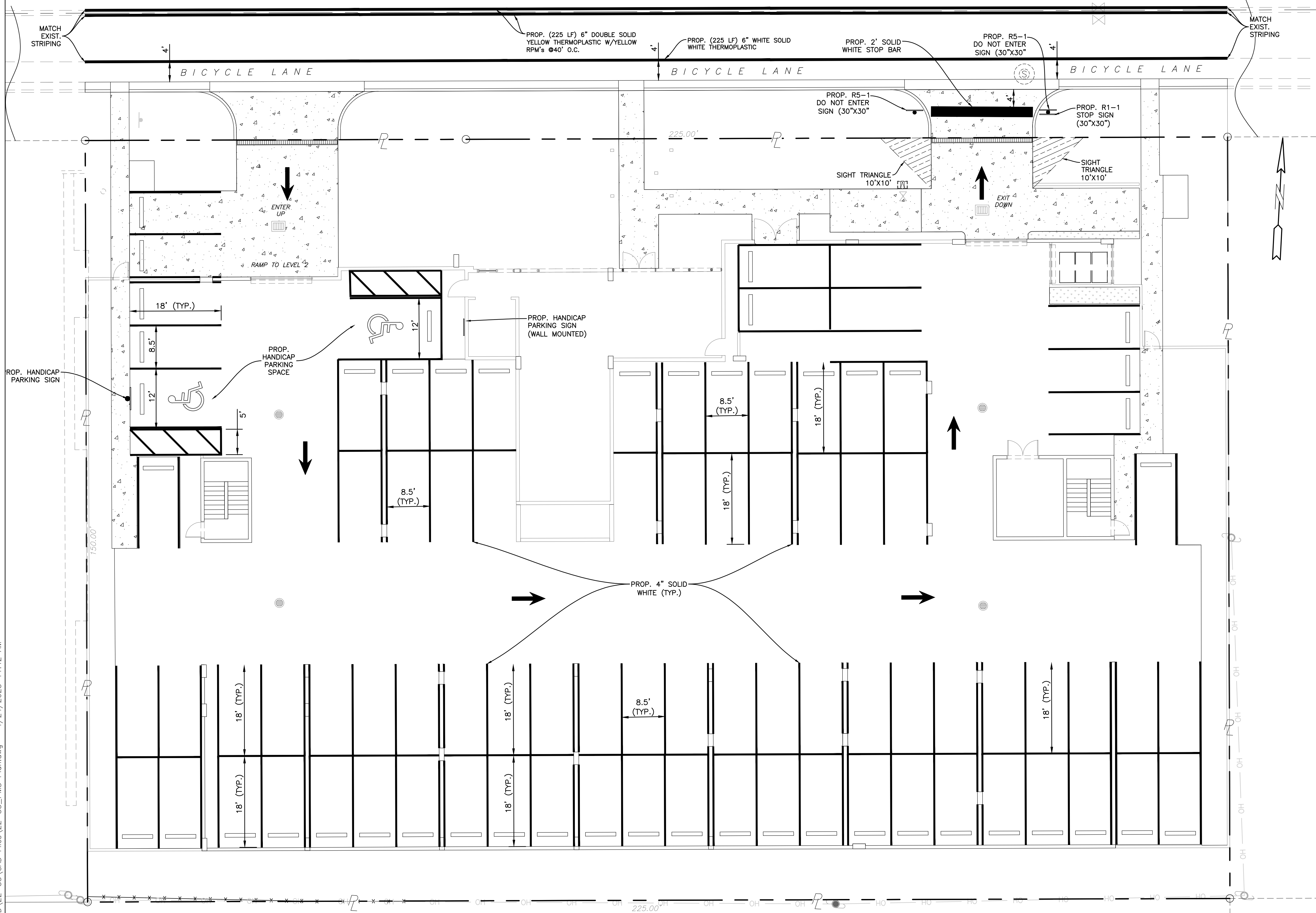
STRIPING SHALL BE IN COMPLIANCE WITH FDOT STANDARDS



LOCATION MAP

SEC 27, TWSP 52S, RNG 42E

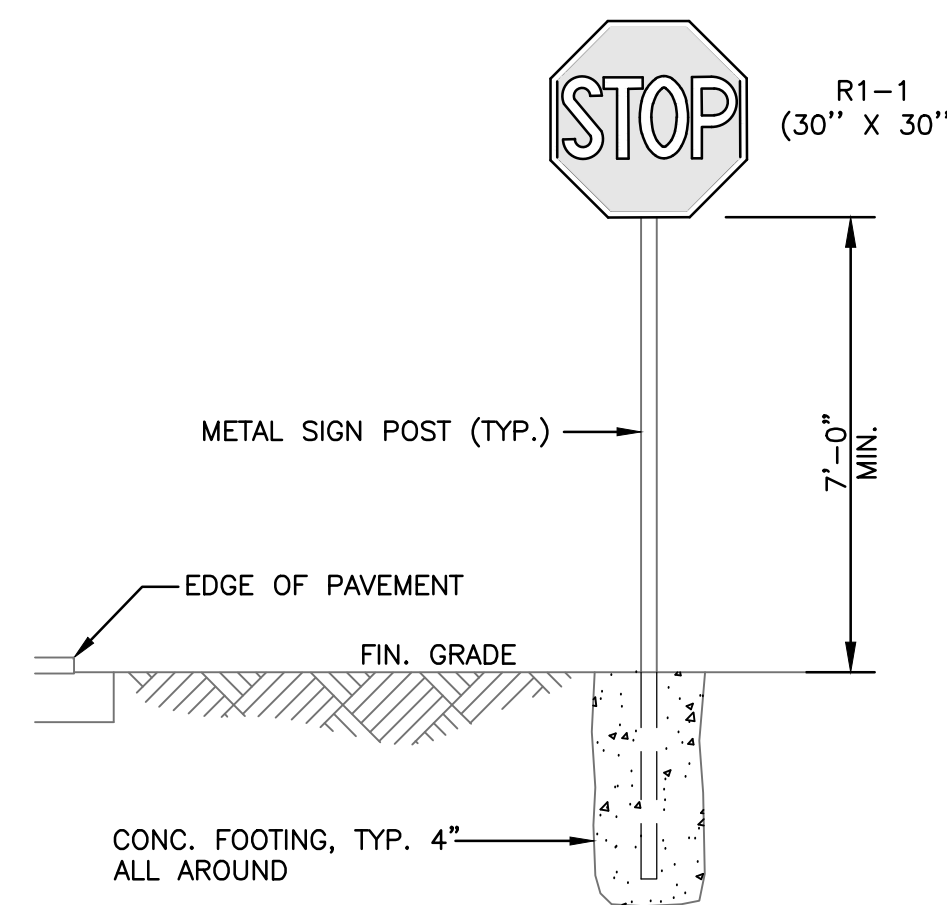
93rd Street



FTP-26 HANDICAP PARKING SIGN WITH SUPPLEMENTAL 12" x 6" "MINIMUM FINE \$250.00" SIGN

HANDICAP PARKING SIGN (WALL MOUNTED)

N.T.S.



STOP SIGN DETAIL

N.T.S.

FRANKEL BENAYOUN ARCHITECTS INC.

LICENSE NO. AA-C001494

MARKUS A. FRANKEL, LICENSE NO. AR0007143
PHAT BENAYOUN FISHMAN, LICENSE NO. AR0017273

1177 KANE CONCOURSE, SUITE 120
BAY HARBOR ISLANDS, FLORIDA 33154
PH: (305) 868.3665 FAX: (305) 868.3650
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SUSAN C. HOLLAND
STATE OF FLORIDA PROFESSIONAL ENGINEER
LICENSE No. 41831

LANDSCAPE ARCH.:

STRUCTURAL ENG.:

MEP ENG.:

CASA VERDE

NEW CONDOMINIUM BUILDING
1130 - 1150 93RD STREET
BAY HARBOR ISLANDS, FLORIDA 33154

SIGNATURE	DATE
NO.	REVISION
DATE	BY

DRAWING TITLE:
PAVEMENT MARKING & SIGNAGE PLAN

SCALE: 1"=10' DATE: 04/27/23

SHEET NUMBER:

C-3

J:\CAD\22-53\CAD_Files\22-53_SWPP_Plan.dwg - 4/24/2023 11:42 AM

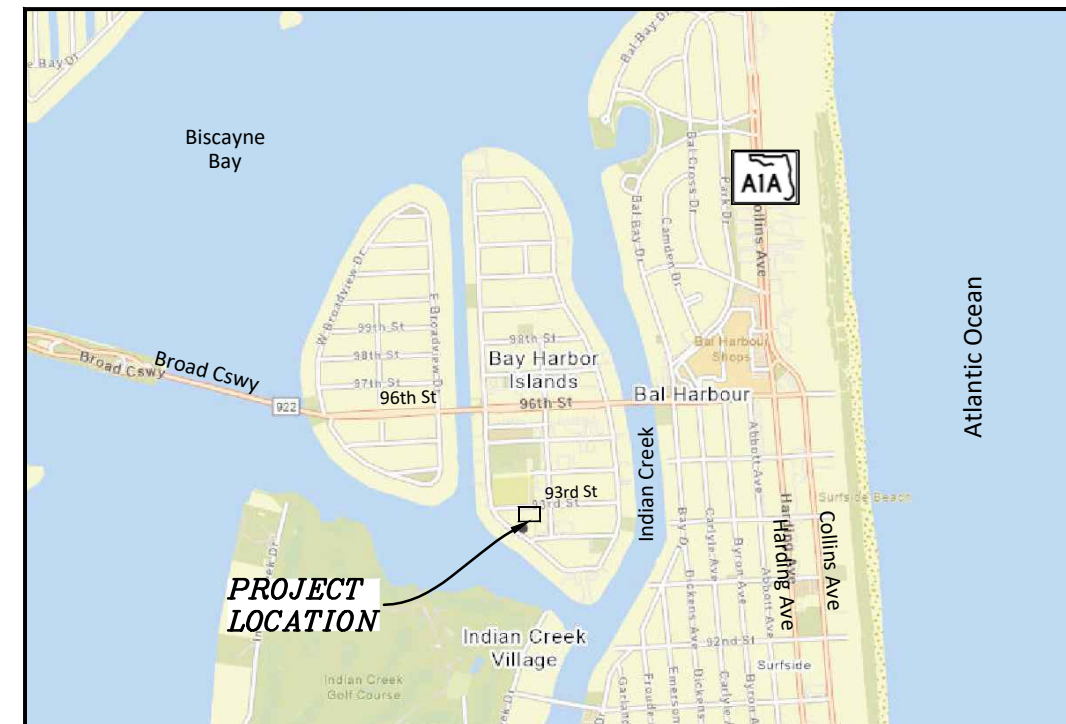
93rd Street

BEFORE CONSTRUCTION STARTUP,
CONTRACTOR TO INSTALL A CONSTRUCTION
ACCESS GATE WITH SILT FENCE

BEFORE CONSTRUCTION STARTUP CONTRACTOR
TO INSTALL A LIMEROCK CONSTRUCTION
ACCESS/EGRESS. (FAR INTO THE CONSTRUCTION
SITE AS PRACTICALLY FEASIBLE).

BEFORE CONSTRUCTION STARTUP,
CONTRACTOR TO INSTALL AND MAINTAIN A
SILT FENCE ALONG PERIMETER OF THE
PROPERTY, SEE DETAIL SHEET C-6

DURING CONSTRUCTION, CONTRACTOR TO
PROVIDE GRATE LINER TO PREVENT
INFILTRATION OF SEDIMENTS INTO DRAINAGE
STRUCTURES, SEE DETAIL SHEET C-6



LOCATION MAP
N.T.S.

SEC 27, TWSP 52S, RNG 42E

LEGAL DESCRIPTION:

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TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 46, PAGE
5, OF THE PUBLIC RECORDS OF MIAMI-DADE COUNTY, FLORIDA.

LEGEND

- PROPOSED CONCRETE
- PAVEMENT RESTORATION
- PROPOSED PAVERS
- PROPOSED MILL & RESURFACE
- PROPOSED ELEVATION
- PROPOSED SURFACE FLOW
- PROPOSED WATER METER
- PROPOSED CATCH BASIN
- PROPOSED SIGN (AS INDICATED)
- PROPOSED CLEANOUT
- PROPOSED RPZ BACKFLOW PREVENTER
- PROPOSED PIPING
- PROPOSED SILT FENCE
- EXISTING CONCRETE
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ARCHITECTS INC.

LICENSE NO. AA-C001494

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LICENSE NO. AR0007143
PHAT BENAYOUN FISHMAN
LICENSE NO. AR0017273

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STRUCTURAL ENG.:

MEP ENG.:

CASA VERDE
NEW CONDOMINIUM BUILDING
1130 - 1150 93RD STREET
BAY HARBOR ISLANDS, FLORIDA 33154

SIGNATURE DATE

NO.	REVISION	DATE	BY

DRAWING TITLE:

**STORMWATER POLLUTION
PREVENTION PLAN**

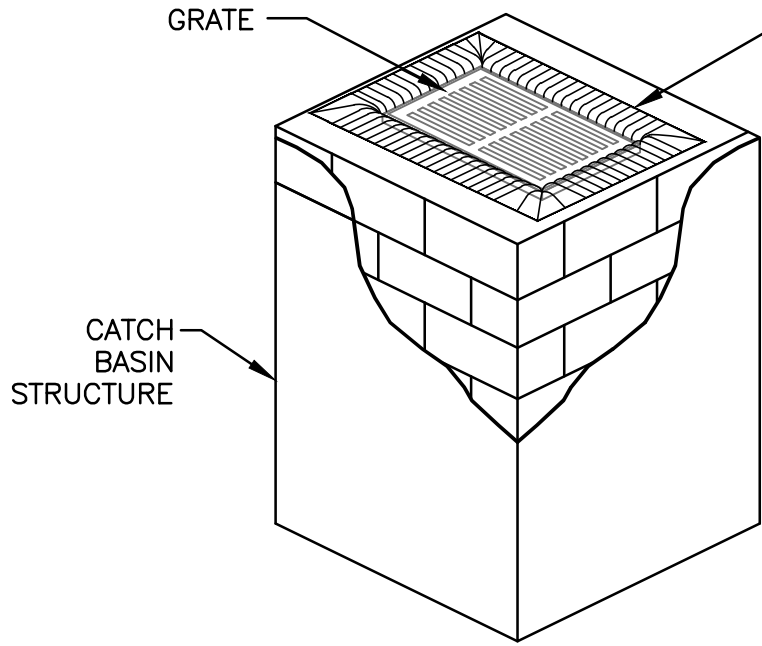
SCALE: 1"=10' DATE: 04/27/23

SHEET NUMBER:

C-4

Sunshine811

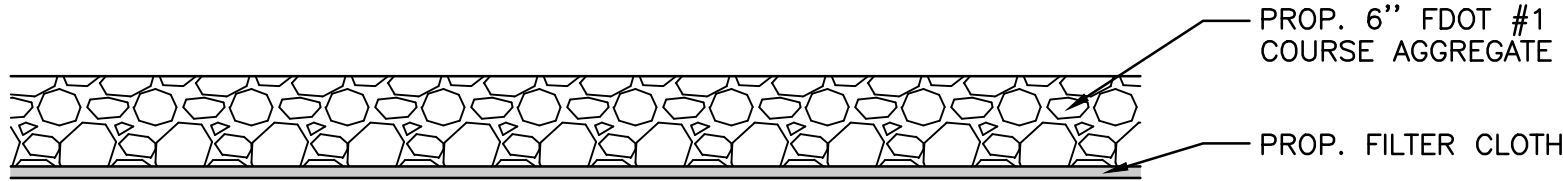
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business days before digging to have
buried facilities located and marked.
Check positive response codes before you dig!



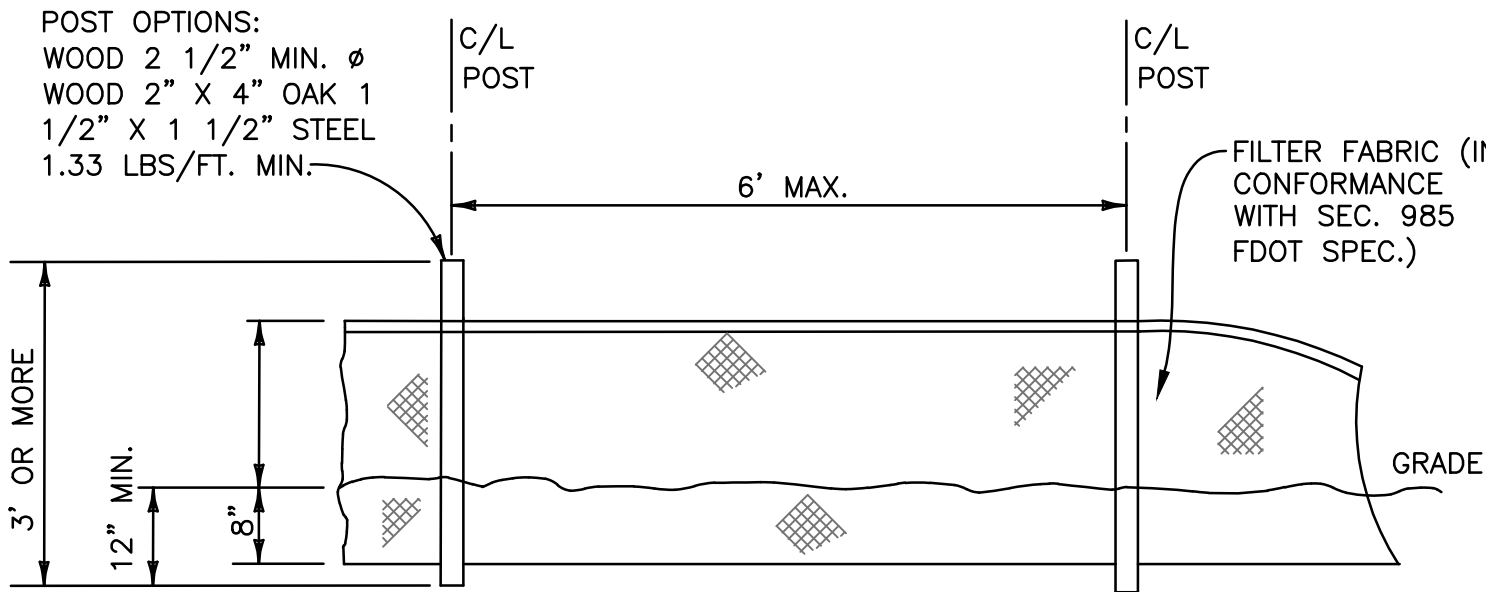
POLLUTION PREVENTION
FOR CATCH BASIN
N.T.S.

NOTES:

1. FILTER FABRIC TO MEET FDOT INDEX NO. 199, 280 SPECIFICATIONS AND FDOT SECTION 985.
2. CONTRACTOR TO REMOVE FILTER FABRIC FROM CATCH BASIN JUST PRIOR TO PAVING AND/OR SEALCOATING.



GRAVEL ENTRANCE/EXIT - DURING
CONSTRUCTION DETAIL
N.T.S.



TYPE III SILT FENCE
N.T.S.

BMP NOTES:

1. ALL SEDIMENT CONTROL MEASURES ARE TO BE ADJUSTED TO MEET FIELD CONDITIONS AT THE TIME OF CONSTRUCTION AND BE CONSTRUCTED PRIOR TO ANY GRADING OR DISTURBANCE OF EXISTING SURFACE MATERIAL ON BALANCE OF SITE. PERIMETER SEDIMENT BARRIERS SHALL BE CONSTRUCTED TO PREVENT SEDIMENT OR TRASH FROM FLOWING OR FLOATING ON TO ADJACENT PROPERTIES.
2. PERIODIC INSPECTION AND MAINTENANCE OF ALL SEDIMENT CONTROL STRUCTURES MUST BE PROVIDED TO ENSURE INTENDED PURPOSE IS ACCOMPLISHED. THE DEVELOPER, OWNER AND/OR CONTRACTOR SHALL BE CONTINUALLY RESPONSIBLE FOR ALL SEDIMENT CONTROLS. SEDIMENT CONTROL MEASURES SHALL BE IN WORKING CONDITION AT THE END OF EACH WORKING DAY.
3. SEDIMENT WILL BE PREVENTED FROM ENTERING ANY STORM WATER SYSTEM, DITCH OR CHANNEL. ALL STORMWATER INLETS THAT ARE MADE OPERABLE DURING CONSTRUCTION SHALL BE PROTECTED SO THAT SEDIMENT-LADEN WATER CANNOT ENTER THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR OTHERWISE TREATED TO REMOVE SEDIMENT.
4. WHERE CONSTRUCTION VEHICLE ACCESS ROUTES INTERSECT PAVED PUBLIC ROADS, PROVISIONS SHALL BE MADE TO MINIMIZE THE TRANSPORT OF SEDIMENT BY TRACKING ONTO THE PAVED SURFACE. WHERE SEDIMENT IS TRANSPORTED ONTO A PUBLIC ROAD SURFACE WITH CURBS AND GUTTERS, THE ROAD SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM THE ROADS BY SHOVELING OR SWEEPING AND TRANSPORTED TO A SEDIMENT CONTROL DISPOSAL AREA. STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER. THIS PROVISION SHALL APPLY TO INDIVIDUAL SUBDIVISION LOTS AS WELL AS TO LARGER LAND DISTURBING ACTIVITIES.
5. PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN (7) DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN (7) DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN UNDISTURBED FOR LONGER THAN THIRTY (30) DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT UNDISTURBED FOR MORE THAN ONE YEAR.
6. DURING CONSTRUCTION OF THE PROJECT, SOIL STOCKPILES SHALL BE STABILIZED, COVERED OR CONTAINED WITH SEDIMENT TRAPPING MEASURES. THE CONTRACTOR IS RESPONSIBLE FOR THE TEMPORARY PROTECTION AND PERMANENT STABILIZATION OF ALL SOIL STOCKPILES ON SITE AS WELL AS SOIL INTENTIONALLY TRANSPORTED FROM THE PROJECT SITE.
7. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED.
8. PROPERTIES AND WATER WAYS DOWNSTREAM FROM CONSTRUCTION SITE SHALL BE PROTECTED FROM SEDIMENT DEPOSITION AND EROSION AT ALL TIMES DURING CONSTRUCTION.
9. CONTRACTOR IS RESPONSIBLE FOR ALL SURFACE WATER DISCHARGES, RAINFALL RUN OFF OR DEWATERING ACTIVITIES.
10. CONTRACTOR MUST INCORPORATE ALL BMP'S NECESSARY TO MEET OR EXCEED STATE WATER QUALITY AND SWPPP REQUIREMENTS.
11. THE POLLUTION PREVENTION PLAN IS A MINIMUM GUIDELINE ONLY. ADDITIONAL BMP'S MAY BE NECESSARY AT CONTRACTOR'S EXPENSE.

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND SITE CONDITIONS BEFORE PROCEEDING WITH WORK. IF ANY DISCREPANCIES, ERRORS OR OMISSIONS SHOULD BE ENCOUNTERED ON PLANS, CONTRACTOR SHALL NOTIFY ARCHITECT BEFORE ANY PART OF THE WORK IS STARTED, SO THAT PROPER CORRECTIONS BE MADE. IF ARCHITECT IS NOT NOTIFIED PRIOR TO COMMENCING OF THE WORK, THE CONTRACTOR SHALL BEAR FULL RESPONSIBILITY FOR ANY DISCREPANCIES, ERRORS OR OMISSIONS.

LEGEND

- PROPOSED CONCRETE
- PAVEMENT RESTORATION
- PROPOSED PAVERS
- PROPOSED MILL & RESURFACE
- PROPOSED ELEVATION
- PROPOSED SURFACE FLOW
- PROPOSED WATER METER
- PROPOSED CATCH BASIN
- PROPOSED SIGN (AS INDICATED)
- PROPOSED CLEANOUT
- PROPOSED RPZ BACKFLOW PREVENTER
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- EXISTING CONCRETE
- EXISTING PIPING AND APPURTENANCES
- EXISTING CATCH BASIN
- EXISTING ELEVATION
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- EXISTING MANHOLE (AS DESIGNATED)
- EXISTING WATER METER
- EXISTING FENCE

**FRANKEL BENAYOUN
ARCHITECTS INC**
ARCHITECTS PLANNERS INTERIOR DESIGN

LICENSE NO. AA-C001494

MARKUS A. FRANKEL
LICENSE NO. AR0007143
PHAT BENAYOUN FISHMAN
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MEP ENG.:

CASA VERDE
NEW CONDOMINIUM BUILDING
1130 - 1150 93RD STREET
BAY HARBOR ISLANDS, FLORIDA 33154

SIGNATURE

DATE

NO.	REVISION	DATE	BY

DRAWING TITLE:

**STORMWATER POLLUTION
PREVENTION NOTES &
DETAILS**

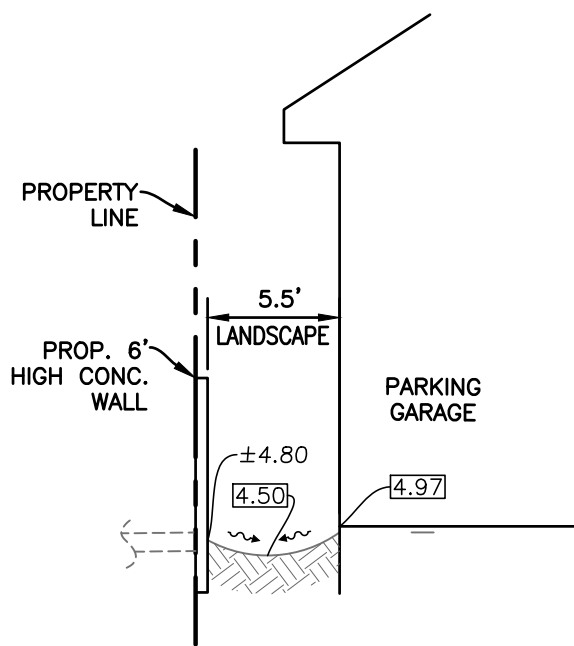
SCALE: N.T.S. DATE: 04/27/23

SHEET NUMBER:

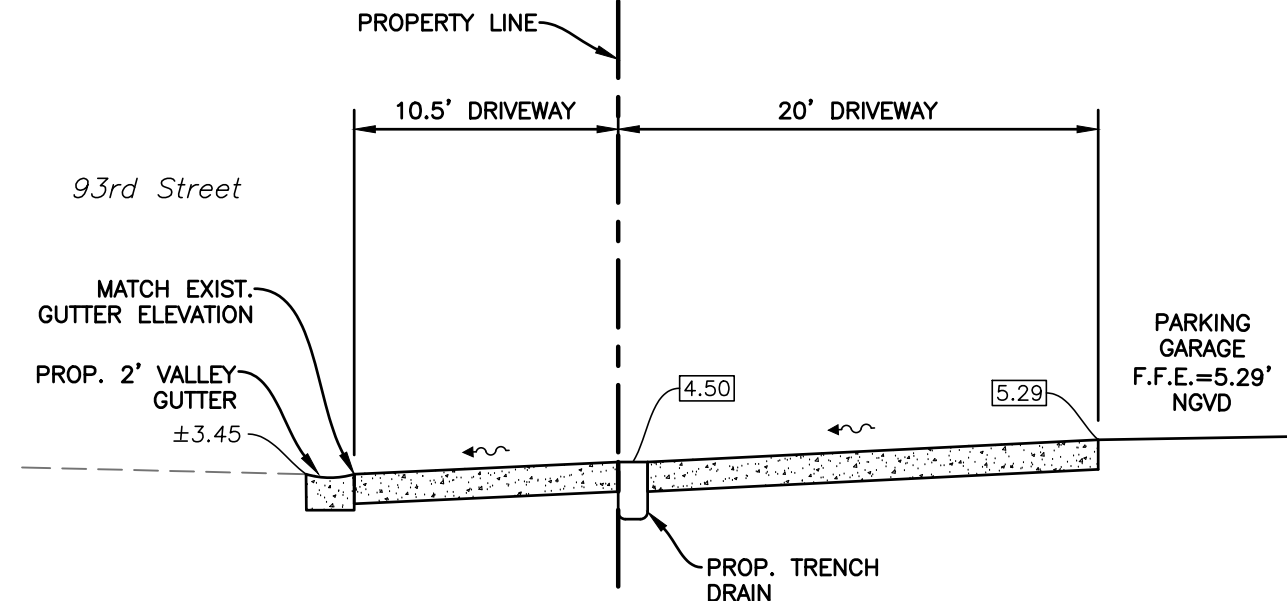
C-5

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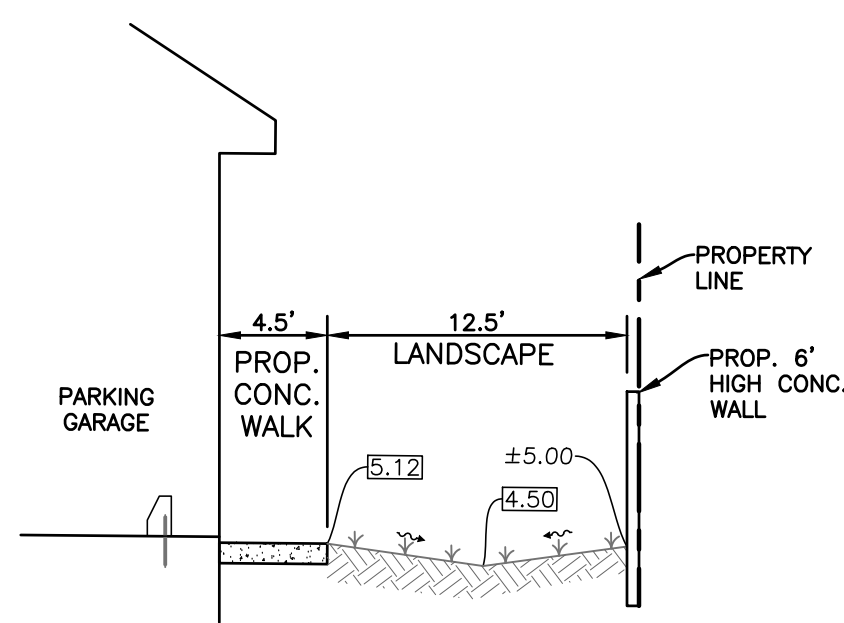
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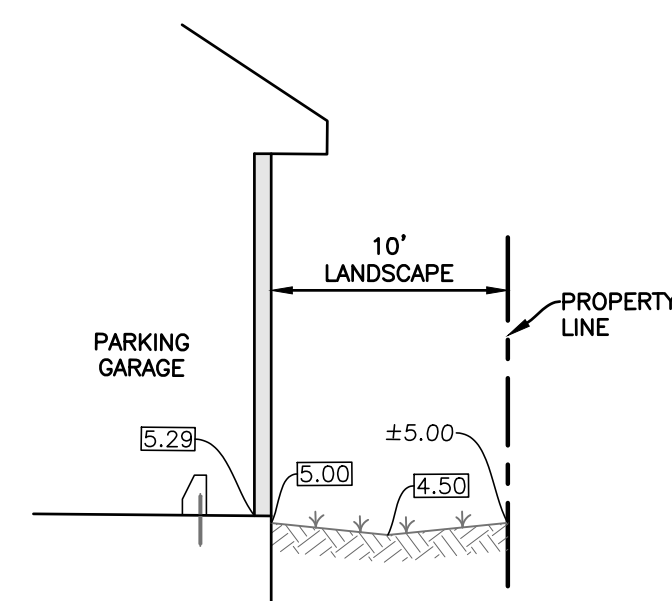
SECTION A-A
N.T.S.



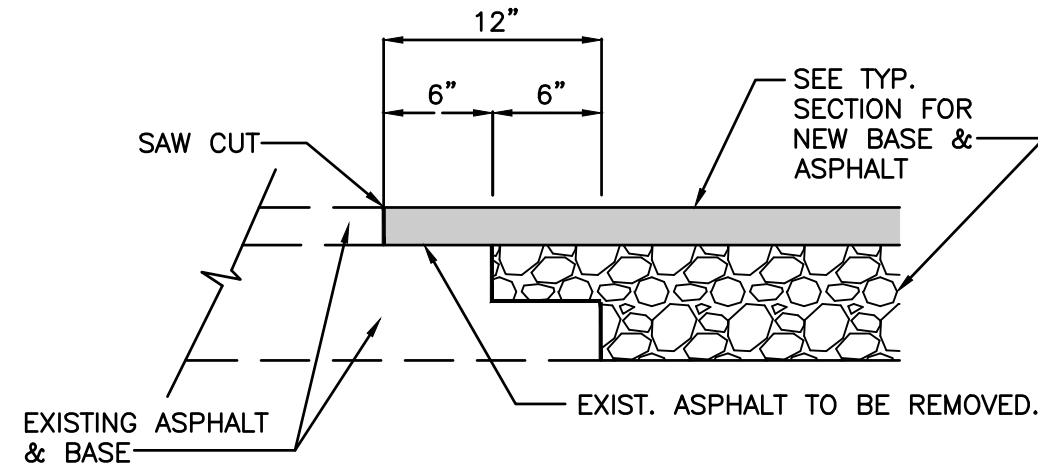
SECTION B-B
N.T.S.



SECTION C-C
N.T.S.



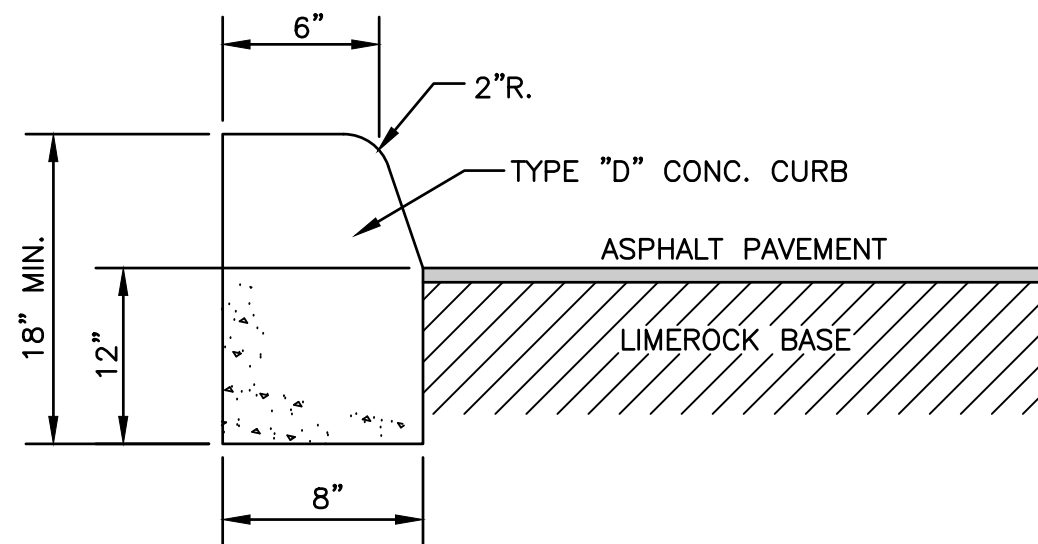
SECTION D-D
N.T.S.



NOTE:

THIS METHOD OF PAVEMENT JOINT SHALL BE USED FOR ANY APPLICATION OR CONSTRUCTION WHERE PROPOSED PAVEMENT AND BASE WILL BE CONNECTED TO EXISTING PAVEMENT AND BASE.

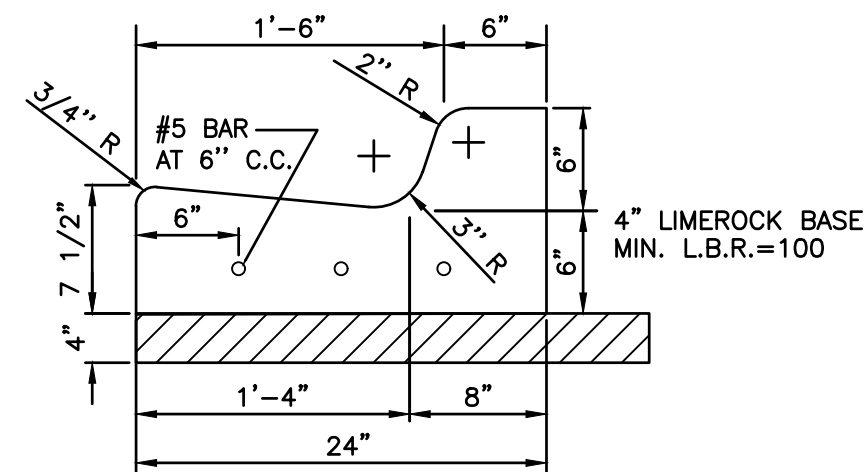
PAVEMENT JOINT DETAIL
N.T.S.



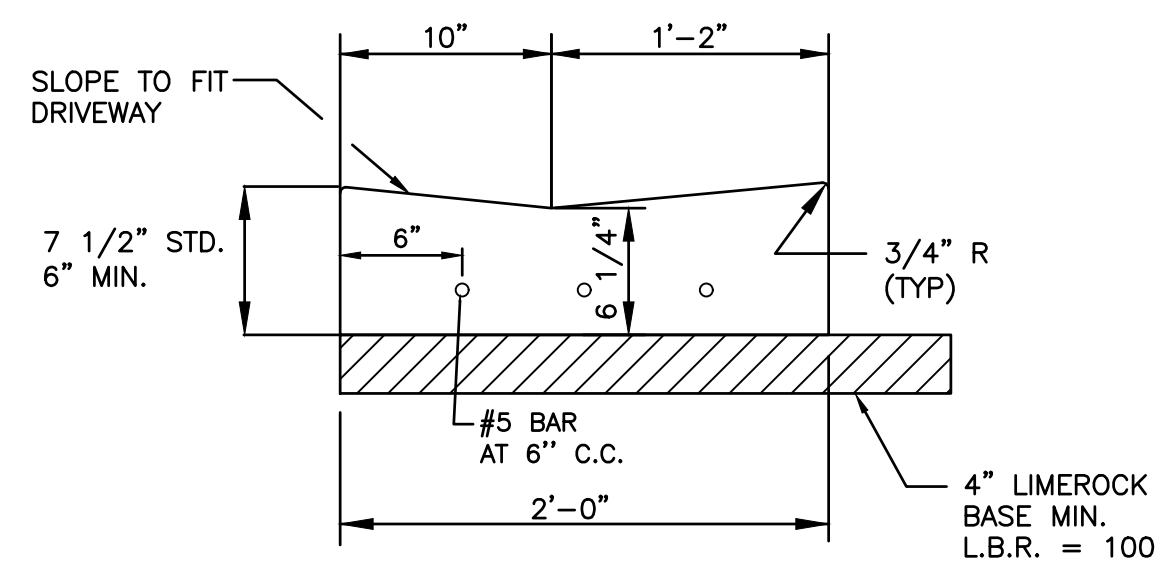
TYPE "D" CONCRETE CURB
N.T.S.

CURB NOTES:

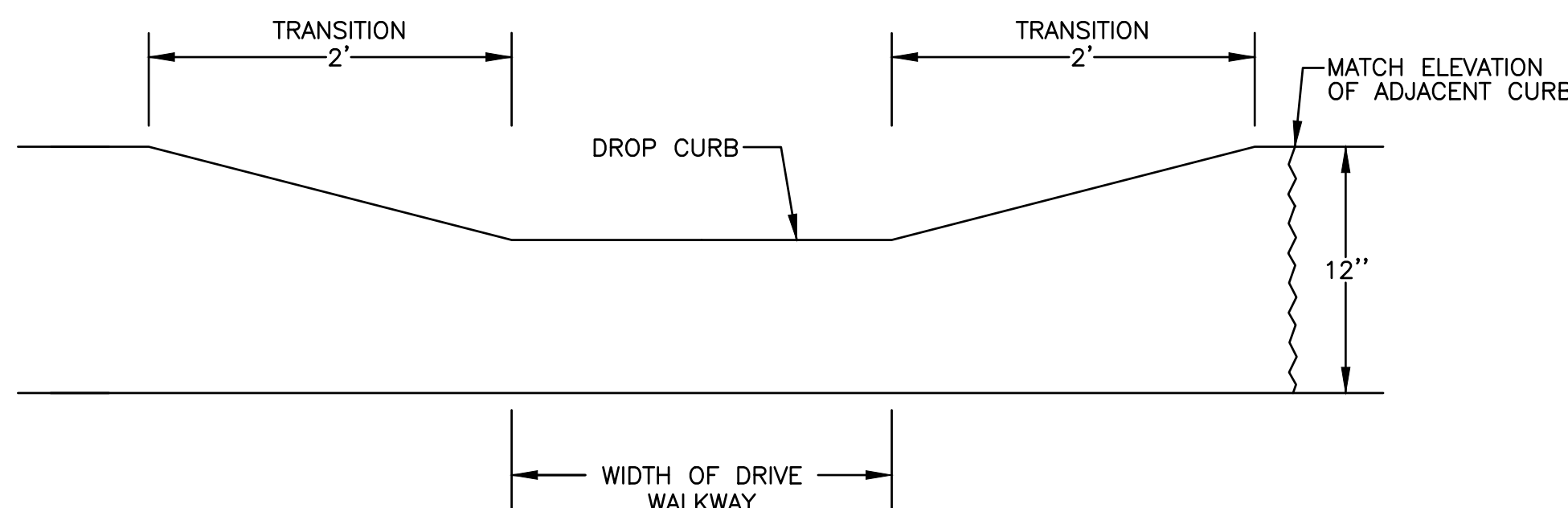
1. DOWELS SHALL BE DRILLED & EXPOXIED INTO EXISTING VALLEY GUTTER & "F" CURB TO RESIST SHEAR FORCES BETWEEN THE OLD STRUCTURES & THE NEW STRUCTURES.
2. ALL DAMAGED VALLEY GUTTER AND F-CURB SHALL BE REMOVED WITHOUT DAMAGING ADJACENT ROADWAY.
3. THE FINISH ON THE NEW VALLEY GUTTER AND F-CURB SECTIONS SHALL MATCH EXISTING
4. PROVIDE 1/2" X 18" SMOOTH DOWELS AT 12" C.C. TO CONNECT NEW CURB TO EXISTING CURB



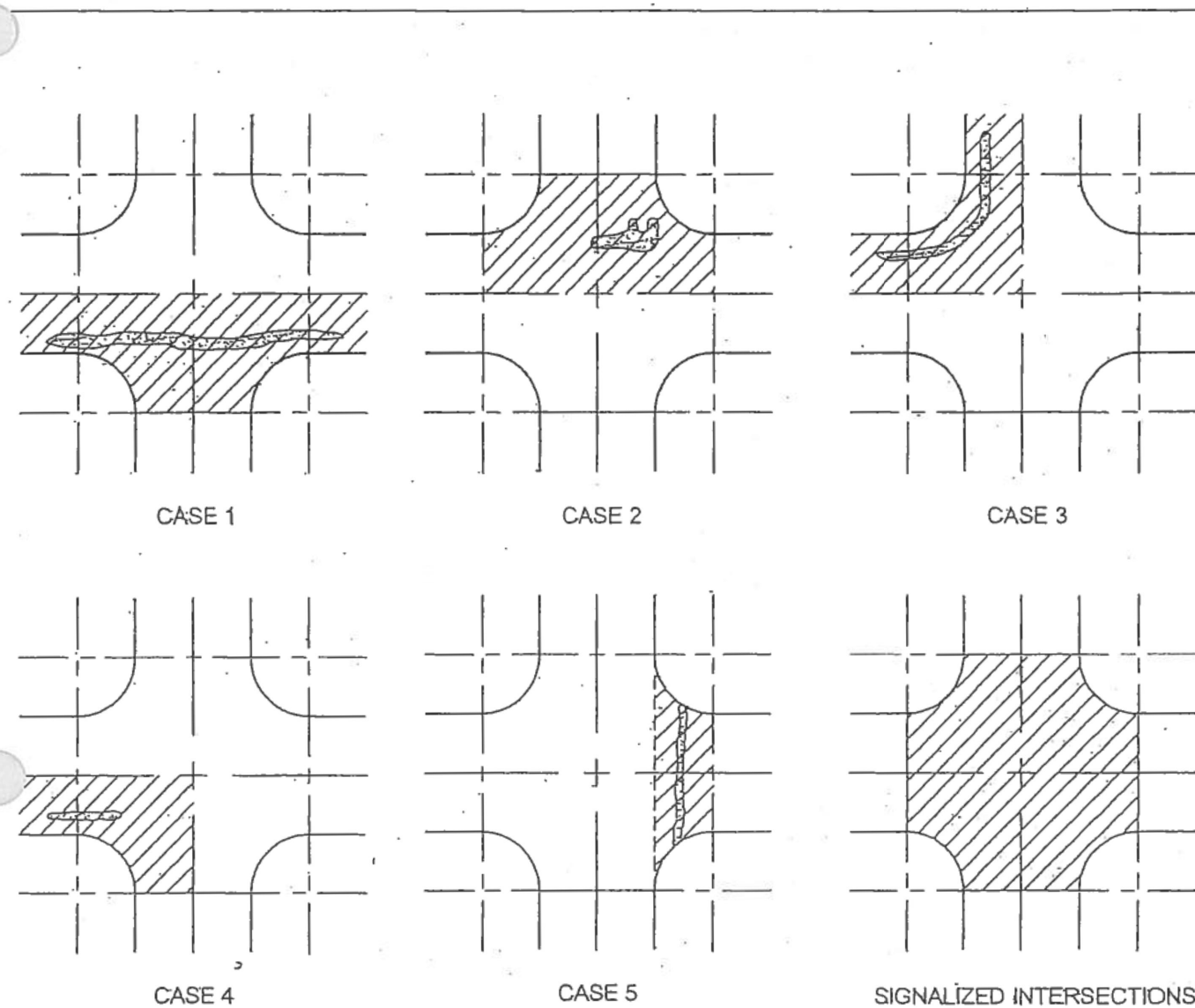
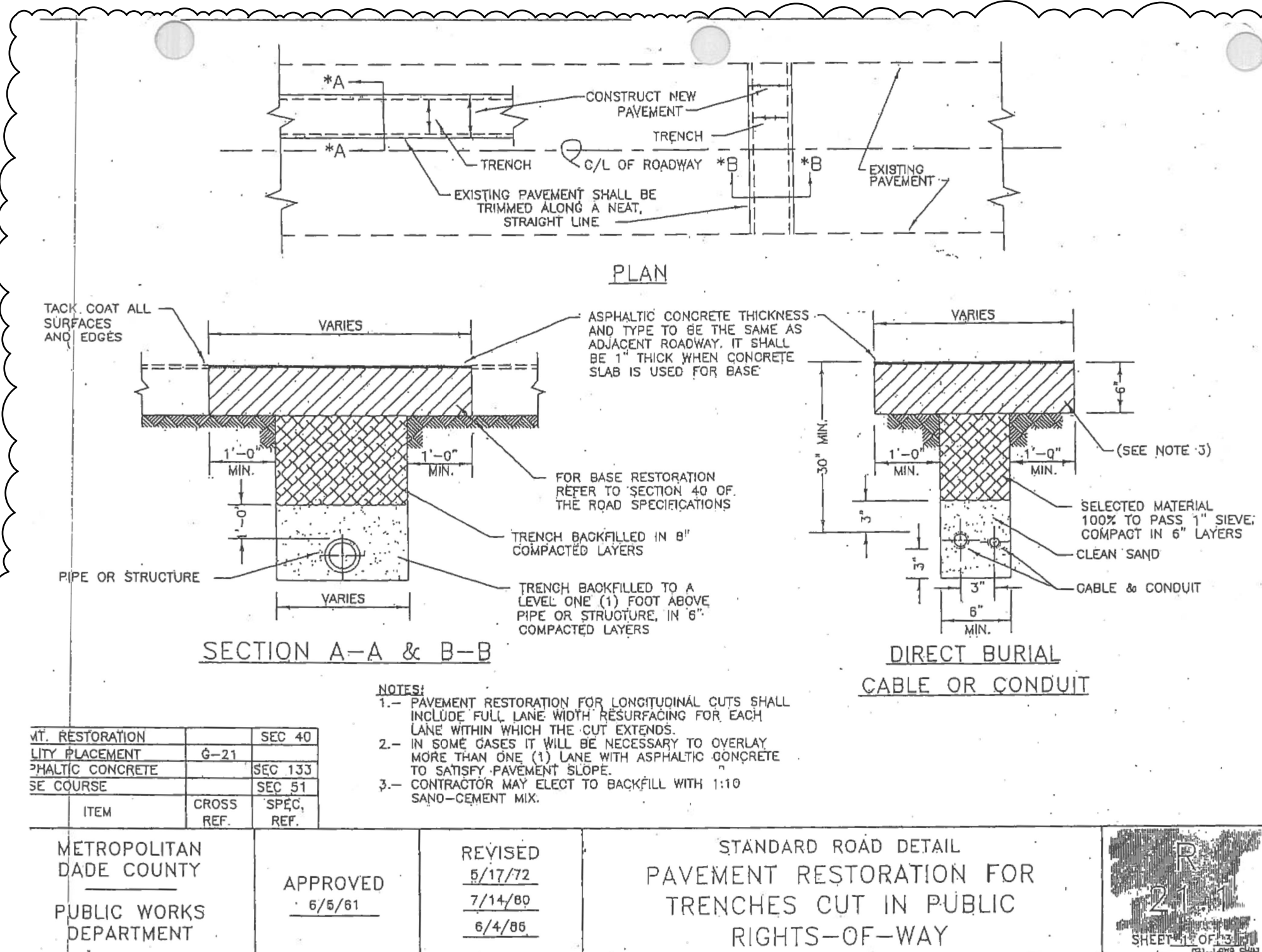
**TYPE "F" CONCRETE CURB AND GUTTER
PER FDOT STANDARD INDEX 300
DETAIL**
N.T.S.



**STANDARD DROP CURB (VALLEY GUTTER)
PER FDOT STANDARD INDEX 300
DETAIL**
N.T.S.



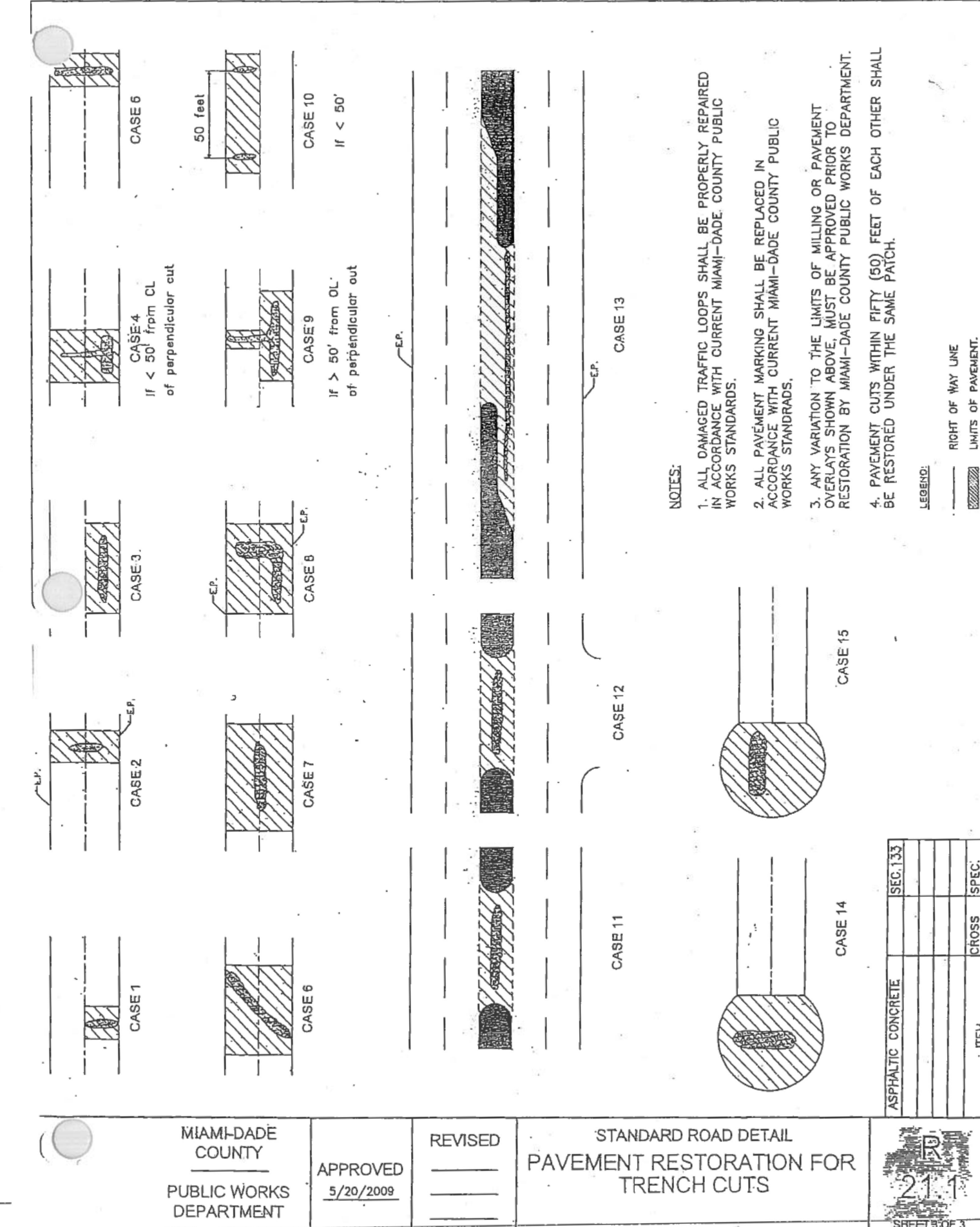
**TRANSITION FROM DROP CURB
TO TYPE "F" CURB DETAIL**
N.T.S.



- NOTES:**
- 1.--PLEASE NOTE THAT FOR CASES 1-5 NOTED ABOVE, FULL INTERSECTION OVERLAY WILL BE REQUIRED FOR ALL SIGNALIZED INTERSECTIONS WITHOUT EXCEPTIONS.
 - 2.--RESTORE ALL PAVEMENT MARKINGS AS PER DADE COUNTY PUBLIC WORKS STANDARD.
 - 3.--ANY VARIATION OF THE LIMITS OF PAVEMENT OVERLAYS SHOWN ABOVE, MUST BE APPROVED PRIOR TO REPLACEMENT BY DADE COUNTY PUBLIC WORKS DEPARTMENT
 - 4.--ANY DAMAGE ENTERING AN ADJACENT INTERSECTION QUADRANT WILL REQUIRE THE REPAIR OF SAID QUADRANT

LEGEND:
— RIGHT OF WAY LINE
▨ LIMITS OF PAVEMENT.

MIAMI-DADE COUNTY
PUBLIC WORKS DEPARTMENT
APPROVED 5/20/2009
REVISOR
STANDARD ROAD DETAIL
PAVEMENT RESTORATION FOR
ROADWAY INTERSECTIONS



- NOTES:**
1. ALL DAMAGED TRAFFIC LOOPS SHALL BE PROPERLY REPAIRED IN ACCORDANCE WITH CURRENT MIAMI-DADE COUNTY PUBLIC WORKS STANDARDS.
 2. ALL PAVEMENT MARKING SHALL BE REPLACED IN ACCORDANCE WITH CURRENT MIAMI-DADE COUNTY PUBLIC WORKS STANDARDS.
 3. ANY VARIATION TO THE LIMITS OF MILLING OR PAVEMENT OVERLAYS SHOWN ABOVE, MUST BE APPROVED PRIOR TO REPLACEMENT BY DADE COUNTY PUBLIC WORKS DEPARTMENT.

LEGEND:
— RIGHT OF WAY LINE
▨ LIMITS OF PAVEMENT.

MIAMI-DADE COUNTY
PUBLIC WORKS DEPARTMENT
APPROVED 5/20/2009
REVISOR
STANDARD ROAD DETAIL
PAVEMENT RESTORATION FOR
TRENCH CUTS

FRANKEL BENAYOUN ARCHITECTS INC.
ARCHITECTS PLANNERS INTERIOR DESIGN

LICENSE NO. AA-C001494

MARKUS A. FRANKEL

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SIGNATURE DATE

NO.	REVISION	DATE	BY
1	CITY COMMENTS	05-16-23	RM

DRAWING TITLE:

SECTIONS & DETAILS

SCALE: N.T.S. DATE: 04/27/23

SHEET NUMBER:

C-6

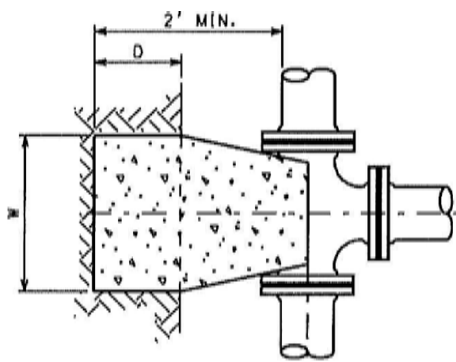
WATER MAIN NOTES

1. ALL WATER MAINS SHALL BE DESIGNED FOR A MINIMUM WORKING PRESSURE OF 150 PSI. 2. ALL PIPE TO BE USED ON THIS PROJECT SHALL BE C-900 PVC FOR THE WATER SERVICE AND FIRE SERVICE CONNECTIONS.
3. MINIMUM DEPTH OVER PVC WATER MAINS SHALL BE 36". MINIMUM DEPTH OVER DIP WATER MAINS SHALL BE 30".
4. THE COMPLETE WATER SYSTEM SHALL BE PRESSURE TESTED AND DISINFECTED. THE PRESSURE TEST SHALL BE FOR TWO HOURS AT 150 PSI MINIMUM TEST PRESSURE IN ACCORDANCE WITH ANSI/AWWA C600-05 OR LATEST REVISION. THE PRESSURE TEST SHALL NOT VARY MORE THAN 5 PSI DURING THE TEST. LEAKAGE ALLOWANCES WILL NOT BE MADE FOR FITTINGS OR VALVES.
5. ALLOWABLE LEAKAGE SHALL NOT EXCEED THE FORMULA OF:

L (GALLONS PER HOUR) = $\frac{S \cdot D \cdot (P)^{0.5}}{148,000}$

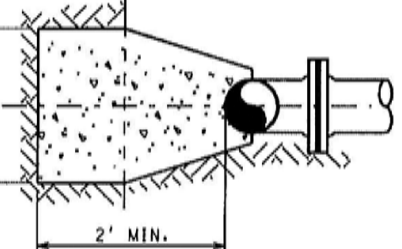
L = ALLOWABLE LEAKAGE IN GALS/HR (NO ALLOWABLE LEAKAGE FOR VALVES)
S = LENGTH OF PIPE TESTED IN FEET
D = NOMINAL DIAMETER OF PIPE
P = AVERAGE TEST PRESSURE DURING TEST IN LBS/SQ. IN.

6. THE PRESSURE TEST SHALL BE WITNESSED BY A REPRESENTATIVE OF THE CITY & THE ENGINEER OF RECORD.
7. THE WATER SYSTEM SHALL BE CLEANED AND TESTED. ALL HYDROSTATIC TESTING AND DISINFECTION SHALL BE MADE IN ACCORDANCE WITH ANSI/AWWA C651-05, OR LATEST REVISIONS.
8. ALL PIPE & PIPE FITTINGS INSTALLED UNDER THIS PROJECT WILL BE COLOR CODED OR MARKED IN ACCORDANCE WITH SUBPARAGRAPH 62-555.320(21)(b)3, F.A.C., USING BLUE AS A PREDOMINANT COLOR. (UNDERGROUND PLASTIC PIPE WILL BE SOLID-WALL BLUE PIPE. WILL HAVE A CO-EXTRUDED BULE EXTERNAL SKIN, OR WILL BE WHITE OR BLACK PIPE WITH BLUE STRIPES INCORPORATED INTO, OR APPLIED INTO, THE PIPE WALL; AND UNDERGROUND METAL OR CONCRETE PIPE WILL HAVE BLUE STRIPES APPLIED TO THE PIPE WALL. PIPE STRIPED DURING MANUFACTURING OF THE PIPE WILL HAVE CONTINUOUS STRIPES THAT RUN PARALLEL TO THE AXIS OF THE PIPE, THAT ARE LOCATED AT NO GREATER THAN 90° INTERVALS AROUND THE PIPE, AND THAT WILL REMAIN INTACT DURING AND AFTER INSTALLATION OF THE PIPE. IF TAPE OR PAINT IS USED TO STRIPE PIPE DURING INSTALLATION OF THE PIPE, THE TAPE OR PAINT WILL BE APPLIED IN A CONTINUOUS LINE THAT RUNS PARALLEL TO THE AXIS OF THE PIPE AND THAT IS LOCATED ALONG THE TOP OF THE PIPE; FOR PIPE WITH AN INTERNAL DIAMETER OF 24 INCHES OR GREATER, TAPE OR PAINT WILL BE APPLIED IN CONTINUOUS LINES ALONG EACH SIDE OF THE PIPE AS WELL AS ALONG THE TOP OF THE PIPE. ABOVEGROUND PIPE WILL BE PAINTED BLUE OR WILL BE COLOR CODED OR MARKED LIKE UNDERGROUND PIPE).
9. ALL PVC WATER PIPE ASSOCIATED WITH THIS PROJECT SHALL HAVE MAGNETIZED TAPE ON THE PIPE TO FACILITATE LOCATION USING A METAL DETECTOR. THE MAGNETIC TAPE WILL BE USED ON THE PVC PIPE IN THE TRENCH SO IT CAN BE LOCATED USING A MAGNETIC METAL DETECTOR IN THE FUTURE.



PLAN VIEW

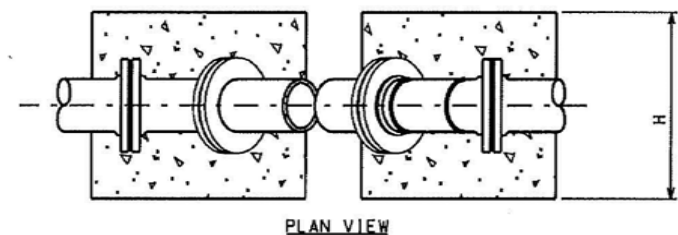
TEE THRUST BLOCK



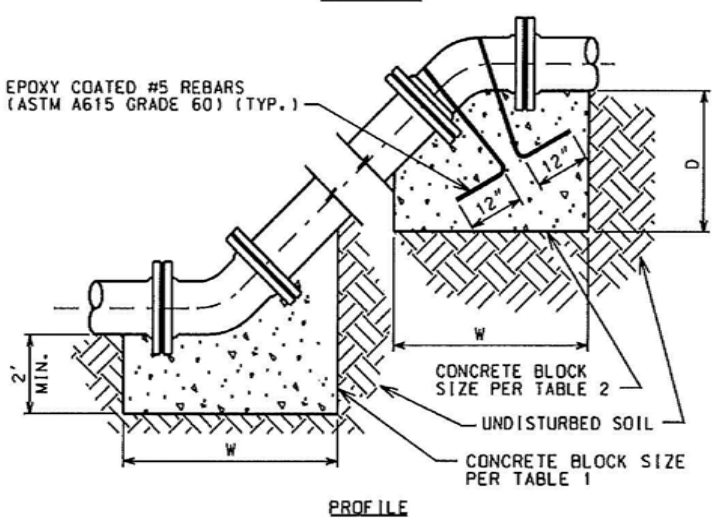
PROFILE

TEE THRUST BLOCK

HORIZONTAL THRUST BLOCK DETAILS



PLAN VIEW



PROFILE

VERTICAL THRUST BLOCK DETAILS

NOTES:

1. FULL CONCRETE THRUST BLOCKS AS SHOWN ARE REQUIRED WHEN THRUST RESTRAIN IS NOT PROVIDED BY OTHER MEANS SUCH AS RESTRAINTED JOINT PIPE.
2. WHEN THRUST RESTRAINT GLANDS ARE INSTALLED FOR THE CONNECTIONS, CONCRETE THRUST BLOCKS SHALL BE PROVIDED UP TO THE DOTTED LINE AS SHOWN.
3. ALL BOLTS, NUTS, THRUST RESTRAINT GLANDS AND FITTINGS SHALL BE WRAPPED WITH POLYETHYLENE TUBING TO PREVENT CORROSION AND CONCRETE ADHESION.
4. CONCRETE FOR THRUST BLOCKS MUST NOT CONTAIN FLY ASH.

THRUST RESTRAINT

CONCRETE THRUST BLOCK DETAILS

REV104.07

D-11

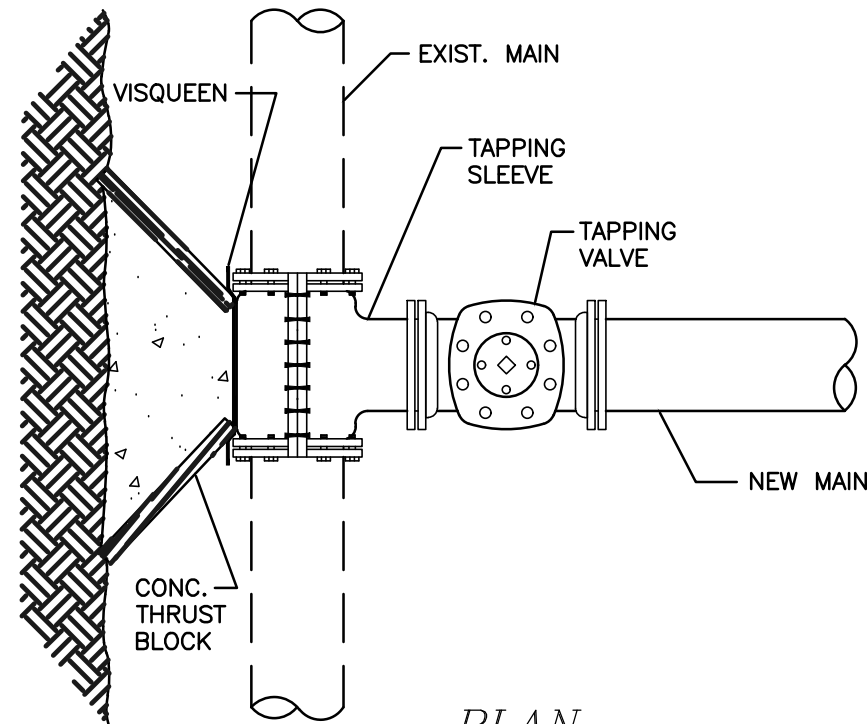
CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND SITE CONDITIONS BEFORE PROCEEDING WITH WORK. IF ANY DISCREPANCIES, ERRORS OR OMISSIONS SHOULD BE ENCOUNTERED ON PLANS, CONTRACTOR SHALL NOTIFY ARCHITECT BEFORE ANY PART OF THE WORK IS STARTED, SO THAT PROPER CORRECTIONS BE MADE. IF ARCHITECT IS NOT NOTIFIED PRIOR TO COMMENCING OF THE WORK, THE CONTRACTOR SHALL BEAR FULL RESPONSIBILITY FOR ANY DISCREPANCIES, ERRORS OR OMISSIONS.

NOTES:

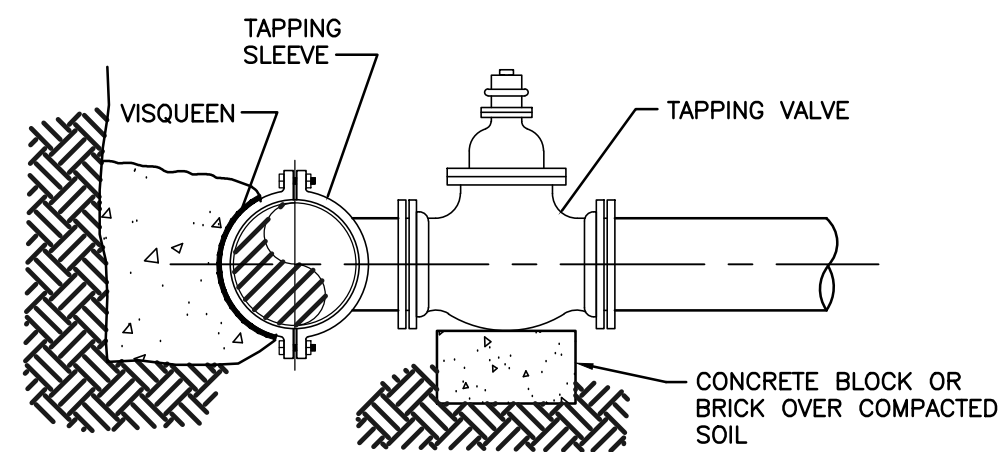
1. REFER TO PLUMBING PLANS FOR COORDINATION WITH BUILDING WATER AND SEWER SERVICES.
2. CONTRACTOR TO FIELD LOCATE EXISTING SEWER LATERAL AND CONFIRM DEPTH OF PIPE.
3. CONTRACTOR TO FIELD LOCATE ALL EXISTING UNDERGROUND UTILITIES AND CONFIRM DEPTH PRIOR TO CONSTRUCTION.
4. INSTALLATION OF ALL UTILITIES TO BE COORDINATED TO PREVENT PIPE CONFLICTS
5. ALL BACKFLOW PREVENTERS TO BE INSTALLED IN ACCORDANCE WITH COUNTY REGULATIONS.

GENERAL NOTES:

1. TEMPORARY ASPHALT PATCH SHALL BE MADE IF ANY WATER SERVICE IS ABANDONED AT THE CORPORATION STOP.
2. ALL EXCAVATION IN THE ROW SHALL BE RESTORED WITH FLOWABLE FILL AND COMPACTED LIMEROCK IN ACCORDANCE WITH FDOT REQUIREMENT.S..
3. ALL WORK IN THE ROW SHALL BE THE SUBJECT OF A SEPARATE ENGINEERING PERMIT ISSUED BY THE BUILDING DEPARTMENT IN COLLABORATION WITH THE DEPARTMENT OF PUBLIC WORKS.
4. CONTRACTOR TO EXPOSE BOTH SEWER LATERALS INSIDE OF THE PROPERTY LINE FOR INSPECTION BY THE TOWN OF BAY HARBOR ISLANDS TOWN ENGINEER.
5. PIPES 2" OR LARGER SHALL REQUIRE BACTERIA TESTING. SAMPLES SHALL BE COLLECTED BY A CERTIFIED TESTING LAB. ALL SAMPLES SHALL MEET HEALTH DEPARTMENT STANDARDS.
6. ANY EXISTING WATER SERVICES TO BE ABANDONED SHALL BE CAPPED AT THE CORPORATION STOP BY THE DEVELOPER. ANY SEWER SERVICES NOT NEEDED FOR THIS PROJECT SHALL BE ABANDONED AT THE COLLECTION MAIN AT THE DEVELOPER'S EXPENSE.
7. FOR SEWER CONNECTION, CONTRACTOR TO CONNECT TO CITY'S V.C.P. CLAY PIPE SYSTEM. NO CAST IRON FITTINGS TO BE BETWEEN THE CLAY AND THE NEW CONNECTION AS TO NOT COMPROMISE THE NEW CONNECTION.
8. CONNECT NEW PVC SEWER LATERAL TO CITY'S CLAY SEWER LATERAL PRIOR TO CLEANOUT.
9. INSTALL PLUG (OR CAP) ON THE PROPERTY SIDE OF THE PVC CLEANOUT. SEWER CAP & SEWER CLEANOUT SHALL BE INSTALLED PRIOR TO CONSTRUCTION START UP. PROVIDE 6" SEWER LATERAL CONNECTION.



PLAN



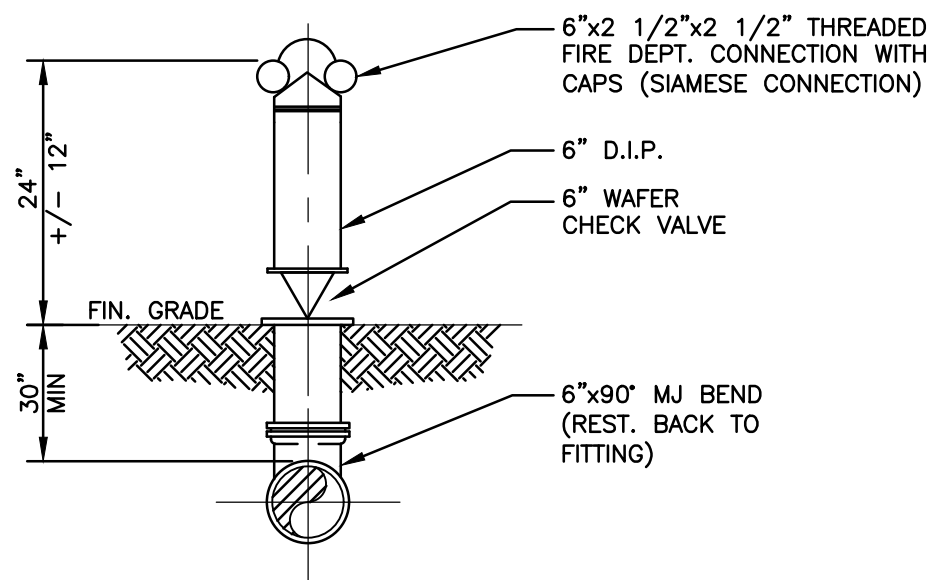
ELEVATION

NOTES:

1. NOTIFY THE CITY 48 HOURS IN ADVANCE OF PROPOSED TAP.
2. TAPPING MUST BE DONE IN THE PRESENCE OF AN AUTHORIZED CITY REPRESENTATIVE.

WATER MAIN TIE-IN

N.T.S.



FIRE DEPARTMENT CONNECTION

N.T.S.

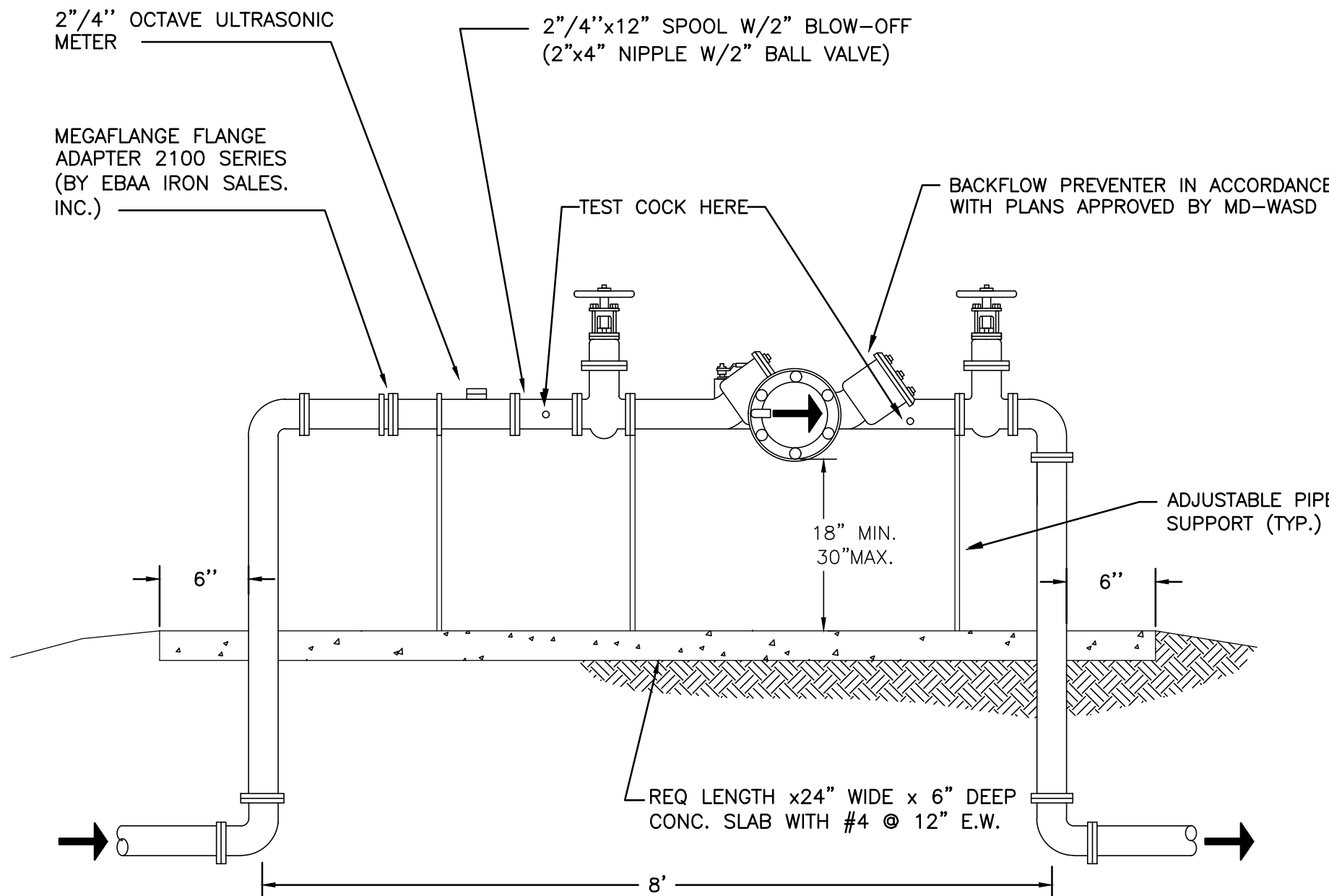
THE LOCATION AND SIZE OF ALL EXISTING UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE AND ARE BASED ON THE BEST AVAILABLE INFORMATION. ADDITIONAL UTILITIES MAY EXIST WHICH ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION OF ALL EXISTING UTILITIES. THE CONTRACTOR SHALL VERIFY ALL UTILITIES, BY ELECTRONIC METHODS AND BY HAND EXCAVATION IN COORDINATION WITH ALL UTILITY COMPANIES, PRIOR TO BEGINNING ANY CONSTRUCTION OPERATIONS. CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING OF DISCREPANCIES PRIOR TO BEGINNING WORK. ANY AND ALL CONFLICTS OF EXISTING UTILITIES WITH PROPOSED IMPROVEMENTS SHALL BE RESOLVED BY THE ENGINEER AND THE UTILITY OWNER PRIOR TO BEGINNING ANY CONSTRUCTION OPERATIONS. THIS WORK BY THE CONTRACTOR SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.

CONTRACTOR TO COORDINATE ALL PIPE CONNECTIONS AND PIPE ELEVATIONS WITH PLUMBING PLANS PRIOR TO ORDERING ANY STRUCTURES OR MATERIALS.

WATER AND SEWER INSTALLATIONS AND MATERIALS TO MEET THE STANDARDS OF MDWASD

SEWAGE VOLUME

42 UNITS AT
300 GPD
PER UNIT= 12,600 GPD



NOTE:

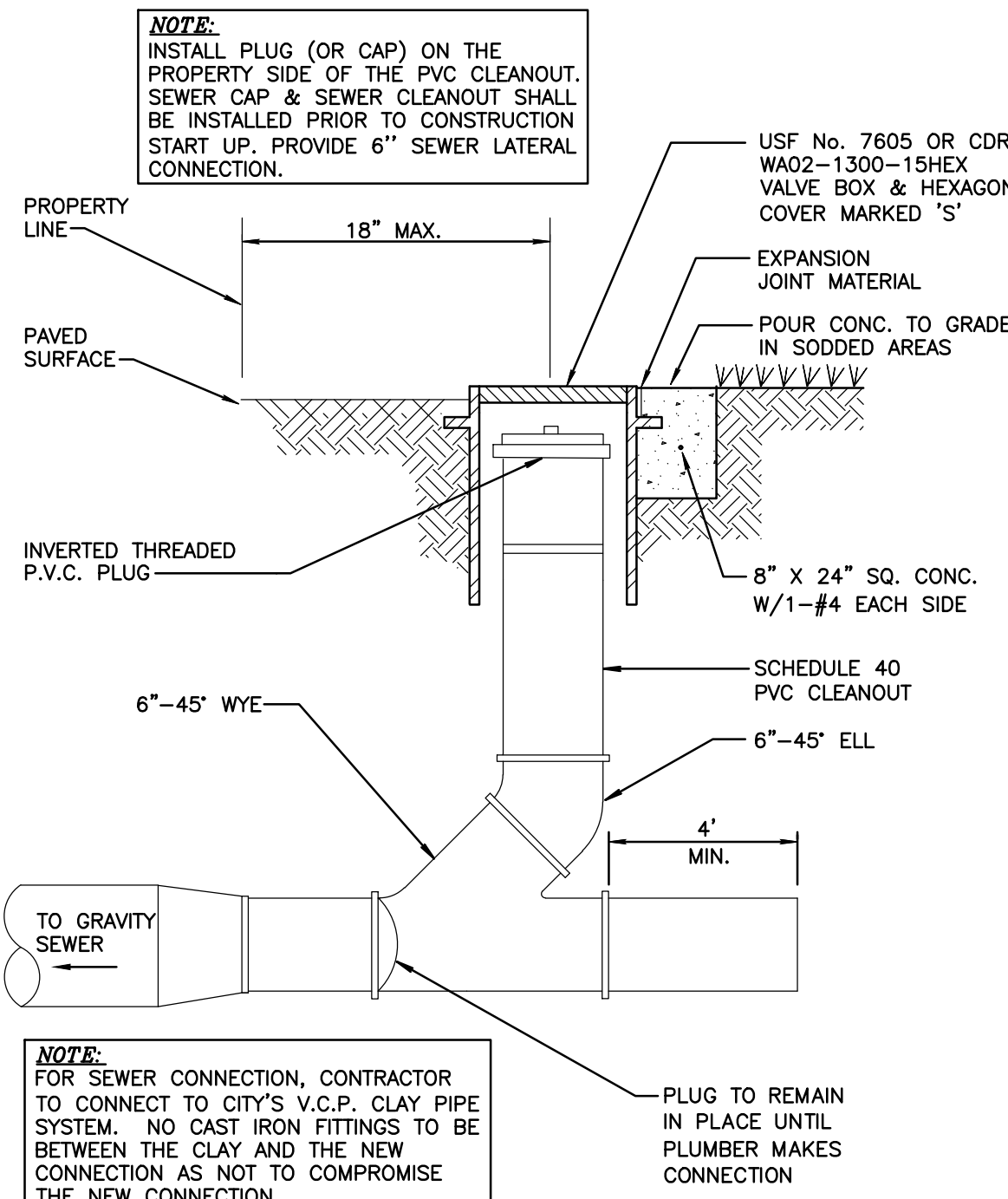
1. THE ASSEMBLY MUST BE INSTALLED WITH MINIMUM HORIZONTAL CLEARANCE OF 18", FREE FROM OBSTRUCTIONS IN ALL DIRECTIONS.
2. THE BACKFLOW PREVENTION ASSEMBLY SHALL BE ON THE APPROVED LIST OF FOUNDATION FOR CROSS CONNECTION CONTROL, UNIVERSITY OF CALIFORNIA, CONTRACTOR TO PROVIDE MANUFACTURERS CERTIFICATION OF U.S.C. APPROVAL.
3. ALL BACKFLOW PREVENTION ASSEMBLIES SHALL BE FACTORY ASSEMBLED INCLUDING SHUT-OFF VALVE AS REQUIRED BY U.S.C. FOUNDATION FOR CROSS CONNECTION CONTROL STANDARDS.
4. BACKFLOW PREVENTION ASSEMBLIES SHALL BE INSTALLED IN AN ACCESSIBLE LOCATION APPROVED BY THE TOWN OF BAY HARBOR ISLANDS. LOCATIONS INSIDE BUILDINGS OR WITH OTHERWISE RESTRICTED ACCESS WILL NOT BE APPROVED.
5. THE ASSEMBLY WILL NEED LANDSCAPING OR SCREENING WITH LANDSCAPING FOR PROTECTION.
6. IF REQUIRED GUARDPOSTS OR PROTECTIVE ENCLOSURE IS RECOMMENDED DEPENDING ON SITE CONDITIONS.
7. ALL ABOVE-GROUND PIPING TO BE FLANGED.
8. INSTALL ADJUSTABLE PIPE SUPPORTS WHERE INDICATED.
9. CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR TOWN APPROVAL.

NOTE:

2" & 4" WATER METER/BACKFLOW PREVENTER ASSEMBLY DETAIL TO BE USED FOR WATER METER INSTALLATION.

2" & 4" WATER METER/BACKFLOW PREVENTER ASSEMBLY DETAIL

N.T.S.



NOTE:
INSTALL PLUG (OR CAP) ON THE PROPERTY SIDE OF THE PVC CLEANOUT. SEWER CAP & SEWER CLEANOUT SHALL BE INSTALLED PRIOR TO CONSTRUCTION START UP. PROVIDE 6" SEWER LATERAL CONNECTION.

NOTE:
INVERTED BRASS CAP SHALL BE USED IN GRASS AREAS IN LIEU OF CASTING AND CONE COLLAR.

TYPICAL CLEANOUT DETAIL

N.T.S.

FRANKEL BENAYOUN ARCHITECTS INC

LICENSE NO. AA-C001494

MARKUS A. FRANKEL
LICENSE NO. AR0007143
IFRAT BENAYOUN FISHMAN
LICENSE NO. AR0017273

1177 KANE CONCOURSE, SUITE 120
BAY HARBOR ISLANDS, FLORIDA 33154
PH: (305) 868.3665 FAX: (305) 868.3650
E MAIL: INFO@FRANKELBENAYOUN.COM

OWNER / DEVELOPER:

HORIZON AT CASA VERDE, LLC.
53 BROADWAY
BROOKLYN, NY 11249
T. 516.447.8887
T. 718.388.8210

CIVIL ENG:

HOLLAND ENGINEERING
CIVIL ENGINEERING SOLUTIONS
301 S.W. 7th Street
Fort Lauderdale, Florida 33315
Phone: 954.387.0071
Certificate of Authorization 7385

SUSAN C. HOLLAND
STATE OF FLORIDA PROFESSIONAL ENGINEER
LICENSE No. 41831

LANDSCAPE ARCH:

STRUCTURAL ENGL:

MEP ENGL:

CASA VERDE
NEW CONDOMINIUM BUILDING
1130 - 1150 93RD STREET
BAY HARBOR ISLANDS, FLORIDA 33154

SIGNATURE	DATE
NO.	REVISION
DATE	BY

DRAWING TITLE:

UTILITY DETAILS

SCALE: N.T.S. DATE: 04/27/23

SHEET NUMBER:

C-7

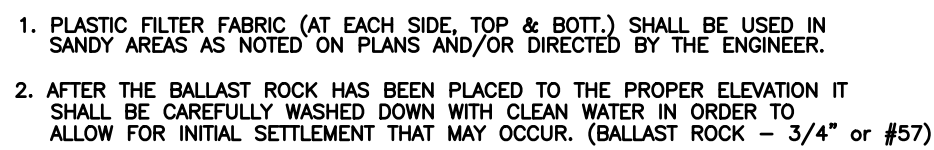
1. THE LOCATION OF EXISTING UTILITIES AND TOPOGRAPHY HAS BEEN PREPARED FROM THE MOST RELIABLE INFORMATION AVAILABLE TO THE ENGINEER. THIS INFORMATION IS GUARANTEED AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXTENT OF LOCATION OF ALL EXISTING UTILITIES AND TOPOGRAPHY PRIOR TO CONSTRUCTION.
2. PRIOR TO CONSTRUCTION THE CONTRACTOR IS TO NOTIFY THE FOLLOWING COMPANIES & AGENCIES AND ANY OTHERS SERVING THE AREA:

FLORIDA POWER & LIGHT CO., CONSTRUCTION
SOUTHERN BELL TELEPHONE & TEL. CO.
CABLE CONSTRUCTION BUREAU
LOCAL CITY / COUNTY ENGINEERING & UTILITY DEPARTMENT,S.
FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT), AS APPLICABLE
UNDERGROUND UTILITIES NOTIFICATION CENTER OF FLORIDA
(S.U.N.S.H.I.N.E.)

1. ALL UNSUITABLE MATERIALS, SUCH AS MUCK, HARDPAN, ORGANIC MATERIAL, AND/OR DELETERIOUS MATERIAL AS CLASSIFIED BY AASHTO M-145, FOUND WITHIN THE ROAD & PARKING LOT AREAS SHALL BE REMOVED DOWN TO ROCK OR SUITABLE MATERIAL, & REPLACED W/ THE SPECIFIED FILL MATERIAL IN MAXIMUM 12" LIFTS COMPACTED TO NOT LESS THAN 100% MAXIMUM DRY DENSITY AT OPTIMUM MOISTURE IN ACCORDANCE W/AASHTO T-99. THICKNESS OF LAYERS MAY BE INCREASED PROVIDED THE EQUIPMENT & METHODS USED ARE PROVEN BY FIELD DENSITY TESTING TO BE CAPABLE OF COMPACTING THICK LAYERS TO SPECIFIED DENSITIES.
2. ALL AREAS SHALL BE CLEARED & GRUBBED PRIOR TO CONSTRUCTION. THIS SHALL CONSIST OF THE COMPLETE REMOVAL & DISPOSAL OF ALL TREES, BRUSH, STUMPS, ROOTS, GRASS, WEEDS, RUBBISH & ALL OTHER OBSTRUCTION RESTING ON OR PROTRUDING THROUGH THE SURFACE OF THE EXIST. GROUND TO A DEPTH OF 12" ITEMS DESIGNATED TO REMAIN OR TO BE RELOCATED OR ADJUSTED SHALL BE SO DESIGNATED ON THE DWGS.
3. FILL MATERIAL SHALL BE CLASSIFIED AS A-1, A-3 OR A-2.4 IN ACCORDANCE W/ AASHTO M-145 & SHALL BE FREE FROM VEGETATION & ORGANIC MATERIAL. NOT MORE THAN 12% BY WEIGHT OF FILL MATERIAL SHALL PASS THE NO. 200 SIEVE.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING CERTIFIED MATERIAL TEST RESULTS TO THE ENGINEER OF RECORD PRIOR TO THE RELEASE OF FINAL CERTIFICATION. ONLY THE FINAL TEST RESULTS MUST INCLUDE, BUT MAY NOT BE LIMITED TO, DENSITIES FOR SUBGRADE & LIME ROCK, UTILITIES, EXCAVATION, ASPHALT GRADATION REPORTS, CONC. CYLINDERS, ETC.
5. ALL INLETS & PIPE SHALL BE PROTECTED DURING CONSTRUCTION TO PREVENT SILTATION IN THE DRAINAGE SYSTEMS BY WAY OF TEMPORARY PLUGS & LAYWOOD OR PLACED COVERS OVER THE INLETS. THE ENTIRE DRAINAGE SYSTEM TO BE CLEAN OF DEBRIS PRIOR TO FINAL ACCEPTANCE.
6. WHERE NEW ASPHALT MEETS OR ABUTS EXIST. ASPHALT, THE EXIST. ASPHALT SHALL BE SAWCUT TO PROVIDE A STRAIGHT EVEN LINE. PRIOR TO REMOVING CURB OR CUTTING THE ADJACENT ASPHALT SHALL ALSO BE SAWCUT TO PROVIDE A STRAIGHT EVEN LINE.
7. SITE GRADING SHALL BE W/IN 0.1' OF THE REQUIRED ELEVATION & ALL AREAS SHALL BE GRADED TO DRAIN.
8. ALL SUBGRADE SHALL HAVE AN LBR OF 40 UNLESS OTHERWISE NOTED & SHALL BE COMPACTED TO 95% MAXIMUM DRY DENSITY PER AASHTO T-180.
9. ALL LIMEROCK SHALL BE COMPACTED TO 98% PER AASHTO T-180 & HAVE NOT LESS THAN 60% OF CARBONATES OF CALCIUM & MAGNESIUM UNLESS OTHERWISE DESIGNATED. ALL LIMEROCK SHALL BE PRIMED.
10. CONCRETE & ASPHALT THICKNESS SHALL BE OF TYPE DESIGNATED ON DWGS.
11. PLASTIC FILTER FABRIC SHALL BE MIRAFI, TYPAR OR EQUAL CONFORMING TO SECTION 985 OF THE FDOT STANDARD SPECIFICATIONS.
12. CONC. SIDEWALKS SHALL BE 4" THICK ON COMPACTED SUBGRADE, W/ 1/2" EXPANSION JOINT-S, PLACED AT A MAXIMUM OF 75'. CRACK CONTROL JOINT-S. SHALL BE 5' ON CENTER. THE BACK OF SIDEWALK ELEVATION SHALL EQUAL THE CROWN OF ROADWAY, UNLESS SPECIFIED OTHERWISE BY LOCAL CODES OR INDICATED ON DWGS. ALL CONC. SIDEWALKS THAT CROSS DRIVEWAYS SHALL BE 6" THICK.
13. PIPE SPECIFICATIONS : THE MATERIAL TYPE IS SHOWN ON THE DRAWINGS BY ONE OF THE FOLLOWING DESIGNATIONS -

RCP = REINFORCED CONC. PIPE, ASTM DESIGNATION C-76, TABLE III
CMP = CORRUGATED METAL (ALUM.) PIPE, 12" DESIGNATION M-196
CMP = (SMOOTH LINED) CORRUGATED METAL (ALUM.) PIPE, ASTM DESIGNATION M-196
SCP = SLOTTED CONC. PIPE, FDOT SECTIONS 941 & 942
PVC = POLYVINYLCHLORIDE PIPE
PMD = PERFORATED CMP, FDOT SECTION 945
DIP = DUCTILE IRON PIPE
HDPE = HIGH DENSITY POLYETHYLENE PIPE.

1. STOP SIGNS SHALL BE 30"x30" (R1-1), HIGH INTENSITY.
2. ALL SIGNS SHALL BE PLACED AT A HEIGHT NOT LESS THAN 5' & NOT GREATER THAN 7'; THE HEIGHT IS MEASURED FROM THE BOTTOM OF THE SIGN TO THE EDGE OF NEAREST PAVEMENT. THE SIGN POST SHALL BE PLACED A MINIMUM OF 6' TO A MAXIMUM OF 12' FROM THE ADJACENT PAVEMENT, & A MINIMUM OF 6' FROM THE CROSS TRAFFIC PAVEMENT.
3. STOP BARS SHALL BE 24" WHITE.
4. ALL SITE PAVEMENT MARKINGS SHALL BE PAINT. (UNLESS INDICATED OTHERWISE)
5. ALL PAVEMENT MARKINGS IN THE ROAD RIGHT-OF-WAY SHALL BE THERMOPLASTIC & SHALL CONFORM TO FDOT OR LOCAL CITY/COUNTY STANDARDS.



N.T.S.



VARIES

VARIES

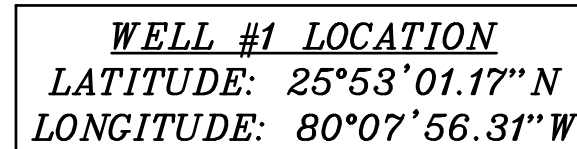
24"±

6" (TYP.)

OPENINGS CAN BE NO LARGER THAN 2"

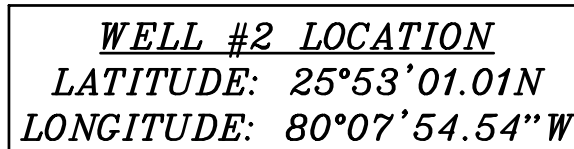
PLAN VIEW

N.T.S.



NOTE:
PIPE INVERTS TO
COORDINATED WITH
PLUMBING PLANS.

CONTRACTOR TO VERIFY
PIPE INVERTS PRIOR TO
WELL BOX CONSTRUCTION



NOTE:
PIPE INVERTS TO
COORDINATED WITH
PLUMBING PLANS

CONTRACTOR TO VERIFY
PIPE INVERTS PRIOR TO
WELL BOX CONSTRUCTION



MINIMUM NUMBER OF PERFORATION IN PIPE CULVERTS		
PIPE DIAMETER (Inches)	OUTER SHELL	LINER
	No. of $\frac{3}{8}$ " Dia. Holes (PER LIN. FT. OF PIPE)	No. of $\frac{3}{8}$ " Dia. Holes (PER LIN. FT. OF PIPE)
15	100	50
18	120	60
24	160	80
30	200	100
36	240	120
42	275	140
48	315	150
54	355	180
60	395	200
72	470	235
84	550	275

NOTE:
PERFORATIONS SHALL BE UNIFORMLY SPACED AROUND THE FULL PERIPHERY OF THE PIPE TO WITHIN 4" OF EACH END OF EACH LENGTH OF PIPE. THE NUMBER OF PERFORATIONS PER LINEAR FOOT OF PIPE AND THE DIAMETER OF THE PERFORATIONS SHALL BE AS SHOWN ON THE ABOVE TABLE.

APPROVED 04/16/2015	REVISED 06-04-86 10-22-11 05-02-81	STANDARD STORM DRAINAGE DETAIL EXFILTRATION TRENCH (PIPE CULVERT NOTES)	SD 1.1 SHEET 2 OF 2
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1. WELL DRILLER RESPONSIBLE FOR OBTAINING WELL CONSTRUCTION PERMIT.
2. NEOPRENE GASKETS TO BE INSTALLED UNDER LIDS AND AROUND PIPES.
3. VENT PIPES NOT TO BE INSTALLED DIRECTLY ACROSS FROM INLET PIPE.
4. WELL COVERS TO BE SECURELY ATTACHED TO STRUCTURE WITH NO MORTAR OR BRICKS.
5. CONTRACTOR SHALL GROUT BETWEEN 4" CONC. BAFFLE AND LID OF STRUCTURE TO ENSURE WATER PROOF SEAL.
6. WELL BOX REINFORCEMENT SHALL BE DESIGNED BY PRE-CASTER TO MEET F-DOT STANDARDS AND SPECIFICATIONS

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND SITE CONDITIONS BEFORE PROCEEDING WITH WORK. IF ANY DISCREPANCIES, ERRORS OR OMISSIONS SHOULD BE ENCOUNTERED ON PLANS, CONTRACTOR SHALL NOTIFY ARCHITECT BEFORE ANY PART OF THE WORK IS STARTED, SO THAT PROPER CORRECTIONS BE MADE. IF ARCHITECT IS NOT NOTIFIED PRIOR TO COMMENCING OF THE WORK, THE CONTRACTOR SHALL BEAR FULL RESPONSIBILITY FOR ANY DISCREPANCIES, ERRORS OR OMISSIONS.

LICENSE NO. AA-C001494

MARKUS A. FRANKEL.

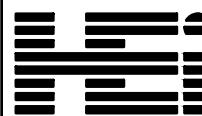
LICENSE NO. AR0007145
IFHAT BENAYOUN FISHMAN.

1177 KANE CONCOURSE, SUITE 120
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PH: (305) 868.3665 FAX:(305) 868.3650

OWNER / DEVELOPER

HORIZON AT CASA VERDE, LLC
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T. 718.388.8210

CIVIL ENG.:



HOLLAND ENGINEERING
CIVIL ENGINEERING SOLUTIONS
301 S.W. 7th Street
Fort Lauderdale, Florida 33315
Phone: 954.367.0371
Certificate of Authorization 7325

SUSAN C. HOLLAND

SUSAN C. HOLLAND
STATE OF FLORIDA PROFESSIONAL ENGINEER
LICENSE No. 41831

LANDSCAPE ARCH.

STRUCTURAL ENG.:

MEP ENG.:

CASA VERDE

NEW CONDOMINIUM BUILDING
1130 - 1150 93RD STREET
BAY HARBOR ISLANDS, FLORIDA 33154

SIGNATURE _____ DATE _____

NO.	REVISION	DATE	
1	CITY COMMENTS	05-16-23	AA

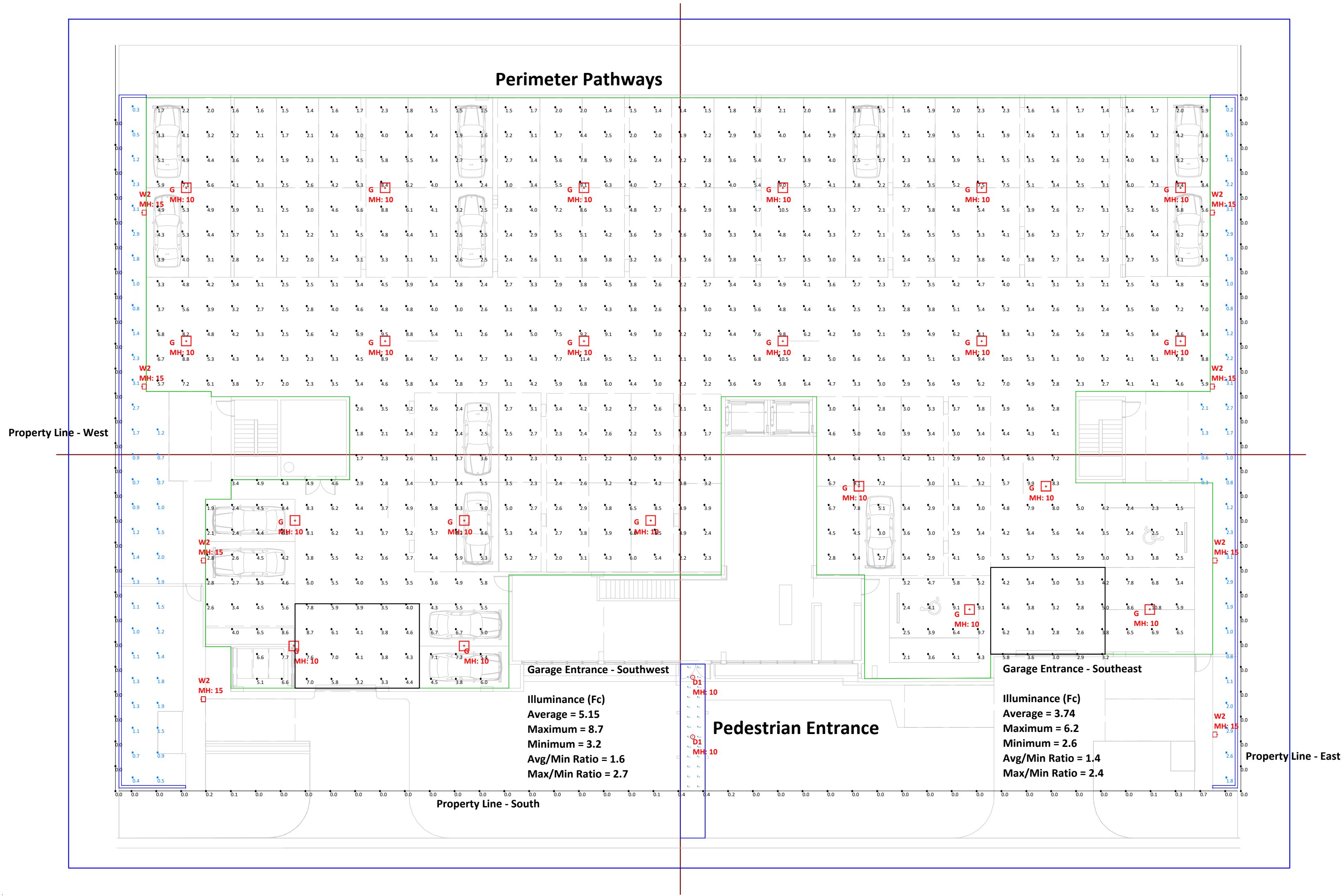
DRAWING TITLE

SCALE: N.T.S. DATE: 04/27/23

SCALE: N.T.S. DATE: 04/27/23

SHEET NUMBER:

C-8



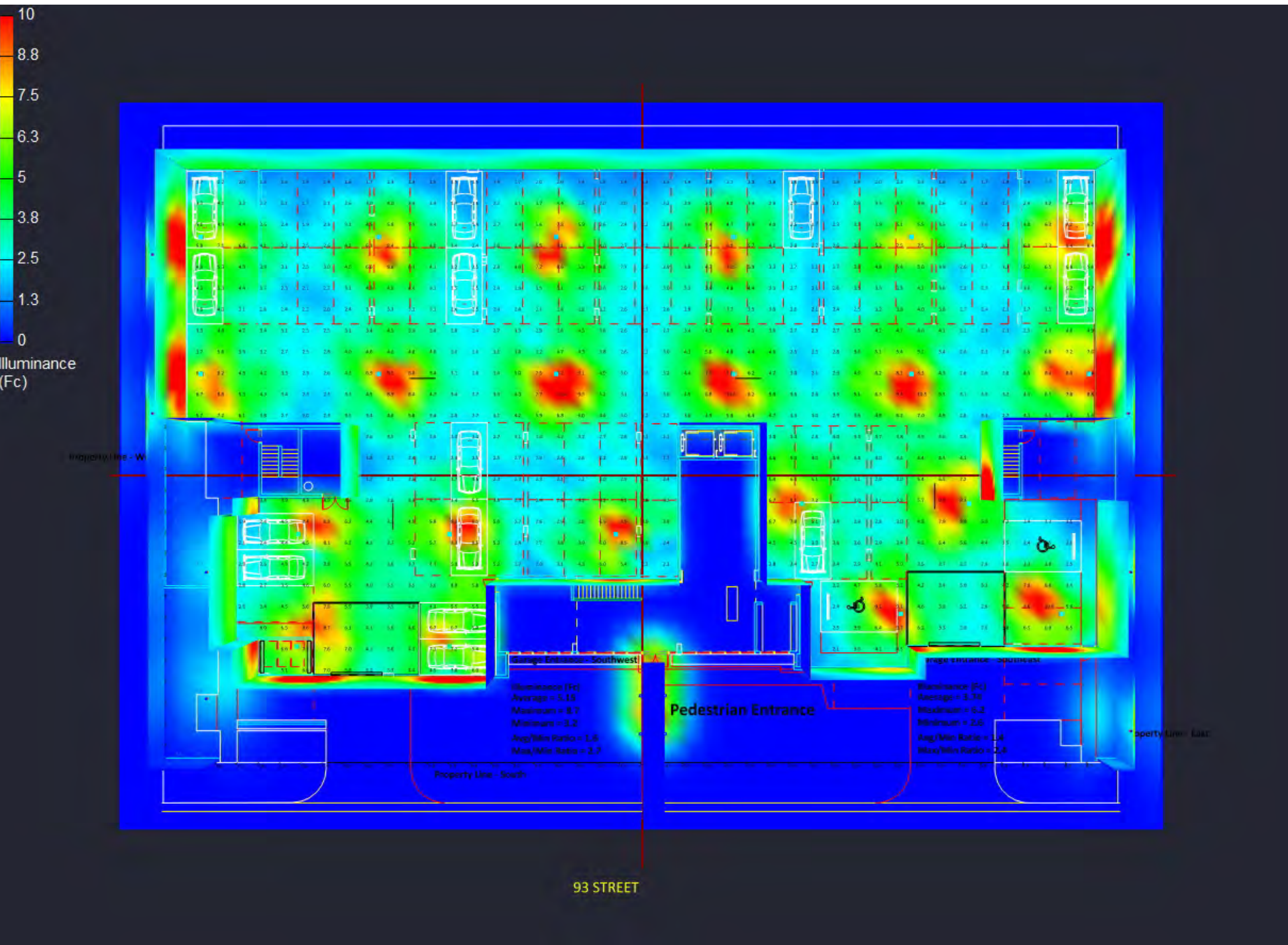
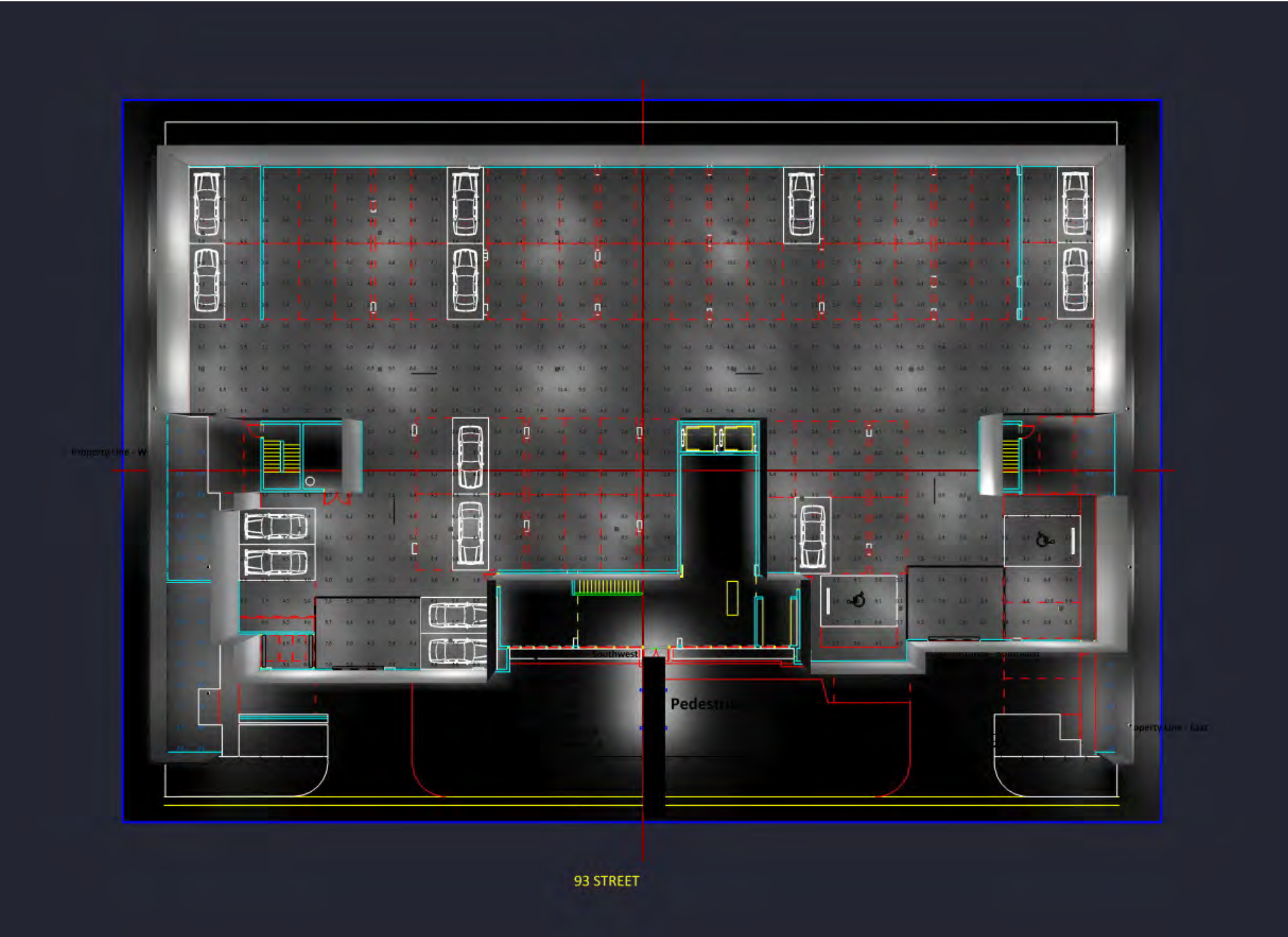
Scale: 1 inch= 16 Ft.

LIGHTING PARAMETERS:

Luminaire Schedule								
Symbol	Qty	Label	Arrangement	LLF	Description	Arr. Watts	Arr. Lum. Lumens	Mounting Height
	2	D1	SINGLE	0.900	C6R12/18/249FAUNVM	17	1388	10 FT
	21	G	SINGLE	0.900	MCP0760W27V40KD	57.46	8478	10 FT
	8	W2	SINGLE	0.900	WPLED10YMSS	12.1	1297	15 FT

Calculation Summary									
Label	Units	Avg	Max	Min	Avg/Min	Max/Min	PtSpclr	PtSpTb	Grid Z
Parking Garage_Floor	Fc	4.05	11.4	1.4	2.9	8.1	5	5	0
Property Line - East	Fc	0.00	0.0	0.0	N.A.	N.A.	5	N.A.	N.A
Property Line - South	Fc	0.06	0.7	0.0	N.A.	N.A.	5	N.A.	N.A
Property Line - West	Fc	0.00	0.0	0.0	N.A.	N.A.	5	N.A.	N.A
Pedestrian Entrance	Fc	8.10	12.1	0.7	11.6	17.3	2	2	0
Perimeter Pathways	Fc	1.51	3.1	0.2	7.6	15.5	5	5	0
Garage Entrance - Southeast	Fc	3.74	6.2	2.6	1.4	2.4			
Garage Entrance - Southwest	Fc	5.15	8.7	3.2	1.6	2.7			

RENDER VIEWS:



Target Requirements:

Pathways = 0.2FC MIN, 0.8FC AVG, 5.0FC MAX
Parking Garage = 0.2FC MIN & 10:1 MAX/MIN or better
Garage Entrance = 1.0FC MIN & 10:1 MAX/MIN or better

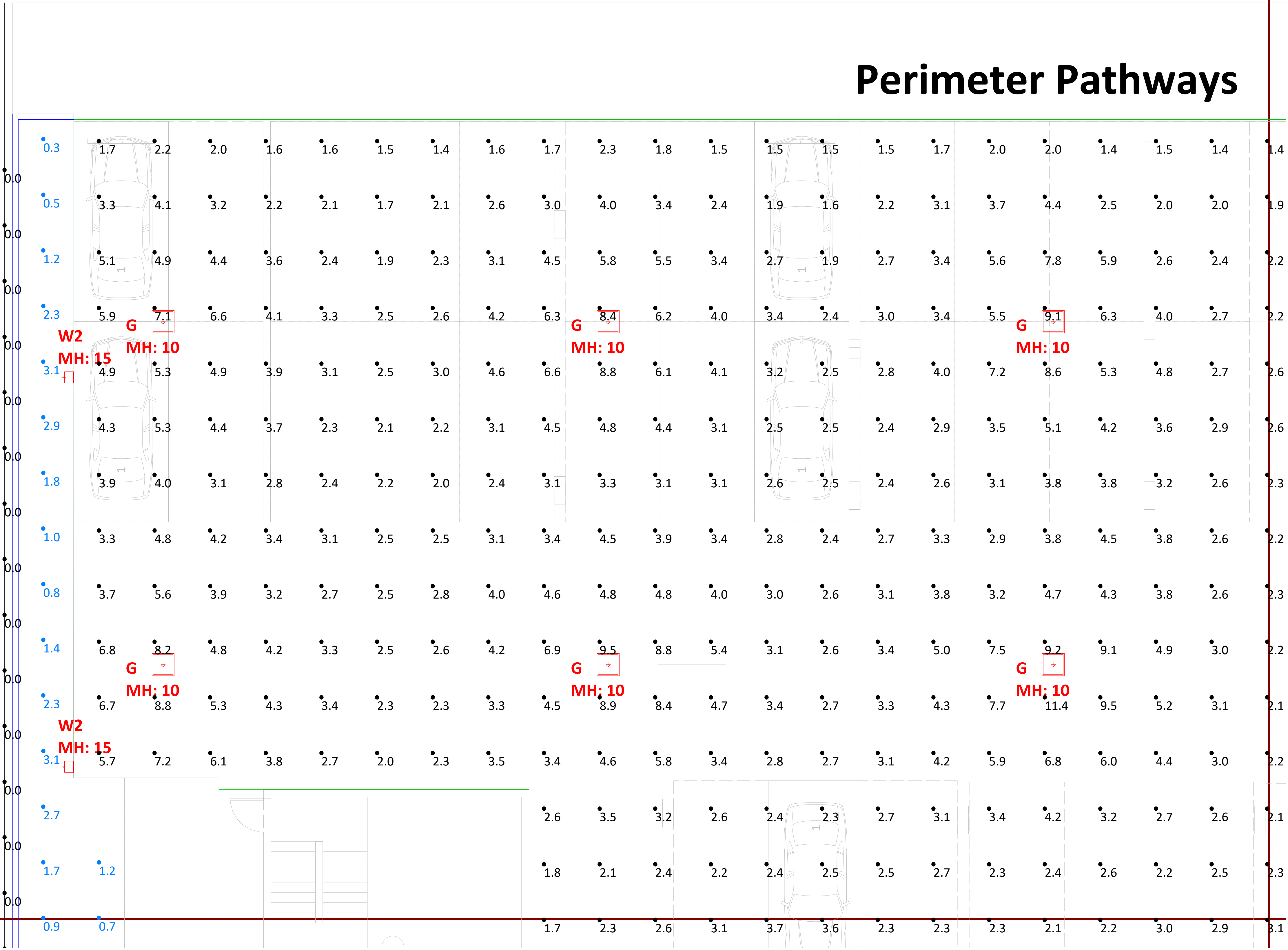
Note on this Design:
This report makes no representations in regard to Lighting Design or Specification, rather it attempts to accurately reflect the photometric results of a design, as approved by others.
Note on these Photometric Calculations:
This analysis is a mathematical model and can be only as accurate as is permitted by the third-party software and the IES standards used. All digital CAD data appear to be accurate, however, this apparent accuracy is an artifact of the techniques used to generate it and is in no way intended to imply accuracy in the real world. There are many factors that will impact the actual performance of lighting in the constructed space, including: the accuracy of the original source (ies) files supplied by the manufacturer, input voltage/ballast variances, actual finish values in the constructed environment, manufacturing variations in both the source (lamp) and the luminaire, final luminaire placement, obstructions, and installation quality. Further, field measurement itself is subject to errors arising from measuring methods and/or technology selected, and the knowledge/ability of the measuring party. While the creator of this lighting study makes every effort to ensure accuracy, they cannot be held liable for any errors. The recipient of this lighting study understands and accepts that the likelihood of scaling error increases when no .DWG file or other properly-dimensioned drawing is provided to the designer.
NB: Reflective Values have a significant effect on light levels, the end-user of the document should confirm these values before accepting the results of any photometric report.



Perimeter Pathways

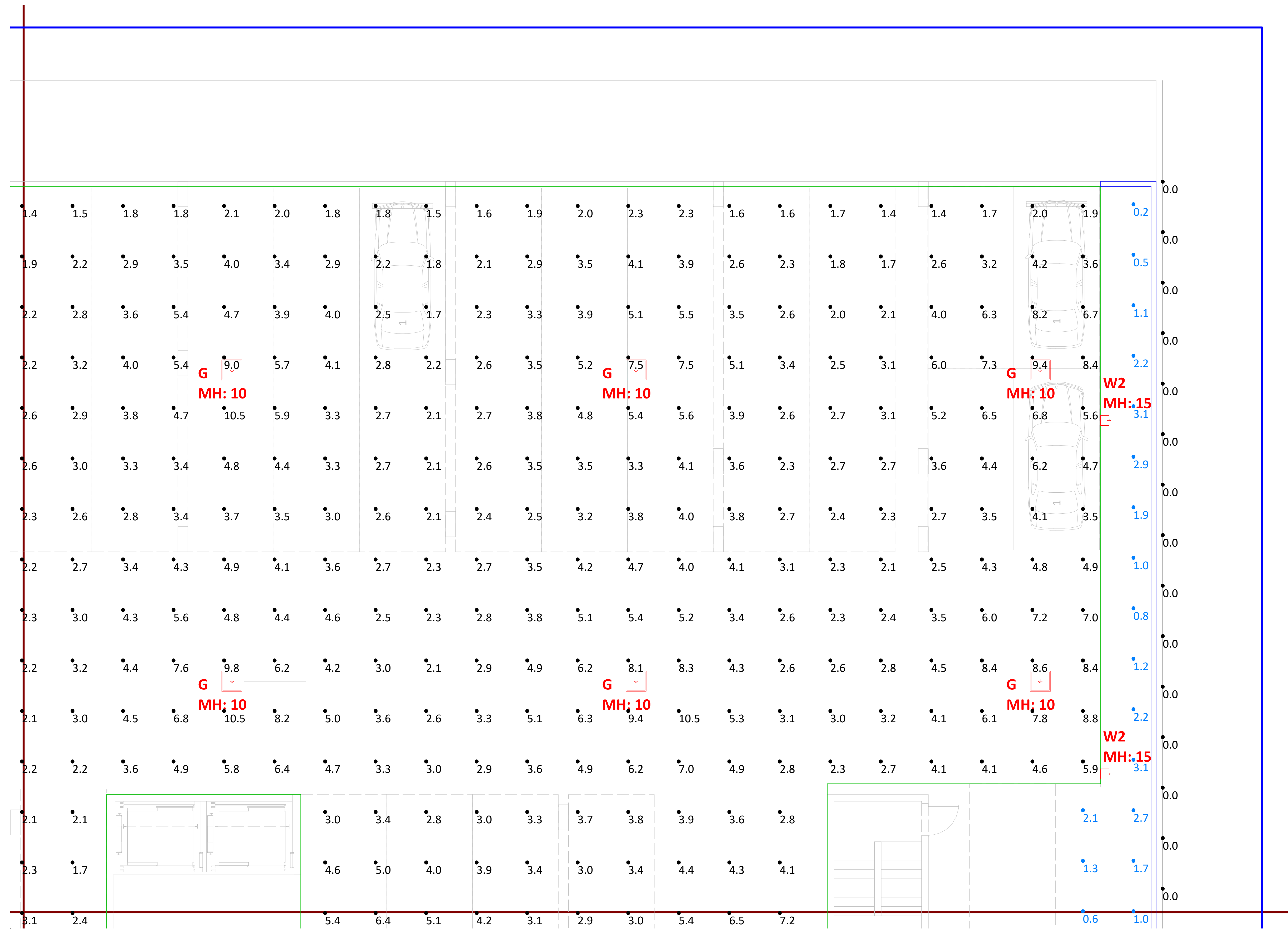
Property Line - West

Scale: 1 inch= 5 Ft.





Casa Verde



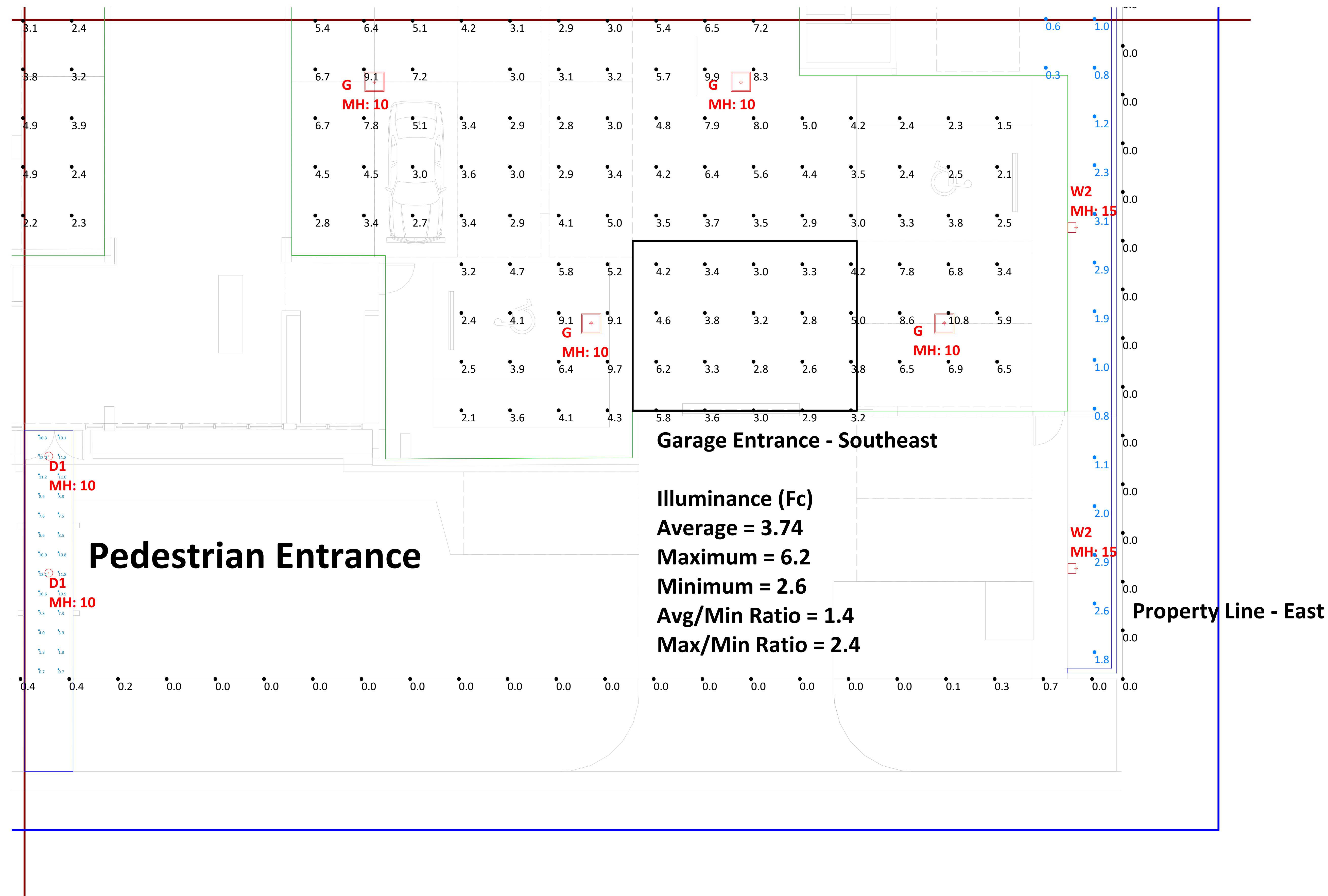
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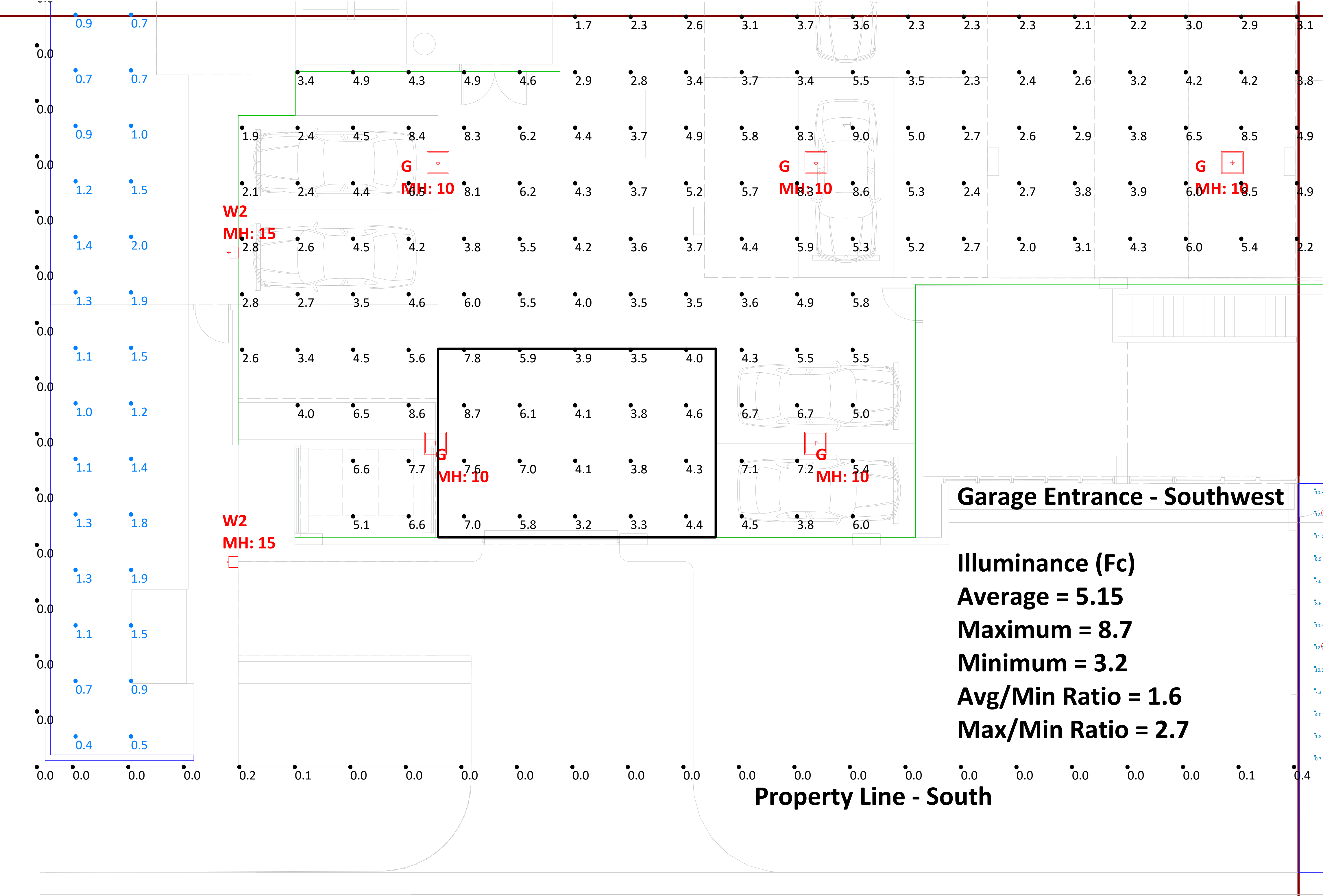
Drawn By: BDR

Date:20/04/2023

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Scale: 1 inch= 5 Ft.