CITY OF LAKE WORTH
1900 2nd Ave N · Lake Worth, Florida 33461 · Phone: 561-586-1687

Agenda
Regular Meeting
City of Lake Worth
Historic Resources Preservation Board
City Hall Commission Room
7 North Dixie Hwy; Lake Worth, FL

WEDNESDAY, SEPTEMBER 14, 2016 6:00 PM

1. Roll Call and Recording of Absences
2. **Pledge of Allegiance**
3. Additions/Deletions/Reordering and Approval of the Agenda
4. Approval of Minutes
   A. August 10, 2016 Regular Meeting Minutes
5. Cases
   A. Swearing in of Staff and Applicants
   B. Proof of Publication
   C. Withdrawals/Postponements
   D. Consent
   E. Public Hearings
      1. Board Disclosure
      2. Cases
         a. HRPB Project # 15-00100137: Consideration of a REVISION to an approved Certificate of Appropriateness (COA) for construction of a new single-family residence at the subject property located at 230 North O Street; PCN# 38-43-44-21-15-040-0080. The subject property is a vacant lot located within the Old Lucerne Local Historic District in the Single Family Residential zoning district (SFR).

b. HRPB Project # 15-00100022: Consideration of a Certificate of Appropriateness (COA) for new construction of an addition to the existing structure at 812 South Lakeside Drive: PCN# 38-43-44-27-01-024-0050. The subject property was constructed in 1942 and is a contributing resource within the South Palm Park Local Historic District in the Single Family Residential zoning district (SFR).

c. HRPB Project # 16-01400012, 16-00500013, 16-00100114 301 S Federal Highway PCN# 38-43-44-21-15-109-0090. Requests for consideration of a Major Site Plan, Conditional Use, Certificate of Appropriateness, respectively, and participation in the Sustainable Bonus Incentive Program to allow a +/- 6,281 square foot 2-story 3-unit townhome structure on the vacant lot at said location. The subject property is located in the South Palm Park Historic District in the Mixed Use-Federal Highway zoning district (MU-FH).

d. HRPB Project # 16-00100171 Consideration of a Certificate of Appropriateness (COA) for New Construction to allow a +/- 712 square foot accessory structure and a +/- 531 square foot addition to the main structure located at 314 Columbia Drive: PCN# 38-43-44-15-06-001-0170. The subject property is a contributing structure located in the College Park Historic District in the Single Family Residential zoning district (SFR).

F. Unfinished Business

G. New Business

1. HRPB Project # 16-00100104 Consideration of a Certificate of Appropriateness (COA) for new construction of an addition to the structure located at 1002 S Lakeside Drive: PCN# 38-43-44-27-01-042-0050. The subject property is a non-contributing resource within the South Palm Park Historic District.

2. HRPB Project # 16-00100193 Consideration of a Certificate of Appropriateness (COA) for window replacement for the structure located at 1111 N Lakeside Drive: PCN# 38-43-44-21-15-358-0140. The subject property is a contributing resource within the North East Lucerne Historic District.

3. HRPB Project # 16-00100198 Consideration of a Certificate of Appropriateness (COA) for exterior alterations to the structure located at 421 N K Street: PCN# 38-43-44-21-15-114-0210. The subject property is a non-contributing resource within the North East Lucerne Historic District.

4. HRPB Project # 16-00100199 Consideration of a Certificate of Appropriateness (COA) for exterior alterations for the structure located at 303 S J Street: PCN# 38-43-44-21-15-117-0170. The subject property is a contributing resource within the South East Lucerne Historic District.

6. Planning Issues

7. Public Comments (3 minute limit)

8. Departmental Reports

9. Board Member Comments

10. Adjournment

11. If a person decides to appeal any decision made by the board, agency or commission with respect to any matter considered at such meeting or hearing, he or she will need a record of the proceedings, and that, for such purpose, he or she may need to ensure that a verbatim record of the proceedings is made, which record includes the testimony and evidence upon which the appeal is to be based. (F.S. 286.0105)

    NOTE: ALL CITY BOARDS ARE AUTHORIZED TO CONVERT ANY PUBLICLY NOTICED MEETING INTO A WORKSHOP SESSION WHEN A QUORUM IS NOT REACHED. THE DECISION TO CONVERT THE MEETING INTO A WORKSHOP SESSION SHALL BE DETERMINED BY THE CHAIR OR THE CHAIR'S DESIGNEE, WHO IS PRESENT AT THE MEETING. NO OFFICIAL ACTION SHALL BE TAKEN AT THE WORKSHOP SESSION, AND THE MEMBERS PRESENT SHOULD LIMIT THEIR DISCUSSION TO THE ITEMS ON THE AGENDA FOR THE PUBLICLY NOTICED MEETING. (Sec. 2-12 Lake Worth Code of Ordinances)

    Note: One or more members of any Board, Authority or Commission may attend and speak at any meeting of another City Board, Authority or Commission.

    All project-related back-up materials, including full plan sets, are available for review by the public in the Planning, Zoning and Historic Preservation Division located at 1900 2nd Avenue North.

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Agenda
Regular Meeting
City of Lake Worth
Historic Resources Preservation Board
City Hall Commission Room
7 North Dixie Hwy; Lake Worth, FL

WEDNESDAY, AUGUST 10, 2016 6:00 PM

1. Roll Call and Recording of Absences: Meeting called to order at 6:12 PM
   Present were: Herman Robinson, Chairman; Judith Just; Tom Norris; Darrin Engel, Vice Chair; Erin Fitzhugh Sita arrived at 6:16 pm.. Absent: Madeleine Burnside.
   Also present were: Aimee Sunny, Senior Preservation Planner; Maxime Ducoste, Assistant Director for Planning & Preservation; Brian Shutt, Board Attorney; Sherie Coale, Board Secretary.

2. **Pledge of Allegiance**

3. Additions/Deletions/Reordering and Approval of the Agenda
   Motion: T. Norris motioned to accept the agenda D. Engel 2nd
   Vote: Ayes all unanimous
4. Approval of Minutes

   A. July 13, 2016 Regular Meeting Minutes
   Motion: J. Just moved to accept the minutes, 2nd by T. Norris
   Vote: Ayes all, unanimous

5. Cases

   A. Swearing in of Staff and Applicants
      Board Secretary swore in all persons giving testimony.
   B. Proof of Publication
      Provided in meeting packet
   C. Withdrawals/Postponements
      None
   D. Consent
      None

   E. Public Hearings

      1. Board Disclosure- D. Engel drives by the sites many times on a regular basis; T. Norris visited all the sites but did not speak to anyone.

2. HRPB Project Number 16-00100167: Consideration of a Certificate of Appropriateness (COA) for construction of a new single-family residence at the subject property located at 331 North M Street; PCN# 38-43-44-21-15-092-0170. The subject property is a vacant lot located within the Northeast Lucerne Local Historic District.
   Staff: A. Sunny presented details and findings of proposal. The site is currently vacant. Two (2) off street parking spaces are required per LDR's and landscape regulations for new construction must meet the minimum requirement, the proposal is currently deficient on both counts. Height, massing, scale and design is compatible with the neighborhood. The arte modern style is not prevalent in the immediate neighborhood but exists in Lake Worth. Concerns are lack of windows on length of wall, the unbroken façade along (4th Avenue North). Entry door similar to a Charleston side porch entry. Staff recommends approval with 8 conditions and wishes to enter all the case documents into the record.
   Architect: Jeffrey Silberstein- addressed the architectural banding. Added the projection to break up the length of wall. Discusses the eyebrow features over the windows and the dislike of adding any windows. The elevation is exposed to a busy street with no appreciable view. Prefer not to have a window in the laundry.
   Board: Discussion of the front door, architect has planned a plain white door. E. Fitzhugh Sita suggests a gate at entrance rather than a door. D. Engel would like more elements relating to the street. E. Fitzhugh Sita and D. Engel concur the door should be a gate. J. Just doesn't believe more windows make it feel any more street friendly. J. Just believes the solid white door goes with the art moderne style.
   E. Fitzhugh Sita would like to leave an option for a current or future owner to change out the windows with opening windows. Architect states a window that is seven (7) feet over grade is difficult to reach to open. T. Norris finds the side expanse to be a little blank.
   Architect: States the door is a control point, once you are behind the door, in the garden, you are home.
   Board: T. Norris would not tamper with the front door design. Landscaping, walkway, house numbers and lighting denote that as the "front" door. J. Just finds the door acceptable. E. Fitzhugh Sita imagines in the future a dented, cheap door. Architect states it is a fiberglass door.
   Staff: Because the NOA for the front door was generic, it would be good to condition the type of door the Board would like to see installed.
   H. Robinson asks about parking, architect states they will be adding a parking space adjacent to the carport area.
   Public Comment: None
   Motion: E. Fitzhugh Sita motions to approve subject to the following conditions: Amend #1, strike Condition #2, amend #5 (now #4) amend #8 (now #7) to read "all <u>other</u> required codes":

1) The north elevation shall avoid long expanses of blank façade. A minimum of one additional window, with or without an eyebrow feature, shall be added on the northeast portion of the blank wall, which will allow light in to the hallway. This window may be horizontal clerestory-type window to replicate the windows on the north façade, or vertical casement window to replicate the window on the east façade, subject to staff review at permitting.

2) A second off-street parking space shall be added in compliance with the Land Development Regulations. This space may be accessed from 4th Avenue North, or the alley, and shall be subject to Staff review at permitting.
3) The carport may be extended to accommodate a second parking space if desired, subject to Staff review at permitting.
4) The exact design and configuration of the front door and the entry door in the site wall, shall be subject to Staff review at permitting. The flush entry door in the site wall shall be at a minimum quality a fiberglass door with aluminum frame,
5) The windows and doors shall not have reflective glass.
6) All proposed landscaping, fencing, and hardscape shall be subject to Staff review at permitting.
7) The proposal shall comply with the Land Development Regulations and all other required Codes.

D. Engel 2nd.
Vote: Ayes all unanimous.

3. HRPB Project Number 15-00100022: Consideration of a Certificate of Appropriateness (COA) for new construction of an addition to the existing structure at 812 South Lakeside Drive; PCN# 38-43-44-27-01-024-0050. The subject property was constructed in 1942 and is a contributing resource within the South Palm Park Local Historic District. Staff is requesting a continuance for this case.
Motion: E. Fitzhugh Sita J. Just 2nd to continue to September 14, 2016 HRPB meeting**.**
Vote: Ayes all, unanimous.

F. Unfinished Business

1. HRPB Project Number 16-00100145: Consideration of a Certificate of Appropriateness (COA) for installation of a double driveway in the front yard, for the property located at 529 South L Street; PCN# 38-43-44-21-15-169-0310. The subject property was constructed c.1926 and is a contributing resource within the Southeast Lucerne Local Historic District.
Staff presented details and findings of proposal. Brief recap and requests that all documents and testimony from the previous meeting as well as this meeting be entered into the record. Confirmed with Public Services the applicant will not be allowed to curb cut onto 6th Ave S. would allow a curb cut at corner of lot by alley.
Applicant: Michael Francis shows the difficulties of parking in the rear, would like to close the fence on the alley completely. Despite the suggestion of a rolling gate.
Board: D. Engel asks whether code enforcement has been called regarding neighbor parking in alley. J. Just inquires as to what is driving the request. The desire to secure the backyard? E. Fitzhugh Sita can agree with a single car parking. Not comfortable with a huge swath of concrete on a 20's era home.
M. Ducoste points out the irrelevance of the conversation regarding traffic patterns, graffiti, the house existed in this location prior to his purchase, the purpose is to discuss the driveway. T. Norris states the house is a contributing structure.
Public Comment: None
Motion: E. Fitzhugh Sita motions to approve a two-car tandem driveway,a maximum nine (9) foot wide and thirty-six (36) feet in length, subject to approval by Public Services. In the event it does not meet the criteria then parking shall be in the rear of the property. J. Just 2nd.

Vote: Ayes all, unanimous.

G. New Business

1. PZB/HRPB Project # 16-03100001 a City initiated request to consider proposed changes to Chapter 23, Land Development Regulations of the Lake Worth Code of Ordinances.
   Staff presents details and findings of proposed changes to the Land Development Regulations.
   Staff: Previously approved by PZB Assistant Director M. Ducoste provides a synopsis of the proposed ordinance. Compliance action required for condition of approval violation.
   Board: None
   Public Comment: None
   Motion: D. Engel moves to recommend proposed amendments to Chapter 23 Land Development Regulations of the Lake Worth Code of Ordinances to the City Commission. E. Fitzhugh Sita 2nd.
   Vote: Ayes all, unanimous.
   Board questions what would happen if HRPB did not make a recommendation. Board Attorney advises Commission would hear that PZB Board made a recommendation however no action by HRPB.

6. Planning Issues

A. Conceptual Review of a two-story addition and new construction accessory structure for 314 Columbia Drive.
   There is a two (2) story addition and 1-story rear porch proposed. The south elevation is facing the street, the addition would be visible from the street. E. Fitzhugh Sita asks about if any differentiation is required to show between original and addition. Staff responds the trained eye could see the difference. ½ bath and laundry. 1 bath Tile mosaic proposed inside
   Applicant: Danielle McCarroll: Parking side by side, has Chicago brick they would like to utilize. Garage in back was torn down. Accessory structure is a bedroom, bathroom and storage, no kitchen. Staff suggests windows be added to some of the walls, not the closet. The lot coverage threshold may trigger the landscape code becoming applicable and the possibility of a shade tree being required. Applicant is in agreement with more windows. Parapet roof with tile on sloped roof on porch of house should be mimicked on the accessory structure.

B. Conceptual Review for new construction of an addition to the existing structure at 812 South Lakeside Drive.
   Staff recaps the structure is contributing. Proposed elevations are shown. E. Fitzhugh Sita asks about the size of the addition and the contributing structure becoming secondary to the new construction. A. Sunny states the removal of the kitchen from the original structure to the new construction will warrant a waiver to have accessory structure in front of main structure. Two frontages one being the Intracoastal and treated equally. Does not relate to the height new construction will be at 10 feet above sea level, the original structure is at 7.5 feet.
   Applicant: Art Marino - the kitchen in the contributing structure was never permitted, the structure will become a 2 car garage. On the adjacent lot, the house is 11 feet higher than

the new construction on this project. Asks Board what they want to see. H. Robinson would like the work on the contributing structure to be one permit. Wall is for FEMA requirement. The distance from the wall to the water's edge is 15 feet. This is not a flip of ownership.

Board: E. Fitzhugh Sita, D. Engel and T. Norris states it has evolved nicely, continue to work on final details. H. Robinson points out the windows are matching.

Staff: Enters the drawings into the record, site plan needs to be dimensioned and tabular data showing proposed and required by code, recalculate the exterior dimensions. Deadline for submitting finalized plans is August 19, 2016. A. Sunny asks for proposed and required data to be shown on site plan. There is a meeting with staff on August 11, 2016.

7. Public Comments (3 minute limit)
   None
8. Departmental Reports
   There will not be a workshop next week regarding the feedback from the neighborhood associations. Staff member, Kathryn Jacob, has resigned for a better opportunity. H. Robinson asks about a workshop next month, September 21, 2016, regardless of a new person becoming available. M. Ducoste expresses an intent to move forward with the workshop in that month, also does not anticipate diminishing our selection process for a qualified replacement in the name of urgency. A. Sunny attended a preservation conference that was very informative. 828 N Lakeside Dr and 801 Lake Ave storefronts going in.

   E. Fitzhugh Sita departs at 8:06 pm..

9. Board Member Comments
   H. Robinson inquires about demolition permitting. A. Sunny has not seen anything. Noticing was completed for Gulfstream buildings, time is expired and it was noticed in the paper.

   M. Ducoste mentions pre-application interest by a national brand and the plaza at the north end of city limits at Dixie Hwy.. Both have been in for a meeting. H. Robinson asks if it would tie in with the plaza development to the north side of the canal. M. Ducoste states our process is faster and more straightforward. It's really a one stop shop. T. Norris asks about the site north of Publix by Hammon Park. M. Ducoste responds the permit for the site development is currently under review.

10. Adjournment: 8:12 PM

Attest: _____
Herman Robinson, Chairman

Submitted By: _____
Sherie Coale, Board Secretary

Minutes Approved: _____
Date

THE

LAKE WORTH HERALD

Published Once a Week

Lake Worth, Palm Beach County, Florida

STATE OF FLORIDA
COUNTY OF PALM BEACH:

BEFORE the undersigned authority personally appeared MARK J EASTON, who on oath says that he is PRESIDENT of *The Lake Worth Herald*, a weekly newspaper published at Lake Worth in Palm Beach County, Florida; that the attached copy of advertisement, being a Legal Notice in the matter of

Notice by the City of Lake Worth, Florida, Historic Resources Preservation Board, HRPB 15-00100137, public hearing to be held at or after 6:00 p.m. on September 14, 2016, in the City Hall Commission Chambers, 7 North Dixie Highway, Lake Worth, Florida,

was published in said newspaper in the issue of

September 1, 2016

Affiant further says that the said *The Lake Worth Herald* is a newspaper published at Lake Worth, in said Palm Beach County, Florida, and that the said newspaper has heretofore been continuously published in said Palm Beach County, Florida, each week and has been entered as second class mail matter at the post office in Lake Worth, in said Palm Beach County, Florida, for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that he has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper.

MARK J EASTON

SWORN TO AND SUBSCRIBED before me this 1st day of September, A.D. 2016, by Mark J Easton, who is known to me.

Notary Public, State of Florida at Large

DEBRA J SNODGRASS
NOTARY PUBLIC
STATE OF FLORIDA
Comm# FF045522
Expires 9/18/2017

Legal Notice No. 30677

PLEASE TAKE NOTICE that the City of Lake Worth, Florida, Historic Resources Preservation Board, will hold a Public Hearing in the City Hall Commission Room, 7 N Dixie Hwy, in said City at 6:00 PM, or as soon thereafter as possible, on Wednesday, September 14, 2016, to consider a request by Giorgio Antoniazzi, Applicant, for the following:

HRPB 15-00100137: A request for a revision to the Certificate of Appropriateness for New Construction of a +/- 2,378 square foot single-family residence with a detached garage located at 230 North O Street, pursuant to Sections 23.2-7, 23.3-7, and 23.5-4 of the Land Development Regulations. The subject property is in the Single-Family Residential (SFR) zoning district, and is within the boundaries of the Old Lucerne Local Historic District, PCN # 38-43-44-21-15-040-0080.

Written responses can be sent to the Lake Worth Historic Preservation Board at 1900 2nd Avenue N, Lake Worth, FL 33461, and must arrive before the hearing date to be included in the formal record. You also have the opportunity to attend the meeting to provide oral testimony. For additional information on the above issues, please visit the City of Lake Worth Division of Planning, Zoning and Historic Preservation located at 1900 2nd Avenue N, Lake Worth, FL 33461, or contact City Staff at 561-586-1687. If an affected party decides to appeal any decision made by the Board, Agency, or Commission with respect to any matter considered at such meeting or hearing, he or she will need a record of the proceedings, and that, for such purpose, he or she may need to ensure that a verbatim record of the proceedings is made, which record includes the testimony and evidence upon which the appeal is to be based. (FS 286.0105). In accordance with the provisions of the American with Disabilities Act (ADA) this document may be requested in an alternative format. Persons in need of special accommodation to participate in this proceeding are entitled to the provision of certain assistance. Please call 561-586-1687 no later than five (5) days before the hearing if this assistance is required.

Publish: The Lake Worth Herald
September 1, 2016

THE

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Lake Worth, Palm Beach County, Florida

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Notice by the City of Lake Worth, Florida, Historic Resources Preservation Board, HRPB 15-00100022, public hearing to be held at or after 6:00 p.m. on May 11, 2016, in the City Hall Commission Chambers, 7 North Dixie Highway, Lake Worth, Florida,

was published in said newspaper in the issue of

April 28, 2016

Affiant further says that the said *The Lake Worth Herald* is a newspaper published at Lake Worth, in said Palm Beach County, Florida, and that the said newspaper has heretofore been continuously published in said Palm Beach County, Florida, each week and has been entered as second class mail matter at the post office in Lake Worth, in said Palm Beach County, Florida, for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that he has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper.

MARK J EASTON

SWORN TO AND SUBSCRIBED before me this 28th day of April, A.D. 2016, by Mark J Easton, who is known to me.

Notary Public, State of Florida at Large

DEBRA J SNODGRASS
NOTARY PUBLIC
STATE OF FLORIDA
Comm# FF045522
Expires 9/18/2017

Legal Notice No. 30180

PLEASE TAKE NOTICE that the City of Lake Worth, Florida, Historic Resources Preservation Board, will hold a public hearing in the City Hall Commission Room, 7 N Dixie Hwy, in said City at or afte 6:00PM. on May 11, 2016, to consider the following:

HRPB 15-00100022: Consideration of a request by Arthur Marino, Applicant, to allow new construction of a +/- 4363 square foot addition to the existing single-family structure located at 812 South Lakeside Drive, pursuant to Section 23.2-7 and Section 23.3-7 of the Land Development Regulations. The subject property is in the Single-Family Residential (SFR) Zoning District, and is a contributing resource in the South Palm Park Local Historic District, PCN#: 38-43-44-27-01-025-0050.

The Public Hearing will be conducted at the above stated time or as soon thereafter as possible.

Written responses can be sent to the Lake Worth Historic Resources Preservation Board at 1900 2nd Avenue N, Lake Worth, FL 33461 and must arrive before the hearing date to be included in the formal record. You also have the opportunity to attend the meeting to provide oral testimony.

For additional information on the above issues, please visit the City of Lake Worth Division of Planning, Zoning and Historic Preservation located at 1900 Second Ave. North, Lake Worth, Florida 33461 or contact City Staff at 561-586-1687.

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Publish: The Lake Worth Herald
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Notary Public, State of Florida at Large

DEBRA J SNODGRASS
NOTARY PUBLIC
STATE OF FLORIDA
Comm# FF045522
Expires 9/18/2017

Legal Notice No. 30679

PLEASE TAKE NOTICE that the City of Lake Worth, Florida, Historic Resources Preservation Board, will hold a Public Hearing in the City Hall Commission Room, 7 N Dixie Hwy, in said City at 6:00 PM, or as soon thereafter as possible, on Wednesday, September 14, 2016, to consider a request by Patrick McCarroll, Owner, for the following:

HRPB 16-00100171: A request for Consideration of a Certificate of Appropriateness for New Construction to allow a +/- 588 square foot accessory structure and a +/- 531 square foot addition to the main structure located at 314 Columbia Drive, pursuant to Sections 23.2-7, 23.3-7, and 23.5-4 of the Land Development Regulations. The subject property is located in the Single-family Residential (SFR) zoning district, and is a contributing resource in the College Park Historic District. PCN# 38-43-44-15-06-001-0170.

Written responses can be sent to the Lake Worth Historic Preservation Board at 1900 2nd Avenue N, Lake Worth, FL 33461, and must arrive before the hearing date to be included in the formal record. You also have the opportunity to attend the meeting to provide oral testimony. For additional information on the above issues, please visit the City of Lake Worth Division of Planning, Zoning and Historic Preservation located at 1900 2nd Avenue N, Lake Worth, FL 33461, or contact City Staff at 561-586-1687. If an affected party decides to appeal any decision made by the Board, Agency, or Commission with respect to any matter considered at such meeting or hearing, he or she will need a record of the proceedings, and that, for such purpose, he or she may need to ensure that a verbatim record of the proceedings is made, which record includes the testimony and evidence upon which the appeal is to be based. (FS 286.0105). In accordance with the provisions of the American with Disabilities Act (ADA) this document may be requested in analternative format. Persons in need of special accommodation to participate in this proceeding are entitled to the provision of certain assistance. Please call 561-586-1687 no later than five (5) days before the hearing if this assistance is required.

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was published in said newspaper in the issue of

September 1, 2016

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MARK J EASTON

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Notary Public, State of Florida at Large

DEBRA J SNODGRASS
NOTARY PUBLIC
STATE OF FLORIDA
Comm# FF045522
Expires 9/18/2017

Legal Notice No. 30680

PLEASE TAKE NOTICE that the City of Lake Worth, Florida, Historic Resources Preservation Board, will hold a Public Hearing in the City Hall Commission Room, 7 N Dixie Hwy, in said City at 6:00 PM, or as soon thereafter as possible, on Wednesday, September 14, 2016, to consider a request by Bradley Miller of Miller Land Planning Inc., Applicant, for the following:

HRPB 16-01400012, 16-00500013, 16-00100114: Requests for consideration of a Major Site Plan, Conditional Use Permit, and Certificate of Appropriateness for New Construction, and participation in the Sustainable Bonus Incentive Program to allow a +/- 6,281 square foot 2-story 3-unit townhome structure on the vacant lot at 301 S Federal Highway, pursuant to Sections 23.2-7, 23.2-29, 23.2-30, 23.2-31, 23.2-32, 23.4-13(c)11 and 23.5-4 of the Land Development Regulations. The subject property is located in the Mixed Use-Federal Highway (MU-FH) zoning district, and in the Southeast Lucerne Local Historic District. PCN # 38-43-44-21-15-109-0090.

Written responses can be sent to the Lake Worth Historic Preservation Board at 1900 2nd Avenue N, Lake Worth, FL 33461, and must arrive before the hearing date to be included in the formal record. You also have the opportunity to attend the meeting to provide oral testimony. For additional information on the above issues, please visit the City of Lake Worth Division of Planning, Zoning and Historic Preservation located at 1900 2nd Avenue N, Lake Worth, FL 33461, or contact City Staff at 561-586-1687. If an affected party decides to appeal any decision made by the Board, Agency, or Commission with respect to any matter considered at such meeting or hearing, he or she will need a record of the proceedings, and that, for such purpose, he or she may need to ensure that a verbatim record of the proceedings is made, which record includes the testimony and evidence upon which the appeal is to be based. (FS 286.0105). In accordance with the provisions of the American with Disabilities Act (ADA) this document may be requested in an alternative format. Persons in need of special accommodation to participate in this proceeding are entitled to the provision of certain assistance. Please call 561-586-1687 no later than five (5) days before the hearing if this assistance is required.

Publish: The Lake Worth Herald
September 1, 2016

City Of Lake Worth
Department for Community Sustainability
Planning, Zoning and Historic Preservation Division
1900 Second Avenue North· Lake Worth, Florida 33461 · Phone: 561-586-1687

MEMORANDUM DATE: September 7, 2016

AGENDA DATE: September 14, 2016

TO: Chair and Members of the Historic Resources Preservation Board

RE: **230 North O Street**

FROM: Aimee N. Sunny, Senior Preservation Coordinator
Department for Community Sustainability

TITLE: HRPB Project Number 15-00100137: Consideration of a **REVISION** to an approved Certificate of Appropriateness (COA) for construction of a new single-family residence at the subject property located at **230 North O Street**; PCN# 38-43-44-21-15-040-0080. The subject property is a vacant lot located within the Old Lucerne Local Historic District.

AGENT/OWNER: Giorgio Antoniazzi
Invetra Development
340 W Flagler St, #1180
Miami, FL 33130

BACKGROUND:
The Certificate of Appropriateness for New Construction of a single-family residence and accessory garage was approved with conditions by the HRPB on September 9, 2015.

REQUEST:
The Applicant has submitted a revision request to change the previously approved standing seam metal roof on the main residential structure and accessory garage to a dimensional asphalt shingle roof, per the plans and documentation provided. The style of the proposed building is a contemporary cottage, with many elements reflecting the traditional architectural character often seen in this district.

The proposed building has two primary street-facing elevations, on North O Street and 3rd Avenue North, with the front of the building facing North O Street. The proposed new roof material will be visible from both public right-of-ways.

The subject property is zoned Single Family Residential (SFR), and the approved new construction proposal complies with the requirements of this zoning district. The revision request will not alter any zoning code requirements.

ANALYSIS:
Zoning and Comprehensive Plan Consistency
The proposed new construction project is consistent with the development requirements in the City's Zoning Code and Comprehensive Plan. The building as proposed would be conforming, and would not require any variances from the code.

Historic Preservation

New construction within a local historic district is also subject to specific criteria for visual compatibility as set forth in Section 23.5-4(k)3 of the City's historic preservation regulations. These criteria are provided in Attachment 1 and include Staff's response to each criterion. The criteria deal with massing, scale, materials, and design compatibility with the surrounding historic district.

It is the analysis of Staff that the revision request as proposed is compatible with the regulations set forth in the historic preservation ordinance. The proposed asphalt shingle roof is compatible with the contemporary cottage design, and responds to the character of the historic structures in the immediate vicinity.

Public Comment

At the time of publication of the agenda, Staff has not received any public comments regarding this project.

COMPREHENSIVE PLAN CONSISTENCY:

The project, as proposed, is consistent with the following Comprehensive Plan goals and objectives concerning future land use and housing:

Goal 1.3 To preserve and enhance the City's community character as a quality residential and business center within the Palm Beach County urban area. (Objective 1.3.4)

Goal 1.4 Encourage preservation and rehabilitation of historic and natural resources and where appropriate restrict development that would damage or destroy these resources. (Objective 1.4.2)

Goal 3.1 To achieve a supply of housing that offers a range of residential unit styles and prices for current and anticipated homeowners and renters in all household income levels by the creation and/or preservation of housing units. (Objective 3.1.1)

CONSEQUENT ACTION:

Approve the application; approve the application with conditions; continue the hearing to a date certain to request additional information; or deny the application.

RECOMMENDATION:

Staff recommends that the Board discuss the appropriateness of the revision request. The dimensional asphalt shingle is compatible with the style of the structure and is consistent with other structures in the district. The Board has previously expressed a preference for metal roofing over asphalt shingle, particularly due to increased energy efficiency.

If the Board chooses to approve the revision request, Staff recommends the following conditions:

1) The roof material may be dimensional asphalt shingle, standing seam metal, or 5V crimp metal. If asphalt shingle is installed, Staff recommends white or light gray for increased energy efficiency.
2) All additional conditions that were approved at the September 9, 2015, HRPB meeting shall remain in effect, subject to staff review at permitting and inspection during construction.

POTENTIAL MOTION:

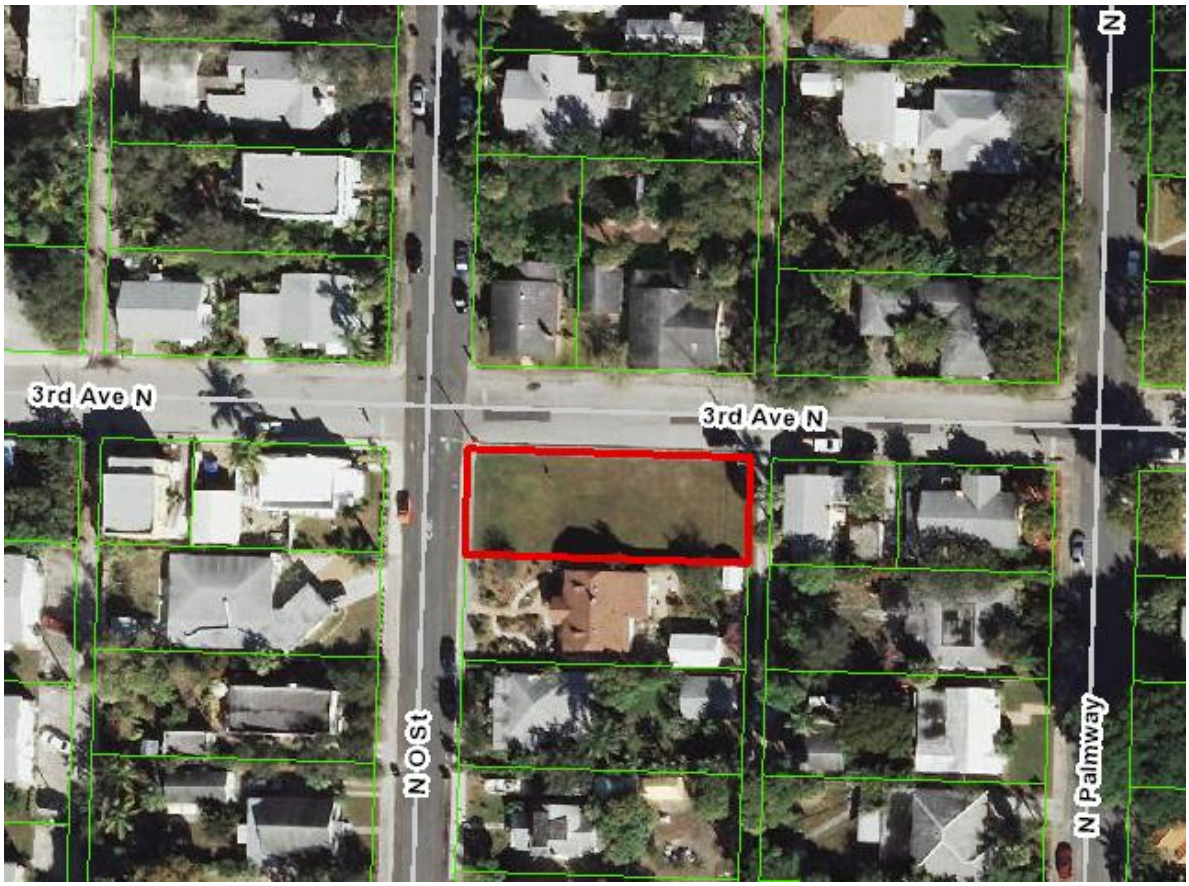
I MOVE TO **APPROVE** HRPB 15-00100137: Consideration of a **REVISION** to a Certificate of Appropriateness (COA) for new construction of a single-family residence at the subject property located at **230 North O Street**, based upon the preponderance of competent substantial evidence, with the conditions as recommended by Staff.

I MOVE TO HRPB 15-00100137: Consideration of a **REVISION** to a Certificate of Appropriateness (COA) for new construction of a single-family residence at the subject property located at **230 North O Street**, because the Applicant has not established by a preponderance of the evidence that the application is in compliance with the City of Lake Worth Land Development Regulations, the Secretary of the interiors Standards for the Rehabilitation of Historic Properties, and the City's Comprehensive Plan.

ATTACHMENTS:

1. Decision Criteria – New Construction
2. Revision Renderings
3. Proposed Product Brochures
4. Approved Architectural Drawings

LOCATION MAP



MEMORANDUM

DATE: September 7, 2016

TO: Chair and Members of the Historic Resources Preservation Board

FROM: Aimee N. Sunny, Senior Preservation Coordinator
Department of Community Sustainability

SUBJECT: **HRPB Project Number 15-00100137:** Consideration of a **REVISION** to an approved Certificate of Appropriateness (COA) for construction of a new single-family residence at the subject property located at **230 North O Street**; PCN# 38-43-44-21-15-040-0080. The subject property is a vacant lot located within the Old Lucerne Local Historic District.

HRPB Meeting Date: September 14, 2016

Section 23.5-4k(3) Additional guidelines for new construction; visual compatibility

All improvements to buildings, structures and appurtenances within a designated historic district shall be visually compatible. New buildings should take their design cues from the surrounding existing structures, using traditional or contemporary design standards and elements that relate to existing structures that surround them and within the historic district as a whole. Building design styles, whether contemporary or traditional, should be visually compatible with the existing structures in the district.

A. In approving or denying applications for certificates of appropriateness for new construction, the City shall also, at a minimum, consider the following additional guidelines which help to define visual compatibility:

(1) The height of proposed buildings shall be visually compatible and in harmony with the height of existing buildings located within the historic district.
Response: Not applicable to this revision request.

(2) The relationship of the width of the building to the height of the front elevation shall be visually compatible and in harmony with the width and height of the front elevation of existing buildings located within the district.
Response: Not applicable to this revision request.

(3) The openings of any building within a historic district should be visually compatible and in harmony with the openings in buildings of a similar architectural style located within the historic district. The relationship of the width of the windows and doors to the height of the windows and doors in a building shall be visually compatible with buildings within the district.
Response: Not applicable to this revision request.

(4) The relationship of solids to voids in the front facade of a building or structure shall be visually compatible and in harmony with the front facades of historic buildings or structures located within the historic district. A long, unbroken facade in a setting of existing narrow structures can be divided into smaller bays which will complement the visual setting and the streetscape.
Response: Not applicable to this revision request.

(5) The relationship of a building to open space between it and adjoining buildings shall be visually compatible and in harmony with the relationship between buildings elsewhere within the district.
Response: Not applicable to this revision request.

(6) The relationship of entrance and porch projections to sidewalks of a building shall be visually compatible and in harmony with the prevalent architectural styles of entrances and porch projections on buildings and structures within the district.
Response: Not applicable to this revision request.

(7) The relationship of the materials, texture and color of the facade of a building shall be visually compatible and in harmony with the predominant materials used in the buildings and structures of a similar style located within the historic district.
Response: The proposed roof material revision from metal standing seam to dimensional asphalt shingle is compatible with the contemporary cottage style of the structure, and the Old Lucerne historic district in general.

(8) The roof shape of a building or structure shall be visually compatible and in harmony with the roof shape of buildings or structures of a similar architectural style located within the historic district.
Response: Although this exact roof shape is not found in the immediate vicinity of the structure, it is appropriate within the district, and is visually compatible with the neighboring properties as well as the district. The standing seam metal and dimensional asphalt shingle roof types are both compatible with this style of roof.

(9) Appurtenances of a building, such as walls, wrought iron, fences, evergreen, landscape masses and building facades, shall, if necessary, form cohesive walls of enclosures along a street to insure visual compatibility of the building to the buildings and places to which it is visually related.
Response: Not applicable to this revision request.

(10) The size and mass of a building in relation to open spaces, the windows, door openings, porches and balconies shall be visually compatible and in harmony with the buildings and places to which it is visually related.
Response: Not applicable to this revision request.

(11) A building shall be visually compatible and in harmony with the buildings and places to which it is visually related in its directional character: vertical, horizontal or non-directional.

Response: The building's height and massing are compatible with other single-family residential buildings on the block, and the roof revision request does not alter this visual compatibility and harmony.

(12) The architectural style of a building shall be visually compatible with other buildings to which it is related in the historic district, but does not necessarily have to be in the same style of buildings in the district. New construction or additions to a building are encouraged to be appropriate to the style of the period in which it is created and not attempt to create a false sense of history.
Response: The building is a contemporary cottage design that employs elements of traditional frame vernacular architecture. The building is visually compatible with the district, but does not attempt to replicate any historic structures. The revision request does not alter this visual compatibility.

(13) Landscaping shall be compatible with the architectural character and appearance of the structure and of other buildings located within the historic district.
Response: Not applicable to this revision request.

(14) In considering applications for certificates of appropriateness to install mechanical systems which affect the exterior of a building or structure visible from a public right-of-way, the following criteria shall be considered:

(a) Retain and repair, where possible, historic mechanical systems in their original location, where possible.
Response: Not applicable to this revision request.

(b) New mechanical systems shall be placed on secondary facades only and shall not be placed on, nor be visible from, primary facades.
Response: Not applicable to this revision request.

(c) New mechanical systems shall not damage, destroy or compromise the physical integrity of the structure and shall be installed so as to cause the least damage, invasion or visual obstruction to the structure's building materials, or to its significant historic, cultural or architectural features.
Response: Not applicable to this revision request.

(15) The site should take into account the compatibility of landscaping, parking facilities, utility and service areas, walkways and appurtenances. These should be designated with the overall environment in mind and should be in keeping visually with related buildings and structures.
Response: The roof material revision request applies to the accessory garage structure as well as the main residential structure, and the two structures are visually compatible.

B. In considering certificates of appropriateness for new buildings or structures which will have more than one primary facade, such as those on corner lots facing more than one street, the HRPB shall apply the visual compatibility standards to each primary facade.
Response: The above criteria and responses apply to both primary façades.

LUCERNE HOUSE

230 NORTH O ST.

PLANNING & ZONING SET

Lucerne House
230 North O St.

OWNER:
INVETRA
DEVELOPMENT LLC.

AZZI DESIGN
340 W Flagler St
#1108
Miami Fl, 33130

STRUCTURAL ENGINEER:
Type in info

MEP ENGINEER:
Type in info

LANDSCAPE ARCHITECT:
Type in info

SEAL:

Office Registration #

ISSUE #	DESCRIPTION	DATE

PROJECT NUMBER:
1501

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DRAWING NAME:
COVER - INDEX

SCALE:
DATE: 07-29-15

A-0.00

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JOHN IBARRA & ASSOCIATES, INC.

Professional Land Surveyors & Mappers

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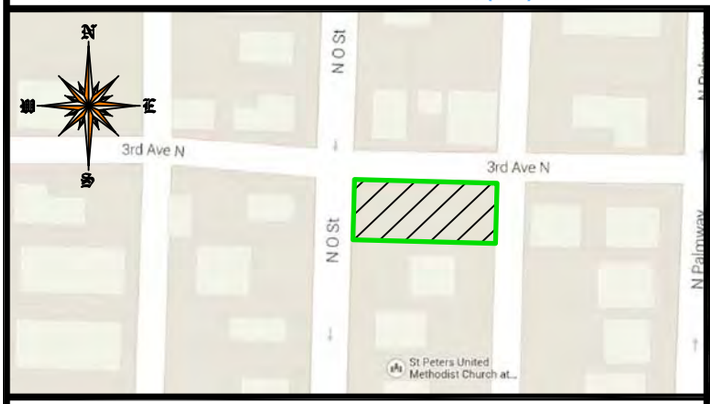

LOCATION SKETCH

SCALE = N.T.S.

VIEW OF SUBJECT PROPERTY

230 N O ST, LAKE WORTH, FL 33460
PARCEL ID. 38434421150400080

ABBREVIATIONS

A	= ARC.	E.T.P.	= ELECTRIC TRANSFORMER PAD	O.R.B.	= OFFICIAL RECORDS BOOK	T	= TANGENT
A/C	= AIR CONDITIONER PAD	ELEV.	= ELEVATION	O.V.H.	= OVERHANG	TB	= TELEPHONE BOOTH
A.E.	= ANCHOR EASEMENT	ENCR.	= ENCROACHMENT	PVMT.	= PAVEMENT	T.B.M.	= TEMPORARY BENCHMARK
A.R.	= ALUMINUM ROOF	F.H.	= FIRE HYDRANT	PL.	= PLANTER	T.U.E.	= TECHNOLOGY UTILITY EASEMENT
A.S.	= ALUMINUM SHED	F.I.P.	= FOUND IRON PIPE	P.L.	= PROPERTY LINE	TSB	= TRAFFIC SIGNAL BOX
ASPH.	= ASPHALT	F.I.R.	= FOUND IRON ROD	P.C.C.	= POINT OF COMPOUND CURVATURE	T.S.P.	= TRAFFIC SIGNAL POLE
B.C.	= BLOCK CORNER	F.F.E.	= FINISHED FLOOR ELEVATION	P.C.	= POINT OF CURVATURE	TWP	= TOWNSHIP
BLDG.	= BUILDING	F.N.D.	= FOUND NAIL & DISK	P.O.T.	= POINT OF TANGENCY	UTIL.	= UTILITY
B.M.	= BENCH MARK	FT.	= FEET	P.O.C.	= POINT OF COMMENCEMENT	U.E.	= UTILITY EASEMENT
B.C.R.	= BROWARD COUNTY RECORDS	FNIP.	= FEDERAL NATIONAL INSURANCE PROGRAM	P.O.B.	= POINT OF BEGINNING	U.P.	= UTILITY POLE
B.O.B.	= BASIS OF BEARING	F.N.	= FOUND NAIL	P.R.C.	= POINT OF REVERSE CURVATURE	W.M.	= WATER METER
(C)	= CALCULATED	H.	= HIGH OR (HEIGHT)	PWY	= PARKWAY	W.F.	= WOOD FENCE
C.B.	= CATCH BASIN	IN.&EG.	= INGRESS AND EGRESS EASEMENT	P.R.M.	= PERMANENT REFERENCE MONUMENT	W.P.	= WOOD PORCH
C.B.S.	= CONCRETE BLOCK STRUCTURE	I.C.V.	= IRRIGATION CONTROL VALVE	P.L.S.	= PROFESSIONAL LAND SURVEYOR	W.R.	= WOOD ROOF
C.B.W.	= CONCRETE BLOCK WALL	I.F.	= IRON FENCE	P.P.	= POWER POLE	W.V.	= WATER VALVE
CH.	= CHORD	L.B.	= LICENSED BUSINESS	P.P.S.	= POOL PUMP SLAB	M	= MONUMENT LINE
CH.B.	= CHORD BEARING	L.P	= LIGHT POLE	P.U.E.	= PUBLIC UTILITY EASEMENT	℄	= CENTER LINE
CH.L.	= CHORD LENGTH	L.F.E.	= LOWEST FLOOR ELEVATION	(R)	= RECORD DISTANCE	△	= DELTA
CL.	= CLEAR	L.M.E.	= LAKE MAINTENANCE EASEMENT	R.R.	= RAIL ROAD		
C.O.	= CLEAN OUT	'	= MINUTES	RES.	= RESIDENCE		
C.L.F.	= CHAIN LINK FENCE	(M)	= MEASURED DISTANCE	R/W	= RIGHT-OF-WAY		
C.M.E	= CANAL MAINTENANCE EASEMENT	M.B.	= MAIL BOX	RAD.	= RADIUS OR RADIAL		
CONC.	= CONCRETE	M.D.C.R.	= MIAMI DADE COUNTY RECORDS	RGE.	= RANGE		
C.U.P.	= CONCRETE UTILITY POLE	M.E.	= MAINTENANCE EASEMENT	R.O.E.	= ROOF OVERHANG EASEMENT		
C.P.	= CONCRETE PORCH	M.H.	= MANHOLE	SEC.	= SECTION		
C.S.	= CONCRETE SLAB	N.A.P.	= NOT A PART OF	STY.	= STORY		
C.W.	= CONCRETE WALK	NGVD	= NATIONAL GEODETIC VERTICAL DATUM	SWK.	= SIDEWALK		
D.E.	= DRAINAGE EASEMENT	N.T.S.	= NOT TO SCALE	S.I.P.	= SET IRON PIPE		
D.M.E.	= DRAINAGE MAINTENANCE EASEMENT	# OR NO.	= NUMBER	S	= SOUTH		
DRIVE	= DRIVEWAY	O/S	= OFFSET	S.P.	= SCREENED PORCH		
°	= DEGREES	O.H.	= OVERHEAD	S.V.	= SEWER VALVE		
EB	= ELECTRIC BOX	O.H.L.	= OVERHEAD UTILITY LINES	"	= SECONDS		

LEGEND

= OVERHEAD UTILITY LINES
= CONCRETE BLOCK WALL
= CHAIN LINK FENCE
= IRON FENCE
= WOOD FENCE
= BUILDING SETBACK LINE
= UTILITY EASEMENT
= LIMITED ACCESS R/W
= NON-VEHICULAR ACCESS R/W
× 0.00 = EXISTING ELEVATIONS

LEGAL NOTES TO ACCOMPANY SKETCH OF SURVEY :

- THERE MAY BE EASEMENTS RECORDED IN THE PUBLIC RECORDS NOT SHOWN ON THIS SURVEY.
- THE PURPOSE OF THIS SURVEY IS FOR USE IN OBTAINING TITLE INSURANCE AND FINANCING AND SHOULD NOT BE USED FOR CONSTRUCTION PURPOSES.
- EXAMINATIONS OF THE ABSTRACT OF TITLE WILL HAVE TO BE MADE TO DETERMINE RECORDED INSTRUMENTS, IF ANY, AFFECTING THE PROPERTY.
- THIS SURVEY IS SUBJECT TO DEDICATIONS, LIMITATIONS, RESTRICTIONS, RESERVATIONS OR EASEMENTS OF RECORD.
- LEGAL DESCRIPTIONS PROVIDED BY CLIENT OR ATTESTING TITLE COMPANY.
- BOUNDARY SURVEY MEANS A DRAWING AND/ OR A GRAPHIC REPRESENTATION OF THE SURVEY WORK PERFORMED IN THE FIELD, COULD BE DRAWN AT A SHOWN SCALE AND/OR NOT TO SCALE; THE WALLS OR FENCES MAY BE EXAGGERATED FOR CLARITY PURPOSES.
- EASEMENTS AS SHOWN ARE PER PLAT BOOK, UNLESS DEPICTED OTHERWISE.
- THE TERM "ENCROACHMENT" MEANS VISIBLE AND ABOVE GROUND ENCROACHMENTS.
- ARCHITECTS SHALL VERIFY ZONING REGULATIONS, RESTRICTIONS, SETBACKS AND WILL BE RESPONSIBLE FOR SUBMITTING PLOT PLANS WITH CORRECT INFORMATION FOR "APPROVAL FOR AUTHORIZATION" TO THE PROPER AUTHORITIES IN NEW CONSTRUCTION.
- UNLESS OTHERWISE NOTED, THIS FIRM HAS NOT ATTEMPTED TO LOCATE FOOTING AND/OR FOUNDATIONS.
- **FENCE OWNERSHIP NOT DETERMINED.**
- THIS PLAN OF SURVEY, HAS BEEN PREPARED FOR THE EXCLUSIVE USE OF THE ENTITIES NAMED HEREON, THE CERTIFICATE DOES NOT EXTEND TO ANY UNNAMED PARTY.

FLOOD ZONE INFORMATION:

THE NFIP FLOOD MAPS HAVE DESIGNATED THE HEREIN DESCRIBED LAND TO BE SITUATED IN:

FLOOD ZONE:	"B"
BASE FLOOD ELEVATION:	N/A.
COMMUNITY:	120213
PANEL:	0002
SUFFIX:	C
DATE OF FIRM:	09/30/1982

THE SUBJECT PROPERTY DOES NOT LIE IN A SPECIAL FLOOD HAZARD AREA.

SURVEYOR' S NOTES:

1. IF SHOWN, BEARINGS ARE REFERRED TO AN ASSUMED MERIDIAN, BY SAID PLAT IN THE DESCRIPTION OF THE PROPERTY, IF NOT, BEARINGS ARE THEN REFERRED TO COUNTY, TOWNSHIP MAPS.
2. THE CLOSURE IN THE BOUNDARY SURVEY IS ABOVE 1:7500 FT.
3. CERTIFICATE OF AUTHORIZATION LB #7806.
4. NORTH IS BASED ON PLAT NORTH.
5. ALL ELEVATIONS SHOWN ARE REFERRED TO NATIONAL GEODETIC VERTICAL DATUM OF 1929 PALM BEACH COUNTY BENCH MARK # 402; ELEVATION IS 17.22 FEET OF N.G.V.D. OF 1929

SURVEYOR'S CERTIFICATION:

I HEREBY CERTIFY: THIS "BOUNDARY SURVEY" OF THE PROPERTY DESCRIBED HEREON, HAS RECENTLY BEEN SURVEYED AND DRAWN UNDER MY SUPERVISION, AND COMPLIES WITH THE MINIMUM TECHNICAL STANDARDS AS SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL LAND SURVEYORS IN CHAPTER 5J-17, FLORIDA ADMINISTRATIVE CODE PURSUANT TO 472.027, FLORIDA STATUTES.

BY: _____ **04/29/2015**

CARLOS IBARRA (DATE OF FIELD WORK)

PROFESSIONAL LAND SURVEYOR NO.: 6770 **STATE OF FLORIDA**
(NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER).

REVISED ON: _____

REVISED ON: _____

DRAWN BY:	**EM**
FIELD DATE:	**04/29/2015**
SURVEY NO:	**15-001692-1**
SHEET:	**1 OF 2**

ORDERED BY:

INVETRA DEVELOPMENT LLC

CARLOS IBARRA CERTIFICATE NO. 6770 STATE OF FLORIDA PROFESSIONAL LAND SURVEYOR

L.B.# 7806 **SEAL**

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Professional Land Surveyors & Mappers

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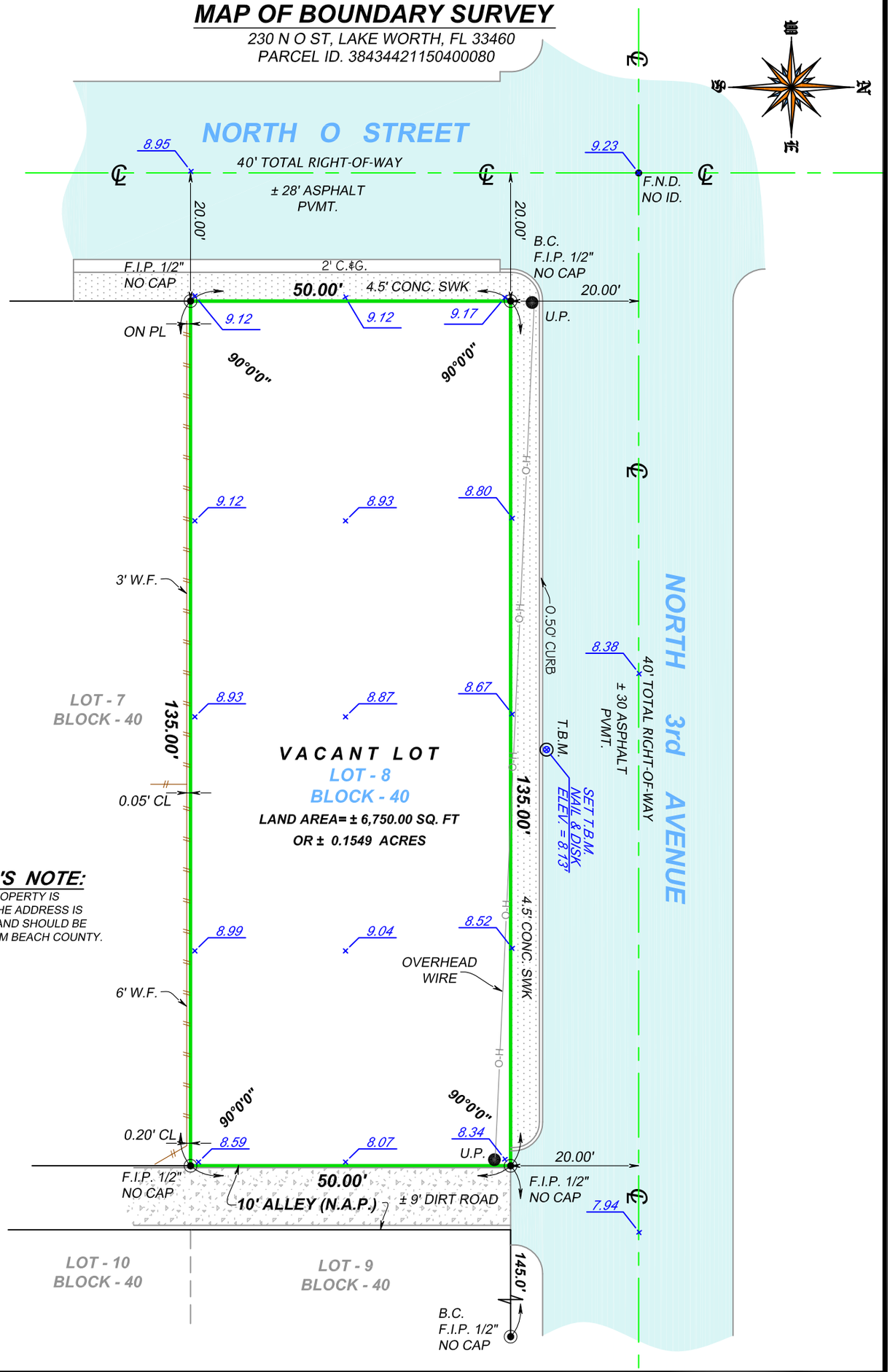
2804 DEL PRADO BLVD SOUTH
SUITE NO. 202 UNIT 1
CAPE CORAL, FL 33904
PH: (239) 540-2660
FAX: (239) 540-2664

MAP OF BOUNDARY SURVEY

230 N O ST, LAKE WORTH, FL 33460
PARCEL ID. 38434421150400080



SURVEYOR'S NOTE:

1. THE SUBJECT PROPERTY IS VACANT LAND. THE ADDRESS IS PLUS OR MINUS AND SHOULD BE VERIFIED BY PALM BEACH COUNTY.

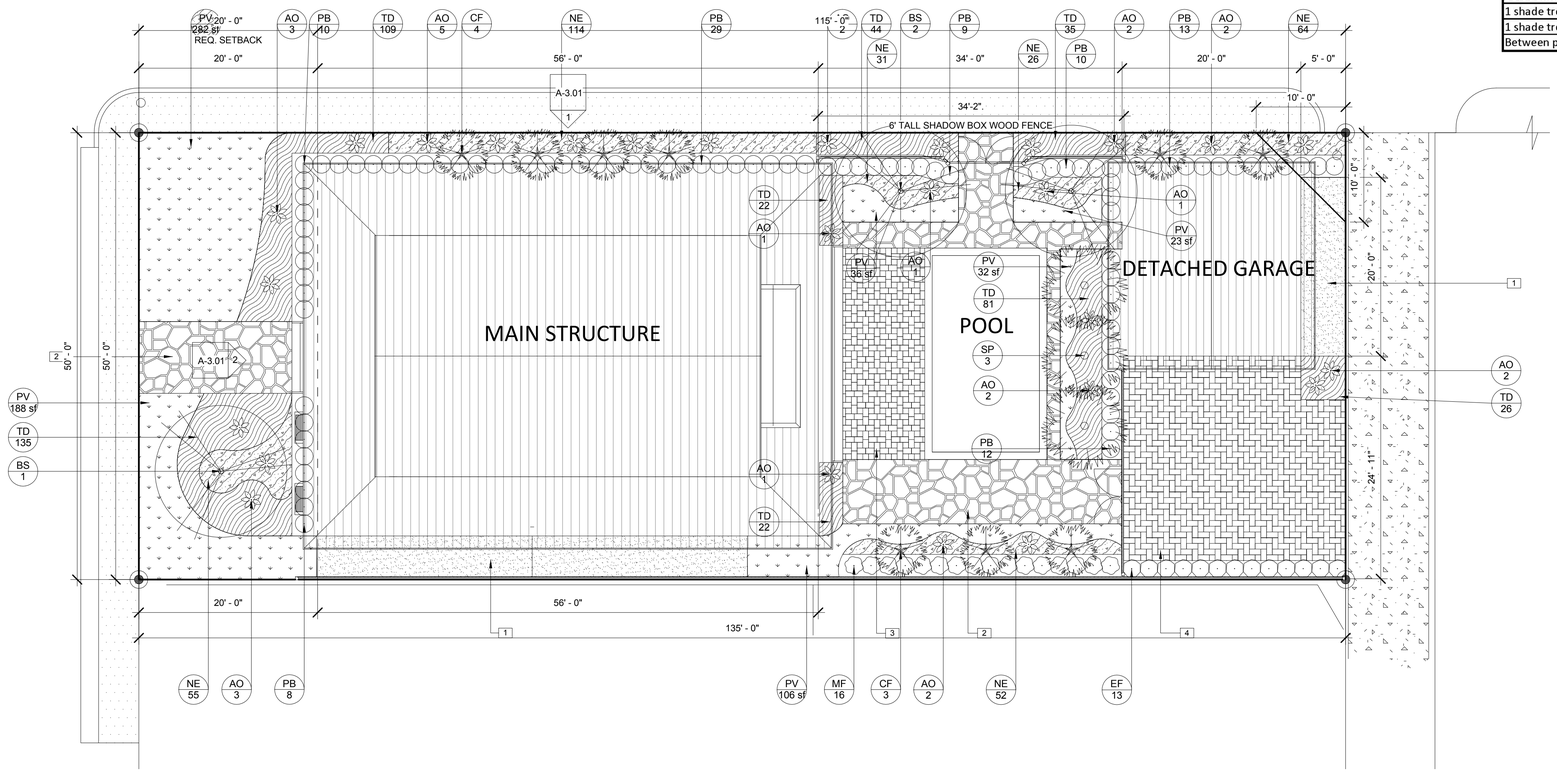
CARLOS IBARRA
CERTIFICATE
NO. 6770
STATE OF
FLORIDA
PROFESSIONAL LAND SURVEYOR

L.B.# 7806 SEAL

LEGAL DESCRIPTION:
LOT 8, BLOCK 40, THE PALM BEACH FARMS CO., PLAT NO. 2, TOWNSITE OF LUCERNE (NOW KNOWN AS LAKE WORTH), ACCORDING TO THE PLAT THEREOF ON FILE IN THE OFFICE OF THE CLERK OF THE CIRCUIT COURT IN AND FOR PALM BEACH COUNTY, FLORIDA, RECORDED IN PLAT BOOK 2,PAGE 29. SAID LANDS SITUATE, LYING AND BEING IN PALM BEACH COUNTY, FLORIDA.

ORDERED BY:
INVETRA DEVELOPMENT LLC

DRAWN BY:	EM
SCALE:	1"=20'
FIELD DATE:	04/29/2015
SURVEY NO:	15-001692-1
SHEET:	2 OF 2



1 Landscape Plan
1/8" = 1'-0"

Zoning District:	SF-R	
Lot Area:	6,750 square feet	
Section 23.6-1 Landscape Regulations	**Required/Allowed**	**Provided**
50% Trees Native	3 trees x 50% = 1.5, = 2	3
50% Plants Native/Drought Tolerant	74	120
Tree Specifications (Min.)	12' H, 4' CT, 6' SPR, 3" CAL	20'H, 4' CT, 15' SPR, 8" CAL
Tree Species (Min.)	1-3 Trees Required = 1	1
Palms=25% of required trees (Max.)	3 trees x 25% = .75, = 1 palm	0
Hedge Specifications (Min.)	2' H, 24" O.C	2' H, 24" O.C.
Groundcover Specifications (Min.)	Planted Full	12" O.C.
Landscape Points	3500 sf < 7000 sf = 100 pts	270 pts
50% Points in front yard (Min.)	50	56
1 shade tree/every 2,500 sf of lot	6750 sf/2500 sf = 3	3
1 shade tree in front yard (Min.)	1	1
Between property line & ROW	Landscaped; No Hardscape	Landscape

2015-08-11 00:24

TREE SCHEDULE

TREES	CODE	QTY	BOTANICAL NAME	COMMON NAME	HEIGHT	SPREAD	CALIPER	
	BS	3	Bursera simaruba	Gumbo Limbo	20` OA	15`	8" min	
PALMS	CODE	QTY	BOTANICAL NAME	COMMON NAME	HEIGHT	SPREAD	CALIPER	
	CF	9	Coccothrinax argentata	Florida Silver Palm	6` CT	6`		
	SP	3	Sabal palmetto	Cabbage Palmetto	10`-12` CT			

2015-08-11 00:23

PLANT SCHEDULE

SHRUBS	CODE	QTY	BOTANICAL NAME	COMMON NAME	HEIGHT	SPREAD	GAL	NATIVE	
	AO	27	Alcantarea odorata	Giant Silver Bromeliad	36"	36"	15G	No	
	EF	13	Eugenia foetida	Spanish Stopper	4`	24"	15G	Yes	
	MF	16	Myrcianthes fragrans	Simpson`s Stopper	4`	24"	15G	Yes	
	PB	91	Psychotria ligustrifolia	Bahama Coffee	24"	24"	3G	Yes	
GROUND COVERS	CODE	QTY	BOTANICAL NAME	COMMON NAME	HEIGHT	SPREAD	NATIVE	NATIVE	SPACING
	NE	342	Nephrolepis exaltata	Boston Fern	12"	12"	1G	Yes	12" o.c.
	TD	474	Tripsacum floridanum	Florida Gamagrass	12"	12"	1G	Yes	12" o.c.
SOD/SEED	CODE	QTY	BOTANICAL NAME	COMMON NAME	HEIGHT	SPREAD	NATIVE	NATIVE	SPACING
	PV	666 sf	Paspalum vaginatum	Seashore Paspalum	flat			Yes	

HARDSCAPE SCHEDULE

CODE	SYMBOL	DESCRIPTION	QTY
1		GRAVEL	320 sf
2		LIMESTONE FLAGSTONE	550 sf
3		LIMESTONE FLOORING	217 sf
4		VEHICULAR PAVERS	544 sf

Lucerne House
230 North O St.

OWNER:
INVETRA
DEVELOPMENT LLC.

AZZI DESIGN
340 W Flagler St
#1108
Miami Fl, 33130

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MEP ENGINEER:
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LANDSCAPE ARCHITECT:
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DRAWING NAME:
LANDSCAPE PLAN
SCALE: 1/8" = 1'-0" DATE: 07-29-15

L-0.01

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ZONING LEGEND

I. SITE INFORMATION

ADDRESS:	230 NORTH O ST LAKE WORTH, FL 33460
PARCEL ID:	38434421150400080
LEGAL DESCRIPTION:	LOT 8, BLOCK 40, THE PALM BEACH FARMS CO., PLAT NO. 2 TOWNSITE OF LUCERNE (NOW KNOWN AS LAKE WORTH), ACCORDING TO THE PLAT THEREOF ON FILE IN THE OFFICE OF THE CLERK OF THE CIRCUIT COURT IN AND FOR PALM BEACH COUNTY, FLORIDA, RECORDED IN PLAY BOOK 2, PAGE 29. SAID LANDS SITUATE, LYING AND BEING IN PALM BEACH COUNTY, FLORIDA.
LOT SIZE:	6,750 SF *(.1549 acres)*
MAX FAR:	.50 = 3375 SF *TOTAL GROSS PROPOSED: 3292 SF*

II. BUILDING DISPOSITION

SETBACKS:

PRINCIPLE STRUCTURE:		REQUIRED	PROVIDED
FRONT (WEST)		20'-0"	20'-0"
SIDE (NORTH - SOUTH)	(10% x 50'-0")	5'-0"	5'-0"
REAR (EAST)	(10% x 135'-0")	13'-6"	59'-0"

GARAGE (ACCESSORY):	REQUIRED	PROVIDED
FRONT (WEST)	20'-0"	110'-0"
SIDE (NORTH - SOUTH)	5'-0"	5'-0"
REAR (EAST)	5'-0"	5'-0"

POOL:	REQUIRED	PROVIDED
SIDE (NORTH)	5'-0"	12'-10"
SIDE (SOUTH)	5'-0"	13'-4"
REAR (EAST)	5'-0"	33'-5"

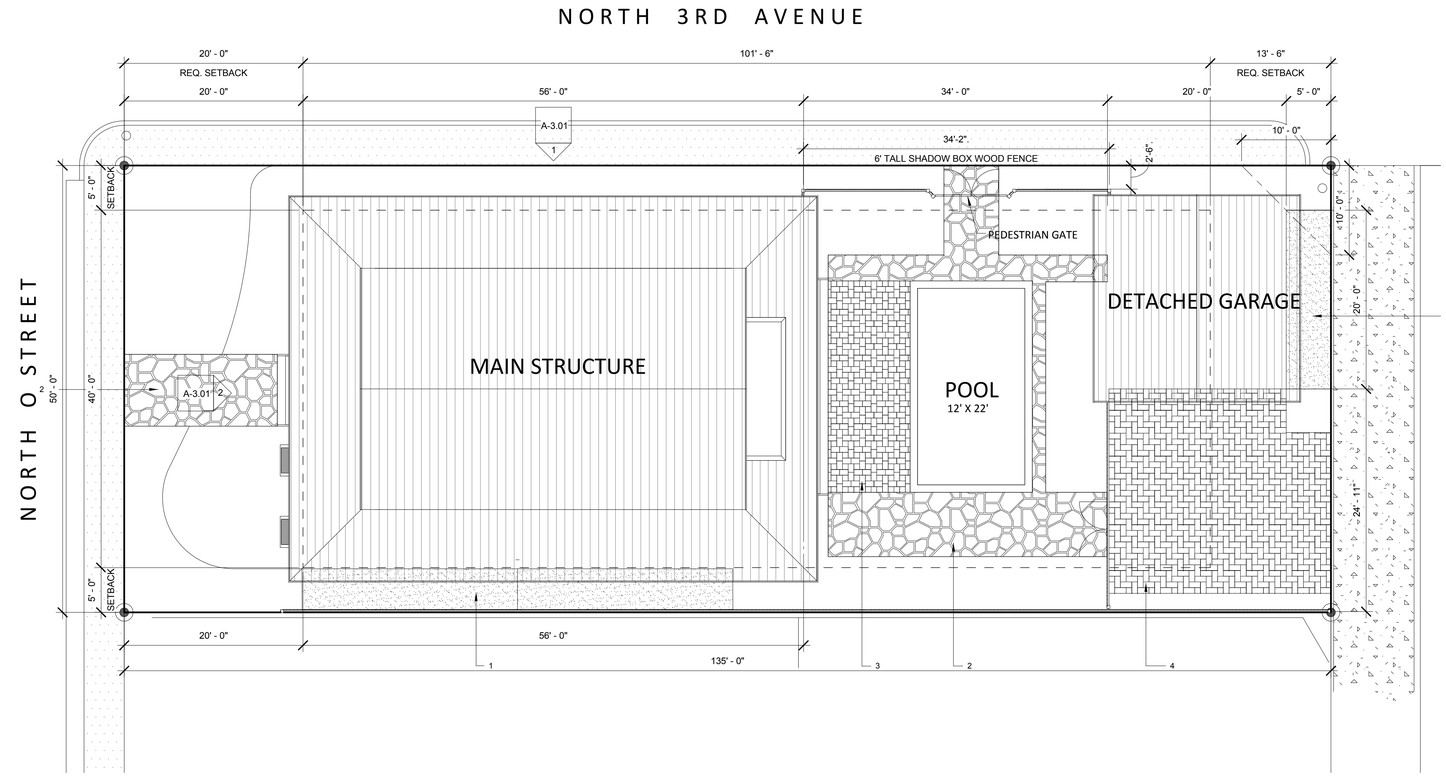
BUILDING HEIGHT: *(AVG CROWN OF ROAD 8.50 NGVD)*	MAX.	PROVIDED
PRINCIPLE STRUCTURE:	30'-0" (2 STORIES)	25'-3" (2 STORIES)
GARAGE (ACCESSORY):	24'-0" (2 STORIES)	13'-9" (1 STORY)

AREA

AC (MAIN STRUCTURE):	2,378 SF
COVERED:	514 SF
GARAGE (ACCESSORY):	400 SF (16% OF PRINCIPLE STRUCTURE)
TOTAL (GROSS):	3292 SF

IMPERMEABLE SURFACE MAXIMUM: *MEDIUM LOT (B) 55% = 3,712 SF*

BUILDING COVERAGE: (PRINCIPLE & ACCESSORY)	2,131 SF (31%) *MAX 35%*
HARDSCAPE:	1311 SF
TOTAL:	3,442 SF (51%)



1 Site plan
1/8" = 1'-0"

Lucerne House
230 North O St.

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INVETRA
DEVELOPMENT LLC.

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DRAWING NAME:
ZONING LEGEND & SITE PLAN
SCALE: 1/8" = 1'-0" DATE: 07-29-15

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NORTH PANORAMA

NORTH - WEST PANORAMA

NORTH PANORAMA

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DRAWING NAME:
SITE IMAGES

SCALE:
DATE: 07-29-15

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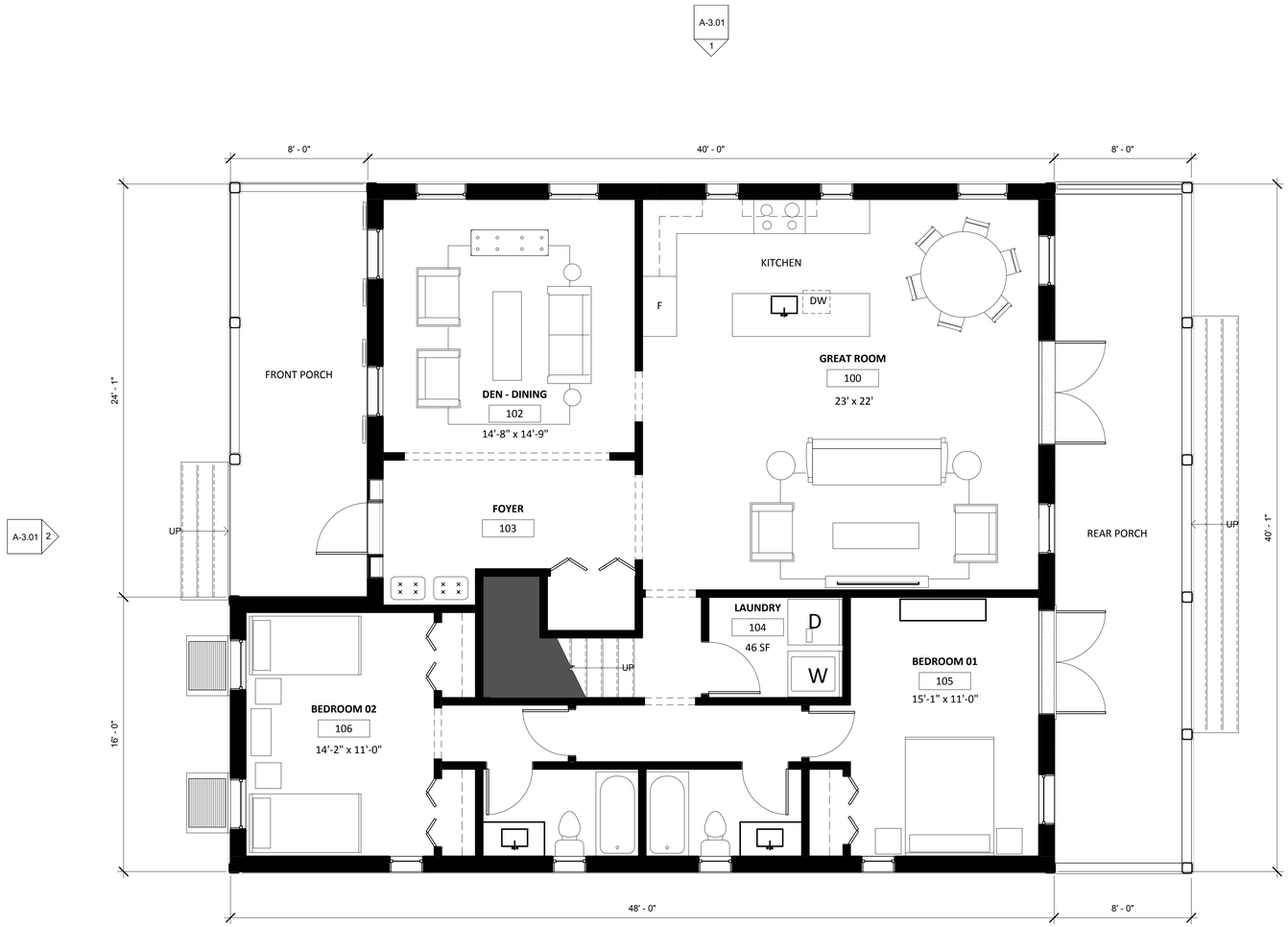
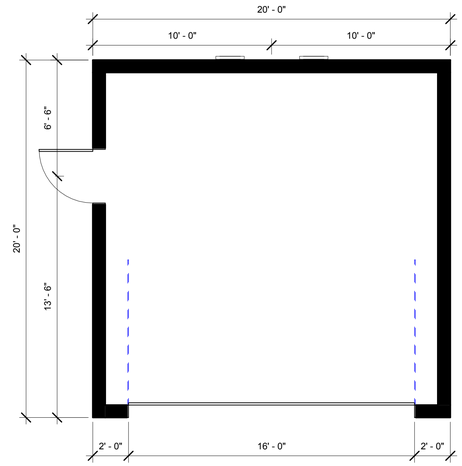


4
A-3.00

1 Level 1
1/4" = 1'-0"

0" 2' 4' 8'



2 DETACHED GARAGE PLAN
1/4" = 1'-0"

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DRAWING NAME:
LEVEL 1 FLOORPLAN

SCALE: 1/4" = 1'-0" DATE: 07-29-15

A-1.01

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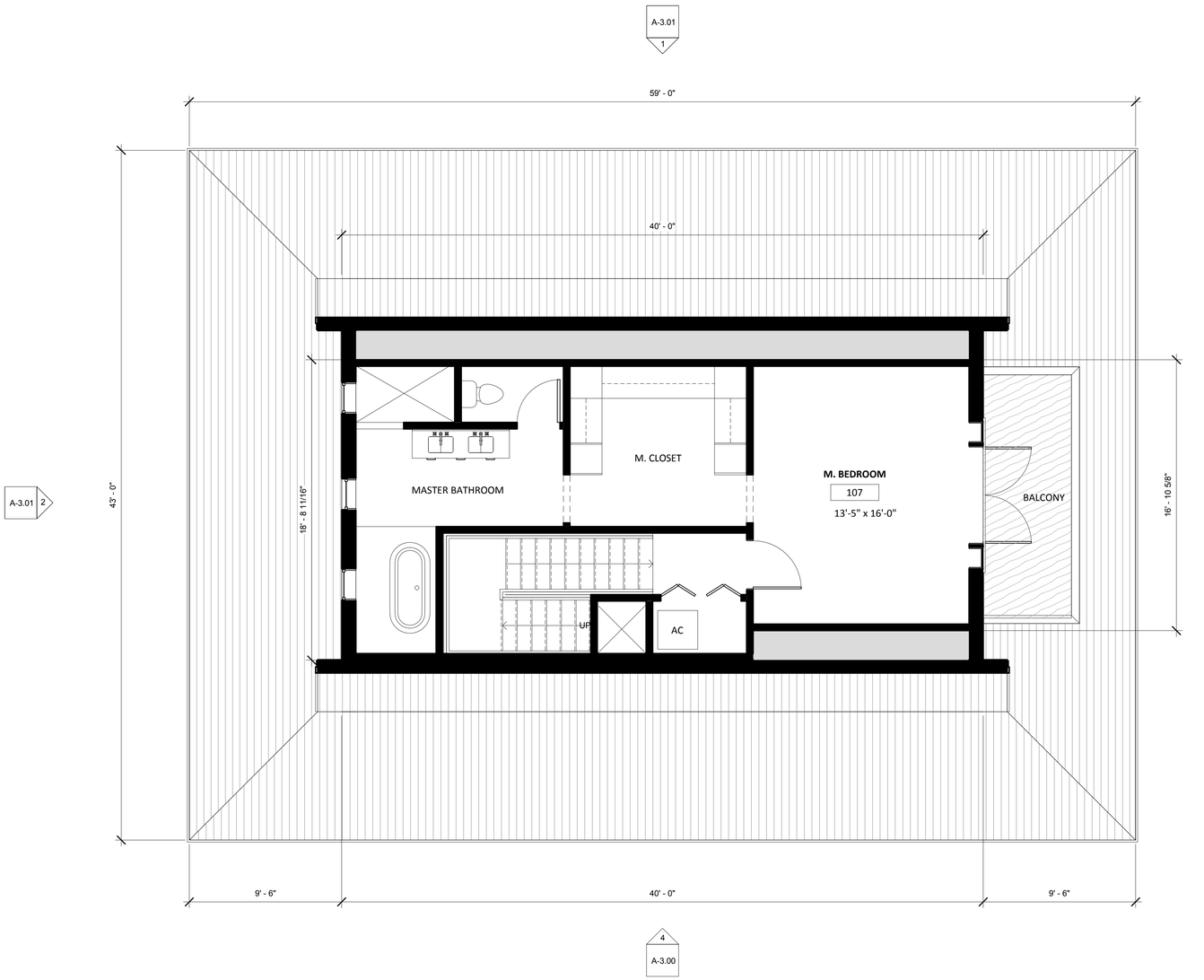

1 Level 2
1/4" = 1'-0"

0" 2' 4' 8'

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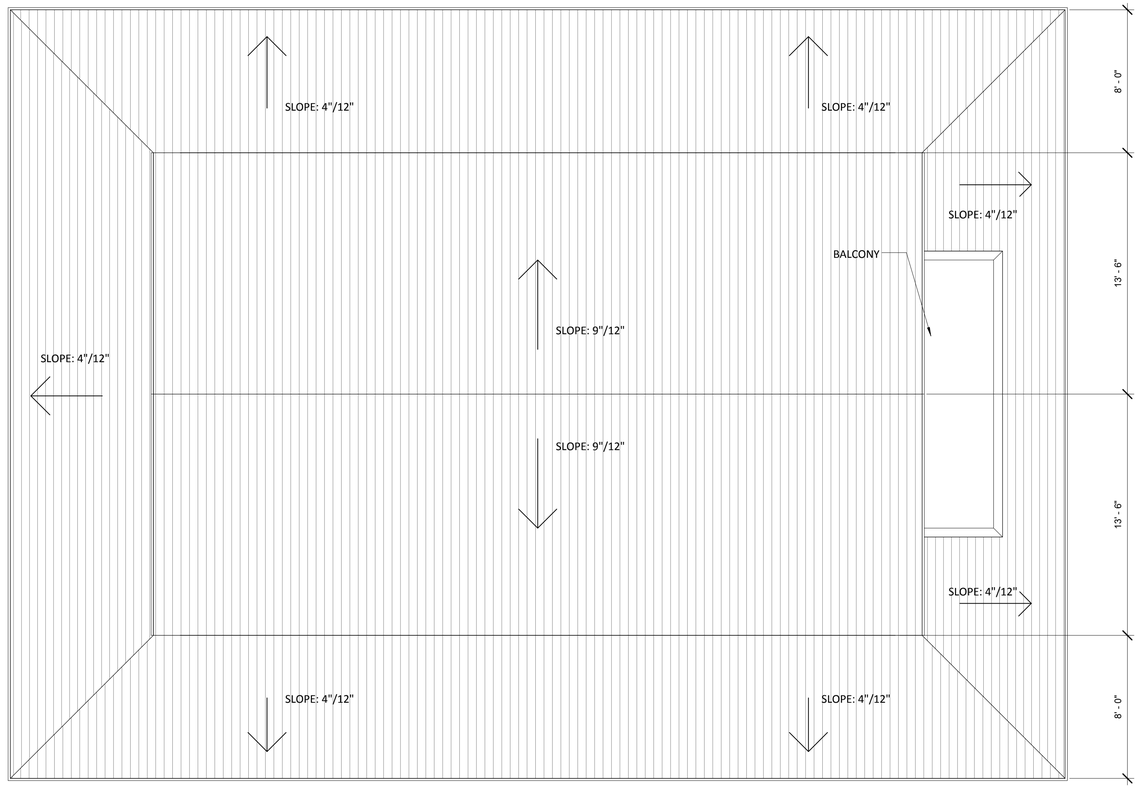
DRAWING NAME:
LEVEL 2 FLOORPLAN

SCALE: 1/4" = 1'-0" DATE: 07-29-15

A-1.02

A-3.01 1



A-3.01 2

3 A-3.00

4 A-3.00

1 ROOF
1/4" = 1'-0"

0" 2' 4' 8'

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DRAWING NAME:
ROOF PLAN

SCALE: 1/4" = 1'-0" DATE: 07-29-15

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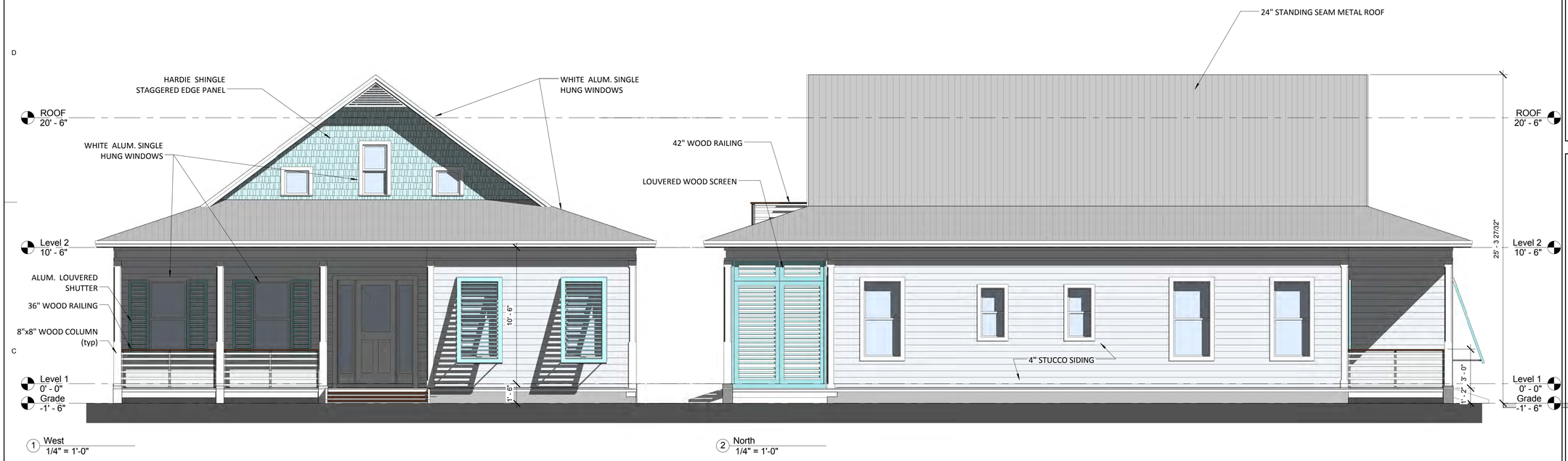
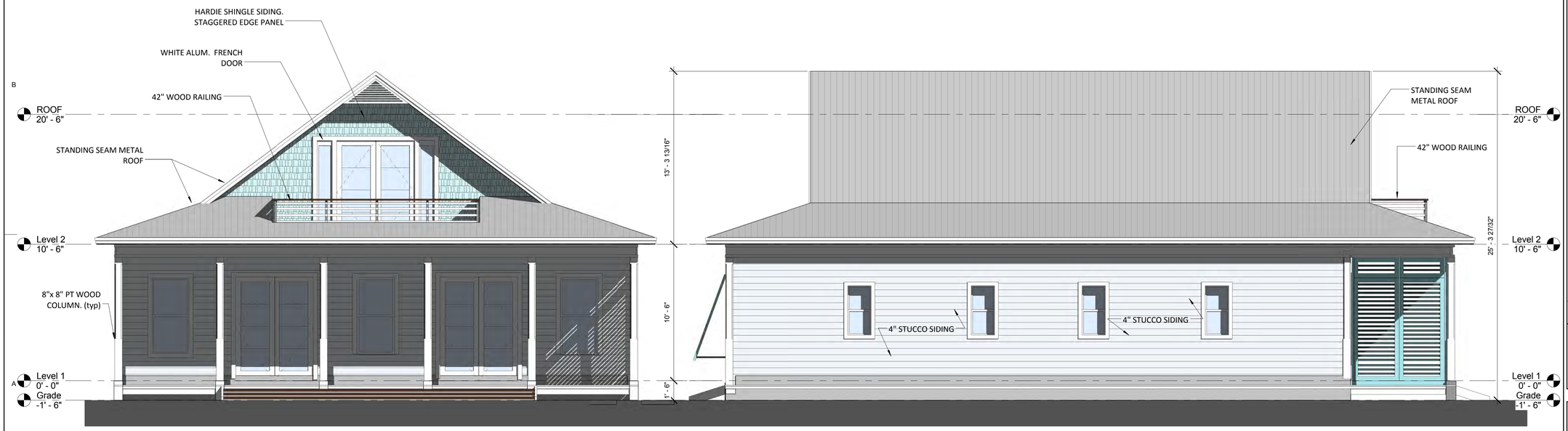


1 West
1/4" = 1'-0"

2 North
1/4" = 1'-0"



3 East
1/4" = 1'-0"

4 South
1/4" = 1'-0"

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DRAWING NAME:
ELEVATIONS

SCALE: 1/4" = 1'-0" DATE: 07-29-15

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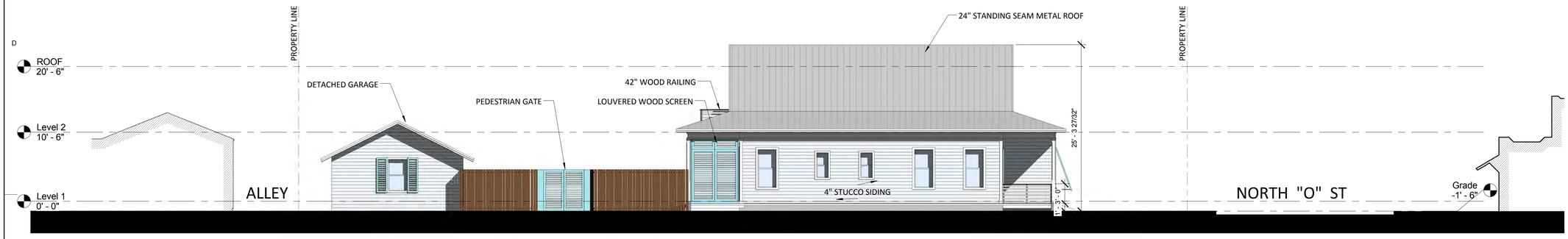
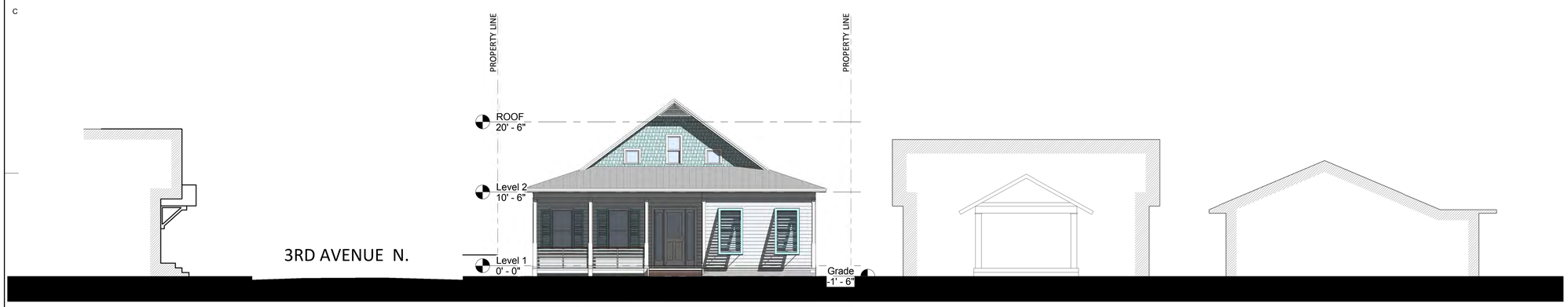


1 North Street Elevation
1/8" = 1'-0"

0" 4' 8' 16'



2 West Street Elevation
1/8" = 1'-0"

0" 4' 8' 16'

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Lucerne House
230 North O St.

OWNER:
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DRAWING NAME:
ELEVATIONS

SCALE: 1/8" = 1'-0" DATE: 07-29-15

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VIEW FROM: 3RD & "O" ST.

Lucerne House
230 North O St.

OWNER:
INVETRA
DEVELOPMENT LLC.

AZZI DESIGN
340 W Flagler St
#1108
Miami Fl, 33130

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DRAWING NAME:
RENDERINGS

SCALE: DATE: 07-29-15

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VIEW FROM: BACK COURT

Lucerne House
230 North O St.

OWNER:
INVETRA
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340 W Flagler St
#1108
Miami Fl, 33130

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RENDERINGS

SCALE: DATE: 07-29-15

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Timberline® Natural Shadow® Brochure

(RESTL100NS)

Updated: 7/16

GAF®

Quality You Can Trust…From
North America's Largest Roofing Manufacturer!™

GAF®

Quality You Can Trust…From North America's Largest Roofing Manufacturer!™

TIMBERLINE® Natural Shadow®

LIFETIME SHINGLES

Protect your home with Timberline® Shingles — North America's **#1–selling** shingles!

GAF TIMBERLINE® Natural Shadow® LIFETIME SHINGLES

There's Nothing Quite Like A Genuine Timberline® Roof!

Professional installers have long preferred the rugged, dependable performance that only a Timberline® roof can offer. That's why Timberline® Shingles with **Advanced Protection® Shingle Technology** are the #1-selling shingles in all of North America.

But performance is only half the story. Since your roof can represent up to **40%** of your home's "curb appeal," you can improve its resale value with Timberline® Natural Shadow® Shingles from GAF. They'll give you the upscale, architectural look you want, at a price you can afford!

NATIONAL ROOFING CONTRACTORS ASSOCIATION MEMBER

GAF Shingles are the #1 Choice of Professional Contractors in the United States

QUALITY TESTED · GOOD · HOUSEKEEPING Since 1909 LIMITED WARRANTY · ghseal.com for details

Note: It is difficult to reproduce the color clarity and actual color blends of these products. Before selecting your color, please ask to see several full-size shingles.

Timberline® Shingles— North America's #1-Selling Shingles!

Color Shown: **Slate**

GAF TIMBERLINE® Natural Shadow® LIFETIME SHINGLES

Benefits

- Great Value... Architecturally stylish but practically priced—with a lifetime ltd. warranty.*

SHINGLE & ACCESSORY LTD. WARRANTY
Lifetime
LTD. WARRANTY TERM

- Attractive Appearance... Features a classic shadow effect. Lends any home a subtle, even-toned look with the warmth of wood.
- Highest Roofing Fire Rating... UL Class A, Listed to ANSI/UL 790
- High Performance... Designed with Advanced Protection® Shingle Technology, which reduces the use of natural resources while providing excellent protection for your home (visit gaf.com/APS/ to learn more).

ADVANCED PROTECTION TECHNOLOGY

- Stays In Place... Dura Grip™ Adhesive seals each shingle tightly and reduces the risk of shingle blow-off. Shingles warranted to withstand winds up to 130 mph!†
- Peace Of Mind... Lifetime ltd. transferable warranty with Smart Choice® Protection (non-prorated material and installation labor coverage) for the first ten years.*
- Perfect Finishing Touch... Use Timbertex® Premium Ridge Cap Shingles or Ridglass® Premium Ridge Cap Shingles.**

* See *GAF Shingle & Accessory Ltd. Warranty* for complete coverage and restrictions. The word "Lifetime" refers to the length of coverage provided by the *GAF Shingle & Accessory Ltd. Warranty* and means as long as the original individual owner(s) of a single-family detached residence [or the second owner(s) in certain circumstances] owns the property where the shingles are installed. For owners/structures not meeting the above criteria, Lifetime coverage is not applicable.

** These products are not available in all areas. See www.gaf.com/ridgecapavailability for details.

† This wind speed coverage requires special installation; see *GAF Shingle & Accessory Ltd. Warranty* for details.

Note: It is difficult to reproduce the color clarity and actual color blends of these products. Before selecting your color, please ask to see several full-size shingles.

GAF TIMBERLINE® Natural Shadow® LIFETIME SHINGLES

Install Peace Of Mind... Install To Protect!

When you install GAF Timberline® Natural Shadow® Shingles with **Advanced Protection® Shingle Technology**, you're getting the very best combination of weight and performance that modern manufacturing technology can deliver. In fact, you won't find a shingle that surpasses Timberline® on:

- ✔ Toughness
- ✔ Wind uplift resistance
- ✔ Flexibility
- ✔ Fire resistance

That's why every Timberline® Shingle comes with GAF's transferable Lifetime ltd. Warranty*—for your peace of mind!—plus the backing of the Good Housekeeping Seal.**

SHINGLE & ACCESSORY LTD. WARRANTY Lifetime LTD. WARRANTY TERM

QUALITY TESTED GOOD HOUSEKEEPING Since ★ 1909 LIMITED WARRANTY - ghseal.com for details

*See *GAF Shingle & Accessory Ltd. Warranty* for complete coverage and restrictions. The word "Lifetime" refers to the length of coverage provided by the *GAF Shingle & Accessory Ltd. Warranty* and means as long as the original individual owner(s) of a single-family detached residence [or the second owner(s) in certain circumstances] owns the property where the shingles are installed. For owners/structures not meeting the above criteria, Lifetime coverage is not applicable.

**GAF Shingles have earned the prestigious Good Housekeeping Seal, which means that Good Housekeeping stands behind these products. (Refer to Good Housekeeping Magazine for its consumer protection policy. Applicable in U.S. only.)

Note: It is difficult to reproduce the color clarity and actual color blends of these products. Before selecting your color, please ask to see several full-size shingles.

GAF TIMBERLINE® Natural Shadow® LIFETIME SHINGLES

Timberline® Shingles Are Also The Favorite Of Professional Contractors...

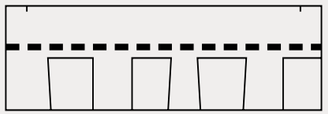
NATIONAL ROOFING CONTRACTORS ASSOCIATION MEMBER

GAF Shingles are the #1 Choice of Professional Contractors in the United States

- More Referrals... People will know that you're installing America's #1-selling laminated shingles!
- Less Chance Of Call-Backs... Durable, wind-resistant shingles carry 130 mph ltd. wind coverage.†

†This wind speed coverage requires special installation; see *GAF Shingle & Accessory Ltd. Warranty* for details.

SPECIFICATIONS



13¼" x 39⅜" Metric

- Fiberglass asphalt shingle
- Lifetime ltd. transferable warranty[1]
- Smart Choice® Protection for the first 10 years[1]
- 130 mph ltd. wind coverage[2]
- StainGuard® Protection[3]
- UL Listed to ANSI/UL 790 Class A
- ASTM D7158, Class H
- ASTM D3161 Type 1, Class F
- ASTM D3018 Type 1
- ASTM D3462[4]
- Classified in accordance with ICC-ES AC438
- Miami-Dade County Product Control approved[5]
- Florida Building Code approved
- Texas Department of Insurance approved[5]
- ICC approved[5]
- ENERGY STAR® certified (U.S. only)[6]
- Approx. 64 Pieces/Square
- Approx. 3 Bundles/Square
- Approx. 256 Nails/Square
- Exposure: 5⅝"

StainGuard® ALGAE DISCOLORATION LIMITED WARRANTY [3]

[1] See *GAF Shingle & Accessory Ltd. Warranty* for complete coverage and restrictions. The word "Lifetime" refers to the length of coverage provided by the *GAF Shingle & Accessory Ltd. Warranty* and means as long as the original individual owner(s) of a single-family detached residence [or the second owner(s) in certain circumstances] owns the property where the shingles are installed. For owners/structures not meeting the above criteria, Lifetime coverage is not applicable.

[2] This wind speed coverage requires special installation. See *GAF Shingle & Accessory Ltd. Warranty* for details.

[3] StainGuard® protection applies only to shingles with StainGuard®-labeled packaging. See *GAF Shingle & Accessory Ltd. Warranty* for complete coverage and restrictions.

[4] Periodically tested by independent and internal labs to ensure compliance with ASTM D3462 at time of manufacture.

[5] Applies to some plants.

[6] Timberline® Natural Shadow® Arctic White is ENERGY STAR® certified (U.S. only) and rated by the Cool Roof Rating Council. See gaf.com for availability and details.

Note: It is difficult to reproduce the color clarity and actual color blends of these products. Before selecting your color, please ask to see several full-size shingles.

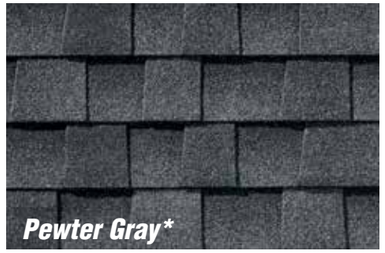
Color Shown:
Hickory

Color Shown:
Hunter Green
(not available in all areas)

GAF TIMBERLINE® Natural Shadow® LIFETIME SHINGLES

"Timberline® Shingles not only protect your most valuable asset but also beautify your home for years to come."

Color Availability Chart*



*Notes:
- Arctic White only available in the Shafter area.
- Hunter Green only available in the Minneapolis and Michigan City areas.
- Pewter Gray only available in the Baltimore/ Myerstown and Michigan City areas.
- Timberline® Natural Shadow® Shingles are not available in the Tampa area.

We can help you choose the right shingle for your roof!

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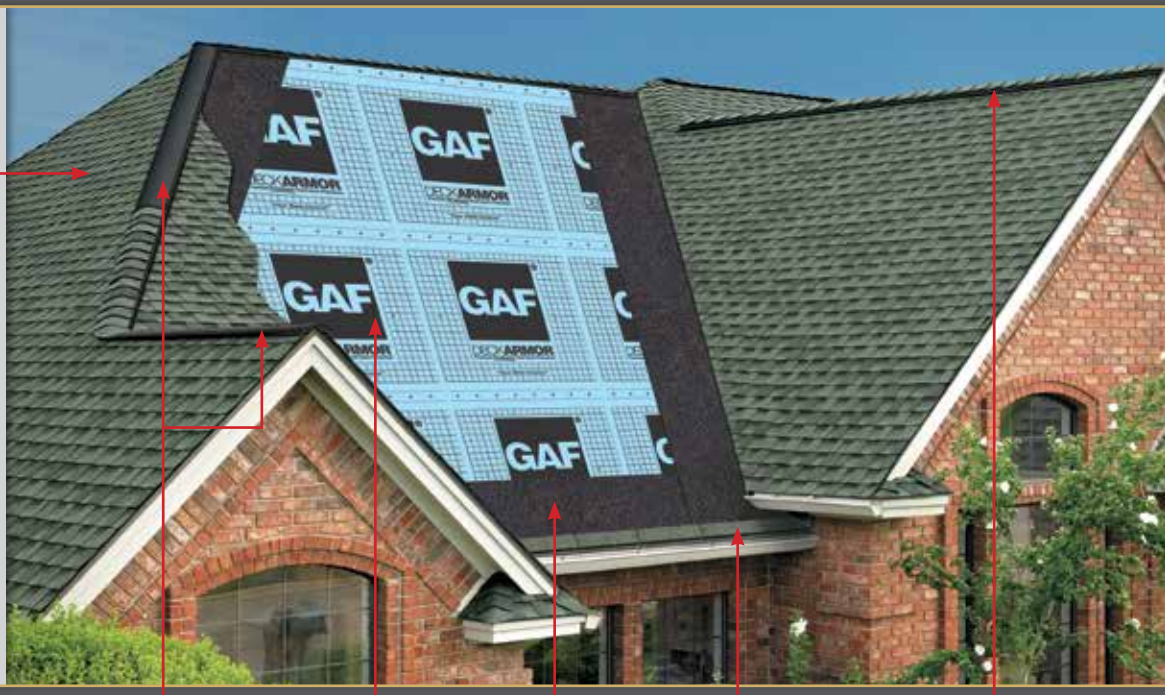

†In the North, most building codes require the use of Leak Barrier at the eaves.

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City Of Lake Worth
Department for Community Sustainability
Planning, Zoning and Historic Preservation Division
1900 Second Avenue North · Lake Worth · Florida 33461· Phone: 561-586-1687

MEMORANDUM DATE: September 7, 2016

AGENDA DATE: September 14, 2016

TO: Chair and Members of the Historic Resources Preservation Board

RE: **812 South Lakeside Drive**

FROM: Aimee N. Sunny, Preservation Planning Coordinator
Department for Community Sustainability

TITLE: **HRPB Project Number 15-00100022:** Consideration of a Certificate of Appropriateness (COA) for new construction of an addition to the existing structure at **812 South Lakeside Drive**; PCN# 38-43-44-27-01-024-0050. The subject property was constructed in 1942 and is a contributing resource within the South Palm Park Local Historic District.

OWNER/APPLICANT: Arthur Marino
812 South Lakeside Drive
Lake Worth, FL 33460

BACKGROUND:
The two-story single-family structure at 812 South Lakeside Drive was designed by Edgar S. Wortman in 1942. The property has public frontage on South Lakeside Drive to the west and the Intracoastal Waterway to the east. The building was constructed in an Art Deco/Art Moderne architectural style, and still retains most of its character defining features. These character defining features include the metal casement windows, glass block windows, blue depression glass window, projecting triangular window, flat roof with decorative parapet and eyebrow banding, and low-lying horizontal masonry construction with a smooth stucco finish.

The original architectural plans for the building are available in the City's property files. Based on the information in the property file, few exterior alterations have occurred over time. The property file does indicate that the original design for the structure was only one-story, however it appears that the structure was changed to two stories either just before or during construction. Overall, the building retains a high degree of historic integrity of location, setting, materials, and design, and is an excellent example of the Art Moderne style of architecture.

This case was reviewed by the HRPB as a Conceptual Review at the February 11, 2015, and March 11, 2015, regular meetings. The Board made many comments regarding the massing and design of the addition, and its compatibility with the existing structure and the neighborhood. This case was reviewed by the HRPB as a Conceptual Review at the August 10, 2016, regular meeting. The Board commented that the proposal had been substantially revised, and was more compatible with the massing and appearance of the existing structure. This case was originally advertised on April 28, 2016, and has been continued at the May, June, July, and August 2016 HRPB regular meetings, in accordance with the advertising requirements.

REQUEST:

The Applicant is requesting to construct a +/- 4,451 square foot addition to the existing 1,428 square foot structure, per the plans and documentation provided. The new addition will be set back approximately 45 feet from the existing structure, and will be connected by a covered, cantilevered, open breezeway with a permanent foundation. The Applicant is also requesting exterior alterations and repairs to the existing historic structure. The Applicant has provided a Project Overview statement describing the project and the scope of work, which is included as Attachment 3. Based on that statement, the full scope of work is described below.

For the Addition:

1) Construct a new +/-4,451 square foot, two-story addition to the existing structure. The addition will be connected via an open-air breezeway with a permanent foundation.
2) The addition is proposed to be constructed to Florida Green Building Code standards, and will include Energy Star appliances, LED lighting, and energy efficient HVAC.
3) The proposal includes all related privacy walls, walks, drives, miscellaneous hardscape, porches, loggias, fences, security gate and cameras, and ancillary building equipment.
4) Install a swimming pool, with decking and mechanical equipment.

For the rehabilitation of the existing structure:

1) Remove and replace waste/plumbing lines.
2) Install a concrete and stucco site wall as needed for drainage and as needed based on the City's Code.
3) Repair the existing steel casement windows, Blue Depression Glass window, and glass block windows, including all sills and trim.
4) Repair of all exterior wall cracks, and stucco patch as needed. Prepare and paint the structure.
5) Repair or replace the existing flat roof as needed.
6) Demolish the existing carport and awning.
7) Install Florida native and drought resistant landscape, pedestrian walkway, sidewalk, and driveway.
8) Apply for a historic preservation ad valorem property tax exemption for the proposed improvements to the existing historic structure only. This request will be heard at a subsequent meeting due to documentation and notice requirements.

The subject property is zoned Single Family Residential (SFR) and is subject to the development standards for this district in the City of Lake Worth Zoning Code and in the City's Comprehensive Plan. New construction of an addition to a single-family residence is permitted in the SFR district of the City of Lake Worth Zoning Code. The following table includes some of the basic specifications for the proposed construction:

Dimension	**Required by Code**	**Existing or Proposed**
Lot size	7,500 sq. ft.	13,150 sq. ft.
Lot width	75'-0"	50'-0" (Legal non-conforming)
Lot depth	n/a	+/- 262'-0"
Front setback	50'-0"	45.1' Existing
Side setback	10% of lot width = 5'-0" each side	14.9' from North property line existing, 6'-0" from North property line toproposed; 5'-0" from South property line existing, 6'-0" from South property line to proposed

Rear setback	Yard, water frontage[1] requires 50'-0" setback, equal to the required front yard setback	44'-1" for primary building
Height[2] (Comp. Plan)	30' for SFR land use designation	Appx. 20'-0" A.F.F. to top of flat roof
Height (SFR zoning)	30' for primary structure, 24' for accessory structure, 2 stories	Appx. 20'-0" A.F.F. to top of flat roof
Wall Height	18' wall height at 5' side setback, up to a 23' wall height at a 10' setback	19' wall height A.F.F. at a 6' setback; Appx. 23' wall height as measured from the required measuring point of 12" above the crown of the road *Unable to verify exact crown of road height due to lack of information on survey
F.A.R.[3]	0.45 (5,917.5 sq. ft.)	0.11 (1,428 sq.ft.) Existing; 0.45 (5,879 sq.ft.) Proposed
Max. Building Coverage[4] for a Large Lot	30% max. = 3,945 sq. ft.	31.2% (4,108 sq. ft.)
Impermeable surface	50% max. = 6,575 sq. ft.	Appx. 40% (5,346 sq. ft.) *Unable to verify hardscape areas due to lack of detail and dimensions on site plan

ANALYSIS:

New Construction of an Addition:

Zoning and Comprehensive Plan Consistency

The proposed new construction project is not consistent with all development requirements in the City's Zoning Code and Comprehensive Plan. The building as proposed is not in compliance with the Code and would require revision to attain compliance, a variance request, or a historic waiver from specific Code provisions.

[1] *Yard, water frontage:* A yard required between the Intracoastal Waterway and the upland use. Such water yard shall always be equal to the front yards in the applicable zone and shall be measured from the seaward edge of the bulkhead to the face of the building.

[2] *Building height:* The vertical distance measured from the minimum required floor or base flood elevation of twelve (12) inches above the crown of the road, whichever is less, to (a) the highest point of a flat roof; (b) the deck line of mansard roof, (c) the average height between eaves and ridge for gable, hip, and gambrel roofs, or (d) the average height between high and low points for a shed roof. The measurement of height shall not include decorative architectural elements, chimneys, mechanical equipment, church steeples and architecturally integrated signage, which may extend an additional ten (10) feet but cannot cover cumulatively more than ten (10) percent of the roof surface.

[3] *Floor area ratio:* A regulatory technique which relates to total developable site area and the size (square feet) of development permitted on a specific site. A numeric rating assigned to each land use category that determines the total gross square feet of all buildings as measured from each building's exterior walls based upon the actual land area of the parcel upon which the buildings are to be located. Total gross square feet calculated using the assigned floor area ratio shall not include such features as parking lots or the first three (3) levels of parking structures, aerial pedestrian crossovers, open or partially enclosed plazas, or exterior pedestrian and vehicular circulation areas.

[4] *Building lot coverage:* The area of a lot covered by the impervious surface associated with the footprint(s) of all buildings on a particular lot. Structured parking garages are exempt from building lot coverage.

Because the proposed addition will exceed 50% of the current value, compliance with the residentail landscape code will be required. A landscape plan has not been submitted at this time showing compliance with the minimum requirements of Section 23.6-1, Landscape Regulations. The Applicant shall be required to provide this information prior to permitting, and Staff has recommended a condition of approval to address this. Final review and approval will take place during the building permit process.

COMPREHENSIVE PLAN CONSISTENCY:

It is the analysis of Staff that the project, as proposed, is not consistent with the Comprehensive Plan goals and objectives concerning historic preservation and housing due to the fact that the proposal in not in compliance with the zoning Code. With Code compliant revisions to the proposal, the Applicant would be consistent with the following objectives:

Objective 3.2.5: To encourage the identification of historically significant housing, and to promote its preservation and rehabilitation as referenced by the Surveys of Historic Properties conducted for the City of Lake Worth.

Policy 3.2.5.1: Properties of special value for historic, architectural, cultural or aesthetic reasons will be restored and preserved through the enforcement of the City's Historic Preservation Ordinance to the extent feasible.

ANALYSIS:

Zoning

The proposed addition is in conflict with the rear setback requirement for buildings, the building lot coverage, and the maximum wall height.

In order to resolve the rear setback requirement, Staff recommends that the Applicant move the building west an additional 5'-11" in order to comply with the 50'-0" yard, water frontage, requirement. This will shorten the breezeway connecting the addition and the existing structure, and will also help reduce the building lot coverage. Staff recommends that the Applicant further refine the proposal in order to fully comply with the building lot coverage requirement.

In order to fully evaluate the proposed wall height for compliance with the Code, the land survey needs to be updated to include spot elevations of the crown of road adjacent to the property. The wall height is measured from the minimum required finish floor elevation or base flood elevation of twelve (12) inches above the crown of the road, whichever is less, to the top plate of the wall. Given the location of this property, the crown of the road is typically, approximately 5' above sea level. The measuring point would therefore start at approximately 6' above sea level, and the addition is required to have a minimum finish floor elevation of 10' above sea level, due to the FEMA National Flood Insurance Program requirements. When the building wall height is measured in accordance with the Code, the wall height is approximately 23' at a 6' setback, however the Code requires no more than 19' at a 6' setback, making the wall approximately 4' too tall. In order to comply with the zoning requirements, the Applicant would need to alter the design and setbacks. Alternately, if the Applicant does not believe that design alterations are feasible, the Applicant could apply for a historic waiver from the building wall height and setback requirements and would need to justify the waiver, in accordance with LDR Section 23.5-4(r).

FEMA Requirements

The property is located in an "A" flood zone and therefore requires compliance with all FEMA regulations, and compliance with the National Flood Insurance Program (NFIP) requirements. According to this program, "If the cost of improvements or the cost to repair the damage exceeds 50 percent of the market value of the building, it

must be brought up to current floodplain management standards." The proposed addition will exceed the 50% substantial improvement rule, and is therefore subject to compliance, including with the minimum required flood elevation. For this property location, the required FEMA flood elevation is 9' above sea level, and the City of Lake Worth requires an additional 1', for a total requirement of 10' above sea level. This minimum finish floor elevation applies to both existing and proposed structures. The current historic property sits at 7' above sea level, and therefore does not comply with the minimum finish floor requirement. The NFIP has an administration exception that can be granted if the structure meets the following criteria:

1) **The building must be a bona fide "historic structure."** The structure meets this requirement because it is a contributing resource to a local historic district.
2) **The project must maintain the historic status of the structure.** The HRPB approval of the Certificate of Appropriateness will certify that the proposal maintains the historic status of the structure.
3) **The project shall take all possible flood damage reduction measures.** The HRPB and Staff may make additional suggestions for flood damage reduction measures. Examples include locating all mechanical and electrical equipment above the required flood elevation, using flood resistant materials, and using temporary flood shields to help prevent water infiltration.

Based on the criteria of the exemption, it is the analysis of Staff that the structure does qualify and should be awarded the exemption. Raising the structure 3' would substantially alter the historic structure's relation to the land, and the adjacent "twin" house and would not be in keeping with the low lying Art Moderne character of the property. Staff recommends that the Applicant take all possible flood damage reduction measures, as described above. The exemption shall require a Hold Harmless Agreement between the Applicant and the City, prior to commencing construction.

Historic Preservation

Staff has reviewed the documentation and materials provided in this application. New construction within a local historic district is also subject to specific criteria for visual compatibility as set forth in Section 23.5-4(k)3 of the City's historic preservation regulations. These criteria are provided in Attachment 1 and include Staff's response to each criterion. The criteria deal with massing, scale, materials, and design compatibility with the surrounding historic district.

It is the analysis of Staff that the project as proposed is minimally compatible with the regulations set forth in the historic preservation ordinance. The proposed design responds to the character of the existing Art Moderne historic structure. The addition has a larger bulk, mass, and building lot coverage than the original structures in the neighborhood and other new construction and additions on similar Intracoastal property in the immediate vicinity. The design utilizes various character-defining design elements found in Art Moderne style architecture and applies these elements in a simplified, compatible design. The use of a flat roof with eyebrows is compatible. The window and door sizes and locations are generally appropriate. The north and south walls have been re-designed to break up the long expanse of wall, and now have series of indentations. The windows have been re-designed to have more rhythm, balance, and symmetry, however the side elevations are void of any additional decoration or detail. The east and west elevations have been redesigned to be more compatible with the existing Art Moderne structure. These elevations are balanced and have more visual interest and design elements, compared to the side elevations.

The schematic site plan does not specifically detail the types and design of hardscape surfaces or landscape. Staff has recommended a condition of approval to address this.

Public Comment
At the time of publication of this report, Staff has not received any public comment regarding this project.

CONSEQUENT ACTION:
Approve the application; approve the application with conditions; continue the hearing to a date certain to request additional information; or deny the application.

RECOMMENDATION:
Staff recommends that the Board discuss the application as submitted, given that the current proposal is not in compliance with all requirements of the Land Development Regulations. If the Board chooses to approve the request for new construction of an addition, Staff recommends the following conditions:

1) Due to the schematic nature of the submittal drawings, the exact design and configuration of the front door, decorative window and door trim and sills, breezeway, pergola, and railings shall be subject to Staff review at permitting.
2) The Applicant shall shift the proposed addition to the west in order to meet the 50'-0" setback from the property line abutting the Intracoastal Waterway.
3) The Applicant shall revise the proposal to comply with the Land Development Regulations. The revision shall be subject to Staff review and approval prior to permitting. If the revision results in design alterations that substantially change the design and aesthetic character of the proposal, the case shall be reviewed by the Historic Resources Preservation Board.
4) The Applicant shall add decorative detailing on the north side of the carport, consistent with the architectural style of the building. The Applicant could use decorative blocks, bas relief, or other similar decorative elements commonly found in Art Moderne and Mid-Century architecture.
5) The windows and doors shall not have reflective glass. All muntins shall be created using exterior raised applied muntins. No flat or internal muntins shall be permitted.
6) All proposed landscaping, fencing, hardscape, mechanical equipment, and the pool shall be subject to Staff review at permitting, and shall be in compliance with all Land Development Regulations.
7) The Applicant shall be required to provide an updated survey, with crown of road spot elevations, prior to permitting. All height measurements in the permit drawings shall be updated to incorporate the correct measurement of height, as defined in the Land Development Regulations.
8) The Applicant shall sign a Hold Harmless Agreement regarding the historic structure exemption from the National Flood Insurance Program Requirements.

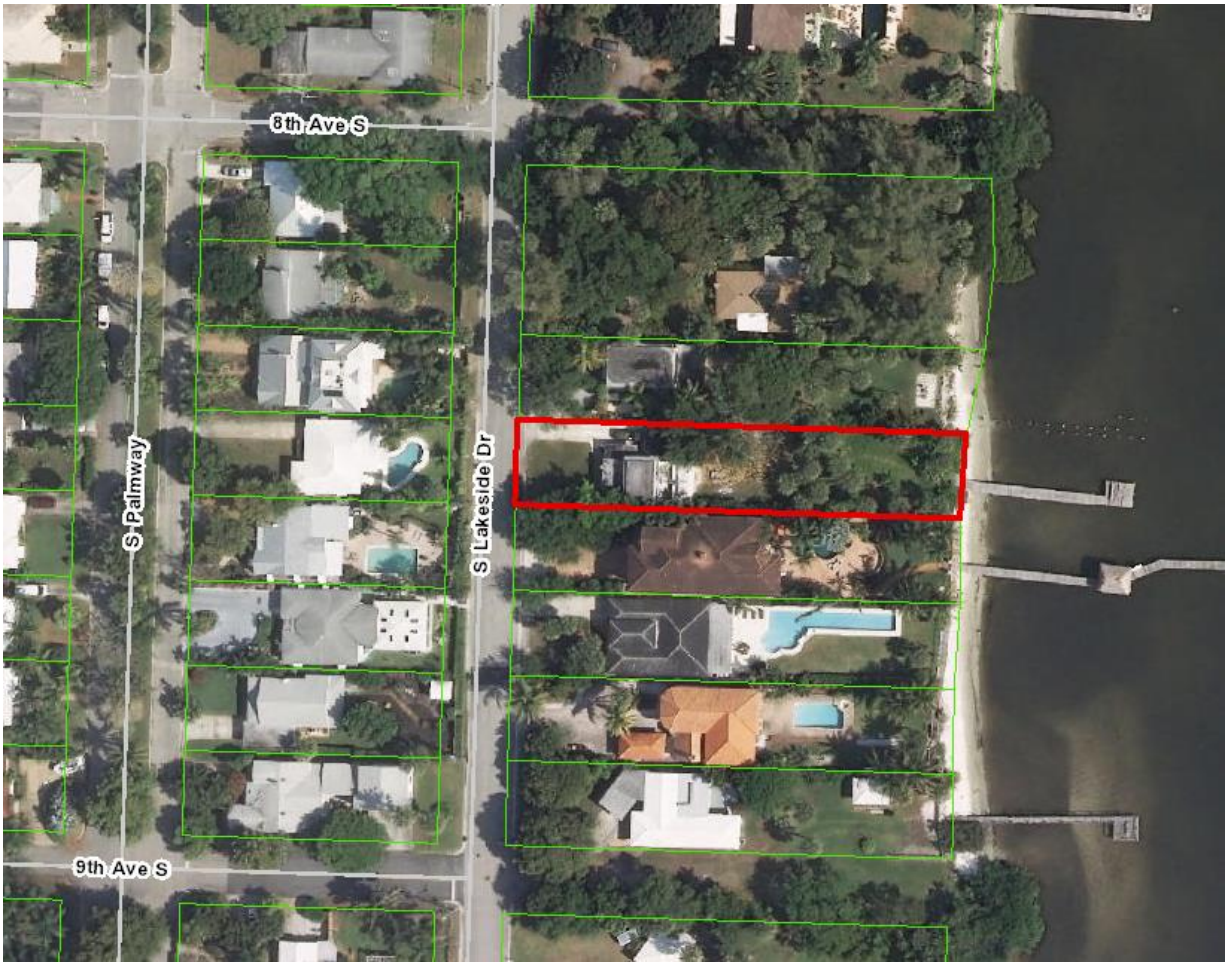
POTENTIAL MOTION:
I MOVE TO **APPROVE** HRPB 15-00100022: Consideration of a Certificate of Appropriateness (COA) for new construction of an addition to the single-family residence located at **812 S Lakeside Dr**, based upon the preponderance of competent substantial evidence, with the conditions as recommended by Staff.

I MOVE TO **DENY** HRPB 15-00100022: Consideration of a Certificate of Appropriateness (COA) for new construction of an addition to the single-family residence located at **812 S Lakeside Dr**, because the Applicant has not established by a preponderance of the evidence that the application is in compliance with the City of Lake Worth Land Development Regulations, the Secretary of the interiors Standards for the Rehabilitation of Historic Properties, and the City's Comprehensive Plan.

ATTACHMENTS:

1. Decision Criteria
2. Photographs
3. Applicant's Project Overview
4. Proposed Architectural Drawings
5. Proposed Renderings
6. Original Architectural Drawings
7. Proposed Hold Harmless Agreement
8. FEMA NFIP Information

LOCATION MAP



MEMORANDUM

DATE: September 7, 2016

TO: Chair and Members of the Historic Resources Preservation Board

FROM: Aimee N. Sunny, Senior Preservation Coordinator
Department of Community Sustainability

SUBJECT: **HRPB Project Number 15-00100022:** Consideration of a Certificate of Appropriateness (COA) for new construction of an addition to the existing structure at **812 South Lakeside Drive**; PCN# 38-43-44-27-01-024-0050. The subject property was constructed in 1942 and is a contributing resource within the South Palm Park Local Historic District.

HRPB Meeting Date: September 14, 2016

Section 23.5-4k(3) Additional guidelines for new construction; visual compatibility

All improvements to buildings, structures and appurtenances within a designated historic district shall be visually compatible. New buildings should take their design cues from the surrounding existing structures, using traditional or contemporary design standards and elements that relate to existing structures that surround them and within the historic district as a whole. Building design styles, whether contemporary or traditional, should be visually compatible with the existing structures in the district.

A. In approving or denying applications for certificates of appropriateness for new construction, the City shall also, at a minimum, consider the following additional guidelines which help to define visual compatibility:

(1) The height of proposed buildings shall be visually compatible and in harmony with the height of existing buildings located within the historic district.
Response: The proposed addition is consistent with the roof height of other 2-story buildings surrounding the property, however the proposed wall height exceeds that of surrounding properties and exceeds the Code requirement.

(2) The relationship of the width of the building to the height of the front elevation shall be visually compatible and in harmony with the width and height of the front elevation of existing buildings located within the district.
Response: The width and height of the front elevations of the proposed building is similar in scale to the surrounding properties, although the wall height is approximately 4 feet taller than the Code allowance.

(3) The openings of any building within a historic district should be visually compatible and in harmony with the openings in buildings of a similar architectural style located within the historic district. The relationship of the width of the windows and doors to the height

of the windows and doors in a building shall be visually compatible with buildings within the district.
Response: The proposed windows are compatible in height and width, although the detailing of the windows has not been clearly identified. All detailing should also be consistent with the window design and the architectural style.

(4) The relationship of solids to voids in the front facade of a building or structure shall be visually compatible and in harmony with the front facades of historic buildings or structures located within the historic district. A long, unbroken facade in a setting of existing narrow structures can be divided into smaller bays which will complement the visual setting and the streetscape.
Response: The front façade is broken up with the front porch and breezeway, as well as windows and doors, and the solid to void relationship is compatible with the district.

(5) The relationship of a building to open space between it and adjoining buildings shall be visually compatible and in harmony with the relationship between buildings elsewhere within the district.
Response: The proposed building is not in compliance with the required rear, water frontage yard requirements, and it is not in compliance with the side setbacks, given the wall height. The proposed addition and existing structure together will occupy the maximum allowed building lot coverage, which is not typical in the surrounding area.

(6) The relationship of entrance and porch projections to sidewalks of a building shall be visually compatible and in harmony with the prevalent architectural styles of entrances and porch projections on buildings and structures within the district.
Response: The proposed front porch is visually compatible and utilizes detailing that is consistent with historic designs.

(7) The relationship of the materials, texture and color of the facade of a building shall be visually compatible and in harmony with the predominant materials used in the buildings and structures of a similar style located within the historic district.
Response: The building will be concrete block finished with smooth stucco to replicate the texture of the stucco on the existing historic structure. Stucco is a customary building material in the district. The windows are proposed to be aluminum fixed and casement style, which is also customary in the district.

(8) The roof shape of a building or structure shall be visually compatible and in harmony with the roof shape of buildings or structures of a similar architectural style located within the historic district.
Response: The proposed flat roof with decorative eyebrows is visually compatible with the existing structure as well as the historic district.

(9) Appurtenances of a building, such as walls, wrought iron, fences, evergreen, landscape masses and building facades, shall, if necessary, form cohesive walls of enclosures along a street to insure visual compatibility of the building to the buildings and places to which it is visually related.

Response: The plans provided by the Applicant are not sufficient to address the compatibility of these elements at this time. Staff has recommended a condition of approval to require further review of these items prior to permitting.

(10) The size and mass of a building in relation to open spaces, the windows, door openings, porches and balconies shall be visually compatible and in harmony with the buildings and places to which it is visually related.
Response: As stated above, the building is generally compatible, however the wall height, setbacks, and building lot coverage are not in compliance with the Code requirements. Staff has recommended a condition of approval to address this deficiency.

(11) A building shall be visually compatible and in harmony with the buildings and places to which it is visually related in its directional character: vertical, horizontal or non-directional.
Response: The Applicant has provided photos of neighboring structures along the streetscape, showing the building in relation to those to either side of it. Overall, the building's height and massing are mostly compatible with other single-family residential buildings on the block, however the wall height is too tall.

(12) The architectural style of a building shall be visually compatible with other buildings to which it is related in the historic district, but does not necessarily have to be in the same style of buildings in the district. New construction or additions to a building are encouraged to be appropriate to the style of the period in which it is created and not attempt to create a false sense of history.
Response: The building is a contemporary Art Moderne inspired design. The building is visually compatible with the district, but does not attempt to replicate any historic structures.

(13) Landscaping shall be compatible with the architectural character and appearance of the structure and of other buildings located within the historic district.
Response: The plans provided by the Applicant are not sufficient to address the compatibility of the landscaping at this time. Staff has recommended a condition of approval to require further review of these items prior to permitting.

(14) In considering applications for certificates of appropriateness to install mechanical systems which affect the exterior of a building or structure visible from a public right-of-way, the following criteria shall be considered:

(a) Retain and repair, where possible, historic mechanical systems in their original location, where possible.
Response: Not applicable to this project.

(b) New mechanical systems shall be placed on secondary facades only and shall not be placed on, nor be visible from, primary facades.
Response: Staff will ensure that any mechanical systems for the new building meet this criterion.

(c) New mechanical systems shall not damage, destroy or compromise the physical integrity of the structure and shall be installed so as to cause the least damage, invasion or visual obstruction to the structure's building materials, or to its significant historic, cultural or architectural features.

Response: Staff will ensure that any mechanical systems for the new building meet this criterion.

(15) The site should take into account the compatibility of landscaping, parking facilities, utility and service areas, walkways and appurtenances. These should be designated with the overall environment in mind and should be in keeping visually with related buildings and structures.

Response: The plans provided by the Applicant are not sufficient to address the compatibility of these elements at this time. Staff has recommended a condition of approval to require further review of these items prior to permitting.

B. In considering certificates of appropriateness for new buildings or structures which will have more than one primary facade, such as those on corner lots facing more than one street, the HRPB shall apply the visual compatibility standards to each primary facade.

Response: The above criteria and responses apply to both primary façades, facing South Lakeside Drive and the Intracoastal Waterway.

XFINITY
HOME

XFINITY
HOME

MARINO RESIDENCE

[Appendix 1A]
Date: 08/12/16

Project:
Marino Residence
812 S. Lakeside Drive
Lake Worth Florida, 33460

Site Plan Approval, Certificate of Appropriateness, Rehabilitation, Demolition, Addition Construction, Property Tax Exemption, Permits

Arthur Marino Jr. ("Marino"), seeks approval at September 2016 HRPB meeting for Site Plan, Certificate of Appropriateness, Demolition, Historic Tax Exemption for contributing residence rehabilitation and for future Building Permits pursuant to prior filings, information and all recited herein, and in regard to the property located at 812 South Lakeside Drive, Lake Worth, Florida 33460. Said property is located within the South Palm Park Historic District, the property is designated residential. This document is an addition to previous documents filed by Marino and accepted by the City relative to all project consideration and scope in file submitted previously as titled COA Approval and Exhibits.

Project Summary Proposal:

In accordance with of the Secretary of the Interior's Standards, City's Regulation and Qualitative Standards, the project is designed to promote preservation of Contributing Residence and natural surrounding conditions, harmonious, visually compatible and efficient organization, privacy, screening and buffering while also providing increasing value and other enhancement of the residential neighborhood of South Palm Park.

To develop the proposed project Marino has previously submitted to the City and now again respectfully requests all consideration and approvals in an expeditious manner as required fulfilling the previous requests and the following:

MARINO RESIDENCE

Existing Historical Residence Improvements: [Rehabilitation]

1. Remove and replace broken, clogged and decayed exterior main house waste plumbing lines.
2. Install concrete wall pursuant to guide lines of the City and FEMA, install "East" (rear property), "North" (side property), concrete stucco walls. "South" (side property) wall is existing, execute reasonable FEMA protocols (if requested by City and demanded by FEMA).
3. Make repair to setting materials, coating (not replace), existing windows, glass block and doors, as required. Preserve existing Depression Blue Glass and preserve existing interior sills.
4. Repair of exterior existing cosmetic residence wall cracks.
5. Make preparation and paint exterior of existing residence, as required.
6. Repair as required, old leaking built up flat roof.
7. Demolish non-contributing termite ridden and structurally decayed carport and awning.
8. Install (open roof, not covered) free-standing breezeway, to proposed addition as required by code.
9. Plant Florida Native and drought resistant Landscape, the whole of the property, (brief overview recited below on page 7 herein).
10. Install, front pedestrian side-walk, walk way and drive as required.
11. Secure tax exemption, (contributing residence only), for the proposed improvements; said approval for Historic Preservation Property Tax Exemption in accordance with relevant Florida Law and Statutes, applicable Statutes and Sections, inclusive but not limited to Florida Statute Section 196.1997 (11) (a).

New Non-Contributing Addition:

Site Plan, Plan & COA Approval to allow a +/- 4,281 square foot non-contributing addition to the historic Contributing Residence, pursuant to design and plan attached. Non-contributing addition will be bridged and otherwise connected to the Contributing Residence pursuant to Standard and Code, by an open (no covered roof) breezeway. HRPB Approval to be based upon the plans, 3d drawings, calculations and other information as submitted previously and at present herein:

1. New non-contributing addition to be built in an energy efficient manner and in line with the Florida Green building Standard Guidelines, Including but not limited to: "Energy Star", LED lighting, HVAC; [see page 5,6 herein and information previously submitted to the City].

2. Certificate of Appropriateness for construction of new non-contributing addition, inclusive but not limited to; privacy walls, walks, drives, open (no covered roof) rear porch loggia's, (open roof) breezeway, fences, pads and other ancillary building requirements as required by code, permit able and in scope, relative to certifications and approvals.
3. Install Pervious Concrete, Hard scape, Pavers or equal, in walk, rear porch and pool patio and deck.
4. Install a swimming pool, equipment as required.
5. Install fence, security gate, cameras as required, (plans for permit will specify design, brand and location).
6. No Tax Exemption or Historical Waiver is being sought for the new Addition.

Calculations & Zoning Information: [Plans and Information dated 07/27/2016]

Site Information: [South Palm Park District]
Address: 812 S. Lakeside Drive
Lake Worth Fl. 33460
Parcel Control Number: 38-43-44-27-01-024-0050

Legal Description: Lot 5, Block 24, Addition NO. ONE TO THE CITY OF LAKE WORTH, FLORIDA, according to the PALM BEACH FARMS COMPANY PLAT NO. FOUR, recorded in Plat Book 5, Pages 6 to 9, of the Public Records of PALM BEACH County, Florida.

Site Area: 13,150 S.F.: (0.30 ACRES)

Proposed Addition/Pool Property Line Set Backs:
(measured to the next even foot)

West View (Front): Allowed: [50'-0''], proposed: [146'-0'']
East View (Rear): Allowed: [15'-0''], proposed Pool Wall: [16'-0'']
North View (Side): Allowed: [5'-0''], proposed: [6'-0'']
South View (Side): Allowed: [5'-0''], proposed: [6'-0'']

Building Elevation and Height:
Existing Contributing Residence at top of floor slab:
[7'-0'' above mean sea level] (Concrete foundation below)
Existing Proposed New Addition at top of floor slab:
[10'-0'' above mean sea level] (Concrete foundation below)

MARINO RESIDENCE

Existing Contributing Residence from top of floor slab to under side of roof (Total Exterior Wall Height: [19'-0'']
New Proposed Addition from top of floor slab to under side of roof
(Total Exterior Wall Height: [19'-0'']

EXISTING RESIDENCE AREA (INCLUDING EXT. WALLS)
FIRST FLOOR AREA: 1,020 SF
SECOND FLOOR AREA: 408 SF
TOTAL AREA: [1,428 SF]
PROPOSED ADDITION AREA (INCLUDING EXT. WALLS)
FIRST FLOOR AREA: 2,152 SF
SECOND FLOOR AREA: 2,129 SF
TOTAL AREA: [4,281 SF]

F.A.R. CALCULATIONS AREA (LARGE LOT 45%) [5,917.5 SF]
AREA EXISTING RESIDENCE: 1,428 SF
AREA PROPOSED ADDITION: 4,281 SF
TOTAL AREA (INC EXT WALLS): (43.4%) [5,709 SF]

IMPERVIOUS AREA (LARGE LOT 50%): [6,575 SF]
EXISTING RESIDENCE (INC EXT. WALLS): 1020 SF
PROPOSED ADDITION (INC EXT. WALLS): 2,585 SF
CARPORT: INCLUDED
FRONT STAIRS, STOOP, ENTRY: INCLUDED
DRIVEWAY @ (50%) PAVERS: 816 SF
POOL DECK @ (50%) PAVERS: 380 SF
STEPS TO BEACH: 42 SF
SWIMMING POOL: 608 SF
TOTAL IMPERVIOUS AREA: (43.6%) [5,721 SF]

MAXIMUM LOT COVERAGE, ALL BUILDINGS
(LARGE LOT 30%) [3,945 SF]
BUILDING COVERAGE (EXISTING & ADDITION)
(28.4%) [3,735 SF]
Calculations and information recited herein based upon proposed site plan design and projections for the purpose of HRPB and Permitting approval.

MARINO RESIDENCE

Proposed Addition Room and Dimension: (rounded to next even foot)
First Floor Living: [Living Room: 18'x 29'], [Bedroom: 9' x 11'], [Den: 8' x 11'], [Dining: 14' x 11'], [Kitchen: 14' x 21'], [Formal Dining: 12' x 12'], [Bedroom: [14' x 18'], [Foyer: 8' x 8'],
Second Floor Living: [Master Suite: 15' x 30'], [Closet: 6' x 10'], [Bath: 6' x 10'], [Master Bath:14' x 14'], [Dressing Room:11' x 10'] [Utility Room: 9' x 6'], [Guest Room: 11' x 16'], [Hall: 22' x 6'].

Project Narrative:

The Marino non-contributing two-story addition project will be constructed with Florida Green Building guidelines in mind, utilizing sustainable energy efficient construction, conservation treatment methodology.

General Building Energy Efficiency Measures Guidelines:

1. High Efficiency (Energy Star certified), LED Lighting, [Cleanlife, GE or equal]: Average lighting power density for the addition designed to comply or exceed the FGBC Standard Guidelines.
2. Insulation, (Prodex or equal): The U- value for mass walls designed pursuant to green industry building standard for energy efficiency.
3. High Efficiency Structural Glazing: Locally produced, [SAF-GLAS, LLC] Dade # 13-1105.10**],** [U-value for the fenestration from 0.42 to 0.52].
4. Wall Construction: Concrete, Stucco and Insulation**:** [U-factor = 0.064]
5. Hurricane resistant Entry, Sliding and Solid Core Doors: [U-factor = 0.580], (CGI or equal).
7. Hurricane resistant flush type garage door, (Broten or equal).
6. Hurricane resistant Casement Windows: Locally produced, (PGT, CGI or equal) Insulated Glass hurricane [U-value = 0.42 to 0.52 SHGC = 0.40 to 0.44]
7. Fixed Hurricane Impact Windows: Locally produced, (CGI, Survivalite or equal) [U-value = 0.42 to 0.52 SHGC = 0.40 to 0.44]
8. Windows strategically placed and balanced for natural day lighting.
9. Roof: R-21 built-up roof, [U-factor = 0.043]
10. HVAC: Energy Star (16+) SEER, [Trane, Carrier or equal]
11. Thankless Water heater: Energy Star, [Rinnai, A.O. Smith or equal]
12. Infrastructure installation for future, (30) thin film solar panels generating enough electricity to serve (+/- 60%) of the needs of the home plus return power to the grid.

13. Air venting system, [Fantech or equal], designed to keep the indoor air healthy.
14. Smart irrigation system, [Rachio or equal] that senses environmental conditions and adjusts the amount of water output.
15. Florida native drought resistant landscape.
16. Zero Volatile Organic Paint, [Sherwin Williams or equal].
17. Low VOC sealants and adhesives, [Swiftbond or equal].
18. Minimum use of carpets.
19. Pervious drive, Concrete and or Paver patio and walks.
20. Water conserving Energy Star appliances, [Kohler, Whirlpool or equal].

- The Project will strive to equal or better sections of the City of Lake Worth Sustainable Bonus Incentive Program Section 23.2-33. [No Bonus is requested].

Waivers / Variance:

No Historical Waiver or Variance is intended at this time to be sought for the proposed rehabilitation and new addition project.

Site Plan Approval/ Certificate of Acceptance:

Petitioner, Marino requests Site Plan Approval and Certificate of Approval relative to all information herein recited and submitted to City in the past.

The proposed project is visually compatible, harmonious and efficiently organized in relation to topography, the size and type of the property, the character of adjoining property's and the type and size of surrounding properties and buildings.

Landscape Brief Overview [812]

The Marino Project Landscape will include Florida native drought resistant and low maintenance landscape. Landscape will be integrated and balanced per Lake Worth Code and for natural adaptability in the front of Contributing Residence, Courtyard and rear of non-contributing residence and surrounding property, Landscape to include but not be limited to: Perennials; [Whirling butterflies, Tampa verbena, Blue porterweed, Pennyroyal], Annuals & Bedding plants; [Indian blanke, Sunflower, Butter daisy, Moss rose], Shrubs & Hedges; [Scarlet milkweed, Cosmos, Dwarf crown-of-thorns, Chinese juniper], Flowering & Shade Trees; [Satinleaf, Fern tree, Fried egg tree, Jacaranda], Palms, Cycads; [Washingtonia, Silver palm, Pygmy date palm, Sierra Madre palm Cyad], Ornamental Grasses; [Pink muhly grass, hairgrass, Blue muhly grass, Palm grass], Groundcovers; [Bromeliad, White begonia, Lemongrass, Guzmania].

MARINO RESIDENCE

Resources: (For this correspondence as stated herein and all previously submitted information to the City)

- The Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings.
- Guiding Additions to Historic Properties: A Study of Design Guidelines for Additions in Sixty-Five American Cities, University of Pennsylvania
- National Park Service, Secretary of the Interior's Standards for Rehabilitation (36 CFR Part 67, as amended through 2000).
- City of Lake Worth Historical Preservation Ordinance, Section 23.5-4
- City Of Lake Worth Department for Community Sustainability Planning, Zoning and Historic Preservation Division, Minutes, Memorandums, Correspondence
- Guidelines for Rehabilitating Historic Buildings
- Historic Preservation Tax Incentives Program; New Additions to Historic Buildings
- Sustainability for Rehabilitation of Historic Buildings
- Interpreting the Standards Bulletins and Preservation Brief 14: New Exterior Additions to Historic Buildings: Preservation Concerns
- Delray Beach Historic Preservation Design Guidelines
- SECTION IV. Prevalent Styles of Architecture, City of Delray
- Pennsylvania Historical and Museum Commission
- Repairs, Remodeling, Additions, and Retrofitting – FEMA
- "The Real Deal", 01/29/16, Article
- Images of America, Art Deco of the Palm Beaches, Sharon Koskoff
- Site and Elevations plans, 812 South Lakeside Drive
- Antique Home; Moderne and Art Deco Architecture of the 20th Century
- Recent past revealed, architectural style guide

GRAPHIC SCALE (In Feet)
1 inch = 25 ft.

1"=25'

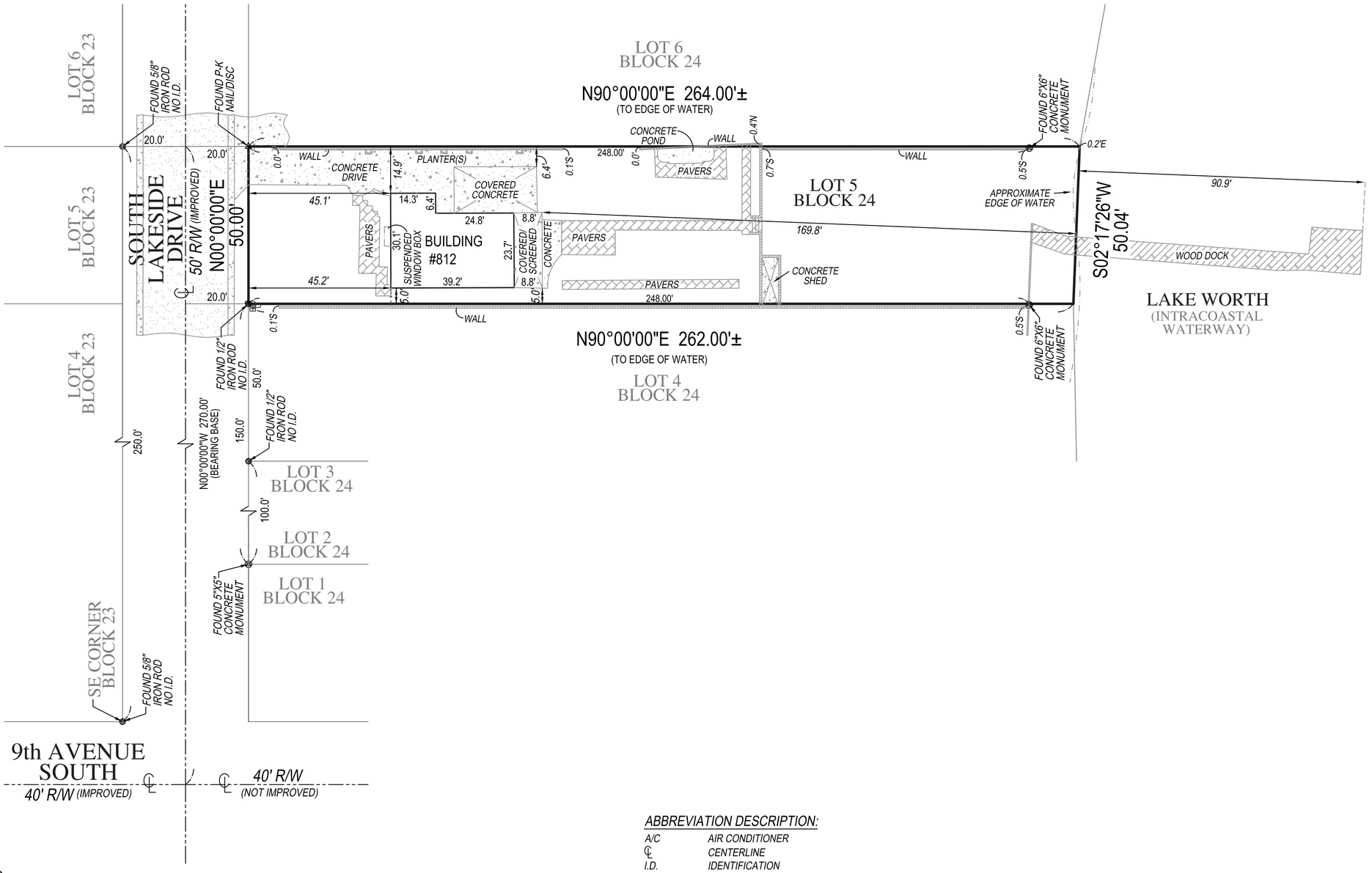
NORTH

LEGAL DESCRIPTION:

LOT FIVE (5) IN BLOCK TWENTY-FOUR (24) ADDITION NO. 1, TO THE CITY OF LAKE WORTH, FLORIDA, ACCORDING TO THE ***PALM BEACH FARMS COMPANY PLAT NO. 4***, RECORDED IN PLAT BOOK 5, PAGES 6 TO 9, IN THE OFFICE OF THE CIRCUIT COURT OF PALM BEACH COUNTY, FLORIDA

FLOOD ZONE: A7
COMMUNITY NUMBER: 120213
PANEL: 120213002
SUFFIX: C
BASE FLOOD ELEVATION: 8/9
F.I.R.M. DATE: 9-30-1982

LOCATION MAP NOT TO SCALE



NOTES:

1. LEGAL DESCRIPTION PROVIDED BY CLIENT
2. NO SEARCH OF THE PUBLIC RECORD FOR THE PURPOSE OF ABSTRACTING TITLE WAS PERFORMED BY THIS OFFICE
3. NO SUBSURFACE IMPROVEMENTS WERE LOCATED AS PART OF THIS SURVEY
4. ALL ANGLES AND DISTANCES SHOWN HEREON ARE BOTH RECORD AND MEASURED UNLESS OTHERWISE NOTED
5. THE BEARINGS SHOWN HEREON ARE BASED ON THE CENTERLINE OF SOUTH LAKESIDE DRIVE, ASSUMED TO BEAR N00°00'00"W

ABBREVIATION DESCRIPTION:

A/C	AIR CONDITIONER
℄	CENTERLINE
I.D.	IDENTIFICATION
LB	LICENSED BUSINESS
N.A.V.D.	NORTH AMERICAN VERTICAL DATUM
N.G.V.D.	NATIONAL GEODETIC VERTICAL DATUM
OHL	OVERHEAD UTILITIES
P-K	PARKER KYLON NAIL
PSM	PROFESSIONAL SURVEYOR MAPPER
R/W	RIGHT OF WAY

Clyde O. McNeal PSM #2883
THIS SURVEY IS NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER

BOUNDARY SURVEY OF
812 SOUTH LAKESIDE DRIVE
LAKE WORTH, FL 33460
PREPARED FOR
ART MARINO

Project	Sheet
C-13951	1 OF 1
Date: 5-04-2016	
Scale: 1" = 25'	

COMPASS SURVEYING
6250 N. MILITARY TRAIL, SUITE 102
WEST PALM BEACH, FL 33407
PHONE: 561.640.4800
FAX: 561.640.0576
LB #7463
WWW.COMPASSSURVEYING.NET

Calculations and Zoning Information:

SITE INFORMATION: SOUTH PALM PARK DISTRICT
812 SOUTH LAKE SIDE DRIVE

SITE AREA	13,150	SF
	0.30	ACRES

FAR CALCULATIONS AREA LARGE LOT 45% = 5,917.5 SF

EXISTING RESIDENCE AREA: (Incl exterior walls)		
FIRST FLOOR AREA	1,020	SF
SECOND FLOOR AREA	408	SF
TOTAL FLOOR AREA	1,428	SF

FLOOR AREA EXISTING FRONT HOUSE	1,428	SF
FLOOR AREA PROPOSED HOUSE	4,281	SF
	5,709	SF

RESIDENTIAL ADDITION AREA: (Incl exterior walls)		
FIRST FLOOR AREA LIVING	2,152	SF
SECOND FLOOR AREA	2,129	SF
TOTAL FLOOR AREA	4,281	SF

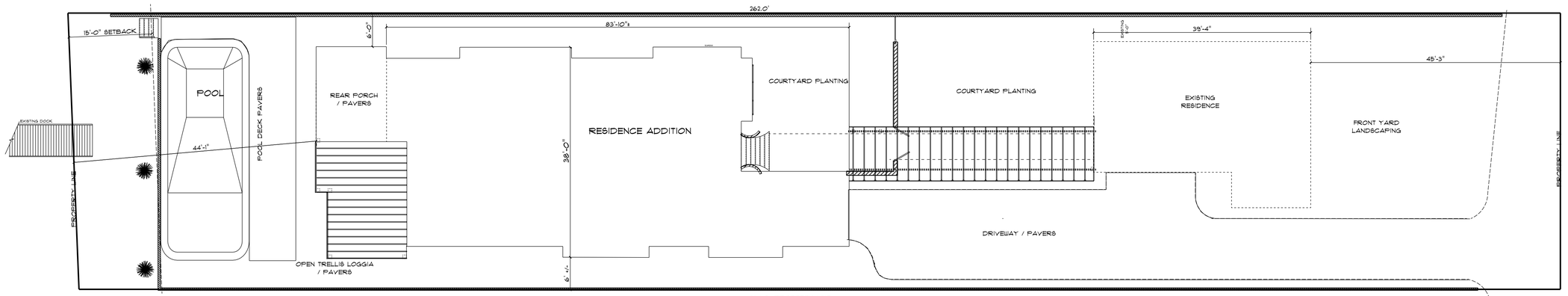
FLOOR AREA DIVIDED BY SITE AREA = 43.4%

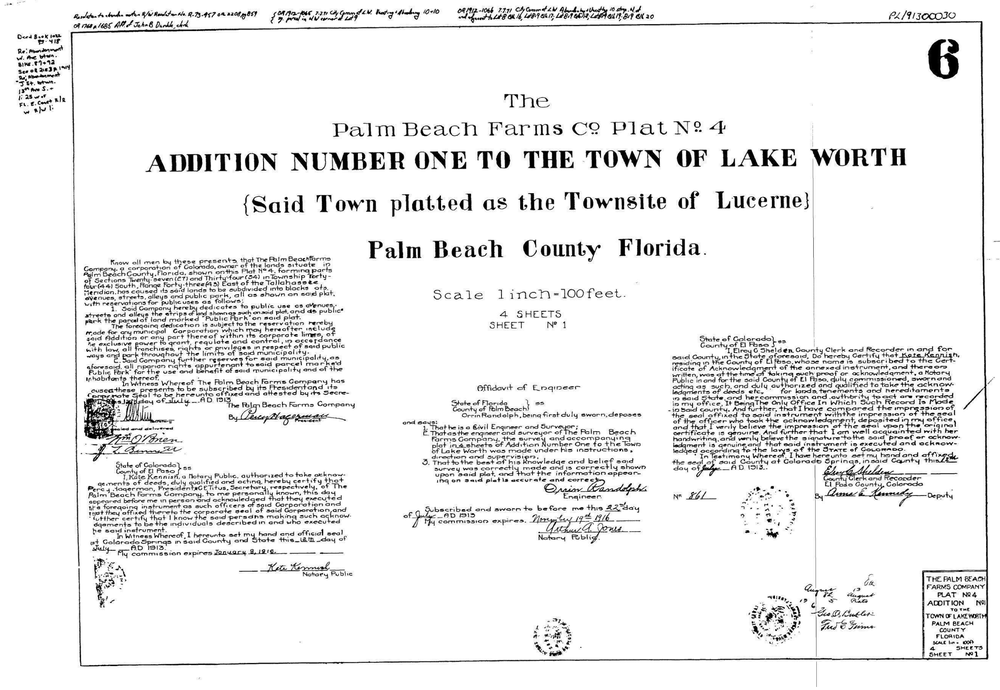
IMPERVIOUS AREA CALCS:
Large Lot 50% = 6,575 SF

FOOTPRINT OF EXISTING: Ext. Wall	1,020	SF
FOOTPRINT OF ADDITION: Ext. Wall	2,585	SF
CARPORT	INCL	SF
FRONT STAIRS	INCL	SF
FRONT CONCRETE STOOP/ENTRY	INCL	SF
DRIVEWAY PAVERS @ 50%	816	SF
POOL DECK @ 50% PAVERS	380	SF
STEPS TO BEACH	42	SF
SWIMMING POOL	608	SF
REAR PORCH	270	
TOTAL IMPERVIOUS AREA (43.6)	5,721	SF

MAXIMUM LOT COVERAGE - ALL BUILDINGS
LARGE LOT 30% = 3,945

BUILDING COVERAGE EXISTING AND ADDITION
28.4% = 3,735 SF





The
Palm Beach Farms Co Plat No. 4

ADDITION NUMBER ONE TO THE TOWN OF LAKE WORTH

{Said Town platted as the Townsite of Lucerne}

Palm Beach County Florida.

Scale 1 inch-100 feet.

4 SHEETS
SHEET No 1

6

Know all men by these presents, that The Palm Beach Farms Company, a corporation of Colorado, owner of the lands situate in Palm Beach County, Florida, shown on this Plat No 4, forming parts of Section Twenty, (20) and Twenty-nine, (29) in Township Forty-four, (44) South, Range Forty-three (43) East of the Tallahassee Meridian, has caused its said lands to be subdivided into blocks, lots, avenues, streets, alleys and public parks, all as shown on said plat, with reservations for public uses as follows, to wit:

1. The Company hereby dedicates to public use as ordinary, streets as shown on said plat, and storage pond as shown on said plat, and as public park the parcel of land marked "Public Park" on said plat.

The foregoing dedication is subject to the reservation hereby made for any municipal Corporation which may hereafter be created for said Addition or any part thereof, which may acquire, by purchase, or exercise of the right of eminent domain, or otherwise, all franchises, rights or privileges in respect of said public ways and park throughout the limits of said municipality.

2. Said Company further reserves for said municipality, as aforesaid, all riparian rights appurtenant to said parcel marked Public Park for the use and benefit of said municipality and of the inhabitants thereof.

In Witness Whereof The Palm Beach Farms Company has caused these presents to be subscribed by its President and its Corporate Seal to be hereunto affixed and attested by its Secretary this 31st day of July — AD 1913.

The Palm Beach Farms Company
By [illegible]

Attest: [illegible]

State of Colorado } ss
County of El Paso }

I, Nate Kennell, a Notary Public, authorized to take acknowledgements, a qualified and acting, hereby certify that [illegible], President, and C.E. Titus, Secretary, respectively, of The Palm Beach Farms Company, to me personally known, this day appeared before me in person and acknowledged that they executed the foregoing instrument as such officers of said Corporation and that they affixed thereto the corporate seal of said Corporation and that they affixed thereto the corporate seal of said Corporation and that they affixed thereto the corporate seal of said Corporation making such acknowledgement individuals described in and who executed the said instrument.

In witness whereof, I hereunto set my hand and official seal at Colorado Springs in said County and State this 1st day of August AD 1913.

My commission expires January 9, 1916.

Nate Kennell
Notary Public

Affidavit of Engineer

State of Florida } ss
County of Palm Beach }

Orrin Randolph, being first duly sworn, deposes and says:

1. That he is a Civil Engineer and Surveyor;
2. That as the engineer and surveyor of The Palm Beach Farms Company, the survey and accompanying plat, in 4 sheets of Addition Number One to the Town of Lake Worth was made under his instructions, direction and supervision;
3. That to the best of his knowledge and belief said survey was correctly made and is correctly shown upon said plat and that the information appearing on said plat is accurate and correct.

Orrin Randolph
Engineer

Subscribed and sworn to before me this 22nd day of July AD 1913
My commission expires May 14th 1916

Notary Public

State of Colorado } ss
County of El Paso }

I, Chas. E. Hollister, County Clerk and Recorder in and for said County, in the State aforesaid, do hereby Certify that [illegible], bearing in the County of El Paso, whose name is subscribed to the Certificate of Acknowledgment of the annexed instrument, and thereon written, was at the time of taking such proof or acknowledgment, a Notary Public in and for the said County of El Paso, duly commissioned, sworn and acting as such Notary, and that I have recorded the said instrument, and in my said State and his commission and authority to act are recorded in my office. It Being The Only Office In which Such Record Is Kept in said County. And further, that I have compared the impressions of the seal affixed to said instrument with the impression of the seal of the officer who took the acknowledgment of such instrument, and believe the seal affixed to said instrument is one of the original certificate is genuine. And further that I am well acquainted with her handwriting, and verily believe the signature to the said proof or acknowledgment is genuine, and that said instrument is executed and acknowledged according to the laws of the State of Colorado.

In Testimony Whereof, I have hereunto set my hand and affixed the seal of said County at Colorado Springs aforesaid this 22nd day of July A.D. 1913

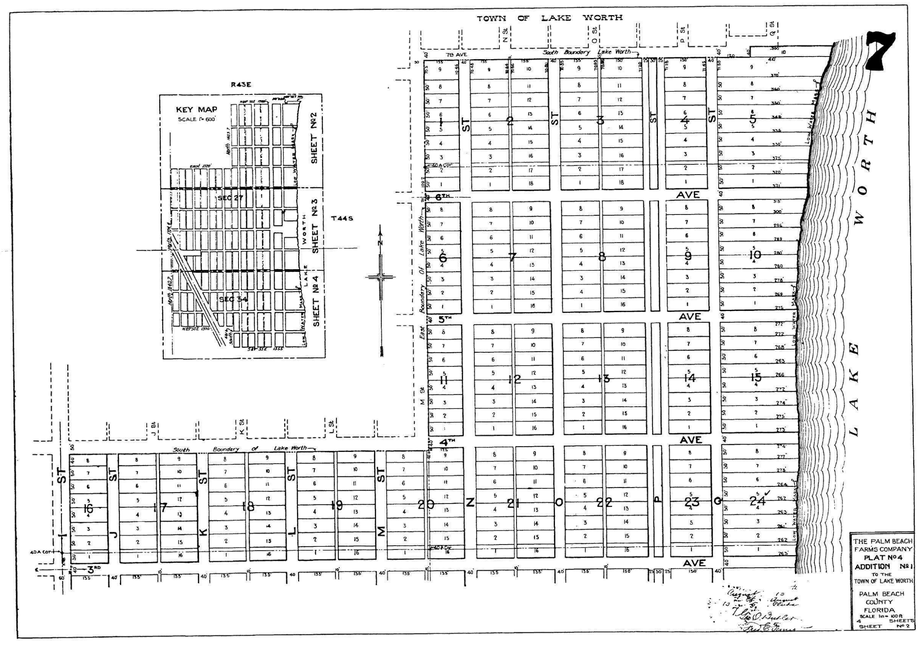
Chas. E. Hollister
County Clerk and Recorder
El Paso County, Colorado
By [illegible] Deputy

No 861

THE PALM BEACH FARMS COMPANY PLAT No 4 ADDITION No 1 TO THE TOWN OF LAKE WORTH PALM BEACH COUNTY FLORIDA
SCALE 1 inch = 100 ft
4 SHEETS
SHEET No 1

P.I. 91300030

Lot 5, Block 24, ADDITION NO. ONE TO THE CITY OF LAKE WORTH, FLORIDA, according to the PALM BEACH FARMS COMPANY PLAT NO. FOUR, recorded in Plat Book 5, Pages 6 to 9, of the Public Records of PALM BEACH County, Florida.



Book5/Page7 Page 2 of 4

SCALE: 1" = 10'

PRELIMINARY
8/19/2016

H. JOHN GRIFFIN II, PE
FL LIC: 38647
5398 SW 61 AVENUE
DAVIE, FL 33314
CONTACT NO: 954-703-3890

8/19/2016

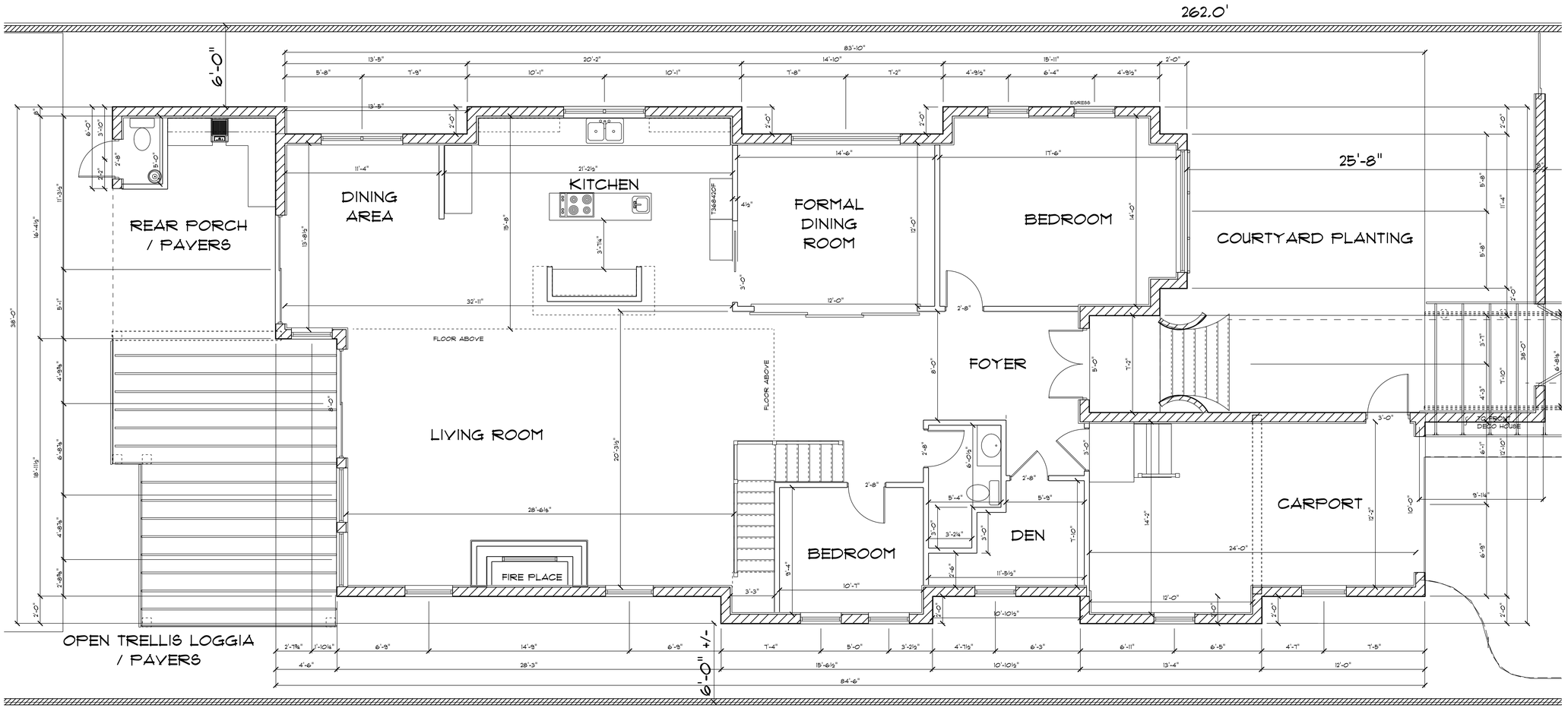
DRAFTED BY:
CORAL KEY
605 BELVEDERE RD. #9
WPB, FL 33411

ART MARINO

JOB DESCRIPTION:
SINGLE FAMILY RESIDENCE
812 SOUTH LAKESIDE DRIVE
LAKE WORTH, FL

* 15032

SHEET
SITE



SCALE: 1/4" = 1'0"

H. JOHN GRIFFIN II, PE
FL LIC: 38647
5398 SW 61 AVENUE
DAVIE, FL 33314
CONTACT NO: 561-722-3890
8/19/2016

DRAFTED BY:
CORAL-KEY
605 BELCHER RD. #9
LWPB, FL 33411

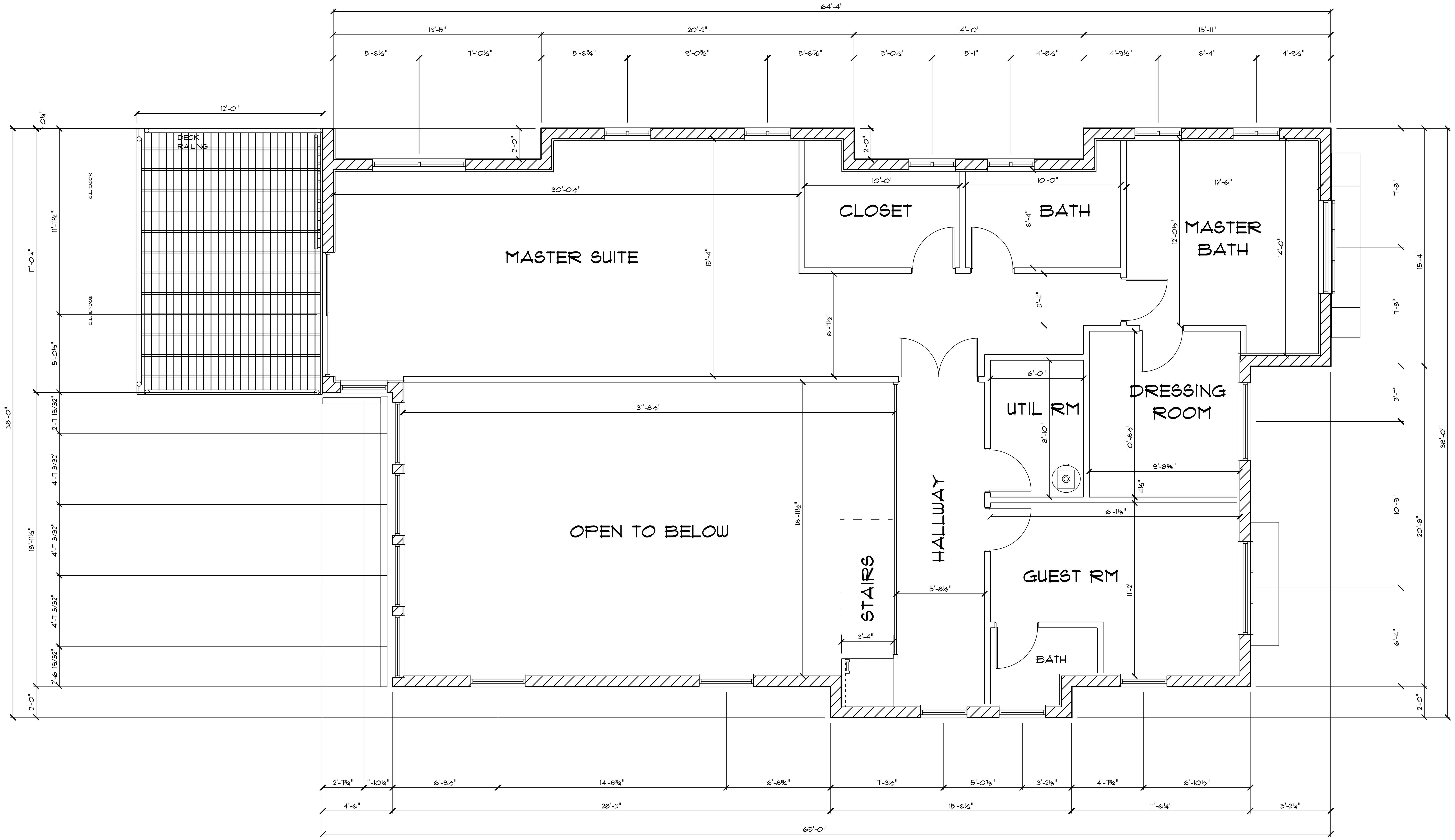
ART MARINO

JOB DESCRIPTION:
SINGLE FAMILY RESIDENCE
812 SOUTH LAKESIDE DRIVE
LAKE WORTH, FL

FIRST FLOOR PLAN
NOT FOR BLDG PERMIT SUBMITTAL
NOT FOR CONSTRUCTION

15032

SHEET
01



SCALE: 1/4" = 1'0"

H. JOHN GRIFFIN II, PE
FL LIC: 38647
5398 SW 61 AVENUE
DAVIE, FL 33314
CONTACT NO: 561-722-3890

DRAFTED BY:
CORAL KEY
605 BELVEDERE RD, #3
WPB, FL 33411

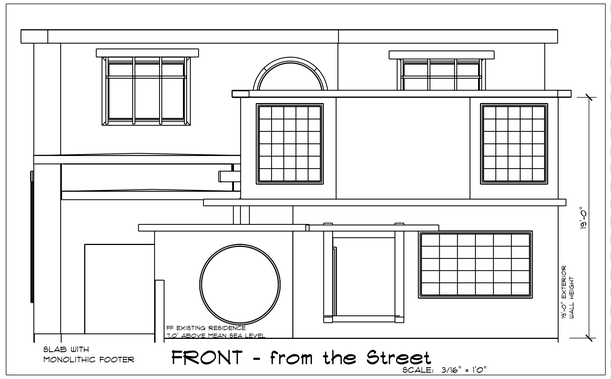
ART MARINO

JOB DESCRIPTION:
SINGLE FAMILY RESIDENCE
LAKE WORTH, FL

SECOND FLOOR PLAN
NOT FOR BLDG PERMIT SUBMITTAL
NOT FOR CONSTRUCTION

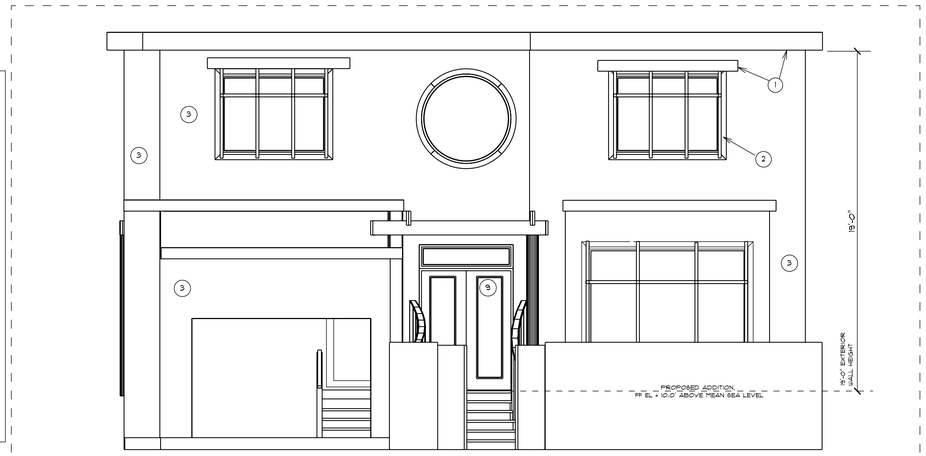
15032

SHEET
02



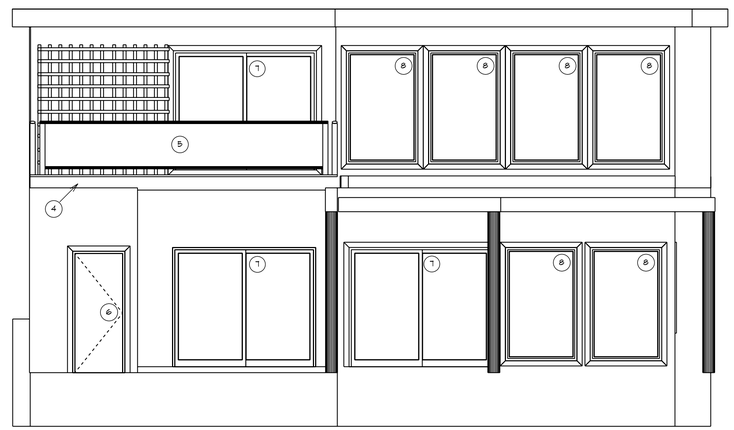
FRONT - from the Street

SCALE: 3/16" = 1'0"



FRONT - WEST

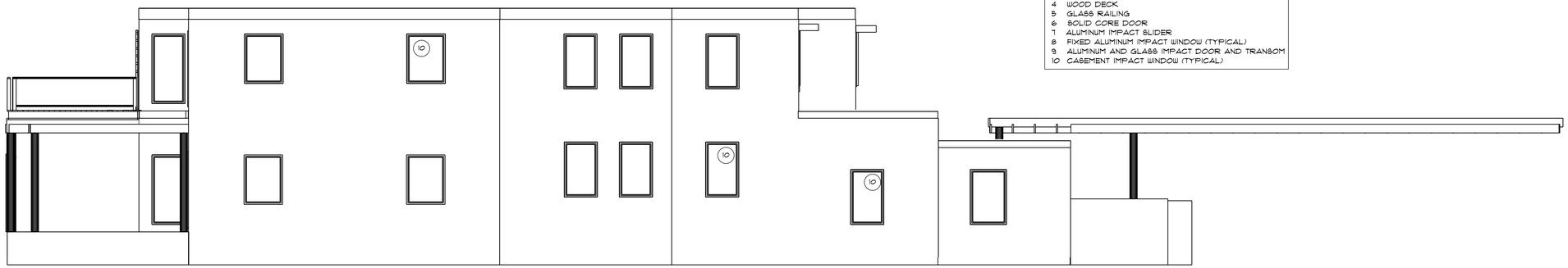
SCALE: 1/4" = 1'0"



REAR - EAST

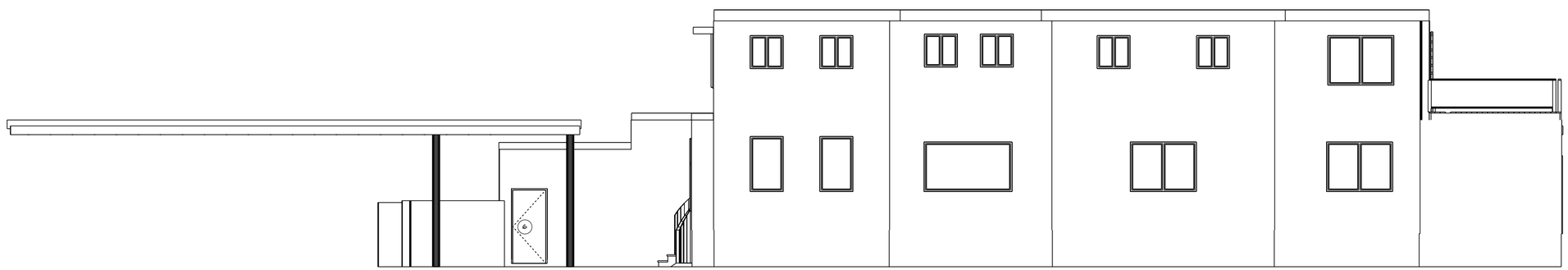
SCALE: 1/4" = 1'0"

ID	DESCRIPTION
1	EYEBROW
2	ALUMINUM FIXED IMPACT WINDOW
3	CONCRETE AND STUCCO (TYPICAL)
4	WOOD DECK
5	GLASS RAILING
6	SOLID CORE DOOR
7	ALUMINUM IMPACT SLIDER
8	FIXED ALUMINUM IMPACT WINDOW (TYPICAL)
9	ALUMINUM AND GLASS IMPACT DOOR AND TRANSOM
10	CASEMENT IMPACT WINDOW (TYPICAL)



LEFT - NORTH

SCALE: 3/16" = 1'0"



RIGHT - SOUTH

SCALE: 3/16" = 1'0"

SCALE: 1/4" & 3/16"

H. JOHN GRIFFIN II, PE
FL LIC: 38647
5398 SW 61 AVENUE
DAVIE, FL 33314
CONTACT NO: 561-722-3890

JOHN GRIFFIN II LICENSE No 38647 STATE OF FLORIDA PROFESSIONAL ENGINEER

8/19/16

DRAFTED BY:
CORAL KEY
605 BELVEDERE RD. #3
WPB, FL 33411

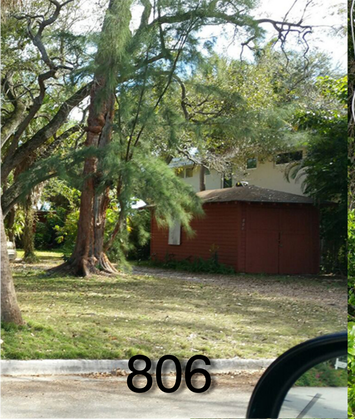
ART MARINO

JOB DESCRIPTION:
SINGLE FAMILY RESIDENCE
LAKE WORTH, FL

ELEVATIONS PLAN
NOT FOR BLDG PERMIT SUBMITTAL
NOT FOR CONSTRUCTION

15032

SHEET
03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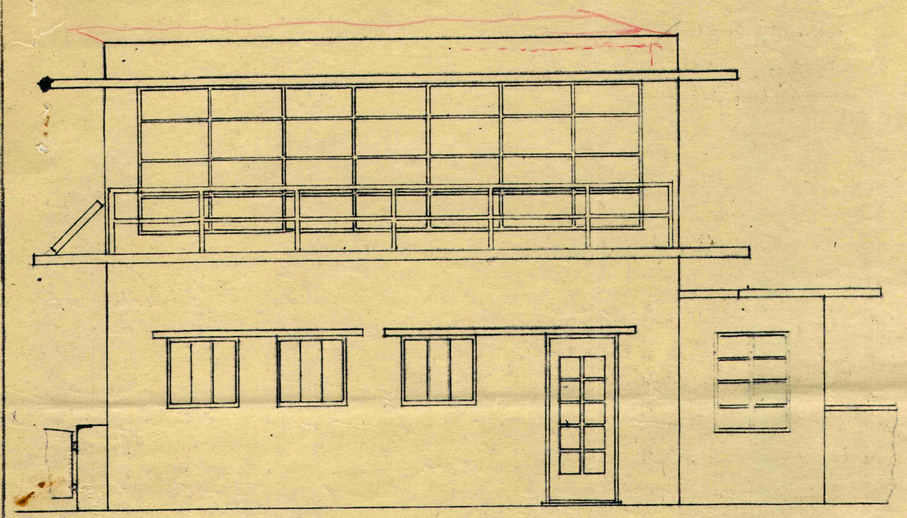
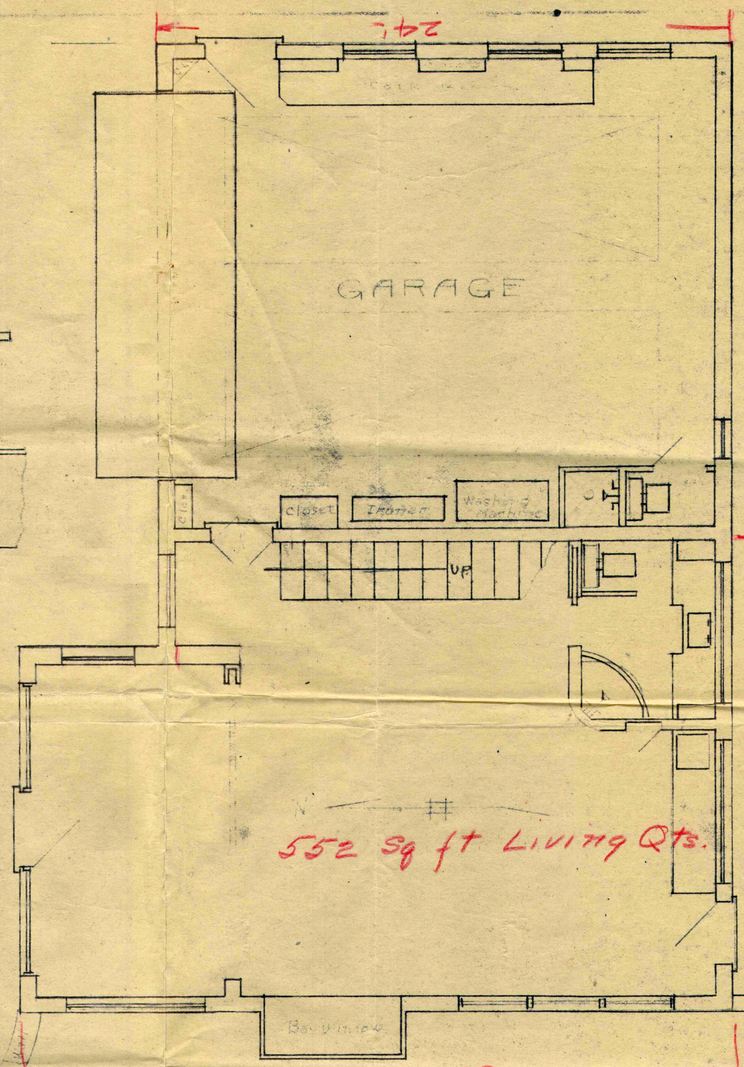
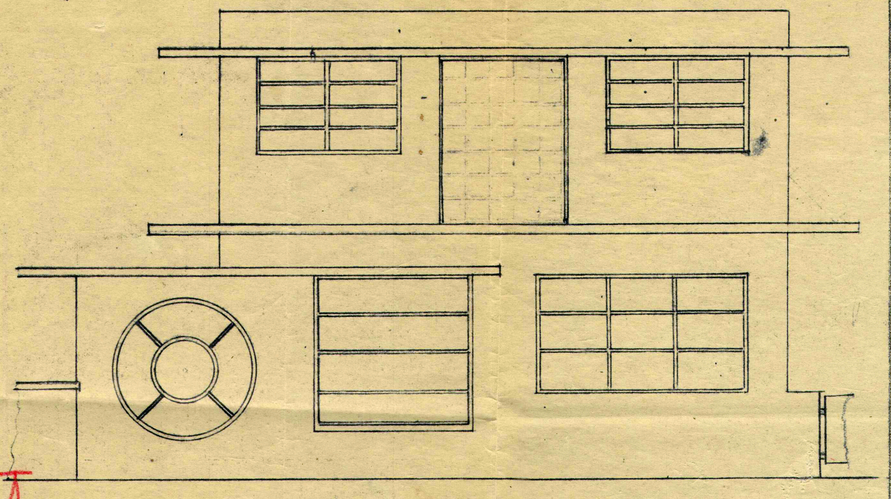


EAST ELEV.



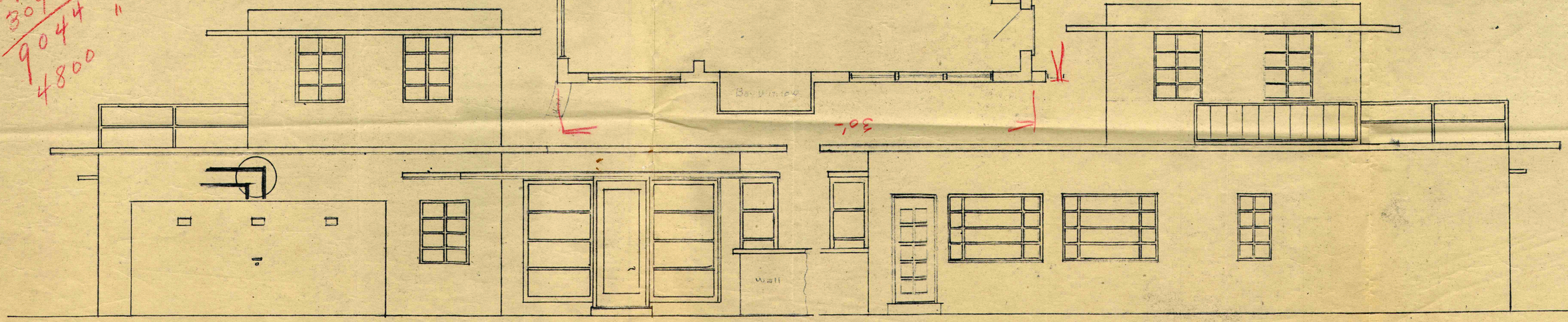
552 Sq ft Living Qts.



WEST ELEV.

5952 cu ft 1st Fl.
3092 " 2nd Fl. Quarters.
9044 " Building.
4800 " Garage.

2nd Fl 24'x16'
384 Sq Ft



North Elev.

SOUTH ELEV.

Res for H.A. Medholdt.
Lot 5 Blk 24
810 So Lake Side Dr.

256.08' To High Tide.

North Prop. Line Lot 6 - Blk 24.

3'-0" Wall

3'-0" Wall

FLOWER GARDEN

Spiral Steps.

12'X24' Deck Over.

12" Wall to Upper grade.

GUEST HOUSE

BRICK WALK

VESTIBULE

Flagstone.

POND.

S. Line of Lot 6.
N. Line of Lot 5.

PREVAILING TRADE WIND

N.

Curb & Gutter

Curb & Gutter

PORCH
8'x13'6"

LIVING ROOM

GARAGE
19'x22'-0"

19'-0"

24' Room

5'-0" Wall

3'-0" Wall

244.10' To High Tide

South Prop. Line Lot 5 - Blk 24.

12" Wall to Upper grade.

12/4/42

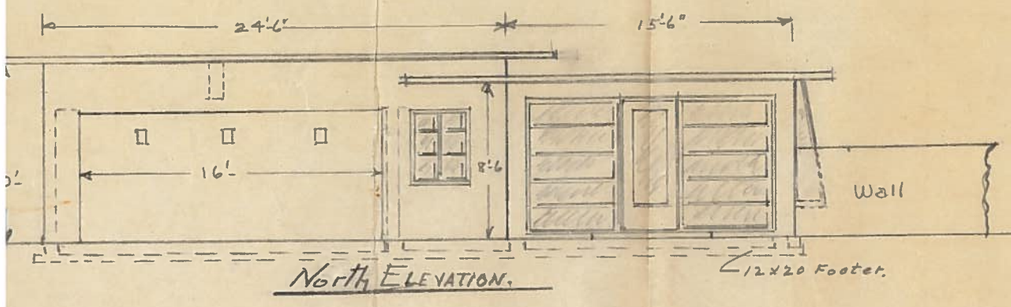
Approved for setbacks.
John Blair
A. E. Reidell
City Engineer
Zoning

LAYOUT OF MEDHOLDT PROPERTY

S.H.A. LAKE WORTH, FLA. 1/8" = 1'0".

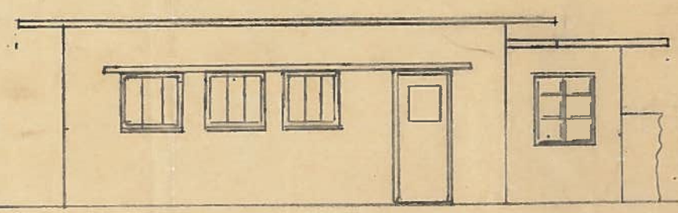
-1942-

D. Thomson

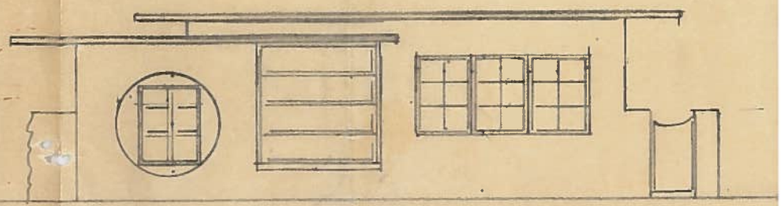


North Elevation.

12x20 Footer.



East Elev.



West Elevation.

Med
Ru
G

HOLD HARMLESS AND INDEMNIFICATION AGREEMENT

THIS HOLD HARMLESS AND INDEMNIFICATION AGREEMENT ("Agreement" hereafter) is made by **ARTHUR MARINO, JR.**, as the fee simple owner of the property located at 812 S. Lakeside Drive, Lake Worth, Florida 33460 ("Owner") for the benefit and protection of the **CITY OF LAKE WORTH, FLORIDA** ("City").

WHEREAS, the Owner seeks to make certain alterations to the property located at 812 S. Lakeside Drive, Lake Worth, Florida 33460 (PCN: 38-43-44-27-01-024-0050) ("Property" hereafter) which include, but are not limited to, renovation and addition to an existing structure ("Improvements" hereafter);

WHEREAS, based upon the Improvements proposed, the Owner would otherwise be required to comply with current floodplain management guidelines excepting that the National Flood Insurance Program exempts historic structures in certain circumstances;

WHEREAS, in lieu of completing the Improvements in compliance with the current floodplain management guidelines, the Owner seeks to obtain the exemption provided to historic structures;

WHEREAS, the Owner understands and accepts the risks associated with the exemption and seeks to enter this Agreement to hold the City harmless and indemnify the City from liability related to the Improvements.

NOW THEREFORE IN CONSIDERATION of the terms and conditions of this Agreement, the sufficiency of which is hereby acknowledged by the Owner, the Owner agrees as follows:

1. The above recitals are true and correct and incorporated into this Agreement by reference.

2. The Owner agrees to hold harmless and indemnify the City, its elected and appointed officials, employees, and contractors harmless from any and all claims, losses, liabilities, costs, or expenses, or the threat or claim thereof, including reasonable attorney's fees and costs at all trial and appellate levels ("losses" hereafter) that the City, its elected and appointed officials, employees and contractors, the Owner, and/or third parties may face or incur arising from or directly or indirectly related to construction of the Improvements not in accordance with the current floodplain management guidelines.

3. The Owner also agrees that the City may rely on this Agreement in the event of any losses and the Owner will not challenge this Agreement, or its independent consideration, or dispute its duties hereunder, in any legal action or arbitration.

4. The Owner further agrees that in the event of any losses, and in addition to the payment of any losses, the Owner shall provide a defense for the City, its elected and appointed officials, employees, contractors, and the City shall have the right to select the attorney who represents the City in any such action.

DRAFT

5. This Agreement represents the entire understanding of the Owner and City concerning the issues herein, and the Owner shall not rely upon any prior, concurrent or future oral representations. Any modification of this Agreement shall be in writing and signed by the City.

6. This Agreement shall not be construed more strongly against either the Owner or City regardless of who was more responsible for its preparation. However, this Agreement shall be broadly construed in order to protect the City from any and all losses arising from or related to the Owner's Property and Improvements.

7. This Agreement shall be construed in accordance with Florida law and venue for any disputes shall be in Palm Beach County, Florida.

8. This Agreement shall remain in effect until such time as all Improvements are removed from the Property. The rights and obligations created by this Agreement shall run with the land and bind all of Owner's successors and assigns.

IN WITNESS THEREOF, the Owner and the City of Lake Worth have duly executed this Agreement on the _____ day of _____, 2016.

WITNESSES:

_____
Print Name:_____

_____
Print Name:_____

ARTHUR MARINO, JR.

_____

CITY OF LAKE WORTH

By: _____
Pam Triolo, Mayor

ATTEST:

_____
City Clerk

APPROVED AS TO FORM AND LEGAL SUFFICIENCY:

_____
Glen J. Torcivia, City Attorney

DRAFT

UNIT 8
SUBSTANTIAL IMPROVEMENT AND SUBSTANTIAL DAMAGE

In this unit

This unit covers:

- The substantial improvement rule – how to regulate major additions and other improvements to buildings in the floodplain.
- The substantial damage rule – how to regulate reconstruction and repairs to buildings that have been severely damaged.
- Exceptions to the basic rules for some special cases.

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INTRODUCTION

In previous units we focused on the rules and regulations that prevent or reduce damage from floods to new buildings. But what happens when the owner wishes to make an improvement, such as an addition, to an existing building? What if a building is damaged by a fire, flood or other cause?

Basic rule: *If the cost of improvements or the cost to repair the damage exceeds 50 percent of the market value of the building, it must be brought up to current floodplain management standards.*

That means an existing building must meet the requirements for new construction.

People who own existing buildings that are being substantially improved will be required to make a major investment in them in order to bring them into compliance with the law. They will not be happy. If the buildings have just been damaged, they will be financially strapped and your elected officials will want to help them, not make life harder for them.

For these reasons, it is easy to see that this basic rule can be difficult to administer. It is also the one time when your regulatory program can reduce flood damage to existing buildings. That's why this course devotes this unit to administering the substantial improvements and substantial damage regulations.

In this reference guide, the term "building" is the same as the term "structure" in the NFIP regulations. Your ordinance may use either term. The terms are reviewed in more detail in Unit 5, Section E.

A. SUBSTANTIAL IMPROVEMENT

44 CFR 59.1. Definitions: *"Substantial improvement" means any reconstruction, rehabilitation, addition or other improvement to a structure, the total cost of which equals or exceeds 50 percent of the market value of the structure before the start of construction of the improvement.*

This section provides information on determining whether a building has been substantially improved and on what NFIP requirements apply.

PROJECTS AFFECTED

All building improvement projects worthy of a permit must be considered. These include:

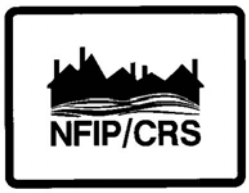
- Remodeling projects.
- Rehabilitation projects.
- Building additions.
- Repair and reconstruction projects (these are addressed in more detail in Section B on substantial damage)

If your community does not require permits for, say, reroofing, minor maintenance or projects under a certain dollar amount, then such projects are not subject to the substantial improvement requirements. However, if you have a larger project that includes reroofing, etc., then it must include the entire cost of the project.

One problem you may face is a builder trying to avoid the requirement by applying for a permit for only part of the job and then later applying for another permit to finish the work. If both applications are together worth more than 50% of the value of the building, the combined project should be considered a substantial improvement and subject to the rules.

FEMA requires that the entire improvement project be counted as one. In order to help you enforce this, you may want to count all applications submitted over, say, one year as one project. Check with your attorney on whether your ordinance clearly gives you the authority to do this and be sure to spell it out in the permit papers given to the applicant.

Some communities require that improvements be calculated cumulatively over several years. All improvement and repair projects undertaken over a period of five years, 10 years or the life of the structure are added up. When they total 50 percent, the building must be brought into compliance as if it were new construction.



The Community Rating System credits keeping track of improvements to enforce a cumulative substantial improvement requirement. It also credits using a lower threshold than 50 percent. These credits are found under Activity 430, Section 431.c and d in the *CRS Coordinator's Manual* and the *CRS Application*. See also *CRS Credit for Higher Regulatory Standards* for example regulatory language.

Post-FIRM buildings

The rules do not address only pre-FIRM buildings—they cover *all* buildings, post-FIRM ones included.

In most cases, a post-FIRM building will be properly elevated or otherwise compliant with regulations for new construction. However, sometimes a map change results in a higher BFE or change in FIRM zone. A substantial improvement to a post-FIRM building may require that the building be elevated to protect it from the new, higher, regulatory BFE.

It should be remembered that all additions to a post-FIRM building must be elevated at least as high as the BFE in effect when the building was built. (You can't allow a compliant building to become noncompliant by allowing additions at grade.) If a new, higher BFE has been adopted since the building was built, additions that are substantial improvements must be elevated to the new BFE.

THE FORMULA

A project is a substantial improvement if:

$$\frac{\text{Cost of improvement project}}{\text{Market value of the building}} \geq 50 \text{ percent}$$

For example, if a proposed improvement project will cost $30,000 and the value of the building is $50,000:

$$\frac{\$30{,}000}{\$50{,}000} = 0.6 \text{ (60 percent)}$$

The cost of the project exceeds 50 percent of the building's value, so it is a substantial improvement. The floodplain regulations for new construction apply and the building must meet

the post-FIRM construction requirements. If the project is an addition, only the addition has to be elevated (see the examples later in this section).

The formula is based on the cost of the project and the value of the building. These two numbers must be reviewed in detail.

Project cost

The cost of the project means all structural costs, including

- all materials
- labor
- built-in appliances
- overhead
- profit
- repairs made to damaged parts of the building worked on at the same time

A more detailed list is included in Figure 8-1.

To determine substantial improvement, you need a detailed cost estimate for the project, prepared by a licensed general contractor, professional construction estimator or your office.

Your office must review the estimate submitted by the permit applicant. To verify it, you can use your professional judgment and knowledge of local and regional construction costs, or you can use building code valuation tables published by the major building code groups. These tables can be used for determining estimates for particular replacement items if the type of structure in question is listed in the tables.

There are two possible exemptions you should be aware of: 1) improvements to correct code violations do not have to be included in the cost of an improvement or repair project and 2) historic buildings can be exempted from substantial improvement requirements. These are explained in more detail later on.

Market value

In common parlance, market value is the price a willing buyer and seller agree upon. The market value of a structure reflects its original quality, subsequent improvements, physical age of building components and current condition.

However, market value for property can be different than that of the building itself. Market value of developed property varies widely due to the desirability of its location. For example, two houses of similar size, quality and condition will have far different prices if one is on the coast, or in the best school district, or closer to town than the other—but the value of the building materials and labor that went into both houses will be nearly the same.

For the purposes of determining substantial improvement, market value pertains only to the structure in question. It does not pertain to the land, landscaping or detached accessory structures on the property. Any value resulting from the location of the property should be attributed to the value of the land, not the building.

Items to be included

— All structural elements, including:
— Spread or continuous foundation footings and pilings
— Monolithic or other types of concrete slabs
— Bearing walls, tie beams and trusses
— Floors and ceilings
— Attached decks and porches
— Interior partition walls
— Exterior wall finishes (brick, stucco, siding) including painting and moldings
— Windows and doors
— Reshingling or retiling a roof
— Hardware
— All interior finishing elements, including:
— Tiling, linoleum, stone, or carpet over subflooring
— Bathroom tiling and fixtures
— Wall finishes (drywall, painting, stucco, plaster, paneling, marble, etc.)
— Kitchen, utility and bathroom cabinets
— Built-in bookcases, cabinets, and furniture
— Hardware
— All utility and service equipment, including:
— HVAC equipment
— Plumbing and electrical services
— Light fixtures and ceiling fans
— Security systems
— Built-in kitchen appliances
— Central vacuum systems
— Water filtration, conditioning, or recirculation systems
— Cost to demolish storm-damaged building components
— --- Labor and other costs associated with moving or altering undamaged building components to accommodate improvements or additions
— --- Overhead and profits

Items to be excluded

— Plans and specifications
— Survey costs
— Permit fees
— Post-storm debris removal and clean up
— Outside improvements, including:
— Landscaping
— Sidewalks
— Fences
— Yard lights
— Swimming pools
— Screened pool enclosures
— Detached structures (including garages, sheds and gazebos)
— Landscape irrigation systems

Figure 8-1. Items included in calculating cost of the project

Acceptable estimates of market value can be obtained from these sources:

- An independent appraisal by a professional appraiser. The appraisal must exclude the value of the land and not use the "income capitalization approach" which bases value on the use of the property, not the structure.
- Detailed estimates of the structure's actual cash value— the replacement cost for a building, minus a depreciation percentage based on age and condition. For most situations, the building's actual cash value should approximate its market value. Your community may prefer to use actual cash value as a substitute for market value, especially where there is not sufficient data or enough comparable sales.
- Property values used for tax assessment purposes with an adjustment recommended by the tax appraiser to reflect current market conditions (adjusted assessed value).
- The value of buildings taken from NFIP claims data (usually actual cash value).
- Qualified estimates based on sound professional judgment made by the staff of the local building department or tax assessor's office.

Some market value estimates are often used only as screening tools (i.e., NFIP claims data and property appraisals for tax assessment purposes) to identify those structures where the substantial improvement ratios are obviously less than or greater than 50 percent (i.e., less than 40 percent or greater than 60 percent). For structures that fall in the 40 percent to 60 percent range, more precise market value estimates are sometimes necessary.

SUBSTANTIAL IMPROVEMENT EXAMPLES

Example 1. Minor rehabilitation

A rehabilitation is defined as an improvement made to an existing structure which does not affect the external dimensions of the structure.

If the cost of the rehabilitation is less than 50 percent of the structure's market value, the building does not have to be elevated or otherwise protected. However, it is advisable to incorporate methods to reduce flood damage, such as use of flood-resistant materials and installation of electrical, heating and air conditioning units above the BFE.

Figure 8-2 shows a building that had a small rehabilitation project. Central air conditioning was installed and the electrical system was upgraded. The value of the building before the project was $60,000. The value of the project was $12,000:

$\frac{\$12,000}{\$60,000}$ = 0.2 (20 percent)	The project costs less than 50 percent of the building, so this is not a substantial improvement.

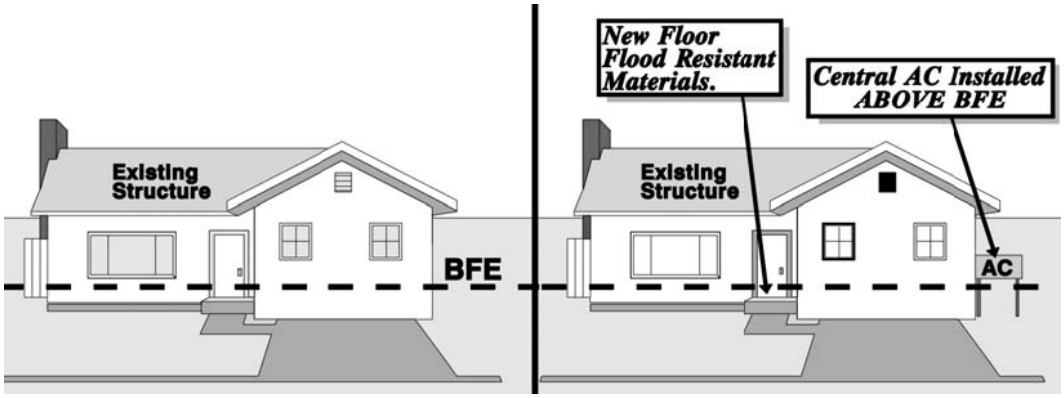


Figure 8-2. Minor rehabilitations use flood-resistant methods and materials

Neither structure would benefit from post-FIRM flood insurance rates because they are not elevated.

Note: To gauge what happens to flood insurance premiums if a substantially improved building is not brought up to post-FIRM standards, see Figures 7-7 through 7-12.

Example 2. Substantial rehabilitation

If the rehab costs more than 50 percent of the value of the building, your ordinance requires that an existing structure be elevated and/or the basement filled to meet the elevation standard.

Figure 8-3 shows a building that has been allowed to run down. It's market value is $35,000. To rehab it will require gutting the interior and replacing all wallboard, built-in cabinets, bathroom fixtures and furnace. The interior doors and flooring will be repaired. The house will get new siding and a new roof. The cost of this rehab will be $25,000:

$\frac{\$25{,}000}{\$35{,}000}$ = 71.4 percent	Because total cost of the project is greater than 50 %the rehab is a substantial improvement

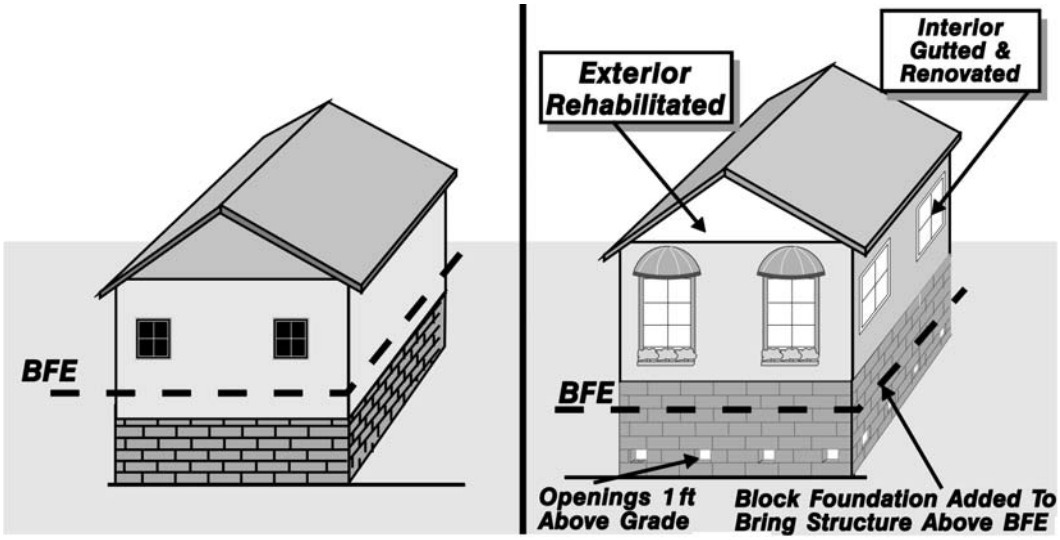


Figure 8-3. substantially rehabilitated building elevated above the BFE.

In A Zones, elevation may be on fill, crawlspace, columns, etc. In V Zones, only pilings, columns or other open foundations are allowed. The new structure would benefit from post-FIRM flood insurance rates.

Example 3. Lateral addition—residential

Additions are improvements that increase the square footage of a structure. Commonly, this includes the structural attachment of a bedroom, den, recreational room garage or other type of addition to an existing structure. Note that if one building is attached to another through a covered breezeway or similar connection, it is a separate building and not an addition.

When an addition is a substantial improvement, the addition must be elevated or floodproofed, providing that improvements to the *existing* structure are minimal. Figures 8-4 and 8-5 illustrate lateral additions that are compliant.

Depending on the flood zone and details of the project, the existing building may not have to be elevated. The determining factors are the common wall and what improvements are made to the existing structure. If the common wall is demolished as part of the project, then the entire structure must be elevated. If only a doorway is knocked through it and only minimal finishing is done, then only the addition has to be elevated.

In A Zones only, if significant improvements are made to the existing structure (such as a kitchen makeover), both it and the addition must be elevated and otherwise brought into compliance. Some states and many communities require that both the existing structure and lateral additions be elevated in all cases.

In V Zones, the existing structure always has to be elevated, placed on an engineered foundation system, etc., when an addition is proposed that constitutes a substantial improvement. This is due to the "free-of obstruction" standard whereby the lower existing structure would obstruct the storm surge, causing damage to the addition.

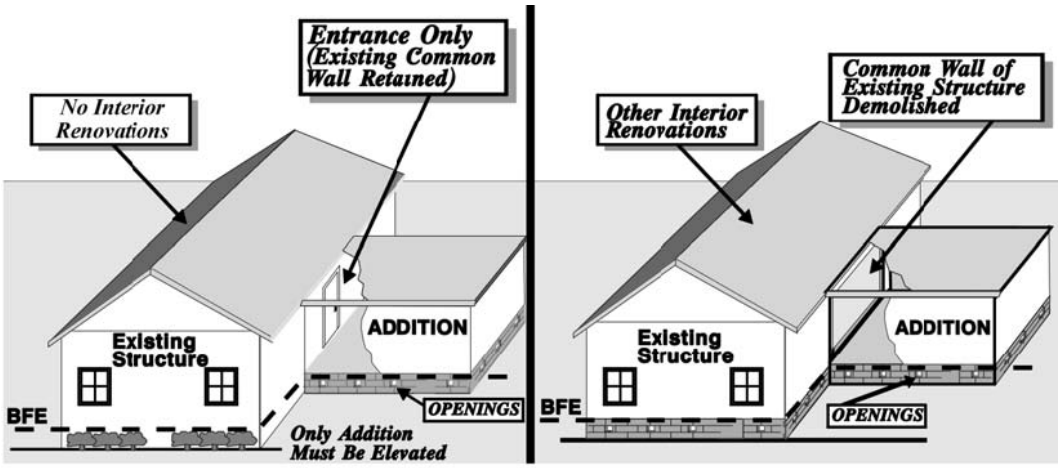


Figure 8-4. Lateral additions to a residential building in an A Zone.

In V Zones, the entire building must be elevated on pilings, columns or other open foundations. The

structure on the left would not benefit from post-FIRM flood insurance rates because it was not elevated.

Example 4. Lateral addition—nonresidential

A substantial improvement addition to a nonresidential building may be either elevated or floodproofed. Otherwise, all the criteria for residential buildings reviewed in Example 3 must be met.

If floodproofing is used, the builder must ensure that the wall between the addition and the original building is floodproofed. Floodproofing is not allowed as a construction measure in V Zones.

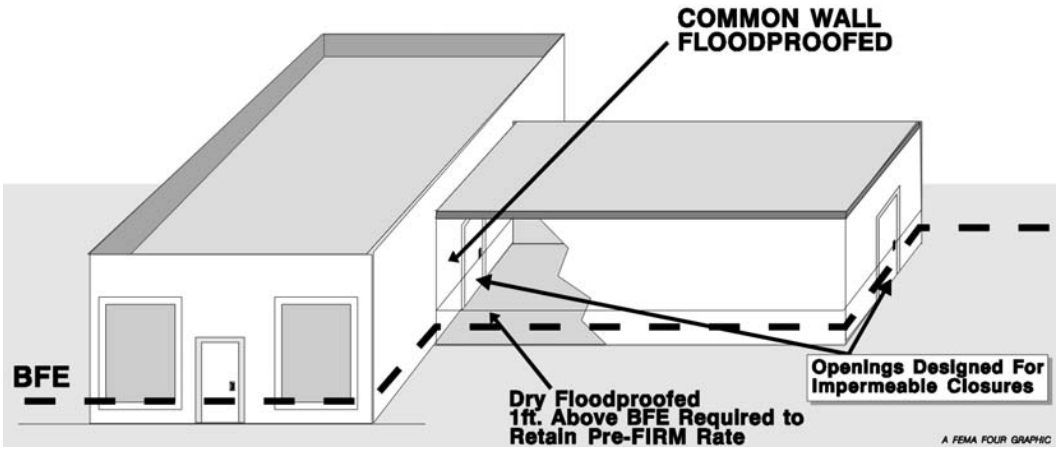


Figure 8-5. Lateral addition to a nonresidential building in an A Zone.

This approach is not allowed in V Zones. The structure would *not* benefit from post-FIRM flood insurance rates because the original building was not elevated or flood-proofed.

Example 5. Vertical addition—residential

When the proposed substantial improvement is a full or partial second floor, the entire structure must be elevated (Figure 8-6). In this instance, the existing building provides the foundation for the addition. Failure of the existing building would result in failure of the addition, too.

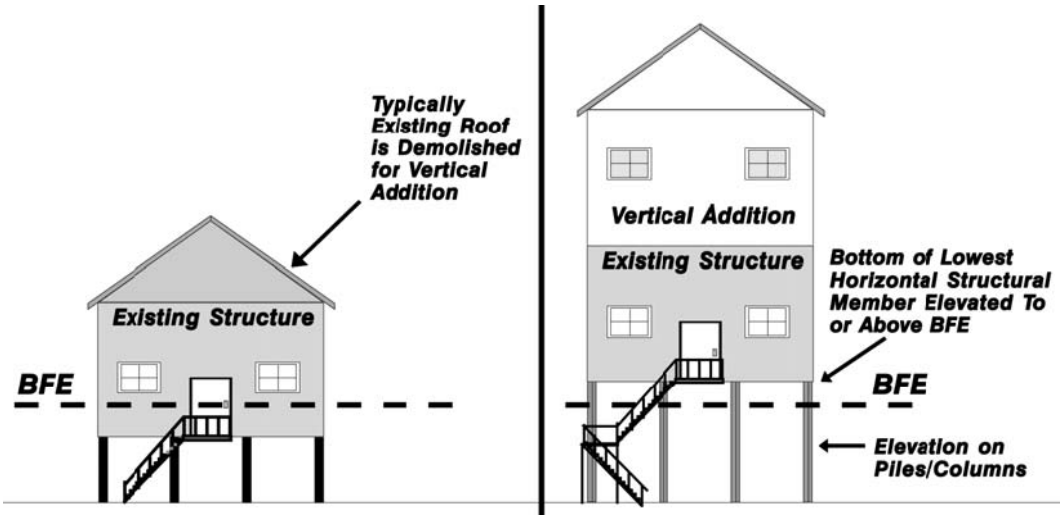


Figure 8-6. Vertical addition to a residential building in a V Zone.

The new structure would benefit from post-FIRM flood insurance rates.

Example 6. Vertical addition—nonresidential

When the proposed substantial improvement is a full or partial second floor, the entire structure must be elevated or floodproofed (Figure 8-7).

The owner could obtain post-FIRM rates on the building if it is floodproofed to one foot above the BFE and he has a floodproofing certificate signed by a registered engineer. An optional approach is to elevate the entire building and obtain an elevation certificate.

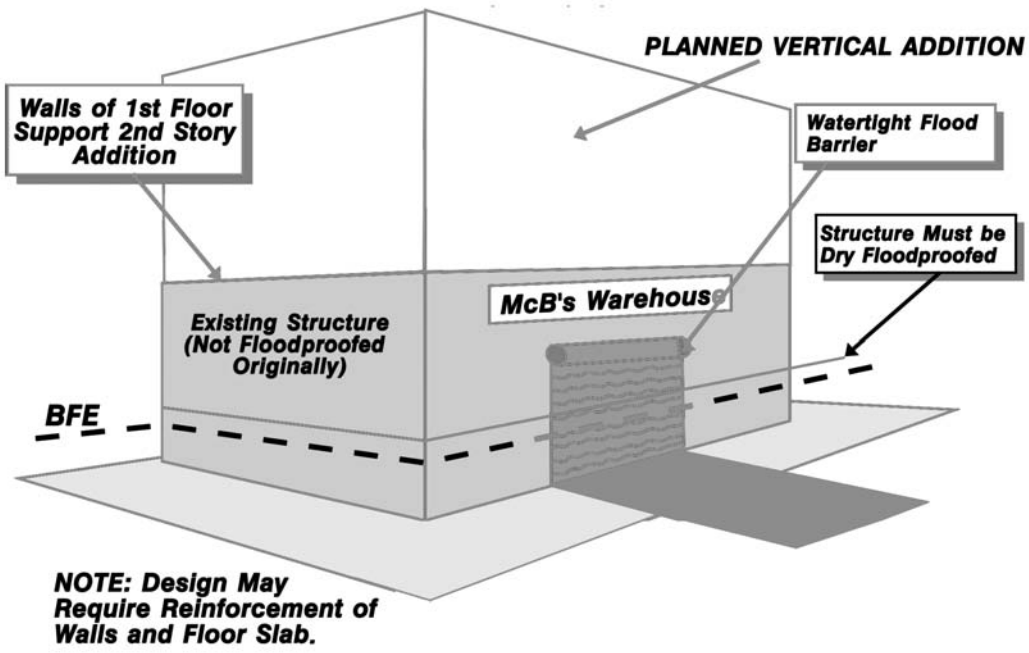


Figure 8-7. Vertical addition to a nonresidential building in an A Zone.

The new floodproofed structure would benefit from post-FIRM flood insurance rates.

Example 7. Post-FIRM building—minor addition

All additions to post-FIRM buildings are defined as new construction and must meet the requirements of your floodplain management ordinance regardless of the size or cost of the addition (Figure 8-8). A small addition to a residential structure that is not a substantial improvement must be elevated at least as high as the BFE in effect when the building was built. Minor additions to nonresidential structures can be floodproofed to the BFE.

If a map revision has taken place and the BFE has increased, only additions that are substantial improvements have to be elevated to the new BFE or flood-proofed (nonresidential buildings only).

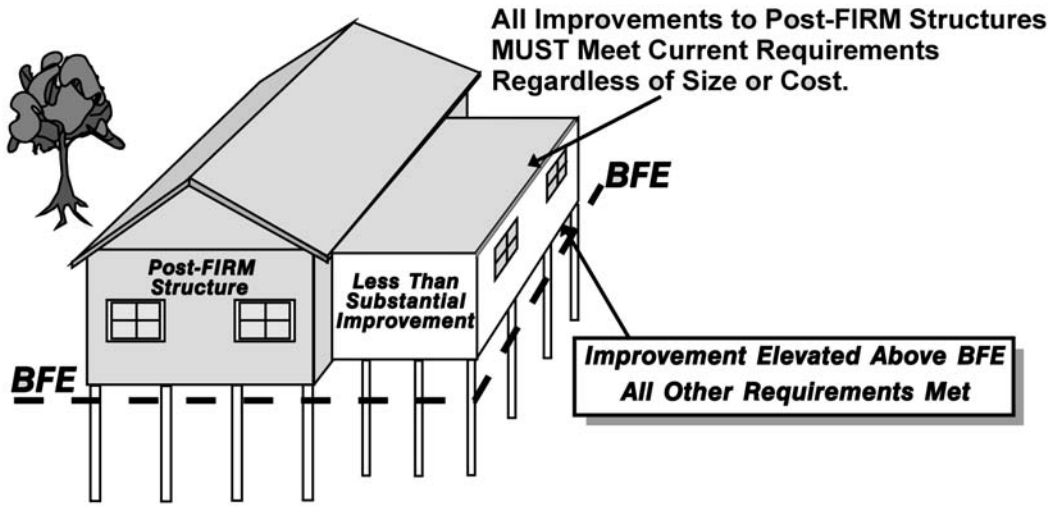


Figure 8-8. Small additions to post-FIRM buildings must be elevated.

Example 8. Post-FIRM building—substantial improvement

Substantial improvements made to a post-FIRM structure must meet the requirements of the current ordinance. Figure 8-9 shows a lateral addition made after a map revision took place and the BFE was increased.

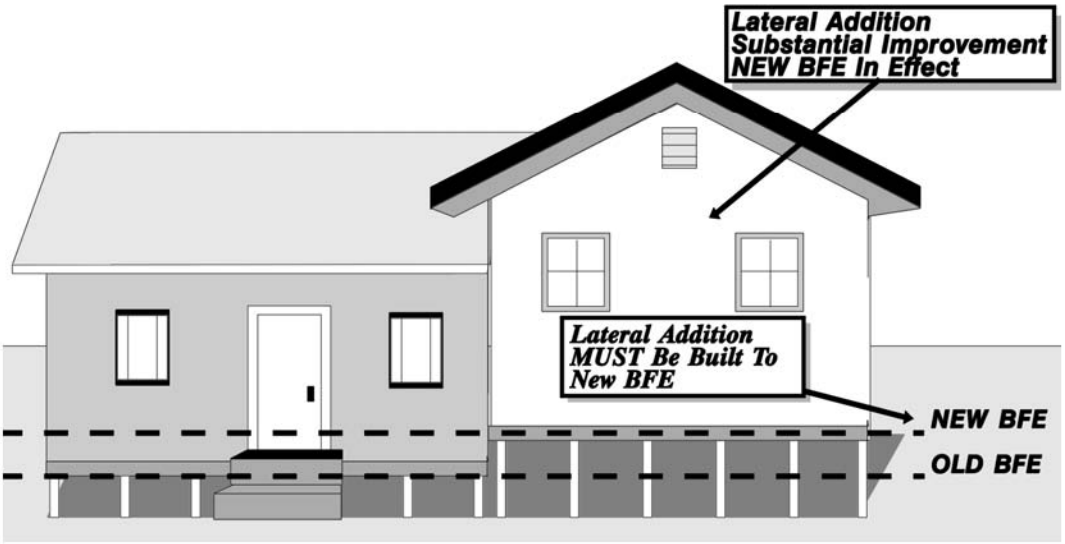


Figure 8-9. Substantial improvements to post-FIRM buildings must be elevated above the new BFE. Nonresidential buildings may be floodproofed

B. SUBSTANTIAL DAMAGE

44 CFR 59.1. *Definitions: "Substantial damage" means damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred.*

Two key points:

- The damage can be from any cause—flood, fire, earthquake, wind, rain, or other natural or human-induced hazard.
- The substantial damage rule applies to all buildings in a flood hazard area, regardless of whether the building was covered by flood insurance.

The formula is essentially the same as for substantial improvements:

$$\frac{\text{Cost to repair}}{\text{Market value of the building}} \geq 50 \text{ percent}$$

Market value is calculated in the same way as for substantial improvements. Use the pre-damage market value.

COST TO REPAIR

Notice that the formula uses "cost *to* repair," not "cost *of* repairs." The cost to repair the structure must be calculated for full repair to the building's before-damage condition, even if the owner elects to do less. It must also include the cost of any improvements that the owner has opted to include during the repair project.

The total cost to repair includes the same items listed in Figure 8-1. As shown in Example 2 below, properly repairing a flooded building can be more expensive than people realize. The owner may opt not to pay for all of the items needed. The owner may:

- Do some of the work, such as removing and discarding wallboard.
- Obtain some of the materials free.
- Have a volunteer organization, such as the Mennonites, do some of the work.
- Decide not to do some repairs, such as choosing to nail down warped flooring rather than replace it.

Basic rule: *Substantial damage is determined regardless of the actual cost to the owner. You must figure the true cost of bringing the building back to its pre-damage condition using qualified labor and materials obtained at market prices.*

The permit office and the owner may have serious disagreements over the total list of needed repairs and their cost, as the owner has a great incentive to show less damage than actually occurred in order to avoid the cost of bringing the building into compliance. Here are four things that can help you:

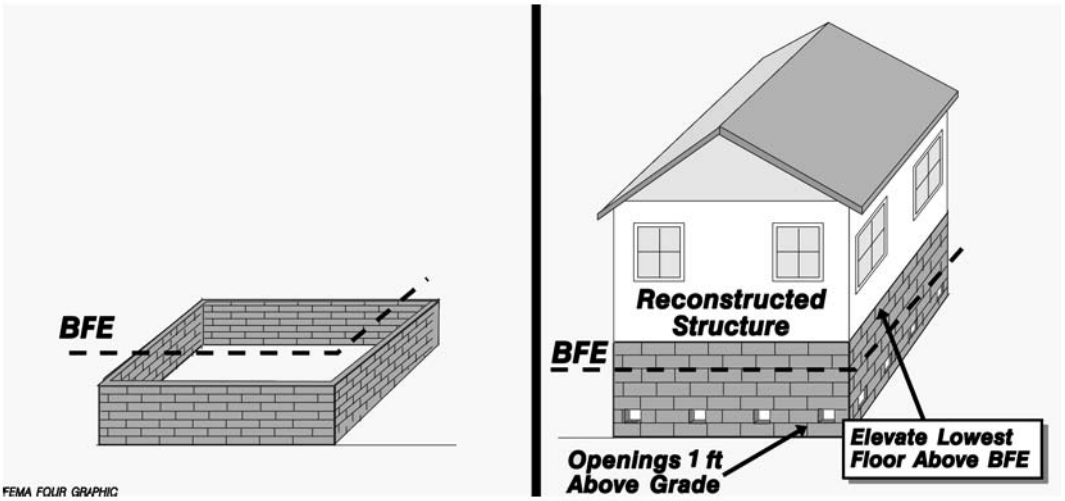
- Get the cost to repair from an objective third-party or undebatable source, such as:
  - A licensed general contractor.
  - A professional construction estimator.
  - Insurance adjustment papers (exclude damage to contents).
  - Damage assessment field surveys conducted by building inspection, emergency management or tax assessment agencies after a disaster.
  - Your office.
- Even if your office does not prepare the cost estimate, it needs to review the estimate submitted by the permit applicant. You can use your professional judgment and knowledge of local and regional construction costs. Or, you can use building code valuation tables published by the major building code groups.
- Use an objective system that does not rely on varying estimates of market value or different opinions of what needs to be repaired. The Substantial Damage Estimator Program discussed later in this section will do this.
- Publicize the need for the regulations and the benefits of protecting buildings from future flooding. A well-educated public won't argue as much as one that sees no need for the requirement.
- Help the owner find financial assistance to meet the extra cost of complying with the code. If there was a disaster declaration, there may be sources of financial assistance as discussed in the next unit. If the owner had flood insurance and the building was substantially damaged by a flood, the new Increased Cost of Compliance coverage will help (see next section).

SUBSTANTIAL DAMAGE EXAMPLES

Example 1. Reconstruction of a destroyed building

Reconstructions are cases where an entire structure is destroyed, damaged, purposefully demolished or razed, and a new structure is built on the old foundation or slab. The term also applies when an existing structure is moved to a new site.

Reconstructions are, quite simply, "new construction." They must be treated as new buildings.



Razed or "totaled" building with remaining foundation

Reconstruction on existing foundation

Figure 8-10. A reconstructed house is new construction.

This example is for A Zones only. A new building in the V Zone must be elevated on piles or columns.

Example 2. Substantially damaged structure

To determine if a damaged structure meets the threshold for substantial damage, the cost of repairing the structure to its before-damaged condition is compared to the market value of the structure prior to the damage. The estimated cost of the repairs must include all costs necessary to fully repair the structure to its before-damaged condition.

If equal to or greater than 50 percent of that structure's market value before damage, then the structure must be elevated (or floodproofed if it is nonresidential) to or above the level of the base flood, and meet other applicable local ordinance requirements. This is the basic requirement for substantial damage.

Figure 8-11 graphically illustrates the amount of damage that can occur to a building flooded only four feet deep. Even though the structure appears sound and there are no cracks or breaks in the foundation, the total cost of repair can be significant.

The cost of repair after a flood that simply soaked the building will typically include the following structural items:

- Remove all wallboard and insulation.
- Install new wallboard and insulation.
- Tape and paint.
- Remove carpeting and vinyl flooring.
- Dry floor, replace warped flooring.
- Replace cabinets in the kitchen and bathroom.
- Replace built-in appliances.
- Replace hollow-core interior doors.
- Replace furnace and water heater.
- Clean and disinfect duct work.
- Repair porch flooring and front steps.
- Clean and test plumbing (licensed plumber may be required).
- Replace outlets and switches, clean and test wiring (licensed electrician may be required).

Note: See also Figures 7-7 through 7-12 for what happens to flood insurance premiums if a substantially damaged building is granted a variance and is not brought up to post-FIRM standards.

Figure 8-11. Even slow moving floodwater can cause substantial damage.

SUBSTANTIAL DAMAGE SOFTWARE

FEMA has developed a software program to help local officials make substantial damage determinations. The software is based on Microsoft Access, but is self-contained and does not require any software in addition to a Windows operating system.

The software comes with a manual, *Guide on Estimating Substantial Damage Using the NFIP Residential Substantial Damage Estimator*, FEMA 311. This includes a user's manual and worksheets that allow the calculations to be done manually.

Contact your FEMA Regional Office for a copy of the software package and help in using it. Following a major disaster declaration, training sessions and technical assistance may be available.

INCREASED COST OF COMPLIANCE

On June 1, 1997, the NFIP began offering additional coverage to all holders of structural flood insurance policies. This coverage is called Increased Cost of Compliance or ICC.

The name refers to cases where the local floodplain management ordinance requires elevation or retrofitting of a substantially damaged building. Under ICC, the flood insurance policy will not only pay for repairs to the flooded building, it will pay up to $30,000 to help cover the additional cost of complying with the ordinance. This is available for any flood

insurance claim and, therefore, is not dependent on the community receiving a disaster declaration.

There are some limitations to ICC:

- It's only available if there was a flood insurance policy on the building before the flood.
- It covers only damage caused by a flood.
- Claims are limited to $30,000 per structure.
- Claims must be accompanied by a substantial damage determination by the floodplain ordinance administrator.

It should also be mentioned that a portion of the rest of the claim payment may help meet the cost of bringing the building up to code. For example, if there was foundation damage, the regular claim will pay for the cost of repairing or replacing the foundation. The ICC funds would only be needed for the extra costs of raising the foundation higher than it was before.

An ICC claim cannot be paid unless the community has determined the building to be substantially damaged and requires that the building comply with local ordinance requirements. For further information on how ICC coverage works and how you can help policyholders in your community qualify for the coverage, refer to *National Flood Insurance Program's Increased Cost of Compliance Coverage: Guidance for State and Local Officials, FEMA 301.*

In certain cases, an ICC claim can be filed if the building is repetitively flooded, and has had two or more claims averaging 25% or more of building value within a ten-year period, provided the community has language in the flood damage ordinance that implements the substantial damage rule in these cases.

Figure 8-12 has example ordinance language. This language exceeds the minimum NFIP requirements, but would be needed if you wanted to trigger the ICC provision for repetitively damaged buildings.

The Community Rating System credits keeping track of improvements to enforce a cumulative substantial improvement requirement. The 1999 *CRS Coordinator's Manual* credits the ordinance language in Figure 8-12. These credits are found under Activity 430, Section 431.c in the *CRS Coordinator's Manual* and the *CRS Application.*

Option 1

A. Adopt the Following Definition:

"Repetitive Loss" means flood-related damage sustained by a structure on two separate occasions during a 10-year period for which the cost of repairs at the time of each such flood event, on the average, equals or exceeds 25 percent of the market value of the structure before the damage occurred.

B. And modify the "substantial improvement" definition as follows:

"Substantial Improvement" means any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure before the "start of construction" of the improvement. This term includes structures which have incurred "repetitive loss" or "substantial damage", regardless of the actual repair work performed.

Option 2

Modify the substantial damage definition as follows:

"Substantial Damage" means damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed 50 percent of the market value of the structure before the dam-age occurred. Substantial damage also means flood-related damage sustained by a structure on two separate occasions during a 10-year period for which the cost of repairs at the time of each such flood event, on the average, equals or exceeds 25 percent of the market value of the structure before the damage occurred.

NOTE 1: Communities need to make sure that these definitions are tied to the floodplain management requirements for new construction and substantial improvements and to any other requirements of the ordinance, such as the permit requirements, in order to enforce this provision.

NOTE 2: An ICC Claim Payment is ONLY made for flood-related damage. The substantial damage part of the definition must still include "damage of any origin" to be compliant with the minimum NFIP Floodplain Management Regulations.

Figure 8-12. Sample ordinance language for ICC repetitive loss definitions

Source: -- *Increased Cost of Compliance Coverage: Guidance for State and Local Officials*, FEMA-301, September 2003. This language is only needed to trigger an ICC payment for a repetitive loss. No ordinance changes are needed for the ICC coverage for substantial damage.

C. SPECIAL SITUATIONS

As explained in previous sections, the substantial improvement and substantial damage requirements affect all buildings regardless of the reason for the improvement or the cause of the damage. There are three special situations you should be aware of: exempt costs, historic buildings and corrections of code violations.

EXEMPT COSTS

Certain costs related to making improvements or repairing damaged buildings do not have to be counted toward the cost of the improvement or repairs. These include:

- Plans and specifications.
- Surveying costs.
- Permit fees.
- Demolition or emergency repairs made for health or safety reasons or to prevent further damage to the building.
- Improvements or repairs to items outside the building, such as the driveway, fencing, landscaping and detached structures.

HISTORIC STRUCTURES

Historic structures are exempted from the substantial improvement requirements subject to the criteria listed below. The exemption can be granted administratively if the current NFIP definitions of substantial improvement and historic structure are included in your ordinance, or they can be granted through a variance procedure.

In either case, they are usually granted subject to conditions.

If the improvements to a historic structure meet the following three criteria and are approved by the community, the building will not have to be elevated or floodproofed. It can also retain its pre-FIRM flood insurance rating status.

1. The building must be a bona fide "historic structure." Figure 7-13 has the definition that must be followed.

2. The project must maintain the historic status of the structure. If the proposed improvements to the structure will result in it being removed from or ineligible for the National Register or federally-certified state or local inventory, then the proposal cannot be granted an exemption from the substantial improvement rule.

The best way to make such determinations is to seek written review and approval of proposed plans by the local historic preservation board, if it is federally-certified, or by the state historic preservation office. If the plans are approved, you can grant the exemption. If not, no exemption can be permitted.

3. Take all possible flood damage reduction measures. Even though the exemption to the substantial improvement rule means the building does not have to be elevated to or above BFE, or be renovated with flood-resistant materials that are not historically sensitive, many things can and should be done to reduce the flood damage potential. Examples include:

- Locating mechanical and electrical equipment above the BFE or flood-proofing it.
- Elevating the lowest floor of an addition to or above the BFE with the change in floor elevation disguised externally.

CORRECTIONS OF CODE VIOLATIONS

The NFIP definition of substantial improvement includes another exemption:

> ***44 CFR 59.1 Definitions:*** *"Substantial improvement" means …. The term does not, however, include … Any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions*

Note the key words in this exemption: *correct* existing violations, *identified* by the local official, and *minimum* necessary to assure safe conditions. This language was included in order to avoid penalizing property owners *who had no choice* but to make improvements to their buildings or face condemnation or revocation of a business license.

This exemption was intended for *involuntary* improvements or violations that existed before the improvement permit was applied for or before the damage occurred—for example, a restaurant owner who must upgrade the wiring in his kitchen in order to meet current local and state health and safety codes.

You can only exempt the items specifically required by code. For example, if a single stair tread was defective and had to be replaced, do not exempt the cost of rebuilding the entire stairway. Similarly, count only replacement in like kind and what is minimally necessary. If the

owner chooses to upgrade the quality of a code-required item, the extra cost is not exempt from the formula—it's added to the true cost of the improvement or repairs.

Unfortunately, many property owners and builders pressure local building official to exclude "code violation corrections" from their voluntary improvement proposals. There are "code violations" in all structures built before the current code was enacted. In many cases, those elements must be brought up to code as part of an improvement project.

This is very different from a code violation citation that forces a property owner to correct those violations and make improvements that were otherwise not planned. The building official must know about and document the violations before or at the time the permit is issued.

Example

A small business in a 40-year old building was damaged by a fire. The building's pre-fire market value was $100,000. The insurance adjuster and the permit office concluded that the total cost to repair would be $45,000.

However, the community's building code states that whenever an applicant applies for a permit to modify or improve a building, the building must be brought up to code. This building would need the following additional work:

- Replace unsafe electrical wiring.
- Install missing fire exit signs, smoke detectors and emergency lighting.
- Widen the front door and install a ramp to make the business accessible to handicapped and mobility-impaired people.

The total cost of these code requirements would be $8,000. However, since these were required by the code before the fire occurred, they would not have to be counted toward the cost to repair. Based on the basic formula:

$\frac{\$45{,}000}{\$100{,}000} = 0.45$ or 45%	The building is not declared substantially damaged

In this example, the building can be repaired without elevating or floodproofing. However, the permit office should strongly recommend incorporating flood protection measures and flood resistant materials in the repair project (as in the example in Figure 8-2).

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City Of Lake Worth
Department for Community Sustainability
Planning, Zoning and Historic Preservation Division
1900 Second Avenue North · Lake Worth · Florida 33461
Phone: 561-586-1687

MEMORANDUM DATE: September 2, 2016

AGENDA DATE: September 14, 2016

TO: Chair and Members of the Historic Resources Preservation Board

RE: **301 South Federal Highway, Bermuda Cay**

FROM: Curt Thompson, Senior Community Planner
Aimee N. Sunny, Senior Preservation Coordinator
Maxime Ducoste, Assistant Director for Planning and Preservation
Department for Community Sustainability

TITLE: **HRPB# 16-01400012, 16-00500013, and 16-00100114**: A request by Bradley Miller of Miller Land Planning Inc., Agent, representing Daniel F. Ryan, for consideration of a Major Site Plan, Conditional Use Permit, and Certificate of Appropriateness for New Construction, and participation in the Sustainable Bonus Incentive Program to allow a +/- 6,281 square foot, two-story, three-unit townhome structure on the southwest corner of S. Federal Highway and 3rd Avenue South, **301 South Federal Highway**. The 0.15 acre site is currently undeveloped and is located in the Mixed Use-Federal Highway (MU-FH) zoning district and the Southeast Lucerne Local Historic District. PCN# 38-43-44-21-15-109-0090.

Land Use/Zoning

The site is located at 301 S. Federal Highway in the MU-FH zoning district and has a Mixed Use-East (MU-E) Future Land Use designation. No change to the current zoning or land use is proposed for this application. The proposed townhome use is permitted as a Conditional Use in the MU-FH district. No prior approval currently exists for this site.

SYNOPSIS:

Applicant	DANIEL F. RYAN, REPRESENTED BY MILLER LAND PLANNING
General Location	301 South Federal Highway
Zoning	Mixed Use-Federal Highway (MU-FH)
Existing Land Use	Mixed Use – East (MU-E). The subject site is vacant.

Future Land Use Designation	Mixed Use – E (MU-E)		
Applicable Municipal Code Sections	23.2-29; 23.2-30; 23.2-31; 23.2-32; 23.2-33; 23.4-13; 23.5-4		
	Required		Proposed/Existing
Lot Area→	6,500 square feet		6,750 square feet
Lot Width	50 feet		50 lineal feet
Building Height	Comprehensive Plan: Maximum 30' (not to exceed two stories) plus 5 feet (max 3 stories) with Sustainable Bonus Incentive Program	Zoning Code: Maximum 30' (not to exceed two stories) plus 5 feet (max 2 stories) with Sustainable Bonus Incentive Program	+/- 30 feet, (Two Story)
Setbacks	Required		Provided
Front (east)	10 feet, not to exceed 22 feet		10 feet
Side (north)	10% lot width, 5 feet		5 feet
Side (South)	5 feet		8.1 feet
Rear (west)	13.5 feet (10% of lot depth)		13.5 feet
Bonus Height and Stories	5 feet		Applicant did not request
Living Area	900 Square Feet (SF) for 3 bedroom		Unit A, 2,074 sf; unit B 2,133 sf and Unit C 2,074 sf, all 3 bedroom units
Accessory Structure Limitations	Not Applicable		There are no accessory structures.
Impermeable Surface Total	60%		55%
Maximum Building Coverage	50%		48%
Floor Area Ratio	.65		.93 (.65 + .28 for sustainable bonus)

Parking	2 spaces per unit	6 spaces (2 per unit)
Board Action Required	Approve, Approve With Conditions, Deny the Request, Continue the request for additional information	
Staff Recommendation	Staff recommends approval of the requested Major Site Plan, Conditional Use Permit, Certificate of Appropriateness and Sustainable Bonus Incentive Program applications, with conditions as recommended.	
	Name and Title	Initials
Project Planner	Curt Thompson, Senior Community Planner Aimee Sunny, Senior Preservation Coordinator	CT ANS
Approved by	Maxime Ducoste, Assistant Director for Planning and Preservation	MD

Project/Property Description:
The proposed site is a 50' x 135' parcel and is currently undeveloped. The proposed development consists of one 2-story multi-family building containing three townhome units. The 30' tall building is 6,281 square feet with units ranging from 2,160 sf. to 2,378 sf. and each unit will have a private backyard/patio area and separate, covered entrances. Each unit will also have a one car garage, and one tandem driveway parking space, for a total of 6 off-street parking spaces for the development. The site will be landscaped in accordance with buffer standards and will include a decorative 4' high fence around approximately half of the perimeter. Vehicular access is provided from 3rd Avenue South and pedestrian access is provided by the existing sidewalks along S. Federal Highway and 3rd Avenue South. The proposed vehicular and pedestrian paths will be constructed of semi-pervious pavers in order to reduce the amount of impermeable surface on the site.

ANALYSIS:
The proposed development will include 3 townhome units. At the present time, the proposed unit breakdown is as follows:

- 1 - three (3) unit building;
- Living/Dining area & Kitchen for the first floor (ground level)
- One master bedroom and two additional bedrooms on the second floor
- Tandem vehicular parking area- one for the garage and one in the driveway

Access:
The site will have access from 3rd Avenue South.

Parking:
Requirements for townhome parcels, pursuant to Section 23.4-10.i, are as follows:
Multi-Family (> 2 bedroom): 2 parking spaces per unit x 3 townhome units = 6 required parking spaces.

Landscape:
Adequate landscape and buffering will be provided where required. A 5' wide landscape strip has been provided along the north, south, east and west sides of the property. The buffer areas shall consist of palms (Alexandra, Pygmy Date and Sabal), shrubbery, groundcover planting (Golden Trumpet, Small Leaf Clusia, Fire Bush, Jasmine Vine, cocoplum to name a few) and shade trees (Southern Live Oak, Dahoon Holly). Additionally, the applicant is proposing a 4 foot high decorative fence along the west, south and east sides of the subject site.

Pedestrian Circulation:
Pedestrian circulation will be provided along 3rd Avenue South and South federal Highway.

Public Support/Opposition:
Staff did not receive letters of support or opposition for this project.

COMPREHENSIVE PLAN CONSISTENCY:
The project, as proposed, is consistent with the following Comprehensive Plan goals and objectives concerning future land use and housing:

Goal 1.3 To preserve and enhance the City's community character as a quality residential and business center within the Palm Beach County urban area. (Objective 1.3.4)

Goal 1.4 Encourage preservation and rehabilitation of historic and natural resources and where appropriate restrict development that would damage or destroy these resources. (Objective 1.4.2)

Land Use Classification 1.1.3.4 – Mixed Use East

The Mixed Use East land use category is intended to provide for a mixture of residential, office, service and commercial retail uses within specific areas east of I-95, near or adjacent to the central commercial core and major thoroughfares of the City. The implementing zoning districts are MU-E, MU-FH, and MU-DH.

Section 23.2-29(d): General findings relating to harmony with LDRs and protection of public interest

The project is in compliance with the general findings relating to harmony with the LDRs and protection of public interest, as follows:

1. The conditional use exactly as proposed at the location where proposed will be in harmony with the uses which, under these LDRs and the future land use element, are most likely to occur in the immediate area where located.

Staff Response: The subject site is the ideal location in which to locate a townhome development. The site is located within an urban area in the City of Lake Worth, which promotes more compact and dense styles of development. Meets Criterion.

2. The conditional use exactly as proposed at the location where proposed will be in harmony with existing uses in the immediate area where located.

Staff Response: The existing uses in the surrounding area are as follows:

Direction	Future Land Use	Zoning District	Current Use/ Name of Development
North	Mixed Use East	Mixed Use East	Commercial Offices
South	Mixed Use East	Mixed Use Federal Highway	Commercial Offices
East	Mixed Use East	Mixed Use Federal Highway	Single Family Residential
West	Medium Density Residential	Single Family Residential	Multi-Family Residential

The proposed site is 50' x 135' and currently undeveloped. To the north of the proposed site is an existing one story commercial office development. An existing two story multi-family development is located to west across the platted alley way. An existing single family home is located across Federal Highway to the east and an existing one story commercial office is located to the south.

As outlined above, the proposed Conditional Use is compatible with the surrounding area. The subject site is currently undeveloped. The proposed townhome development is in harmony with the urban nature of the surrounding area. The development of this site as a townhome project will further enhance the areas, by continuing to promoting a mix of urban uses with minimal impacts on adjacent properties. Adequate screening and buffering will be provided where necessary, which, combined with the architectural style of the buildings, will provide aesthetic enhancements to the area. Meets Criterion.

3. The conditional use exactly as proposed will not result in substantially less public benefit or greater harm than would result from use of the Property for some use permitted by right or some other conditional use permitted on the Property.

Staff Response: The Conditional Use request to allow townhomes at this location will not negatively impact the public benefit or cause harm. The area surrounding the subject site is urban in nature. The proposed use as a residential, townhome development is the ideal location in which to develop this use, as the urban nature of the development furthers the City's objectives for the area. The uses and subsequent development of the site will enhance the area, and are compatible with the existing developments surrounding the site. Meets Criterion.

4. The conditional use exactly as proposed will not result in more intensive development in advance of when such development is approved by the future land use element of the comprehensive plan.

Staff Response: The Conditional Use request to allow townhomes on this site will not result in a more intensive development in advance of the Future Land Use Element of the City's Comprehensive Plan. The development of this site will enhance the area and further the objectives of the City. Meets Criterion.

Section 23.2-29(e): Specific standards for all conditional uses

1. The proposed conditional use will not generate traffic volumes or movements which will result in a significant adverse impact or reduce the level of service provided on any street to a level lower than would result from a development permitted by right.

Staff Response: A Traffic Statement from JMD Engineering, Inc., (by John M. Donaldson, P.E.), was prepared for the subject site. Trip generation for the site was calculated based on generation rates published by Palm Beach County and the Institute of Transportation Engineers' (ITE) publication were utilized to determine the daily and peak hour traffic for the site. The site is anticipated to have a net proposed trip generation potential of 20 daily trips, 3 morning peak hour trips (AM) and 3 afternoon/evening peak hour trips (PM). Because the net external trip generation is less than 20 peak hour trips, the area of influence for the site will be Federal Highway. According to JMD Engineering, their analysis indicates that the proposed Bermuda Cay Townhouse development of 3 units meets the requirements of Palm Beach County's Traffic Performance Standards. The proposed development of the site will not generate any significant traffic impacts. Meets Criterion.

2. The proposed conditional use will not result in a significantly greater amount of through traffic on local streets than would result from a development permitted by right and is appropriately located with respect to collector and arterial streets.

Staff Response: A Traffic Statement has been provided as part of this request. The proposed development of the site will not generate any significant traffic impacts. The site has access to 3rd Avenue South and South Federal Highway. Meets criterion.

3. The proposed conditional use will not produce significant air pollution emissions, to a level compatible with that which would result from a development permitted by right.

Staff Response: The Conditional Use for townhomes on the site will not produce any significant air pollution emission. The proposed use is not of high intensity. Meets Criterion.

4. The proposed conditional use will be so located in relation to the thoroughfare system that neither extension nor enlargement nor any other alteration of that system in a manner resulting in higher net public cost or earlier incursion of public cost than would result from development permitted by right.

Staff Response: The townhomes will have access onto 3rd Avenue South and South Federal Highway**.** The applicant has submitted a Traffic Performance Statement (TPS) from JMD Engineering indicating compliance with the Palm Beach County traffic performance requirements. That statement is attached as part of this request. Meets Criterion.

5. The proposed conditional use will be so located in relation to water lines, sanitary sewers, storm sewers, surface drainage systems and other utility systems that neither extension nor enlargement nor any other alteration of such systems in a manner resulting in higher net public cost or earlier incursion of public cost than would result from development permitted by right.

Staff Response: The Applicant is proposing to utilize the existing infrastructure, and rehabilitate where necessary. No adverse impact to infrastructure or public utilities is anticipated to occur as a result of this request. Meets Criterion.

6. The proposed conditional use will not place a demand on municipal police or fire protection service beyond the capacity of those services.

Staff Response: The request for a Conditional Use approval for a townhouse complex use will not place a demand on municipal police or fire protection services beyond capacity. The development of this site as a townhome development should be consistent with the development pattern of the area, and will not have any adverse impacts. Meets Criterion.

7. The proposed conditional use will not generate significant noise, or will appropriately mitigate anticipated noise to a level compatible with that which would result from a development permitted by right. Any proposed use must meet all the requirements and stipulations set forth in section 15.24, Noise control.

Staff Response: The proposed development is not estimated to be high intensity in nature, and will not create undesirable noise. Meets Criterion.

8. The proposed conditional use will not generate light or glare which encroaches onto any adjacent property in excess of that allowed in Section 23.4-3, Exterior lighting.

Staff Response: The subject site is surrounded by similar, urban type uses on all sides. The proposed use is not projected to create undesirable lighting that will impact surrounding areas. Meets Criterion.

Section 23.2-31: Site Design Qualitative Standards

1. Harmonious and efficient organization.

Staff Response: The development proposal will be harmonious and efficiently organized in relation to the topography, size and type of lot and the character of the surrounding area. The subject site is in close proximity to a mixture of uses, which include both residential and commercial uses. Meets Criterion.

2. Preservation of natural conditions.

Staff Response: The subject site is cleared with no development, as there would be no clearing of vegetation or structures required. Meets Criterion.

3. Screening and buffering.

Staff Response: Adequate screening and buffering will be provided where required and necessary. Meets Criterion.

4. Enhancement of residential privacy.

Staff Response: The site has been designed to take into account the surrounding uses, and residential privacy will not be disturbed as a result of this development proposal. Meets Criterion.

5. Emergency access.

Staff Response: There will be adequate access to the site from 3rd Avenue North and South Federal Highway. Meets Criterion.

6. Access to public ways.

Staff Response: Adequate access to public ways will be provided from 2nd Avenue North and North J Street. Meets Criterion.

7. Pedestrian circulation.

Staff Response: Access will be provided for the site, where necessary. Likewise safe access from parking areas to the complex will be provided (each townhome unit will feature a two car garage). Meets Criterion.

8. Design of ingress and egress drives:

Staff Response: Safe and efficient means of ingress and egress drives will be provided. Access will be provided from 3rd Avenue South and South Federal Highway. Meets Criterion.

9. Coordination of on-site circulation with off-site circulation:

Staff Response: The subject site is currently undeveloped. Adequate on-site circulation will be provided, and will maintain coordination with the surrounding street network. Meets Criterion.

10. Design of on-site public right-of-way:

Staff Response: No on site public right-of-way is being proposed. Meets Criterion.

11. Off-street parking, loading and vehicular circulation areas:

Staff Response: The proposed parking has been designed to minimize the impact of noise, glare and odor on adjacent properties, as it is internal to the project (individual car garages). Meets Criterion.

12. Refuse and service areas:

Staff Response: Refuse will likely be stored internal to each individual unit. However, any refuse and service areas will be located and designed to minimize the impact of noise, glare and odor on adjacent properties. No adverse impact is anticipated. Meets Criterion.

13. Protection of property values:

Staff Response: The development of the subject site as townhomes will not negatively impact property values. To the contrary, the development of the site will promote new, urban development in the City of

Lake Worth's South Federal Highway corridor, which will positively impact the properties in the surrounding area. Meets Criterion.

14. Transitional development:

Staff Response: The subject site is designated as MU-FH. Townhomes represent an excellent use for this property, as they are harmonious with the surrounding area. The proposed density is consistent with the South Federal Highway corridor, urban nature of the development, and with the development pattern of the area. Meets Criterion.

15. Consideration of future development:

Staff Response: This townhouse project represents a good redevelopment opportunity for the area, as this will further the future development objective of the area. The MU-FH Zoning District promotes the consideration of future mixed uses, including residential. Development of the subject site with townhomes is consistent and complimentary to the existing and surrounding uses of the area. Meets Criterion.

d) Buildings, generally.

1. Buildings or structures which are part of a present or future group or complex shall have a unity of character and design. The relationship of forms of the use, texture and color of material shall be such as to create one (1) harmonious whole. When the area involved forms an integral part of, is immediately adjacent to, or otherwise clearly affects the future of any established section of the city, the design, scale and location of the site shall enhance rather than detract from the character, value and attractiveness of the surroundings. Harmonious does not mean or require that the buildings be the same.

Staff Response: Meets criterion. See additional Historic Preservation analysis.

2. Buildings or structures located along strips of land or on a single site, and not a part of a unified multi-building complex shall achieve as much visual harmony with the surroundings as is possible under the circumstances. If a building is built in an undeveloped area, three (3) primary requirements shall be met, including honest design construction, proper design concepts, and appropriateness to the city.

Staff Response: Meets criterion.

3. All façades visible to public or adjacent property shall be designed to create a harmonious whole. Materials shall express their function clearly and not appear foreign to the rest of the building.

Staff Response: Meets criterion.

4. The concept of harmony shall not infer that buildings must look alike or be of the same style. Harmony can be achieved through the proper consideration of scale, mass, bulk, proportion, height, orientation, site planning, landscaping, materials, rhythm of solids to voids and architectural components including but not limited to porches, roof types, fenestration, orientation and stylistic expression.

Staff Response: Meets criterion.

5. Look-alike buildings shall not be allowed unless, in the opinion of the board, there is sufficient separation to preserve the aesthetic character of the present or evolving neighborhood. This is not to be construed to prohibit the duplication of floor plans and exterior treatment in a planned development where, in the opinion of the board, the aesthetics or the development depend upon, or are enhanced by the look-alike buildings and their relationship to each other.

Staff Response: Meets criterion.

6. Buildings, which are of symbolic design for reasons of advertising, unless otherwise compatible with the criteria herein, will not be approved by the board. Symbols attached to the buildings will not be allowed unless they are secondary in appearance to the building and landscape and are an aesthetic asset to the building, project and neighborhood.

Staff Response: Meets criterion.

7. Exterior lighting may be used to illuminate a building and its grounds for safety purposes, but in an aesthetic manner. Lighting is not to be used as a form of advertising in a manner that is not compatible to the neighborhood or in a manner that draws considerably more attention to the building or grounds at night than in the day. Lighting following the form of the building or part of the building will not be allowed if, in the opinion of the board, the overall effect will be detrimental to the environment. All fixtures used in exterior lighting are to be selected for functional as well as aesthetic value.

Staff Response: Meets criterion.

8. Building surfaces, walls and roofs shall be compatible and in harmony with the neighborhood.

Staff Response: Meets criterion. See additional Historic Preservation analysis.

9. "Take-out" or "pick-up" windows of retail or wholesale establishments shall not be located on a building façade that faces a public right-of-way, unless they are designed in such a manner as to constitute an aesthetic asset to the building and neighborhood.

Staff Response: Criterion not applicable.

10. All exterior forms, attached to buildings, shall be in conformity to and secondary to the building. They shall be an asset to the aesthetics of the site and to the neighborhood.

Staff Response: Meets criterion.

11. All telephones, vending machines, or any facility dispensing merchandise, or a service on private property, shall be confined to a space built into the building or buildings or enclosed in a separate structure compatible with the main building, and where appropriate and feasible, should not be readily visible from off-premises.

Staff Response: Criterion not applicable.

12. Buildings of a style or style-type foreign to south Florida or its climate will not be allowed. It is also to be understood that buildings which do not conform to the existing or to the evolving atmosphere of the city, even though possessing historical significance to south Florida, may not be approved.

Staff Response: Meets criterion. See additional Historic Preservation analysis.

13. No advertising will be allowed on any exposed amenity or facility such as benches and trash containers.

Staff Response: Meets criterion.

15. Light spillage restriction. The applicant shall make adequate provision to ensure that light spillage onto adjacent residential properties is minimized.

Staff Response: Meets criterion.

Compliance with Community Appearance Criteria Section 23.2-31(l)

1. The plan for the proposed structure or project is in conformity with good taste, good design, and in general contributes to the image of the City as a place of beauty, spaciousness, harmony, taste, fitness, broad vistas and high quality.

Staff Response: The proposed project meets this criterion.

2. The proposed structure or project is not, in its exterior design and appearance, of inferior quality such as to cause the nature of the local environment or evolving environment to materially depreciate in appearance and value.

Staff Response: The proposed project meets this criterion.

3. The proposed structure or project is in harmony with the proposed developments in the general area, with code requirements pertaining to site plan, signage and landscaping, and the comprehensive plan for the City, and with the criteria set forth herein.

Staff Response: The Applicant meets this criterion.

4. The proposed structure or project is in compliance with this section and 23.2-29, as applicable.

Staff Response: The proposed project meets this criterion.

Section 23.4-13c (11) Townhouse Standards

Townhouses shall comply with the following:

(1) Front setback shall be ten (10) feet, with an open porch permitted in a minimum of five (5) feet of setback;

Staff Response: The proposed front setback is 10 feet.

(2) Distance between townhouse structures shall be twenty (20) feet; however, distance between double-stacked townhouse structures shall be thirty (30) feet;

Staff Response: Criterion does not apply.

(3) Rear setback shall be twenty (20) feet or ten percent of lot depth per the MU-FH rear yard setback standard;

Staff Response: Meets Criterion.

(4) Townhouse structures shall not exceed one hundred twenty (120) feet in overall length or six (6) units;

Staff Response: Meets Criterion.

(5) The maximum number of attached townhouse units within a townhouse building fronting on Federal Highway shall be four (4) units, unless a planned development district is approved;

Staff Response: Meets Criterion.

(6) No front door access from alleys.

Staff Response: Meets Criterion.

Sustainable Bonus Program

The Major Site Plan application for Bermuda Cay proposes a total square footage of 6,281 sf. which equates to a 0.93 Floor Area Ratio (FAR). Pursuant to the Land Development Regulations Section 23.3-16 for the Mixed Use – Federal Highway (MU-FH) district the maximum FAR allowed is 1.2. However, the proposed site is considered a medium size lot based on the property dimensions, and the MU-FH regulations stipulate that the FAR for medium sized lots shall be 0.65.

LDR Section 23.3-16 allows an additional 0.5 increase in the FAR granted under the Sustainable Bonus Incentive Program. This project is requesting an additional FAR of 0.28 which equates to 1,893.5 sf. of "Bonus Area". Based on a value multiplier of $5.00 per square foot, the total value of required improvements is $9,467.50.

Pursuant to the Sustainable Bonus Incentive Program Application Sec. C, this application proposes to provide $9,467.50 in on-site features and improvements through landscaping that goes above and beyond the minimum required by code. The proposed improvements will enhance the existing street scape and enhance the green space of the development by providing additional landscaping. Please see the attached planting schedule which provides a description and valuation of the landscaping provided toward the required improvements.

Total Value of Required Improvements: $9,467.50 Total Value of Proposed Improvements: $ 9,586.00

Site Plan Review Team

The project was reviewed by the Site Plan Review Team on June 13, 2016. Many of the team member's comments have been incorporated into the submittal drawings. Those comments not incorporated have been included as recommended Conditions of Approval.

Historic Preservation – COA

New construction within a local historic district is also subject to specific criteria for visual compatibility as set forth in Section 23.5-4(k)3 of the City's historic preservation regulations. These criteria are provided in Attachment 1 and include Staff's response to each criterion. The criteria deal with massing, scale, materials, and design compatibility with the surrounding historic district.

It is the analysis of Staff that the revised project as proposed is fundamentally compatible with the regulations set forth in the historic preservation ordinance. Staff has some concerns over the architectural quality and detailing of the structure, and has recommended additional Conditions of Approval to address these concerns. The proposal should utilize corner boards consistently at all corners of the structure. Additional decorative shutters could be added to enhance the overall appearance and compatibility of the structure. The water table should be raised to serve as an integral sill for the first floor windows, and should be a consistent height around the entire building. The proposed tile roof should be white, rather than gray, in order to be compatible with the historic district and also to achieve the greatest energy efficiency.

Conclusion:

The analysis has shown that the required findings can be made with respect to the Conditional Land Use, Major Site Plan and Sustainable Bonus requests. The use as proposed is in harmony with the underlying zoning district and surrounding areas, subject to compliance with staff proposed conditions of approval.

CONSEQUENT ACTION:

The Historic Resources Preservation Board's decision will be final for the Conditional Land Use, Major Site Plan, Certificate of Appropriateness, and the Sustainable Bonus requests. The Applicant may appeal the Board's decision to the City Commission.

STAFF RECOMMENDATION:

Based on the findings outlined in the analysis above, Staff recommends that the HRPB Approve the request by Bradley D. Miller, AICP, for consideration of a Major Site Plan, Conditional Land Use and Sustainable Bonus to allow for the construction of three (3) townhome units known as Bermuda Cay, with the Staff recommend Conditions of Approval included as Attachment 1.

POTENTIAL MOTION:

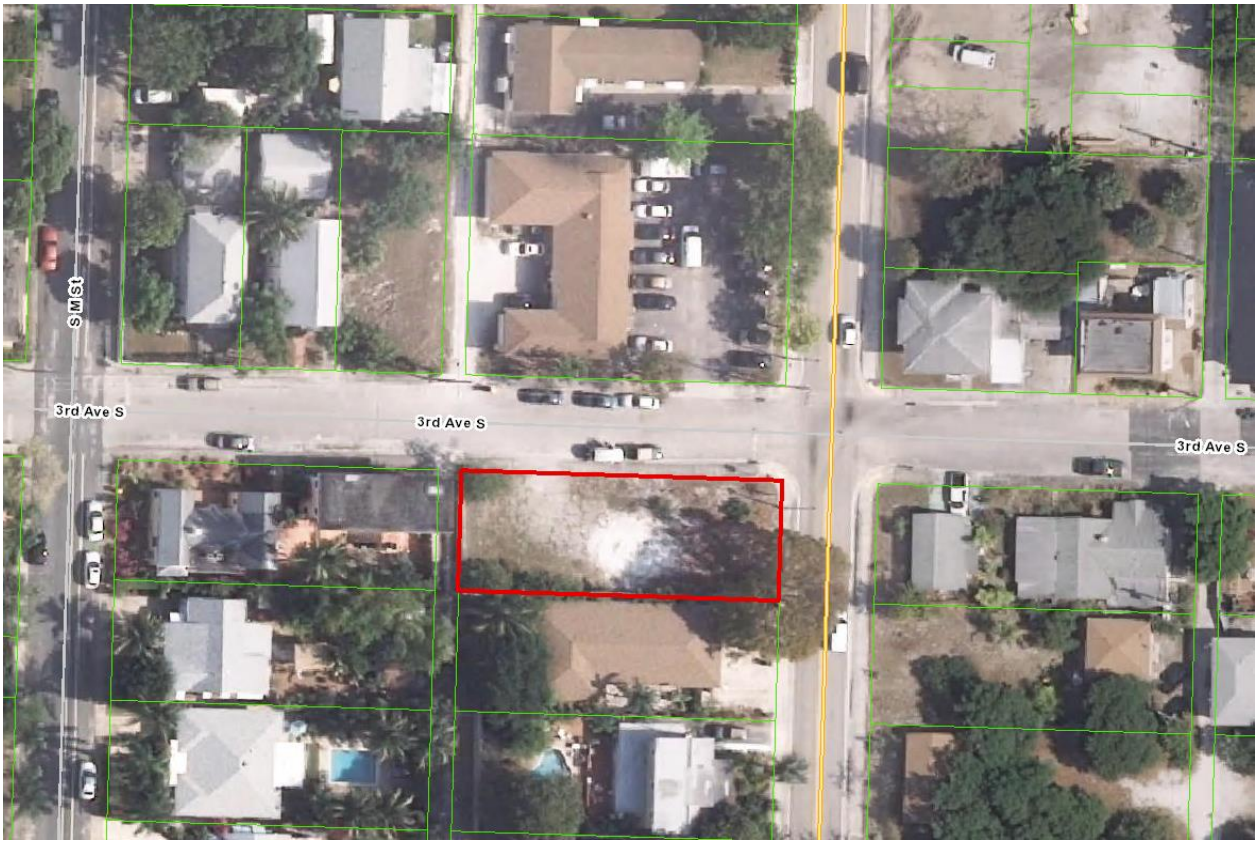
I MOVE TO **APPROVE** HRPB #16-01400012, 16-00500013, and 16-00100114**:** A request for a Major Site Plan, Conditional Use Permit, Certificate of Appropriateness for New Construction, and Participation in the Sustainable Bonus Incentive Program at **301 South Federal Highway** based upon the preponderance of competent substantial evidence and subject to the Conditions of Approval as recommended by Staff.

I MOVE TO **DENY** HRPB #16-01400012, 16-00500013, and 16-00100114**:** A request for a Major Site Plan, Conditional Use Permit, Certificate of Appropriateness for New Construction, and Participation in the Sustainable Bonus Incentive Program at **301 South Federal Highway** because the Applicant has not established by a preponderance of the evidence that the application is in compliance with the City of Lake Worth Land Development Regulations, the Secretary of the interiors Standards for the Rehabilitation of Historic Properties, and the City's Comprehensive Plan.

Attachments

1. Conditions of Approval
2. Historic Preservation Decision Criteria
3. Justification Statement
4. Sustainable Bonus Incentive Information
5. Proposed Architectural Drawings
6. Landscape Plans
7. Civil Engineering Plans

LOCATION MAP



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Community Sustainability

Planning Zoning Historic Preservation

1900 2nd Avenue North

Lake Worth, FL 33461

561.586.1687

DEPARTMENT FOR COMMUNITY SUSTAINABILITY
PLANNING, ZONING AND HISTORIC PRESERVATION DIVISION
CONDITIONS OF APPROVAL AND DEVELOPMENT INFORMATION FOR
HRPB CASE No. 16-01400012, 16-00500013, 16-00100114

Date of Preparation:	September 7, 2016
P&ZB Meeting Date:	September 14, 2016
Applicant:	Miller Land Planning, AGENT
Location:	**301 South Federal Highway**

CONDITIONS OF APPROVAL
HRPB CASE No. 16-01400012 & 16-00500013

Standard Conditions of Approval:

1. The issuance of any permits shall comply with all provisions of the Lake Worth Municipal Code and all other applicable Codes including but not limited to the Florida Building Code.

2. Unless construction has commenced pursuant to a building permit, or a time extension is granted in accordance with Code, this application shall expire one (1) year from Historic Resources Preservation Board Approval.

3. No Certificate of Occupancy shall be granted until all conditions of approval have been satisfied.

4. This approval is for a conditional land use pursuant to Sections 23.2-29, 23.2-30, 23.2-31, 23.2-32, 23.2-33, 23.4-13(c)11 for a Three Unit Townhouse structure, within the Mixed Use Federal Highway (MU-FH) zoning district at 301 South Federal Highway. This use must operate in compliance with all state and local laws that govern this use.

5. In the event of a legal challenge to this approval, the applicant shall be responsible for all costs to defend the action of the city in approving any and all permits related to this application. Should the applicant fail to enter into an agreement fund the costs of litigation, the city, at its discretion, may rescind this approval and revoke all permits issued.

ADDITIONAL CONDITIONS OF APPROVAL – CONDITIONAL USE PERMIT
HRPB CASE No. 16-00500013

Planning & Zoning

1. Any activities associated with the operation of this mixed use shall emit no more than 65 (db.) decibels and at no time be audible above daytime ambient noise levels beyond the real property lines of the site. The system shall be designed to compensate for ambient noise levels in the immediate area.

2. The subject site shall remain clear and clean of any trash or debris when retail businesses have closed for the day.

3. Provide a photometric plan in compliance with the Land Development Regulations, subject to staff approval prior to issuance of a building permit.

ADDITIONAL CONDITIONS OF APPROVAL – MAJOR SITE PLAN
HRPB CASE No. 16-01400012

Public Services

1. The issuance of any permits shall comply with all provisions of the Lake Worth Municipal Code and all other applicable standards including but not limited to the Florida Department of Transportation (FDOT), Manual on Uniform Traffic Control Devices (MUTCD), and City of Lake Worth Public Services Construction Standards and Policy and Procedure Manual.

2. No Certificate of Occupancy shall be granted until all conditions of approval have been satisfied under jurisdiction of the Department of Public Services.

3. Prior to the issuance of a building permit, the applicant shall furnish to the City a copy of the FDOT permit for all work occurring in the FDOT right of way on Federal Highway.

4. Prior to the issuance of a building permit, the applicant shall contact the Lake Worth Drainage (LWDD) District's Engineering Department and obtain any required permit(s), if necessary, and furnish to the City. Prior to the issuance of a building permit, the applicant shall contact the South Florida Water Management District's (SFWMD) Engineering Department and obtain any required permit(s), if necessary.

5. Prior to issuance of a certificate of occupancy, the applicant shall install a new 5-foot wide sidewalk along the south side 3rd Ave South from the east property line to the west property line in compliance with the Public Services Department's specifications and Policy and Procedure Manual. The existing sidewalk is damaged in locations along the applicants' property and will be damaged during construction activity.

6. Prior to the construction of any off-site improvements, the applicant shall apply for a "Right of Way/Utility Permit" application and receive issuance of the permit.

7. Prior to the issuance of a building permit, the applicant shall ensure all new sidewalks are in compliance with ADA requirements. Vehicles shall not encroach into the right of way blocking the sidewalk.

8. Prior to the issuance of a certificate of occupancy, the Applicant shall ensure the entire surrounding off-site infrastructure inclusive of the roadway, sidewalk, curbing, stormwater system piping and structures, valve boxes, manholes, landscaping, striping, signage, and other improvements are in the same condition as prior to construction.

9. Prior to the issuance of a building permit, the applicant shall submit an Erosion Control plan and indicate the BMP's and NPDES compliance practices.

10. Prior to the issuance of a Certificate of Occupancy, the applicant shall fine grade and sod all disturbed areas with bahia sod.

11. Prior to the issuance of a Certificate of Occupancy, the applicant shall broom sweep all areas of the affected right of way and remove of all silt and debris collected as a result of construction activity.

12. Pavers bricks are shown on the revised plan set. A Variance Agreement shall be obtained prior to the construction of paver bricks in the right of way

Water Utilities

Paving, Grading & Drainage:

1. Prior to the issuance of a building permit, provide a traffic statement from FDOT on access management. At minimum letter from FDOT stating driveway clearance is acceptable as depicted.

2. Prior to the issuance of a Certificate of Occupancy , the Abandoned driveway tapers shall be removed and replaced with sidewalk of existing width and thickness

3. Prior to the issuance of a building permit, Finished floor elevations shall be included on plans. In addition, topography information shall be included.

4. Prior to the issuance of a building permit, Remove details which are not relevant to the proposed design

5. Drainage calculations and drainage statement shall be included in building plan set.

6. Development shall be regulated to ensure adequate on-site containment of stormwater based on the three-year, one-hour design storm event.

7. Prior to the issuance of a building permit, Include a drainage structure table or structure details.

8. Prior to the issuance of a building permit, Include drainage patterns and/or flow arrows.

9. Since the excavation of the exfiltration trench will be in excess of 8' deep adjacent to the right of way, a detail for the installation should be included in the building permit set.

10. Prior to the issuance of a building permit, show downspout connections to storm drain system. Include matching pipe sizes in the plans and details

11. Prior to the issuance of a building permit, an Erosion Control Plan with BMP's and NPDES compliance practices shall be provided.

12. Prior to the issuance of a building permit, indicate the vertical datum on all plan drawings with grades.

Water & Wastewater:

Prior to the issuance of a building permit:

1. Move location of proposed water main tap extension just east of proposed location on 3rd Ave South and the alley. Callout for a 12" x 6" tapping saddle east of existing cross, this shall be installed a minimum of 30" east of the existing cross or pipe joints. Extend water south approx. 3' and use 45 degree bends to return to the proposed water main location as shown on the site plan. This will eliminate the need for the 6"x 4" reducer north of the existing cross.

2. Depict sewer lateral from main as single service to the property line and install a single clean-out (c.o.) at property line. Upstream of the property line c.o., spilt the lateral 3 way to service townhomes and provide dedicated c.o.'s per the code.

3. Water services are a minimum of 1" diameter and reduce to ¾" at curb stops (typical).

4. Building plans to include existing fire hydrant gate valve box on plans. Contractor to ensure the valve box remains accessible and at grade during sidewalk replacement.

5. Show sewer laterals to building connections.

6. Provide Fireflow calculations based on a recent hydrant test

7. Prior to building permit issuance, reserve capacity fees for water and sewer must be paid in accordance with the current city Ordinance.

8. Add note: Contractor to protect and swab water mains prior to installation.

Electric Utilities

1. Prior to the issuance of the building permit, provide load calculation and voltage requirements.

2. Prior to the issuance of a building permit, provide 10 foot clearance in front of the transformer and 4 foot on the remaining sides.

3. Prior to issuance of a certificate of occupancy (CO), provide a ten (10) foot easement to bury the primary cable from the transformer to the nearest power pole.

Landscaping

1. Prior to the issuance of a CO, each unit must have at least 1 shade tree in the front yard.

2. Prior to the issuance of a building permit, the city's minimum sizes for trees and shrubs must be on the plans.

ADDITIONAL CONDITIONS OF APPROVAL – CERTIFICATE OF APPROPRIATENESS
HRPB CASE No. 16-00100114

1) The proposal shall utilize corner boards consistently at all corners of the structure, subject to staff review at permitting.

2) Additional decorative louvered shutters shall be added to the second floor windows facing the street to enhance the overall appearance and compatibility of the structure. The shutters shall be equal in width to half the width of the window. This design shall be subject to staff review at permitting.

3) The water table shall be raised to serve as an integral sill for the first floor windows, and shall be a consistent height around the entire building.

4) The proposed tile roof shall be white, rather than gray, in order to be compatible with the historic district and also to achieve the greatest energy efficiency.

5) The first floor windows shall be adjusted to have a 1:2 proportion, similar to the second floor windows. All windows may be made proportionally larger, if desired for greater compatibility and light in the units. This design shall be subject to staff review at permitting.

6) A window shall be added above the sliding glass door on the east elevation.

7) The windows on the second floor may be changed from a single window to a pair of windows in order to increase light in the units and visual appearance on the exterior, subject to staff review at permitting.

8) The exact design and configuration of the front door and garage doors shall be subject to Staff review at permitting.

9) The windows and doors shall not have reflective glass. All muntins shall be created using exterior raised applied muntins. No flat or internal muntins shall be permitted.

10) The proposed window and door trim is not clearly defined on the drawings. The exact design and detailing shall be subject to staff review at permitting.

11) All proposed landscaping, fencing, and hardscape shall be subject to Staff review at permitting.

MEMORANDUM

DATE: September 7, 2016

TO: Chair and Members of the Historic Resources Preservation Board

FROM: Aimee N. Sunny, Senior Preservation Coordinator
Department of Community Sustainability

SUBJECT: **HRPB Project Number 15-00100114:** Consideration of a Certificate of Appropriateness (COA) for new construction of a two-story three-unit townhome structure at the subject property located at **301 South Federal Highway**;
PCN# 38-43-44-21-15-109-0090. The subject property is located within the Southeast Lucerne Local Historic District.

HRPB Meeting Date: September 14, 2016

Section 23.5-4k(3) Additional guidelines for new construction; visual compatibility

All improvements to buildings, structures and appurtenances within a designated historic district shall be visually compatible. New buildings should take their design cues from the surrounding existing structures, using traditional or contemporary design standards and elements that relate to existing structures that surround them and within the historic district as a whole. Building design styles, whether contemporary or traditional, should be visually compatible with the existing structures in the district.

A. In approving or denying applications for certificates of appropriateness for new construction, the City shall also, at a minimum, consider the following additional guidelines which help to define visual compatibility:

(1) The height of proposed buildings shall be visually compatible and in harmony with the height of existing buildings located within the historic district.
Response: The main bulk of the proposed townhouse building is consistent with the height of other 2-story buildings surrounding the property, however the end "towers" extend higher than the neighboring structures. The structure does comply with the 30' maximum height allowed in the zoning Code.

(2) The relationship of the width of the building to the height of the front elevation shall be visually compatible and in harmony with the width and height of the front elevation of existing buildings located within the district.
Response: The width and height of the front elevations of the proposed building is in scale with the surrounding properties, however the height of the tower element is visually unbalanced on the front elevation.

(3) The openings of any building within a historic district should be visually compatible and in harmony with the openings in buildings of a similar architectural style located within

the historic district. The relationship of the width of the windows and doors to the height of the windows and doors in a building shall be visually compatible with buildings within the district.

Response: The proposed windows on the second floor are compatible in height and width. The proposed windows on the first floor should be refined to have a 1:2 proportion, similar to the second floor windows. In general, the windows are smaller than typically seen in historic structures and they could be made larger.

(4) The relationship of solids to voids in the front facade of a building or structure shall be visually compatible and in harmony with the front facades of historic buildings or structures located within the historic district. A long, unbroken facade in a setting of existing narrow structures can be divided into smaller bays which will complement the visual setting and the streetscape.

Response: The front façade is broken up with the front porch, as well as windows and doors, and the solid to void relationship is compatible with the district.

(5) The relationship of a building to open space between it and adjoining buildings shall be visually compatible and in harmony with the relationship between buildings elsewhere within the district.

Response: The proposed building respects the customary front, side, and rear setbacks within the district, and also within the current zoning code.

(6) The relationship of entrance and porch projections to sidewalks of a building shall be visually compatible and in harmony with the prevalent architectural styles of entrances and porch projections on buildings and structures within the district.

Response: The proposed entrance is visually compatible, however the detailing could be enhanced to provide a better design aesthetic that is consistent with historic designs.

(7) The relationship of the materials, texture and color of the facade of a building shall be visually compatible and in harmony with the predominant materials used in the buildings and structures of a similar style located within the historic district.

Response: The building will be concrete block finished with stucco banding to replicate wood siding, which is one of the customary building materials in the district. The building also utilizes porch columns and louvered shutters, which are compatible with the district.

(8) The roof shape of a building or structure shall be visually compatible and in harmony with the roof shape of buildings or structures of a similar architectural style located within the historic district.

Response: The proposed roof shape is appropriate within the district, and is visually compatible with the neighboring properties. The proposed roof height on the tower elements is higher than the neighboring properties.

(9) Appurtenances of a building, such as walls, wrought iron, fences, evergreen, landscape masses and building facades, shall, if necessary, form cohesive walls of enclosures along a street to insure visual compatibility of the building to the buildings and places to which it is visually related.

Response: It is the opinion of Staff that the plans provided are consistent with this requirement.

(10) The size and mass of a building in relation to open spaces, the windows, door openings, porches and balconies shall be visually compatible and in harmony with the buildings and places to which it is visually related.
Response: The architectural style and design is minimal with regards to the windows, doors, porches, and balconies. Staff has recommended conditions of approval to address this criteria.

(11) A building shall be visually compatible and in harmony with the buildings and places to which it is visually related in its directional character: vertical, horizontal or non-directional.
Response: The Applicant has provided a streetscape showing the building in relation to those to either side of it, and across the street. The bulk of the building's height and massing are compatible with other two-story neighboring structures, however the tower elements are taller than the surrounding structures.

(12) The architectural style of a building shall be visually compatible with other buildings to which it is related in the historic district, but does not necessarily have to be in the same style of buildings in the district. New construction or additions to a building are encouraged to be appropriate to the style of the period in which it is created and not attempt to create a false sense of history.
Response: The building is a contemporary Coastal Florida design that employs elements of traditional frame vernacular architecture. The building is visually minimally compatible with the district, but does not attempt to replicate any historic structures.

(13) Landscaping shall be compatible with the architectural character and appearance of the structure and of other buildings located within the historic district.
Response: It is the opinion of Staff that the plans provided at this point are consistent with this requirement. The landscape plan will be reviewed by Staff at permitting.

(14) In considering applications for certificates of appropriateness to install mechanical systems which affect the exterior of a building or structure visible from a public right-of-way, the following criteria shall be considered:

(a) Retain and repair, where possible, historic mechanical systems in their original location, where possible.
Response: Not applicable to this project.

(b) New mechanical systems shall be placed on secondary facades only and shall not be placed on, nor be visible from, primary facades.
Response: Staff will ensure that any mechanical systems for the new building meet this criterion.

(c) New mechanical systems shall not damage, destroy or compromise the physical integrity of the structure and shall be installed so as to cause the least damage, invasion or visual obstruction to the structure's building materials, or to its significant historic, cultural or architectural features.
Response: Not applicable to this project.

(15) The site should take into account the compatibility of landscaping, parking facilities, utility and service areas, walkways and appurtenances. These should be designated with the overall environment in mind and should be in keeping visually with related buildings and structures.

Response: Parking for the three townhomes is provided in a 1-car garage and a 1-car tandem driveway, accessed from 3rd Avenue South. It is not common in the Southeast Lucerne Historic District to access parking and garage spaces from a main right-of-way. Given the narrow 50' width of the site, and the requirement for 6 off-street parking spaces, the only feasible location for the parking is accessed directly from 3rd Avenue South. The Applicant has taken steps to minimize the impact of the parking, including eliminating the previous 2-car garages, recessing the garage door, and utilizing a 1-car wide driveway.

B. In considering certificates of appropriateness for new buildings or structures which will have more than one primary facade, such as those on corner lots facing more than one street, the HRPB shall apply the visual compatibility standards to each primary facade.

Response: The above criteria and responses apply to both primary façades.

MILLER
LAND
PLANNING, INC.

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Boynton Beach, FL 33435

Phone ■ (561)736.8838
Fax ■ (561)736.8079

BERMUDA CAY

PCN: 38-43-44-21-15-109-0090

Original: May 10, 2016
Revisions: AUG. 2, 2016

Application for a Major Site Plan, Conditional Use, Certificate of Appropriateness, and Sustainable Bonus Incentive Program

Application Request

On behalf of D.F. Ryan Management Services, Inc., this application requests approval of a Major Site Plan and associated Conditional Use, Certificate of Appropriateness, and Sustainable Bonus Incentive Program for a proposed development on the southwest corner of S. Federal Highway and 3rd Avenue South. The 0.15 acre site is currently undeveloped and is located in the Mixed Use-Federal Highway (MU-FH) zoning district.

Project Description – Proposed Development

The proposed development consists of one 2-story multi-family building containing three townhome units. The 30' tall building is 6281, sf. with units ranging from 2,074 sf. to 2,133 sf. and each unit will have a private backyard/patio area and separate entrances for each unit. Each unit will also have a one car garage and one parking space in each unit driveway for a total of 6 parking spaces for the development. The site will be landscaped in accordance with buffer standards and will include a decorative 4' high fence around approximately half of the perimeter.

Vehicular access is provided from 3rd Avenue South and pedestrian access is provided by the existing sidewalks along S. Federal Highway and 3rd Avenue South. The proposed vehicular and pedestrian paths will be constructed of semi-pervious pavers in order to reduce the amount of impermeable surface on the site. Each unit provides covered entry for pedestrians.

Land Use and Zoning

The site is located at 301 S. Federal Highway in the MU-FH zoning district and has a Mixed Use-East Future Land Use designation. No change to the current zoning or land use is proposed for this application. The proposed townhome use is permitted as a Conditional Use in the MU-FH district. No prior approval currently exists for this site.

Site Characteristics and Surrounding Properties

The proposed site is 50' x 135' and currently undeveloped. To the north of the proposed site is an existing one story commercial office development. An existing two story multi-family development is located to west across the platted alley way. An existing single family home is located across Federal Highway to the east and an existing one story commercial office is located to the south. The architectural styles of the surrounding properties are similar in terms of massing, height, and pitched roofs, though the roofing material varies from tile to shingle. The window treatment of the surrounding properties is minimal and the facades along street frontages are flat and monotonous with little to no undulation. The rooflines of the surrounding properties are also mundane and without undulation. Photographs of the site and surrounding properties are provided along with this application.

Sustainable Bonus Incentive Program

The maximum FAR for the MU-FH district is 1.2, however medium size lots exceeding .65 FAR require approval under the Sustainable Bonus Incentive Program. The proposed FAR for this application is .93, which equates to 1,893.5 sf. of "Bonus Area". Using a Value Multiplier of $5.00 per square foot, we are required to provide $9,467.50 of improvements for this application. A detailed description of the proposed improvements is included with the Sustainable Bonus Incentive Program application.

Compliance with Site Design Qualitative Standards in Section 23.2-31

Harmonious and Efficient Organization

The elements of the proposed Site Plan are harmoniously and efficiently organized in relation to the site and surrounding properties. The building orientation and site layout conform to existing patterns of development in the area. Furthermore, the building massing, design, and proposed access points are also in conformance with the surrounding area. The proposed development will not impede the normal and orderly development or improvement of surrounding property.

Preservation of Natural Conditions

The existing vegetation on site is minimal and the small site contains mostly weeds, sand and two small bushes near the eastern end of the site. There is one young growth tree in the middle of the site and another small tree in the extreme northwest corner of the site near the existing fire hydrant. One mature growth tree exists on the south property line and is partially located on the subject site and the property immediately to the south. Insofar as practical, the natural landscape will be preserved in its natural state. Terrain and vegetation will not be disturbed in a manner likely to significantly increase either wind or water erosion within or adjacent to the site.

Screening and Buffering

Perimeter landscape buffers are provided in accordance with the LDRs and additional screening is being provided by the addition of a 4' high decorative fence in appropriate areas. Please refer to the proposed site plan for further detail.

Enhancement of Residential Privacy

Enhancement of residential privacy will be achieved through the use of landscaping, fencing and building setbacks.

Emergency Access

Emergency vehicle access is provided by Federal Highway to the east, 3rd Avenue to the north, and the platted alley way to the west. Emergency access to the south of the building is provided by access gates in each of the privacy walls separating the outdoor area for each unit.

Access to Public Ways

The proposed building and associated units have safe and convenient access to public streets and walkways. Please see the Site Plan included with this submittal for more detail.

Pedestrian Circulation

The pedestrian circulation is completely separated from the vehicular circulation on the site. Each unit has separate pedestrian access that connects to the public sidewalks.

Design of Ingress and Egress Drives

Ingress and egress drives typical to this type of development are provided along 3rd Avenue.

Coordination of on-site Circulation with off-site Circulation

The proposed paths for pedestrian and vehicular circulation are coordinated with the existing streets and pedestrian pathways as demonstrated on the proposed site plan.

Design of On-site Public Right-of-way

There are no on-site public right-of-ways proposed for this application.

Off-street Parking, Loading, and Vehicular Circulation Areas

The proposed off-street parking is accommodated by a private one car garage and one parking space in the driveway. No loading area is required or proposed for this development. The proposed unit driveways are the only areas of vehicular circulation.

Refuse and Service Areas

There is no common refuse area proposed for this development. Each unit will utilize roll-out trash receptacles similar to other residential properties in the area.

Protection of Property Values

The elements of the site plan are arranged so as to minimize negative impact on the property values of the adjoining property. The setbacks have been increased beyond the minimum so as to increase separation from the adjoining property to the south.

Transitional Development

The proposed site is located on the boundary between the SFR district and MU-FH district. The proposed development is similar in height, massing, scale, bulk, rhythm of openings, and character of the adjacent properties and does not accentuate the change of zoning districts. In addition, the proposed setbacks complement the existing developments in the area.

Consideration of Future Development

In regards to the standards described above, the proposed development is compatible with existing and future planned development in this area.

Compliance with Community Appearance Criteria Section 23.2-31(I)

1. The proposed development is in conformity with good taste, good design, and in general contributes to the image of the City. Many of the properties in the area are in disrepair and the proposed development will contribute to the revitalization of the neighborhood.
2. The proposed development is not of inferior quality and will not cause the nature of the local environment or evolving environment to materially depreciate in appearance and value. As mentioned above, the proposed development will contribute to the revitalization of the area.
3. The proposed development is in harmony with the proposed developments in the general area and is in fact somewhat modeled after the recently approved townhomes to the north. The site plan conforms to all applicable LDR code requirements and standards set forth by the Comprehensive Plan
4. Compliance with Section 23.2-29 is outlined below.

Compliance with Conditional Use Criteria in Section 23.2-29.d and Section 23.2-29.e

General Findings Relating to Harmony with LDRs and Protection of Public Interest

1. The proposed development will be in harmony with the uses which are most likely to occur in the immediate area. The proposed residential development is compatible with the residential area to the west and the mixed use area to the north, east, and south. Furthermore, the most recent development in the immediate area is also townhomes, thus demonstrating the compatibility with likely development in the area.
2. As the existing uses in the area are a mix of residential and commercial uses, the proposed residential use is in harmony with the surrounding neighborhood.
3. The Future Land Use Element of the Comprehensive Plan allows for 30 DU/Ac. in the current Mixed Use East designation. This application proposed a density of 20 DU/Ac. Thus, this application will not result in more intensive development in advance of when such development is approved by the Future Land Use Element of the Comprehensive Plan.

Specific Findings for All Conditional Uses

1. The proposed Conditional Use will not generate traffic volumes or movements which will result in a significant adverse impact or reduce the level of service provided on any street to a level lower than would result from a development permitted by right. Please refer to the Traffic Statement submitted with application for further information regarding traffic impacts.
2. The proposed conditional use will not result in a significantly greater amount of through traffic on local streets than would result from a development permitted by right and is appropriately located with respect to collector and arterial streets. Please refer to the Traffic Statement submitted with application for further information regarding traffic impacts.
3. The proposed conditional use will not produce significant air pollution emissions, or will appropriately mitigate anticipated emissions to a level compatible with that which would result from a development by right. Community residences are permitted by right in the MU-FH district and there is no indication that the proposed 3 unit townhouse development will produce air pollution emissions beyond a community residence.

4. The proposed conditional use will be so located in relation to the thoroughfare system that neither extension nor enlargement nor any other alteration of that system in a manner resulting in higher net public cost or earlier incursion of public cost than would result from development permitted by right.
5. The proposed Conditional Use will be so located in relation to water lines, sanitary sewers, storm sewers, surface drainage systems and other utility systems that neither extension nor enlargement nor any other alteration of such systems in a manner resulting in higher net public cost than would result from development permitted by right. Please refer to the civil plans submitted with application for further information.
6. The proposed conditional use will not place a demand on municipal police or fire protection service beyond the capacity of those services, except that the proposed facility may place a demand on municipal police and fire protection services which does not exceed that likely to result from a development permitted by right.
7. The conditional use will not generate significant noise, or will appropriately mitigate anticipated noise to a level compatible with that which would result from a development permitted by right. The proposed development will comply with the requirements of Section 15.24 – Noise Control.
8. The proposed conditional use will not generate light or glare which encroaches onto any residential property in excess of that allowed in Section 23.4-10-Exterior Lighting.

Additional Requirements

1. To the best of our knowledge, there are no outstanding code enforcement fees or fines related to the project site as the site is currently undeveloped.
2. To the best of our knowledge no previous conditions of approval exist for this site.

Criteria for Granting Certificates of Appropriateness (Section 23.5-4(k)1)

A. The subject property is currently vacant and a blight on the appearance of the City. The effect of this project on the property will be to add a 2 story building including 3 townhome units and new landscaping.
B. Currently, the surrounding properties in the area are in disrepair. This project will add to the revitalization of the area by providing new development along the Federal Highway corridor.
C. Currently, the site is undeveloped. So there will be no change to the historic, architectural, or archaeological significance, architectural style, design, arrangement, texture, materials and color of the existing property, as none currently exists.
D. Yes. Denial of a certificate of appropriateness would deprive the property owner of reasonable beneficial use of his property.
E. The plans for this development are technically feasible and are capable of being carried out within a reasonable timeframe. The proposed project is small in scale and similar to other recently approved townhome projects in the area that are currently under construction.
F. The plans for the proposed project satisfy the applicable portions of the general criteria contained in the United States Secretary of the Interior's Standards for Rehabilitation as described below:
    1. The site is currently vacant and has no historic purpose. The new use that is proposed will have no negative impacts on the defining characteristics of the surrounding area.
    2. N/A
    3. The proposed development will include a completely new building that will not create a false sense of historical development. The proposed building will reflect the current architectural style of buildings of this type in this time period.
    4. N/A

5. N/A
6. N/A
7. N/A
8. N/A
9. N/A
10. N/A

G. This site has no historical significance, as it is currently vacant and undeveloped. The proposed development will have no effect on the features which served as the basis for its designation in the South East Lucerne historic district.

H. No restoration or rehabilitation is proposed for this project

Conclusion

We respectfully request approval of this Major Site Plan application and accompanying Conditional Use, Certificate of Appropriateness and Sustainable Bonus Incentive Program applications as described above. The applicable standards of the Land Development Regulations and Comprehensive Plan have all been satisfied and the proposed development conforms to the existing and planned development patterns for the MU-FH district.

PROJECT DATA

DESCRIPTION OF WORK:

Provide a **detailed** description of work to be done as a result of this application (attach additional sheets if necessary).

New development of 3 town home units. Units will be 2 story and include 1 car garages and private back patio area.

PRIOR APPROVALS:

Indicate any prior planning, zoning or building approvals that you are aware of for the property (attach additional sheets if necessary).

Site is currently undeveloped with no prior approvals

ADJACENT PROPERTY INFORMATION:

Complete the following table for all surrounding properties. Information located at **www.lakeworth.org/business/planning-zoning/**.

Direction	Future Land Use	Zoning District	Current Use/ Name of Development
North	Mixed Use East	MU-E	Commercial Office
South	Mixed Use East	MU-FH	Commercial Office
East	Mixed Use East	MU-FH	Single Family Residential
West	SFR	SFR	Multi-family Residential

DEVELOPMENT STANDARDS:

Identify the applicable required and proposed development standards. If not applicable, enter "N/A". The "required" information can be located in Article 23 of the City's Code of Ordinances, Land Development Regulations, at **www.municode.com**.

Development Standard		Required	Provided
Lot Size (Acreage and SF)		6,500 sf. / .149 Ac.	6,750 sf. / .15 Ac.
Lot Width (Frontage)		50'	50'
Building Height	Primary	30'	30'
	Accessory	N/A	N/A
Setbacks	Front (East)	10'-22'	10'
	Rear (West)	13.5'	13.5'
	Side (North)	10% lot width (5')	5'
	Side (South)	10% lot width (5')	8.1'
Living Area	Single-Family	N/A	N/A
	Multi-Family	900 sf.	1,786 sf - 1,845 sf.
Accessory Structure Limitation		N/A	N/A
Impermeable Space Coverage		60% max.	56.8%
Building Coverage		50%	50%
Maximum Wall Height at Setback		18'	18'
Floor Area Ratio Limitation		1.2	.93

PLANNING & PRESERVATION DIVISION
DEPARTMENT FOR COMMUNITY SUSTAINABILITY
CITY OF LAKE WORTH
1900 2ND AVENUE NORTH
LAKE WORTH, FL 33461
561.586.1687

PROJECT FACT SHEET

PROJECT DATA

Name of Applicant: Daniel F. Ryan IV

Project Name: Bermuda Cay

Street address of project site: 301 S. Federal Highway

Total Site Area (Acres): 0.15 (Square Feet) 6,750.00

ADJACENT PROPERTIES: Complete the following table for the properties adjacent to the project site.

Direction	Future Land Use Designation	Zoning Designation	Type of Use/Name of Development
North	Mixed Use East	MU-E	Commercial Office
South	Mixed Use East	MU-FH	Commercial Office
East	Mixed Use East	MU-FH	Single Family Residential
West	SFR	SFR	Multi-Family Residential

SETBACKS: Complete the following table. Include setbacks for existing buildings that will remain on site.

	Front	Rear	Side (interior)	Side (street)
Required	10.00	13.50	5.00	5.00
Proposed	10.00	10.00	8.10	5.00

RESIDENTIAL PROJECT DATA: Complete the applicable sections below.

General		
Gross acreage of property: 0.15	Number of proposed units: 3	Gross density per acre: 20
Lot Size (square feet) – Minimum: 6,500	Maximum: n/a	Average: n/a

Building Data
Number of units – 3 Single-family: Multi-family: 3 town home units
Overall building height(s) as measured from crown of adjacent road or base flood elevation: 30'
Minimum floor elevation above crown of adjacent road or base flood elevation: 2'-4'
Total building area for each type of residential structure proposed: 6,281 sf
Total building area for accessory structures: n/a
Lot Coverage (in square feet and as a percentage) 3,375 sf. (50%)

NON-RESIDENTIAL PROJECT DATA: Complete the applicable sections below.

General	
Gross acreage of property:	Total number of buildings:
Total area of each **existing** building:	

Building Data	
Total area of each **proposed** building:	
Total building area of accessory structures:	
Lot coverage (total area and as a percentage):	Floor Area Ratio:
Overall building height(s) as measured from crown of adjacent road(s) or base flood elevation:	
Minimum floor elevation(s) above the crown of the adjacent road(s) or base flood elevation:	

LANDSCAPE PLAN DATA: if a landscape plan is required to be submitted, complete the following sections below.

	Required	Proposed
Number of trees	3	17
Number of shrubs	49	107
Amount of groundcover	-	244
Perimeter landscaped area (area and percentage)	-	2,458 sf - 36%
Interior landscaped area (area and percentage)	-	2,458 sf - 36%
Building perimeter planting (area and percentage)	-	131 linear feet - 37%
Vehicular use area (area and percentage)	-	556 sf - 8%
Total landscape area	-	2,458 - 36%
Green/open space	-	2,458 sf - 36%

MISCELLANEOUS SITE DATA: complete the following information as applicable.

	Open space	Impervious area	Pervious area	Proposed bodies of water
Total area:	3,375 sf.	4,292 sf.	2,458 sf.	n/a
Percent of Site	52%	55%	45%	n/a
Fences – overall height:	4' along streets	Construction material:	metal	
Walls – overall height:	n/a	Construction material:	n/a	
Proposed right-of-way width(s):	existing			
Proposed roadway paving width:	existing			
Proposed sidewalk width:	4'			
Type of paving surfaces on all sidewalks:	semi-permeable pavers			
Current flood plain designation:	C (FIRM 12020130002C 9/30/82)			

MILLER
LAND
PLANNING, INC.

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BERMUDA CAY

PCN: 38-43-44-21-15-109-0090

Original: May 10, 2016
Revisions: AUG. 2, 216

Sustainable Bonus Incentive Program – Attachment A - Description and Valuation of Proposed Improvement

The Major Site Plan application for Bermuda Cay proposes a total square footage of 6,281 sf. which equates to a 0.93 Floor Area Ratio (FAR). Pursuant to the Land Development Regulations Section 23.3-16 for the Mixed Use – Federal Highway (MU-FH) district the maximum FAR allowed is 1.2. However, the proposed site is considered a medium size lot based on the property dimensions, and the MU-FH regulations stipulate that the FAR for medium sized lots shall be 0.65. Section 23.3-16 allows an additional 0.5 increase in the FAR granted under the Sustainable Bonus Incentive Program. This project is requesting an additional FAR of 0.28 which equates to 1,893.5 sf. of "Bonus Area". Based on a value multiplier of $5.00 per square foot, the total value of required improvements is $9,467.50. Pursuant to the Sustainable Bonus Incentive Program Application Sec. C, below is a Description and Valuation of the Proposed Improvements.

This application proposes to provide $9,467.50 in on-site features and improvements through landscaping that goes above and beyond the minimum required by code. The proposed improvements will enhance the existing street scape and enhance the green space of the development by providing additional landscaping. The table below provides a description and valuation of the landscaping provided toward the required improvements (please see attached sheets for planting schedule).

Total Value of Required Improvements	**$9,467.50**
Proposed landscaping above and beyond the minimum required by code (see attached valuation sheet and landscape plan prepared by STUDIOSprout-Landscape Architects)	
Total Value of Proposed Improvements	**$ 9,586.00**

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SUSTAINABLE BONUS INCENTIVE PROGRAM APPLICATION

Three (3) hard copies and one (1) electronic copy of the following materials are required in order for a **Sustainable Bonus Incentive Program Application** to be deemed complete and sufficient to present to the decision making board.

All development proposals seeking increased height above two (2) stories, or additional FAR, as each may be allowed in a zoning district, shall submit this Sustainable Bonus Incentive Program Application. The application shall accompany the standard City of Lake Worth Universal Development Application for the development proposal.

The Sustainable Bonus Incentive calculations are based on the gross square footage of the bonus height or intensity requested. The additional gross square footage amount is multiplied by $**5**/square foot ("Value Multiplier") in order to determine the value of the additional improvements to be provided for the project.

A. Please indicate whether the development proposal includes bonus height or bonus intensity:

☐ Bonus Height
No. of Additional Stories: _____ ("Bonus Height")
Additional Gross Floor Area: _____ ("Bonus Area")

☒ Bonus Intensity
Additional Floor Area Ratio: 0.28 ("Bonus Intensity")
Additional Gross Floor Area: 1,893.5 SF ("Bonus Area")

B. Multiply the Bonus Area by the Value Multiplier to determine the value of required improvements.

1,893.5 SF x $5/SF of Bonus Area= $ 9,467.50
(Bonus Area) (Value of Required Improvements)

TOTAL VALUE OF REQUIRED IMRPROVEMENTS: $ 9,467.50

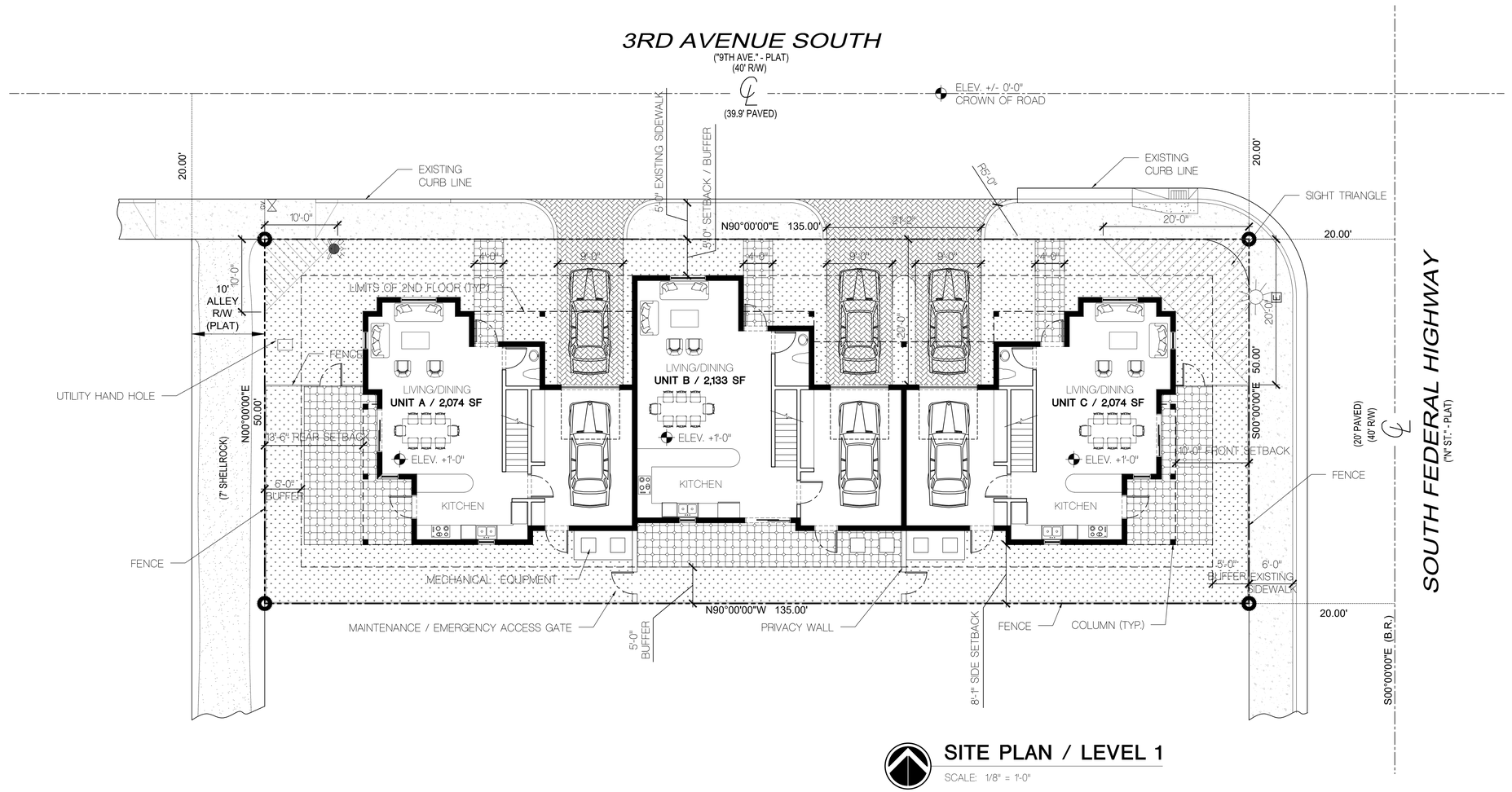
C. Indicate the type and value of the community benefit proposed to qualify for the Bonus Area:

☒ On-Site Features and Improvements; Value: $ $ 9,586.00 *
☐ Off-Site Improvements; Value: $ _____ *
☐ Fee-In Lieu; Amount: $ _____

*** PROVIDE A SEPARATE SHEET WITH A DETAILED DESCRIPTION OF THE PROPOSED IMPROVEMENT AND THE VALUATION OF THE SAME.**

FOR OFFICE USE ONLY			
PZ Project No.			
Associated Project Nos.			
Submittal Date		Sufficiency Date	
Project Planner Assigned			

TREES	Botanical/Common	Size	Spacing		Quantity	Unit Cost	Total	Cost above min. code	Explanation
AA3	Archontophoenix alexandrae / Alexandra Palm	12` O.A TRIPLE	AS SHOWN		4	500	2000	2000	
AA1	Archontophoenix alexandrae / Alexandra Palm	14` MATCHED	AS SHOWN		8	300	2400	2400	
IC	Ilex cassine / Dahoon Holly	12-14`x6`			2	350	700	700	
PD	Phoenix roebelenii `Double` / Pygmy Date Palm	3-4` O.A			2	150	300	300	
QV	Quercus virginiana / Southern Live Oak	14-16`x6`	AS SHOWN		3	450	1350	750	1 extra tree @450, additional size cost 150 per tree =300
SS	Sabal palmetto Sabal Palm / Sabal Palm Booted	16` Matched			3	170	510	510	
SHRUBS	Botanical/Common	Size		Spacing	Quantity	Unit Cost	Total		
AC	Allamanda cathartica / Golden Trumpet	#7		24" o.c.	2	40	80	80	
CS	Clusia guttifera / Small-Leaf Clusia	#10		48" o.c.	5	70	350	350	
DS	Dracaena reflexa Song of Jamaica / Pleomele	15 gal FULL		36" o.c.	4	90	360	360	
HF	Hamelia patens / Fire Bush	#7		42" o.c.	6	30	180	180	
JI	Jatropha integerrima / Peregrina	#15 MULTISTEM		72" o.c.	2	90	180	180	
TC	Trachelospermum jasminoides `Confederate` / Confederate Jasmine Vine	#15			2	100	200	200	
SHRUB AREAS	Botanical/Common	Cont		Spacing	Quantity	Unit Cost	Total		
CHI	Chrysobalanus icaco / Cocoplum	#3		30" o.c.	20	8	160		all 20 shrubs required for minimum code
IVS	Ilex vomitoria `Stokes Dwarf` / Dwarf Yaupon	#3		24" o.c.	24	10	240	240	
MIS	Microsorum scolopendrum / Wart Fern	1 gal		18" o.c.	108	5	540	540	
MS	Myrcianthes fragrans `Simpson`s Stopper` / Simpson`s Stopper	#3		18" o.c.	21	9	189	189	
NE	Nephrolepis exaltata / Boston Fern	#1		18" o.c.	112	4	448	448	
SD	Schefflera arboricola / Green Schefflera	#3		24" o.c.	10	8	80	80	
SV	Schefflera arboricola `Variegata` / Variegated Schefflera	#3		24" o.c.	37	8	296	56	30 shrubs required for minimum code - 7 extra
							10,563	9563	
	CODE MINUMUM REQUIREMENTS								
	3 trees required 12-14', 1 existing 20' + 2 @300	600							
	50 shrubs @ 8	400							
	TOTAL	1,000							



SITE PLAN / LEVEL 1

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

RFA ARCHITECT & Associates, Inc.
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Ryan A. Forney
AR 0017384

BERMUDA CAY

3RD AVE SOUTH & SOUTH FEDERAL HIGHWAY,
CITY OF LAKE WORTH, FLORIDA

REVISIONS

FILE DESIGNATION

DRAWING TITLE
SITE PLAN / LEVEL 1

DATE
July, 2016

DRAWN BY
1 Rendering, Inc.

JOB NUMBER

DRAWING NUMBER

A-1

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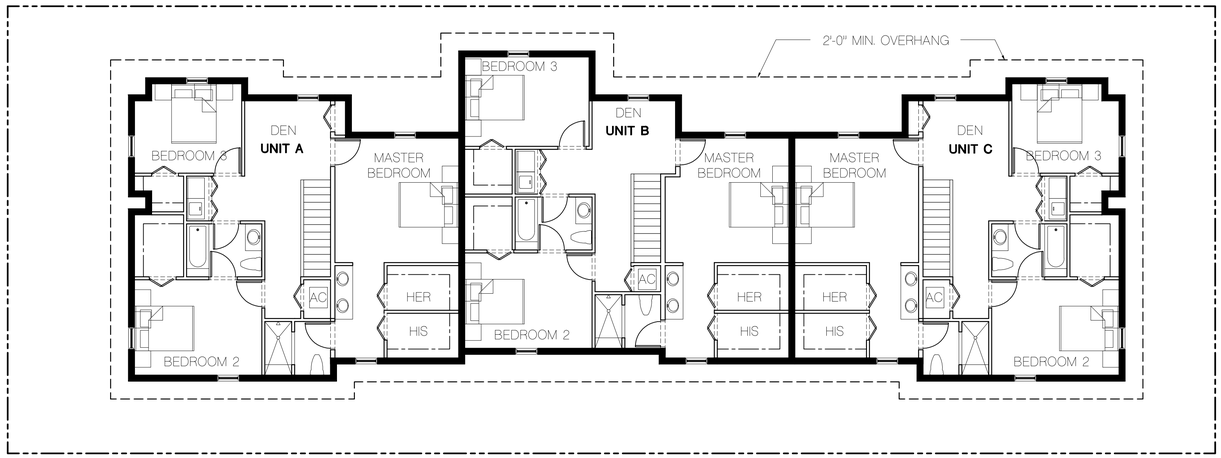
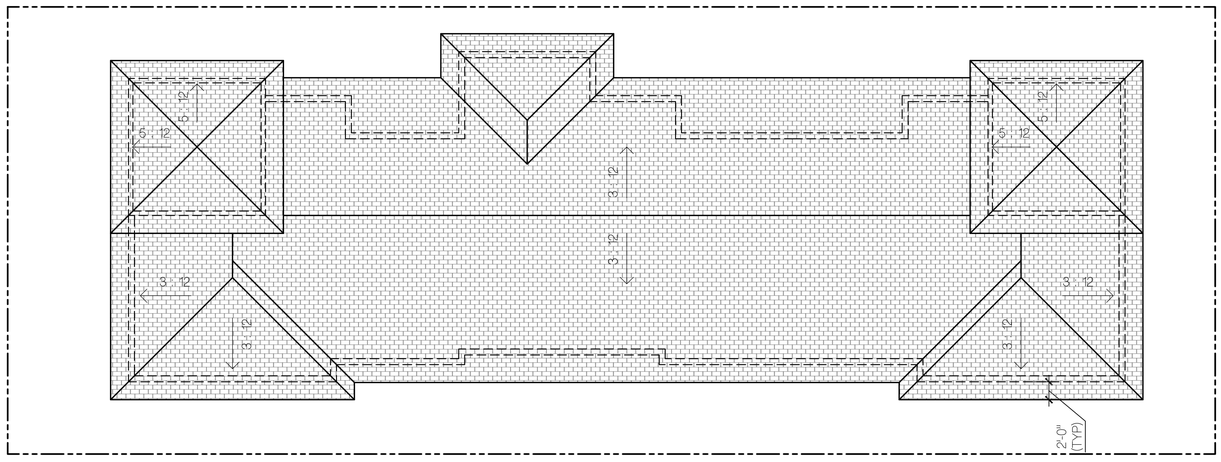


SECOND LEVEL

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



ROOF LEVEL

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

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3RD AVE SOUTH & SOUTH FEDERAL HIGHWAY,
CITY OF LAKE WORTH, FLORIDA

REVISIONS

FILE DESIGNATION

DRAWING TITLE
SECOND & ROOF LEVELS

DATE
July, 2016

DRAWN BY
1 Rendering, Inc.

JOB NUMBER

DRAWING NUMBER

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NORTH ADJACENT NEIGHBORS

SUBJECT'S SITE WEST ELEVATION

SOUTH NEIGHBOR

EAST NEIGHBORS

SUBJECT'S SITE NORTH ELEVATION

WEST ADJACENT NEIGHBORS

SUBJECT SITE NW VIEW
(LOOKING AT THE ALLEY)

SUBJECT SITE WEST VIEW
(LOOKING AT 3RD AVE SOUTH)

SUBJECT'S SITE NORTH VIEW
(LOOKING AT SOUTH FEDERAL HIGHWAY)

SUBJECT'S SITE EAST VIEW
(LOOKING AT 3RD AVENUE SOUTH)

SUBJECT'S SITE SOUTH VIEW
(SOUTH FEDERAL HIGHWAY)

NEIGHBOR AT WEST
(3RD AVENUE SOUTH)

NEIGHBOR AT NORTH
(SOUTH FEDERAL HIGHWAY)

BUILDINGS IN THE NEIGHBORHOOD

BUILDINGS IN THE NEIGHBORHOOD

BUILDINGS IN THE NEIGHBORHOOD

BUILDINGS IN THE NEIGHBORHOOD

NEIGHBOR ON SOUTH FEDERAL HIGHWAY

NEIGHBORS ON 3RD AVE SOUTH

NEIGHBOR ON 3RD AVE SOUTH

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BERMUDA CAY

3RD AVE SOUTH & SOUTH FEDERAL HIGHWAY,
CITY OF LAKE WORTH, FLORIDA

REVISIONS

FILE DESIGNATION

DRAWING TITLE

CONTEXT PHOTOS
& ELEVATIONS

DATE
July, 2016

DRAWN BY
1 Rendering, Inc.

JOB NUMBER

DRAWING NUMBER

A-4

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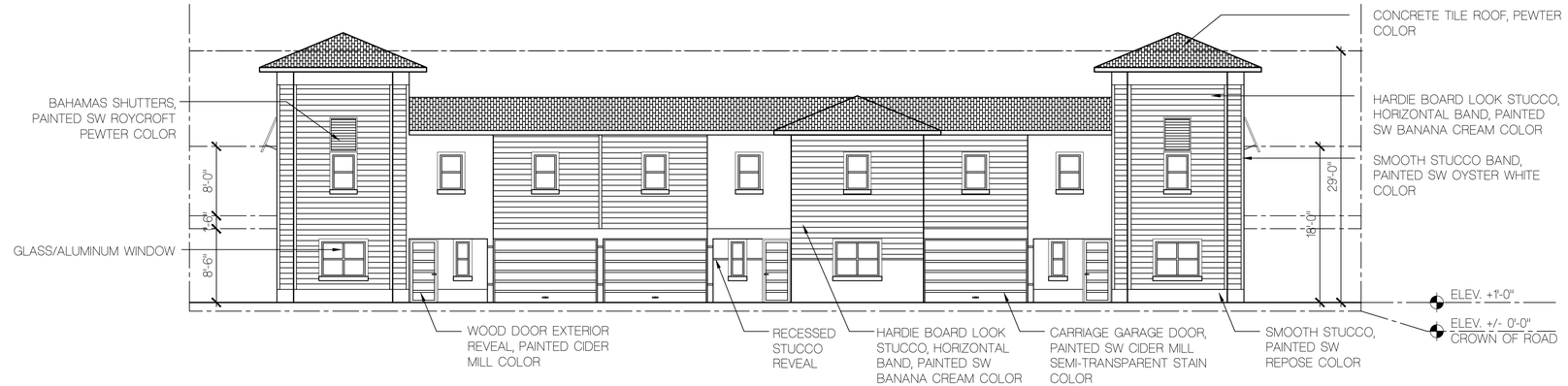
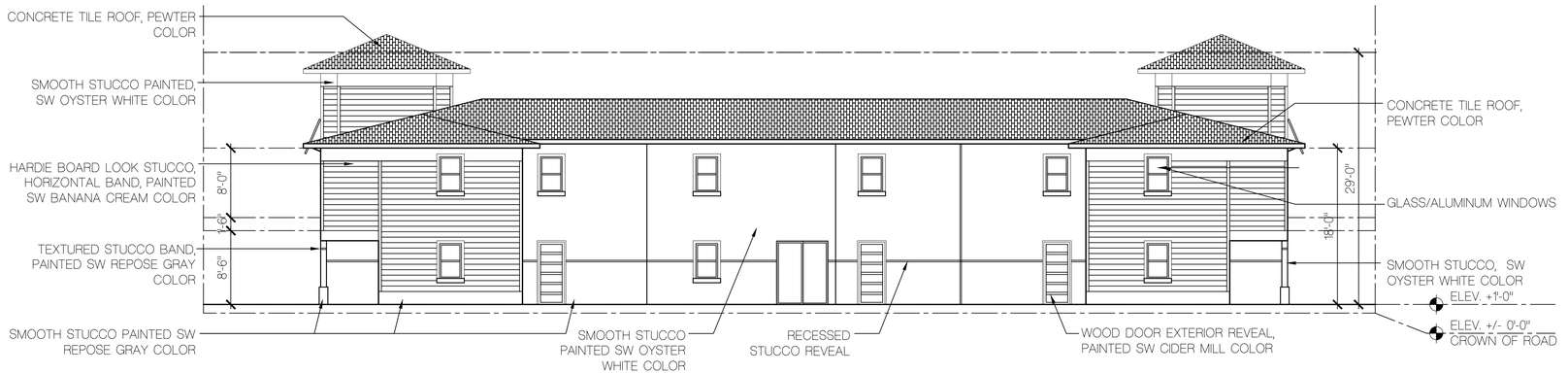


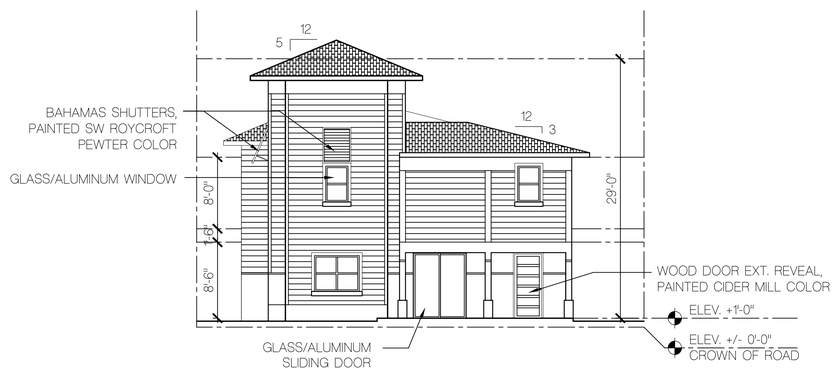
NORTH ELEVATION

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



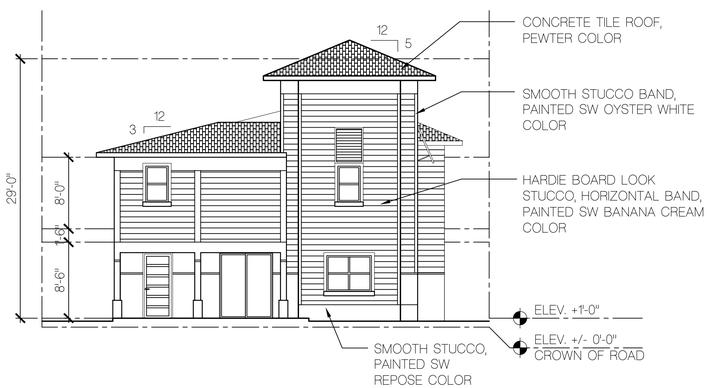
SOUTH ELEVATION

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



WEST ELEVATION

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



EAST ELEVATION

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

RFA ARCHITECT & Associates, Inc.
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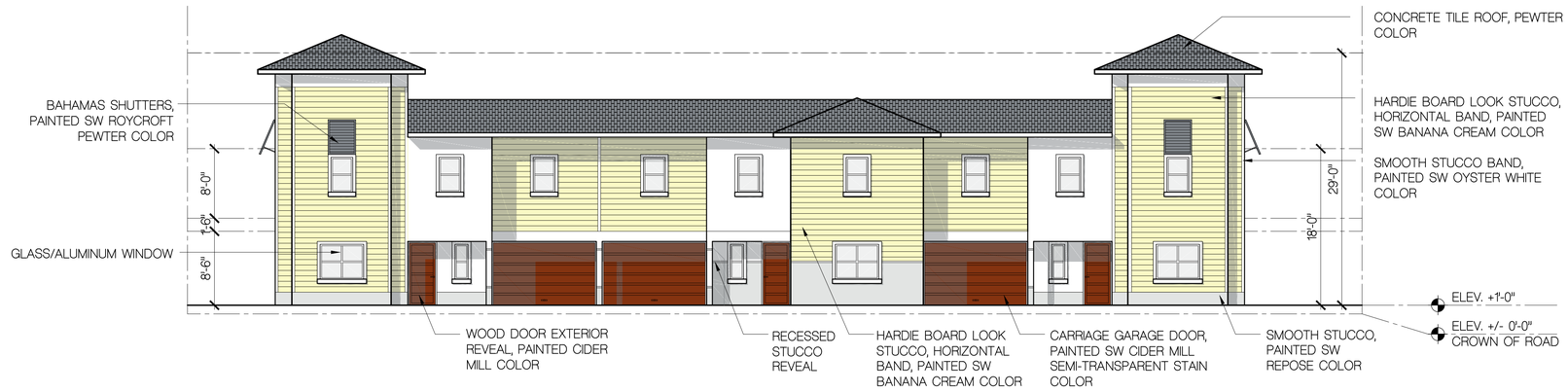
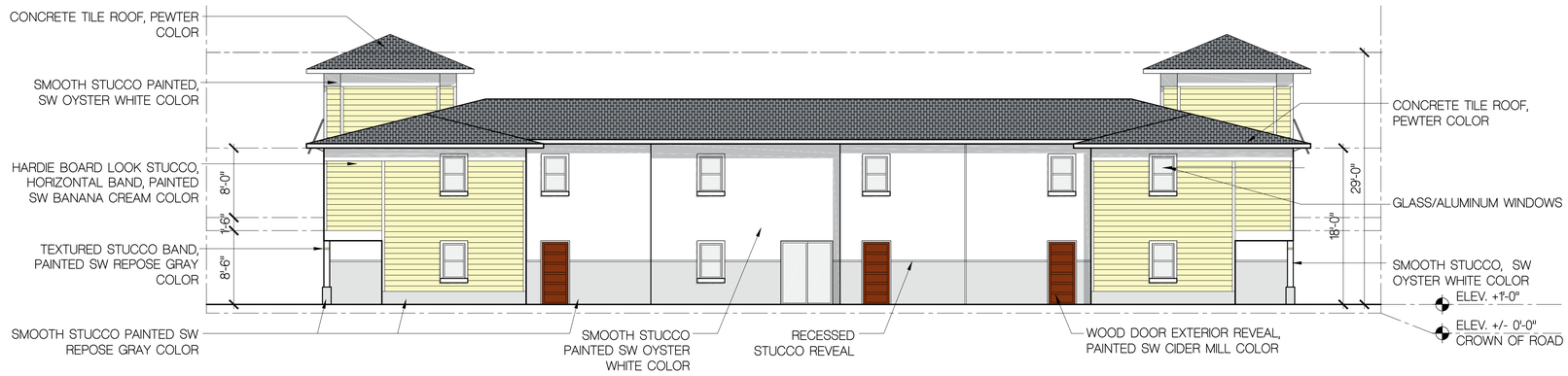
EXTERIOR COLOR SELECTIONS

	EXTERIOR WALLS SHERWIN WILLIAMS SW 7637 OYSTER WHITE
	EXTERIOR WALLS SHERWIN WILLIAMS SW 6673 BANANA CREAM
	EXTERIOR BASE SHERWIN WILLIAMS SW 7015 REPOSE GRAY
	EXTERIOR SHUTTERS SHERWIN WILLIAMS SW 6377 ROYCROFT PEWTER
	GARAGE DOORS SHERWIN WILLIAMS SW 3512 CIDER MILL EXTERIOR SEMI-TRANSPARENT STAIN
	EXTERIOR DOORS SHERWIN WILLIAMS SW 3512 CIDER MILL



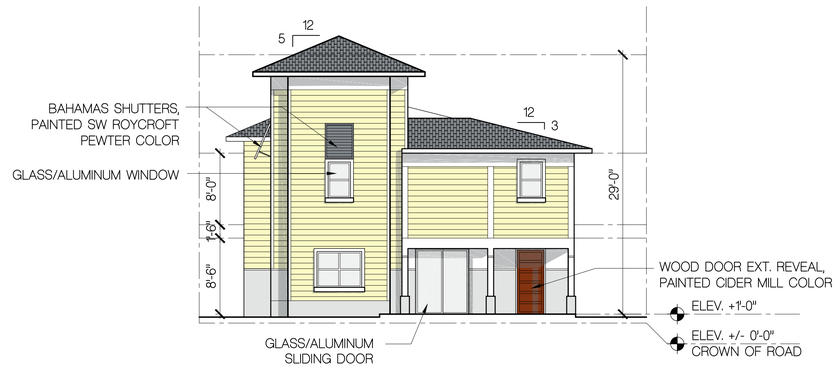
NORTH ELEVATION

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



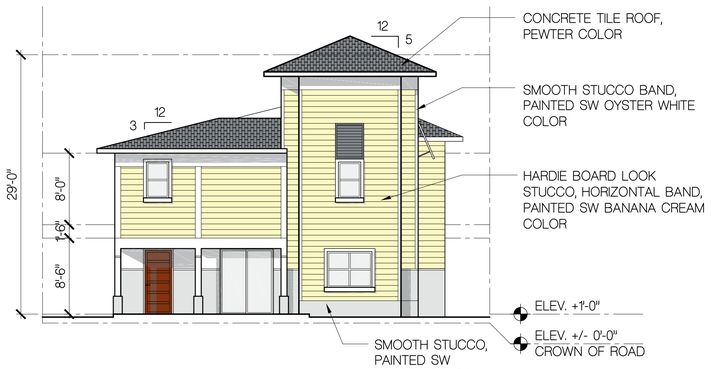
SOUTH ELEVATION

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



WEST ELEVATION

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



EAST ELEVATION

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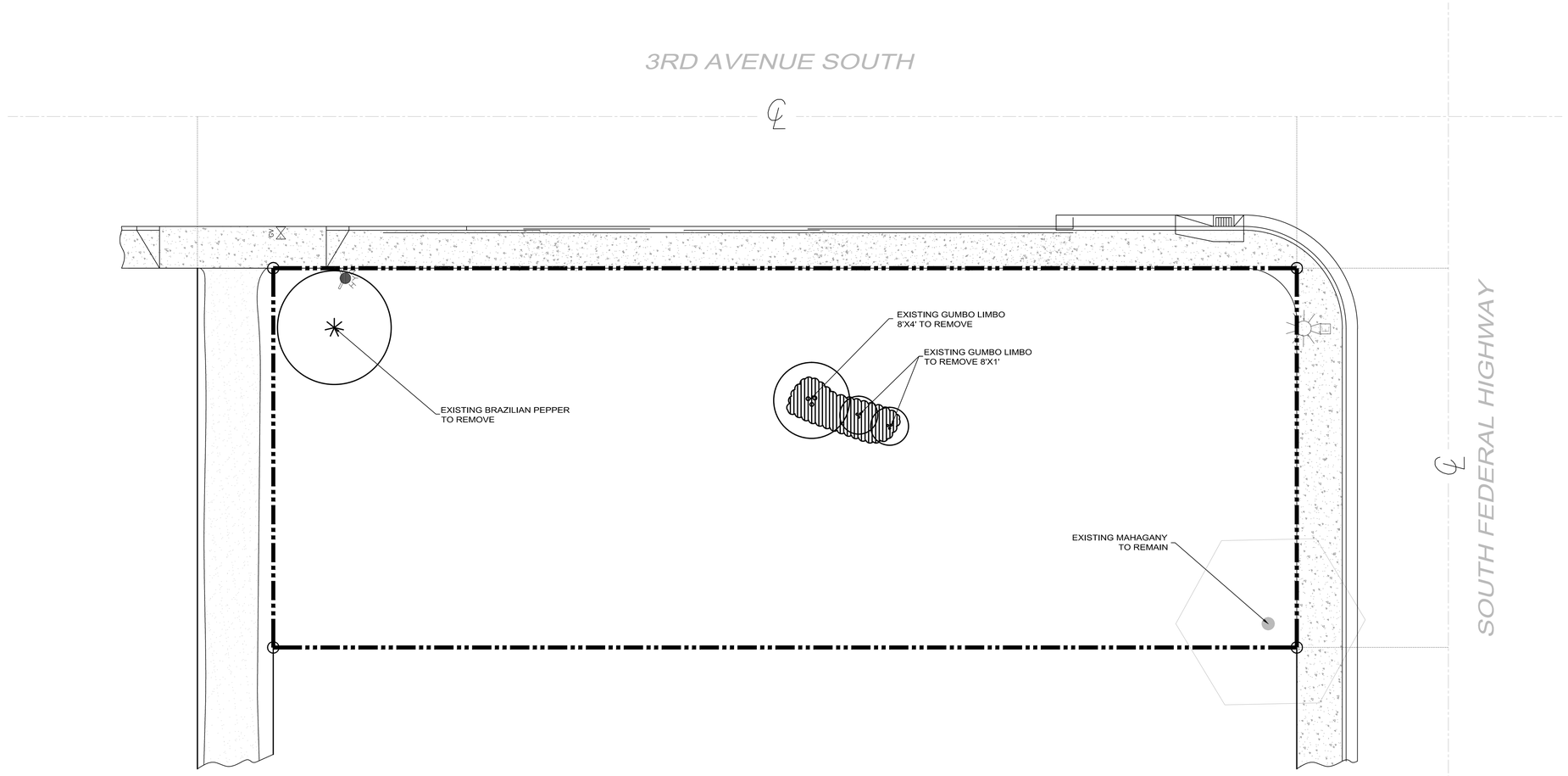

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LCC 000213

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CHECKED BY	CRF
CAD DWG.	
DATE	16.05.09
REVISIONS	16.07.27

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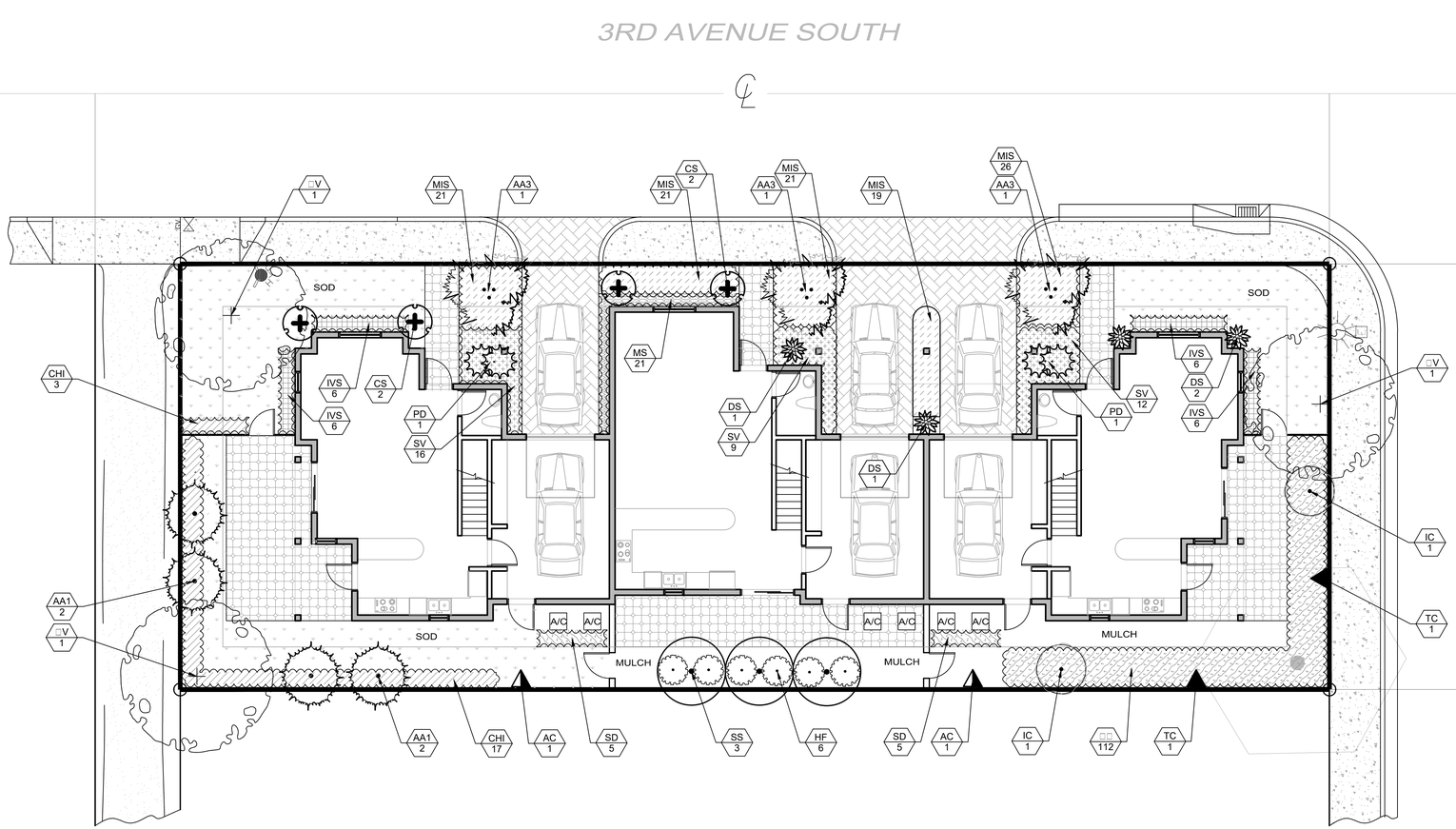
TREE TRANSPLANT AND REMOVAL PLAN



PLANT LIST

TR□□S	BOTA□ICAL □AM□ □COMMO□ □AM□	SI□□	SPACI□□	□T□
AA3	Archonto□hoenix alexandrae □Alexandra Palm	12□O.A TRIPL□	AS SHOW□	3
AA1	Archonto□hoenix alexandrae □Alexandra Palm	14□MATCH□D	AS SHOW□	4
IC	Ilex cassine □Dahoon Holl□	12-14□x6□		2
PD	Phoenix roebelenii □Double□□P□□m□Date Palm	3-4□O.A		2
□V	□uercus vir□iniana □Southern Live Oak	14-16□x6□	AS SHOW□	3
SS	Sabal □almetto Sabal Palm □Sabal Palm Booted	16□Matched		3

SHR□BS	BOTA□ICAL □AM□ □COMMO□ □AM□	SI□□	SPACI□□	□T□
AC	Allamanda cathartica □□olden Trum□et	#7	24" o.c.	2
CS	Clusia □uttifera □Small-Leaf Clusia	#10	48" o.c.	5
DS	Dracaena reflexa Son□ of □amaica □Pleomele	15 □al F□LL	36" o.c.	4
HF	Hamelia □atens □Fire Bush	#7	42" o.c.	6
TC	Trachelos□ermum □asminoides □Confederate□□Confederate □asmine Vine	#15	24" o.c.	2

SHR□B AR□AS	BOTA□ICAL □AM□ □COMMO□ □AM□	CO□T	SPACI□□	□T□
CHI	Chr□sobalanus icaco □Coco□lum	#3	30" o.c.	20
IVS	Ilex vomitoria □Stokes D□arf□□D□arf □au□on	#3	24" o.c.	24
MIS	Microsorum scolo□endrum □Wart Fern	1 □al	18" o.c.	108
MS	M□rcianthes fra□rans □Sim□son□s Sto□□er□□Sim□son□s Sto□□er	#3	18" o.c.	21
□□	□e□hrole□is exaltata □Boston Fern	#1	18" o.c.	112
SD	Schefflera arboricola □□reen Schefflera	#3	24" o.c.	10
SV	Schefflera arboricola □Varie□ata□□Varie□ated Schefflera	#3	24" o.c.	37

□RO□□D COV□RS	BOTA□ICAL □AM□ □COMMO□ □AM□	CO□T	SPACI□□	□T□
ST□	Stenota□hrum secundatum □Floritam□□Floritam St. Au□ustine Sod	3 □al		576 sf

LANDSCAPE CALCULATIONS

6750 sq. ft. — 100 landscape points required — 3 trees required and provided

2 medium tree	14 points
3 small tree	15 points
10 palms	70 points
351 shrubs and groundcovers	702 points
TOTAL POINTS	801

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IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY PLANT, SOD AND MULCH AMOUNTS FOR BIDDING PURPOSES. PLAN DRAWING TAKES PRECEDENCE OVER ANY QUANTITY SCHEDULES.

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LANDSCAPE PLAN

□OB CO□DITIO□S□

An□buildin□construction material or forei□n material shall be removed from □lantin□areas and re□laced □ith acce□table to□soil.

Care shall be taken not to disturb or dama□e an□under□round construction or utilities. An□ dama□e to these facilities durin□ the □lantin□o□erations □ill be re□aired at the ex□ense of the Landsca□e Contractor in a manner a□□roved b□the O□ner. Where under□round obstructions □ill not □ermit the □lantin□ materials in accordance □ith the □lans, ne□ locations shall be a□□roved b□the Landsca□e Architect.

Landsca□e □ork shall be coordinated □ith the landsca□e irri□ation □ork. Landsca□e Contractor shall ensure that no □lantin□s □ill interfere □ith the □ro□er covera□e. Landsca□e Contractor shall □oint out situations □here minor ad□stments or relocation or addition of s□rinklers heads ma□be most beneficial for the landsca□e □ork as a □hole.

PLA□T MAT□RIAL□

Plant s□ecies and si□e shall conform to those indicated on the dra□in□s. □omenclature shall conform to STA□DARDI□□D PLA□T □AM□S, LAT□ST □DITIO□. All □lant material shall be in accordance □ith □RAD□S A□D STA□DARDS FOR □□RS□R□ PLA□TS, latest edition □ublished b□the Florida De□artment A□riculture and Consumer Services. All □lants not other□ise s□ecified as Florida Fanc□ or S□ecimen, shall be Florida □rade □umber 1 or better as determined b□the Florida □rade Plant Industr□ S□ecimen means an exce□tionall□heav□ s□mmetrical, ti□ht□-knit □lant, so trained or favored in its develo□ment that its a□□earance is un□uestionable and□tandin□ □su□erior in form, number of branches, com□actness and s□mmetr□. All □lants shall be sound, health□, vi□orous, □ell branched and free of disease and insect e□□s and larvae and shall have ade□uate root s□stems. Trees and shrubs for □lantin□ro□s shall be uniform in si□e and sha□e. All materials shall be sub□ct to a□□roval b□the Landsca□e Architect. Where an□re□uirements are omitted from the Plant List, the □lants furnished shall be normal for the variet□

All container □ro□n material shall be health□, vi□orous, □ell-rooted □lants and established in the container. The □lants shall have to□s □hich are □ood □ualit□and are in a health□ □ro□in□condition. An established container □ro□n □lant shall be trans□lanted into a container and □ro□n in that container lon□enou□h for the ne□ fibrous roots to have develo□ed enou□h to hold the root mass to□ether □hen removed from the container. Root bound □lants □ill not be acce□ted.

Site □ater shall be verified b□Contractor □rior to submission of bids.

The use of natural material is stron□□encoura□ed for balled and burla□ed □lants. All s□nthetic material shall be com□lete□removed from root ball PRIOR to □lantin□.

At time of bid, Contractor shall submit a □ritten schedule of all sources for coconut □alms as □ell as seed sources for coconuts. Coconuts shall be certified Mala□an □reen □ith a certified seed source from □amaica.

TR□□S□

The most critical factor for selectin□a health□Florida □umber 1 tree is the structure. This consists of one central main trunk and leader. Branches are considered com□etin□if the□ are 2⁄3 the diameter of the leader or □reater. Com□etin□branches ma□be acce□table if the□occur above 50□ of the overall hei□ht of the tree. Cali□er of tree should meet s□ecifications. Leader (center trunk) ma□have sli□ht (□15 de□ree) bo□ (Tabebuia caraiba excluded), but must be intact □ith a□ical (leadin□) bud.

Branches should be s□read even□(sta□□ered, alternatin□) throu□h the tree branches s□aced no closer than 4".

Cano□□should be full to s□ecifications □ith little or no o□enin□s or holes. A thinnin□cano□□ □ill be taken into consideration □ith field du□□lant material.

Trees should have no o□en □ounds or dama□e, flush cuts, chlorosis, shorter or taller than s□ecified hei□ht, □rdlin□roots, undersi□e loose root ball, crossin□branches, smaller than normal leaves.

10□ of root ball shall be above □rade after □lantin□. Root ball t□in□ro□es removed from trunk and to□of root ball.

M□LTIPL□ TR□□K TR□□S□

Trees havin□no distinct leader, Trunks on these trees should not be touchin□and free of dama□e and similar in si□e. Cano□□should be full and uniform.

R□LOCAT□D TR□□S□

These trees ma□not conform to □rades and standards, □et do have □ualit□criteria □hich effect the health, lon□evit□and safet□of the tree (and □erson □hich ma□contact tree). This is □OT meant to be a □uideline for trans□lantin□trees, but rather the criteria b□□hich relocated trees □ill meet To□n, Count□, State or □overnin□a□enc□□uidelines. Trees □hich re□uire excessive □runin□should □OT be used. Dama□ed or dead relocated trees □ill be re□laced □ith a□□ro□riate number of cali□er inches and s□ecies e□ual to relocated or dead tree, as a□□roved b□the Landsca□e Architect.

□o more than 20□ of the folia□e should be removed for an□reason (excludin□Sabal Palms). Trees should be corrected for an□structural defects, touchin□branches, dead or rottin□□ood, V-sha□ed branchin□or branchin□□hich ma□effect human safet□issues □ost relocation. To□in□a relocated tree is not acce□table.

Dama□e to the trunk□branches □ill not exceed 10□ of the trunk diameter and 2" in hei□ht.

An□ma□or limb or cano□□□runin□□ill be □ualified and □erformed b□a Certified Arborist.

IRRI□ATIO□

Provide bubblers on se□arate □ones for all ne□□□lanted and trans□lanted trees unless alternate a□□roach to □rovide additional □ater is a□□roved b□o□ner and Landsca□e Architect.

MAT□RIALS LIST□

Landsca□e Contractor shall be res□onsible for verif□in□all □uantities for material sho□n on dra□in□s □rior to submittin□a bid. Plantin□□lan shall take □recedence over the □lant list. Final □uantit□of sod and mulch shall be verified.

S□BSTIT□TIO□S□

□o substitutions shall be made □ithout the a□□roval from the Landsca□e Architect and□r the O□ner. Intended substitutions shall be indicated on the bid.

M□AS□R□M□□TS□

Cano□□Trees- Hei□ht shall be measured from the □round to the avera□e hei□ht of cano□□ S□read shall be measured to the end of branchin□e□uall□around the cro□n from the center of the trunk. Cali□er (d.b.h.) □ill be measured 4□6" above □rade.

Shrubs- Hei□ht shall be measured from the □round. S□read shall be measured to the end of branchin□e□uall□around the shrub mass.

Palms- Clear trunk (C.T.) shall be measured from the □round to the □oint □here the mature a□ed trunk □oins the immature or □reen □art of the trunk or head.

Overall hei□ht (O.A.) shall be measured from the □round to the ti□of the uno□ened bud.

IRRI□ATIO□□

100□ irri□ation covera□e shall be □rovided. Provide bubblers on se□arate □ones for all ne□□□lanted and trans□lanted trees unless alternate a□□roach to □rovide additional □ater is a□□roved b□O□ner and Landsca□e Architect.

□□ARA□T□□□

All ne□ □lant materials shall be □uaranteed for one □ear from the time of acce□tance and shall be alive and in satisfactor□ □ro□th for each s□ecific kind of □lant at the end of the □uarantee □eriod. The Landsca□e Contractor shall not be res□onsible for dama□e caused b□vandalism, violent □ind storms or other acts of □od be□ond control. Re□lacement shall occur □ithin t□o □eeks of re□ection and □uaranteed six months from date of installation. Landsca□e Contractor shall re□air dama□e to other □lants or la□ns durin□□lant re□lacements at no additional cost.

M□LCH□

Mulch shall not contain sticks 1.4" in diameter or stones. A□□□3" of mulch exce□t on to□ of tree rootballs and a□ainst □ood□shrubs. Rootballs □ill receive less than 1" mulch □ith no mulch touchin□trunk or root collar. Do not a□□□mulch a□ainst the trunks of □ood□ shrubs.

SOD□

All sod shall be installed in such a manner that there is an even surface, sta□□ered □attern. Sod □ill be □reen in color and in □ood health. □O overla□, □a□s, dama□e, insects, disease and less than 10□ chlorosis □ill be □ermitted. All □a□s □ill be filled □ith clean native soil.

STAKI□□□

Landsca□e Contractor to su□□est alternate means of stakin□for a□□roval □ith Landsca□e Architect if stakin□methods sho□n are not feasible due to site conditions.

F□RTILI□□R□

Manufacturer's S□ecification□Submit manufacturer's s□ecification sheet(s) for a□□roval of □roduct. Submit ta□s from ba□s of fertili□er used on site to the Architect. Submit co□ies of the manufacturer's s□ecifications or anal□sis of all fertili□er for a□□roval.

Com□osition and □ualit□□ All fertili□er shall be uniform in com□osition and dr□ □ranular fertili□er shall be free flo□in□and delivered in uno□ened ba□s. Tablet fertili□er shall be delivered in uno□ened containers or boxes. All ba□s, containers or boxes shall be full□ labeled □ith the manufacturer's anal□sis.

Fertili□er shall be slo□ release □ith ratio □reater than 3 to 1 nitro□en to □hos□horous a□□lied on to□of backfill, □er manufacturer's recommendations.

All shall com□l□□ith the State of Florida fertili□er la□s.

CL□A□□P□

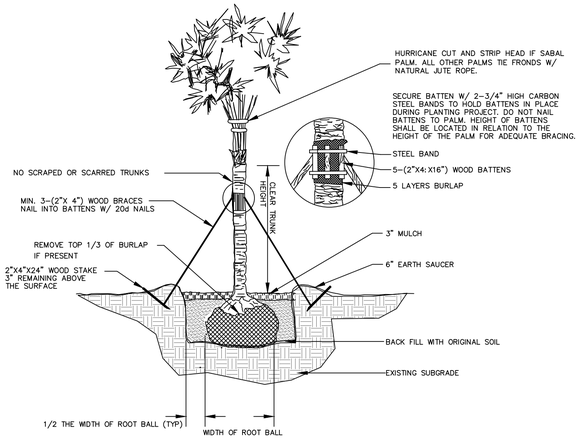
Landsca□e Contractor shall at all times kee□ □ob site clean and free from accumulation of □aste material, debris and rubbish.

I□SP□CTIO□□

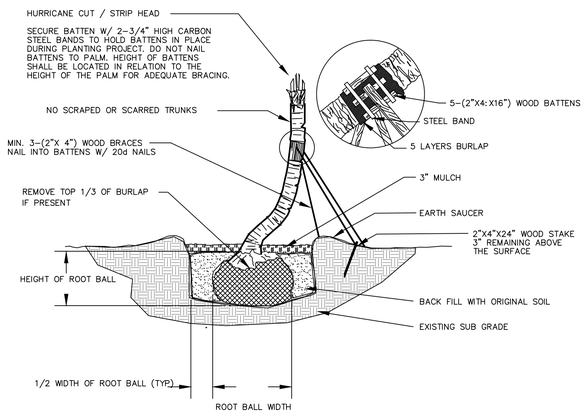
□□on □ritten re□uest from the Contractor, O□ner and□r Landsca□e Architect shall □erform ins□ection to determine com□letion of Contract.

ACC□PTA□C□□

Follo□in□ins□ection, Contractor □ill be notified, in □ritin□, b□O□ner and□r Landsca□e Architect of acce□tance of com□letion □ith re□ards to □lant material and □orkmanshi□ accordin□to Contract.



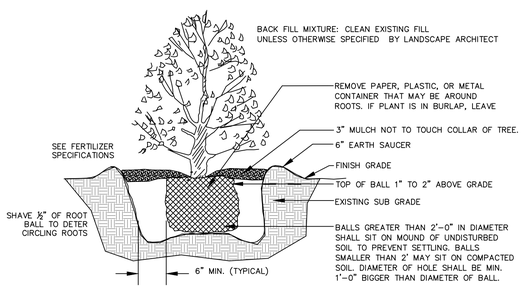
PALM PLANTING DETAIL



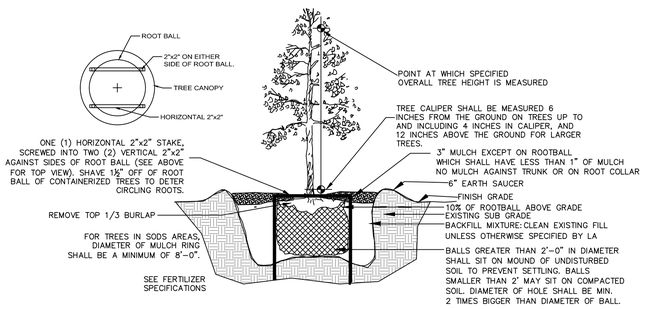
CURVED SABAL PLANTING DETAIL

PLANT LIST

VINE PLANTING DETAIL



SHRUB PLANTING DETAIL



TREE PLANTING DETAIL

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FL 33407
Tel (561) 747-3462
Fax (561) 747-0281
www.studio-sprout.com
LA 0000907
LCC 000213

STUDIO Sprout

SCALE	NOT TO SCALE
DESIGNED BY	CRF
DRAWN BY	---
CHECKED BY	CRF
CAD DWG.	
DATE	16.05.09
REVISIONS	16.07.27

BERMUDA CAY
3RD AVE SOUTH & SOUTH FEDERAL HIGHWAY
CITY OF LAKE WORTH, FLORIDA

LANDSCAPE PLAN

PLA□T SCH□D□L□

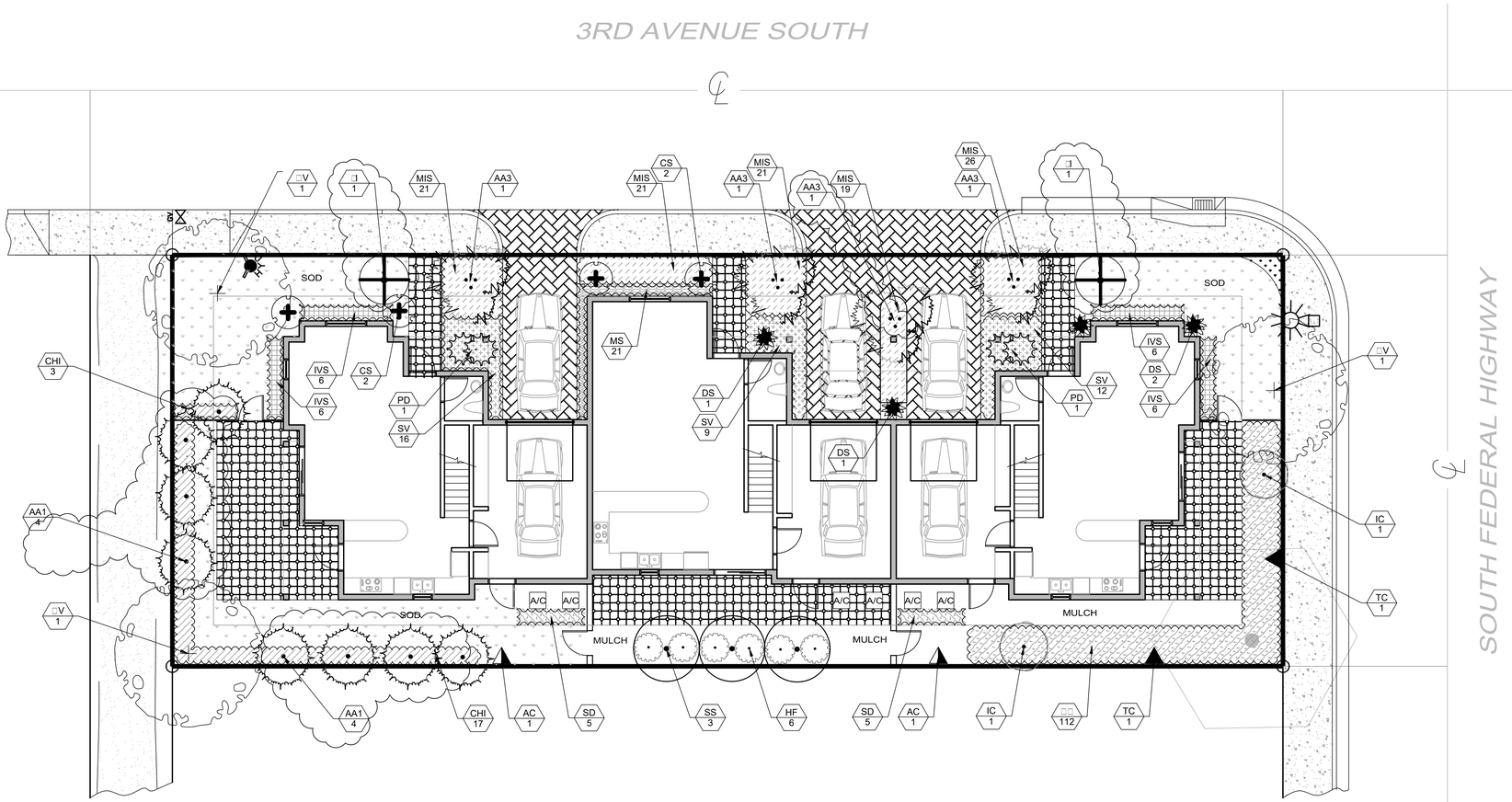
TR□□S	BOTA□ICAL □AM□	□COMMO□ □AM□	SI□□	SPACI□□	□T□	□□IT COST	TOTAL
AA3	Archonto□hoenix alexandrae	□Alexandra Palm	12□O.A TRIPL□	AS SHOW□	3	□500	□1,500
AA1	Archonto□hoenix alexandrae	□Alexandra Palm	14□MATCH□D	AS SHOW□	4	□300	□1,200
IC	Ilex cassine	□Dahoon Holl□	12-14□x6□		2	□350	□700
PD	Phoenix roebelenii	□Double□□P□□m□Date Palm	3-4□O.A		2	□150	□300
□V	□uercus vir□iniana	□Southern Live Oak	14-16□x6□	AS SHOW□	3	□450	□1,350
SS	Sabal □almetto Sabal Palm	□Sabal Palm Booted	16□Matched		3	□150	□450

SHR□BS	BOTA□ICAL □AM□	□COMMO□ □AM□	SI□□	SPACI□□	□T□	□□IT COST	TOTAL
AC	Allamanda cathartica	□□olden Trum□et	#7	24" o.c.	2	□40	□80
CS	Clusia □uttifera	□Small-Leaf Clusia	#10	48" o.c.	5	□150	□750
DS	Dracaena reflexa Son□ of □amaica	□Pleomele	15 □al F□LL	36" o.c.	4	□90	□360
HF	Hamelia □atens	□Fire Bush	#7	42" o.c.	6	□30	□180
TC	Trachelos□ermum □asminoides	□Confederate□□Confederate □asmine Vine	#15	24" o.c.	2	□150	□300

SHR□B AR□AS	BOTA□ICAL □AM□	□COMMO□ □AM□	CO□T	SPACI□□	□T□	□□IT COST	TOTAL
CHI	Chr□sobalanus icaco	□Coco□lum	#3	30" o.c.	20	□8	□160
IVS	Ilex vomitoria □Stokes D□arf□□D□arf	□au□on	#3	24" o.c.	24	□8	□192
MIS	Microsorum scolo□endrum	□Wart Fern	1 □al	18" o.c.	108	□5	□540
MS	M□rcianthes fra□rans □Sim□son□s Sto□□er	□Sim□son□s Sto□□er	#3	18" o.c.	21	□9	□189
□□	□e□hrole□is exaltata	□Boston Fern	#1	18" o.c.	112	□4	□448
SD	Schefflera arboricola	□□reen Schefflera	#3	24" o.c.	10	□30	□300
SV	Schefflera arboricola	□Varie□ata□□Varie□ated Schefflera	#3	24" o.c.	37	□8	□296

□RO□□D COV□RS	BOTA□ICAL □AM□	□COMMO□ □AM□	CO□T	SPACI□□	□T□	□□IT COST	TOTAL
ST□	Stenota□hrum secundatum	□Floritam□□Floritam St. Au□ustine Sod	3 □al		576 sf	□0.50	□288.03

TOTAL□ □9,583



LANDSCAPE CALCULATIONS

6750 sq. ft.	100 landscape points required	3 trees required and provided
2 medium tree	14 points	
2 small tree	10 points	
12 palms	84 points	
353 shrubs and groundcovers	706 points	
TOTAL POINTS	814	

PLANT LIST

TR□□S	BOTA□ICAL □AM□ □COMMO□ □AM□	SI□□	SPACI□□	□T□
AA3	Archonto□hoenix alexandrae □Alexandra Palm	12□O.A TRIPL□	AS SHOW□	4
AA1	Archonto□hoenix alexandrae □Alexandra Palm	14□MATCH□D	AS SHOW□	8
IC	Ilex cassine □Dahoon Holl□	12-14□x6□		2
PD	Phoenix roebelenii □Double□□P□□m□Date Palm	3-4□O.A		2
□V	□uercus vir□iniana □Southern Live Oak	14-16□x6□	AS SHOW□	3
SS	Sabal □almetto Sabal Palm □Sabal Palm Booted	16□Matched		3

SHR□BS	BOTA□ICAL □AM□ □COMMO□ □AM□	SI□□	SPACI□□	□T□
AC	Allamanda cathartica □□olden Trum□et	#7	24" o.c.	2
CS	Clusia □uttifera □Small-Leaf Clusia	#10	48" o.c.	5
DS	Dracaena reflexa Son□ of □amaica □Pleomele	15 □al F□LL	36" o.c.	4
HF	Hamelia □atens □Fire Bush	#7	42" o.c.	6
□I	□atro□ha inte□errima □Pere□rina	#15 M□LTIST□M	72" o.c.	2
TC	Trachelos□ermum □asminoides □Confederate□□Confederate □asmine Vine	#15	24" o.c.	2

SHR□B AR□AS	BOTA□ICAL □AM□ □COMMO□ □AM□	CO□T	SPACI□□	□T□
CHI	Chr□sobalanus icaco □Coco□lum	#3	30" o.c.	20
IVS	Ilex vomitoria □Stokes D□arf□□D□arf □au□on	#3	24" o.c.	24
MIS	Microsorum scolo□endrum □Wart Fern	1 □al	18" o.c.	108
MS	M□rcianthes fra□rans □Sim□son□s Sto□□er□□Sim□son□s Sto□□er	#3	18" o.c.	21
□□	□e□hrole□is exaltata □Boston Fern	#1	18" o.c.	112
SD	Schefflera arboricola □□reen Schefflera	#3	24" o.c.	10
SV	Schefflera arboricola □Varie□ata□□Varie□ated Schefflera	#3	24" o.c.	37

□RO□□D COV□RS	BOTA□ICAL □AM□ □COMMO□ □AM□	CO□T	SPACI□□	□T□
ST□	Stenota□hrum secundatum □Floritam□□Floritam St. Au□ustine Sod	sod		576 sf

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LCC 000213

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SCALE	1/8"=1'-0"
DESIGNED BY	CRF
DRAWN BY	---
CHECKED BY	CRF
CAD DWG.	
DATE	16.05.09
REVISIONS	16.07.27
	16.09.08

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3RD AVE SOUTH & SOUTH FEDERAL HIGHWAY
CITY OF LAKE WORTH, FLORIDA

LANDSCAPE PLAN

□OB CO□DITIO□S□

An□buildin□construction material or forei□n material shall be removed from □lantin□areas and re□laced □ith acce□table to□soil.

Care shall be taken not to disturb or dama□e an□under□round construction or utilities. An□ dama□e to these facilities durin□the □lantin□o□erations □ill be re□aired at the ex□ense of the Landsca□e Contractor in a manner a□□roved b□the O□ner. Where under□round obstructions □ill not □ermit the □lantin□ materials in accordance □ith the □lans, ne□ locations shall be a□□roved b□the Landsca□e Architect.

Landsca□e □ork shall be coordinated □ith the landsca□e irri□ation □ork. Landsca□e Contractor shall ensure that no □lantin□s □ill interfere □ith the □ro□er covera□e. Landsca□e Contractor shall □oint out situations □here minor ad□stments or relocation or addition of s□rinklers heads ma□be most beneficial for the landsca□e □ork as a □hole.

PLA□T MAT□RIAL□

Plant s□ecies and si□e shall conform to those indicated on the dra□in□s. □omenclature shall conform to STA□DARDI□□D PLA□T □AM□S, LAT□ST □DITIO□. All □lant material shall be in accordance □ith □RAD□S A□D STA□DARDS FOR □□RS□R□ PLA□TS, latest edition □ublished b□the Florida De□artment A□riculture and Consumer Services. All □lants not other□ise s□ecified as Florida Fanc□ or S□ecimen, shall be Florida □rade □umber 1 or better as determined b□the Florida □rade Plant Industr□ S□ecimen means an exce□tionall□heav□, s□mmetrical, ti□ht□knit □lant, so trained or favored in its develo□ment that its a□□earance is un□uestionable and□tandin□□su□erior in form, number of branches, com□actness and s□mmetr□. All □lants shall be sound, health□, vi□orous, □ell branched and free of disease and insect e□□s and larvae and shall have ade□uate root s□stems. Trees and shrubs for □lantin□ro□s shall be uniform in si□e and sha□e. All materials shall be sub□ct to a□□roval b□the Landsca□e Architect. Where an□re□uirements are omitted from the Plant List, the □lants furnished shall be normal for the variet□

All container □ro□n material shall be health□, vi□orous, □ell-rooted □lants and established in the container. The □lants shall have to□s □hich are □ood □uali□and are in a health□ □ro□in□condition. An established container □ro□n □lant shall be trans□lanted into a container and □ro□n in that container lon□enou□h for the ne□ fibrous roots to have develo□ed enou□h to hold the root mass to□ether □hen removed from the container. Root bound □lants □ill not be acce□ted.

Site □ater shall be verified b□Contractor □rior to submission of bids.

The use of natural material is stron□□encoura□ed for balled and burla□ed □lants. All s□nthetic material shall be com□lete□removed from root ball PRIOR to □lantin□.

At time of bid, Contractor shall submit a □ritten schedule of all sources for coconut □alms as □ell as seed sources for coconuts. Coconuts shall be certified Mala□an □reen □ith a certified seed source from □amaica.

TR□□S□

The most critical factor for selectin□a health□Florida □umber 1 tree is the structure. This consists of one central main trunk and leader. Branches are considered com□etin□if the□ are 2⁄3 the diameter of the leader or □reater. Com□etin□branches ma□be acce□table if the□occur above 50□ of the overall hei□ht of the tree. Cali□er of tree should meet s□ecifications. Leader (center trunk) ma□have sli□ht (□15 de□ree) bo□ (Tabebuia caraiba excluded), but must be intact □ith a□ical (leadin□) bud.

Branches should be s□read evenl□(sta□□ered, alternatin□) throu□h the tree branches s□aced no closer than 4".

Cano□□should be full to s□ecifications □ith little or no o□enin□s or holes. A thinnin□cano□□ □ill be taken into consideration □ith field du□□lant material.

Trees should have no o□en □ounds or dama□e, flush cuts, chlorosis, shorter or taller than s□ecified hei□ht, □rdlin□roots, undersi□e loose root ball, crossin□branches, smaller than normal leaves.

10□ of root ball shall be above □rade after □lantin□. Root ball t□in□ro□es removed from trunk and to□of root ball.

M□LTIPL□ TR□□K TR□□S□

Trees havin□no distinct leader. Trunks on these trees should not be touchin□and free of dama□e and similar in si□e. Cano□□should be full and uniform.

R□LOCAT□D TR□□S□

These trees ma□not conform to □rades and standards, □et do have □uali□criteria □hich effect the health, lon□evit□and safet□of the tree (and □erson □hich ma□contact tree). This is □OT meant to be a □uideline for trans□lantin□trees, but rather the criteria b□□hich relocated trees □ill meet To□n, Count□, State or □overnin□a□enc□□uidelines. Trees □hich re□uire excessive □runin□should □OT be used. Dama□ed or dead relocated trees □ill be re□laced □ith a□□ro□riate number of cali□er inches and s□ecies e□ual to relocated or dead tree, as a□□roved b□the Landsca□e Architect.

□o more than 20□ of the folia□e should be removed for an□reason (excludin□Sabal Palms). Trees should be corrected for an□structural defects, touchin□branches, dead or rottin□□ood, V-sha□ed branchin□or branchin□□hich ma□effect human safet□issues □ost relocation. To□in□a relocated tree is not acce□table.

Dama□e to the trunk□branches □ill not exceed 10□ of the trunk diameter and 2" in hei□ht.

An□ma□or limb or cano□□□runin□□ill be □ualified and □erformed b□a Certified Arborist.

IRRI□ATIO□

Provide bubblers on se□arate □ones for all ne□□□lanted and trans□lanted trees unless alternate a□□roach to □rovide additional □ater is a□□roved b□o□ner and Landsca□e Architect.

MAT□RIALS LIST□

Landsca□e Contractor shall be res□onsible for verif□n□all □uantities for material sho□n on dra□in□s □rior to submittin□a bid. Plantin□□lan shall take □recedence over the □lant list. Final □uantit□of sod and mulch shall be verified.

S□BSTIT□TIO□S□

□o substitutions shall be made □ithout the a□□roval from the Landsca□e Architect and□r the O□ner. Intended substitutions shall be indicated on the bid.

M□AS□R□M□□TS□

Cano□□Trees- Hei□ht shall be measured from the □round to the avera□e hei□ht of cano□□ S□read shall be measured to the end of branchin□e□uall□around the cro□n from the center of the trunk. Cali□er (d.b.h.) □ill be measured 4□6" above □rade.

Shrubs- Hei□ht shall be measured from the □round. S□read shall be measured to the end of branchin□e□uall□around the shrub mass.

Palms- Clear trunk (C.T.) shall be measured from the □round to the □oint □here the mature a□ed trunk □oins the immature or □reen □art of the trunk or head.

Overall hei□ht (O.A.) shall be measured from the □round to the ti□of the uno□ened bud.

IRRI□ATIO□□

100□ irri□ation covera□e shall be □rovided. Provide bubblers on se□arate □ones for all ne□□□lanted and trans□lanted trees unless alternate a□□roach to □rovide additional □ater is a□□roved b□O□ner and Landsca□e Architect.

□□ARA□T□□□

All ne□ □lant materials shall be □uaranteed for one □ear from the time of acce□tance and shall be alive and in satisfactor□ □ro□th for each s□ecific kind of □lant at the end of the □uarantee □eriod. The Landsca□e Contractor shall not be res□onsible for dama□e caused b□vandalism, violent □ind storms or other acts of □od be□ond control. Re□lacement shall occur □ithin t□o □eeks of re□ection and □uaranteed six months from date of installation. Landsca□e Contractor shall re□air dama□e to other □lants or la□ns durin□□lant re□lacements at no additional cost.

M□LCH□

Mulch shall not contain sticks 1.4" in diameter or stones. A□□□3" of mulch exce□t on to□ of tree rootballs and a□ainst □ood□shrubs. Rootballs □ill receive less than 1" mulch □ith no mulch touchin□trunk or root collar. Do not a□□□mulch a□ainst the trunks of □ood□ shrubs.

SOD□

All sod shall be installed in such a manner that there is an even surface, sta□□ered □attern. Sod □ill be □reen in color and in □ood health. □O overla□, □a□s, dama□e, insects, disease and less than 10□ chlorosis □ill be □ermitted. All □a□s □ill be filled □ith clean native soil.

STAKI□□□

Landsca□e Contractor to su□□est alternate means of stakin□for a□□roval □ith Landsca□e Architect if stakin□methods sho□n are not feasible due to site conditions.

F□RTILI□□R□

Manufacturer's S□ecification□Submit manufacturer's s□ecification sheet(s) for a□□roval of □roduct. Submit ta□s from ba□s of fertili□er used on site to the Architect. Submit co□ies of the manufacturer's s□ecifications or anal□sis of all fertili□er for a□□roval.

Com□osition and □ualit□□All fertili□er shall be uniform in com□osition and dr□ □ranular fertili□er shall be free flo□in□and delivered in uno□ened ba□s. Tablet fertili□er shall be delivered in uno□ened containers or boxes. All ba□s, containers or boxes shall be full□ labeled □ith the manufacturer's anal□sis.

Fertili□er shall be slo□ release □ith ratio □reater than 3 to 1 nitro□en to □hos□horous a□□lied on to□of backfill, □er manufacturer's recommendations.

All shall com□l□□ith the State of Florida fertili□er la□s.

CL□A□□P□

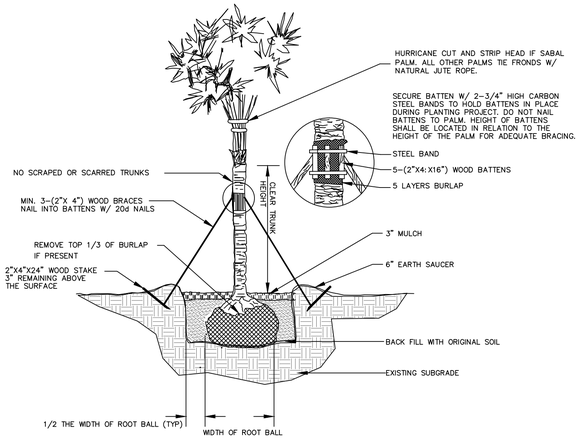
Landsca□e Contractor shall at all times kee□ □ob site clean and free from accumulation of □aste material, debris and rubbish.

I□SP□CTIO□□

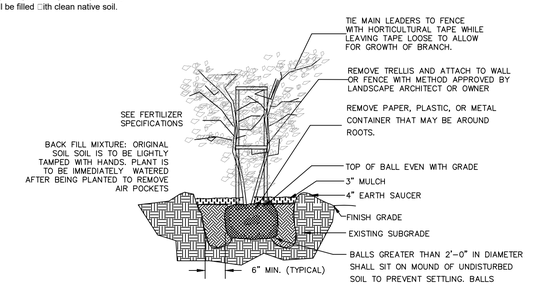
□□on re□uest from the Contractor, O□ner and□or Landsca□e Architect shall □erform ins□ection to determine com□letion of Contract.

ACC□PTA□C□□

Follo□in□ins□ection, Contractor □ill be notified, in □ritin□, b□O□ner and□or Landsca□e Architect of acce□tance of com□letion □ith re□ards to □lant material and □orkmanshi□ accordin□to Contract.

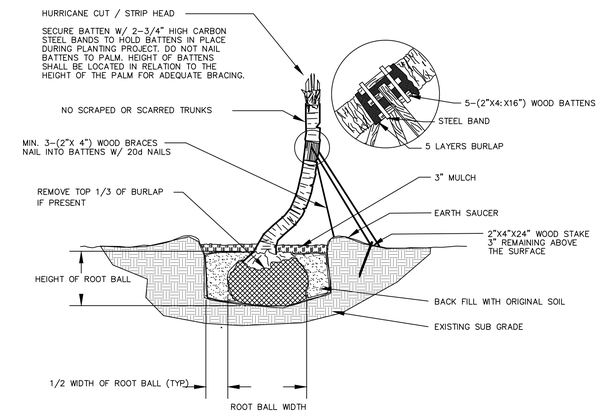


PALM PLANTING DETAIL

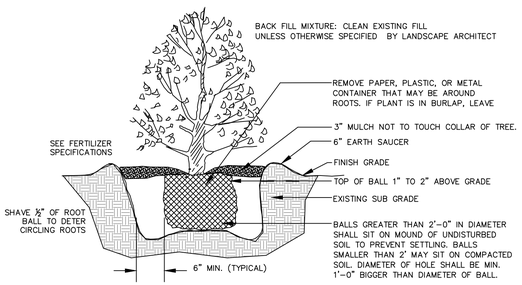


PLANT LIST

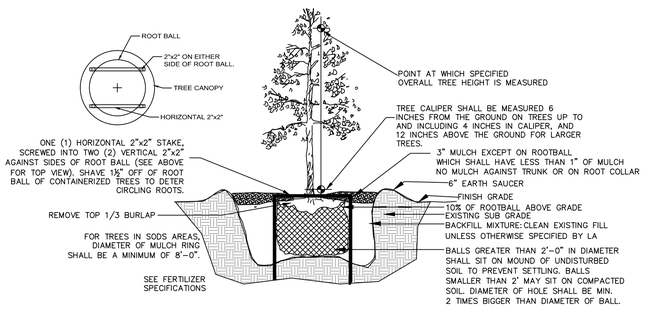
VINE PLANTING DETAIL



CURVED SABAL PLANTING DETAIL



SHRUB PLANTING DETAIL



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SUNSHINE STATE ONECALLING OF FLORIDA, INC.
IT'S THE LAW

NOTE:
INDICATED UTILITIES ARE APPROXIMATE. CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF ALL UTILITIES ON SITE PRIOR TO COMMENCEMENT OF ANY WORK. LANDSCAPE ARCHITECT ASSUMES NO LIABILITY FOR UTILITY DAMAGE.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY PLANT, SOD AND MULCH AMOUNTS FOR BIDDING PURPOSES. PLAN DRAWING TAKES PRECEDENCE OVER ANY QUANTITY SCHEDULES.

521 25th Street
West Palm Beach
FL 33407
Tel (561) 747-3462
Fax (561) 747-0281
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DESIGNED BY	CRF
DRAWN BY	---
CHECKED BY	CRF
CAD DWG.	
DATE	16.05.09
REVISIONS	16.07.27
	16.09.08

BERMUDA CAY
3RD AVE SOUTH & SOUTH FEDERAL HIGHWAY
CITY OF LAKE WORTH, FLORIDA

LANDSCAPE PLAN

CONCEPTUAL CIVIL ENGINEERING PLANS FOR:

BERMUDA CAY

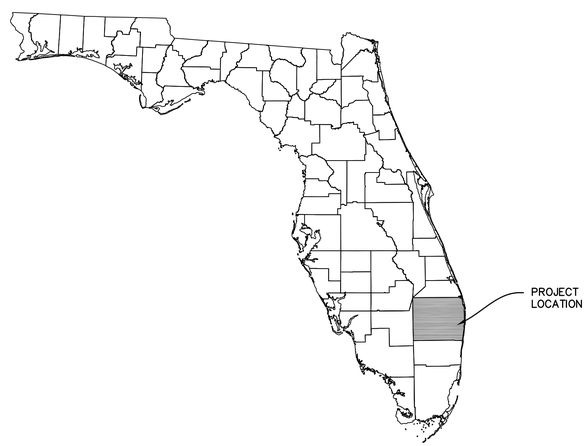
301 S. FEDERAL HIGHWAY
LAKE WORTH, FLORIDA

MMA PROJECT #16-027

GENERAL NOTES:

1. COORDINATION OF DRAWINGS AND DISCIPLINES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW ALL DRAWINGS AND SPECIFICATIONS FOR COMPLETENESS AND ACCURACY. FURTHER CONTRACTOR IS COORDINATE ALL TRADES AND DISCIPLINES PROPERLY. ANY DISCREPANCIES IN PLANS OR SPECIFICATIONS ARE TO BE BROUGHT TO THE ATTENTION OF THE ENGINEER IN WRITING.
2. FDOT R/W. ALL MATERIALS AND CONSTRUCTION WITHIN THE FDOT RIGHT-OF-WAY SHALL CONFORM TO THE LATEST FDOT DESIGN STANDARDS & LATEST SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION.
3. BUILDINGS & UTILITIES. CONTRACTOR IS ADVISED THAT THE BUILDINGS AND ASSOCIATED SYSTEMS ARE STILL UNDER REVIEW BY VARIOUS JURISDICTIONAL AGENCIES. AS SUCH, THERE MAY BE MODIFICATIONS TO SERVICE LINES (MATERIALS, SIZES, LOCATIONS, DEPTHS, ETC.) AS THE DOCUMENTS ARE PERMITTED.
4. SAFETY. IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO TAKE THE NECESSARY PRECAUTIONS TO ENSURE PROPER SAFETY AND WORKMANSHIP WHEN WORKING IN THE VICINITY OF EXISTING UTILITY LINES. THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE WITH THE RESPECTIVE UTILITY PROVIDER ON ANY WORK IN THE VICINITY OF OVERHEAD OR UNDERGROUND LINES. CONTRACTOR SHALL VERIFY PROPER CLEARANCE BELOW EXISTING OVERHEAD LINES PRIOR TO WORKING WITHIN THE VICINITY OF THE LINES.
5. FAMILIARITY WITH SITE CONDITIONS. THE CONTRACTOR SHALL VISIT THE SITE AND ACQUAINT HIMSELF WITH ALL EXISTING CONDITIONS. MAKE HIS OWN SUBSURFACE INVESTIGATION TO SATISFY HIMSELF AS TO THE SITE AND SUBSURFACE CONDITIONS. BUT SUCH SUBSURFACE INVESTIGATIONS SHALL BE PERFORMED ONLY UNDER TIME SCHEDULES AND ARRANGEMENTS APPROVED IN ADVANCE BY THE OWNER'S REPRESENTATIVE AND ENGINEER. THE EXISTING GRADES SHOWN ON THE DRAWINGS ARE APPROXIMATE ONLY AND NO REPRESENTATION IS MADE AS TO THEIR ACCURACY OR CONSISTENCY. THE CONTRACTOR SHALL VERIFY ALL EXISTING GRADES TO THE EXTENT NECESSARY TO INSURE COMPLETION OF THE JOB TO THE PROPOSED GRADES INDICATED ON THE DRAWINGS.
6. WORKMANSHIP. ALL WORK SHALL BE PERFORMED IN A WORKMANSHIP-LIKE MANNER AND SHALL CONFORM WITH ALL APPLICABLE CITY, COUNTY, STATE AND FEDERAL REGULATIONS AND/OR CODES, INCLUDING OSHA.
7. ELEVATIONS. ALL ELEVATIONS REFER TO NGVD 1929 DATUM.
8. SURVEY & BENCHMARK. REFER TO SURVEY PREPARED BY MILLER LAND SURVEYING FOR ADDITIONAL INFORMATION.
9. GEOTECHNICAL INFORMATION. REFER TO GEOTECHNICAL REPORTS AND BORING LOGS FOR ADDITIONAL INFORMATION INCLUDING SITE PREPARATION REQUIREMENTS.
10. FIELD LOCATIONS. THE CONTRACTOR SHALL CONTACT "SUNSHINE STATE ONE CALL OF FLORIDA, INC. (1-800-432-4770)" AT LEAST 48 HOURS PRIOR TO BEGINNING ANY EXCAVATION. THE CONTRACTOR SHALL GIVE ADEQUATE NOTIFICATION TO ALL AFFECTED UTILITY OWNERS FOR REMOVAL, RELOCATION AND ALTERATION OF THEIR EXISTING FACILITIES.
11. PROTECTION OF UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE AT ALL TIMES THROUGHOUT THE DURATION OF CONSTRUCTION FOR THE PROTECTION OF ALL EXISTING AND NEWLY INSTALLED ABOVE GROUND, UNDERGROUND, AND ON THE SURFACE STRUCTURES AND UTILITIES FROM DAMAGE OR SERVICE DISRUPTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TAKING SUCH MEASURES AS NECESSARY TO PROTECT THE HEALTH, SAFETY, AND WELFARE OF THOSE PERSONS HAVING ACCESS TO THE WORK SITE.
12. EXISTING UTILITIES. PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL VERIFY THE SIZE, LOCATION, ELEVATION, AND MATERIAL OF ALL EXISTING UTILITIES WITHIN THE AREA OF CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF ALL EXISTING UTILITIES AND SOILS CONDITIONS AND SHALL NOTIFY THE ENGINEER IN THE EVENT OF ANY DISCREPANCIES WITH THE PLANS.
13. EXISTING UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO ANY EXISTING UTILITIES FOR WHICH IT FAILS TO REQUEST LOCATIONS FROM THE UTILITY OWNER. THE CONTRACTOR IS RESPONSIBLE AS WELL FOR DAMAGE TO ANY EXISTING UTILITIES WHICH ARE PROPERLY LOCATED.
14. FIELD REVIEWS. THE CONTRACTOR SHALL NOTIFY THE ENGINEER 48 HOURS PRIOR TO ANY REQUIRED FIELD REVIEWS OR INSPECTIONS AND SHALL SUPPLY ALL EQUIPMENT NECESSARY, LABOR AND MATERIALS FOR INSPECTION AND/OR TEST. ALL WORK SHALL BE OPEN AND SUBJECT TO REVIEW AND/OR INSPECTION BY AUTHORIZED PERSONNEL OF THE CITY, OWNER, INVOLVED UTILITY COMPANIES, PROJECT ENGINEER, AND REGULATORY AGENCIES. ALL RECOMMENDATIONS AND REQUIREMENTS OF INSPECTION PERSONNEL OTHER THAN THE OWNER'S SHALL BE REPORTED TO THE ENGINEER PRIOR TO IMPLEMENTATION. COMPENSATION WILL NOT BE ALLOWED FOR WORK WHICH IS NOT AUTHORIZED BY THE ENGINEER OR OWNER.
15. DIFFERING SITE CONDITIONS. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY DISCREPANCIES FOUND BETWEEN THE DRAWINGS AND THE FIELD CONDITIONS PRIOR TO CONSTRUCTION IN THE AREA OF CONFLICT. ANY DIFFERING SITE CONDITIONS FROM THAT WHICH ARE REPRESENTED ON THE PLANS, WHETHER ABOVE, ON OR BELOW THE SURFACE OF THE GROUND, ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER AND THE OWNER IN WRITING.
16. DEWATERING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND COMPLYING WITH ANY DEWATERING PERMITS AND/OR APPROVALS NECESSARY FOR THE CONSTRUCTION OF THE PROPOSED FACILITIES AND SYSTEMS.
17. PERMITS. THE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS AND/OR LICENSES TO COMMENCE CONSTRUCTION.
18. USE OF EXISTING MATERIALS. NO EXISTING MATERIAL SHALL BE USED IN NEW CONSTRUCTION UNLESS APPROVED DURING THE SHOP DRAWING APPROVAL PROCESS.
19. EXISTING LANDSCAPE. CONTRACTOR SHALL BE EXTREMELY CAUTIOUS WHEN WORKING NEAR TREES WHICH ARE TO BE SAVED, WHETHER SHOWN ON THE PLAN OR DESIGNATED IN THE FIELD.
20. TESTING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REQUIRED TESTS TO BE PERFORMED BY AN INDEPENDENT TESTING LABORATORY APPROVED BY THE ENGINEER. THE CONTRACTOR UNDERSTANDS THAT ANY AND ALL TESTS, INSPECTIONS, PROCEDURES INCLUDING ALL LABOR, MATERIALS, TIME AND EFFORT IN ORDER TO HAVE ALL WORK DESIGNATED AS FINAL BY THE RESPECTIVE JURISDICTIONAL AUTHORITIES AND THAT SUCH TESTS, INSPECTIONS AND PROCEDURES ARE INCLUDED IN THE BID.
21. FINAL UTILITY ADJUSTMENTS. ALL UTILITIES SHALL BE ADJUSTED TO NEW FINISH GRADES AND PROPERLY SET TO PAVEMENT CROSS SLOPE AS REQUIRED.

PROJECT LOCATION MAP
SEC 27 | TWP 44S | RGE 43E
N.T.S.



DRAWING INDEX

DWG. #	TITLE
01	COVER SHEET
02	PAVING, GRADING, & DRAINAGE PLAN
03	PAVING, GRADING, & DRAINAGE DETAILS
04	WATER & WASTEWATER PLAN
05-08	WATER & WASTEWATER DETAILS

GOVERNING SPECIFICATIONS
REFER TO PROJECT SPECIFICATION SHEET FOR DETAILED PROJECT AND MATERIAL REQUIREMENTS. ITEMS NOT EXPLICITLY ADDRESSED BY SPECIFICATION SHEETS SHALL BE CONSTRUCTED PER FDOT SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION (v2016) UNLESS OTHERWISE DIRECTED BY THE ENGINEER OF RECORD.

LEGAL DESCRIPTION (FROM SURVEY):
Lot 9, Block 109, The Palm Beach Farms Co., Plat No. 2, Townsite of Lucerne, now known as LAKE WORTH, according to the Plat thereof as recorded in Plat Book 2, Page(s) 29, of the Public Records of Palm Beach County, Florida.

Subject Lot Area = 6,750 Sq. Ft. or 0.155 Acres.

Know what's **below.**
Call before you dig.

PROJECT TEAM

PLANNER / SURVEYOR
MILLER LAND PLANNING/ MILLER LAND SURVEYOR
508 E Boynton Beach Blvd
Boynton Beach, FL 33435
P: (561) 736-8838

CIVIL ENGINEER:
McLEOD, McCARTHY & ASSOCIATES
TODD N. McLEOD, P.E.
1655 PALM BEACH LAKES BLVD.
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West Palm Beach, FL 33401
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www.mcleodmccarthy.com

SEAL
8/1/16
TODD N. MCLEOD, P.E.
FL LICENSE NO. 69188 | FL CA NO. 30535

FIELD:
DRAWN: PAS
DESIGNED: TNM
APPROVED: TNM

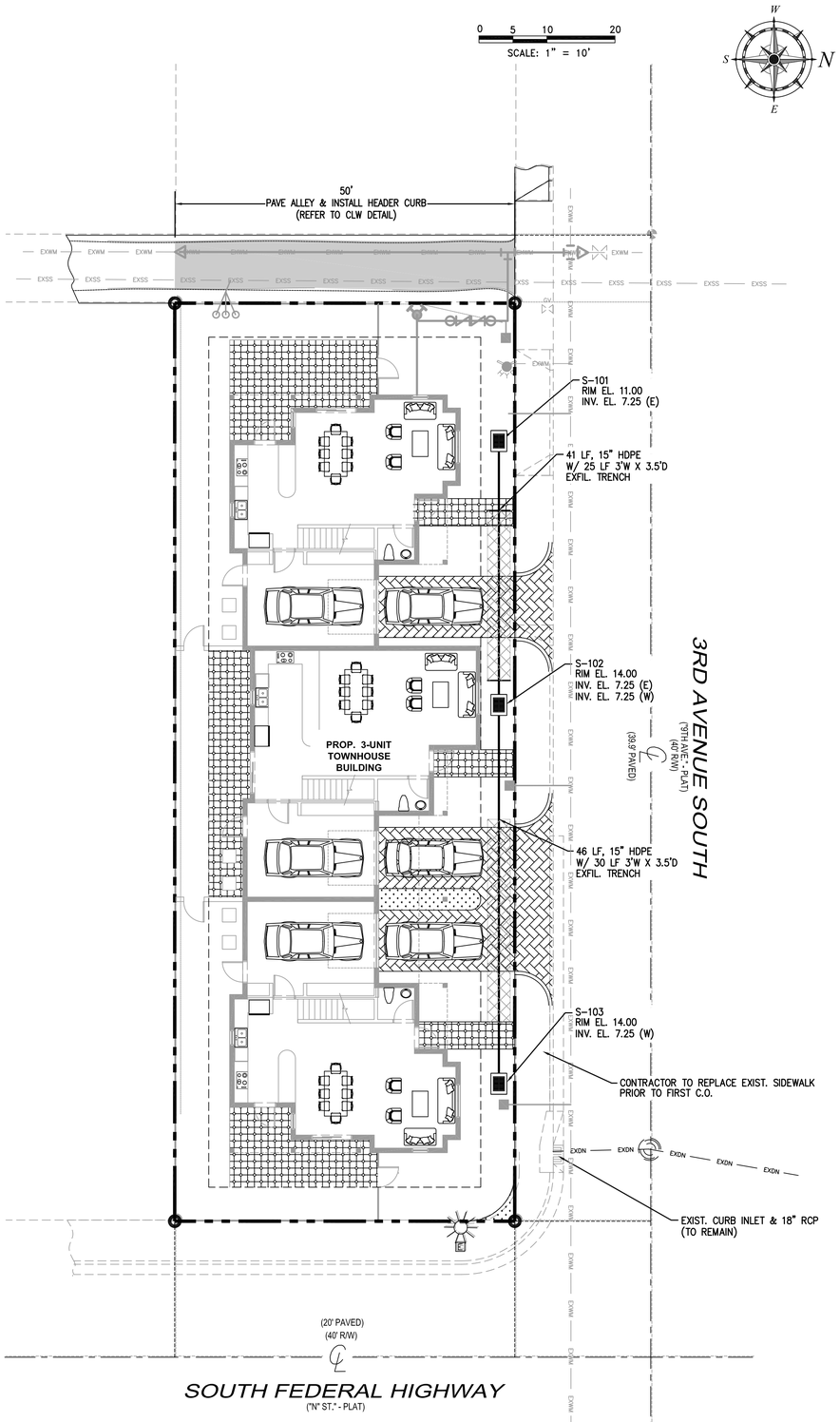
PROJECT #:16-027
DRAWING #:

NO.	DATE	REVISIONS
1	8/1/16	REV PER SFRC COMMENTS

COVER SHEET
BERMUDA CAY
301 S. FEDERAL HIGHWAY
CITY OF LAKE WORTH, FLORIDA

SCALE: AS SHOWN
DATE: 05/05/2016

SHEET
01
OF 8



LEGEND

PROP. SIGN

SURFACE FLOW ARROW

PROP. CONCRETE PAVEMENT

PROP. ASPHALT PAVEMENT

PAVEMENT RESTORATION

PROPOSED ELEVATION 20.60

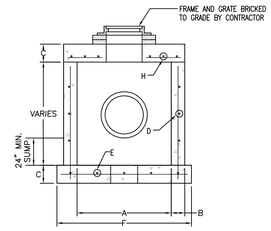
EXIST. ELEVATION 19.5

ACCESSIBILITY NOTES:

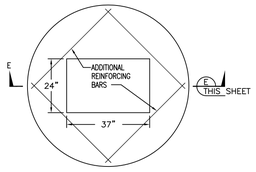
1. ACCESSIBLE ROUTES SHALL BE CONSTRUCTED TO MEET THE REQUIREMENTS OF THE 2010 FLORIDA BUILDING CODE – ACCESSIBILITY.
2. ALL WALKS CROSSING A VEHICULAR AREA SHALL HAVE DETECTABLE WARNING SURFACE (TRUNCATED DOME) IN ACCORDANCE WITH THE 2010 FLORIDA BUILDING CODE – ACCESSIBILITY.
3. CURB RAMP SLOPES AND DIMENSIONS SHALL BE IN ACCORDANCE WITH THE FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) STANDARD INDEX NO. 304. CURB RAMP DETECTABLE WARNING SURFACES SHALL BE TRUNCATED DOME AND SHALL BE IN ACCORDANCE WITH THE FLORIDA BUILDING CODE.

NOTES:

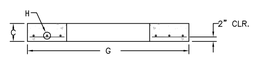
1. ALL LANDSCAPE AREAS ADJACENT TO BUILDING SHALL BE GRADED TO DRAIN AWAY FROM BUILDING.
2. CONTRACTOR SHALL CONFIRM DETECTABLE WARNING REQUIREMENTS WITH BUILDING OFFICIAL PRIOR TO INSTALLATION.
3. WHERE LANDSCAPE/SOD ABUTS BUILDING SLAB, A MINIMUM 3" SLAB REVEAL SHALL BE PROVIDED.
4. MAXIMUM SLOPE FROM TOP OF CURB AND BACK OF WALK TO FINISHED GRADE SHALL BE 4(H):1(V), UNLESS OTHERWISE NOTED.
5. ALL BUFFER, DETENTION, SWALE, AND UN–LANDSCAPED/UNPAVED AREAS SHALL BE SODDED UNLESS OTHERWISE NOTED.
6. REFER TO SITE PLAN PREPARED BY MILLER LAND PLANNING FOR ADDITIONAL SITE REQUIREMENTS.
7. PRIOR TO FINAL WALKTHROUGH, CONTRACTOR SHALL ENSURE THAT ENTIRE SURROUNDING OFF–SITE INFRASTRUCTURE ELEMENTS, INCLUSIVE OF THE ROADWAY, SIDEWALK, CURBING, STORMWATER SYSTEM PIPING AND STRUCTURES, VALVE BOXES, MANHOLES, LANDSCAPING, STRIPING, SIGNAGE, AND OTHER IMPROVEMENTS, ARE IN THE SAME OR BETTER CONDITION THAN THEY WERE PRIOR TO CONSTRUCTION OF THIS PROJECT.

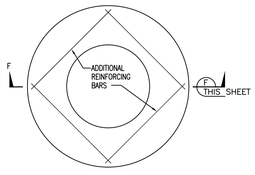


CATCH BASIN
(SEE TABLE FOR DIMENSIONS)

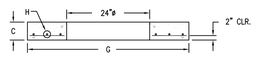


TOP SLAB FOR CATCH BASIN





TOP SLAB FOR MANHOLE



A	B	C	D	E* C.C.E.W.	F	G	H* C.C.E.W.
3'–6"ø	4"	8"	ASTM C–478	#4 @ 12"	4'–8"ø	4'–2"ø	#4 @ 6"
3'–6"ø	6"	8"	ASTM C–478	#4 @ 12"	5'–0"ø	4'–6"ø	#4 @ 6"
4'ø	6"	8"	ASTM C–478	#4 @ 12"	6'–0"ø	5'–0"ø	#4 @ 6"
4'ø	8"	8"	ASTM C–478	#4 @ 12"	6'–4"ø	5'–4"ø	#4 @ 6"
5'–0"ø	8"	8"	ASTM C–478	#5 @ 12"	7'–4"ø	6'–4"ø	#5 @ 6"
6'–0"ø	6"	8"	ASTM C–478	#5 @ 6"	8'–0"ø	7'–0"ø	#5 @ 6"
6'–0"ø	8"	8"	ASTM C–478	#5 @ 6"	8'–4"ø	7'–4"ø	#5 @ 6"
7'–0"ø	8"	8"	ASTM C–478	#5 @ 6"	9'–4"ø	8'–4"ø	#5 @ 6"
8'–0"ø	10"	10"	ASTM C–478	#5 @ 6"	10'–8"ø	9'–8"ø	#6 @ 6"
10–0"ø	12"	12"	ASTM C–478	#5 @ 6"	12'–0" SQ.	12'–0"ø	#6 @ 6"

INLET NOTES

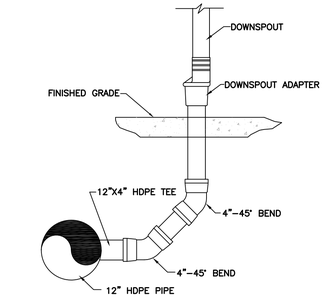
BEVELED EDGES: ALL EXPOSED CORNERS AND EDGES TO BE CHAMFERED 3/4".

FOUNDATION MATERIAL: WHERE MATERIAL UNSATISFACTORY FOR FOUNDATION IS ENCOUNTERED, ALL SUCH MATERIAL MUST BE REMOVED DOWN TO SATISFACTORY MATERIAL AND BACKFILLED TO SUBGRADE WITH CLEAN SAND.

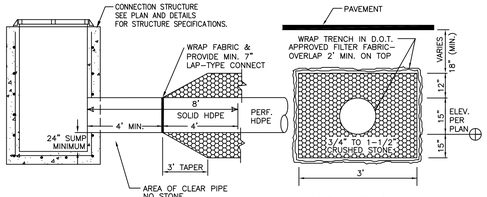
INLET TYPES: INLETS ARE TO BE CONSTRUCTED TO THE DIMENSIONS SHOWN HEREON. INLETS RECEIVING PIPE LARGER THAN 42" DIAMETER SHALL BE IN ACCORDANCE WITH F.D.O.T. STANDARDS

MATERIAL: INLET WALLS AND BASES MAY EITHER BE CAST–IN–PLACE CLASS I, 2500 P.S.I. CONCRETE OR PRECAST CLASS II, 4000 (MIN.) P.S.I. CONCRETE.

CIRCULAR CATCH BASIN (ON–SITE)

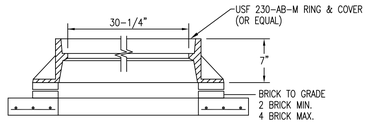


TYPICAL DOWNSPOUT CONNECTION
NTS

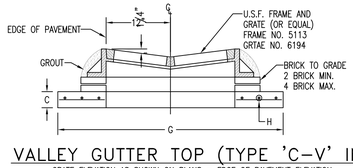


NOTES: COMPACT TRENCH BACKFILL AND SOIL WITHIN MIN. 5' OF TRENCH TO MIN. 98% OF MAX. DRY DENSITY PER ASTM D–1557.

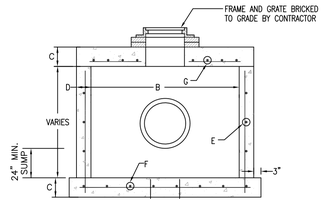
ON–SITE EXFILTRATION TRENCH DETAIL
N.T.S.



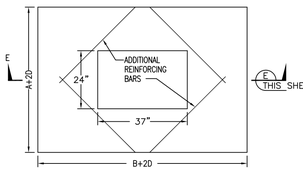
ON–SITE MANHOLE FRAME & COVER
NTS



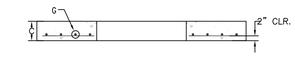
VALLEY GUTTER TOP (TYPE 'C–V' INLET)
GRATE ELEVATION AS SHOWN ON PLANS = EDGE OF PAVEMENT ELEVATION



CATCH BASIN
(SEE TABLE FOR DIMENSIONS)



TOP SLAB FOR CATCH BASIN



A	B	C	D	E*	F*	G*
3'–6"	3'–6"	8"	6"	#4 @ 12"	#4 @ 9"	#4 @ 6"
4'–0"	4'–0"	8"	6"	#4 @ 12"	#4 @ 9"	#4 @ 6"
4'–10"	5'–0"	8"	8"	#4 @ 12"	#5 @ 12"	#5 @ 6"
6'–0"	6'–0"	8"	8"	#4 @ 12" V #4 @ 6" H	#6 @ 12"	#6 @ 6"
8'–0"	8'–0"	10"	8"	#4 @ 12" V #4 @ 6" H	#6 @ 12"	#6 @ 6"
10'–0"	10'–0"	10"	8"	#4 @ 12" V #4 @ 6" H	#6 @ 6"	#7 @ 6"
3'–0"	4'–6"	8"	8"	#4 @ 12"	#4 @ 12"	#4 @ 6"
3'–6"	6'–0"	8"	8"	#4 @ 12" V #4 @ 6" H	#5 @ 12"	#5 @ 6"
4'–0"	6'–0"	8"	8"	#4 @ 12" V #4 @ 6" H	#5 @ 12"	#5 @ 6"
3'–6"	8'–0"	8"	8"	#4 @ 12" V #4 @ 6" H	#5 @ 12"	#5 @ 6"
4'–0"	8'–0"	8"	8"	#4 @ 12" V #4 @ 6" H	#5 @ 12"	#5 @ 6"
5'–0"	7'–0"	8"	8"	#4 @ 12" V #4 @ 6" H	#5 @ 12"	#5 @ 6"
6'–0"	8'–0"	8"	8"	#4 @ 12" V #4 @ 6" H	#6 @ 12"	#6 @ 6"
6'–0"	12'–0"	8"	8"	#4 @ 12" V #4 @ 6" H	#6 @ 12"	#6 @ 6"

INLET NOTES

BEVELED EDGES: ALL EXPOSED CORNERS AND EDGES TO BE CHAMFERED 3/4".

FOUNDATION MATERIAL: WHERE MATERIAL UNSATISFACTORY FOR FOUNDATION IS ENCOUNTERED, ALL SUCH MATERIAL MUST BE REMOVED DOWN TO SATISFACTORY MATERIAL AND BACKFILLED TO SUBGRADE WITH CLEAN SAND.

INLET TYPES: INLETS ARE TO BE CONSTRUCTED TO THE DIMENSIONS SHOWN HEREON. INLETS RECEIVING PIPE LARGER THAN 42" DIAMETER SHALL BE IN ACCORDANCE WITH F.D.O.T. STANDARDS

MATERIAL: INLET WALLS AND BASES MAY EITHER BE CAST–IN–PLACE CLASS I, 2500 P.S.I. CONCRETE OR PRECAST CLASS II, 4000 (MIN.) P.S.I. CONCRETE.

RECTANGULAR CATCH BASIN (ON–SITE)

McLeod • McCarthy & Associates, P.A.
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West Palm Beach, FL 33401
P: 561.689.9500
F: 561.689.8080
www.mcleodmccarthy.com

SEAL

8/1/16
TODD N. MCLEOD, P.E.
FL LICENSE NO. 69188 | FL CA NO. 30535

FIELD:
DRAWN: PAS
DESIGNED: TNM
APPROVED: TNM

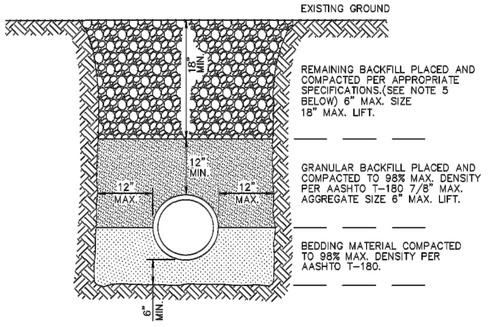
PROJECT #:16-027
DRAWING #:

NO.	DATE	REVISIONS
1	8/1/16	REV PER SPRC COMMENTS

PAVING, GRADING, & DRAINAGE PLAN
BERMUDA CAY
301 S. FEDERAL HIGHWAY
CITY OF LAKE WORTH, FLORIDA

SCALE: AS SHOWN
DATE: 05/05/2016

SHEET
02
OF 8



NOTES:

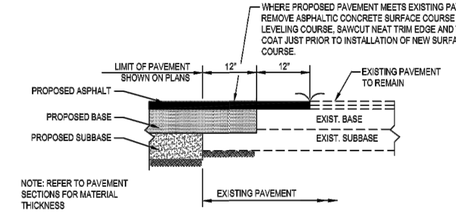
1. UNSUITABLE IN-SITU MATERIALS SUCH AS MUCK, DEBRIS AND LARGE ROCKS SHALL BE REMOVED; BEDDING MATERIAL AND BACKFILL CONSISTING OF WASHED AND GRADED LIMEROCK 3/8" -7/8" SIZING.
2. THE PIPE AND/OR STRUCTURE SHALL BE FULLY SUPPORTED FOR ITS ENTIRE LENGTH WITH APPROPRIATE COMPACTION UNDER THE PIPE HAUNCHES.
3. THE PIPE AND/OR STRUCTURE SHALL BE PLACED IN A DRY TRENCH.
4. BACKFILL SHALL BE FREE OF UNSUITABLE MATERIAL SUCH AS LARGE ROCK, MUCK, AND DEBRIS.
5. COMPACT BACKFILL TO 98% DENSITY UNDER PAVEMENT AND TO 95% DENSITY ELSEWHERE.(AASHTO T-180)
6. COMPACTION AND DENSITY TESTS SHALL BE COMPLETED DURING BACKFILL OPERATIONS, CONTRACTORS NOT FOLLOWING THIS PROCEDURE, FOR WHATEVER REASONS, SHALL BE REQUIRED TO RE-EXCAVATE THE AREA IN QUESTION, DOWN TO THE BEDDING MATERIAL, THEN BACKFILL FOLLOWING THE ABOVE PROCEDURES.

CITY OF LAKE WORTH PUBLIC SERVICES DEPARTMENT | TYPICAL BACKFILL DETAIL | DETAIL NO. 22

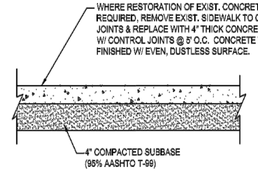
GENERAL NOTES

1. EXISTING UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ALL UTILITY COMPANIES AND "SUNSHINE STATE ONE CALL OF FLORIDA, INC." TO LOCATE ALL EXISTING UTILITIES WITHIN THE CONSTRUCTION AREA PRIOR TO CONSTRUCTION. CONTRACTOR SHALL VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING UTILITIES DURING CONSTRUCTION AND RESETTING UTILITIES TO NEW GRADE AND SLOPE WITHIN THE LIMITS OF CONSTRUCTION.
2. SAFETY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH THE PROVISIONS OF THE FLORIDA TRENCH SAFETY ACT, THE FLORIDA UNDERGROUND FACILITY DAMAGE PREVENTION AND SAFETY ACT, AND ALL APPLICABLE O.S.H.A. REQUIREMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TAKING ALL NECESSARY PRECAUTIONS WHEN WORKING IN THE VICINITY OF OVERHEAD ELECTRIC LINES.
3. MAINTENANCE OF TRAFFIC. CONTRACTOR SHALL PROVIDE MAINTENANCE OF TRAFFIC (MOT) PLANS, PREPARED BY A WORK SITE TRAFFIC SUPERVISOR AS CERTIFIED BY THE AMERICAN TRAFFIC SAFETY SERVICES ASSOCIATION. PRIOR TO COMMENCING CONSTRUCTION WITHIN CITY OF LAKE WORTH RIGHT-OF-WAY.
4. ACCESS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING SAFE VEHICULAR AND PEDESTRIAN ACCESS AT ALL TIMES.
5. WARRANTY. ALL WORK, MATERIALS, OR EQUIPMENT SHALL BE WARRANTIED FOR A MINIMUM OF ONE YEAR, FROM THE DATE OF FINAL ACCEPTANCE BY THE CITY OF LAKE WORTH, AGAINST DEFECTIVE MATERIALS AND/OR WORKMANSHIP. ALL WORK FOUND TO BE DEFECTIVE WILL BE REPLACED BY THE CONTRACTOR AT NO EXPENSE TO THE CITY OF LAKE WORTH.
6. SHOP DRAWINGS. THE CONTRACTOR SHALL PROVIDE A MINIMUM OF SEVEN (7) COPIES (OR MORE, IF REQUIRED) OF SHOP DRAWINGS, PRODUCT DATA, MATERIAL SPECIFICATIONS AND OTHER INFORMATION REGARDING CONSTRUCTION MATERIALS AND STRUCTURES AS REQUESTED BY THE ENGINEER OF RECORD OR THE CITY OF LAKE WORTH. SHOP DRAWINGS MUST BE NEWLY PREPARED INFORMATION, DRAWN TO ACCURATE SCALE. STANDARD INFORMATION PREPARED WITHOUT SPECIFIC REFERENCE TO THE PROJECT WILL BE RETURNED TO THE CONTRACTOR WITHOUT REVIEW. SHOP DRAWINGS SHALL BE SUBJECT TO THE FOLLOWING:
   A. BY SUBMITTAL OF ANY SHOP DRAWING OR CATALOG DATA, BEARING AN APPROVAL STAMP, THE CONTRACTOR REPRESENTS THAT IT HAS DETERMINED AND VERIFIED ALL FIELD MEASUREMENTS, FIELD CONSTRUCTION CRITERIA, MATERIALS, DIMENSIONS, CATALOG NUMBERS AND SIMILAR DATA, OR WILL DO SO, AND THAT IT HAS CHECKED AND COORDINATED EACH ITEM WITH OTHER APPLICABLE APPROVED SHOP DRAWINGS AND THE CONTRACT REQUIREMENTS.
   B. SHOP DRAWINGS AND CATALOG DATA SUBMITTED WITHOUT THE CONTRACTOR'S STAMP OF APPROVAL WILL BE RETURNED TO THE CONTRACTOR WITHOUT REVIEW. APPROVAL OF SHOP DRAWINGS, SAMPLES, OR CATALOG DATA BY THE ENGINEER OF RECORD OR THE CITY OF LAKE WORTH SHALL NOT AUTHORIZE ANY DEVIATION FROM THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.
   C. ANY PROPOSED SUBSTITUTE OR EQUAL TO THE THAT SHOWN ON THE CONTRACT DOCUMENTS SHALL BE ACCOMPANIED BY CALCULATIONS SUBSTANTIATING EQUIVALENCY. SHOP DRAWINGS WITH SUBSTITUTE MATERIALS NOT ACCOMPANIED BY CALCULATIONS WILL BE RETURNED WITHOUT REVIEW.
   D. THE CONTRACTOR SHALL CONFIRM COMPATIBILITY OF PIPE SLOPES AND INVERTS DURING THE SHOP DRAWING AND MATERIALS ORDERING PHASE OF THE PROJECT AND ADVISE THE ENGINEER OF RECORD IN WRITING OF ANY DISCREPANCIES.
   E. INDIVIDUAL SHOP DRAWINGS FOR ALL PRECAST STRUCTURES ARE REQUIRED. CATALOG LITERATURE WILL NOT BE ACCEPTED FOR PRECAST STRUCTURES.
7. FIELD REVIEWS. THE CONTRACTOR SHALL PROVIDE NOTIFICATION, 48 HOURS (MIN.) PRIOR TO ANY REQUIRED FIELD REVIEWS OR INSPECTIONS AND SHALL SUPPLY ALL NECESSARY EQUIPMENT, LABOR, AND MATERIALS FOR INSPECTION AND/OR TEST. ALL WORK SHALL BE OPEN AND SUBJECT TO REVIEW AND/OR INSPECTION BY AUTHORIZED PERSONNEL OF THE CITY OF LAKE WORTH AND THE ENGINEER OF RECORD.
13. DENSITY TESTING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY TESTING TO ENSURE THAT THE PROPER COMPACTION HAS BEEN ACHIEVED FOR ALL SUBGRADE, BASE MATERIAL, PIPE BASE MATERIAL, BACKFILL & ALL OTHER AREAS WHERE COMPACTION REQUIREMENTS ARE SPECIFIED. ALL TEST RESULTS SHALL BE SIGNED & SEALED BY A FLORIDA LICENSED PROFESSIONAL ENGINEER AND COPIES SHALL BE PROVIDED TO THE ENGINEER OF RECORD AND THE CITY OF LAKE WORTH.
14. PERMITS. THE CONTRACTOR SHALL NOT COMMENCE CONSTRUCTION PRIOR TO RECEIPT OF ALL APPLICABLE PERMITS AND APPROVALS INCLUDING AN APPROVED MAINTENANCE OF TRAFFIC PLAN. THE CONTRACTOR SHALL ABIDE BY ALL APPLICABLE REQUIREMENTS OF THE PERMITS AND AGENCY APPROVALS.
15. EROSION CONTROL. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH FDOT INDICES 102, 103 AND 106, THE FDEP NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) GENERAL PERMIT (IF APPLICABLE), AND THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP). FILTER FABRIC, HAY BALES, OR ROCK BAGS SHALL BE INSTALLED IN EACH INLET THROUGHOUT THE CONSTRUCTION PERIOD. A SOIL TRACKING PREVENTION DEVICE (STPD) SHALL CONSTRUCTED AT ALL UNSTABILIZED CONSTRUCTION ACCESS POINTS, PER FDOT INDEX NO. 106.
16. STORM DRAINAGE. ALL STORM DRAINAGE PIPE JOINTS SHALL BE WRAPPED IN FILTER FABRIC PER FDOT STANDARD INDEX NO. 280. ALL DRAINAGE STRUCTURES SHALL CONFORM TO THE REQUIREMENTS OF FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION. ALL GRATES SHALL BE SECURED TO THE STRUCTURES WITH AN EYEBOLT AND CHAIN. ALL STORM DRAINAGE SHALL BE FREE OF SILT AND SEDIMENT AT THE TIME OF FINAL ACCEPTANCE BY THE CITY OF LAKE WORTH.
17. DEWATERING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND COMPLYING WITH ANY DEWATERING PERMITS AND/OR APPROVALS NECESSARY FOR CONSTRUCTION. NO WATER FROM DEWATERING MEASURES SHALL BE DISCHARGED OFF-SITE. ALL DISCHARGE SHALL BE CONTAINED IN ON-SITE SEDIMENT BASINS.
18. SIDEWALKS. ALL SIDEWALKS SHALL BE CONSTRUCTED TO MEET THE REQUIREMENTS OF THE FLORIDA BUILDING CODE, CHAPTER 11 - FLORIDA ACCESSIBILITY CODE FOR BUILDING CONSTRUCTION. ALL CURB RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH FDOT STANDARD INDEX NO. 304 AND THE REQUIREMENTS OF THE FLORIDA BUILDING CODE. ALL WALKWAYS CROSSING VEHICULAR AREAS SHALL HAVE A DETECTABLE WARNING SURFACE (TRUNCATED DOMES) IN ACCORDANCE WITH FDOT STANDARD INDEX NO. 304 AND THE FLORIDA BUILDING CODE, CHAPTER 11 - ACCESSIBILITY CODE FOR BUILDING CONSTRUCTION. ALL SIDEWALKS SHALL BE BROOM FINISHED WITH AN EVEN, DUSTLESS SURFACE AND SHALL BE FREE OF CRACKS AT TIME OF FINAL ACCEPTANCE BY THE CITY OF LAKE WORTH.
19. PAVEMENT. WHERE FULL-DEPTH PAVEMENT REPLACEMENT IS SPECIFIED, EXISTING BASEROCK MAY NOT BE REUSED, HOWEVER IT MAY BE UTILIZED AS SUBGRADE STABILIZATION MATERIAL. ALL SUBGRADE SHALL BE FREE OF MUCK, ROOTS, UNDERBRUSH, VEGETATIVE MATTER, GARBAGE, TRASH, OR ANY OTHER UNSUITABLE MATERIALS. BASEROCK AND ASPHALT SHALL BE PLACED IN MULTIPLE LIFTS AND SHALL BE PLACED IN ACCORDANCE WITH THE APPLICABLE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION. FINAL LIFT OF ASPHALT SHALL PROVIDE A UNIFORM FINISH AND SHALL BE PLACED TO CORRECT MINOR IMPERFECTIONS IN THE FIRST LIFT AND TO PROVIDE POSITIVE DRAINAGE FOR THE ROADWAY.
20. SIGNING AND PAVEMENT MARKING. ALL PAVEMENT MARKINGS WITHIN CITY OF LAKE WORTH RIGHT-OF-WAY SHALL BE THERMOPLASTIC. THERMOPLASTIC SHALL NOT BE INSTALLED ON PAVEMENT UNTIL A MINIMUM OF FIVE CALENDAR DAYS AFTER THE FINAL LIFT OF ASPHALT HAS BEEN COMPLETED. BLUE/BLUE REFLECTIVE PAVEMENT MARKERS (RPM) SHALL BE INSTALLED TO INDICATE THE LOCATION OF ALL FIRE HYDRANTS.

CITY OF LAKE WORTH PUBLIC SERVICES DEPARTMENT | GENERAL NOTES | DETAIL NO. 01

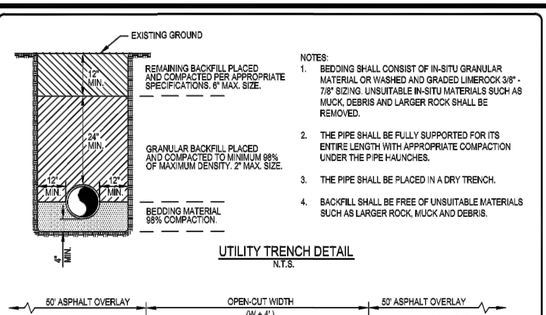


PAVEMENT RESTORATION DETAIL

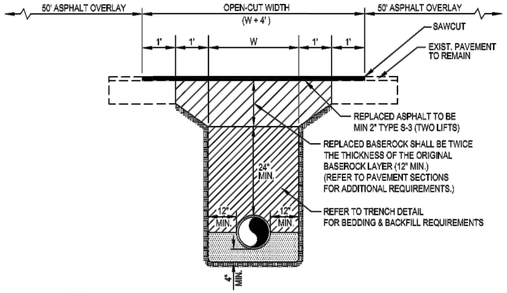


CONCRETE SIDEWALK RESTORATION DETAIL
N.T.S.

CITY OF LAKE WORTH PUBLIC SERVICES DEPARTMENT | PAVEMENT AND SIDEWALK RESTORATION | DETAIL NO. 19



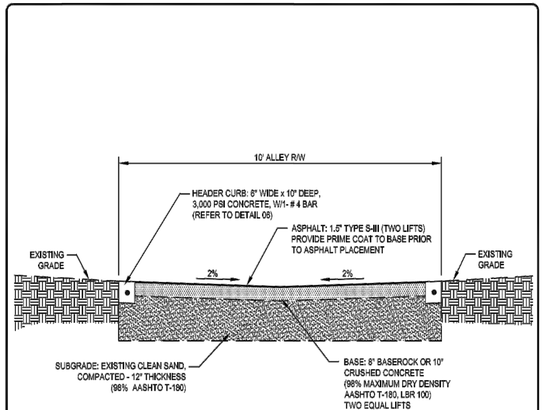
UTILITY TRENCH DETAIL
N.T.S.



NOTES:
1. PAVEMENT OVERLAY MAY BE REQUIRED IN OPEN-CUT AREAS AT THE DISCRETION OF THE CITY ENGINEER.
2. THE CONTRACTOR SHALL COMPLY WITH APPLICABLE TRENCH SAFETY REGULATIONS.
3. FINISHED SURFACE SHALL HAVE SMOOTH FINISH & SHALL MATCH FLUSH TO SURROUNDING PAVEMENT.
4. ASPHALT OVERLAY SHALL EXTEND A MINIMUM OF 50' BEYOND THE LIMITS OF THE OPEN CUT.

PAVEMENT OPEN-CUT DETAIL
N.T.S.

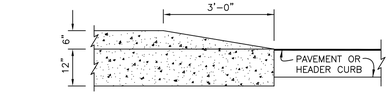
CITY OF LAKE WORTH PUBLIC SERVICES DEPARTMENT | UTILITY TRENCH AND PAVEMENT OPEN-CUT | DETAIL NO. 21



ALLEY PAVEMENT SECTION

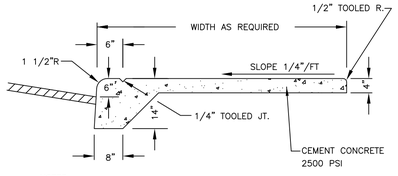
NOTE: MINIMUM 0.50% LONGITUDINAL SLOPE REQUIRED.

CITY OF LAKE WORTH PUBLIC SERVICES DEPARTMENT | ALLEY PAVEMENT SECTION | DETAIL NO. 03



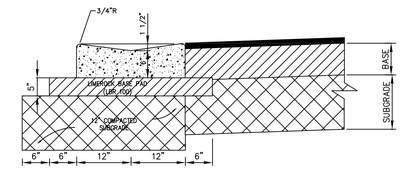
NOTE:
WHEN CURB TRANSITIONS ARE ADJACENT TO SIDEWALK THE TRANSITION MUST BE 12:1

TRANSITION CURB TAPER DETAIL
N.T.S.

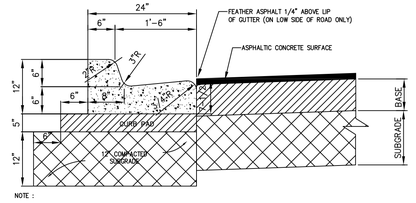


NOTES:
1. THE REVEAL SHOWN MAY VARY. REFER TO PLANS FOR LOCATIONS.
2. MONOLITHIC WALK & CURB REQUIRED AT ALL LOCATIONS WHERE PROPOSED SIDEWALK ABUTS ASPHALT PAVEMENT.

MONOLITHIC CURB AND SIDEWALK SECTION
N.T.S.

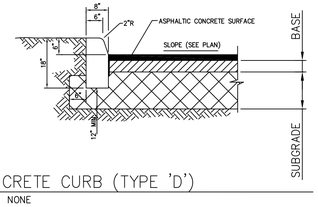


VALLEY GUTTER — REFER TO FDOT INDEX 300 FOR NOTES AND DETAILS
SCALE: NONE



NOTE :
WHEN USED ON HIGH SIDE OF ROADWAYS THE CROSS SLOPE OF THE GUTTER SHALL MATCH THE CROSS SLOPE OF THE ADJACENT PAVEMENT AND THE THICKNESS OF THE LIP SHALL BE 6" INSTEAD OF 7 1/2".

TYPE "F" CURB & GUTTER
SCALE: NONE



CONCRETE CURB (TYPE 'D')
SCALE: NONE

PAVEMENT SECTION REQUIREMENTS			
TYPE	WEARING SURFACE	BASE	SUB-GRADE
PAVER DRIVEWAYS	3-3/8" INTEGRAL COLORED PAVERS (TRAFFIC RATED) WITH BEDDING SAND	8" THICK BASEROCK (LBR 100) COMPACTED TO 98% AASHTO T-180 AND PLACED IN 2-LIFTS	12" THICK, COMPACTED TO 98% MAXIMUM DRY DENSITY A.A.S.H.T.O. T-180 (LBR 30)
ALLEYWAY PAVING	1.5" S-III A.C.S.C. (2-LIFTS)	8" THICK BASEROCK (LBR 100) COMPACTED TO 98% AASHTO T-180 AND PLACED IN 2-LIFTS OR 10" THICK CRUSHED CONCRETE PLACED IN 2-LIFTS	12" THICK, COMPACTED TO 98% MAXIMUM DRY DENSITY A.A.S.H.T.O. T-180
SIDEWALKS	SIDEWALK: 4" THICK CONCRETE (3,000 PSI). CONCRETE TO BE BROOM FINISHED WITH EVEN, DUSTLESS SURFACE. CONTROL JOINTS TO BE SPACED 5' ON CENTER. ISOLATION JOINTS REQUIRED WHERE SIDEWALK ABUTS BUILDING, EXISTING PAVEMENT, OR OTHER STRUCTURES.		

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SEAL
8/1/16
TODD N. MCLEOD, P.E.
FL LICENSE NO. 69188 | FL CA NO. 30535

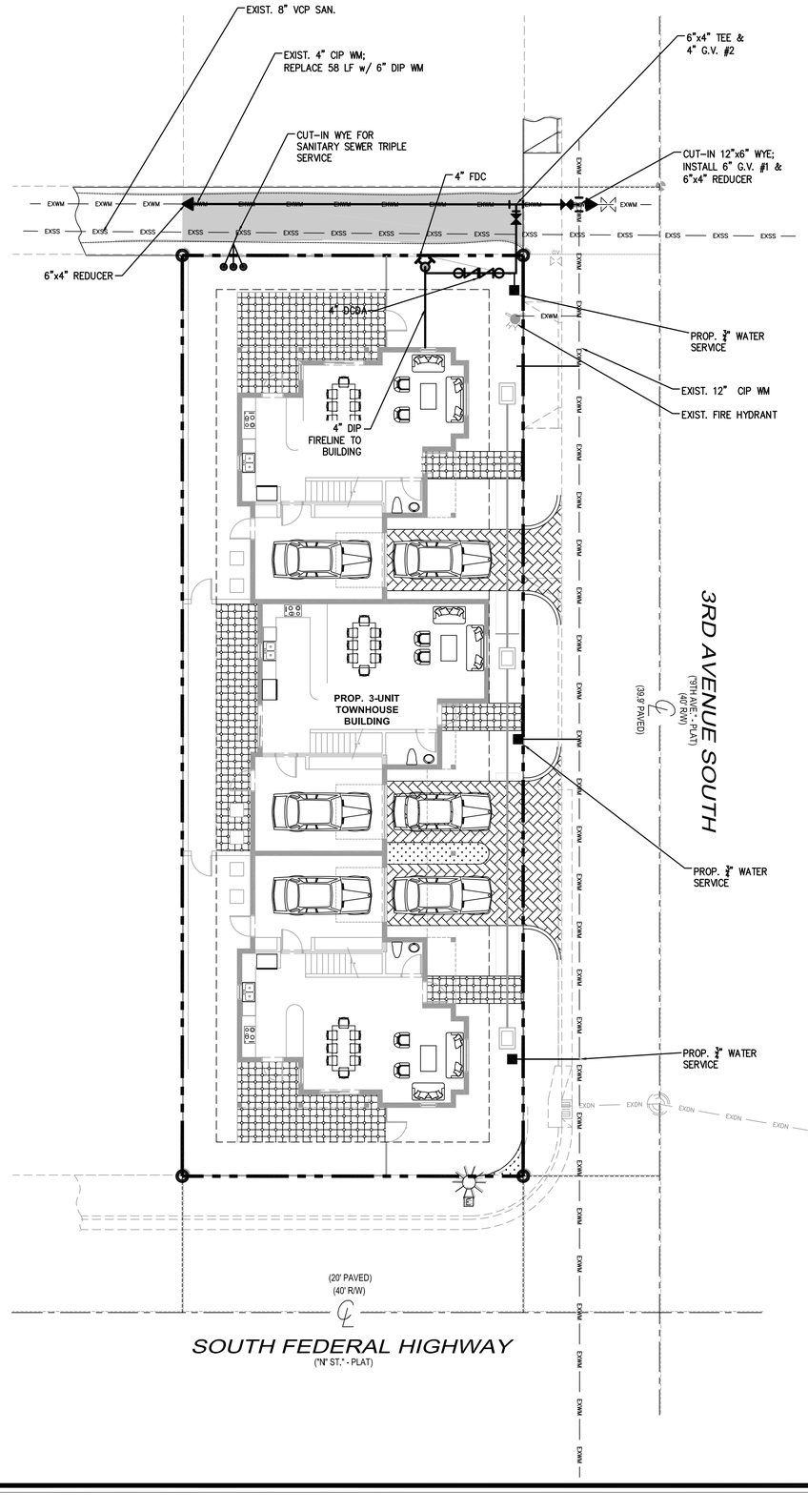
FIELD:
DRAWN: PAS
DESIGNED: TNM
APPROVED: TNM
PROJECT #:16-027
DRAWING #:

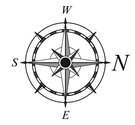
NO. | DATE | REVISIONS

PAVING, GRADING, & DRAINAGE DETAILS
BERMUDA CAY
301 S. FEDERAL HIGHWAY
CITY OF LAKE WORTH, FLORIDA

SCALE: AS SHOWN
DATE: 05/05/2016

SHEET
03
OF 8





0 5 10 20

SCALE: 1" = 10'

LEGEND

- EASEMENT LINE
- EXISTING WATER MAIN, GATE VALVE (G.V.), TEE, F.H. AND PLUG
- EXISTING SANITARY SEWER MAIN, MANHOLE AND DIRECTION OF FLOW.
- PROPOSED WATER MAIN, GATE VALVE (G.V.), BEND AND TEE WITH FIRE HYDRANT ASSEMBLY.
- PROPOSED SANITARY SEWER MAIN, SINGLE & DOUBLE SEWER SERVICE CLEAN OUT (C.O.), MANHOLE AND SEWER LATERAL w/CLEANOUT
- CONCRETE
- MILL & RESURFACE EXIST. PAVEMENT
- ASPHALT PAVEMENT
- UTILITY CONFLICT
- U.E. UTILITY EASEMENT

NOTES:

1. ALL WATER & SEWER FACILITIES SHALL BE CONSTRUCTED AND TESTED IN ACCORDANCE WITH CITY OF LAKE WORTH UTILITIES DEPARTMENT STANDARDS, LATEST EDITION.
2. UTILITY LOCATIONS SHOWN BASED ON INFORMATION PROVIDED BY CLW PUBLIC SERVICES & UTILITIES DEPARTMENTS. CONTRACTOR TO FIELD VERIFY LOCATION OF ALL EXISTING UTILITIES, AND MUST CALL 811 AT LEAST 48 HRS PRIOR TO EXCAVATION.
3. ALL UN-LANDSCAPED/UNPAVED AREAS SHALL BE SODDED UNLESS OTHERWISE NOTED.
4. ANY WATER SYSTEMS SHUT-DOWN AND CORRESPONDING BOIL WATER NOTICE NEEDED TO INSTALL THE NEW 6" WATERMAIN SHALL BE COORDINATED WITH THE CITY OF LAKE WORTH UTILITIES DEPARTMENT A MINIMUM OF 1 WEEK IN ADVANCE.

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SEAL

8/1/16
TODD N. MCLEOD, P.E.
FL LICENSE NO. 69188 | FL CA NO. 30535

FIELD:
DRAWN: PAS
DESIGNED: TNM
APPROVED: TNM

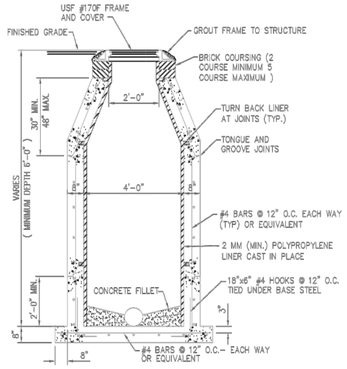
PROJECT #:16-027
DRAWING #:

NO.	DATE	REVISIONS
1	8/1/16	REV PER SPRC COMMENTS

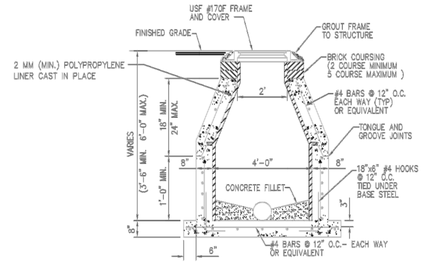
WATER & WASTEWATER PLAN
BERMUDA CAY
301 S. FEDERAL HIGHWAY
CITY OF LAKE WORTH, FLORIDA

SCALE: AS SHOWN
DATE: 05/05/2016

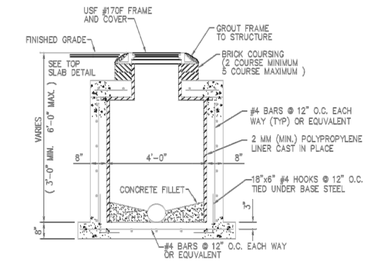
SHEET
03
OF 8



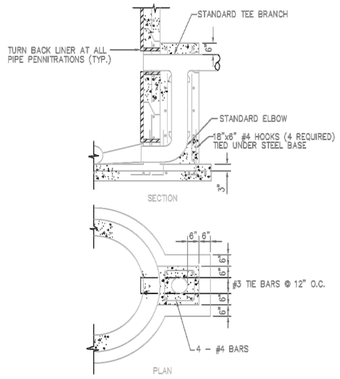
STANDARD MANHOLE | 1



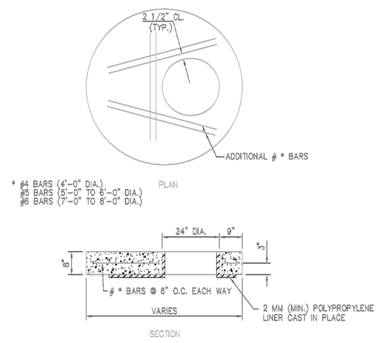
SHALLOW MANHOLE | 2



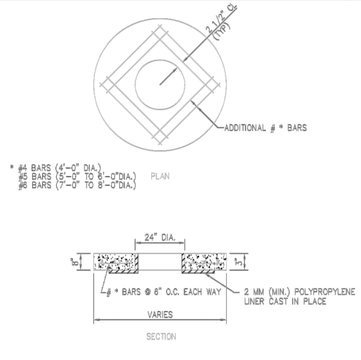
SHALLOW MANHOLE | 3



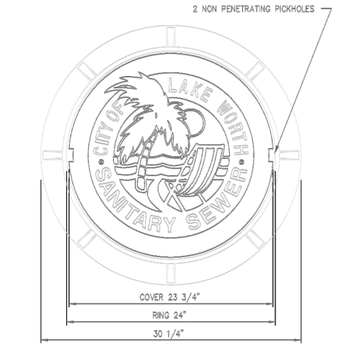
DROP CONNECTION | 4



FLAT TOP SLAB | 5

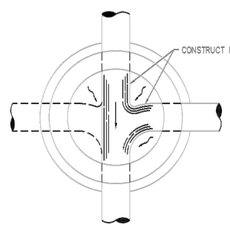


FLAT TOP SLAB | 6

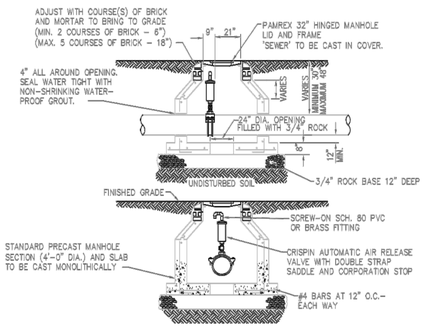


USF 170 RING & EU COVER | 7

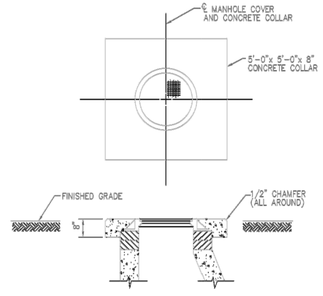
USF 750 RING & NH COVER | 8



MANHOLE BOTTOM FOR TWO OR MORE INFLUENT LINES | 9



AIR RELEASE VALVE MANHOLE | 10



CONCRETE COLLAR (REQUIRED WHEN MANHOLE IS OUT OF PAVEMENT) | 11

1. REINFORCING STEEL ON ALL CONCRETE STRUCTURES SHALL HAVE A MINIMUM COVER OF 3 INCHES.
2. BRICK COURSING ON MANHOLES SHALL BE PLASTERED WITH 1/2 INCH CEMENT MORTAR ON THE INSIDE AND OUTSIDE FACES.
3.
4. THE DISTANCES AND CONTROLS SHOWN ON THE DRAWINGS REFER TO THE CENTERLINE OF THE MANHOLES.
5. COAT EXTERIOR AND INTERIOR SURFACES OF MANHOLES WITH KOPPERS 300–M OR EQUAL APPROVED BY THE ENGINEER. PROVIDE A MINIMUM DRY FILM THICKNESS OF 16 MILS. APPLY IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. INTERIOR COATING SHALL BE FIELD APPLIED AFTER FINAL LAMPING AND REVIEW BY THE ENGINEER.
6. STEPS ARE REQUIRED IN MANHOLES GREATER THAN 3 FEET IN DEPTH. STEPS SHALL BE SPACED 16 INCHES ON CENTER AND SHALL BE POLYPROPYLENE PLASTIC COATED NO.3 AS MANUFACTURED BY MA INDUSTRIES, INC. OR EQUAL APPROVED BY THE ENGINEER.
7. PVC FORCE MAIN PIPE SHALL BE WRAPPED WITH WIRE FOR LOCATING PURPOSES. A 14 GAUGE, THIN INSULATED, SOLID COPPER WIRE SHALL BE LAID IN THE PIPE TRENCH CONTINUOUS FROM VALVE BOX TO VALVE BOX. WIRE SHALL BE WRAPPED TWO TIMES AROUND EACH JOINT OF PIPE AND EXTENDED INSIDE EACH VALVE BOX TO ENABLE LOCATION DEVICES TO BE ATTACHED WITHOUT DIGGING UP THE VALVE BOX . WIRE CONNECTIONS SHALL BE MADE WITH COMMERCIAL CONNECTORS AND SEALED AGAINST MOISTURE WITH SCOTCH E–Z SEAL NO.2200 ELECTRICAL INSULATING PAD WITH VINYL BACKING.
8. DROP CONNECTIONS ON MANHOLES ARE REQUIRED WHENEVER AN INFLUENT SEWER IS LOCATED 2 FEET OR MORE ABOVE THE MAIN INVERT CHANNEL.
9. CAST IRON MANHOLE COVERS SHALL HAVE THE WORD 'SANITARY' CAST IN THEM IN RAISED LETTERS.

GENERAL NOTES | 12

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SEAL

8/1/16
TODD N. MCLEOD, P.E.
FL LICENSE NO. 69188 | FL CA NO. 30535

FIELD:
DRAWN: PAS
DESIGNED: TNM
APPROVED: TNM

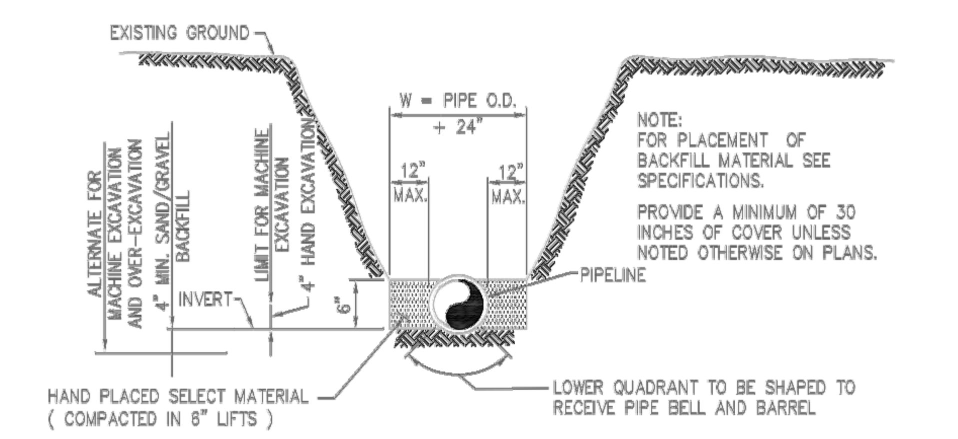
PROJECT #:16-027
DRAWING #:

NO. | DATE | REVISIONS

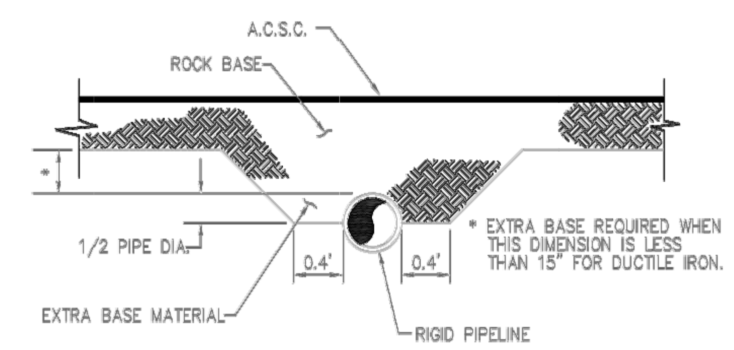
SANITARY SEWER DETAILS
BERMUDA CAY
301 S. FEDERAL HIGHWAY
CITY OF LAKE WORTH, FLORIDA

SCALE: AS SHOWN
DATE: 05/05/2016

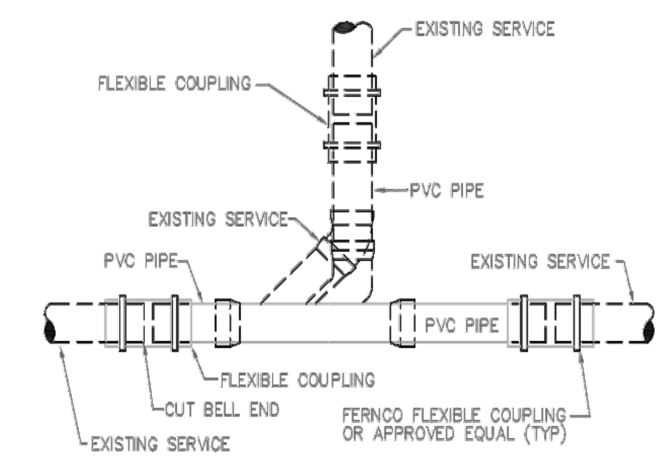
SHEET
05
OF 8



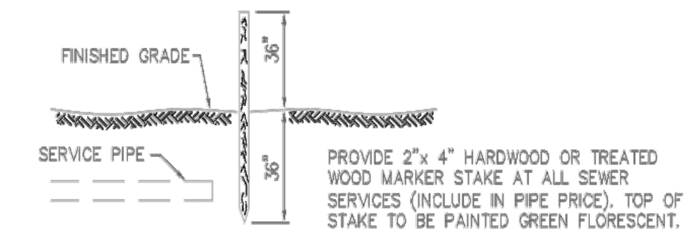
TRENCHING — 1



EXTRA BASE MATERIAL FOR SHALLOW PIPES IN ROADWAYS — 2



PIPE SECTION REPLACEMENT — 3



MARKER STAKE — 4

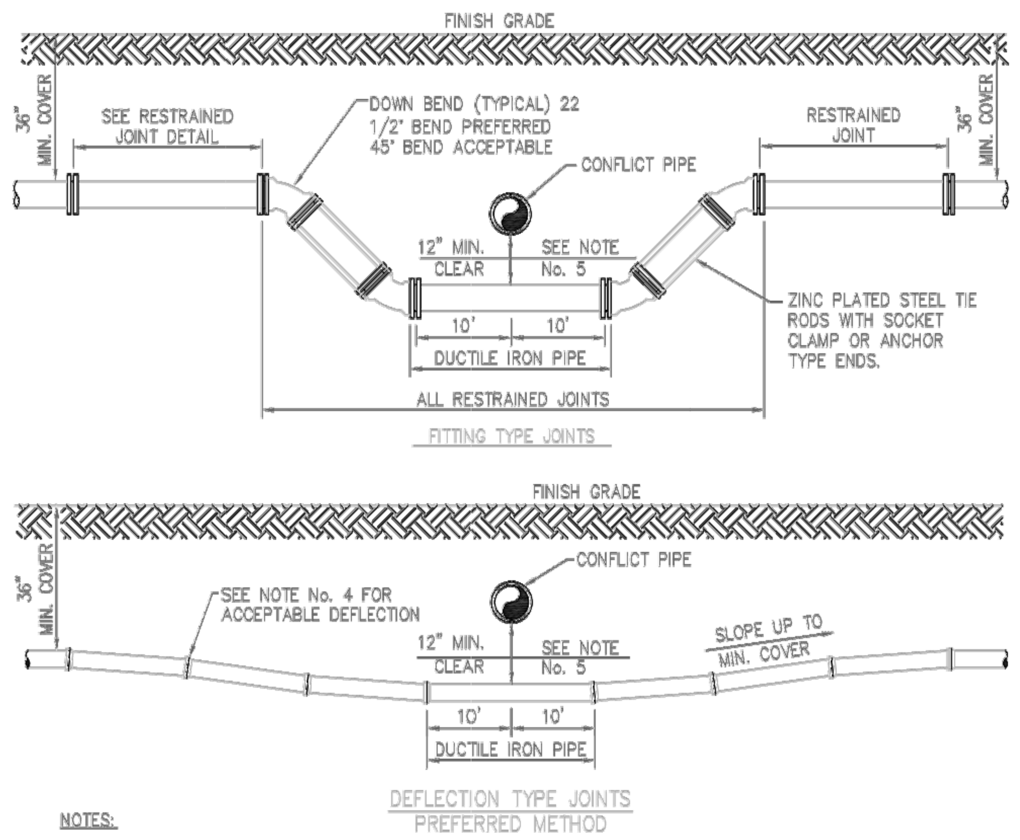
HORIZONTAL SEPARATION BETWEEN UNDERGROUND WATERMAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCE MAINS, RECLAIMED WATER PIPELINES AND ON SITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS.

1. NEW OR RELOCATED UNDERGROUND WATERMAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET BETWEEN THE OUTSIDE OF THE WATERMAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED SEWER, STORMWATER FORCEMAIN, OR PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 2-610, F.A.C.
2. NEW OR RELOCATED UNDERGROUND WATERMAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET, AND PREFERABLY TEN FEET, BETWEEN THE OUTSIDE OF THE WATERMAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER.
3. NEW OR RELOCATED UNDERGROUND WATERMAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST SIX, AND PREFERABLY TEN FEET, BETWEEN THE OUTSIDE OF THE WATERMAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY OR PRESSURE TYPE SANITARY SEWER, WASTEWATER FORCEMAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C. THE MINIMUM HORIZONTAL SEPARATION BETWEEN WATERMAINS AND GRAVITY TYPE SANITARY SEWERS SHALL BE REDUCED TO THREE FEET WHERE THE BOTTOM OF THE WATERMAIN IS LAID AT LEAST SIX INCHES ABOVE THE TOP OF THE SEWER.
4. NEW OR RELOCATED UNDERGROUND WATERMAINS SHALL BE LAID TO PROVIDE A MINIMUM HORIZONTAL DISTANCE OF AT LEAST TEN FEET BETWEEN THE OUTSIDE OF THE WATERMAIN AND ALL PARTS OF ANY EXISTING OR PROPOSED 'ON SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM' AS DEFINED IN SECTION 381.0065(2), F.S. AND RULE 64E-6.002, F.A.C.

VERTICAL SEPARATION BETWEEN UNDERGROUND WATERMAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCEMAINS, AND RECLAIMED WATER PIPELINES.

1. NEW OR RELOCATED UNDERGROUND WATERMAINS CROSSING ANY EXISTING OR PROPOSED GRAVITY OR VACUUM TYPE SANITARY OR STORM SEWER SHALL BE LAID SO THE OUTSIDE OF THE WATERMAIN IS AT LEAST SIX INCHES, AND PREFERABLY TWELVE INCHES ABOVE, OR AT LEAST TWELVE INCHES BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATERMAIN ABOVE THE OTHER PIPELINE.
2. NEW OR RELOCATED UNDERGROUND WATERMAINS CROSSING ANY EXISTING OR PROPOSED PRESSURE TYPE SANITARY SEWER, WASTEWATER OR STORMWATER FORCE MAIN, OR PIPE LINE CONVEYING RECLAIMED WATER SHALL BE LAID SO THE OUTSIDE OF THE WATERMAIN IS AT LEAST TWELVE INCHES ABOVE OR BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATERMAIN ABOVE THE OTHER PIPELINE.
3. AT THE UTILITY CROSSING DESCRIBED IN PARAGRAPH 1 AND 2 ABOVE, ONE FULL LENGTH OF WATERMAIN PIPE SHALL BE CENTERED ABOVE OR BELOW THE OTHER PIPELINE SO THE WATERMAIN JOINTS SHALL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE. ALTERNATIVELY, AT SUCH CROSSINGS, THE PIPES SHALL BE ARRANGED SO THAT ALL WATERMAIN JOINTS ARE AT LEAST THREE FEET FROM ALL JOINTS IN VACUUM TYPE SANITARY SEWER, STORM SEWERS, STORMWATER FORCEMAINS, OR PIPELINES CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C., AND AT LEAST SIX FEET FROM ALL JOINTS IN GRAVITY OR PRESSURE TYPE SANITARY SEWERS, WASTEWATER FORCEMAINS, OR PIPELINES CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER III 62-610, F.A.C.

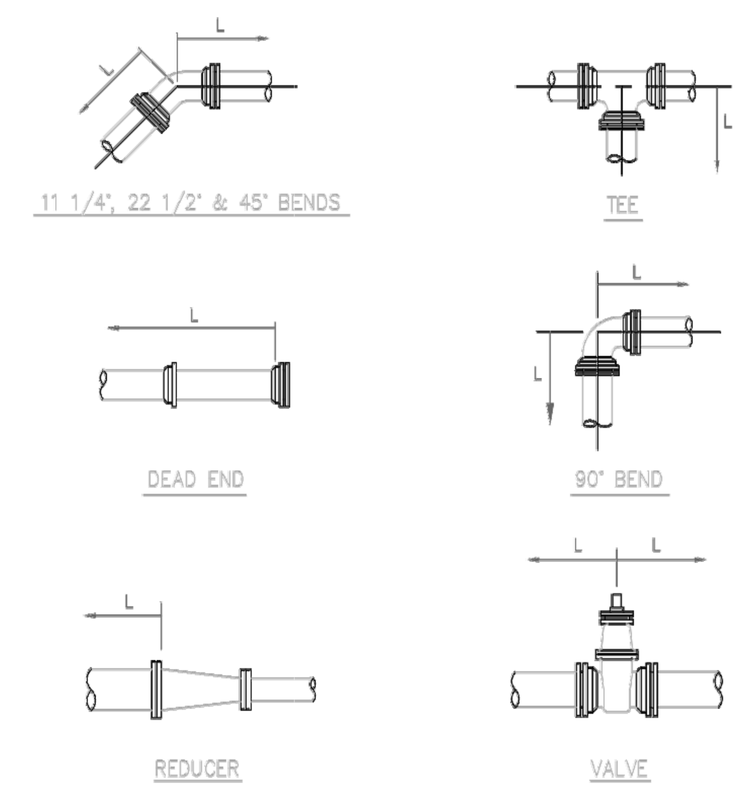
WATER AND SEWER SEPARATION CRITERIA — 5



NOTES:

1. THERE SHALL BE, IN ALL CASES, A MINIMUM OF 12" SEPARATION BETWEEN WATER MAINS AND FORCE MAINS.
2. WHEREVER POSSIBLE WATER MAINS SHALL PASS OVER FORCE MAINS OR STORM SEWERS.
3. FITTINGS SHALL BE RESTRAINED WITH MEGALUGS AND TIE RODS BETWEEN OFFSET FITTINGS. THRUST BLOCKS SHALL ONLY BE USED WITH THE APPROVAL OF THE ENGINEER.
4. THE DEFLECTION TYPE CROSSING IS PREFERRED. SEE SPECIFICATIONS AND MANUFACTURER'S SUBMITTAL FOR MAXIMUM DEFLECTION ALLOWED.
5. A MINIMUM OF 12" VERTICAL SEPARATION BETWEEN WATER MAINS AND STORM SEWERS SHALL BE MAINTAINED. WHERE THIS IS NOT POSSIBLE WATER MAIN SHALL BE D.I.P. WITH NO LESS THAN 6" SEPARATION.

PRESSURE PIPE CONFLICT — 6



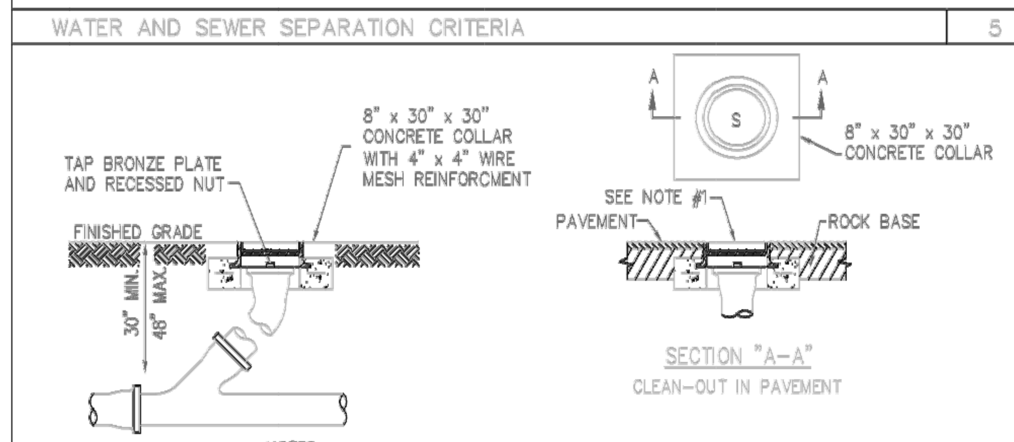
NOTES:

1. LENGTH 'L' IS IN FEET.
2. RESTRAINED LENGTHS ARE BASED ON THE FOLLOWING:
   - .A. 150 PSI TEST PRESSURE
   - .B. MIN. 30" COVER.
   - .C. PVC – PIPE SIZES 4" – 12". DI – PIPE SIZES 4" – 48". (PVC/DI)
   - .D. SANDY SOIL.
   - .E. SAFETY FACTOR OF 1.5.
3. LENGTH 'L' SHOWN IN THE TABLE TO BE RESTRAINED IN THE DIRECTION OF THE ARROWS.

RESTRAINED PIPE JOINTS — 7

FITTING TYPE		PIPE SIZE 4"	6"	8"	10"	12"	14"	16"	18"	20"	24"	30"	36"	42"	48"
90° HORIZ. BEND		17/14	24/20	31/25	36/30	42/35	40	44	49	53	61	71	80	89	96
45° HORIZ. BEND		7/6	10/8	13/11	15/12	18/15	16	18	20	22	25	29	33	37	40
22.5° HORIZ. BEND		3/3	5/4	6/5	7/6	8/7	8	9	10	10	12	14	16	18	19
11.25° HORIZ. BEND		2/1	2/2	3/3	4/3	4/3	4	4	5	5	6	7	8	9	10
45° VERT. OFFSET	UPPER BEND	19/12	27/17	35/22	42/27	50/32	36	40	44	48	55	67	77	86	95
	LOWER BEND	5/4	7/6	9/8	11/9	13/11	12	14	15	17	19	23	26	29	32
22.5° VERT. OFFSET	UPPER BEND	9/6	13/8	17/11	20/13	24/15	17	19	21	23	27	32	37	41	46
	LOWER BEND	2/2	3/3	4/4	5/4	6/5	6	7	7	8	9	11	13	14	15
11.25° VERT. OFFSET	UPPER BEND	5/3	6/4	8/5	10/6	12/7	9	10	11	12	13	16	18	21	23
	LOWER BEND	1/1	2/1	2/2	3/2	3/3	3	3	4	4	5	5	6	7	8
DEAD END AND INLINE VALVE		46/30	65/42	85/54	102/65	120/76	86	97	107	117	136	162	186	208	229
TEE (BRANCH RESTRAINT)	4"x	21/13	8/5	1/1	1/1	1/1	–	–	–	–	–	–	–	–	–
	6"x	–	39/25	30/19	20/13	10/7	1	1	1	1	1	1	–	–	–
	8"x	–	–	59/37	51/32	44/28	23	17	12	6	1	1	1	–	–
	10"x	–	–	–	75/47	69/44	40	35	31	26	17	1	1	–	–
	12"x	–	–	–	–	93/59	55	52	48	44	36	23	8	1	1
	14"x	–	–	–	–	–	69	66	63	59	53	41	29	15	1
	16"x	–	–	–	–	–	–	79	76	74	68	58	47	35	23
	18"x	–	–	–	–	–	–	–	89	86	81	73	63	53	42
	20"x	–	–	–	–	–	–	–	–	99	94	86	78	69	59
	24"x	–	–	–	–	–	–	–	–	–	117	111	104	97	88
	30"x	–	–	–	–	–	–	–	–	–	–	143	137	132	125
	36"x	–	–	–	–	–	–	–	–	–	–	–	167	162	157
	42"x	–	–	–	–	–	–	–	–	–	–	–	–	188	184
	48"x	–	–	–	–	–	–	–	–	–	–	–	–	–	209
REDUCER (LARGER PIPE RESTRAINT)	6"x	34/21	–	–	–	–	–	–	–	–	–	–	–	–	–
	8"x	61/39	34/23	–	–	–	–	–	–	–	–	–	–	–	–
	10"x	83/53	63/40	34/22	–	–	–	–	–	–	–	–	–	–	–
	12"x	104/66	87/55	64/40	59/37	–	–	–	–	–	–	–	–	–	–
	14"x	–	69	56	54	22	–	–	–	–	–	–	–	–	–
	16"x	–	82	71	69	41	22	–	–	–	–	–	–	–	–
	18"x	–	–	84	82	58	41	22	–	–	–	–	–	–	–
	20"x	–	–	–	95	73	58	41	22	–	–	–	–	–	–
	24"x	–	–	–	–	100	88	74	58	41	–	–	–	–	–
	30"x	–	–	–	–	134	125	114	102	88	57	–	–	–	–
	36"x	–	–	–	–	–	–	–	–	127	102	56	–	–	–
	42"x	–	–	–	–	–	–	–	–	159	138	101	54	–	–
	48"x	–	–	–	–	–	–	–	–	–	–	138	99	53	–

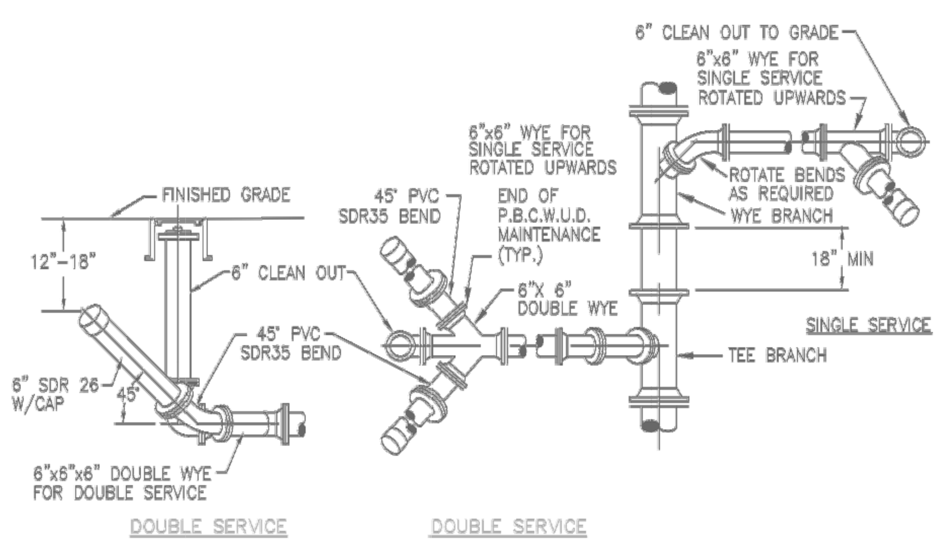
MECHANICAL THRUST RESTRAINT – MINIMUM PIPE LENGTHS — 8



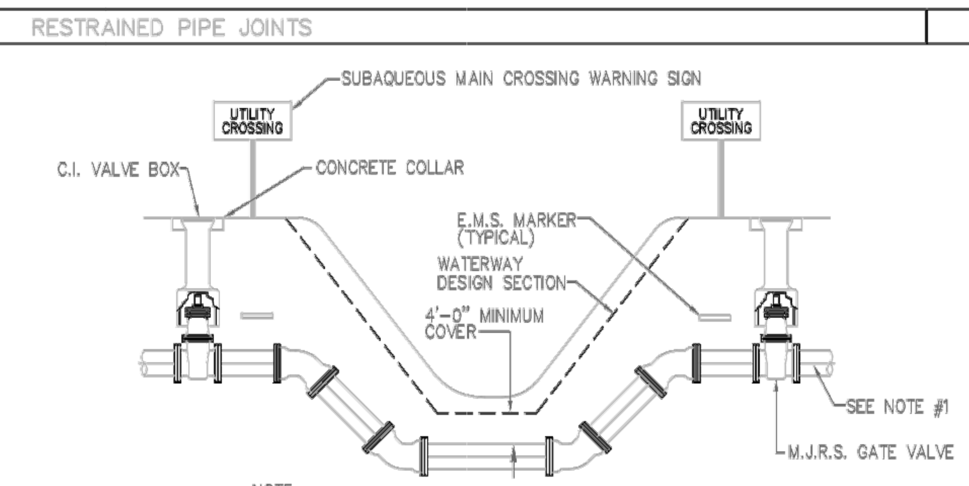
NOTES:

1. U.S. FOUNDRY NO. 7621 REVERSIBLE HANDHOLE RING AND COVER OR APPROVED EQUAL SHALL BE USED, COVER TO BE CAST WITH "S" IN THE CENTER.
2. CLEAN OUT REQUIRED ON ALL SERVICES AT PROPERTY LINE.
3. STANDARD WYE SHALL BE USED AT CLEAN OUT.
4. ALL PIPE AND CLENOUT SHALL BE 6" MIN.

CLEAN OUT — 9



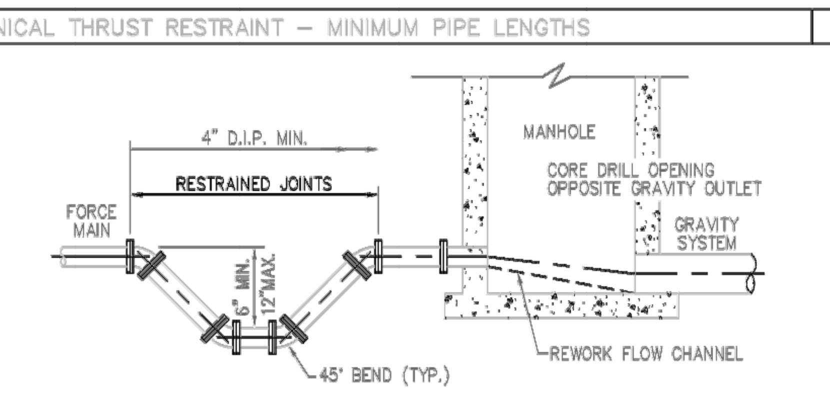
TYPICAL WASTEWATER SERVICE CONNECTION — 10



NOTE:

1. GATE VALVES TO BE TIED BACK TO THE NEAREST FITTING ON EACH SIDE. ALL TIE RODS AND BOLTS SHALL BE COATED WITH KOPPERS 300-M OR APPROVED EQUAL.
2. FITTINGS SHALL BE RESTRAINED WITH MEGALUGS AND TIE RODS BETWEEN OFFSET FITTINGS. THRUST BLOCKS SHALL ONLY BE USED WITH THE APPROVAL OF THE ENGINEER.

SUBAQUEOUS CROSSING — 11



NOTES:

1. INVERT LEVEL OF FORCE MAIN AT POINT OF ENTRY SHALL BE 6" ABOVE INVERT OF MANHOLE.

FORCE MAIN ENTERING MANHOLE — 12

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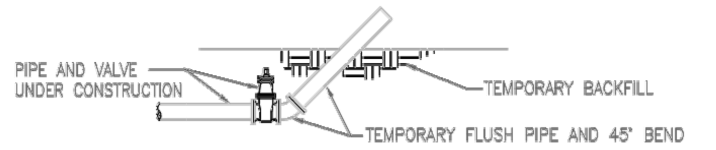
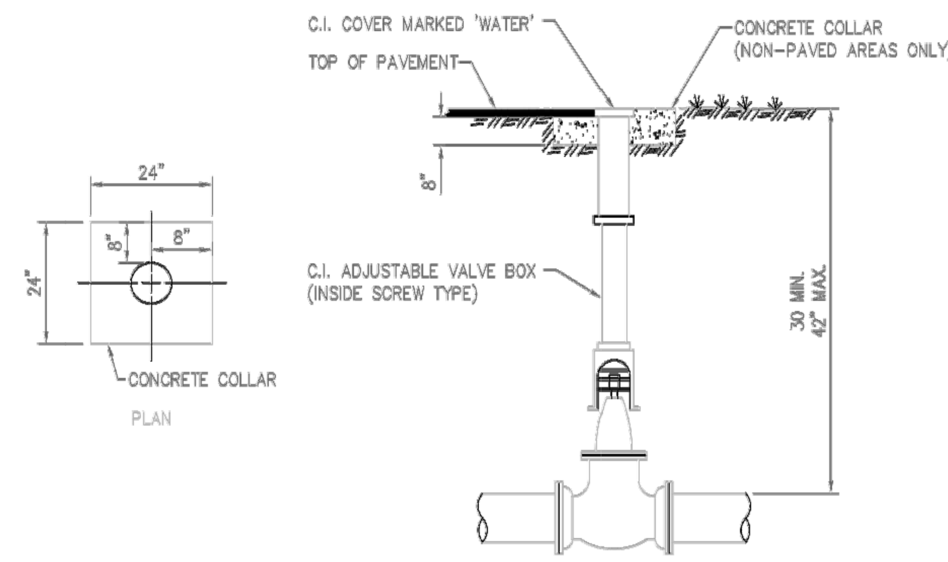
SHEET
06
OF 8



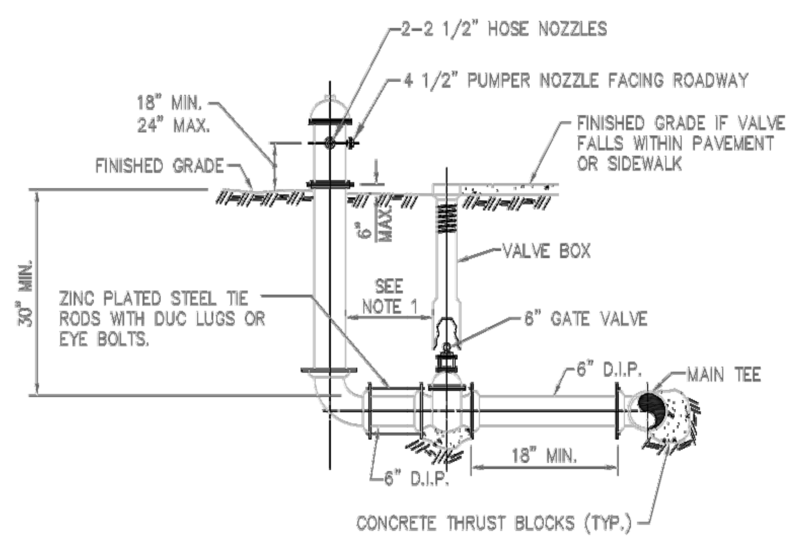
NOTES:

1. UPON COMPLETION OF THE PIPE INSTALLATION FOR ANY SECTION, THE MAINS SHALL BE PIGGED. CANNON FLUSHING MAY BE USED IN ADDITION TO PIGGING ONLY WITH THE APPROVAL OF THE ENGINEER. CANNON FLUSHING SHALL ACHIEVE A MINIMUM VELOCITY OF 2.5 FEET PER SECOND IN THE PIPE, FITTINGS, ETC.
2. INSTALL A 45° BEND AND ASSOCIATED PIPING AS SHOWN TO DIRECT THE FLUSHING WATER AWAY FROM THE IMMEDIATE WORK AREA AND EXERCISE DUE CARE SO AS TO ENSURE THAT THE WATER USED IN FLUSHING DOES NOT CAUSE A NUISANCE OR INFLICT PROPERTY DAMAGE.
3. BENDS AND PIPING SHALL BE THE SAME SIZE AS THE LINE TO BE FLUSHED.
4. PRIOR TO THE ACTUAL LINE FLUSHING OPERATION, THE CONTRACTOR SHALL PROPERLY NOTIFY THE ENGINEER OF SUCH INTENDED WATER USE.
5. NO EXISTING VALVES SHALL BE TURNED ON OR OFF, EXCEPT BY AUTHORIZED UTILITY PERSONNEL.
6. PIGGING AND FLUSHING SHALL NOT BE ACCOMPLISHED WITHOUT THE ACTUAL PRESENCE OF THE ENGINEER.
7. AFTER THE LINE UNDER CONSTRUCTION HAS BEEN SUCCESSFULLY PIGGED AND FLUSHED, THE CONTRACTOR SHALL REMOVE THE TEMPORARY PIPING ARRANGEMENT AND PROCEED WITH THE REMAINING CONSTRUCTION AS SPECIFIED.

PIGGING AND CANNON FLUSHING 1

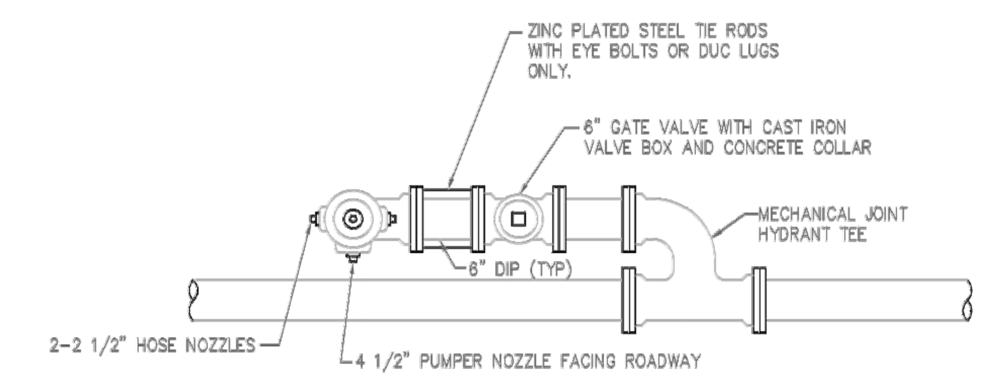


VALVE SETTING 2



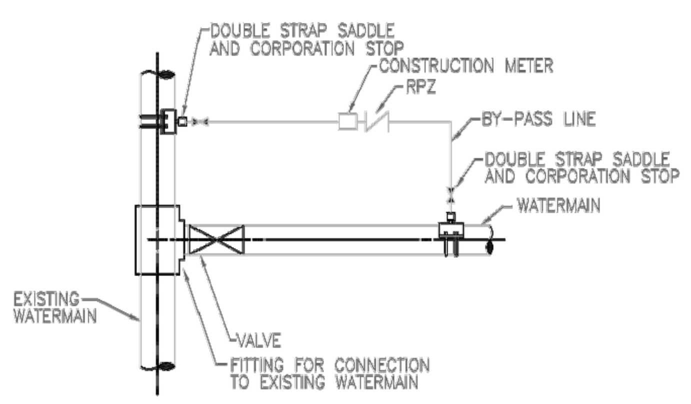
NOTE:
1. ON RUNS LONGER THAN 50' ANOTHER VALVE IS REQUIRED.
2. MEGALUGS REQUIRED ON ALL JOINTS.

FIRE HYDRANT INSTALLATION 3



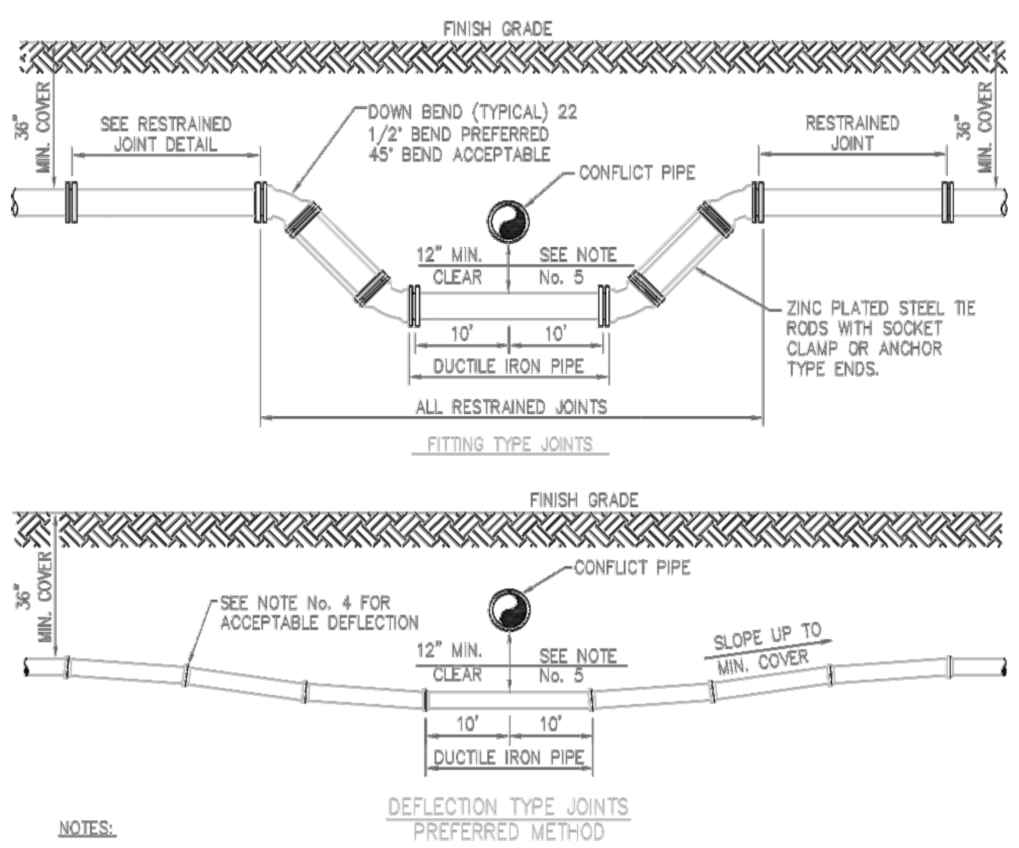
NOTE:
MEGALUGS REQUIRED ON ALL JOINTS.

FIRE HYDRANT INSTALLATION PARALLEL TO WATERMAIN 4



1. PERFORM PRESSURE AND LEAKAGE TEST ON TAPPING SLEEVE AND TAPPING VALVE (WHEN USED) PRIOR TO MAKING TAP.
2. ALL WATER FOR FLUSHING, PRESSURE AND LEAKAGE TESTS, AND BACTERIOLOGICAL CLEARANCE MUST BE FROM THE "BY-PASS" LINE WITH CHECK VALVE IN PLACE.
3. DURING ALL PRESSURE AND LEAKAGE TESTS, BOTH CORPORATION STOPS ON THE "BY-PASS" LINE MUST BE CLOSED.
4. THE UTILITY COMPANY SUPPLYING THE WATER SHALL BE NOTIFIED BEFORE FILLING AND FLUSHING. ONLY THE UTILITY COMPANY SHALL OPERATE THE VALVES.
5. DOUBLE STRAP SADDLES ARE NOT REQUIRED WHEN CONNECTING TO DUCTILE IRON PIPE.
6. CONNECT PRESSURE TEST PUMP TO SERVICE LINE OR BLOWOFF. NO EXTRA TAPS ARE PERMITTED UNLESS NEITHER A SERVICE LINE OR BLOWOFF ARE PRESENT IN THE TEST SECTION.
7. WATERMAIN VALVES CANNOT BE OPENED UNTIL THE ENTIRE SYSTEM HAS BEEN CLEARED BY THE GOVERNING PERMITTING AGENCY.
8. REMOVE THE "BY-PASS" LINE AFTER THE MAIN HAS BEEN CLEARED. PLUG CORPORATION STOP WITH THREADED BRASS PLUG.
9. INSTALL ADJUSTABLE CAST IRON VALVE BOX ON THE VALVE.

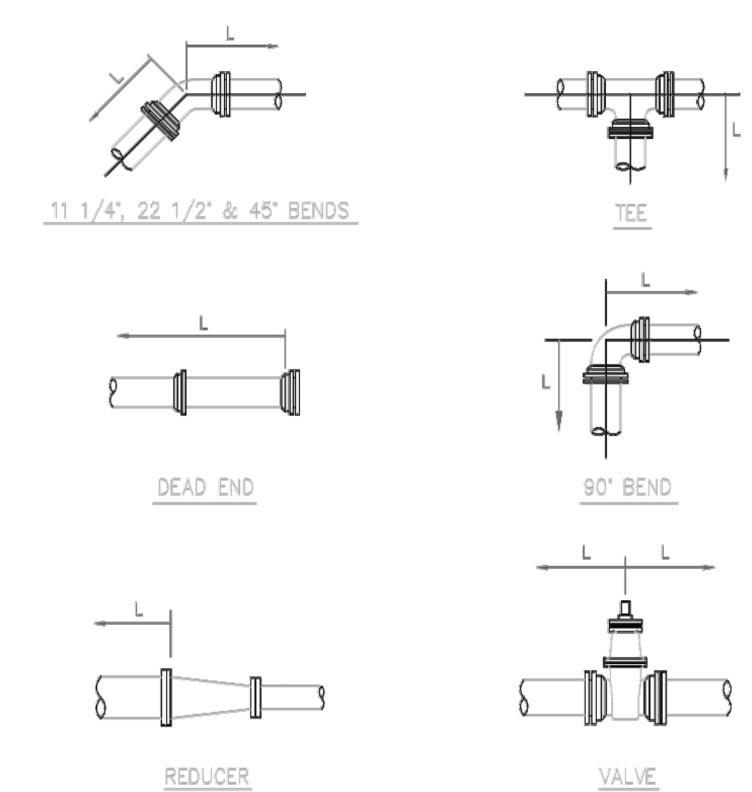
DOUBLE VALVE CONNECTION 5



NOTES:

1. THERE SHALL BE, IN ALL CASES, A MINIMUM OF 12" SEPARATION BETWEEN WATER MAINS AND FORCE MAINS.
2. WHEREVER POSSIBLE WATER MAINS SHALL PASS OVER FORCE MAINS OR STORM SEWERS.
3. FITTINGS SHALL BE RESTRAINED WITH MEGALUGS AND TIE RODS BETWEEN OFFSET FITTINGS. THRUST BLOCKS SHALL ONLY BE USED WITH THE APPROVAL OF THE ENGINEER.
4. THE DEFLECTION TYPE CROSSING IS PREFERRED. SEE SPECIFICATIONS AND MANUFACTURER'S SUBMITTAL FOR MAXIMUM DEFLECTION ALLOWED.
5. A MINIMUM OF 12" VERTICAL SEPARATION BETWEEN WATER MAINS AND STORM SEWERS SHALL BE MAINTAINED. WHERE THIS IS NOT POSSIBLE WATER MAIN SHALL BE D.I.P. WITH NO LESS THAN 6" SEPARATION.

PRESSURE PIPE CONFLICT 6



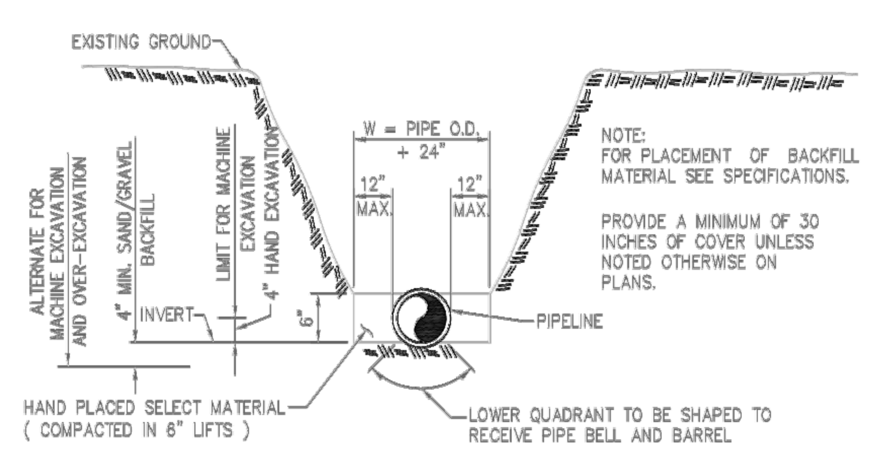
NOTES:

1. LENGTH 'L' IS IN FEET.
2. RESTRAINED LENGTHS ARE BASED ON THE FOLLOWING:
   .A. 150 PSI TEST PRESSURE
   .B. MIN. 30" COVER.
   .C. PVC – PIPE SIZES 4" – 12". DI – PIPE SIZES 4" – 48". (PVC/DI)
   .D. SANDY SOIL.
   .E. SAFETY FACTOR OF 1.5.
3. LENGTH 'L' SHOWN IN THE TABLE TO BE RESTRAINED IN THE DIRECTION OF THE ARROWS.

RESTRAINED PIPE JOINTS 7

FITTING TYPE		PIPE SIZE 4"	6"	8"	10"	12"	14"	16"	18"	20"	24"	30"	36"	42"	48"
90° HORIZ. BEND		17/14	24/20	31/25	36/30	42/35	40	44	49	53	61	71	80	89	96
45° HORIZ. BEND		7/6	10/8	13/11	15/12	18/15	16	18	20	22	25	29	33	37	40
22.5° HORIZ. BEND		3/3	5/4	6/5	7/6	8/7	8	9	10	10	12	14	16	18	19
11.25° HORIZ. BEND		2/1	2/2	3/3	4/3	4/3	4	4	5	5	6	7	8	9	10
45° VERT. OFFSET	UPPER BEND	19/12	27/17	35/22	42/27	50/32	36	40	44	48	55	67	77	86	95
	LOWER BEND	5/4	7/6	9/8	11/9	13/11	12	14	15	17	19	23	26	29	32
22.5° VERT. OFFSET	UPPER BEND	9/6	13/8	17/11	20/13	24/15	17	19	21	23	27	32	37	41	46
	LOWER BEND	2/2	3/3	4/4	5/4	6/5	6	7	7	8	9	11	13	14	15
11.25° VERT. OFFSET	UPPER BEND	5/3	6/4	8/5	10/6	12/7	9	10	11	12	13	16	18	21	23
	LOWER BEND	1/1	2/1	2/2	3/2	3/3	3	3	4	4	5	5	6	7	8
DEAD END AND INLINE VALVE		46/30	65/42	85/54	102/65	120/76	86	97	107	117	136	162	186	208	229
TEE (BRANCH RESTRAINT)	4"x	21/13	8/5	1/1	1/1	1/1	–	–	–	–	–	–	–	–	–
	6"x	–	39/25	30/19	20/13	10/7	1	1	1	1	1	1	–	–	–
	8"x	–	–	59/37	51/32	44/28	23	17	12	6	1	1	1	–	–
	10"x	–	–	–	75/47	69/44	40	35	31	26	17	1	1	–	–
	12"x	–	–	–	–	93/59	55	52	48	44	36	23	8	1	1
	14"x	–	–	–	–	–	69	66	63	59	53	41	29	15	1
	16"x	–	–	–	–	–	–	79	76	74	68	58	47	35	23
	18"x	–	–	–	–	–	–	–	89	86	81	73	63	53	42
	20"x	–	–	–	–	–	–	–	–	99	94	86	78	69	59
	24"x	–	–	–	–	–	–	–	–	–	117	111	104	97	88
	30"x	–	–	–	–	–	–	–	–	–	–	143	137	132	125
	36"x	–	–	–	–	–	–	–	–	–	–	–	167	162	157
	42"x	–	–	–	–	–	–	–	–	–	–	–	–	188	184
	48"x	–	–	–	–	–	–	–	–	–	–	–	–	–	209
REDUCER (LARGER PIPE RESTRAINT)	6"x	34/21	–	–	–	–	–	–	–	–	–	–	–	–	–
	8"x	61/39	34/23	–	–	–	–	–	–	–	–	–	–	–	–
	10"x	83/53	63/40	34/22	–	–	–	–	–	–	–	–	–	–	–
	12"x	104/66	87/55	64/40	59/37	–	–	–	–	–	–	–	–	–	–
	14"x	–	69	56	54	22	–	–	–	–	–	–	–	–	–
	16"x	–	82	71	69	41	22	–	–	–	–	–	–	–	–
	18"x	–	–	84	82	58	41	22	–	–	–	–	–	–	–
	20"x	–	–	–	95	73	58	41	22	–	–	–	–	–	–
	24"x	–	–	–	–	100	88	74	58	41	–	–	–	–	–
	30"x	–	–	–	–	134	125	114	102	88	57	–	–	–	–
	36"x	–	–	–	–	–	–	–	–	127	102	56	–	–	–
	42"x	–	–	–	–	–	–	–	–	159	138	101	54	–	–
	48"x	–	–	–	–	–	–	–	–	–	–	138	99	53	–

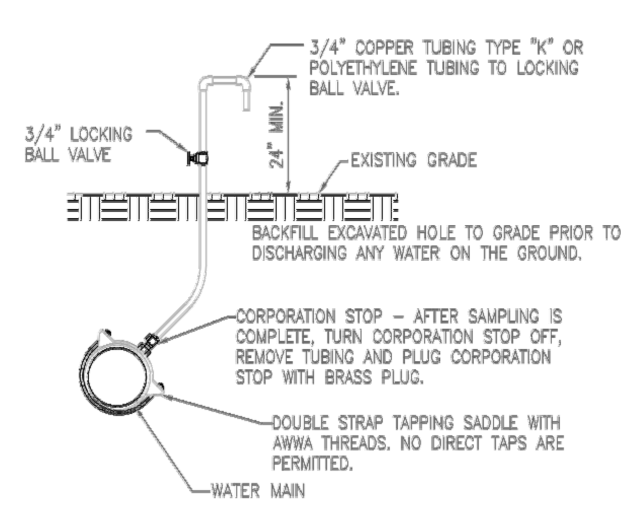
MECHANICAL THRUST RESTRAINT – MINIMUM PIPE LENGTHS 8



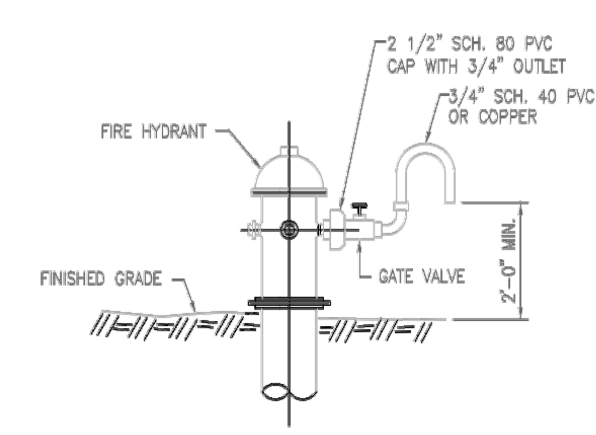
NOTE:
FOR PLACEMENT OF BACKFILL MATERIAL SEE SPECIFICATIONS.

PROVIDE A MINIMUM OF 30 INCHES OF COVER UNLESS NOTED OTHERWISE ON PLANS.

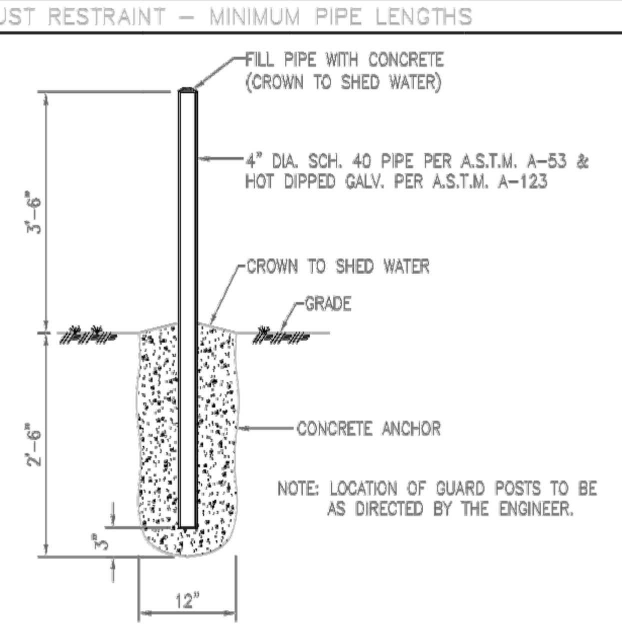
TRENCHING 9



SAMPLING POINT 10



SAMPLE POINT ON FIRE HYDRANT 11



NOTE: LOCATION OF GUARD POSTS TO BE AS DIRECTED BY THE ENGINEER.

GUARD POST 12

DATE: Aug 13, 2008 – 7:30am X:\Drawing Files\Standards\Standard Details – Water 02.dwg

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SEAL

8/1/16

TODD N. MCLEOD, P.E.
FL LICENSE NO. 69188 | FL CA NO. 30535

FIELD:
DRAWN: PAS
DESIGNED: TNM
APPROVED: TNM

PROJECT #:16-027
DRAWING #:

REVISIONS

NO. | DATE

WATER DETAILS
BERMUDA CAY
301 S. FEDERAL HIGHWAY
CITY OF LAKE WORTH, FLORIDA

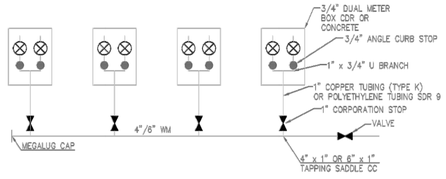
SCALE: AS SHOWN
DATE: 05/05/2016

SHEET 07 OF 8

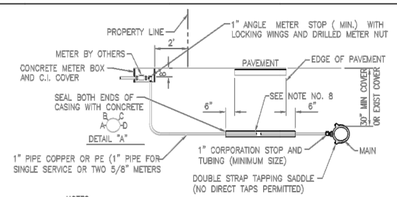
MULTIPLE WATER SERVICES — 1

TAPPING SADDLE 1" – JCM 402-CC
MULLERS PARTS MATERIAL OR A. Y. McDONALD ONLY

	MULLER	A. Y. McDONALD
CORPORATION STOP	H-15008	XXX
CURB STOP	B-25170	XXX
ANGLE CURB STOP	H-14285	XXX
METER COUPLING – 3/4" OR 1"	H-10890	XXX
U-BRANCH CONNECTION – 1'x 3/4"x 6 1/2"	H-15365	XXX

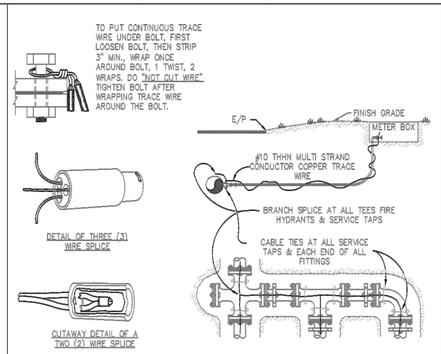


WATER SERVICE FOR 1" OR 2" PIPE — 2



NOTES:
1. SUCCESSIVE TAPS INTO THE WATER MAIN SHALL BE SPACED A MINIMUM OF 18". OFFSET AND AT 45° FROM THE CENTERLINE (ON MAINS WITH GREATER THAN 30" OF COVER. SEE DETAIL 'A').
2. WHERE NO SIDEWALK EXISTS, METER BOXES SHALL BE SET TO CONFORM TO FINISH GRADE..
3. COPPER TUBING SHALL BE TYPE "K" WITH COMPRESSION FITTINGS. POLYETHYLENE TUBING SHALL BE SDR 9, COPPER SIZE TUBING.
4. ROTATE THE CORPORATION STOP SO THAT THE OPERATING NUT IS ACTUATED FROM THE VERTICAL POSITION RATHER THAN THE HORIZONTAL.
5. COPPER SERVICE LINES SHALL BE CONTINUOUS FROM CORPORATION STOP TO ANGLE METER STOP WITH NO FITTINGS IN BETWEEN.
6. TAPPING SADDLES AND CORPORATION STOPS SHALL HAVE CC THREADS.
7. SERVICE CASING SHALL NOT BE INSTALLED BY WATER JETTING UNDER ROADWAY.
8. GALVANIZED CASING REQUIRED FOR JACK AND BORE IN MOST CASES, SCHEDULE 40 PVC MAY BE USED WITH THE APPROVAL OF THE ENGINEER . CASING SHOULD EXTEND SIX (6) FEET BEYOND EDGE OF PAVEMENT AND SIZED AS FOLLOWS
   A. 1" SERVICE USE 2" CASING
   B. 2" SERVICE USE 4" CASING
9. METER BOX TO BE SET TWO FEET BEHIND PROPERTY LINE AND TWO FEET INSIDE SIDE PROPERTY LINE ON EITHER SIDE OF PROPERTY.
10. PIPING LAYOUT SHOWN IS TYPICAL FOR 2" SERVICE.

TRACE WIRE — 3



NOTES:
1. TRACE WIRE IS REQUIRED ON ALL NON METALLIC PIPE.
2. INCLUDE ALL COST OF MATERIAL & LABOR IN PRICE OF PIPE.
3. CONTRACTOR IS RESPONSIBLE FOR CONTINUITY OF ALL TRACE WIRE.
4. WIRE SPLICE CONNECTORS SHALL BE DRY-CON DIRECT BURY LUG BY KING INNOVATIONS, DS-500 DRI-SPLICE BY SPEARS OR DIRECT BURY PRODUCTS BY 3M

WATER AND SEWER SEPARATION CRITERIA — 4

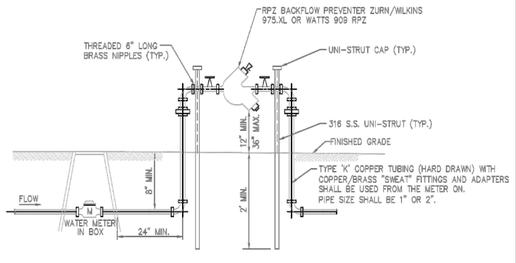
HORIZONTAL SEPARATION BETWEEN UNDERGROUND WATERMAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCE MAINS, RECLAIMED WATER PIPELINES AND ON SITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS.

1. NEW OR RELOCATED UNDERGROUND WATERMAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET BETWEEN THE OUTSIDE OF THE WATERMAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED SEWER, STORMWATER FORCEMAIN, OR PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 2-810, F.A.C.
2. NEW OR RELOCATED UNDERGROUND WATERMAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET, AND PREFERABLY TEN FEET, BETWEEN THE OUTSIDE OF THE WATERMAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER.
3. NEW OR RELOCATED UNDERGROUND WATERMAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST SIX, AND PREFERABLY TEN FEET, BETWEEN THE OUTSIDE OF THE WATERMAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY OR PRESSURE TYPE SANITARY SEWER, WASTEWATER FORCEMAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C. THE MINIMUM HORIZONTAL SEPARATION BETWEEN WATERMAINS AND GRAVITY TYPE SANITARY SEWERS SHALL BE REDUCED TO THREE FEET WHERE THE BOTTOM OF THE WATERMAIN IS LAID AT LEAST SIX INCHES ABOVE THE TOP OF THE SEWER.
4. NEW OR RELOCATED UNDERGROUND WATERMAINS SHALL BE LAID TO PROVIDE A MINIMUM HORIZONTAL DISTANCE OF AT LEAST TEN FEET BETWEEN THE OUTSIDE OF THE WATERMAIN AND ALL PARTS OF ANY EXISTING OR PROPOSED ON SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM AS DEFINED IN SECTION 381.0065(2), F.S. AND RULE 64E-6.002, F.A.C.

VERTICAL SEPARATION BETWEEN UNDERGROUND WATERMAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCEMAINS, AND RECLAIMED WATER PIPELINES.

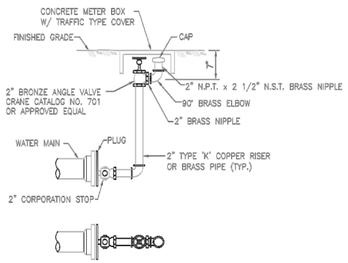
1. NEW OR RELOCATED UNDERGROUND WATERMAINS CROSSING ANY EXISTING OR PROPOSED GRAVITY OR VACUUM TYPE SANITARY OR STORM SEWER SHALL BE LAID SO THE OUTSIDE OF THE WATERMAIN IS AT LEAST SIX INCHES, AND PREFERABLY TWELVE INCHES ABOVE, OR AT LEAST TWELVE INCHES OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATERMAIN ABOVE THE OTHER PIPELINE.
2. NEW OR RELOCATED UNDERGROUND WATERMAINS CROSSING ANY EXISTING OR PROPOSED PRESSURE TYPE SANITARY SEWER, WASTEWATER OR STORMWATER FORCE MAIN, OR PIPE LINE CONVEYING RECLAIMED WATER SHALL BE LAID SO THE OUTSIDE OF THE WATERMAIN IS AT LEAST TWELVE INCHES ABOVE OR BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATERMAIN ABOVE THE OTHER PIPELINE.
3. AT THE UTILITY CROSSING DESCRIBED IN PARAGRAPH 1 AND 2 ABOVE, ONE FULL LENGTH OF WATERMAIN PIPE SHALL BE CENTERED ABOVE OR BELOW THE OTHER PIPELINE SO THE WATERMAIN JOINTS SHALL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE. ALTERNATIVELY, AT SUCH CROSSINGS, THE PIPES SHALL BE ARRANGED SO THAT ALL WATERMAIN JOINTS ARE AT LEAST THREE FEET FROM ALL JOINTS IN VACUUM TYPE SANITARY SEWER, STORM SEWERS, STORMWATER FORCEMAINS, OR PIPELINES CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C., AND AT LEAST SIX FEET FROM ALL JOINTS IN GRAVITY OR PRESSURE TYPE SANITARY SEWERS, WASTEWATER FORCEMAINS, OR PIPELINES CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER III 62-610, F.A.C.

BACKFLOW PREVENTION DEVICE – 3/4" TO 2" — 5



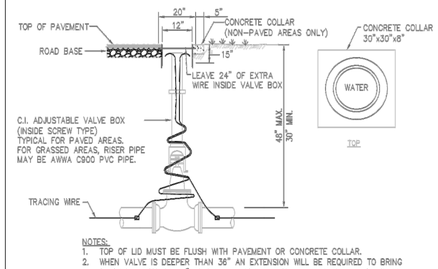
NOTE:
PROVIDE GUARD SHACK STEEL ENCLOSURE WITH GREEN VINYL COATING FOR PROTECTION.

2" TERMINAL BLOWOFF — 6



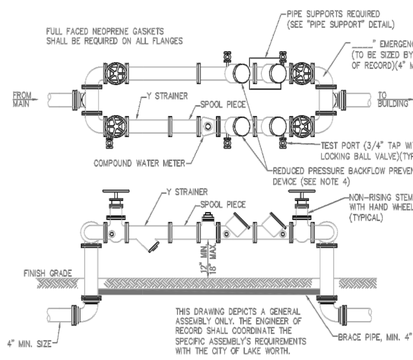
NOTES:
1. GALVANIZED PIPING AND FITTINGS SHALL NOT BE USED ON TEMPORARY OR PERMANENT BLOWOFFS.
2. MEGALUG RESTRAINED JOINTS REQUIRED ON WATERMAIN.

VALVE SETTING — 7



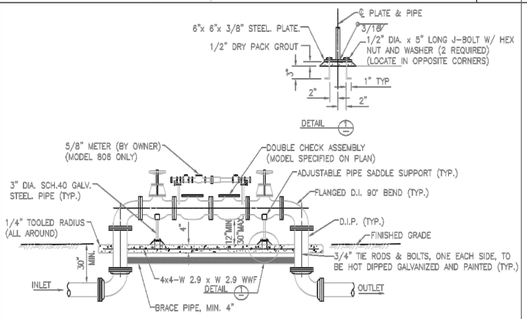
NOTES:
1. TOP OF LID MUST BE FLUSH WITH PAVEMENT OR CONCRETE COLLAR.
2. WHEN VALVE IS DEEPER THAN 36" AN EXTENSION WILL BE REQUIRED TO BRING OPERATING NUT TO 24" OF FINISHED GRADE. EXTENSION MUST BE SET SCREW TYPE AND ATTACHED TO OPERATING NUT.
3. OUTSIDE BOX SHALL BE UNITED STATES FOUNDRY NO. 7630 WITH TYPE FD LID. LID SHALL BE CAST WITH THE WORDS: "WATER" OR "RAW WATER".
4. USE NYLON CABLE TIES TO SECURE TRACE WIRE TO OUTSIDE OF VALVE EXTENSION AND CABLE TIE BEHIND EACH BELL.
5. SEE NOTES ON DETAIL NO. 3, THIS SHEET.

3" AND LARGER METER INSTALLATION AND BACKFLOW ASSEMBLY — 12

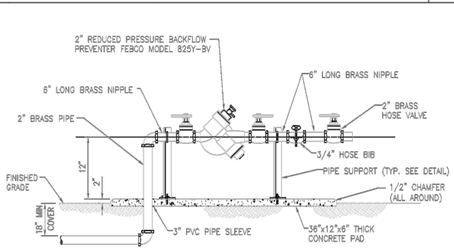


NOTES:
1. MECHANICAL JOINT FITTINGS SHALL BE REQUIRED UNDERGROUND AND FLANGED FITTINGS FOR ABOVE GROUND USE, NO UNIFLANGES PERMITTED.
2. PAINT THE ABOVE GROUND ASSEMBLY IN ACCORDANCE WITH CONSTRUCTION STANDARD, AFTER MANUFACTURERS RECOMMENDED SURFACE PREP IS COMPLETED. DO NOT PAINT OVER NAME/SERIAL PLATE, STAINLESS STEEL OR BRASS FITTINGS.
3. PROTECTIVE PIPE STANCHIONS ARE REQUIRED.
4. APPROVED REDUCED PRESSURE BACKFLOW PREVENTER WITH SILICONE RUBBER SEAL RINGS OR DISKS:
   A. WILKENS MODEL 375 S, 4" TO 10"
   B. AMES MODEL 4000 SSSR, 4" TO 10"
   C. AMES MODEL 4000 SESR, 4" TO 10"
   D. AMES MODEL 4000 SSI, 4" TO 10"
5. 3" METER REQUIRES 4" BACKFLOW ASSEMBLY AND PIPING.
6. ALL TEST PORTS SHALL BE PLUGGED WITH BRASS PLUGS.
7. PROVIDE SPOOL PIECES DIRECTLY IN FRONT OF METER. MINIMUM LENGTH TO BE THREE PIPE DIAMETERS.
8. METER TO BE SUPPLIED BY CONTRACTOR. MODEL NUMBER TO BE DETERMINED BY CITY.

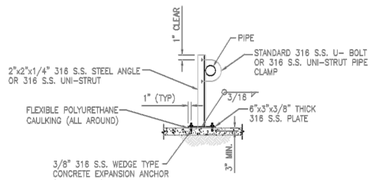
DOUBLE CHECK VALVE ASSEMBLY — 9



BACKFLOW PREVENTER WITH HOSE BIB — 10



PIPE SUPPORT — 11



DATE: Feb 28, 2014 – 2:07pm S:\Standards\Water-Sewer Standards\Standard Details – Water 03.dwg

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SEAL
8/1/16
TODD N. MCLEOD, P.E.
FL LICENSE NO. 69188 | FL CA NO. 30535

FIELD:
DRAWN: PAS
DESIGNED: TNM
APPROVED: TNM
PROJECT #:16-027
DRAWING #:

NO.	DATE	REVISIONS

WATER DETAILS
BERMUDA CAY
301 S. FEDERAL HIGHWAY
CITY OF LAKE WORTH, FLORIDA

SCALE: AS SHOWN
DATE: 05/05/2016

SHEET
08
OF 8

Lake Worth, Florida. The Art of Florida Living.sm

City Of Lake Worth
Department for Community Sustainability
Planning, Zoning and Historic Preservation Division
1900 Second Avenue North · Lake Worth · Florida 33461· Phone: 561-586-1687

MEMORANDUM DATE: September 7, 2016

AGENDA DATE: September 14, 2016

TO: Chair and Members of the Historic Resources Preservation Board

RE: **314 Columbia Drive**

FROM: Aimee N. Sunny, Senior Preservation Coordinator
Department for Community Sustainability

TITLE: **HRPB Project Number 16-00100171:** Consideration of a Certificate of Appropriateness (COA) for New Construction to allow a +/- 712 square foot accessory structure and a +/- 531 square foot addition to the main single-family structure located at **314 Columbia Drive**; PCN# 38-43-44-15-06-001-0170. The subject property was constructed c.1925 and is a contributing resource within the College Park Local Historic District.

OWNER/APPLICANT: Patrick and Danielle McCarroll
314 Columbia Drive
Lake Worth, FL 33460

BACKGROUND:

The property at 314 Columbia Drive has a two-story Mission/Mediterranean Revival style single-family residence constructed c.1925. The property has frontage on Columbia Drive to the South. Character defining features of the building include the carport with decorative buttresses, 4/4 and 6/6 windows, recessed entryway, flat roof with parapet, decorative tile scuppers, and frame construction with textured stucco.

Based on the information in the City's property file, the structure has undergone some changes over time including enclosing the screen and glass front porch, window and door replacement with compatible materials, stucco repairs, and flat roof placement. Overall, the building retains a high degree of historic integrity of location, setting, materials, and design. The property originally had a 1-story frame and stucco detached garage in the rear of the property, however due to deterioration and unsafe conditions, the HRPB approved the demolition of this structure in 2012.

REQUEST:

The Applicant has submitted plans for new construction of a +/- 712 square foot one-story accessory structure and a +/- 531 square foot two-story addition on the east elevation of the existing single-family structure. The Applicant has provided architectural plans for the building, including a site plan, floor plan, and elevations.

The addition is moderately sized for the existing structure, and will be visible from the front, south elevation. The new addition will be concrete masonry construction with a stucco finish and will have a flat roof and aluminum windows and doors to match the existing house.

The new construction accessory structure is also moderately sized for the lot, and will be partially visible from the front, south elevation. The structure will also be concrete masonry construction with a stucco finish and will have a flat roof and aluminum windows and doors to match the existing house.

The subject property is zoned Single-family Residential (SFR), and is subject to the development standards for this district in the City of Lake Worth Zoning Code and in the City's Comprehensive Plan. An addition to a single-family residence and new construction of an accessory structure is permitted, so long as it conforms to the required development criteria in §23.3-7 of the City of Lake Worth Zoning Code. The following table includes some of the basic specifications for the proposed construction:

Dimension	**Required by Code**	**Existing or Proposed**
Lot size	7,500 sq. feet for two family	6,905 sq. feet
Lot width	75'-0"	50'-0" (existing non-conforming)
Front (South) setback	20'-0"	18.59' existing
Side setback	10% of lot width = 5'-0"	East = 3.12' existing, 4.45' proposed; West = 11.85' existing and proposed main structure, 5.0' proposed to accessory structure
Rear (North) setback	5'-0" for accessory structure	5'-0" proposed to accessory structure
F.A.R.[1]	0.50	0.22 existing, 0.35 proposed
Max. Building Coverage[2]	35% max.	14% existing, 34.3% proposed
Impervious surface	55% max.	Appx. 49% proposed
Accessory Structure Limitation	40% max. of the main structure or 1000 sf, whichever is less	38% (2,281 sq. ft. Main structure including addition and porches, 872 sq. ft. accessory structure including porch)

ANALYSIS:

Zoning Code Consistency

Overall, the proposed new construction project is consistent with the development requirements in the City's Zoning Code and would not require any variances from the Code.

[1] Floor area ratio: A regulatory technique which relates to total developable site area and the size (square feet) of development permitted on a specific site. A numeric rating assigned to each land use category that determines the total gross square feet of all buildings as measured from each building's exterior walls based upon the actual land area of the parcel upon which the buildings are to be located. Total gross square feet calculated using the assigned floor area ratio shall not include such features as parking lots or the first three (3) levels of parking structures, aerial pedestrian crossovers, open or partially enclosed plazas, or exterior pedestrian and vehicular circulation areas.

[2] *Building lot coverage:* The area of a lot covered by the impervious surface associated with the footprint(s) of all buildings on a particular lot. Structured parking garages are exempt from building lot coverage.

Historic Preservation

Staff has reviewed the documentation and materials provided in this application. New construction and an addition within a local historic district are subject to specific criteria for visual compatibility as set forth in Section 23.5-4(k) of the City's historic preservation regulations. These criteria are provided in Attachment 1 and include Staff's response to each criterion. The criteria deal with massing, scale, materials, and design compatibility with the surrounding historic district.

It is the analysis of Staff that both projects are fundamentally compatible with the review criteria set forth in the historic preservation regulations. Although the addition being proposed is visible from the street, the compatible design and detailing helps to minimize any negative visual impact on the historic structure. The addition is in scale with the massing and height of the existing structure. Similarly, the design and detailing of the proposed new construction accessory structure is in scale with the massing and height of the existing structure. Staff does have a few concerns over the schematic quality of the drawings, and has recommend conditions of approval to address these concerns.

Public Comment

At the time of publication of the agenda, Staff has received (1) public comment in support of this project, included as Attachment 4.

COMPREHENSIVE PLAN CONSISTENCY:

The project, as proposed, is consistent with the following Comprehensive Plan goals and objectives concerning future land use and housing:

Goal 1.4 Encourage preservation and rehabilitation of historic and natural resources and where appropriate restrict development that would damage or destroy these resources. (Objective 1.4.2)

Objective 3.2.5: To encourage the identification of historically significant housing, and to promote its preservation and rehabilitation as referenced by the Surveys of Historic Properties conducted for the City of Lake Worth.

Policy 3.2.5.1: Properties of special value for historic, architectural, cultural or aesthetic reasons will be restored and preserved through the enforcement of the City's Historic Preservation Ordinance to the extent feasible.

CONSEQUENT ACTION:

Approve the application; approve the application with conditions; continue the hearing to a date certain to request additional information; or deny the application.

RECOMMENDATION:

Staff recommends approval of the request for an addition to the existing single-family structure with the following conditions:

1) Engineering drawings shall be required to show the roof and wall connection between the existing frame structure and the concrete block addition. An expansion joint shall be used if needed between the existing structure and the proposed addition as needed in order to avoid damage to the existing building and

unnecessary cracking of the stucco. The proposal may be revised from a concrete block construction to frame construction if necessary, subject to Staff review at permitting.

2) The existing structure shall be properly protected during construction so as not to incur damage from the addition.
3) All windows and doors shall be aluminum and shall not use reflective glass. The windows and doors shall match the existing windows and doors on the structure. The header height of the new windows and doors should match that of the existing windows and doors if possible, subject to staff review at permitting. Additional windows may be added if desired, subject to staff review and approval.
4) A decorative column and beam detail shall be provided showing the trim pieces and profiles, subject to staff review at permitting.
5) The rear porch may have a partial hip roof as shown on the drawings, or a shed roof with gable ends, subject to staff review at permitting.
6) The stucco texture on the proposed addition shall match the stucco texture on the existing structure.

Staff recommends approval of the request for a New Construction accessory structure with the following conditions:

1) All windows and doors shall be aluminum and shall not use reflective glass. The windows and doors shall match the existing windows and doors on the structure. All muntins shall be created using exterior raised applied muntins. No flat or internal muntins shall be permitted. Additional windows may be added if desired, subject to staff review and approval.
2) A decorative column and beam detail shall be provided showing the trim pieces and profiles, subject to staff review at permitting.
3) The porch may have a partial hip roof as shown on the drawings, or a shed roof with gable ends, subject to staff review at permitting.
4) The stucco texture on the proposed accessory structure shall match the stucco texture on the existing structure.
5) All mechanical systems shall comply with the Land Development Regulations, subject to Staff review at permitting.
6) The Applicant shall comply with all Residential landscaping requirements, per the Land Development Regulations, subject to Staff review and approval at permitting.

POTENTIAL MOTION:

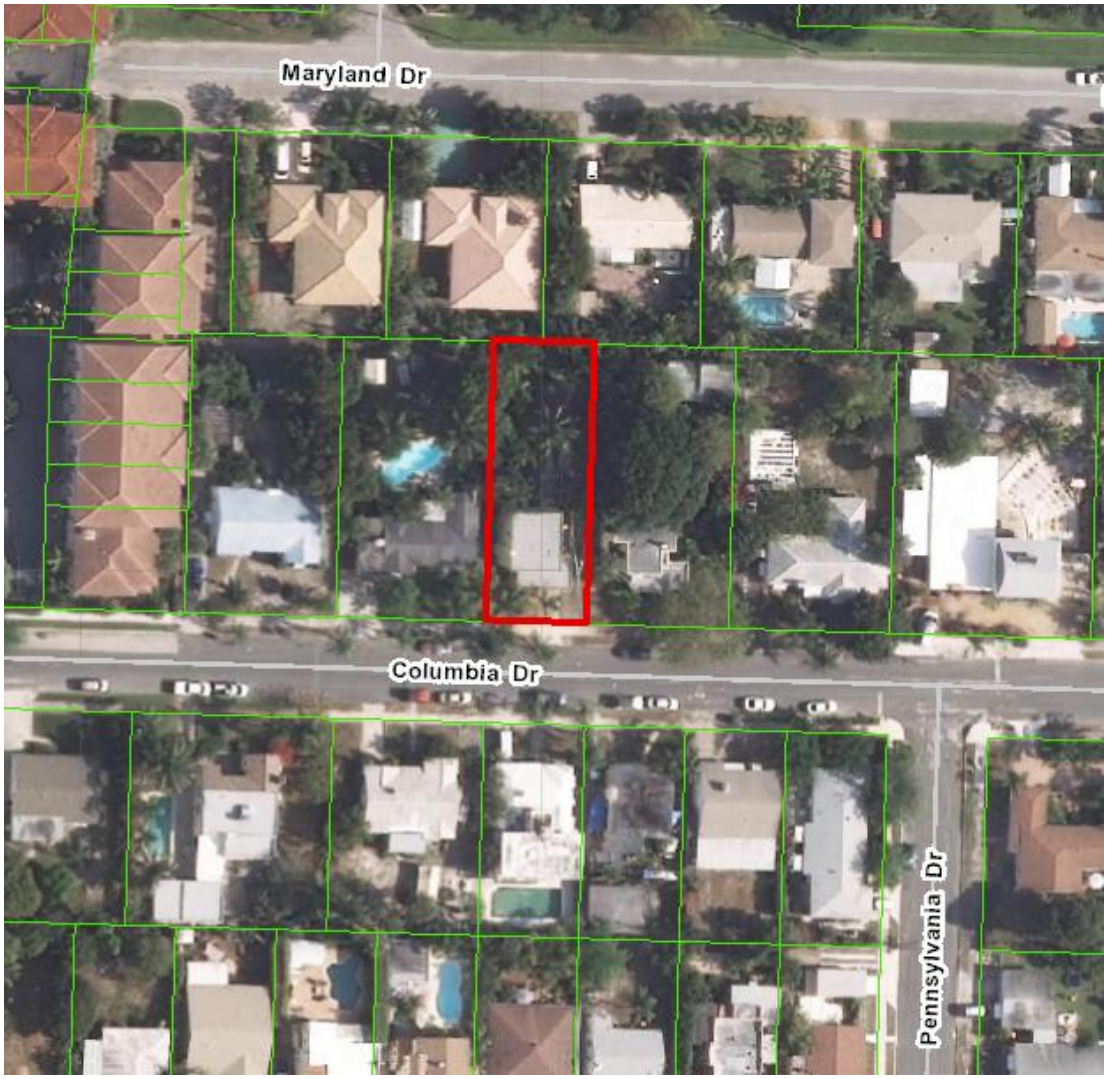
I MOVE TO **APPROVE** HRPB 16-00100171: Consideration of a Certificate of Appropriateness (COA) for New Construction of an accessory structure and an Addition to the existing historic structure located at **314 Columbia Drive**, with conditions as recommended by Staff, based upon the preponderance of competent substantial evidence.

I MOVE TO **DENY** HRPB 16-00100171: Consideration of a Certificate of Appropriateness (COA) for New Construction of an accessory structure and an Addition to the existing historic structure located at **314 Columbia Drive** because the Applicant has not established by a preponderance of the evidence that the application is in compliance with the City of Lake Worth Land Development Regulations Section 23.5-4, the Secretary of the interiors Standards for the Rehabilitation of Historic Properties, and the City's Comprehensive Plan.

ATTACHMENTS:

1. Decision Criteria
2. Justification Statement
3. Application Photographs
4. Proposed Architectural Drawings
5. Public Comment Letter

LOCATION MAP



MEMORANDUM

DATE: September 7, 2016

TO: Chair and Members of the Historic Resources Preservation Board

FROM: Aimee N. Sunny, Senior Preservation Coordinator
Department of Community Sustainability

SUBJECT: **HRPB Project Number 16-00100171:** Consideration of a Certificate of Appropriateness (COA) for New Construction to allow a +/- 588 square foot accessory structure and a +/- 531 square foot addition to the main single-family structure located at **314 Columbia Drive**; PCN# 38-43-44-15-06-001-0170. The subject property was constructed c.1925 and is a contributing resource within the College Park Local Historic District.

HRPB Meeting Date: September 14, 2016

Per Section 23.5-4k(1) of the historic preservation ordinance, the Board shall use the following criteria in making a determination:

A. What is the effect of the proposed work on the landmark or the property upon which such work is to be done?
Response: It is the opinion of Staff that the proposed work on the property located at 314 Columbia Drive will have no adverse effect on the historic appearance or significance of the building.

B. What is the relationship between such work and other structures on the landmark site or other property in the historic district?
Response: The proposed work will have no direct physical effect on any surrounding properties within the surrounding College Park Local Historic District.

C. To what extent will the historic, architectural, or archaeological significance, architectural style, design, arrangement, texture, materials and color of the landmark or the property be affected?
Response: The Applicant is not proposing to replace any original materials on the building. It is the analysis of Staff that the proposed addition is compatible with the architectural style of the single-family residence and will not adversely affect the historic integrity of the original structure. Similarly, it is the analysis of Staff that the proposed accessory structure is compatible with the architectural style of the single-family residence and will not adversely affect the historic integrity of the property.

D. Would denial of a certificate of appropriateness deprive the property owner of reasonable beneficial use of his property?
Response: No, the denial of this COA as submitted does not prevent the Applicant from potentially proposing other alterations to the home, nor would it make the building uninhabitable.

E. Are the applicant's plans technically feasible and capable of being carried out within a reasonable time?
Response: Yes.

F. Do the plans satisfy the applicable portions of the general criteria contained in the United States Secretary of the Interior's Standards for Rehabilitation then in effect or as they may be revised from time to time? The current version of the Secretary's Guidelines provides as follows:

(1) A property shall be used for its historic purpose or be placed in a new use that requires minimal change to the defining characteristics of the building and its site and environment.
Response: No change to the use of the property is proposed.

(2) This historic character of the property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.
Response: The Applicant is not removing any historic materials from the property. The proposed addition and new construction will not substantially alter the character defining features of the property.

(3) Each property shall be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or architectural elements from other buildings, shall not be undertaken.
Response: It is the opinion of Staff that the addition will be compatible with the original Mission structure, and given the difference in footprint as well as the location, the addition will also be easily distinguished from the main structure.

(4) Most properties change over time; those changes that have acquired historic significance in their own right shall be retained and preserved.
Response: The historically significant features of the building are being retained.

(5) Distinctive features, finishes and construction techniques or examples of craftsmanship that characterize a historic property shall be preserved.
Response: It is the opinion of Staff that no distinctive features, finishes, or examples of craftsmanship that characterize the property are being adversely affected by the scope of work proposed.

(6) Deteriorated architectural features shall be repaired rather than replaced, wherever possible. In the event replacement is necessary, the new material should match the material being replaced in composition, design, color, texture, and other visual qualities.

Repair or replacement of missing architectural features should be based on accurate duplications of features, substantiated by historical, physical, or pictorial evidence rather than on conjectural designs or because the different architectural elements from other buildings or structures happen to be available for relocation.
Response: Not applicable to this project.

(7) Chemical or physical treatments, such as sandblasting, that cause damage to historic materials, shall not be used. The surface cleaning of structures, if appropriate, shall be undertaken using the gentlest means possible.
Response: Not applicable to this project.

(8) Significant archeological resources affected by a project shall be protected and preserved. If such resources must be disturbed, mitigation measures shall be undertaken.
Response: Not applicable to this project.

(9) New additions, exterior alterations or related new construction shall not destroy historic materials that characterize the property. The new construction shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.
Response: The proposed new addition meet this criterion. The addition is compatible in size, massing, and scale. The footprint, roof shape, and location will make the addition easily distinguished from the original structure.

(10) New additions and adjacent or related new construction shall be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic building and its environment would be unimpaired.
Response: The proposed addition could be removed at a later date, with some changes to the main structure.

G. What are the effects of the requested change on those elements or features of the structure which served as the basis for its designation and will the requested changes cause the least possible adverse effect on those elements or features?
Response: It is the opinion of Staff that the historic character of the property would not be adversely affected by the proposed project as submitted by the Applicant, as outlined above.

Section 23.5-4k(2). *Additional guidelines for alterations.*

In approving or denying applications for certificates of appropriateness for alterations, the HRPB shall also consider the following additional guidelines:

A. Is every reasonable effort being made to provide a compatible use for a property that requires minimal alteration of the building, structure or site and its environment, or to use the property for its originally intended purpose?
Response: No change to the use of the property is proposed.

B. Are the distinguishing original qualities or character of a building, structure or site and its environment being destroyed? The removal or alteration of any historic material or distinctive architectural features shall be avoided whenever possible.
Response: No.

C. When a certificate of appropriateness is requested to replace windows or doors, the HRPB shall permit the property owner's original design when the HRPB's alternative design would result in an increase in cost of thirty (30) percent above the owner's original cost. The owner shall be required to demonstrate to the HRPB that:
(1) The work to be performed will conform to the original door and window openings of the structure; and
Response: Not applicable to this project.

(2) That the replacement windows or doors with less expensive materials will achieve a savings in excess of thirty (30) percent over historically compatible materials otherwise required by this code.
Response: Not applicable to this project.

Section 23.5-4k(3) Additional guidelines for new construction; visual compatibility

All improvements to buildings, structures and appurtenances within a designated historic district shall be visually compatible. New buildings should take their design cues from the surrounding existing structures, using traditional or contemporary design standards and elements that relate to existing structures that surround them and within the historic district as a whole. Building design styles, whether contemporary or traditional, should be visually compatible with the existing structures in the district.

A. In approving or denying applications for certificates of appropriateness for new construction, the City shall also, at a minimum, consider the following additional guidelines which help to define visual compatibility:

(1) The height of proposed buildings shall be visually compatible and in harmony with the height of existing buildings located within the historic district.
Response: The proposed building is consistent with the height of other 1-story buildings surrounding the property, and is in harmony with the height of other historic properties in the district.

(2) The relationship of the width of the building to the height of the front elevation shall be visually compatible and in harmony with the width and height of the front elevation of existing buildings located within the district.
Response: The width and height of the front elevations of the proposed building is in scale with the surrounding properties.

(3) The openings of any building within a historic district should be visually compatible and in harmony with the openings in buildings of a similar architectural style located within the historic district. The relationship of the width of the windows and doors to the height of the windows and doors in a building shall be visually compatible with buildings within the district.
Response: The proposed windows are compatible in height and width.

(4) The relationship of solids to voids in the front facade of a building or structure shall be visually compatible and in harmony with the front facades of historic buildings or structures located within the historic district. A long, unbroken facade in a setting of existing narrow structures can be divided into smaller bays which will complement the visual setting and the streetscape.
Response: The front façade is broken up with the front porch, as well as windows and doors, and the solid to void relationship is compatible with the district.

(5) The relationship of a building to open space between it and adjoining buildings shall be visually compatible and in harmony with the relationship between buildings elsewhere within the district.
Response: The proposed building respects the setbacks within the district, and also within the current zoning code.

(6) The relationship of entrance and porch projections to sidewalks of a building shall be visually compatible and in harmony with the prevalent architectural styles of entrances and porch projections on buildings and structures within the district.

Response: The proposed front porch is visually compatible and utilizes detailing that is consistent with historic designs.

(7) The relationship of the materials, texture and color of the facade of a building shall be visually compatible and in harmony with the predominant materials used in the buildings and structures of a similar style located within the historic district.
Response: The building will be concrete block finished with textured stucco to match the existing structure, which is one of the customary building materials in the district. The building also utilizes wood porch columns and a barrel tile roof, which is compatible with the district.

(8) The roof shape of a building or structure shall be visually compatible and in harmony with the roof shape of buildings or structures of a similar architectural style located within the historic district.
Response: The proposed flat roof with parapet is visually compatible with the neighboring properties as well as the district.

(9) Appurtenances of a building, such as walls, wrought iron, fences, evergreen, landscape masses and building facades, shall, if necessary, form cohesive walls of enclosures along a street to insure visual compatibility of the building to the buildings and places to which it is visually related.
Response: It is the opinion of Staff that the plans provided are consistent with this requirement.

(10) The size and mass of a building in relation to open spaces, the windows, door openings, porches and balconies shall be visually compatible and in harmony with the buildings and places to which it is visually related.
Response: The proposed building meets this criteria.

(11) A building shall be visually compatible and in harmony with the buildings and places to which it is visually related in its directional character: vertical, horizontal or non-directional.
Response: The building's height and massing are compatible with other single-family residential buildings on the block, and the existing structure on this property.

(12) The architectural style of a building shall be visually compatible with other buildings to which it is related in the historic district, but does not necessarily have to be in the same style of buildings in the district. New construction or additions to a building are encouraged to be appropriate to the style of the period in which it is created and not attempt to create a false sense of history.
Response: The proposed accessory structure is a Mission/Mediterranean Revival architectural style. The building is visually compatible with the district, but does not attempt to replicate any historic structures.

(13) Landscaping shall be compatible with the architectural character and appearance of the structure and of other buildings located within the historic district.
Response: The landscape plan has been addressed as a condition of approval, and will be reviewed by Staff at permitting.

(14) In considering applications for certificates of appropriateness to install mechanical systems which affect the exterior of a building or structure visible from a public right-of-way, the following criteria shall be considered:

(a) Retain and repair, where possible, historic mechanical systems in their original location, where possible.
Response: Not applicable to this project.

(b) New mechanical systems shall be placed on secondary facades only and shall not be placed on, nor be visible from, primary facades.
Response: Staff will ensure that any mechanical systems for the new building meet this criterion.

(c) New mechanical systems shall not damage, destroy or compromise the physical integrity of the structure and shall be installed so as to cause the least damage, invasion or visual obstruction to the structure's building materials, or to its significant historic, cultural or architectural features.
Response: Not applicable to this project.

(15) The site should take into account the compatibility of landscaping, parking facilities, utility and service areas, walkways and appurtenances. These should be designated with the overall environment in mind and should be in keeping visually with related buildings and structures.
Response: Based on the plans provided, the current parking configuration is not anticipated to change. The landscape requirements will be addressed at permitting.

B. In considering certificates of appropriateness for new buildings or structures which will have more than one primary facade, such as those on corner lots facing more than one street, the HRPB shall apply the visual compatibility standards to each primary facade.
Response: Not applicable.

JUSTIFICATION STATEMENT
314 Columbia Drive, Lake Worth, FL 33460

Our home currently has 3 bedrooms and 1 bathroom and no storage or closest space. With two small children we are quickly outgrowing it and we need more space. We love the character of the home, my husband was raised here and bought it from his parents in 2005 so it does hold lots of sentimental value to him as well.

We would like to add a second bathroom downstairs, along with a laundry room and a back open porch. As it is now the French doors in the Dining Room open onto a 3-foot drop, and our laundry is in the kitchen, neither is functional nor aesthetically pleasing. We would really benefit from the second bathroom as well, especially when we have guests over.

We also have no storage so all the bikes, skate boards, surf boards and scooters are right by the front door as you enter the home. We would also like to add a separate detached structure to accommodate these things so I can have back my Florida Room. And finally, the car port is very narrow so no one can exit the vehicle on the passenger side. We would like to leave the structure in place but remove the connecting wall so that passengers can freely enter and exit the vehicle.

Thank you for taking our thoughts and concerns into consideration. I look forward to making our home more functional for our family's needs so they too can pass it on to the next generation.

A. What is the effect of the proposed work on the landmark or the property upon which such work is to be done? **It will increase the square footage and functionality of the landmark without compromising its historic architecture.**

B. What is the relationship between such work and other structures on the landmark site or other property in the historic district? **Many other historic homes in the neighborhood have a separate detached living space to provide additional room and storage. We would also like to include this in our plans and have it built in the same likeness as the main structure.**

C. To what extent will the historic, architectural, or archaeological significance, architectural style, design, arrangement, texture, materials and color of the landmark or the property be affected? **There would be minimal change to these elements, other than helping to preserve an historic landmark and making it more functional.**

D. Would denial of a certificate of appropriateness deprive the property owner of reasonable beneficial use of his property? **Yes**

E. Are the applicant's plans technically feasible and capable of being carried out within a reasonable time? **Yes**

F. Do the plans satisfy the applicable portions of the general criteria contained in the United States Secretary of the Interior's Standards for Rehabilitation then in effect or as they may be revised from time to time? **Yes**
The current version of the Secretary's Guidelines provides as follows:
(1) A property shall be used for its historic purpose or be placed in a new use that requires minimal change to the defining characteristics of the building and its site and environment.
(2) This historic character of the property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.
(3) Each property shall be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or architectural elements from other buildings, shall not be undertaken.
(4) Most properties change over time; those changes that have acquired historic significance in their own right shall be retained and preserved.
(5) Distinctive features, finishes and construction techniques or examples of craftsmanship that characterize a historic property shall be preserved.
(6) Deteriorated architectural features shall be repaired rather than replaced, wherever possible. In the event replacement is necessary, the new material should match the material being replaced in composition, design, color, texture, and other visual qualities. Repair or replacement of missing architectural features should be based on accurate duplications of features, substantiated by historical, physical, or pictorial evidence rather than on conjectural designs or because the different architectural elements from other buildings or structures happen to be available for relocation.
(7) Chemical or physical treatments, such as sandblasting, that cause damage to historic materials, shall not be used. The surface cleaning of structures, if appropriate, shall be undertaken using the gentlest means least likely.
(8) Significant archeological resources affected by a project shall be protected and preserved. If such resources must be disturbed, mitigation measures shall be undertaken.
(9) New additions, exterior alterations or related new construction shall not destroy historic materials that characterize the property. The new construction shall be differentiated from the old and shall be compatible with the massing, size, scale and architectural features to protect the historic integrity of the property and its environment.
(10) New additions and adjacent or related new construction shall be undertaken in such manner that, if removed in the future, the essential form and integrity of the historic building and its environment would be unimpaired.

G. What are the effects of the requested change on those elements or features of the structure which served as the basis for its designation and will the requested changes cause the least possible adverse effect on those elements or features? **The requested change would increase the size of the original kitchen as well as add a second bathroom and a laundry room with minimal effect on the original structure.**

H. Such other supplemental guidelines for restoration and rehabilitation of historic properties which the HRPB may from time to time adopt.

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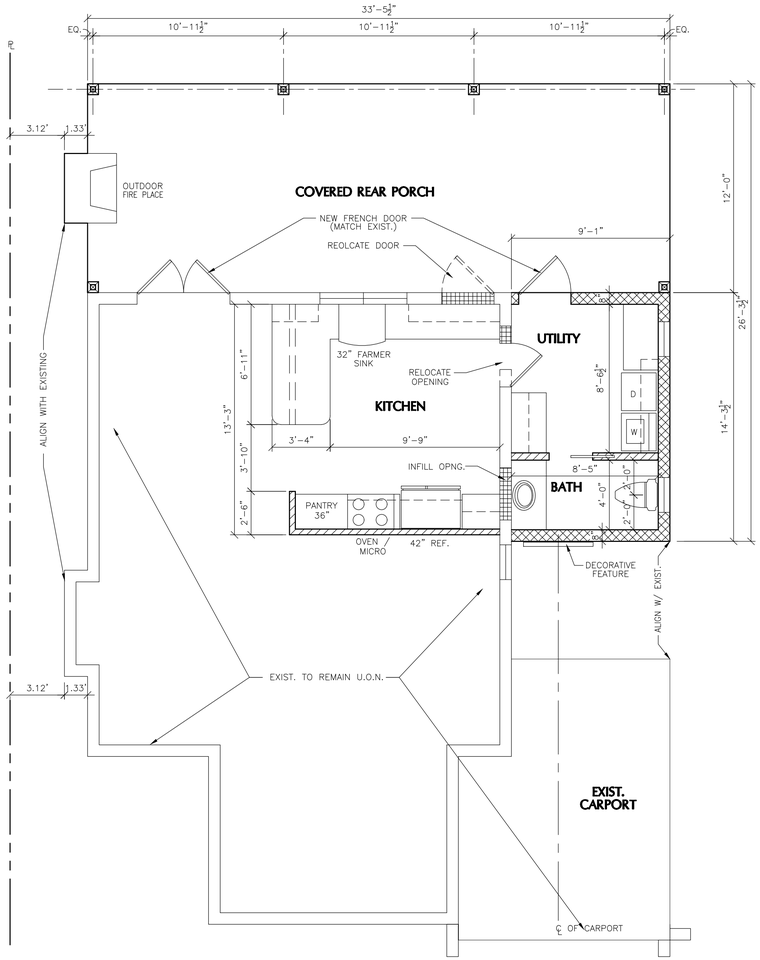
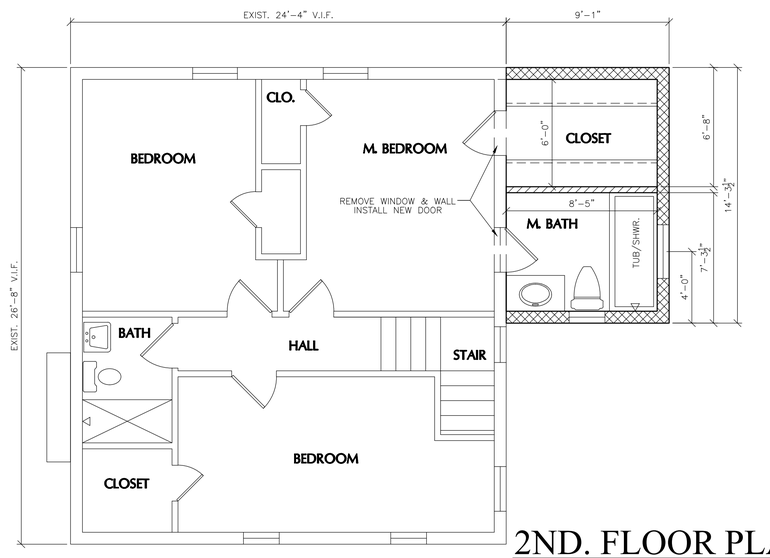


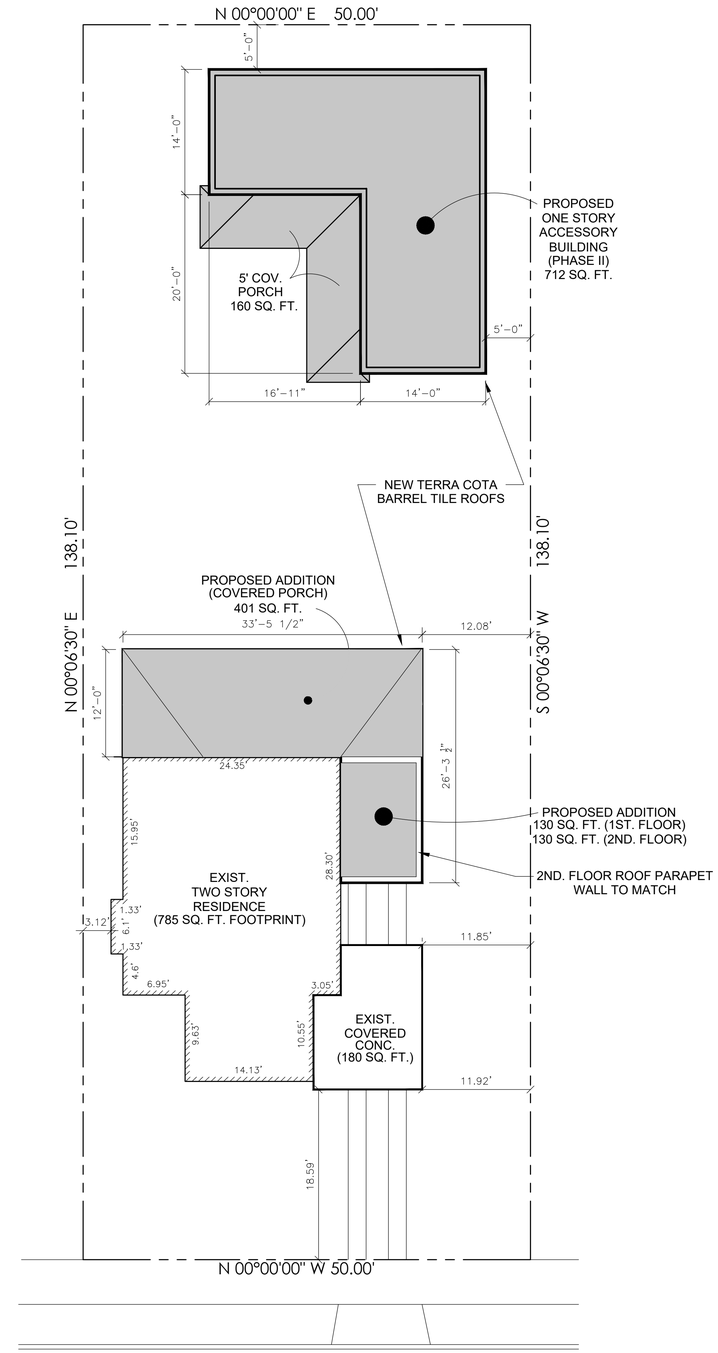
FLOOR PLAN

1/4"=1'-0"



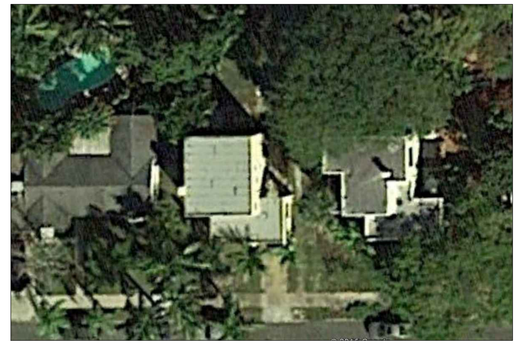
2ND. FLOOR PLAN

1/4"=1'-0"



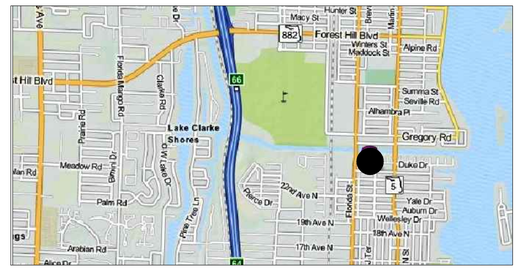
SITE PLAN

1/8"=1'-0"



AERIAL VIEW

N.T.S.



VICINITY MAP

N.T.S.

SITE DATA:			
ZONING DISTRICT SFR			
LOT AREA	6,905 S.F.		
	LOT COVERAGE BY BUILDING(S)		35% MAX. ALLOWABLE
	EXISTING	PROPOSED	
GROUND FLOOR A/C	785 S.F. 11.3%		
CARPORT	180 S.F. 2.6%		
TOTAL	965 S.F. 14.0%		
MAIN HOUSE REAR PORCH		401 S.F. 5.8%	
MAIN HOUSE A/C ADDITION (LOT COVERAGE)		130 S.F. 1.9%	
ACCESSORY BUILDING PORCH		160 S.F. 2.3%	
ACCESSORY BUILDING A/C		712 S.F. 10.3%	MAX. ALLOWABLE 2,417 - 35%
TOTAL LOT COVERAGE		2,368 S.F. 34.3%	

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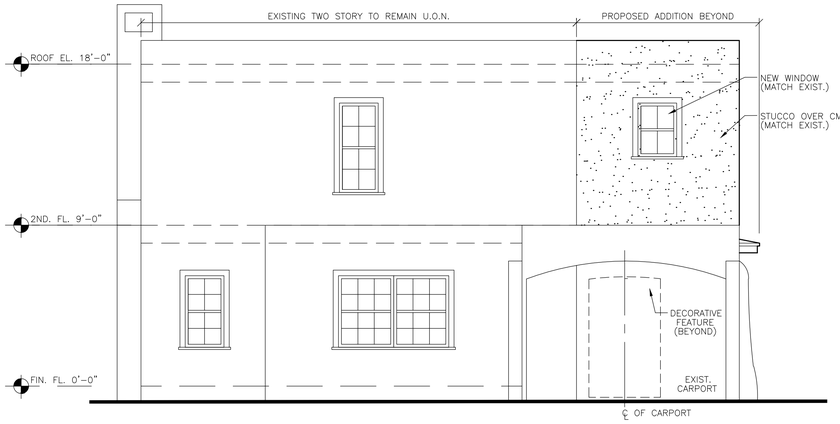
Proposed Additions for:
McCARROLL RESIDENCE
314 COLUMBIA DRIVE
LAKE WORTH, FLORIDA

REVISIONS:

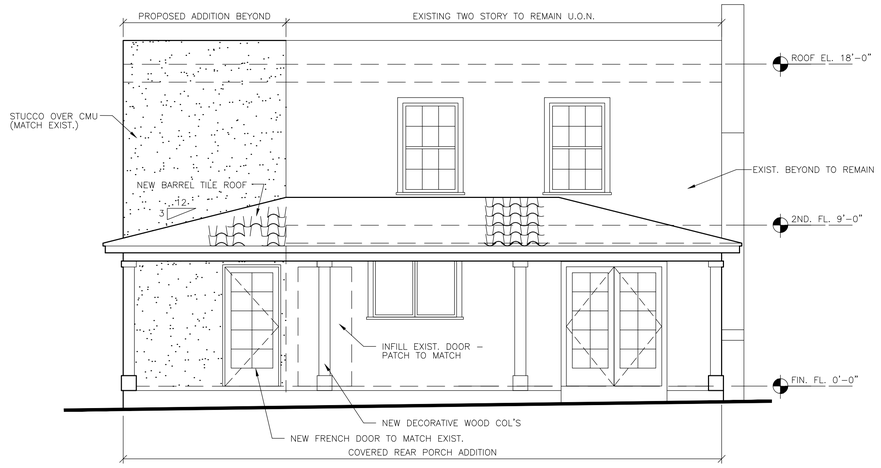
DATE: 8/31/2016
DRAWN BY: SCS
C:/JP/MCCARROLL

SHEET
1 of 3



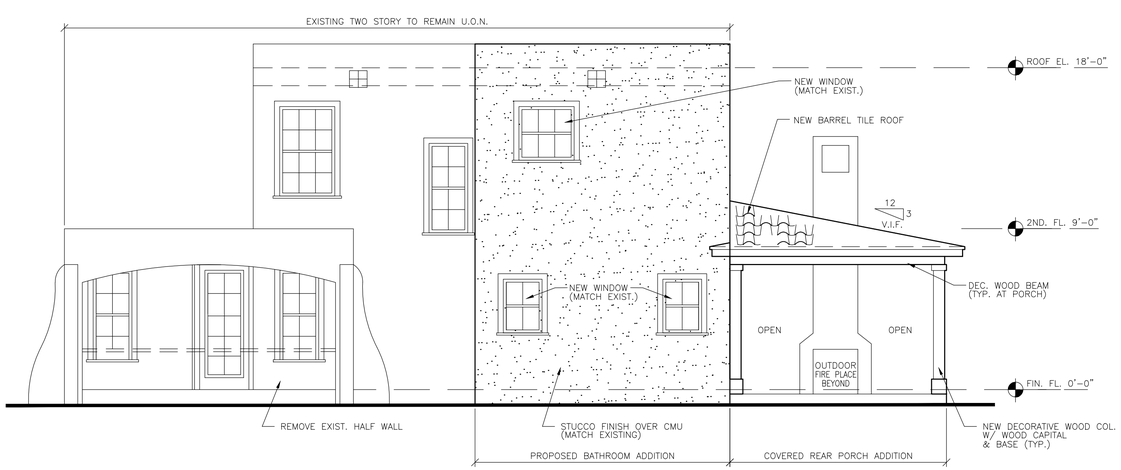
SOUTH ELEVATION

1/4"=1'-0" (FRONT)



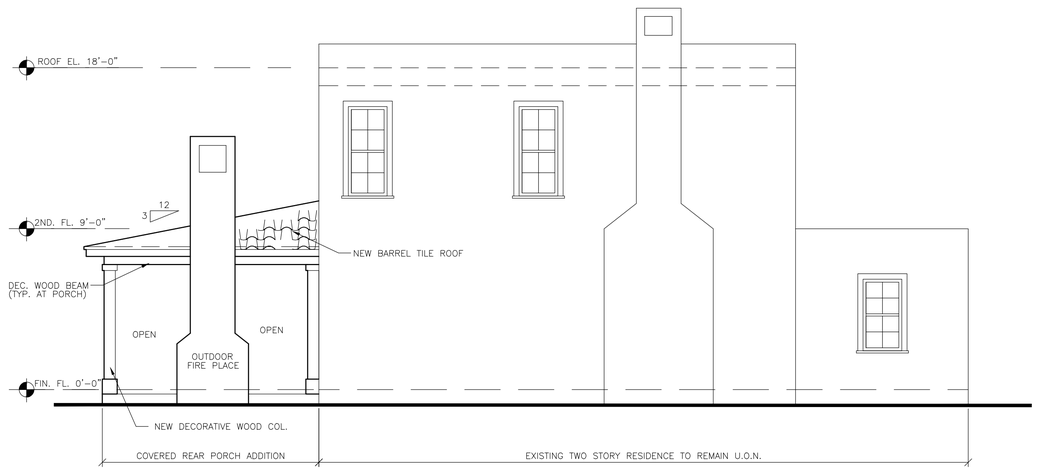
NORTH ELEVATION

1/4"=1'-0" (REAR)



EAST SIDE ELEVATION

1/4"=1'-0" (RIGHT)



WEST SIDE ELEVATION

1/4"=1'-0" (LEFT)

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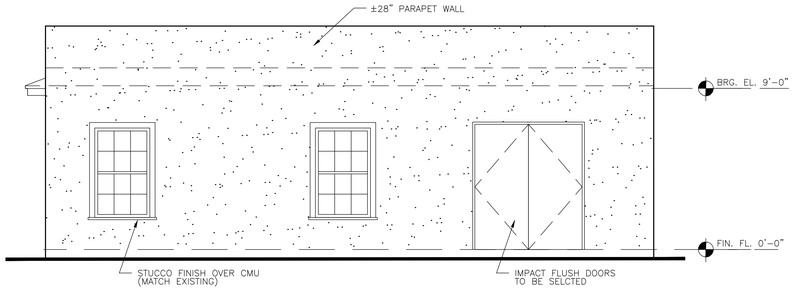
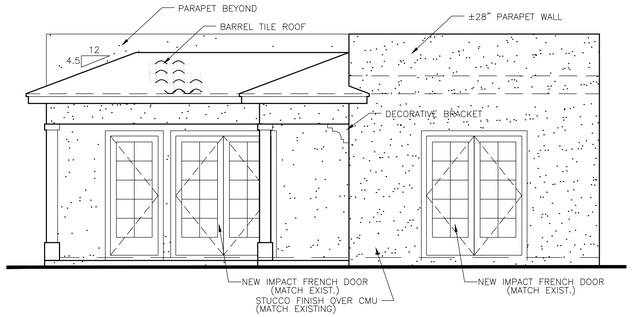
REVISIONS:

DATE: 8/31/2016
DRAWN BY: SCS
C:/JP/MCCARROLL

SHEET
2 of 3



EAST SIDE ELEVATION
1/4"=1'-0"



SOUTH ELEVATION
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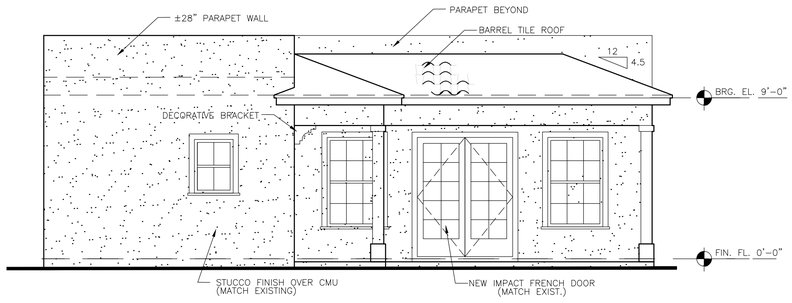
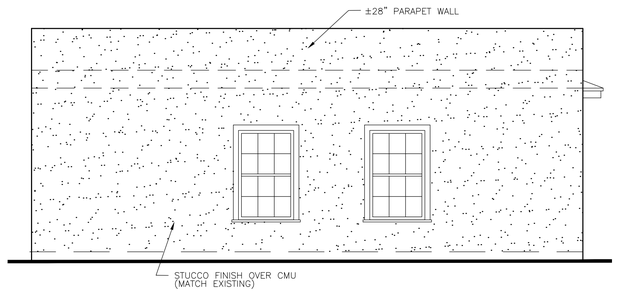
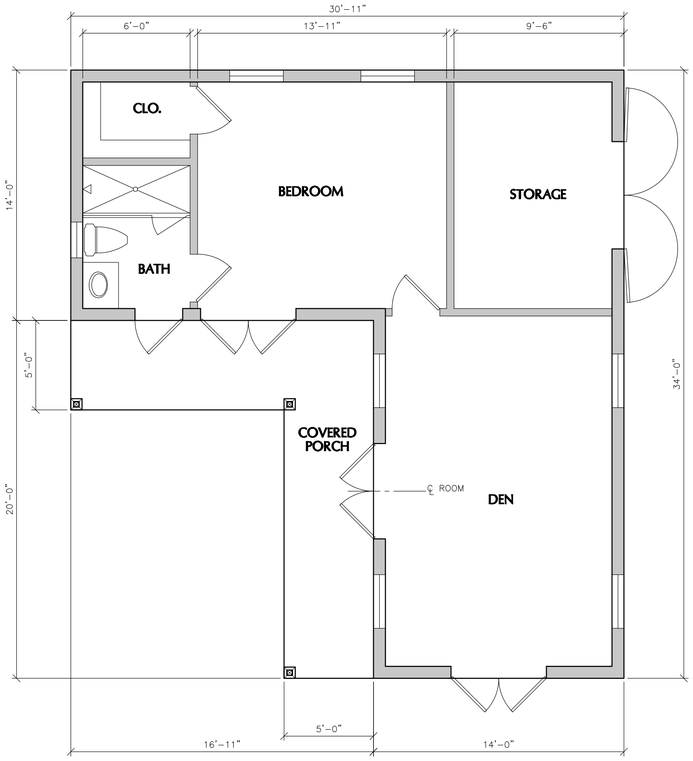


WEST SIDE ELEVATION
1/4"=1'-0"



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



ACCESSORY BLDG. - FLOOR PLAN
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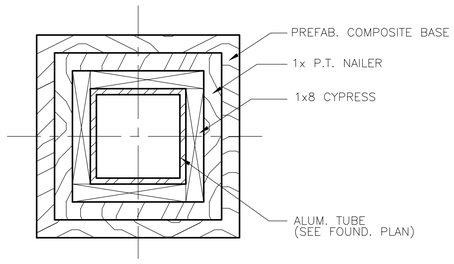

COL. DETAIL
N.T.S.

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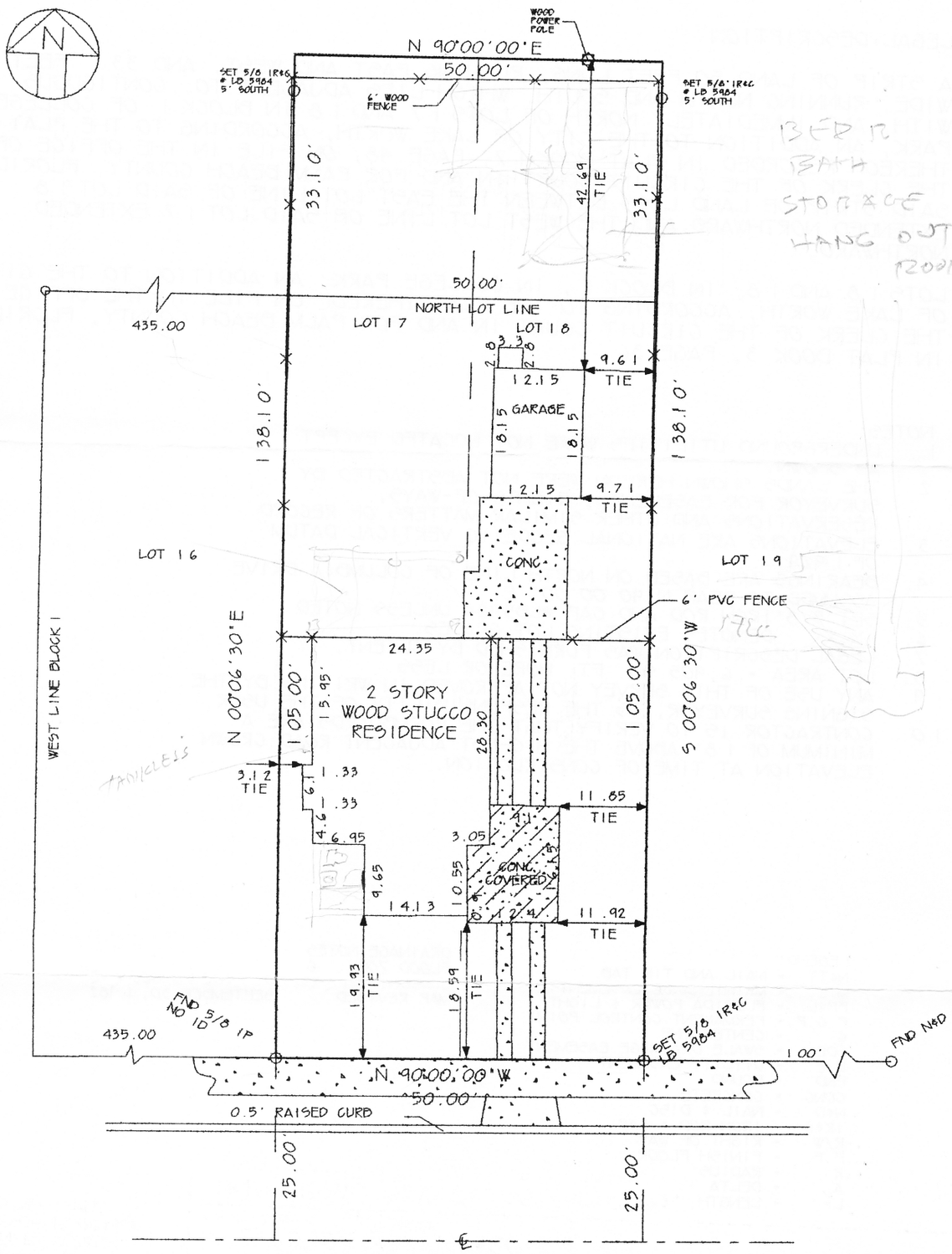
LAKE WORTH, FLORIDA

REVISIONS:

DATE: 8/31/2016
DRAWN BY: SCS
C:/JP/MCCARROLL

SHEET
3 of 3



SHEET 2 OF 2

NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.

JOHN F. TRACH
STATE OF FLORIDA
PLS NO. 4871

BOUNDARY SURVEY
COLLEGE PARK
LOT'S 17, 18 & NORTH PARCEL
PLAT BOOK 3, PAGES 36
PALM BEACH COUNTY, FLORIDA

12-23-04	1"=20'		F.B. 119 P. 05
SURVEY DATE:	SCALE:		

UNIVERSAL SURVEYING SYSTEMS, INC.
CERTIFICATE OF AUTHORIZATION NUMBER LB 5984
2623 LAKE DRIVE NORTH
BOYNTON BEACH, FLORIDA 33435
OFFICE: 561-736-0432 FAX: 561-736-0908

a-12-054
DRAWING NO.

C:\CADD6\GCD\CPLI 7B1

JAROPHIN INVESTMENT, INC.
48 E. Royal Palm Road
561.368.1852 Boca Raton, FL 33432 Fax: **561.368.2835**

SEP 12 2016

September 9, 2016

City of Lake Worth
Community Sustainability
Planning Zoning Historic Preservation
1900 2nd Avenue North
Lake Worth, FL 33461

Re: Courtesy Notice
PCN#: 38-43-44-15-06-001-0170

To Whom It May Concern:

We are in receipt of your undated Courtesy Notice regarding the subject property. As owner of the property located at 2402 N. Dixie Highway, Lake Worth, we have no objection to Mr. McCarroll's request as contained in said notice.

Sincerely,

JAROPHIN INVESTMENT, INC.

Morris Robinson
President

MR/js

Lake Worth, Florida. The Art of Florida Living.sm

City Of Lake Worth
Department for Community Sustainability
Planning, Zoning and Historic Preservation Division
1900 Second Avenue North · Lake Worth · Florida 33461· Phone: 561-586-1687

MEMORANDUM DATE: September 7, 2016

AGENDA DATE: September 14, 2016

TO: Chair and Members of the Historic Resources Preservation Board

RE: **1002 South Lakeside Drive**

FROM: Aimee N. Sunny, Preservation Planning Coordinator
Department for Community Sustainability

TITLE: **HRPB Project Number 16-00100104:** Consideration of a Certificate of Appropriateness (COA) for an addition to the existing structure at **1002 South Lakeside Drive**; PCN# 38-43-44-27-01-024-0050. The subject property was constructed in 1960 and is a non-contributing resource within the South Palm Park Local Historic District.

OWNER/APPLICANT: Lynn Caswell
1002 South Lakeside Drive
Lake Worth, FL 33460

BACKGROUND:
The one-story single-family structure at 1002 South Lakeside Drive was designed by architect William Rillon Upthegrove for owner Ethel Graham Weber. The property has public frontage on South Lakeside Drive to the west and the Intracoastal Waterway to the east. The building was constructed in an Mid-Century Masonry Vernacular style and built of masonry construction with a smooth stucco finish. The building has undergone various alterations over the years including removal of the original white concrete tile roof, window replacement, enclosure of the carport, and several additions. Overall, the building retains a low degree of historic integrity of materials and design.

REQUEST:
The Applicant is requesting to construct a +/- 1,574 square foot two-story double-height addition to the existing 3,285 square foot structure, per the plans and documentation provided. The new addition will be set back from the front of the structure, and will be located in the same area as the existing screen porch on the north elevation.

The subject property is zoned Single Family Residential (SFR) and is subject to the development standards for this district in the City of Lake Worth Zoning Code and in the City's Comprehensive Plan. An addition to a single-family residence is permitted in the SFR district of the City of Lake Worth Zoning Code. The following table includes some of the basic specifications for the proposed construction:

Dimension	**Required by Code**	**Existing or Proposed**
Lot size	7,500 sq. ft.	18,900 sq. ft.
Lot width	75'-0"	70'-0" (Legal non-conforming)
Lot depth	n/a	+/- 274'-0"
Front setback	50'-0"	69'-2.25" Existing
Side setback	10% of lot width = 5'-0" each side	22.9' from North property line existing and proposed, 4.9' from South property line existing and proposed
Rear setback	Yard, water frontage[1] requires 50'-0" setback, equal to the required front yard setback	Appx. 85' to survey line for primary building
Height[2] (Comp. Plan)	30' for SFR land use designation	Appx. 27'-5" from the crown of road to the mid point of the roof
Height (SFR zoning)	30' for primary structure, 24' for accessory structure, 2 stories	Appx. 27'-5" from the crown of road to the mid point of the roof
Wall Height	18' wall height at 5' side setback, up to a 23' wall height at a 10' setback	Appx. 25' wall height at a 22.9' setback;
F.A.R.[3]	0.45 (8,505 sq. ft.)	0.24 (4,153 sq.ft.) Proposed
Max. Building Coverage[4] for a Large Lot	30% max. (5,670 sq. ft.)	Appx. 17.3% (3,285 sq. ft.)
Impermeable surface	50% max. (9,450 sq. ft.)	No proposed change in the existing impermeable surface

[1] *Yard, water frontage:* A yard required between the Intracoastal Waterway and the upland use. Such water yard shall always be equal to the front yards in the applicable zone and shall be measured from the seaward edge of the bulkhead to the face of the building.

[2] *Building height:* The vertical distance measured from the minimum required floor or base flood elevation of twelve (12) inches above the crown of the road, whichever is less, to (a) the highest point of a flat roof; (b) the deck line of mansard roof, (c) the average height between eaves and ridge for gable, hip, and gambrel roofs, or (d) the average height between high and low points for a shed roof. The measurement of height shall not include decorative architectural elements, chimneys, mechanical equipment, church steeples and architecturally integrated signage, which may extend an additional ten (10) feet but cannot cover cumulatively more than ten (10) percent of the roof surface.

[3] *Floor area ratio:* A regulatory technique which relates to total developable site area and the size (square feet) of development permitted on a specific site. A numeric rating assigned to each land use category that determines the total gross square feet of all buildings as measured from each building's exterior walls based upon the actual land area of the parcel upon which the buildings are to be located. Total gross square feet calculated using the assigned floor area ratio shall not include such features as parking lots or the first three (3) levels of parking structures, aerial pedestrian crossovers, open or partially enclosed plazas, or exterior pedestrian and vehicular circulation areas.

[4] *Building lot coverage:* The area of a lot covered by the impervious surface associated with the footprint(s) of all buildings on a particular lot. Structured parking garages are exempt from building lot coverage.

ANALYSIS:

Zoning Code Consistency

Overall, the proposed project is consistent with the development requirements in the City's Zoning Code and would not require any variances from the Code.

Because the proposed addition will exceed 25% of the current value, compliance with the residentail landscape code will likely be required. A landscape plan has not been submitted at this time showing compliance with the minimum requirements of Section 23.6-1, Landscape Regulations. The Applicant shall be required to provide this information prior to permitting, and Staff has recommended a condition of approval to address this. Final review and approval will take place during the building permit process.

COMPREHENSIVE PLAN CONSISTENCY:

It is the analysis of Staff that the project, as proposed, is not consistent with the Comprehensive Plan goals and objectives concerning historic preservation and housing due to the fact that the Applicant is proposing an addition that will have a negative effect on the historic district. Specifically, the application is not in compliance with the following:

Goal 1.4 Encourage preservation and rehabilitation of historic and natural resources and where appropriate restrict development that would damage or destroy these resources. (Objective 1.4.2)

Objective 3.2.5: To encourage the identification of historically significant housing, and to promote its preservation and rehabilitation as referenced by the Surveys of Historic Properties conducted for the City of Lake Worth.

Policy 3.2.5.1: Properties of special value for historic, architectural, cultural or aesthetic reasons will be restored and preserved through the enforcement of the City's Historic Preservation Ordinance to the extent feasible.

ANALYSIS:

FEMA Requirements

The property is located in an "A" flood zone and therefore requires compliance with all FEMA regulations, and compliance with the National Flood Insurance Program (NFIP) requirements. According to this program, "If the cost of improvements or the cost to repair the damage exceeds 50 percent of the market value of the building, it must be brought up to current floodplain management standards."

The Applicant has conducted an independent appraisal, and is not anticipating the construction cost to exceed 50% of the appraised value of the structure. If the addition does exceed 50% of the value of the structure, the entire structure would need to be raised to the new minimum required flood elevation. Final review of this requirement will occur during the building permit process. Because of the changes to the property and the non-contributing status, this structure would not be eligible for a historic exemption.

Historic Preservation

Staff has reviewed the documentation and materials provided in this application. An addition within a local historic district is also subject to specific criteria for visual compatibility as set forth in Section 23.5-4(k) of the City's historic preservation regulations. These criteria are provided in Attachment 1 and include Staff's response to each criterion. The criteria deal with massing, scale, materials, and design compatibility with the surrounding historic district.

It is the analysis of Staff that the project as proposed is not compatible with the regulations set forth in the historic preservation ordinance. Although proposed to be a two-story addition, the double-height space on the second floor provides the exterior appearance of a three-story addition to the existing one-story structure. The addition is visually unbalanced and out of scale with the existing property and the surrounding area. Although the proposed height is in compliance with the zoning code, it is not compatible with the existing structure. If the additional 10' of double-height space was removed from the second floor, Staff would be in support of a two-story addition to this structure.

The design style utilizes elements of coastal Florida vernacular or "Key West" design. Although the original structure was designed as a Mid-Century Masonry Vernacular building, the changes to the structure over time have made it's present design style a mix of masonry vernacular and coastal Florida.

The east and west elevations utilize a compatible rhythm of openings and design elements. The window and door sizes and locations on the north and south elevations are not compatible with the historic district. Large expanses of blank wall are present, and the windows are a variety of incompatible sizes and shapes.

Public Comment
At the time of publication of this report, Staff has not received any public comment regarding this project.

CONSEQUENT ACTION:
Approve the application; approve the application with conditions; continue the hearing to a date certain to request additional information; or deny the application.

RECOMMENDATION:
Staff recommends that the Board discuss the application as submitted, specifically the compatibility of the height of the proposed addition and the compatibility of the north and south elevations.

If the Board chooses to approve the request for an addition, Staff recommends the following conditions:

1) Due to the schematic nature of the submittal drawings, the exact design and configuration of the decorative window and door trim and sills, the porch columns, and the rafter tail shall be subject to Staff review at permitting.
2) The Applicant shall add windows to the north and south elevations in order to eliminate the long expanses of blank wall, subject to Staff review at permitting. The new windows shall be vertical in proportion, and could match size and shape of the proposed casement windows. The thin horizontal ribbon windows shall not be used. Frosted or privacy glass may be used as needed.
3) The windows and doors shall not have reflective glass. All muntins shall be created using exterior raised applied muntins. No flat or internal muntins shall be permitted.
4) All proposed landscaping, hardscape, and mechanical equipment shall be subject to Staff review at permitting, and shall be in compliance with all Land Development Regulations.
5) The Applicant shall be required to meet all FEMA and National Flood Insurance Program requirements. If meeting these requirements results in a substantially altered design, the redesign proposal shall be heard before the HRPB.
6) The double-height space in the second floor shall be removed, and the addition shall read as a two-story structure. Based on the drawings submitted, the mid-point of the roof would be lowered approximately 8'-0" and the top of the tie beam would end at elevation 17'-3", as described on the elevation drawing.

POTENTIAL MOTION:

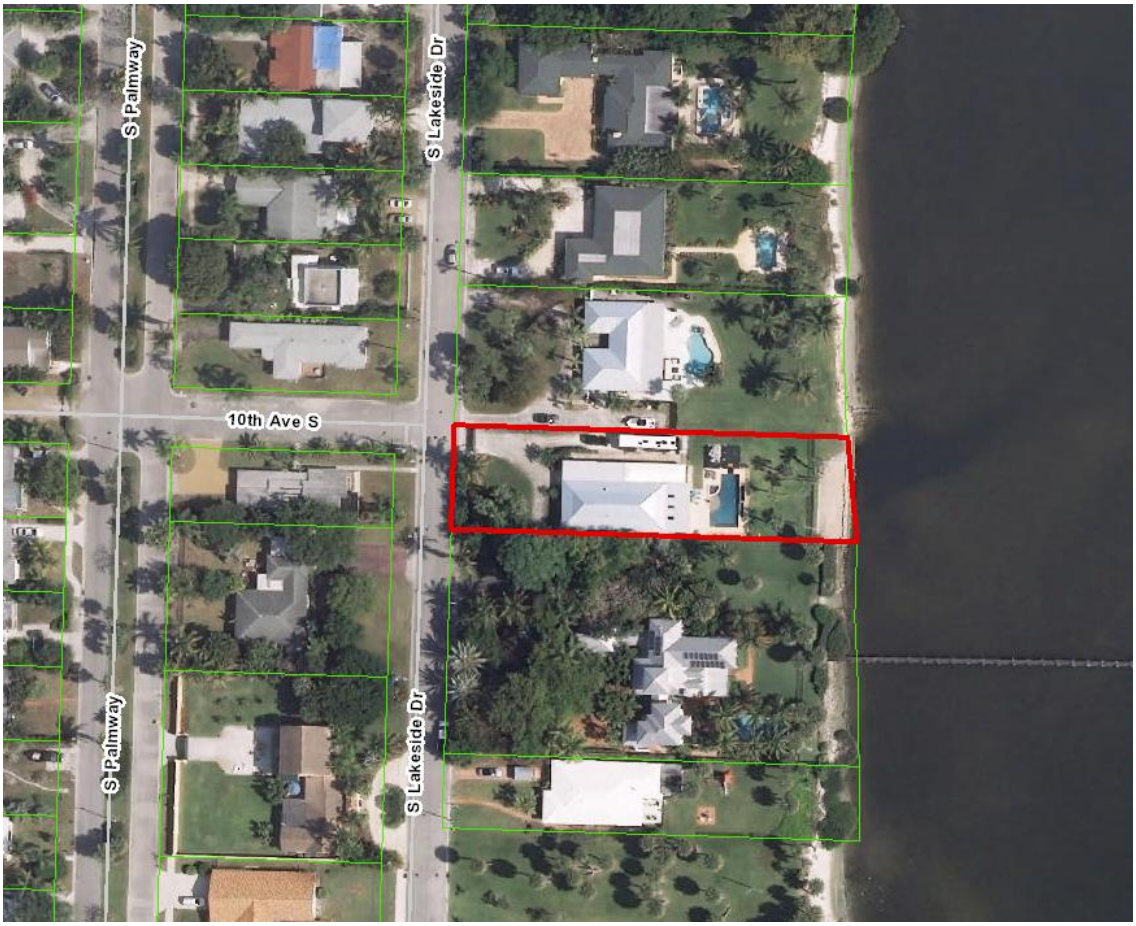
I MOVE TO **APPROVE** HRPB 16-00100104: Consideration of a Certificate of Appropriateness (COA) for an addition to the single-family residence located at **1002 S Lakeside Dr**, based upon the preponderance of competent substantial evidence, with the conditions as recommended by Staff.

I MOVE TO **DENY** HRPB 16-00100104: Consideration of a Certificate of Appropriateness (COA) for an addition to the single-family residence located at **1002 S Lakeside Dr**, because the Applicant has not established by a preponderance of the evidence that the application is in compliance with the City of Lake Worth Land Development Regulations, the Secretary of the interiors Standards for the Rehabilitation of Historic Properties, and the City's Comprehensive Plan.

ATTACHMENTS:

1. Decision Criteria
2. Photographs
3. Proposed Architectural Drawings
4. Proposed Door Brochure

LOCATION MAP



MEMORANDUM

DATE: September 7, 2016

TO: Chair and Members of the Historic Resources Preservation Board

FROM: Aimee N. Sunny, Senior Preservation Coordinator
Department of Community Sustainability

SUBJECT: **HRPB Project Number 16-00100104:** Consideration of a Certificate of Appropriateness (COA) for an addition to the existing structure at **1002 South Lakeside Drive**; PCN# 38-43-44-27-01-024-0050. The subject property was constructed in 1960 and is a non-contributing resource within the South Palm Park Local Historic District.

HRPB Meeting Date: September 14, 2016

Per Section 23.5-4k(1) of the historic preservation ordinance, the Board shall use the following criteria in making a determination:

A. What is the effect of the proposed work on the landmark or the property upon which such work is to be done?
Response: It is the opinion of Staff that the proposed work on the property located at 1002 South Lakeside Drive will have no adverse effect on the historic appearance or significance of the building.

B. What is the relationship between such work and other structures on the landmark site or other property in the historic district?
Response: The proposed work will have an indirect negative visual effect on the historic district and the neighboring properties along South Lakeside Drive.

C. To what extent will the historic, architectural, or archaeological significance, architectural style, design, arrangement, texture, materials and color of the landmark or the property be affected?
Response: The historic design and arrangement of the property will be affected by adding an overly tall two-story, double-height addition to the existing one-story structure.

D. Would denial of a certificate of appropriateness deprive the property owner of reasonable beneficial use of his property?
Response: No, the denial of this COA as submitted does not prevent the Applicant from potentially proposing other alterations to the home, nor would it make the building uninhabitable.

E. Are the applicant's plans technically feasible and capable of being carried out within a reasonable time?
Response: Yes.

F. Do the plans satisfy the applicable portions of the general criteria contained in the United States Secretary of the Interior's Standards for Rehabilitation then in effect or as they may be revised from time to time? The current version of the Secretary's Guidelines provides as follows:

(1) A property shall be used for its historic purpose or be placed in a new use that requires minimal change to the defining characteristics of the building and its site and environment.
Response: No change to the use of the property is proposed.

(2) This historic character of the property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.
Response: The Applicant is not removing any historic materials from the property, however the proposed addition will substantially alter the character and appearance of the structure.

(3) Each property shall be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or architectural elements from other buildings, shall not be undertaken.
Response: It is the opinion of Staff that the addition as proposed would not create a false sense of historical development.

(4) Most properties change over time; those changes that have acquired historic significance in their own right shall be retained and preserved.
Response: The changes to this property have not acquired significance over time.

(5) Distinctive features, finishes and construction techniques or examples of craftsmanship that characterize a historic property shall be preserved.
Response: It is the opinion of Staff that no distinctive features, finishes, or examples of craftsmanship that characterize the property are being adversely affected by the scope of work proposed.

(6) Deteriorated architectural features shall be repaired rather than replaced, wherever possible. In the event replacement is necessary, the new material should match the material being replaced in composition, design, color, texture, and other visual qualities.

Repair or replacement of missing architectural features should be based on accurate duplications of features, substantiated by historical, physical, or pictorial evidence rather than on conjectural designs or because the different architectural elements from other buildings or structures happen to be available for relocation.
Response: Not applicable to this project.

(7) Chemical or physical treatments, such as sandblasting, that cause damage to historic materials, shall not be used. The surface cleaning of structures, if appropriate, shall be undertaken using the gentlest means possible.
Response: Not applicable to this project.

(8) Significant archeological resources affected by a project shall be protected and preserved. If such resources must be disturbed, mitigation measures shall be undertaken.
Response: Not applicable to this project.

(9) New additions, exterior alterations or related new construction shall not destroy historic materials that characterize the property. The new construction shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.
Response: The proposed new addition does not meet this criterion. The addition is not compatible in size, massing, and scale. The proposed addition is too tall and appears unbalanced.

(10) New additions and adjacent or related new construction shall be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic building and its environment would be unimpaired.
Response: The proposed addition could be removed at a later date, with some changes to the main structure.

G. What are the effects of the requested change on those elements or features of the structure which served as the basis for its designation and will the requested changes cause the least possible adverse effect on those elements or features?
Response: It is the opinion of Staff that the historic character of the property would be adversely affected by the proposed project as submitted by the Applicant, as outlined above.

Section 23.5-4k(2). *Additional guidelines for alterations.*

In approving or denying applications for certificates of appropriateness for alterations, the HRPB shall also consider the following additional guidelines:

A. Is every reasonable effort being made to provide a compatible use for a property that requires minimal alteration of the building, structure or site and its environment, or to use the property for its originally intended purpose?
Response: No change to the use of the property is proposed.

B. Are the distinguishing original qualities or character of a building, structure or site and its environment being destroyed? The removal or alteration of any historic material or distinctive architectural features shall be avoided whenever possible.
Response: Yes, the low-lying one-story character of the structure would be greatly altered with an overly tall addition.

C. When a certificate of appropriateness is requested to replace windows or doors, the HRPB shall permit the property owner's original design when the HRPB's alternative design would result in an increase in cost of thirty (30) percent above the owner's original cost. The owner shall be required to demonstrate to the HRPB that:
(1) The work to be performed will conform to the original door and window openings of the structure; and
Response: Not applicable to this project.

(2) That the replacement windows or doors with less expensive materials will achieve a savings in excess of thirty (30) percent over historically compatible materials otherwise required by this code.
Response: Not applicable to this project.

1002 South Lakeside Drive
Lake Worth, Florida 33460

WEST SIDE

EAST SIDE

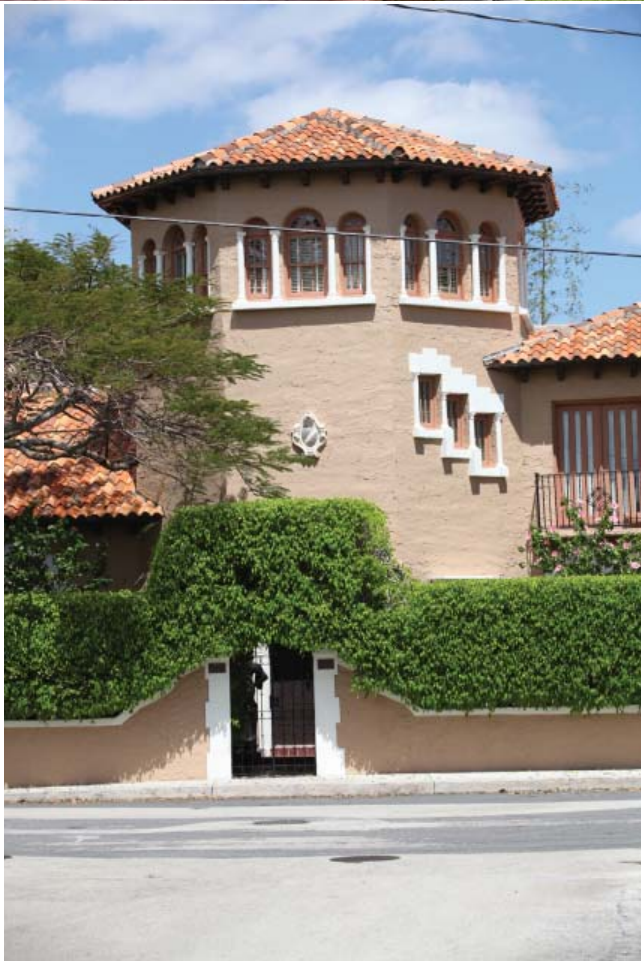
NORTH SIDE

NORTH SIDE

SOUTH SIDE

SOUTH SIDE

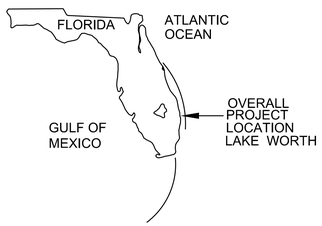
NEIGHBORING PROPERTIES



MR & MRS CASWELL

1002 SOUTH LAKESIDE DRIVE

LAKE WORTH, FLORIDA 33460



VICINITY MAP

NTS

N

ABBREVIATIONS

AB	ANCHOR BOLT	FD	FLOOR DRAIN	#	NUMBER	T. & G	TONGUE & GROOVE
ABV	ABOVE	FIN	FINISH	NOM	NOMINAL	TEL	TELEPHONE
A/C	AIR CONDITIONING	FIX	FIXTURE	NTS	NOT TO SCALE	TEMP	TEMPORARY
AFF	ABOVE FINISH FLOOR	FLR	FLOOR	OA	OVERALL OUTSIDE AIR	THK	THICK-THICKNESS
ALUM	ALUMINUM	FLUOR	FLUORESCENT	OC	ON CENTER	T.O.	TOP OF
APPROX	APPROXIMATE	FTG	FOOTING	OPG	OPENING	TYP	TYPICAL
ARCH	ARCHITECTURAL/ARCHITECT	FURR	FURRING	OPP	OPPOSITE	UGND	UNDERGROUND
BD	BOARD	GA	GAGE, GAUGE	ORIG	ORIGINAL	UL	UNDERWRITERS LAB.
BLDG	BUILDING	GALV	GALVANIZED	PART	PARTITION	VERT	VERTICAL
BLK	BLOCK	GL	GLASS	PL	PLATE	W/	WITH
BOTT	BOTTOM	GR	GRADE	PLAS	PLASTER	WC	WATER CLOSET
B.O.	BOTTOM OF	GYP	GYPSUM	PLYWD	PLYWOOD	WH	WATER HEATER
BRG	BEARING	HB	HOSE BIBB	PNL	PANEL	WM	WIRE MESH
BTN	BETWEEN	HORT	HORIZONTAL	PNT	PAINT	W/O	WITHOUT
CAB	CABINET	HCP	HANDICAP	POL	POLISHED	WP	WATERPROOF
CLG	CEILING	HDW	HARDWARE	PREFAB	PREFABRICATED	WS	WEATHER STRIPPING
CEM	CEMENT	HGT	HEIGHT	PROJ	PROJECT	WWF	WELDED WIRE FABRIC
CLG	CEILING	HM	HOLLOW METAL	PSF	POUNDS PER SQUARE FOOT		
CL	CLOSET	HR	HOUR	PSI	POUNDS PER SQUARE INCH		
CLR	CLEAR	HVAC	HEATING/VENTILATING/ AIR CONDITIONING	PRSTR	PRESSURE TREATED		
COL	COLUMN	IN	INCH	PTD	PAINTED		
CONC	CONCRETE	INCAND	INCANDESCENT	PVMT	PAVEMENT		
CONSTR	CONSTRUCTION	INCL	INCLUDE	QTY	QUANTITY		
CONT	CONTINUOUS	INFO	INFORMATION	REF	REFRIGERATOR		
CONTR	CONTRACTOR	INSUL	INSULATE-INSULATION	REQD	REQUIRED		
CT	CERAMIC TILE	INT	INTERIOR	REINF	REINFORCE-REINFORCING		
CTR	CENTER	KIT	KITCHEN	RET	RETURN		
DEG	(°) DEGREE	LAM	LAMINATED	REV	REVERSE, REVISION		
DEPT	DEPARTMENT	LAV	LAVATORY	RGD	RIGID		
DET	DETAIL	LB	POUND	RM	ROOM		
DF	DRINKING FOUNTAIN	LIN	LINEAR	RO	ROUGH OPENING		
DIA	DIAMETER	LL	LIVE LOAD	SCHED	SCHEDULE		
DIM	DIMENSION	LT	LIGHT	SD	SOAP DISPENSER		
DN	DOWN	LVR	LOUVER	SEP	SEPARATE		
DR	DOOR	MATL	MATERIAL	SECT	SECTION		
DWG	DRAWING	MAX	MAXIMUM	SHT	SHEET		
EA	EACH	MECH	MECHANICAL	SIM	SIMILAR		
EL	ELEVATION	MEMB	MEMBRANE	SPEC	SPECIFICATION		
ELEC	ELECTRICAL-ELECTRIC	MTL	METAL				
EQ	EQUAL	MFC	METAL FURRING CHANNEL	SQ	SQUARE		
EQPT	EQUIPMENT	MFR	MANUFACTURER	STD	STANDARD		
EQUIV	EQUIVALENT	MIN	MINIMUM	STL	STEEL		
EW	EACH WAY	MIR	MIRROR	STOR	STORAGE		
EMB	EMBEDDED	MISC	MISCELLANEOUS	SUB	SUBSTITUTE		
EXIST	EXISTING	MO	MASONRY OPENING	SURF	SURFACE		
EXT	EXTERIOR-EXTERNAL	MR	MOISTURE RESISTANT	SUSP	SUSPEND-SUSPENDED		
		NAT	NATURAL	SYS	SYSTEM		
		NIC	NOT IN CONTRACT				

INDEX OF DRAWINGS

GENERAL

C-01 COVER SHEET

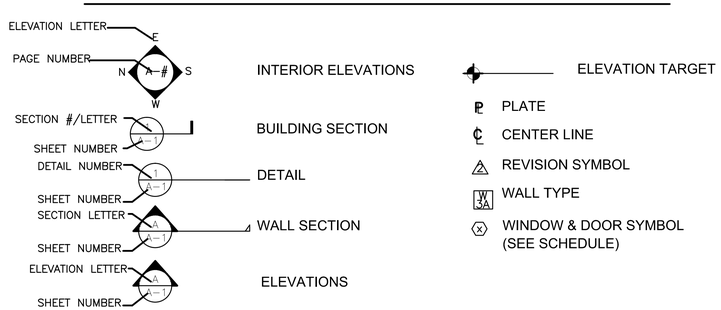
CIVIL

SP-01 SITE PLAN

ARCHITECTURE

A-01 EXISTING FLOOR PLAN
A-02 EXISTING ELEVATION
A-03 PROPOSED FLOOR PLAN
A-04 PROPOSED ELEVATION
A-05 PROPOSED ELEVATION

SYMBOLS



SCOPE OF WORK

GENERAL

General Notes

These drawings have a local state and federal copyright and are property of the Juan Contin, Architect. They are not to be used on other projects or extension of this project except by written agreements with Juan Contin, Architect. No design changes which alter the intent of the drawings or specifications are to be made without obtaining written permission from Juan Contin, Architect.

CONTIN
ARCHITECTURE AND DESIGN

JUAN CRISTOBAL CONTIN
FL LICENSE # AR94935
826 SOUTH FEDERAL
HIGHWAY SUITE #3
LAKE WORTH, FL 33460

TELEPHONE +1-561-249-4007
FAX +1-305-704-3878
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REGISTERED ARCHITECT
JUAN CRISTOBAL CONTIN
FL LICENSE # AR94935

826 SOUTH FEDERAL HIGHWAY
SUIT #4
LAKE WORTH, FL 33460

Client

MR & MRS CASWELL
1002 S LAKESID DRIV
LAK WORTH, FL 33460

Project Title

CASWELL RESIDENCE

Date 5-2-2016
Issued
Drawn RG
Checked JCC

Revisions

Scale North Point

AS SHOWN

Drawing Title

COVER SHEET

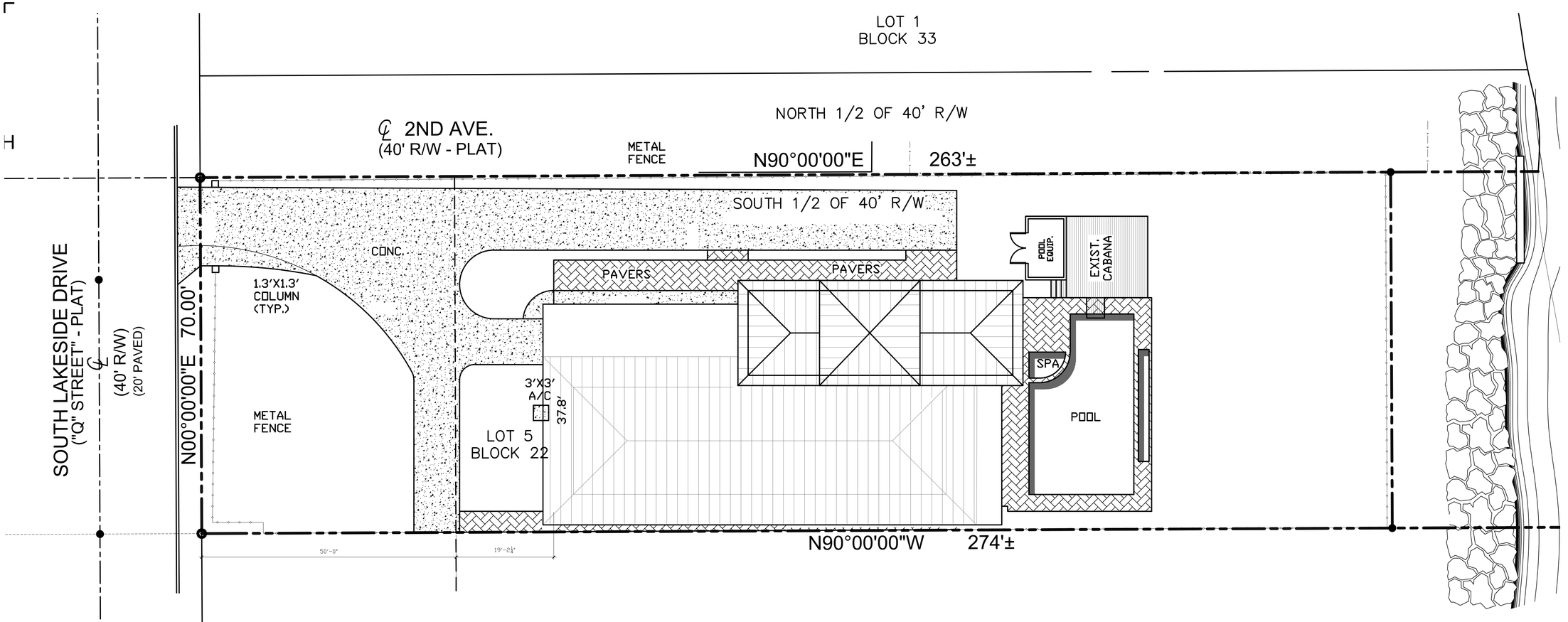
Project No.

Drawing Number

C-01

Drawing Status

-



LOT 4
BLOCK 22

N SIT□ PLA□

SCALE : 1/4"=1'

LEGAL DESCRIPTION

CERTIFIED TO: Lynn P Caswell
PROPERTY ADDRESS: 1002 S Lakeside Dr., Lake Worth, FL 33460
FLOOD WNE' A7 (FIRM 120213 0002C 9/30/82)
DESCRIPTION: Lot 5 Block 42, together with the south half of that 40 foot wide abandoned right- of -way (abandoned in Official Record Book 9550, Page 838, Public records ofPalm Beach County, Florida) lying North of and adjacent to said Lot 5, bounded by the northerly prolongations of the West and East lines of Lot 5, The Palm Beach Farms Company Plat No 4. Addition No. 1 to the Town ofLake Worth, acconling to the Plat thereof 119 recorded in Plat Book 5 pages 6-9, of the Public records ofPalm Beach County, Florida.

SITE DATA

ZONING AND FLU		EXISTING	PROPOSED
ZONING DISTRICT		SF-R SINGLE-FAMILY	N/A
FUTURE LAND USE			
PROPOSED USE		RESIDENTIAL	RESIDENTIAL

SITE DESCRIPTION		
LOT SIZE (ACREAGE AND SF)	□□□□□SF □□□33□ACRE□	N/A
LOT WIDTH (FRONTAGE)	70'-00"	N/A

DEVELOPMENT STANDARD		ALLOWED	PROVIDED
BUILDING HEIGHT	PRIMARY	16'	30'
	ACCESSORY	–	–
SETBACKS	FRONT	50	69.2'
	REAR	–	–
	SOUTH SIDE	4.9'	NO CHANGE
	NORTH SIDE	22.9'	NO CHANGE
LIVING AREA	SINGLE-FAMILY	800 SF	–
	MULTI-FAMILY	N/A	N/A
ACCESSORY STRUCTURE LIMITATION		–	–
IMPERMIABLE SPACE COVER (%)		–	NO CHANGE
BUILDING COVERAGE (%)		–	NO CHANGE
MAXIMUM WALL HEIGHT AT SETBACK		–	–
FLOOR AREA RATIO LIMITATION		MAX 0.45	0.24
PARKING			

BUILDING DATA

EXISTING SQUARE FOOTAGE

BASE AREA	2144 SF
FINISHED OPEN PORCH	99 SF
FINISHED STORAGE	66 SF
FINISHED GARAGE	242 SF
COVERED PATIO	734 SF
TOTAL EXISTING SQUARE FOOTAGE	3,285 SF

PROPOSED SQUARE FOOTAGE

LEVEL #1

BASE AREA	2,878 SF
FINISHED OPEN PORCH	99 SF
FINISHED STORAGE	66 SF
FINISHED GARAGE	242 SF
TOTAL	3,285 SF

LEVEL #2

BASE AREA	623 SF
TERRACE	245 SF
TOTAL	868

TOTAL PROPOSED SQUARE FOOTAGE	4,153 SF
TOTAL AREA TO BE CONSTRUCTED	1,574.4 SF

F. A. R.

0.45 ALLOWABLE = 8,505.27 SF
0.24 PROPOSED
0.21 FUTURE

□eneral □otes

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Pro□ect Title
CASW□LL R□SID□□C□

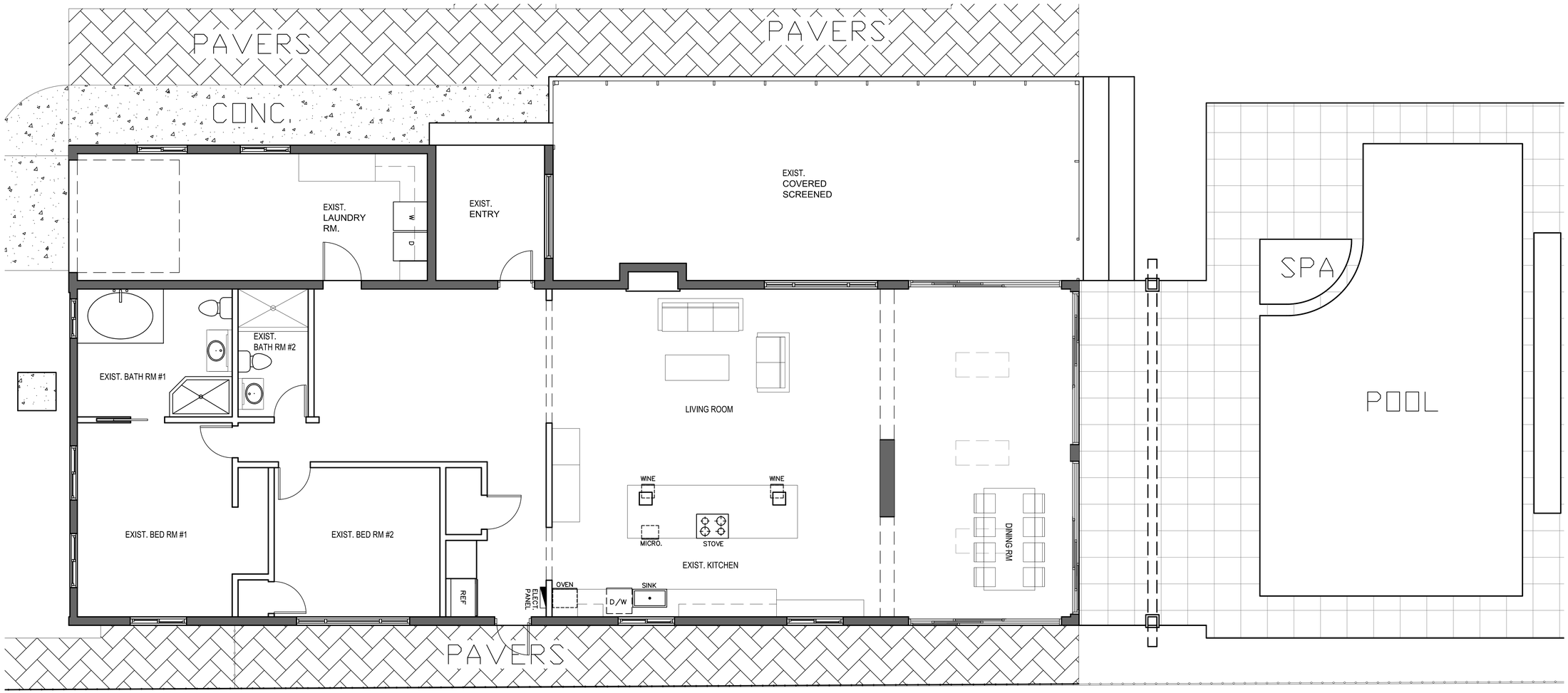
Date 5-2-2016
Issued
Drawn RG
Checked JCC
Revisions

Scale □□orth Point
AS SHOWN

Dra□in□ Title
SITE PLAN

Pro□ect □o.
Dra□in□ □umber
SP-01

Dra□in□ Status
-



N

EXISTING FLOOR PLAN

SCALE : 1/4"=1'

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LAKE WORTH, FL 33460

Project Title
CASWELL RESIDENCE

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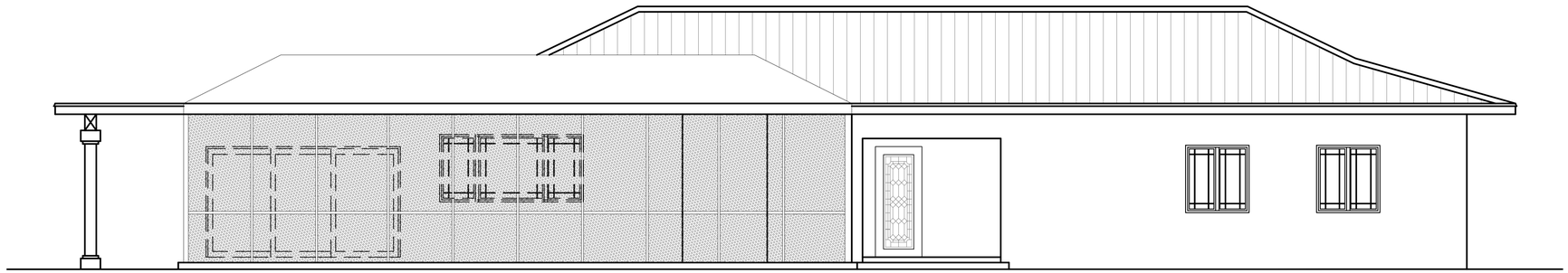
Revisions

Scale North Point
AS SHOWN

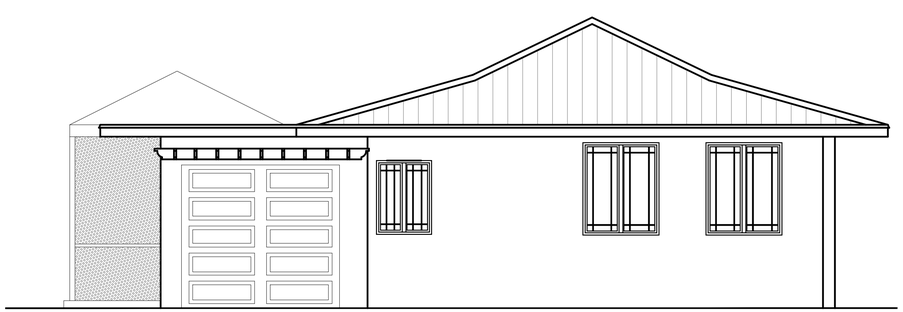
Drawing Title
EXISTING FLOOR PLAN

Project No.
Drawing Number
A-01
Drawing Status
-



EXIST. NORTH ELEVATION

SCALE : 1/4"=1'



EXIST. WEST ELEVATION

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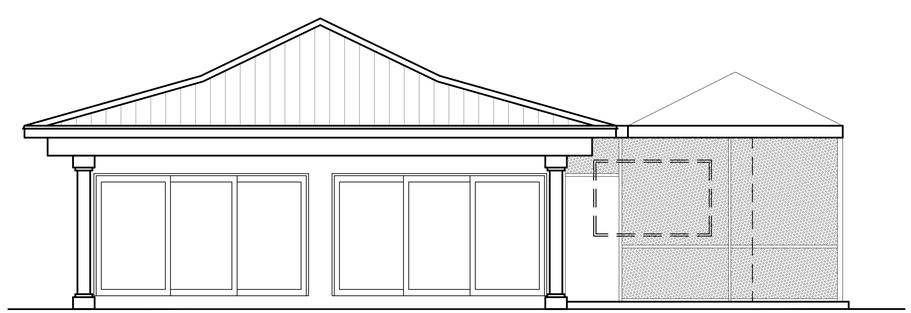
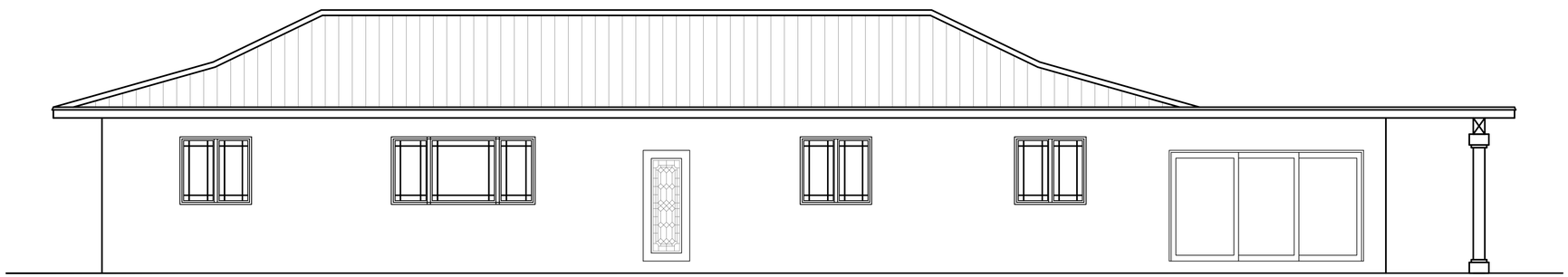


EXIST. EAST ELEVATION

SCALE : 1/4"=1'



EXIST. SOUTH ELEVATION

SCALE : 1/4"=1'

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Project Title

CASWELL RESIDENCE

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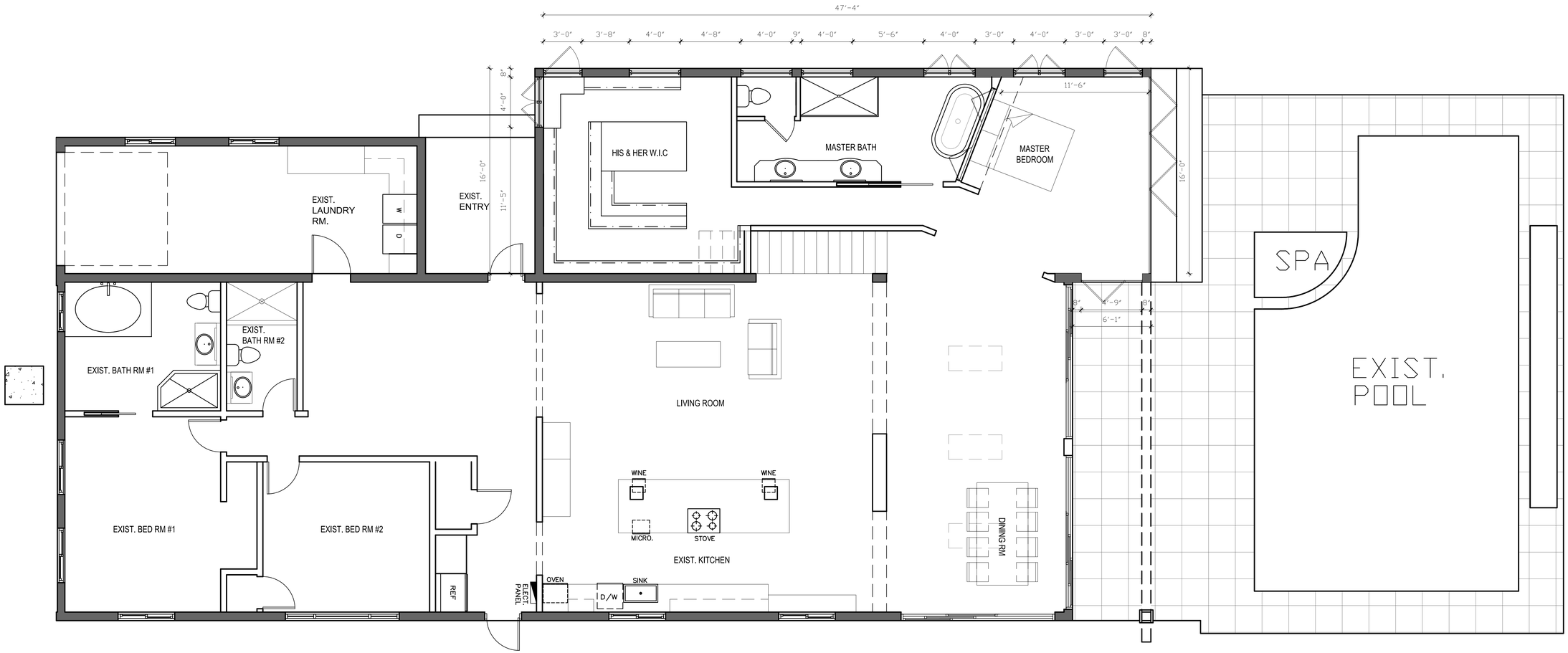
Drawn RG
Checked JCC

Revisions

Scale & North Point
AS SHOWN

Drawing Title
EXIST. ELEVATION PLAN

Project No.
Drawing Number
A-02
Drawing Status
-



N

L□V□L 1 FLOOR PLA□

SCALE : 1/4"=1'

□eneral □otes

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Pro□ect Title
CASW□LL R□SID□□C□

Date 5-2-2016
Issued
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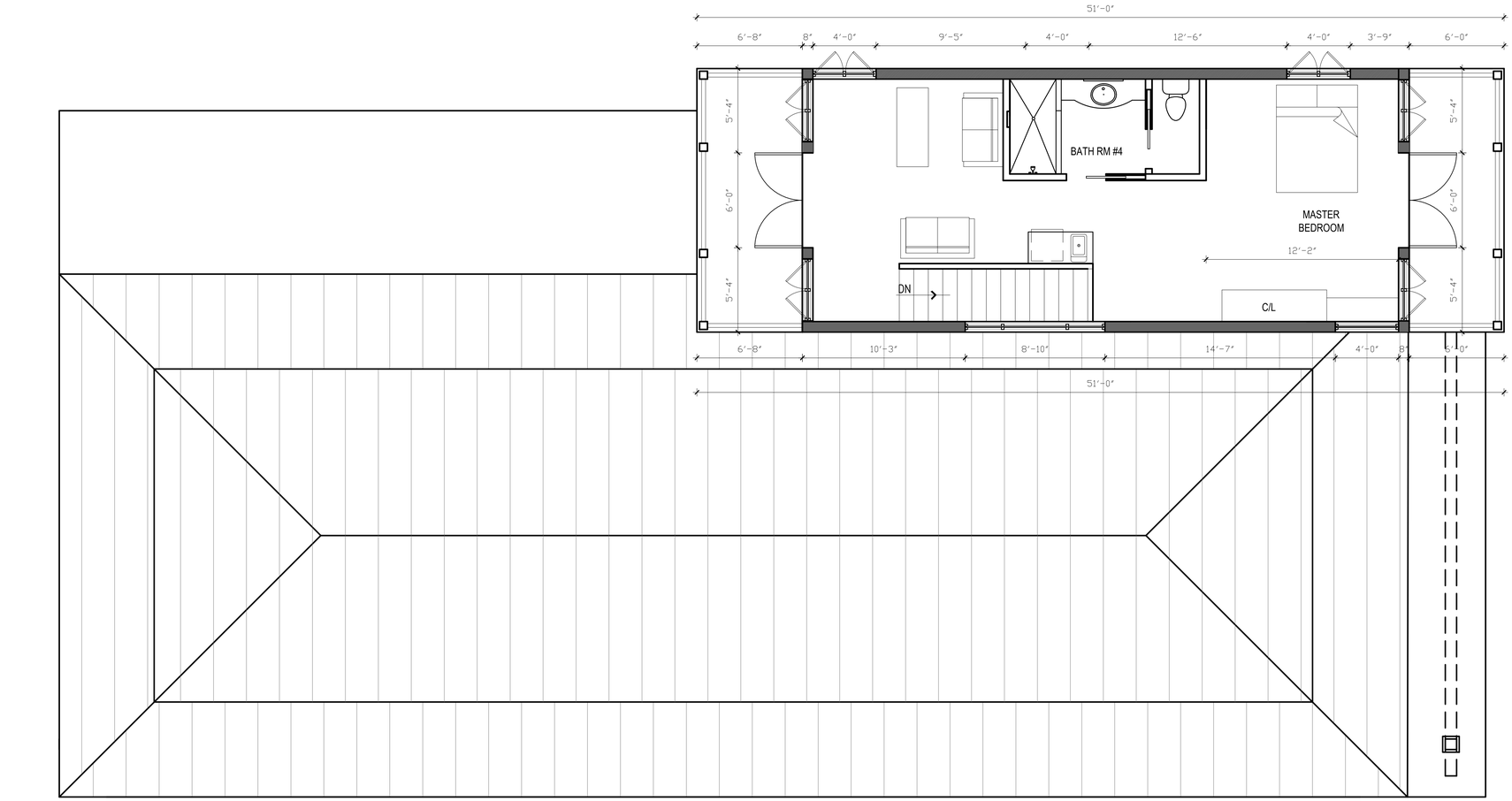
Revisions

Scale □□orth Point
AS SHOWN

Dra□in□ Title
PROPOSED FLOOR PLAN

Pro□ect □o.
Dra□in□ □umber
A-03
Dra□in□ Status
-



N

L□V□L 2 FLOOR PLA□

SCALE : 1/4"=1'

□eneral □otes

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Date 5-2-2016

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Revisions

Scale □□orth Point

AS SHOWN

Dra□in□ Title

PROPOSED FLOOR PLAN

Pro□ect □o.

Dra□in□ □umber

A-04

Dra□in□ Status

-

WEST ELEVATION

SCALE : 1/4"=1'

SOUTH ELEVATION

SCALE : 1/4"=1'

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Project Title

CASWELL RESIDENCE

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Revisions

Scale North Point
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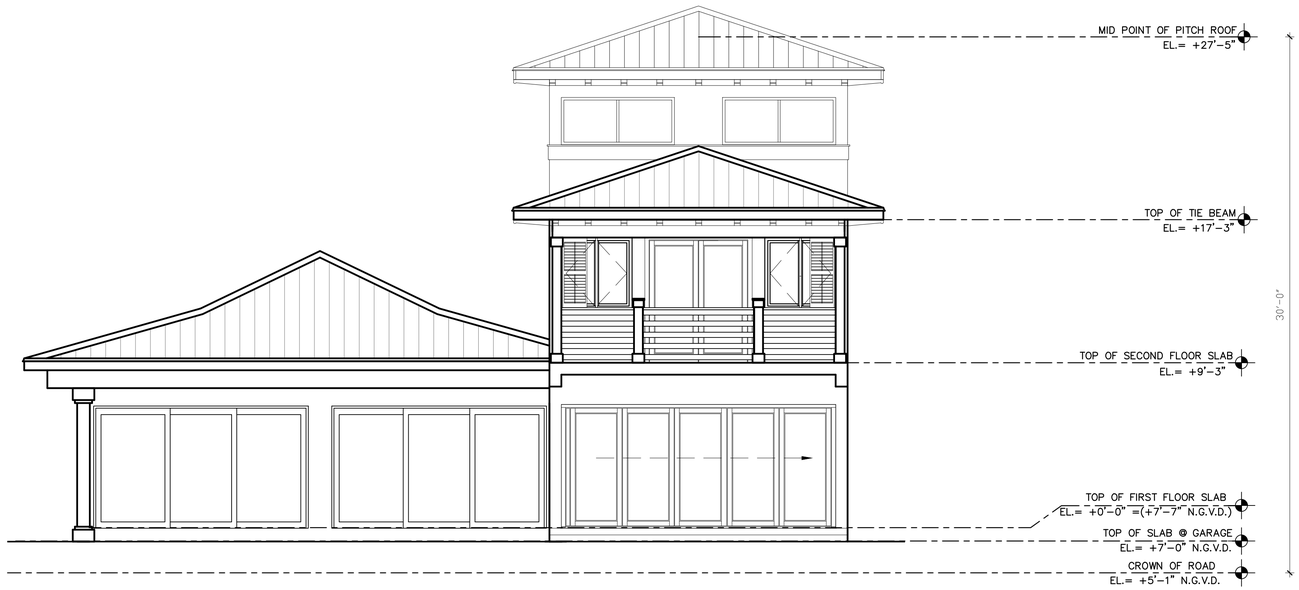
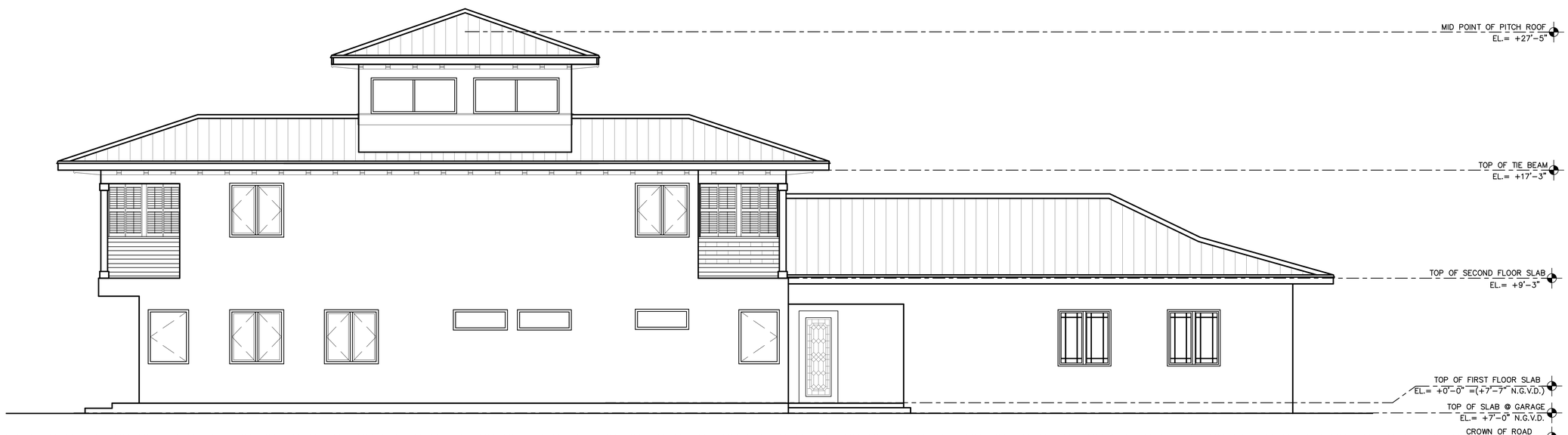
Drawing Title
PROPOSED ELEVATION PLAN

Project No.
Drawing Number
A-04
Drawing Status
-



□AST □L□VATIO□

SCALE : 1/4"=1'



□ORTH □L□VATIO□

SCALE : 1/4"=1'

□eneral □otes

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Issued	
Drawn	RG
Checked	JCC

Revisions

Scale □□orth Point
AS SHOWN

Dra□in□ Title
PROPOSED ELEVATION PLAN

Pro□ect □o.
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Dra□in□ □umber
A-05

Dra□in□ Status
-

LANAI DOORS

HURRICANE FOLDING DOOR & WINDOW SYSTEMS
DP-70 RATED FOR MIAMI-DADE, FLORIDA & ASTM

LANAI DOORS
CUSTOM FOLDING DOORS & WINDOWS

Bringing the outdoors in...

CONTENTS

Making a difference 1

Hurricane rated system 2

Bifold testing 4

Widespread requirements 5

Designing your system 10

Bifold hardware 12

Available configurations 14

Header & Jamb - Outswing 16

Threshold - Outswing 17

Crating & Shipping 19

Centor S1E Eco-Screen™ 20

MAKING A DIFFERENCE

Coastal Innovative Products, Inc., manufacturer of Lanai Doors™ (a California Corporation) is a leading United States manufacturer of aluminum, wood and clad bi-folding door and window systems. Lanai has designed and constructed custom folding systems for a wide variety of customers including resorts, hotels, restaurants, schools, churches, country clubs, museums, zoos and most of all residential. Lanai Doors™ systems are installed throughout the United States and in the countries of Canada, Mexico, Morocco, Costa Rica and numerous islands in the Caribbean and Hawaii. With nearly 10-years of dedicated folding door and window manufacturing experience, Lanai works directly with architects, builders, contractors and homeowners to create the best custom bi-fold solutions.

Lanai folding door and window systems are available up to 56-foot wide by 12-foot tall, zero post corners, door/window combinations, and systems integrated with side lites. For interior systems where a bottom guide is not desirable, Lanai can manufacture systems without a bottom guide track. Lanai folding systems can be ordered with the Crystal Award Winning Centor S1 Screen which can cover up to a 24-foot wide by 10-foot tall opening. The S1 screen can be used on existing bi-folds, lift and slides, sliding glass doors, or to enclose patios.

In order to be more competitively priced and to better communicate with our end customers, Lanai Doors™ sells its systems directly. Our trained and knowledgeable staff can assist you with all aspects of our products including design, manufacturing and installation. In response to customer demands, Lanai hurricane tested its aluminum E3 folding system. Lanai Doors™ is not only the first company to hurricane test Centor E3 top-hung folding hardware, but Lanai Doors™ surpassed all expectations and achieved incredible results!

AMERICAN MADE

HURRICANE RATED SYSTEM

On July 21, 2011, Lanai Doors™ received Notice of Acceptance (NOA) numbers 10-1019.01 and 10-1019.02 for their outswing and inswing folding door and window systems, respectfully, from Miami-Dade County. Both of these NOA's expire on July 21, 2016. Additionally, Lanai received Certificate of Product Approval #FL14768 from the State of Florida. Lanai Doors™ is pursuing product approvals from other states for ASTM E1886 and ASTM E1996 testing.

Highly Rated

Lanai Doors™ hurricane aluminum bi-fold system is DP-70 rated (165 mph winds) for Miami-Dade County HVHZ large and small missiles. Lanai's hurricane system also satisfies other wind-borne debris region building codes from the East Coast to the Gulf of Mexico to all of the Caribbean and Hawaiian Islands.

Top-Hung Sleek Look

Lanai's hurricane systems are manufactured in the United States using the best component parts available. One critical part is the Centor E3 top-hung folding hardware. Centor E3 hardware is so robust that the Lanai Doors™ hurricane system needs only three hinges between each panel. The lack of multiple hinges complements Lanai's sleek, clean look of their 1-3/4 inch thick panels which are made with 3-inch wide stiles and 3-5/8 inch top and bottom rails. Lanai's hurricane top-hung system opens and closes with ease, unlike bottom roller systems which can bind or clog with debris getting into the bottom roller system. With the right design, your hurricane bi-fold glass wall system does not have to look or feel like a fortress.

AIR & WATER TIGHT

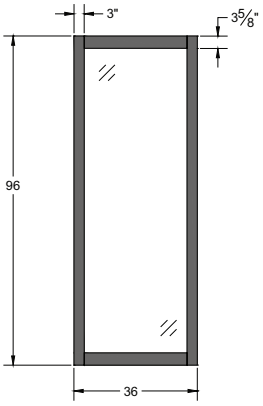
Custom Flexibility

With up to 16 three-foot wide by eight-foot tall panels, Lanai Doors™ can fill a 48-foot wide opening while providing three different threshold options. With 160 different layout configurations, Lanai can custom design applications that fold up to eight panels to each side of your opening while extending to either the outside or inside. The extensive hurricane testing by Lanai Doors™ resulted in the largest and most flexible top-hung aluminum folding system available today.

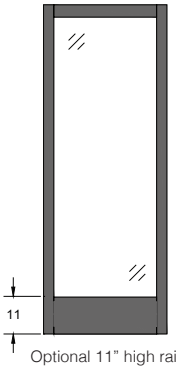
Air & Water Tight

Lanai Doors™ qualified three thresholds (a raised water-tight standard, an ADA compliant lowrise and a flush guide) for Miami-Dade HVHZ testing. Lanai's standard threshold achieved air infiltration of 0.02 cfm/ft² for 1.57 psf (which is 15 times better than the allowable 0.30) and 0.05 cfm/ft² for 6.24 psf. Lanai's outswing standard threshold is water tight up to DP-55. For water-tight applications with 100% overhang, all three thresholds are acceptable.

Maximum Hurricane Panel Size



Optional Taller Rail



Optional 11" high rail

BI-FOLD TESTING

Successfully completed test methods

Miami-Dade & Florida

TAS 201-94, Impact Test Procedures

TAS 202-94, Criteria for Testing Impact and Non Impact Resistant Building Envelope Components Using Uniform Static Air Pressure Loading

TAS 203-94, Criteria for Testing Products Subject to Cyclic Wind Pressure Loading

Other Jurisdictions

ASTM E 283-04, Test Method for Determining Rate of Airflow Through Exterior Windows, Curtain Walls and Doors Under Specific Pressure Differences Across the Specimen

ASTM E 330-02, Test Method for Structural Performance of Exterior Windows, Curtain Walls and Doors by Uniform Static Air Pressure Difference

ASTM E 331-00, Test Method for Water Penetration of Exterior Windows, Curtain Walls and Doors by Uniform Static Air Pressure Difference

ASTM E 1886-05, Standard Test Method for Performance of Exterior Windows, Curtain Walls, Doors and Storm Shutters Impacted by Missile(s) and Exposed to Cyclic Pressure Differentials

ASTM E 1996-05, Standard Specification for Performance of Exterior Windows, Glazed Curtain Walls, Doors and Storm Shutters Impacted by Wind Borne Debris in Hurricanes

ASTM F 842-04, Test Methods for Measurement of Forced Entry Resistance of Horizontal Sliding Door Assemblies

AAMA 1304-02, Voluntary Specification for Forced Entry Resistance of Side-Hinged Door System

CAWM 300-96, Forced Entry Resistance Tests for Sliding Glass Doors

Test Results for Miami-Dade HVHZ & ASTM

Threshold	Test	Results - Outswing	Results - Inswing
Standard	Air Infiltration	0.02 cfm/ft² (1.57 psf)	0.03 cfm/ft² (1.57 psf)
		0.05 cfm/ft² (6.24 psf)	0.07 cfm/ft² (6.24 psf)
	Water Infiltration	8.25 psf (DP-55)	N/A
	Design Pressure	DP-100 pos. (198 mph)	DP-80 pos. (177 mph)
		DP-80 neg. (177 mph)	DP-100 neg. (198 mph)
	Impact & Cycling	DP-90 (188 mph)	DP-90 (188 mph)
Lowrise & Flush Guide	Air Infiltration	0.17 cfm/ft² (1.57 psf)	0.16 cfm/ft² (1.57 psf)
	Water Infiltration	N/A	N/A
	Design Pressure	DP-70 pos. (165 mph)	DP-70 pos. (165 mph)
		DP-70 neg. (165 mph)	DP-70 neg. (165 mph)
	Impact & Cycling	DP-70 (165 mph)	DP-70 (165 mph)
Forced Entry - 300 lb test		Passed	Passed

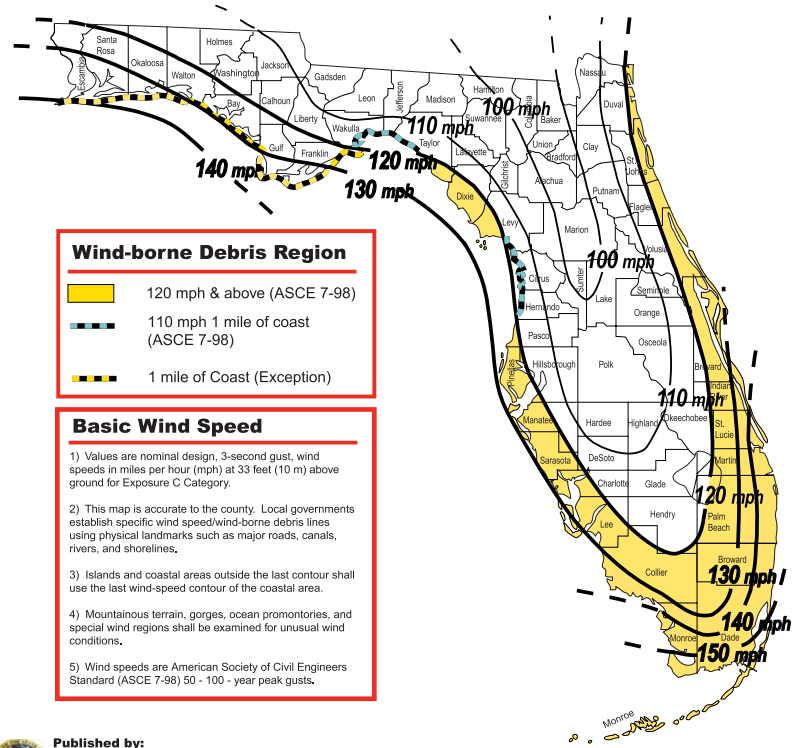
WIDESPREAD REQUIREMENTS

Hurricane and wind-borne debris region building codes are a growing trend across the United States. With the incredible devastation caused by hurricanes and cyclones, greater emphasis has been placed on products that better protect life and property. Arguably, Miami-Dade County is the gold standard for hurricane product testing.

States up and down the East Coast, the Gulf of Mexico, and Hawaiian Islands have implemented building codes (i.e. Florida Building Code and International Building Code) requiring the use of hurricane certified products. The Florida Building Code High Velocity Hurricane Zone (HVHZ) provisions apply to both Miami-Dade and Broward Counties, Florida. The non-HVHZ provisions apply to the rest of Florida. Most other states have implemented the International Building Codes which require hurricane products for wind-borne debris regions. In addition, Caribbean Island builders are requiring stronger impact resistant products with Miami-Dade hurricane certification.

Not all states and jurisdictions follow the same building code or the same version of the code. It is the responsibility of architects, builders, contractors and homeowners to determine what is necessary for your project and pre-verify that Lanai Doors™ hurricane rated systems are allowable products for your jurisdiction. States and counties have maps, similar to the State of Florida, depicting wind speeds for wind-borne debris regions. Official wind speeds are determined and periodically adjusted by the American Society of Civil Engineers (ASCE).

State of Florida
Wind-Borne Debris Region



Wind-borne Debris Region

- 120 mph & above (ASCE 7-98)
- 110 mph 1 mile of coast (ASCE 7-98)
- 1 mile of Coast (Exception)

Basic Wind Speed

1) Values are nominal design, 3-second gust, wind speeds in miles per hour (mph) at 33 feet (10 m) above ground for Exposure C Category.

2) This map is accurate to the county. Local governments establish specific wind speed/wind-borne debris lines using physical landmarks such as major roads, canals, rivers, and shorelines.

3) Islands and coastal areas outside the last contour shall use the last wind-speed contour of the coastal area.

4) Mountainous terrain, gorges, ocean promontories, and special wind regions shall be examined for unusual wind conditions.

5) Wind speeds are American Society of Civil Engineers Standard (ASCE 7-98) 50 - 100 - year peak gusts.

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Florida Department of Community Affairs and the Florida Building Commission
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Toll Free: 877-FLA-DCA2, Website: http://www.dca.state.fl.us

Governor, Jeb Bush; *Commission Chair, Raul L. Rodriguez, AIA; Secretary, Steven M. Seibert; Chief of Staff. Pamela Davis Duncan; Legislative Affairs Director, Jon C. Bussey; Communications Director, Towson Fraser; Division Director, Shirley Collins; Editors: Rick Dixon, PE, CBO, and Ila Jones, Program Administrator; Designer: Jessica Davis.*
Printed on Recycled Paper **November 2001**

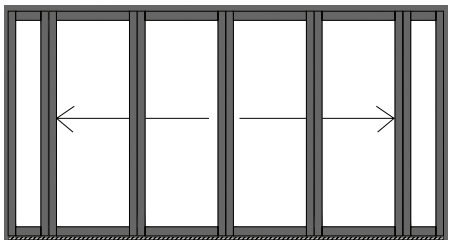
44
44

DESIGNING YOUR SYSTEM

Lanai Doors™ hurricane systems are custom built to the size of your rough opening. The maximum size panel is 36 inches wide by 96 inches tall. With our narrow stiles and rails, a maximum sized panel has 77% visible glass. Lanai's hurricane systems can be built with up to 16 panels (48 feet wide opening) with no more than eight panels folding to either direction. In addition to the system size, customers have several options to customize the look and feel of their Lanai system.

Inswing or Outswing

Lanai Doors™ qualified both inswing and outswing configurations for their hurricane rated systems. Customers have the choice of 80 inswing or 80 outswing configurations. Configurations are always determined by standing outside looking in. See configurations on page 14 for options.



Side Lite Side Lite

Above reflects one creative Lanai Doors™ design fabricated for a restaurant that wanted stationary side lites integrated with our folding door system.

Three Thresholds

Lanai Doors™ qualified three thresholds (Standard, Lowrise & Flush Guide) for their hurricane systems. Lanai's standard threshold is tested to DP-55 for water. All three thresholds are considered water tight when the width of the overhang is equal to or greater than its height off the ground.

Lanai's standard raised threshold obtained higher individual structural and cycling results. Structurally, the standard threshold achieved a DP-80 negative (177 mph winds) and DP-100 positive (198 mph winds) and successfully cycled at DP-90 (188 mph winds) for both outswing and inswing configurations.

All three thresholds come in Class I bronze or clear anodized finishes. See threshold drawings on page 13 for details.

CREATIVE

CUSTOM

Glazing

Lanai Doors™ hurricane system includes one-inch thick hurricane-rated glass. Lanai's hurricane-rated glass is an insulated dual-glaze panel. The interior impact glass is made with extra-tough DuPont™ SentryGlas® structural interlayer (.060 for small missile and .090 for large missile impact). The external sheet of glass is fully-tempered (3/16" or 1/4" thick) clear, LowE, turtle or other tinted glass. Other customer options include Argon gas and internal grids.

Paint/Finish

Lanai Doors™ has six standard paint colors (white, g brown, bronze, dark bronze, tan & sand) and two Class I anodized finishes of clear and dark bronze. In addition, Lanai can color match finishes from all major door and window manufactures, including Kynar®.

Centor Hardware Finish

Centor E3 bi-fold hardware is manufactured from 304 stainless steel. Hinges, pivots, and carriers are available in stainless, PVD bronze or PVD brass finishes. See bi-fold hardware on page 12 for more details.

Locking Mechanism Finish

Locking mechanisms, manufactured by an ASSA ABLOY company, are used by Lanai Doors™ to keep their folding panel systems securely locked and closed. In addition to its' Miami-Dade County HVHZ DP-70 rating, Lanai also passed 300 pound forced entry testing. Two twin-bolt locks (TBL) are installed on hinged stiles and a 4-point lever compression lock (LCL) or a TBL is installed on odd numbered end panels. The locks and matching-design handles are made from zinc alloy with aluminum shoot bolt rods and stainless steel tips. Customers have the choice of four finishes (Brushed Chrome, Satin Chrome, White Powder Coat or Bronze Powder Coat) and a TBL with keyed access.

Flexible Rail Heights

For aesthetic or regulatory purposes, customers have the option between our standard 3-5/8" wide rail or our 7-1/4" and 11" extended rails.

BIFOLD HARDWARE

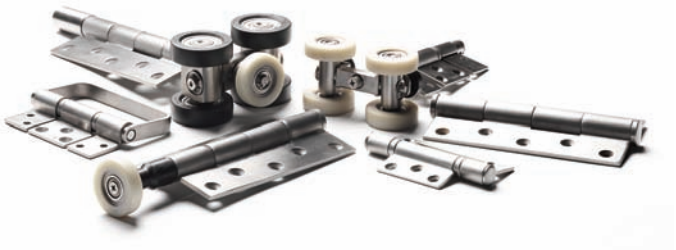
Lanai Doors™ hurricane system is designed around the Centor E3 top hung bi-fold hardware. The Centor hardware is a critical component to the Lanai hurricane system. This durable solid stainless steel hardware requires only three hinges between each panel.

About Centor

Established in 1951, Centor is an Australian based manufacturing company operating internationally from headquarters in the Brisbane (AUS), Chicago (USA) and Birmingham (UK). Centor creates innovative door and window hardware systems for residential and commercial applications. Allowing for the extra weight of double glazing for large scale openings, Centor's E3 folding door hardware promises unprecedented insulation against noise and temperature when the doors are closed. The ability to utilize sturdy door construction and materials enhances security and resistance to the elements.

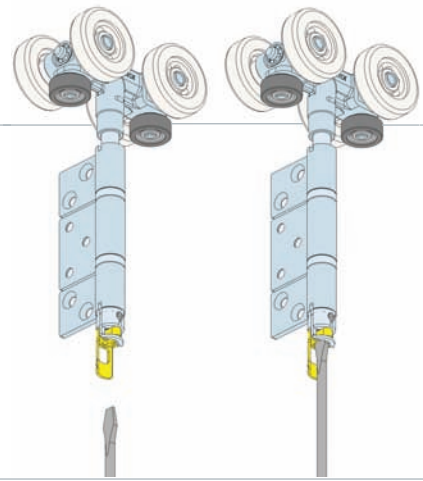
Tested for durability

Centor products are extensively tested to ensure years of trouble-free enjoyment. Hardware is weather tested as both a complete door system and as individual components and cyclic tested to 50,000 cycles. E3 is backed by a 10-year limited warranty.



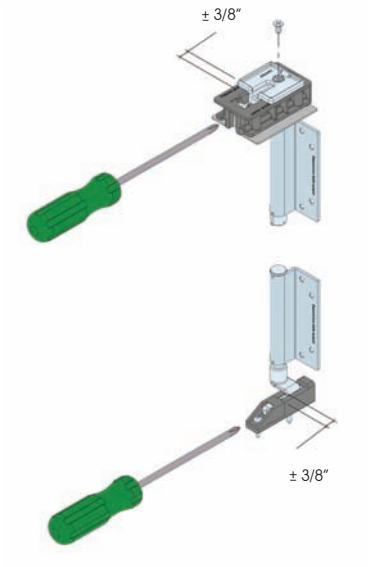
Carriers

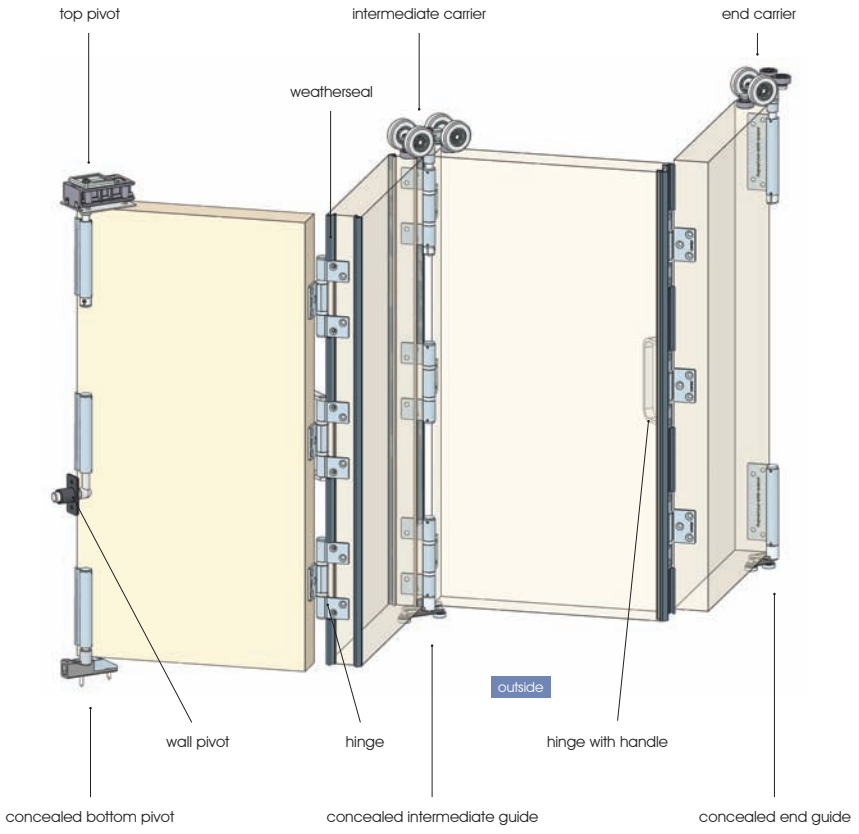
- four 1 1/2" x 7/16" carrier wheels with packed ball bearings
- two 7/8" x 11/32" stabilizing wheels
- hinges attached with Surelock™ patented carrier pin locking system allowing for easy vertical adjustment of 7/16"



Pivots

- top and bottom pivot housing allows for easy horizontal adjustment of 3/8"
- hinges attached to housing with stainless steel rod to Surelock™ allowing for easy vertical adjustment





Hinges

- substantial 4 1/8" x 1 1/8" .115 thick surface mounted hinges
- manufactured from 304 grade Stainless Steel
- also available in bronze and bright gold PVD finishes

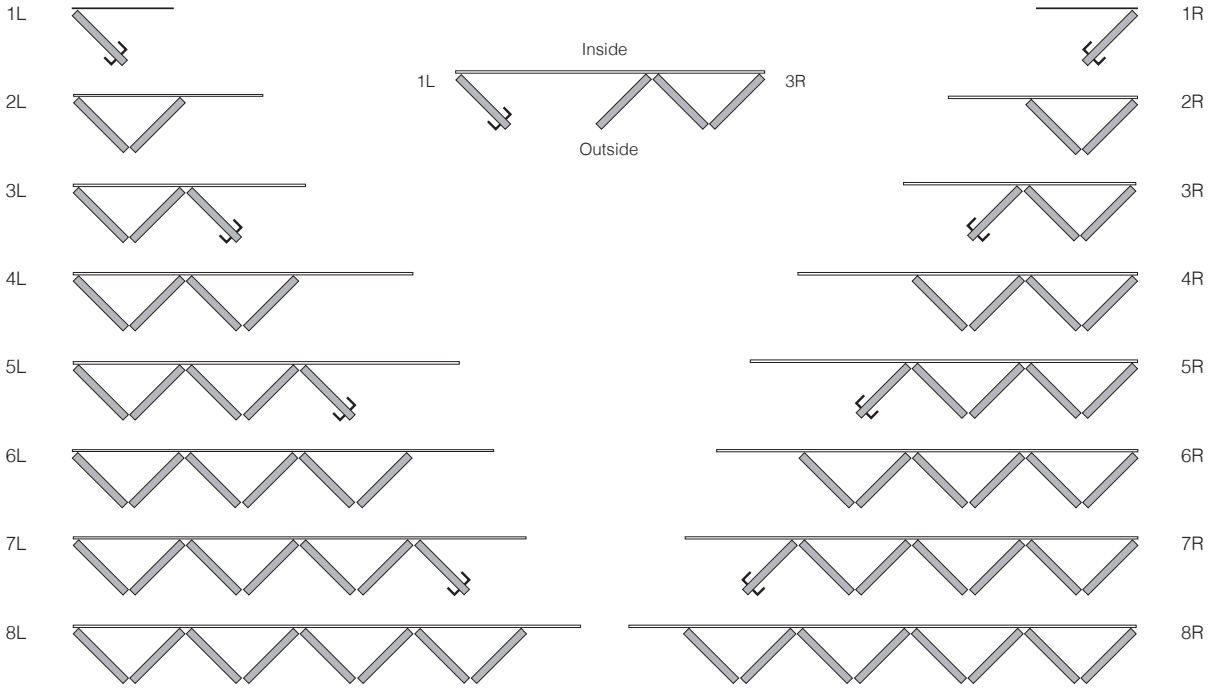
AVAILABLE CONFIGURATIONS

# of Panels									
1	1L	1R							
2	1L1R	2L	2R						
3	1L2R	2L1R	3L	3R					
4	1L3R	3L1R	2L2R	4L	4R				
5	1L4R	4L1R	2L3R	3L2R	5L	5R			
6	1L5R	5R1L	2L4R	4R2L	3L3R	6L	6R		
7	1L6R	6L1R	2L5R	5L2R	3L4R	4R3L	7L	7R	
8	1L7R	7L1R	2L6R	6L2R	3L5R	5L3R	4L4R	8L	8R
9	1L8R	8L1R	2L7R	7L2R	3L6R	6R3L	4L5R	5L4R	
10	2L8R	8L2R	3L7R	7L3R	4L6R	6L4R	5L5R		
11	3L8R	8L3R	4L7R	7L4R	5L6R	6L5R			
12	4L8R	8L4R	5L7R	7L5R	6L6R				
13	5L8R	8L5R	6L7R	7L6R					
14	6L8R	8L6R	7L7R						
15	7L8R	8L7R							
16	8L8R								

80 Outswing and 80 Inswing

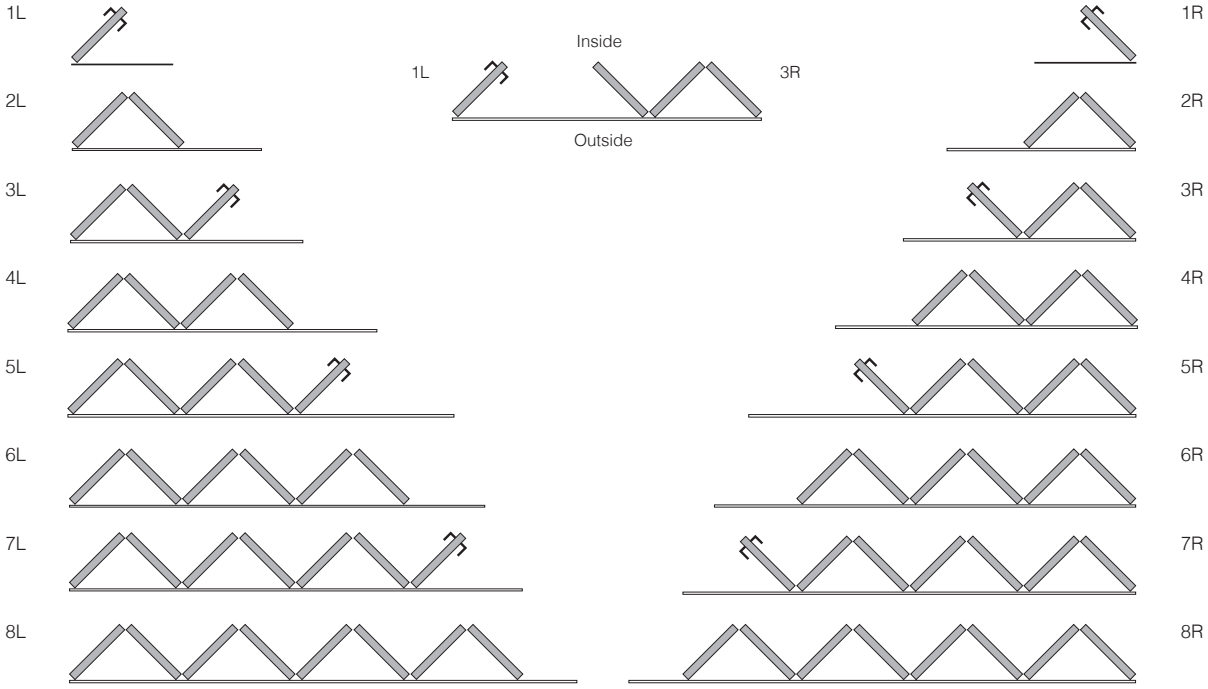
OUTSWING CONFIGURATIONS

Combine a left and a right configuration or just one from either side to design over 80 possible configurations. For example, a four-panel system with a man door could be:

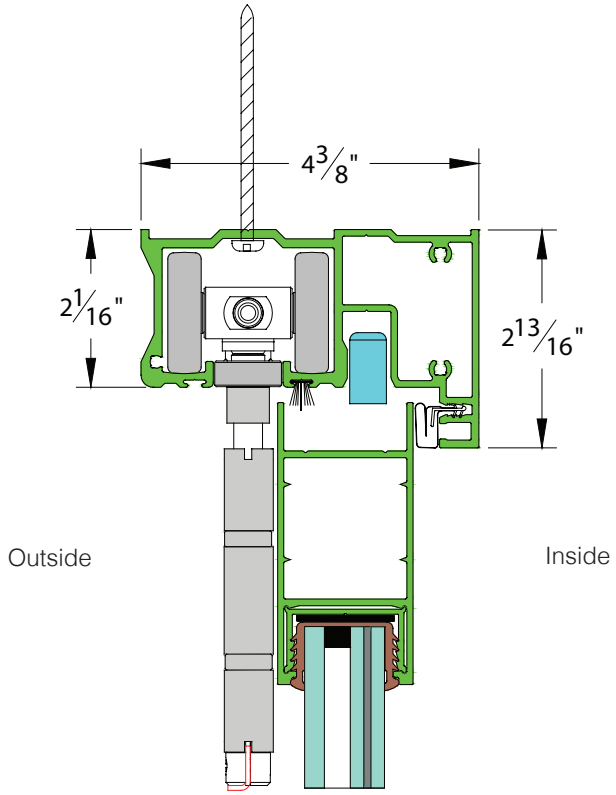


INSWING CONFIGURATIONS

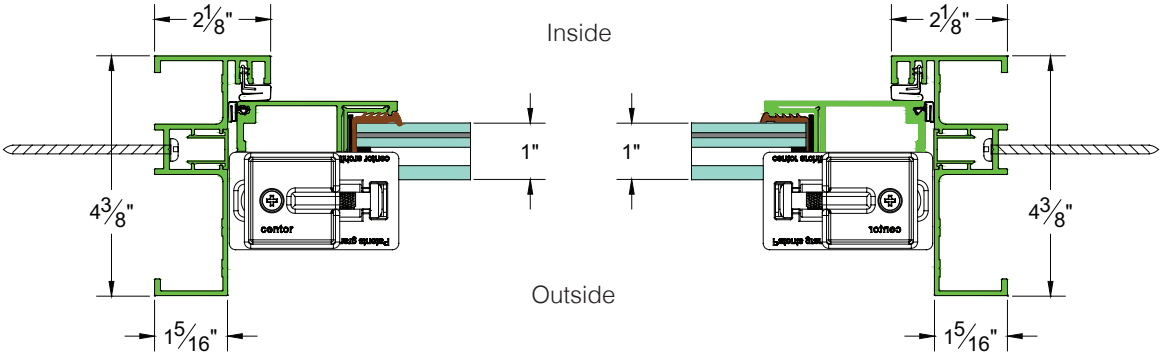
Combine a left and a right configuration or just one from either side to design over 80 possible configurations. For example, a four-panel system with a man door could be:



HEADER & JAMB – OUTSWING



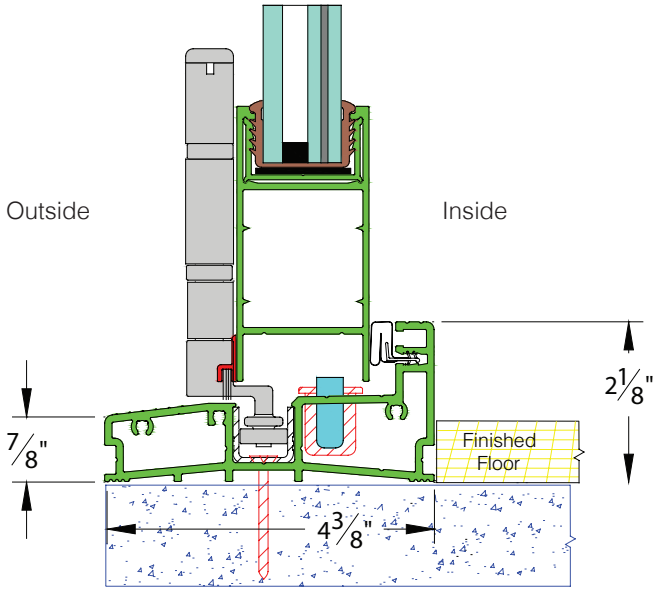
Header



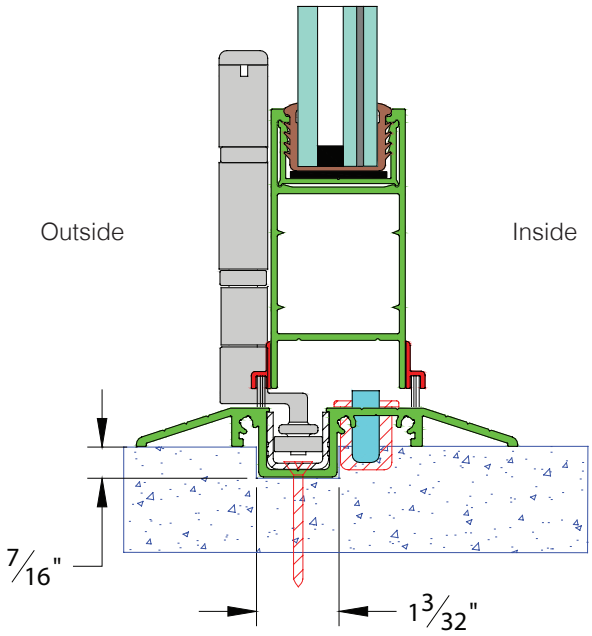
Jamb **Jamb**

Note: See Installation Instructions for proper attachment.

THRESHOLDS – OUTSWING



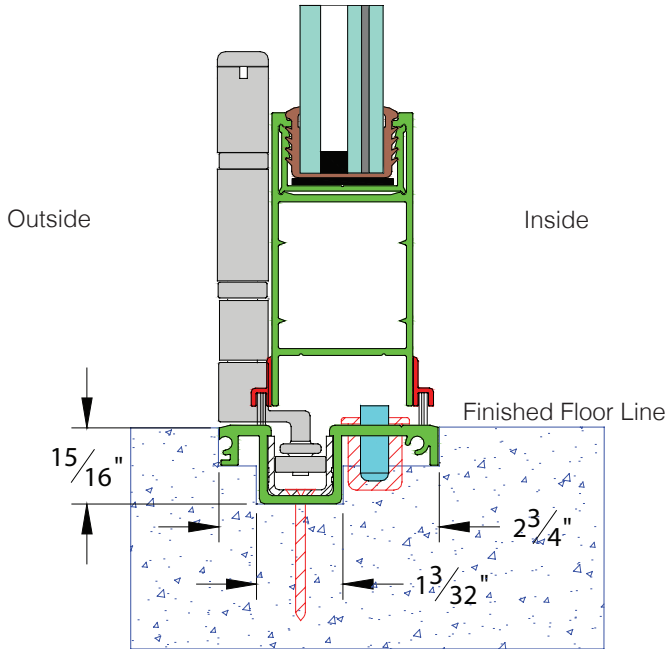
Standard Threshold



Lowrise Threshold

Note: See Installation Instructions for proper attachment.

THRESHOLDS – OUTSWING cont'd



Flush Lowrise Threshold

Note: See Installation Instructions for proper attachment.

CRATING & SHIPPING

Lanai Doors™ takes pride in packaging its products. To avoid damage in transit, Lanai packages all systems in custom made wood crates. Each panel is individually packaged to allow for factory installed hardware. This method also assists installers who are not familiar with our product or its component parts.

Each shipment will include a frame, panels and installation instructions. The bi-fold system frames are shipped broken down. A parts box will include installation instructions and assembly screws so that you can easily assemble the frame. The frame header will already include the top pivot and carriers. The threshold will already include the bottom pivots.

The panels are completely glazed and prepped for installation. The locking mechanisms (twin-bolts and door handles) will already be installed on the appropriate panels. The hinges have a four-hole side and a three-hole side. Hinges will already be attached to the panels using the four-hole side. All door and frame insulation will be attached or included. Each panel is pre-numbered for easy installation. When installed, maximum sized panels weigh approximately 70 pounds per linear foot.

CENTOR S1E ECO-SCREEN

S1E Eco-Screen™ max daylight inside opening	
Single Function System	
insect screen	12′ (W) x 10′ (H)
blind	12′ (W) x 8′ (H)
Double System	
insect screen	24′ (W) x 10′ (H)
blind	24′ (W) x 8′ (H)
Multi-function System	12′ (W) x 8′ (H)

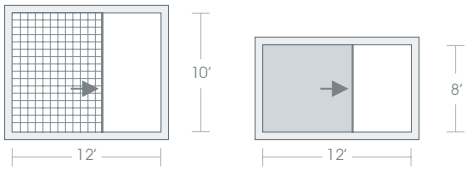
The S1E Eco-Screen™ from Centor is a world-first product providing retractable insect screening and solar control system with fingertip operation. Used with Lanai Doors™ folding range, there is greater freedom to enjoy outdoor living space.

S1E allows homeowners to have complete control of their living environment. Used singly or paired together S1E is ready for use whatever the season or time of day. S1E retracts horizontally and discreetly into its frame when not in use – a revolutionary solution for those who refuse to compromise on style.

The S1E Eco-Screen™ promotes an eco-friendly lifestyle by offering chemical-free insect protection, a tighter Noseeum bug mesh, solar control and thermal insulation; converting a single-glaze opening to double-glaze performance.

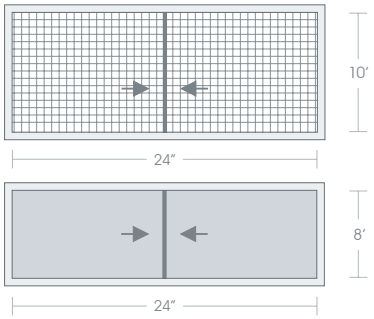
* Note: The S1E Eco-Screen™ is not a hurricane certified product.

Single Function System



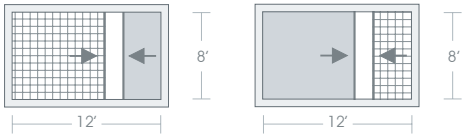
option 1 – screen from right or left
option 2 – blind from right or left

Double System



option 1 – screen from right and left
option 2 – blind from right and left

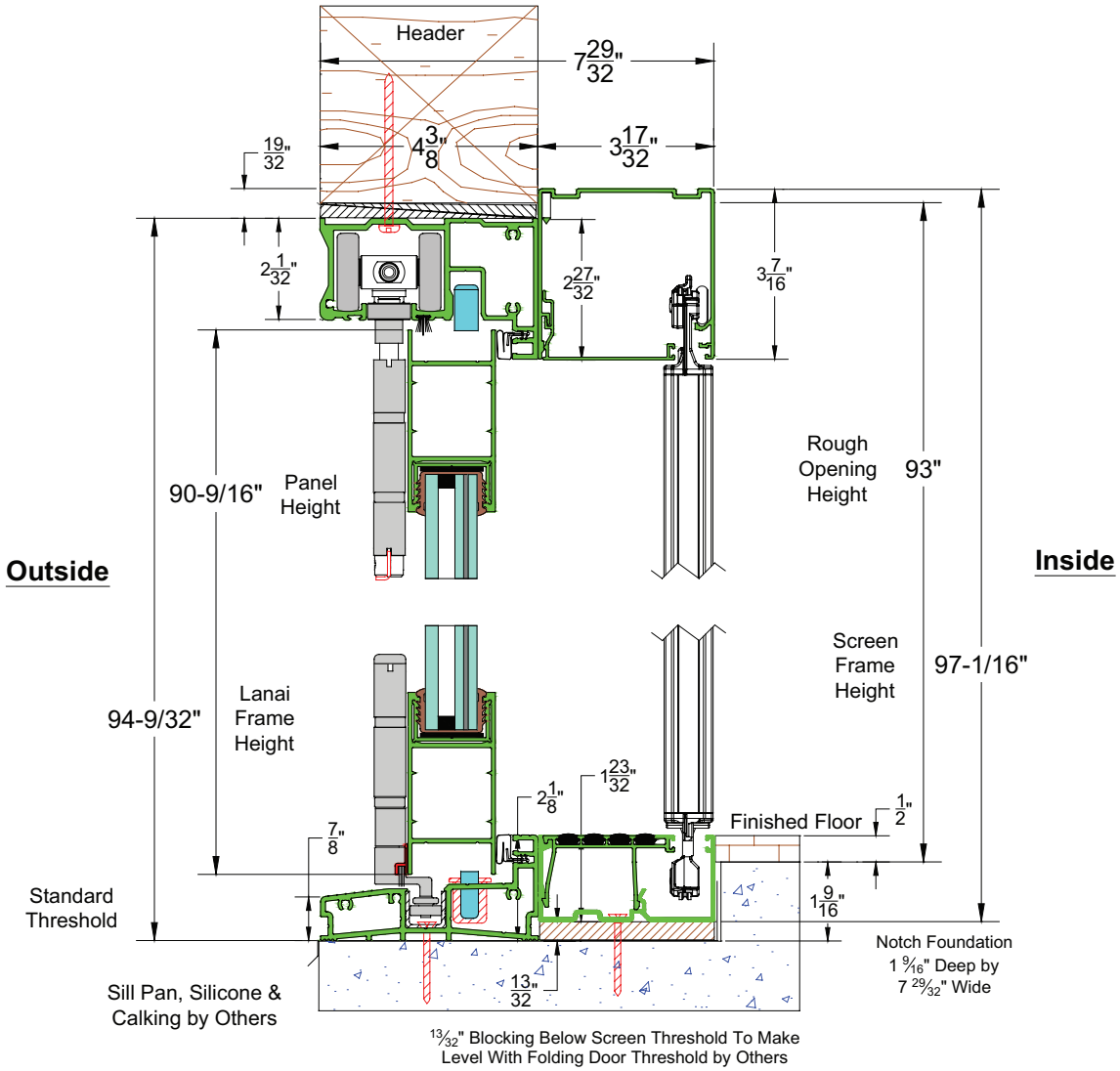
Multi-function System



option 1 – screen from right, blind from left
option 2 – screen from left, blind from right

BIFOLD & SCREEN SECTION

INTERGRATED DESIGN



13/32" Blocking Below Screen Threshold To Make Level With Folding Door Threshold by Others

Miami-Dade HVHZ
NOA 10-1019.01 & 10-1019.02
(Expires 7/21/16)

State of Florida
FL14768.1 & FL14768.2

Coastal Innovative Products, Inc.
aka Lanai Doors™

941 North Elm Street, Suite C
Orange, CA 92867 USA
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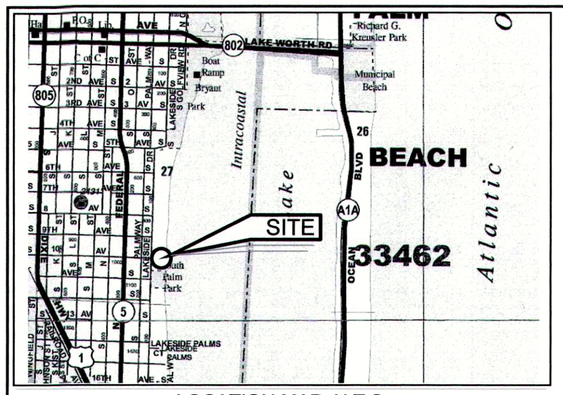
facsimile (714) 744-6030
email info@lanaidoors.com
www.lanaidoors.com

LANAI DOORS
CUSTOM FOLDING DOORS & WINDOWS

AUG - 3 2016



LOCATION MAP N.T.S.

NORTH

20 0 20 40 60

Scale 1" = 20'

SITE SPECIFIC LEGEND:
N.D.T.S. = NOT DRAWN TO SCALE

SITE BENCHMARK #1
NORTH RIM OF MANHOLE
EL.= 5.45

SITE BENCHMARK #2
NAIL & DISK (#6838)
EL.= 5.26

10TH AVENUE SOUTH
("2ND AVE." - PLAT)
℄
(40' R/W)

℄ 2ND AVE.
(40' R/W - PLAT)
(ABANDONED (O.R.B. 9550, PG. 838)

LOT 1
BLOCK 33

SOUTH LINE OF LOT 1, BLOCK 33,
NORTH R/W LINE OF "2ND AVE" - PLAT

NORTH 1/2 OF 40' R/W
(NOT INCLUDED)

N90°00'00"E 263'± (PLAT)

234.00' (TO SURVEY LINE)

SOUTH 1/2 OF 40' R/W
(ABANDONED (O.R.B. 9550, PG. 838)

P.E. ENCLOSURE

10' U.E. (O.R.B. 9550, PG. 841) ALSO ENCROACHMENT AGREEMENT (O.R.B. 12294, PG. 1055)

WITNESS CORNER FOUND 1/2" IRON ROD & CAP (#6838)

EASTERLY EXTENSION OF THE NORTH LOT LINE

PLATTED SHORELINE ("LOW WATER MARK" - PLAT)
BEING THE EAST LOT LINES OF
LOTS 1-8, BLOCK 33, AND LOTS 1-5, BLOCK 42
ALSO THE EASTERLY TERMINUS OF "2ND AVE."
PER (P.B. 5, PG. 9) DATED : 07/22/1913

LAKE WORTH

SOUTH LAKESIDE DRIVE
("Q" STREET" - PLAT)
℄
(40' R/W)
(20' PAVED)

N00°00'00"E 70.00'

LOT 7
BLOCK 41

LOT 6
BLOCK 41

N00°00'00"E (B.R.)

CURB

METAL FENCE

CONC.

1.3'X1.3' COLUMN (TYP.)

PAVERS

GARAGE
F.F.EL.=7.02

3'X3' A/C

LOT 5
BLOCK 22

1 STORY
RESIDENCE
F.F.EL.=7.60

COVERED SCREENED

COVERED DECK

SOUTH R/W LINE OF "2ND AVE" - PLAT

NORTH LINE OF LOT 5, BLOCK 42,

DIVING PLATFORM

SPA

POOL

PAVER DECK

COVERED

SOUTH LINE OF LOT 5, BLOCK 42,
NORTH LINE OF LOT 4, BLOCK 42,

N90°00'00"W 274'±(PLAT)

234.00' (TO SURVEY LINE)

FOUND 1/2" IRON ROD & CAP (#6838)

LOT 4
BLOCK 22

WITNESS CORNER FOUND 1/2" IRON ROD & CAP (#6838) ALSO FOUND 5/8" IRON ROD & CAP (ILLEGIBLE) (0.53'S)

FOUND 3/4" IRON PIPE (NO ID.)

SOUTH LINE OF LOT 4, BLOCK 42,
NORTH LINE OF LOT 3, BLOCK 22,

LOT 3
BLOCK 22

S00°00'00"E 70.00' SURVEY LINE

SAND BEACH

STONE RIP RAP

METAL FENCE

WOOD DOCK
303.0'
297.0'

MEAN HIGH WATER LINE
PER RAFTED DEBRIS

EASTERLY EXTENSION OF THE SOUTH LOT LINE

CERTIFIED TO: Lynn P Caswell
PROPERTY ADDRESS: 1002 S Lakeside Dr., Lake Worth, FL 33460
FLOOD ZONE: A7 (FIRM 120213 0002C 9/30/82)
DESCRIPTION: Lot 5 Block 42, together with the south half of that 40 foot wide abandoned right- of -way (abandoned in Official Record Book 9550, Page 838, Public records of Palm Beach County, Florida) lying North of and adjacent to said Lot 5, bounded by the northerly prolongations of the West and East lines of Lot 5, The Palm Beach Farms Company Plat No 4. Addition No. 1 to the Town of Lake Worth, according to the Plat thereof as recorded in Plat Book 5 pages 6-9, of the Public records of Palm Beach County, Florida.

REVISIONS:

BOUNDARY SURVEY

This survey is invalid without embossed surveyor's seal and/or an authenticated electronic signature and authenticated electronic seal.

Registered Land Surveyor, Florida Certificate No.
MICHAEL J. MILLER #4034

SURVEY NOTES:

1.) Lands shown hereon were not abstracted for easements and/or rights-of-way of record by this office
2.) Area of subject parcel = 18,795 square feet (0.431 acres).
3.) Elevations shown hereon are based on N.G.V.D. 1929.
   a) Originating benchmark = manhole rim located 8' north of centerline intersection of10th Ave. South and South Lakeside Drive. Elevation = 5.45'.
   b) 0.0 = existing elevation (typical).
4.) No underground improvements located.
5.) All bearings and distances shown hereon are plat and measured unless otherwise noted.
6.) This firms "Certificate of Authorization" number is "LB 6838".

LEGEND:

CALC.	= CALCULATED	(P)	= PLAT	P.I.	= POINT OF INTERSECTION		= ASPHALT PAVEMENT
C.B.S.	= CONCRETE BLOCK STRUCTURE	R	= RADIUS	P.O.C.	= POINT OF COMMENCEMENT		= CONCRETE FLATWORK
CONC. MON.	= CONCRETE MONUMENT	Δ	= CENTRAL "DELTA" ANGLE	P.O.B.	= POINT OF BEGINNING		= PAVER BRICK FLATWORK
CONC.	= CONCRETE	L	= ARC LENGTH	R/W	= RIGHT OF WAY		
D.E.	= DRAINAGE EASEMENT	CH.B.	= CHORD BEARING	— x — x —	= CHAIN LINK FENCE		= WOOD POWER POLE
U.E.	= UTILITY EASEMENT	N.G.V.D.	= NATIONAL GEODETIC VERTICAL DATUM	— — — — —	= WOOD FENCE		= WATER METER
P.E.	= POOL EQUIPMENT	O.R.B.	= OFFICIAL RECORD BOOK	— — — — —	= METAL FENCE		= FIRE HYDRANT
F.F.EL.	= FINISHED FLOOR ELEVATION	P.B.	= PLAT BOOK	———————	= CENTERLINE		= CATCH BASIN
EL.	= ELEVATION	P.C.	= POINT OF CURVATURE	— — — — —	= EASEMENT		= SANITARY MANHOLE
(B.R.)	= BEARING REFERENCE	P.T.	= POINT OF TANGENCY	- - - - - -	= COVERED		
(D)	= DEED	P.R.C.	= POINT OF REVERSE CURVATURE	———————	= OVERHEAD LINES		
(M)	= MEASURED	P.C.C.	= POINT OF COMPOUND CURVATURE	———————	= LOT TIE		

SCALE:	1" = 20'
DRAWN BY:	PICARD
FIELD WK:	M.M. / B.M.
DATE:	07/28/2016

MILLER LAND SURVEYING
1121 LAKE AVENUE
LAKE WORTH, FLORIDA 33460
PHONE: (561) 586-2669 - FAX: (561) 582-0151
www.millersurveying.com
e-mail: millersurveying@aol.com

REF'S:	J37/21 S42/33 C68/76 S84/15
PREV. JOB NO'S.	Y032779 SEE S-38,824 Y131037 Y150045
JOB NO.	Y160683
	M - 3657 - B

UNIT 8
SUBSTANTIAL IMPROVEMENT AND SUBSTANTIAL DAMAGE

In this unit

This unit covers:

- The substantial improvement rule – how to regulate major additions and other improvements to buildings in the floodplain.
- The substantial damage rule – how to regulate reconstruction and repairs to buildings that have been severely damaged.
- Exceptions to the basic rules for some special cases.

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INTRODUCTION

In previous units we focused on the rules and regulations that prevent or reduce damage from floods to new buildings. But what happens when the owner wishes to make an improvement, such as an addition, to an existing building? What if a building is damaged by a fire, flood or other cause?

Basic rule: *If the cost of improvements or the cost to repair the damage exceeds 50 percent of the market value of the building, it must be brought up to current floodplain management standards.*

That means an existing building must meet the requirements for new construction.

People who own existing buildings that are being substantially improved will be required to make a major investment in them in order to bring them into compliance with the law. They will not be happy. If the buildings have just been damaged, they will be financially strapped and your elected officials will want to help them, not make life harder for them.

For these reasons, it is easy to see that this basic rule can be difficult to administer. It is also the one time when your regulatory program can reduce flood damage to existing buildings. That's why this course devotes this unit to administering the substantial improvements and substantial damage regulations.

In this reference guide, the term "building" is the same as the term "structure" in the NFIP regulations. Your ordinance may use either term. The terms are reviewed in more detail in Unit 5, Section E.

A. SUBSTANTIAL IMPROVEMENT

44 CFR 59.1. Definitions: *"Substantial improvement" means any reconstruction, rehabilitation, addition or other improvement to a structure, the total cost of which equals or exceeds 50 percent of the market value of the structure before the start of construction of the improvement.*

This section provides information on determining whether a building has been substantially improved and on what NFIP requirements apply.

PROJECTS AFFECTED

All building improvement projects worthy of a permit must be considered. These include:

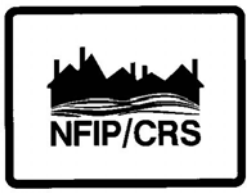
- Remodeling projects.
- Rehabilitation projects.
- Building additions.
- Repair and reconstruction projects (these are addressed in more detail in Section B on substantial damage)

If your community does not require permits for, say, reroofing, minor maintenance or projects under a certain dollar amount, then such projects are not subject to the substantial improvement requirements. However, if you have a larger project that includes reroofing, etc., then it must include the entire cost of the project.

One problem you may face is a builder trying to avoid the requirement by applying for a permit for only part of the job and then later applying for another permit to finish the work. If both applications are together worth more than 50% of the value of the building, the combined project should be considered a substantial improvement and subject to the rules.

FEMA requires that the entire improvement project be counted as one. In order to help you enforce this, you may want to count all applications submitted over, say, one year as one project. Check with your attorney on whether your ordinance clearly gives you the authority to do this and be sure to spell it out in the permit papers given to the applicant.

Some communities require that improvements be calculated cumulatively over several years. All improvement and repair projects undertaken over a period of five years, 10 years or the life of the structure are added up. When they total 50 percent, the building must be brought into compliance as if it were new construction.



The Community Rating System credits keeping track of improvements to enforce a cumulative substantial improvement requirement. It also credits using a lower threshold than 50 percent. These credits are found under Activity 430, Section 431.c and d in the *CRS Coordinator's Manual* and the *CRS Application*. See also *CRS Credit for Higher Regulatory Standards* for example regulatory language.

Post-FIRM buildings

The rules do not address only pre-FIRM buildings—they cover *all* buildings, post-FIRM ones included.

In most cases, a post-FIRM building will be properly elevated or otherwise compliant with regulations for new construction. However, sometimes a map change results in a higher BFE or change in FIRM zone. A substantial improvement to a post-FIRM building may require that the building be elevated to protect it from the new, higher, regulatory BFE.

It should be remembered that all additions to a post-FIRM building must be elevated at least as high as the BFE in effect when the building was built. (You can't allow a compliant building to become noncompliant by allowing additions at grade.) If a new, higher BFE has been adopted since the building was built, additions that are substantial improvements must be elevated to the new BFE.

THE FORMULA

A project is a substantial improvement if:

$$\frac{\text{Cost of improvement project}}{\text{Market value of the building}} \geq 50 \text{ percent}$$

For example, if a proposed improvement project will cost $30,000 and the value of the building is $50,000:

$$\frac{\$30{,}000}{\$50{,}000} = 0.6 \text{ (60 percent)}$$

The cost of the project exceeds 50 percent of the building's value, so it is a substantial improvement. The floodplain regulations for new construction apply and the building must meet

the post-FIRM construction requirements. If the project is an addition, only the addition has to be elevated (see the examples later in this section).

The formula is based on the cost of the project and the value of the building. These two numbers must be reviewed in detail.

Project cost

The cost of the project means all structural costs, including

- all materials
- labor
- built-in appliances
- overhead
- profit
- repairs made to damaged parts of the building worked on at the same time

A more detailed list is included in Figure 8-1.

To determine substantial improvement, you need a detailed cost estimate for the project, prepared by a licensed general contractor, professional construction estimator or your office.

Your office must review the estimate submitted by the permit applicant. To verify it, you can use your professional judgment and knowledge of local and regional construction costs, or you can use building code valuation tables published by the major building code groups. These tables can be used for determining estimates for particular replacement items if the type of structure in question is listed in the tables.

There are two possible exemptions you should be aware of: 1) improvements to correct code violations do not have to be included in the cost of an improvement or repair project and 2) historic buildings can be exempted from substantial improvement requirements. These are explained in more detail later on.

Market value

In common parlance, market value is the price a willing buyer and seller agree upon. The market value of a structure reflects its original quality, subsequent improvements, physical age of building components and current condition.

However, market value for property can be different than that of the building itself. Market value of developed property varies widely due to the desirability of its location. For example, two houses of similar size, quality and condition will have far different prices if one is on the coast, or in the best school district, or closer to town than the other—but the value of the building materials and labor that went into both houses will be nearly the same.

For the purposes of determining substantial improvement, market value pertains only to the structure in question. It does not pertain to the land, landscaping or detached accessory structures on the property. Any value resulting from the location of the property should be attributed to the value of the land, not the building.

Items to be included

— All structural elements, including:
— Spread or continuous foundation footings and pilings
— Monolithic or other types of concrete slabs
— Bearing walls, tie beams and trusses
— Floors and ceilings
— Attached decks and porches
— Interior partition walls
— Exterior wall finishes (brick, stucco, siding) including painting and moldings
— Windows and doors
— Reshingling or retiling a roof
— Hardware
— All interior finishing elements, including:
— Tiling, linoleum, stone, or carpet over subflooring
— Bathroom tiling and fixtures
— Wall finishes (drywall, painting, stucco, plaster, paneling, marble, etc.)
— Kitchen, utility and bathroom cabinets
— Built-in bookcases, cabinets, and furniture
— Hardware
— All utility and service equipment, including:
— HVAC equipment
— Plumbing and electrical services
— Light fixtures and ceiling fans
— Security systems
— Built-in kitchen appliances
— Central vacuum systems
— Water filtration, conditioning, or recirculation systems
— Cost to demolish storm-damaged building components
— --- Labor and other costs associated with moving or altering undamaged building components to accommodate improvements or additions
— --- Overhead and profits

Items to be excluded

— Plans and specifications
— Survey costs
— Permit fees
— Post-storm debris removal and clean up
— Outside improvements, including:
— Landscaping
— Sidewalks
— Fences
— Yard lights
— Swimming pools
— Screened pool enclosures
— Detached structures (including garages, sheds and gazebos)
— Landscape irrigation systems

Figure 8-1. Items included in calculating cost of the project

Acceptable estimates of market value can be obtained from these sources:

- An independent appraisal by a professional appraiser. The appraisal must exclude the value of the land and not use the "income capitalization approach" which bases value on the use of the property, not the structure.
- Detailed estimates of the structure's actual cash value— the replacement cost for a building, minus a depreciation percentage based on age and condition. For most situations, the building's actual cash value should approximate its market value. Your community may prefer to use actual cash value as a substitute for market value, especially where there is not sufficient data or enough comparable sales.
- Property values used for tax assessment purposes with an adjustment recommended by the tax appraiser to reflect current market conditions (adjusted assessed value).
- The value of buildings taken from NFIP claims data (usually actual cash value).
- Qualified estimates based on sound professional judgment made by the staff of the local building department or tax assessor's office.

Some market value estimates are often used only as screening tools (i.e., NFIP claims data and property appraisals for tax assessment purposes) to identify those structures where the substantial improvement ratios are obviously less than or greater than 50 percent (i.e., less than 40 percent or greater than 60 percent). For structures that fall in the 40 percent to 60 percent range, more precise market value estimates are sometimes necessary.

SUBSTANTIAL IMPROVEMENT EXAMPLES

Example 1. Minor rehabilitation

A rehabilitation is defined as an improvement made to an existing structure which does not affect the external dimensions of the structure.

If the cost of the rehabilitation is less than 50 percent of the structure's market value, the building does not have to be elevated or otherwise protected. However, it is advisable to incorporate methods to reduce flood damage, such as use of flood-resistant materials and installation of electrical, heating and air conditioning units above the BFE.

Figure 8-2 shows a building that had a small rehabilitation project. Central air conditioning was installed and the electrical system was upgraded. The value of the building before the project was $60,000. The value of the project was $12,000:

$\frac{\$12,000}{\$60,000}$ = 0.2 (20 percent)	The project costs less than 50 percent of the building, so this is not a substantial improvement.

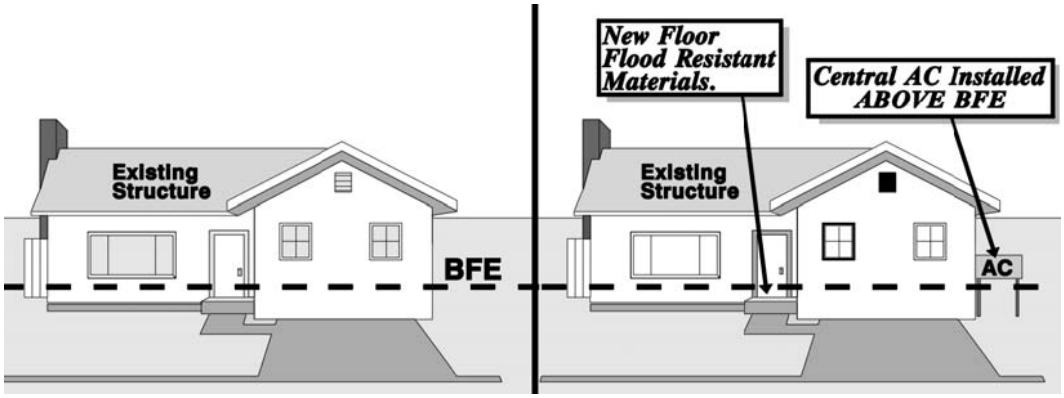


Figure 8-2. Minor rehabilitations use flood-resistant methods and materials

Neither structure would benefit from post-FIRM flood insurance rates because they are not elevated.

Note: To gauge what happens to flood insurance premiums if a substantially improved building is not brought up to post-FIRM standards, see Figures 7-7 through 7-12.

Example 2. Substantial rehabilitation

If the rehab costs more than 50 percent of the value of the building, your ordinance requires that an existing structure be elevated and/or the basement filled to meet the elevation standard.

Figure 8-3 shows a building that has been allowed to run down. It's market value is $35,000. To rehab it will require gutting the interior and replacing all wallboard, built-in cabinets, bathroom fixtures and furnace. The interior doors and flooring will be repaired. The house will get new siding and a new roof. The cost of this rehab will be $25,000:

$\frac{\$25{,}000}{\$35{,}000}$ = 71.4 percent	Because total cost of the project is greater than 50 %the rehab is a substantial improvement

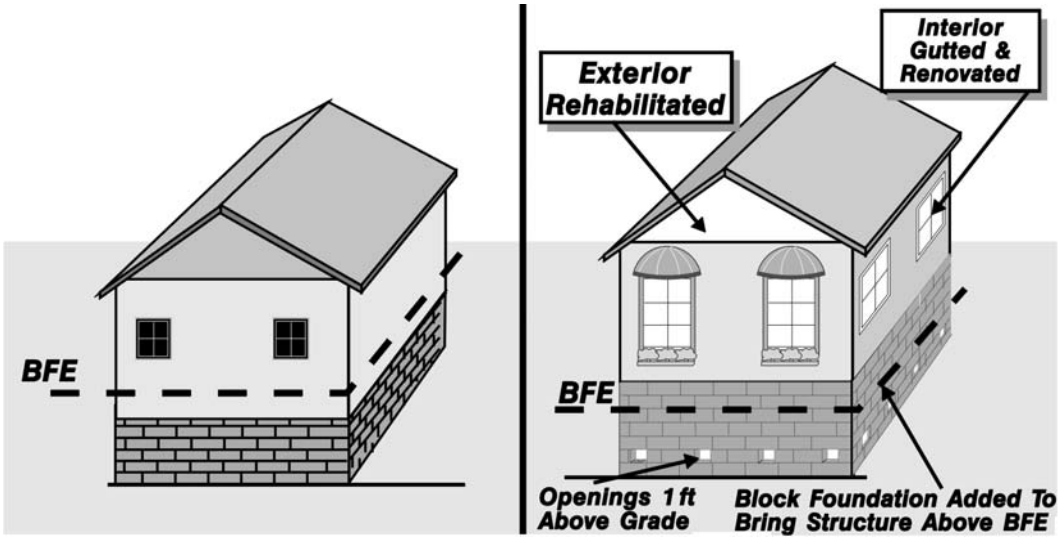


Figure 8-3. substantially rehabilitated building elevated above the BFE.

In A Zones, elevation may be on fill, crawlspace, columns, etc. In V Zones, only pilings, columns or other open foundations are allowed. The new structure would benefit from post-FIRM flood insurance rates.

Example 3. Lateral addition—residential

Additions are improvements that increase the square footage of a structure. Commonly, this includes the structural attachment of a bedroom, den, recreational room garage or other type of addition to an existing structure. Note that if one building is attached to another through a covered breezeway or similar connection, it is a separate building and not an addition.

When an addition is a substantial improvement, the addition must be elevated or floodproofed, providing that improvements to the *existing* structure are minimal. Figures 8-4 and 8-5 illustrate lateral additions that are compliant.

Depending on the flood zone and details of the project, the existing building may not have to be elevated. The determining factors are the common wall and what improvements are made to the existing structure. If the common wall is demolished as part of the project, then the entire structure must be elevated. If only a doorway is knocked through it and only minimal finishing is done, then only the addition has to be elevated.

In A Zones only, if significant improvements are made to the existing structure (such as a kitchen makeover), both it and the addition must be elevated and otherwise brought into compliance. Some states and many communities require that both the existing structure and lateral additions be elevated in all cases.

In V Zones, the existing structure always has to be elevated, placed on an engineered foundation system, etc., when an addition is proposed that constitutes a substantial improvement. This is due to the "free-of obstruction" standard whereby the lower existing structure would obstruct the storm surge, causing damage to the addition.

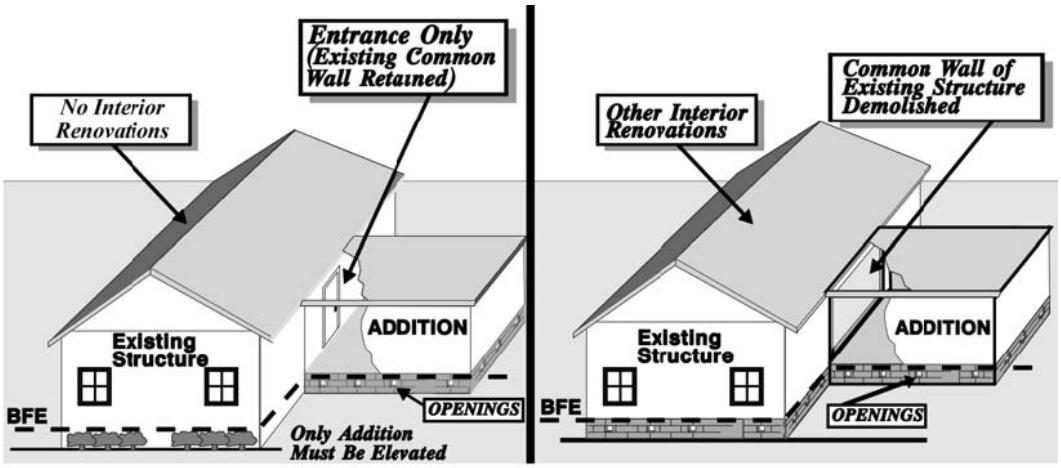


Figure 8-4. Lateral additions to a residential building in an A Zone.

In V Zones, the entire building must be elevated on pilings, columns or other open foundations. The

structure on the left would not benefit from post-FIRM flood insurance rates because it was not elevated.

Example 4. Lateral addition—nonresidential

A substantial improvement addition to a nonresidential building may be either elevated or floodproofed. Otherwise, all the criteria for residential buildings reviewed in Example 3 must be met.

If floodproofing is used, the builder must ensure that the wall between the addition and the original building is floodproofed. Floodproofing is not allowed as a construction measure in V Zones.

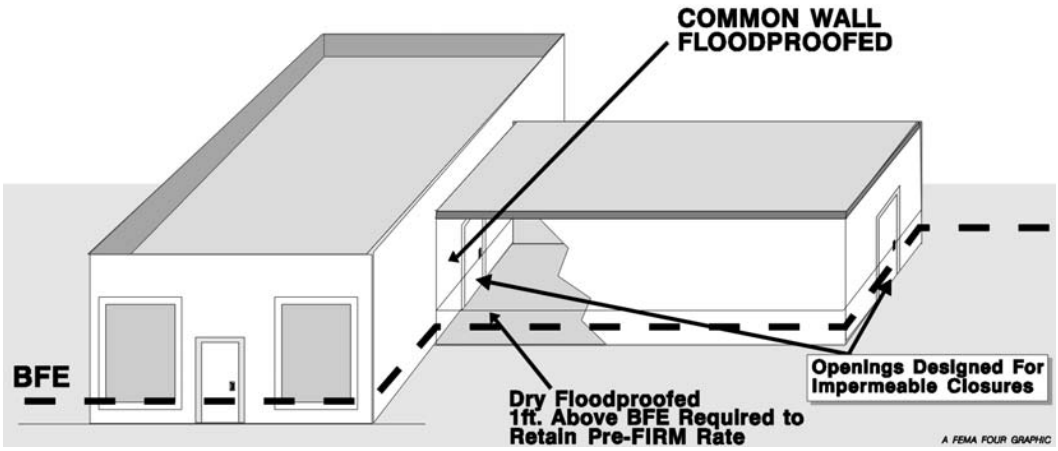


Figure 8-5. Lateral addition to a nonresidential building in an A Zone.

This approach is not allowed in V Zones. The structure would *not* benefit from post-FIRM flood insurance rates because the original building was not elevated or flood-proofed.

Example 5. Vertical addition—residential

When the proposed substantial improvement is a full or partial second floor, the entire structure must be elevated (Figure 8-6). In this instance, the existing building provides the foundation for the addition. Failure of the existing building would result in failure of the addition, too.

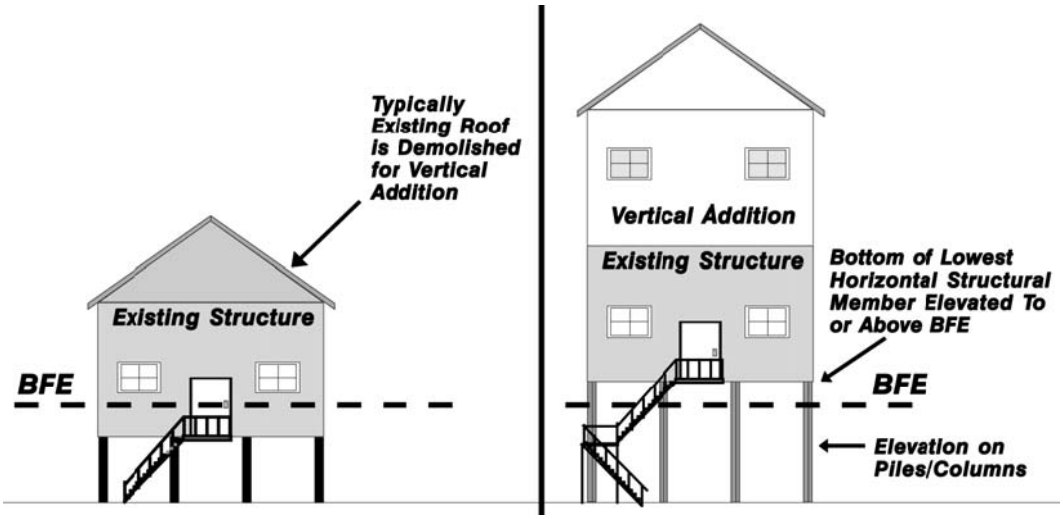


Figure 8-6. Vertical addition to a residential building in a V Zone.

The new structure would benefit from post-FIRM flood insurance rates.

Example 6. Vertical addition—nonresidential

When the proposed substantial improvement is a full or partial second floor, the entire structure must be elevated or floodproofed (Figure 8-7).

The owner could obtain post-FIRM rates on the building if it is floodproofed to one foot above the BFE and he has a floodproofing certificate signed by a registered engineer. An optional approach is to elevate the entire building and obtain an elevation certificate.

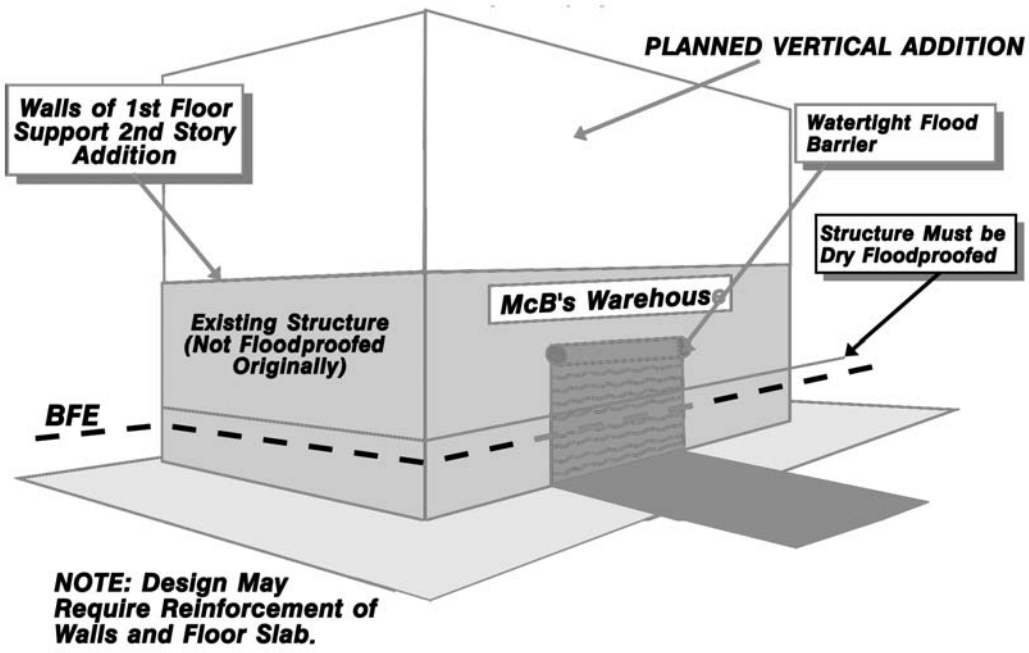


Figure 8-7. Vertical addition to a nonresidential building in an A Zone.

The new floodproofed structure would benefit from post-FIRM flood insurance rates.

Example 7. Post-FIRM building—minor addition

All additions to post-FIRM buildings are defined as new construction and must meet the requirements of your floodplain management ordinance regardless of the size or cost of the addition (Figure 8-8). A small addition to a residential structure that is not a substantial improvement must be elevated at least as high as the BFE in effect when the building was built. Minor additions to nonresidential structures can be floodproofed to the BFE.

If a map revision has taken place and the BFE has increased, only additions that are substantial improvements have to be elevated to the new BFE or flood-proofed (nonresidential buildings only).

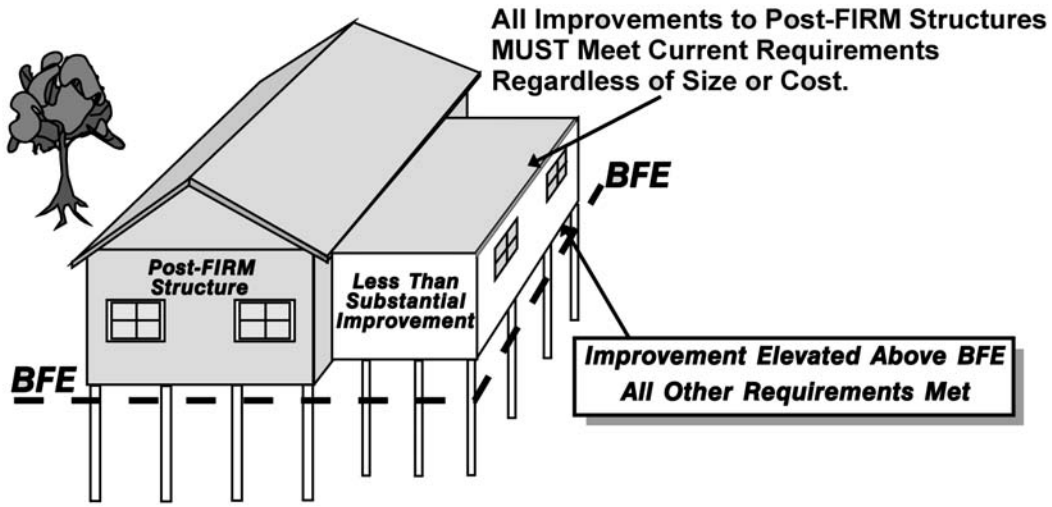


Figure 8-8. Small additions to post-FIRM buildings must be elevated.

Example 8. Post-FIRM building—substantial improvement

Substantial improvements made to a post-FIRM structure must meet the requirements of the current ordinance. Figure 8-9 shows a lateral addition made after a map revision took place and the BFE was increased.

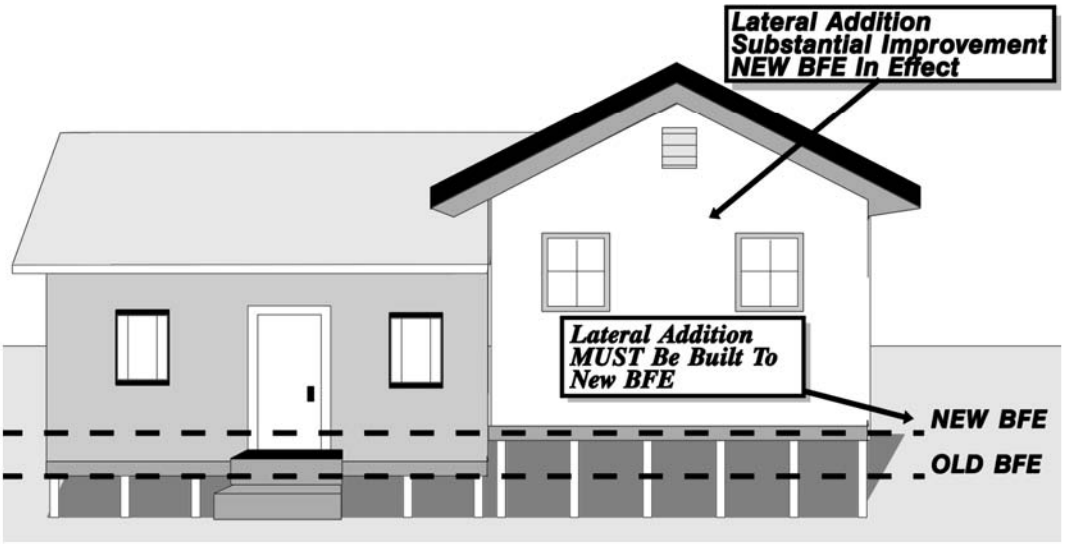


Figure 8-9. Substantial improvements to post-FIRM buildings must be elevated above the new BFE. Nonresidential buildings may be floodproofed

B. SUBSTANTIAL DAMAGE

44 CFR 59.1. *Definitions: "Substantial damage" means damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred.*

Two key points:

- The damage can be from any cause—flood, fire, earthquake, wind, rain, or other natural or human-induced hazard.
- The substantial damage rule applies to all buildings in a flood hazard area, regardless of whether the building was covered by flood insurance.

The formula is essentially the same as for substantial improvements:

$$\frac{\text{Cost to repair}}{\text{Market value of the building}} \geq 50 \text{ percent}$$

Market value is calculated in the same way as for substantial improvements. Use the pre-damage market value.

COST TO REPAIR

Notice that the formula uses "cost *to* repair," not "cost *of* repairs." The cost to repair the structure must be calculated for full repair to the building's before-damage condition, even if the owner elects to do less. It must also include the cost of any improvements that the owner has opted to include during the repair project.

The total cost to repair includes the same items listed in Figure 8-1. As shown in Example 2 below, properly repairing a flooded building can be more expensive than people realize. The owner may opt not to pay for all of the items needed. The owner may:

- Do some of the work, such as removing and discarding wallboard.
- Obtain some of the materials free.
- Have a volunteer organization, such as the Mennonites, do some of the work.
- Decide not to do some repairs, such as choosing to nail down warped flooring rather than replace it.

Basic rule: *Substantial damage is determined regardless of the actual cost to the owner. You must figure the true cost of bringing the building back to its pre-damage condition using qualified labor and materials obtained at market prices.*

The permit office and the owner may have serious disagreements over the total list of needed repairs and their cost, as the owner has a great incentive to show less damage than actually occurred in order to avoid the cost of bringing the building into compliance. Here are four things that can help you:

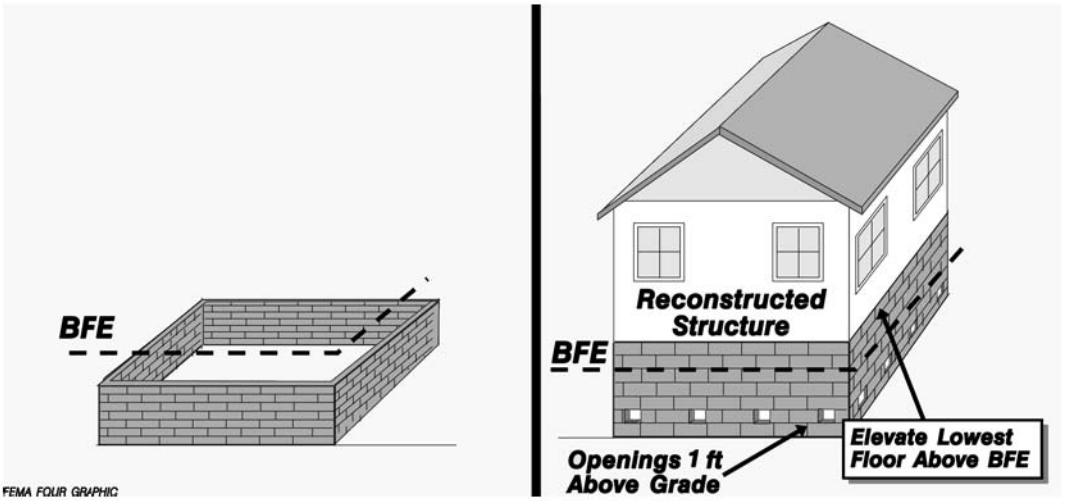
- Get the cost to repair from an objective third-party or undebatable source, such as:
  - A licensed general contractor.
  - A professional construction estimator.
  - Insurance adjustment papers (exclude damage to contents).
  - Damage assessment field surveys conducted by building inspection, emergency management or tax assessment agencies after a disaster.
  - Your office.
- Even if your office does not prepare the cost estimate, it needs to review the estimate submitted by the permit applicant. You can use your professional judgment and knowledge of local and regional construction costs. Or, you can use building code valuation tables published by the major building code groups.
- Use an objective system that does not rely on varying estimates of market value or different opinions of what needs to be repaired. The Substantial Damage Estimator Program discussed later in this section will do this.
- Publicize the need for the regulations and the benefits of protecting buildings from future flooding. A well-educated public won't argue as much as one that sees no need for the requirement.
- Help the owner find financial assistance to meet the extra cost of complying with the code. If there was a disaster declaration, there may be sources of financial assistance as discussed in the next unit. If the owner had flood insurance and the building was substantially damaged by a flood, the new Increased Cost of Compliance coverage will help (see next section).

SUBSTANTIAL DAMAGE EXAMPLES

Example 1. Reconstruction of a destroyed building

Reconstructions are cases where an entire structure is destroyed, damaged, purposefully demolished or razed, and a new structure is built on the old foundation or slab. The term also applies when an existing structure is moved to a new site.

Reconstructions are, quite simply, "new construction." They must be treated as new buildings.



Razed or "totaled" building with remaining foundation

Reconstruction on existing foundation

Figure 8-10. A reconstructed house is new construction.

This example is for A Zones only. A new building in the V Zone must be elevated on piles or columns.

Example 2. Substantially damaged structure

To determine if a damaged structure meets the threshold for substantial damage, the cost of repairing the structure to its before-damaged condition is compared to the market value of the structure prior to the damage. The estimated cost of the repairs must include all costs necessary to fully repair the structure to its before-damaged condition.

If equal to or greater than 50 percent of that structure's market value before damage, then the structure must be elevated (or floodproofed if it is nonresidential) to or above the level of the base flood, and meet other applicable local ordinance requirements. This is the basic requirement for substantial damage.

Figure 8-11 graphically illustrates the amount of damage that can occur to a building flooded only four feet deep. Even though the structure appears sound and there are no cracks or breaks in the foundation, the total cost of repair can be significant.

The cost of repair after a flood that simply soaked the building will typically include the following structural items:

- Remove all wallboard and insulation.
- Install new wallboard and insulation.
- Tape and paint.
- Remove carpeting and vinyl flooring.
- Dry floor, replace warped flooring.
- Replace cabinets in the kitchen and bathroom.
- Replace built-in appliances.
- Replace hollow-core interior doors.
- Replace furnace and water heater.
- Clean and disinfect duct work.
- Repair porch flooring and front steps.
- Clean and test plumbing (licensed plumber may be required).
- Replace outlets and switches, clean and test wiring (licensed electrician may be required).

Note: See also Figures 7-7 through 7-12 for what happens to flood insurance premiums if a substantially damaged building is granted a variance and is not brought up to post-FIRM standards.

Figure 8-11. Even slow moving floodwater can cause substantial damage.

SUBSTANTIAL DAMAGE SOFTWARE

FEMA has developed a software program to help local officials make substantial damage determinations. The software is based on Microsoft Access, but is self-contained and does not require any software in addition to a Windows operating system.

The software comes with a manual, *Guide on Estimating Substantial Damage Using the NFIP Residential Substantial Damage Estimator*, FEMA 311. This includes a user's manual and worksheets that allow the calculations to be done manually.

Contact your FEMA Regional Office for a copy of the software package and help in using it. Following a major disaster declaration, training sessions and technical assistance may be available.

INCREASED COST OF COMPLIANCE

On June 1, 1997, the NFIP began offering additional coverage to all holders of structural flood insurance policies. This coverage is called Increased Cost of Compliance or ICC.

The name refers to cases where the local floodplain management ordinance requires elevation or retrofitting of a substantially damaged building. Under ICC, the flood insurance policy will not only pay for repairs to the flooded building, it will pay up to $30,000 to help cover the additional cost of complying with the ordinance. This is available for any flood

insurance claim and, therefore, is not dependent on the community receiving a disaster declaration.

There are some limitations to ICC:

- It's only available if there was a flood insurance policy on the building before the flood.
- It covers only damage caused by a flood.
- Claims are limited to $30,000 per structure.
- Claims must be accompanied by a substantial damage determination by the floodplain ordinance administrator.

It should also be mentioned that a portion of the rest of the claim payment may help meet the cost of bringing the building up to code. For example, if there was foundation damage, the regular claim will pay for the cost of repairing or replacing the foundation. The ICC funds would only be needed for the extra costs of raising the foundation higher than it was before.

An ICC claim cannot be paid unless the community has determined the building to be substantially damaged and requires that the building comply with local ordinance requirements. For further information on how ICC coverage works and how you can help policyholders in your community qualify for the coverage, refer to *National Flood Insurance Program's Increased Cost of Compliance Coverage: Guidance for State and Local Officials, FEMA 301.*

In certain cases, an ICC claim can be filed if the building is repetitively flooded, and has had two or more claims averaging 25% or more of building value within a ten-year period, provided the community has language in the flood damage ordinance that implements the substantial damage rule in these cases.

Figure 8-12 has example ordinance language. This language exceeds the minimum NFIP requirements, but would be needed if you wanted to trigger the ICC provision for repetitively damaged buildings.

The Community Rating System credits keeping track of improvements to enforce a cumulative substantial improvement requirement. The 1999 *CRS Coordinator's Manual* credits the ordinance language in Figure 8-12. These credits are found under Activity 430, Section 431.c in the *CRS Coordinator's Manual* and the *CRS Application.*

Option 1

A. Adopt the Following Definition:

"Repetitive Loss" means flood-related damage sustained by a structure on two separate occasions during a 10-year period for which the cost of repairs at the time of each such flood event, on the average, equals or exceeds 25 percent of the market value of the structure before the damage occurred.

B. And modify the "substantial improvement" definition as follows:

"Substantial Improvement" means any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure before the "start of construction" of the improvement. This term includes structures which have incurred "repetitive loss" or "substantial damage", regardless of the actual repair work performed.

Option 2

Modify the substantial damage definition as follows:

"Substantial Damage" means damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed 50 percent of the market value of the structure before the dam-age occurred. Substantial damage also means flood-related damage sustained by a structure on two separate occasions during a 10-year period for which the cost of repairs at the time of each such flood event, on the average, equals or exceeds 25 percent of the market value of the structure before the damage occurred.

NOTE 1: Communities need to make sure that these definitions are tied to the floodplain management requirements for new construction and substantial improvements and to any other requirements of the ordinance, such as the permit requirements, in order to enforce this provision.

NOTE 2: An ICC Claim Payment is ONLY made for flood-related damage. The substantial damage part of the definition must still include "damage of any origin" to be compliant with the minimum NFIP Floodplain Management Regulations.

Figure 8-12. Sample ordinance language for ICC repetitive loss definitions

Source: -- *Increased Cost of Compliance Coverage: Guidance for State and Local Officials*, FEMA-301, September 2003. This language is only needed to trigger an ICC payment for a repetitive loss. No ordinance changes are needed for the ICC coverage for substantial damage.

C. SPECIAL SITUATIONS

As explained in previous sections, the substantial improvement and substantial damage requirements affect all buildings regardless of the reason for the improvement or the cause of the damage. There are three special situations you should be aware of: exempt costs, historic buildings and corrections of code violations.

EXEMPT COSTS

Certain costs related to making improvements or repairing damaged buildings do not have to be counted toward the cost of the improvement or repairs. These include:

- Plans and specifications.
- Surveying costs.
- Permit fees.
- Demolition or emergency repairs made for health or safety reasons or to prevent further damage to the building.
- Improvements or repairs to items outside the building, such as the driveway, fencing, landscaping and detached structures.

HISTORIC STRUCTURES

Historic structures are exempted from the substantial improvement requirements subject to the criteria listed below. The exemption can be granted administratively if the current NFIP definitions of substantial improvement and historic structure are included in your ordinance, or they can be granted through a variance procedure.

In either case, they are usually granted subject to conditions.

If the improvements to a historic structure meet the following three criteria and are approved by the community, the building will not have to be elevated or floodproofed. It can also retain its pre-FIRM flood insurance rating status.

1. The building must be a bona fide "historic structure." Figure 7-13 has the definition that must be followed.

2. The project must maintain the historic status of the structure. If the proposed improvements to the structure will result in it being removed from or ineligible for the National Register or federally-certified state or local inventory, then the proposal cannot be granted an exemption from the substantial improvement rule.

The best way to make such determinations is to seek written review and approval of proposed plans by the local historic preservation board, if it is federally-certified, or by the state historic preservation office. If the plans are approved, you can grant the exemption. If not, no exemption can be permitted.

3. Take all possible flood damage reduction measures. Even though the exemption to the substantial improvement rule means the building does not have to be elevated to or above BFE, or be renovated with flood-resistant materials that are not historically sensitive, many things can and should be done to reduce the flood damage potential. Examples include:

- Locating mechanical and electrical equipment above the BFE or flood-proofing it.
- Elevating the lowest floor of an addition to or above the BFE with the change in floor elevation disguised externally.

CORRECTIONS OF CODE VIOLATIONS

The NFIP definition of substantial improvement includes another exemption:

> ***44 CFR 59.1 Definitions:*** *"Substantial improvement" means …. The term does not, however, include … Any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions*

Note the key words in this exemption: *correct* existing violations, *identified* by the local official, and *minimum* necessary to assure safe conditions. This language was included in order to avoid penalizing property owners *who had no choice* but to make improvements to their buildings or face condemnation or revocation of a business license.

This exemption was intended for *involuntary* improvements or violations that existed before the improvement permit was applied for or before the damage occurred—for example, a restaurant owner who must upgrade the wiring in his kitchen in order to meet current local and state health and safety codes.

You can only exempt the items specifically required by code. For example, if a single stair tread was defective and had to be replaced, do not exempt the cost of rebuilding the entire stairway. Similarly, count only replacement in like kind and what is minimally necessary. If the

owner chooses to upgrade the quality of a code-required item, the extra cost is not exempt from the formula—it's added to the true cost of the improvement or repairs.

Unfortunately, many property owners and builders pressure local building official to exclude "code violation corrections" from their voluntary improvement proposals. There are "code violations" in all structures built before the current code was enacted. In many cases, those elements must be brought up to code as part of an improvement project.

This is very different from a code violation citation that forces a property owner to correct those violations and make improvements that were otherwise not planned. The building official must know about and document the violations before or at the time the permit is issued.

Example

A small business in a 40-year old building was damaged by a fire. The building's pre-fire market value was $100,000. The insurance adjuster and the permit office concluded that the total cost to repair would be $45,000.

However, the community's building code states that whenever an applicant applies for a permit to modify or improve a building, the building must be brought up to code. This building would need the following additional work:

- Replace unsafe electrical wiring.
- Install missing fire exit signs, smoke detectors and emergency lighting.
- Widen the front door and install a ramp to make the business accessible to handicapped and mobility-impaired people.

The total cost of these code requirements would be $8,000. However, since these were required by the code before the fire occurred, they would not have to be counted toward the cost to repair. Based on the basic formula:

$\frac{\$45{,}000}{\$100{,}000} = 0.45$ or 45%	The building is not declared substantially damaged

In this example, the building can be repaired without elevating or floodproofing. However, the permit office should strongly recommend incorporating flood protection measures and flood resistant materials in the repair project (as in the example in Figure 8-2).

Lake Worth, Florida. The Art of Florida Living.sm

City Of Lake Worth
Department for Community Sustainability
Planning, Zoning and Historic Preservation Division
1900 Second Avenue North · Lake Worth · Florida 33461· Phone: 561-586-1687

MEMORANDUM DATE: September 7, 2016

AGENDA DATE: September 14, 2016

TO: Chair and Members of the Historic Resources Preservation Board

RE: **1111 North Lakeside Drive**

FROM: Aimee N. Sunny, Senior Preservation Coordinator
Department for Community Sustainability

TITLE: **HRPB Project Number 16-00100193:** Consideration of a Certificate of Appropriateness (COA) for window and door replacement for the single-family structure located at **1111 N Lakeside Drive**; PCN# 38-43-44-21-15-358-0140. The subject property was constructed in 1951 and is a contributing resource within the Northeast Lucerne Local Historic District.

OWNER/APPLICANT: Ron Dixon
1111 North Lakeside Drive
Lake Worth, FL 33460

BACKGROUND:
The single-family structure at 1111 North Lakeside Drive was designed by architect Agnes Ballard in 1951 in a Ranch style. The property has public frontage on North Lakeside Drive to the east. The building was constructed in a Ranch style with many elements of Mid-Century Masonry Vernacular architecture, and still retains many of its character defining features. These character defining features include the decorative front porch and columns, the original silver aluminum awning windows, the decorative brickwork and trim, clamshell shutters, a recessed panel garage door, brick planter beds, and concrete masonry construction with a smooth stucco finish.

The original architectural plans for the building are available in the City's property files. Based on the information in the property file, some exterior alterations have occurred over time, including roof replacement from flat white concrete tile to dimensional asphalt shingle, enclosure of the carport, and two small additions to the rear. Although the original architectural drawings show the proposed windows as steel casements, the initial property appraiser's card from January 1952 lists the window type as aluminum awning. Overall, the building retains a high degree of historic integrity of location, setting, materials, and design, and is an excellent example of the Ranch style.

REQUEST:
The Applicant is proposing exterior modifications to the building as follows:

1) Replace all of the existing original silver awning windows with white aluminum casement, single-hung, and horizontal roller windows, per the plans and photos provided.
2) Replace the existing front door with a single full-light French door.
3) Replace the existing recessed short panel garage door with a recessed short panel garage door.
4) Remove the entire west wall of the rear Florida room, and install an OXXO sliding glass door.

COMPREHENSIVE PLAN CONSISTENCY:

It is the analysis of Staff that the project, as proposed, is not fully consistent with the Comprehensive Plan goals and objectives concerning historic preservation and housing due to the fact that the Applicant is proposing a change that will have an adverse effect on the historic integrity of the property. Specifically, the request is in conflict with these objectives:

Goal 1.4 Encourage preservation and rehabilitation of historic and natural resources and where appropriate restrict development that would damage or destroy these resources. (Objective 1.4.2)

Objective 3.2.5: To encourage the identification of historically significant housing, and to promote its preservation and rehabilitation as referenced by the Surveys of Historic Properties conducted for the City of Lake Worth.

Policy 3.2.5.1: Properties of special value for historic, architectural, cultural or aesthetic reasons will be restored and preserved through the enforcement of the City's Historic Preservation Ordinance to the extent feasible.

ANALYSIS:

Zoning

The proposed alterations are not in conflict with the development requirements in the City's Zoning Code.

Historic Preservation

Staff has reviewed the documentation and materials provided in this application and outlined the applicable guidelines and standards found in the City's Historic Preservation Ordinance, detailed in Attachment 1 – Decision Criteria.

The National Park Service and Secretary of the Interior's Standards have very specific criteria regarding replacement of historic materials. Specifically, Standards 2, 5, and 6 apply in this situation:

Standard 2 - The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.

Standard 5 - Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.

Standard 6 - Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.

It is the analysis of Staff that the project as proposed is not compatible with the review criteria set forth in the City's Land Development Regulations, Historic Preservation Ordinance, and Section 23.5-4.

According to the Secretary of the Interior's Standards, distinctive materials that characterize a property shall be preserved. The original silver aluminum awning windows are an important character defining feature on this structure, and appear to be in good condition. The Applicant has not provided any information regarding the feasibility of repairing the existing windows.

According to the Standards and the Code, the windows should be repaired if at all possible, and if repair is not possible, replacement windows should match the design, color, texture, and materials of the existing windows. Staff has recommended impact silver aluminum casement windows with exterior raised applied triangular muntins to replicate the appearance of the original windows. Clear anodized, or silver mill finish windows would most closely replicate the existing color and appearance of the silver windows.

The Applicant's request utilizes casement windows with exterior raised applied muntins on the entire front elevation, which is compatible with the Code and Staff recommendation. The requested front door is compatible with the design style of the structure. The proposed garage door is compatible with the Code and Staff recommendation. The Applicant has requested single-hung windows on the side and rear elevations. Because these are secondary elevations, the existing windows are two-pane awning windows, and the Applicant is proposing the casement style windows on the front elevation, Staff is in support of the proposal. For openings 10 and 14, Staff recommends (2) 2/2 single-hung windows, in order to replicate the existing configuration. Where 3-pane awning windows exist on the side elevations, Staff recommends replacement with 2/2 single-hung or 3-light casement windows.

Public Comment
At the time of publication of this report, Staff has not received any public comment regarding this project.

CONSEQUENT ACTION:
Approve the application; approve the application with conditions; continue the hearing to a date certain to request additional information; or deny the application.

RECOMMENDATION:
Staff recommends that the Board discuss the feasibility of repairing and maintaining the existing windows. If hurricane impact protection is requested, the Applicant could explore alternate means of protection including removable shutter panels or fabric screens. If the windows are repairable, then the proposal for replacement does not meet the Secretary of the Interior's Standards for Rehabilitation, does not meet the criteria set forth in the City of Lake Worth Land Development Regulations §23.5-4(k), and will have an adverse effect on the integrity and character of the property.

If the Board decides that repair is not a feasible option, and the Board determines that replacement windows and doors are appropriate for the structure, Staff recommends the following conditions:

1) Replacement windows on the east (front) elevation shall be aluminum casement and fixed windows as proposed, match the original window opening sizes, and have a divided light pattern that replicates the original aluminum awning windows.
2) Replacement windows on the north, south, and west elevations (sides and rear) may be replaced with either casement or single-hung windows. Where 2-light awning windows exist, a 1/1 single-hung window may be used. Where 3-light awning windows exist, they shall be replaced with 2/2 (4 light) single-hung windows.
3) For openings 10 and 14, the replacement windows shall be (2) 2/2 single-hung windows, in order to replicate the existing configuration.
4) The divided light pattern shall be created by using exterior raised applied triangular muntins to replicate the pane configuration of the awning windows. No flat or internal muntins shall be allowed. The proper divided light pattern and muntin profile shall be reviewed by Staff at permitting.
5) The aluminum window replacements shall have a clear anodized or silver mill finish in order to most closely replicate the original aluminum windows.

6) The Applicant shall utilize light gray screens rather than dark vinyl screens in order to minimize the impact of the panes of glass sitting in different visual planes.
7) No reflective or mirrored glass shall be used.
8) The west elevation of the rear Florida room may be replaced with an OXXO sliding glass door as proposed.
9) The garage door shall be replaced with a recessed short panel door, as shown in the submittal material.
10) All original clamshell shutters shall be maintained on the structure.
11) All work shall be subject to staff review during permitting and inspection during construction.

POTENTIAL MOTIONS:

I MOVE TO **APPROVE** HRPB 16-00100193: Consideration of a Certificate of Appropriateness (COA) for window and door replacement for the subject building located at **1111 North Lakeside Drive**, with the conditions as recommended by Staff, based upon the preponderance of competent substantial evidence, and pursuant to the City of Lake Worth Land Development Regulations Section 23.5-4.

I MOVE TO **DENY** HRPB 16-00100193: Consideration of a Certificate of Appropriateness (COA) for window and door replacement for the subject building located at **1111 North Lakeside Drive** because the Applicant has not established by a preponderance of the competent substantial evidence that the application is in compliance with the City of Lake Worth Land Development Regulations Section 23.5-4, the Secretary of the interiors Standards for the Rehabilitation of Historic Properties, and the City's Comprehensive Plan.

ATTACHMENTS:

1. Decision Criteria
2. Justification Statement
3. Photographs
4. Floor plan and survey
5. Proposed Materials

LOCATION MAP

MEMORANDUM

DATE: September 7, 2016

TO: Chair and Members of the Historic Resources Preservation Board

FROM: Aimee N. Sunny, Preservation Planning Coordinator
Department of Community Sustainability

SUBJECT: **HRPB Project Number 16-00100193:** Consideration of a Certificate of Appropriateness (COA) for window and door replacement for the single-family structure located at **1111 N Lakeside Drive**; PCN# 38-43-44-21-15-358-0140. The subject property was constructed in 1951 and is a contributing resource within the Northeast Lucerne Local Historic District.

HRPB Meeting Date: September 14, 2016

Per Section 23.5-4k (1) of the historic preservation ordinance, the Board shall use the following criteria in making a determination:

A. What is the effect of the proposed work on the landmark or the property upon which such work is to be done?
Response: It is the opinion of Staff that the work proposed would have a partial adverse effect on the historic appearance of the building, and is not fully compatible with the design or style.

B. What is the relationship between such work and other structures on the landmark site or other property in the historic district?
Response: The proposed work will have no direct physical effect on any surrounding properties within the surrounding Northeast Lucerne Local Historic District, however it will have an indirect visual effect on the district.

C. To what extent will the historic, architectural, or archaeological significance, architectural style, design, arrangement, texture, materials and color of the landmark or the property be affected?
Response: The Applicant is proposing work that is not compatible with the architectural design and detailing of the building by removing the historic aluminum awning windows and replacing the majority of them with white aluminum windows (horizontal roller, single-hung, and casement), and the remainder of them with white aluminum sliding doors.

D. Would denial of a certificate of appropriateness deprive the property owner of reasonable beneficial use of his property?
Response: No, the denial of this COA as submitted does not prevent the Applicant from potentially proposing other alterations to the structure, nor would it make the building uninhabitable.

E. Are the applicant's plans technically feasible and capable of being carried out within a reasonable time?
Response: Yes.

F. Do the plans satisfy the applicable portions of the general criteria contained in the United States Secretary of the Interior's Standards for Rehabilitation then in effect or as they may be revised from time to time? The current version of the Secretary's Guidelines provides as follows:

(1) A property shall be used for its historic purpose or be placed in a new use that requires minimal change to the defining characteristics of the building and its site and environment.
Response: No change to the use of the property is proposed.

(2) This historic character of the property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.
Response: The Applicant is proposing to remove multiple windows that are character-defining features of this property.

(3) Each property shall be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or architectural elements from other buildings, shall not be undertaken.
Response: Not applicable to this project.

(4) Most properties change over time; those changes that have acquired historic significance in their own right shall be retained and preserved.
Response: Not applicable to this project.

(5) Distinctive features, finishes and construction techniques or examples of craftsmanship that characterize a historic property shall be preserved.
Response: The original windows are an example of craftsmanship that characterizes not only this structure, but also the time period and architectural style in general.

(6) Deteriorated architectural features shall be repaired rather than replaced, wherever possible. In the event replacement is necessary, the new material should match the material being replaced in composition, design, color, texture, and other visual qualities.
Response: The proposed window replacement does not match the existing in style, composition, design, or color.

Repair or replacement of missing architectural features should be based on accurate duplications of features, substantiated by historical, physical, or pictorial evidence rather than on conjectural designs or because the different architectural elements from other buildings or structures happen to be available for relocation.
Response: Not applicable to this project.

(7) Chemical or physical treatments, such as sandblasting, that cause damage to historic materials, shall not be used. The surface cleaning of structures, if appropriate, shall be undertaken using the gentlest means possible.
Response: Not applicable to this project.

(8) Significant archeological resources affected by a project shall be protected and preserved. If such resources must be disturbed, mitigation measures shall be undertaken.
Response: Not applicable to this project.

(9) New additions, exterior alterations or related new construction shall not destroy historic materials that characterize the property. The new construction shall be differentiated from the old and shall be compatible with the massing, size, scale and architectural features to protect the historic integrity of the property and its environment.
Response: The proposed alterations remove historic windows that characterize the property.

(10) New additions and adjacent or related new construction shall be undertaken in such manner that, if removed in the future, the essential form and integrity of the historic building and its environment would be unimpaired.
Response: Not applicable to this project.

G. What are the effects of the requested change on those elements or features of the structure which served as the basis for its designation and will the requested changes cause the least possible adverse effect on those elements or features?
Response: It is the opinion of Staff that the historic character of the property would be adversely affected by the proposed project as submitted by the Applicant, as outlined above. The requested exterior alterations do not represent the least possible adverse effect on the property. There are alternate options, including repair of the existing windows, and replacement in a clear anodized finish.

Section 23.5-4k (2). *Additional guidelines for alterations.*

In approving or denying applications for certificates of appropriateness for alterations, the HRPB shall also consider the following additional guidelines:

A. Is every reasonable effort being made to provide a compatible use for a property that requires minimal alteration of the building, structure or site and its environment, or to use the property for its originally intended purpose?
Response: No change to the use of the property is proposed.

B. Are the distinguishing original qualities or character of a building, structure or site and its environment being destroyed? The removal or alteration of any historic material or distinctive architectural features shall be avoided whenever possible.
Response: The windows can be considered a distinctive architectural feature and should not be removed unless the level of deterioration is such that the windows cannot be repaired. In that case, the replacement windows should replicate the original windows as closely as possible.

C. When a certificate of appropriateness is requested to replace windows or doors, the HRPB shall permit the property owner's original design when the HRPB's alternative design would result in an increase in cost of thirty (30) percent above the owner's original cost. The owner shall be required to demonstrate to the HRPB that:
(1) The work to be performed will conform to the original window openings of the structure; and
Response: The applicant meets this criterion for the majority of windows, but is in conflict with this criterion at those locations where the applicant is proposing to replace existing awning windows with new sliding doors.

(2) That the replacement windows or doors with less expensive materials will achieve a savings in excess of thirty (30) percent over historically compatible materials otherwise required by this code.
Response: Staff must defer to the applicant.

Criteria for Granting Certificates of Appropriateness

A) The effect of the proposed window and door replacement is very minor to windows on the front and sides of the home. The most obvious change is the windows frames will be white instead of aluminum in color. Horizontal muttons are added to casement windows to retain the original style of the awning windows that are original to the home. Single hung windows are used in openings that only had a two panel awning style window which are located on the sides and back of the house. A new garage door is also being installed using the same recessed panel style original to the home.

B) There is not relationship with the work being completed to any other structure, landmark or property in the historical district.

C) The windows frames are proposed to be white instead of aluminum in color.

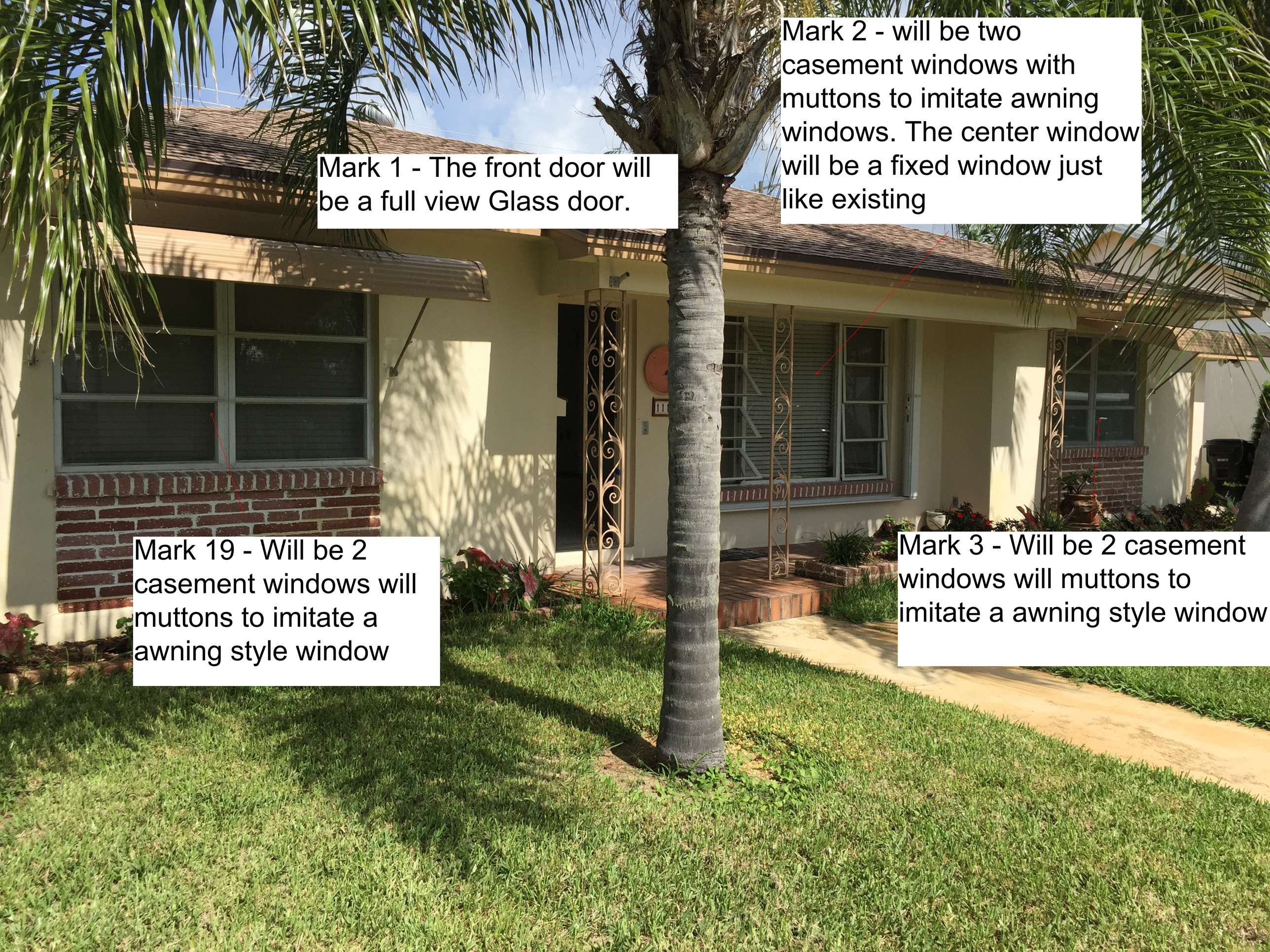
D) The denial of the certificate would deprive the owner the ability to properly protect his home, family and possessions. Also the owner would be deprived of the ability to make his home more energy efficient, secure from theft, lower insurance costs, and protection from natural disasters.

E) There are no issues with the ability to carry out the proposed plans in a timely manner.

F) Interior Standards for Rehabilitation

1) The replacement of the windows will cause a minimal change to the properties' characteristics
2) Historical Character of the property will be maintained.
3) No changes to the architectural elements shall be undertaken.
4) Any changes that have occurred overtime shall also be preserved.
5) Features and finishes will be preserved.
6) There are no deteriorated features that require repair.
7) There are no need for physical treatments such as sandblasting to install the windows and doors.
8) There are no archeological resources know on the property and if so would not be disturbed during the installation of the windows or doors.
9) There are no additions to the properties floor plan.
10) The new components of the windows and doors could in the future be removed and the integrity of the building would not be compromised.

G) There are no effects on the elements of the structure which serve as the basis of the designation.


Mark 1 - The front door will be a full view Glass door.
Mark 2 - will be two casement windows with muttons to imitate awning windows. The center window will be a fixed window just like existing
Mark 19 - Will be 2 casement windows will muttons to imitate a awning style window
Mark 3 - Will be 2 casement windows will muttons to imitate a awning style window

Mark 20 - Garage Door will be a New recessed panel door similiar to existing.

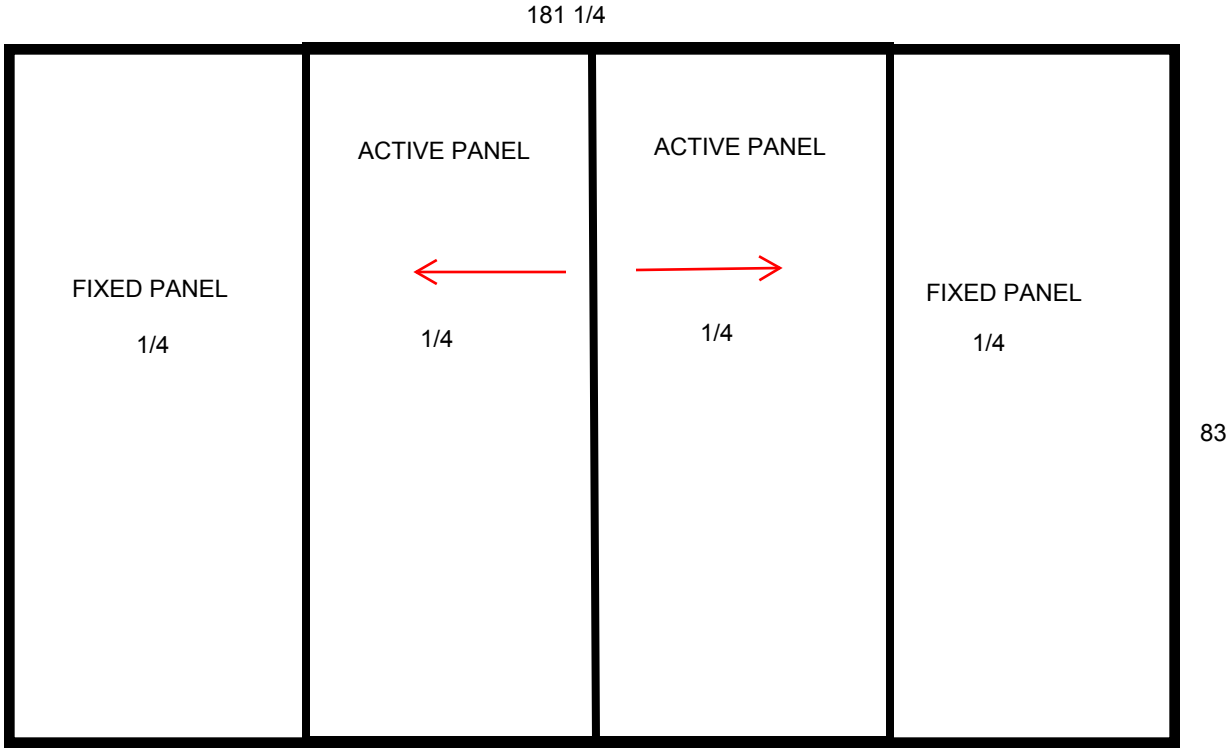
Mark 17 will become a single hung window
Mark 18 - Will become a Single Hung window
ADT

Mark 15 will become a Single Hung Window
Mark 16 will be a single hung window
Mark 14 will become a Horizontal Roller 1/3 1/3 1/3

Mark 11,12,13 - Will be removed to create a large opening for a wall to wall floor to beam sliding glass door OXXO.
*Engineering to be provided once design has been approved by HRPB

MARK 11,12,13

Conversion to
Sliding Door



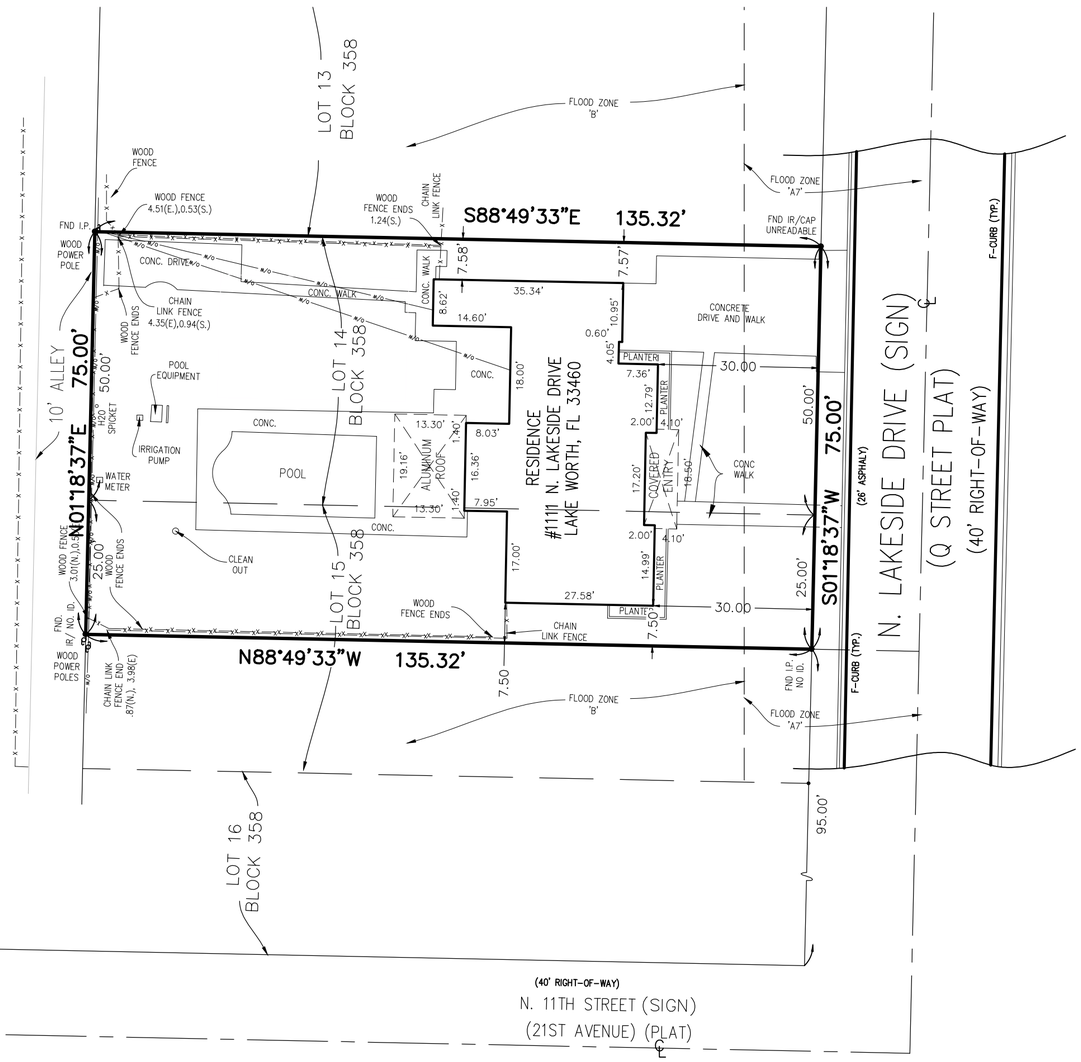
Mark 9 - New Single hung Window
Mark 10 - New 1/3 1/3 1/3 Horizontal roller same as mark 14 on opposite side of Florida room
Mark 11, 12, 13 - Removed to install OXXO Sliding Glass door floor to beam and wall to wall.

Mark 8 - New
Single hung
Window

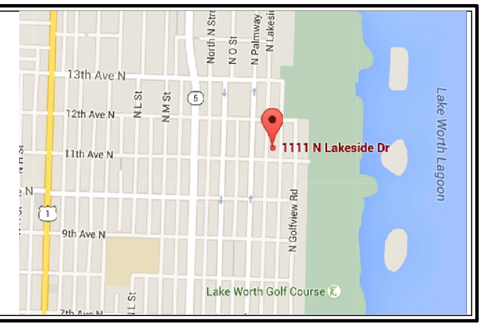
A.O.Smith
ProMax
Secured by
ADT
Mark 6 - will remain a Single Hung Window
Mark 7 - will remain a single hung window

Mark 5 - New Casement Window with horizontal muttons

Mark 4 - New Casement window with horizontal muttons



LOCATION MAP
(NOT TO SCALE)



NOTES

1. REPRODUCTIONS OF THIS SKETCH ARE NOT VALID UNLESS SEALED WITH AN EMBOSSED SURVEYOR'S SEAL.
2. SURVEY MAP OR THE COPIES THEREOF ARE NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED PROFESSIONAL LAND SURVEYOR.
3. LANDS SHOWN HEREON ARE NOT ABSTRACTED FOR RIGHTS-OF-WAY, EASEMENTS, OWNERSHIP, OR OTHER INSTRUMENTS OF RECORD.
4. **BEARINGS SHOWN HEREON ARE RELATIVE TO ASSUMED DATA.**
5. THE "DESCRIPTION" SHOWN HEREON IS IN ACCORD WITH THE DESCRIPTION PROVIDED BY THE CLIENT.
6. UNDERGROUND FOUNDATIONS WERE NOT LOCATED.
7. ADDITIONS OR DELETIONS TO SURVEY MAPS BY OTHER THAN THE SIGNING PARTY OR PARTIES IS PROHIBITED WITHOUT WRITTEN CONSENT OF THE SIGNING PARTY OR PARTIES.
8. **FLOOD ZONE: "B"AND "A7"(EL 7) COMMUNITY PANEL NO. 120213 0001 C; DATE: SEPTEMBER 30, 1982.**
9. THE PURPOSE OF THIS SURVEY IS TO DELINEATE HORIZONTAL AND VERTICAL LOCATIONS OF NEWLY CONSTRUCTED IMPROVEMENTS ONLY AND DOES NOT CONSTITUTE A BOUNDARY SURVEY AS SUCH.
10. ADDRESS: 1111 N. LAKESIDE DRIVE, LAKE WORTH, FLORIDA 33460-2309

DESCRIPTION

LOT 14, AND THE NORTH 25 FEET OF LOT 15, BLOCK 358, TOWNSITE OF LUCERNE, ACCORDING TO THE PALM BEACH FARMS COMPANY PLAT NO.2, RECORDED IN PLAT BOOK 2, PAGE 29 OF THE PUBLIC RECORDS OF PALM EACH COUNTY, FLORIDA.(THE TOWN OF LUCERNE IS NOW KNOWN AS LAKE WORTH).

SAID LANDS SITUATED IN THE CITY OF LAKE WORTH, PALM BEACH COUNTY, FLORIDA CONTAING 10,154 SQUARE FEET OR .2330 ACRES MORE OR LESS. SUBJECT TO EASEMENTS, RESTRICTIONS,RESERVATIONS, COVENANTS, AND RIGHTS-OF-WAY OF RECORD'

CERTIFICATE:

I HEREBY CERTIFY THAT THE ATTACHED BOUNDARY SURVEY OF THE HEREON DESCRIBED PROPERTY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AS SURVEYED UNDER MY DIRECTION ON APRIL 11, 2016. I FURTHER CERTIFY THAT THIS BOUNDARY SURVEY MEETS THE MINIMUM STANDARDS OF PRACTICE SET FORTH IN CHAPTER 5J-17 ADOPTED BY THE FLORIDA BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS, PURSUANT TO FLORIDA STATUTES 472.027.

JEFFREY R. WAGNER, PLS
REG. LAND SURVEYOR #5302
STATE OF FLORIDA - LB #3591

LEGEND

A/C – AIR CONDITIONER
L – ARC LENGTH
ALUM. – ALUMINUM
B.E. – BUFFER EASEMENT
C.O. – CLEANOUT
CLF – CHAIN LINK FENCE
CONC. – CONCRETE
COV. COVERED
D.E. – DRAINAGE EASEMENT
ELEC. – ELECTRIC
ELEV. – ELEVATION
EQUIP. – EQUIPMENT
ESMT. – EASEMENT
EXIST. – EXISTING
F.P.L.–FLORIDA POWER & LIGHT
FIN. – FINISHED
FLR. – FLOOR
FND. – FOUND

SQ. FT. – SQUARE FEET
TWP. – TOWNSHIP
TYP. – TYPICAL
U.E. – UTILITY EASEMENT
W.M. – WATER METER
W.E. – WATER EASEMENT
S.E. – SANITARY EASEMENT
– LIGHT POLE
– FIRE HYDRANT
– CATCH BASIN
– WATER VALVE
– SET 5/8" IR/CAP LB 3591
– SANITARY MANHOLE
– DRAINAGE MANHOLE

I.R./CAP – IRON ROD & CAP
INV. – INVERT
IRR. – IRRIGATION
L.A.E. – LIMITED ACCESS EASEMENT
O/S – BUILDING OFFSET
O.R.B. – OFFICIAL RECORD BOOK
P.B. – PLAT BOOK
P.B.C.R. – PALM BEACH COUNTY RECORD
P.O.B. – POINT OF BEGINNING
P.O.C.– POINT OF COMMENCEMENT
PGS – PAGE(S)
P.R.M.–PERMANENT REFERENCE MONUMENT
PROP. – PROPOSED
R – RADIUS
R/W – RIGHT-OF-WAY
RGE. – RANGE
SEC – SECTION
Δ – DELTA (CENTRAL ANGLE)
I.P. – IRON PIPE

– WOOD POWER POLE (UNLESS NOTED)
– CENTER LINE
– EXISTING ELEVATION
– TRAFFIC SIGN
OHW – ELECTRICAL WIRES OVERHEAD
– ANCHOR
– WATER METER
– RPZ
– GROUND LIGHT
– ELECTRIC HAND HOLE
– IRRIGATION CONTROL VALVE
NO I.D. – NO IDENTIFICATION

CAULFIELD & WHEELER, INC.
CIVIL ENGINEERING
LANDSCAPE ARCHITECTURE - SURVEYING
7900 GLADES ROAD - SUITE 100
BOCA RATON, FLORIDA 33434
PHONE (561)-392-1991 / FAX (561)-750-1452

TOWNSITE OF LUCERNE
LOT 14 AND A PORTION OF LOT 15 BLOCK 358

REVISIONS	DATE	BY

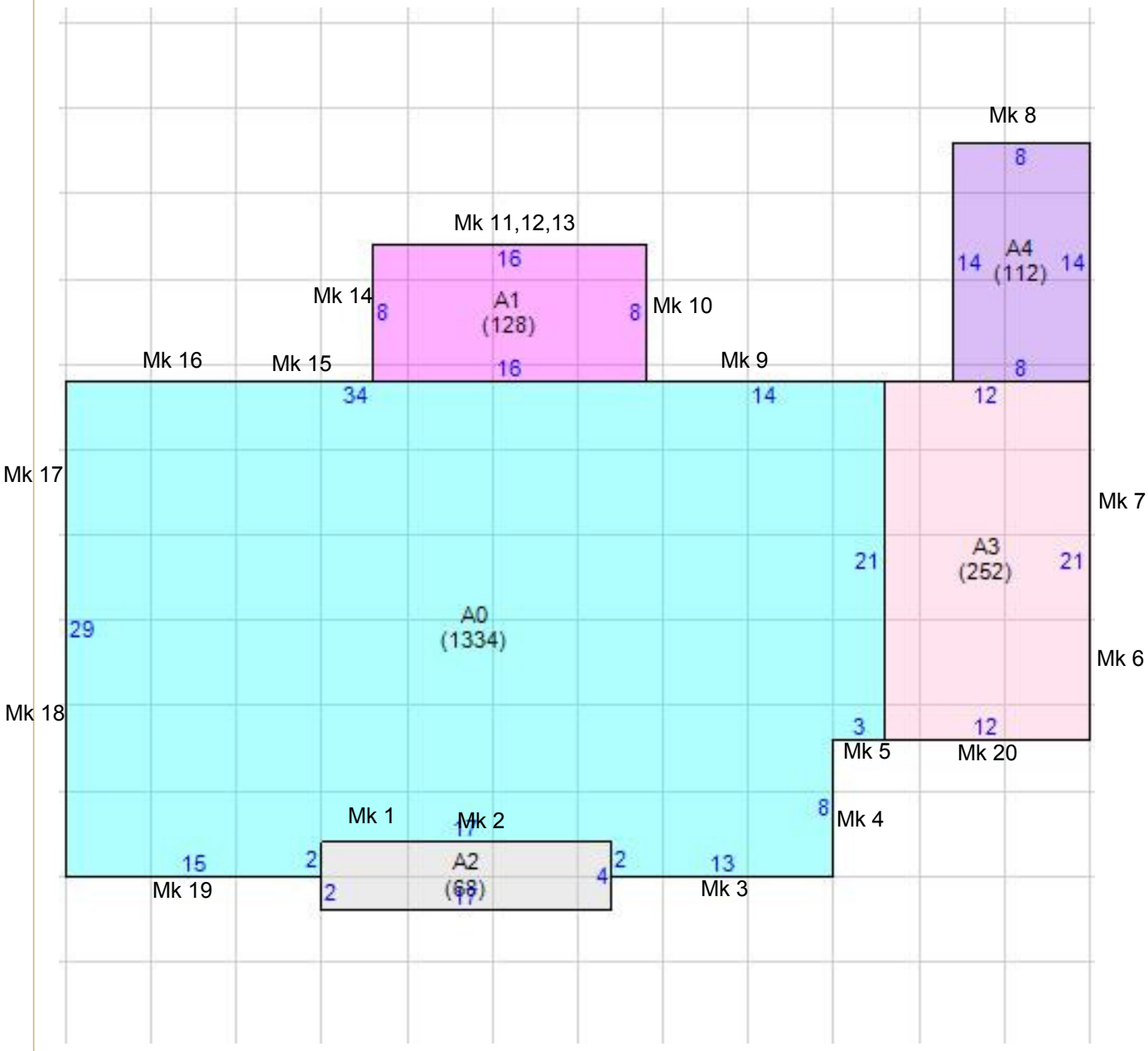
DATE	5-21-16	SCALE	1"=20'
FLD.BK.	DIGI	CHECKED BY	MAX
PAGE	1		
FILE NAME 7510 – DIXON RESIDENCE			

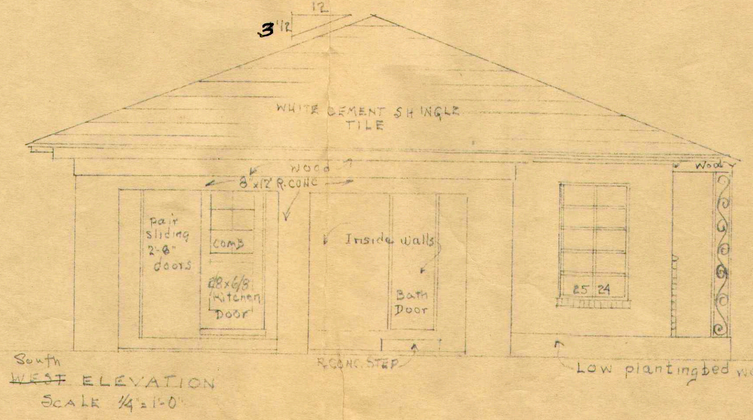
7510

SHT.NO. 1 OF 1 SHEETS

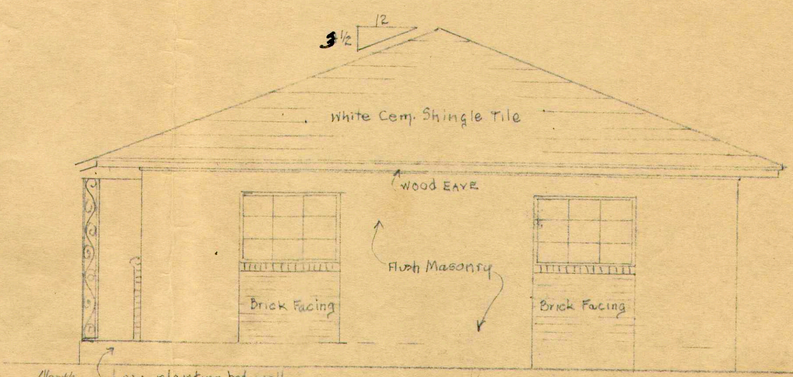
Owner Name: DIXON RONALD P
Parcel Control Number: 38-43-44-21-15-358-0140
Location Address: 1111 N LAKESIDE DR

Sketch for 38-43-44-21-15-358-0140

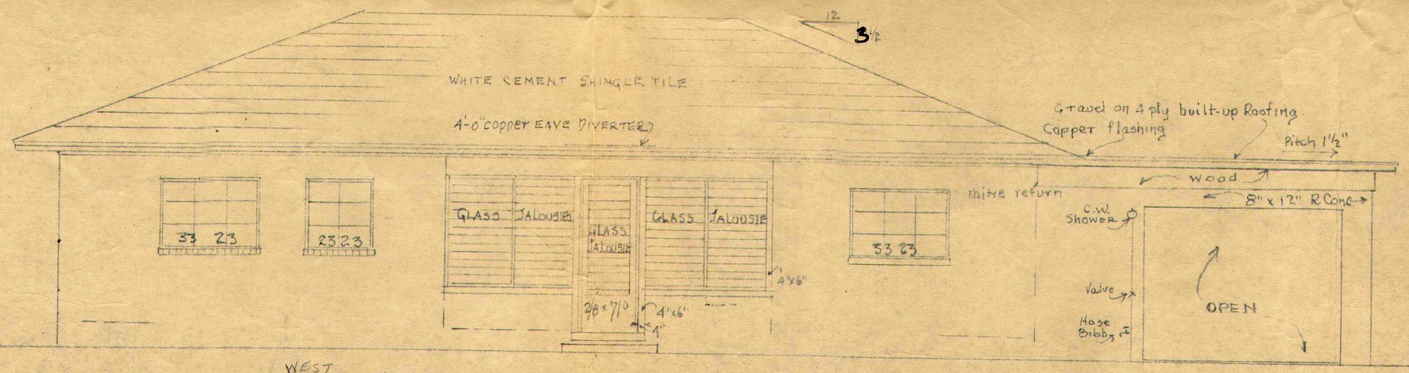




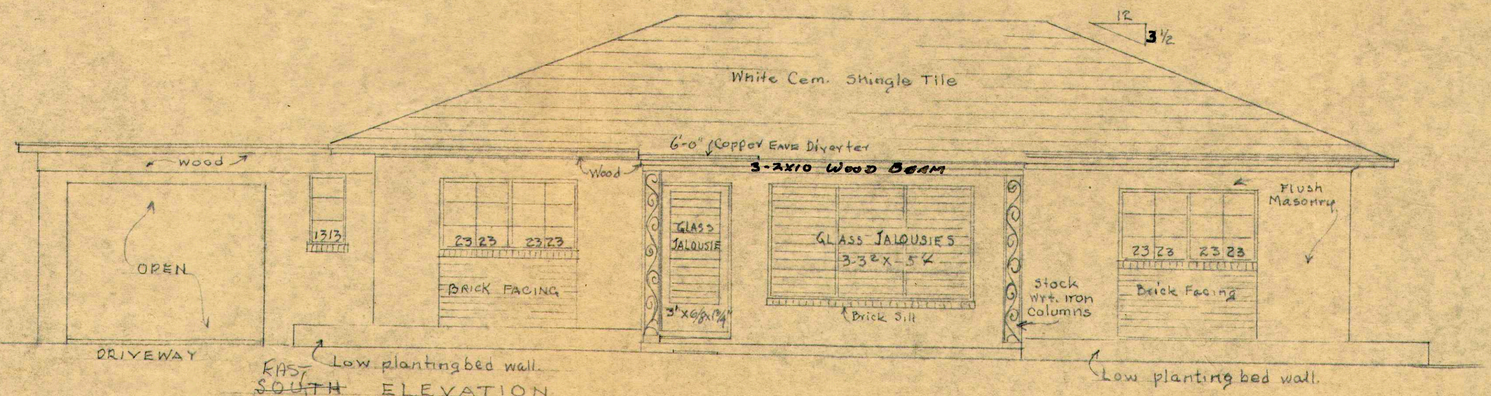
South
~~WEST~~ ELEVATION
SCALE ¼"=1'-0"



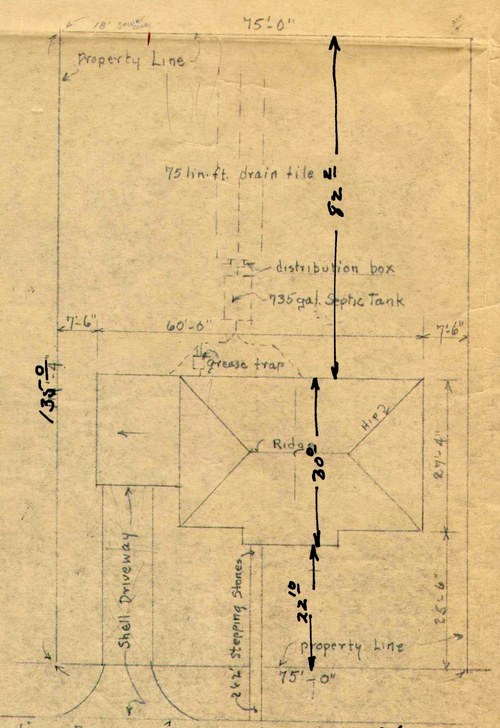
North
~~EAST~~ ELEVATION
SCALE ¼"=1'-0"



WEST
~~NORTH~~ ELEVATION
SCALE ¼"=1'-0"



EAST
~~SOUTH~~ ELEVATION
SCALE ¼"=1'-0"



Existing Paving

PLOT PLAN
Scale 1/16"=1'-0"

1107-1111 No LAKESIDE DR.
LOT 14 : BLOCK 358 & N. 25' of LOT 15

Agnes Ballard

OWNER. CONTR.

Plot Plan Reversed

CHECKED BY	RESIDENCE FOR R.P. DARST, Sr. [redacted]	DATE June 14 1951
JOB No.	AGNES BALLARD ARCHITECT 415 Hampton Road West Palm Beach, Florida	SHEET 2.

Connect to 735 Gallon Septic Tank with 75 lin. ft. Drain Field

4" C.I.

60'-0"

15'-8"

17'-8"

1GT

2"

Sink

W.H.

2'

7'-4"

32"x32"x8" R.C. Ftgs. ½ ϕ 6"x6" o.c.

20'-0"

1'-9"

7'-4"

32"x24"x8" Ftg. ½ ϕ 6"x6"

Step in Floor Slab 12"

9'-0"

15'-4"

24"

8"

10'-2"

2'-6"

16'-4"

2'

12'-10"

8"

7'-4"

12'-4"

3'-4"

17'-4"

15'-0"

9x18 FOOTING

Tub

2 W.

C.O.

LAV.

Floor Pad

10" thick integral R.C. pad under slab over 2-½ ϕ

2'-6"

12'-6"

Floor Pad

2'-6"

3'-0"

2'-0"

Indicates 8"x16" R.C. Col. 4-5/8" ϕ vert.

19'-4"

8'-7"

Std wall Footing = 8" x 16" R CONC with 2-5/8" ϕ

FOUNDATION PLAN

Scale ⅛" = 1'-0"

Copper diverter Line along at entrance

Copper EAVE & Drip

1"x4"

3-2x10 Beam

std eave beyond

2"x6" - 16" o.c.

6 ft.

Lap & Spike

Rafters

Blkg

Clg. Joist

Wood clg.

Fitted 2"x12" at Ends.

Solid Blocking

8X12 4-5/8 ϕ

Screw fasten top & bottom

8" Stock W.I. Column

wall at ends

8" C.B.

Liv Rm

SHELTER ROOF DETAIL

White Cem. Shingles over 1 30# Felt Tim Tagged & 1 90# S.I.S. hot mopped on

3½ 12

2"x10" Ridge

1"x6" Collars 24" O.C.

2x8 16" o.c.

Clg. Jsts

Bridging max. 7'-0" o.c.

Straptie 48" o.c.

Double Shingles

Copper

1"x4"

Drip Cut

2½" R. ¼" ϕ Bolts 4 ft. o.c.

1½"x16" Vents Continuous 2'-0"

5½" Bed

Plaster

At Carport & Triple Was Solid R. Conc.

8X12 Conc. Beam 4-5/8 ϕ

Top of Openings

Apply "Bil-Dry" "Color Crete" or "Insulmastic"

8" three hole load bearing conc. blocks (Mush Joints)

Gyplath and plaster over 1" Furring

¾" Terrazzo

Wood Base

4"

Pitch Finish Grade away from Bldg.

12" MIN.

4" R. CONC. SLAB 6"x6"x10/20 Mesh & membrane (2-15#) water proofing

Solid grade

N.

8"

4"

9

CONC.

2-5/8" ϕ

1'-6"

TYPICAL EXTERIOR WALL SECTION.

Scale ¾" = 1'-0"

8"

16"

2/5/8 STRAIGHT IN TOP

1/1¾" TRUSSED

2/1¾" STRAIGHT IN BOTTOM

8x16 Conc. Beam

60'-0"

1'-4"

7'-0"

C.W. Shower & Hose Bibb

9'-0"

8'-0"

FX

2V

33 23

8"

1'-4"

8"x16"x16 C.B. Clg. 5/8" ϕ

2'-6"

Rough in H & C Supply & 2" Drain

U. CAB 30" Counter

SINK

15A 3'-6" up

U. CAB 30" Counter

4'

11'-0"

KITCHEN

Elec Panel

2"x6" C.J. - 16" o.c.

9'-4"

Storage Space

Gas

3"x8" - 24" o.c.

Pair sliding

Refrig.

Concrete Floor

Lower 36" Cab.

REFRIG SPACE

15A 3'-6" up

Chime Conv.

UTILITY CAB

36" Upper Cab.

Shelf

CLOS.

ATTIC ACCESS

5'-0" TUB Shower 6'-2"

Water Htr.

Heater

Shelves

2 Shelves

2'-4"

4'

8"

8"C.B. WALL

Indicator 8"x16" R. Conc. Col. 4-5/8" ϕ vert.

CAR PORT

5 smooth Conc. Floor

T&G Vert. Wood ceiling

R. Conc. Step

BATH 2

C. Rod

15 lt. & F.R.

CLOSET

LAV.

2'-8"

2'-0" c.

2'-4"

Terrazzo divider joints at doorways

2x6 Rafter Ties 4'-0" o.c. Above C.J.

8"

11'-0"

3'-4"

4"

Bar

4'

Gas

8"

9'-0"

1'-4"

1'-4"

Phone

BEDROOM #3

2x6" Ceil. 16" o.c.

1" Furring

5'-0"

11'-0"

13 13

2'-4"

Pr. 2323

Planting bed

Low wall

3'-0"

15'-4"

9' shell Driveway to Street

Concrete 2'-0" x 2'-0" Stepping Stones 8" apart to Street

Conc. step

Glass Jalousies

At. Eave.

24" hi black base 4"x6"

Glass Jalousies

6'-4"

6'-8"

4'-8"

23 23

3'V

23 23

Dble 2"x12" Hdr

LIVING PORCH

15'-0"

2"x6" Ceil. J. 12" o.c.

Furring

2"x8" Clg. J. 16" o.c.

ALL INTERIOR DIM'S Cols. 8'8 = 4'11½

5' TUB

SHOWER

Curtain Rod

16 Gal W. Heater

6'-4"

10'-0"

BATH 1

LAV.

Dressing Table

MIRROR

Shelves

Gas

5 SHLS LIN CLOS

HALL

BED ROOM #2

Attic Access

2'-6"

2'-0"

RC

CLOS.

15 lt. & 1 Rad

3'-4"

Terr. Joint

3'-10"

15 lt. & 1 Rad

2" CLOS.

PC

Good 4, 20 Slide Doors

Phone

2"x6" C.J. - 16" o.c.

All PARTITIONS Tie to external Blk. Walls

Hose Bibb

Aluminum Door

MT. W.S.

GS

1" Furring

Triple 30"x5' Glass Jalousies.

8X12 R. Conc. Beam 4-5/8

LIVING ROOM

2x8 Clg. J. 16" o.c.

18'-0"

MASTER BEDROOM

13'-8"

Pr. 2323

Planting bed

4'-4"

Low wall

Furring

3'-4" M.O.

1'-8"

W.I. Col.

SHELTER

Conc. Slab

3-2x10 Wood Beam.

17'-4"

15'-0"

3'-8"

60'-0"

FLOOR PLAN

Scale ¼" = 1'-0"

ALL INTERIOR WALLS 2x4" or 2x6" = 16" o.c.

1286 SQ. FT. H.U. AREA.

1600 SQ. FT. GROUND COVERAGE

2x4 = 16" o.c.

Plaster

Wood base

4"

6"

2-½" ϕ

1'-4"

2'-0"

TYPICAL FLOOR PAD

RIDGE = 13°

EDGE = 9°

9-FIXTURES

56-OUTLETS

NOTICE

Before Pouring Any Concrete

6830

APPROVED

CITY OF LAKE WORTH

6-19-57

Edgar H. Bryan

OWNER - CONTR.

RESIDENCE FOR MR R.P. DARST, Sr.

DATE June 1951

SHEET 1

AGNES BALLARD ARCHITECT 415 Hamptyn Road West Palm Beach, Florida

N.

W

E

Product Approval Review Form

Address:- 1111 N. Lakeside Dr, Lake Worth, FL 33460
Contractor:- Titan II Construction Corporation Lot:- Block:-

#	Opening Location (Room Name)	Size		NOA Number	NOA Design Pressuure rating		Opening Required Pressure Rating		Egress Requirement		Shutter Requirement	
		Width	Height		(+) psf	(-) psf	(+) psf	(-) psf	Yes	No	Yes	No
1	Front Door	38 1/2	82	15 - 0603.13	70	75	36.1	39.3		No		No
2	Living Room	26	62 7/8	15 - 0406.10	70.0	75.0	37.8	41.0		No		No
2	Living Room	52	62 7/8	15 - 0406.11	70	75.0	36.1	39.3		No		No
2	Living Room	1 x 4 Mullion	62 7/8	16 - 0218.03	75.6	75.6	36.1	39.3		No		No
3	Bedroom 1	37	50 3/8	15 - 0406.10	70.0	75.0	37.8	41.0	Yes			No
3	Bedroom 1	1 x 4 Mullion	50 3/8	16 - 0218.03	170	170	37.8	41.0		N/A		No
4	Bedroom 1	37	50 3/8	15 - 0406.10	70.0	75.0	37.8	41.0	Yes			No
5	Master Bath	19	38 1/4	15 - 0406.10	70.0	75.0	37.8	41.0		No		No
6, 7	Garage	36 3/4	50 1/4	15 - 0406.12	75.0	90.0	37.8	41.0		No		No
8	Storage	37	38 3/8	15 - 0406.12	75.0	90.0	37.8	41.0		No		No
9	Kitchen	36 3/4	38 1/4	15 - 0406.12	75.0	90.0	37.8	41.0		No		No
10,14	Florida Room	85	53	15 - 0728.05	70	70	34.7	44.5		No		No

*** Highlight on NOA/PA the applicable detail, section, attachement and glass type.

Rev. 5/7/2009

Product Approval Review Form

Address:- 1111 N. Lakeside Dr, Lake Worth, FL 33460
Contractor:- Titan II Construction Corporation Lot:- Block:-

#	Opening Location (Room Name)	Size		NOA Number	NOA Design Pressuure rating		Opening Required Pressure Rating		Egress Requirement		Shutter Requirement	
		Width	Height		(+) psf	(-) psf	(+) psf	(-) psf	Yes	No	Yes	No
11 12 13	Florida Room	181 1/4	83	15 - 0612.05	70	80	33.8	42.7		No		No
15	Guest Bath	36 3/4	38 1/4	15 - 0406.12	75.0	90.0	37.8	41.0		No		No
16	Bedroom 2	36 3/4	50 1/8	15 - 0406.12	75.0	90.0	37.8	41.0	Yes			No
17	Bedroom 2	52 7/8	38 1/8	15 - 0406.12	75.0	90.0	37.8	41.0		No		No
18	Bedroom 3	53	38 1/8	15 - 0406.12	75.0	90.0	37.8	41.0		No		No
19	Bedroom 3	36 7/8	50 3/8	15 - 0406.10	70.0	75.0	37.8	41.0	Yes			No
19	Bedroom 3	36 7/8	50 3/8	15 - 0406.10	70.0	75.0	37.8	41.0	Yes			No
19	Bedroom 3	1 x 4 mullion	50 3/8	16 - 0218.03	75.6	75.6	37.8	41.0	N/A			
20	Garage	8'	7'	15 - 0505.02	57	67	33.8	42.7		No		
				-								
				-								
				-								

*** Highlight on NOA/PA the applicable detail, section, attachement and glass type.

Rev. 5/7/2009

5th ED. FLORIDA BUILDING CODE (2014) & ASCE 7-10 "ASD" DESIGN LOADS FOR COMPONENTS AND CLADDING

WIND VELOCITY = 170 MPH
EXPOSURE 'C'
ENCLOSED STRUCTURE, FLAT TERRAIN

MRH ≤ 60'
BASED ON Kd = 0.85

INTERIOR ZONE 4 PRESSURES

Mean Roof Height	DESIGN PRESSURES (PSF) - ZONE 4 Tributary Area (Sq Ft) 10	15	20	25	30	35	40	45	50
0 – 15 ft	-41.0 / +37.8	-40.0 / +36.8	-39.3 / +36.1	-38.7 / +35.5	-38.3 / +35.1	-37.9 / +34.7	-37.6 / +34.4	-37.3 / +34.1	-37.0 / +33.8
16 ft	-41.6 / +38.3	-40.5 / +37.3	-39.8 / +36.6	-39.3 / +36.0	-38.8 / +35.6	-38.4 / +35.2	-38.1 / +34.9	-37.8 / +34.6	-37.5 / +34.3
17 ft	-42.1 / +38.8	-41.1 / +37.8	-40.3 / +37.1	-39.8 / +36.5	-39.3 / +36.0	-38.9 / +35.6	-38.6 / +35.3	-38.3 / +35.0	-38.0 / +34.7
18 ft	-42.6 / +39.3	-41.6 / +38.2	-40.8 / +37.5	-40.3 / +36.9	-39.8 / +36.5	-39.4 / +36.1	-39.1 / +35.7	-38.8 / +35.4	-38.5 / +35.2
19 ft	-43.1 / +39.7	-42.0 / +38.7	-41.3 / +37.9	-40.7 / +37.4	-40.3 / +36.9	-39.9 / +36.5	-39.5 / +36.1	-39.2 / +35.8	-38.9 / +35.6
20 ft	-43.6 / +40.2	-42.5 / +39.1	-41.7 / +38.3	-41.2 / +37.8	-40.7 / +37.3	-40.3 / +36.9	-39.9 / +36.5	-39.6 / +36.2	-39.4 / +36.0
21 ft	-44.0 / +40.6	-42.9 / +39.5	-42.2 / +38.7	-41.6 / +38.2	-41.1 / +37.7	-40.7 / +37.3	-40.4 / +36.9	-40.0 / +36.6	-39.8 / +36.3
22 ft	-44.4 / +41.0	-43.4 / +39.9	-42.6 / +39.1	-42.0 / +38.5	-41.5 / +38.0	-41.1 / +37.6	-40.7 / +37.3	-40.4 / +37.0	-40.2 / +36.7
23 ft	-44.9 / +41.4	-43.8 / +40.3	-43.0 / +39.5	-42.4 / +38.9	-41.9 / +38.4	-41.5 / +38.0	-41.1 / +37.6	-40.8 / +37.3	-40.5 / +37.0
24 ft	-45.3 / +41.7	-44.2 / +40.6	-43.4 / +39.8	-42.8 / +39.2	-42.3 / +38.7	-41.9 / +38.3	-41.5 / +38.0	-41.2 / +37.6	-40.9 / +37.4
25 ft	-45.7 / +42.1	-44.5 / +41.0	-43.8 / +40.2	-43.1 / +39.6	-42.6 / +39.1	-42.2 / +38.7	-41.9 / +38.3	-41.5 / +38.0	-41.3 / +37.7
26 ft	-46.0 / +42.4	-44.9 / +41.3	-44.1 / +40.5	-43.5 / +39.9	-43.0 / +39.4	-42.6 / +39.0	-42.2 / +38.6	-41.9 / +38.3	-41.6 / +38.0
27 ft	-46.4 / +42.8	-45.3 / +41.6	-44.5 / +40.8	-43.9 / +40.2	-43.3 / +39.7	-42.9 / +39.3	-42.5 / +38.9	-42.2 / +38.6	-41.9 / +38.3
28 ft	-46.8 / +43.1	-45.6 / +42.0	-44.8 / +41.2	-44.2 / +40.5	-43.7 / +40.0	-43.2 / +39.6	-42.9 / +39.2	-42.5 / +38.9	-42.2 / +38.6
29 ft	-47.1 / +43.4	-46.0 / +42.3	-45.1 / +41.5	-44.5 / +40.8	-44.0 / +40.3	-43.6 / +39.9	-43.2 / +39.5	-42.9 / +39.2	-42.6 / +38.9
30 ft	-47.4 / +43.7	-46.3 / +42.6	-45.5 / +41.8	-44.8 / +41.1	-44.3 / +40.6	-43.9 / +40.2	-43.5 / +39.8	-43.2 / +39.5	-42.9 / +39.2
32 ft	-48.1 / +44.3	-46.9 / +43.2	-46.1 / +42.3	-45.4 / +41.7	-44.9 / +41.2	-44.5 / +40.7	-44.1 / +40.3	-43.8 / +40.0	-43.5 / +39.7
35 ft	-49.0 / +45.2	-47.8 / +44.0	-47.0 / +43.1	-46.3 / +42.5	-45.8 / +42.0	-45.3 / +41.5	-44.9 / +41.1	-44.5 / +40.8	-44.3 / +40.5
40 ft	-50.4 / +46.5	-49.2 / +45.2	-48.3 / +44.4	-47.6 / +43.7	-47.1 / +43.1	-46.6 / +42.7	-46.2 / +42.3	-45.9 / +41.9	-45.5 / +41.6
45 ft	-51.7 / +47.6	-50.4 / +46.4	-49.5 / +45.5	-48.8 / +44.8	-48.3 / +44.2	-47.8 / +43.8	-47.4 / +43.3	-47.0 / +43.0	-46.7 / +42.6
50 ft	-52.8 / +48.7	-51.5 / +47.4	-50.6 / +46.5	-49.9 / +45.8	-49.3 / +45.2	-48.9 / +44.7	-48.4 / +44.3	-48.1 / +43.9	-47.7 / +43.6
55 ft	-53.9 / +49.7	-52.6 / +48.4	-51.7 / +47.4	-50.9 / +46.7	-50.3 / +46.1	-49.9 / +45.6	-49.4 / +45.2	-49.0 / +44.8	-48.7 / +44.5
60 ft	-54.9 / +50.6	-53.6 / +49.3	-52.6 / +48.3	-51.9 / +47.6	-51.3 / +47.0	-50.8 / +46.5	-50.3 / +46.0	-49.9 / +45.7	-49.6 / +45.3

EXTERIOR ZONE 5 PRESSURES

Mean Roof Height	DESIGN PRESSURES (PSF) - ZONE 5 Tributary Area (Sq Ft) 10	15	20	25	30	35	40	45	50
0 – 15 ft	-50.6 / +37.8	-48.6 / +36.8	-47.2 / +36.1	-46.1 / +35.5	-45.2 / +35.1	-44.5 / +34.7	-43.8 / +34.4	-43.2 / +34.1	-42.7 / +33.8
16 ft	-51.3 / +38.3	-49.3 / +37.3	-47.8 / +36.6	-46.7 / +36.0	-45.8 / +35.6	-45.1 / +35.2	-44.4 / +34.9	-43.8 / +34.6	-43.3 / +34.3
17 ft	-52.0 / +38.8	-49.9 / +37.8	-48.5 / +37.1	-47.3 / +36.5	-46.4 / +36.0	-45.6 / +35.6	-45.0 / +35.3	-44.4 / +35.0	-43.8 / +34.7
18 ft	-52.6 / +39.3	-50.5 / +38.2	-49.0 / +37.5	-47.9 / +36.9	-47.0 / +36.5	-46.2 / +36.1	-45.5 / +35.7	-44.9 / +35.4	-44.4 / +35.2
19 ft	-53.2 / +39.7	-51.1 / +38.7	-49.6 / +37.9	-48.5 / +37.4	-47.5 / +36.9	-46.7 / +36.5	-46.0 / +36.1	-45.4 / +35.8	-44.9 / +35.6
20 ft	-53.8 / +40.2	-51.7 / +39.1	-50.1 / +38.3	-49.0 / +37.8	-48.0 / +37.3	-47.2 / +36.9	-46.5 / +36.5	-45.9 / +36.2	-45.4 / +36.0
21 ft	-54.3 / +40.6	-52.2 / +39.5	-50.7 / +38.7	-49.5 / +38.2	-48.5 / +37.7	-47.7 / +37.3	-47.0 / +36.9	-46.4 / +36.6	-45.8 / +36.3
22 ft	-54.9 / +41.0	-52.7 / +39.9	-51.2 / +39.1	-50.0 / +38.5	-49.0 / +38.0	-48.1 / +37.6	-47.3 / +37.3	-46.8 / +37.0	-46.3 / +36.7
23 ft	-55.4 / +41.4	-53.2 / +40.3	-51.6 / +39.5	-50.4 / +38.9	-49.4 / +38.4	-48.5 / +38.0	-47.7 / +37.6	-47.3 / +37.3	-46.7 / +37.0
24 ft	-55.9 / +41.7	-53.7 / +40.6	-52.1 / +39.8	-50.9 / +39.2	-49.8 / +38.7	-49.0 / +38.3	-48.2 / +38.0	-47.7 / +37.6	-47.1 / +37.4
25 ft	-56.4 / +42.1	-54.1 / +41.0	-52.6 / +40.2	-51.3 / +39.6	-50.3 / +39.1	-49.5 / +38.7	-48.8 / +38.3	-48.1 / +38.0	-47.5 / +37.7
26 ft	-56.8 / +42.4	-54.6 / +41.3	-53.0 / +40.5	-51.8 / +39.9	-50.8 / +39.4	-49.9 / +39.0	-49.2 / +38.6	-48.5 / +38.3	-47.9 / +38.0
27 ft	-57.3 / +42.8	-55.0 / +41.6	-53.4 / +40.8	-52.2 / +40.2	-51.2 / +39.7	-50.3 / +39.3	-49.6 / +38.9	-48.9 / +38.6	-48.3 / +38.3
28 ft	-57.7 / +43.1	-55.4 / +42.0	-53.8 / +41.2	-52.6 / +40.5	-51.6 / +40.0	-50.7 / +39.6	-49.9 / +39.2	-49.3 / +38.9	-48.7 / +38.6
29 ft	-58.1 / +43.4	-55.9 / +42.3	-54.2 / +41.5	-53.0 / +40.8	-51.9 / +40.3	-51.1 / +39.9	-50.3 / +39.5	-49.7 / +39.2	-49.1 / +38.9
30 ft	-58.6 / +43.7	-56.3 / +42.6	-54.6 / +41.8	-53.3 / +41.1	-52.3 / +40.6	-51.4 / +40.2	-50.7 / +39.8	-50.0 / +39.5	-49.4 / +39.2
32 ft	-59.4 / +44.3	-57.0 / +43.2	-55.4 / +42.3	-54.1 / +41.7	-53.0 / +41.2	-52.1 / +40.7	-51.4 / +40.3	-50.7 / +40.0	-50.1 / +39.7
35 ft	-60.5 / +45.2	-58.1 / +44.0	-56.4 / +43.1	-55.1 / +42.5	-54.0 / +42.0	-53.1 / +41.5	-52.3 / +41.1	-51.7 / +40.8	-51.0 / +40.5
40 ft	-62.2 / +46.5	-59.8 / +45.2	-58.0 / +44.4	-56.7 / +43.7	-55.6 / +43.1	-54.6 / +42.7	-53.8 / +42.3	-53.1 / +41.9	-52.5 / +41.6
45 ft	-63.8 / +47.6	-61.3 / +46.4	-59.5 / +45.5	-58.1 / +44.8	-57.0 / +44.2	-56.0 / +43.8	-55.2 / +43.3	-54.5 / +43.0	-53.8 / +42.6
50 ft	-65.2 / +48.7	-62.6 / +47.4	-60.8 / +46.5	-59.4 / +45.8	-58.3 / +45.2	-57.3 / +44.7	-56.4 / +44.3	-55.7 / +43.9	-55.0 / +43.6
55 ft	-66.5 / +49.7	-63.9 / +48.4	-62.1 / +47.4	-60.6 / +46.7	-59.4 / +46.1	-58.4 / +45.6	-57.6 / +45.2	-56.8 / +44.8	-56.1 / +44.5
60 ft	-67.8 / +50.6	-65.1 / +49.3	-63.2 / +48.3	-61.7 / +47.6	-60.5 / +47.0	-59.5 / +46.5	-58.6 / +46.0	-57.9 / +45.7	-57.2 / +45.3

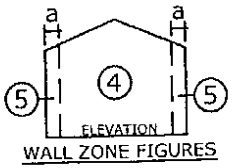
INSTRUCTIONS FOR TABLE USE:

1. TABLES ARE INTENDED TO DEPICT THE 'WORST CASE' PRESSURES. 'WORST CASE' IS DEFINED AS THE CRITICAL CONDITION OF ANY UNKNOWN VARIABLE AS DESCRIBED BELOW. USE OF CRITICAL CONDITIONS REQUIRES COMPLIANCE WITH THESE TABLES.
2. TABLES VALID ONLY FOR [illegible] ROOF HEIGHT AS LIMITED ABOVE.
3. TABLES VALID FOR [illegible] APPLICABLE REDUCTIONS FOR ROOF SLOPES LESS THAN 10° SHALL BE [illegible] ENGINEER AS A SITE SPECIFIC CONDITION.
4. IDENTIFY THE BUILDING [illegible] ROOF HEIGHT. IF THE MEAN ROOF HEIGHT CANNOT BE IDENTIFIED USE [illegible] HEIGHT.
5. ALWAYS ROUND [illegible] TABLE VALUE OR CONSERVATIVE ASSUMPTION.
6. CALCULATE THE TRIBUTARY AREA OF THE OPENING IN QUESTION (HEIGHT * WIDTH) OR THE SPAN LENGTH (HEIGHT) MULTIPLIED BY AN EFFECTIVE WIDTH THAT NEED NOT BE LESS THAN ONE-THIRD THE SPAN LENGTH (HEIGHT² / 3). USE THE AREA BETWEEN STRUCTURAL OPENINGS ONLY- THIS INCLUDES AREAS BETWEEN STRUCTURAL MULLS. IF THE TRIBUTARY AREA OF AN OPENING CANNOT BE IDENTIFIED, THE MOST CRITICAL (10 SQUARE FEET) SHALL BE USED. ALWAYS ROUND TRIBUTARY AREA DOWN TO THE LESSER TABLE VALUE. FOR LARGER TRIBUTARY AREAS THAN PUBLISHED, USE THE LARGEST PUBLISHED VALUE.
7. IDENTIFY THE ZONE OF THE OPENING AS INTERIOR (ZONE 4) OR EXTERIOR (ZONE 5) PER THE FIGURE OR INFORMATION BY OTHERS. ANY QUESTIONABLE OPENING IS TO BE CONSIDERED THE MORE CRITICAL (EXTERIOR) ZONE.
8. READ OFF POSITIVE AND NEGATIVE PRESSURES FOR USE AS REQUIRED BY THE LOCAL MUNICIPALITY IN ACCORDANCE WITH CODE.
9. FOR SITUATIONS THAT REQUIRE Kd=1.0, TABLE VALUES ARE UNDER-DESIGNED BY A FACTOR OF 1.18. VERIFY Kd REQUIREMENTS WITH LOCAL MUNICIPALITY PRIOR TO TABLE USE.

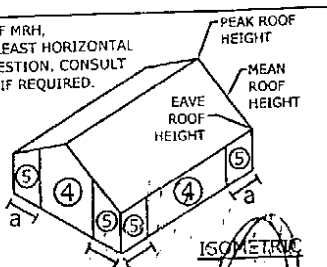
GENERAL NOTES:

1. TABLES ARE TO BE USED IN CONFORMANCE WITH "ALLOWABLE STRESS DESIGN METHODOLOGY" PER ASCE 7-10 SECTION 2.4.1 AND CHAPTER 30 PART 1 OR 3, USING THE CRITERIA AS OUTLINED HEREIN.
2. DESIGN IS BASED ON THE 3 SECOND GUST (WIND VELOCITY) FOR THE WIND SPEED AND EXPOSURE SPECIFIED. THESE TABLES NOT FOR USE WITH ESSENTIAL FACILITIES OR ASSEMBLY OCCUPANCIES. TOPOGRAPHIC FACTOR Kzt=1.0 FOR FLAT TERRAIN USE ONLY. THESE TABLES NOT VALID FOR HILLY TERRAIN. INTERNAL PRESSURE COEFFICIENT (GCpi=+/-0.18) FOR USE WITH AN ENCLOSED STRUCTURE ONLY. VERIFY USE OF Kd (DIRECTIONALITY FACTOR) WITH LOCAL BUILDING DEPARTMENT. HVHZ = HIGH VELOCITY HURRICANE ZONE. TABLES ARE FOR WALLS AND VERTICAL SURFACES ONLY.
3. THESE CHARTS ARE NOT VALID AS A SITE-SPECIFIC DRAWING. THESE TABLES ARE ONLY VALID WHEN SIGNED & RAISED SEALED BY FRANK L. BENNARDO, P.E.
4. THIS SPECIFICATION IS INTENDED TO ILLUSTRATE DESIGN WIND PRESSURES AS LISTED. USE OF THESE TABLES AND CORRESPONDING WIND VELOCITY, EXPOSURE, AND OTHER COEFFICIENTS LISTED HEREIN [illegible] DICTATED AND VERIFIED BY THE GOVERNING BUILDING DEPARTMENT AND PERSONNEL. NO WARRANTY FOR APPLICABILITY OF TABLE VALUE USE IS OFFERED HEREIN. [illegible] OFFER ANY PRODUCT APPROVED CERTIFICATION. REFER TO [illegible] SUBMITTED TEST CRITERIA AND OTHER APPROVALS FOR DESIGN [illegible] INFORMATION AND APPLICABILITY OF THESE TABLE VALUES WHICH IS TO BE VERIFIED [illegible] IN ACCORDANCE WITH GOVERNING CODES.
5. THIS SPECIFICATION [illegible] SYSTEM ORDINANCES.
6. ADHERE TO ALL [illegible] IMPACT [illegible] THE INTEGRITY OF THE HOST STRUCTURE.
7. NO CERTIFICATION IS OFFERED [illegible] HEREIN, NO ADDITIONAL CERTIFICATIONS OR AFFIRMATIONS ARE INTENDED.
8. EXCEPT AS EXPRESSLY PROVIDED [illegible]

a= 10% OF LEAST HORIZONTAL DIMENSION OR 40% OF MRH, WHICHEVER IS SMALLER, BUT NOT LESS THAN 4% OF LEAST HORIZONTAL DIMENSION OR 3FT (1m). USE ZONE 5 IF AT ALL IN QUESTION. CONSULT AN ENGINEER FOR A MORE SPECIFIC INTERPRETATION IF REQUIRED.



WALL ZONE FIGURES



REMARKS	DRWN	CHKD	DATE
INIT ISSUE	GSS	TSB	03/05/12
REV - ADJUSTED HEIGHTS	GSS	TSB	04/09/12
REV 2014 FBC	DGM	TSB	06/10/15
-	-	-	-
-	-	-	-

SCALE: N.T.S.

00-MPS14-413

1 OF 1

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5TH ED. FLORIDA BUILDING CODE (2014)
ASCE 7-10, CHAPTER 30
DESIGN LOADS FOR COMPONENTS & CLADDING
MASTER PLAN SHEET

ASCE 7-10

ENGINEERING EXPRESS®
CORPORATE OFFICE:
160 SW 12th AVENUE, SUITE 106
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FRANK L. BENNARDO, P.E.
PE0046549
06/30/2015

ENTREMATIC

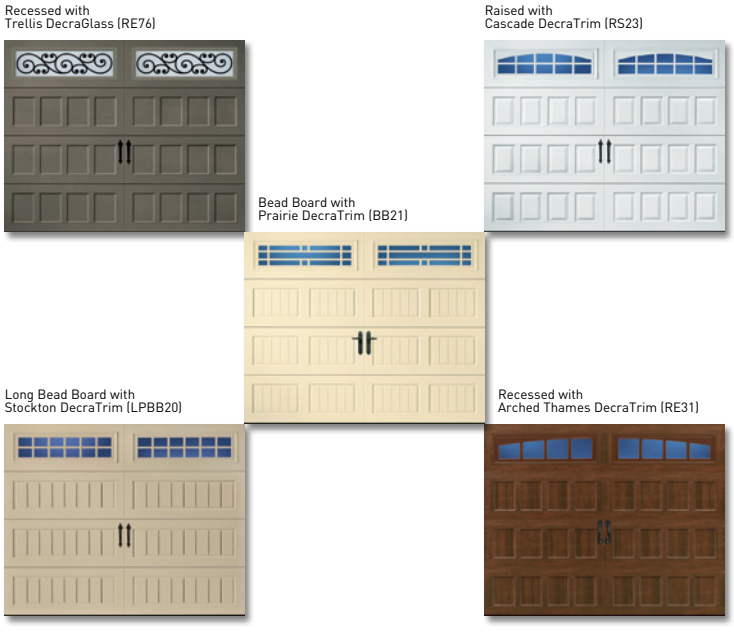
Amarr® Oak Summit®

Classic Steel Carriage House Garage Doors

Long Bead Board design with Moonlite DecraTrim in True White with Blue Ridge handles and hinges

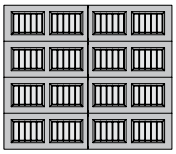
Self-expression shouldn't cost a fortune. With the Amarr Oak Summit collection, it won't. These durable steel doors offer an attractive carriage house look. Choose from a variety of door colors, decorative hardware, and window accents. Customize your home with our most affordable carriage house door.

Bead Board design with Mission DecraGlass in Golden Oak

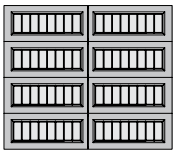


PANEL DESIGNS

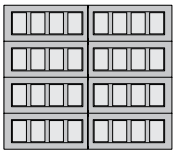
BB • BEAD BOARD



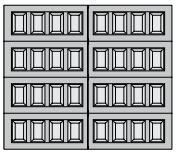
LPBB • LONG BEAD BOARD



RE • RECESSED



RS • RAISED



www.amarr.com

Amarr® Oak Summit®

Construction

STEEL

OS1000

Single-Layer: Steel

Get value and durability with the Amarr Oak Summit OS1000 single-layer steel door. These heavy-duty steel doors are durable, reliable, and low maintenance.

- Heavy-duty Exterior Steel
- Durable, Reliable, Low Maintenance

OS2000

Double-Layer: Steel + Insulation

The Amarr Oak Summit OS2000 double-layer door provides durable, low-maintenance features, plus a layer of vinyl-coated insulation for increased thermal properties and quieter operation.

- Heavy-duty Exterior Steel
- Durable, Reliable, Low Maintenance
- Environmentally Safe Polystyrene Thermal Insulation with Vinyl Backing
- Energy Efficient
- Quiet Operation

OS3000

Triple-Layer: Steel + Insulation + Steel

For the toughest, most energy-efficient steel door, the Amarr Oak Summit OS3000 triple-layer door includes the ultimate in thermal properties, plus a layer of steel for a finished interior look and added durability.

- Heavy-duty Exterior and Interior Steel
- Durable, Reliable, Low Maintenance
- Environmentally Safe Polystyrene Thermal Insulation
- Superior Energy Efficiency
- Extra Quiet Operation

Specifications

Amarr ENTREMATIC	AMARR OAK SUMMIT OS1000	AMARR OAK SUMMIT OS2000	AMARR OAK SUMMIT OS3000
PANEL DESIGNS			
Bead Board	•	•	•
Long Panel Bead Board	•	•	•
Recessed	•	•	•
Raised	•	•	•
INSULATION[1]		Polystyrene	Polystyrene
R-VALUE[2]		6.64	6.48
DOOR THICKNESS	2" (5.1cm)	2" (5.1cm)	1-3/8" (3.4cm)
STEEL THICKNESS	25 ga	25 ga	27/27 ga
WINDOW GLASS OPTIONS			
3/32" Single Strength	•	•	•
Insulated Glass			•
Obscure	•	•	•
WIND LOAD[3] **AVAILABLE**	•	•	•
PAINT FINISH WARRANTY[4]	15 Years	25 Years	Lifetime
WORKMANSHIP/HARDWARE WARRANTY[4]	1 Year	2 Years	3 Years

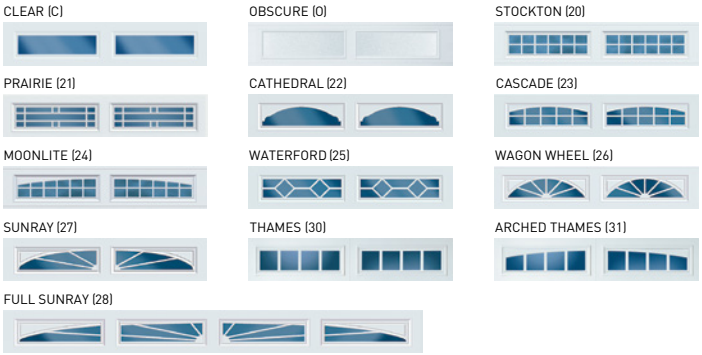
[1] Insulation on Amarr brand doors has passed self-ignition, flamespread and smoke developed index fire testing.

[2] Calculated door section R-value is in accordance with DASMA TDS-163.

[3] It is your responsibility to make sure your garage door meets local building codes.

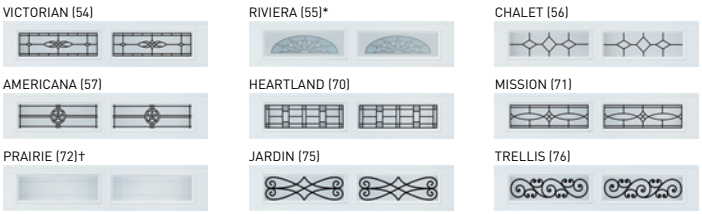
[4] For complete warranty details, visit amarr.com or contact your local Amarr dealer.

DecraTrim Window Inserts



DecraGlass™ Windows

Tempered obscure glass with baked-on ceramic designs.



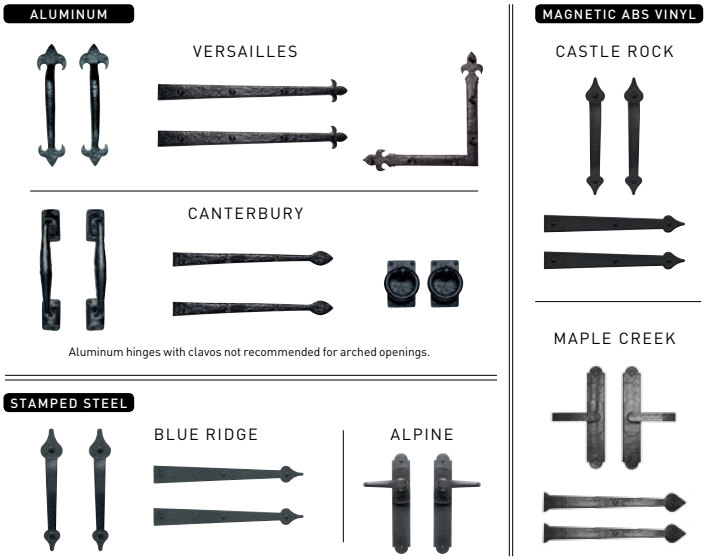
* Clear glass with printed frost pattern.
† Obscure glass with v-groove.

Colors

Amarr steel doors are pre-painted; for custom colors, exterior latex paint must be used.
Visit amarr.com for instructions on painting. Actual paint colors may vary from samples shown.

‡Color only available in Amarr Oak Summit OS3000.
**Price upcharge applies.

Decorative Hardware



ENTREMATIC

Entrematic
165 Carriage Court
Winston-Salem, NC 27105
800.503.DOOR
www.amarr.com

RECYCLED STEEL

MADE IN USA

YOUR LOCAL AMARR DEALER:

Technical data subject to change without notice.

Sectional door products from Entrematic may be the subject of one or more U.S. and/or foreign, issued and/or pending, design and/or utility patents.

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MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION
11805 SW 26 Street, Room 208
Miami, Florida 33175-2474
T (786) 315-2590 F (786) 315-2599
www.miamidade.gov/economy

DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)
BOARD AND CODE ADMINISTRATION DIVISION

NOTICE OF ACCEPTANCE (NOA)

Amarr Garage Doors
165 Carriage Court
Winston-Salem, NC 27105

SCOPE: This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER-Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ). This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.
This product is approved as described herein, and has been designed to comply with the Florida Building Code, including the High Velocity Hurricane Zone.

DESCRIPTION: Model 950 Heritage & 655 Oak Summit 1000, 2000 Steel Sectional Garage Door up to 9'-0" Wide

APPROVAL DOCUMENT: Drawing No. **IRC-9509-189-21-I**, titled "Model 950 Heritage and Model 655 Oak Summit (24ga) 1000, 2000 Short, Long, Flush and Oak Summit Panels", sheets 1 through 3 of 3, dated 04/09/2007, with revision C dated 12/05/2011, prepared by Amarr Garage Doors, signed and sealed by Thomas L. Shelmerdine, P.E., bearing the Miami-Dade County Product Control revision stamp with the Notice of Acceptance number and expiration date by the Miami-Dade County Product Control Section.

MISSILE IMPACT RATING: Large and Small Missile Impact Resistant

LABELING: A permanent label with the manufacturer's name or logo, 3800 Greenway Circle, Lawrence, Kansas, model number, the positive and negative design pressure rating, indicate impact rated if applicable, installation instruction drawing reference number, approval number (NOA), the applicable test standards, and the statement reading 'Miami-Dade County Product Control Approved' is to be located on the door's side track, bottom angle, or inner surface of a panel.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

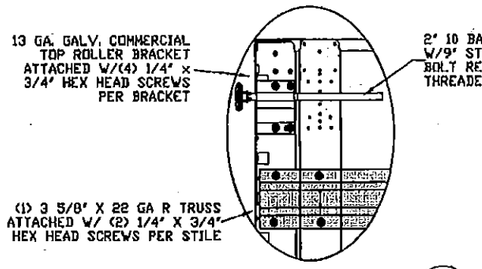
ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.
This NOA **revises NOA # 12-0228.01** and consists of this page 1 and evidence page E-1, as well as approval document mentioned above.
The submitted documentation was reviewed by **Carlos M. Utrera, P.E.**

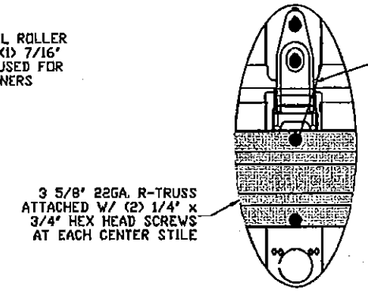
MIAMI-DADE COUNTY APPROVED

07/06/2015

NOA No. 15-0505.02
Expiration Date: September 6, 2017
Approval Date: July 16, 2015



TYPICAL TOP FIXTURES 1
N.T.S.



TYPICAL DURASAFE CENTER HINGE 2
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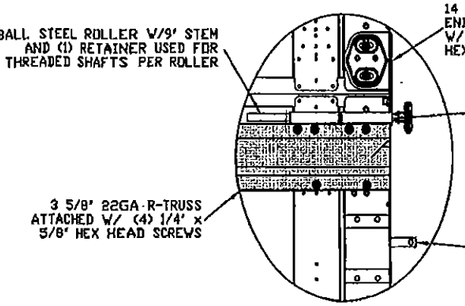

TYPICAL DURASAFE END HINGE 3
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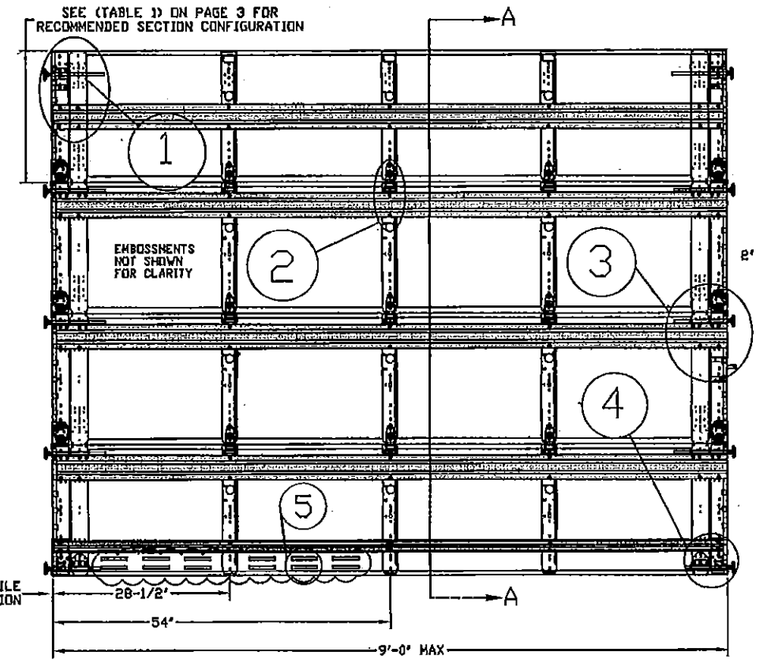

INSIDE ELEVATION
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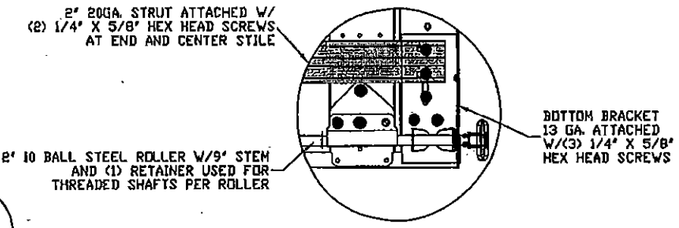

TYPICAL BOTTOM BRACKET 4
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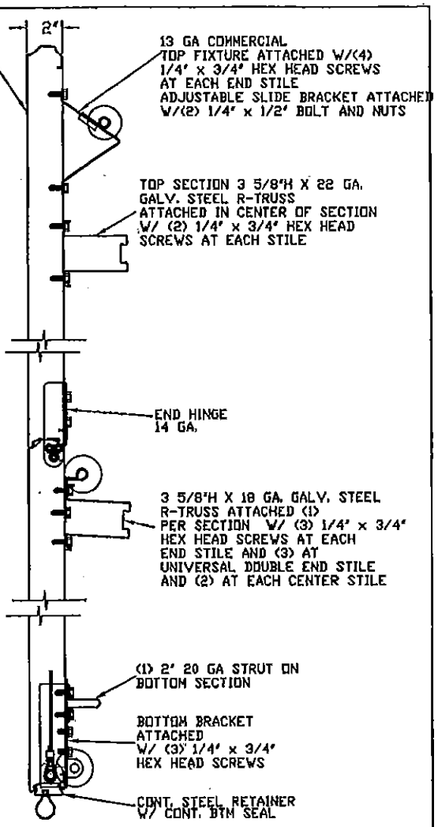
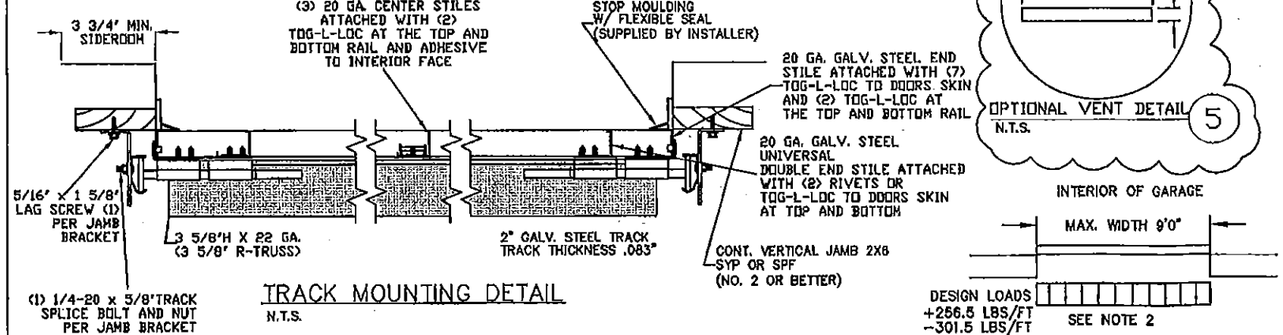
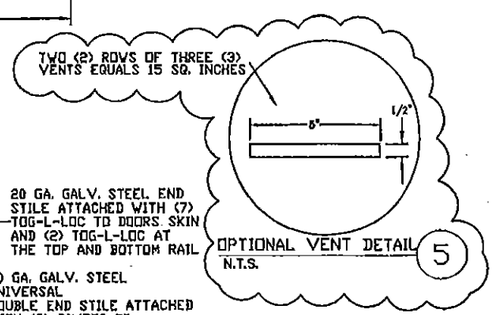


SECTION A-A (SIDE VIEW)
N.T.S.



TRACK MOUNTING DETAIL
N.T.S.



OPTIONAL VENT DETAIL 5
N.T.S.

PRODUCT REVISED
as complying with the Florida Building Code
Acceptance No 15-0505.02
Expiration Date 09/06/2017
By
Miami Dade Product Control

PRODUCT REVISED
as complying with the Florida Building Code
Acceptance No 12-0228.01
Expiration Date 09/06/2017
By
Miami Dade Product Control

LARGE MISSILE IMPACT RESISTANT

SPECIFICATIONS AND NOTES

1. ALL THE LOAD FROM THE DOOR IS TRANSFERRED TO THE VERTICAL TRACK, FROM THE TRACK THE LOAD IS TRANSFERRED TO THE VERTICAL JAMBS. THE HORIZONTAL JAMB OR HEADER RECEIVES NO PORTION OF THE LOAD TRANSFERRED FROM THE DOOR.
2. EACH VERTICAL JAMBS RECEIVES MAXIMUM DESIGN LOADS OF: +256.5 LBS/FT & -301.5 LBS/FT
3. DOOR AND HARDWARE WILL BE DESIGNED, MANUFACTURED AND INSTALLED WITH STANDARDS AS SET FORTH BY DASMA.
4. DOOR SECTIONS SHALL BE 24 GA. (.0216) MIN. EXTERIOR SKIN ROLLED FORMED, W/ BAKED ON POLYESTER FINISH
5. DOORS UPTO 7'0" HIGH CONSIST OF (4) SECTIONS AS SHOWN. USE (1) 3 6/8" R-TRUSS PER SECTION AND (1) 2" 20 GA STRUT ON THE BOTTOM SECTION
6. DOORS OVER (4) SECTIONS REFER TO TABLES 1 AND 2 ON PAGE 3
7. SUPPORTING STRUCTURAL ELEMENTS SHALL BE DESIGNED BY A REGISTRED PROFESSIONAL ENGINEER FOR WIND LOADS INDICATED ON THIS DRAWING IN ADDITION TO OTHER LOADINGS.
8. THIS APPROVAL REQUIRES THE MANUFACTURER TO DO TESTING OF ALL COILS USED TO FABRICATE DOOR PANELS UNDER THIS NOTICE OF ACCEPTANCE. A MINIMUM OF 2 SPECIMENS SHALL BE CUT FROM EACH COIL AND TENSILE TESTED ACCORDING TO ASTM E-8 BY A DADE COUNTY APPROVED LAB SELECTED AND PAID BY THE MANUFACTURER. EVERY 3 MONTHS, 4 TIMES A YEAR, THE MANUFACTURER SHALL MAIL TO THIS OFFICE: A COPY OF THE TEST REPORTS WITH CONFIRMATION THAT THE SPECIMENS WERE SELECTED FROM COILS AT THE MANUFACTURER PRODUCTION FACILITIES. AND A NOTARIZED STATEMENT FROM THE MANUFACTURER THAT ONLY COILS WITH YIELD STRENGTH OF 34,600 PSI OR MORE SHALL BE USED TO MAKE DOOR PANELS FOR DADE COUNTY UNDER THIS NOTICE OF ACCEPTANCE.

REV	DESCRIPTION OF REVISIONS	DATE	BY
A	ADDED TITLE BLOCK TO PAGE 2	7/3/07	BHG
B	REVISED NOTE 8	12/15/08	CBT
C	UPDATED TO FBC 2010	10/5/11	RLR

MAX SIZE 9' x 14'
DESIGN LOADS +57.0 PSF -67.0 PSF
LARGE MISSILE IMPACT RESISTANCE

THOMAS L. SHELMERDINE LICENSE No 0048579 STATE OF FLORIDA PROFESSIONAL ENGINEER

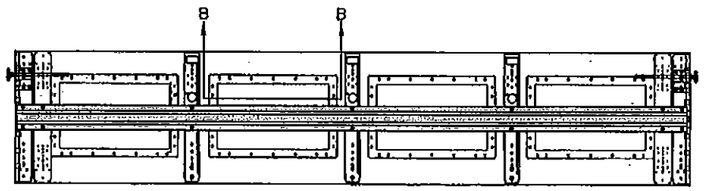
Amarr

165 CARRIAGE COURT WINSTON-SALEM, N.C. 27105 WWW.AMARR.COM

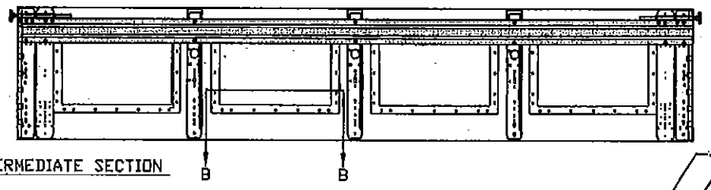
MODEL 950 HERITAGE 1000, 2000
MODEL 655 OAK SUMMIT (24g) 1000, 2000
SHORT, LONG, FLUSH, & OAK SUMMIT PANELS

SIZE	DRAWN BY	SKW	DATE	04/9/07	DRAWING NUMBER
B	CHECKED BY	BHG	DATE	04/9/07	IRC-9509-189-21-1

ENGINEER: THOMAS L. SHELMERDINE P.E. LIC. No. 0048579 SHEET 1 OF 3

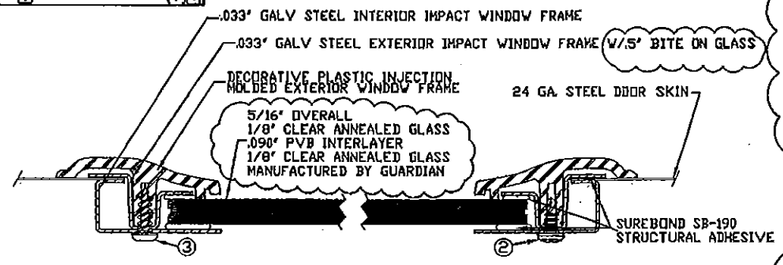


TOP SECTION



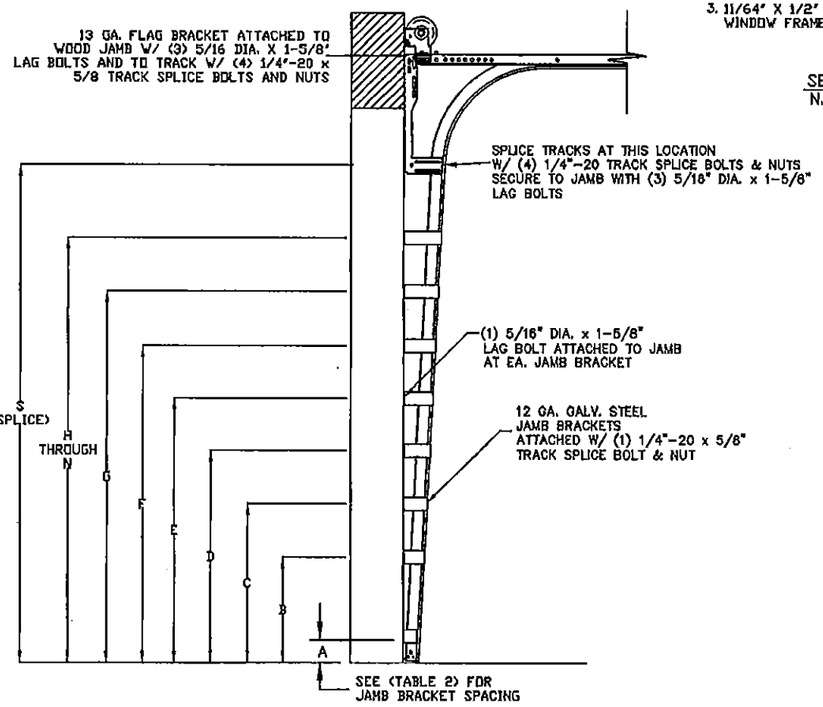
INTERMEDIATE SECTION

GLAZING OPTION DETAIL
N.T.S.
GLAZING MEETS ASTM E1300-04



2. 3/16" X 1/2" SCREW - USED TO FASTEN THE STEEL EXTERIOR IMPACT WINDOW FRAME TO THE STEEL INTERIOR IMPACT WINDOW FRAME.
3. 11/64" X 1/2" SCREW - USED TO FASTEN DECORATIVE PLASTIC MOLDED WINDOW FRAME TO THE ASSEMBLY

SECTION B-B IMPACT WINDOW DETAIL
N.T.S.



TRACK CONFIGURATION FOR 6'6" UP TO 14' TALL DOORS

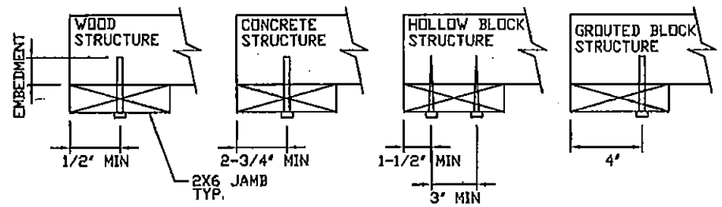
PRODUCT REVISED
as complying with the Florida Building Code
Acceptance No 15-0505.02
Expiration Date 09/06/2017
By
Miami Dade Product Control

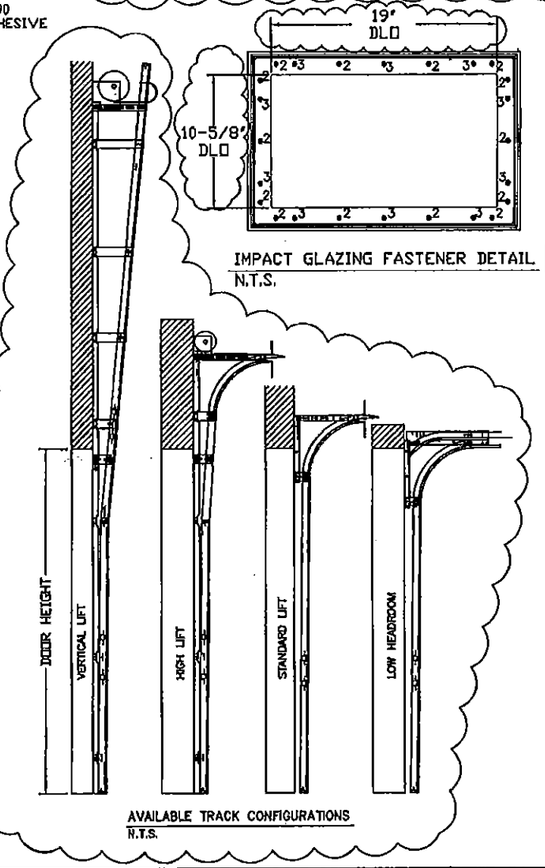
WOOD JAMB ATTACHMENT TO STRUCTURE

2 X 6 VERTICAL JAMB ATTACHMENT TO WOOD FRAME STRUCTURE
5/16" X 3" LAG SCREWS STARTING 6" FROM ENDS THEN 18" O.C. (1 1/2" EMBEDMENT)
2 X 6 VERTICAL JAMB ATTACHMENT TO 2,000 PSI CONCRETE
HILTI KWIK BOLT 3/8" X 4" STARTING 6" FROM ENDS THEN 24" O.C. (2 1/2" EMBEDMENT)
HILTI SLEEVE ANCHOR 3/8" X 2-3/4" STARTING 6" FROM ENDS THEN 16" O.C. (1 1/4" EMBEDMENT)
ITW/RAMSET REDHEAD (TRU-BOLT) 3/8" X 4" STARTING 6" FROM ENDS THEN 24" O.C. (2 1/2" EMBEDMENT)
2 X 6 VERTICAL JAMB ATTACHMENT TO HOLLOW C-90 BLOCK
SIMPSON 1/4" X 3" TITEN SCREWS STARTING 6" FROM ENDS, USE PAIRS OF FASTENERS (3" APART) AT 8" O.C. (1 1/2" EMBEDMENT)
HILTI 1/4" X 2-3/4" KWIK-CON II+ SCREWS STARTING 6" FROM ENDS, USE PAIRS OF FASTENERS (3" APART) AT 8" O.C. (1 1/4" EMBEDMENT)

2 X 6 VERTICAL JAMB ATTACHMENT TO GROUTED C-90 BLOCK (2000 PSI GROUT)
HILTI SLEEVE ANCHOR 3/8" X 2-3/4" STARTING 6" FROM ENDS THEN 20" O.C. (1 1/4" EMBEDMENT) (OR, USE FASTENERS FOR HOLLOW C-90 BLOCK)

*LAGS AND BOLTS CAN BE COUNTERSUNK TO PROVIDE A FLUSH MOUNTING SURFACE.
*PREPARATION OF WOOD JAMBS BY OTHERS





IMPACT GLAZING FASTENER DETAIL
N.T.S.

AVAILABLE TRACK CONFIGURATIONS
N.T.S.

PRODUCT REVISED
as complying with the Florida Building Code
Acceptance No 12-0228.01
Expiration Date 09/06/2017
By
Miami Dade Product Control

REV	DESCRIPTION OF REVISIONS	DATE	BY
A	ADDED TITLE BLOCK TO PAGE 2	7/3/07	BHG
B	REVISED NOTE 8	12/15/08	CBT
C	UPDATED TO FBC 2010	12/5/11	RLR

MAX SIZE 9' x 14'
DESIGN LOADS +57.0 PSF -67.0 PSF
LARGE MISSILE IMPACT RESISTANCE

THOMAS L. SHELMERDINE LICENSE No 0048579 STATE OF FLORIDA PROFESSIONAL ENGINEER

Amarr
165 CARRIAGE COURT WINSTON-SALEM, N.C. 27105 WWW.AMARR.COM

MODEL 950 HERITAGE 1000, 2000
MODEL 655 OAK SUMMIT (24g) 1000, 2000
SHORT, LONG, FLUSH, & OAK SUMMIT PANELS

SIZE	DRAWN BY	SKW	DATE	04/9/07	DRAWING NUMBER
B	CHECKED BY	BHG	DATE	04/9/07	IRC-9509-189-21-1
ENGINEER: THOMAS L. SHELMERDINE P.E. LIC. No. 0048579					SHEET 2 OF 3

MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION
11805 SW 26 Street, Room 208
Miami, Florida 33175-2474
T (786) 315-2590 F (786) 315-2599
www.miamidade.gov/economy

DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)
BOARD AND CODE ADMINISTRATION DIVISION

NOTICE OF ACCEPTANCE (NOA)

ECO Windows Systems, LLC
9114 N. W. 106th Street,
Medley, FL 33178

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER -Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code, including the High Velocity Hurricane Zone.

DESCRIPTION: Series "700" Aluminum Sliding Glass Door w/ Reinforcements-L.M.I.

APPROVAL DOCUMENT: Drawing No. **W13-49 REV C**, titled "Series- 700 Alum SLD. Glass Door (L.M.I.)", sheets 1 through 12 of 12, prepared by Al-Farooq Corporation, dated 09/27/13 and last revised on DEC 02, 2015, signed and sealed by Javad Ahmad, P.E., bearing the Miami-Dade County Product Control Revision stamp with the Notice of Acceptance number and expiration date by the Miami-Dade County Product Control Section.

MISSILE IMPACT RATING: Large and Small Missile Impact Resistant

Limitations:

1. See Design Pressures Vs Reinforcing, glass types and anchor capacity charts in sheet **5**. Exterior (positive) design pressures are limited to **+70 PSF** w / **2-3/4"** sill riser and **+47.0 PSF** w/ **2"** sill riser. Lower design Pressure from charts applies to entire system.
2. See approved configurations in sheets 1 thru 4. The max frame are of alternate sizes not to exceed tested frame area per FBC requirements.

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state and series and following statement: "Miami-Dade County Product Control Approved", noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA **revises #13-0912.02** consists of this page 1 and evidence pages E-1, as well as approval document mentioned above.

The submitted documentation was reviewed by **Ishaq I. Chanda, P.E.**

MIAMI-DADE COUNTY APPROVED

12/4/15

NOA No. 15-0612.05
Expiration Date: March 20, 2019
Approval Date: December 17, 2015

INSTRUCTIONS:

USE CHARTS AS FOLLOWS.

STEP 1 SEE CHART #1 ON SHEET 5 FOR GLASS CAPACITY AND REINFORCING REQUIREMENTS.

STEP 2 SELECT SILL TYPE FROM SHEET 7 AND LIMIT EXT.(+) DESIGN PRESSURE AS SHOWN ON DETAIL.

STEP 3 SEE CHART #2 ON SHEET 5 FOR ANCHOR CAPACITY.

STEP 4 THE LOWEST VALUE RESULTING FROM STEPS 1 THRU 3 SHALL APPLY TO ENTIRE SYSTEM.

DAYLITE OPENINGS WIDTHS:
FIXED STILE–INTERLOCK = PANEL WIDTH – 7.125"
INTERLOCK–ASTRAGAL = PANEL WIDTH – 7.250"

DAYLITE OPENING HEIGHT:
PANEL HEIGHT – 6.50"

PANEL HEIGHT = DOOR FRAME HEIGHT – 1.5625"

THESE DOORS ARE RATED FOR LARGE & SMALL MISSILE IMPACT. SHUTTERS ARE NOT REQUIRED.

SERIES–700
ALUMINUM SLIDING GLASS DOOR

THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE 2014 (5TH EDITION) FLORIDA BUILDING CODE INCLUDING HIGH VELOCITY HURRICANE ZONE (HVHZ).

1BY OR 2BY WOOD BUCKS BY OTHERS, MUST BE ANCHORED PROPERLY TO TRANSFER LOADS TO THE STRUCTURE.

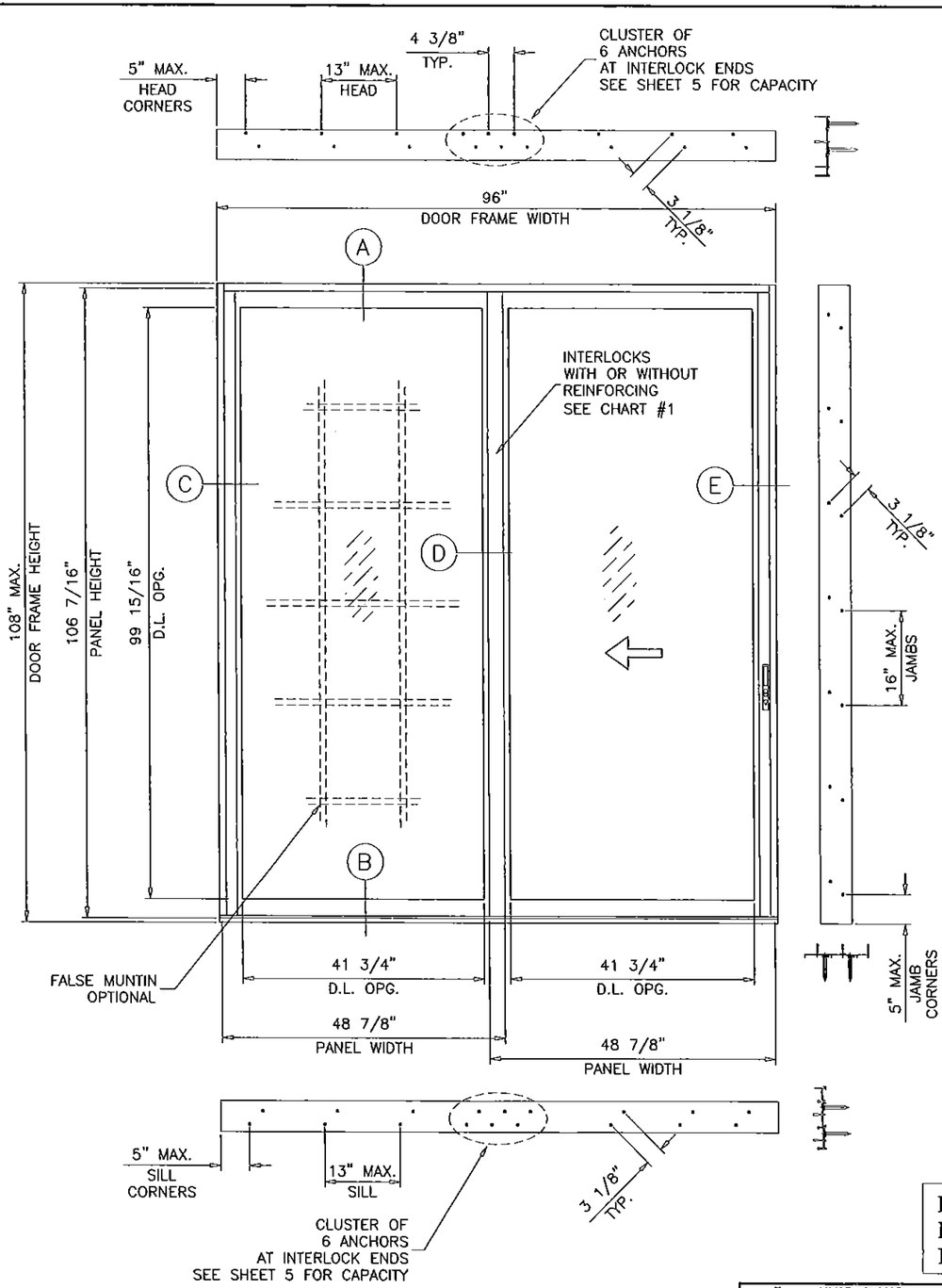
ANCHORS SHALL BE AS LISTED, SPACED AS SHOWN ON DETAILS, ANCHORS EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO.

ANCHORING OR LOADING CONDITIONS NOT SHOWN IN THESE DETAILS ARE NOT PART OF THIS APPROVAL.

A LOAD DURATION INCREASE IS USED IN DESIGN OF ANCHORS INTO WOOD ONLY.

ALL SHIMS TO BE HIGH IMPACT, NON–METALLIC AND NON–COMPRESSIBLE.

MATERIALS INCLUDING BUT NOT LIMITED TO STEEL/METAL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF THE FLORIDA BLDG. CODE.



TYPICAL ELEVATION
OX

ALTERNATE SIZE UNITS:
MAX. FRAME AREA OF DOORS NOT TO EXCEED THE TESTED FRAME AREA OF 72 SQ. FT.

PRODUCT REVISED
no complying with the Florida Building Code
Acceptance No. 15-0612.05
Expiration Date MAR 20, 2019
Ishaq Chaudhary
Product Control

LAMINATED GLASS
INSUL. LAM. GLASS
LARGE MISSILE IMPACT

Engr: JAVAD AHMAD
CIVIL
FLA. PE # 70592
C.A.N. 3538
DEC 02 2015

AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173
TEL (305) 264-8100 FAX (305) 262-6978

COMP–ANL\W13–49ECO

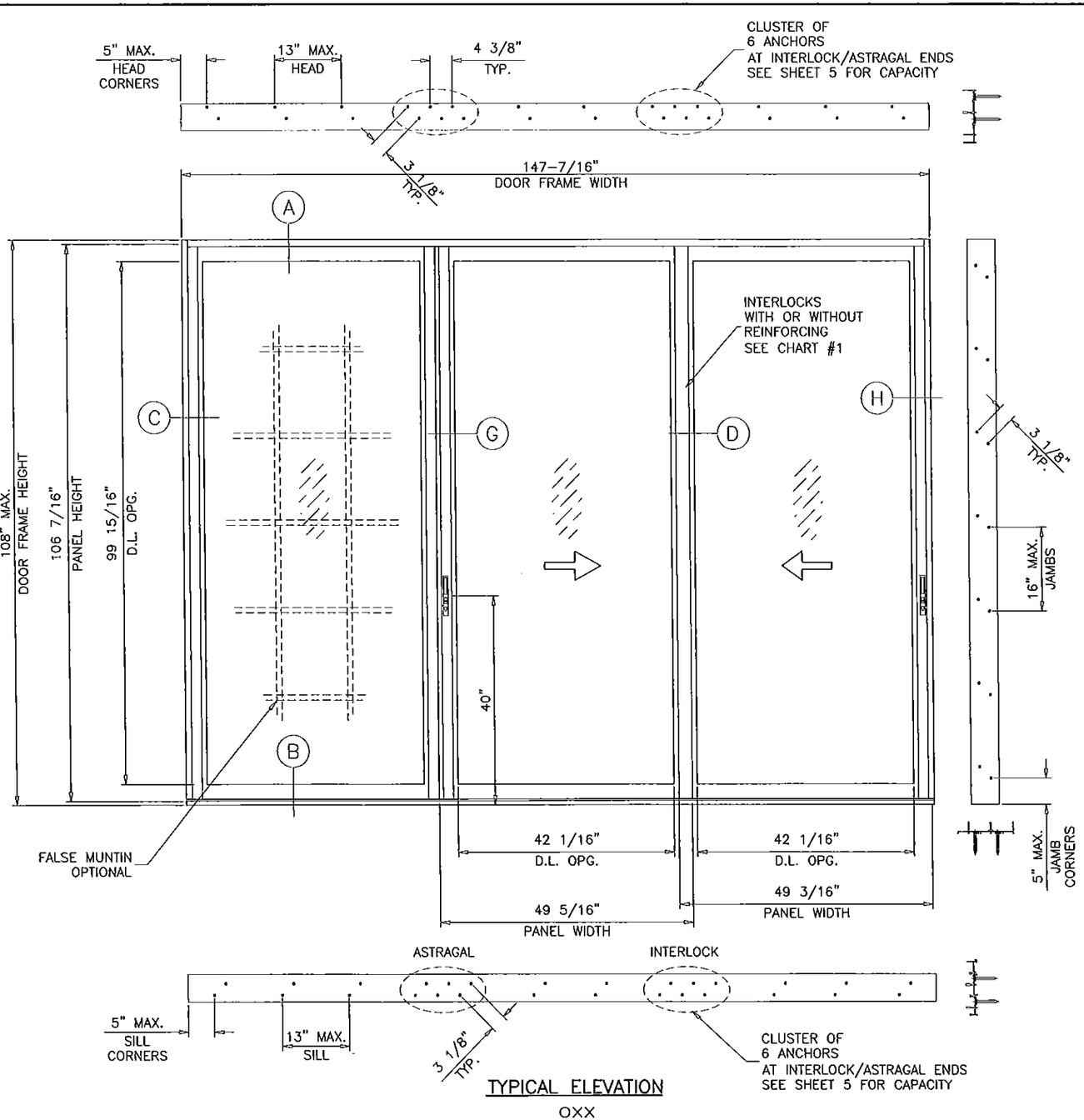
SERIES–700 ALUM SLIDING GLASS DOOR (L.M.I.)

ECO WINDOW SYSTEMS, LLC.
9114 N.W. 106 STREET
MEDLEY, FL. 33178
TEL (305) 885–5299 FAX (305) 885–5902

revisions:			
no	date	by	description
A	01.16.14		REV. PER RER COMMENTS
B	06.08.15		UPDATED TO 2014 FBC
C	12.01.15		REV. PER RER COMMENTS

date: 09–27–13
scale: 1/2"=1'–0"
dr. by: HAMID
chk. by:

drawing no.
W13–49



TYPICAL ELEVATION

OXX

ALTERNATE SIZE UNITS:
MAX. FRAME AREA OF DOORS NOT TO EXCEED
THE TESTED FRAME AREA OF 110.7 SQ. FT.

PRODUCT REVISED
no complying with the Florida
Building Code
Acceptance No 15-0612.05
Expiration Date 3/2019
By [signature]
Miami-Dade Product Control

Engr: JAVAD AHMAD
CIVIL
FLA. PE # 70592
C.A.N. 3538
DEC 02 2015

AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173
TEL. (305) 264-8100 FAX. (305) 262-6978

COMP-ANL\W13-49ECO

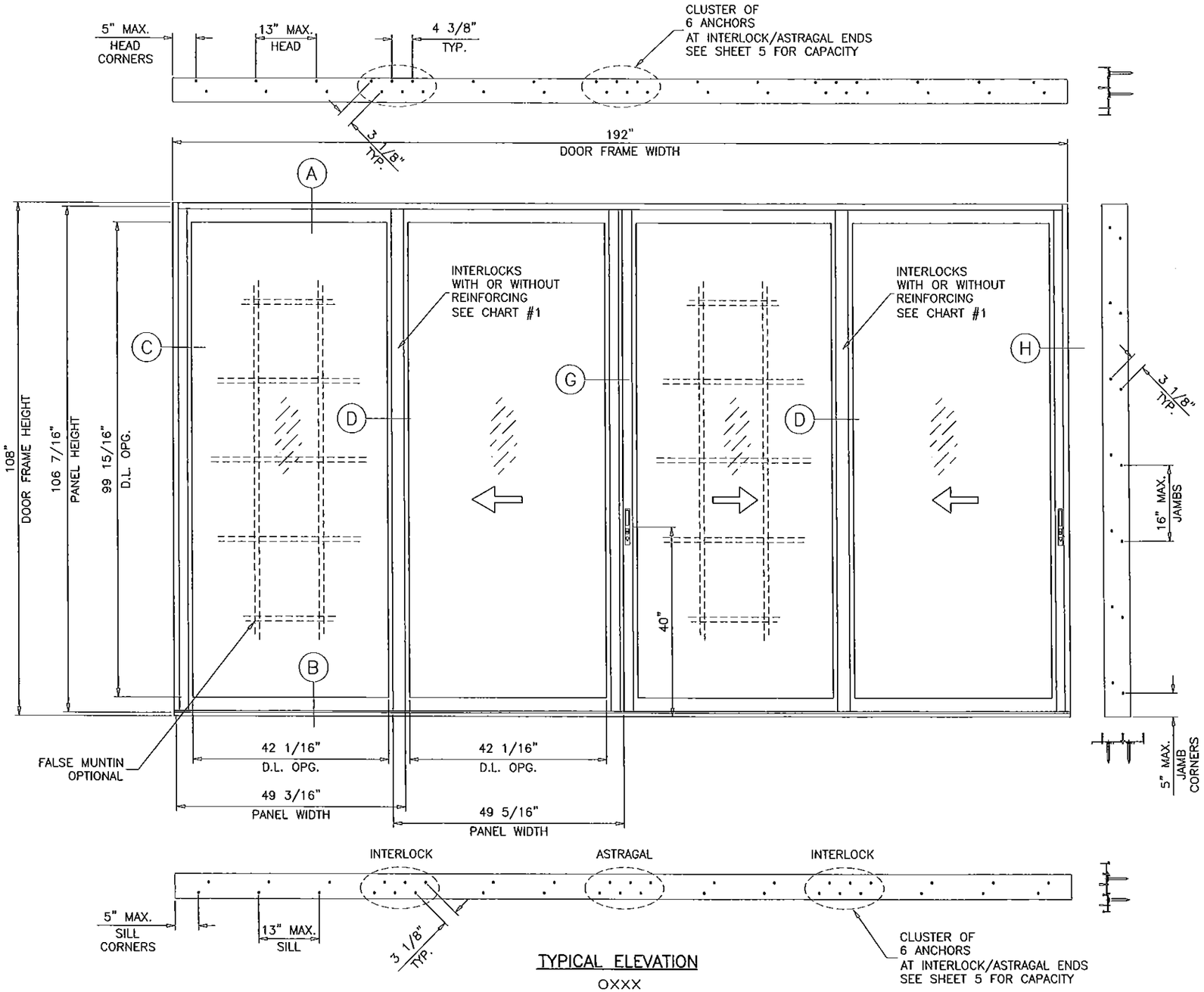
SERIES-700 ALUM SLIDING GLASS DOOR (L.M.I.)

ECO WINDOW SYSTEMS, LLC.
9114 N.W. 106 STREET
MEDLEY, FL. 33178
TEL. (305) 885-5299 FAX (305) 885-5902

revisions:			
no	date	by	description
A	01.16.14		REV. PER RER COMMENTS
B	06.08.15		UPDATED TO 2014 FBC
C	12.01.15		REV. PER RER COMMENTS

date: 09-27-13
scale: 1/2"=1'-0"
dr. by: HAMID
chk. by:

drawing no.
W13-49



TYPICAL ELEVATION

OXXX

ALTERNATE SIZE UNITS:
MAX. FRAME AREA OF DOORS NOT TO EXCEED
THE TESTED FRAME AREA OF 144 SQ. FT.

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No. FS-0612.05
Expiration Date 3/20/19
By
Miami-Dade Product Control

Engr: JAVAD AHMAD
CIVIL
FLA. PE # 70592
C.A.N. 3538
DEC 02 2015

AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173
TEL. (305) 264-8100 FAX. (305) 262-6978

COMP-ANL\W13-49ECO

SERIES-700 ALUM SLIDING GLASS DOOR (L.M.I.)

ECO WINDOW SYSTEMS, LLC.
9114 N.W. 106 STREET
MEDLEY, FL. 33178
TEL. (305) 885-5299 FAX (305) 885-5902

revisions:			
no	date	by	description
A	01.16.14		REV. PER RER COMMENTS
B	05.08.15		UPDATED TO 2014 FBC
C	12.01.15		REV. PER RER COMMENTS

date: 09-27-13
scale: 1/2"=1'-0"
dr. by: HAMID
chk. by:

drawing no.
W13-49

MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION
11805 SW 26 Street, Room 208
Miami, Florida 33175-2474
T (786) 315-2590 F (786) 315-2599
www.miamidade.gov/economy

DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)
BOARD AND CODE ADMINISTRATION DIVISION

NOTICE OF ACCEPTANCE (NOA)

ECO Windows Systems, LLC
9114 N. W. 106th Street,
Medley, FL 33178

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County PERA -Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ). This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. PERA reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.
This product is approved as described herein, and has been designed to comply with the Florida Building Code, including the High Velocity Hurricane Zone.

DESCRIPTION: Series 600 Aluminum Outswing Doors-L.M.I.

APPROVAL DOCUMENT: Drawing No. **W12-08 Rev C**, titled "Series 600 Alum Outswing Entrance Door (L.M.I.)", sheets 1 through 9 of 9 (inclusive 7.1), prepared by AL-Farooq Corporation, dated 02/13/12 and last revised on SEP 04, 2015, signed and sealed by Javad Ahmad, P.E., bearing the Miami-Dade County Product Control Revision stamp with the Notice of Acceptance number and expiration date by the Miami-Dade County Product Control Section.

MISSILE IMPACT RATING: Large and Small Missile Impact Resistant

Limitation:

1. See Single or Double Door Design Pressure (DP) ratings in sheet **2** . See Single or Double Door DP ratings with sidelites (w/wo Reinforcement) and Standalone Single sidelite rating in sheet **3**. The max door leaf width shall not to exceed 37". See locking options 1 & 2 in sheet **7.1**.
2. Laminated glass types G1 and G2 are limited to .090" Kurarary's Butacite PVB and glass type G3 is limited to Insulated laminated glass w/ .090" Solutia interlayer.

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state and series and following statement: "Miami-Dade County Product Control Approved", noted herein.

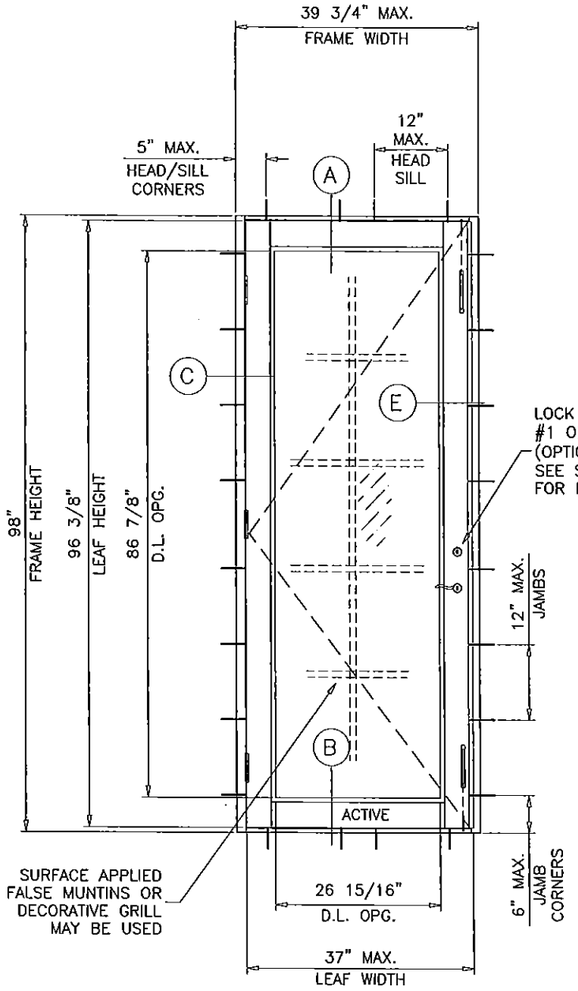
RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

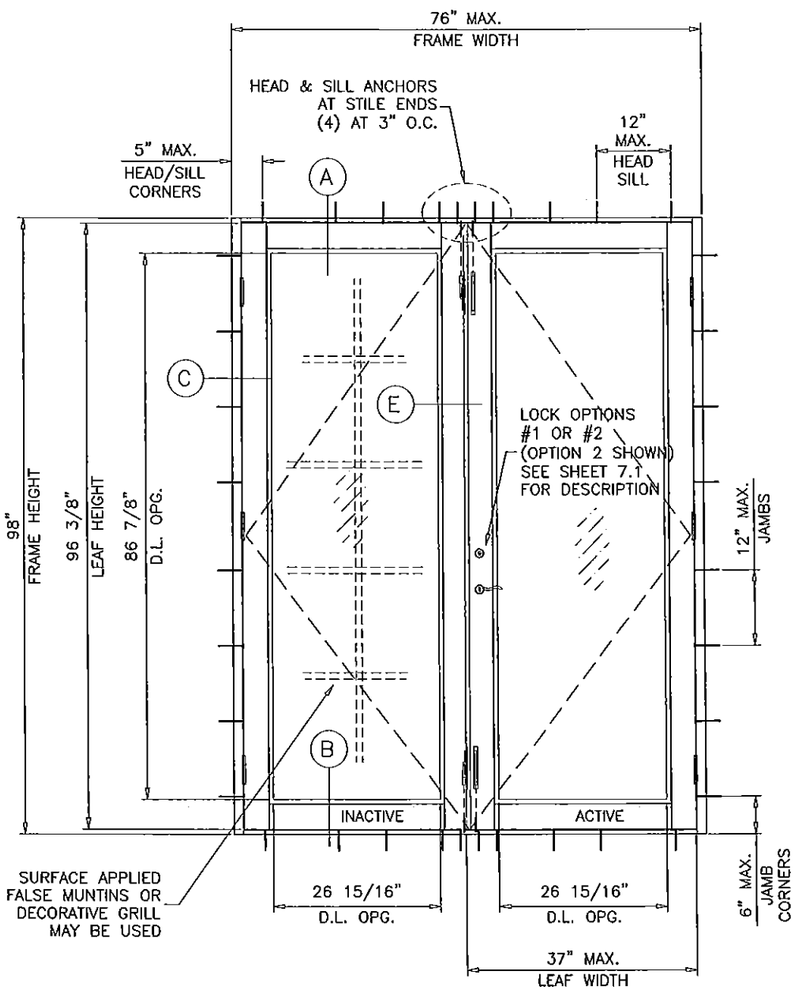
INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.
This NOA **revises** NOA **#12-0402.03** and consists of this page 1 and evidence pages E-1, as well as approval document mentioned above.
The submitted documentation was reviewed by **Ishaq I. Chanda, P.E.**

MIAMI-DADE COUNTY APPROVED
10/2/15



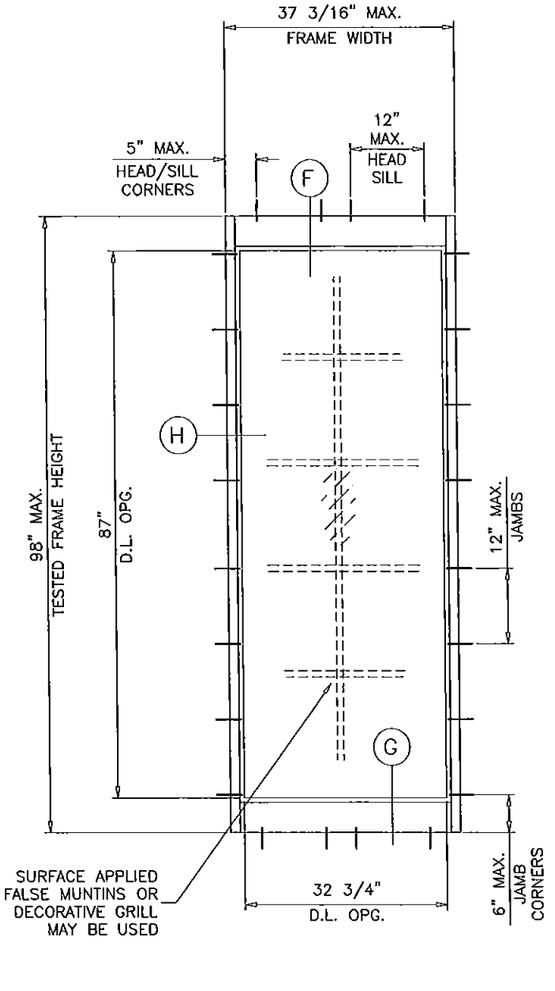
(X)

DOORS LOAD CAPACITY - PSF SINGLE DOORS (X)				
DOOR DIMS.			LAMINATED GLASS	
FRAME WIDTH	LEAF WIDTH	FRAME HEIGHT	EXT.(+)	INT.(-)
39-3/4"	37"	98"	70.0	75.0



(XX)

DOORS LOAD CAPACITY - PSF DOUBLE (XX)				
DOOR DIMS.			LAMINATED GLASS	
FRAME WIDTH	LEAF WIDTH	FRAME HEIGHT	EXT.(+)	INT.(-)
76"	37"	98"	70.0	75.0



(O)

STAND ALONE SINGLE SIDELITE
SEE SHEET 3 FOR CAPACITY

GLASS D.L.O. DIMS.

D.L.O. HEIGHT = FRAME HEIGHT - 11.125"
D.L.O. WIDTH (X DOORS) = FRAME WIDTH - 12.813"
D.L.O. WIDTH (XX DOORS) = (FRAME WIDTH - 22.125")/2

NOTE:
EGRESS REQUIREMENTS TO BE REVIEWED
BY BUILDING OFFICIAL.

NOTE:
GLASS CAPACITIES ON THIS SHEET ARE
BASED ON ASTM E1300-09 (3 SEC. GUSTS)
AND FLORIDA BUILDING COMMISSION
DECLARATORY STATEMENT DCA05-DEC-219

Engr: JAVAD AHMAD
CIVIL
FLA. PE # 70592
C.A.N. 3538

SEP 04 2015

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No. 15-0603.13
Expiration Date 3/20/19

By: Ishaq I. Hussain
Miami-Dade Product Control

AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
1235 S.W. 87 AVE
MIAMI, FLORIDA 33174
TEL. (305) 264-8100 FAX. (305) 262-6978
COMP-ANL\W12-08ECO

SERIES 600 ALUM OUTSWING ENTRANCE DOOR (L.M.I.)

ECO WINDOW SYSTEMS, LLC.
9114 N.W. 106 STREET
MEDLEY, FL. 33178
TEL. (305) 885-5299 FAX (305) 885-5902

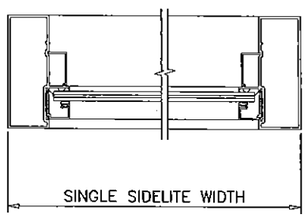
revisions:			
no	date	by	description
A	06.26.12		REV. PER PERA COMMENTS
B	06.02.15		UPDATED TO 2014 FBC
C	09.02.15		REV. PER RER COMMENTS

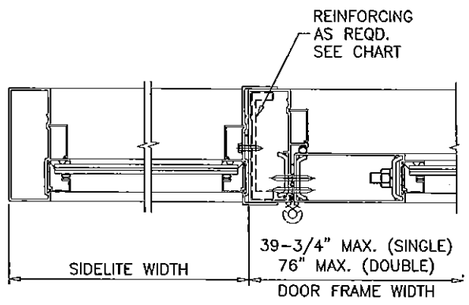
date: 02-13-12
scale: 1/2"=1'-0"
dr. by: HAMID
chk. by:

drawing no.
W12-08

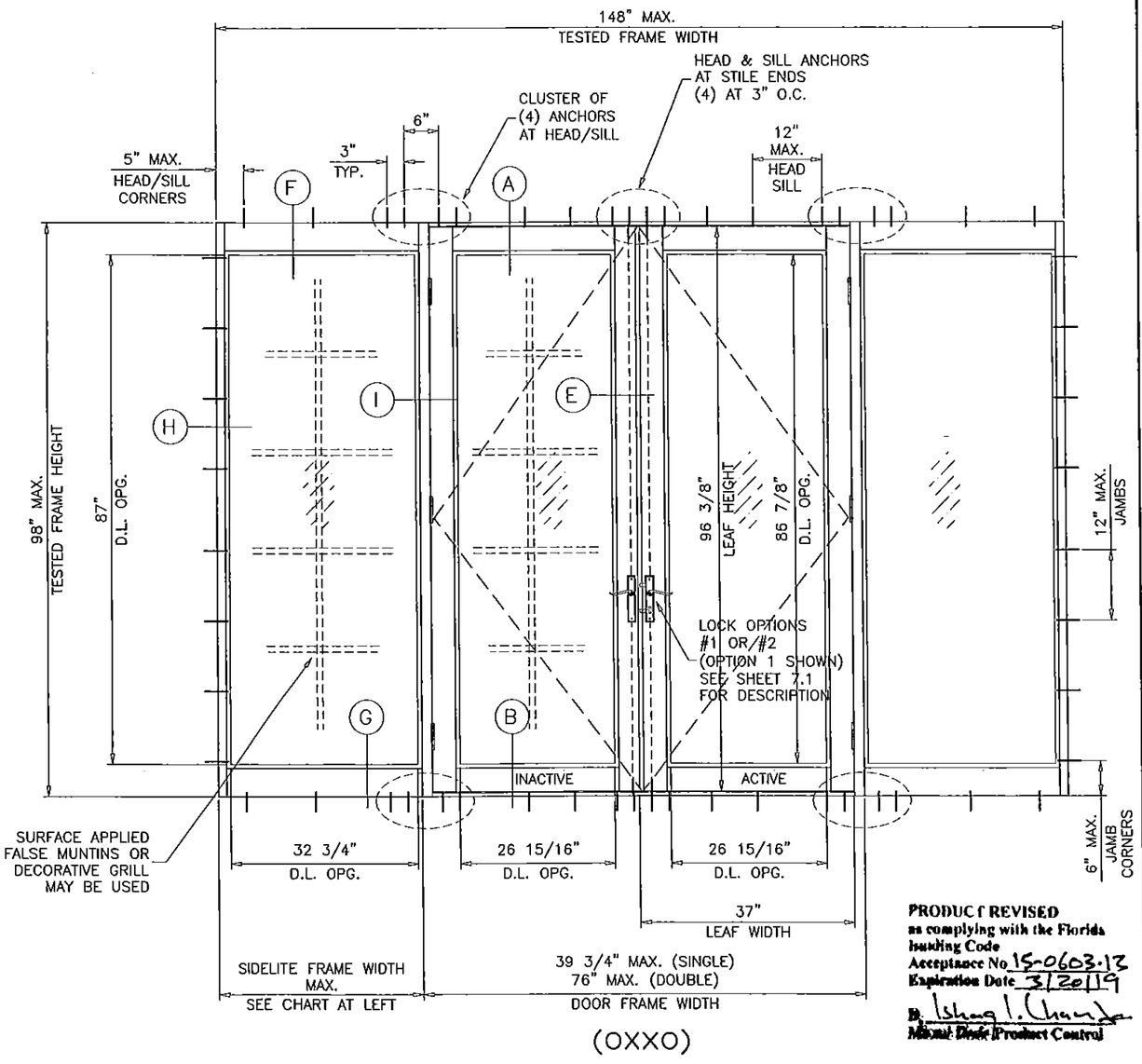
DESIGN LOAD CAPACITY – PSF STAND ALONE SINGLE SIDELITES			
SIDELITE FRAME WIDTH INCHES	SIDELITE FRAME HEIGHT INCHES	WITHOUT REINFORCING	
		EXT.(+)	INT.(–)
24	82	70.0	75.0
30		70.0	75.0
36		70.0	75.0
37		70.0	75.0
42		61.7	66.1
24	86	70.0	75.0
30		70.0	75.0
36		70.0	75.0
37		70.0	75.0
42		61.7	66.1
24	92	70.0	75.0
30		69.8	69.8
36		64.1	64.1
37		63.3	63.3
24	98	63.3	63.3
30		57.8	57.8
36		53.1	53.1
37		52.4	52.4

DESIGN LOAD CAPACITY – PSF SIDELITES WITH SINGLE OR DOUBLE LEAF DOORS (SEE NOTE BELOW)					
SIDELITE FRAME WIDTH INCHES	SIDELITE FRAME HEIGHT INCHES	WITHOUT REINFORCING		WITH REINFORCING	
		EXT.(+)	INT.(–)	EXT.(+)	INT.(–)
24	82	70.0	75.0	70.0	75.0
30		70.0	75.0	70.0	75.0
36		70.0	75.0	70.0	75.0
37		70.0	75.0	70.0	75.0
42		61.7	66.1	61.7	66.1
24	86	70.0	75.0	70.0	75.0
30		70.0	75.0	70.0	75.0
36		70.0	75.0	70.0	75.0
37		70.0	75.0	70.0	75.0
42		61.7	66.1	61.7	66.1
24	92	70.0	75.0	70.0	75.0
30		69.8	69.8	70.0	75.0
36		64.1	64.1	70.0	75.0
37		63.3	63.3	70.0	75.0
24	98	63.3	63.3	70.0	75.0
30		57.8	57.8	70.0	75.0
36		53.1	53.1	70.0	75.0
37		52.4	52.4	70.0	75.0





NOTE:
FOR DOORS CAPACITIES SEE SHEET 2.
FOR SIDELITE CAPACITIES SEE CHART ABOVE.
LOWER VALUES FROM DOOR OR SIDELITE CHART WILL APPLY TO ENTIRE SYSTEM.



(OXXO)

PRODUCT REVISED
as complying with the Florida Building Code
Acceptance No. 15-0603.13
Expiration Date 3/20/19
By: Ishaq I. Chanda
Miami-Dade Product Control

MAX. UNIT TESTED FRAME AREA NOT TO EXCEED 100.72 SQ. FT. PER FBC 2014

GLASS D.L.O. DIMS.
D.L.O. HEIGHT (SIDELITE) = FRAME HEIGHT – 11.000"
D.L.O. WIDTH (SIDELITE) = FRAME WIDTH – 4.438"

NOTE:
GLASS CAPACITIES ON THIS SHEET ARE BASED ON ASTM E1300–09 (3 SEC. GUSTS) AND FLORIDA BUILDING COMMISSION DECLARATORY STATEMENT DCA05–DEC–219

Engr: JAVAD AHMAD
CIVIL
FLA. PE # 70592
C.A.N. 3538
SEP 04 2015

AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
1235 S.W. 87 AVE
MIAMI, FLORIDA 33174
TEL. (305) 264-8100 FAX. (305) 262-6978

COMP-ANL\W12-08ECO

SERIES 600 ALUM OUTSWING ENTRANCE DOOR (L.M.I.)

ECO WINDOW SYSTEMS, LLC.
9114 N.W. 106 STREET
MEDLEY, FL. 33178
TEL. (305) 885-5299 FAX (305) 885-5902

revisions:			
no	date	by	description
A	06.26.12		REV. PER PERA COMMENTS
B	06.02.15		UPDATED TO 2014 FBC
C	09.02.15		REV. PER RER COMMENTS

date: 02-13-12
scale: 1/2"=1'-0"
dr. by: HAMID
chk. by:

drawing no.
W12-08

MIAMI-DADE COUNTY
DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)
BOARD AND CODE ADMINISTRATION DIVISION

NOTICE OF ACCEPTANCE (NOA)

MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION
11805 SW 26 Street, Room 208
T (786) 315-2590 F (786) 315-2599
www.miamidade.gov/economy

Eco Window Systems, LLC
9114 NW 106 Street
Medley, FL 33178

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER - Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code, including the High Velocity Hurricane Zone.

DESCRIPTION: Series "Eco-Guard 200" Aluminum Horizontal Rolling Window – L.M.I.

APPROVAL DOCUMENT: Drawing No. **W09-12**, titled "Eco-Guard Series-200 Alum. Horiz. Rolling Wdw. (L.M.I.)" sheets 1 through 7 of 7, dated 02/24/09, with revision E dated 07/15/15, prepared by Al-Farooq Corporation, signed and sealed by Javad Ahmad, P.E., bearing the Miami-Dade County Product Control Revision stamp with the Notice of Acceptance number and expiration date by the Miami-Dade County Product Control Section.

MISSILE IMPACT RATING: Large and Small Missile Impact Resistant

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state, model/series, and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

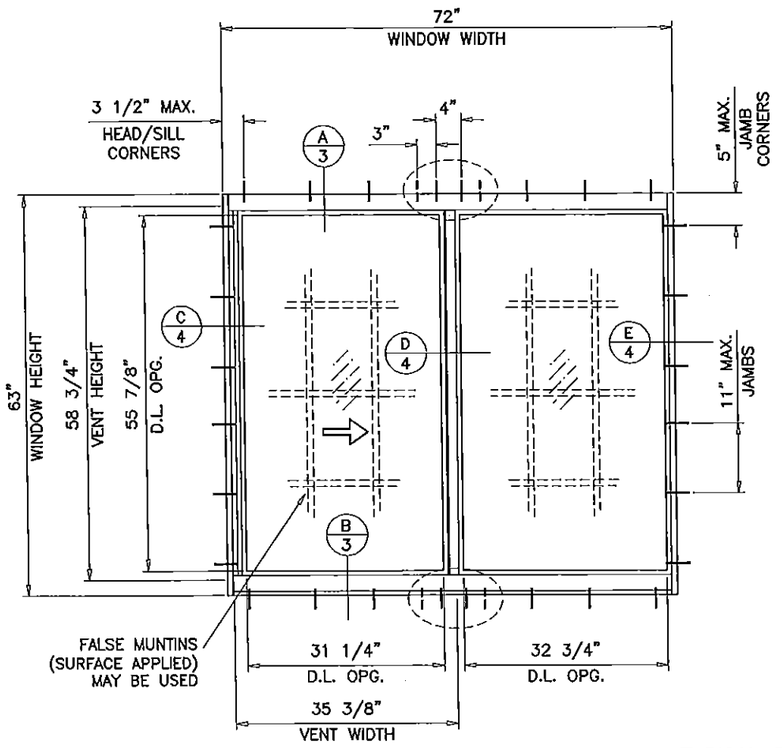
This NOA **revises NOA# 14-0317.01** and consists of this page 1 and evidence pages E-1, E-2 and E-3, as well as approval document mentioned above.

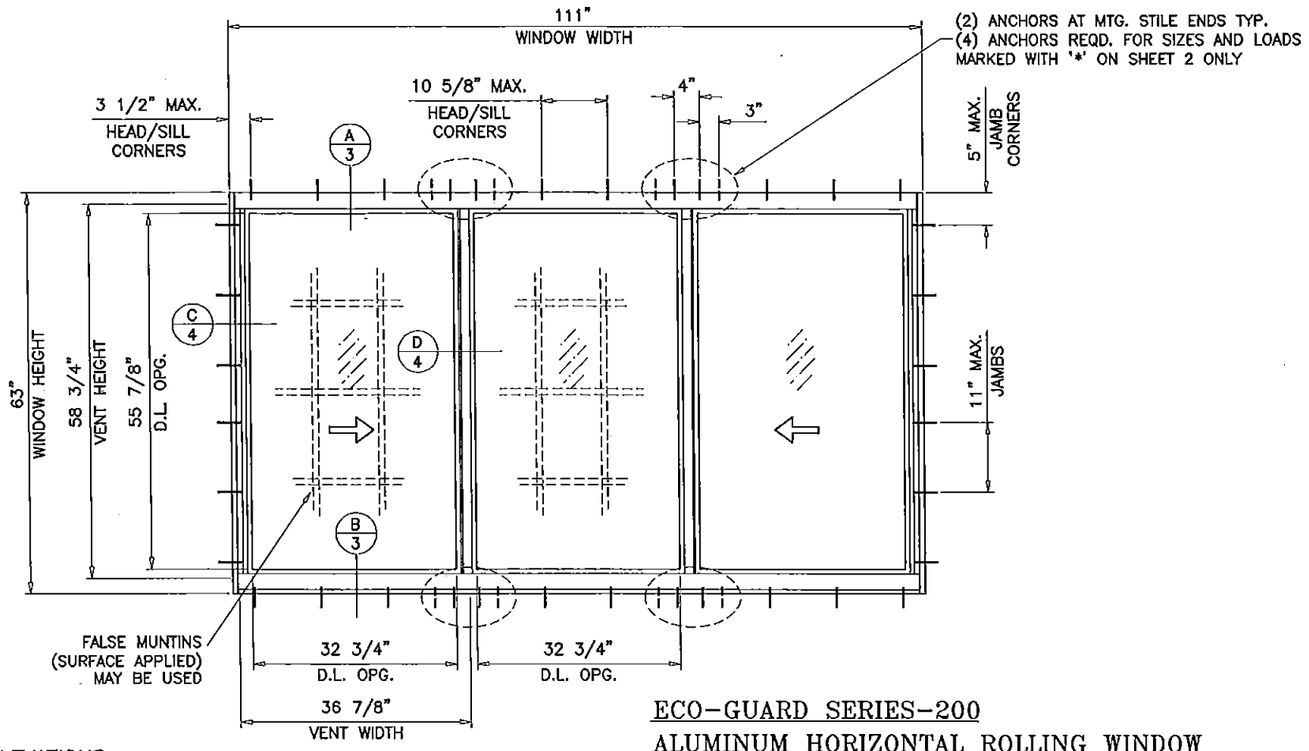
The submitted documentation was reviewed by **Manuel Perez, P.E.**

MIAMI-DADE COUNTY APPROVED

8/24/15

NOA No. 15-0728.05
Expiration Date: May 27, 2019
Approval Date: September 03, 2015





TYPICAL ELEVATIONS

ECO-GUARD SERIES-200
ALUMINUM HORIZONTAL ROLLING WINDOW

DESIGN LOAD RATINGS FOR THESE WINDOWS TO BE AS PER CHARTS SHOWN ON SHEETS 2.

APPROVAL APPLIES TO SINGLE UNITS OR SIDE BY SIDE COMBINATIONS OF H.R./H.R. OR HORIZONTAL ROLLING WITH OTHER WINDOW TYPES IN MODULES OF TWO OR MORE WINDOWS USING MIAMI-DADE COUNTY APPROVED MULLIONS IN BETWEEN. LOWER DESIGN PRESSURE FROM WINDOWS OR MULLION APPROVAL WILL APPLY TO ENTIRE SYSTEM.

THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE FLORIDA BUILDING CODE INCLUDING HIGH VELOCITY HURRICANE ZONE (HVHZ).

WOOD BUCKS BY OTHERS, MUST BE ANCHORED PROPERLY TO TRANSFER LOADS TO THE STRUCTURE.

ANCHORS SHALL BE AS LISTED, SPACED AS SHOWN ON DETAILS, ANCHORS EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO.

ANCHORING OR LOADING CONDITIONS NOT SHOWN IN THESE DETAILS ARE NOT PART OF THIS APPROVAL.

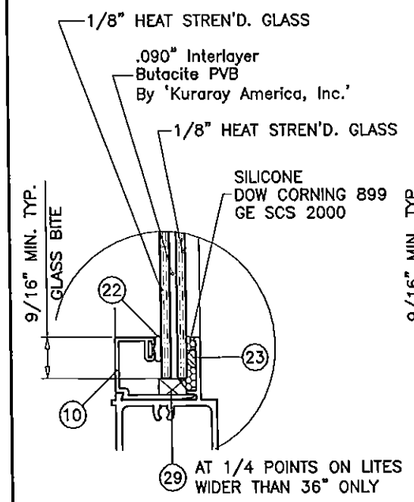
A LOAD DURATION INCREASE IS USED IN DESIGN OF ANCHORS INTO WOOD ONLY.

ALL SHIMS TO BE HIGH IMPACT, NON-METALLIC AND NON-COMPRESSIBLE.

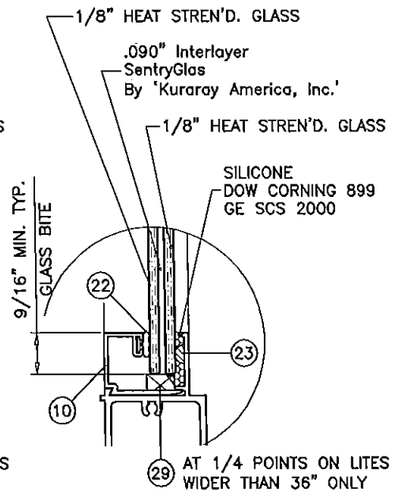
MATERIALS INCLUDING BUT NOT LIMITED TO STEEL/METAL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF THE FLORIDA BUILDING CODE.

THESE WINDOWS ARE RATED FOR LARGE & SMALL MISSILE IMPACT. SHUTTERS ARE NOT REQUIRED.

TO QUALIFY FOR SMALL MISSILE IMPACT RATING EXTERIOR PLY OF GLASS TYPE 'C' MUST BE TEMPERED.

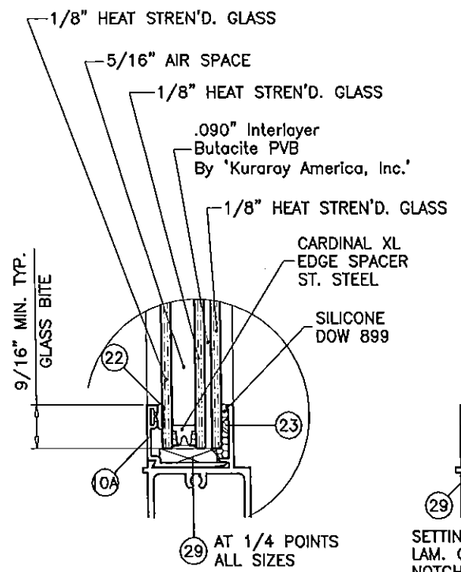


GLASS TYPE 'A'

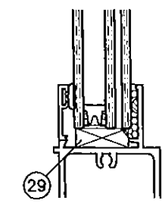


GLASS TYPE 'B'

GLAZING OPTIONS



GLASS TYPE 'C'



SETTING BLOCKS AT
LAM. GLASS AND INSUL. LAM. GLASS
NOTCH GLAZING BEAD LEG TO CLEAR BLOCKS

Engr: JAVAD AHMAD
CMIL
FLA. PE # 70592
C.A.N. 3538

JUL 20 2015

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No 15-0728.05
Expiration Date May 27, 2019
By
Miami-Dade Product Control

AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
1235 S.W. 87 AVE
MIAMI, FLORIDA 33174
TEL (305) 264-8100 FAX (305) 262-6978

COMP-ANL\W09-12ECO

ECO-GUARD SERIES-200 ALUM HORIZ ROLLING WDW. (L.M.I.)

ECO WINDOW SYSTEMS, LLC.
9114 N.W. 106 STREET
MEDLEY, FL. 33178
TEL. (305) 885-5299 FAX (305) 885-5902

revisions:			
no	date	by	description
A	04.17.09		NO CHANGE THIS SHEET
B	01.31.12		UPDATED TO 2010 FBC
C	01.11.13		MANUF. ADDRESS REV.
D	02.12.14		GLASS OPTION ADDED
E	07.15.15		UPDATED TO 2014 FBC

date: 02-24-09
scale: 1/2"-1'-0"
dr. by: HAMID
chk. by:

drawing no.
W09-12

sheet 1 of 7

MIAMI-DADE COUNTY
DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)
BOARD AND CODE ADMINISTRATION DIVISION

MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION
11805 SW 26 Street, Room 208
T (786) 315-2590 F (786) 315-2599
www.miamidade.gov/economy

NOTICE OF ACCEPTANCE (NOA)

Eco Window Systems, LLC
9114 NW 106 Street
Medley, FL 33178

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER-Product Control Section to be used in Miami-Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami-Dade County) and/ or the AHJ (in areas other than Miami-Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code, including the High Velocity Hurricane Zone.

DESCRIPTION: Series "Eco-Guard 100" Aluminum Single Hung Window – L.M.I.

APPROVAL DOCUMENT: Drawing No. **W09-08**, titled "Eco-Guard Series-100 Alum. S.H. Wdw. (L.M.I.)", sheets 1 through 6 of 6, dated 02/12/09, with revision **E** dated 06/23/15, prepared by Al-Farooq Corporation, signed and sealed by Javad Ahmad, P.E., bearing the Miami-Dade County Product Control Revision stamp with the Notice of Acceptance number and expiration date by the Miami-Dade County Product Control Section.

MISSILE IMPACT RATING: Large and Small Missile Impact Resistant

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state, model/series, and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/ or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

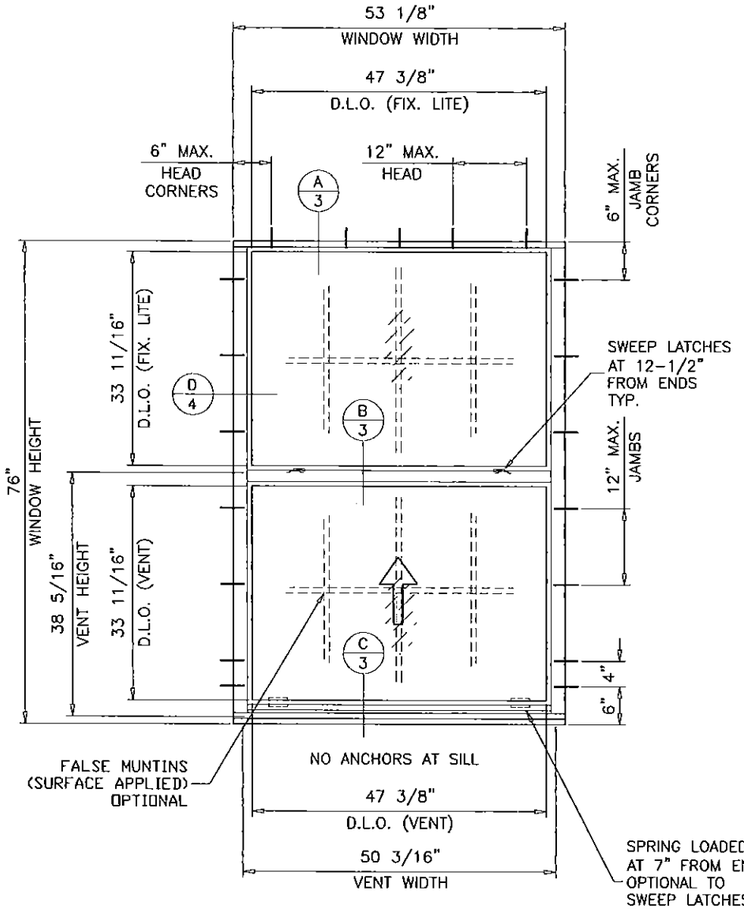
This NOA **revises NOA No. 14-0317.02** and consists of this page 1 and evidence pages E-1 and E-2, as well as approval document mentioned above.

The submitted documentation was reviewed by **Manuel Perez, P.E.**

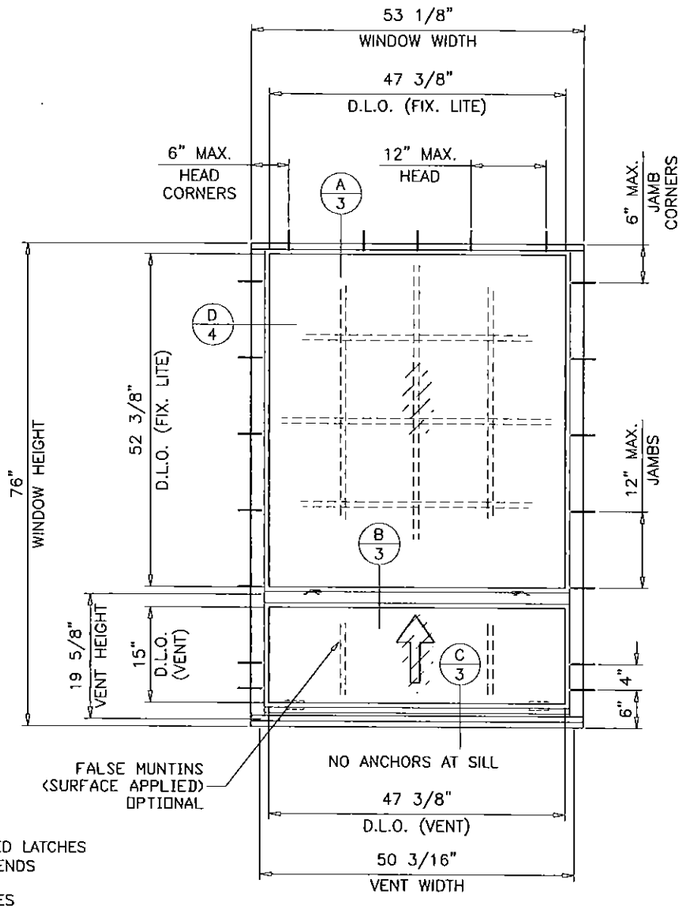
MIAMI-DADE COUNTY APPROVED

6/26/15

NOA No. 15-0406.12
Expiration Date: April 08, 2019
Approval Date: July 02, 2015



EQUAL LITES



UNEQUAL LITES (ORIEL TYPE)

TYPICAL ELEVATIONS

TESTED UNITS

ECO-GUARD SERIES-100
ALUMINUM SINGLE HUNG WINDOW

DESIGN LOAD RATINGS FOR THESE WINDOWS TO BE AS PER CHARTS SHOWN ON SHEETS 2.

APPROVAL APPLIES TO SINGLE UNITS OR SIDE BY SIDE COMBINATIONS OF S.H./S.H. OR SINGLE HUNG WITH OTHER WINDOW TYPES IN MODULES OF TWO OR MORE WINDOWS USING MIAMI-DADE COUNTY APPROVED MULLIONS IN BETWEEN. LOWER DESIGN PRESSURE FROM WINDOWS OR MULLION APPROVAL WILL APPLY TO ENTIRE SYSTEM.

THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE FLORIDA BUILDING CODE INCLUDING HIGH VELOCITY HURRICANE ZONE (HVHZ).

WOOD BUCKS BY OTHERS, MUST BE ANCHORED PROPERLY TO TRANSFER LOADS TO THE STRUCTURE.

ANCHORS SHALL BE AS LISTED, SPACED AS SHOWN ON DETAILS, ANCHORS EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO.

ANCHORING OR LOADING CONDITIONS NOT SHOWN IN THESE DETAILS ARE NOT PART OF THIS APPROVAL.

A LOAD DURATION INCREASE IS USED IN DESIGN OF ANCHORS INTO WOOD ONLY.

ALL SHIMS TO BE HIGH IMPACT, NON-METALLIC AND NON-COMPRESSIBLE.

MATERIALS INCLUDING BUT NOT LIMITED TO STEEL/METAL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF THE FLORIDA BUILDING CODE.

THESE WINDOWS ARE RATED FOR LARGE & SMALL MISSILE IMPACT. SHUTTERS ARE NOT REQUIRED.

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No 15-0406.12
Expiration Date 04/08/2019
By Manuel Perez
Miami Dade Product Control

Engr: JAVAD AHMAD
CIVIL
FLA. PE # 70592
C.A.N. 3638

JUN 23 2015

AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
1235 S.W. 87 AVE
MIAMI, FLORIDA 33174
TEL. (305) 264-8100 FAX. (305) 262-6978

COMP-ANL\W09-08ECO

ECO-GUARD SERIES-100 ALUM S.H. WDW. (L.M.I.)

ECO WINDOW SYSTEMS, LLC.
9114 N.W. 106 STREET
MEDLEY, FL. 33178
TEL. (305) 885-5299 FAX (305) 885-5902

revisions:			
no	date	by	description
A	02.15.12		UPDATED TO 2010 FBC
B	01.11.13		MANUF. ADDRESS REV.
C	02.06.14		GLASS & LATCH OPTION ADDED
D	03.18.15		UPDATED TO 2014 FBC
E	06.23.15		REV. PER RER COMMENTS

date: 02-12-09
scale: 1/2"-1'-0"
dr. by: HAMID
chk. by:

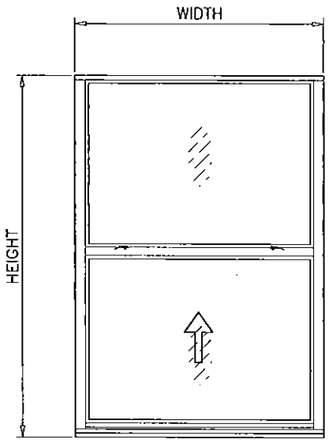
drawing no.
W09-08

EQUAL LITES WINDOWS

DESIGN LOAD CAPACITY – PSF

FLANGE DIMS.		GLASS TYPES 'A', 'B' & 'C'	
WIDTH	HEIGHT	EXT.(+)	INT.(–)
19–1/8"	26" (3)	75.0	90.0
24"		75.0	90.0
26–1/2"		75.0	90.0
32"		75.0	90.0
37"		75.0	90.0
40"		75.0	90.0
48"		75.0	90.0
53–1/8"		75.0	90.0
19–1/8"	38–3/8" (4)	75.0	90.0
24"		75.0	90.0
26–1/2"		75.0	90.0
32"		75.0	90.0
37"		75.0	90.0
40"		75.0	90.0
48"		75.0	90.0
53–1/8"		75.0	90.0
19–1/8"	50–5/8" (5)	75.0	90.0
24"		75.0	90.0
26–1/2"		75.0	90.0
32"		75.0	90.0
37"		75.0	90.0
40"		75.0	90.0
48"		75.0	90.0
53–1/8"		75.0	90.0
19–1/8"	63" (6)	75.0	90.0
24"		75.0	90.0
26–1/2"		75.0	90.0
32"		75.0	90.0
37"		75.0	90.0
40"		75.0	90.0
48"		75.0	90.0
53–1/8"		75.0	90.0
19–1/8"	76" (7)	75.0	90.0
24"		75.0	90.0
26–1/2"		75.0	90.0
32"		75.0	90.0
37"		75.0	90.0
40"		75.0	90.0
48"		75.0	90.0
53–1/8"		75.0	90.0

* NO. IN PARENTHESIS INDICATE NO. OF ANCHORS PER JAMB.



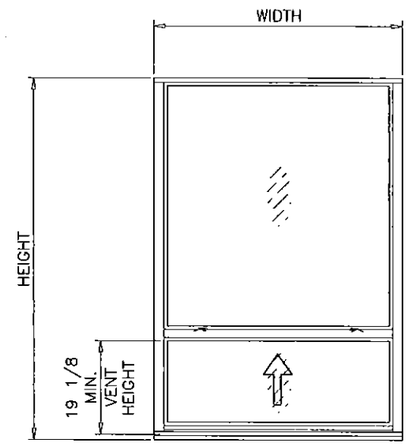
EQUAL LITES

UNEQUAL LITES WINDOWS

DESIGN LOAD CAPACITY – PSF

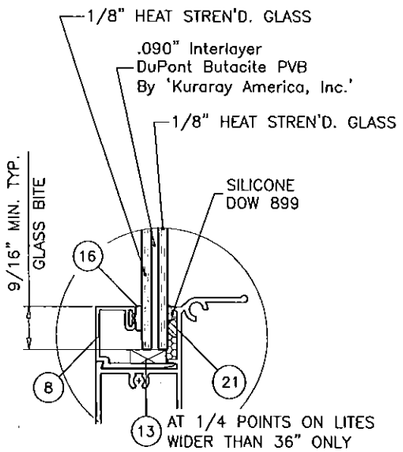
FLANGE DIMS.		GLASS TYPE 'A'		GLASS TYPES 'B' & 'C'	
WIDTH	HEIGHT	EXT.(+)	INT.(–)	EXT.(+)	INT.(–)
19–1/8"	50–5/8" (5)	75.0	90.0	75.0	90.0
24"		75.0	90.0	75.0	90.0
26–1/2"		75.0	90.0	75.0	90.0
32"		75.0	90.0	75.0	90.0
37"		75.0	90.0	75.0	90.0
40"		75.0	90.0	75.0	90.0
48"		75.0	90.0	75.0	90.0
53–1/8"		75.0	90.0	75.0	90.0
19–1/8"	63" (6)	75.0	90.0	75.0	90.0
24"		75.0	90.0	75.0	90.0
26–1/2"		75.0	90.0	75.0	90.0
32"		75.0	90.0	75.0	90.0
37"		75.0	90.0	75.0	90.0
40"		75.0	90.0	75.0	90.0
48"		–	–	75.0	90.0
53–1/8"		–	–	75.0	90.0
19–1/8"	76" (7)	75.0	90.0	75.0	90.0
24"		75.0	90.0	75.0	90.0
26–1/2"		75.0	90.0	75.0	90.0
32"		75.0	90.0	75.0	90.0
37"		–	–	75.0	90.0
40"		–	–	75.0	90.0
48"		–	–	75.0	90.0
53–1/8"		–	–	75.0	90.0

* NO. IN PARENTHESIS INDICATE NO. OF ANCHORS PER JAMB.

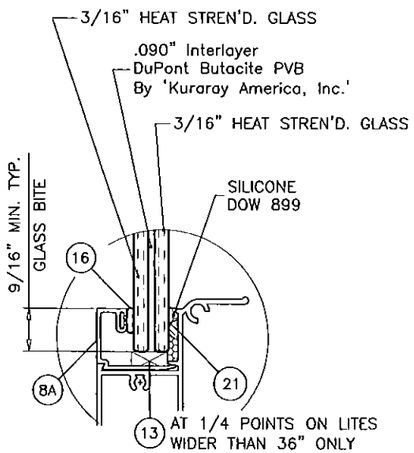


UNEQUAL LITES (ORIEL TYPE)

TO QUALIFY FOR SMALL MISSILE IMPACT RATING
EXTERIOR PLY OF GLASS TYPE 'C' MUST BE TEMPERED.

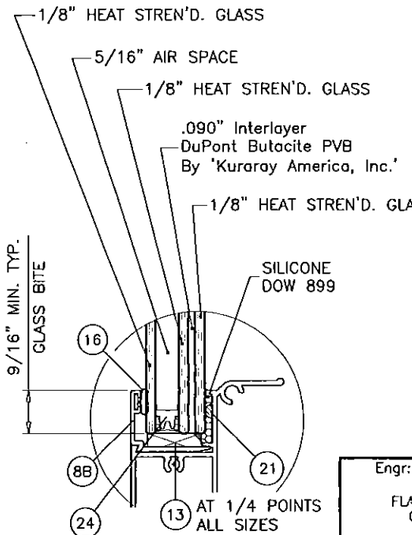


GLASS TYPE 'A'



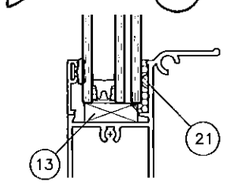
GLASS TYPE 'B'

GLAZING OPTIONS



GLASS TYPE 'C'

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No 15-0406.12
Expiration Date 04/08/2019
By Manuel Perez
Miami Dade Product Control



SETTING BLOCKS AT
LAM. GLASS AND INSUL. LAM. GLASS
NOTCH GLAZING BEAD LEG TO CLEAR BLOCKS

Engr: JAVAD AHMAD
CIVIL
FLA. PE # 70592
C.A.N. 3638

JUN 23 2015

NOTE:
GLASS CAPACITIES ON THIS SHEET ARE
BASED ON ASTM E1300–09 (3 SEC. GUSTS)
AND FLORIDA BUILDING COMMISSION
DECLARATORY STATEMENT DCA05–DEC–219

AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
1235 S.W. 87 AVE
MIAMI, FLORIDA 33174
TEL. (305) 264-8100 FAX. (305) 262-6978

COMP-ANL\W09-08ECO

ECO-GUARD SERIES-100 ALUM S.H. WDW. (L.M.I.)

ECO WINDOW SYSTEMS, LLC.
9114 N.W. 106 STREET
MEDLEY, FL. 33178
TEL. (305) 885-5299 FAX (305) 885-5902

revisions:			
no	date	by	description
A	02.15.12		NO CHANGE THIS SHEET
B	01.11.13		MANUF. ADDRESS REV.
C	02.06.14		GLASS & LATCH OPTION ADDED
D	03.18.15		UPDATED TO 2014 FBC
E	05.23.15		REV. PER RER COMMENTS

date: 02-12-09
scale: 1/2" = 1"
dr. by: HAMID
chk. by:

drawing no.
W09–08

sheet 2 of 6

MIAMI-DADE COUNTY
DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)
BOARD AND CODE ADMINISTRATION DIVISION

MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION
11805 SW 26 Street, Room 208
T (786) 315-2590 F (786) 315-2599
www.miamidade.gov/economy

NOTICE OF ACCEPTANCE (NOA)

Eco Window Systems, LLC
9114 NW 106 Street
Medley, FL 33178

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER-Product Control Section to be used in Miami-Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami-Dade County) and/ or the AHJ (in areas other than Miami-Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code, including the High Velocity Hurricane Zone.

DESCRIPTION: Series "Eco-Guard 500" Outswing Aluminum Casement Window – L.M.I.

APPROVAL DOCUMENT: Drawing No. **W11-05**, titled "S-500 Alum. Outswing Casement Wdw. (L.M.I.)", sheets 1 through 6 of 6, dated 02/23/11, with revision **E** dated 06/23/15, prepared by Al-Farooq Corporation, signed and sealed by Javad Ahmad, P.E., bearing the Miami-Dade County Product Control Revision stamp with the Notice of Acceptance number and expiration date by the Miami-Dade County Product Control Section.

MISSILE IMPACT RATING: Large and Small Missile Impact Resistant

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state, series, and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/ or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA **revises and renews NOA No. 13-0206.07** and consists of this page 1 and evidence pages E-1 and E-2, as well as approval document mentioned above.

The submitted documentation was reviewed by **Manuel Perez, P. E.**

MIAMI-DADE COUNTY APPROVED

6/26/15

NOA No. 15-0406.10
Expiration Date: May 19, 2021
Approval Date: July 02, 2015

ECO-GUARD SERIES-500
ALUMINUM OUTSWING CASEMENT WINDOW

APPROVAL APPLIES TO SINGLE UNITS OR SIDE BY SIDE COMBINATIONS OF CASMT/CASMT OR CASEMENT WITH OTHER WINDOW TYPES IN MODULES OF TWO OR MORE WINDOWS USING MIAMI-DADE COUNTY APPROVED MULLIONS IN BETWEEN. LOWER DESIGN PRESSURE FROM WINDOWS OR MULLION APPROVAL WILL APPLY TO ENTIRE SYSTEM.

THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE FLORIDA BUILDING CODE INCLUDING HIGH VELOCITY HURRICANE ZONE (HVHZ).

WOOD BUCKS BY OTHERS, MUST BE ANCHORED PROPERLY TO TRANSFER LOADS TO THE STRUCTURE.

ANCHORS SHALL BE AS LISTED, SPACED AS SHOWN ON DETAILS, ANCHORS EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO.

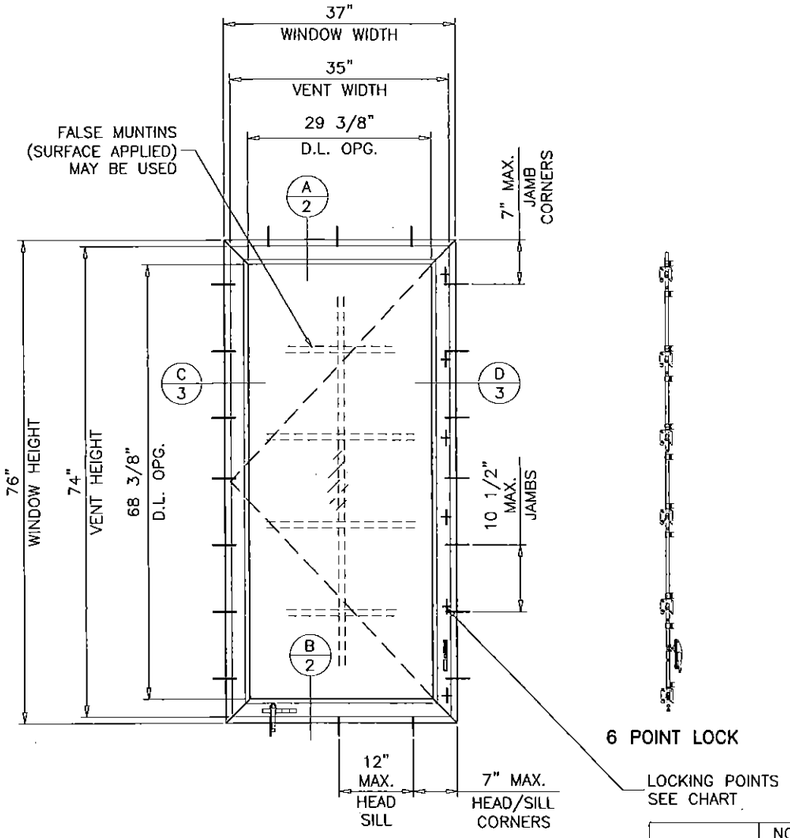
ANCHORING OR LOADING CONDITIONS NOT SHOWN IN THESE DETAILS ARE NOT PART OF THIS APPROVAL.

A LOAD DURATION INCREASE IS USED IN DESIGN OF ANCHORS INTO WOOD ONLY.

ALL SHIMS TO BE HIGH IMPACT, NON-METALLIC AND NON-COMPRESSIBLE.

MATERIALS INCLUDING BUT NOT LIMITED TO STEEL/METAL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF THE FLORIDA BUILDING CODE.

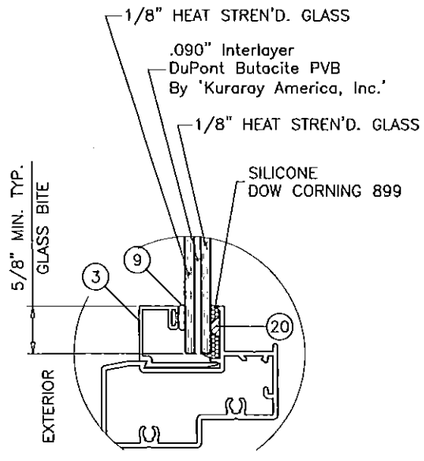
THESE WINDOWS ARE RATED FOR LARGE & SMALL MISSILE IMPACT.
SHUTTERS ARE NOT REQUIRED.



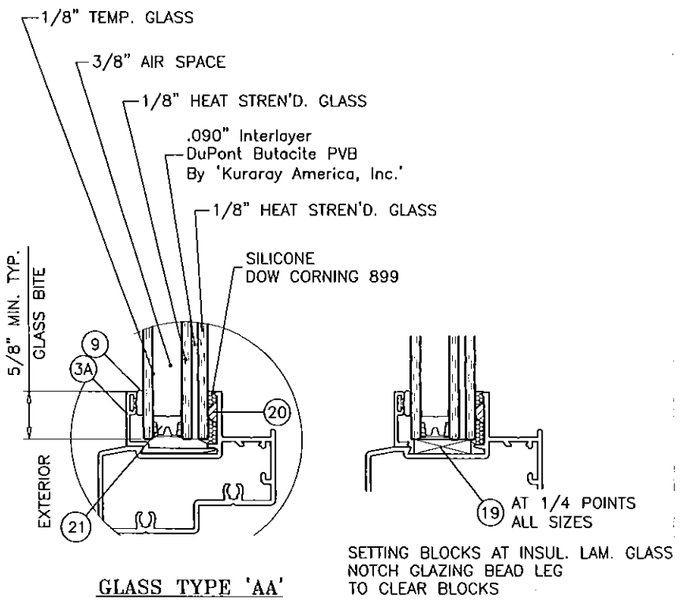
TYPICAL ELEVATION

WDW. HEIGHT UPTO	NO. OF KEEPERS AT SASH
26"	2
38-3/8"	3
50-5/8"	4
63"	5
76"	6

MAXIMUM DESIGN LOAD RATING	= + 70.0 PSF
(FOR SIZES SHOWN OR SMALLER)	- 75.0 PSF

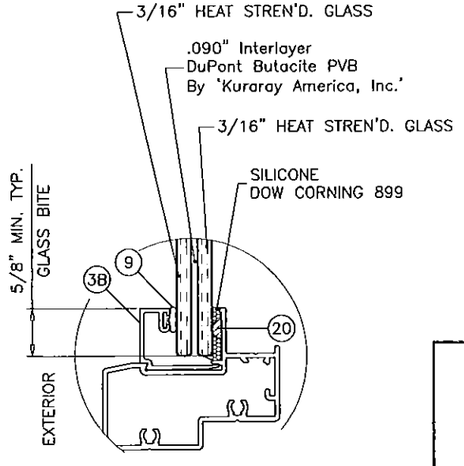


GLASS TYPE 'A'



GLASS TYPE 'AA'

SETTING BLOCKS AT INSUL. LAM. GLASS
NOTCH GLAZING BEAD LEG
TO CLEAR BLOCKS



GLASS TYPE 'B'

GLAZING OPTIONS

PRODUCT REVISED
as complying with the Florida Building Code
Acceptance No 15-0406.10
Expiration Date 05/19/2021
By Manuel Perez
Miami-Dade Product Control

NOTE:
GLASS CAPACITIES ON THIS SHEET ARE BASED ON ASTM E1300-09 (3 SEC. GUSTS) AND FLORIDA BUILDING COMMISSION DECLARATORY STATEMENT DCA05-DEC-219

Engr: JAVAD AHMAD
CIVIL
FLA. PE # 70592
C.A.N. 3538

JUN 23 2015

AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
1235 S.W. 87 AVE
MIAMI, FLORIDA 33174
TEL. (305) 264-3100 FAX. (305) 262-6978

COMP-ANL\W11-05ECO

S-500 ALUM OUTSWING CASEMENT WDW. (L.M.I.)

ECO WINDOW SYSTEMS, LLC.
9114 N.W. 106 STREET
MEDLEY, FL. 33178
TEL. (305) 885-5299 FAX (305) 885-5902

revisions:

no	date	by	description
A	04.27.11		NO CHANGE THIS SHEET
B	01.31.12		UPDATED TO 2010 FBC
C	01.11.13		MANUF. ADDRESS REV.
D	03.19.15		UPDATED TO 2014 FBC
E	06.23.15		REV. PER RER COMMENTS

date: 02-23-11
scale: 1/2"=1'-0"
dr. by: HAMID
chk. by:

drawing no.
W11-05

sheet 1 of 6

MIAMI-DADE COUNTY
DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)
BOARD AND CODE ADMINISTRATION DIVISION

MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION
11805 SW 26 Street, Room 208
T (786) 315-2590 F (786) 315-2599
www.miamidade.gov/economy

NOTICE OF ACCEPTANCE (NOA)

Eco Window Systems, LLC
9114 NW 106 Street
Medley, FL 33178

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER-Product Control Section to be used in Miami-Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami-Dade County) and/ or the AHJ (in areas other than Miami-Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code, including the High Velocity Hurricane Zone.

DESCRIPTION: Series "Eco-Guard 550" Aluminum Fixed Window – L.M.I.

APPROVAL DOCUMENT: Drawing No. **W11-10**, titled "S-550 Aluminum Fixed Window (L.M.I.)", sheets 1 through 6 of 6, dated 02/28/11, with revision **D** dated 06/23/15, prepared by Al-Farooq Corporation, signed and sealed by Javad Ahmad, P.E., bearing the Miami-Dade County Product Control Revision stamp with the Notice of Acceptance number and expiration date by the Miami-Dade County Product Control Section.

MISSILE IMPACT RATING: Large and Small Missile Impact Resistant

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state, series, and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/ or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

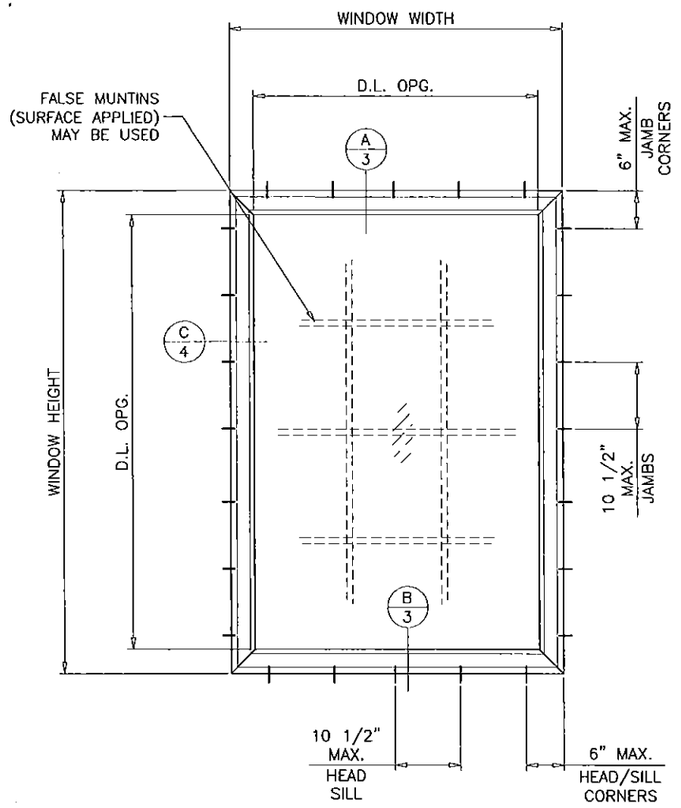
This NOA **revises and renews NOA No. 13-0206.08** and consists of this page 1 and evidence pages E-1 and E-2, as well as approval document mentioned above.

The submitted documentation was reviewed by **Manuel Perez, P.E.**

MIAMI-DADE COUNTY APPROVED

6/26/15

NOA No. 15-0406.11
Expiration Date: May 05, 2021
Approval Date: July 02, 2015



TYPICAL ELEVATION

THESE WINDOWS ARE RATED FOR LARGE & SMALL MISSILE IMPACT.
SHUTTERS ARE NOT REQUIRED.

ECO-GUARD SERIES-550
ALUMINUM FIXED WINDOW

DESIGN LOAD RATINGS FOR THESE WINDOWS TO BE AS PER CHARTS SHOWN ON SHEETS 2.

APPROVAL APPLIES TO SINGLE UNITS OR SIDE BY SIDE COMBINATIONS OF FIX./FIX. OR FIXED WITH OTHER WINDOW TYPES IN MODULES OF TWO OR MORE WINDOWS USING MIAMI-DADE COUNTY APPROVED MULLIONS IN BETWEEN. LOWER DESIGN PRESSURE FROM WINDOWS OR MULLION APPROVAL WILL APPLY TO ENTIRE SYSTEM.

THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE FLORIDA BUILDING CODE INCLUDING HIGH VELOCITY HURRICANE ZONE (HVHZ).

WOOD BUCKS BY OTHERS, MUST BE ANCHORED PROPERLY TO TRANSFER LOADS TO THE STRUCTURE.

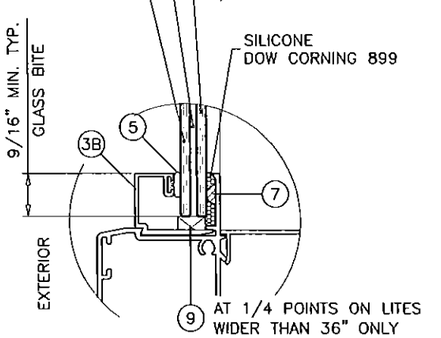
ANCHORS SHALL BE AS LISTED, SPACED AS SHOWN ON DETAILS, ANCHORS EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO.

ANCHORING OR LOADING CONDITIONS NOT SHOWN IN THESE DETAILS ARE NOT PART OF THIS APPROVAL.

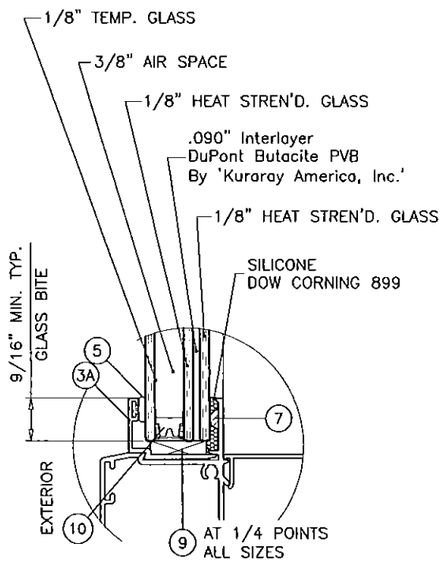
A LOAD DURATION INCREASE IS USED IN DESIGN OF ANCHORS INTO WOOD ONLY.

ALL SHIMS TO BE HIGH IMPACT, NON-METALLIC AND NON-COMPRESSIBLE.

MATERIALS INCLUDING BUT NOT LIMITED TO STEEL/METAL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF THE FLORIDA BUILDING CODE.



GLASS TYPE 'A'



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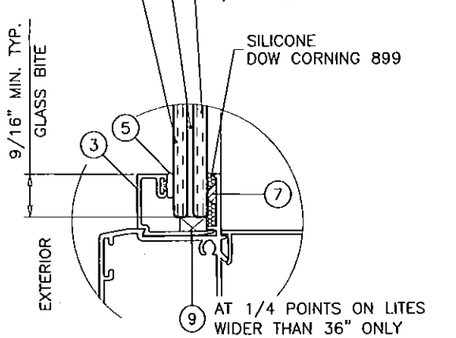
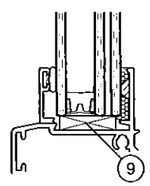


GLASS TYPE 'B'

GLAZING OPTIONS



SETTING BLOCKS AT
LAM. GLASS AND INSUL. LAM. GLASS
NOTCH GLAZING BEAD LEG TO CLEAR BLOCKS

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No 15-0406.11
Expiration Date 05/05/2021
By Manuel Perez
Miami Dade Product Control

Engr: JAVAD AHMAD
CIVIL
FLA. PE # 70592
C.A.N. 3538
JUN 23 2015

AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
1235 S.W. 87 AVE
MIAMI, FLORIDA 33174
TEL. (305) 264-8100 FAX. (305) 262-6978

COMP-ANL\W11-10ECO

S-550 ALUM. FIXED WINDOW (L.M.I.)

ECO WINDOW SYSTEMS, LLC.
9114 N.W. 106 STREET
MEDLEY, FL. 33178
TEL. (305) 885-5299 FAX (305) 885-5902

revisions:

no	date	by	description
A	01.30.12		UPDATED TO 2010 FBC
B	01.11.13		MANUF. ADDRESS REV.
C	03.19.15		UPDATED TO 2014 FBC
D	06.23.15		REV. PER RER COMMENTS

date: 02-28-11
scale: 1/2"=1'-0"
dr. by: HAMID
chk. by:

drawing no.
W11-10

MIAMI-DADE COUNTY
DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)
BOARD AND CODE ADMINISTRATION DIVISION

MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION
11805 SW 26 Street, Room 208
T (786) 315-2590 F (786) 315-2599
www.miamidade.gov/economy

NOTICE OF ACCEPTANCE (NOA)

PGT Industries, Inc.
1070 Technology Drive
North Venice, FL 34275

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER - Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami-Dade County) and/or the AHJ (in areas other than Miami-Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami–Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code, including the High Velocity Hurricane Zone.-

DESCRIPTION: Series "PGT" Clipped Extruded Aluminum Tube Mullion – L.M.I.

APPROVAL DOCUMENT: Drawing No. **6300JR**, titled "Impact–Resistant Aluminum Tube Mullions", sheets 1 through 25 of 25, prepared by manufacturer, dated 08/29/11, with revision B dated 10/10/14, signed and sealed by Anthony Lynn Miller, P.E., bearing the Miami-Dade County Product Control Revision stamp with the Notice of Acceptance number and expiration date by the Miami-Dade County Product Control Section.

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state, model/series, and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA **revises and renews NOA# 14-1105.01** and consists of this page 1 and evidence pages E-1 and E-2, as well as approval document mentioned above.

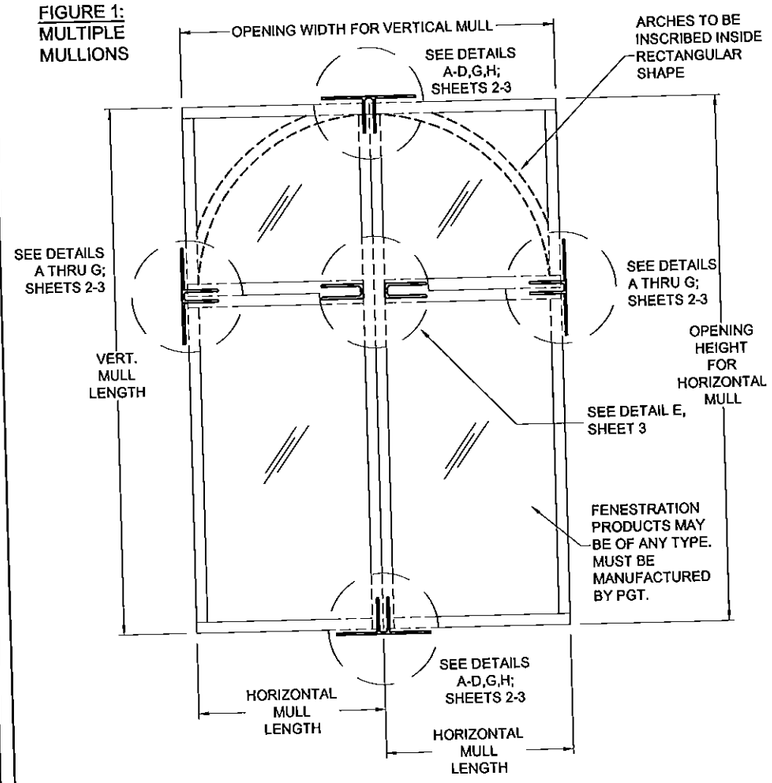
The submitted documentation was reviewed by **Manuel Perez, P.E.**

MIAMI-DADE COUNTY APPROVED

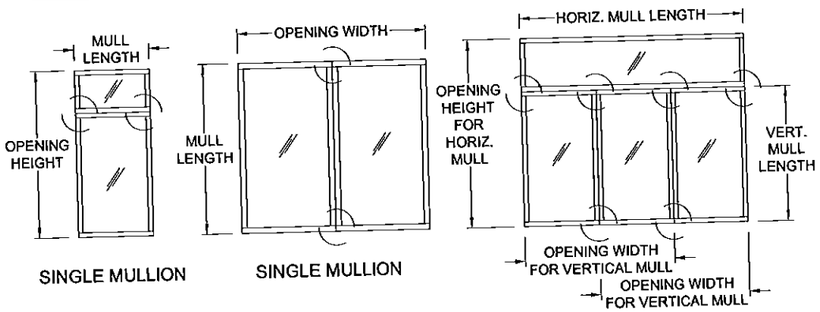
4/11/16

SUITABLE FOR ALL LOCATIONS REQUIRING NON-IMPACT OR LARGE AND SMALL MISSILE IMPACT-RESISTANT PRODUCTS

FIGURE 1:
MULTIPLE MULLIONS



ADDITIONAL EXAMPLES OF MULL CONFIGURATIONS:



SEE CORRESPONDING DETAILS FROM FIGURE 1 ABOVE.

STANDARDS USED:
- 2014 FLORIDA BUILDING CODE (FBC), 5TH EDITION
- ANSI/AF&PA NDS-2012 FOR WOOD CONSTRUCTION
- ALUMINUM DESIGN MANUAL, ADM-2010
- AISI-S100-07/S2-2010

GENERAL NOTES:

1) DETAILS SHOWN ARE FOR THE MULLION ONLY. ANCHORS SHOWN ARE IN ADDITION TO ANY ANCHORS REQUIRED FOR THE FENESTRATION PRODUCT INSTALLATION. TYPICAL APPLICATIONS ARE SHOWN. EACH SITUATION IS UNIQUE AND SHOULD BE EVALUATED BY AN EXPERIENCED INSTALLER FOR THE BEST INSTALLATION METHOD. OPTIONAL 1X OR 2X WOOD BUCKS IF USED, MUST BE ANCHORED PROPERLY TO TRANSFER LOADS AND ARE TO BE DESIGNED BY OTHERS.

2) THE TYPE AND NUMBER OF ANCHORS IS CRITICAL TO THE STRUCTURAL PERFORMANCE OF THE MULLED UNITS. MULLIONS HAVE BEEN TESTED AS "FREE-FLOATING" AND DO NOT NEED TO BE DIRECTLY ATTACHED TO THE MULLION CLIPS, BUT SHALL NOT HAVE A GAP OF MORE THAN 1/4" FROM THE CLIP.

3) THE ANCHORAGE METHODS SHOWN HAVE BEEN DESIGNED TO RESIST THE WINDLOADS CORRESPONDING TO THE REQUIRED DESIGN PRESSURE. MULLIONS ARE CALCULATED TO DEFLECT NO MORE THAN L/180. THE 1/3 STRESS INCREASE WAS NOT USED IN THIS ANCHOR EVALUATION. THE 1.6 LOAD DURATION FACTOR WAS USED FOR THE EVALUATION OF WOOD SCREWS.

4) PROPER SEALING OF ENTIRE ASSEMBLY IS THE RESPONSIBILITY OF OTHERS AND IS BEYOND THE SCOPE OF THESE INSTRUCTIONS.

5) USE THE COMBINED WIDTH OR HEIGHT OF ONLY TWO ADJACENT FENESTRATION PRODUCTS TO DETERMINE PRESSURES AND ANCHORAGE FOR THE COMMON MULLION, SEE EXAMPLES ON THIS SHEET AND SHEET 24. FOR MULTIPLE UNITS, CONSIDER ONLY TWO ADJACENT UNITS AT A TIME WHEN USING THE DESIGN PRESSURE AND ANCHORAGE TABLES. THE LOWEST DESIGN PRESSURE OF MULTIPLE MULLIONS OR FENESTRATION PRODUCTS SHALL APPLY.

6) WHEN FINDING YOUR SIZE IN THE MULLION TABLES, ALWAYS ROUND UP TO THE NEXT SIZE SHOWN ON THE TABLE(S).

7) ANCHOR EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO. WOOD BUCKS BY OTHERS, MUST BE ANCHORED PROPERLY TO TRANSFER LOADS TO THE STRUCTURE. ANCHORS SHALL BE COATED OR CORROSION RESISTANT AS APPROPRIATE FOR SUBSTRATE MATERIAL. DISSIMILAR MATERIALS SHALL BE PROTECTED AS REQUIRED TO PREVENT REACTIONS.

8) REFERENCE: TEST REPORTS: FTL-6443; ELCO ULTRACON/AGGRE-GATOR NOA'S

9) MULLIONS AND CLIPS HAVE BEEN DESIGNED & TESTED TO COMPLY WITH THE REQUIREMENTS OF THE FLORIDA BUILDING CODE, AND ARE APPROVED FOR IMPACT AND NON-IMPACT APPLICATIONS. MULLIONS ARE ONLY TO BE USED WITH PGT-APPROVED FENESTRATION PRODUCTS HAVING CURRENT APPROVALS.

10) MULLIONS ARE IN COMPLIANCE FOR USE IN THE HVHZ.

11) QUANTITY OF UNITS WITHIN A MULTIPLE MULLED ASSEMBLY IS UNLIMITED PROVIDED THAT THE SPAN AND OPENING WIDTH/HEIGHT OF EACH INDIVIDUAL MULLION COMPLIES WITH THE REQUIREMENTS OF THIS NOA.

INSTRUCTIONS:

1) DETERMINE THE DESIGN PRESSURE REQUIREMENT (LBS/FT²) FOR THE OPENING USING THE **ASCE-7 STANDARD**.

2) CHOOSE A MULLION TYPE THAT WILL FIT THE DEPTH OF THE FENESTRATION PRODUCT'S FRAME DEPTH.

3) REFER TO SHEET 25 TO DETERMINE IF THE WIND LOADING IS "RECTANGULAR" OR "TRIANGULAR/TRAPEZOIDAL".

4) FIND THE CHOSEN MULLION'S MULLION CAPACITY (LBS/FT²) FROM TABLES 1A THROUGH 16A, ON SHEETS 5 THROUGH 20 RESPECTIVELY, USING THE MULLION TYPE, LENGTH AND OPENING WIDTH OR HEIGHT (DEPENDING IF THE MULLION IS SPANNING VERTICALLY OR HORIZONTALLY). THE MULLION CAPACITY (LBS/FT²) OBTAINED SHALL MEET OR EXCEED THE DESIGN PRESSURE REQUIREMENT (LBS/FT²) FOR THE OPENING OBTAINED IN STEP 1).

5) FROM THE SAME TABLE USED IN STEP 4) ABOVE, FIND THE VALUE IN THE NEXT COLUMN ANCHOR CAPACITY REQUIRED (LBS). THIS VALUE REPRESENTS THE WINDLOAD TRANSFERRED TO THE SUBSTRATE BY THE ANCHORS AND MUST BE MET TO ATTAIN THE FULL MULLION CAPACITY.

6) FROM THE ANCHOR CAPACITY (LBS) TABLE ON THE SAME SHEET AND USING YOUR ACTUAL SUBSTRATE CONDITION (MULTIPLE ANCHOR/SUBSTRATE/ANCHOR-CLIP PATTERN MAY APPLY) SELECT AN ANCHOR CLIP PATTERN AND VERIFY THAT THE REQUIRED ANCHOR CAPACITY IS MET.

7) IF THE MULLION CAPACITY (LBS/FT²) OBTAINED IN THE TABLE IS HIGHER THAN THE DESIGN PRESSURE REQUIREMENT (LBS/FT²) FOR THE OPENING, YOU MAY USE THE **"ANCHOR CAPACITY ADJUSTMENT FORMULA"** TO OBTAIN THE LOWER ANCHOR CAPACITY REQUIRED. WITH THIS VALUE A LOWER ANCHOR CAPACITY OPTION MAY BE SELECTED FOR THE SAME SUBSTRATE

8) VERIFY THE DESIGN PRESSURE RATING (LBS/FT²) FOR THE FENESTRATION PRODUCT TO BE USED AND COMPARE WITH THE FINAL MULLION CAPACITY (LBS/FT²) OBTAINED FOR THE MULLION SYSTEM. THE LOWER OF THE TWO SHALL APPLY FOR THE ENTIRE MULLED FENESTRATION PRODUCT ASSEMBLY.

9) HIGHLIGHT OPTION USED AND TABLE VALUES USED IN A SPECIFIC APPLICATION WHEN USING THIS NOA TO APPLY FOR A PERMIT.

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ELEVATIONS..... 1
MULL TO 2X WOOD..... 2
MULL TO 1X & MASONRY..... 2
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Description: GENERAL NOTES AND ELEVATION
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ANTHONY LYNN MILLER
LICENSE
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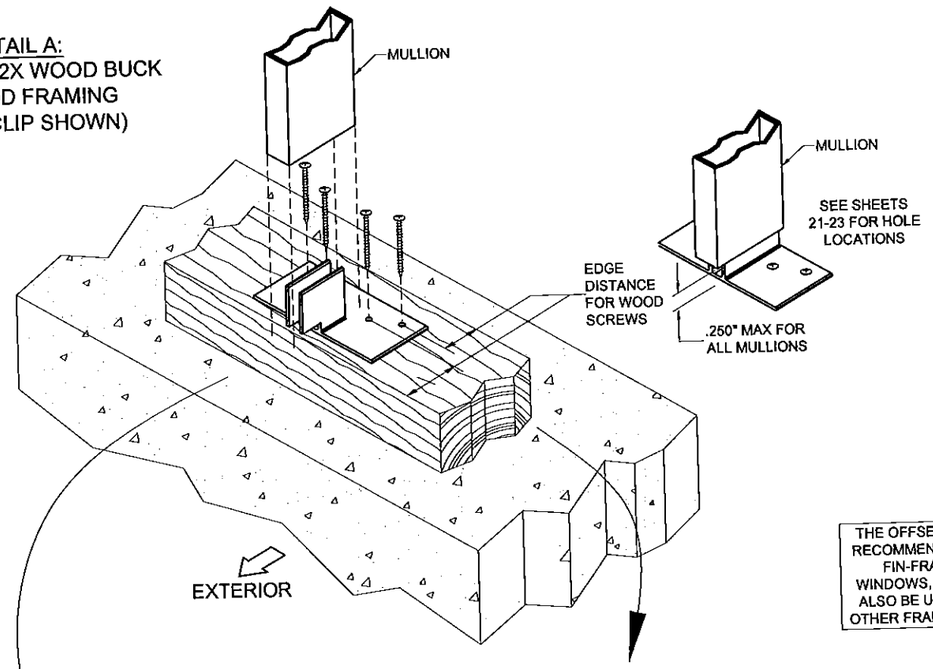
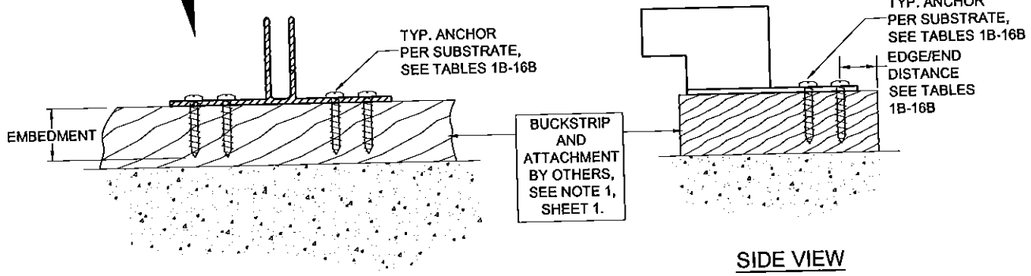
FL P.E.# 58705

DETAIL A:
MULLION TO 2X WOOD BUCK OR WOOD FRAMING (OFFSET CLIP SHOWN)

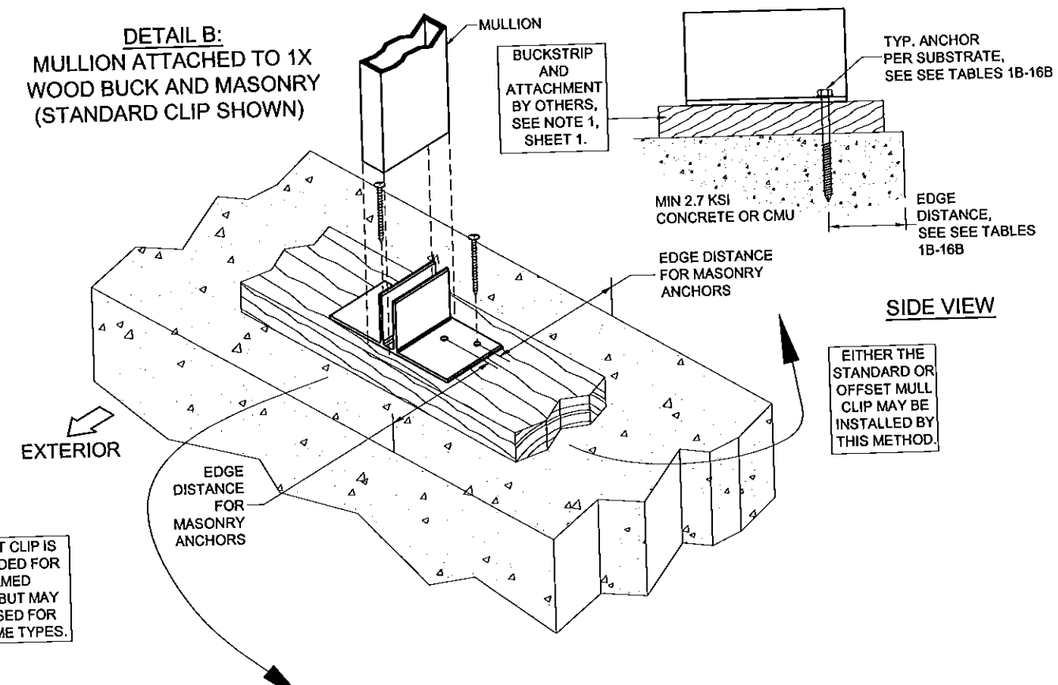


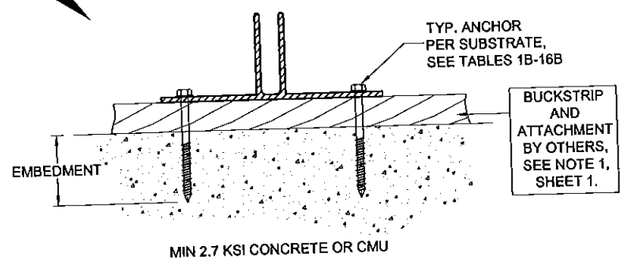


FRONT VIEW SIDE VIEW

THE OFFSET CLIP IS RECOMMENDED FOR FIN-FRAMED WINDOWS, BUT MAY ALSO BE USED FOR OTHER FRAME TYPES.

DETAIL B:
MULLION ATTACHED TO 1X WOOD BUCK AND MASONRY (STANDARD CLIP SHOWN)





FRONT VIEW

INSTALLATION NOTES:

1) ANCHOR EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO.

2) QUANTITY OF ANCHORS AND MULLION SIZE SHOWN ABOVE ARE FOR PICTORIAL REPRESENTATION ONLY. BECAUSE THE ANCHOR CAPACITY IS BASED PARTLY ON THE ANCHOR TO ANCHOR DISTANCE, THE CORRECT QUANTITY AND LOCATION OF ANCHORS MUST BE FOLLOWED, REFER TO THE TABLES ON THE FOLLOWING SHEETS. FOR DETAILS A-D, EITHER THE STANDARD OR INTERIOR CLIP MAY BE USED.

3) ANCHOR HEAD TYPE MAY BE PANHEAD, HEXHEAD OR FLATHEAD.

4) WOOD BUCKS ARE OPTIONAL, SEE DETAIL C, SHEET 3.

5) FOR MASONRY APPLICATIONS IN MIAMI-DADE COUNTY, USE ONLY MIAMI-DADE COUNTY APPROVED ELCO ULTRACON OR ELCO 1/4" S.S. AGGREGATOR MASONRY ANCHORS.

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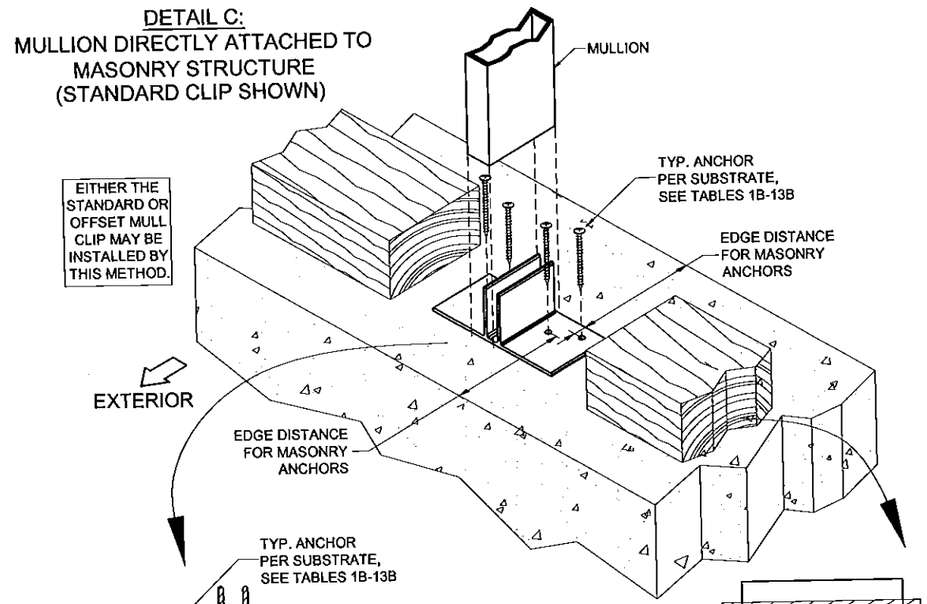
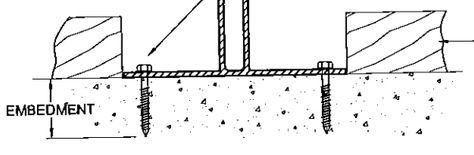
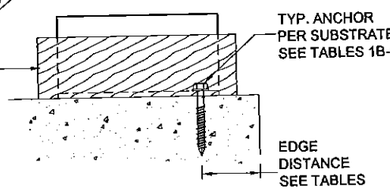
DETAIL C:
MULLION DIRECTLY ATTACHED TO MASONRY STRUCTURE (STANDARD CLIP SHOWN)





MIN 2.7 KSI CONCRETE OR CMU

FRONT VIEW

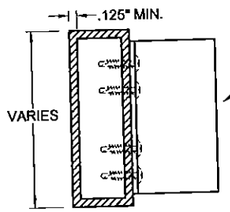


MIN 2.7 KSI CONCRETE OR CMU

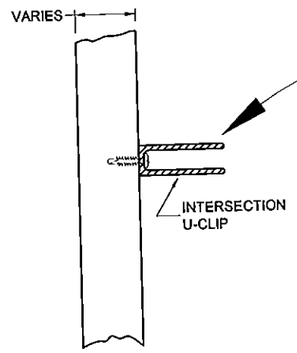
SIDE VIEW

THE OFFSET CLIP IS RECOMMENDED FOR FIN-FRAMED WINDOWS, BUT MAY ALSO BE USED FOR OTHER FRAME TYPES.

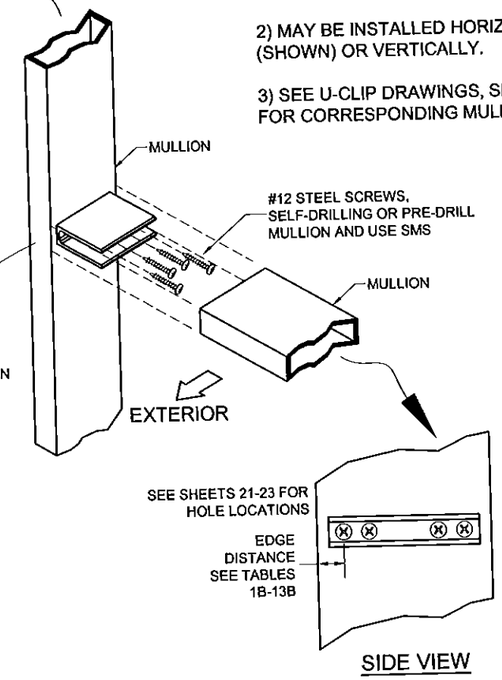
DETAIL E:
MULLION TO MULLION INTERSECTION (U-CLIP)



TOP VIEW



FRONT VIEW



SIDE VIEW

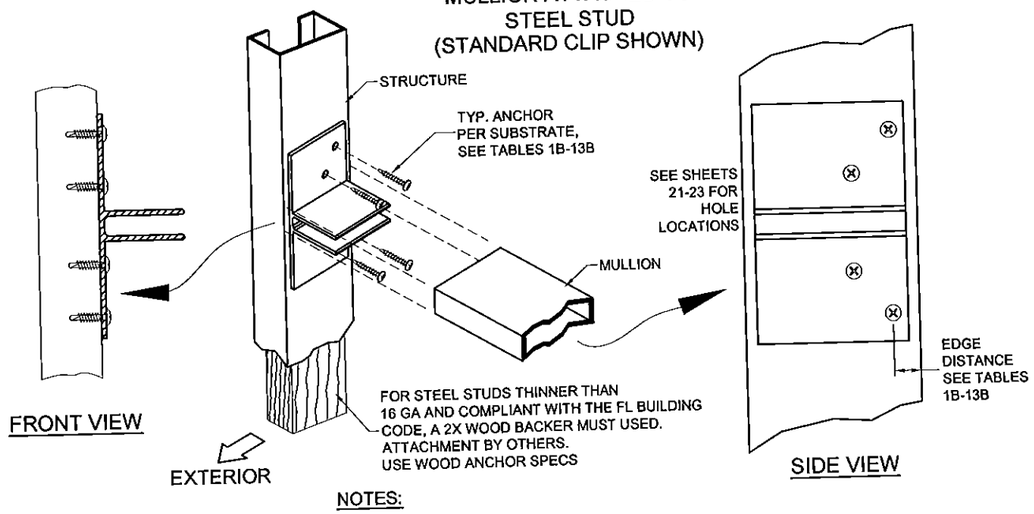
NOTES:

1) MAY BE INSTALLED IN "TEE" OR "CROSS" INTERSECTIONS.

2) MAY BE INSTALLED HORIZONTALLY (SHOWN) OR VERTICALLY.

3) SEE U-CLIP DRAWINGS, SHEETS 21-23 FOR CORRESPONDING MULLION.

DETAIL D:
MULLION ATTACHED TO STEEL STUD (STANDARD CLIP SHOWN)



FRONT VIEW

SIDE VIEW

NOTES:

1) FOR 2X WOOD-BACKED STEEL STUDS, WOOD ANCHOR VALUES MAY BE USED.

2) SEE CORRESPONDING MULLION TABLES, SHEETS 5-20, FOR QUANTITY OF SCREWS.

INSTALLATION NOTES:

1) ANCHOR EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO.

2) QUANTITY OF ANCHORS AND MULLION SIZE SHOWN ABOVE ARE FOR PICTORIAL REPRESENTATION ONLY. BECAUSE THE ANCHOR CAPACITY IS BASED PARTLY ON THE ANCHOR TO ANCHOR DISTANCE, THE CORRECT QUANTITY AND LOCATION OF ANCHORS MUST BE FOLLOWED, REFER TO THE TABLES ON THE FOLLOWING SHEETS. FOR DETAILS A-D, EITHER THE STANDARD OR INTERIOR CLIP MAY BE USED.

3) ANCHOR HEAD TYPE MAY BE PANHEAD, HEXHEAD OR FLATHEAD.

4) WOOD BUCKS ARE OPTIONAL, SEE DETAIL C, SHEET 3.

5) FOR MASONRY APPLICATIONS IN MIAMI-DADE COUNTY, USE ONLY MIAMI-DADE COUNTY APPROVED ELCO ULTRACON OR ELCO 1/4" S.S. AGGREGATOR MASONRY ANCHORS.

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STATE OF FLORIDA
PROFESSIONAL ENGINEER
4-7-8-16

A. LYNN MILLER, P.E.
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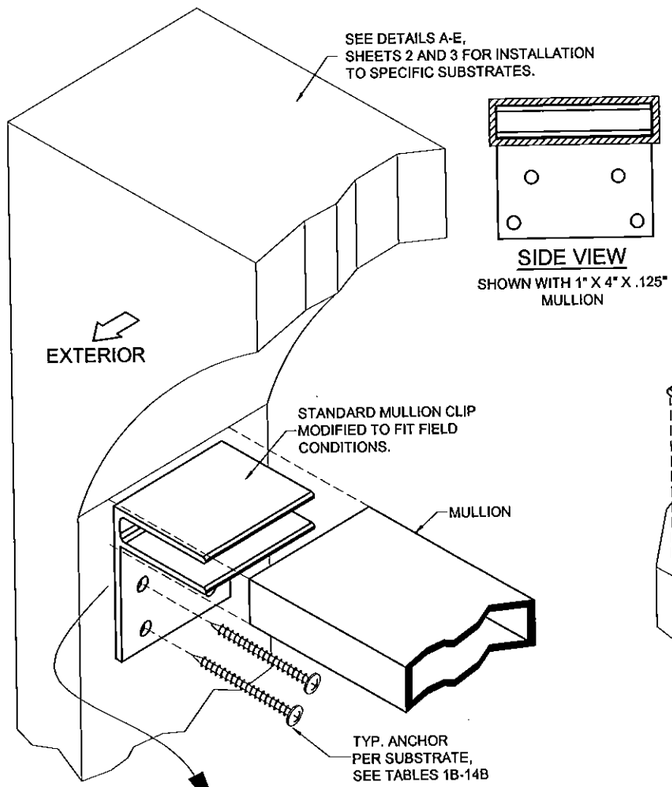
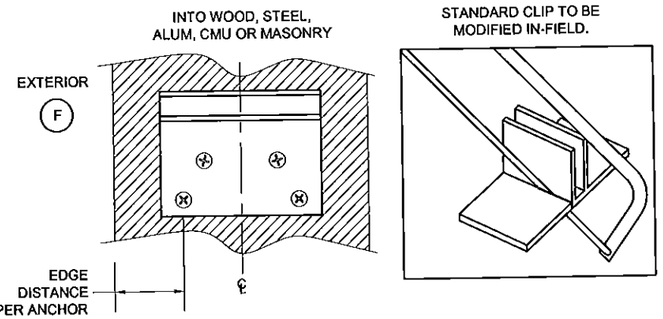
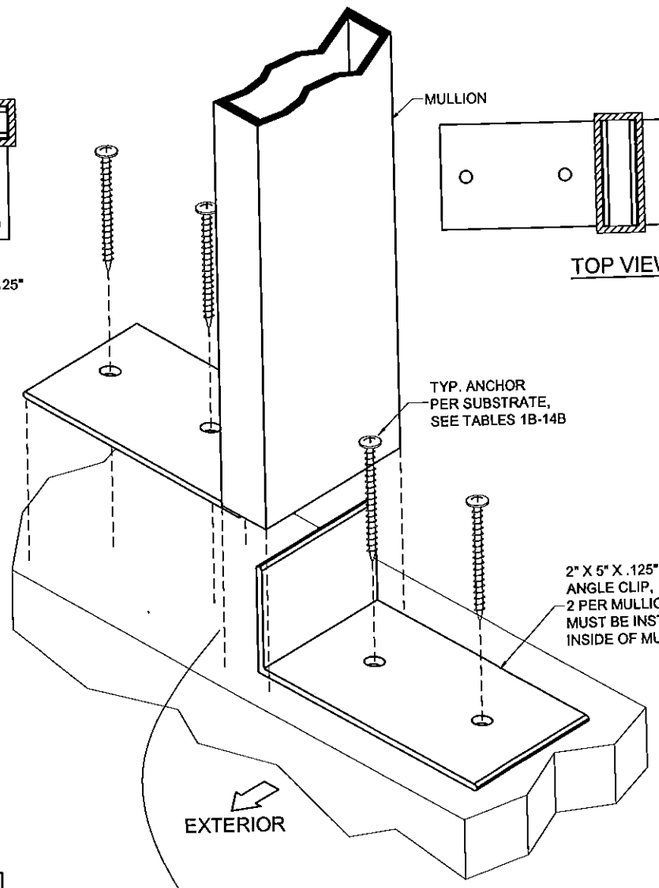
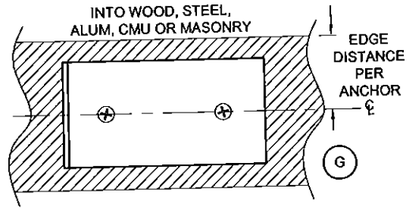
DETAIL F:
FIELD-MODIFIED MULLION CLIP
(F-CLIP)



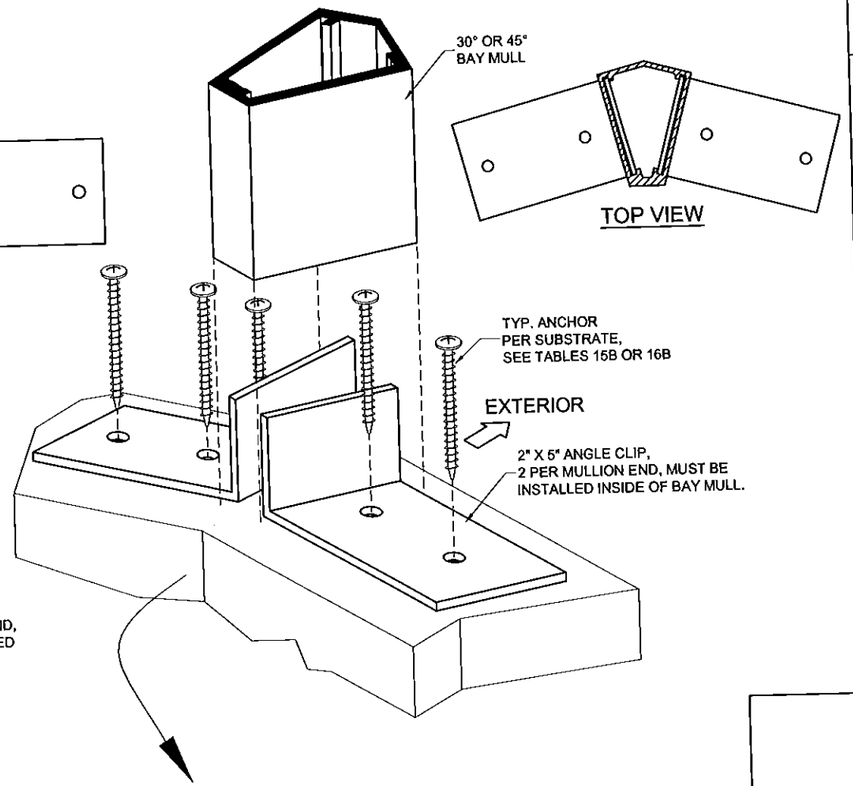


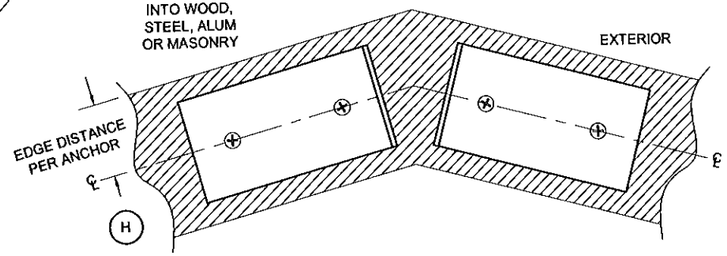
DETAIL G:
ANGLE MULLION CLIP
(ANGLE CLIP)





DETAIL H:
BAY MULLION INSTALLATION
(ANGLE CLIP)





NOTES FOR INSTALLATION OPTIONS F:

1) DETAIL IS NOT APPLICABLE FOR THE BAY OR 1.26" X 2.11" X .125" MULLION.

2) SEE TABLES 1B-13B FOR ANCHOR QUANTITIES AND SHEETS 21-23 FOR HOLE LOCATIONS.

3) THE 2X5 CLIP IS NOT SUITABLE FOR THIS APPLICATION.

NOTES FOR INSTALLATION OPTION G & H:

1) USE 2 ANGLE CLIPS PER MULLION END. CLIPS MUST BE INSERTED INSIDE OF MULLION.

2) DETAIL G: SEE TABLES 1B-14B FOR ANCHOR QUANTITIES AND SHEETS 21-23 FOR HOLE LOCATIONS.

3) DETAIL H: SEE TABLES 15B OR 16B FOR ANCHOR QUANTITIES AND SHEET 22 FOR HOLE LOCATIONS.

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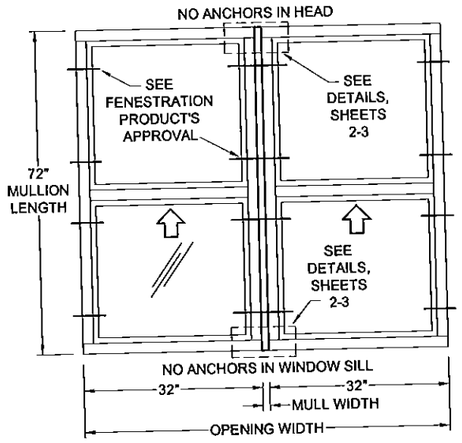
FL P.E.# 58705

EXAMPLE 1: SINGLE VERTICAL MULLION



THE BUILDING SUBSTRATE IS KNOWN TO BE WOOD ON ALL FOUR SIDES. THE WINDOW FRAME DEPTH IS 2-1/4". THE OPENING REQUIRES A DESIGN PRESSURE OF +60.0/-60.0 PSF.

1) INITIALLY ASSUMING THAT A 1" WIDE MULLION IS SUITABLE,THE MULLION LENGTH IS 72" AND THE OPENING WIDTH IS 32"+32+1" =65". REFERENCING SHEET 25, THE COLUMN USING RECTANGULAR LOADING MUST BE USED. SCAN THE MULLION TABLES FOR A MULLION THAT IS AT LEAST THE WINDOW FRAME DEPTH OF 2-1/4" AND WILL MEET OR EXCEED THE REQUIRED DESIGN PRESSURE OF +60.0/-60.0 PSF. IF THE TABLE DOES NOT SHOW THE EXACT SIZE, USE THE NEXT LARGER SIZE AVAILABLE.

FROM TABLE 3A, SHEET 7, THE 1" X 2.75" X .375" MULLION (LENGTH = 72", OPENING WIDTH = 70") MEETS THE DEPTH REQUIRED, HOWEVER THE DESIGN PRESSURE IS +/-58.3 PSF AND WOULD NOT BE SUITABLE FOR THIS APPLICATION.

FROM TABLE 4A, SHEET 8, THE 1" X 2.75" X .650" MULLION (LENGTH = 72", OPENING WIDTH = 70") HAS A DESIGN PRESSURE OF +/-72.7 PSF WHICH EXCEEDS THE REQUIREMENTS FOR THE OPENING AND MAY BE USED IN THIS APPLICATION. NOTE THE ANCHOR CAPACITY REQUIRED OF 636 LBS.

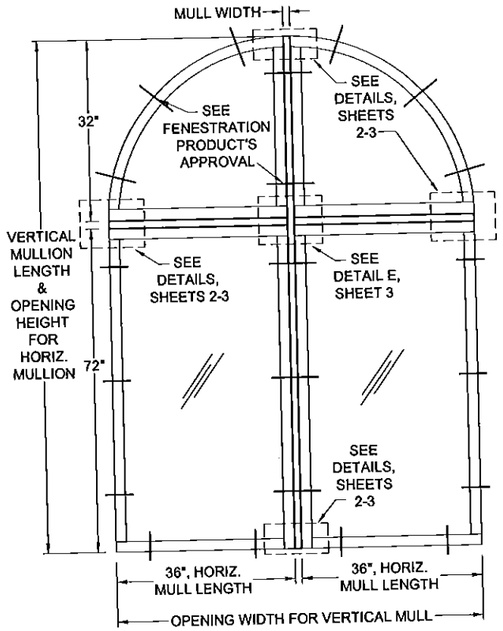
2) USE TABLE 4B TO FIND THE ANCHOR TYPE, ANCHOR QUANTITY AND CLIP TYPE REQUIRED FOR THE WOOD SUBSTRATE. BOTH THE STANDARD CLIP WITH (4) #12 ANCHORS AND THE 2X5 ANGLE CLIPS WITH (4) #12 ANCHORS HAVE A CAPACITY 0F 885 LBS. THOUGH EITHER ONE COULD BE USED, THE STANDARD CLIP IS EASIER TO INSTALL.

3) VERIFY THE DESIGN PRESSURE OF THE FENESTRATION PRODUCTS USED WITH THIS MULLION SYSTEM. THE LOWER DESIGN PRESSURE, OF MULLIONS OR FENESTRATION PRODUCTS, WILL APPLY TO THE OVERALL ASSEMBLY. FINAL DESIGN PRESSURE REQUIRES THAT THE BOTH THE MULLION AND THE FENESTRATION PRODUCT BE INSTALLED IN ACCORDANCE WITH THE INSTALLATION SPECIFICATIONS INTO RESPECTIVE SUBSTRATES AND FENESTRATION PRODUCTS TO MULLION.

IN THIS EXAMPLE, THE DESIGN PRESSURE REQUIRED WAS +/-60.0 PSF. THE OVERALL MULLION SYSTEM WAS DETERMINED TO BE 72.7 PSF WITH AN ANCHOR CAPACITY OF 636 LBS. ALTERNATIVELY, THE ANCHOR CAPACITY ADJUSTMENT FORMULA COULD HAVE BEEN USED TO CALCULATE THE ANCHOR CAPACITY REQUIRED FOR THE EXACT DESIGN PRESSURE OF 60 PSF:

$$(60\ \text{PSF}) \times \left(\frac{636\ \text{LBS}}{72.7\ \text{PSF}}\right) = 524.9\ \text{LBS}$$ (MAY BE USED TO QUALIFY # 10 STEEL SCREWS FROM TABLE 4B)

EXAMPLE 2: MULTIPLE MULLIONS



THE BUILDING SUBSTRATE IS KNOWN TO BE CMU ON THE JAMBS AND USES A CONCRETE HEADER AND SILL. THE WINDOW FRAME DEPTH IS 2-3/8". THE OPENING REQUIRES A DESIGN PRESSURE OF +50.0/-55.0 PSF.

FOR THE VERTICAL MULLION:

1) INITIALLY ASSUMING THAT A 1" WIDE MULLION IS SUITABLE, THE MULLION LENGTH IS 32"+72"+1"=105" AND THE OPENING WIDTH IS 36"+36"+1" =73". REFERENCING SHEET 25, THE COLUMN USING RECTANGULAR LOADING SHALL BE USED. SCAN THE MULLION TABLES FOR A MULLION THAT IS AT LEAST THE WINDOW FRAME DEPTH OF 2-3/8" AND WILL MEET OR EXCEED THE REQUIRED DESIGN PRESSURE OF +50.0/-55.0 PSF. IF THE TABLE DOES NOT SHOW THE EXACT SIZE, USE THE NEXT LARGER SIZE AVAILABLE.

FROM TABLE 3A, SHEET 7, THE 1" X 2.75" X .375" MULLION (LENGTH = 108", OPENING WIDTH = 80") MEETS THE DEPTH REQUIRED, HOWEVER THE DESIGN PRESSURE IS +/-15.1 PSF AND WOULD NOT BE SUITABLE FOR THIS APPLICATION.

FROM TABLE 12A, SHEET 16, THE 2" X 4" X .250" MULLION (LENGTH = 108", OPENING WIDTH = 80") HAS A DESIGN PRESSURE OF +/-64.7 PSF WHICH EXCEEDS THE REQUIREMENTS FOR THE OPENING AND MAY BE USED IN THIS APPLICATION. NOTE THE ANCHOR CAPACITY REQUIRED OF 971 LBS.

BECAUSE IT IS NOW KNOWN THAT THE MULLION WILL ADD 2" TO THE WIDTH OF THE MULLED UNIT, THE ADJUSTED OPENING WIDTH IS 36"+36"+2"=74", NOT 73" AS PREVIOUSLY ASSUMED. VERIFY THAT THE DESIGN PRESSURE IS STILL APPLICABLE FOR THE ADJUSTED OPENING. ALTERNATIVELY, THE WINDOW WIDTHS MAY BE REDUCED TO MAINTAIN THE 73" DIMENSION (35-1/2"+35-1/2"+2"=73").

2) USE TABLE 12B TO FIND THE ANCHOR TYPE, ANCHOR QUANTITY AND CLIP TYPE REQUIRED FOR THE CONCRETE SUBSTRATE. IN THIS EXAMPLE, ASSUME THE POURED CONCRETE HEADER AND SILL ARE 8" WIDE. IF THE MULLION CLIP WERE TO BE CENTERED WITHIN THE 8", CARE MUST BE TAKEN TO MAINTAIN THE FASTENER'S EDGE DISTANCE. USING THE STANDARD CLIP WITH (6) 3/16" ULTRACON ANCHORS AT AN EDGE DISTANCE OF 2-1/2" GIVES AN ANCHOR CAPACITY OF 1050 LBS WHICH IS GREATER, AND THEREFORE SUITABLE, FOR THE REQUIRED ANCHOR CAPACITY OF 971 LBS.

FOR THE HORIZONTAL MULLIONS:

BECAUSE THE VERTICAL MULL WILL BE A 2" X 4" X .250" MULLION, IN THIS EXAMPLE WE WILL MATCH THE HORIZONTAL AND VERTICAL MULLIONS, ALTERNATIVELY, ANOTHER MULLION TYPE COULD BE CHOSEN.

1) THE MULLION LENGTH IS 36" AND THE OPENING HEIGHT IS 32"+72"+2" =106". REFERENCING SHEET 25, THE COLUMN USING TRAPEZOIDAL/TRIANGULAR LOADING MAY BE USED. FROM TABLE 12A, SHEET 16, THE 2" X 4" X .250" MULLION (@ LENGTH = 42", OPENING HEIGHT = 120") HAS A DESIGN PRESSURE OF +/-170.0 PSF WHICH EXCEEDS THE REQUIREMENTS FOR THE OPENING AND MAY BE USED IN THIS APPLICATION. NOTE THE ANCHOR CAPACITY REQUIRED OF 521 LBS.

2) USE TABLE 12B TO FIND THE ANCHOR TYPE, ANCHOR QUANTITY AND CLIP TYPE REQUIRED FOR THE CMU SUBSTRATE. IN THIS EXAMPLE, ASSUME THE CMU JAMBS ARE 8" WIDE. IF THE MULLION CLIP WERE TO BE CENTERED WITHIN THE 8", CARE MUST BE TAKEN TO MAINTAIN THE FASTENER'S EDGE DISTANCE. USING THE 2X5 ANGLE CLIPS WITH (4) 3/16" ULTRACON ANCHORS AT AN EDGE DISTANCE OF 1" GIVES AN ANCHOR CAPACITY OF 540 LBS WHICH IS GREATER, AND THEREFORE SUITABLE, FOR THE REQUIRED ANCHOR CAPACITY OF 521 LBS.

4) FOR THE U-CLIP IN THE HORIZONTAL MULLION TO VERTICAL MULLION, USE THE SAME ANCHOR CAPACITY OF 521 LBS. TABLE 12B FOR THE U-CLIP SHOWS THE ANCHOR CAPACITY IS 1074 LBS WHEN USING 3 ANCHORS, WHICH IS GREATER, AND THEREFORE SUITABLE, FOR THE REQUIRED ANCHOR CAPACITY REQUIREMENT OF 521 LBS. THE ANCHOR TYPE IS A #12 STEEL SCREW.

FROM THE ABOVE STEPS, OUR MULLION DESIGN PRESSURE IS:
+/-64.7 PSF FROM THE VERTICAL MULLION;
+/-170.0 PSF FROM THE 36" HORIZONTAL MULLION ATTACHING TO CMU;
+/-170.0 PSF FROM THE 36" HORIZONTAL MULLION ATTACHING TO THE VERTICAL MULLION (INTERSECTION).
THE LOWEST DESIGN PRESSURE IS +/-64.7 PSF AND WOULD APPLY TO ALL OF THE MULLIONS.

VERIFY THE DESIGN PRESSURE OF THE FENESTRATION PRODUCTS USED WITH THIS MULLION SYSTEM. THE LOWER DESIGN PRESSURE, OF MULLIONS OR FENESTRATION PRODUCTS, WILL APPLY TO THE OVERALL ASSEMBLY. FINAL DESIGN PRESSURE REQUIRES THAT THE BOTH THE MULLION AND THE FENESTRATION PRODUCT BE INSTALLED IN ACCORDANCE WITH THE INSTALLATION SPECIFICATIONS INTO RESPECTIVE SUBSTRATES AND FENESTRATION PRODUCTS TO MULLION.

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P.O. BOX 1529
NOKOMIS, FL 34274
FL CERT. OF AUTH.# 29296

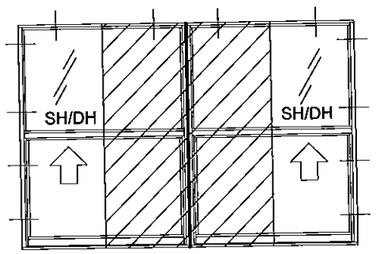
Title: IMPACT-RESISTANT ALUMINUM TUBE MULLIONS
Description: EXAMPLES
Series: N/A
Drawn By: J ROSOWSKI
Rev. By: J ROSOWSKI
Scale: N/A
Date: 08/29/11
Checked By:
Date: 10/10/14
Drawing No. 6300JR
Revision: NEW MULLS TO SHEETSET
Sheet: 24 of 25
Rev: B

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No 16-0218.03
Expiration Date May 26, 2021
By Manuel Perez
Miami-Dade Product Control

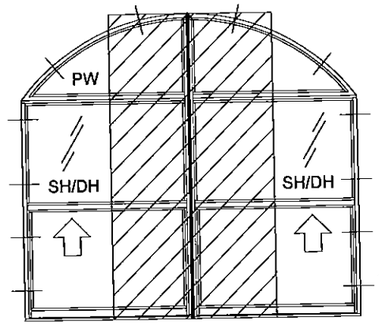
ANTHONY LYNN MILLER
LICENSE
No. 58705
STATE OF FLORIDA
PROFESSIONAL ENGINEER
4/8/16

A. LYNN MILLER, P.E.
FL P.E.# 58705

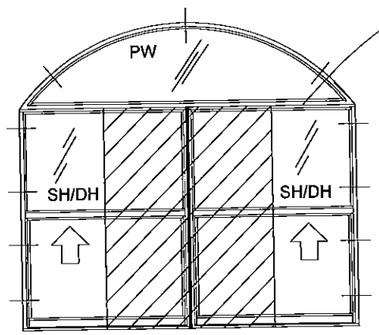
EXAMPLES OF RECTANGULAR LOADING:



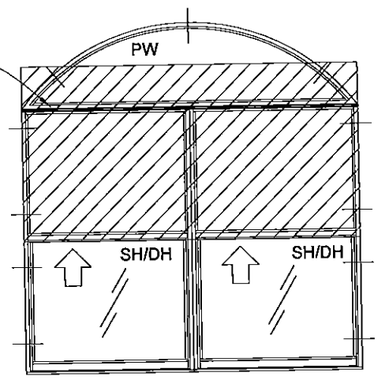
LOADING OF VERTICAL MULLION
SILL OF WINDOWS NOT ANCHORED



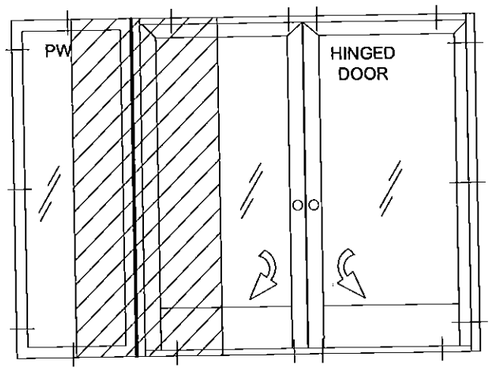
LOADING OF VERTICAL MULLION
WITH INTERSECTING HORIZONTAL MULLIONS



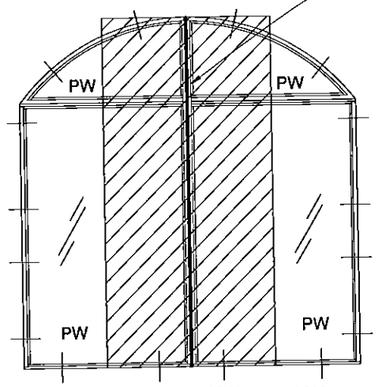
LOADING OF VERTICAL MULLION
SILL OF WINDOWS NOT ANCHORED



LOADING OF HORIZONTAL MULLION
WITH INTERSECTING VERTICAL MULLION

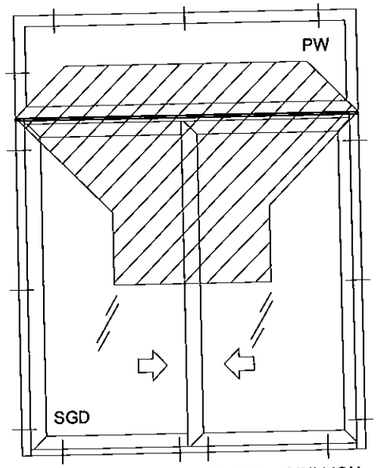


LOADING OF VERTICAL MULLION
PANEL OF HINGED DOOR IS NOT CAPTURED OR ANCHORED

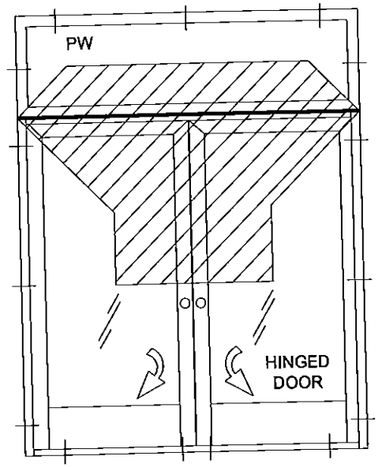


LOADING OF VERTICAL MULLION
WITH INTERSECTING HORIZONTAL MULLIONS

EXAMPLES OF TRAPEZOIDAL/TRIANGULAR LOADING:



LOADING OF HORIZONTAL MULLION



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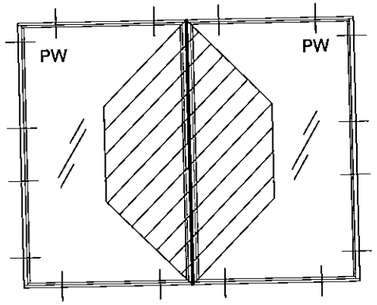
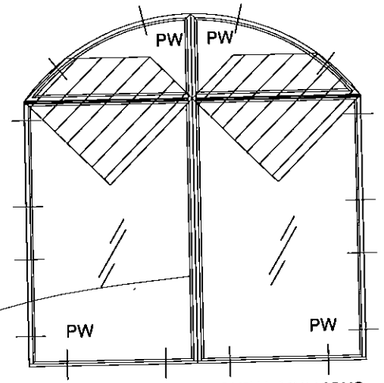
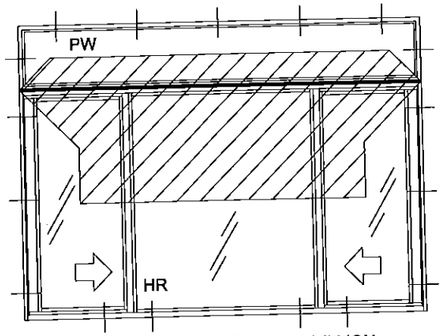


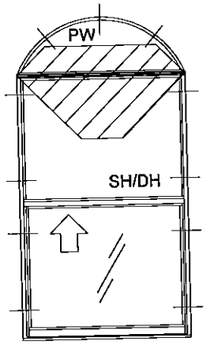
LOADING OF VERTICAL MULLION



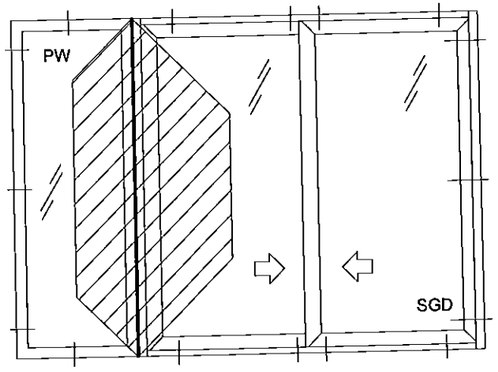
LOADING OF (2) HORIZONTAL MULLIONS



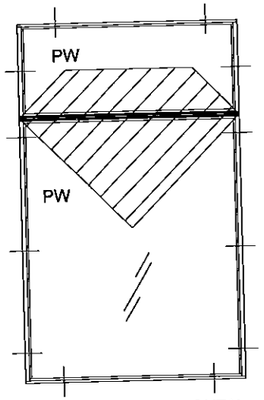
LOADING OF HORIZONTAL MULLION



LOADING OF HORIZONTAL
MULLION



LOADING OF VERTICAL
MULLION



LOADING OF HORIZONTAL
MULLION

NOTES:

1) DRAWINGS ARE RERESENTATIONS OF TYPICAL CONFIGURATIONS. CONFIGURATIONS NOT SHOWN MAY BE EXTRAPOLATED FROM THOSE SHOWN.

2) IF THE LOADING TYPE CANNOT BE DETERMINED, USE RECTANGULAR LOADING.

3) SEE PRODUCTS' APPROVAL FOR ACTUAL ANCHOR LOCATIONS.

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City Of Lake Worth
Department for Community Sustainability
Planning, Zoning and Historic Preservation Division
1900 Second Avenue North · Lake Worth · Florida 33461· Phone: 561-586-1687

MEMORANDUM DATE: September 7, 2016

AGENDA DATE: September 14, 2016

TO: Chair and Members of the Historic Resources Preservation Board

RE: **421 North K Street**

FROM: Aimee N. Sunny, Senior Preservation Coordinator
Department for Community Sustainability

TITLE: **HRPB Project Number 16-00100198:** Consideration of a Retroactive Certificate of Appropriateness (COA) for exterior alterations to the single-family structure located at **421 N K Street**; PCN#38-43-44-21-15-114-0210. The subject property was constructed c.1925 and is a contributing resource within the Northeast Lucerne Local Historic District.

OWNER/APPLICANT: Gerard Thornton
421 North K Street
Lake Worth, FL 33460

BACKGROUND:
The single-family structure at 421 North K Street was constructed c. 1925 in a shotgun Frame Vernacular style. The property has public frontage on North K Street to the east. Character defining features of the building include the wood frame and wood siding, wood windows, trim and sills, a decorative front and side porch, and shotgun layout.

The structure has undergone several incompatible alterations, including window removal, trim removal, infill of the side porch, door removal, and removal of the wood siding and installation of fiber cement siding on the front, east elevation. Overall, the building retains a moderate degree of historic integrity of location, setting, materials, and design.

REQUEST:
The Applicant's justification statement and scope of work is included as Attachment 2. Based on this information, the Applicant is requesting a retroactive COA for the following exterior alterations:

1) Removal of the wood lap siding, and installation of Hardie-plank type fiber cement siding.
2) Removal of all original 3/1 and 1/1 wood double-hung windows, installation of aluminum single-hung windows in several openings, and removal or reconfiguration of several openings.
3) Removal of the wood 15-light French doors and installation of new 15-light French doors
4) Enclosure of the side porch to create a shed.

The Applicant will also be requesting a retroactive building permit, as all work was done without a COA or valid building permit. This property does have an active Code Enforcement case and was heard before the Special Magistrate on June 30, 2016. If the case is not complied within 90 days, the property will begin accruing fines.

COMPREHENSIVE PLAN CONSISTENCY:

It is the analysis of Staff that the project, as proposed, is not consistent with the Comprehensive Plan goals and objectives concerning historic preservation and housing due to the fact that the Applicant is proposing a change that will have an adverse effect on the historic integrity of the property. Specifically, the request is in conflict with these objectives:

Goal 1.4 Encourage preservation and rehabilitation of historic and natural resources and where appropriate restrict development that would damage or destroy these resources. (Objective 1.4.2)

Objective 3.2.5: To encourage the identification of historically significant housing, and to promote its preservation and rehabilitation as referenced by the Surveys of Historic Properties conducted for the City of Lake Worth.

Policy 3.2.5.1: Properties of special value for historic, architectural, cultural or aesthetic reasons will be restored and preserved through the enforcement of the City's Historic Preservation Ordinance to the extent feasible.

ANALYSIS:

Zoning

The proposed alterations are not in conflict with the development requirements in the City's Zoning Code.

Historic Preservation

Staff has reviewed the documentation and materials provided in this application and outlined the applicable guidelines and standards found in the City's Historic Preservation Ordinance, detailed in Attachment 1 – Decision Criteria.

The National Park Service and Secretary of the Interior's Standards have very specific criteria regarding replacement of historic materials. Specifically Standards 2, 5, and 6 apply in this situation:

Standard 2 - The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.

Standard 5 - Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.

Standard 6 - Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.

According to the Standards and the Code, when repair or replacement of wood lap siding is necessary, the new siding should match the old in design, profile, and materials. Removal of the wood lap siding and installation of thin Hardie-plank fiber cement siding is not in keeping with the Standards, as the wood siding is a distinctive design feature of this Frame Vernacular structure.

Similarly, according to the Standards and the Code, when repair or replacement of wood double-hung windows is necessary the Applicant should first attempt to repair the existing wood windows. If repair is not feasible, the

Standards would recommend replacement with a product that most closely replicates the design, color, and materials of the original windows. The windows and doors should be replaced in the existing openings. Openings should not be closed-in, removed, or altered. All decorative window and door trim and sills should be replaced with compatible trim in design and material.

The side porch should remain as an open side porch, and not be enclosed as a shed. All decking on the rear of the structure should be in compliance with the zoning code requirements.

Public Comment
At the time of publication of this report, Staff has not received any public comment regarding this project.

CONSEQUENT ACTION:
Approve the application; approve the application with conditions; continue the hearing to a date certain to request additional information; or deny the application.

RECOMMENDATION:
Staff recommends that the Board deny the request for exterior alterations as requested by the Applicant. The proposal for exterior alterations does not meet the Secretary of the Interior's Standards for Rehabilitation, does not meet the criteria set forth in the City of Lake Worth Land Development Regulations §23.5-4(k), and will have an adverse effect on the integrity and character of the property. The original character of the property is readily visible in the historic survey photograph included as Attachment 3. The Applicant should utilize the historic photograph in order to properly restore the structure.

If the Board chooses to approve the application for exterior alterations, Staff recommends the following conditions of approval:

1) The front façade of the structure shall be returned to its historic appearance, as is visible in the historic photograph included as Attachment 3.
2) Replacement windows shall be wood, wood clad, or aluminum double-hung windows, be installed in the original opening sizes and locations, and have a 3/1 or 1/1 divided light pattern, subject to staff review and approval at permitting.
3) The divided light pattern shall be created by using exterior raised applied triangular muntins to replicate the pane configuration of the original wood windows. No flat or internal muntins shall be allowed. The proper divided light pattern and muntin profile shall be reviewed by Staff at permitting.
4) The Applicant shall utilize light gray screens rather than dark vinyl screens in order to minimize the impact of the panes of glass sitting in different visual planes.
5) No reflective or mirrored glass shall be used.
6) The wood siding shall remain in place if possible. If the existing wood siding is too deteriorated, it should be replaced with wood lap siding that replicates the size, shape, and profile of the existing historic siding.
7) The Hardie-plank siding on the front elevation shall be removed and wood siding shall be re-installed to match the existing wood siding on the structure.
8) The doors may be replaced with wood, wood clad, or aluminum 15-light French doors, with exterior raised applied triangular muntins.
9) The side porch shall be re-opened as a porch, and shall not be enclosed as a shed.
10) All work shall be subject to staff review during permitting and inspection during construction.

POTENTIAL MOTIONS:

I MOVE TO **APPROVE** HRPB 16-00100198: Consideration of a Certificate of Appropriateness (COA) for an exterior alterations for the subject building located at **421 North K Street**, subject to the staff recommended conditions of approval, and based upon the preponderance of competent substantial evidence, and pursuant to the City of Lake Worth Land Development Regulations Section 23.5-4.

I MOVE TO **DENY** HRPB 16-00100198: Consideration of a Certificate of Appropriateness (COA) for an exterior alterations for the subject building located at **421 North K Street** because the Applicant has not established by a preponderance of the competent substantial evidence that the application is in compliance with the City of Lake Worth Land Development Regulations Section 23.5-4, the Secretary of the interiors Standards for the Rehabilitation of Historic Properties, and the City's Comprehensive Plan.

ATTACHMENTS:

1. Decision Criteria
2. Justification Statement
3. Historic Survey Information and Photographs
4. Proposed Architectural Drawings
5. Proposed Materials

LOCATION MAP

MEMORANDUM

DATE: September 7, 2016

TO: Chair and Members of the Historic Resources Preservation Board

FROM: Aimee N. Sunny, Preservation Planning Coordinator
Department of Community Sustainability

SUBJECT: **HRPB Project Number 16-00100198:** Consideration of a Retroactive Certificate of Appropriateness (COA) for exterior alterations to the single-family structure located at **421 N K Street**; PCN#38-43-44-21-15-114-0210. The subject property was constructed c.1925 and is a contributing resource within the Northeast Lucerne Local Historic District.

HRPB Meeting Date: September 14, 2016

Per Section 23.5-4k (1) of the historic preservation ordinance, the Board shall use the following criteria in making a determination:

A. What is the effect of the proposed work on the landmark or the property upon which such work is to be done?
Response: It is the opinion of Staff that the proposed retroactive exterior alterations will have an adverse effect on the historic appearance of the building, and is not compatible with the design or style.

B. What is the relationship between such work and other structures on the landmark site or other property in the historic district?
Response: The proposed work will have no direct physical effect on any surrounding properties within the surrounding Northeast Lucerne Local Historic District; however, it will have an indirect visual effect on the district.

C. To what extent will the historic, architectural, or archaeological significance, architectural style, design, arrangement, texture, materials and color of the landmark or the property be affected?
Response: The Applicant is proposing work that is not compatible with the architectural design and detailing of the building by removing the historic wood siding, wood windows, wood doors, porches, and trim.

D. Would denial of a certificate of appropriateness deprive the property owner of reasonable beneficial use of his property?
Response: No, the denial of this COA as submitted does not prevent the Applicant from potentially proposing other alterations to the structure, nor would it make the building uninhabitable.

E. Are the applicant's plans technically feasible and capable of being carried out within a reasonable time?
Response: Yes.

F. Do the plans satisfy the applicable portions of the general criteria contained in the United States Secretary of the Interior's Standards for Rehabilitation then in effect or as they may be revised from time to time? The current version of the Secretary's Guidelines provides as follows:

(1) A property shall be used for its historic purpose or be placed in a new use that requires minimal change to the defining characteristics of the building and its site and environment.
Response: No change to the use of the property is proposed.

(2) This historic character of the property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.
Response: The Applicant is proposing to remove historic wood siding, wood windows, wood doors, porches, and trim.

(3) Each property shall be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or architectural elements from other buildings, shall not be undertaken.
Response: Not applicable to this project.

(4) Most properties change over time; those changes that have acquired historic significance in their own right shall be retained and preserved.
Response: Not applicable to this project.

(5) Distinctive features, finishes and construction techniques or examples of craftsmanship that characterize a historic property shall be preserved.
Response: The existing wood siding, wood windows, wood doors, porches, and trim are examples of craftsmanship that characterize not only this structure, but also the time period and architectural style in general.

(6) Deteriorated architectural features shall be repaired rather than replaced, wherever possible. In the event replacement is necessary, the new material should match the material being replaced in composition, design, color, texture, and other visual qualities.
Response: The proposed alterations do not match the existing structure in style, material, or texture.

Repair or replacement of missing architectural features should be based on accurate duplications of features, substantiated by historical, physical, or pictorial evidence rather than on conjectural designs or because the different architectural elements from other buildings or structures happen to be available for relocation.
Response: Not applicable to this project.

(7) Chemical or physical treatments, such as sandblasting, that cause damage to historic materials, shall not be used. The surface cleaning of structures, if appropriate, shall be undertaken using the gentlest means possible.
Response: Not applicable to this project.

(8) Significant archeological resources affected by a project shall be protected and preserved. If such resources must be disturbed, mitigation measures shall be undertaken.
Response: Not applicable to this project.

(9) New additions, exterior alterations or related new construction shall not destroy historic materials that characterize the property. The new construction shall be differentiated from the old and shall be compatible with the massing, size, scale and architectural features to protect the historic integrity of the property and its environment.
Response: The proposed alterations remove wood siding, wood windows, wood doors, porches, and trim that characterize the property.

(10) New additions and adjacent or related new construction shall be undertaken in such manner that, if removed in the future, the essential form and integrity of the historic building and its environment would be unimpaired.
Response: Not applicable to this project.

G. What are the effects of the requested change on those elements or features of the structure which served as the basis for its designation and will the requested changes cause the least possible adverse effect on those elements or features?
Response: It is the opinion of Staff that the historic character of the property would be adversely affected by the proposed project as submitted by the Applicant, as outlined above. The requested exterior alterations do not represent the least possible adverse effect on the property. There are alternate options, including restoring the property based on the historical photograph.

Section 23.5-4k (2). *Additional guidelines for alterations.*

In approving or denying applications for certificates of appropriateness for alterations, the HRPB shall also consider the following additional guidelines:

A. Is every reasonable effort being made to provide a compatible use for a property that requires minimal alteration of the building, structure or site and its environment, or to use the property for its originally intended purpose?
Response: No change to the use of the property is proposed.

B. Are the distinguishing original qualities or character of a building, structure or site and its environment being destroyed? The removal or alteration of any historic material or distinctive architectural features shall be avoided whenever possible.
Response: The wood siding wood siding, wood doors, porches, and trim can be considered distinctive architectural features and should not be removed unless the level of deterioration is such that it cannot be repaired. In that case, it should be replaced and should replicate the original materials as closely as possible.

C. When a certificate of appropriateness is requested to replace windows or doors, the HRPB shall permit the property owner's original design when the HRPB's alternative design would result in an increase in cost of thirty (30) percent above the owner's original cost. The owner shall be required to demonstrate to the HRPB that:
(1) The work to be performed will conform to the original window openings of the structure; and
Response: The applicant does not meets this criterion.

(2) That the replacement windows or doors with less expensive materials will achieve a savings in excess of thirty (30) percent over historically compatible materials otherwise required by this code.
Response: Staff must defer to the applicant.

GERARD THORNTON

421 NORTH K STREET | LAKE WORTH, FLORIDA 33460
| Tel: 561.305.3528 | Email:JerThornton@Gmail.com

August 1, 2016

Aimee N. Sunny
Preservation Planning Coordinator
1900 2nd Ave North
Lake Worth, FL 33460

VIA: Hand Delivered

Ref: 421 N K ST LAKE WORTH FL 33460-3019

Subject: Scope of Work

Case# 16-00000367

Ms. Sunny;

Attached are the plans and full scope of the work with photographs for your review.

I have successfully renovated cottages from the historic French Quarter and have deep knowledge of termite repair and the proper restoration of historic structures to retain the historic aspect of the building but with modern materials that will allow the structure to live another 100+ years.

Scope of work:

My goals for this property are;

- To cure any deficiency in Lake Worth code on this property.
- To make the property beautiful.
- Use this as a model for the historic tour.
- Encourage the preservation of historic cottage with a practical aspect in Lake Worth.

This cottage had extensive termite damage and over a period of 5 years one window after the other would fall out on to the ground along with three doors. I have shored up the structure to prevent a complete collapse. I have used treated lumber to keep this little cottage from being another blighted property. This work was done without the proper permits and I apologize for that action as all future work be done by permit only.

1) Windows
   All windows will be of the Impact type, white, aluminum. I have attached the window

description with Certification. This windows will be historically accurate and match the door as per drawing. I want to keep the grid pattern (this was an option to homeowners in the 1920s) instead on the 2 over 1 pattern with is rather quite dull.

The original windows (4) in the front were too wide and weakened the structure this in turn caused the roof to collapse during a hurricane. The roof was repaired and I replaced termite damaged widows with the correct aspect ratio for the front to keep the front view of the house balanced and symmetrical and pleasing to the eye. This is the impact window as per the brochure.

2) Door
To be replaced with 15 lite steel door that will look historical accurate as per drawing.

3) Siding
The paint on the siding has lead. In order to comply with EPA 2008 Lead-Based Renovation and repaid (RRP) (and prevent a violation at the federal level.) I propose to use Hardi- Plank. Best practices are not to disturbed the existing paint but to encapsulate the paint. I have had great success in the historic French Quarter, New Orleans, Louisiana on 5 different projects with great success and this is the manner it should be done.

I have encapsulated the front siding with Hardi-Plank with a historical accurate profile that was available to homeowners in the 1920s. The results are fantastic and address all concerns with the EPA and are historically accurate. For the sides and back of the cottage I can leave the existing siding and replace the rotted section with the existing profile or replace with Hardi-Plank.

4) Trim
Fluted trim was available to homeowners in the 1920s and add a beautiful elegant finish to a dull flat surface by added needed texture. I would like to keep all trim to the fluted type.

5) The south side door and the window next to it was too wide for the structure and in turn caused the roof to during a hurricane. I have closed up the termite damaged window and door to give structure strength to the roof and would to keep the area closed if possible.

This little cottage has been listed on the front cover of the Historic Tours of Lake Worth. Many people come by to admire the beauty of this cottage. Five other homes were painted once I finished this painting and I would like to continue to make this cottage a great example.

I will be happy to meet with you or the board at any time to discuss any questions you may have to move this project forward.

Respectfully,

Gerard Thornton

421 NORTH K STREET | LAKE WORTH, FLORIDA 33460
| Tel: 561.305.3528 | Email:JerThornton@Gmail.com

RECORD NUMBER: 580
Page 1 **HISTORICAL STRUCTURE FORM** Site 8 _____
X original **FLORIDA MASTER SITE FILE**
update

SITE NAME:
HISTORIC CONTEXTS: Boom Times
NAT. REGISTER CATEGORY: Building
OTHER NAMES OR MSF NOS:
COUNTY: Palm Beach **OWNERSHIP TYPE:** Private-individual
PROJECT NAME: Lake Worth: S+P DHR NO.
LOCATION:
ADDRESS: 421 North K Street
CITY: Lake Worth
VICINITY OF/ROUTE TO: See attached maps

SUB: Town of Lake Worth **BLOCK** 114 **LOT** 21
PLAT OR OTHER MAP: Property Appraisers Map of Lake Worth
TOWNSHIP: 44 S **RANGE:** 43 E **SECTION:** 22 **1/4:** **1/4-1/4:**
IRREGULAR SEC? **y** **n** **LAND GRANT:** None
USGS 7.5 MAP: Lake Worth, FL 1945 PR: 1983
UTM: **ZONE:** **EASTING:** **NORTHING:**
COORDINATES: **LATITUDE:** **D** **M** **S** **LONGITUDE:** **D** **M** **S**

HISTORY
ARCHITECT:
BUILDER:
CONSTRUCTION DATE: c 1925 **RESTORATION DATE(S):**
MODIFICATION DATE(S):
MOVE: DATE: **ORIG. LOCATION:**
ORIGINAL USE (S): Private residence
PRESENT USE (S): Private residence

DESCRIPTION
STYLE: Frame Vernacular
PLAN: EXTERIOR: Rectangular
PLAN: INTERIOR:
NO. STORIES: 1 **OUTBLDGS:** 0 **PORCHES:** 1 **DORMERS:** 0
STRUCTURAL SYSTEM(S): Wood, balloon
EXTERIOR FABRIC(S): Drop siding
FOUNDATION: TYPE: Continuous
MATERIALS: Concrete block
INFILL:
PORCHES: E/entrance/gable roof, posts/1 bay
ROOF: TYPE: Gable
SURFACING: Composition shingle
SECONDARY STRUCS:
CHIMNEY: NO.: 0
MATERIALS:
LOCATIONS:
WINDOWS: Double-hung sash, 3/1 lights

EXTERIOR ORNAMENT:
CONDITION: Good
SURROUNDINGS: Residential
NARRATIVE:
See continuation sheet

ARCHAEOLOGICAL REMAINS AT THE SITE
FMSF ARCHAEOLOGICAL FORM COMPLETED? y X n
ARTIFACTS OR OTHER REMAINS: None observed

RECORDER'S EVALUATION OF SITE
AREAS OF SIGNIFICANCE: Architecture

ELIGIBLE FOR NAT. REGISTER?	y	X n	likely, need info	insf info
SIGNIF. AS PART OF DISTRICT?	y	X n	likely, need info	insf info
SIGNIFICANT AT LOCAL LEVEL?	X y	n	likely, need info	insf info

SUMMARY OF SIGNIFICANCE
See continuation sheet

* * * * DHR USE ONLY * * * * * * * DHR USE ONLY * * * * * * *
* DATE LISTED ON NR _____ *
* KEEPER DETERMINATION OF ELIG.(DATE): _YES _____ _NO _____ *
* SHPO EVALUATION OF ELIGIBILITY (DATE): _YES _____ _NO _____ *
* LOCAL DETERMINATION OF ELIG. (DATE): _YES _____ _NO _____ *
* OFFICE_____ *
* *
* * * * DHR USE ONLY * * * * * * * DHR USE ONLY * * * * * * *

RECORDER INFORMATION: NAME: Robert Bennett, Jr.
DATE: 12/01/90 **AFFILIATION:** Historic Property Associates, Inc.

PHOTOGRAPHS
LOCATION OF NEGATIVES: HPA, St. Augustine, FL
NEGATIVE NUMBERS: Roll 17, #27

PHOTOGRAPH M A P

See Attachments

STATEMENT OF SIGNIFICANCE

Architectural Narrative: This one-story wood Frame Vernacular residential building is located at 421 North K Street. Notable architectural features include a front-facing gable roof, a symmetrical facade, and an entrance porch covered by a gable roof. The porch is supported by wooden posts. The exterior wall fabric is drop siding. Fenestration consists of 3/1 double-hung sash windows. With few alterations, this building has retained most of its architectural integrity.

Architectural Context: Frame Vernacular, the prevalent style of residential architecture in Florida, refers to the common wood frame construction technique employed by lay or self-taught builders. Before the Civil War, residents relied upon local materials and their own methods and designs to construct buildings. The Industrial Revolution permitted standardization of building materials and parts and exerted a pervasive influence over vernacular house design. Popular magazines helped to make architectural trends universal throughout the country. The railroad provided cheap and efficient transportation for manufactured building materials. Ultimately, individual builders had access to a myriad of finished architectural products from which to create their own designs.

Frame Vernacular houses are typically one or two stories in height, with wood balloon frame structural systems and brick pier foundations. Plans are usually rectangular, though L-shaped plans were often used to maximize cross-ventilation. Gable or hip roofs usually have steep pitches which accommodate attic space. Horizontal drop siding and weatherboard are the most common exterior wall surface materials. Wood shingles were often used to cover the roofs, but they have nearly always been replaced by composition shingle. Porches, most commonly simple entrance or end porches, are common features of the style. Fenestration is regular, but not always symmetrical. Windows are generally double-hung sash with multi-pane glazing and doors contain recessed wood panels. Exterior decoration is sparse and limited to ornamental woodwork.

Historical Narrative: According to Sanborn Company maps, which were prepared of Lake Worth between 1918 and 1940, this building was constructed c. 1925. It is significant for its association with the development of the residential core of the city during the Florida Land Boom of the 1920s.

Historical Context: The City of Lake Worth is located in Palm Beach County on the Southeast coast of the Florida peninsula. Lake Worth was founded in 1912 by the Palm Beach Farms Company as a speculative real estate development. Officers of the Palm Beach Farms Company, H.J. Bryant, F.E. Bryant, and William Greenwood, advertised their community throughout the United States and Canada, offering lots for $250. Development within Lake Worth proceeded at a moderate pace until the end of the First World War. During the decade following the War, Lake Worth, like the rest of Southeast Florida, experienced phenomenal growth, especially during the Florida Land Boom years of 1924-26. A population that stood at 1,106 in 1920 increased nearly ten fold by the end of the decade. Building kept apace with the population growth. Two hundred fifty homes and fifteen brick commercial buildings were constructed in 1922 alone. In 1925, growth mandated that the Town of Lake Worth re-incorporated as a city. By the end of the following year, however, an embargo on building materials by the Florida East Coast Railway combined with other economic constrictions and a devastating hurricane in September to bring development in Southeast Florida to a virtual halt. A second, and to Lake Worth, more injurious hurricane struck in 1928. This disaster, while causing extensive damage, helped to revitalize development, especially in the downtown area. Lake Worth, with its appeal as a winter resort, did not suffer the intense economic hardship of many other Florida communities during the Great Depression, although full recovery would not come until after World War II. The historic buildings of Lake Worth provide a valuable visual link with City's past and are worthy of the protection that preservation measures can afford.

421

HISTORICAL STRUCTURE FORM

Site #8: PB07433
First site form recorded for this site? Update form for a site previously recorded at FSF
Identifying code (field date): 200112
Recorder #:
Field Date: 12/01/2001
Form Date: 07/19/2002
Site name(s): 421 NORTH K STREET
[Other name(s)]:
Mult. list #:
Survey names: CITY OF LAKE WORTH SURVEY PHASE IV
Survey #:
National register category: Building(s)

LOCATION & IDENTIFICATION

Street Number/Direction/Name/Type/Suffix Direction: 421/North/K/Street/**
Cross streets nearest/between: 4TH/5TH
City/town: LAKE WORTH
In current city limits? Definitely within the limits of city
County: PALM BEACH
Tax parcel #:
Subdivision name: LUCERNE TOWNSITE
Block:
Lot no.:
Ownership type: Private-individual
Name of pubtract (e.g., park):
Route to (or vicinity of):

MAPPING

USGS map name/year of publication or revision: LAKE WORTH/1983
Township/Range/Section/Qtr: 44 South/43 East/22/**
Irregular section: NO
Landgrant: NONE
UTM Zone/Easting/Northing:
Plat or other map (map's name, location):

DESCRIPTION

Style: Frame Vernacular: Any date
[Other style]:
Exterior plan: Rectangular
[Other exterior plan]:
No. stories: 1
Structural system(s): Wood frame
[Other structural system(s)]:
Foundation types: Continuous
[Other foundation type]:
Foundation materials: Concrete block
[Other foundation materials]:
Exterior fabrics: Beaded weatherboard
[Other exterior fabrics]
Roof types: Gable
[Other roof types]:

Roof materials: Composition shingles
[Other roof materials]:
Roof secondary structures (dormers etc):
[Other roof secondary structures]:
Chimney no.:
Chimney materials:
[Other chimney materials]:
Chimney locations:
Windows (types, materials, etc.): DHS; WOOD; 3/1; PAIRED.
Main entrance (stylistic details): CONCRETE WALKWAY LEADS THROUGH PICKET FENCE AND LANDSCAPED YARD TO THREE CONCRETE STEPS AT PORTICO.
# of open porches: 1
# of closed porches:
# of incised porches:
Porch locations: THE PORCH IS LOCATED ON THE EAST ELEVATION OF THE HOUSE.
Porch roof types: THE PORCH HAS A GABLE FRONT ROOF.
Exterior ornament: THE ROOF HAS EXPOSED RAFTER TAILS. THE WINDOWS THROUGHOUT HAVE MOLDED WOOD SURROUNDS.
Interior plan: Unknown Interior Plan
[Other interior plan]:
Condition: Excellent
Narrative description:
Commercial surroundings (proportion): No/few cultural resources show quality (<10%)
Residential surroundings (proportion): All/nearly all cult. resources show quality (>90%)
Institutional surroundings (proportion): No/few cultural resources show quality (<10%)
Undeveloped surroundings (proportion): No/few cultural resources show quality (<10%)
Ancillary features (no., outbldings, etc.):
Artifacts or other remains:
FMSF Archaeological form completed? No: Archaeological Form not done

HISTORY

Construction year (e.g. C1933, 1936+, 1936-): C1930
Architect (last name first):
Builder (last name first):
Change status/year changed/date noted/nature:
Original, intermediate, present uses/year started/year ended: Residence--private/C1930/**; Residence--private/**/**; Residence--private/**/**
[Other uses]:
Ownership history (esp. original owners):

RESEARCH METHODS

Research methods: Florida Site File search for this property; Libraries searched locally-county histories, etc.; Sanborn maps for this property consulted; Plat or subdivision map for the property; Pedestrian**; Local tax records only
[Other research methods]:

SURVEYOR'S EVALUATION OF SITE

Potentially elig. for local designation? Eligible for local registry of significant sites
Local register eligible for: NE LUCERNE TOWNSITE DISTRICT
Individually elig. for Nat. Register? Ineligible for NR, considered independently
Potential contributor to NR district? Ineligible as contributor to potential NR district
Area(s) of historical significance: Architecture; Community planning & development; Local
[Other historical associations]:
Explanation of evaluation: THIS HOUSE CONTRIBUTES TO THE LOCALLY ELIGIBLE NE LUCERNE TOWNSITE HISTORIC DISTRICT, WHICH DEVELOPED FROM THE 1920S THROUGH THE 1940S.

DOCUMENTATION (PHOTOS, PLANS, ARTIFACTS)

Repositories: Collection/Housed/ACC#/Describe

RECORDER

Recorder name (last name first): HENRY, GEOFFREY B./TUK, JARED N.

Recorder address and phone: 618 E SOUTH STREET, ORLANDO, FL 32801 407-423-8398

Recorder affiliation: Other, please describe or elaborate

Other affiliation]: GAI CONSULTANTS SE

s text-only supplement file attached? NO supplement file is needed.

Google Maps N K St

Image capture: Apr 2011 © 2016 Google

Lake Worth, Florida

Street View - Apr 2011

Google Maps N K St

Image capture: Apr 2011 © 2016 Google

Lake Worth, Florida

Street View - Apr 2011

Google Maps N K St

Image capture: May 2014 © 2016 Google

Lake Worth, Florida

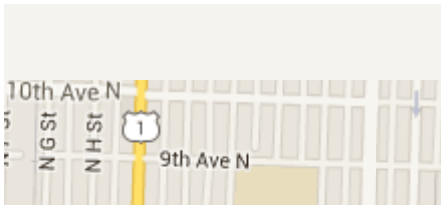
Street View - May 2014

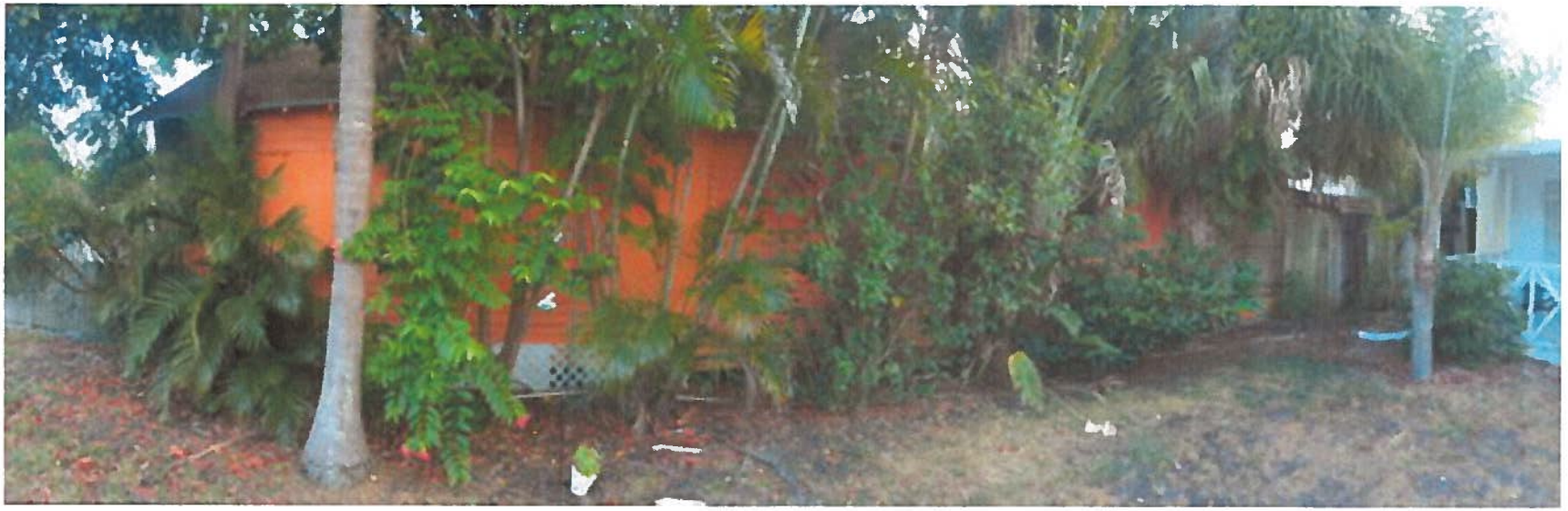
Google Maps N K St

Image capture: Jan 2015 © 2016 Google

Lake Worth, Florida

Street View - Jan 2015





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FRIGIDAIRE

HOT STUFF HERE
NOT OTHER USE

LOAD SIZE
TEMPERATURE
7 Cycle 2 Speed
Heavy Duty Super Ca

R MAX

MAX
R-MATTE PLUS-3

THORNTON RESIDENCE

KITCHEN REMODEL

421 NORTH K STREET

LAKE WORTH, FLORIDA 33460

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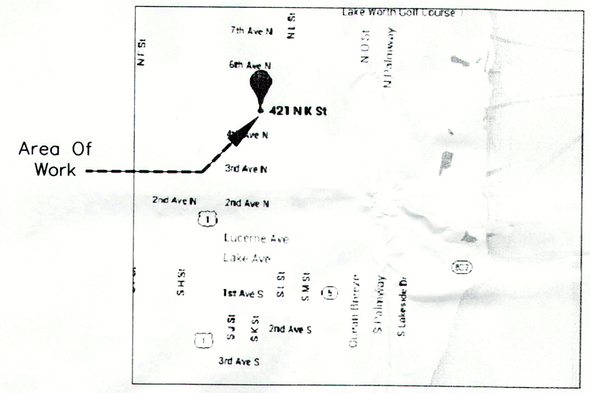
List Of Drawings

Cover Sheet	TS-1	Electrical Plan	E1.0
Notes 1 Sheet	A1.0	Mechanical Plan	M1.0
First Floor Plan	A2.2	Plumbing Riser & Details	P1.0
Elevations	A3.0		

LOCATION MAP



ABBREVIATIONS LEGEND

ABV	ABOVE
AFF	ABOVE FINISHED FLOOR
ACC	ACCESS
ACOU	ACOUSTICAL
APC	ACOUSTICAL PANEL CEILING
ADD	ADDENDUM
ADJ	ADJACENT
A/C	AIR CONDITIONING
ALT	ALTERNATE
AL, ALUM	ALUMINUM
ANC	ANCHOR, ANCHORAGE
AB	ANCHOR BOLT
∠	ANGLE
ANOD	ANODIZED
ARCH	ARCHITECT (URAL)
AUTO	AUTOMATIC
AVE	AVENUE
AVG	AVERAGE
BM	BEAM
BLK	BLOCK
BLKG	BLOCKING
BD	BOARD
BOT	BOTTOM
BRG	BEARING
BLDG.	BUILDING
BUR	BUILT UP ROOFING
CAB	CABINET
CB	CATCH BASIN
CI	CAST IRON
CLG	CEILING
CEM	CEMENT
CER	CERAMIC
CT	CERAMIC TILE
CIR	CIRCLE
CCTV	CLOSED CIRCUIT TELEVISION
CLO	CLOSET
COL	COLUMN
CONC	CONCRETE
CMU	CONCRETE MASONRY UNIT
CONST	CONSTRUCTION
CONT	CONTINUOUS OR CONTINUE
CONTR	CONTRACT (OR)
CJ	CONTROL JOINT
CORR	CORRUGATED
CRS	COURSE (S)
CFM	CUBIC FEET PER MINUTE
CU.FT.	CUBIC FOOT
CYD	CUBIC YARD
DEMO	DEMOLISH DEMOLITION
DTL	DETAIL
DIAG	DIAGONAL
DIA.	DIAMETER
DIM	DIMENSION
DIV	DIVISION
DR	DOOR
DBL	DOUBLE
DN	DOWN
DS	DOWN SPOUT
D	DRAIN
DWR	DRAWER
DWG	DRAWING
DF	DRINKING FOUNTAIN
DW	DISHWASHER
EA	EACH
E	EAST
ELEC	ELECTRIC (AL)
EWC	ELECTRIC WATER COOLER
EWH	ELECTRIC WATER HEATER
ELEV	ELEVATION
EL	ELEVATOR
EMER	EMERGENCY
EQ	EQUAL
EXH	EXHAUST
EXIST	EXISTING
EXPJT, EJ	EXPANSION JOINT
EXT	EXTERIOR
FIN	FINISH (ED)
FFE	FINISH FLOOR ELEVATION
FFL	FINISH FLOOR LINE
FA	FIRE ALARM
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FH	FIRE HYDRANT
FL	FLOOR (ING)
FD	FLOOR DRAIN
FLUR	FLUORESCENT
FND	FOUNDATION
FR	FRAME (D), (ING)
FUR	FURRED (ING)
GA	GAGE, GAUGE
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GL	GLASS, GLAZING
GB	GRAB BAR
GWB	GYPSUM WALLBOARD
HDW	HARDWARE
HTG	HEATING
HVAC	HEATING/VENTILATING/AIR COND.
HT	HEIGHT
HC	HOLLOW CORE
H	HIGH
HM	HOLLOW METAL
HMF	HOLLOW METAL FRAME
HORZ	HORIZONTAL
HB	HOSE BIBB
HR	HOUR
IN	INCH
INCAN	INCANDESCENT
INCL	INCLUDE (D) (ING)
INSUL	INSULATION
ID	INSIDE DIAMETER
INT	INTERIOR
INV	INVERT
JT	JOINT
KIT	KITCHEN
LAB	LABORATORY
LAM	LAMINATE (D)
LAV	LAVATORY
LH	LEFT HAND
L	LENGTH
LLV	LONG LEG VERTICAL
LLH	LONG LEG HORIZONTAL
LT	LIGHT
LVR	LOUVER
MH	MANHOLE
MFR	MANUFACTURE (ER)
MKBD	MARKER BOARD
MAS	MASONRY
MO	MASONRY OPENING
MAX	MAXIMUM
MECH	MECHANIC (AL)
MED	MEDIUM
MTL	METAL
MIN	MINIMUM
MISC	MISCELLANEOUS
MULL	MULLION
NRC	NOISE REDUCTION COEFFICIENT
NOM	NOMINAL
N	NORTH
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
NO, #	NUMBER
OC	ON CENTER (S)
OPG	OPENING
OPP	OPPOSITE
OA	OVERALL
OH	OVERHEAD
OZ	OUNCE
OD	OUTSIDE DIAMETER
PNL	PANEL
PTD	PAPER TOWEL DISPENSER
PTR	PAPER TOWEL RECEPTOR
PKG	PARKING
PVMT	PAVEMENT
PLAS	PLASTIC
PLAM	PLASTIC LAMINATE
PL	PLATE
PWD	PLYWOOD
PVC	POLYVINYL CHLORIDE
PCF	POUNDS PER CUBIC FOOT
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	PRESSURE TREATED
PREFAB	PREFABRICATE (D)
PL	PROPERTY LINE
QT	QUARRY TILE
R	RADIUS
RL	RAIL (ING)
RR	RAILROAD
REF	REFERENCE
REFR	REFRIGERATOR
REINF	REINFORCE (D), (ING)
RCP	REINFORCED CONCRETE PIPE
REQ'D	REQUIRED
RA	RETURN AIR
REV	REVISION (S), REVISED
RH	RIGHT HAND
R/W	RIGHT OF WAY
RD	ROOF DRAIN
RM	ROOM
RO	ROUGH OPENING
SCH	SCHEDULE
SEC	SECTION
SHT	SHEET
SH	SHELF, SHELVING
SIM	SIMILAR
SLD	STUDENT LEARNING DISABILITIES
SC	SOLID CORE
S	SOUTH
STC	SOUND TRANSMITTANCE COEFFICIENT
SPEC	SPECIFICATION (S)
SPKR	SPRINKLER
SQ	SQUARE
SS	STAINLESS STEEL
STD	STANDARD
STL	STEEL
ST	STREET
STO	STORAGE
STR	STRUCTURAL
SUSP	SUSPENDED
SYS	SYSTEM
TKBD	TACKBOARD
TEL	TELEPHONE
TV	TELEVISION
THK	THICK (NESS)
THR	THRESHOLD
TPD	TOILET PAPER DISPENSER
T/SL	TOP OF SLAB
T/ST	TOP OF STEEL
T/W	TOP OF WALL
TB	TOWEL BAR
T	TREAD
TYP	TYPICAL
UC	UNDERCUT
UL	UNDERWRITER'S LABORATORY
UR	URINAL
UON	UNLESS OTHERWISE NOTED
VERT	VERTICAL
VCT	VINYL COMPOSITION TILE
VOL	VOLUME
WC	WATER CLOSET
WH	WATER HEATER
WP	WATER PROOFING
WT	WEIGHT
WWF	WELDED WIRE FABRIC
W	WEST
W	WIDTH, WIDE
W/	WITH
W/O	WITHOUT
WD	WOOD
YD	YARD

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ARCHITECT CO

KITCHEN REMODEL

DE
DESIGN
WORKING
BID REV
PERMIT REV
ISSUE D
SC
JOB

SHEET

T

MISCELLANEOUS CARPENTRY

PRODUCTS

A. LUMBER, GENERAL

i. Dressed lumber, S4S, 19 percent maximum moisture content for 2-inch (38-mm) thickness or less, marked with grade stamp of inspection agency.

B. TREATED MATERIALS

i. Preservative-Treated Materials: AWPA C2 lumber and AWPA C9 plywood, labeled by an inspection agency approved by ALSC's Board of Review. After treatment, kiln-dry lumber and plywood to 19 and 15 percent moisture content, respectively. Treat indicated items and the following:

(1) Wood members in connection with roofing, flashing, vapor barriers, and waterproofing.
(2) Concealed members in contact with masonry or concrete.
(3) Wood framing members less than 18 inches (460 mm) above grade.
(4) Wood floor plates installed over concrete slabs directly in contact with earth.

ii. Fire-Retardant-Treated Materials: AWPA C20 lumber and AWPA C27 plywood, interior Type A treatment, labeled by a testing and inspecting agency acceptable to authorities having jurisdiction.

C. LUMBER

i. Interior Partition Framing: Standard, Stud, or No. 3 grade: Mixed southern pine: SPIB

ii. Other Framing: Construction or No. 2 grade: Southern pine: SPIB

iii. Exposed Boards: Match Existing.

iv. Concealed Boards: Mixed southern pine, No. 2

v. Miscellaneous Lumber: No. 3 or Standard grade of any species for nailers, blocking, and similar members.

D. INTERIOR WOOD TRIM

i. Softwood Trim: Eastern white, Idaho white, lodgepole, ponderosa, or sugar pine; grade B & Btr Select or Supreme.

ii. Wood Molding Patterns: Stock moldings indicated, made to patterns included in WMMPA WM 7 and graded under WMMPA WM 4; N-Grade for transparent finish.

iii. Clothes Rods: 1-1/2-inch- (38-mm-) diameter, clear, kiln-dried hardwood rods.

E. PANEL PRODUCTS

i. Wood-Based Structural-Use Panels: DOC PS 2. Provide plywood complying with DOC PS 1, where plywood is indicated.

(1) Factory mark panels evidencing compliance with grade requirements.
(2) Miscellaneous Concealed Panels: APA-rated sheathing, Exposure 1, span rating to suit framing in each location.
(3) Miscellaneous Exposed Plywood: A-D Interior, thickness as indicated.

Wood-based Structural-use Panel Roof Sheathing Shall Be Rated For Exposure #1 Have A Minimum Nominal Thickness Of 19/32 Inches And Shall Be Continuous Over Two Or More Spans With Face Grain Perpendicular To Supports. Span Rating PANEL INDENTIFICATION INDEX Is 32/16. Maximum Span If Block Or Other Edge Supports Is 32". Maximum Span Without Edge Support Is 28". Plywood To Be Type CDX.

ii. Particleboard: Comply with and factory mark each panel according to ANSI A208.1.

(1) Particleboard Underlayment: Grade PBU.

iii. Hardboard Underlayment: ANSI/AHA A135.4, Class 4 (Service), S1S;

F. FASTENERS

i. Fasteners of size and type indicated. Where carpentry is exposed to weather, in ground contact, or in area of high relative humidity, provide fasteners with a hot-dip zinc coating per ASTM A 153 or of Type 304 stainless steel.

(1) Power-Driven Fasteners: CABO NER-272.

EXECUTION

A. INSTALLATION

i. Fit carpentry to other construction; scribe and cope for accurate fit. Correlate location of furring, blocking, and similar supports to allow attachment of other construction.

ii. Securely attach carpentry work as indicated and according to applicable codes and recognized standards.

iii. Countersink nail heads on exposed carpentry work and fill holes with wood filler.

iv. Installation of Structural-Use Panels: Comply with applicable recommendations contained in APA Form No. E30.

v. Install wood trim with minimum number of joints practical, using full-length pieces from maximum lengths of lumber available. Cope at returns and miter at corners to produce tight-fitting joints with full-surface contact throughout length of joint. Use scarf joints for end-to-end joints.

(1) Match color and grain pattern across joints.
(2) Install trim after gypsum board joint finishing operations are completed.
(3) Install to tolerance of 1/8 inch in 96 inches (3 mm in 2400 mm) for level and plumb. Install adjoining trim with 1/32-inch (0.8-mm) maximum offset for flush installation and 1/16-inch (1.6-mm) maximum offset for reveal installation.

GENERAL NOTES:

1. WRITTEN DIMENSIONS IN THESE DRAWINGS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS. CONTRACTORS SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS, DETAILS AND OR CONDITIONS ON THE JOB WHICH REQUIRE THE ARCHITECT OR ENGINEER OF RECORDS CLARIFICATION AND OR CORRECTION. THE ARCHITECT OR ENGINEER OF RECORD IS TO BE NOTIFIED BY THE CONTRACTOR PRIOR TO THE CONSTRUCTION OF ANY VARIATIONS OR DISCREPANCY OF THE DIMENSIONS, DETAILS OR CONDITIONS WHICH ARE NOT CLEAR OR SHOWN BY THESE DRAWINGS. THE BUILDER SHALL BE RESPONSIBLE FOR OBTAINING FROM THE ARCHITECT OR ENGINEER OF RECORD AND OR ANY GOVERNMENTAL AUTHORITIES ANY CLARIFICATIONS AND CORRECTIONS TO THESE DRAWINGS THAT ARE NOT CLEAR OR CORRECT BUT THAT ARE DEEMED NECESSARY FOR THE PROJECT. THE COST OF ALL CLARIFICATIONS AND CORRECTIONS ARE NOT THE RESPONSIBILITY OF THE OWNER OR THE ARCHITECT OR ENGINEER OF RECORD. ALL EXTRAS OR CHANGES INCLUDING COSTS SHALL BE APPROVED BY THE OWNER AND THE ARCHITECT OR ENGINEER OF RECORD PRIOR TO THE CONSTRUCTION OF SAID EXTRAS OR CHANGES. IT IS THE BUILDER'S RESPONSIBILITY TO MAINTAIN A CONSTRUCTION SUPERVISOR ON THE JOB AT ALL TIMES. THE CONSTRUCTION SUPERVISOR SHALL BE AWARE OF AND FOLLOW THE INTENT OF THE DESIGN AT ALL TIMES. WHEN IN QUESTION, THE ARCHITECT OR ENGINEER OF RECORD SHALL BE THE INTERPRETER OF THE INTENT OF THE DESIGN. ALL EXISTING SURFACE, OVERHEAD, AND SUBSURFACE CONDITIONS WHICH ARE NOT FORESEEN OR PREDICTED ON THESE DRAWINGS, WHICH MIGHT CAUSE LIABILITY, COSTS, OBLIGATIONS, OR DELAYS ARE THE OWNERS RESPONSIBILITY. ALL OWNER'S INSTRUCTIONS TO THE CONTRACTOR BE MADE THROUGH THE ARCHITECT OR ENGINEER OF RECORD. THE CONTRACTOR IS RESPONSIBLE TO KNOW ALL CURRENT CODES.

2. The general Contractor (GC) shall verify all existing conditions in the field prior to the bid & execution of any work. The G.C. shall carefully survey the existing job conditions to verify them, and the G.C. shall require all of the sub-contractors to do the same.

3. The GC shall verify all dimensions in the field - on site dimensions take priority over all. Use survey to verify.

4. Any discrepancies between the contract documents and existing conditions shall be reported to the architect prior to the GC's execution of any work.

5. Refer to the structural drawings for all-structural sizes and information (all Dimensions shown in the architectural drawings are for location purposes only).

6. All work shall conform to the code, County planning agency, in addition to all codes, (federal, state and local regulations). Hurricane calcs are to be followed.

7. The building shall comply with all current energy requirements and calculations.

8. All dimensions are from face of studs unless otherwise noted.

9. The GC shall ensure that existing work on the site is protected at all times. And shall replace and damaged work to the satisfaction of the owner. All that includes exterior surfaces, landscape, irrigation, signage etc.

10. The GC shall be responsible for the design, construction and coordination of all STAIR DESIGN ,mechanical, electrical, plumbing and fire protection work. This includes any drawings, shop drawings, details, calculations ect, that may be required to properly execute this work.

Location of lighting devices, mechanical equipment, plumbing fixtures, and fire-protection devices show on the architectural drawings are for location reference only.

Locations, quantities and code compliance of all electrical, mechanical, plumbing and fire-protection devices are the sole responsibility of the GC.

Any relocations, additions or indications to be made in the mechanical, electrical, plumbing and fire-protection systems as required by the building inspector or regulatory agencies, or visable existing conditions shall be performed by the GC at no additional expense to the owner. all existing abandoned electrical, mecanical, systems are to be removed from job-site.

11. The architect is not responsible for the coordination, completeness, locations, or content of any consultants of contractors.

12. All interior non-load bearing partitions shall be comprised of 2x4 wood or metal studs @ 16" o.c. or as shown.

13. Paint: all painted surfaces to receive 1 - primer coat, and 1- finish coat. Colors to be selected by the owner

17. Heating ducts shall be constructed, installed and insulated per the local mechanical code. All duct joints shall be airtight. Ducts in unconditioned spoce shall be insulated with min. 1" mineral fiber insulation. Duct insulation shall have a flame spread not over 25 and smoke rating not over 100.

18. The new thermostat shall be automatic, w/delay for effeniancy night set-back with integral clock with integral clock with settings for 2-periods in 24 hours.

26. Architect is here by given access to make photographs, videos, images etc. of project & promote & publish such images and articles in a free and unrestricted manner, place 3'0" x 4'0" sign at site front as needed by architect.

27. One note on one drawing is applicable to all drawings

28. The architect is the final interpreter of the drawing and any discrepancies there in.

29. On remodels all materials, textures and colors are to match existing, to completely blend in visually U.O.N. On new homes all materials, textures and colors are to match neibarhood association rules and or codes of any kind governing such things.

29. Work shall comply with 2014 building code

30. CONTRACTOR BIDS TO REFLECT BRINGING THOSE REQUIRED BY BUILDING DEPARTMENT WORK UP TO CURRENT BUILDING CODE STANDARDS SUCH AS ELECTRICAL WIRING ETC.

31. CONTRACTOR TO SUPPLY LINE FOR WATER FOR REFRIDGERATOR.

32. ALL BUILDING DEPARTMENT CORRECTIONS ON PLANS SHALL BE INCLUDED IN THE BID.

35. FOR CONTRACTOR BIDDING PURPOSES, ALL WORK IS ASSUMED TO BE REQUIRED TO BE BUILT TO CODE EVEN IF THERE IS AN OMISSION IN THE ARCHITECT'S DRAWINGS, ALL G.C.'S AND THEIR SUB-CONTRACTORS ARE REQUIRED TO KNOW THE CODE AND BUILD TO CODE.

GENERAL DESIGN CRITERIA

FLORIDA BUILDING CODE 2014
AMERICAN NATIONAL STANDARD ANSI/ASCE 7-10
NATIONAL ELECTRICAL CODE (CURRENT) 2011
NFPA 70 2008

BROWARD COUNTY AMENDMENTS TO THE FLORIDA FIRE PREVENTION CODE 2014 EDITION, N.F.P.A. 101 (LIFE SAFETY CODE), 2012 EDITION, AND N.F.P.A. 1 (UNIFORM FIRE CODE), 2012 EDITION.

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7.19.16

KITCHEN REMODEL
THORNTON RESIDENCE
421 NORTH "K" STREET
LAKE WORTH, FL. 33460

DESIGN	CWF
DESIGN DWG	ZH
WORKING DWG	ZH
BID REVIEW	ZH
PERMIT REVIEW	DW
ISSUE DATE	07-19-16
SCALE	AS NOTED
JOB NO.	20160321

SHEET

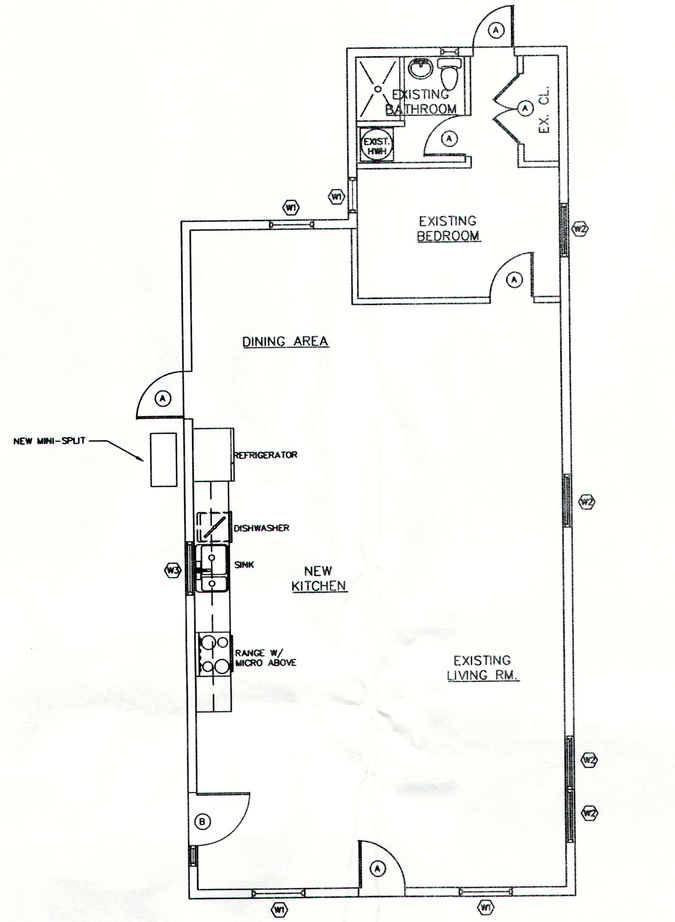
A-1•0

EXISTING BUILDING RENOVATION
(SEE FBC 2014 EXISTING BUILDINGS)

RESTORATION LEVEL	LEVEL 1
OCCUPANCY DESIGNATION	R-3
BUILDING SQUARE FOOTAGE	R-3

SCOPE OF WORK

1. NEW KITCHEN PER PLANS
2. NEW ELECTRICAL IN KITCHEN PER PLANS
3. NEW MECHANICAL PER PLANS
4. NEW PLUMBING IN KITCHEN PER PLANS
5. NO NEW SQUARE FOOTAGE
6. NEW WINDOWS PER PLANS



NEW FLOOR PLAN
SCALE: 1/4" = 1'-0"

NORTH

DOOR SCHEDULE

NO.	SIZE WIDTH	SIZE HGT.	SIZE THICK	TYPE	MATERIAL	FINISH	THRESHOLD	JAMB	REMARKS
A	--	--	--	EXISTING DOOR	--	--	--	--	EXISTING TO REMAIN
B	3'-0"	6'-8"	--	EXTERIOR DOOR W/ 1' SIDELITE	--	--	--	--	EXISTING TO REMAIN

WINDOW SCHEDULE

MARK	SIZE CODE	DESCRIPTION	DIMENSION (W x H)	FRAME MATERIAL	FRAME FINISH	GLAZING THICK	GLAZING U-VALUE	GLAZING SHADE	REMARKS
W1	---	EXISTING WINDOWS	---	---	---	---	---	---	EXISTING TO REMAIN
W2	---	SINGLE HUNG	37" X 63"	MATCH EXISTING		---	---	---	
W3	---	SINGLE HUNG	37" X 26"	MATCH EXISTING		---	---	---	

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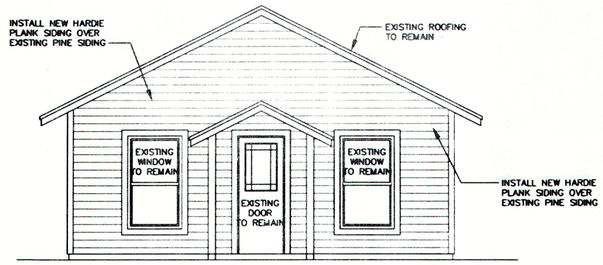
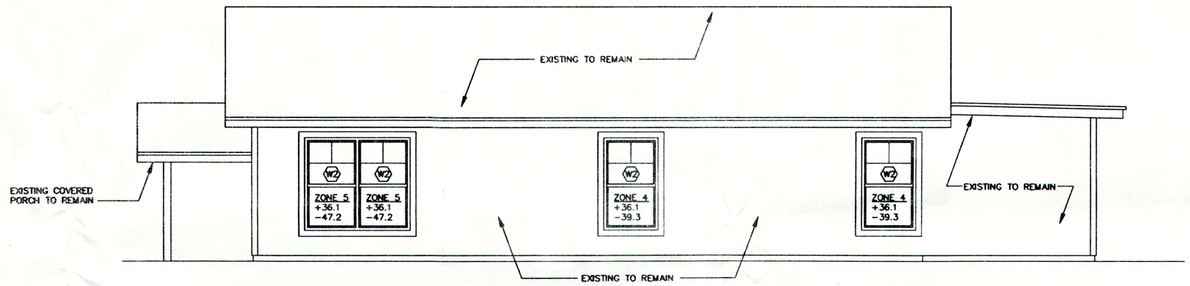
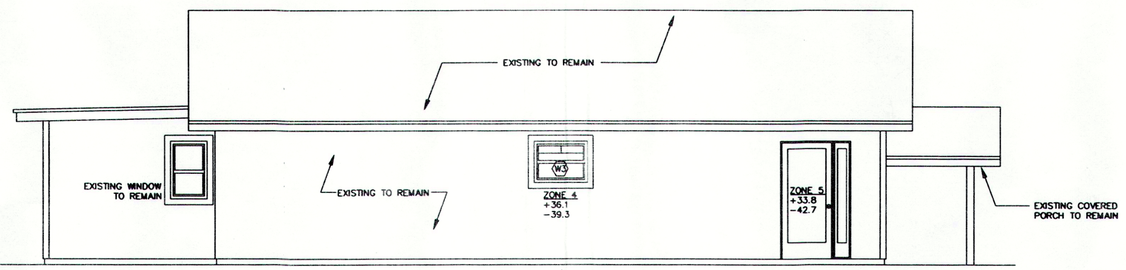
A-2.2



EAST ELEVATION



NORTH ELEVATION



SOUTH ELEVATION

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

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A-3.0

GENERAL H.V.A.C. NOTES

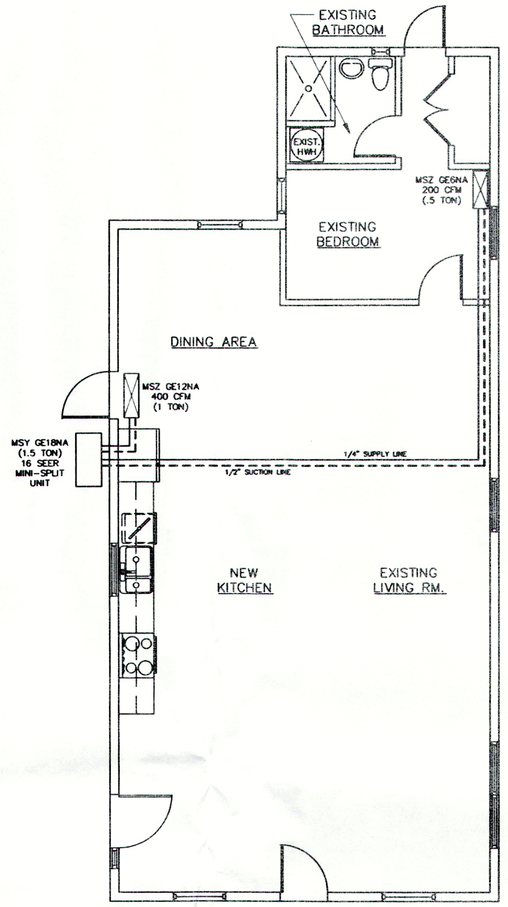
1. All Work Shall Conform To All Applicable Sections Of The "FLORIDA BUILDING CODE 2014–MECHANICAL", And All Other Applicable State, County And Local Regulations And Ordinances.
2. Contractor Shall Warrant All Work To Be Free Of Defects in Workmanship And Materials For A Period Of One Year After Acceptance Of The Project.
3. Provide All Necessary Instructions To The Owner In The Operation Of The Mechanical Systems.
4. Provide Equipment Maintenance And Instruction Manuals. Manuals To Be Submitted To Architect/Engineer For Acceptance.
5. Submit Shop Drawings For Acceptance Of The Architect/Engineer Before Proceeding With The Purchase Or Installation Of Equipment And Materials.
6. All Controll Wiring Shall Be The Responsibility Of The Mechanical Sub–contractor. Wiring Shall Be As Per The Electrical Specifications. Mechanical Sub–contractor To Furnish All Motors And Starters, Relays, Etc.
7. Provide All Necessary Access Panels To Control Valves, Dampers, Etc.
8. Test and Balance All Systems To Provide Air Quantities And Capacities Indicated On Drawings.
9. A/C Contractor Is Responsible For Obtaining His Own Permit.
10. All Work Shall Be Field Checked Before Installation And Coordinated With All Other Trades.
11. All Sizes Shown For Ducts Are Clear Inside Duct Dimensions.
12. Rectangular Supply Air Ductwork Shall Be Class 1 Fiberglass Duct Boards Constructed And Installed In Accordance With The Latest Smacna Fibrous Duct Construction Standards. Round Ducts Shall Be Smooth Wall Or Spiral (Not Corrugated) Galvanized Steel Or Aluminum Ducts With All Joints Taped And Sealed.
13. Vent Ducts Shall Be Type B In Accordance With NFPA–54.
14. Supply Air Ductwork Shall Be Externally Insulated With 1", 1–1/2 PCF Glass Fiber Blanket Insulation With Vapor Proof Jacket And Sealed Joints Per Manufacturer's Instructions. Glass Fiber Ducts Amd Exhaust Air Ductwork Need Not Be Insulated. Flexible Ducts Shall Be The Insulated Type, Supported And Installed To Avoid Sags And Kinks.
15. Terminate Gas Appliance Vent Ducts Above Roof In Accordance With NFPA–54.
16. Provide Volume Dampers, Turning Vanes, Etc., In Ductwork For Proper Air Flow And Balance. Provide Volume Damper With Locking Quadrant At All Branch Duct Connections With Supply Ductwork.
17. Flexible Ducts Shall Be The Insulated Type, Supported And Installed To Avoid Sags And Kinks. All Flexible Ducts Shall Be Similar In Length To Avoid Dissimilar Pressure Drops. Seal All Flexible Ducts To Supply Ducts And Diffusers With Duct Tape And Mastic. Flexible Duct Length Shall Be Max 3 Feet, And Used Only To Connect Diffuser Necks To Duct Branches.
18. **PROTECTION AGAINST DECAY AND TERMITES**

AS PER "FLORIDA BUILDING CODE 2014", ALL CONDENSATE LINES AND ROOF DOWNSPOUTS SHALL DISCHARGE AT LEAST 1 FOOT (305 MM) AWAY FROM THE STRUCTURE SIDEWALL, WHETHER BY UNDERGROUND PIPING, TAIL EXTENSIONS, OR SPLASH BLOCKS. GUTTERS WITH DOWNSPOUTS ARE REQUIRED ON ALL BUILDINGS WITH EAVES OF LESS THAN 6 INCHES (152 MM) HORIZONTAL PROJECTION EXCEPT FOR GABLE END RAKES OR ON A ROOF ABOVE ANOTHER ROOF. IRRIGATION/SPRINKLER SYSTEMS AND RISERS FOR SPRAY HEADS SHALL NOT BE INSTALLED WITHIN 1 FOOT (305 MM) OF THE BUILDING SIDEWALL.

H.V.A.C. PLAN NOTES:

SEE PLAN FOR DUCT SIZES
RND. FLEX = ROUND FLEX DUCT
RECT. DB = RECTANGULAR FIBERGLASS DUCTBOARD

Ceiling Diffusers, Titus FS, Adjustable Vanes, OBD White Enamel Finish



NEW H.V.A.C. PLAN

SCALE: 1/4" = 1'–0"

NEW AIR COOLED SPLIT A/C UNIT SCHEDULE (1.5 TON 2 - ZONE)		
COND. UNITS		
MFGR	MITSUBISHI	
CONDENSER MODEL NO.	MSYGE18NA	
MAX AMPS	20/20	
NUMBER OF COMPRESSORS	1	
COMPRESSOR F.L.A.(EA)	11	
ELECTRICAL	1-60-208/230	
OPERATING WEIGHT (Lbs.)	135	
SEER	16	
REF. PIPING SIZE SUC/LIQ INCH	1/2 / 1/4	
AMBIENT AIR TEMP	95°	
NEW AHUS	1 - TON	1/2 - TON
MFGR	MITSUBISHI	MITSUBISHI
AHU MODEL NO.	MSZGE12NA	MSZGE06NA
OPERATING WEIGHT (Lbs.)	25	25
TOTAL AIR CFM	400	200
VENT AIR CFM	N/A	
E.S.P. (INCHES OF WATER)	0.5	
FAN MOTOR HP/F.L.A.	0.5	
ELECTRICAL	1-60-110/120	
GRAND TOTAL CAPACITY BTU/HR	18,000	
TOTAL SENSIBLE CAPACITY BTU/HR	12,600	

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7/19/16

KITCHEN REMODEL
THORNTON RESIDENCE
421 NORTH "K" STREET
LAKE WORTH, FL. 33460

DESIGN	CWF
DESIGN DWG	ZH
WORKING DWG	ZH
BID REVIEW	ZH
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ISSUE DATE	07–19–16
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JOB NO.	20160321

SHEET

M-1•0

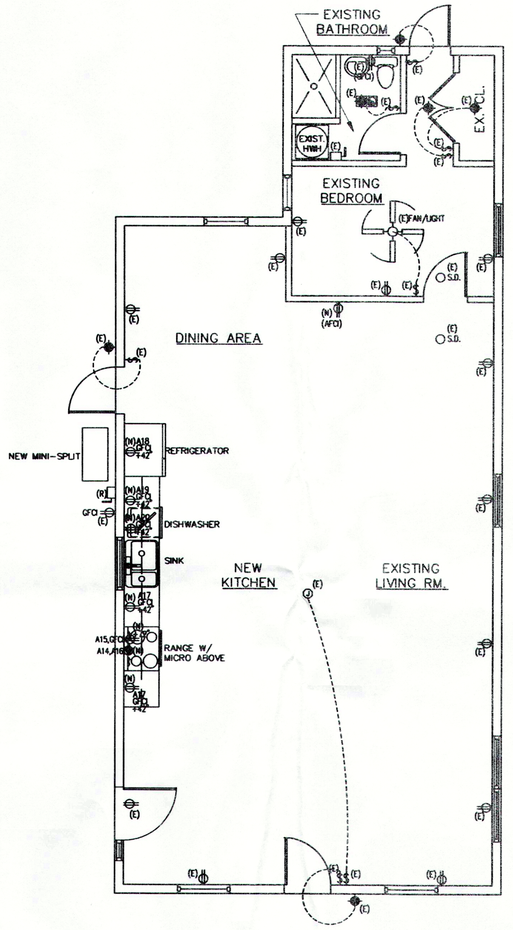
ELECTRICAL NOTES

1. All Electrical Work Shall Be In Full Compliance With The NATIONAL ELECTRIC CODE, FLORIDA BUILDING CODE 2014 And All Other Applicable Codes.
2. All Material Used In The Project Shall Be New And Shall Bear Underwriters' And Union Labels, Where Applicable.
3. DO NOT SCALE Electrical Drawings. Refer To Architectural Plans And Elevations For Approximate Locations Of All Appliances And Equipment, And Confirm With Owner Or Owner's Representative For Specific Lighting Locations.
4. In Sizes No. 8 AWG And Larger, Minimum Size Wire Shall Be No. 12 AWG, And Maximum Size Shall Be 600 MCM.
5. ALL RACEWAYS Installed Underground, In Concrete Slabs, And/Or Larger Than Two (2) Inches In Diameter Shall Be Galvanized Rigid Steel. PVC Pipe Schedule 40 Is Acceptable For Underground Installation Only If Approved By Local Authorities. Raceways Two (2) Inches And Smaller In Diameter Shall Be I.M.C. If Exposed To Weather, E.M.T. Elsewhere. Flexible Conduit Used Where Indicated Shall Be Metal For Indoor Locations, And Liquid-Tight For Outdoor Locations.
7. Outlets Shall Be Mounted Flush With Finished Surfaces. Two (2) Or More Light Switches Located Together Shall Be Installed In Gang-Type Boxes.
8. Junction Boxes Shall Be Galvanized Steel With Screw Or Hinged Covers For Indoor Locations And Weather-Proof Where Exposed To Weather. Outlet Boxes Shall Be Pressed Steel In Dry Locations. Cast Alloy With Threaded Hubs In Wet Or Damp Locations And Special Enclosures For Other Classified Areas.
9. Electrical Contractor Shall Perform All Necessary Work For A Complete Electrical Installation And Working System, And Shall Provide All Necessary Instruments And Special Apparatus To Conduct Any Test That May Be Required To Insure The System Is Free Of Any Improper Grounds And Short circuits, And That All Feeders Are Properly Balanced.
10. Electrical Contractor Shall Install Air Conditioning Control System In Accordance With Control Wiring Diagram Furnished By Mechanical Contractor. Thermostat Locations Are Shown On Mechanical Drawings. Make Connections As Required By Control Wiring Diagram.
11. All Ground Connections To Be Done As Per 2011 Edition Of National Electrical Code.
12. Load Data is Based On Information Given To The Architect/Engineer At The Time Of Design. Verify All Equipment And Panel Sizes Before Ordering.
13. All Work Shall Be Coordinated With Other Trades To Avoid Interference With The Progress Of Construction
14. Disconnect Switches Shall Be H.P. Rated, Heavy Duty, Quick-Make, Quick-Break Enclosures As Required By Exposure. Motor Starters Shall Be Manual Or Magnetic With Overload Relays In Each Leg.
15. Panel boards Shall Be Dead Front Circuit Breaker Types With Copper Bus And As Scheduled On Drawings. Circuit Breakers Shall Have a Minimum Interrupting Rating Of 10,000 Amperes At 120 Volts And 15,000 Amperes At 277 Volts. All Panels Shall Have Snap Catch Doors With A Typewritten Panel Directory In Clear Plastic Inside.
16. Fuses Shall Be Dual Element, Combining Time-Delay With Current Limiting.
17. Corrections Of Any Defects Shall Be Completed Without Charge And Shall Include Replacements Or Repair Of Any Other Phase Of The Installations Which May Have Been Damaged.
18. Contractor Shall Pay For All Permits, Fees, Inspections And Testing, As Well As Obtain And Pay For All Required Insurance For The Protection Against Public Liability And Property Damage For The Full Duration Of The Work On The Project.
19. Contractor Shall Guarantee All Materials And Workmanship Free Of Defect For A Period Not Less Than One (1) Year From The Date Of Acceptance.
20. The Electrical Installation Shall Meet All Standards And Requirements Of The Local Power And Telephone Companies.
21. Contractor's Work Practices And Conditions Must Conform With The Occupational Safety And Health Act Of 1970.
22. Electrical Contractor Shall Provide Outlets To Match Equipment Plugs.
23. The Electrical Contractor Shall Visit The Site Before Submitting The Bid In Order That He/She May Become Aware Of All Existing Conditions. No Allowances Will Be Made For Any Existing Condition Which The Contractor Was Not Aware Of.
24. Smoke Detectors Shall Be Hard Wired (110 Volt Type) With Battery Back-up And And Connected To A Non-Switchable Kitchen Or Bathroom Circuit. Do Not Utilize The Load Side Of A Ground Fault Circuit Interrupter.
25. Contractor Shall Provide Temporary Power, Light, Outlets And Any Other Connections Needed For Other Trades Required To Complete The Project.
26. Selection Of All Lighting And Electrical Equipment Not Specified on Plans Is By Owner. Contractor to Assist Owner In Selection And Notify Architect Of Any Changes That Effect Load Requirements Or Design.
27. All Branch Circuits That Supply 125-volt, Single Phase, 15 and 20 Ampere New Outlets Installed In Dwelling Unit Bedrooms Shall Be Protected By An Arc-Fault Circuit Interrupter Listed To Provide Protection of The Entire Branch Circuit.

ELECTRICAL SYMBOL LEGEND

SYMBOL	DESCRIPTION
	FLUORESCENT TUBE STRIP
	CEILING MOUNTED INCANDESCENT
	WALL MOUNTED INCANDESCENT
	WALL MTD VANITY INCANDESCENT
	CLOSET HEADER LIGHT
	WALL SCOUNCE
WW	HI-HAT INCANDESCENT WW INDICATES WALL WASHER
	HI-HAT /EXHAUST FAN
	HEAT LAMP /EXHAUST FAN
	EXHAUST FAN
S.D.	SMOKE DETECTOR 110V
	"J" BOX OPTIONAL W/ FAN
+42"	DUPLEX RECEPTACLE 120V. -12" AFF UNLESS NOTED OTHERWISE DUPLEX RECEPTACLE 120V.- HEIGHT NOTED AFF
	DUPLEX RECEPTACLE - UNDER CABINET
	FLOOR OUTLET
	SINGLE OUTLET
	SINGLE OUTLET - UNDER CABINET
GFCI	RECEPTACLE W/ GROUND FAULT CIRC. INTERRUPTER WP=WATERPROOF
	DUPLEX RECEPTACLE W/ TOP 1/2 SWITCH ACTIVATED
	QUAD PLEX RECEPTACLE
	GROUNDED 240V. RECEPTACLE
	GROUNDED 120V. RECEPTACLE
	TELEPHONE OUTLET
	TELEVISION OUTLET
I.C.	PUSH BUTTON
$	SINGLE SWITCH @ +46" AFF
$	MULTIPLE SWITCH @ +46" AFF
	2 X 4 FLUORESCENT FIXTURE W/2 4' TUBES (100W)
	1 X 4 FLUORESCENT FIXTURE W/2 4' TUBES (100W)
S	SPEAKER
	FLOOD LIGHT
M	MOTION SENSOR
	SURFACE-MOUNTED DISCONNECT
	CEILING FAN SHADING INDICATES LIGHT

ALL SYMBOLS MAY NOT BE APPLICABLE



ELECTRICAL PLAN

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

NOTE: (N) = NEW
(E) = EXISTING
(R) = REPLACED

NOTE: CONTRACTOR TO VERIFY THAT (1) SMOKE DETECTOR IS INSTALLED INSIDE OF EVERY SLEEPING AREA, AND THAT (1) SMOKE DETECTOR IS INSTALLED WITHIN 8'-0" OF AT LEAST ONE ENTRANCE TO ALL SLEEPING AREAS.

NOTE TO CONTRACTOR:

IT IS NOT THE INTENT OF THESE PLANS TO SHOW EVERY MINOR CONSTRUCTION DETAIL. THE CONTRACTOR IS EXPECTED TO FURNISH AND INSTALL ALL ITEMS REQUIRED FOR A COMPLETE AND OPERATIVE ELECTRICAL SYSTEM, AND TO COMPLETE ALL NECCESSARY WORK. ALL EQUIPMENT SHOWN, OR REFERED TO, ON PLAN TO BE PLACED IN PROPER WORKING ORDER.

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E-1.0

PLUMBING NOTES

1. All Plumbing Shall Be Done In Accordance With The "FLORIDA BUILDING CODE 2014", And All State, County, And Local Ordinances And Regulations.
2. Plumbing Contractor Shall Pay All Fees, Inspection And Connection Charges Required.
3. Plumbing Contractor Shall Guarantee All Work Free Of Defects In Material And Workmanship For A Period Of One Year From Date Of Acceptance.
4. Submit Shop Drawings To Engineer For Approval Of All Equipment, Materials And Layouts Prior To Installation.
5. Offset Piping As Required To Clear Building Structure, Ductwork, Etc. As Shown On Drawings And As Required By Field Conditions.
6. Plumbing Contractor Shall Furnish And Install AC Condensate Drain And Trap.
7. Plumbing Contractor Shall Verify All Space Conditions And Dimensions At Job Site Prior To Fabrication And Installation Of Materials And Equipment.
8. Coordinate Work With Other Trades.
9. Furnish And Install Fixtures As Specified In Schedule, This Drawing.
10. Each Bathroom Group Shall Be Provided With Air Chambers As Per F.B.C.
11. Provide Shut-Off Valve For Each Fixture.
12. Wherever Dissimilar Metals Are To Be Joined. A Dielectric Fitting Shall Be Provided To Connect Both Types OF Pipes.
13. Provide Piping As Follows:

    Domestic Cold And Hot Water And Water Heater Relief Piping: Copper Tube Type K Or L With Solder Joints, Min. 125 LB. Wog Bronze Valves.
    Sanitary Waste And Vent: Plastic DWV-PVC Schedule 40 Pipe In Accordance With ASTM D-1789 & D-1785 Standards.
    Air Conditioning Condensate: Copper DWV Pipe And Fittings Or PVC Pipe Schedule 40.
14. Air-Conditioning Drainage Piping With 3/4" Thick Close Cell Polyethlene Piping Insulation.
15. Drains, Traps, Cleanouts And Specialties

    A. Interior Floor Cleanouts, Josam 56020 Or Equal, Nikaloy Cover.

    B. Exterior Cleanouts, Josam 58440-5 Or Equal.

    C. Wall Cleanout: Cast Iron "T" Branch With Brass Countersunk Plug, C.B. Access Cover With Satin Chrome Plated Top, Josam 58770-3-12 Or Equal.
16. Insulate Domestic Hot Water Piping With 3/4" Thick Premolded Glass Fiber Pipe Insulation With Self-Adhesive Jacket.
17. Water Hammer Arrestors Shall Be Installed At All Automatic Water Valves.

NOTE: SHOCK ARRESTORS REQUIRED FOR QUICK CLOSING VALVES

SHOCK ARRESTOR SCHEDULE			
P.D.I. DESIGNATION	MFGR. & MODEL	FIXTURE UNITS	CONNECTION
A	SIOUX CHIEF 652-A	1-11	1/2"
B	SIOUX CHIEF 653-B	12-32	3/4"
C	SIOUX CHIEF 654-C	33-60	1"

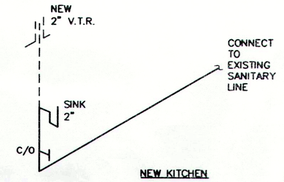
SLOPE OF HORIZ. DRAINAGE PIPES	
SIZE (INCHES)	MINIMUM SLOPE (INCHES PER FT.)
2-1/2" OR LESS	1/4"
3" TO 6"	1/8"
8" OR LARGER	1/16"
NOTES: CONFORMS WITH F.B.C.-PLUMBING TABLE 704.1	

NOTE: WATER SYSTEM TO COMPLY WITH THE FLORIDA BUILDING CODE TABLE 603.1 (PLUMBING CODE)

Rainwater Or Other Liquid Wastes From Any Premises Shall Be Disposed Of Where Same Originates And/or Falls In Such A Manner Herein Provided. The Disposal Of Any Rain-Water Or Other Liquid Wastes By Causing Or Allowing Same To Be Disposed Of Or Flow On Or Across Any Adjoining Property or Sidewalk, Either Public Or Private, Shall Be Deemed A Nuisance, And Shall Be Corrected By Properly Disposing Of Same In Accordance With The Provisions Of This Code. Rain Water Shall Be Disposed Of As Follows With Required Preference In The Order Listed. Upon Pervious Ground, Into A Soakage Pit, Into A Drainage Well, If Approved By The Florida Department Of Environmental Regulation, To A Street Gutter Only If First Approved By The Engineering Department Or To A Storm Sewer Or A Storm Sewer Catch Basin Where Permitted By The Engineering Department

NOTE: Showers And Bathtuubs In Buildings, Except Dwelling Units Having Individual Water Heaters, Shall Be Protected With A Control Valve Of The Pressure Balance, The Thermostatic Mixing Or The Combination Pressure Balance/Thermostatic type, Unless The Water Heater Outlet Temperature Is Limited To 110 Degrees Fahrenheit.

PLUMBING FIXTURE MAXIMUM FLOW RATES	
FIXTURE	MAX. FLOW RATE
LAVATORY PRIVATE	1.5 GPM @ 60 PSI
LAVATORY PUBLIC METERING	.25 GALLON PER MTG CYCLE
LAVATORY PUBLIC O/T METERING	.5 GPM @ 60 PSI
SHOWER HEAD	2.0 GPM @ 80 PSI
SINK FAUCET	2.2 GPM @ 60 PSI
URINAL	.5 GAL PER FLUSHING CYCLE
WATER CLOSET	1.28 GAL PER FLUSHING CYCLE
D/W RESIDENTIAL	6.5 GAL PER CYCLE OR LESS (ENERGY STAR/WATER ENSE CERTIFIED).
D/W COMMERCIAL	LESS THAN 1.2 GALLONS PER RACK FOR FILL AND DUMP MACHINES AND LESS THAN 0.9 GALLONS PER RACK FOR LOW TEMPERATURE MACHINES
D/W UNDER COUNTER COMM	1.0 GALLONS PER RACK FOR HIGH TEMPERATURE MACHINES AND 1.7 GALLONS PER RACK FOR LOW TEMPERATURE MACHINES.
WASHING MACHINE	WATER FACTOR OF 8 OR LOWER (ENERGY STAR/WATER SENSE CERTIFIED)
NOTES: CONFORMS WITH FBC PLUMBING TABLE 604.4	



PLUMBING RISER DIAGRAM

NEW/RENOVATED PLUMBING SHOWN ONLY
NOT TO SCALE

REVISIONS		
REF.	DATE	BY

1031 LA SALLE STREET
JACKSONVILLE, FL 32207
wayne@wayneferrell.com
PH(561) 305-7555

240 BURT STREET #407
SANTA ROSA, CA 95407
PH:(415) 391-1080
CELL:(707)508-8747

925 S.E. 8TH AVENUE SUITE 101
DEERFIELD BEACH, FL 33441
wayne@wayneferrell.com
PH(954) 427-1069 FAX:(954) 428-9133

1213 NORTH FRANKLIN STREET
TAMPA, FLORIDA 33602
PH:(813) 318-9100 FAX:(813) 318-9101

ARCHITECT COM ONE
ARCHITECTURE
C.WAYNE FERRELL-ARCHITECT
AA 26002488

7/19/16

KITCHEN REMODEL
THORNTON RESIDENCE
421 NORTH "K" STREET
LAKE WORTH, FL. 33460

DESIGN	CWF
DESIGN DWG	ZH
WORKING DWG	ZH
BID REVIEW	ZH
PERMIT REVIEW	DW
ISSUE DATE	07-19-16
SCALE	AS NOTED
JOB NO.	20160321

SHEET
P-1•0

Masonite Model # 45852 Internet # 202896627 Store SO SKU # 444729

32 in. x 80 in. 15 Lite Primed Steel Prehung Front Door with Brickmold

★★★★★ (1) | Write a Review + | Questions & Answers (30) +

Open Expanded View Click Image to Zoom

$392.47 /each

Color/Finish: **Pure White (ECC-50-50)**

Door Size (WxH) in.
32 x 80

Door Handing
Left-Hand/Inswing

Ship to Home
Estimated Arrival: AUG 25 - SEP 1
See Shipping Options

Ship to Store FREE
Available for Pick Up: **AUG 24 - AUG 29**

1 Add To Cart

Save To My List >

OR Buy now with PayPal

http://www.homedepot.com/p/Masonite-32-in-x-80-in-15-Lite-Primed-Steel-Prehung-Front-Door-with-Brickmold-45852/202896627?cm_mmc=Shopping%7cTHD%7cG%7c0%7cG-BASE-PLA-AllProducts%7c&gclid=CJ7S4dr0_80CFY1bhgodBMwHJQ&gclsrc=aw.ds

Masonite Model # 45852 ★★★★★ (1)

32 in. x 80 in. 15 Lite Primed Steel P... **$392.47** /each

TOP

Product Overview

Enjoy the strength of steel and the elegance of decorative glass with the Masonite 15 Lite Primed Steel Entry Door with Brickmold. The clear glass design enhances both the appearance and value of your home without compromising security or privacy. High-definition panels closely replicate the appearance of a high-end wood door with excellent shadow lines for added architectural interest. California residents, see Proposition 65 information.

- High-quality steel provides strength and security
- Wood-edge engineered interlocking design with grooved stiles for added strength and structural rigidity
- High performance compression weather-stripping helps to seal out drafts
- 15 Lite glass insert features double-pane tempered glass for added safety
- Smooth, primed surface ready for painting and decorating
- Reinforced lock block provides strength and security for door hardware
- Steel slab features an energy saving polyurethane core
- Exterior door slab is double bored for lockset - sold separately
- Entry door comes fully assembled with hinges, frame, aluminum sill and weather stripping
- From outside, opens toward the inside of the home with hinges on the left

Info & Guides

Energy Guide
Installation Guide
Instructions / Assembly
Specification
Use and Care Manual
Warranty

You will need Adobe® Acrobat® Reader to view PDF documents. Download a free copy from the Adobe Web site.

Specifications

Dimensions

Assembled Depth (in.)	4 5625 in	Finished Opening Height (in.)	81 5 in
Assembled Height (in.)	81 5 in	Jamb Size (in.)	4-9/16"

Feedback

http://www.homedepot.com/p/Masonite-32-in-x-80-in-15-Lite-Primed-Steel-Prehung-Front-Door-with-Brickmold-45852/202896627?cm_mmc=Shopping%7cTHD%7cG%7c0%7cG-BASE-PLA-AllProducts%7c&gclid=CJ7S4dr0_80CFY1bhgodBMwHJQ&gclsrc=aw.ds

Masonite Model # 45852 ★★★★★ (1)

32 in. x 80 in. 15 Lite Primed Steel P...

$392.47 /each

TOP

Specifications

Dimensions

Assembled Depth (in.)	4.5625 in	Finished Opening Height (in.)	81.5 in
Assembled Height (in.)	81.5 in	Jamb Size (in.)	4-9/16"
Assembled Width (in.)	33.5 in	Rough Opening Height	82 in
Door Size (WxH) in.	32 x 80	Rough Opening Width	34.25 in
Door Thickness (in.)	1.75 in		

Details

Color Family	White	Glass Style	Clear
Color/Finish	Pure White (ECC-50-50)	Glass Type	15 Lite
Commercial	No	Hinge Finish	Nickel
Door Configuration	Single Door	Included	No additional items or accessories included
Door Handing	Left-Hand/Inswing	Material	Steel
Door Style	Classic	Number of Hinges	3
Door Type	Exterior Prehung	Panel Type	No panel
Features	Brickmould,Lockset Bore,Weatherstripping	Product Weight (lb.)	125 lb
Finish Type	Primed	Returnable	90-Day

Feedback

Product Approval
USER: Public User

FL #	FL17798
Application Type	New
Code Version	2014
Application Status	Approved
	*Approved by DBPR. Approvals by DBPR shall be reviewed and ratified by the POC and/or the Commission if necessary.
Comments	
Archived	
Product Manufacturer	Masonite International
Address/Phone/Email	1955 Powis Road West Chicago, IL 60185 (800) 663-3667 sschreiber@masonite.com
Authorized Signature	Steve Schreiber sschreiber@masonite.com
Technical Representative Address/Phone/Email	
Quality Assurance Representative Address/Phone/Email	
Category	Exterior Doors
Subcategory	Swinging Exterior Door Assemblies
Compliance Method	Certification Mark or Listing
Certification Agency	National Accreditation & Management Institute
Validated By	National Accreditation & Management Institute

Referenced Standard and Year (of Standard)	**Standard**	**Year**
	TAS 202	1994

Equivalence of Product Standards Certified By

WAYNE FERRELL ARCHITECTURE PHONE: (954) 427-1088
☐ REVIEWED ☐ REVISE AND RESUBMIT
☐ REJECTED ☐ FURNISH AS CORRECTED
Corrections or comments made on the shop drawings during this review do not relieve contractor or subcontractors from compliance with requirements of the drawings and specifications. This check is only for review of general conformance with the design concept of the project and general compliance with the information given in the contract documents. The contractor is responsible for confirming and correlating all quantities and dimensions; selecting fabrication processes and techniques of construction; coordinating the work with that of all other trades; and performing his work in a safe and satisfactory manner.
Date 7/9/15

Product Approval Method	Method 1 Option A
Date Submitted	06/12/2015
Date Validated	06/15/2015
Date Pending FBC Approval	
Date Approved	06/21/2015

Summary of Products

FL #	Model, Number or Name	Description
17798.1	Fir Wood Side-Hinged Door Unit	6'-8" Single or Double Opaque Inswing Door w/ or w/o Sidelites
Limits of Use **Approved for use in HVHZ:** Yes **Approved for use outside HVHZ:** Yes **Impact Resistant:** No **Design Pressure:** +50.0/-55.0 **Other:** Evaluated for use in locations adhering to the Florida Building Code including the High Velocity Hurricane Zone, and where pressure requirements as determined by ASCE 7, Minimum Design Loads for Buildings and Other Structures, does not exceed the pressures listed. When large missile impact resistance is required, hurricane protective system is required. See DWG-MA-FL0155-06 for additional details.		**Certification Agency Certificate** FL17798_R0_C_CAC_NI006721.02.pdf **Quality Assurance Contract Expiration Date** 12/31/2020 **Installation Instructions** FL17798_R0_II_FL0155.pdf Verified By: National Accreditation & Management Institute Created by Independent Third Party: **Evaluation Reports** FL17798_R0_AE_502B.pdf Created by Independent Third Party: Yes
17798.2	Fir Wood Side-Hinged Door Unit	6'-8" Single or Double Opaque Outswing Door w/ or w/o Sidelites
Limits of Use **Approved for use in HVHZ:** Yes **Approved for use outside HVHZ:** Yes **Impact Resistant:** No **Design Pressure:** +55.0/-55.0 **Other:** Evaluated for use in locations adhering to the Florida Building Code including the High Velocity Hurricane Zone, and where pressure requirements as determined by ASCE 7, Minimum Design Loads for Buildings and Other Structures, does not exceed the pressures listed. When large missile impact resistance is required, hurricane protective system is required. See DWG-MA-FL0155-06 for additional details.		**Certification Agency Certificate** FL17798_R0_C_CAC_NI006721.02.pdf **Quality Assurance Contract Expiration Date** 12/31/2020 **Installation Instructions** FL17798_R0_II_FL0155.pdf Verified By: National Accreditation & Management Institute Created by Independent Third Party: **Evaluation Reports** FL17798_R0_AE_502B.pdf Created by Independent Third Party: Yes
17798.3	Fir Wood Side-Hinged Door Unit	6'-8" Single or Double Glazed Inswing Door w/ or w/o Sidelites
Limits of Use **Approved for use in HVHZ:** Yes **Approved for use outside HVHZ:** Yes **Impact Resistant:** No **Design Pressure:** +47.5/-47.5 **Other:** Evaluated for use in locations adhering to the Florida Building Code including the High Velocity Hurricane Zone, and where pressure requirements as determined by ASCE 7, Minimum Design Loads for Buildings and Other Structures, does not exceed the pressures listed. When large missile impact resistance is required, hurricane protective system is required. See DWG-MA-FL0156-06 for additional details.		**Certification Agency Certificate** FL17798_R0_C_CAC_NI006721.01.pdf **Quality Assurance Contract Expiration Date** 12/31/2020 **Installation Instructions** FL17798_R0_II_FL0156.pdf Verified By: National Accreditation & Management Institute Created by Independent Third Party: **Evaluation Reports** FL17798_R0_AE_502B.pdf Created by Independent Third Party: Yes
17798.4	Fir Wood Side-Hinged Door Unit	6'-8" Single or Double Glazed Outswing Door w/ or w/o Sidelites
Limits of Use **Approved for use in HVHZ:** Yes **Approved for use outside HVHZ:** Yes **Impact Resistant:** No **Design Pressure:** +47.5/-47.5 **Other:** Evaluated for use in locations adhering to the Florida Building Code including the High Velocity Hurricane Zone, and where pressure requirements as determined by ASCE 7, Minimum Design Loads for Buildings and Other Structures, does not exceed the pressures listed. When large missile impact resistance is required, hurricane protective system is required. See DWG-MA-FL0156-06 for additional details.		**Certification Agency Certificate** FL17798_R0_C_CAC_NI006721.01.pdf **Quality Assurance Contract Expiration Date** 12/31/2020 **Installation Instructions** FL17798_R0_II_FL0156.pdf Verified By: National Accreditation & Management Institute Created by Independent Third Party: **Evaluation Reports** FL17798_R0_AE_502B.pdf Created by Independent Third Party: Yes

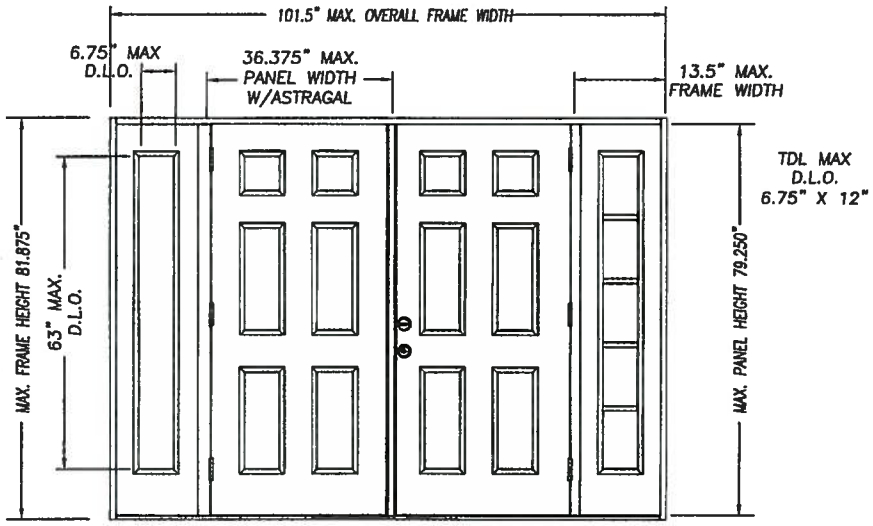
Back Next

Masonite

SIDE-HINGED FIR WOOD DOOR UNIT
6'-8" DOUBLE DOOR WITH / WITHOUT SIDELITES

GENERAL NOTES

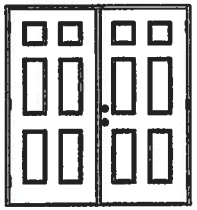
1. EVALUATED FOR USE IN LOCATIONS ADHERING TO THE FLORIDA BUILDING CODE AND WHERE PRESSURE REQUIREMENTS AS DETERMINED BY ASCE 7, MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES, DOES NOT EXCEED THE DESIGN PRESSURES LISTED.
2. IF LARGE MISSILE IMPACT RESISTANCE IS REQUIRED, HURRICANE PROTECTIVE SYSTEM (SHUTTERS) IS REQUIRED.
3. ONE LITE SIDELITES GLAZED WITH 1/2" INSULATED GLASS. TDL SIDELITES GLAZED WITH 7/32" TEMPERED.



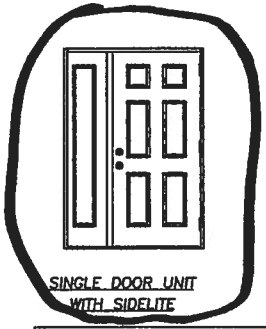
DOUBLE DOOR UNIT W/SIDELITES

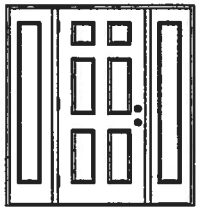
Addendum to NAMI
Certification No.: NI006721
Reviewed By:
Date Reviewed: 5/28/15

SINGLE DOOR UNIT


DOUBLE DOOR UNIT

SINGLE DOOR UNIT WITH SIDELITE


SINGLE DOOR UNIT WITH SIDELITE


SINGLE DOOR UNIT W/SIDELITES

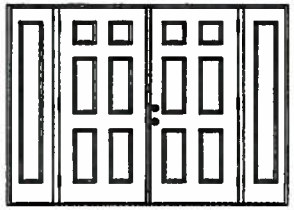

DOUBLE DOOR UNIT W/SIDELITES

TABLE OF CONTENTS

#	DESCRIPTION
	TYPICAL ELEVATIONS & GENERAL NOTES
	ANCHORING LOCATIONS & DETAILS
	ANCHORING LOCATIONS & DETAILS

CONFIG	MAX WIDTH	DESIGN PRESSURE RATING		WHERE WATER INFILTRATION PERFORMANCE IS REQUIRED TO BE 15% OF DESIGN PRESSURE	
		INSWING	OUTSWING	INSWING	OUTSWING
X	37.5"	+50.0 / -55.0	+55.0 / -55.0	+19.0 / -19.0	+35.0 / -35.0
XX	74"	+50.0 / -55.0	+55.0 / -55.0	+19.0 / -19.0	+35.0 / -35.0
OX or XO	51"	+50.0 / -55.0	+55.0 / -55.0	+19.0 / -19.0	+35.0 / -35.0
OXO	64.5"	+50.0 / -55.0	+55.0 / -55.0	+19.0 / -19.0	+35.0 / -35.0
OXXO	101.5"	+50.0 / -55.0	+55.0 / -55.0	+19.0 / -19.0	+35.0 / -35.0

Kurt Balthazor

KURT BALTHAZOR
FLORIDA P.E.
#56533

MASONITE INTERNATIONAL CORP.
1955 POWIS RD.
WEST CHICAGO, IL 60185

PRODUCT: "EXTERIOR DOOR PRODUCT" DOUBLE 6'8" CPAQUE FIR DOOR UNIT

PART OR ASSEMBLY: TYPICAL ELEVATIONS & GENERAL NOTES

NO.	DATE	REVISIONS	BY
A	5/28/15	ANCHOR UPDATE	SWS

DATE: 9/22/06
SCALE: N.T.S.
DWG. BY: SWS
CHK. BY:
DRAWING NO.: DWG-MA-FL0155-06
SHEET 1 OF 3

AWP Model # 1750 Internet # 205980222 Store SKU # 1001376927

37 in. x 63 in. Windows and Doors 1750 Series Impact Single Hung Aluminum Window - White

★★★★★ | Write the First Review + | Questions & Answers (2) +

Open Expanded View | Click Image to Zoom

$414.00 /each

Pick Up In Store FREE
Available for Pick Up: **Today**

2 In stock at:
Boynton Beach #224
Change Pick Up Store

1 | Add To Cart

Save To My List >

OR Buy now with PayPal

In Stock At Your Selected Store

Boynton Beach #224 >
Boynton Beach, FL 33426
Change Pick Up Store

2 In Stock
Aisle 25, Bay 001
Text Product Location

Product Overview

The AWP Impact Single Hung Window, with Screen features a crisp white finish and classic rounded contours. Heavy duty insulated impact glass increases energy efficiency while protecting your home. Delivering a high quality window, that offers impact protection, energy efficiency and classic style.

- Impact insulated glass protects your home from hurricane force winds, flying debris and provides security against forcible glass breakage
- Features spiral balances with integral lift rail for easy open and close movement
- Heavy duty aluminum frame will not rust or corrode
- Impact insulated glass blocks the sun's harmful UV rays and significantly reduces outside noise

Info & Guides

Instructions / Assembly

You will need Adobe® Acrobat® Reader to view PDF documents. Download a free copy from the Adobe Web site.

Specifications

Dimensions

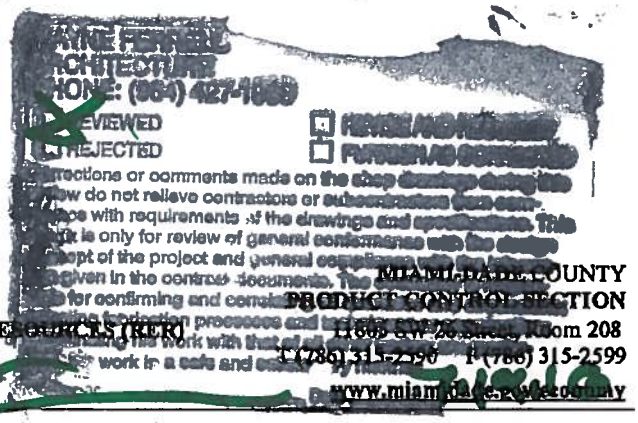
Grid Width (in.)	None	Product Width (in.)	37
Jamb Depth (in.)	3.75	Rough Opening Height	64
Product Depth (in.)	3.75	Rough Opening Width	38
Product Height (in.)	63		

n Family	White	Lock Type	Cam Action
	Hardware Included,Impact Resistant,LowE Glass,Screen Included,Venting	Number of Locks	1
	Aluminum	Product Weight (lb.)	72 lb
	Double-Pane	Solar Heat Gain Coefficient	.22
	Colonial	U-Factor	.71
ish Family	White	Window Type	Single Hung
n Family	White	Window Use Type	New Constructio

tions

d .	Not Qualified	Manufacturer Warranty	5 Year Limited

our product information? Provide feedback.



MIAMI-DADE COUNTY

DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)
BOARD AND CODE ADMINISTRATION DIVISION

MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION
[illegible] Room 208
T (786) 315-2590 F (786) 315-2599
www.miamidade.gov/economy

NOTICE OF ACCEPTANCE (NOA)

AWP Windows and Doors, LLC
8130 NW 74th Avenue
Medley, FL 33166

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER - Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami–Dade County Product Control Section (In Miami–Dade County) and/or the AHJ (in areas other than Miami–Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami–Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code, including the High Velocity Hurricane Zone.-

DESCRIPTION: Series "1700 Impact View" Aluminum Single Hung Window - L.M.I.

APPROVAL DOCUMENT: Drawing No. **W03-105,** titled "Series-1700 Impact View Alum Single Hung Wdw.", sheets 1 through 6 of 6, dated 11/19/03, with revision 1 dated 05/24/15, prepared by Al-Farooq Corporation, signed and sealed by Javad Ahmad, P.E., bearing the Miami-Dade County Product Control Revision stamp with the Notice of Acceptance number and expiration date by the Miami-Dade County Product Control Section.

MISSILE IMPACT RATING: Large and Small Missile Impact Resistant

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state, model/series, and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

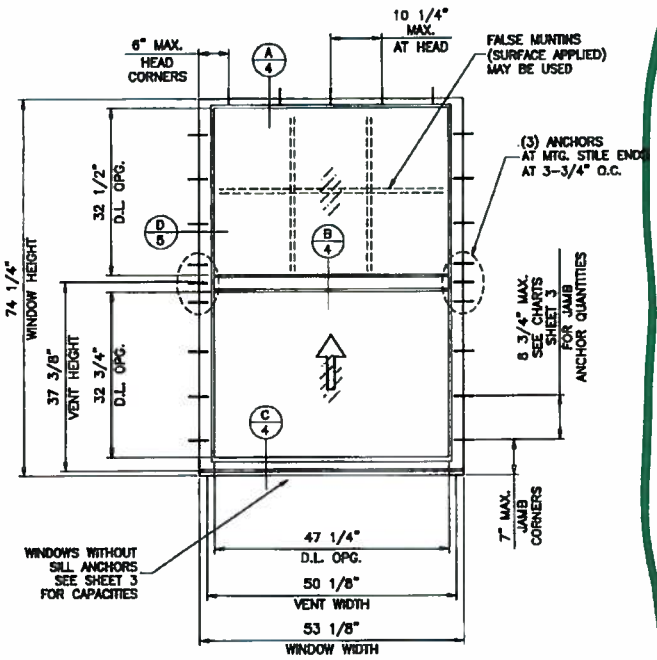
This NOA **revises NOA# 13-0430.09** and consists of this page 1 and evidence pages E-1 and E-2, as well as approval document mentioned above.

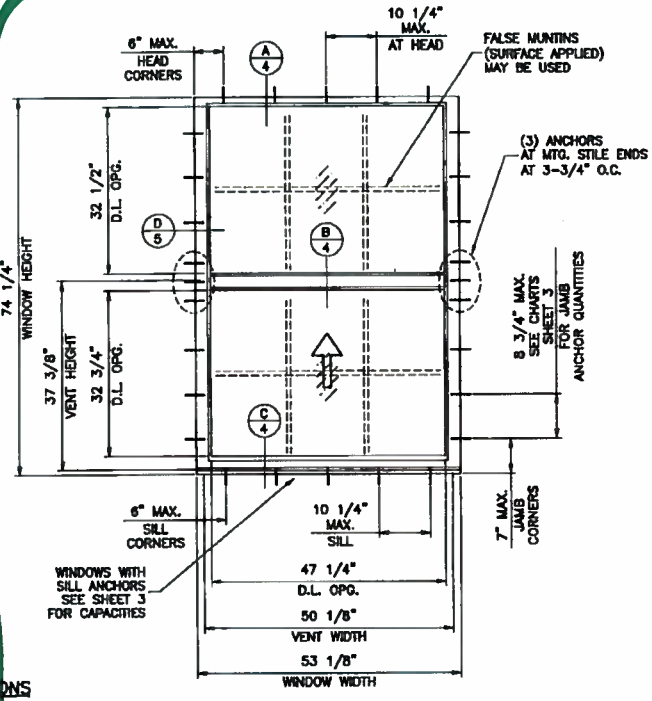
The submitted documentation was reviewed by **Manuel Perez, P.E.**

MIAMI-DADE COUNTY APPROVED

6/30/15

NOA No. 15-0130.03
Expiration Date: April 29, 2019
Approval Date: July 09 2015
Page 1





TYPICAL ELEVATIONS

SERIES-1700 IMPACT VIEW
ALUMINUM SINGLE HUNG WINDOW

DESIGN LOAD RATINGS FOR THESE WINDOWS TO BE AS PER CHARTS SHOWN ON SHEET 3.

APPROVAL APPLIES TO SINGLE UNITS OR SIDE BY SIDE COMBINATIONS OF S.H./S.H. OR SINGLE HUNG WITH OTHER MIAMI-DADE COUNTY APPROVED WINDOWS USING MIAMI-DADE COUNTY APPROVED MULLIONS IN BETWEEN.
LOWER DESIGN PRESSURE FROM WINDOWS OR MULLION APPROVAL WILL APPLY TO ENTIRE SYSTEM.

THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE FLORIDA BUILDING CODE INCLUDING HIGH VELOCITY HURRICANE ZONE (HVHZ).

WOOD BUCKS BY OTHERS, MUST BE ANCHORED PROPERLY TO TRANSFER LOADS TO THE STRUCTURE.

ANCHORS SHALL BE AS LISTED, SPACED AS SHOWN ON DETAILS, ANCHORS EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO.

ANCHORING OR LOADING CONDITIONS NOT SHOWN IN THESE DETAILS ARE NOT PART OF THIS APPROVAL.

A LOAD DURATION INCREASE IS USED IN DESIGN OF ANCHORS INTO WOOD ONLY.

ALL SHIMS TO BE HIGH IMPACT, NON-METALLIC AND NON-COMPRESSIBLE.

MATERIALS INCLUDING BUT NOT LIMITED TO STEEL/METAL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF THE FLORIDA BUILDING CODE.

THESE WINDOWS ARE RATED FOR LARGE & SMALL MISSILE IMPACT. SHUTTERS ARE NOT REQUIRED.

Engr: JAWAD AHMAD
CML
FLA. PE # 70562
C.A.N. 3538
JUN 24 2015

PRODUCT REVISED as complying with the Florida Building Code
Acceptance No. 15-0130.03
Expiration Date Apr 27, 2019
By
Miami-Dade Product Control

AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
1235 S.W. 87 AVE
MIAMI, FLORIDA 33174
TEL. (305) 264-8100 FAX. (305) 262-6978
COMP-AN(W03-10570)

SERIES-1700 IMPACT VIEW ALUM SINGLE HUNG WDW.

AWP WINDOWS AND DOORS, LLC
8130 N.W. 74TH AVE.
MEDLEY, FL. 33166
TEL. (305) 887-2846 FAX (305) 883-1309

revisions:			
no	date	by	description
E	11.18.08		UPDATED FOR 2007 FBC
F	03.24.09		NO CHANGE THIS SHEET
G	09.02.10		MANUF. NAME REVISED
H	12.23.11		UPDATED TO 2010 FBC, NAME REV.
I	04.24.15		GENERAL REV.

date: 11-18-03
scale: 1/2"=1'-0"
dr. by: HAMID
chk. by:

drawing no.
W03-105

sheet 1 of 6

Lake Worth, Florida. The Art of Florida Living.sm

City Of Lake Worth
Department for Community Sustainability
Planning, Zoning and Historic Preservation Division
1900 Second Avenue North · Lake Worth · Florida 33461· Phone: 561-586-1687

MEMORANDUM DATE: September 7, 2016

AGENDA DATE: September 14, 2016

TO: Chair and Members of the Historic Resources Preservation Board

RE: **303 South J Street**

FROM: Aimee N. Sunny, Senior Preservation Coordinator
Department for Community Sustainability

TITLE: **HRPB Project Number 16-00100199:** Consideration of a Retroactive Certificate of Appropriateness (COA) for exterior alterations to the single-family structure located at **303 South J Street**; PCN#38-43-44-21-15-117-0170. The subject property was constructed c.1925 and is a contributing resource within the Southeast Lucerne Local Historic District.

OWNER/APPLICANT: Larry Feldman
303 South J Street
Lake Worth, FL 33460

BACKGROUND:
The single-family structure at 303 South J Street was constructed c. 1925 in a shotgun Frame Vernacular style. The property has public frontage on two streets; South J Street to the east and 3rd Avenue South to the north. Character defining features of the building include the wood frame and wood siding, wood trim, sash windows, and shotgun construction.

The structure has undergone several incompatible alterations, including window replacement, trim removal, and removal of the wood siding and installation of stucco. Overall, the building retains a moderate degree of historic integrity of location, setting, materials, and design.

REQUEST:
The Applicant is requesting a retroactive COA to remove the wood lap siding and install a textured stucco finish on the existing 1-story structure. The wood siding was removed and a stucco scratch coat was installed earlier this year. The Applicant is also requesting a retroactive COA to install aluminum 1/1 single-hung windows on the structure. Based on photo documentation, the windows appear to have been replaced prior to 2007; however, the property file does not have a permit record.

COMPREHENSIVE PLAN CONSISTENCY:
It is the analysis of Staff that the project, as proposed, is not consistent with the Comprehensive Plan goals and objectives concerning historic preservation and housing due to the fact that the Applicant is proposing a change that will have an adverse effect on the historic integrity of the property. Specifically, the request is in conflict with these objectives:

Goal 1.4 Encourage preservation and rehabilitation of historic and natural resources and where appropriate restrict development that would damage or destroy these resources. (Objective 1.4.2)

Objective 3.2.5: To encourage the identification of historically significant housing, and to promote its preservation and rehabilitation as referenced by the Surveys of Historic Properties conducted for the City of Lake Worth.

Policy 3.2.5.1: Properties of special value for historic, architectural, cultural or aesthetic reasons will be restored and preserved through the enforcement of the City's Historic Preservation Ordinance to the extent feasible.

ANALYSIS:

Zoning

The proposed alterations are not in conflict with the development requirements in the City's Zoning Code.

Historic Preservation

Staff has reviewed the documentation and materials provided in this application and outlined the applicable guidelines and standards found in the City's Historic Preservation Ordinance, detailed in Attachment 1 – Decision Criteria.

The National Park Service and Secretary of the Interior's Standards have very specific criteria regarding replacement of historic materials. Specifically Standards 2, 5, and 6 apply in this situation:

Standard 2 - The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.

Standard 5 - Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.

Standard 6 - Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.

According to the Standards and the Code, when repair or replacement of wood lap siding is necessary, the new siding should match the old in design, profile, and materials. Removal of the wood lap siding and installation of stucco is not in keeping with the Standards, as the wood siding is a distinctive design feature of this shotgun Frame Vernacular structure.

Due to poor documentation regarding the window replacement, Staff is unable to determine the original window design and configuration. Based on the size of the openings, and the design of the structure, it is likely that wood double-hung windows were the original material. The installation of aluminum single-hung windows is compatible with the structure. All wood trim should remain in place around the windows.

Public Comment

At the time of publication of this report, Staff has not received any public comment regarding this project.

CONSEQUENT ACTION:
Approve the application; approve the application with conditions; continue the hearing to a date certain to request additional information; or deny the application.

RECOMMENDATION:
Staff recommends that the Board deny the request to replace the wood lap siding with textured stucco. The wood lap siding is the appropriate material for this Frame Vernacular structure, and Staff would not have approved the request had it been submitted in advance of the work being completed. Staff recommends that the owner install new wood lap siding, to replicate the siding that was removed.

Staff recommends that the Board approve the request for 1/1 aluminum single-hung windows.

Staff recommends the following conditions of approval:

1) The stucco scratch coat shall be removed and wood lap siding shall be installed on the structure. The Applicant shall submit a sample of the proposed wood siding, subject to Staff review and approval.
2) The existing windows may remain. The wood trim that was removed shall be re-installed, subject to Staff review and approval.

POTENTIAL MOTIONS:
I MOVE TO **APPROVE** HRPB 16-00100199: Consideration of a Certificate of Appropriateness (COA) for an exterior alterations for the subject building located at **303 South J Street**, subject to the staff recommended conditions of approval, and based upon the preponderance of competent substantial evidence, and pursuant to the City of Lake Worth Land Development Regulations Section 23.5-4.

I MOVE TO **DENY** HRPB 16-00100199: Consideration of a Certificate of Appropriateness (COA) for an exterior alterations for the subject building located at **303 South J Street** because the Applicant has not established by a preponderance of the competent substantial evidence that the application is in compliance with the City of Lake Worth Land Development Regulations Section 23.5-4, the Secretary of the interiors Standards for the Rehabilitation of Historic Properties, and the City's Comprehensive Plan.

ATTACHMENTS:

1. Decision Criteria
2. Photographs
3. Proposed Architectural Drawings
4. Proposed Materials

LOCATION MAP

MEMORANDUM

DATE: September 7, 2016

TO: Chair and Members of the Historic Resources Preservation Board

FROM: Aimee N. Sunny, Preservation Planning Coordinator
Department of Community Sustainability

SUBJECT: **HRPB Project Number 16-00100199:** Consideration of a Retroactive Certificate of Appropriateness (COA) for exterior alterations to the single-family structure located at **303 South J Street**; PCN#38-43-44-21-15-117-0170. The subject property was constructed c.1925 and is a contributing resource within the Southeast Lucerne Local Historic District.

HRPB Meeting Date: September 14, 2016

Per Section 23.5-4k (1) of the historic preservation ordinance, the Board shall use the following criteria in making a determination:

A. What is the effect of the proposed work on the landmark or the property upon which such work is to be done?
Response: It is the opinion of Staff that the work proposed to the siding would have an adverse effect on the historic appearance of the building, and is not compatible with the design or style. It is also the opinion of Staff that the work proposed to the windows would not have an adverse effect on the historic appearance of the building, and is compatible with the design and style.

B. What is the relationship between such work and other structures on the landmark site or other property in the historic district?
Response: The proposed work will have no direct physical effect on any surrounding properties within the surrounding Southeast Lucerne Local Historic District; however, it will have an indirect visual effect on the district.

C. To what extent will the historic, architectural, or archaeological significance, architectural style, design, arrangement, texture, materials and color of the landmark or the property be affected?
Response: The Applicant is proposing work that is not compatible with the architectural design and detailing of the building by removing the historic wood siding and replacing it with stucco. The Applicant is also proposing work that is compatible with the architectural design and detailing of the building by removing the existing wood single-hung windows and replacing them with aluminum single-hung windows.

D. Would denial of a certificate of appropriateness deprive the property owner of reasonable beneficial use of his property?
Response: No, the denial of this COA as submitted does not prevent the Applicant from potentially proposing other alterations to the structure, nor would it make the building uninhabitable.

E. Are the applicant's plans technically feasible and capable of being carried out within a reasonable time?
Response: Yes.

F. Do the plans satisfy the applicable portions of the general criteria contained in the United States Secretary of the Interior's Standards for Rehabilitation then in effect or as they may be revised from time to time? The current version of the Secretary's Guidelines provides as follows:

(1) A property shall be used for its historic purpose or be placed in a new use that requires minimal change to the defining characteristics of the building and its site and environment.
Response: No change to the use of the property is proposed.

(2) This historic character of the property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.
Response: The Applicant is proposing to remove wood siding that is a character-defining feature of this property.

(3) Each property shall be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or architectural elements from other buildings, shall not be undertaken.
Response: Not applicable to this project.

(4) Most properties change over time; those changes that have acquired historic significance in their own right shall be retained and preserved.
Response: Not applicable to this project.

(5) Distinctive features, finishes and construction techniques or examples of craftsmanship that characterize a historic property shall be preserved.
Response: The existing wood siding is an example of craftsmanship that characterizes not only this structure, but also the time period and architectural style in general.

(6) Deteriorated architectural features shall be repaired rather than replaced, wherever possible. In the event replacement is necessary, the new material should match the material being replaced in composition, design, color, texture, and other visual qualities.
Response: The proposed stucco does not match the existing wood siding in style, material, or texture.

Repair or replacement of missing architectural features should be based on accurate duplications of features, substantiated by historical, physical, or pictorial evidence rather than on conjectural designs or because the different architectural elements from other buildings or structures happen to be available for relocation.
Response: Not applicable to this project.

(7) Chemical or physical treatments, such as sandblasting, that cause damage to historic materials, shall not be used. The surface cleaning of structures, if appropriate, shall be undertaken using the gentlest means possible.
Response: Not applicable to this project.

(8) Significant archeological resources affected by a project shall be protected and preserved. If such resources must be disturbed, mitigation measures shall be undertaken.

Response: Not applicable to this project.

(9) New additions, exterior alterations or related new construction shall not destroy historic materials that characterize the property. The new construction shall be differentiated from the old and shall be compatible with the massing, size, scale and architectural features to protect the historic integrity of the property and its environment.
Response: The proposed alterations remove wood siding that characterizes the property.

(10) New additions and adjacent or related new construction shall be undertaken in such manner that, if removed in the future, the essential form and integrity of the historic building and its environment would be unimpaired.
Response: Not applicable to this project.

G. What are the effects of the requested change on those elements or features of the structure which served as the basis for its designation and will the requested changes cause the least possible adverse effect on those elements or features?
Response: It is the opinion of Staff that the historic character of the property would be adversely affected by the proposed project as submitted by the Applicant, as outlined above. The requested exterior alterations do not represent the least possible adverse effect on the property. There are alternate options, including replacement of the incompatible stucco with wood siding to match the original.

Section 23.5-4k (2). *Additional guidelines for alterations.*

In approving or denying applications for certificates of appropriateness for alterations, the HRPB shall also consider the following additional guidelines:

A. Is every reasonable effort being made to provide a compatible use for a property that requires minimal alteration of the building, structure or site and its environment, or to use the property for its originally intended purpose?
Response: No change to the use of the property is proposed.

B. Are the distinguishing original qualities or character of a building, structure or site and its environment being destroyed? The removal or alteration of any historic material or distinctive architectural features shall be avoided whenever possible.
Response: The wood siding can be considered a distinctive architectural feature and should not be removed unless the level of deterioration is such that it cannot be repaired. In that case, it should be replaced and should replicate the original wood siding as closely as possible.

C. When a certificate of appropriateness is requested to replace windows or doors, the HRPB shall permit the property owner's original design when the HRPB's alternative design would result in an increase in cost of thirty (30) percent above the owner's original cost. The owner shall be required to demonstrate to the HRPB that:
(1) The work to be performed will conform to the original window openings of the structure; and
Response: The applicant meets this criterion.

(2) That the replacement windows or doors with less expensive materials will achieve a savings in excess of thirty (30) percent over historically compatible materials otherwise required by this code.
Response: Staff must defer to the applicant.

Google Maps 303 South J Street, Lakeworth FL

Imagery ©2016 Google, Map data ©2016 Google 20 ft

Google Maps

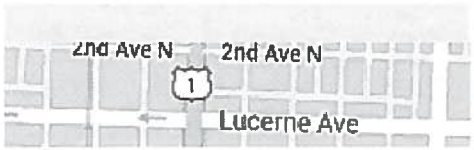
S J St

east view

Image capture: Jan 2015 © 2016 Google

Lake Worth, Florida

Street View - Jan 2015



Google Maps

3rd Ave S

north view

Image capture: Jan 2015 © 2016 Google

Lake Worth, Florida

Street View - Jan 2015

303

301

TILATH
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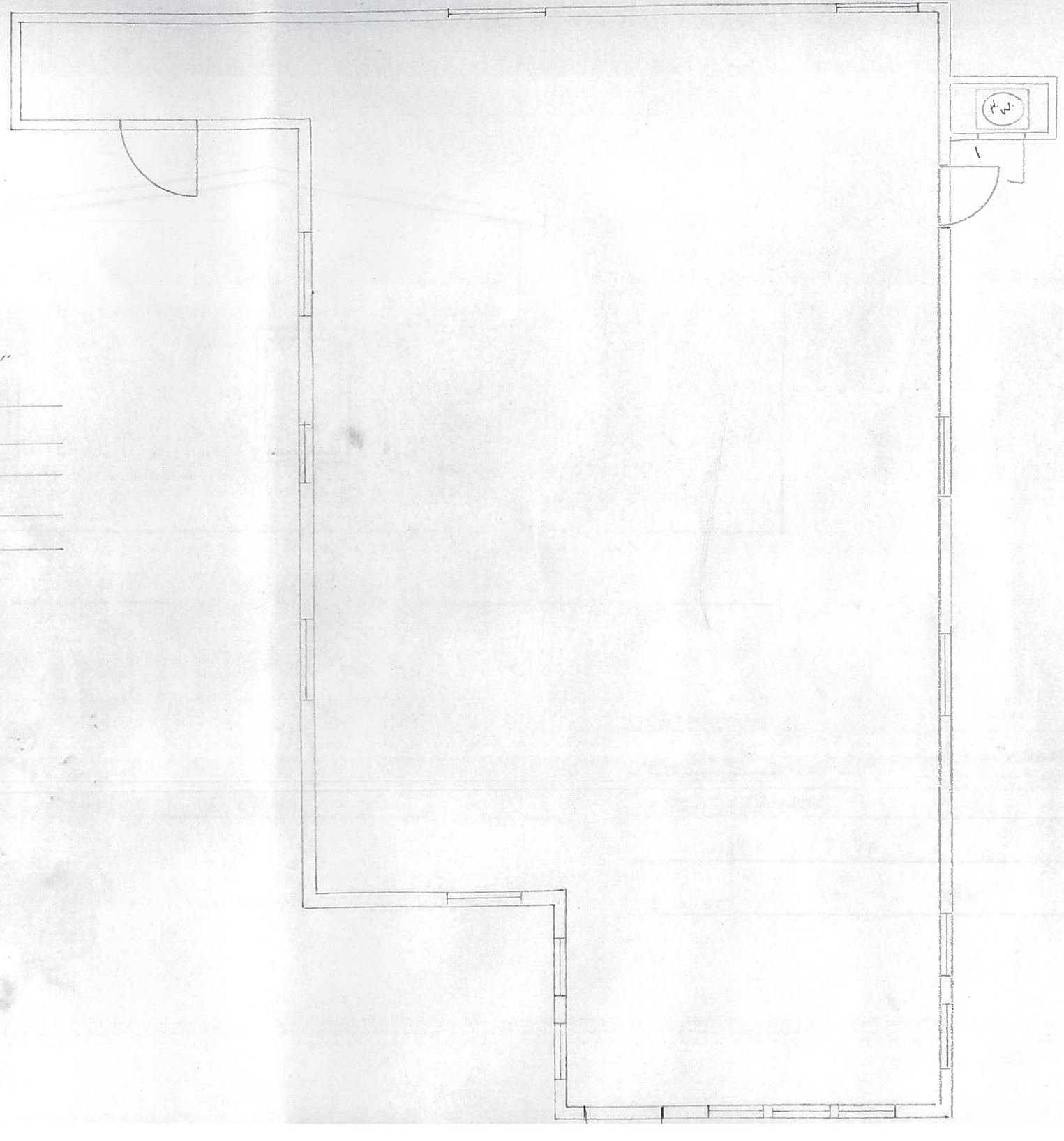
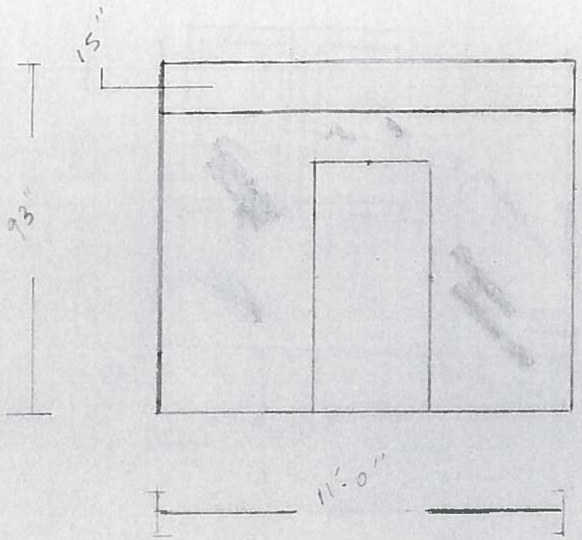
TILATH

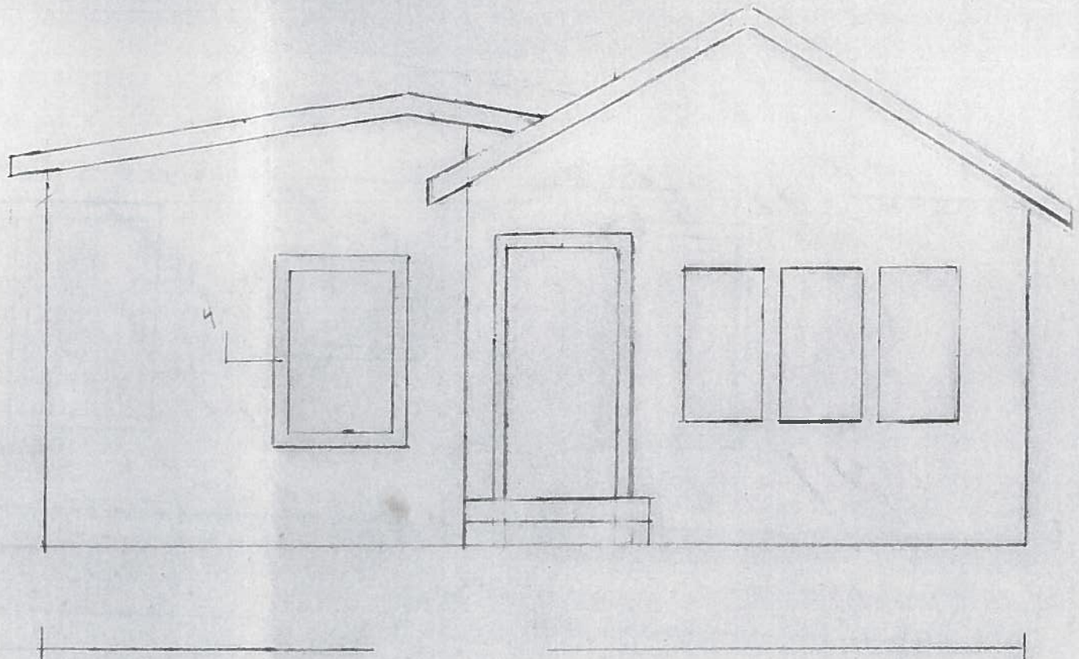
Scale - 1/4" = 1'-0"

Floor Plan





Back facing west



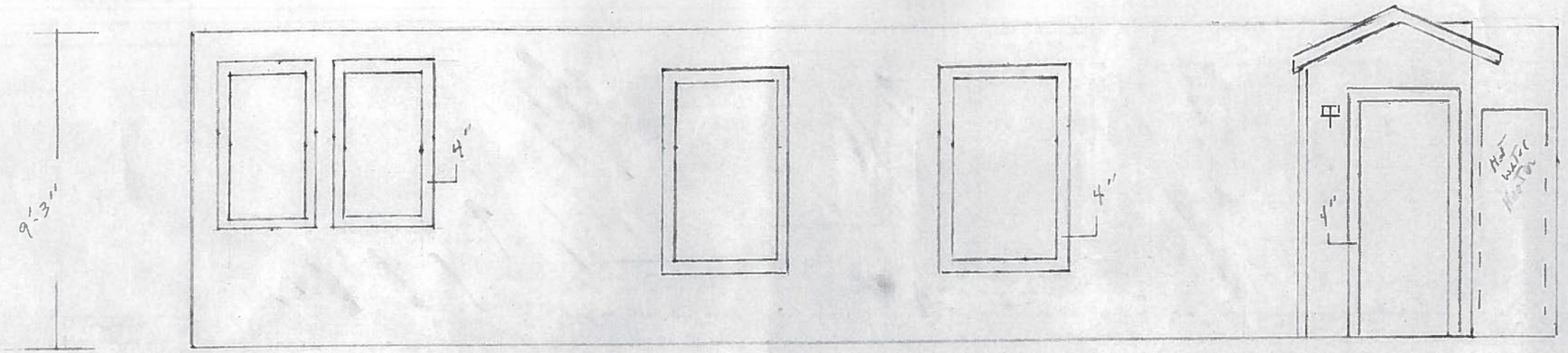
West Facing Elev

Prop. Name

1/4 = 1'-0"

Street Address:

Owner:

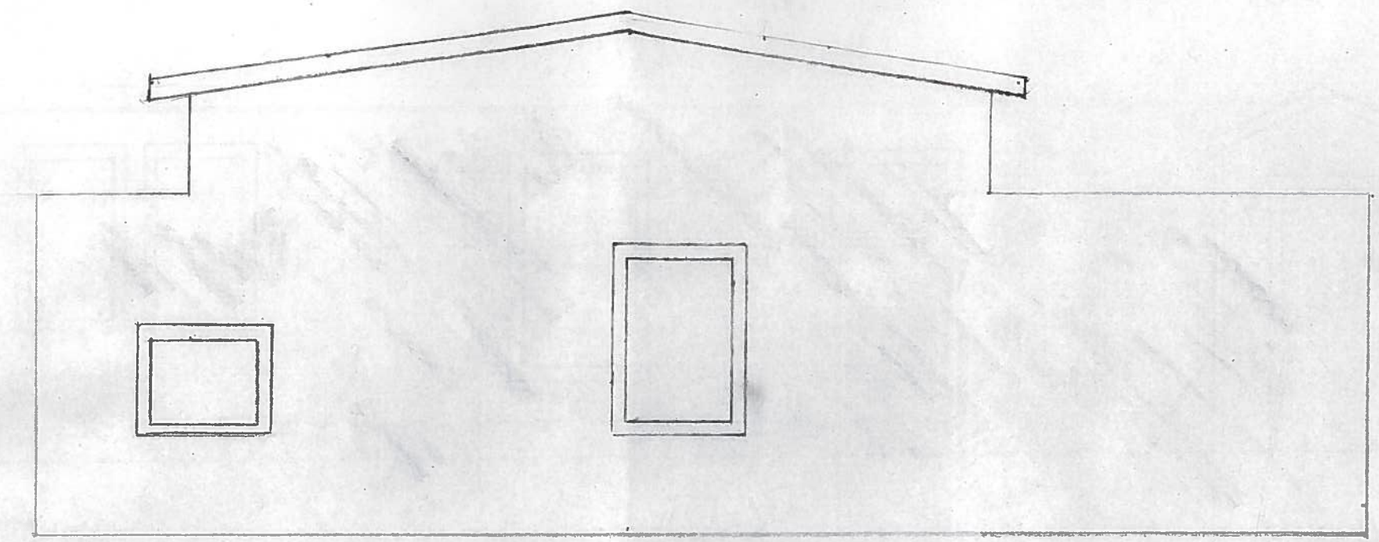


SOUTH FACING ELEV.

+ 30" +

scale: 1/4" - 1'-0"

DATE 6-7-16



East Facing E/eV.

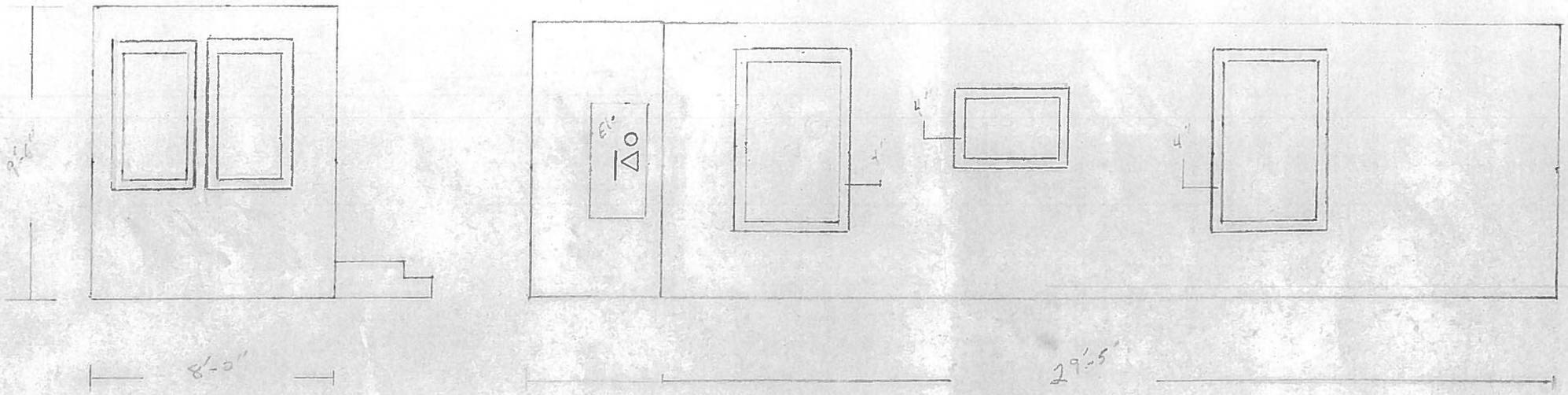
Prop. Name:

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

Street Address:

Date: 6:7:16

owner:



North Facing Elev.

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

MIAMI-DADE COUNTY
DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)
BOARD AND CODE ADMINISTRATION DIVISION

NOTICE OF ACCEPTANCE (NOA)

MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION
11805 SW 26 Street, Room 208
T (786) 315-2590 F (786) 315-2599
www.miamidade.gov/economy

Lawson Industries, Inc.
8501 NW 90 Street
Medley, FL 33166

SCOPE:
This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER-Product Control Section to be used in Miami-Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).
This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami-Dade County) and/ or the AHJ (in areas other than Miami-Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.
This product is approved as described herein, and has been designed to comply with the Florida Building Code, including the High Velocity Hurricane Zone.

DESCRIPTION: Series "SH-7500 Flange Frame" Aluminum Single Hung Window – N.I.

APPROVAL DOCUMENT: Drawing No. **L7500-0401**, titled "SH-7500 Single Hung Flange Window", sheets 1 through 5 of 5, dated 09/20/04, with revision **F** dated 08/04/14, prepared by the manufacturer, signed and sealed by Thomas J. Sotos, P.E., bearing the Miami-Dade County Product Control Section Renewal stamp with the Notice of Acceptance number and expiration date by the Miami-Dade County Product Control Section.

MISSILE IMPACT RATING: None.

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state, model/ series, and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/ or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

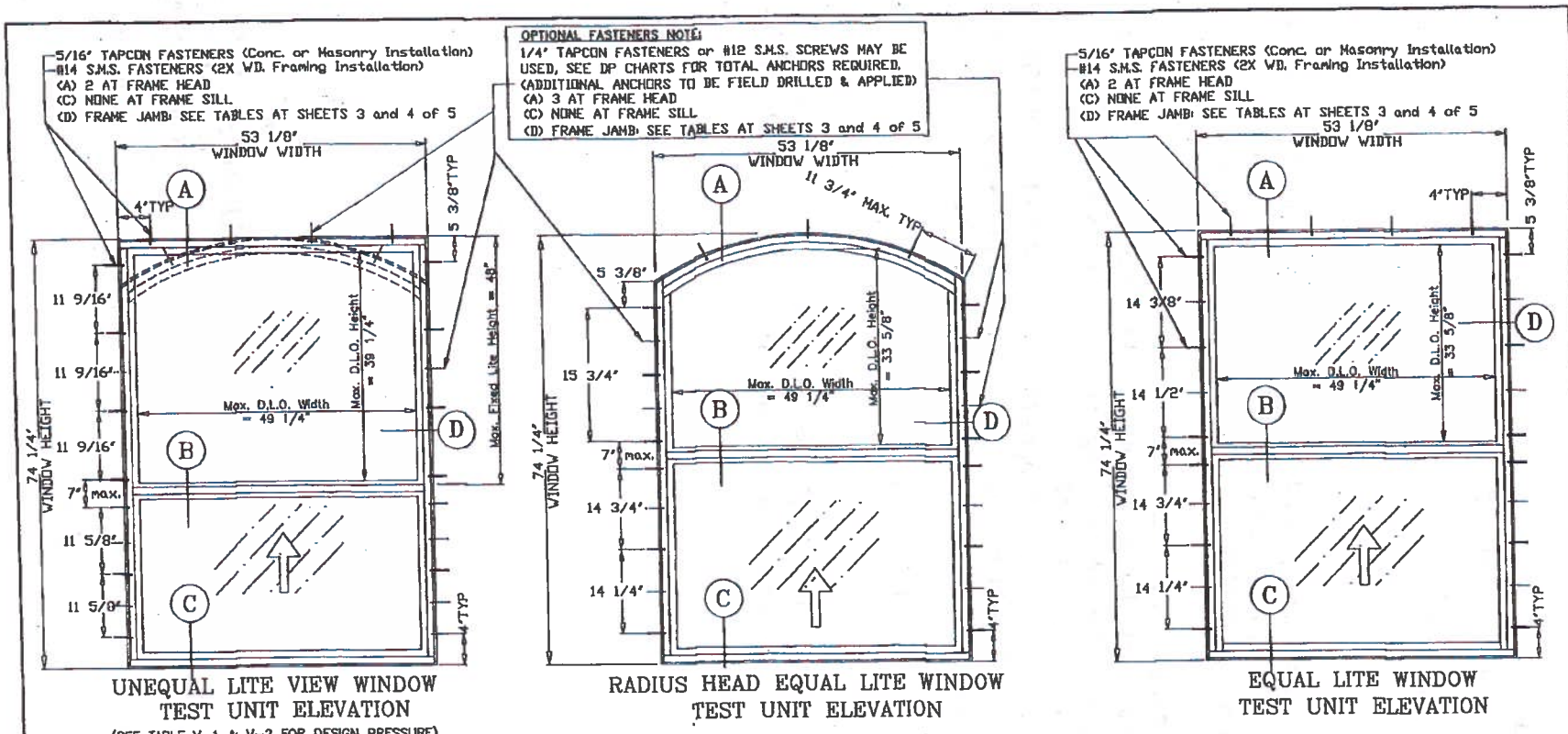
ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.
This NOA **renews NOA No. 14-0908.12** and consists of this page 1 and evidence pages E-1 and E-2, as well as approval document mentioned above.
The submitted documentation was reviewed by **Manuel Perez, P.E.**

MIAMI-DADE COUNTY APPROVED

7/30/15

NOA No. 15-0511.05
Expiration Date: September 01, 2020
Approval Date: August 06, 2015



SERIES-7500 SINGLE HUNG WINDOW - FLANGE FRAME - NON-IMPACT

Notes:

1.) THIS WINDOW SYSTEM IS DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE 2014 FLORIDA BUILDING CODE AND ASTM 1300.
THIS PRODUCT IS NOT IMPACT RESISTANT. WINDOWS ARE TO BE PROTECTED WITH MIAMI-DADE COUNTY APPROVED IMPACT RESISTANT SHUTTERS.

2.) 1 X OR 2 X WOOD BUCKS SHALL BE INSTALLED AND ANCHORED SO THAT THE BUILDING RESISTS THE SUPERIMPOSED LOADS IN ACCORDANCE WITH REQUIREMENTS OF 2014 F.B.C. & TO BE REVIEWED BY THE BUILDING OFFICIAL.

3.) ANCHORS SHOWN ABOVE ARE AS PER TEST UNITS. INTERIOR ANCHOR SPACINGS WILL VARY WITH UNIT DIMENSIONS, AND THE NUMBER OF ANCHORS REQUIRED, AS SPECIFIED ON THE LOAD TABLES.

4.) ANCHOR CONDITIONS NOT DESCRIBED IN THESE DRAWING'S ARE TO BE ENGINEERED ON A SITE SPECIFIC BASIS, UNDER SEPARATE APPROVAL AND TO BE REVIEWED BY BUILDING OFFICIAL.

5.) RADIUS HEAD WINDOWS ARE QUALIFIED FOR USE WITH ALL GLASS TYPES TABULATED HEREIN.

6.) VIEW WINDOWS ARE QUALIFIED FOR USE WITH 3/16" ANNEALED & 3/16" TEMPERED GLASS USING THE HEAVY DUTY MEETING RAIL ONLY.

7.) SEE PAGE 4 FOR LOCK OPTIONS.

8.) APPROVAL APPLIES TO SINGLE UNITS OR MULTIPLE UNITS AND MAY BE MULLED VERTICALLY OR HORIZONTALLY.

9.) MULLING SINGLE HUNG WINDOWS WITH OTHER TYPES OF MIAMI-DADE COUNTY APPROVED WINDOWS USING A MIAMI-DADE COUNTY APPROVED MULLION IN BETWEEN ARE ACCEPTABLE BUT THE LOWER DESIGN PRESSURE FROM THE WINDOWS OR MULLION APPROVAL WILL APPLY TO THE ENTIRE MULLED SYSTEM.

10.) SEE SHEET # 4 FOR MULLION/METAL ATTACHMENT DETAILS & NOTES.

WINDOWS ARE TO BE PROTECTED WITH MIAMI-DADE COUNTY APPROVED IMPACT RESISTANT SHUTTERS

PRODUCT RENEWED
as complying with the Florida Building Code
Acceptance No 15-0511.05
Expiration Date Sept. 1, 2020
By Manuel Perez
Miami-Dade Product Control

PRODUCT REVISED
as complying with the Florida Building Code
Acceptance No 14-0908.12
Expiration Date 09/01/2015
By
Miami Dade Product Control

LA WSON INDUSTRIES, INC.
8501 N.W. 90 ST.
MEDLEY, FLORIDA 33166
PH No. (305) 696-8660

MANUFACTURER OF QUALITY ALUMINUM WINDOWS AND GLASS DOORS

SH-7500 SINGLE HUNG FLANGE WINDOW

APPROVED ELEVATIONS, CONFIGURATIONS AND NOTES

Drawing Number: L7500-0401 | Sheet: 1 OF 5 | Revision #:

Product Reference Number | Date: | Revision Level: F

Revision Notes:
A. Revised glass charts w/ meeting rail types added Chart w/ 1/8" tempered Glass
C. Qualified Corn Lock on all windows
D. General notes revised to comply with the 2007 Florida Building Code.
E. Revised to Comply w/ 2010 FBC
F. Revised to Comply w/ 2014 FBC

Drawn By: N. ERAZO | Date Drawn: 09/20/04
Checked By: N. ERAZO | Date Revised: 08/04/14
Revision Level: F | Scale:

THOMAS J. SOTOS
PROFESSIONAL ENGINEER
FL. LIC. # 55225

STATE OF FLORIDA
THOMAS J. SOTOS
No 55225
PROFESSIONAL ENGINEER

SEAL

DATE

MIAMI-DADE COUNTY
DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)
BOARD AND CODE ADMINISTRATION DIVISION

MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION
11805 SW 26 Street, Room 208
Miami, Florida 33175-2474
T (786) 315-2590 F (786) 315-2599
www.miamidade.gov/economy

NOTICE OF ACCEPTANCE (NOA)

American Metal Fabrications, Inc.
dba AMF Building Products
9040 Belvedere Road
West Palm Beach, Florida 33411

SCOPE:
This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER- Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the High Velocity Hurricane Zone of the Florida Building Code.

DESCRIPTION: 0.063" (min.) Aluminum Storm Panels Shutter

APPROVAL DOCUMENT: Drawing No. 12-167, titled " 0.063" Aluminum Storm Panel ", sheets 1 through 5 of 5, prepared by Knezevich Associates Consulting Engineers, dated July 10, 2012, signed and sealed by V. J. Knezevich, P.E., on July 10, 2012, bearing the Miami-Dade County Product Control Revision stamp with the Notice of Acceptance number and the expiration date by the Miami-Dade County Product Control Section.

MISSILE IMPACT RATING: Large and Small Missile Impact Resistant

LABELING: Each panel shall bear a permanent label with the manufacturer's name or logo, city, state, the following statement: "Miami-Dade County Product Control Approved", and NOA number, per TAS-201, TAS-202, and TAS-203, unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.
This NOA **revises NOA #12-0419.01** and consists of this page 1, evidence submitted pages E-1, E-2, & E-3 as well as approval document mentioned above.
The submitted documentation was reviewed by **Helmy A. Makar, P.E., M.S.**

MIAMI-DADE COUNTY APPROVED

Helmy A. Makar
12/13/2012

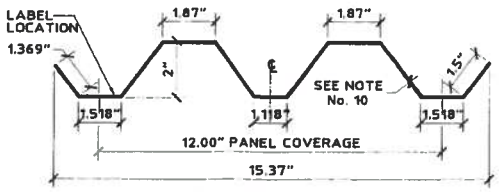
NOA No. 12-0809.04
Expiration Date: 04/18/2017
Approval Date: 12/13/2012

GENERAL NOTES:

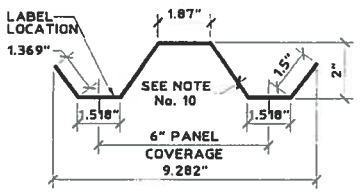
1. THESE PRODUCT EVALUATION DOCUMENTS REPRESENT A LARGE MISSILE IMPACT PROTECTIVE SHUTTER SYSTEM ANALYZED WITH THE PROVISION SET FOR THE ISSUANCE OF A NOTICE OF ACCEPTANCE (NOA) BY MIAMI-DADE COUNTY PRODUCT CONTROL SECTION FOR THE HIGH VELOCITY HURRICANE ZONE (HVHZ) OF THE FLORIDA BUILDING CODE 2010.
2. NO INCREASE IN ALLOWABLE STRESS HAS BEEN USED IN THE DESIGN OF THIS PRODUCT. WIND LOAD DURATION FACTOR Cd = 1.6 WAS USED FOR WOOD SCREW DESIGN.
3. DETERMINE THE POSITIVE AND NEGATIVE DESIGN LOADS TO USE WHEN REFERENCING THESE DOCUMENTS IN ACCORDANCE WITH THE GOVERNING CODE AND GOVERNING WIND VELOCITY. FOR WIND LOAD CALCULATIONS IN ACCORDANCE WITH ASCE 7-10, A DIRECTIONALITY FACTOR OF Kd =0.85 SHALL BE USED.
4. THESE PRODUCT EVALUATION DOCUMENTS ARE GENERIC AND DO NOT INCLUDE INFORMATION FOR SITE-SPECIFIC APPLICATION OF THIS SHUTTER SYSTEM.
5. USE OF THESE PRODUCT EVALUATION DOCUMENTS SHALL COMPLY WITH CHAPTER 61G15-23 OF THE FLORIDA ADMINISTRATIVE CODE.
6. THESE PRODUCT EVALUATION DOCUMENTS ARE INTENDED FOR USE ONLY BY A LICENSED CONTRACTOR, PROFESSIONAL ENGINEER OR REGISTERED ARCHITECT AND ARE SUITABLE TO BE APPLIED BY THE CONTRACTOR PROVIDED THE CONTRACTOR DOES NOT DEVIATE FROM THE CONDITIONS DETAILED HEREIN AND THE CONTRACTOR VERIFIES THAT THE EXISTING STRUCTURE DOES NOT DEVIATE IN EITHER FORM OR MATERIAL FROM THE STRUCTURAL SUBSTRATES DETAILED HEREIN. CONTRACTOR SHALL VERIFY EXISTING STRUCTURE CAN WITHSTAND SUPERIMPOSED LOAD OF SHUTTER.
7. ANY MODIFICATIONS OR ADDITIONS TO THESE PRODUCT EVALUATION DOCUMENTS WILL VOID THE PRODUCT EVALUATION DOCUMENTS.
8. WHEN THE SITE CONDITIONS DEVIATE FROM THESE PRODUCT EVALUATION DOCUMENTS, THE BUILDING OFFICIAL MAY ELECT ONE OF THE FOLLOWING OPTIONS:
   A) REQUIRE THAT SITE SPECIFIC DOCUMENTS BE PREPARED, SIGNED, DATED AND SEALED BY A LICENSED ENGINEER OR REGISTERED ARCHITECT, WHICH DETAIL AND JUSTIFY THE DEVIATION. SAID DOCUMENTS SHALL BE SUBMITTED TO THE PRODUCT ENGINEER FOR REVIEW AS A CONDITION TO THE BUILDING OFFICIAL GRANTING HIS/HER APPROVAL.
   B) REQUIRE THAT A ONE-TIME SITE SPECIFIC APPROVAL BE APPLIED FOR AND SECURED FROM THE MIAMI-DADE COUNTY PRODUCT CONTROL SECTION.

   WHEN THE SITE CONDITION DEVIATIONS OCCUR WITHIN THE HIGH VELOCITY HURRICANE ZONE AREAS ONLY OPTION "B" SHALL BE ACCEPTED BY THE BUILDING OFFICIAL.
9. PRODUCT MARKINGS SHALL BE WITHIN 12" OF ONE END OF THE PANEL WITH A MINIMUM OF ONE MARKING PER PANEL AND SHALL BE PERMANENTLY LABELED AS FOLLOWS:

   AMF BUILDING PRODUCTS
   WEST PALM BEACH, FLORIDA
   MIAMI-DADE COUNTY PRODUCT CONTROL APPROVED
10. STORM PANELS SHALL BE 0.063" THICK, 3004-H34 ALUMINUM ALLOY WITH A MIN. Fy=25.0 KSI OR 5052-H32 ALUMINUM ALLOY WITH A MIN. Fy=23.0 KSI.
11. ALL EXTRUSIONS SHALL BE 6063-T6 ALUMINUM ALLOY, U.O.N.
12. ALL BOLTS AND WASHERS SHALL BE GALVANIZED OR STAINLESS STEEL WITH A MINIMUM TENSILE STRENGTH OF 60 K.S.I., U.O.N.
13. TOP & BOTTOM DETAILS SHOWN MAY BE INTERCHANGED AS FIELD CONDITIONS DICTATE. PANELS MAY BE MOUNTED HORIZONTALLY WHERE APPLICABLE.
14. THE PERMIT HOLDER SHALL VERIFY THE ADEQUACY OF THE EXISTING STRUCTURE TO SUSTAIN THE NEW SUPERIMPOSED LOADS AND TO VERIFY ALL DIMENSIONS AT THE JOB SITE, BEFORE COMMENCING WITH THE WORK.



1 FULL ALUMINUM STORM PANEL
SCALE: 3" = 1' - 0"



2 HALF ALUMINUM STORM PANEL
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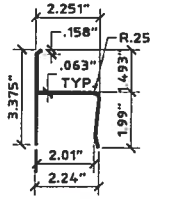
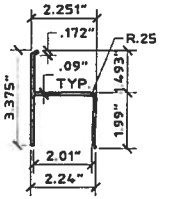


3 "h" HEADER
SCALE: 3" = 1' - 0"



4 HEAVY "h" HEADER
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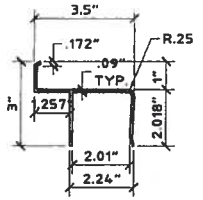

5 BUILD-OUT "h" HEADER
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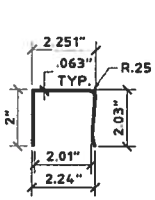

6 "U" HEADER
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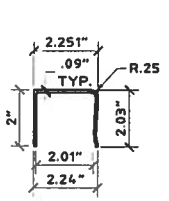

7 HEAVY "U" HEADER
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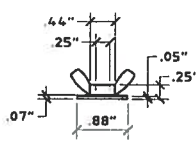
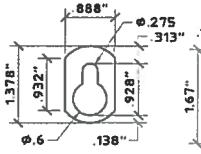
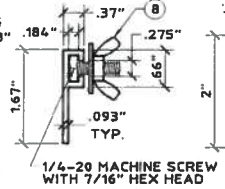


MATERIAL: ZAMAC 3 ALLOY

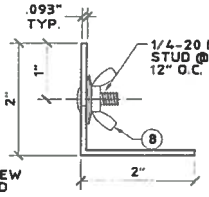
8 WASHERED WING NUT
SCALE: HALF SIZE



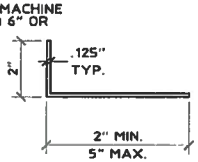
9 KEYHOLE WASHER
SCALE: HALF SIZE



10 "F" TRACK
SCALE: HALF SIZE



11 STUD ANGLE
SCALE: HALF SIZE



12 BUILD-OUT ANGLE
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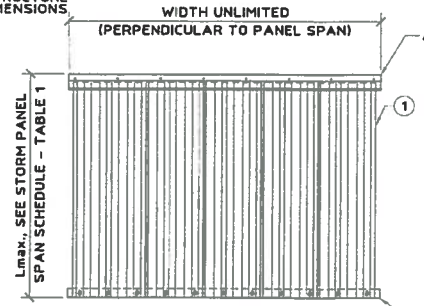
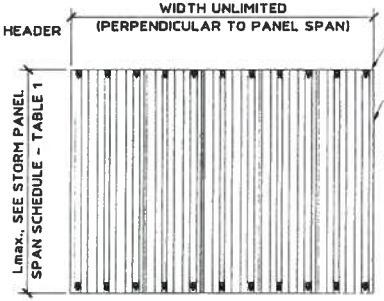


TYP. ELEVATION
SCALE: 1/2" = 1'-0"



TYP. ELEVATION
SCALE: 1/2" = 1'-0"

PRODUCT REVISED
as complying with the Florida Building Code
Acceptance No 12-0809.04
Expiration Date 04/18/2017
By Miami Dade Product Control

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0.063" ALUMINUM STORM PANEL

AMF Building Products
9040 Belvedere Road
West Palm Beach, FL 33411
Tel (561) 790-5799

revisions			
no	date	by	description

V.J. Knezevich
Professional Engineer
FL License No. PE 0058043

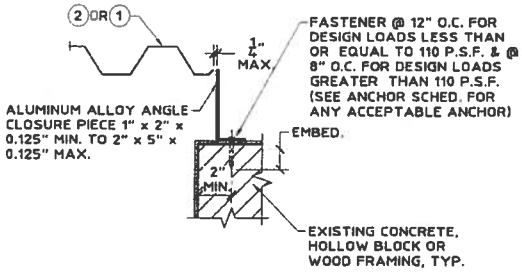
JUL 10 2012

drawn by	scale
ARV	AS NOTED

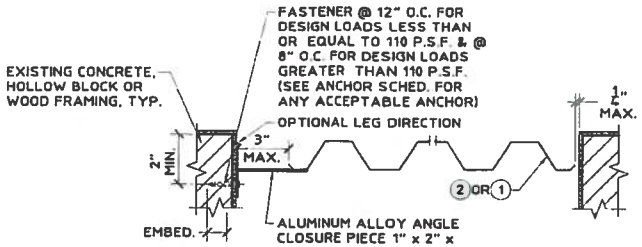
date 07/10/2012

drawing no. 12-167

sheet 1 of 5



F **BUILD-OUT MOUNT CLOSURE SECTION**
SCALE: 1-1/2" = 1' - 0"



G **TRAP MOUNT CLOSURE SECTION**
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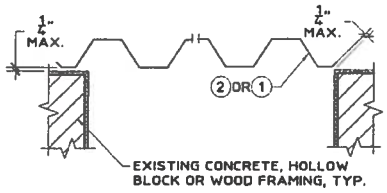

H **WALL MOUNT CLOSURE SECTION**
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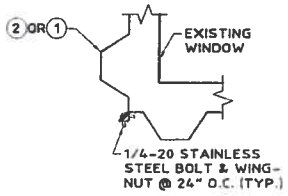
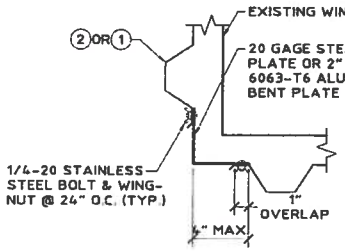


J **TYPICAL CORNER CLOSURE PLAN**
SCALE: 1-1/2" = 1' - 0"



K **TYPICAL CORNER CLOSURE PLAN**
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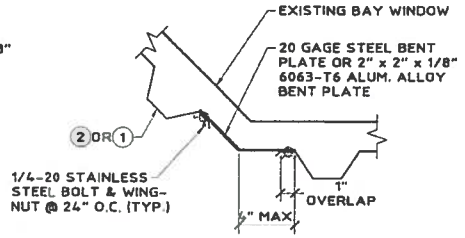

L **TYPICAL CORNER CLOSURE PLAN**
SCALE: 1-1/2" = 1' - 0"

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revisions

no	date	by	description

V.J. Knezevich
Professional Engineer
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JUL 10 2012

drawn by: ARY
scale: AS NOTED
date: 07/10/2012
drawing no.: 12-167
sheet 3 of 5

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