Replacement of Windows and Doors to Impact Rated Material at Various City Parks

Invitation for Bids # RE-24-05

General Information		
Project Cost Estimate	$800,000	See Section 1.4
Project Timeline	120 calendar days from NTP with an estimated start date of June 2024	See Section 1.4
Evaluation of Proposals	Staff	See Section 1.7
Mandatory Site Visit	It is mandatory to visit all sites prior to submitting a bid for this project. There is scheduled site visit on February 7, 2024 at 10:00 a.m.	See Section 1.8
Question Due Date	February 13, 2024	See Section 1.8
Proposals will be accepted until	2:00 p.m. on February 27, 2024	See Section 1.8
Proposal Security / Bid Bond	☐ Not required. ✓ Required only for bidders that have a total cumulative base proposal amount that exceeds $200,000. Proposal Security shall be in the amount of 5% of the total cumulative base amount proposed. ☐ Required for every bidder, regardless of proposal amount. Proposal Security shall be in the amount of 5% of the total cumulative base amount proposed. ☐ Required for every bidder, regardless of proposal amount. Proposal Security shall be in the amount of $10,000 or 5% of the total cumulative base amount proposed, whichever is less.	See Section 4.1
100% Payment and Performance Bonds	☐ Not required. ☐ Required, regardless of the awarded contract amount. ✓ Required in the event that the awarded contract exceeds $200,000.	See Section 4.2
Grant or Federal Funding Information	Not Applicable	Not Applicable

THE CITY OF PEMBROKE PINES
PROCUREMENT DEPARTMENT
8300 SOUTH PALM DRIVE
PEMBROKE PINES, FLORIDA 33025
(954) 518-9020

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SECTION 1 - INSTRUCTIONS

1.1 NOTICE

Notice is hereby given that the City Commission of the City of Pembroke Pines is seeking sealed proposals for:

IFB # RE-24-05
Replacement of Windows and Doors to Impact Rated Material at Various City Parks

Solicitations may be obtained from the City of Pembroke Pines website at http://www.ppines.com/index.aspx?NID=667 and on the https://ppines.bonfirehub.com/ website.

If you have any problems downloading the solicitation, please contact the Bonfire Support at Support@GoBonfire.com.

If additional information help is needed with downloading the solicitation package please contact the Procurement Department at (954) 518-9020 or by email at purchasing@ppines.com. The Procurement Department hours are between 7:00 a.m. - 6:00 p.m. on Monday through Thursday and is located at 8300 South Palm Drive, Pembroke Pines, Florida 33025.

The City requires all questions relating to the solicitation be entered through the "Messages" section for the specific project on the https://ppines.bonfirehub.com/ website. Under the "Messages" section, vendors will find the "Opportunity Q&A" tab in which they can ask their specific question(s). Responses to the questions will be provided online at https://ppines.bonfirehub.com. Such request must be received by the "Question Due Date" stated in the solicitation. The issuance of a response via Bonfire is considered an Addendum and shall be the only official method whereby such an interpretation or clarification will be made.

Proposals will be accepted until 2:00 p.m., February 27, 2024. Proposals must be **submitted electronically at https://ppines.bonfirehub.com/**. The sealed electronic proposals will be publicly opened at 2:30 p.m. by the City Clerk's Office, in the City Hall Administration Building, 4th Floor Conference Room located at 601 City Center Way, Pembroke Pines, Florida, 33025.

1.1.1 Virtual Bid Opening

The bid opening for this project will be held in the **City Clerk's Office Conference Room** located on the 4th Floor in the Charles F. Dodge City Center/City Hall Administration Building at 601 City Center Way, Pembroke Pines, Florida, 33025 at **2:30 PM on the bid due date.**

In light of public health concerns and to ensure accessibility for all, the City encourages interested parties, vendors, and the public to participate virtually via live streaming instead of attending the meeting in person. To virtually attend the bid opening, please use the Cisco Webex Meetings platform.

Virtual Meeting Details:

- WebEx Meeting Link: https://ppines.webex.com/meet/purchasing
- Cisco Webex Meeting Number: 717 019 586
- Join by Phone Number: +1-408-418-9388

The public may download the **Cisco Webex Meetings app** from https://www.webex.com/downloads.html/

To ensure an efficient meeting process, participants are requested to mute their audio and camera during the meeting. While the public is welcome to attend the virtual bid opening, **please note that active participation and commenting will not be allowed during the proceedings.**

For further information about the bid opening or assistance in accessing the virtual meeting, please contact:

Danny Benedit, Procurement Department
City of Pembroke Pines
8300 South Palm Drive,
Pembroke Pines, FL 33025
954-518-9022 or 954-518-9020
purchasing@ppines.com

1.2 PURPOSE

The City of Pembroke Pines is seeking proposals from qualified firms, hereinafter referred to as the Contractor, for replacement of exterior windows, pedestrian doors, roll up windows, storefront systems, louvers and louvered doors as necessary at the referenced locations in accordance with the terms, conditions, and specifications contained in this solicitation.

1.3 SCOPE OF WORK

1.3.1 General Conditions

The contractor shall be solely responsible for verifying all existing dimensions, quantities, and job site conditions prior to submitting his/her bid.

1. Contractor will be required to schedule all work with the Project Manager.
2. The work must be performed Monday through Thursday or as approved by the Project Manager to not interfere with ongoing facility operations.

3. Any use of existing parking areas shall be requested in advance.
4. Contractor's use of premises:

    - Contractor shall limit their use on the premises for work and storage, to allow for owner's occupancy
    - Contractor shall coordinate use of premises under direction of Owner representative, assume full responsibility for the protection and safe-keeping of products under this contract stored on-site, and move any stored products under Contractor's control which interfere with operations of the owner.

1.3.2 Demolition Work

1. Contractor to remove existing window and exterior doors assemblies along with roll-up windows, storefront, louvers, and louvered doors and dispose of at the City's discretion.
2. Contractor shall be responsible to remove all debris from the site daily.
3. Contractor must not allow materials and debris generated daily to be disposed of in an illegal manner.
4. Demolish as required to accomplish work. All required demolition shall be included in the base bid package submitted by the contractor.
5. The contractor must be careful to maintain security alarms, etc. for all parts of items to remain.
6. Contractor shall take proper care to protect and close off work area as required for normal facility operation.
7. Building may be in use during the demolition.

1.3.3 New Work

1. Install new impact windows, pedestrian doors metal and glass, roll-up windows, storefront systems, louvers, and louvered doors as noted per plan.
2. All impact resistant glass shall be Low-E 366
3. Owner will provide construction drawings which include the approved window and door pressures.
4. Contractor shall use the attached product NOAs or equal, as noted on plans.
5. Contractor shall, besides the attached engineered drawings and specs, provide all required documents, like building pressure calculations and NOA's necessary to obtain a permit and provide submittals for approval by the project manager and engineer on record as required for normal project execution.
6. Replace pedestrian doors and roll up bay doors as necessary per each location. Bay doors should include the motors with clickers and required features for automatic operation. All doors are to include replacement of applicable hardware as existing.

7. Contractor shall provide key cylinders a minimum of 2 weeks in advance for Owner to rekey prior to Contractor's installation.
8. Contractor shall use keyway cylinders per City's specifications provided upon award.
9. Frame color to be selected by City upon award.
10. Door color to be selected by City upon award.
11. All windows and or doors removed, shall have the new assemblies installed before end of work day to ensure that building can be locked up.
12. Any repairs required around the windows or doors due to replacement of such, shall be done by the contractor to include but not limited to, wood, drywall, stucco, paint, polyurethane sealant, etc.
13. The Contractor must clean all areas affected by work under this Contract. All left over debris must be removed and disposed of by legal means. Property must be left in broom clean condition.
14. Contractor is responsible for acquiring permit and calling in all necessary inspections.

1.3.4 Locations

Locations and Addresses	Impact Windows	Storefront	Pedestrian Doors	Roll-Up Windows	Louvered Doors
Paul J. Maxwell Park 1200 SW 72nd Avenue Pembroke Pines, FL 33023	✓		✓	✓	
Pines Recreation Center 7400 Pines Blvd Pembroke Pines, FL 33024	✓		✓	✓	
Fletcher Park 7900 Johnson Street Pembroke Pines, FL 33024	✓		✓	✓	
Flamingo Park 1900 NW 122nd Terrace Pembroke Pines, FL 33026	✓		✓	✓	
Pembroke Falls Aquatic Center 1361 NW 129th Avenue Pembroke Pines, FL 33028	✓	✓	✓	✓	✓
Towngate Park 901 NW 155th Avenue Pembroke Pines, FL 33028	✓	✓	✓		✓
Pembroke Shores Park YMCA Family Center 501 SW 172nd Avenue Pembroke Pines, FL 33029	✓		✓	✓	
Rose G. Price Park 901 NW 208th Avenue Pembroke Pines, FL 33029	✓	✓	✓	✓	✓

1.4 PROJECT COST ESTIMATE & TIMELINE

Staff estimates this project to cost approximately $800,000, which does not include permit costs.

Please note that the City will waive all City related permit, license, impact or inspection fees (including the Building Department and Engineering Department Permit Fees) related to this project. Any related State or County fees, for the aforementioned permits, will be paid by the City.

In addition, the City shall cover the cost for any other permit fees related to external entities through the City's Owner's Contingency for this project**, therefore proposers should not include permit costs in their total proposal price.**

The work shall be completed within 120 days from issuance of CITY's Notice to Proceed, with an estimated start date of June 2024

In addition, please note the city's average time for a contractor to apply for and receive an approved permit is 30 days; delays in this timeline caused by the contractor's failure to actively monitor the permit process and submit all required documentation in a timely manner, will count against the project's contractual completion period.

1.4.1 Permit, License, Impact or Inspection Fees

With the exception of the City related permit, license, impact or inspection fees (including the Building Department and Engineering Department Permit Fees), which will be waived for this project, the City does not anticipate any additional permit, license, impact or inspection fees for this project.

1.5 PROPOSAL REQUIREMENTS

The https://ppines.bonfirehub.com website allows for vendors to complete, scan and upload their documents as part of the proposer's submittal on the website.

Prospective proposers interested in responding to this solicitation are requested to provide all of the information listed in this section. Submittals that do not respond completely to all of requirements specified herein may be considered non-responsive and eliminated from the process. Brevity and clarity are encouraged.

The Bonfire system utilizes "Questionnaires" to request the following information from prospective proposers.

1.5.1 Pricing Sheet / Bid Tables

1. **Bid Table:** The vendor must provide their pricing through the designated lines items listed on the Excel Sheet that is available for download on the Bonfire website under the **"Pricing Sheet / Bid Table"** section. Please follow the instructions given in this package and on the Excel Sheet to complete and upload the information back onto the Bonfire website.

2. **Primary Responses:** This tab of the Bid Table includes a **"Vendor Notes"** column for any additional comments regarding the requested line item(s). A comment is required in the **"Vendor Notes"** column. If the vendor does not need to submit any comments, please enter N/A or similar.

a. Below is a sample of the "**Primary Responses"** tab of the Bid Table:

Primary Responses

				Numeric	Text	
Status	Bid/No Bid Decision	#	Item	Project Cost	Vendor Notes	Total Cost
Paul J. Maxwell Park						
Success: All values provided	Bid	#1-1	Impact Windows	$1.00	N/A	$ 1.00
Success: All values provided	Bid	#1-2	Pedestrian Doors	$1.00	N/A	$ 1.00
Success: All values provided	Bid	#1-3	Roll-Up Windows	$1.00	N/A	$ 1.00
Success: All values provided	Bid	#1-4	Cost for Payment & Performance Bond	$1.00	N/A	$ 1.00

Instructions | Primary Responses | Additional Responses

3. **Additional Responses:** This tab of the Bid Table allows for bidders to submit alternative options. Substitutions of brands or products must be submitted as an alternative for the City's review and approval.
   a. To submit an alternative, the vendor must copy the information for the corresponding line item from the **"#"** column in the **"Primary Responses"** tab and paste it into the **"Additional Reponses"** tab to identify which item they are providing an alternative option for.
   b. Vendors are required to identify the substitution of brands or products in the **"Vendor Notes"** column.
   c. For additional information on uploading supporting documentation for the proposed alternative(s), please refer to **Section 1.5.4(3)**.
   d. Below is a sample of the **"Additional Responses"** tab of the Bid Table:

Additional Responses

Success: All data is valid!

			Numeric	Text	
Status	#	Item	Project Cost	Vendor Notes	Total Cost
-					-
-					-
-					-
-					-

1.5.2 Questionnaires

1. Contact Information Form

2. Proposer's Background Information

3. Vendor Registration Checklist

4. **References Form:** Provide specific examples of similar contracts delivered by the proposed team members. Provide details on related projects (preferably where the team was the same). A minimum of 3 references should be from the last five years and should be capable of explaining and confirming your firm's capacity to successfully complete the scope of work outlined herein. As part of the proposal evaluation process, the City may conduct an investigation of references, including a record check or consumer affairs complaints. Proposers' submission of a proposal constitutes acknowledgment of the process and consent to investigate. The City is the sole judge in determining Proposers qualifications. In this section you will have the ability to enter information for 5 different references including the Reference Contact Information and the specific Project Information.

   In addition, **do not provide City of Pembroke Pines projects as any of your references and do not utilize any current City of Pembroke Pines employees as reference contacts.**

   A) References Contact Information
      a. Name of Firm, City, County or Agency
      b. Address
      c. Contact Name
      d. Contact Title
      e. Contact E-mail Address
      f. Contact Telephone #
   B) Project Information
      a. Name of Contractor Performing the work
      b. Name and location of the project
      c. Nature of the firm's responsibility on the project
      d. Project duration
      e. Completion (Anticipated) Date
      f. Size of project
      g. Cost of project
      h. Work for which staff was responsible

1.5.3 Other Completed Documents

1. Attachment A: Non-Collusive Affidavit

2. Proposal Security (Bid Bond Form or Cashier's Check)

a. Each Proposal should be accompanied by a certified or cashier's check or by a Bid Bond made payable to the City of Pembroke Pines on an approved form, duly executed by the Proposer as principal and having as surety thereon a surety company acceptable to CITY and authorized to write such Bond under the laws of the State of Florida, in an amount not less than five percent (5%) of the amount of the base Proposal price.

b. Contingency is not to be counted in the total amount the proposal security is based on.

c. Proposers must submit a scanned copy of their bid security (bid bond form or cashier's check) with their bid submittal through Bonfire.

d. Proposers should also submit their original bid security (bid bond form or cashier's check) at time of the bid due date, or they may be deemed as non-responsive.

e. The original Bid Bond or Cashier's Check should be in a sealed envelope, plainly marked "**BID SECURITY - IFB # RE-24-05 Window & Door Replacement at Various Parks"** and sent to the City of Pembroke Pines, City Clerk's Office, 4th Floor, 601 City Center Way, Pembroke Pines, Florida, 33025.

f. Please see SECTION 4 - SPECIAL TERMS & CONDITIONS of this document for additional information.

1.5.4 Optional Documentation

1. Trade Secrets:

a. The Proposer's response to this solicitation is a public record pursuant to Florida law, which is subject to disclosure by the City under the State of Florida Public Records Law, Florida Statutes Chapter 119.07 ("Public Records Law"). The City shall permit public access to all documents, papers, letters or other material submitted in connection with this solicitation and the Contract to be executed for this solicitation, subject to the provisions of Chapter 119.07 of the Florida Statutes.

b. Any language contained in the Proposer's response to the solicitation purporting to require confidentiality of any portion of the Proposer's response to the solicitation, except to the extent that certain information is in the City's opinion a Trade Secret pursuant to Florida law, shall be void. If a Proposer submits any documents or other information to the City which the Proposer claims is Trade Secret information and exempt from Florida Statutes Chapter 119.07 ("Public Records Laws"), the Proposer shall clearly designate that it is a Trade Secret and that it is asserting that the document or information is exempt. The Proposer must specifically

identify the exemption being claimed under Florida Statutes 119.07. The City shall be the final arbiter of whether any information contained in the Proposer's response to the solicitation constitutes a Trade Secret.

c. EXCEPT FOR CLEARLY MARKED PORTIONS THAT ARE BONA FIDE TRADE SECRETS PURSUANT TO FLORIDA LAW, DO NOT MARK YOUR RESPONSE TO THE SOLICITATION AS PROPRIETARY OR CONFIDENTIAL. DO NOT MARK YOUR RESPONSE TO THE SOLICITATION OR ANY PART THEREOF AS COPYRIGHTED. ALL DOCUMENTS THAT THE FIRM PURPORTS TO BE CONFIDENTIAL, PROPRIETARY OR A TRADE SECRET SHALL BE UPLOADED TO THE BONFIRE WEBSITE AS A SEPARATE ATTACHMENT, IN THIS SECTION, CLEARLY IDENTIFYING THE EXEMPTION BEING CLAIMED UNDER FLORIDA STATUTES 119.07.

d. The city's determination of whether an exemption applies shall be final, and the proposer agrees to defend, indemnify, and hold harmless the city and the city's officers, employees, and agent, against any loss or damages incurred by any person or entity as a result of the city's treatment of records as public records.

2. Financial Statements:

a. The City is **not** requesting the vendor to submit any financial statements for this project and prefers if the vendor does not submit financial statements. In addition, if the City needs a copy of the vendor's financial statements, the City can contact the vendor after the bid due date to request those documents. However, if the vendor does submit the financial statements, they should be uploaded in this section.

b. Any claim of confidentiality on financial statements must be asserted at the time of submittal. The firm must identify the specific statute that authorizes the exemption from the Public Records Law. Please note that the financial statement exemption provided for in Section 119.071(1)c, Florida Statutes only applies to submittals in response to a solicitation for a "public works" project.

3. Alternatives:

a. If you are submitting an alternative product, please upload any related information in this section (such as specification sheets, etc.).

b. In addition, pursuant to **Section 3.7 "Brand Names,"** if and wherever in the specifications a brand name, make, name of manufacturer, trade name, or vendor catalog number is mentioned, it is for the purpose of

establishing a grade or quality of material only. Since the City does not wish to rule out other competition and equal brands or makes, the phrase "OR EQUAL" is added. However, if a product other than that specified is bid, Proposers shall indicate on their proposal and clearly state the proposed substitution and deviation. It is the vendor's responsibility to provide any necessary documentation and samples within their bid submittal to prove that the product is equal to that specified. Such samples are to be furnished before the date of bid opening, unless otherwise specified. Additional evidence in the form of documentation and samples may be requested if the proposed brand is other than that specified. The City retains the right to determine if the proposed brand shall be considered as an approved equivalent or not.

4. Additional Information:

a. Please provide any additional information that you deem necessary to complete your proposal in this section, if it has not been requested in another section.

1.6 VENDOR REGISTRATION DOCUMENTS

The **https://ppines.bonfirehub.com/** website will allow vendors to update their information and documents on an as-needed basis. This process is intended to make the bidding process easier for vendors that bid on multiple City projects. This process will allow vendors to complete and submit the following standard forms and documents at any time prior to bidding on a project. In addition, the vendors will be able to utilize these same forms without the need to re-fill and re-submit the forms each time they bid on a City project. In the event that the City does not have one of the forms or documents listed below for your company, the City may reach out to your company after the bid has closed to obtain the document(s).

Furthermore, please make sure to update this information on an as-needed basis so that all pertinent information is accurate, such as local business tax receipts, and any other relevant information.

The following documents can be completed prior to the bidding process through the **https://ppines.bonfirehub.com/** website and do not need to be attached to your submittal as the Bonfire website will automatically include it.

1.6.1 Vendor Information Form

1.6.2 Form W-9 (Rev. October 2018)

a. Previously dated versions of this form will delay the processing of any payments to the selected vendor.

1.6.3 Company Profile Form

1.6.4 Sworn Statement on Public Entity Crimes Form

1.6.5 Equal Benefits Certification Form

1.6.6 Vendor Drug-Free Workplace Certification Form

1.6.7 Scrutinized Company Certification

1.6.8 E-Verify System Certification Statement

a. Effective January 1, 2021, pursuant to Section 448.095. Florida Statues, the City may not enter into a contract with a vendor/contractor/subcontractor unless that vendor/contractor/subcontractor is registered with and uses the E-Verify system administered by the U.S. Department of Homeland Security ("DHS").

b. Contractor shall also require all subcontractors to provide an affidavit attesting that the subcontractor does not employ, contract with, or subcontract with, an unauthorized alien. The Contractor shall maintain a copy of such affidavit for the duration of the contract.

1.6.9 Veteran Owned Small Business Preference Certification

a. If claiming Veteran Owned Small Business Preference Certification, business must attach the "Determination Letter" from the United States Department of Veteran Affairs Center for Verification and Evaluation notifying the business that they have been approved as a Veteran Owned Small Business (VOSB).
b. The Veteran Owned Small Business Preference Certification form must be completed by/for the proposer; the proposer **WILL NOT** qualify for Veteran Owned Small Business Preference based on their sub-contractors' qualifications.

1.6.10 Local Business Tax Receipts

1.6.11 Local Vendor Preference Certification

1.7 EVALUATION OF PROPOSALS & PROCESS OF SELECTION

A. Staff will evaluate all responsive proposals received from proposers who meet or exceed the bid requirements contained in the solicitation. Evaluations shall be based upon the information contained in the proposals as submitted.

B. Staff will make a recommendation to the City Commission for award of contract.

1.8 TENTATIVE SCHEDULE OF EVENTS

Event	Time &/or Date
Issuance of Solicitation (Posting Date)	**January 23, 2024**
Non-Mandatory Pre-Bid Meeting	**10:00 a.m. on February 7, 2024**
Question Due Date	**February 13, 2024**
Anticipated Date of Issuance for the Addenda with Questions and Answers	**February 19, 2024**
Proposals will be accepted until	**2:00 p.m. on February 27, 2024**
Proposals will be opened at	**2:30 p.m. on February 27, 2024**
Evaluation of Proposals by Staff	**February 20, 2024– February 26, 2024**
Recommendation of Contractor to City Commission award	**March 20, 2024**
Issuance of Notice to Proceed	**TBD**
Project Commencement	**June 2024**
Project Completion	**120 days after NTP**

1.8.1 MANDATORY SITE VISIT

It is mandatory to visit all sites prior to submitting a bid for this project. There is scheduled site visit on February 7, 2024 at 10:00 a.m. The order of sites for the meeting will be as follows:

1. Paul J. Maxwell Park - 1200 SW 72nd Avenue Pembroke Pines, FL 33023
2. Pines Recreation Center - 7400 Pines Blvd Pembroke Pines, FL 33024
3. Fletcher Park - 7900 Johnson Street Pembroke Pines, FL 33024
4. Pembroke Falls Aquatic Center - 1361 NW 129th Avenue Pembroke Pines, FL 33028
5. Flamingo Park - 1900 NW 122nd Terrace Pembroke Pines, FL 33026
6. Towngate Park - 901 NW 155th Avenue Pembroke Pines, FL 33028
7. Pembroke Shores Park YMCA Family Center - 501 SW 172nd Avenue Pembroke Pines, FL 33029
8. Rose G. Price Park - 901 NW 208th Avenue Pembroke Pines, FL 33029

In the event that a contractor cannot attend the scheduled pre-bid meeting, or if a contractor would like a follow up visit to the site, they may request a site visit by contacting **Danny Benedit at 954-518-9022**. We urge all contractors to attend the scheduled meeting, as a separate or follow-up meeting may not be afforded to the requester due to scheduling and availability of staff to assist with any additional meetings. In addition, if making a request for a separate or follow-up meeting, contractors are urged to make these requests as early as possible.

Contractors may be required to sign in at any of the meetings to show proof of attendance. It is the vendor's responsibility to make sure that they sign in at the meeting.

1.9 SUBMISSION REQUIREMENTS

Bids/proposals **must be submitted electronically** at **https://ppines.bonfirehub.com/ on or before 2:00 p.m. on February 27, 2024.**

Please note vendors should be registered on Bonfire under the name of the organization that they are operating as and it should match the organization name on the documents that they are submitting and utilizing when responding to the solicitation.

In addition, the vendor must complete any questionnaires on the **https://ppines.bonfirehub.com/** website and provide any additional information requested throughout this solicitation. Any additional information requested in the solicitation should be scanned and uploaded.

The City recommends for proposers to submit their proposals as soon as they are ready to do so. Please allow ample time to submit your proposals on the **https://ppines.bonfirehub.com/** website. Proposals may be modified or withdrawn prior to the deadline for submitting Proposals. Bonfire Support is happy to help you with submitting your proposal and to ensure that you are submitting your proposals correctly, but we ask that you contact Support@GoBonfire.com with ample time before the bid closing date and time.

PLEASE DO NOT SUBMIT ANY PROPOSALS VIA MAIL, E-MAIL OR FAX.

However, please note that any required Bid Bond or Cashier's Check should be in a sealed envelope, plainly marked "**BID SECURITY - IFB # RE-24-05 Window & Door Replacement at Various Parks"** and sent to the City of Pembroke Pines, City Clerk's Office, 4th Floor, 601 City Center Way, Pembroke Pines, Florida, 33025.

SECTION 2 - INSURANCE REQUIREMENTS

2.1 INDEMNIFICATION:

Yes No

✓ ☐ 2.1.1 General Indemnification: The CONTRACTOR shall indemnify and hold harmless the CITY and its officers, employees, agents and instrumentalities from any and all liability, losses or damages, including attorneys' fees and costs of defense, which the CITY or its officers, employees, agents or instrumentalities may incur as a result of claims, demands, suits, causes of actions or proceedings of any kind or nature arising out of, relating to or resulting from the performance of this Agreement by the CONTRACTOR or its employees, agents, servants, partners, principals or subcontractors. The CONTRACTOR shall pay all claims and losses in connection therewith and shall investigate and defend all claims, suits or actions of any kind or nature in the name of the CITY, where applicable, including appellate proceedings, and shall pay all costs, judgments, and attorneys' fees which may issue thereon. The CONTRACTOR expressly understands and agrees that any insurance protection required by this Agreement or otherwise provided by the CONTRACTOR shall in no way limit the responsibility to indemnify, keep and save harmless and defend the CITY or its officers, employees, agents and instrumentalities as herein provided.

Yes No

☐ × 2.1.2 Indemnification for Design Professionals and Construction Contracts: The CONTRACTOR shall indemnify and hold harmless the CITY, its officers and employees from any and all liability, losses or damages, including reasonable attorneys' fees and costs of defense, which the CITY, its officers and employees, may incur as a result of claims, demands, suits, causes of actions or proceedings of any kind or nature to the extent such claims are caused by negligence, recklessness, or intentional wrongful conduct of the CONTRACTOR and other persons employed or utilized by CONTRACTOR during performance of this Agreement. The CONTRACTOR shall pay all claims and losses in connection therewith and shall investigate and defend all claims, suits or actions of any kind or nature in the name of the CITY, where applicable, including appellate proceedings, and shall pay all costs, judgments, and attorneys' fees which may issue thereon. The CONTRACTOR expressly understands and agrees that any insurance protection required by this Agreement or otherwise provided by the CONTRACTOR shall in no way limit the responsibility to indemnify, keep and save harmless and defend the CITY or its officers, employees, agents and instrumentalities as herein provided.

2.2 CONTRACTOR shall not commence work under this Agreement until it has obtained all insurance required under this paragraph and such insurance has been approved by the Risk Manager of the CITY nor shall the CONTRACTOR allow any subcontractor to commence work on any subcontract until all similar such insurance required of the subcontractor has been obtained and similarly approved.

2.3 Certificates of Insurance, reflecting evidence of the required insurance, shall be filed with the CITY's Risk Manager prior to the commencement of this Agreement. Policies shall be issued by companies authorized to do business under the laws of the State of Florida. The insurance company

shall be rated no less than "A" as to management, and no less than "Class VI" as to financial strength according to the latest edition of Best's Insurance Guide published by A.M. Best Company.

2.4 Certificates of Insurance shall provide for thirty (30) days' prior written notice to the CITY in case of cancellation or material changes in the policy limits or coverage states. If the carrier cannot provide thirty (30) days' notice of cancellation, either the CONTRACTOR or their Insurance Broker must agree to provide notice.

2.5 Insurance shall be in force until all obligations required to be fulfilled under the terms of the Agreement are satisfactorily completed as evidenced by the formal acceptance by the CITY. In the event the insurance certificate provided indicates that the insurance shall terminate and lapse during the period of this Agreement, the CONTRACTOR shall furnish, at least forty-five (45) days prior to the expiration of the date of such insurance, a renewed certificate of insurance as proof that equal and like coverage for the balance of the period of the Agreement and extension thereunder is in effect. The CONTRACTOR shall neither commence nor continue to provide any services pursuant to this Agreement unless all required insurance remains in full force and effect. CONTRACTOR shall be liable to CITY for any lapses in service resulting from a gap in insurance coverage.

2.6 REQUIRED INSURANCE

CONTRACTOR shall be required to obtain all applicable insurance coverage, as indicated below, prior to commencing any work pursuant to this Agreement:

Yes No

✓ ☐ 2.6.1 Comprehensive General Liability Insurance written on an occurrence basis including, but not limited to: coverage for bodily injury and property damage, personal & advertising injury, products & completed operations, and contractual liability. Coverage must be written on an occurrence basis, with limits of liability no less than:

1. Each Occurrence Limit - $1,000,000
2. Fire Damage Limit (Damage to rented premises) - $100,000
3. Personal & Advertising Injury Limit - $1,000,000
4. General Aggregate Limit - $2,000,000
5. Products & Completed Operations Aggregate Limit - $2,000,000

Products & Completed Operations Coverage shall be maintained for the later of three (3) years after the delivery of goods/services or final payment under the Agreement. (*For Construction projects: Increase to ten (10) years and include a Designated Construction Project(s) General Aggregate Limit)*

The City of Pembroke Pines must be shown as an additional insured with respect to this coverage. The CITY's additional insured status shall extend to any coverage beyond the minimum limits of liability found herein.

Yes No

✓ ☐ 2.6.2 Workers' Compensation and Employers' Liability Insurance covering all employees, and/or volunteers of the CONTRACTOR engaged in the performance of the scope of work associated with this Agreement. In the case any work is sublet, the CONTRACTOR shall require the subcontractors similarly to provide Workers' Compensation Insurance for all the latter's employees unless such employees are covered by the protection afforded by the CONTRACTOR. Coverage for the CONTRACTOR and all subcontractors shall be in accordance with applicable state and/or federal laws that may apply to Workers' Compensation Insurance with limits of liability no less than:

1. Workers' Compensation:	Coverage A –	Statutory
2. Employers Liability:	Coverage B	$500,000 Each Accident
		$500,000 Disease – Policy Limit
		$500,000 Disease – Each Employee

If CONTRACTOR claims to be exempt from this requirement, CONTRACTOR shall provide CITY proof of such exemption along with a written request for CITY to exempt CONTRACTOR, written on CONTRACTOR letterhead.

Yes No

✓ ☐ 2.6.3 Comprehensive Auto Liability Insurance covering all owned, non-owned and hired vehicles used in connection with the performance of work under this Agreement, with a combined single limit of liability for bodily injury and property damage no less than:

1. Any Auto (Symbol 1)
   Combined Single Limit (Each Accident) - $1,000,000
2. Hired Autos (Symbol 8)
   Combined Single Limit (Each Accident) - $1,000,000
3. Non-Owned Autos (Symbol 9)
   Combined Single Limit (Each Accident) - $1,000,000

If work under this Agreement includes transportation of hazardous materials, policy shall include pollution liability coverage equivalent to that provided by the latest version of the ISO pollution liability broadened endorsement for auto and the latest version of the ISO Motor Carrier Act endorsement, equivalents or broader language.

Yes No

☐ ☐ 2.6.3.1 If CONTRACTOR requests reduced limits under a Personal Auto Liability Policy and it is agreed to by the CITY, coverage shall include Bodily Injury limits of

$100,000 per person/$300,000 per occurrence and Property Damage limits of $300,000 per occurrence

Yes No

✓ ☐ 2.6.4 Umbrella/Excess Liability Insurance in the amount of **$2,000,000.00** as determined appropriate by the CITY depending on the type of job and exposures contemplated. Coverage must be follow form of the General Liability, Auto Liability and Employer's Liability. This coverage shall be maintained for a period of no less than the later of three (3) years after the delivery of goods/services or final payment pursuant to this Agreement.

The City of Pembroke Pines must be shown as an additional insured with respect to this coverage. The CITY's additional insured status shall extend to any coverage beyond the minimum limits of liability found herein.

Yes No

✓ ☐ 2.6.5 Professional Liability/Errors & Omissions Insurance with a limit of liability no less than **$1,000,000** per wrongful or negligent act. This coverage shall be maintained for a period of no less than three (3) years after the delivery of goods/services final payment pursuant to this Agreement. Retroactive date, if any, to be no later than the first day of service to the CITY. *(Limit to align with size and scope of the Agreement and exposure inherent with operation/services being performed. For Construction projects: Increase to ten (10) years.)*

Yes No

☐ × 2.6.6 Environmental/Pollution Liability insurance shall be required with a limit of no less than $1,000,000 per wrongful act. Coverage shall include: CONTRACTOR's completed operations, sudden, accidental and gradual pollution conditions. This coverage shall be maintained for a period of no less than the later of three (3) years after the delivery of goods/services or final payment pursuant to this Agreement. Retroactive date, if any, to be no later than the first day of service to the CITY. *(Limit to align with size and scope of the Agreement and exposure inherent with operation/services being performed. For Construction projects: Increase to ten (10) years)*

The City of Pembroke Pines must be shown as an additional insured with respect to this coverage. The CITY's additional insured status shall extend to any coverage beyond the minimum limits of liability found herein.

Yes No

☐ × 2.6.7 Cyber Liability including Network Security and Privacy Liability with a limit of liability no less than $1,000,000 per loss. Coverage shall include liability arising from: theft, dissemination and/or use of confidential information stored or transmitted in electronic form, unauthorized access to, use of, or tampering with computer systems, including hacker attacks or inability of an authorized third party to gain access to your

services, including denial of service, and the introduction of a computer virus into, or otherwise causing damage to, a customer's or third person's computer, computer system, network, or similar computer-related property and the data, software and programs thereon. If vendor is collecting credit card information, it shall cover all PCI breach expenses. Coverage is to include the various state monitoring and state required remediation as well as meet the various state notification requirements. This coverage shall be maintained for a period of no less than the later of three (3) years after delivery of goods/services or final payment of the Agreement. Retroactive date, if any, to be no later than the first day of service to the CITY.

The City of Pembroke Pines must be shown as an additional insured with respect to this coverage. The CITY's additional insured status shall extend to any coverage beyond the minimum limits of liability found herein.

Yes No

☐ ☒ 2.6.8 Crime Coverage shall include employee dishonesty, forgery or alteration, and computer fraud in an amount of no less than $1,000,000 per loss. If CONTRACTOR is physically located on CITY's premises, a third-party fidelity coverage extension shall apply.

Yes No

☐ ☒ 2.6.9 Garage Liability & Garage-keepers Legal Liability for those that manage parking lots for the CITY or service CITY vehicles. Coverage must be written on an occurrence basis, with limits of liability no less than $1,000,000 per Occurrence, including products & completed operations. This coverage shall be maintained for a period of no less than the later of three (3) years after the delivery of goods/services or final payment of this Agreement.

The City of Pembroke Pines must be shown as an additional insured with respect to this coverage. The CITY's additional insured status shall extend to any coverage beyond the minimum limits of liability found herein.

Yes No

☐ ☒ 2.6.10 Liquor Liability for those in the business of selling, serving or furnishing of any alcoholic beverages, whether licensed or not, shall carry a limit of liability of no less than $1,000,000 per occurrence. Coverage shall be maintained for the later of three (3) years after the delivery of goods/services or final payment under the Agreement.

The City of Pembroke Pines must be shown as an additional insured with respect to this coverage. The CITY's additional insured status shall extend to any coverage beyond the minimum limits of liability found herein.

Yes No

☐ × 2.6.11 Sexual Abuse & Molestation for any agreement involving a vulnerable population. Limits shall be no less than $500,000 per occurrence. This coverage shall be maintained for a period of no less than the later of three (3) years after the delivery of goods/services or final payment of this Agreement. Retroactive date, if any, to be no later than the first day of service to the CITY. (*Limit to align with size and scope of the Agreement and exposure inherent with operation/services being performed.)*

The City of Pembroke Pines must be shown as an additional insured with respect to this coverage. The CITY's additional insured status shall extend to any coverage beyond the minimum limits of liability found herein.

Yes No

☐ × 2.6.12 Builder's Risk Insurance shall be "All Risk" for one hundred percent (100%) of the completed value of the project that is the subject of this Agreement with a deductible of not more than five percent (5%) for Named Windstorm and $20,000 per claim for all other perils. The Builder's Risk Insurance shall include interests of the CITY, the CONTRACTOR and subcontractors of the project. The CONTRACTOR shall include a separate line item for all costs associated with the Builder's Risk Insurance Coverage for the project. The CITY reserves the right at its sole discretion to utilize the CONTRACTOR's Builder's Risk Insurance or for the CITY to purchase its own Builder's Risk Insurance for the Project. Prior to the CONTRACTOR purchasing the Builder's Risk insurance for the project, the CONTRACTOR shall allow the CITY the opportunity to analyze the CONTRACTOR's coverage and determine who shall purchase the coverage. Should the CITY utilize the CONTRACTOR's Builder's Risk Insurance, the CONTRACTOR shall be responsible for all deductibles. If the CITY chooses to purchase the Builder's Risk Coverage on the project, the CONTRACTOR shall provide the CITY with a change order deduct for all premiums and costs associated with the Builder's Risk insurance in their schedule. Should the CITY choose to utilize the CITY's Builder's Risk Program, the CITY shall be responsible for the Named Windstorm Deductible and the CONTRACTOR shall be responsible for the All Other Perils Deductible.

If and when 100% is not available or reasonable, the CITY Risk Manager is to make the determination as to what limits are appropriate for the given project.

Yes No

☐ ☐ 2.6.13 Other Insurance

_____

_____

_____

_____

2.7 REQUIRED ENDORSEMENTS

2.7.1 The City of Pembroke Pines shall be named as an Additional Insured on each of the Liability Policies required herein.
2.7.2 Waiver of all Rights of Subrogation against the CITY.
2.7.3 Thirty (30) Day Notice of Cancellation or Non-Renewal to the CITY.
2.7.4 CONTRACTOR's policies shall be Primary & Non-Contributory.
2.7.5 All policies shall contain a "severability of interest" or "cross liability" clause without obligation for premium payment of the CITY.
2.7.6 The City of Pembroke Pines shall be named as a Loss Payee on all Property and/or Inland Marine Policies as their interest may appear.

2.8 Any and all insurance required of the CONTRACTOR pursuant to this Agreement must also be required by any subcontractor in the same limits and with all requirements as provided herein, including naming the CITY as an additional insured, in any work that is subcontracted unless such subcontractor is covered by the protection afforded by the CONTRACTOR and provided proof of such coverage is provided to CITY. The CONTRACTOR and any subcontractors shall maintain such policies during the term of this Agreement.

2.9 The CITY reserves the right to require any other additional types of insurance coverage and/or higher limits of liability it deems necessary based on the nature of work being performed under this Agreement.

2.10 The insurance requirements specified in this Agreement are minimum requirements and in no way reduce any liability the CONTRACTOR has assumed in the indemnification/hold harmless section(s) of this Agreement.

SECTION 3 - GENERAL TERMS & CONDITIONS

3.1 EXAMINATION OF CONTRACT DOCUMENTS

Before submitting a Proposal, each Proposer should (a) consider federal, state and local laws, ordinances, rules and regulations that may in any manner affect cost or performance of the work, (b) study and carefully correlate the Proposer's observations with the Proposal Documents; and (c) notify the Purchasing Manager of all conflicts, errors and discrepancies, if any, in the Proposal Documents.

The Proposer, by and through the submission of a Proposal, agrees that Proposer shall be held responsible for having familiarized themselves with the nature and extent of the work and any local conditions that may affect the work to be done and the services, equipment, materials, parts and labor required.

3.2 CONFLICT OF INSTRUCTIONS

If a conflict exists between the General Conditions and Instructions stated herein and specific conditions and instructions contained in specifications, the specifications shall govern.

3.3 ADDENDA or ADDENDUM

A formal solicitation may require an Addendum to be issued. An addendum in some way may clarify, correct or change the original solicitation (i.e. due date/time, specifications, terms, conditions, line item). Vendors submitting a proposal should check the Bonfire website for any addenda issued. Vendors are cautioned not to consider verbal modifications to the solicitation, as the addendum issued through Bonfire will be the only official method whereby changes will be made.

3.4 INTERPRETATIONS AND QUESTIONS

If the Proposer is in doubt as to the meaning of any of the Proposal Documents, is of the opinion that the Conditions and Specifications contain errors or contradictions or reflect omissions, or has any question concerning the conditions and specifications, the Proposer shall submit a question for interpretation or clarification. The City requires all questions relating to the solicitation be entered through the **"Messages"** section for the specific project on the https://ppines.bonfirehub.com/ website. Under the **"Messages"** section, vendors will find the **"Opportunity Q&A"** tab in which they can ask their specific question(s). Responses to the questions will be provided online at https://ppines.bonfirehub.com. Such request must be received by the **"Question Due Date"** stated in the solicitation. Questions received after **"Question Due Date"** shall not be answered. Interpretations or clarifications in response to such questions will be issued via Bonfire. The issuance of a response via Bonfire is considered an Addendum and shall be the only official method whereby such an interpretation or clarification will be made.

Bonfire Support is also available to assist proposers with submitting their proposal and to ensure that proposers are submitting their proposals correctly. Proposers should ensure that they contact Bonfire support at Support@GoBonfire.com with ample time before the bid closing date and time.

For all other questions related to this solicitation, please contact the Purchasing Department at purchasing@ppines.com.

3.5 RULES, REGULATIONS, LAWS, ORDINANCES and LICENSES

The awarded contractor shall observe and obey all laws, ordinances, rules, and regulations of the federal, state, and CITY, which may be applicable to the service being provided. The awarded firm shall have or be responsible for obtaining all necessary

permits or licenses required, if necessary, in order to provide this service.

Proposer warrants by submittal that prices quoted here are in conformity with the latest federal price guidelines, if any.

3.6 WARRANTIES FOR USAGE

Whenever a bid is sought, seeking a source of supply for a specified time for materials or service, the quantities or usage shown are estimated only. No guarantee or warranty is given or implied by the City as to the total amount that may or may not be purchased from any resulting contracts. These quantities are for proposer's information only and will be used for tabulation and presentation of bid.

3.7 BRAND NAMES

If and wherever in the specifications a brand name, make, name of manufacturer, trade name, or vendor catalog number is mentioned, it is for the purpose of establishing a grade or quality of material only. Since the City does not wish to rule out other competition and equal brands or makes, the phrase "OR EQUAL" is added. However, if a product other than that specified is bid, Proposers shall indicate on their proposal and clearly state the proposed substitution and deviation. It is the **vendor's responsibility** to provide any necessary documentation and samples within their bid submittal to prove that the product is equal to that specified. Such samples are to be furnished before the date of bid opening, unless otherwise specified. Additional evidence in the form of documentation and samples may be requested if the proposed brand is other than that specified. The City retains the right to determine if the proposed brand shall be considered as an approved equivalent or not.

3.8 QUALITY

All materials used for the manufacture or construction of any supplies, materials, or equipment covered by this bid shall be new, the latest model, of the best quality, and highest grade workmanship, unless otherwise noted.

3.9 SAMPLES

Samples, when requested, must be furnished before, or at the bid opening, unless otherwise specified, and delivered free of expense to the City and if not used in testing or destroyed, will upon request within thirty (30) days of bid award be returned at the proposer's expense.

3.10 ESTIMATED QUANITIES

No guarantee is expressed or implied as to the total quantity of commodities/services to be purchased pursuant to this solicitation. Estimated quantities will be used for comparison and ranking purposes only. The City is not obligated to contract for a given amount of commodities/services subsequent to the award of this solicitation. The City reserves the right to issue separate purchase orders as needed, issue a blanket purchase order, and release partial quantities, or any combination of the preceding as deemed necessary by the City.

3.11 DEVELOPMENT COSTS

Neither the City nor its representatives shall be liable for any expenses incurred in connection with the preparation, submission or presentation of a Bid in response to this solicitation. All information in the Bid shall be provided at no cost to the City.

3.12 PRICING

Prices should be stated in units of quantity specified in the bidding specifications. In case of discrepancy in computing the amount of the bid, the unit prices quoted will govern.

Proposer warrants by virtue of bidding that prices, terms, and conditions quoted in his bid will be firm for acceptance for a period of ninety (90) days from date of bid opening

unless otherwise stated by the City or proposer.

3.13 DELIVERY POINT

All items shall be delivered F.O.B. destination, and delivery cost and charges included in the bid price. Failure to do so may be cause for rejection of bid.

3.14 TAX EXEMPT STATUS

The City is exempt from Florida Sales and Federal Excise taxes on direct purchase of tangible property.

3.15 CONTRACT TIME

By virtue of the submission of the Proposal, Proposer agrees and fully understands that the completion time of the work of the Contract is an essential and material condition of the Contract and that time is of the essence. The Successful Proposer agrees that all work shall be prosecuted regularly, diligently and uninterrupted at such rate of progress as will ensure full completion thereof within the time specified. Failure to complete the work within the time period specified shall be considered a default.

In addition, time will be of the essence for any orders placed as a result of this bid. Purchaser reserves the right to cancel such orders, or part thereof, without obligation if delivery is not made at the time(s) or place(s) specified.

3.16 COPYRIGHT OR PATENT RIGHTS

Proposer warrants that there have been no violations of copyrights or patent rights in manufacturing, producing, or selling other goods shipped or ordered as a result of this bid, and seller agrees to hold the purchaser harmless from any and all liability, loss or expense occasioned by such violation.

3.17 PUBLIC ENTITY CRIMES

“A person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid on a contract to provide any goods or services to a public entity, may not submit a bid on a contract with a public entity for the construction or repair of a public building or public work, may not submit bids on leases of real property to a public entity, may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity, and may not transact business with any public entity in excess of the threshold amount provided in Section 287.017, for CATEGORY TWO for a period of 36 months from the date of being placed on the convicted vendor list.”

The Public Entity Crime Affidavit Form, in the Vendor Registration module on the Bonfire website, includes documentation that shall be executed by an individual authorized to bind the Proposer. The Proposer further understands and accepts that any contract issued as a result of this solicitation shall be either voidable or subject to immediate termination by the City. In the event there is any misrepresentation or lack of compliance with the mandates of Section 287.133 or Section 287.134, respectively, Florida Statutes. The City in the event in such termination, shall not incur any liability to the Proposer for any goods, services or materials furnished.

3.18 CONFLICT OF INTEREST

The award of any contract hereunder is subject to the provisions of Chapter 112, Florida Statutes. Proposers must disclose with their Proposal the name of any officer, director, partner, proprietor, associate or agent who is also an officer or employee of CITY or any of its agencies. Further, all Proposers must disclose the name of any officer or employee of CITY who owns, directly or indirectly, an interest of five percent (5%) or more in the Proposer 's firm or any of its branches or affiliate companies.

3.19 FACILITIES

The City reserves the right to inspect the Proposer's facilities at any time with prior notice.

3.20 ENVIRONMENTAL REGULATIONS

CITY reserves the right to consider Proposer's history of citations and/or violations of environmental regulations in determining a Proposer's responsibility, and further reserves the right to declare a Proposer not responsible if the history of violations warrant such determination. Proposer shall submit with the Proposal, a complete history of all citations and/or violations, notices and dispositions thereof. The non-submission of any such documentation shall be deemed to be an affirmation by the Proposer that there are no citations or violations. Proposer shall notify CITY immediately of notice of any citation or violation that Proposer may receive after the Proposal opening date and during the time of performance of any contract awarded to Proposers.

3.21 SIGNATURE REQUIRED

All proposals must be signed with the firm name and by an officer or employee having authority to bind the company or firm by his signature. FAILURE TO PROPERLY SIGN PROPOSAL SHALL INVALIDATE SAME, AND IT MAY NOT BE CONSIDERED FOR AWARD.

The individual executing this Bid on behalf of the Company warrant to the City that the Company is authorized to do business in the State of Florida, is in good standing and that Company possesses all of the required licenses and certificates of competency required by the State of Florida and Broward County to provide the goods or perform the services herein described.

The signed bid shall be considered an offer on the part of the proposer or contractor, which offer shall be deemed accepted upon approval by the City Commission of the City of Pembroke Pines and in case of default on the part of the proposer or contractor after such acceptance, the City of Pembroke Pines may take such action as it deems appropriate including legal action for damages or specific performance.

3.22 MANUFACTURER'S CERTIFICATION

The City of Pembroke Pines reserves the right to request from proposer separate manufacturer certification of all statements made in the proposal.

3.23 MODIFICATION OR WITHDRAWAL OF PROPOSAL

The City recommends for proposers to submit their proposals as soon as they are ready to do so. Please allow ample time to submit your proposals on the Bonfire website. Proposals may be modified or withdrawn prior to the deadline for submitting Proposals.

3.24 PUBLIC BID; BID OPENING AND GENERAL EXEMPTIONS

All submittals received by the deadline will be recorded, and will subsequently be publicly opened on the same business day at 2:30 p.m. at the office of the City Clerk, 4th Floor, 601 City Center Way, Pembroke Pines, Florida, 33025.

All Proposals received from Proposers in response to the solicitation will become the property of CITY and will not be returned to the Proposers. In the event of Contract award, all documentation produced as part of the Contract shall become the exclusive property of CITY. Proposers are requested to identify specifically any information contained in their Proposals which they consider confidential and/or proprietary and which they believe to be exempt from disclosure, citing specifically the applicable exempting law.

Pursuant to Section 119.071 of the Florida Statutes, sealed bids, proposals, or replies received by a Florida public agency shall

remain exempt from disclosure until an intended decision is announced or until 30 days from the opening, whichever is earlier.

Therefore, proposers will not be able to procure a copy of their competitor's bids until an intended decision is reached or 30 days has elapsed since the time of the bid opening.

However, pursuant to Section 255.0518 of the Florida Statutes, when opening sealed bids that are received pursuant to a competitive solicitation for **construction or repairs on a public building or public work**, the entity shall:

(a) Open the sealed bids at a public meeting.
(b) Announce at that meeting the name of each bidder and the price submitted in the bid.
(c) Make available upon request the name of each bidder and the price submitted in the bid.

For solicitations that are **not** for **"construction or repairs on a public building or public work"** the City shall not reveal the prices submitted in the bids until an intended decision is announced or until 30 days from the opening, whichever is earlier.

3.25 RESERVATIONS FOR REJECTION AND AWARD

The City of Pembroke Pines reserves the right to accept or reject any and all bids or parts of bids, to waive irregularities and technicalities, and to request rebids. The City also reserves the right to award a contract on such items(s) or service(s) the City deems will best serve its interests. All bids shall be awarded to the most responsive/responsible proposer, provided the (City) may for good cause reject any bid or part thereof. It further reserves the right to award a contract on a split order basis, or such combinations as shall best serve the interests of the City unless otherwise specified. No premiums, rebates or gratuities permitted, either with, prior to, or after award. This practice shall result in the cancellation of said award and/or return of items (as applicable) and the recommended removal of proposer from bid list(s).

3.26 BID PROTEST

Any protests or challenges to this competitive procurement shall be governed by Section 35.38 of the City's Code of Ordinances.

3.27 INDEMNIFICATION

The Successful Proposer shall pay all claims, losses, liens, settlements or judgments of any nature whatsoever in connection with the subsequent indemnifications including, but not limited to, reasonable attorney's fees (including appellate attorney's fees) and costs.

CITY reserves the right to select its own legal counsel to conduct any defense in any such proceeding and all costs and fees associated therewith shall be the responsibility of Successful Proposer under the indemnification agreement. Nothing contained herein is intended nor shall it be construed to waive City's rights and immunities under the common law or Florida Statute 768.28 as amended from time to time.

Additional indemnification requirements may be included under Special Terms and Conditions and/or as part of a specimen contract included in the solicitation package.

General Indemnification: To the fullest extent permitted by laws and regulations, Successful Proposer shall indemnify, defend, save and hold harmless the CITY, its officers, agents and employees, harmless from any and all claims, damages, losses, liabilities and expenses, direct, indirect or consequential arising out of or in consequential arising out of or alleged to have arisen out of or in consequence of the products, goods or services furnished by or operations of the Successful Proposer or his subcontractors, agents, officers, employees

or independent contractors pursuant to or in the performance of the Contract.

Indemnification for Design Professionals and Construction Contracts: The Successful Proposer shall indemnify and hold harmless the CITY, its officers and employees, from any and all liability, losses or damages, including reasonable attorneys' fees and costs of defense, which the CITY, its officers and employees, may incur as a result of claims, demands, suits, causes of actions or proceedings of any kind or nature to the extent such claims are caused by the negligence, recklessness, or intentional wrongful conduct of the Successful Proposer and other persons employed or utilized by the Successful Proposer during performance of the resulting Agreement.

Patent and Copyright Indemnification: Successful Proposer agrees to indemnify, defend, save and hold harmless the CITY, its officers, agents and employees, from all claims, damages, losses, liabilities and expenses arising out of any alleged infringement of copyrights, patent rights and/or the unauthorized or unlicensed use of any invention, process, material, property or other work manufactured or used in connection with the performance of the Contract, including its use by CITY.

3.28 DEFAULT PROVISION

In the case of default by the proposer or contractor, the City of Pembroke Pines may procure the articles or services from any other sources and hold the proposer or contractor responsible for any excess costs occasioned or incurred thereby.

The City shall be the sole judge of nonperformance, which shall include any failure on the part of the successful Proposer to accept the Award, to furnish required documents, and/or to fulfill any portion of the contract within the time stipulated. Upon default by the successful Proposer to meet any terms of this agreement, the City will notify the Proposer five (5) days (weekends and holidays excluded) to remedy the default. Failure on the Contractor's part to correct the default within the required five (5) days shall result in the contract being terminated and upon the City notifying in writing the Contractor of its intentions and the effective date of the termination. The following shall constitute default:

A. Failure to perform the Work required under the contract and/or within the time required or failing to use the subcontractor, entities and personnel as identified and set forth, and to the degree specified in the contract.

B. Failure to begin the Work under this Bid within the time specified.

C. Failure to perform the Work with sufficient Workers and equipment or with sufficient materials to ensure timely completion.

D. Neglecting or refusing to remove materials or perform new Work where prior Work has been rejected as non-conforming with the terms of the contract.

E. Becoming insolvent, being declared bankrupt, or committing act of bankruptcy or insolvency, or making an assignment renders the successful Proposer incapable of performing the Work in accordance with and as required by the contract.

F. Failure to comply with any of the terms of the contract in any material respect.

In the event of default of a contract, the successful Proposer shall pay all attorney's fees and court costs incurred in collecting any damages. The successful Proposer shall pay the City for any and all costs incurred in ensuing the completion of the project.

Additional provisions may be included in the specimen contract.

3.29 ACCEPTANCE OF MATERIAL

The material delivered under this proposal shall remain the property of the seller until a

physical inspection and actual usage of this material and/or services is made and thereafter accepted to the satisfaction of the City and must comply with the terms herein, and be fully in accord with specifications and of the highest quality. In the event the material and/or services supplied to the City are found to be defective or do not conform to specifications, the City reserves the right to cancel the order upon written notice to the seller and return product to seller at the sellers expense.

3.30 LOCAL GOVERNMENT PROMPT PAYMENT ACT

The City complies with Florida Statute 218.70, Local Government Prompt Payment Act.

3.31 SCRUTINIZED COMPANIES LIST

In accordance with Florida Statue 287.135, as amended, a company is ineligible to, and may not, bid on, submit a proposal for, or enter into or renew a contract with an agency or local governmental entity for goods or services of:

(a) Any amount of, at the time of bidding on, submitting a proposal for, or entering into or renewing such contract, the company is on the Scrutinized Companies that Boycott Israel List, created pursuant to s. 215.4725, or is engaged in a boycott of Israel; or

(b) One million dollars or more if, at the time of bidding on, submitting a proposal for, or entering into or renewing such contract, the company:

1. Is on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, created pursuant to s. 215.473; or

2. Is engaged in business operations in Syria.

By submitting a bid, proposal or response, the company, principals or owners certify that they are not listed on the Scrutinized Companies that boycott Israel List, Scrutinized Companies with activities in Sudan List, Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, or is engaged in business operations in Syria.

3.32 PUBLIC RECORDS; TRADE SECRET, PROPRIETARY AND CONFIDENTIAL SUBMITTALS

The Proposer's response to this solicitation is a public record pursuant to Florida law, which is subject to disclosure by the City under the State of Florida Public Records Law, Florida Statutes Chapter 119.07 ("Public Records Law"). The City shall permit public access to all documents, papers, letters or other material submitted in connection with this solicitation and the Contract to be executed for this solicitation, subject to the provisions of Chapter 119.07 of the Florida Statutes.

Any language contained in the Proposer's response to the solicitation purporting to require confidentiality of any portion of the Proposer's response to the solicitation, except to the extent that certain information is in the City's opinion a Trade Secret pursuant to Florida law, shall be void. If a Proposer submits any documents or other information to the City which the Proposer claims is Trade Secret information and exempt from Florida Statutes Chapter 119.07 ("Public Records Laws"), the Proposer shall clearly designate that it is a Trade Secret and that it is asserting that the document or information is exempt. The Proposer must specifically identify the exemption being claimed under Florida Statutes 119.07. The City shall be the final arbiter of whether any information contained in the Proposer's response to the solicitation constitutes a Trade Secret.

Any claim of confidentiality on financial statements must be asserted at the time of submittal. The firm must identify the specific statute that authorizes the exemption from the Public Records Law. Please note that the financial statement exemption provided for in Section 119.071(1)c, Florida Statutes only applies to submittals in response to a solicitation for a "public works" project.

EXCEPT FOR CLEARLY MARKED PORTIONS THAT ARE BONA FIDE TRADE SECRETS PURSUANT TO FLORIDA LAW, DO NOT MARK YOUR RESPONSE TO THE SOLICITATION AS PROPRIETARY OR CONFIDENTIAL. DO NOT MARK YOUR RESPONSE TO THE SOLICITATION OR ANY PART THEREOF AS COPYRIGHTED. ALL DOCUMENTS THAT THE FIRM PURPORTS TO BE CONFIDENTIAL, PROPRIETARY OR A TRADE SECRET SHALL BE UPLOADED TO THE BONFIRE WEBSITE AS A SEPARATE ATTACHMENT CLEARLY IDENTIFYING THE EXEMPTION BEING CLAIMED UNDER FLORIDA STATUTES 119.07.

The city's determination of whether an exemption applies shall be final, and the proposer agrees to defend, indemnify, and hold harmless the city and the city's officers, employees, and agent, against any loss or damages incurred by any person or entity as a result of the city's treatment of records as public records.

3.33 PURCHASING AGREEMENTS WITH OTHER GOVERNMENT AGENCIES

It is hereby made part of this solicitation that the submission of any bid response to this advertised request constitutes a bid made under the same or similar terms and conditions, for the same price, or better price, to other government agencies if agreeable by the proposer and the government agency.

At the option of the vendor/contractor, the use of the contract resulting from this solicitation may be extended to other governmental agencies, including the State of Florida, its agencies, political subdivisions, counties, and cities.

Each governmental agency allowed by the vendor/contractor to use this contract shall do so independently of any other governmental entity. Each agency shall be responsible for its own purchases and shall be liable only for goods or services ordered, received, and accepted. No agency receives any liability by virtue of this bid and subsequent contract award.

3.34 CONE OF SILENCE

Prohibited Communication: In accordance with the Cone of Silence Ordinance, Section 35.40 of the City's Code of Ordinances, during the course of a sealed competitive solicitation, a cone of silence shall be in effect between:

(1) Any person or entity that seeks a contract, contract amendment, award, recommendation, or approval related to a sealed competitive solicitation or that is subject to being evaluated or having its response evaluated in connection with a sealed competitive solicitation, including a person or entity's representative; and

(2) The City Manager or any person or group of persons appointed or designated by the City Commission or the City Manager to evaluate, select, or make a recommendation to the City Commission or the City Manager regarding a sealed competitive solicitation, including any member of the selection/evaluation committee.

Effective Dates: A cone of silence shall be in effect during a sealed competitive solicitation process beginning upon the advertisement for the sealed competitive solicitation or during such other procurement activities as declared by the City Commission, and shall terminate at the time the City Commission takes final action or gives final approval of a contract, rejects all bids or responses to the sealed competitive

solicitation, or takes other action which ends the sealed competitive solicitation process.

Permitted Communication: The cone of silence shall not apply to:

(1) Written or oral communications with legal counsel for the city, the Procurement Department staff for the city, and the person or persons designated in the sealed competitive solicitation as the contact person for clarification or information related to the sealed competitive solicitation.

(2) Public presentations, asking questions, or providing feedback at pre-bid meetings, site visits or conferences or at a selection, evaluation or negotiation meeting related to the sealed competitive solicitation.

(3) Contract negotiations with the selected entity.

Violations: Any action in violation of this section shall be cause for disqualification of the bid or the proposal.

3.35 E-VERIFY

Contractor certifies that it is aware of and complies with the requirements of Section 448.095, Florida Statues, as may be amended from time to time and briefly described herein below.

1) Definitions for this Section:

a) “Contractor” means a person or entity that has entered or is attempting to enter into a contract with a public employer to provide labor, supplies, or services to such employer in exchange for salary, wages, or other remuneration. “Contractor” includes, but is not limited to, a vendor or consultant.

b) “Subcontractor” means a person or entity that provides labor, supplies, or services to or for a contractor or another subcontractor in exchange for salary, wages, or other remuneration.

c) “E-Verify system” means an Internet-based system operated by the United States Department of Homeland Security that allows participating employers to electronically verify the employment eligibility of newly hired employees.

2) Registration Requirement; Termination:

Pursuant to Section 448.095, Florida Statutes, effective January 1, 2021, Contractors, shall register with and use the E-verify system in order to verify the work authorization status of all newly hired employees. Contractor shall register for and utilize the U.S. Department of Homeland Security’s E-Verify System to verify the employment eligibility of:

a) All persons employed by a Contractor to perform employment duties within Florida during the term of the contract; and

b) All persons (including subvendors / subconsultants / subcontractors) assigned by Contractor to perform work pursuant to the contract with the City of Pembroke Pines. The Contractor acknowledges and agrees that registration and use of the U.S. Department of Homeland Security’s E-Verify System during the term of the contract is a condition of the contract with the City of Pembroke Pines; and

c) The Contractor shall comply with the provisions of Section 448.095, Fla. Stat., "Employment Eligibility," as amended from time to time. This includes, but is not limited to registration and utilization of the E-Verify System to verify the work authorization status of all newly hired employees. Contractor shall also require all subcontractors to provide an affidavit attesting that the subcontractor does not employ, contract with, or subcontract with, an unauthorized alien. The Contractor shall maintain a copy of such affidavit for the duration of the contract. Failure to comply

will lead to termination of this Contract, or if a subcontractor knowingly violates the statute, the subcontract must be terminated immediately. Any challenge to termination under this provision must be filed in the Circuit Court no later than twenty (20) calendar days after the date of termination. Termination of this Contract under this Section is not a breach of contract and may not be considered as such. If this contract is terminated for a violation of the statute by the Contractor, the Contractor may not be awarded a public contract for a period of one (1) year after the date of termination.

3.36 JESSICA LUNSFORD ACT

Background screening requirements for Contractor's performing services for or at City's Charter Schools. (1) Except as provided in §§1012.467 or 1012.468, Florida Statutes, non-instructional school employees or contractual personnel who (i) are permitted access on school grounds when students are present, (ii) who have direct contact with students or, (iii) who have access to or control of school funds must meet level 2 screening requirements as described in §1012.32, Florida Statutes. Contractual personnel shall include any Contractor, individual, or entity under contract with the City engaged to perform services for or at City's Charter Schools.

(2) Every 5 years following employment or entry into a resulting contract in a capacity described in subsection (1), each person who is so employed or under contract with the City must meet level 2 screening requirements as described in §1012.32, Florida Statutes, at which time the City shall request the Department of Law Enforcement to forward the fingerprints to the Federal Bureau of Investigation for the level 2 screening. If, for any reason following employment or entry into a resulting contract in a capacity described in subsection (1), the fingerprints of a person who is so employed or under contract with the City are not retained by the Department of Law Enforcement under §1012.32(3)(a) and (b), Florida Statutes, the person must file a complete set of fingerprints with the City. Upon submission of fingerprints for this purpose, the City shall request the Department of Law Enforcement to forward the fingerprints to the Federal Bureau of Investigation for the level 2 screening, and the fingerprints shall be retained by the Department of Law Enforcement under §1012.32(3)(a) and (b), Florida Statutes. The cost of the state and federal criminal history check required by level 2 screening shall be borne by the Contractor, or the person fingerprinted. Under penalty of perjury, each person who is employed or engaged to perform a resulting contract in a capacity described in subsection (1) must agree to inform his or her employer or the party with whom he or she is under contract within 48 hours if convicted of any disqualifying offense while he or she is employed or under a resulting contract in that capacity. (3) If it is found that a person who is employed or under contract in a capacity described in subsection (1) does not meet the level 2 requirements, the person shall be immediately suspended from working in that capacity and shall remain suspended until final resolution of any appeals.

3.37 PROHIBITION AGAINST CONSIDERING SOCIAL, POLITICAL OR IDEOLOGICAL

INTERESTS IN GOVERNMENT CONTRACTING

Bidders are hereby notified of the provisions of section 287.05701, Florida Statutes, as amended, that the City will not request documentation of or consider a Bidder's social, political, or ideological interests when determining if the Bidder is a responsible Bidder. Bidders are further notified that the City's governing body may not give preference to a Bidder based on the Bidder's social, political, or ideological interests.

SECTION 4 - SPECIAL TERMS & CONDITIONS

4.1 PROPOSAL SECURITY

Proposal Security Amount:

Yes No

☐ ✗ A Proposal Security shall not be required for this project.

Yes No

☐ ✗ A Proposal Security shall be required, only for bidders that have a total cumulative base proposal amount that exceeds $200,000. Proposal Security shall be in the amount of 5% of the total cumulative base amount proposed.

Yes No

☐ ✗ A Proposal Security shall be required for every bidder, regardless of proposal amount. Proposal Security shall be in the amount of 5% of the total cumulative base amount proposed.

Yes No

✓ ☐ A Proposal Security shall be required for every bidder, regardless of proposal amount. Proposal Security shall be in the amount of $10,000 or 5% of the total cumulative base amount proposed, whichever is less.

Note - Contingency is not to be counted in the total amount the proposal security is based on.

Proposal Security Requirements: For projects in which Proposal Securities are required, each Proposal must be accompanied by a certified or cashier's check or by a Bid Bond made payable to the City of Pembroke Pines on an approved form, duly executed by the Proposer as principal and having as surety thereon a surety company acceptable to CITY and authorized to write such Bond under the laws of the State of Florida. The agent or attorney in fact or other officer who signs a Bid Bond for a surety company must file with such bond a certified copy of their power of attorney authorizing them to do so.

Scanned Proposal Security: For projects in which Proposal Securities are required, Proposers must submit a scanned copy of their Proposal Security (certified check, cashier's check or a Bid Bond) with their bid submittal through Bonfire.

Physical Proposal Security: For projects in which Proposal Securities are required, Proposers should also submit their original Proposal Security (certified check, cashier's check or a Bid Bond) at time of the bid due date, or they may be deemed as non-responsive. The original Proposal Security should be in a sealed envelope, plainly marked **"BID SECURITY - IFB # PSPW-23-17 Roof Replacement for Various City Buildings"** and sent to the:

City of Pembroke Pines,
City Clerk's Office, 4th Floor,
601 City Center Way,
Pembroke Pines, Florida, 33025.

Opportunity to Cure: In the event that the proposer fails to submit the scanned and/or the physical proposal security, in the City's sole discretion, the City may allow the proposer to furnish the proposal security within 3 days of written notice of deficiency.

Successful Proposer: The Proposal Security of the Successful Proposer will be retained until such Proposer has executed the Contract and furnished the required insurance, payment and performance bonds, whereupon the Proposal Security will be returned. If the Successful Proposer fails to execute and deliver the Contract and furnish the required insurance and bonds within fifteen (15) calendar days of the Notice of Award, CITY may annul the Notice of Award and the entire sum of the Proposal Security shall be forfeited.

Three Lowest Proposers: The Proposal Security of the three (3) lowest Proposers will be returned within seven (7) calendar days after CITY and the Successful Proposer have executed the written Contract or if no such written Contract is executed within ninety (90) calendar days after the date of the Proposal opening, upon the demand of any Proposer at any time thereafter, provided that the Proposer has not been notified of the acceptance of their Proposal.

All Other Proposers: Proposal Security of all other Proposer will be returned within seven (7) calendar days after the proposal opening.

4.2 PAYMENT AND PERFORMANCE BONDS

Payment and Performance Bond Amount:

Yes No

☐ ✗ Payment and Performance Bonds shall not be required for this project.

Yes No

☐ ✗ Regardless of the awarded contract amount, two (2) separate bonds (Payment and Performance Bonds) are required, and both must be approved by the City. The penal sum stated in each bond shall be 100% of the contract price.

Yes No

✓ ☐ In the event that the awarded contract exceeds $200,000, two (2) separate bonds (Payment & Performance Bonds) are required, and both must be approved by the City. The penal sum stated in each bond shall be 100% of the contract price.

Note - Contingency is not to be counted in the total amount the payment and performance bonds are based on.

Coverage Period: The surety company shall only cover the period of performance / construction and not the labor warranty nor the manufacturer's warranty periods.

Successful Proposer: Within fifteen (15) calendar days after Notice of Award and in any event prior to commencing work, the Contractor shall execute and furnish to City a performance bond and a payment bond.

Minimum Requirements of Surety: Each bond shall be written by a corporate surety, having a resident agent in the State of Florida and having been in business with a record of successful continuous operation for at least five (5) years. The surety shall hold a current certificate of authority from the Secretary of Treasury of the United States as an acceptable surety on federal bonds in accordance with United States Department of Treasury Circular No. 570. If the amount of the Bond exceeds the underwriting limitation set forth in the circular, in order to qualify, the net retention of the surety company shall not exceed the underwriting limitation in the circular and the excess risks must be protected by coinsurance, reinsurance, or other methods, in accordance with Treasury Circular 297, revised September 1, 1978 (31DFR, Section 223.10, Section 223.11). Further, the surety company shall provide City with evidence satisfactory to City, that such excess risk has been protected in an acceptable manner. The surety company shall have at least the following minimum qualification in accordance with the latest edition of A.M. Best's Insurance Guide, published by Alfred M. Best Company, Inc., Ambest Road, Oldwick, New Jersey 08858:

B+ to A+

Performance Bond: The performance bond shall be conditioned that the Contractor performs the contract in the time and manner prescribed in the contract.

Payment Bond: The payment bond shall be conditioned that the Contractor promptly make payments to all persons who supply the Contractor with labor, materials and

supplies used directly or indirectly by the Contractor in the prosecution of the work provided for in the Contract and shall provide that the surety shall pay the same in the amount not exceeding the sum provided in such bonds, together with interest at the maximum rate allowed by law; and that they shall indemnify and save harmless the City to the extent of any and all payments in connection with the carrying out of said Contract which the City may be required to make under the law.

Recordation of Bonds with the County: Pursuant to the requirements of Section 255.05(1)(a), Florida Statutes, it shall be the duty of the Contractor to record the aforesaid payment and performance bonds in the public records of Broward County, with the Contractor to pay all recording costs.

4.3 OWNER'S CONTINGENCY

While the specifications contained in this solicitation and any ensuing Purchase Orders or contracts have incorporated all anticipated work to be accomplished, there may be unanticipated work required of the vendor in conjunction with a specific project. For this reason, the City Commission may award a project with an "Owner's Contingency". This contingency or allowance authorizes the City execute change orders up to the amount of the contingency without the need to obtain additional Commission approval. The Owner's Contingency is usually based on a specified percent of the proposed project amount and is established for the specific project being performed under the contract. This dollar amount shall be shown on the specific project purchase order as a distinct item from the vendor's overall offer to determine the total potential dollar value of the contract. It is hereby understood and agreed that the vendor shall not expend any dollars in connection with the Owner's Contingency without the expressed prior approval of the City's authorized representative. Any Owner's Contingency funds that have not been utilized at the end of the project will remain with the Owner, the contractor shall only be paid for the proposed project cost as approved by the City Commission along with any Owner Contingency expenses that were approved by the City's authorized representative.

4.4 TAX SAVER PROGRAM

The Contractor shall cooperate on certain projects to allow the City to avail itself of a sales tax savings program.

4.5 RELEASE OF LIEN

Contractor must provide an executed Partial/Final Release of Lien utilizing the City's standard Release of Lien Form in order for the City to release any payments to the Contractor.

4.6 SOLID WASTE CONSTRUCTION AND DEMOLITION DEBRIS COLLECTION AND DISPOSAL REQUIREMENTS

The City of Pembroke Pines has an exclusive solid waste franchise agreement with Waste Pro of Florida, Inc. for the collection and disposal of all solid waste including construction and demolition (C & D) debris. All applicants for bids to perform construction work for the City of Pembroke Pines shall be subject to the requirements found in the City's exclusive sold waste franchise agreement and must contract Waste Pro of Florida, Inc. for the collection and disposal of all construction and demolition debris generated at such construction job sites.

For the current applicable rates and fees for Waste Pro of Florida, Inc. dumpsters, roll-off containers, and other related solid waste service equipment needs, please contact David Perez, Waste Pro's Pembroke Pines Sales Representative at (954) 967-4200 or dperez@wasteprousa.com.

For further information related to the solid waste franchise requirements, please contact Rose Colombo, Solid Waste Franchise Agreement Contract Manager, at (954) 518-9011 or rcolombo@ppines.com.

For solid waste franchise enforcement questions, please contact the City of Pembroke Pines Code Compliance Unit at (954) 431-4466.

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Addendum # 1
City of Pembroke Pines
RE-24-05 Window & Door Replacement at Various Parks

1. Additional Drawings

Attachment E - Construction Drawings Pembroke Pines Windows and Doors

- YMCA Aquatic Park Windows and Doors

2. Additional Attachments

- Attachment N - Key Cylinder Specs
- Attachment O - Von Duprin Closer Model
- Attachment P - Von Duprin Concealed Vertical Exit Device Model

3. Questions & Answers

The Project Manager is awaiting answers to questions related to the Architect's design/specifications.

Danny Benedit, Procurement Specialist
City of Pembroke Pines, Procurement Department
8300 South Palm Drive, Pembroke Pines, FL 33025
Hours: Monday – Thursday, 7:00 A.M. – 6:00 P.M.
(P): (954) 518-9022 (E): dbenedit@ppines.com

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Addendum # 2
City of Pembroke Pines
RE-24-05 Window & Door Replacement at Various Parks

1. UPDATED TENTATIVE SCHEDULE OF EVENTS

Event	Time &/or Date
Issuance of Solicitation (Posting Date)	**January 23, 2024**
Non-Mandatory Pre-Bid Meeting	**10:00 a.m. on February 7, 2024**
Question Due Date	**February 13, 2024**
Anticipated Date of Issuance for the Addenda with Questions and Answers	~~**February 19, 2024**~~ **February 26, 2024**
Proposals will be accepted until	~~**2:00 p.m. on February 27, 2024**~~ **2:00 p.m. on March 5, 2024**
Proposals will be opened at	~~**2:30 p.m. on February 27, 2024**~~ **2:00 p.m. on March 5, 2024**
Evaluation of Proposals by Staff	~~**February 20, 2024 – February 26, 2024**~~ **March 5, 2024 – March 21, 2024**
Recommendation of Contractor to City Commission award	~~**March 20, 2024**~~ **April 17, 2024**
Issuance of Notice to Proceed	**TBD**
Project Commencement	**June 2024**
Project Completion	**120 days after NTP**

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Addendum # 3
City of Pembroke Pines
RE-24-05 Window & Door Replacement at Various Parks

1. UPDATED TENTATIVE SCHEDULE OF EVENTS

Event	Time &/or Date
Issuance of Solicitation (Posting Date)	**January 23, 2024**
Non-Mandatory Pre-Bid Meeting	**10:00 a.m. on February 7, 2024**
Question Due Date	**February 13, 2024**
Anticipated Date of Issuance for the Addenda with Questions and Answers	~~**February 19, 2024,**~~ ~~**February 26, 2024**~~ **March 11, 2024**
Proposals will be accepted until	~~**2:00 p.m. on February 27, 2024**~~ ~~**2:00 p.m. on March 5, 2024**~~ **2:00 p.m. on March 19, 2024**
Proposals will be opened at	~~**2:30 p.m. on February 27, 2024**~~ ~~**2:00 p.m. on March 5, 2024**~~ **2:00 p.m. on March 19, 2024**
Evaluation of Proposals by Staff	~~**February 20, 2024 – February 26, 2024**~~ ~~**March 20, 2024 – March 21, 2024**~~ **March 20, 2024 – April 4, 2024**
Recommendation of Contractor to City Commission award	~~**March 20, 2024**~~ ~~**April 17, 2024**~~ **May 1, 2024**
Issuance of Notice to Proceed	**TBD**
Project Commencement	**June 2024**
Project Completion	**120 days after NTP**

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Addendum # 4
City of Pembroke Pines
RE-24-05 Window & Door Replacement at Various Parks

1. <u>Adding Rolling Doors to Pricing Sheet / Bid Tables</u>

The City will be adding a line item to the Pricing Sheet / Bid Table for each location where the rolling door will be located.

Pembroke Shores
Flamingo Park
Maxwell Park
Pembroke Falls Aquatic Park
Pines Recreation Center
Rose Price Park
Towngate Park

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NON-COLLUSIVE AFFIDAVIT

BIDDER is the

_____,

(Owner, Partner, Officer, Representative or Agent)

BIDDER is fully informed respecting the preparation and contents of the attached Bid and of all pertinent circumstances respecting such Bid;

Such Bid is genuine and is not a collusive or sham Bid;

Neither the said BIDDER nor any of its officers, partners, owners, agents, representative, employees or parties in interest, including this affidavit, have in any way colluded, conspired, connived or agreed, directly or indirectly, with any other BIDDER, firm or person to submit a collusive or sham Bid in connection with the Contract for which the attached Bid has been submitted; or to refrain from bidding in connection with such Contract; or have in any manner, directly or indirectly, sought by agreement or collusion, or communications, or conference with any BIDDER, firm, or person to fix the price or prices in the attached Bid or any other BIDDER, or to fix any overhead, profit, or cost element of the Bid Price or the Bid Price of any other BIDDER, or to secure through any collusion conspiracy, connivance, or unlawful agreement any advantage against (Recipient), or any person interested in the proposed Contract;

The price of items quoted in the attached Bid are fair and proper and are not tainted by collusion, conspiracy, connivance, or unlawful agreement on the part of the BIDDER or any other of its agents, representatives, owners, employees or parties in interest, including this affidavit.

Printed Name/Signature _____

Title _____

Name of Company _____

CONSTRUCTION AGREEMENT

THIS IS AN AGREEMENT ("Agreement"), dated the _____ day of _____, **2020**, by and between:

CITY OF PEMBROKE PINES, a municipal corporation of the State of Florida with a business address of **601 City Center Way, Pembroke Pines, Florida 33025** hereinafter referred to as "CITY",

and

«Vendor_Name_Upper_Case», a **«Vendor_Business_Type»** as listed with the Florida Division of Corporations, authorized to do business in the State of Florida, and with a business address of **«Vendor_Address_Line_1», «Vendor_Address_Line_2»** (hereinafter referred to as the "CONTRACTOR"). CITY and CONTRACTOR may hereinafter be referred to collectively as the "Parties."

W I T N E S S E T H:

In consideration of the mutual terms and conditions, promises, covenants and payments hereinafter set forth, CITY and CONTRACTOR agree as follows:

ARTICLE 1
PREAMBLE

In order to establish the background, context and form of reference for this Agreement, and to generally express the objectives and intentions of the respective Parties herein, the following statements, representations, and explanations shall be accepted as predicates for the undertakings and commitments included within the provisions which follow, and may be relied upon by the Parties as essential elements of the mutual considerations upon which this Agreement is based.

1.1 On **«Solicitation_Advertisement_Date»,** the CITY advertised its notice to bidders of the CITY's desire to hire a firm to **«Service_Description»** as more particularly described in **Exhibit "A"** attached hereto and by this reference made a part hereof, for the said bid entitled:

«Solicitation_Type_Abbreviation» # «Solicitation_Number»
"«Solicitation_Title»"

1.2 On **«Bid_Opening_Date»,** the bids were opened at the offices of the City Clerk.

1.3 On **«Commission_Award_Date»,** the CITY awarded the bid to CONTRACTOR and authorized the proper CITY officials to negotiate and enter into an agreement with CONTRACTOR to render the services more particularly described herein below.

1.4 Negotiations pertaining to the services to be performed by the CONTRACTOR were undertaken and this Agreement incorporates the results of such negotiation.

ARTICLE 2
SERVICES AND RESPONSIBILITIES

2.1 CONTRACTOR hereby agrees to perform the services for the **«Service_Description»,** ("Property") as more particularly described in, and in accordance with the Scope of Services outlined in the specifications, **"«Solicitation_Type_Abbreviation» # «Solicitation_Number»",** attached hereto and made a part hereof as **Exhibit "A"** and CONTRACTOR's response thereto, attached hereto and made a part hereof as **Exhibit "B"**. CONTRACTOR agrees to perform all services required pursuant to this Agreement, the Sealed Bid Package, Addenda to this Agreement, and Commission award complete with proposal form.

2.2 CONTRACTOR shall furnish all services, labor, equipment, and materials necessary and as may be required in the performance of this Agreement, except as otherwise specifically provided for herein, and all work performed under this Agreement shall be done in a professional manner.

2.3 CONTRACTOR shall supervise the work force to ensure that all workers conduct themselves and perform their work in a safe and professional manner. CONTRACTOR shall comply with all OSHA safety rules and regulations in the operation of equipment and in the performance of the work. CONTRACTOR shall at all times have a competent field supervisor available to enforce these policies and procedures at the CONTRACTOR’s expense.

2.4 CONTRACTOR shall provide CITY with seventy-two (72) hours written notice prior to the beginning of work under this Agreement and prior to any schedule change with the exception of changes caused by inclement weather.

2.5 CONTRACTOR hereby represents to CITY, with full knowledge that CITY is relying upon these representations when entering into this Agreement with CONTRACTOR, that CONTRACTOR has the professional expertise, experience and manpower to perform the services to be provided by CONTRACTOR pursuant to the terms of this Agreement.

2.6 CONTRACTOR hereby represents to CITY that CONTRACTOR is properly licensed by the applicable federal, state, and local agencies to provide the services under this Agreement. Furthermore, CONTRACTOR agrees to maintain such licenses during the term of this Agreement. If CONTRACTOR's license is revoked, suspended, or terminated for any reason by any governmental agency, CONTRACTOR shall notify the CITY immediately.

2.7 CONTRACTOR shall comply with any and all Federal, State, and local laws and regulations now in effect, or hereinafter enacted during the term of this Agreement, which are applicable to CONTRACTOR, its employees, agents or subcontractors, if any, with respect to the work and services described herein. A violation of any federal, state, or local law or regulation may be cause for breach, allowing the CITY to terminate this Agreement.

2.8 Return of Keys Upon completion of services rendered or termination of this agreement, CONTRACTOR must promptly return to CITY all CITY keys and/or access cards. By agreeing herein, CONTRACTOR understands that any loss or failure to return a CITY key shall subject CONTRATOR to the costs associated with key replacement and/or re-keying. For keys unlocking several doors, replacement and re-keying costs can be substantial. In case of failure to return a key and failure to pay for key replacement and/or lock re-keying, CONTRACTOR understands that CITY shall enforce by all legal means its right to repayment for all costs incident to key replacement and/or lock re-keying.

ARTICLE 3
TIME OF COMMENCEMENT AND SUBSTANTIAL COMPLETION

3.1 The work to be performed under this Agreement shall be commenced after CITY execution of the Agreement and not later than ten (10) days after the date that CONTRACTOR receives CITY's Notice to Proceed. The work shall be completed within **«DaysToCompleteProject»** calendar days from issuance of CITY's Notice to Proceed, subject to any permitted extensions of time pursuant to this Agreement and any amendments and/or addenda thereto. For the purposes of this Agreement, the term "completion" shall mean the satisfactory completion and final inspection of the Property by the CITY.

3.2 During the pre-construction portion of the work hereunder, the Parties agree to work diligently and in good faith in performing their obligations hereunder, so that all required permits for the construction portion of the work may be obtained. In the event that any delays in the pre-construction or construction portion of the work occur, despite the diligent efforts of the Parties hereto, and such delays are the result of force majeure or are otherwise outside of the control of either party hereto, then the Parties shall agree on an equitable extension of the time for substantial completion hereunder and any resulting increase in general condition costs.

3.3 In the event that CONTRACTOR abandons this Agreement or causes it to be terminated, CONTRACTOR shall indemnify CITY against any loss pertaining to this termination up to a maximum of the full contracted fee amount. All finished or unfinished documents, data, studies, surveys, and reports prepared by CONTRACTOR shall become the property of CITY and shall be delivered by CONTRACTOR to CITY.

ARTICLE 4
COMPENSATION AND METHOD OF PAYMENT

4.1 CITY agrees to compensate CONTRACTOR for all services performed under this Agreement by CONTRACTOR upon issuance of final inspection approval / monthly for work that has been completed, inspected and properly invoiced **«Compensation_Type» «Compensation_Amount_Written» («Compensation_Amount_Numerical»),** which includes a **«Contingency_Fee_Percent»** owner's contingency fee of **«Contingency_Fee_Written» («Contingency_Fee_Numerical»)** and a **«Permit_Fee_Percent»** permit allowance of **«Permit_Fee_Written» («Permit_Fee_Numerical»).**

4.1.1 This contingency or allowance authorizes the CITY to execute change orders up to the amount of the contingency without the need to obtain additional Commission approval. **It is hereby understood and agreed that the CONTRACTOR shall not expend any dollars in connection with the Owner's Contingency or Allowance without the expressed prior written approval of the CITY's authorized representative.** Any Owner's Contingency funds or allowance that have not been utilized at the end of the project will remain with the CITY, the CONTRACTOR shall only be paid for the proposed project cost as approved by the City Commission along with any Owner Contingency expenses or allowances that were approved by the CITY's authorized representative.

4.1.2 The total compensation amount may not be exceeded without a written amendment to this Agreement. A retainage of ten percent (10%) will be deducted from monthly payments until fifty percent (50%) of the project is complete. Retainage will be reduced to five percent (5%) thereafter. Retainage monies will be released upon satisfactory completion and final inspection of the work. Invoices must bear the project name, project number, bid number and purchase order number. CITY has up to thirty (30) days to review, approve and pay all invoices after receipt. CONTRACTOR shall invoice CITY and provide a written request to CITY to commence the one (1) year warranty period. All necessary Releases and Affidavits and approval of final payments shall be processed before the warranty period begins. All payments shall be governed by the Local Government Prompt Payment Act, as set forth in Part VII, Chapter 218, Florida Statutes.

4.2 **Method of Billing and Payment.**

4.2.1 The CITY shall within thirty (30) days, from the date the CITY's Public Service Director approves the Application for Payment, pay the CONTRACTOR the amount approved by the CITY's Public Services Director or his or her assignees.

4.2.2 Payment will be made to CONTRACTOR at:

«Vendor_Name»
«Vendor_Address_Line_1»
«Vendor_Address_Line_2»

ARTICLE 5
WAIVER OF LIENS

5.1 Prior to final payment of the amount due under the terms of this Agreement, a final waiver of lien shall be submitted by the CONTRACTOR as well as all suppliers and subcontractors who worked on the project that is the subject of this Agreement. Payment of the invoice and acceptance of such payment by CONTRACTOR shall release CITY from all claims of liability by CONTRACTOR in connection with this Agreement.

ARTICLE 6
WARRANTY

6.1 CONTRACTOR warrants the work against defect for a period of one (1) year from the

date of completion of work. In the event that defect occurs during this time, CONTRACTOR shall perform such steps as required to remedy the defects. CONTRACTOR shall be responsible for any damages caused by defect to affected area or to interior structure. The one (1) year warranty period does not begin until substantial completion of the entire project, and the subsequent release of any Performance or Payment Bonds, which may be required by the original bid document.

ARTICLE 7
CHANGES IN SCOPE OF WORK

7.1 CITY or CONTRACTOR may request changes that would increase, decrease, or otherwise modify the Scope of Services, as described in **Exhibit "A,"** to be provided under this Agreement as described in Article 2 of this Agreement. These changes may affect the monthly compensation accordingly. Such changes or additional services must be in accordance with the provisions of the Code of Ordinances of the CITY, and must be contained in a written amendment, executed by the Parties hereto, with the same formality, equality and dignity herewith prior to any deviation from the terms of this Agreement, including the initiation of any additional or extra work.

7.2 In no event will the CONTRACTOR be compensated for any work which has not been described either herein or in a separate written agreement executed by the Parties hereto.

ARTICLE 8
PAYMENT & PERFORMANCE BOND

8.1 Within fifteen (15) calendar days after Notice of Award and in any event prior to commencing work, the CONTRACTOR shall execute and furnish to CITY a payment and performance bond, each written by a corporate surety, having a resident agent in the State of Florida and having been in business with a record of successful continuous operation for at least five (5) years. The surety shall hold a current certificate of authority from the Secretary of Treasury of the United States as an acceptable surety on federal bonds in accordance with United States Department of Treasury Circular No. 570. If the amount of the bond exceeds the underwriting limitation set forth in the circular, in order to qualify, the net retention of the surety company shall not exceed the underwriting limitation in the circular and the excess risks must be protected by coinsurance, reinsurance, or other methods, in accordance with Treasury Circular 297, revised September 1, 1978 (31DFR, Section 223.10, Section 223.11). Further, the surety company shall provide CITY with evidence satisfactory to CITY, that such excess risk has been protected in an acceptable manner. The surety company shall have at least the following minimum qualification in accordance with the latest edition of A.M. Best's Insurance Guide, published by Alfred M. Best Company, Inc., Ambest Road, Oldwick, New Jersey 08858:

B+ to A+

8.2 Two (2) separate bonds are required and both must be approved by the CITY. **The penal sum stated in each bond shall be 100% of the contract value.** The performance bond shall be conditioned upon the CONTRACTOR's performance of the work in the time and manner prescribed in the Agreement. The payment bond shall be conditioned upon the CONTRACTOR's promptly making payments to all persons who supply the CONTRACTOR with labor, materials and supplies

used directly or indirectly by the CONTRACTOR in the prosecution of the work provided for in this Agreement and shall provide that the surety shall pay the same in the amount not exceeding the sum provided in such bonds, together with interest at the maximum rate allowed by law; and that they shall indemnify and save harmless the CITY to the extent of any and all payments in connection with the carrying out of said Agreement which the CITY may be required to make under the law.

Pursuant to the requirements of Section 255.05(1)(a), Florida Statutes, it shall be the duty of the CONTRACTOR to record the aforesaid payment and performance bonds in the public records of Broward County, and CONTRACTOR shall be responsible for payment of all recording costs.

ARTICLE 9
INDEMNIFICATION

9.1 Pursuant to Section 725.06, Florida Statutes, the Parties agree that one hundred percent (100%) of the total compensation paid to CONTRACTOR for the work under this Agreement shall constitute specific consideration to CONTRACTOR for the indemnification to be provided under this Agreement. CONTRACTOR shall indemnify and hold harmless the CITY, its trustees, elected and appointed officers, agents, servants, assigns, employees, consultants, separate contractors, any of their subcontractors, sub-subcontractors, agents and employees from and against claims, demands, or causes of action whatsoever, and the resulting losses, damages, costs and expenses, including but not limited to attorneys' fees, including paralegal expenses, liabilities, damages, orders, judgments, or decrees, sustained by the CITY arising out of or resulting from performance of the work or the failure of the CONTRACTOR to take out and maintain insurance as required under this Agreement.

9.2 Upon completion of all services, obligations and duties provided for in this Agreement, or in the event of termination of this Agreement for any reason, the terms and conditions of this Article shall survive indefinitely.

9.3 CITY reserves the right to select its own legal counsel to conduct any defense in any such proceeding and all costs and fees associated therewith shall be the responsibility of CONTRACTOR.

9.4 Nothing contained herein is intended nor shall be construed to waive CITY's rights and immunities under the common law or Section 768.28, Florida Statutes, as may be amended from time to time.

ARTICLE 10
INSURANCE

10.1 The CONTRACTOR shall indemnify and hold harmless the CITY and its officers, employees, agents and instrumentalities from any and all liability, losses or damages, including attorneys' fees and costs of defense, which the CITY or its officers, employees, agents or instrumentalities may incur as a result of claims, demands, suits, causes of actions or proceedings of any kind or nature arising out of, relating to or resulting from the performance of this Agreement by the CONTRACTOR or its employees, agents, servants, partners, principals or subcontractors.

The CONTRACTOR shall pay all claims and losses in connection therewith and shall investigate and defend all claims, suits or actions of any kind or nature in the name of the CITY, where applicable, including appellate proceedings, and shall pay all costs, judgments, and attorneys' fees which may issue thereon. The CONTRACTOR expressly understands and agrees that any insurance protection required by this Agreement or otherwise provided by the CONTRACTOR shall in no way limit the responsibility to indemnify, keep and save harmless and defend the CITY or its officers, employees, agents and instrumentalities as herein provided.

10.2 CONTRACTOR shall not commence work under this Agreement until it has obtained all insurance required under this paragraph and such insurance has been approved by the Risk Manager of the CITY nor shall the CONTRACTOR allow any subcontractor to commence work on any subcontract until all similar such insurance required of the subcontractor has been obtained and similarly approved.

10.3 Certificates of Insurance, reflecting evidence of the required insurance, shall be filed with the CITY's Risk Manager prior to the commencement of this Agreement. Policies shall be issued by companies authorized to do business under the laws of the State of Florida. The insurance company shall be rated no less than "A" as to management, and no less than "Class VI" as to financial strength according to the latest edition of Best's Insurance Guide published by A.M. Best Company.

10.4 Certificates of Insurance shall provide for thirty (30) days' prior written notice to the CITY in case of cancellation or material changes in the policy limits or coverage states. If the carrier cannot provide thirty (30) days' notice of cancellation, either the CONTRACTOR or their Insurance Broker must agree to provide notice.

10.5 Insurance shall be in force until all obligations required to be fulfilled under the terms of the Agreement are satisfactorily completed as evidenced by the formal acceptance by the CITY. In the event the insurance certificate provided indicates that the insurance shall terminate and lapse during the period of this Agreement, the CONTRACTOR shall furnish, at least forty-five (45) days prior to the expiration of the date of such insurance, a renewed certificate of insurance as proof that equal and like coverage for the balance of the period of the Agreement and extension thereunder is in effect. The CONTRACTOR shall neither commence nor continue to provide any services pursuant to this Agreement unless all required insurance remains in full force and effect. CONTRACTOR shall be liable to CITY for any lapses in service resulting from a gap in insurance coverage.

10.6 REQUIRED INSURANCE

CONTRACTOR shall be required to obtain all applicable insurance coverage, as indicated below, prior to commencing any work pursuant to this Agreement:

Yes No

☐ ☐ 10.6.1 Comprehensive General Liability Insurance written on an occurrence basis including, but not limited to: coverage for bodily injury and property damage, personal & advertising injury, products & completed operations, and contractual liability. Coverage must be written on an occurrence basis, with limits of liability no less than:

1. Each Occurrence Limit - $1,000,000
2. Fire Damage Limit (Damage to rented premises) - $100,000
3. Personal & Advertising Injury Limit - $1,000,000
4. General Aggregate Limit - $2,000,000
5. Products & Completed Operations Aggregate Limit - $2,000,000

Products & Completed Operations Coverage shall be maintained for the later of three (3) years after the delivery of goods/services or final payment under the Agreement. (*For Construction projects: Increase to ten (10) years and include a Designated Construction Project(s) General Aggregate Limit)*

The City of Pembroke Pines must be shown as an additional insured with respect to this coverage. The CITY's additional insured status shall extend to any coverage beyond the minimum limits of liability found herein.

Yes No

☐ ☐ 10.6.2 Workers' Compensation and Employers' Liability Insurance covering all employees, and/or volunteers of the CONTRACTOR engaged in the performance of the scope of work associated with this Agreement. In the case any work is sublet, the CONTRACTOR shall require the subcontractors similarly to provide Workers' Compensation Insurance for all the latter's employees unless such employees are covered by the protection afforded by the CONTRACTOR. Coverage for the CONTRACTOR and all subcontractors shall be in accordance with applicable state and/or federal laws that may apply to Workers' Compensation Insurance with limits of liability no less than:

1. Workers' Compensation:	Coverage A –	Statutory
2. Employers Liability:	Coverage B	$500,000 Each Accident
		$500,000 Disease – Policy Limit
		$500,000 Disease – Each Employee

If CONTRACTOR claims to be exempt from this requirement, CONTRACTOR shall provide CITY proof of such exemption along with a written request for CITY to exempt CONTRACTOR, written on CONTRACTOR letterhead.

Yes No

☐ ☐ 10.6.3 Comprehensive Auto Liability Insurance covering all owned, non-owned and hired vehicles used in connection with the performance of work under this Agreement, with a combined single limit of liability for bodily injury and property damage no less than:

1. Any Auto (Symbol 1)
   Combined Single Limit (Each Accident) - $1,000,000
2. Hired Autos (Symbol 8)
   Combined Single Limit (Each Accident) - $1,000,000
3. Non-Owned Autos (Symbol 9)

Combined Single Limit (Each Accident) - $1,000,000

If work under this Agreement includes transportation of hazardous materials, policy shall include pollution liability coverage equivalent to that provided by the latest version of the ISO pollution liability broadened endorsement for auto and the latest version of the ISO Motor Carrier Act endorsement, equivalents or broader language.

Yes No

☐ ☐ 10.6.3.1 If CONTRACTOR requests reduced limits under a Personal Auto Liability Policy and it is agreed to by the CITY, coverage shall include Bodily Injury limits of $100,000 per person/$300,000 per occurrence and Property Damage limits of $300,000 per occurrence

Yes No

☐ ☐ 10.6.4 Umbrella/Excess Liability Insurance in the amount of $_____ as determined appropriate by the CITY depending on the type of job and exposures contemplated. Coverage must be follow form of the General Liability, Auto Liability and Employer's Liability. This coverage shall be maintained for a period of no less than the later of three (3) years after the delivery of goods/services or final payment pursuant to this Agreement.

The City of Pembroke Pines must be shown as an additional insured with respect to this coverage. The CITY's additional insured status shall extend to any coverage beyond the minimum limits of liability found herein.

Yes No

☐ ☐ 10.6.5 Professional Liability/Errors & Omissions Insurance with a limit of liability no less than $1,000,000 per wrongful or negligent act. This coverage shall be maintained for a period of no less than three (3) years after the delivery of goods/services final payment pursuant to this Agreement. Retroactive date, if any, to be no later than the first day of service to the CITY. *(Limit to align with size and scope of the Agreement and exposure inherent with operation/services being performed. For Construction projects: Increase to ten (10) years.)*

Yes No

☐ ☐ 10.6.6 Environmental/Pollution Liability insurance shall be required with a limit of no less than $1,000,000 per wrongful act. Coverage shall include: CONTRACTOR's completed operations, sudden, accidental and gradual pollution conditions. This coverage shall be maintained for a period of no less than the later of three (3) years after the delivery of goods/services or final payment pursuant to this Agreement. Retroactive date, if any, to be no later than the first day of service to the CITY. *(Limit to align with size and scope of the Agreement and exposure inherent with operation/services being performed. For Construction projects: Increase to ten (10) years)*

The City of Pembroke Pines must be shown as an additional insured with respect to this coverage. The CITY's additional insured status shall extend to any coverage beyond the minimum limits of liability found herein.

Yes No

☐ ☐ 10.6.7 Cyber Liability including Network Security and Privacy Liability with a limit of liability no less than $1,000,000 per loss. Coverage shall include liability arising from: theft, dissemination and/or use of confidential information stored or transmitted in electronic form, unauthorized access to, use of, or tampering with computer systems, including hacker attacks or inability of an authorized third party to gain access to your services, including denial of service, and the introduction of a computer virus into, or otherwise causing damage to, a customer's or third person's computer, computer system, network, or similar computer-related property and the data, software and programs thereon. If vendor is collecting credit card information, it shall cover all PCI breach expenses. Coverage is to include the various state monitoring and state required remediation as well as meet the various state notification requirements. This coverage shall be maintained for a period of no less than the later of three (3) years after delivery of goods/services or final payment of the Agreement. Retroactive date, if any, to be no later than the first day of service to the CITY.

The City of Pembroke Pines must be shown as an additional insured with respect to this coverage. The CITY's additional insured status shall extend to any coverage beyond the minimum limits of liability found herein.

Yes No

☐ ☐ 10.6.8 Crime Coverage shall include employee dishonesty, forgery or alteration, and computer fraud in an amount of no less than $1,000,000 per loss. If CONTRACTOR is physically located on CITY's premises, a third-party fidelity coverage extension shall apply.

Yes No

☐ ☐ 10.6.9 Garage Liability & Garage-keepers Legal Liability for those that manage parking lots for the CITY or service CITY vehicles. Coverage must be written on an occurrence basis, with limits of liability no less than $1,000,000 per Occurrence, including products & completed operations. This coverage shall be maintained for a period of no less than the later of three (3) years after the delivery of goods/services or final payment of this Agreement.

The City of Pembroke Pines must be shown as an additional insured with respect to this coverage. The CITY's additional insured status shall extend to any coverage beyond the minimum limits of liability found herein.

Yes No

☐ ☐ 10.6.10 Liquor Liability for those in the business of selling, serving or furnishing of any alcoholic beverages, whether licensed or not, shall carry a limit of liability of no less than $1,000,000 per occurrence. Coverage shall be maintained for the later of three (3) years after the delivery of goods/services or final payment under the Agreement.

The City of Pembroke Pines must be shown as an additional insured with respect to this coverage. The CITY's additional insured status shall extend to any coverage beyond the minimum limits of liability found herein.

Yes No

☐ ☐ 10.6.11 Sexual Abuse & Molestation for any agreement involving a vulnerable population. Limits shall be no less than $500,000 per occurrence. This coverage shall be maintained for a period of no less than the later of three (3) years after the delivery of goods/services or final payment of this Agreement. Retroactive date, if any, to be no later than the first day of service to the CITY. (*Limit to align with size and scope of the Agreement and exposure inherent with operation/services being performed.)*

The City of Pembroke Pines must be shown as an additional insured with respect to this coverage. The CITY's additional insured status shall extend to any coverage beyond the minimum limits of liability found herein.

Yes No

☐ ☐ 10.6.12 Builder's Risk Insurance shall be "All Risk" for one hundred percent (100%) of the completed value of the project that is the subject of this Agreement with a deductible of not more than five percent (5%) for Named Windstorm and $20,000 per claim for all other perils. The Builder's Risk Insurance shall include interests of the CITY, the CONTRACTOR and subcontractors of the project. The CONTRACTOR shall include a separate line item for all costs associated with the Builder's Risk Insurance Coverage for the project. The CITY reserves the right at its sole discretion to utilize the CONTRACTOR's Builder's Risk Insurance or for the CITY to purchase its own Builder's Risk Insurance for the Project. Prior to the CONTRACTOR purchasing the Builder's Risk insurance for the project, the CONTRACTOR shall allow the CITY the opportunity to analyze the CONTRACTOR's coverage and determine who shall purchase the coverage. Should the CITY utilize the CONTRACTOR's Builder's Risk Insurance, the CONTRACTOR shall be responsible for all deductibles. If the CITY chooses to purchase the Builder's Risk Coverage on the project, the CONTRACTOR shall provide the CITY with a change order deduct for all premiums and costs associated with the Builder's Risk insurance in their schedule. Should the CITY choose to utilize the CITY's Builder's Risk Program, the CITY shall be responsible for the Named Windstorm Deductible and the CONTRACTOR shall be responsible for the All Other Perils Deductible.

If and when 100% is not available or reasonable, the CITY Risk Manager is to make the determination as to what limits are appropriate for the given project.

Yes No

☐ ☐ 10.6.13 Other Insurance

_____

_____

_____

_____
_____
_____
_____

10.7 REQUIRED ENDORSEMENTS

10.7.1 The City of Pembroke Pines shall be named as an Additional Insured on each of the Liability Policies required herein.
10.7.2 Waiver of all Rights of Subrogation against the CITY.
10.7.3 Thirty (30) Day Notice of Cancellation or Non-Renewal to the CITY.
10.7.4 CONTRACTOR's policies shall be Primary & Non-Contributory.
10.7.5 All policies shall contain a "severability of interest" or "cross liability" clause without obligation for premium payment of the CITY.
10.7.6 The City of Pembroke Pines shall be named as a Loss Payee on all Property and/or Inland Marine Policies as their interest may appear.

10.8 Any and all insurance required of the CONTRACTOR pursuant to this Agreement must also be required by any subcontractor in the same limits and with all requirements as provided herein, including naming the CITY as an additional insured, in any work that is subcontracted unless such subcontractor is covered by the protection afforded by the CONTRACTOR and provided proof of such coverage is provided to CITY. The CONTRACTOR and any subcontractors shall maintain such policies during the term of this Agreement.

10.9 The CITY reserves the right to require any other additional types of insurance coverage and/or higher limits of liability it deems necessary based on the nature of work being performed under this Agreement.

10.10 The insurance requirements specified in this Agreement are minimum requirements and in no way reduce any liability the CONTRACTOR has assumed in the indemnification/hold harmless section(s) of this Agreement.

ARTICLE 11
NON-DISCRIMINATION & EQUAL OPPORTUNITY EMPLOYMENT

11.1 During the performance of the Agreement, neither the CONTRACTOR nor any subcontractors shall discriminate against any employee or applicant for employment because of race, religion, color, gender, national origin, sex, age, marital status, political affiliation, familial status, sexual orientation, or disability if qualified. CONTRACTOR will take affirmative action to ensure that employees are treated during employment, without regard to their race, religion, color, gender, national origin, sex, age, marital status, political affiliation, familial status, sexual orientation, or disability if qualified. Such actions must include, but not be limited to, the following: employment, promotion, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship. CONTRACTOR shall agree to post in conspicuous places, available to

employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of this nondiscrimination clause. CONTRACTOR further agrees that CONTRACTOR will ensure that subcontractors, if any, will be made aware of and will comply with this nondiscrimination clause.

ARTICLE 12
INDEPENDENT CONTRACTOR

12.1 This Agreement does not create an employee/employer relationship between the Parties. It is the intent of the Parties that the CONTRACTOR is an independent contractor under this Agreement and not the CITY's employee for all purposes, including but not limited to, the application of the Fair Labor Standards Act minimum wage and overtime payments, Federal Insurance Contribution Act, the Social Security Act, the Federal Unemployment Tax Act, the provisions of the Internal Revenue Code, the State Workers' Compensation Act, and the State unemployment insurance law. The CONTRACTOR shall retain sole and absolute discretion in the judgment of the manner and means of carrying out CONTRACTOR's activities and responsibilities hereunder provided, further that administrative procedures applicable to services rendered under this Agreement shall be those of CONTRACTOR, which policies of CONTRACTOR shall not conflict with CITY, State, H.U.D., or United States policies, rules or regulations relating to the use of CONTRACTOR's funds provided for herein. The CONTRACTOR agrees that it is a separate and independent enterprise from the CITY, that it has full opportunity to find other business, that it has made its own investment in its business, and that it will utilize a high level of skill necessary to perform the work. This Agreement shall not be construed as creating any joint employment relationship between the CONTRACTOR and the CITY and the CITY will not be liable for any obligation incurred by CONTRACTOR, including but not limited to unpaid minimum wages and/or overtime premiums.

ARTICLE 13
TERMINATION

13.1 *Termination for Convenience:* This Agreement may be terminated by CITY for convenience, upon **seven (7) business days** of written notice by the CITY to the CONTRACTOR for such termination in which event CONTRACTOR shall be paid its compensation for services performed to termination date, including services reasonably related to termination. In the event that CONTRACTOR abandons this Agreement or causes it to be terminated, CONTRACTOR shall indemnify CITY against loss pertaining to this termination.

13.2 *Default by CONTRACTOR*: In addition to all other remedies available to CITY, this Agreement shall be subject to cancellation by CITY for cause, should CONTRACTOR neglect or fail to perform or observe any of the terms, provisions, conditions, or requirements herein contained, if such neglect or failure shall continue for a period of thirty (30) days after receipt by CONTRACTOR of written notice of such neglect or failure.

ARTICLE 14
AGREEMENT SUBJECT TO FUNDING

14.1 This Agreement shall remain in full force and effect only as long as the expenditures provided for in the Agreement have been appropriated by the City Commission of the City of Pembroke Pines

in the annual budget for each fiscal year of this Agreement, and is subject to termination based on lack of funding.

ARTICLE 15
UNCONTROLLABLE FORCES

15.1 Neither CITY nor CONTRACTOR shall be considered to be in default of this Agreement if delays in or failure of performance shall be due to Uncontrollable Forces, the effect of which, by the exercise of reasonable diligence, the non-performing party could not avoid. The term "Uncontrollable Forces" shall mean any event which results in the prevention or delay of performance by a party of its obligations under this Agreement and which is beyond the reasonable control of the nonperforming party. It includes, but is not limited to fire, flood, earthquakes, storms, lightning, epidemic, war, riot, civil disturbance, sabotage, and governmental actions.

15.2 Neither party shall, however, be excused from performance if nonperformance is due to forces, which are preventable, removable, or remediable, and which the nonperforming party could have, with the exercise of reasonable diligence, prevented, removed, or remedied with reasonable dispatch. The nonperforming party shall, within a reasonable time of being prevented or delayed from performance by an uncontrollable force, give written notice to the other party describing the circumstances and uncontrollable forces preventing continued performance of the obligations of this Agreement.

ARTICLE 16
GOVERNING LAW AND VENUE

16.1 This Agreement shall be governed by and construed in accordance with the laws of the State of Florida as now and hereafter in force. The venue for any and all actions or claims arising out of or related to this Agreement shall be in Broward County, Florida.

ARTICLE 17
SIGNATORY AUTHORITY

17.1 CONTRACTOR shall provide CITY with copies of requisite documentation evidencing that the signator for CONTRACTOR has the authority to enter into this Agreement.

ARTICLE 18
DEFAULT OF CONTRACT & REMEDIES

18.1.1 **Damages.** CITY reserves the right to recover any ascertainable actual damages incurred as a result of the failure of CONTRACTOR to perform in accordance with the requirements of this Agreement, or for losses sustained by CITY resultant from CONTRACTOR's failure to perform in accordance with the requirements of this Agreement.

18.1.2 **Liquidated Damages.** As a breach of the service provided by this Agreement would cause serious and substantial damage to CITY Property, and the nature of this Agreement would render it impracticable or extremely difficult to fix the actual damage sustained by CITY by such breach, it is agreed that, in case of breach of service wherein CONTRACTOR fails to maintain the

Property, leaving the said property in disrepair, CITY may elect to collect liquidated damages for each such breach, and CONTRACTOR will pay CITY as liquidated damages, and not as penalty, **«LiquidatedDamagesAmountWritten»** ($**«LiquidatedDamagesAmount$»**) for every day of such malfunction. This sum is the agreed upon amount by which CITY will be damaged by the breach of such service. An election to seek such remedies shall not be construed as a waiver of any legal remedies CITY may have as to any subsequent breach of service under this Agreement.

18.1.3 **Correction of Work.** If, in the judgment of CITY, work provided by CONTRACTOR does not conform to the requirements of this Agreement, or if the work exhibits poor workmanship, CITY reserves the right to require that CONTRACTOR correct all deficiencies in the work to bring the work into conformance without additional cost to CITY, and / or replace any personnel who fail to perform in accordance with the requirements of this Agreement. CITY shall be the sole judge of non-conformance and the quality of workmanship.

18.2 **Default of Contract.** The occurrence of any one or more of the following events shall constitute a default and breach of this Agreement by CONTRACTOR:

18.2.1. The abandonment of the Property by CONTRACTOR for a period of more than seven (7) business days.

18.2.2 The abandonment, unnecessary delay, refusal of, or failure to comply with any of the terms of this Agreement or neglect, or refusal to comply with the instructions of the Public Services Director relative thereto.

18.2.3. The failure by CONTRACTOR to observe or perform any of the terms, covenants, or conditions of this Agreement to be observed or performed by CONTRACTOR, where such failure shall continue for a period of seven (7) days after written notice thereof by CITY to CONTRACTOR; provided, however, that if the nature of CONTRACTOR's default is such that more than seven (7) days are reasonably required for its cure, then CONTRACTOR shall not be deemed to be in default if CONTRACTOR commences such cure within said seven (7) day period and thereafter diligently prosecutes such cure to completion.

18.2.4. The assignment and/or transfer of this Agreement or execution or attachment thereon by CONTRACTOR or any other party in a manner not expressly permitted hereunder.

18.2.5. The making by CONTRACTOR of any general assignment or general arrangement for the benefit of creditors, or the filing by or against CONTRACTOR of a petition to have CONTRACTOR adjudged a bankruptcy, or a petition for reorganization or arrangement under any law relating to bankruptcy (unless, in the case of a petition filed against CONTRACTOR, the same is dismissed within sixty (60) days); or the appointment of a trustee or a receiver to take possession of substantially all of CONTRACTOR's assets, or for CONTRACTOR's interest in this Agreement, where possession is not restored to CONTRACTOR within thirty (30) days; for attachment, execution or other judicial seizure of substantially all of CONTRACTOR's assets, or for CONTRACTOR's interest in this Agreement, where such seizure is not discharged within thirty (30) days.

18.3 **Remedies in Default.** In case of default by CONTRACTOR, CITY shall notify CONTRACTOR, in writing, of such abandonment, delay, refusal, failure, neglect, or default and direct CONTRACTOR to comply with all provisions of the Agreement. A copy of such written notice shall be mailed to the Surety on the Performance Bond. If the abandonment, delay, refusal, failure, neglect or default is not cured within seven (7) days of when notice was sent by CITY, CITY may declare a default of the Agreement and notify CONTRACTOR of such declaration of default and terminate the Agreement. The Surety on the Performance Bond shall within ten (10) days of such declaration of default, rectify or cause to be rectified any mismanagement or breach of service in the Agreement and assume the work of CONTRACTOR and proceed to perform services under the Agreement, at its own cost and expense.

18.3.1. Upon such declaration of default, all payments remaining due CONTRACTOR at the time of default, less all sums due CITY for damages suffered, or expenses incurred by reason of default, shall be due and payable to Surety. Thereafter the Surety shall receive monthly payments equal to those that would have been paid by the CONTRACTOR had the CONTRACTOR continued to perform the services under the Agreement.

18.3.2. CITY may complete the Agreement, or any part thereof, either by day labor or re-letting a contract for the same, and procure the equipment and the facilities necessary for the completion of the Agreement, and charge the cost of same to CONTRACTOR and/or the Surety together with the costs incident thereto to such default.

18.3.3. In the event CITY completes the Agreement at a lesser cost than would have been payable to CONTRACTOR under this Agreement, if the same had been fulfilled by CONTRACTOR, CITY shall retain such differences. Should such cost to CITY be greater, CONTRACTOR shall pay the amount of such excess to the CITY.

18.3.4 Notwithstanding the other provisions in this Article, CITY reserves the right to terminate the Agreement at any time, whenever the service provided by CONTRACTOR fails to meet reasonable standards of the trade after CITY gives written notice to the CONTRACTOR of the deficiencies as set forth in the written notice within fourteen calendar (14) days of the receipt by CONTRACTOR of such notice from CITY.

ARTICLE 19
BANKRUPTCY

19.1 It is agreed that if CONTRACTOR is adjudged bankrupt, either voluntarily or involuntarily, then this Agreement shall terminate effective on the date and at the time the bankruptcy petition is filed.

ARTICLE 20
MERGER; AMENDMENT

20.1 This Agreement constitutes the entire Agreement between CONTRACTOR and CITY, and all negotiations and oral understandings between the Parties are merged herein. This Agreement can be supplemented or amended only by a written document executed by both CONTRACTOR and

CITY with the same formality and equal dignity herewith.

ARTICLE 21
DISPUTE RESOLUTION

21.1 **Arbitration.** In addition to any other remedy provided hereunder, CITY, at its option, may use arbitration to resolve any controversy or claim arising out of or relating to this Agreement if arbitration is elected by CITY. Any controversy or claim arising out of or relating to this Agreement, or breach thereof, may be settled by arbitration in accordance with the rules of the American Arbitration Association and judgment upon the award rendered by the arbitrators may be entered into by any court having jurisdiction thereof. In the event arbitration is elected by CITY, such controversy or claim shall be submitted to one arbitrator selected from the National Panel of The American Arbitration Association.

21.2 **Operations During Dispute.**

21.2.1 In the event that a dispute, if any, arises between CITY and CONTRACTOR relating to this Agreement, performance or compensation hereunder, CONTRACTOR shall continue to render service in full compliance with all terms and conditions of this Agreement as interpreted by CITY regardless of such dispute.

21.2.2 CONTRACTOR expressly recognizes the paramount right and duty of CITY to provide adequate maintenance of CITY's Property, and further agrees, in consideration for the execution of this Agreement, that in the event of such a dispute, if any, it will not seek injunctive relief in any court, but will negotiate with CITY for an adjustment on the matter or matters in dispute and, upon failure of said negotiations to resolve the dispute, may present the matter to a court of competent jurisdiction in an appropriate suit therefore instituted by it or by CITY.

ARTICLE 22
PUBLIC RECORDS

22.1 The City of Pembroke Pines is public agency subject to Chapter 119, Florida Statutes. The CONTRACTOR shall comply with Florida's Public Records Law. Specifically, the CONTRACTOR shall:

22.1.1 Keep and maintain public records required by the CITY to perform the service;

22.1.2 Upon request from the CITY's custodian of public records, provide the CITY with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in Chapter 119, Fla. Stat., or as otherwise provided by law;

22.1.3 Ensure that public records that are exempt or that are confidential and exempt from public record disclosure requirements are not disclosed except as authorized by law for the duration of the Agreement term and, following completion of the Agreement, CONTRACTOR shall destroy all copies of such confidential and exempt records remaining

in its possession after the CONTRACTOR transfers the records in its possession to the CITY; and

22.1.4 Upon completion of the Agreement, CONTRACTOR shall transfer to the CITY, at no cost to the CITY, all public records in CONTRACTOR's possession. All records stored electronically by the CONTRACTOR must be provided to the CITY, upon request from the CITY's custodian of public records, in a format that is compatible with the information technology systems of the CITY.

22.2 The failure of CONTRACTOR to comply with the provisions set forth in this Article shall constitute a Default and Breach of this Agreement and the CITY shall enforce the Default in accordance with the provisions set forth in **Article 18** of this Agreement.

IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS AGREEMENT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT:

CITY CLERK
601 CITY CENTER WAY, 4th FLOOR
PEMBROKE PINES, FL 33025
(954) 450-1050
mgraham@ppines.com

ARTICLE 23
MISCELLANEOUS

23.1 **Ownership of Documents.** Reports, surveys, studies, and other data provided in connection with this Agreement are and shall remain the property of CITY, whether or not the project for which they are made is completed.

23.2 **Legal Representation.** It is acknowledged that each party to this agreement had the opportunity to be represented by counsel in the preparation of this Agreement, and accordingly, the rule that a contract shall be interpreted strictly against the party preparing same shall not apply herein due to the joint contributions of both parties.

23.3 **Records.** CONTRACTOR shall keep such records and accounts and require any and all subcontractors to keep records and accounts as may be necessary in order to record complete and correct entries as to personnel hours charged to this engagement, and any expenses for which CONTRACTOR expects to be reimbursed. Such books and records will be available at all reasonable times for examination and audit by CITY and shall be kept for a period of ten (10) years after the completion of all work to be performed pursuant to this Agreement. Incomplete or incorrect entries

in such books and records will be grounds for disallowance by CITY of any fees or expenses based upon such entries.

23.4 **Assignments; Amendments.** This Agreement, and any interests herein, shall not be assigned, transferred or otherwise encumbered, under any circumstances, by CONTRACTOR without the prior written consent of CITY. For purposes of this Agreement, any change of ownership of CONTRACTOR shall constitute an assignment which requires CITY approval. However, this Agreement shall run to the benefit of CITY and its successors and assigns.

23.5 **No Contingent Fees.** CONTRACTOR warrants that it has not employed or retained any company or person, other than a bona fide employee working solely for CONTRACTOR to solicit or secure this Agreement, and that it has not paid or agreed to pay any person, company, corporation, individual or firm, other than a bona fide employee working solely for CONTRACTOR any fee, commission, percentage, gift, or other consideration contingent upon or resulting from the award or making of this Agreement. For the breach or violation of this provision, CITY shall have the right to terminate the Agreement without liability at its discretion, to deduct from the contract price, or otherwise recover the full amount of such fee, commission, percentage, gift or consideration.

23.6 **Notice.** Whenever any party desires to give notice unto any other party, it must be given by written notice, sent by certified United States mail, with return receipt requested, addressed to the party for whom it is intended and the remaining party, at the places last specified, and the places for giving of notice shall remain such until they shall have been changed by written notice in compliance with the provisions of this section. For the present, CONTRACTOR and CITY designate the following as the respective places for giving of notice:

CITY
Charles F. Dodge, City Manager
City of Pembroke Pines
601 City Center Way
Pembroke Pines, Florida 33025
Telephone No. (954) 450-1040

Copy To:
Samuel S. Goren, City Attorney
Goren, Cherof, Doody & Ezrol, P.A.
3099 East Commercial Boulevard, Suite 200
Fort Lauderdale, Florida 33308
Telephone No. (954) 771-4500
Facsimile No. (954) 771-4923

CONTRACTOR
«Vendor_Contact_Title»
«Vendor_Name»
«Vendor_Address_Line_1»
«Vendor_Address_Line_2»
E-mail: **«Vendor_Email»**
Telephone No: **«Vendor_Phone_Number»**
Cell phone No: **«Vendor_Cell_Number»**
Facsimile No: **«Vendor_Fax_Number»**

23.7 **Binding Authority.** Each person signing this Agreement on behalf of either party individually warrants that he or she has full legal power to execute this Agreement on behalf of the party for whom he or she is signing, and to bind and obligate such party with respect to all provisions contained in this Agreement.

23.8 **Headings.** Headings herein are for the convenience of reference only and shall not be considered in any interpretation of this Agreement.

23.9 **Exhibits.** Each exhibit referred to in this Agreement forms an essential part of this Agreement. The exhibits if not physically attached should be treated as part of this Agreement and are incorporated herein by reference.

23.10 **Severability.** If any provision of this Agreement or application thereof to any person or situation shall to any extent, be held invalid or unenforceable, the remainder of this Agreement, and the application of such provisions to persons or situations other than those as to which it shall have been held invalid or unenforceable, shall not be affected thereby, and shall continue in full force and effect, and be enforced to the fullest extent permitted by law.

23.11 **Extent of Agreement.** This Agreement represents the entire and integrated agreement between CITY and CONTRACTOR and supersedes all prior negotiations, representations or agreements, either written or oral.

23.12 **Waiver.** Failure of CITY to insist upon strict performance of any provision or condition of this Agreement, or to execute any right therein contained, shall not be construed as a waiver or relinquishment for the future of any such provision, condition, or right, but the same shall remain in full force and effect.

23.13 **Attorneys' Fees.** In the event that either party brings suit for enforcement of this Agreement, each party shall bear its own attorney's fees and court costs, except as otherwise provided under the indemnification provisions set forth herein above.

23.14 **Protection of City Property.** At all times during the performance of this Agreement, CONTRACTOR shall protect CITY's property from all damage whatsoever on account of the work being carried on under this Agreement.

23.15 **Counterparts and Execution.** This Agreement may be executed in multiple originals or counterparts, each of which shall be deemed to be an original and together shall constitute one and the same agreement. Execution and delivery of this Agreement by the Parties shall be legally binding, valid and effective upon delivery of the executed documents to the other party through facsimile transmission, email, or other electronic delivery.

23.16 **Compliance with Statutes**: It shall be the CONTRACTOR's responsibility to be aware of and comply with all statutes, ordinances, rules, orders, regulations and requirements of all local, city, state, and federal agencies as applicable.

23.17 **Scrutinized Companies.** CONTRACTOR, its principals or owners, certify that they are not listed on the Scrutinized Companies that Boycott Israel List, Scrutinized Companies with Activities in Sudan List, Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, or is engaged in business operations with Syria. In accordance with Section 287.135, Florida Statutes, as amended, a company is ineligible to, and may not, bid on, submit a proposal for, or enter into or renew a contract with any agency or local governmental entity for goods or services if:

23.16.1 Any amount of, at the time bidding on, submitting a proposal for, or entering into or renewing such contract, the company is on the Scrutinized Companies that Boycott Israel List, created pursuant to Section 215.4725, Florida Statutes or is engaged in a boycott of Israel; or

23.16.2 One million dollars or more if, at the time of bidding on, submitting a proposal for, or entering into or renewing such contract, the company:

23.16.2.1 Is on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, created pursuant to Section 215.473, Florida Statutes; or

23.16.2.2 Is engaged in business operations in Syria.

23.18 **Domestic Partnership.**

23.18.1 CONTRACTOR certifies that it is aware of the requirements of Section 35.39 of the CITY's Code of Ordinances and certifies that (**check only one box below)**:

- □ CONTRACTOR currently complies with the requirements of Section 35.39 of the CITY's Code of Ordinances; or
- □ CONTRACTOR will comply with the conditions of Section 35.39 of the CITY's Code of Ordinances; or
- □ CONTRACTOR will not comply with the conditions of Section 35.39 of the CITY's Code of Ordinances; or
- □ CONTRACTOR does not comply with the conditions of Section 35.39 of the CITY's Code of Ordinances because of the following allowable exemption **(check only box below)**:

  - □ CONTRACTOR does not provide benefits to employees' spouses in traditional marriages; or
  - □ CONTRACTOR provides an employee the cash equivalent of benefits because CONTRACTOR is unable to provide benefits to employees' Domestic Partners or spouses despite making reasonable efforts to provide them. To meet this exception, CONTRACTOR shall provide a notarized

affidavit that it has made reasonable efforts to provide such benefits. The affidavit shall state the efforts taken to provide such benefits and the amount of the cash equivalent. Case equivalent means the amount of money paid to an employee with a Domestic Partner or spouse rather than providing benefits to the employee's Domestic Partner or spouse. The case equivalent is equal to the employer's direct expense of providing benefits to an employee's spouse; or

- ☐ CONTRACTOR is a religious organization, association, society, or any non-profit charitable or educational institution or organization operated, supervised, or controlled by or in conjunction with a religious organization, association, or society; or
- ☐ CONTRACTOR is a governmental agency.

23.18.2 Except where federal or state law mandates to the contrary, a contractor awarded a contract pursuant to a competitive solicitation shall provide benefits to Domestic Partners and spouses of its employees, irrespective of gender, on the same basis as it provides benefits to employees' spouses in traditional marriages.

23.18.3 CONTRACTOR shall provide the City Manager and his/her designee, access to its records for the purpose of audits and/or investigations to ascertain compliance with the provisions of this Article, and upon request shall provide evidence that the CONTRACTOR is in compliance with the provisions of this Article upon the renewal of this AGREEMENT or when the City Manager or his/her designee receives a complaint or has reason to believe CONTRACTOR may not be in compliance with the provisions of this Article. Records shall include but not be limited to providing the City Manager and his/her designee with certified copies of CONTRACTOR's records pertaining to its benefits policies and its employment policies and practices.

23.18.4 CONTRACTOR must conspicuously make available to all employees and applicants for employment the following statement:

> **"During the performance of a contract with the City of Pembroke Pines, Florida, the CONTRACTOR will provide Equal Benefits to its employees with spouses, as defined by Section 35.39 of the City of Pembroke Pines Code of Ordinances, and its employees with Domestic Partners and all Married Couples".**

23.18.5 By executing this Agreement, CONTRACTOR certifies that it agrees to comply with the above and Section 35.39 of the City of Pembroke Pines Code of Ordinances, as may be amended from time to time.

THE REMAINDER OF THIS PAGE

HAS BEEN INTENTIONALLY LEFT BLANK

IN WITNESS OF THE FOREGOING, the Parties have set their hands and seals the day and year first written above.

CITY:

CITY OF PEMBROKE PINES, FLORIDA

ATTEST:

_____ By: _____
MARLENE D. GRAHAM, CITY CLERK CHARLES F. DODGE, CITY MANAGER

APPROVED AS TO FORM:

_____

Name: _____
OFFICE OF THE CITY ATTORNEY

CONTRACTOR:

«Vendor_Name_Upper_Case»

By: _____
Name: _____
Title: _____

STATE OF _____)
COUNTY OF _____)

BEFORE ME, an officer duly authorized by law to administer oaths and take acknowledgments, personally appeared _____ as _____ of **«Vendor_Name_Upper_Case»**, a company authorized to conduct business in the State of Florida, and acknowledged execution of the foregoing Agreement as the proper official of **«Vendor_Name_Upper_Case»** for the use and purposes mentioned in it and affixed the official seal of the corporation, and that the instrument is the act and deed of that corporation.

IN WITNESS OF THE FOREGOING, I have set my hand and official seal at in the State and County aforesaid on this _____day of _____, **2020**.

_____
NOTARY PUBLIC

_____
(Name of Notary Typed, Printed or Stamped)

FINAL/PARTIAL RELEASE OF LIEN

KNOW ALL MEN BY THESE PRESENTS:

That the undersigned, for and in consideration of the payment of the sum of $ **[Payment Amount]** and other valuable consideration, paid by **City of Pembroke Pines**, receipt of which is hereby acknowledge, hereby releases and quit claims to the said **[Contractor Name]** its successors and assigns, and

City of Pembroke Pines

The owner, all liens, lien rights, claims and demands of any kind whatsoever, which the undersigned now has or might have against the building on premises legally described as:

[Description]
PO #: [PO #] **Invoice #: [Invoice #]**

On account of labor performed and/or material furnished for the construction of any improvements thereon. That all labor and materials used by the undersigned in the erection of said improvements have been fully paid for:

Witnesses:

CONTRACTOR
[NAME OF CONTRACTOR]

_____ BY: _____

_____ Print Name: _____
Print Name

_____ Title: _____

_____
Print Name

STATE OF FLORIDA)
) ss:
COUNTY OF BROWARD)

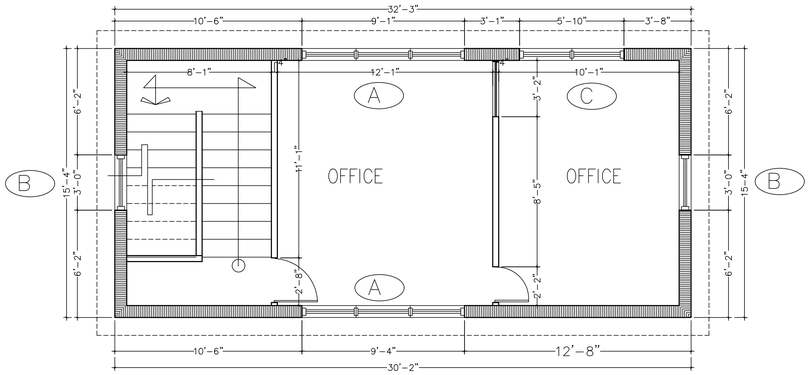
ON THIS _____ day of _____, 20_____, before me, the undersigned notary public, personally appeared **[Contractor's Representative]** as **[Job Title]** of **[Name of Contractor]**, personally known to me, or who has produced _____ as identification, and is the person who subscribed to the foregoing instrument and who acknowledged that (s)he executed the same and that (s)he was duly authorized to do so.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

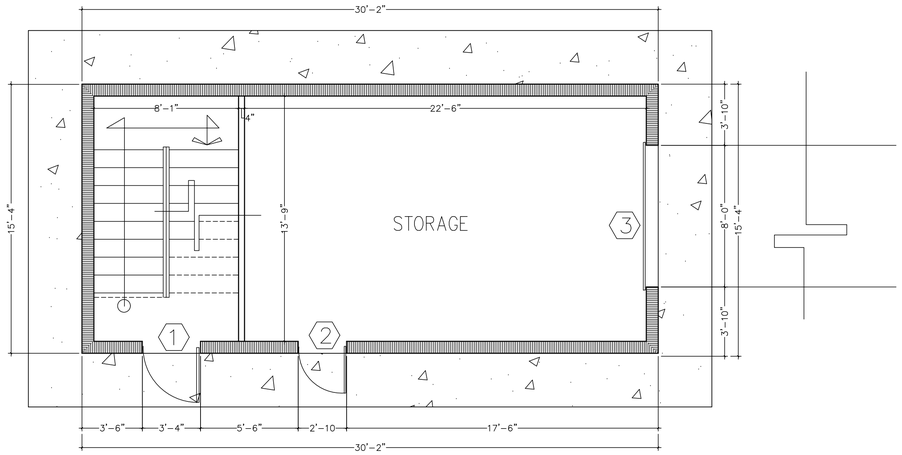
_____
NOTARY PUBLIC

_____
Print or Type Name

My Commission Expires:

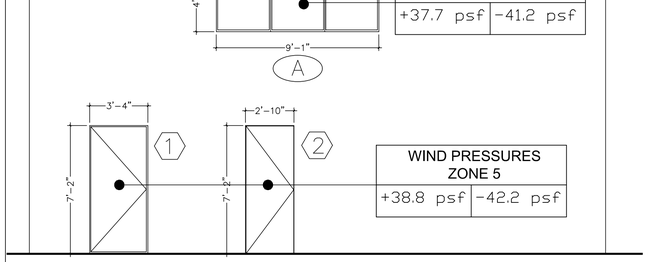


2ND FLOOR FLOOR PLAN SCALE: 1/4"=1'-0"

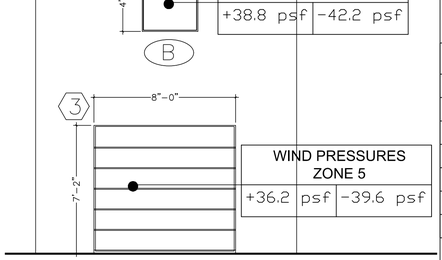


1ST FLOOR FLOOR PLAN SCALE: 1/4"=1'-0"

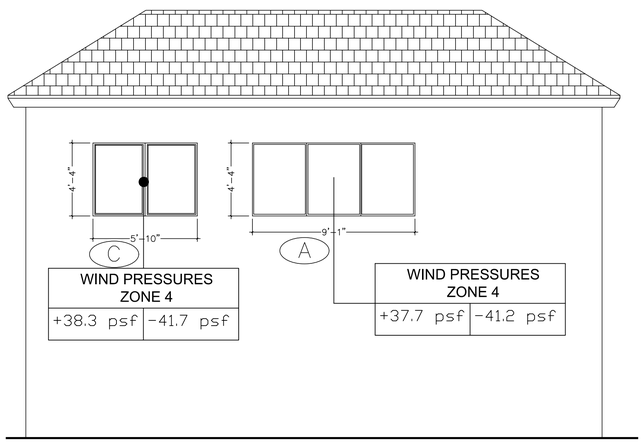
4 PLANS
SCALE: 1/4" = 1' - 0"



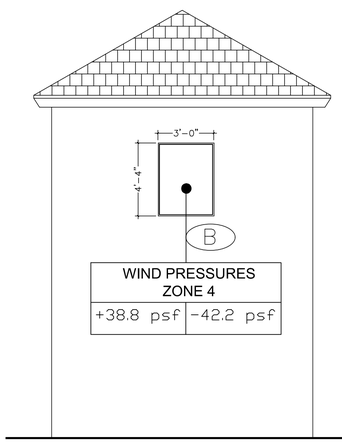
SOUTH ELEVATION SCALE: 1/4"=1'-0"



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



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



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

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

MARK	DIMENSIONS		FRAME		TYPE	HARDWARE	DESIGN PRESSURES P(ASD)			PROD. APPROV	ENERGY		NOTES
	DOOR	FRAME					POSITIVE	NEGATIVE	CORNER				
			MATERIAL	COLOR			P+ =	P- =	P- =		U VALUE	SGHC	
1	3'-0" X 7'-0"	3'-4" X 7'-2"	ALUM/GLASS	TBD	SINGLE SWING	TYPE #1	38.8	42.2		FL # 20701.5	1.0	0.50	FROSTED INTERLAYER
2	2'-6" X 7'-0"	2'-10" X 7'-2"	STEEL	TBD	SINGLE SWING	TYPE #1	38.8	42.2		NOA # 22-0427.01	1.0	0.50	
3	8'-0" X 7'-0"	N/A	STEEL	TBD	ROLL-UP	BAR SLIDE LATCH	36.2	39.6		FL # 14444.2	N/A	N/A	

HARDWARE TYPE #1:

MORTISE LOCKSET WITH DEADBOLT FUNCTION, THRESHOLD CLEAR ANODIZED ALUMINUM - ADA COMPLIANT - WATER INFILTRATION RESISTANT.

2 DOOR SCHEDULE

WIND LOADS
ASCE 7 - 16
V (ULTIMATE) = 170 MPH
V (ASD) =132.6 MPH
EXPOSURE = C
a = 3FT (CORNER)
ALL PRESSURES BASED ON V (ASD)

MARK	DIMENSIONS		FRAME		GLASS		TYPE	DESIGN PRESSURES P(ASD)			PROD. APPROV	ENERGY		NOTES
	W	H						POSITIVE	NEGATIVE	CORNER				
			MATERIAL	COLOR	IMPACT	TINT		P+ =	P- =	P- =		U VALUE	SGHC	
A	112"	52"	ALUMINUM	TBD	YES	TBD	FIXED	37.7	41.2		FL # 40528	1.0	0.50	MULLIONS REQ.
B	36"	52"	ALUMINUM	TBD	YES	TBD	FIXED	38.3	41.7		FL # 40528	1.0	0.50	
C	72"	52"	ALUMINUM	TBD	YES	TBD	FIXED	38.8	42.2		FL # 40528	N/A	N/A	MULLION REQ.

1 WINDOW SCHEDULE

SynalovskiRomanikSaye
Architecture • Planning • Interior Design

1800 Eller Drive, Suite 500
Fort Lauderdale, FL 33316

T 954.961.6806
F 954.961.6807

www.synalovski.com

Manuel Synalovski, AIA
ACTIVE 2020
STATE SEAL FLORIDA
MANUEL SYNALOVSKI
AR0011628
REGISTERED ARCHITECT
LICENSE NO. AA26001863

PEMBROKE PINES WINDOWS AND DOORS REPLACEMENT

7401 PINES BLVD
PEMBROKE PINES, FL

CLIENT: CITY OF PEMBROKE PINES

REV	DATE	DESCRIPTION

DESIGN DELIVERABLE: **PERMIT SET**

ISSUE DATE: **12/01/2023**

PROJECT NUMBER: **1500-230227**

DRAWN BY: ML

CHECKED BY: MS

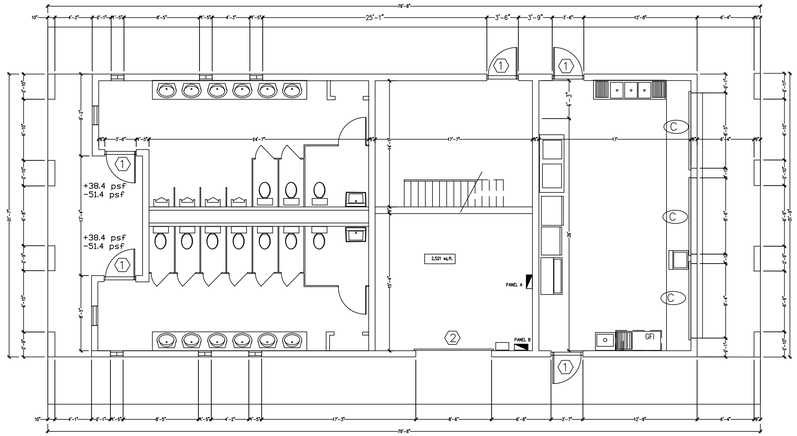
Copyright (c) by SYNALOVSKI ROMANIK SAYE, LLC
All Rights Reserved.

SHEET TITLE:

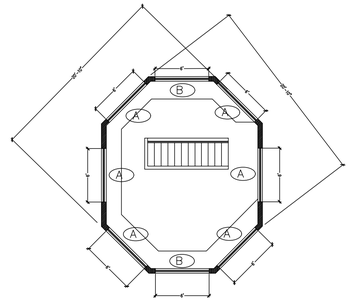
PINES RECREATION PARK - FOOTBALL BUILDING WINDOW AND DOOR RETROFIT

SHEET NUMBER:

A-101

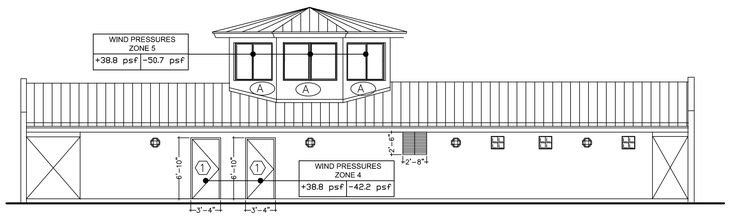


1ST FLOOR PLAN

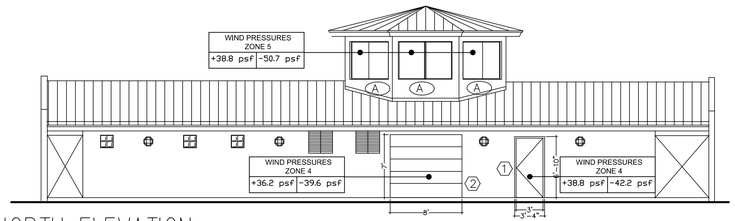


2ND FLOOR PLAN

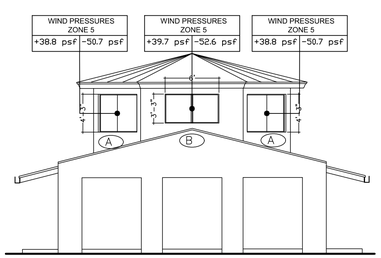
4 PLANS
SCALE: 1/8" = 1' - 0"



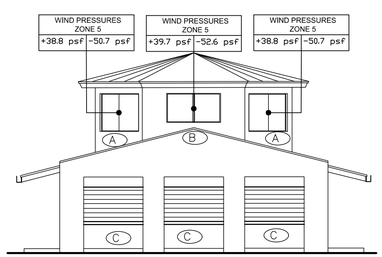
SOUTH ELEVATION



NORTH ELEVATION



EAST ELEVATION



WEST ELEVATION

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

MARK	DIMENSIONS DOOR	DIMENSIONS FRAME	FRAME MATERIAL	FRAME COLOR	TYPE	HARDWARE	DESIGN PRESSURES P(ASD) POSITIVE P+ =	DESIGN PRESSURES P(ASD) NEGATIVE P- =	DESIGN PRESSURES P(ASD) CORNER P- =	PROD. APPROV	ENERGY U VALUE	ENERGY SGHC	NOTES
1	3'-0" X 6'-8"	40" X 82"	ALUM/GLASS	TBD	SINGLE SWING	TYPE #1	38.8	42.2	51.4	FL # 20701.5	1.0	0.50	FROSTED INTERLAYER
2	8'-0" X 7'-0"	N/A	STEEL	TBD	ROLL-UP	SLIDE LATCH	36.2	39.6	N/A	FL # 14444.2	N/A	N/A	

HARDWARE TYPE #1:

3-POINT HOOKBOLT MORTISE LOCK, PUSH/PULL BAR (SFD 5010T/B BY DELTA SYSTEMS), THRESHOLD CLEAR ANODIZED ALUMINUM - ADA COMPLIANT - WATER INFILTRATION RESISTANT.

2 DOOR SCHEDULE

WIND LOADS
ASCE 7 - 10
V (ULTIMATE) = XXX MPH
V (ASD) = XXX MPH
EXPOSURE = C
a = 6FT (CORNER)
ALL PRESSURES BASED ON V (ASD)

MARK	DIMENSIONS W	DIMENSIONS H	FRAME MATERIAL	FRAME COLOR	GLASS IMPACT	GLASS TINT	TYPE	DESIGN PRESSURES P(ASD) POSITIVE P+ =	DESIGN PRESSURES P(ASD) NEGATIVE P- =	DESIGN PRESSURES P(ASD) CORNER P- =	PROD. APPROV	ENERGY U VALUE	ENERGY SGHC	NOTES
A	72"	42"	ALUMINUM	TBD	YES	TBD	FIXED	38.8	N/A	50.7	FL # 40528	1.0	0.50	MULLION REQ.
B	72"	34"	ALUMINUM	TBD	YES	TBD	FIXED	39.7	N/A	50.7	FL # 40528	1.0	0.50	MULLION REQ.
C	96"	44"	ALUMINUM	TBD	N/A	N/A	ROLL-UP				FL # 22558.1	N/A	N/A	

1 WINDOW SCHEDULE

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PEMBROKE PINES WINDOWS AND DOORS REPLACEMENT

7200 PINES BLVD
PEMBROKE PINES, FL

CLIENT: CITY OF PEMBROKE PINES

REV	DATE	DESCRIPTION

DESIGN DELIVERABLE: **PERMIT SET**

ISSUE DATE: **12/01/2023**

PROJECT NUMBER: **1500-230227**

DRAWN BY: ML

CHECKED BY: MS

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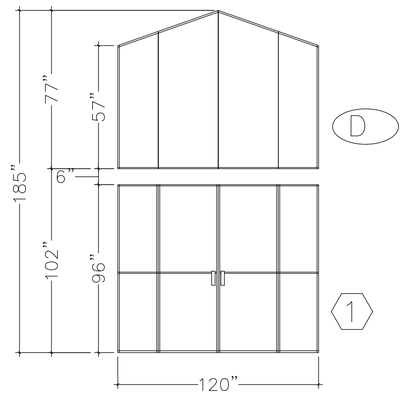
SHEET TITLE:

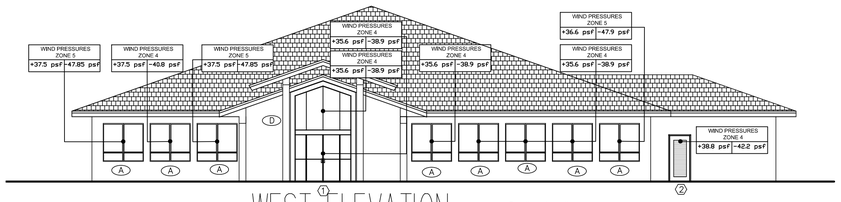
PINES RECREATION PARK - BCC BUILDING WINDOW AND DOOR RETROFIT

SHEET NUMBER:

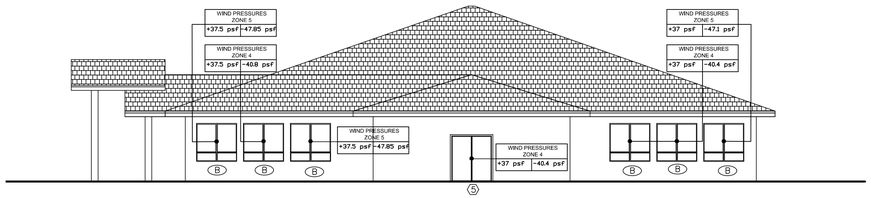
A-101



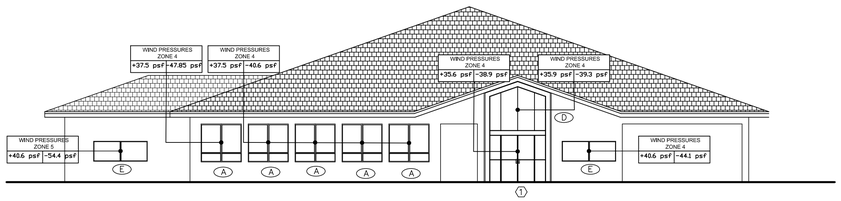
4 DETAIL



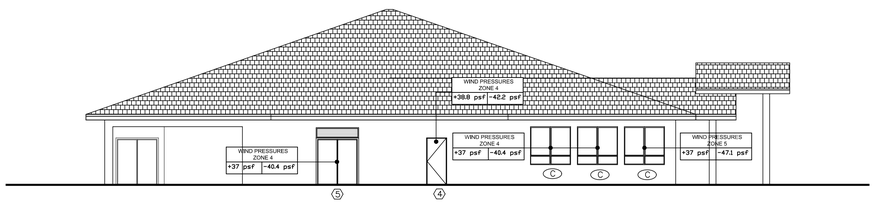
WEST ELEVATION SCALE: 3/32"=1'-0"



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

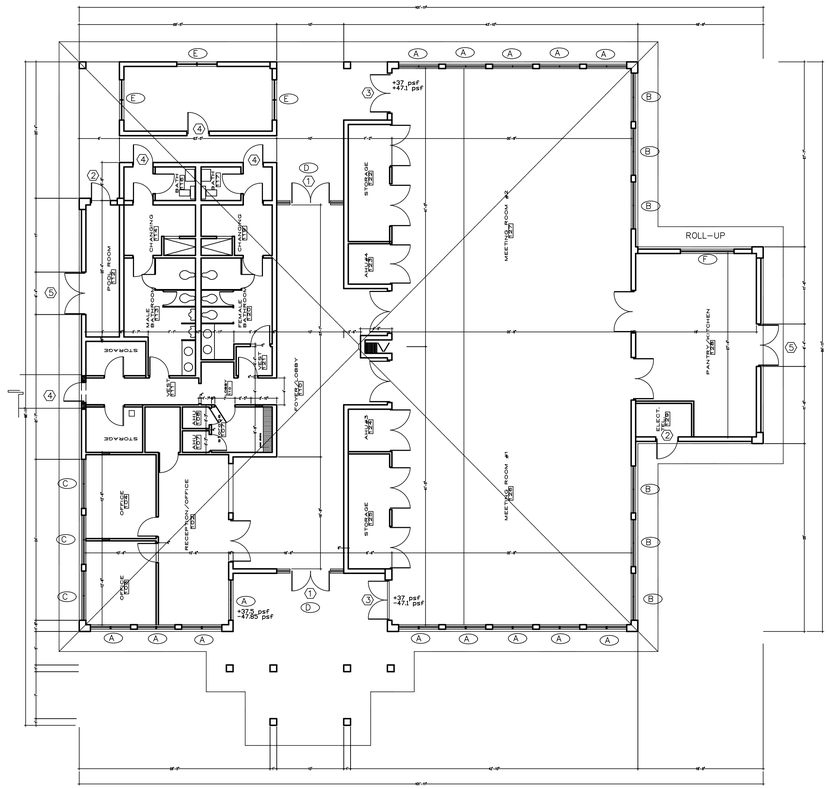


EAST ELEVATION SCALE: 3/32"=1'-0"



NORTH ELEVATION

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



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

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

MARK	DIMENSIONS DOOR	DIMENSIONS FRAME	FRAME MATERIAL	FRAME COLOR	TYPE	HARDWARE	DESIGN PRESSURES P(ASD) POSITIVE P+ =	DESIGN PRESSURES P(ASD) NEGATIVE P- =	DESIGN PRESSURES P(ASD) CORNER P- =	PROD. APPROV	ENERGY U VALUE	ENERGY SGHC	NOTES
1	6'-0" X 8'-0"	10'-0" X 8'-0"	ALUM/GLASS	TBD	DOUBLE SWING	TYPE #1	35.6	38.9	N/A	FL # 20701.5	1.0	0.50	W/ SIDE LIGHTS
2	3'-0" X 6'-8"	3'-4" X 6'-10"	STEEL	TBD	SINGLE SWING	TYPE #2	38.8	42.2	N/A	NOA # 22-0427.01	1.0	0.50	
3	6'-0" X 8'-0"	6'-4" X 8'-0"	ALUM/GLASS	TBD	DOUBLE SWING	TYPE #1	37.0	N/A	47.1	FL # 20701.5	1.0	0.50	
4	3'-0" X 6'-8"	3'-4" X 6'-10"	ALUM/GLASS	TBD	SINGLE SWING	TYPE #2	38.8	42.2	N/A	FL # 20701.5	1.0	0.50	FROSTED INTERLAYER
5	6'-0" X 6'-8"	6'-4" X 6'-10"	METAL	TBD	DOUBLE SWING	TYPE #2	37.0	40.4	N/A	NOA # 22-0427.01	1.0	0.50	LOUVER ABOVE

HARDWARE TYPE #1:

PANIC HARDWARE, THRESHOLD CLEAR ANODIZED ALUMINUM - ADA COMPLIANT - WATER INFILTRATION RESISTANT.

HARDWARE TYPE #2:

MORTISE LOCK WITH DEADBOLT, THRESHOLD CLEAR ANODIZED ALUMINUM - ADA COMPLIANT - WATER INFILTRATION RESISTANT (WHERE APPLICABLE).

2 DOOR SCHEDULE

WIND LOADS
ASCE 7 - 16
V (ULTIMATE) = 170 MPH
V (ASD) = 132.6 MPH
EXPOSURE = C
a = 8FT (CORNER)
ALL PRESSURES BASED ON V (ASD)

MARK	DIMENSIONS W	DIMENSIONS H	FRAME MATERIAL	FRAME COLOR	GLASS IMPACT	GLASS TINT	TYPE	DESIGN PRESSURES P(ASD) POSITIVE P+ =	DESIGN PRESSURES P(ASD) NEGATIVE P- =	DESIGN PRESSURES P(ASD) CORNER P- =	PROD. APPROV	ENERGY U VALUE	ENERGY SGHC	NOTES
A	72"	72"	ALUMINUM	TBD	YES	TBD	FIXED	37.5	40.8	47.85	FL # 19002.1	1.0	0.50	MULLIONS TO MATCH EXISTING
B	83"	72"	ALUMINUM	TBD	YES	TBD	FIXED	37.0	40.4	47.1	FL # 19002.1	1.0	0.50	MULLIONS TO MATCH EXISTING
C	88"	72"	ALUMINUM	TBD	YES	TBD	FIXED	37.0	40.4	47.1	FL # 19002.1	1.0	0.50	MULLIONS TO MATCH EXISTING
D	77"	120"	ALUMINUM	TBD	YES	TBD	FIXED	35.9	39.3	N/A	FL # 19002.1	1.0	0.50	MULLIONS TO MATCH EXISTING
E	92"	36"	ALUMINUM	TBD	YES	TBD	FIXED	40.6	44.1	54.4	FL # 19002.1	1.0	0.50	
F	92"	36"	ALUMINUM	TBD	YES	TBD	ROLL-UP	40.6	44.1	54.4	FL # 22558.1	N/A	N/A	

1 WINDOW SCHEDULE

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LICENSE NO. AA26001863

PEMBROKE PINES WINDOWS AND DOORS REPLACEMENT

901 NW 208TH AVE
PEMBROKE PINES, FL

CLIENT: CITY OF PEMBROKE PINES

REV	DATE	DESCRIPTION

DESIGN
DELIVERABLE: **PERMIT SET**

ISSUE DATE: **12/01/2023**

PROJECT NUMBER: **1500-230227**

DRAWN BY: ML

CHECKED BY: MS

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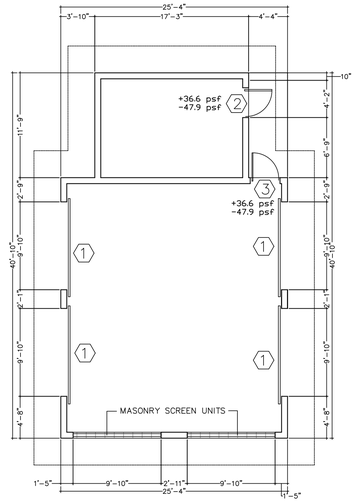
SHEET TITLE:

ROSE G. PARK CLUB BUILDING WINDOW AND DOOR RETROFIT

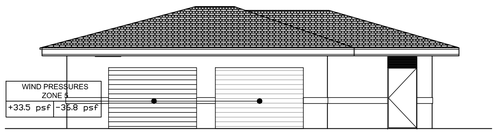
SHEET NUMBER:

A-101

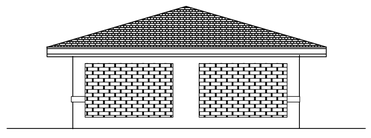


FLOOR PLAN SCALE:1/8"=1'-0"

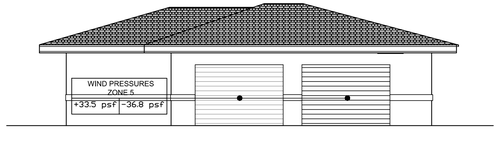
4 PLANS
SCALE: 1/8" = 1' - 0"



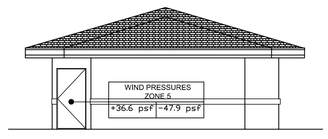
SOUTH ELEVATION SCALE:1/8"=1'-0"



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



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



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

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

WIND LOADS
ASCE 7 - 16
V (ULTIMATE) = 170 MPH
V (ASD) = 132.6 MPH
EXPOSURE = C
a = 3FT (CORNER)
ALL PRESSURES BASED ON V (ASD)

MARK	DIMENSIONS		FRAME		TYPE	HARDWARE	DESIGN PRESSURES P(ASD)			PROD. APPROV	ENERGY		NOTES
	DOOR	FRAME	MATERIAL	COLOR			POSITIVE	NEGATIVE	CORNER				
							P+ =	P- =	P- =		U VALUE	SGHC	
1	9'-10" X 7'-1"	N/A	STEEL	TBD	ROLL UP	BAR SLIDE LATCH	33.5	N/A	36.8	FL # 14444.2	N/A	N/A	
2	3'-0" X 7'-10"	3'-4" X 8'-0"	METAL	TBD	SINGLE SWING	TYPE #1	36.6	N/A	47.9	NOA # 22-0427.01	1.0	0.50	
3	3'-0" X 6'-8"	3'-4" X 6'-10"	METAL	TBD	SINGLE SWING	TYPE #1	36.6	N/A	47.9	NOA # 22-0427.01	1.0	0.50	

HARDWARE TYPE #1:

MORTISE LOCKSET WITH DEADBOLT
FUNCTION, THRESHOLD CLEAR
ANODIZED ALUMINUM - ADA
COMPLIANT - WATER INFILTRATION
RESISTANT.

2 DOOR SCHEDULE

1 NOT USED

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PEMBROKE PINES WINDOWS AND DOORS REPLACEMENT

901 NW 208TH AVE
PEMBROKE PINES, FL

CLIENT: CITY OF PEMBROKE PINES

REV	DATE	DESCRIPTION

DESIGN
DELIVERABLE: **PERMIT SET**
ISSUE DATE: **12/01/2023**

PROJECT NUMBER: **1500-230227**
DRAWN BY: ML
CHECKED BY: MS

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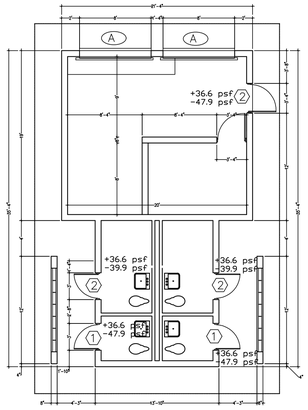
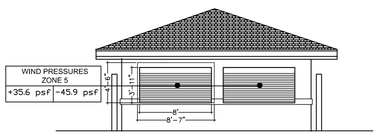
SHEET TITLE:
ROSE G. PRICE PARK STOARGE BUILDING WINDOW AND DOOR RETROFIT

SHEET NUMBER:
A-101

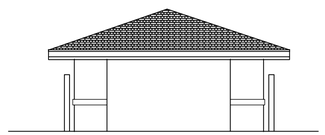


FLOOR PLAN SCALE:1/8"=1'-0"

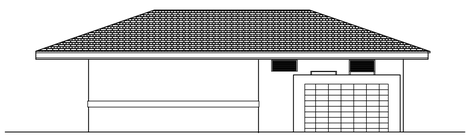
4 PLANS
SCALE: 1/8" = 1' - 0"



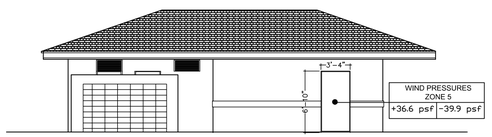
SOUTH ELEVATION SCALE:1/8"=1'-0"



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



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



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

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

MARK	DIMENSIONS		FRAME		TYPE	HARDWARE	DESIGN PRESSURES P(ASD)			PROD. APPROV	ENERGY		NOTES
	DOOR	FRAME					POSITIVE	NEGATIVE	CORNER				
			MATERIAL	COLOR			P+ =	P- =	P- =		U VALUE	SGHC	
1	2'-8" X 6'-8"	2'-10" X 6'-10"	ALUM/GLASS	TBD	SINGLE SWING	TYPE #1	36,6	39.9	47,9	FL # 20701,5	1.0	0.50	FROSTED INTERLAYER
2	3'-0" X 6'-8"	3'-4" X 6'-10"	ALUM/GLASS	TBD	SINGLE SWING	TYPE #1	36,6	39.9	47,9	FL # 20701,5	1.0	0.50	FROSTED INTERLAYER

HARDWARE TYPE #1:

3-POINT HOOKBOLT MORTISE LOCK, PUSH/PULL BAR (SFD 5010T/B BY DELTA SYSTEMS), THRESHOLD CLEAR ANODIZED ALUMINUM - ADA COMPLIANT - WATER INFILTRATION RESISTANT.

2 DOOR SCHEDULE

WIND LOADS
ASCE 7 - 16
V (ULTIMATE) = 170 MPH
V (ASD) = 132,6 MPH
EXPOSURE = C
a = 3FT (CORNER)
ALL PRESSURES BASED ON V (ASD)

MARK	DIMENSIONS		FRAME		GLASS		TYPE	DESIGN PRESSURES P(ASD)			PROD. APPROV	ENERGY		NOTES
	W	H						POSITIVE	NEGATIVE	CORNER				
			MATERIAL	COLOR	IMPACT	TINT		P+ =	P- =	P- =		U VALUE	SGHC	
A	105"	54"	ALUMINUM	TBD	YES	TBD	FIXED	35.6	N/A	45,9	FL # 22558.1	1.0	0.50	

1 WINDOW SCHEDULE

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PEMBROKE PINES WINDOWS AND DOORS REPLACEMENT

901 NW 208TH AVE
PEMBROKE PINES, FL

CLIENT: CITY OF PEMBROKE PINES

REV	DATE	DESCRIPTION

DESIGN DELIVERABLE: **PERMIT SET**

ISSUE DATE: **12/01/2023**

PROJECT NUMBER: **1500-230227**

DRAWN BY: ML

CHECKED BY: MS

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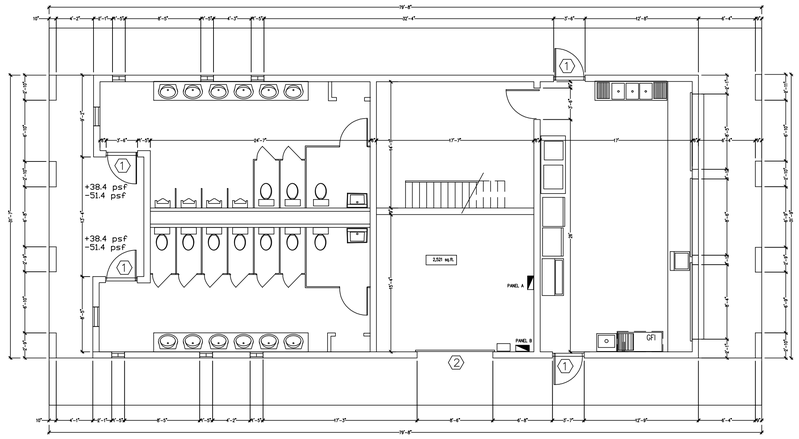
SHEET TITLE:

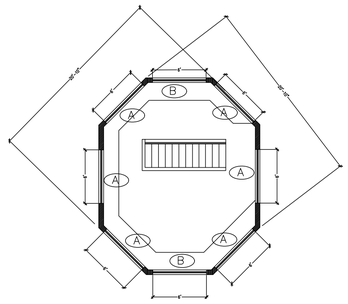
ROSE G. PRICE PARK RESTROOM BUILDING WINDOW AND DOOR RETROFIT

SHEET NUMBER:

A-101

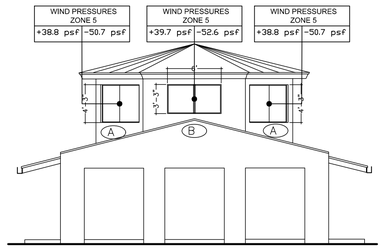


2ND FLOOR PLAN SCALE:⅛"=1'-0"

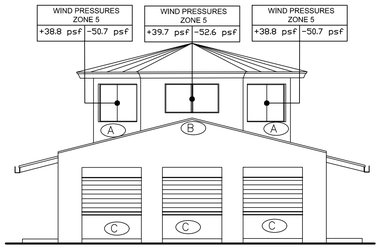


2ND FLOOR PLAN SCALE:⅛"=1'-0"

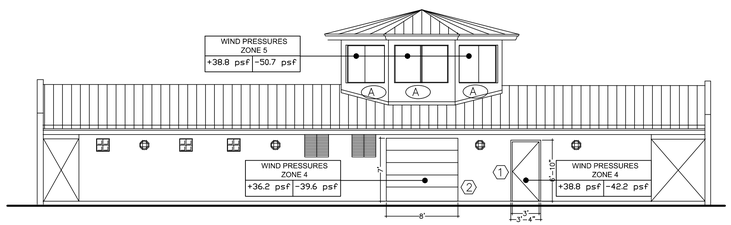
4 PLANS
SCALE: 1/8" = 1' - 0"



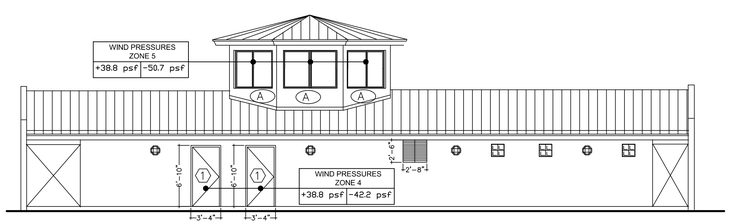
EAST ELEVATION SCALE:⅛"=1'-0"



WEST ELEVATION SCALE:⅛"=1'-0"



NORTH ELEVATION SCALE:⅛"=1'-0"



SOUTH ELEVATION SCALE:⅛"=1'-0"

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

MARK	DIMENSIONS DOOR	DIMENSIONS FRAME	FRAME MATERIAL	FRAME COLOR	TYPE	HARDWARE	DESIGN PRESSURES P(ASD) POSITIVE P+ =	DESIGN PRESSURES P(ASD) NEGATIVE P- =	DESIGN PRESSURES P(ASD) CORNER P- =	PROD. APPROV	ENERGY U VALUE	ENERGY SGHC	NOTES
1	3'-0" X 6'-8"	40" X 82"	ALUM/GLASS	TBD	SINGLE SWING	TYPE #1	38.8	42.2	51.4	FL # 20701.5	1.0	0.50	FROSTED INTERLAYER
2	8'-0" X 7'-0"	N/A	STEEL	TBD	ROLL-UP	SLIDE LATCH	36.2	39.6	N/A	FL # 14444.2	N/A	N/A	

HARDWARE TYPE #1:

3-POINT HOOKBOLT MORTISE LOCK,
PUSH/PULL BAR (SFD 5010T/B BY
DELTA SYSTEMS), THRESHOLD CLEAR
ANODIZED ALUMINUM - ADA
COMPLIANT - WATER INFILTRATION
RESISTANT.

2 DOOR SCHEDULE

WIND LOADS
ASCE 7 - 16
V (ULTIMATE) = 170 MPH
V (ASD) = 132.6 MPH
EXPOSURE = C
a = 3.5FT (CORNER)
ALL PRESSURES BASED ON V (ASD)

MARK	DIMENSIONS W	DIMENSIONS H	FRAME MATERIAL	FRAME COLOR	GLASS IMPACT	GLASS TINT	TYPE	DESIGN PRESSURES P(ASD) POSITIVE P+ =	DESIGN PRESSURES P(ASD) NEGATIVE P- =	DESIGN PRESSURES P(ASD) CORNER P- =	PROD. APPROV	ENERGY U VALUE	ENERGY SGHC	NOTES
A	72"	42"	ALUMINUM	TBD	YES	TBD	FIXED	38.8	N/A	50.7	FL # 40528	1.0	0.50	MULLION REQ.
B	72"	34"	ALUMINUM	TBD	YES	TBD	FIXED	39.7	N/A	50.7	FL # 40528	1.0	0.50	MULLION REQ.
C	96"	44"	ALUMINUM	TBD	N/A	N/A	ROLL-UP				FL # 22558.1	N/A	N/A	

1 WINDOW SCHEDULE

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REGISTERED ARCHITECT
LICENSE NO. AA26001863

PEMBROKE PINES WINDOWS AND DOORS REPLACEMENT

501 SW 172ND AVE
PEMBROKE PINES, FL

CLIENT: CITY OF PEMBROKE PINES

REV	DATE	DESCRIPTION

DESIGN
DELIVERABLE: **PERMIT SET**
ISSUE DATE: **12/01/2023**

PROJECT NUMBER: **1500-230227**
DRAWN BY: **ML**
CHECKED BY: **MS**

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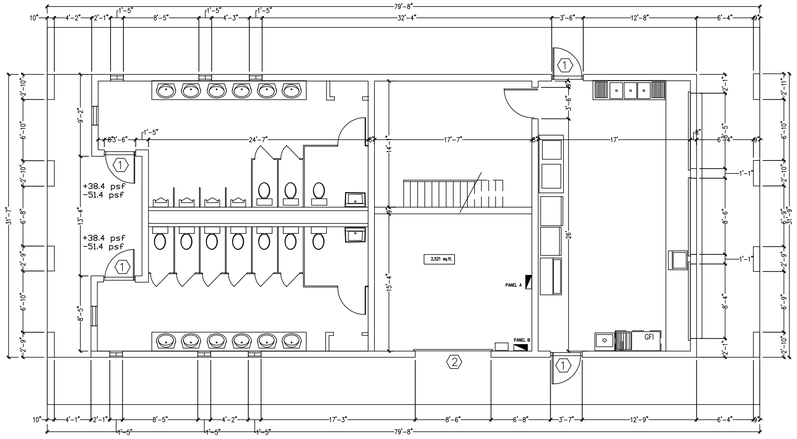
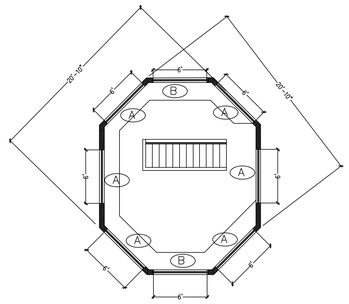
SHEET TITLE:
PEMBROKE SHORES NORTH CONSESSION BUILDING WINDOW AND DOOR RETROFIT

SHEET NUMBER:
A-101

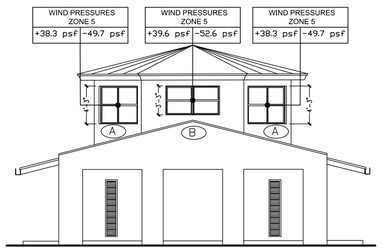


1ST FLOOR PLAN SCALE:⅛"=1'-0"

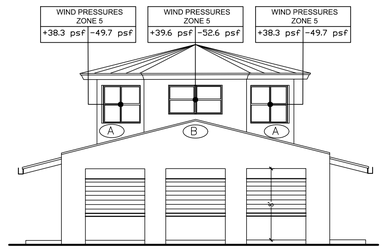


2ND FLOOR PLAN SCALE:⅛"=1'-0"

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

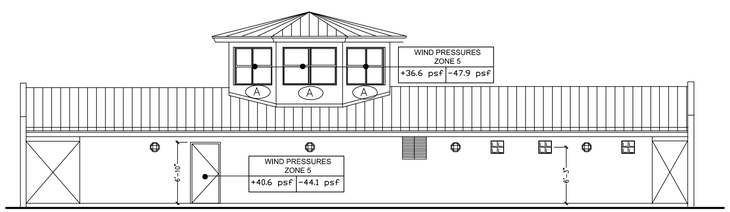


EAST ELEVATION SCALE:⅛"=1'-0"



SOUTH ELEVATION SCALE:⅛"=1'-0"

NORTH ELEVATION SCALE:⅛"=1'-0"



SOUTH ELEVATION SCALE:⅛"=1'-0"

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

1 WINDOW SCHEDULE

MARK	DIMENSIONS		FRAME		TYPE	HARDWARE	DESIGN PRESSURES P(ASD)			PROD. APPROV	ENERGY		NOTES
	DOOR	FRAME					POSITIVE	NEGATIVE	CORNER				
			MATERIAL	COLOR			P+ =	P- =	P- =		U VALUE	SGHC	
1	3'-0" X 6'-8"	40" X 82"	ALUM/GLASS	TBD	SINGLE SWING	TYPE #1	38.8	42.2	51.4	FL # 20701.5	1.0	0.50	FROSTED INTERLAYER
2	8'-0" X 7'-0"	N/A	STEEL	TBD	ROLL-UP	SLIDE LATCH	36.2	39.6	N/A	FL # 14444.2	N/A	N/A	

HARDWARE TYPE #1:

3-POINT HOOKBOLT MORTISE LOCK, PUSH/PULL BAR (SFD 5010T/B BY DELTA SYSTEMS), THRESHOLD CLEAR ANODIZED ALUMINUM - ADA COMPLIANT - WATER INFILTRATION RESISTANT.

2 DOOR SCHEDULE

WIND LOADS
ASCE 7 - 16
V (ULTIMATE) = 170 MPH
V (ASD) = 132.6 MPH
EXPOSURE = C
a = 3.5FT (CORNER)
ALL PRESSURES BASED ON V (ASD)

MARK	DIMENSIONS		FRAME		GLASS		TYPE	DESIGN PRESSURES P(ASD)			PROD. APPROV	ENERGY		NOTES
	W	H						POSITIVE	NEGATIVE	CORNER				
			MATERIAL	COLOR	IMPACT	TINT		P+ =	P- =	P- =		U VALUE	SGHC	
A	72"	42"	ALUMINUM	TBD	YES	TBD	FIXED	38.8	N/A	50.7	FL # 40528	1.0	0.50	MULLION REQ.
B	72"	34"	ALUMINUM	TBD	YES	TBD	FIXED	39.7	N/A	50.7	FL # 40528	1.0	0.50	MULLION REQ.
C	96"	44"	ALUMINUM	TBD	N/A	N/A	ROLL-UP				FL # 22558.1	N/A	N/A	

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STATE OF FLORIDA
MANUEL SYNALOVSKI
REGISTERED ARCHITECT
LICENSE NO. AA26001863

PEMBROKE PINES WINDOWS AND DOORS REPLACEMENT

701 SW 172ND AVE
PEMBROKE PINES, FL

CLIENT: CITY OF PEMBROKE PINES

REV	DATE	DESCRIPTION

DESIGN DELIVERABLE: **PERMIT SET**

ISSUE DATE: **12/01/2023**

PROJECT NUMBER: **1500-230227**

DRAWN BY: ML

CHECKED BY: MS

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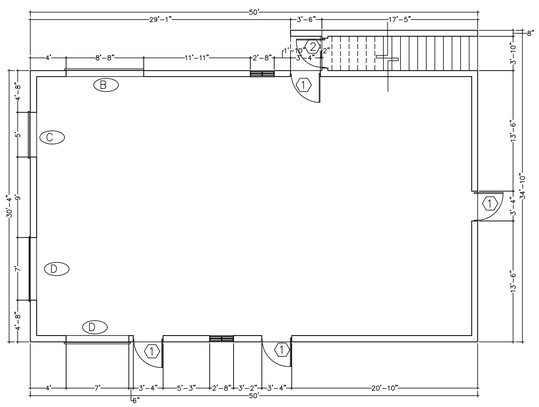
SHEET TITLE:

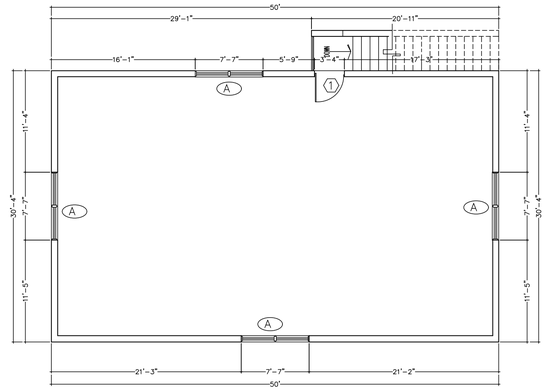
PEMBROKE SHORES SOUTH CONSESSION BUILDING WINDOW AND DOOR RETROFIT

SHEET NUMBER:

A-101

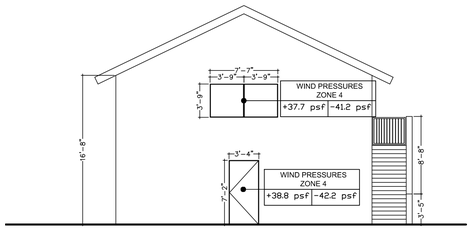


1st FLOOR FLOOR PLAN SCALE:1/8"=1'-0"

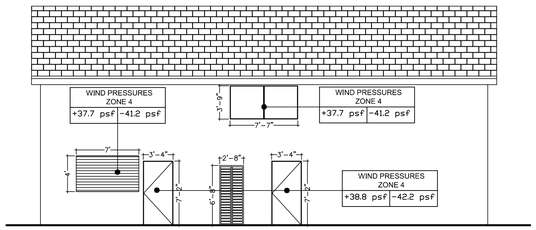


2nd FLOOR FLOOR PLAN SCALE:1/8"=1'-0"

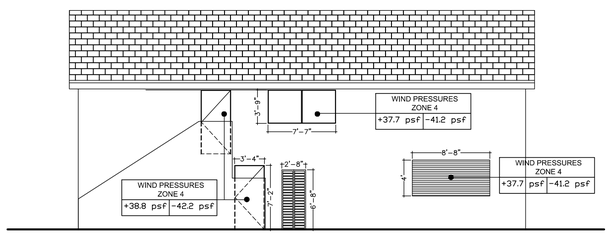
4 PLANS
SCALE: 1/8" = 1' - 0"



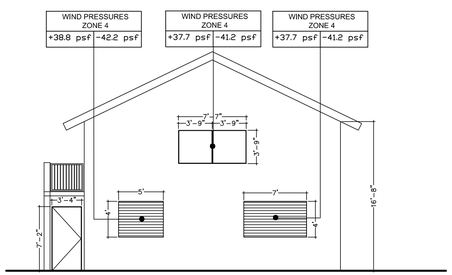
WEST ELEVATION SCALE:1/8"=1'-0"



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



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



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

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

MARK	DIMENSIONS		FRAME		TYPE	HARDWARE	DESIGN PRESSURES P(ASD)			PROD. APPROV	ENERGY		NOTES
	DOOR	FRAME					POSITIVE	NEGATIVE	CORNER				
			MATERIAL	COLOR			P+ =	P- =	P- =		U VALUE	SGHC	
1	3'-0" X 6'-8"	40" X 82"	ALUM/GLASS	TBD	SINGLE SWING	TYPE #1	38.8	42.2		FL # 20701.5	1.0	0.50	
2	3'-0" X 6'-8"	40" X 82"	STEEL	TBD	SINGLE SWING	TYPE #1	38.8	42.2		NOA # 22-0427.01	1.0	0.50	

HARDWARE TYPE #1:

3-POINT HOOKBOLT MORTISE LOCK,
PUSH/PULL BAR (SFD 5010T/B BY
DELTA SYSTEMS), THRESHOLD CLEAR
ANODIZED ALUMINUM - ADA
COMPLIANT - WATER INFILTRATION
RESISTANT.

2 DOOR SCHEDULE

WIND LOADS
ASCE 7 - 16
V (ULTIMATE) = 170 MPH
V (ASD) = 132.6 MPH
EXPOSURE = C
a = 3FT (CORNER)
ALL PRESSURES BASED ON V (ASD)

MARK	DIMENSIONS		FRAME		GLASS		TYPE	DESIGN PRESSURES P(ASD)			PROD. APPROV	ENERGY		NOTES
	W	H						POSITIVE	NEGATIVE	CORNER				
			MATERIAL	COLOR	IMPACT	TINT		P+ =	P- =	P- =		U VALUE	SGHC	
A	96"	48"	ALUMINUM	TBD	YES	TBD	FIXED	37.7	41.2		FL # 40528	1.0	0.50	MULLION REQ.
B	104"	48"	ALUMINUM	TBD	YES	TBD	ROLL UP	37.7	41.2		FL # 22558.1	1.0	0.50	
C	60"	48"	ALUMINUM	TBD	YES	TBD	ROLL UP	38.8	42.2		FL # 22558.1	N/A	N/A	
D	84"	48"	ALUMINUM	TBD	YES	TBD	ROLL UP	37.7	41.2		FL # 22558.1	N/A	N/A	

1 WINDOW SCHEDULE

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STATE OF FLORIDA
MANUEL SYNALOVSKI
AR0011628
REGISTERED ARCHITECT

LICENSE NO. AA26001863

PEMBROKE PINES WINDOWS AND DOORS REPLACEMENT

7900 JOHNSON ST
PEMBROKE PINES, FL

CLIENT: CITY OF PEMBROKE PINES

REV	DATE	DESCRIPTION

DESIGN DELIVERABLE: **PERMIT SET**

ISSUE DATE: **12/01/2023**

PROJECT NUMBER: **1500-230227**

DRAWN BY: ML

CHECKED BY: MS

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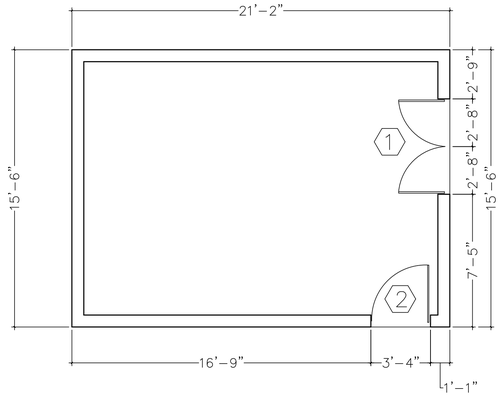
SHEET TITLE:

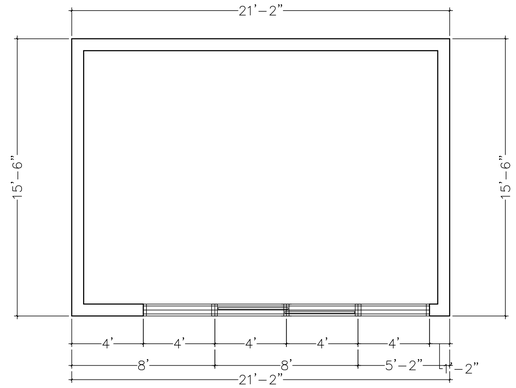
FLECHER PARK BASEBALL BUILDING WINDOW AND DOOR RETROFIT

SHEET NUMBER:

A-101

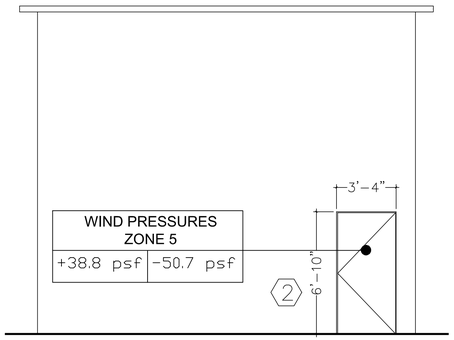


1st FLOOR PLAN SCALE:1/4"=1'-0"

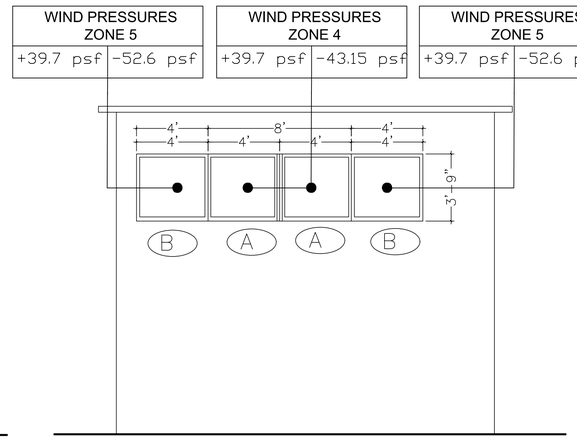


2nd FLOOR PLAN SCALE:1/4"=1'-0"

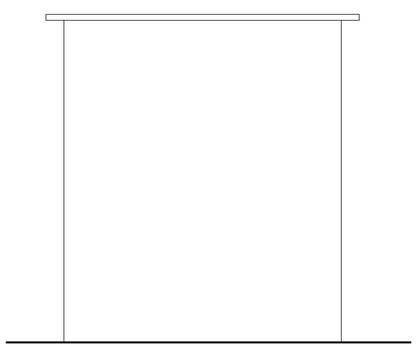
4 PLANS
SCALE: 1/4" = 1' - 0"



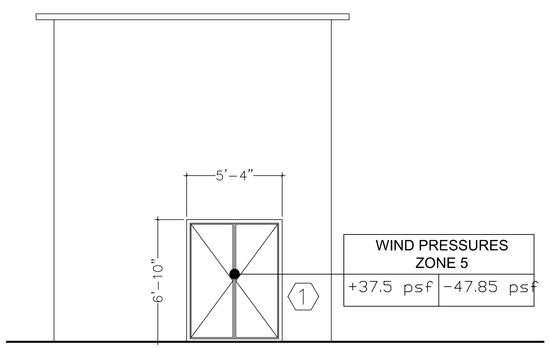
SOUTH EAST ELEVATION SCALE:1/4"=1'-0"



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



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



NORTH EAST ELEVATION SCALE:1/4"=1'-0"

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

1 WINDOW SCHEDULE

MARK	DIMENSIONS		FRAME		TYPE	HARDWARE	DESIGN PRESSURES P(ASD)			PROD. APPROV	ENERGY		NOTES
	DOOR	FRAME					POSITIVE	NEGATIVE	CORNER				
			MATERIAL	COLOR			P+ =	P- =	P- =		U VALUE	SGHC	
1	3'-0" X 6'-8"	40" X 82"	METAL	TBD	DOUBLE	TYPE #1	38.8	N/A	50.7	NOA # 22-0427.01	1.0	0.50	
2	5'-0" X 6'-8"	5'-4" X 6'-10"	METAL	TBD	SINGLE	TYPE #1	37.5	N/A	47.9	NOA # 22-0427.01	1.0	0.50	

HARDWARE TYPE #1:

MORTISE LOCK WITH DEADBOLT, PUSH/PULL BAR (SFD 5010T/B BY DELTA SYSTEMS), THRESHOLD CLEAR ANODIZED ALUMINUM - ADA COMPLIANT - WATER INFILTRATION RESISTANT.

2 DOOR SCHEDULE

WIND LOADS
ASCE 7 - 16
V (ULTIMATE) = 170 MPH
V (ASD) = 132.6 MPH
EXPOSURE = C
a = 3FT (CORNER)
ALL PRESSURES BASED ON V (ASD)

MARK	DIMENSIONS		FRAME		GLASS		TYPE	DESIGN PRESSURES P(ASD)			PROD. APPROV	ENERGY		NOTES
	W	H						POSITIVE	NEGATIVE	CORNER				
			MATERIAL	COLOR	IMPACT	TINT		P+ =	P- =	P- =		U VALUE	SGHC	
A	48"	45"	ALUMINUM	TBD	YES	TBD	FIXED	39.7	43.2	52.6	FL # 40528	1.0	0.50	MULLION REQ.
B	48"	45"	ALUMINUM	TBD	YES	TBD	FIXED	39.7	43.2	52.6	FL # 40528	1.0	0.50	MULLION REQ.

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REGISTERED ARCHITECT

LICENSE NO. AA26001863

PEMBROKE PINES WINDOWS AND DOORS REPLACEMENT

1900 NW 122ND TERR
PEMBROKE PINES, FL

CLIENT: CITY OF PEMBROKE PINES

REV	DATE	DESCRIPTION

DESIGN DELIVERABLE: **PERMIT SET**

ISSUE DATE: **12/01/2023**

PROJECT NUMBER: **1500-230227**

DRAWN BY: ML

CHECKED BY: MS

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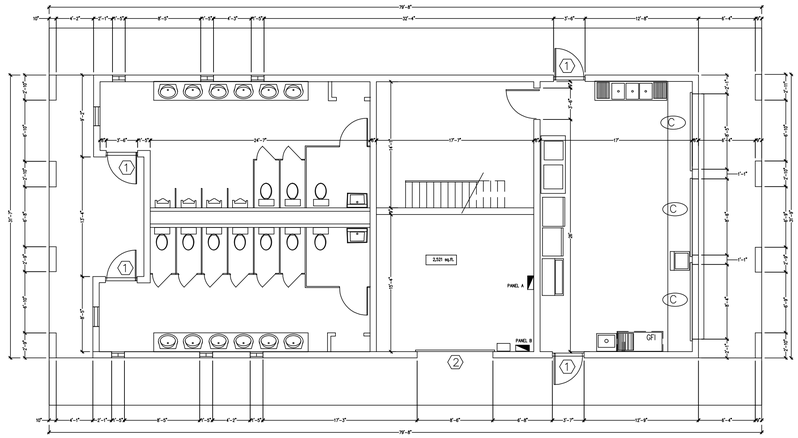
SHEET TITLE:

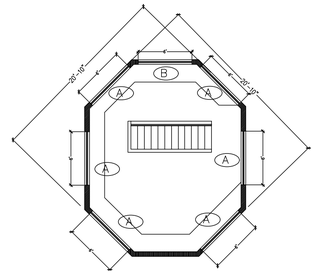
FLAMINGO PARK STORAGE BUILDING WINDOW AND DOOR RETROFIT

SHEET NUMBER:

A-101

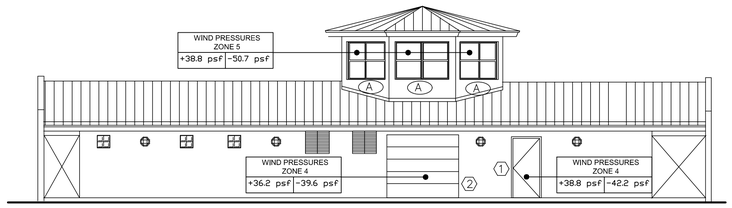


1ST FLOOR PLAN SCALE:1/8"=1'-0"

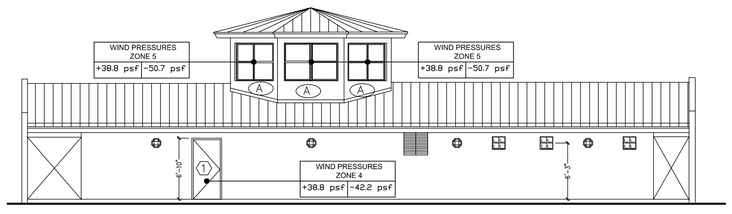


2ND FLOOR PLAN SCALE:1/8"=1'-0"

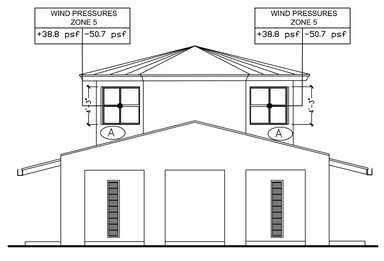
4 PLANS
SCALE: 1/8" = 1' - 0"



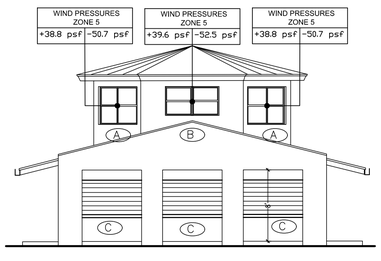
WEST ELEVATION SCALE:1/8"=1'-0"



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



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



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

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

MARK	DIMENSIONS DOOR	DIMENSIONS FRAME	FRAME MATERIAL	FRAME COLOR	TYPE	HARDWARE	DESIGN PRESSURES P(ASD) POSITIVE P+ =	DESIGN PRESSURES P(ASD) NEGATIVE P- =	DESIGN PRESSURES P(ASD) CORNER P- =	PROD. APPROV	ENERGY U VALUE	ENERGY SGHC	NOTES
1	3'-0" X 6'-8"	40" X 82"	ALUM/GLASS	TBD	SINGLE SWING	TYPE #1	38.8	42.2	51.4	FL # 20701.5	1.0	0.50	FROSTED INTERLAYER
2	8'-0" X 7'-0"	N/A	STEEL	TBD	ROLL-UP	SLIDE LATCH	36.2	39.6	N/A	FL # 14444.2	N/A	N/A	

HARDWARE TYPE #1:

3-POINT HOOKBOLT MORTISE LOCK, PUSH/PULL BAR (SFD 5010T/B BY DELTA SYSTEMS), THRESHOLD CLEAR ANODIZED ALUMINUM - ADA COMPLIANT - WATER INFILTRATION RESISTANT.

2 DOOR SCHEDULE

WIND LOADS
ASCE 7 - 16
V (ULTIMATE) = 170 MPH
V (ASD) = 132.6 MPH
EXPOSURE = C
a = 3FT (CORNER)
ALL PRESSURES BASED ON V (ASD)

MARK	DIMENSIONS W	DIMENSIONS H	FRAME MATERIAL	FRAME COLOR	GLASS IMPACT	GLASS TINT	TYPE	DESIGN PRESSURES P(ASD) POSITIVE P+ =	DESIGN PRESSURES P(ASD) NEGATIVE P- =	DESIGN PRESSURES P(ASD) CORNER P- =	PROD. APPROV	ENERGY U VALUE	ENERGY SGHC	NOTES
A	72"	42"	ALUMINUM	TBD	YES	TBD	FIXED	38.8	N/A	50.7	FL # 40528	1.0	0.50	MULLION REQ.
B	72"	34"	ALUMINUM	TBD	YES	TBD	FIXED	39.7	N/A	50.7	FL # 40528	1.0	0.50	MULLION REQ.
C	96"	44"	ALUMINUM	TBD	N/A	N/A	ROLL-UP				FL # 22558.1	N/A	N/A	

1 WINDOW SCHEDULE

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REGISTERED ARCHITECT
LICENSE NO. AA26001863

PEMBROKE PINES WINDOWS AND DOORS REPLACEMENT

1900 NW 122ND TERR
PEMBROKE PINES, FL

CLIENT: CITY OF PEMBROKE PINES

REV	DATE	DESCRIPTION

DESIGN DELIVERABLE: **PERMIT SET**

ISSUE DATE: **12/01/2023**

PROJECT NUMBER: **1500-230227**

DRAWN BY: ML

CHECKED BY: MS

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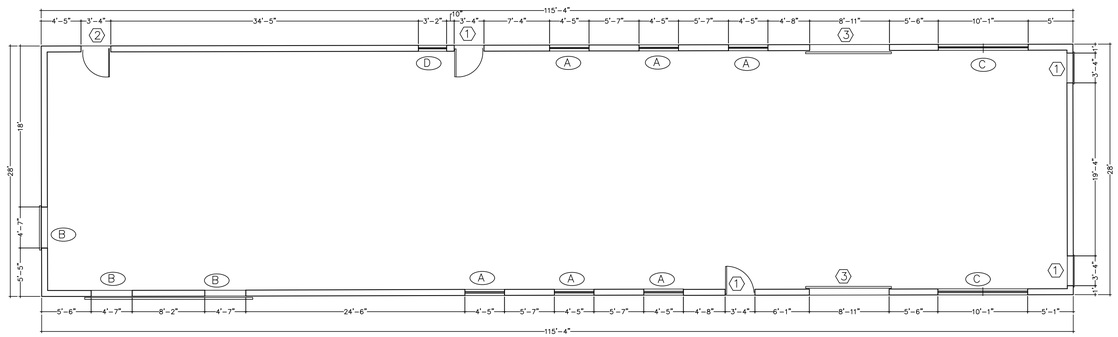
SHEET TITLE:

FLAMINGO PARK CONCESSION BUILDING WINDOW AND DOOR RETROFIT

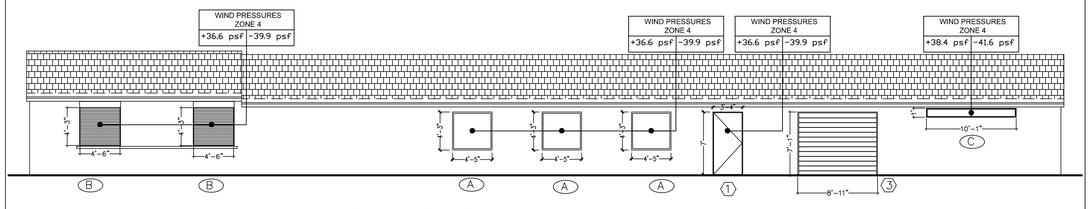
SHEET NUMBER:

A-101

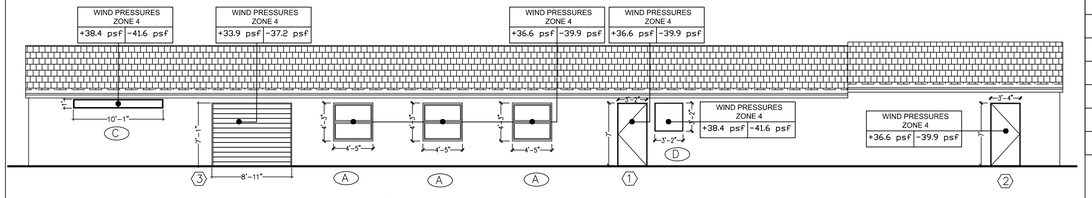


FLOOR PLAN SCALE:1/8"=1'-0"

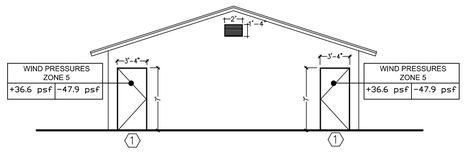
4 PLANS
SCALE: 1/8" = 1' - 0"



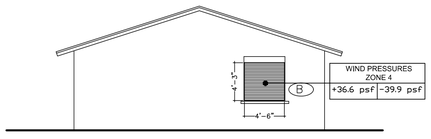
EAST ELEVATION SCALE:1/8"=1'-0"



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



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



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

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

MARK	DIMENSIONS DOOR	DIMENSIONS FRAME	FRAME MATERIAL	FRAME COLOR	TYPE	HARDWARE	DESIGN PRESSURES P(ASD) POSITIVE	DESIGN PRESSURES P(ASD) NEGATIVE	DESIGN PRESSURES P(ASD) CORNER	PROD. APPROV	ENERGY U VALUE	ENERGY SGHC	NOTES
							P+ =	P- =	P- =				
1	3'-4" X 6'-10"	40" X 82"	ALUM/ GLASS	TBD	SINGLE	TYPE #1	36.6	39.9	47.9	FL # 20701.5	1.0	0.50	FROSTED INTERLAYER
2	3'-4" X 7'-0"	40" X 86"	METAL	TBD	SINGLE	TYPE #1	36.6	39.9	N/A	FL # 20701.5	1.0	0.50	
3	9'-0" X 7'-2"	N/A	METAL	TBD	ROLL UP	SLIDE LATCH	33.9	37.2	N/A	FL # 14444.2	N/A	N/A	

HARDWARE TYPE #1:

3-POINT HOOKBOLT MORTISE LOCK,
PUSH/PULL BAR (SFD 5010T/B BY
DELTA SYSTEMS), THRESHOLD CLEAR
ANODIZED ALUMINUM - ADA
COMPLIANT - WATER INFILTRATION
RESISTANT.

2 DOOR SCHEDULE

WIND LOADS
ASCE 7 - 16
V (ULTIMATE) = 170 MPH
V (ASD) = 132.6 MPH
EXPOSURE = C
a = 3FT (CORNER)
ALL PRESSURES BASED ON V (ASD)

MARK	DIMENSIONS W	DIMENSIONS H	FRAME MATERIAL	FRAME COLOR	GLASS IMPACT	GLASS TINT	TYPE	DESIGN PRESSURES P(ASD) POSITIVE	DESIGN PRESSURES P(ASD) NEGATIVE	DESIGN PRESSURES P(ASD) CORNER	PROD. APPROV	ENERGY U VALUE	ENERGY SGHC	NOTES
								P+ =	P- =	P- =				
A	54"	51"	ALUMINUM	TBD	YES	TBD	FIXED	36.6	39.9		FL # 40528	1.0	0.50	
B	58"	52"	ALUMINUM	TBD	YES	TBD	ROLL UP	36.6	39.9		FL # 22558.1	N/A	N/A	
C	12"	120"	ALUMINUM	TBD	YES	TBD	FIXED	38.4	41.6		FL # 40528	1.0	0.50	
D	38"	51"	ALUMINUM	TBD	YES	TBD	FIXED	38.4	41.6		FL # 40528	1.0	0.50	

1 WINDOW SCHEDULE

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LICENSE NO. AA26001863

PEMBROKE PINES WINDOWS AND DOORS REPLACEMENT

1900 NW 122ND TERR
PEMBROKE PINES, FL

CLIENT: CITY OF PEMBROKE PINES

REV	DATE	DESCRIPTION

DESIGN DELIVERABLE: **PERMIT SET**

ISSUE DATE: **12/01/2023**

PROJECT NUMBER: **1500-230227**

DRAWN BY: ML

CHECKED BY: MS

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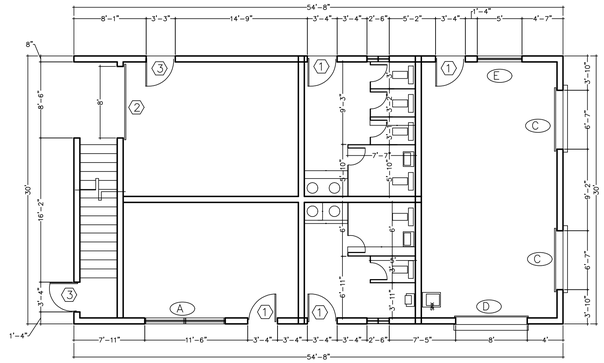
SHEET TITLE:

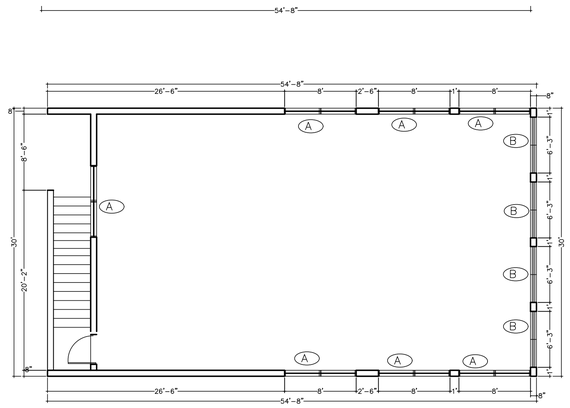
FLAMINGO PARK MAINTENANCE BUILDING WINDOW AND DOOR RETROFIT

SHEET NUMBER:

A-101

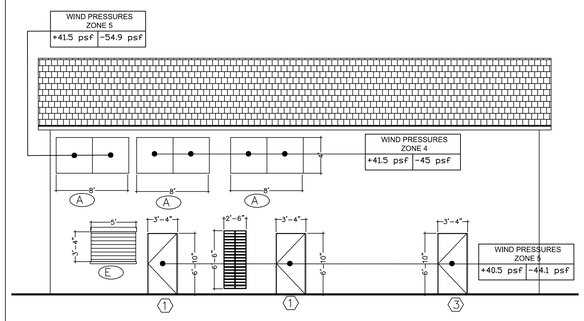


1ST FLOOR PLAN SCALE:1/8"=1'-0"

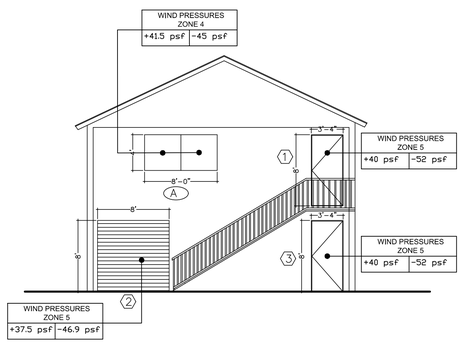


2ND FLOOR PLAN SCALE:1/8"=1'-0"

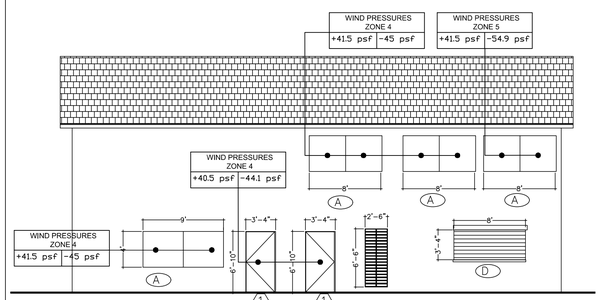
4 PLANS
SCALE: 1/8" = 1' - 0"



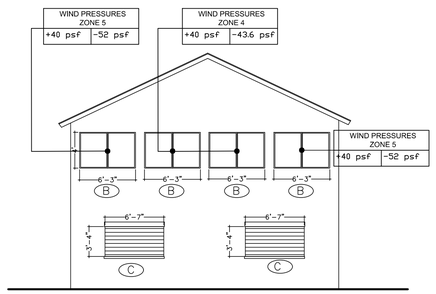
SOUTH ELEVATION SCALE:1/8"=1'-0"



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



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



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

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

MARK	DIMENSIONS		FRAME		TYPE	HARDWARE	DESIGN PRESSURES P(ASD)			PROD. APPROV	ENERGY		NOTES
	DOOR	FRAME					POSITIVE	NEGATIVE	CORNER				
			MATERIAL	COLOR			P+ =	P- =	P- =		U VALUE	SGHC	
1	3'-4" X 8'-0"	40" X 82"	ALUM/GLASS	TBD	SINGLE SWING	TYPE #1	40.5	44.1	52.0	FL # 20701.5	1.0	0.50	FROSTED INTERLAYER
2	8'-0" X 8'-0"	N/A	STEEL	TBD	ROLL-UP	SLIDE LATCH	37.5	-	46.9	FL # 14444.2	1.0	0.50	
3	3'-4" X 8'-0"	N/A	STEEL	TBD	SINGLE SWING	TYPE #1	40.5	44.1	52.0	NOA # 22-0427.01	1.0	0.50	

HARDWARE TYPE #1:

3-POINT HOOKBOLT MORTISE LOCK, PUSH/PULL BAR (SFD 5010T/B BY DELTA SYSTEMS), THRESHOLD CLEAR ANODIZED ALUMINUM - ADA COMPLIANT - WATER INFILTRATION RESISTANT.

2 DOOR SCHEDULE

WIND LOADS
ASCE 7 - 16
V (ULTIMATE) = 170 MPH
V (ASD) = 132.6 MPH
EXPOSURE = C
a = 3FT (CORNER)
ALL PRESSURES BASED ON V (ASD)

MARK	DIMENSIONS		FRAME		GLASS		TYPE	DESIGN PRESSURES P(ASD)			PROD. APPROV	ENERGY		NOTES
	W	H						POSITIVE	NEGATIVE	CORNER				
			MATERIAL	COLOR	IMPACT	TINT		P+ =	P- =	P- =		U VALUE	SGHC	
A	96"	48"	ALUMINUM	TBD	YES	TBD	FIXED	41.5	45	54.9	FL # 40528	1.0	0.50	MULLION REQ.
B	75"	48"	ALUMINUM	TBD	YES	TBD	FIXED	40	43.6	52	FL # 40528	1.0	0.50	MULLION REQ.
C	80"	48"	ALUMINUM	TBD	YES	N/A	ROLL-UP				FL # 22558.1	N/A	N/A	
D	105"	48"	ALUMINUM	TBD	YES	N/A	ROLL-UP				FL # 22558.1	N/A	N/A	
E	68"	48"	ALUMINUM	TBD	YES	N/A	ROLL-UP				FL # 22558.1	N/A	N/A	

1 WINDOW SCHEDULE

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REGISTERED ARCHITECT

LICENSE NO. AA26001863

PEMBROKE PINES WINDOWS AND DOORS REPLACEMENT

1200 SW 72ND AVE
PEMBROKE PINES, FL

CLIENT: CITY OF PEMBROKE PINES

REV	DATE	DESCRIPTION

DESIGN DELIVERABLE: **PERMIT SET**

ISSUE DATE: **12/01/2023**

PROJECT NUMBER: **1500-230227**

DRAWN BY: ML

CHECKED BY: MS

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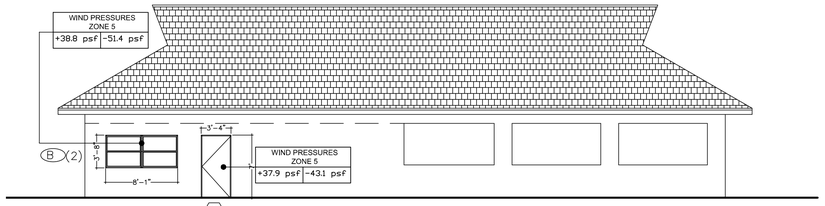
SHEET TITLE:

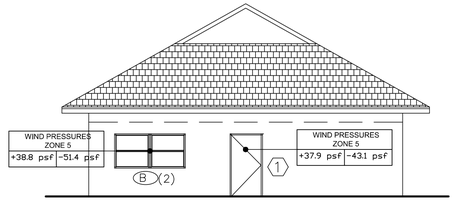
MAXWEL PARK MAINTENANCE BUILDING WINDOW AND DOOR RETROFIT

SHEET NUMBER:

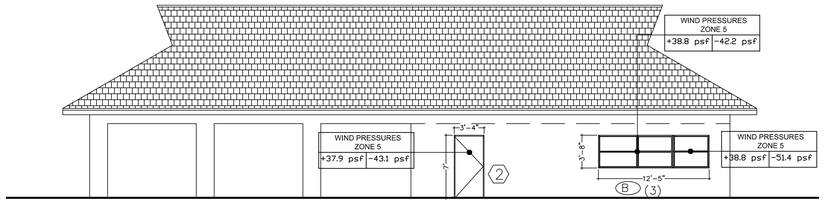
A-101



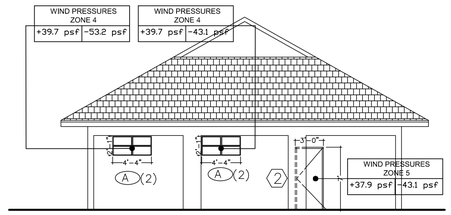
EAST ELEVATION SCALE:1/8"=1'-0"



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

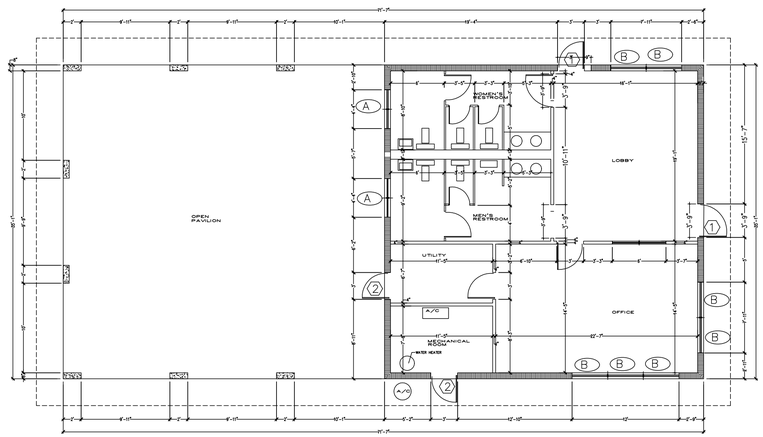


WEST ELEVATION SCALE:1/8"=1'-0"



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

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



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

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

MARK	DIMENSIONS DOOR	DIMENSIONS FRAME	FRAME MATERIAL	FRAME COLOR	TYPE	HARDWARE	DESIGN PRESSURES P(ASD) POSITIVE P+ =	DESIGN PRESSURES P(ASD) NEGATIVE P- =	DESIGN PRESSURES P(ASD) CORNER P- =	PROD. APPROV	ENERGY U VALUE	ENERGY SGHC	NOTES
1	3'-0" X 7'-0"	3'-4" X 7'-2"	ALUM/GLASS	ANODIZED ALUM	SINGLE SWING	TYPE #1	37.9	43.1		FL # 20701.5	1.0	0.50	
2	3'-0" X 7'-0"	3'-4" X 7'-2"	METAL	ANODIZED ALUM	SINGLE SWING	TYPE #1	37.9	43.1		NOA # 22-0427.01	1.0	0.50	

HARDWARE TYPE #1:

3-POINT HOOKBOLT MORTISE LOCK, PUSH/PULL BAR (SFD 5010T/B BY DELTA SYSTEMS), THRESHOLD CLEAR ANODIZED ALUMINUM - ADA COMPLIANT - WATER INFILTRATION RESISTANT.

2 DOOR SCHEDULE

WIND LOADS
ASCE 7 - 16
V (ULTIMATE) = 170 MPH
V (ASD) = 132.6 MPH
EXPOSURE = C
a = 3.5FT (CORNER)
ALL PRESSURES BASED ON V (ASD)

MARK	DIMENSIONS W	DIMENSIONS H	FRAME MATERIAL	FRAME COLOR	GLASS IMPACT	GLASS TINT	TYPE	DESIGN PRESSURES P(ASD) POSITIVE P+ =	DESIGN PRESSURES P(ASD) NEGATIVE P- =	DESIGN PRESSURES P(ASD) CORNER P- =	PROD. APPROV	ENERGY U VALUE	ENERGY SGHC	NOTES
A	26 1/2"	26"	ALUMINUM	TBD	YES	TBD	FIXED	39.7	43.1	53.2	FL # 40528	1.0	0.50	MULLION REQ.
B	48"	48"	ALUMINUM	TBD	YES	TBD	FIXED	38.8	42.2	51.4	FL # 40528	1.0	0.50	MULLIONS REQ.

1 WINDOW SCHEDULE

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LICENSE NO. AR26001863

PEMBROKE PINES WINDOWS AND DOORS REPLACEMENT

1200 SW 72ND AVE
PEMBROKE PINES, FL

CLIENT: CITY OF PEMBROKE PINES

REV	DATE	DESCRIPTION

DESIGN DELIVERABLE: **PERMIT SET**

ISSUE DATE: **12/01/2023**

PROJECT NUMBER: **1500-230227**

DRAWN BY: ML

CHECKED BY: MS

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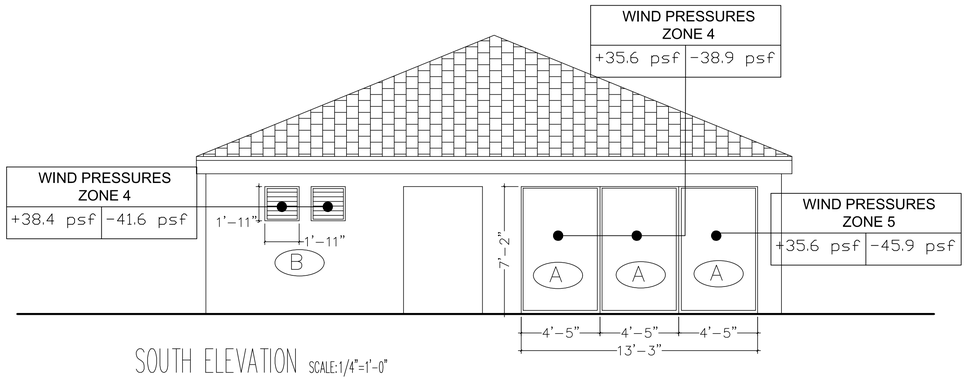
SHEET TITLE:

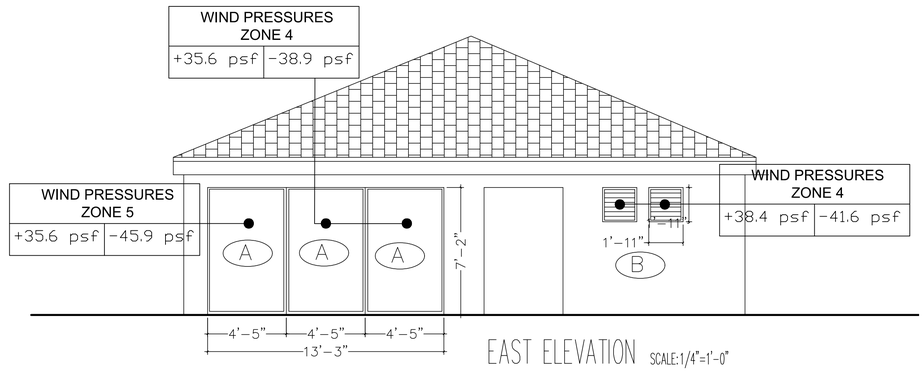
MAXWEL PARK TENNIS BUILDING WINDOW AND DOOR RETROFIT

SHEET NUMBER:

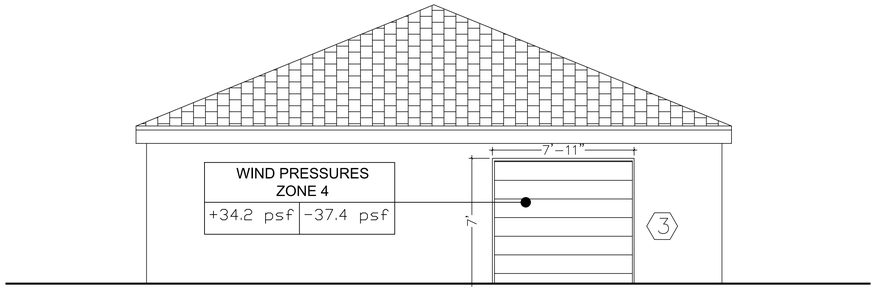
A-101



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



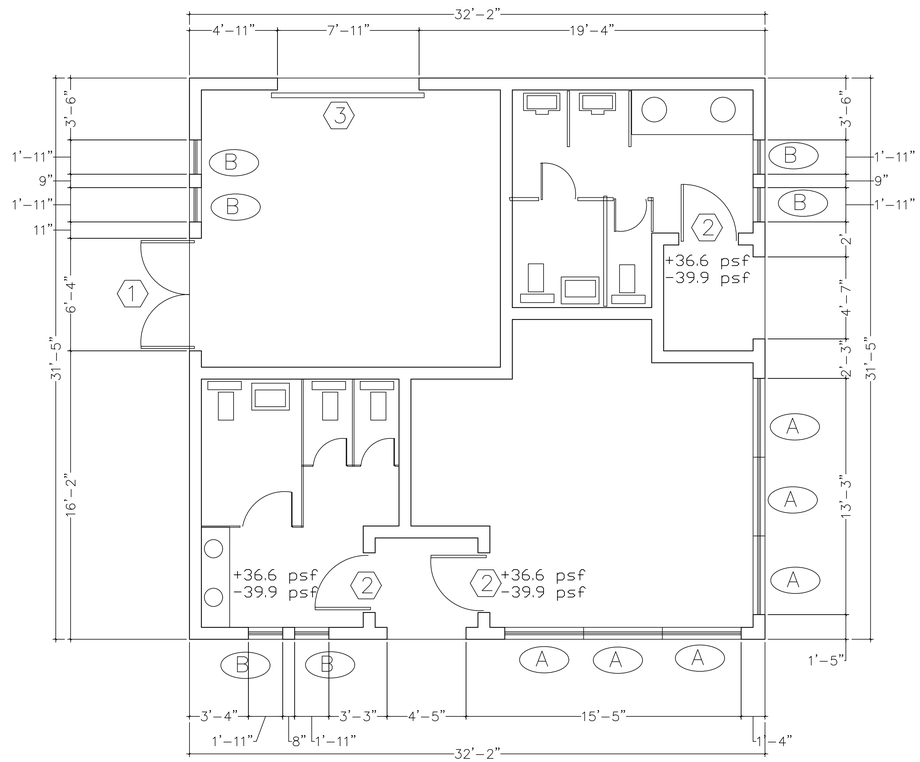
EAST ELEVATION SCALE:1/4"=1'-0"



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

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

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



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

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

MARK	DIMENSIONS		FRAME		TYPE	HARDWARE	DESIGN PRESSURES P(ASD)			PROD. APPROV	ENERGY		NOTES
	DOOR	FRAME					POSITIVE	NEGATIVE	CORNER				
			MATERIAL	COLOR			P+ =	P- =	P- =		U VALUE	SGHC	
1	6'-0" X 6'-8"	6'-4" X 6'-10"	METAL	TBD	DOUBLE-LOUVER	TBD	34.7	38.6	N/A		1.0	0.50	
2	3'-0" X 6'-8"	3'-4" X 6'-10"	ALUM/ GLASS	TBD	SINGLE SWING	TYPE #1	36.6	39.9	N/A	FL # 20701.5	1.0	0.50	FROSTED INTERLAYER
3	8'-0" X 7'-0"	N/A	METAL	TBD	ROLL-UP	SLIDE LATCH	34.2	37.4	N/A	FL # 14444.2	N/A	N/A	

HARDWARE TYPE #1:

3-POINT HOOKBOLT MORTISE LOCK,
PUSH/PULL BAR (SFD 5010T/B BY
DELTA SYSTEMS), THRESHOLD CLEAR
ANODIZED ALUMINUM - ADA
COMPLIANT - WATER INFILTRATION
RESISTANT.

2 DOOR SCHEDULE

WIND LOADS
ASCE 7 - 16
V (ULTIMATE) = 170 MPH
V (ASD) = 132.6 MPH
EXPOSURE = C
a = 3FT (CORNER)
ALL PRESSURES BASED ON V (ASD)

MARK	DIMENSIONS		FRAME		GLASS		TYPE	DESIGN PRESSURES P(ASD)			PROD. APPROV	ENERGY		NOTES
	W	H						POSITIVE	NEGATIVE	CORNER				
			MATERIAL	COLOR	IMPACT	TINT		P+ =	P- =	P- =		U VALUE	SGHC	
A	53 1/2"	86"	ALUMINUM	TBD	YES	TBD	STOREFORNT	42.0	45.7	55.7	FL # 19002.1	1.0	0.50	
B	24"	24"	ALUMINUM	TBD	YES	TBD	LOUVERED	39.6	43.2	50.7		1.0	0.50	

1 WINDOW SCHEDULE

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AR0011628
REGISTERED ARCHITECT
LICENSE NO. AA26001863

PEMBROKE PINES WINDOWS AND DOORS REPLACEMENT

901 NW 155TH AVE
PEMBROKE PINES, FL

CLIENT: CITY OF PEMBROKE PINES

REV	DATE	DESCRIPTION

DESIGN
DELIVERABLE: **PERMIT SET**
ISSUE DATE: **12/01/2023**

PROJECT NUMBER: **1500-230227**
DRAWN BY: **ML**
CHECKED BY: **MS**

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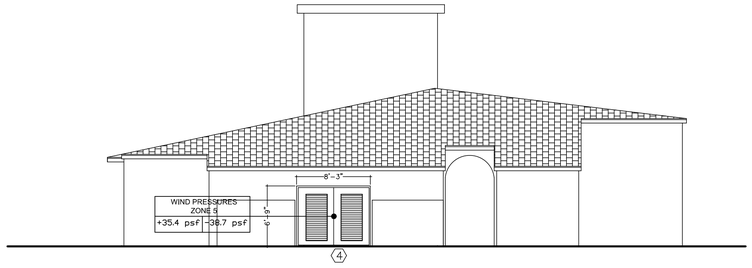
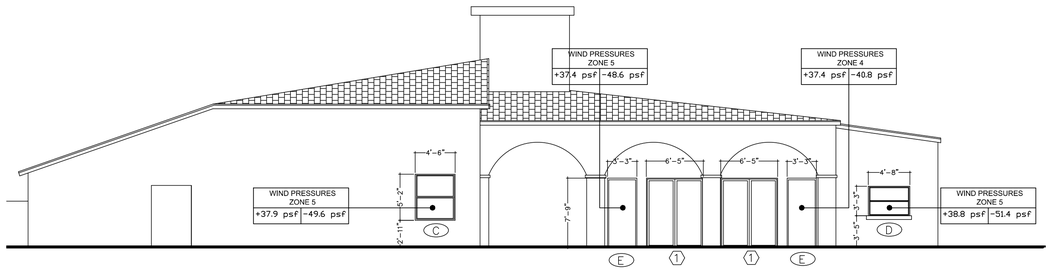
SHEET TITLE:
TOWNGATE TENNIS BUILDING WINDOW AND DOOR RETROFIT

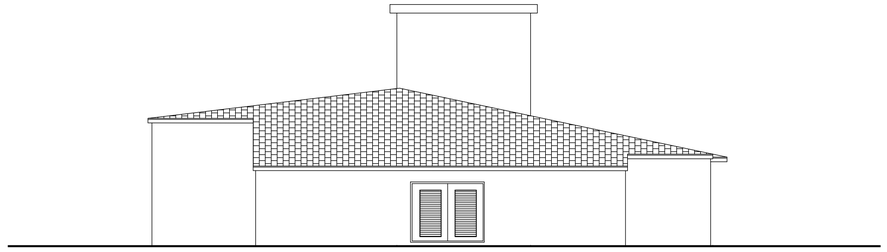
SHEET NUMBER:
A-101



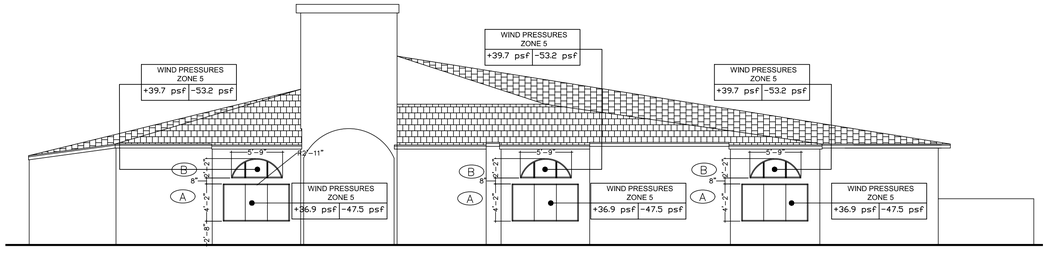
WEST ELEVATION SCALE:1/8"=1'-0"



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

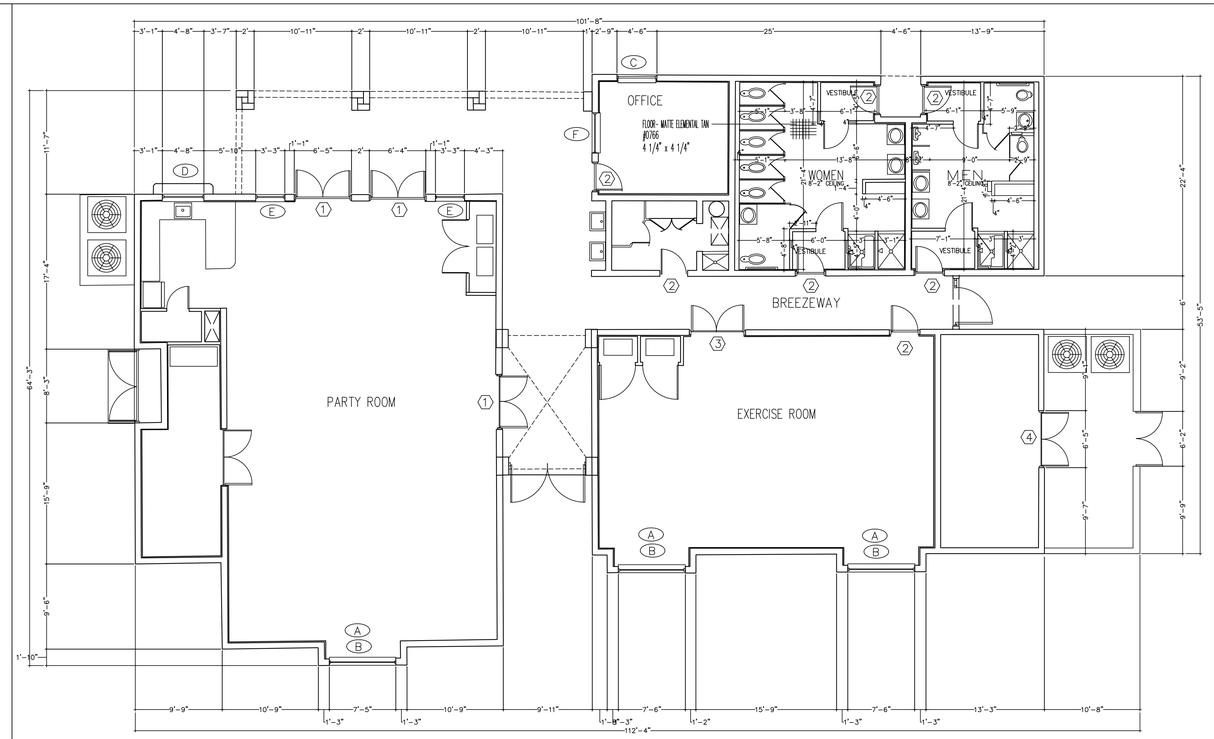


EAST ELEVATION SCALE:1/8"=1'-0"



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

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



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

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

MARK	DIMENSIONS		FRAME		TYPE	HARDWARE	DESIGN PRESSURES P(ASD)			PROD. APPROV	ENERGY		NOTES
	DOOR	FRAME					POSITIVE	NEGATIVE	CORNER				
			MATERIAL	COLOR			P+ =	P- =	P- =		U VALUE	SGHC	
1	6'-0" X 8'-0"	6'-4" X 8'-0"	ALUM/ GLASS	TBD	DOUBLE SWING	TYPE #1	37.0	N/A	47.1	FL # 20701.5	1.0	0.50	
2	3'-0" X 6'-8"	3'-4" X 6'-10"	ALUM/ GLASS	TBD	SINGLE SWING	TYPE #2	38.8	42.2	51.4	FL # 20701.5	1.0	0.50	FROSTED INTERLAYER
3	6'-0" X 6'-8"	6'-4" X 6'-10"	ALUM/ GLASS	TBD	DOUBLE SWING	TPYE #2	37.0	40.4	N/A	FL # 20701.5	1.0	0.50	
4	6'-0" X 6'-8"	6'-4" X 6'-10"	METAL	TBD	DOUBLE SWING	TPYE #2	37.0	40.4	N/A	NOA # 22-0427.01	1.0	0.50	

HARDWARE TYPE #1:

PANIC BAR, THRESHOLD CLEAR ANODIZED ALUMINUM - ADA COMPLIANT - WATER INFILTRATION RESISTANT.

HARDWARE TYPE #2:

3-POINT HOOKBOLT MORTISE LOCK, PUSH/PULL BAR (SFD 5010T/B BY DELTA SYSTEMS), THRESHOLD CLEAR ANODIZED ALUMINUM - ADA COMPLIANT - WATER INFILTRATION RESISTANT.

2 DOOR SCHEDULE

WIND LOADS
ASCE 7 - 16
V (ULTIMATE) = 170 MPH
V (ASD) = 132.6 MPH
EXPOSURE = C
a = 5.5FT (CORNER)
ALL PRESSURES BASED ON V (ASD)

MARK	DIMENSIONS		FRAME		GLASS		TYPE	DESIGN PRESSURES P(ASD)			PROD. APPROV	ENERGY		NOTES
	W	H						POSITIVE	NEGATIVE	CORNER				
			MATERIAL	COLOR	IMPACT	TINT		P+ =	P- =	P- =		U VALUE	SGHC	
A	90"	51"	ALUMINUM	TBD	YES	TBD	FIXED	36.9	N/A	47.5	FL # 40528	1.0	0.50	MULLIONS TO MATCH EXIST.
B	66"	26"	ALUMINUM	TBD	YES	TBD	ARCH FIXED	39.7	N/A	53.2	FL # 40528	1.0	0.50	MULLIONS TO MATCH EXIST.
C	53"	63"	ALUMINUM	TBD	YES	TBD	FIXED	37.9	N/A	49.6	FL # 40528	1.0	0.50	
D	53"	38"	ALUMINUM	TBD	YES	TBD	SINGLE HUNG	38.8	N/A	51.4	FL # 40528	1.0	0.50	
E	37"	96"	ALUMINUM	TBD	YES	TBD	STOREFRONT	37.4	40.8	48.6	FL # 19002.1	1.0	0.50	
F	51"	64"	ALUMINUM	TBD	YES	TBD	FIXED	37.9	N/A	49.6	FL # 40528	1.0	0.50	

1 WINDOW SCHEDULE

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PEMBROKE PINES WINDOWS AND DOORS REPLACEMENT

901 NW 155TH AVE
PEMBROKE PINES, FL

CLIENT: CITY OF PEMBROKE PINES

REV	DATE	DESCRIPTION

DESIGN DELIVERABLE: **PERMIT SET**

ISSUE DATE: **12/01/2023**

PROJECT NUMBER: **1500-230227**

DRAWN BY: ML

CHECKED BY: MS

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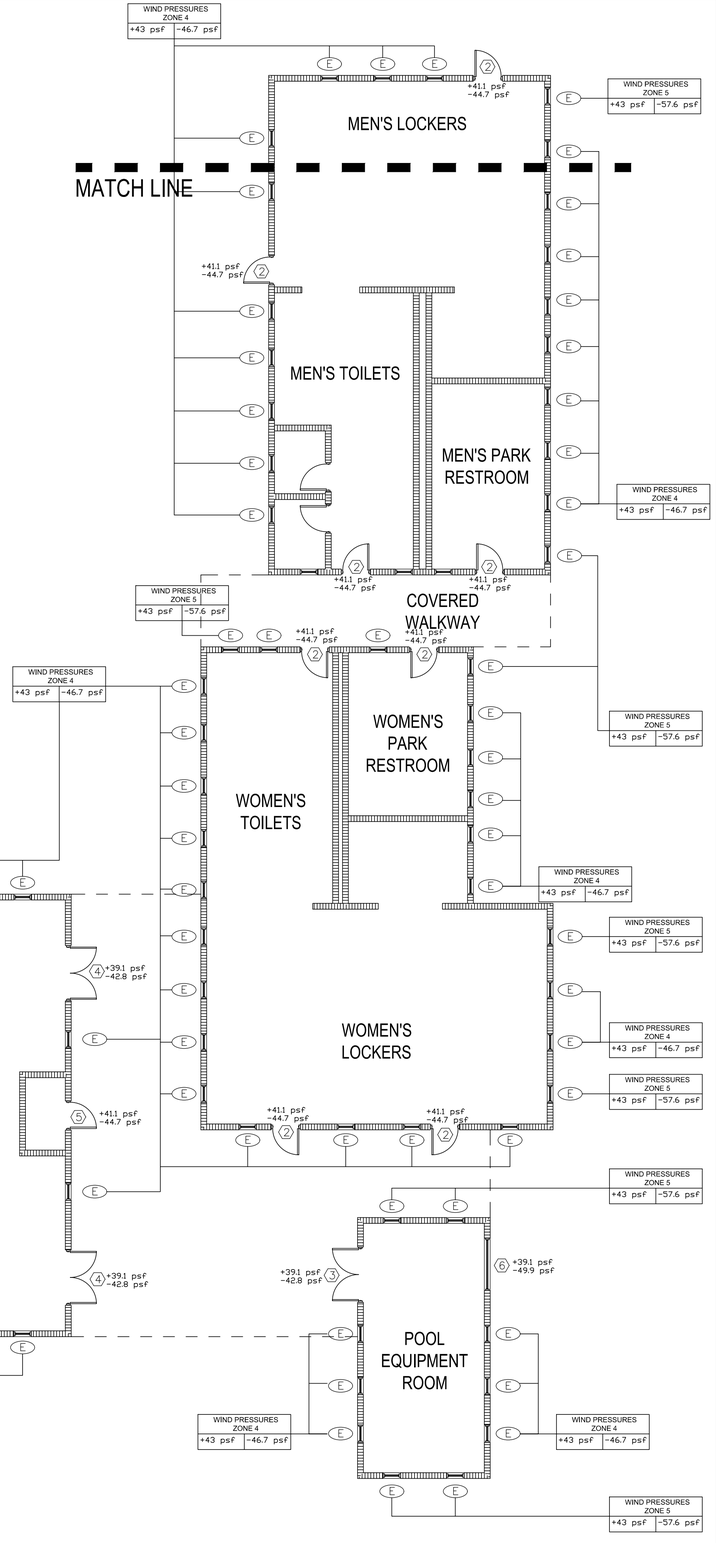
SHEET TITLE:

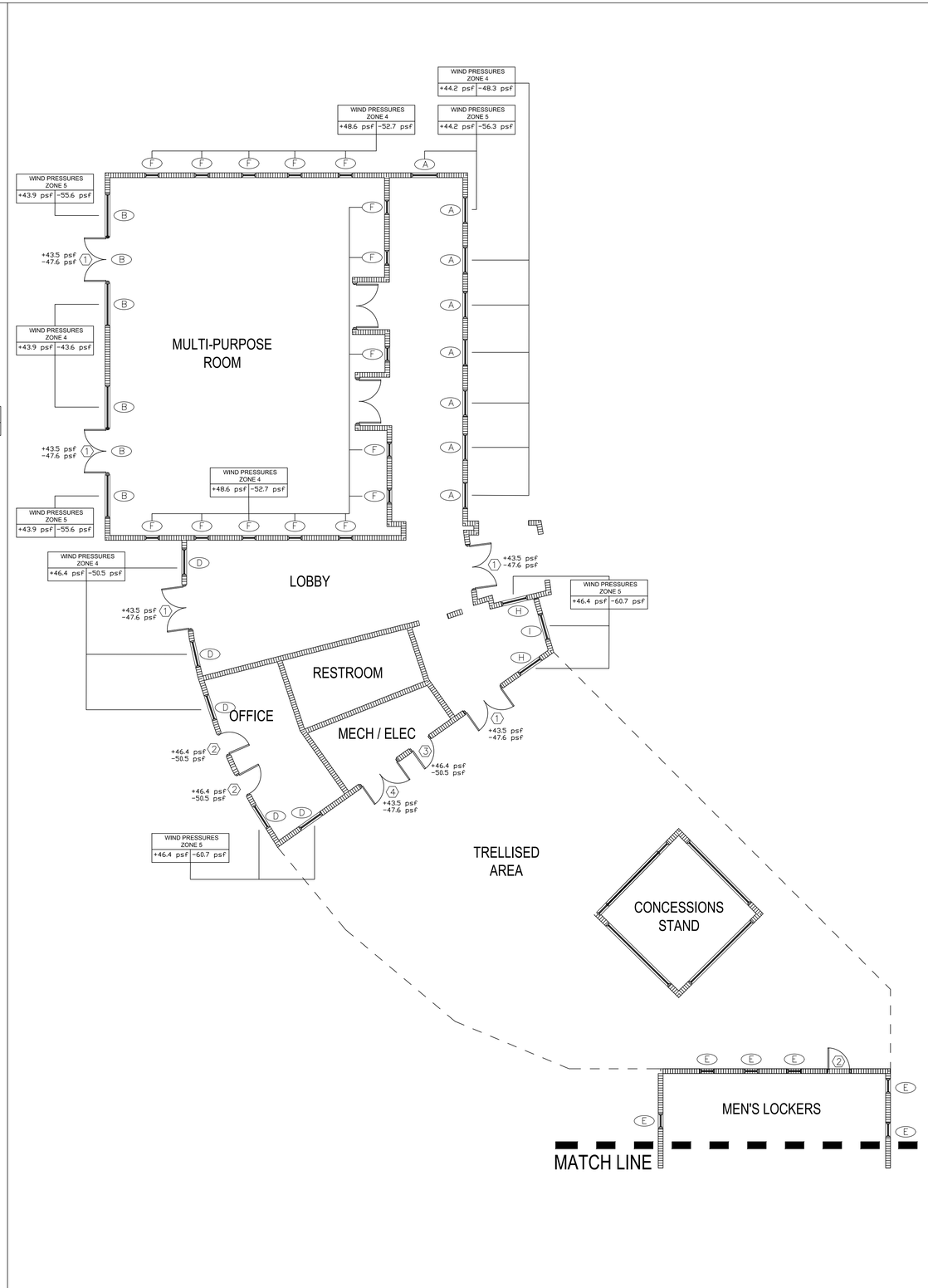
TOWNGATE CLUB HOUSE WINDOW AND DOOR RETROFIT

SHEET NUMBER:

A-101



2 FLOOR PLAN
SCALE: 1/8" = 1' - 0"



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

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PEMBROKE PINES WINDOWS AND DOORS REPLACEMENT

1361 NW 129TH AVE
PEMBROKE PINES, FL

CLIENT: CITY OF PEMBROKE PINES

REV	DATE	DESCRIPTION

DESIGN DELIVERABLE: **PERMIT SET**

ISSUE DATE: **12/01/2023**

PROJECT NUMBER: **1500-230227**

DRAWN BY: ML

CHECKED BY: MS

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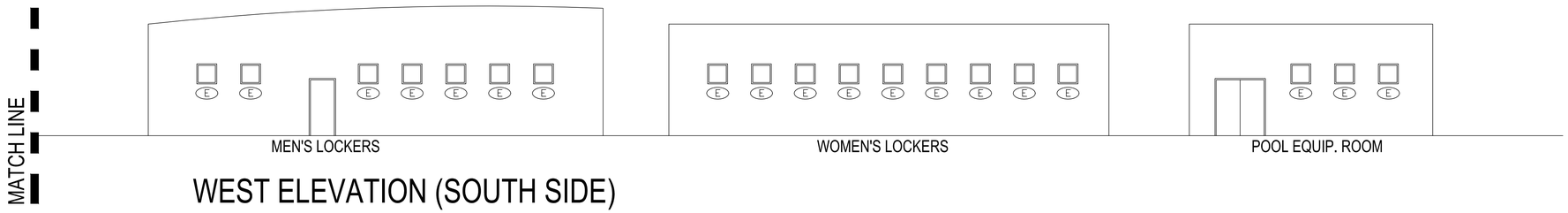
SHEET TITLE:

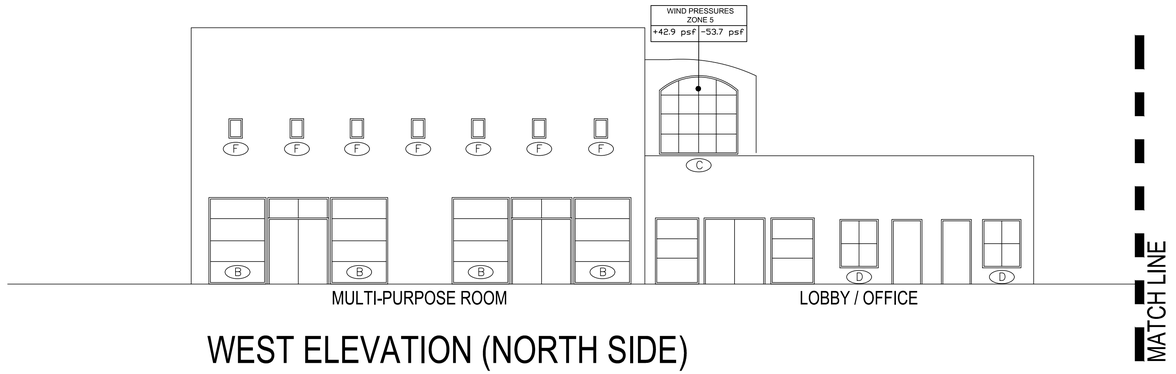
YMCA AQUATIC PARK BUILDING WINDOW AND DOOR RETROFIT

SHEET NUMBER:

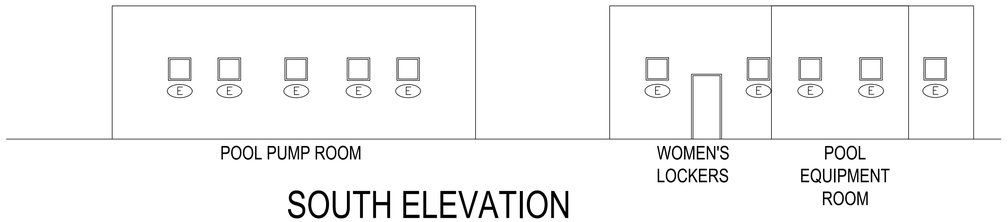
A-101



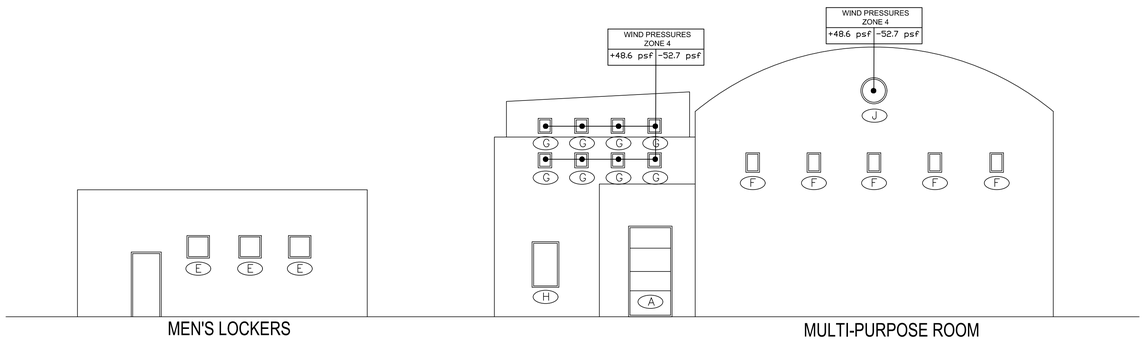
WEST ELEVATION (SOUTH SIDE)



WEST ELEVATION (NORTH SIDE)



SOUTH ELEVATION



NORTH ELEVATION

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

WIND LOADS
ASCE 7 - 16
V (ULTIMATE) = 180 MPH
V (ASD) = 140.5 MPH
EXPOSURE = C
a = 5.5FT (COMMUNITY BLDG) a = 3.5FT (POOL PUMP ROOM)
ALL PRESSURES BASED ON V (ASD)

3 WINDOW SCHEDULE

MARK	DIMENSIONS		FRAME		GLASS		TYPE	DESIGN PRESSURES P(ASD)			PROD. APPROV	ENERGY		NOTES
								POSITIVE	NEGATIVE	CORNER				
	W	H	MATERIAL	COLOR	IMPACT	TINT		P+ =	P- =	P- =		U VALUE	SGHC	
A	54"	112"	ALUMINUM	TBD	YES	TBD	STOREFRONT	44.2	48.3	56.3	FL # 19002.1	1.0	0.50	MULLIONS TO MATCH EXIST.
B	74"	112"	ALUMINUM	TBD	YES	TBD	STOREFRONT	43.9	47.6	55.6	FL # 19002.1	1.0	0.50	MULLIONS TO MATCH EXIST.
C	76"	96"	ALUMINUM	TBD	YES	TBD	ARCH FIXED	42.9	N/A	53.7	FL # 40528	1.0	0.50	MULLIONS TO MATCH EXIST.
D	54"	54"	ALUMINUM	TBD	YES	TBD	STOREFRONT	46.4	50.5	60.7	FL # 19002.1	1.0	0.50	MULLIONS TO MATCH EXIST.
E	26"	26"	ALUMINUM	TBD	YES	TBD	LOUVERED	43.0	46.7	57.6	FL # 30297.1	1.0	0.50	
F	20"	26"	ALUMINUM	TBD	YES	TBD	FIXED	48.6	52.7	65.1	FL # 40528	1.0	0.50	
G	20"	20"	ALUMINUM	TBD	YES	N/A	FIXED	48.6	52.7	65.1	FL # 40528	N/A	N/A	
H	40"	62"	ALUMINUM	TBD	YES	TBD	FIXED	46.4	N/A	60.1	FL # 40528	1.0	0.50	
I	40"	62"	ALUMINUM	TBD	YES	TBD	FIXED	46.4	N/A	60.1	FL # 40528	1.0	0.50	TICKETING
J	36" DIA.		ALUMINUM	TBD	YES	N/A	LOUVERED	48.6	52.7	N/A	FL # 30297.1	N/A	N/A	

2 DOOR SCHEDULE

MARK	DIMENSIONS		FRAME		TYPE	HARDWARE	DESIGN PRESSURES P(ASD)			PROD. APPROV	ENERGY		NOTES
	DOOR	FRAME					POSITIVE	NEGATIVE	CORNER				
			MATERIAL	COLOR			P+ =	P- =	P- =		U VALUE	SGHC	
1	6'-0" X 7'-0"	6'-4" X 7'-2"	ALUM/ GLASS	TBD	DOUBLE SWING	TYPE #1	43.5	47.6	N/A	FL # 20701.5	1.0	0.50	
2	3'-0" X 7'-0"	3'-4" X 7'-2"	ALUM/ GLASS	TBD	SINGLE SWING	TYPE #2	46.4	50.5	N/A	FL # 20701.5	1.0	0.50	FROSTED INTERLAYER
3	3'-0" X 7'-0"	3'-4" X 7'-2"	METAL	TBD	SINGLE SWING	TYPE #2	41.1	44.7	N/A	NOA # 22-0427.01	1.0	0.50	
4	6'-0" X 7'-0"	6'-4" X 7'-2"	METAL / LOUVERED	TBD	DOUBLE SWING	TPYE #2	39.1	42.8	N/A	NOA # 23-0913.10	N/A	N/A	
5	3'-0" X 7'-0"	3'-4" X 7'-2"	METAL / LOUVERED	TBD	SINGLE SWING	TPYE #2	41.1	44.7	N/A	NOA # 23-0913.10	N/A	N/A	
6	6'-0" X 7'-0"	6'-4" X 7'-2"	STEEL	TBD	ROLL-UP	LATCH	39.1	N/A	49.9	FL # 14444.2	N/A	N/A	

HARDWARE TYPE #1:

PANIC BAR, THRESHOLD CLEAR ANODIZED ALUMINUM - ADA COMPLIANT - WATER INFILTRATION RESISTANT.

HARDWARE TYPE #2:

3-POINT HOOKBOLT MORTISE LOCK, PUSH/PULL BAR (SFD 5010T/B BY DELTA SYSTEMS), THRESHOLD CLEAR ANODIZED ALUMINUM - ADA COMPLIANT - WATER INFILTRATION RESISTANT.

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PEMBROKE PINES WINDOWS AND DOORS REPLACEMENT

1361 NW 129TH AVE
PEMBROKE PINES, FL

CLIENT: CITY OF PEMBROKE PINES

REV	DATE	DESCRIPTION

DESIGN DELIVERABLE: **PERMIT SET**

ISSUE DATE: **12/01/2023**

PROJECT NUMBER: **1500-230227**

DRAWN BY: ML

CHECKED BY: MS

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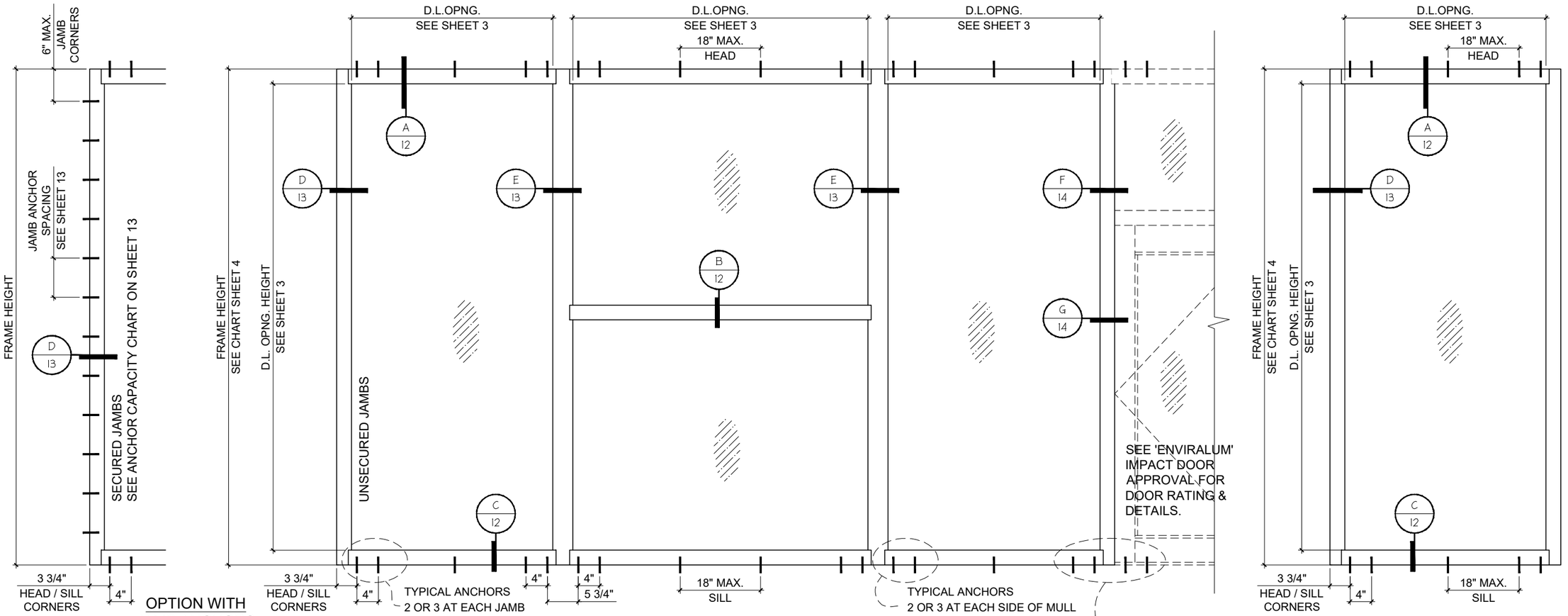
SHEET TITLE:

YMCA AQUATIC PARK BUILDING WINDOW AND DOOR RETROFIT

SHEET NUMBER:

A-102



SERIES ENV - 450 ALUMINUM WINDOW WALL SYSTEM

THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE 2020 (7TH EDITION) FLORIDA BUILDING CODE INCLUDING HIGH VELOCITY HURRICANE ZONE (HVHZ).

1BY OR 2BY WOOD BUCKS & BUCK FASTENERS BY OTHERS, MUST BE DESIGNED AND INSTALLED ADEQUATELY TO TRANSFER APPLIED PRODUCT LOADS TO THE BUILDING STRUCTURE.

ANCHORS SHALL BE CORROSION RESISTANT, SPACED AS SHOWN ON DETAILS AND INSTALLED PER MANUF'S INSTRUCTIONS. SPECIFIED EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO.

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 2020 FLORIDA BLDG. CODE & ADOPTED STANDARDS.

THIS PRODUCT APPROVAL IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SITE SPECIFIC PROJECT, i.e. LIFE SAFETY OF THIS PRODUCT, ADEQUACY OF STRUCTURE RECEIVING THIS PRODUCT AND SEALING AROUND OPENING FOR WATER INFILTRATION RESISTANCE ETC.
CONDITIONS NOT SHOWN IN THIS DRAWING ARE TO BE ANALYZED SEPARATELY, AND TO BE REVIEWED BY BUILDING OFFICIAL.

MANUFACTURER'S LABEL SHALL BE LOCATED ON A READILY VISIBLE LOCATION IN ACCORDANCE WITH SECTION 1709.9.3 OF FLORIDA BUILDING CODE.
LABELING TO COMPLY WITH SECTION 1709.9.2.

TYPICAL ELEVATIONS

SEALANT
ALL FRAME CORNERS, JOINTS, MULLION SEAMS AND PERIMETER OF GLAZING BEAD TO FRAME SEALED WITH SILICONE SEALANT.

SINGLE 'O' PANEL:
FRAME WIDTH = D.L.O. WIDTH + 5.500"
FRAME HEIGHT = D.L.O. HEIGHT + 5.500"

INSTRUCTIONS:

USE DRAWING AS FOLLOWS.

STEP 1 DETERMINE DESIGN WIND LOAD REQUIREMENT BASED ON WIND VELOCITY, BLDG, HEIGHT, WIND ZONE USING APPLICABLE ASCE 7 STANDARD.

STEP 2 SEE CHARTS ON SHEET 3 FOR DESIGN LOAD CAPACITY OF DESIRED GLASS SIZE.

STEP 3 CHECK MULLION CAPACITY FOR A GIVEN SPACING AND HEIGHT USING CHARTS ON SHEET 4 FOR STOREFRONT MULLION AND SHEETS 7 THRU 11 FOR DOOR MULLION. THE CAPACITY SHOULD EXCEED THE DESIGN LOAD.

STEP 4 USING CHART ON SHEETS 5 & 6 SELECT ANCHOR OPTION WITH DESIGN RATING MORE THAN DESIGN LOAD SPECIFIED IN STEP 1 ABOVE.

STEP 5 THE LOWEST VALUE RESULTING FROM STEPS 2, 3 AND 4 SHALL APPLY TO ENTIRE SYSTEM.

PRODUCT COMPLIES WITH REQUIREMENTS OF ANSI Z97.1.

THIS SYSTEM IS RATED FOR LARGE & SMALL MISSILE IMPACT.
SHUTTERS ARE NOT REQUIRED.
WINDOW WALL FRAMES MAY BE WITH OR WITHOUT THERMAL BREAK.

A - CONTRACTOR TO BE RESPONSIBLE FOR THE SELECTION, PURCHASE AND INSTALLATION OF THIS PRODUCT BASED ON THIS PRODUCT EVALUATION PROVIDED HE/SHE DOES NOT DEVIATE FROM THE CONDITIONS DETAILED ON THIS DOCUMENT.

B - THIS PRODUCT EVALUATION DOCUMENT WILL BE CONSIDERED INVALID IF ALTERED BY ANY MEANS.

C - SITE SPECIFIC PROJECTS SHALL BE PREPARED BY A FLORIDA REGISTERED ENGINEER OR ARCHITECT WHICH WILL BECOME THE ENGINEER 0F RECORD(E.O.R.) FOR THE PROJECT AND WHO WILL BE RESPONSIBLE FOR THE PROPER USE OF THE P.E.D. ENGINEER OF RECORD, ACTING AS A DELEGATED ENGINEER TO THE P.E.D. ENGINEER SHALL SUBMIT TO THIS LATTER THE SITE SPECIFIC DRAWINGS FOR REVIEW.

D - THIS P.E.D. SHALL BEAR THE DATE AND ORIGINAL SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER OF RECORD THAT PREPARED IT.

FLORIDA APPROVAL:
FL#19002.1

YIPING WANG
LICENSE
YIPING WANG, P.E.
FLORIDA REGISTRATION
NO. 55983
C.A.N. 28677
STATE OF FLORIDA
PROFESSIONAL ENGINEER

December 30th, 2020

MCY ENGINEERING, INC.
GLAZING CONSULTANTS
12781 MIRAMAR PARKWAY. #301 P: 305.271.0117
MIRAMAR, FL 33027
mcy@mcyengineering.com
www.MCYEngineering.com

ENV-450 Alum. Window Wall System (LMI)

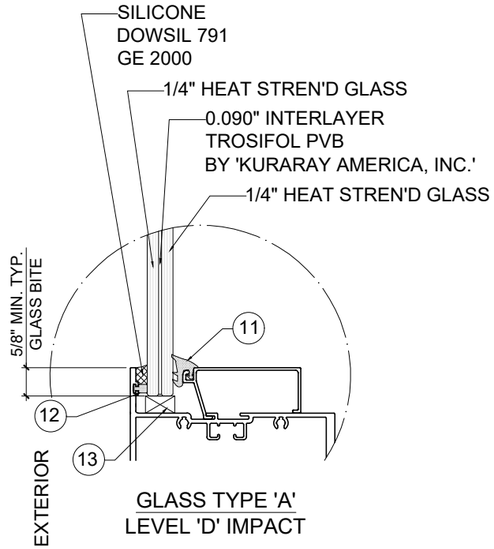
ENVIRALUM INDUSTRIES INC.
5110 N.W. 72 AVENUE BLDG.C
MIAMI, FL.33166
TEL:(305)752-4411 FAX:(305)406-3877

Rev. No.	Date	Drawn By	Description
1	12/30/20	James	FBC 2020 UPDATE

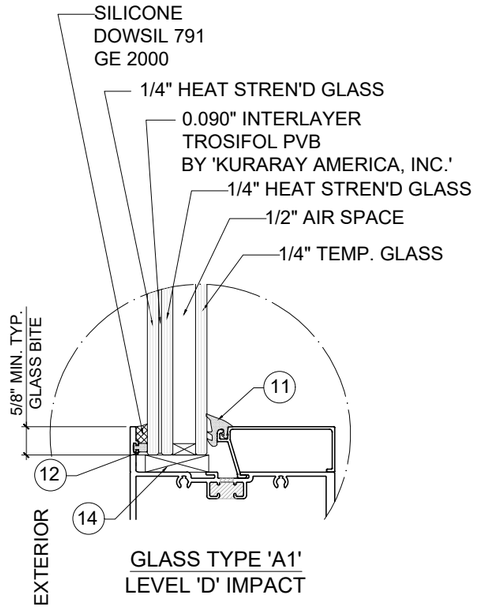
Drawn Date 12/30/2020
Scale

DRAWING NO.
AD20-39

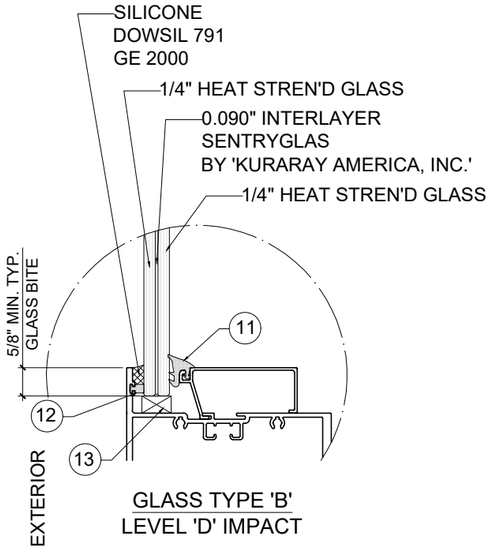
COVER



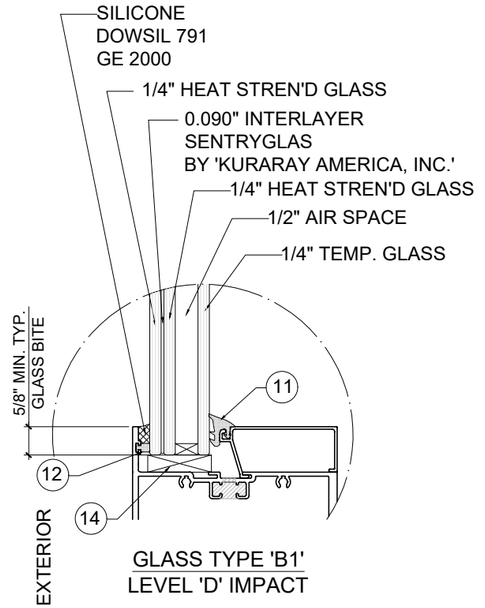
GLASS TYPE 'A'
LEVEL 'D' IMPACT



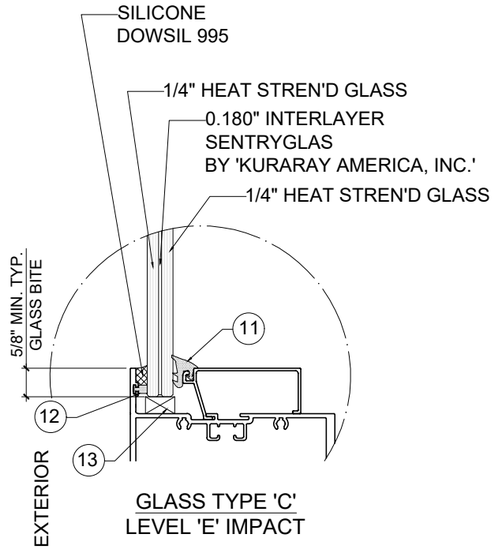
GLASS TYPE 'A1'
LEVEL 'D' IMPACT



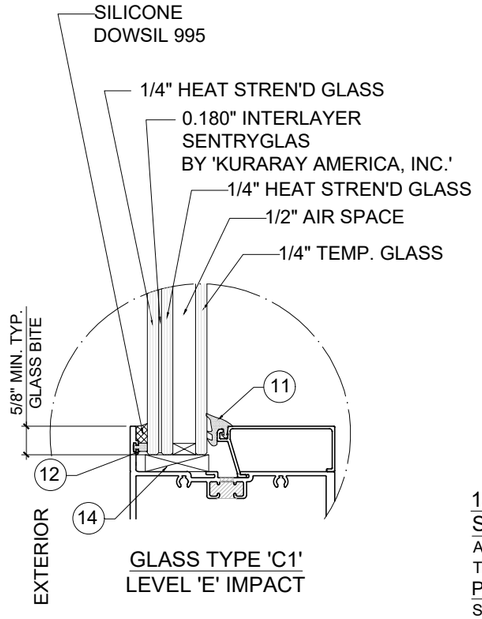
GLASS TYPE 'B'
LEVEL 'D' IMPACT



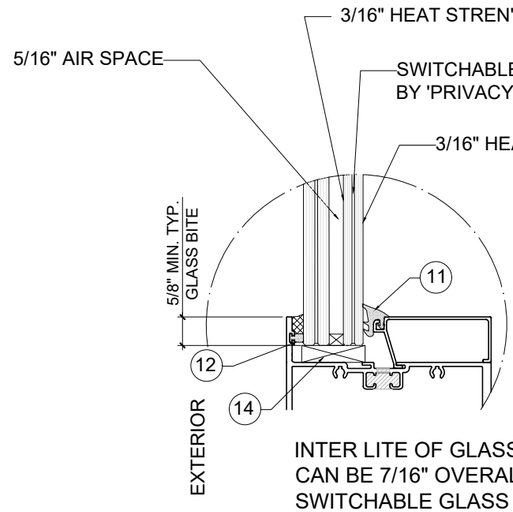
GLASS TYPE 'B1'
LEVEL 'D' IMPACT



GLASS TYPE 'C'
LEVEL 'E' IMPACT



GLASS TYPE 'C1'
LEVEL 'E' IMPACT



INTER LITE OF GLASS TYPES 'A1' & 'B1'
CAN BE 7/16" OVERALL LAMINATED
SWITCHABLE GLASS BY 'PRIVACYVUE'

GLAZING OPTIONS

1/2" AIR SPACE CONSISTING OF:
SPACER:
ALUMINUM BOX SPACER AROUND
THE PERIMETER OF THE GLASS
PERIMETER SEALANT:
SILICONE
DOWSIL 791
GE 2000

GLASS

FLORIDA APPROVAL:
FL#19002.1

YIPING WANG
LICENSE
5598
STATE OF
FLORIDA
PROFESSIONAL ENGINEER
YIPING WANG, P.E.
FLORIDA REGISTRATION
NO. #55983
C.A.N. 28677

December 30th, 2020

MCY ENGINEERING, INC.
GLAZING CONSULTANTS
12781 MIRAMAR PARKWAY. #301 P: 305.271.0117
MIRAMAR, FL 33027
www.MCYEngineering.com mcy@mcyengineering.com

ENV-450 Alum. Window Wall System (LMI)

ENVIRALUM INDUSTRIES INC.
5110 N.W. 72 AVENUE BLDG.C
MIAMI, FL.33166
TEL:(305)752-4411 FAX:(305)406-3877

Rev. No.	Date	Drawn By	Description
1	12/30/20	James	FBC 2020 UPDATE

Drawn Date 12/30/2020
Scale

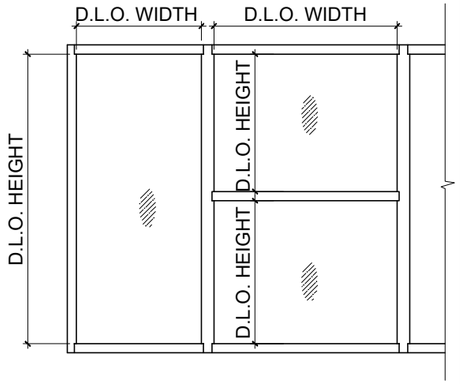
DRAWING NO.
AD20-39

G1

GLASS LOAD CAPACITY- PSF LEVEL 'D' IMPACT ONLY					
NOMINAL DIMS.		GLASS TYPES 'A' & 'A1'		GLASS TYPES 'B' & 'B1'	
D.L.O. WIDTH	D.L.O. HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
30"	78"	90.0	90.0	100.0	131.0
36"		90.0	90.0	100.0	131.0
42"		90.0	90.0	100.0	131.0
48"		90.0	90.0	100.0	131.0
54"		90.0	90.0	100.0	131.0
60"		90.0	90.0	100.0	131.0
66-1/2"		65.0	65.0	100.0	131.0
30"	84"	90.0	90.0	100.0	131.0
36"		90.0	90.0	100.0	131.0
42"		90.0	90.0	100.0	131.0
48"		90.0	90.0	100.0	131.0
54"		90.0	90.0	100.0	131.0
60"		90.0	90.0	100.0	131.0
66-1/2"		65.0	65.0	100.0	126.7
30"	90"	90.0	90.0	100.0	131.0
36"		90.0	90.0	100.0	131.0
42"		90.0	90.0	100.0	131.0
48"		90.0	90.0	100.0	131.0
54"		90.0	90.0	100.0	131.0
60"		65.0	65.0	100.0	126.0
66-1/2"		65.0	65.0	100.0	116.8
30"	96"	90.0	90.0	100.0	131.0
36"		90.0	90.0	100.0	131.0
42"		90.0	90.0	100.0	131.0
48"		90.0	90.0	100.0	131.0
54"		65.0	65.0	100.0	126.8
60"		65.0	65.0	100.0	116.4
30"	102"	90.0	90.0	100.0	131.0
36"		90.0	90.0	100.0	131.0
42"		90.0	90.0	100.0	131.0
48"		90.0	90.0	100.0	129.4
54"		65.0	65.0	100.0	118.5
60"		–	–	100.0	109.2
30"	108"	90.0	90.0	100.0	131.0
36"		90.0	90.0	100.0	131.0
42"		90.0	90.0	100.0	131.0
48"		65.0	65.0	100.0	125.6
54"		65.0	65.0	100.0	111.8
57"		–	–	100.0	106.4
30"	114"	90.0	90.0	100.0	131.0
36"		90.0	90.0	100.0	131.0
42"		90.0	90.0	100.0	131.0
48"		65.0	65.0	100.0	119.5
54"		–	–	100.0	105.6
30"	120"	90.0	90.0	100.0	131.0
36"		90.0	90.0	100.0	131.0
42"		90.0	90.0	100.0	131.0
48"		65.0	65.0	100.0	114.1
51"		–	–	100.0	106.6

GLASS LOAD CAPACITY- PSF LEVEL 'D' IMPACT ONLY					
NOMINAL DIMS.		GLASS TYPES 'A' & 'A1'		GLASS TYPES 'B' & 'B1'	
D.L.O.WIDTH	D.L.O.HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
30"	126"	90.0	90.0	100.0	131.0
36"		90.0	90.0	100.0	131.0
42"		65.0	65.0	100.0	129.7
48"		65.0	65.0	100.0	109.7
49"		–	–	100.0	107.1
30"	132"	90.0	90.0	100.0	131.0
36"		90.0	90.0	100.0	131.0
42"		65.0	65.0	100.0	128.5
47"		–	–	100.0	108.9
30"	138"	90.0	90.0	100.0	131.0
36"		90.0	90.0	100.0	131.0
42"		65.0	65.0	100.0	127.2
45"		–	–	100.0	112.5
30"	144"	90.0	90.0	100.0	131.0
36"		65.0	65.0	100.0	131.0
42"		65.0	65.0	100.0	126.1
43"		–	–	100.0	120.8

NOTE:
INTERPOLATION BETWEEN WIDTHS OR HEIGHTS ALLOWED.



GLASS CAPACITY - PSF LEVEL 'E' IMPACT			
NOMINAL DIMS		GLASS TYPES 'C' & 'C1'	
D.L.O. WIDTH	D.L.O. HEIGHT	EXT.(+)	INT.(-)
30"	78"	100.0	100.0
36"		100.0	100.0
42"		100.0	100.0
48"		100.0	100.0
54"		100.0	100.0
60"		100.0	100.0
66-1/2"		100.0	100.0
30"	84"	100.0	100.0
36"		100.0	100.0
42"		100.0	100.0
48"		100.0	100.0
54"		100.0	100.0
60"		100.0	100.0
66-1/2"		100.0	100.0
30"	90"	100.0	100.0
36"		100.0	100.0
42"		100.0	100.0
48"		100.0	100.0
54"		100.0	100.0
60"		100.0	100.0
66-1/2"		100.0	100.0
30"	96"	100.0	100.0
36"		100.0	100.0
42"		100.0	100.0
48"		100.0	100.0
54"		100.0	100.0
60"		100.0	100.0

NOTE:
INTERPOLATION BETWEEN WIDTHS OR HEIGHTS ALLOWED.

NOTE:
GLASS CAPACITIES ON THIS ARE
BASED ON ASTM E1300-09 (3 SEC . GUSTS)

GLASS

FLORIDA APPROVAL:
FL#19002.1

YIPING WANG
LICENSE
YIPING WANG, P.E.
FLORIDA REGISTRATION
NO. # 55983
C.A.N. 28677
55983
STATE OF FLORIDA
PROFESSIONAL ENGINEER

December 30th, 2020

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Scale

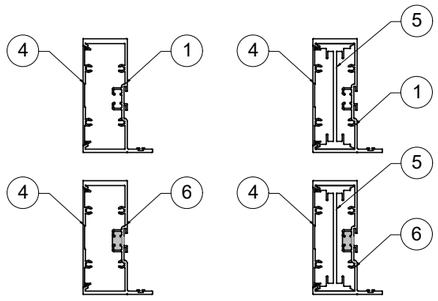
DRAWING NO.
AD20–39

CHART

UNSECURED JAMB/MULLION DESIGN LOAD CAPACITY - PSF									
NOMINAL DIMS.		JAMB 'J1'		JAMB 'J2'		JAMB 'J3'		JAMB 'J4'	
		MULLION 'M1'		MULLION 'M2'		MULL 'M3'		MULL 'M4'	
WIDTH (W)	FRAME HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
30" 36" 42" 48" 54 60" 66" 72"	72"	100.0	100.0	100.0	100.0	100.0	100.0	100.0	131.0
		100.0	100.0	100.0	100.0	100.0	100.0	100.0	131.0
		100.0	100.0	100.0	100.0	100.0	100.0	100.0	131.0
		100.0	100.0	100.0	100.0	100.0	100.0	100.0	131.0
		100.0	100.0	100.0	100.0	100.0	100.0	100.0	131.0
		-	-	100.0	100.0	100.0	100.0	100.0	131.0
		-	-	100.0	100.0	100.0	100.0	100.0	131.0
30" 36" 42" 48" 54" 60"	78"	100.0	100.0	100.0	100.0	100.0	100.0	100.0	131.0
		100.0	100.0	100.0	100.0	100.0	100.0	100.0	131.0
		100.0	100.0	100.0	100.0	100.0	100.0	100.0	131.0
		100.0	100.0	100.0	100.0	100.0	100.0	100.0	131.0
		95.3	95.3	100.0	100.0	100.0	100.0	100.0	131.0
		-	-	100.0	100.0	100.0	100.0	100.0	131.0
30" 36" 42" 48" 54" 60"	84"	100.0	100.0	100.0	100.0	100.0	100.0	100.0	131.0
		100.0	100.0	100.0	100.0	100.0	100.0	100.0	131.0
		100.0	100.0	100.0	100.0	100.0	100.0	100.0	131.0
		91.8	91.8	100.0	100.0	100.0	100.0	100.0	131.0
		81.6	81.6	100.0	100.0	100.0	100.0	100.0	131.0
		-	-	100.0	100.0	100.0	100.0	100.0	131.0
30" 36" 42" 48" 54" 60"	90"	100.0	100.0	100.0	100.0	100.0	100.0	100.0	131.0
		100.0	100.0	100.0	100.0	100.0	100.0	100.0	131.0
		90.8	90.8	100.0	100.0	100.0	100.0	100.0	131.0
		79.4	79.4	100.0	100.0	100.0	100.0	100.0	131.0
		-	-	100.0	100.0	100.0	100.0	100.0	131.0
		-	-	-	-	100.0	100.0	100.0	131.0
30" 36" 42" 48" 54" 60"	96"	100.0	100.0	100.0	100.0	100.0	100.0	100.0	131.0
		92.5	92.5	100.0	100.0	100.0	100.0	100.0	131.0
		79.3	79.3	100.0	100.0	100.0	100.0	100.0	131.0
		69.3	69.3	100.0	100.0	100.0	100.0	100.0	131.0
		-	-	75.6	75.6	80.0	80.0	88.9	97.8
		-	-	-	-	72.0	72.0	80.0	88.0
30" 36" 42" 48" 54"	97-3/4"	100.0	100.0	100.0	100.0	100.0	100.0	100.0	131.0
		89.0	89.0	100.0	100.0	100.0	100.0	100.0	131.0
		76.3	76.3	100.0	100.0	100.0	100.0	100.0	131.0
		66.8	66.8	98.1	98.1	100.0	100.0	100.0	131.0
		-	-	75.6	75.6	80.0	80.0	88.9	97.8
30" 36" 42" 48" 54"	102"	-	-	85.0	85.0	90.0	90.0	100.0	131.0
		-	-	85.0	85.0	90.0	90.0	100.0	131.0
		-	-	85.0	85.0	90.0	90.0	100.0	131.0
		-	-	85.0	85.0	90.0	90.0	100.0	127.8
		-	-	-	-	80.0	80.0	88.9	97.8
30" 36" 42" 48" 54""	108"	-	-	85.0	85.0	90.0	90.0	100.0	131.0
		-	-	85.0	85.0	90.0	90.0	100.0	131.0
		-	-	85.0	85.0	90.0	90.0	100.0	130.3
		-	-	79.3	79.3	90.0	90.0	100.0	114.0
		-	-	-	-	-	-	57.80	57.80
30" 36" 42" 48" 54"	114"	-	-	-	-	90.0	90.0	100.0	131.0
		-	-	-	-	90.0	90.0	100.0	131.0
		-	-	-	-	90.0	90.0	100.0	116.9
		-	-	-	-	90.0	90.0	100.0	102.3
		-	-	-	-	-	-	57.8	57.8
30" 36" 42" 48" 54"	120"	-	-	-	-	90.0	90.0	100.0	131.0
		-	-	-	-	90.0	90.0	100.0	123.1
		-	-	-	-	90.0	90.0	100.0	105.5
		-	-	-	-	83.3	83.3	92.3	92.3
		-	-	-	-	-	-	57.8	57.8

UNSECURED JAMB/MULLION DESIGN LOAD CAPACITY - PSF									
NOMINAL DIMS.		JAMB 'J1'		JAMB 'J2'		JAMB 'J3'		JAMB 'J4'	
		MULAON 'M1'		MULLION 'M2'		MULL 'M3'		MULL 'M4'	
WIDTH (W)	FRAME HEIGHT	EXT.(+)	INR.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
30" 36" 42" 48" 54"	126"	-	-	-	-	-	-	65.0	65.0
		-	-	-	-	-	-	65.0	65.0
		-	-	-	-	-	-	65.0	65.0
		-	-	-	-	-	-	65.0	65.0
		-	-	-	-	-	-	57.8	57.8
30" 36" 42" 48"	132"	-	-	-	-	-	-	65.0	65.0
		-	-	-	-	-	-	65.0	65.0
		-	-	-	-	-	-	65.0	65.0
		-	-	-	-	-	-	65.0	65.0
30" 36" 42" 48"	138"	-	-	-	-	-	-	65.0	65.0
		-	-	-	-	-	-	65.0	65.0
		-	-	-	-	-	-	65.0	65.0
		-	-	-	-	-	-	65.0	65.0
30" 36" 42" 48"	144"	-	-	-	-	-	-	65.0	65.0
		-	-	-	-	-	-	65.0	65.0
		-	-	-	-	-	-	65.0	65.0
		-	-	-	-	-	-	64.1	64.1

UNSECURED JAMBS

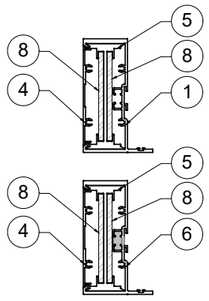


JAMB 'J1'

Ix IN^4	Sx IN^3
4.5110	1.9537

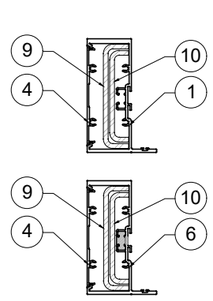
JAMB 'J2'

Ix IN^4	Sx IN^3
7.243	3.137



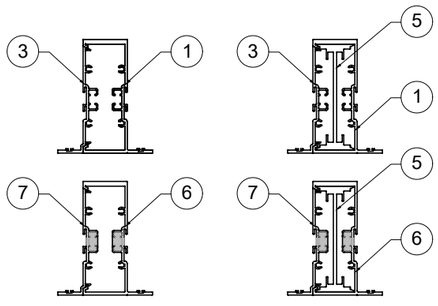
JAMB 'J3'

	Ix IN^4	Sx IN^3
ALUMINUM	6.2170	2.6925
STEEL	1.336	.763
TOTAL Ix ALUM + Ix STL X2.9	10.1755	



JAMB 'J4'

	Ix IN^4	Sx IN^3
ALUMINUM	4.5110	1.9537
STEEL	3.5210	1.706
TOTAL Ix ALUM + Ix STL X2.9	14.7219	

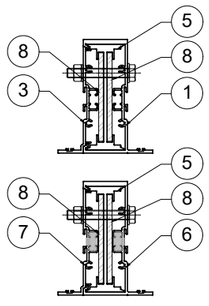


MULLION 'M1'

Ix IN^4	Sx IN^3
5.1380	2.1170

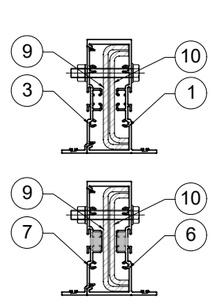
MULLION 'M2'

Ix IN^4	Sx IN^3
7.8700	3.2427



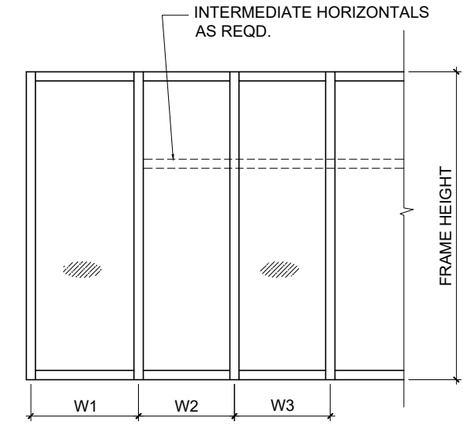
MULLION 'M3'

	Ix IN^4	Sx IN^3
ALUMINUM	7.8700	3.2427
STEEL	1.336	.763
TOTAL Ix ALUM + Ix STL X2.9	11.8285	



MULLION 'M4'

	Ix IN^4	Sx IN^3
ALUMINUM	5.1380	2.1170
STEEL	3.5210	1.706
TOTAL Ix ALUM + Ix STL X2.9	15.3489	



CHARTS ABOVE SHOWS JAMB / MULLION CAPACITIES

FOR LEVEL 'E' IMPACT RATING LIMIT MAX. FRAME HEIGHT TO 97-3/4 IN. AND MAX. DESIGN LOAD TO 100.0 PSF

FOR SECURED JAMBS CONDITION SEE SHEET 9 OF 12.

WIDTH (W) = W1 AT FRAME JAMB

WIDTH (W) = $\frac{W2 + W3}{2}$ AT FRAME MULLION

MULLIONS

FLORIDA APPROVAL:

FL#19002.1

YIPING WANG LICENSE 55983 STATE OF FLORIDA PROFESSIONAL ENGINEER

YIPING WANG, P.E.
FLORIDA REGISTRATION
NO. #55983
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5110 N.W. 72 AVENUE BLDG.C
MIAMI, FL.33166
TEL:(305)752-4411 FAX:(305)406-3877

Rev. No.	Description	Date	Drawn By
1	FBC 2020 UPDATE	12/30/20	James

Drawn Date 12/30/2020

Scale

DRAWING NO.

AD20-39

CHART

ANCHOR LOAD CAPACITY - PSF							
ANCHOR TYPE		ANCHOR TYPE 'A'		ANCHOR TYPE 'B'		ANCHOR TYPE 'C'	
SHIM SPACE		1/4" MAX. SHIM		1/4" MAX. SHIM		1/4" MAX. SHIM	
WIDTH (W)	LENGTH (L)	4 ANCHORS EXT.(+) INT.(-)	6 ANCHORS EXT.(+) INT.(-)	4 ANCHORS EXT.(+) INT.(-)	6 ANCHORS EXT.(+) INT.(-)	4 ANCHORS EXT.(+) INT.(-)	6 ANCHORS EXT.(+) INT.(-)
30"	72"	131.0	131.0	131.0	131.0	131.0	131.0
36"		117.3	131.0	131.0	131.0	131.0	131.0
42"		100.6	131.0	129.5	131.0	131.0	131.0
48"		88.0	131.0	113.3	131.0	127.7	131.0
54"		78.2	117.3	100.7	131.0	113.5	131.0
60"		70.4	105.6	90.7	131.0	102.1	131.0
66"		64.0	96.0	82.4	123.6	92.8	131.0
72"		58.7	88.0	75.6	113.3	85.1	127.7
30"	78"	130.0	131.0	131.0	131.0	131.0	131.0
36"		108.3	131.0	131.0	131.0	131.0	131.0
42"		92.8	131.0	119.6	131.0	131.0	131.0
48"		81.2	121.8	104.6	131.0	117.8	131.0
54"		72.2	108.3	93.0	131.0	104.8	131.0
60"		65.0	97.5	83.7	125.5	94.3	131.0
30"	84"	120.7	131.0	131.0	131.0	131.0	131.0
36"		100.6	131.0	129.5	131.0	131.0	131.0
42"		86.2	129.3	111.0	131.0	125.1	131.0
48"		75.4	113.1	97.1	131.0	109.4	131.0
54"		67.0	100.6	86.3	129.5	97.3	131.0
60"		60.3	90.5	77.7	116.6	87.5	131.0
30"	90"	112.6	131.0	131.0	131.0	131.0	131.0
36"		93.9	131.0	120.9	131.0	131.0	131.0
42"		80.5	120.7	103.6	131.0	116.7	131.0
48"		70.4	105.6	90.7	131.0	102.1	131.0
54"		62.6	93.9	80.6	120.9	90.8	131.0
60"		56.3	84.5	72.5	108.8	81.7	122.6
30"	96"	105.6	131.0	131.0	131.0	131.0	131.0
36"		88.0	131.0	113.3	131.0	127.7	131.0
42"		75.4	113.1	97.1	131.0	109.4	131.0
48"		66.0	99.0	85.0	127.5	95.8	131.0
54"		58.7	88.0	75.6	113.3	85.1	127.7
60"		52.8	79.2	68.0	102.0	76.6	114.9
30"	97-3/4"	103.7	131.0	131.0	131.0	131.0	131.0
36"		86.4	129.6	111.3	131.0	125.4	131.0
42"		74.1	111.1	95.4	131.0	107.5	131.0
48"		64.8	97.2	83.5	125.2	94.0	131.0
54"		57.6	86.4	74.2	111.3	83.6	125.4
30"	102"	99.4	131.0	128.0	131.0	131.0	131.0
36"		82.8	124.2	106.7	131.0	120.2	131.0
42"		71.0	106.5	91.4	131.0	103.0	131.0
48"		62.1	93.2	80.0	120.0	90.1	131.0
54"		55.2	82.8	71.1	106.7	80.1	120.2
30"	108"	93.9	131.0	120.9	131.0	131.0	131.0
36"		78.2	117.3	100.7	131.0	113.5	131.0
42"		67.0	100.6	86.3	129.5	97.3	131.0
48"		58.7	88.0	75.6	113.3	85.1	127.7
54"		52.1	78.2	67.2	100.7	75.7	113.5
30"	114"	88.9	131.0	114.5	131.0	129.0	131.0
36"		74.1	111.2	95.4	131.0	107.5	131.0
42"		63.5	95.3	81.8	122.7	92.2	131.0
48"		55.6	83.4	71.6	107.4	80.6	120.9
54"		49.4	74.1	63.6	95.4	71.7	107.5
30"	120"	84.5	126.7	108.8	131.0	122.6	131.0
36"		70.4	105.6	90.7	131.0	102.1	131.0
42"		60.3	90.5	77.7	116.6	87.5	131.0
48"		52.8	79.2	68.0	102.0	76.6	114.9
54"		46.9	70.4	60.4	90.7	68.1	102.1

INTERPOLATION BETWEEN WIDTHS OR HEIGHTS ALLOWED.

ANCHOR LOAD CAPACITY - PSF							
ANCHOR TYPE		ANCHOR TYPE 'A'		ANCHOR TYPE 'B'		ANCHOR TYPE 'C'	
SHIM SPACE		1/4" MAX. SHIM		1/4" MAX. SHIM		1/4" MAX. SHIM	
WIDTH (W)	LENGTH (L)	4 ANCHORS EXT.(+) INT.(-)	6 ANCHORS EXT.(+) INT.(-)	4 ANCHORS EXT.(+) INT.(-)	6 ANCHORS EXT.(+) INT.(-)	4 ANCHORS EXT.(+) INT.(-)	6 ANCHORS EXT.(+) INT.(-)
30"	126"	80.5	120.7	103.6	131.0	116.7	131.0
36"		67.0	100.6	86.3	129.5	97.3	131.0
42"		57.5	86.2	74.0	111.0	83.4	125.1
48"		50.3	75.4	64.8	97.1	73.0	109.4
54"		44.7	67.0	57.6	86.3	64.8	97.3
30"	132"	76.8	115.2	98.9	131.0	111.4	131.0
36"		64.0	96.0	82.4	123.6	92.8	131.0
42"		54.9	82.3	70.6	106.0	79.6	119.4
48"		48.0	72.0	61.8	92.7	69.6	104.5
30"	138"	73.5	110.2	94.6	131.0	106.6	131.0
36"		61.2	91.8	78.8	118.3	88.8	131.0
42"		52.5	78.7	67.6	101.4	76.1	114.2
48"		45.9	68.9	59.1	88.7	66.6	99.9
30"	144"	70.4	105.6	90.7	131.0	102.1	131.0
36"		58.7	88.0	75.6	113.3	85.1	127.7
42"		50.3	75.4	64.8	97.1	73.0	109.4
48"		44.0	66.0	56.7	85.0	63.8	95.8

TYPICAL ANCHORS: SEE ELEV. FOR SPACING

LIMIT MAX. SHIMS TO 1/4"

TYPE 'A'- **1/4" DIA ULTRACON+ BY 'DEWALT'** (Fu=164 KSI, Fy=148 KSI)
INTO 2BY WOOD BUCKS OR WOOD STRUCTURES
1-1/2" MIN. PENETRATION INTO WOOD (HEAD / JAMBS)
THRU 1BY BUCKS INTO CONC. OR MASONRY
1-3/4" MIN. EMBED INTO CONCRETE (HEAD / JAMBS)
1-3/4" MIN. EMBED INTO FILLED BLOCKS (JAMBS)

TYPE 'AA'- **1/4" DIA ULTRACON+ BY 'DEWALT'** (Fu=164 KSI, Fy=148 KSI)
DIRECTLY INTO MASONRY
1-3/4" MIN. EMBED INTO FILLED BLOCKS (JAMBS)

ANCHOR EDGE DISTANCES
INTO CONCRETE AND MASONRY = 2-1/2" MIN.
INTO WOOD STRUCTURE = 1" MIN.

ANCHOR CL TO CL DISTANCE
INTO CONCRETE = 3" MIN.
INTO FILLED BLOCKS = 4" MIN.

MAX. SHIMS = 1/4"

TYPE 'B'- **1/4" DIA ULTRACON+ BY 'DEWALT'** (Fu=164 KSI, Fy=148 KSI)
DIRECTLY INTO CONCRETE
1-3/4" MIN. EMBED INTO CONCRETE (HEAD / SILL / JAMBS)

ANCHOR EDGE DISTANCES
INTO CONCRETE = 2-1/2" MIN.

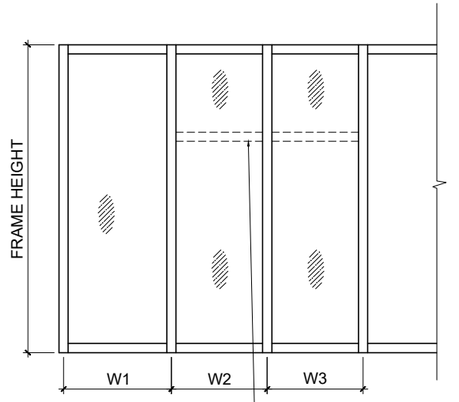
ANCHOR CL TO CL DISTANCE
INTO CONCRETE = 3" MIN.
INTO FILLED BLOCKS = 4" MIN.

MAX. SHIMS = 1/4"

TYPE 'C'- **1/4" DIA. TEKS OR SELF DRILLING SCREWS** (GRADE 5 CRS)
INTO MIAMI-DADE COUNTY APPROVED MULLIONS
OR
INTO METAL STRUCTURES
(3) THREADS MIN. PENETRATION BEYOND METAL SUBSTRATE
ALUMINUM: 1/8" THK. MIN. (6063-T5 MIN.)
STEEL: 1/8" THK. MIN. (Fy = 36 KSI MIN.)
(STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)

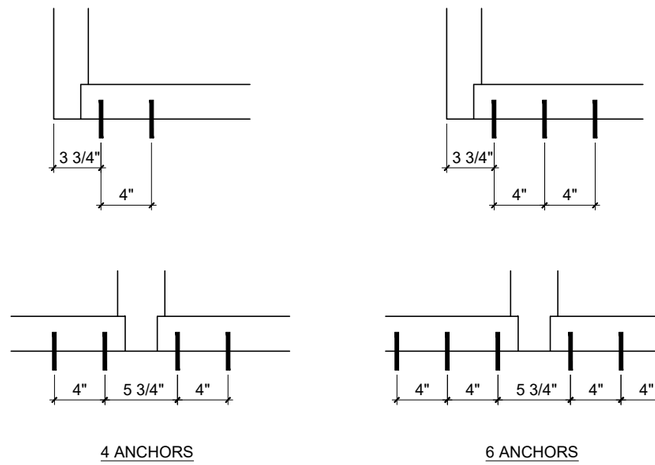
ANCHOR EDGE DISTANCES
INTO METAL STRUCTURE = 1/2" MIN.

WOOD AT HEAD OR JAMBS SG = 0.55 MIN.
CONCRETE AT HEAD, SILL OR JAMBS f'c = 3000 PSI MIN.
C-90 GROUT FILLED BLOCK AT JAMBS f'm = 2000 PSI MIN.



WIDTH (W) = W1
AT FRAME JAMB

WIDTH (W) = $\frac{W2 + W3}{2}$
AT FRAME MULLION



4 ANCHORS

6 ANCHORS

WOOD BUCKS AND METAL STRUCTURE NOT BY ENVIRALUM MUST SUSTAIN LOADS IMPOSED BY GLAZING SYSTEM AND TRANSFER THEM TO THE BUILDING STRUCTURE.

FLORIDA APPROVAL:
FL#19002.1

YIPING WANG LICENSE 56983 STATE OF FLORIDA PROFESSIONAL ENGINEER
YIPING WANG, P.E.
FLORIDA REGISTRATION NO. #56983
C.A.N. 28677
December 30th, 2020

MCY ENGINEERING, INC.
GLAZING CONSULTANTS
12781 MIRAMAR PARKWAY. #301 P: 305.271.0117
MIRAMAR, FL 33027
www.MCYEngineering.com mcy@mcyengineering.com

ENV-450 Alum. Window Wall System (LMI)

ENVIRALUM INDUSTRIES INC.
5110 N.W. 72 AVENUE BLDG.C
MIAMI, FL.33166
TEL:(305)752-4411 FAX:(305)406-3877

Rev. No.	Date	Drawn By	Description
1	12/30/20	James	FBC 2020 UPDATE

Drawn Date 12/30/2020
Scale

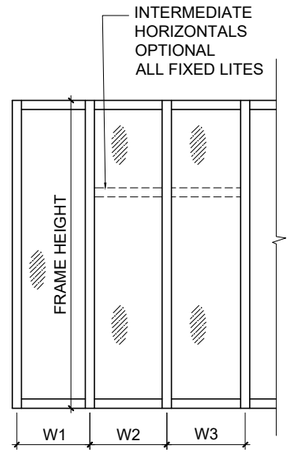
DRAWING NO.
AD20-39

CHART

ANCHOR LOAD CAPACITY - PSF											
ANCHOR TYPE		ANCHOR TYPE 'A1'		ANCHOR TYPE 'B1'		ANCHOR TYPE 'C1'		ANCHOR TYPE 'A1' & 'B1'		ANCHOR TYPE 'C1'	
SHIM SPACE		1/4" MAX. SHIM		1/4" MAX. SHIM		1/4" MAX. SHIM		3/8" MAX. SHIM		3/8" MAX. SHIM	
WIDTH (W)	LENGTH (L)	4 ANCHORS EXT.(+) INT.(-)	6 ANCHORS EXT.(+) INT.(-)	4 ANCHORS EXT.(+) INT.(-)	6 ANCHORS EXT.(+) INT.(-)	4 ANCHORS EXT.(+) INT.(-)	6 ANCHORS EXT.(+) INT.(-)	4 ANCHORS EXT.(+) INT.(-)	6 ANCHORS EXT.(+) INT.(-)	4 ANCHORS EXT.(+) INT.(-)	6 ANCHORS EXT.(+) INT.(-)
30"	72"	131.0	131.0	131.0	131.0	131.0	131.0	131.0	131.0	131.0	131.0
36"		131.0	131.0	131.0	131.0	131.0	131.0	116.0	131.0	131.0	131.0
42"		131.0	131.0	131.0	131.0	131.0	131.0	99.5	131.0	131.0	131.0
48"		114.7	131.0	131.0	131.0	131.0	131.0	87.0	130.6	123.9	131.0
54"		101.9	131.0	119.1	131.0	131.0	131.0	77.4	116.0	110.1	131.0
60"		91.7	131.0	107.2	131.0	130.7	131.0	69.6	104.4	99.1	131.0
66"		83.4	125.1	97.5	131.0	118.8	131.0	63.3	94.9	90.1	131.0
72"		76.4	114.7	89.3	131.0	108.9	131.0	58.0	87.0	82.6	123.9
30"	78"	131.0	131.0	131.0	131.0	131.0	131.0	128.5	131.0	131.0	131.0
36"		131.0	131.0	131.0	131.0	131.0	131.0	107.1	131.0	131.0	131.0
42"		121.0	131.0	131.0	131.0	131.0	131.0	91.8	131.0	130.7	131.0
48"		105.8	131.0	123.7	131.0	131.0	131.0	80.3	120.5	114.3	131.0
54"		94.1	131.0	109.9	131.0	131.0	131.0	71.4	107.1	101.6	131.0
60"		84.7	127.0	99.0	131.0	120.6	131.0	64.3	96.4	91.5	131.0
30"	84"	131.0	131.0	131.0	131.0	131.0	131.0	119.4	131.0	131.0	131.0
36"		131.0	131.0	131.0	131.0	131.0	131.0	99.5	131.0	131.0	131.0
42"		112.3	131.0	131.0	131.0	131.0	131.0	85.3	127.9	121.3	131.0
48"		98.3	131.0	114.9	131.0	131.0	131.0	74.6	111.9	106.2	131.0
54"		87.4	131.0	102.1	131.0	124.4	131.0	66.3	99.5	94.4	131.0
60"		78.6	117.9	91.9	131.0	112.0	131.0	59.7	89.5	84.9	127.4
30"	90"	131.0	131.0	131.0	131.0	131.0	131.0	111.4	131.0	131.0	131.0
36"		122.3	131.0	131.0	131.0	131.0	131.0	92.8	131.0	131.0	131.0
42"		104.8	131.0	122.5	131.0	131.0	131.0	79.6	119.4	113.2	131.0
48"		91.7	131.0	107.2	131.0	130.7	131.0	96.6	104.4	99.1	131.0
54"		81.5	122.3	95.3	131.0	116.1	131.0	61.9	92.8	88.1	131.0
60"		73.4	110.1	85.8	128.6	104.5	131.0	55.7	83.6	79.3	118.9
30"	96"	131.0	131.0	131.0	131.0	131.0	131.0	104.4	131.0	131.0	131.0
36"		114.7	131.0	131.0	131.0	131.0	131.0	87.0	130.6	123.9	131.0
42"		98.3	131.0	114.9	131.0	131.0	131.0	74.6	111.9	106.2	131.0
48"		86.0	129.0	100.5	131.0	122.5	131.0	65.3	97.9	92.9	131.0
54"		76.4	114.7	89.3	131.0	108.9	131.0	58.0	87.0	82.6	123.9
60"		68.8	103.2	80.4	120.6	98.0	131.0	52.2	78.3	74.3	111.5
30"	97-3/4"	131.0	131.0	131.0	131.0	131.0	131.0	102.6	131.0	131.0	131.0
36"		112.6	131.0	131.0	131.0	131.0	131.0	85.5	128.2	121.6	131.0
42"		96.5	131.0	112.8	131.0	131.0	131.0	73.3	109.9	104.3	131.0
48"		84.5	126.7	98.7	131.0	120.3	131.0	64.1	96.2	91.2	131.0
54"		75.1	112.6	87.7	131.0	106.9	131.0	57.0	85.5	81.1	121.6
30"	102"	129.5	131.0	131.0	131.0	131.0	131.0	98.3	131.0	131.0	131.0
36"		107.9	131.0	126.1	131.0	131.0	131.0	81.9	122.9	116.6	131.0
42"		92.5	131.0	108.1	131.0	131.0	131.0	70.2	105.3	99.9	131.0
48"		80.9	121.4	94.6	131.0	115.3	131.0	61.4	92.2	87.4	131.0
54"		71.9	107.9	84.1	126.1	102.5	131.0	54.6	81.9	77.7	116.6
30"	108"	122.3	131.0	131.0	131.0	131.0	131.0	92.8	131.0	131.0	131.0
36"		101.9	131.0	119.1	131.0	131.0	131.0	77.4	116.0	110.1	131.0
42"		87.4	131.0	102.1	131.0	124.4	131.0	66.3	99.5	94.4	131.0
48"		76.4	114.7	89.3	131.0	108.9	131.0	58.0	87.0	82.6	123.9
54"		68.0	101.9	79.4	119.1	96.8	131.0	51.6	77.4	73.4	110.1
30"	114"	115.9	131.0	131.0	131.0	131.0	131.0	87.9	131.0	125.2	131.0
36"		96.6	131.0	112.8	131.0	131.0	131.0	73.3	109.9	104.3	131.0
42"		82.8	124.2	96.7	131.0	117.9	131.0	62.8	94.2	89.4	131.0
48"		72.4	108.6	84.6	126.9	103.2	131.0	55.0	82.5	78.2	117.3
54"		64.4	96.6	75.2	112.8	91.7	131.0	48.9	73.3	69.5	104.3
30"	120"	110.1	131.0	128.6	131.0	131.0	131.0	83.6	125.3	118.9	131.0
36"		91.7	131.0	107.2	131.0	130.7	131.0	69.6	104.4	99.1	131.0
42"		78.6	117.9	91.9	131.0	112.0	131.0	59.7	89.5	84.9	127.4
48"		68.8	103.2	80.4	120.6	98.0	131.0	52.2	78.3	74.3	111.5
54"		61.2	91.7	71.5	107.2	87.1	130.7	46.4	69.6	66.1	99.1

INTERPOLATION BETWEEN WIDTHS OR HEIGHTS ALLOWED.

ANCHOR LOAD CAPACITY - PSF											
ANCHOR TYPE		ANCHOR TYPE 'A1'		ANCHOR TYPE 'B1'		ANCHOR TYPE 'C1'		ANCHOR TYPE 'A1' & 'B1'		ANCHOR TYPE 'C1'	
SHIM SPACE		1/4" MAX. SHIM		1/4" MAX. SHIM		1/4" MAX. SHIM		3/8" MAX. SHIM		3/8" MAX. SHIM	
WIDTH (W)	LENGTH (L)	4 ANCHORS EXT.(+) INT.(-)	6 ANCHORS EXT.(+) INT.(-)	4 ANCHORS EXT.(+) INT.(-)	6 ANCHORS EXT.(+) INT.(-)	4 ANCHORS EXT.(+) INT.(-)	6 ANCHORS EXT.(+) INT.(-)	4 ANCHORS EXT.(+) INT.(-)	6 ANCHORS EXT.(+) INT.(-)	4 ANCHORS EXT.(+) INT.(-)	6 ANCHORS EXT.(+) INT.(-)
30"	126"	104.8	131.0	122.5	131.0	131.0	131.0	79.6	119.4	113.2	131.0
36"		87.4	131.0	102.1	131.0	124.4	131.0	66.3	99.5	94.4	131.0
42"		74.9	112.3	87.5	131.0	106.7	131.0	56.8	85.3	80.9	121.3
48"		65.5	98.3	76.6	114.9	93.3	131.0	49.7	74.6	70.8	106.2
54"		58.2	87.4	68.1	102.1	83.0	124.4	44.2	66.3	62.9	94.4
30"	132"	100.1	131.0	116.9	131.0	131.0	131.0	76.0	113.9	108.1	131.0
36"		83.4	125.1	97.5	131.0	118.8	131.0	63.3	94.9	90.1	131.0
42"		71.5	107.2	83.5	125.3	101.8	131.0	54.3	81.4	77.2	115.8
48"		62.5	93.8	73.1	109.6	89.1	131.0	47.5	71.2	67.6	101.3
30"	138"	95.7	131.0	111.9	131.0	131.0	131.0	72.7	109.0	103.4	131.0
36"		79.8	119.7	93.2	131.0	113.6	131.0	60.5	90.8	86.2	129.3
42"		68.4	102.6	79.9	119.9	97.4	131.0	51.9	77.8	73.9	110.8
48"		59.8	89.7	69.9	104.9	85.2	127.8	45.4	68.1	64.6	96.9
30"	144"	91.7	131.0	107.2	131.0	130.7	131.0	69.6	104.4	99.1	131.0
36"		76.4	114.7	89.3	131.0	108.9	131.0	58.0	87.0	82.6	123.9
42"		65.5	98.3	76.6	114.9	93.3	131.0	49.7	74.6	70.8	106.2
48"		57.3	86.0	67.0	100.5	81.7	122.5	43.5	65.3	61.9	92.9



WIDTH (W) = W1
AT FRAME JAMB

WIDTH (W) = $\frac{W2 + W3}{2}$
AT FRAME MULLION

TYPICAL ANCHORS: SEE ELEV. FOR SPACING

MAX. SHIMS = 1/4" — LIMIT MAX. SHIMS TO 1/4"

TYPE 'A1'- 5/16" DIA ULTRACON BY 'DEWALT' (Fu=177 KSI, Fy=155 KSI)
INTO WOOD STRUCTURES
2" MIN. PENETRATION INTO WOOD (HEAD / JAMBS)

THRU 1BY OR 2BY BUCKS INTO CONC. OR MASONRY
1-3/4" MIN. EMBED INTO CONCRETE (HEAD / JAMBS)
1-3/4" MIN. EMBED INTO FILLED BLOCKS (JAMBS)

TYPE 'AA1'- 5/16" DIA ULTRACON BY 'DEWALT' (Fu=177 KSI, Fy=155 KSI)
DIRECTLY INTO MASONRY
1-3/4" MIN. EMBED INTO FILLED BLOCKS (JAMBS)

ANCHOR EDGE DISTANCES
INTO CONCRETE AND MASONRY = 2-1/2" MIN.
INTO WOOD STRUCTURE = 1-1/4" MIN.

ANCHOR CL TO CL DISTANCE
INTO CONCRETE = 3" MIN.
INTO FILLED BLOCKS = 4" MIN.

MAX. SHIMS = 1/4"

TYPE 'B1'- 5/16" DIA ULTRACON BY 'DEWALT' (Fu=177 KSI, Fy=155 KSI)
DIRECTLY INTO CONCRETE
1-3/4" MIN. EMBED INTO CONCRETE (HEAD / SILL / JAMBS)

ANCHOR EDGE DISTANCES
INTO CONCRETE = 2-3/16" MIN.

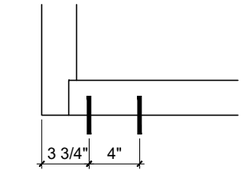
ANCHOR CL TO CL DISTANCE
INTO CONCRETE = 3" MIN.
INTO FILLED BLOCKS = 4" MIN.

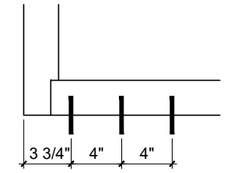
MAX. SHIMS = 1/4"

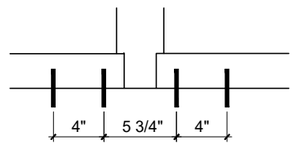
TYPE 'C1'- 5/16" DIA. TEKS OR SELF DRILLING SCREWS (GRADE 5 CRS)
INTO MIAMI-DADE COUNTY APPROVED MULLIONS
OR
INTO METAL STRUCTURES
(3) THREADS MIN. PENETRATION BEYOND METAL SUBSTRATE
ALUMINUM: 1/8" THK. MIN. (6063-T5 MIN.)
STEEL: 1/8" THK. MIN. (Fy = 36 KSI MIN.)
(STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)

ANCHOR EDGE DISTANCES
INTO METAL STRUCTURE = 1/2" MIN.

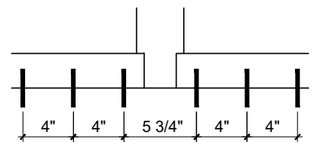
WOOD AT HEAD OR JAMBS SG = 0.55 MIN.
CONCRETE AT HEAD, SILL OR JAMBS f'c = 3000 PSI MIN.
C-90 GROUT FILLED BLOCK AT JAMBS f'm = 2000 PSI MIN.







4 ANCHORS



6 ANCHORS

WOOD BUCKS AND METAL STRUCTURE NOT BY ENVIRALUM MUST SUSTAIN LOADS IMPOSED BY GLAZING SYSTEM AND TRANSFER THEM TO THE BUILDING STRUCTURE.

FLORIDA APPROVAL:
FL#19002.1

YIPING WANG LICENSE 55983 STATE OF FLORIDA PROFESSIONAL ENGINEER
YIPING WANG, P.E.
FLORIDA REGISTRATION NO. 55983
C.A.N. 28677
December 30th, 2020

MCY ENGINEERING, INC.
GLAZING CONSULTANTS
12781 MIRAMAR PARKWAY. #301 P: 305.271.0117
MIRAMAR, FL 33027
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ENV-450 Alum. Window Wall System (LMI)

ENVIRALUM INDUSTRIES INC.
5110 N.W. 72 AVENUE BLDG.C
MIAMI, FL.33166
TEL.(305)752-4411 FAX.(305)406-3877

Rev. No.	Date	Drawn By	Description
1	12/30/20	James	FBC 2020 UPDATE

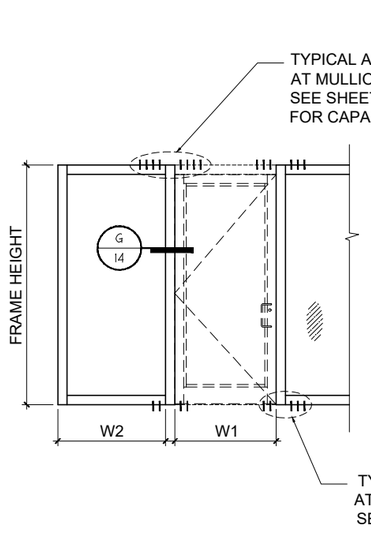
Drawn Date 12/30/2020
Scale

DRAWING NO.
AD20–39

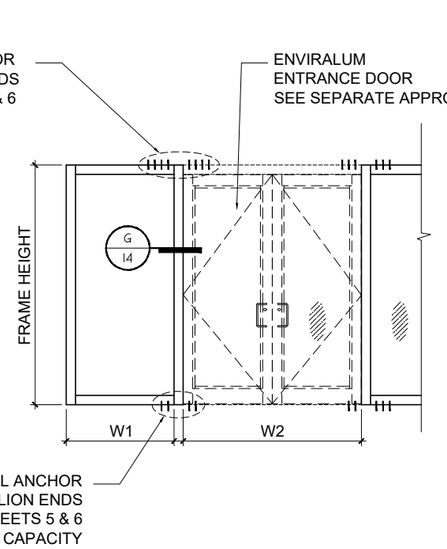
CHART

6 OF 16

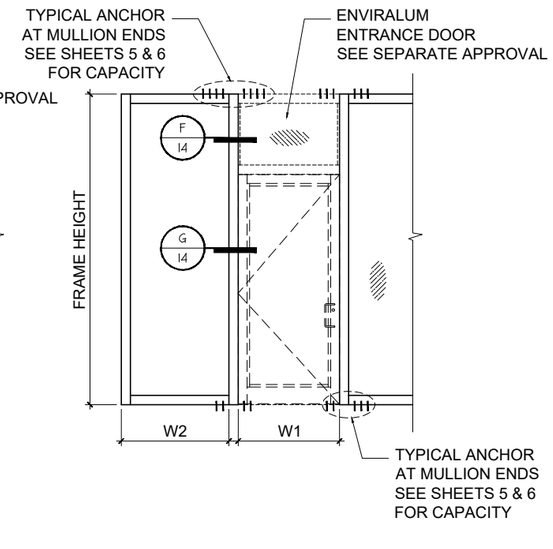
DOOR MULLION LOAD CAPACITY - PSF							
NOMINAL DIMS.		MULL 'DM1'		MULL 'DM2'		MULL 'DM3'	
WIDTH (W)	FRAME HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
40-3/4"	90"	100.0	100.0	100.0	100.0	100.0	100.0
43-3/4"		100.0	100.0	97.0	97.0	100.0	100.0
46-3/4"		100.0	100.0	90.8	90.8	100.0	100.0
49-3/4"		100.0	100.0	85.3	85.3	100.0	100.0
52-3/4"		100.0	100.0	80.4	80.4	100.0	100.0
55-3/4"		100.0	100.0	76.1	76.1	100.0	100.0
40-3/4"	96"	100.0	100.0	91.5	91.5	100.0	100.0
43-3/4"		100.0	100.0	85.3	85.3	100.0	100.0
46-3/4"		100.0	100.0	79.8	79.8	100.0	100.0
49-3/4"		100.0	100.0	75.0	75.0	100.0	100.0
52-3/4"		100.0	100.0	70.7	70.7	100.0	100.0
55-3/4"		94.6	94.6	66.9	66.9	100.0	100.0
40-3/4"	97-3/4"	100.0	100.0	88.3	88.3	100.0	100.0
43-3/4"		100.0	100.0	82.2	82.2	100.0	100.0
46-3/4"		100.0	100.0	76.9	76.9	100.0	100.0
49-3/4"		100.0	100.0	72.3	72.3	100.0	100.0
52-3/4"		96.4	96.4	68.2	68.2	100.0	100.0
55-3/4"		91.2	91.2	64.5	64.5	100.0	100.0
40-3/4"	102"	75.0	75.0	75.0	75.0	75.0	75.0
43-3/4"		75.0	75.0	75.0	75.0	75.0	75.0
46-3/4"		75.0	75.0	70.7	70.7	75.0	75.0
49-3/4"		75.0	75.0	66.4	66.4	75.0	75.0
52-3/4"		75.0	75.0	62.6	62.6	75.0	75.0
55-3/4"		75.0	75.0	59.3	59.3	75.0	75.0
40-3/4"	108"	75.0	75.0	72.3	72.3	75.0	75.0
43-3/4"		75.0	75.0	67.4	67.4	75.0	75.0
46-3/4"		75.0	75.0	63.0	63.0	75.0	75.0
49-3/4"		75.0	75.0	61.4	61.4	75.0	75.0
52-3/4"		75.0	75.0	59.2	59.2	75.0	75.0
55-3/4"		75.0	75.0	55.9	55.9	75.0	75.0
40-3/4"	114"	75.0	75.0	64.9	64.9	75.0	75.0
43-3/4"		75.0	75.0	60.5	60.5	75.0	75.0
46-3/4"		75.0	75.0	56.6	56.6	75.0	75.0
49-3/4"		75.0	75.0	53.2	53.2	75.0	75.0
40-3/4"	120"	75.0	75.0	58.6	58.6	75.0	75.0
43-3/4"		75.0	75.0	54.6	54.6	75.0	75.0
46-3/4"		72.2	72.2	51.1	51.1	75.0	75.0
49-3/4"		67.8	67.8	48.0	48.0	75.0	75.0



$$\text{WIDTH (W)} = \frac{W1 + W2}{2} + 1.750$$



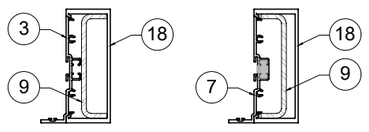
$$\text{WIDTH (W)} = \frac{W1}{2} + \frac{W2}{4} + 1.750$$



$$\text{WIDTH (W)} = \frac{W1 + W2}{2} + 1.750$$

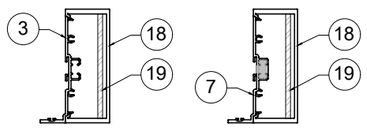
CHARTS ABOVE SHOWS DOOR MULLION CAPACITIES

FOR LEVEL 'E' IMPACT RATING
LIMIT MAX. FRAME HEIGHT TO 97-3/4 IN.
AND MAX. DESIGN LOAD TO 100.0 PSF



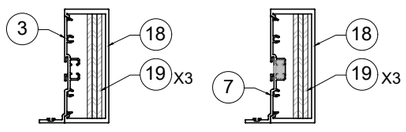
DOOR MULL 'DM1'

	Ix IN^4	Sx IN^3
ALUMINUM	5.0950	2.0993
STEEL	2.2740	1.1025
TOTAL Ix ALUM + Ix STL X2.9	11.6896	



DOOR MULL 'DM2'

	Ix IN^4	Sx IN^3
ALUMINUM	5.0950	2.0993
STEEL	3.281	1.590
TOTAL Ix ALUM + Ix STL X2.9	14.6099	



DOOR MULL 'DM3'

	Ix IN^4	Sx IN^3
ALUMINUM	5.0950	2.0993
STEEL	9.843	1.590
TOTAL Ix ALUM + Ix STL X2.9	14.6099	

DOOR MULLION

FLORIDA APPROVAL:
FL#19002.1

YIPING WANG LICENSE 55983 STATE OF FLORIDA PROFESSIONAL ENGINEER

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CHART

7 OF 16

DOOR MULLION LOAD CAPACITY - PSF					
NOMINAL DIMS.				MULL 'DM1'	MULL 'DM2'
FRAME HEIGHT INCHES	DOOR HEIGHT INCHES	WIDTH (W1) INCHES	WIDTH (W2) INCHES	EXT.(+) INT.(-)	EXT.(+) INT.(-)
102	80	84	18	75.0	75.0
			24	75.0	75.0
			30	75.0	75.0
			36	75.0	75.0
			42	75.0	75.0
			48	75.0	75.0
		96	18	75.0	75.0
			24	75.0	75.0
			30	75.0	75.0
			36	75.0	75.0
			42	75.0	75.0
			48	72.7	75.0
108	80	72	18	75.0	75.0
			24	75.0	75.0
			30	75.0	75.0
			36	75.0	75.0
			42	75.0	75.0
			48	74.6	75.0
		84	18	75.0	75.0
			24	75.0	75.0
			30	75.0	75.0
			36	75.0	75.0
			42	71.7	75.0
			48	68.2	75.0
		96	18	75.0	75.0
			24	75.0	75.0
			30	72.6	75.0
			36	69.0	75.0
			42	65.7	75.0
			48	62.7	75.0
114	80	60	18	75.0	75.0
			24	75.0	75.0
			30	75.0	75.0
			36	75.0	75.0
			42	75.0	75.0
			48	72.5	75.0
		72	18	75.0	75.0
			24	75.0	75.0
			30	75.0	75.0
			36	73.2	75.0
			42	69.2	75.0
			48	65.5	75.0
		84	18	75.0	75.0
			24	73.9	75.0
			30	69.8	75.0
			36	66.1	75.0
			42	62.8	75.0
			48	59.8	74.7
		96	18	70.4	75.0
			24	66.7	75.0
			30	63.3	75.0
			36	60.2	75.0
			42	57.5	71.8
			48	54.9	68.6

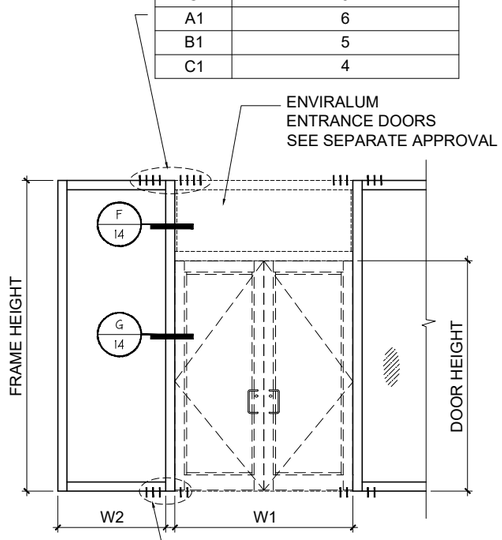
DOOR MULLION LOAD CAPACITY - PSF					
NOMINAL DIMS.				MULL 'DM1'	MULL 'DM2'
FRAME HEIGHT INCHES	DOOR HEIGHT INCHES	WIDTH (W1) INCHES	WIDTH (W2) INCHES	EXT.(+) INT.(-)	EXT.(+) INT.(-)
120	80	60	18	75.0	75.0
			24	75.0	75.0
			30	75.0	75.0
			36	72.9	75.0
			42	68.4	75.0
			48	64.5	75.0
		72	18	75.0	75.0
			24	73.4	75.0
			30	68.9	75.0
			36	64.9	75.0
			42	61.4	75.0
			48	58.2	72.7
		84	18	69.4	75.0
			24	65.3	75.0
			30	61.7	75.0
			36	58.5	73.2
			42	55.6	69.5
			48	53.0	66.3
		96	18	62.1	75.0
			24	58.9	73.6
			30	55.9	69.9
			36	53.3	66.6
			42	50.9	63.6
			48	48.7	60.8
126	80	60	18	75.0	75.0
			24	74.8	75.0
			30	69.7	75.0
			36	65.3	75.0
			42	61.3	75.0
			48	57.9	72.3
		72	18	70.1	75.0
			24	65.6	75.0
			30	61.6	75.0
			36	58.1	72.6
			42	55.0	68.7
			48	52.2	65.2
		84	18	61.9	75.0
			24	58.3	72.9
			30	55.2	69.0
			36	52.4	65.4
			42	49.8	62.2
		96	18	55.4	69.3
			24	52.6	65.7
			30	50.0	62.5
132	80	60	18	72.8	75.0
			24	67.5	75.0
			30	62.9	75.0
			36	58.9	73.7
			42	55.4	69.3
			48	52.3	65.4
		72	18	63.1	75.0
			24	59.1	73.9
			30	55.6	69.5
			36	52.4	65.5
			42	49.6	62.0
			48	47.1	58.9
		84	18	55.7	69.7
			24	52.6	65.7
			30	49.8	62.2
			36	47.2	59.0
		96	18	49.9	62.3
			24	47.3	59.2

DOOR MULLION LOAD CAPACITY - PSF					
NOMINAL DIMS.				MULL 'DM1'	MULL 'DM2'
FRAME HEIGHT INCHES	DOOR HEIGHT INCHES	WIDTH (W1) INCHES	WIDTH (W2) INCHES	EXT.(+) INT.(-)	EXT.(+) INT.(-)
138	80	60	18	66.1	75.0
			24	61.3	75.0
			30	57.2	71.5
			36	53.6	67.0
			42	50.4	63.0
			48	47.6	59.5
		72	18	57.3	71.6
			24	53.7	67.1
			30	50.5	63.1
			36	47.7	59.6
			42	45.1	56.4
		84	18	50.6	63.2
			24	47.7	59.7
			30	45.2	56.5
		96	18	45.3	56.6
144	80	60	18	60.4	75.0
			24	56.1	70.1
			30	52.3	65.4
			36	49.0	61.3
			42	46.1	57.7
			48	43.6	54.4
		72	18	52.3	65.4
			24	49.1	61.3
			30	46.2	57.7
			36	43.6	54.5
			42	41.3	51.6
		84	18	46.2	57.7
			24	43.6	54.5
			30	41.3	51.6
		96	18	41.3	51.7

CHARTS ABOVE SHOWS DOOR MULLION CAPACITIES

FOR LEVEL 'E' IMPACT RATING
LIMIT MAX. DESIGN LOAD TO 70.0 PSF

ANCHOR TYPES	TOTAL NO. OF ANCHORS AT DOOR MULLION HEAD
A	8
B	6
C	5
A1	6
B1	5
C1	4



ANCHOR TYPES	TOTAL NO. OF ANCHORS AT DOOR MULLION BOTTOM
B	5
B1	4

DOOR MULL 'DM1'

	Ix IN^4	Sx IN^3
ALUMINUM	5.0950	2.0993
STEEL	2.2740	1.1025
TOTAL Ix ALUM + Ix STL X2.9	11.6896	

DOOR MULL 'DM2'

	Ix IN^4	Sx IN^3
ALUMINUM	5.0950	2.0993
STEEL	3.281	1.590
TOTAL Ix ALUM + Ix STL X2.9	14.6099	

DOOR MULLION

FLORIDA APPROVAL:
FL#19002.1

YIPING WANG
LICENSE
5586
STATE OF FLORIDA
PROFESSIONAL ENGINEER

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CHART

DOOR MULLION LOAD CAPACITY - PSF					
NOMINAL DIMS.				MULL 'DM1'	MULL 'DM2'
FRAME HEIGHT INCHES	DOOR HEIGHT INCHES	WIDTH (W1) INCHES	WIDTH (W2) INCHES	EXT.(+) INT.(-)	EXT.(+) INT.(-)
102	84	84	18	75.0	75.0
			24	75.0	75.0
			30	75.0	75.0
			36	75.0	75.0
			42	75.0	75.0
			48	75.0	75.0
		96	18	75.0	75.0
			24	75.0	75.0
			30	75.0	75.0
			36	75.0	75.0
			42	75.0	75.0
			48	75.0	75.0
108	84	72	18	75.0	75.0
			24	75.0	75.0
			30	75.0	75.0
			36	75.0	75.0
			42	75.0	75.0
			48	75.0	75.0
		84	18	75.0	75.0
			24	75.0	75.0
			30	75.0	75.0
			36	75.0	75.0
			42	73.7	75.0
			48	70.0	75.0
		96	18	75.0	75.0
			24	75.0	75.0
			30	75.0	75.0
			36	71.1	75.0
			42	67.7	75.0
			48	64.5	75.0
114	84	60	18	75.0	75.0
			24	75.0	75.0
			30	75.0	75.0
			36	75.0	75.0
			42	75.0	75.0
			48	73.9	75.0
		72	18	75.0	75.0
			24	75.0	75.0
			30	75.0	75.0
			36	74.9	75.0
			42	70.6	75.0
			48	66.8	75.0
		84	18	75.0	75.0
			24	75.0	75.0
			30	71.5	75.0
			36	67.6	75.0
			42	64.2	75.0
			48	61.0	75.0
		96	18	72.5	75.0
			24	68.5	75.0
			30	64.9	75.0
			36	61.7	75.0
			42	58.8	73.5
			48	56.1	70.2

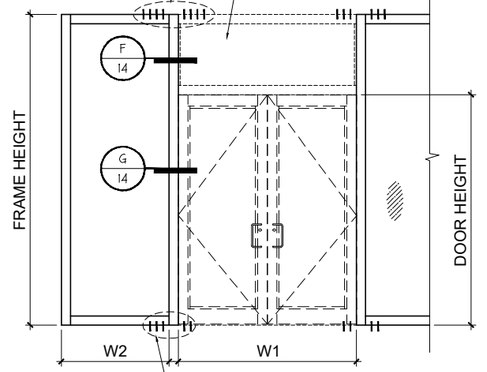
DOOR MULLION LOAD CAPACITY - PSF					
NOMINAL DIMS.				MULL 'DM1'	MULL 'DM2'
FRAME HEIGHT INCHES	DOOR HEIGHT INCHES	WIDTH (W1) INCHES	WIDTH (W2) INCHES	EXT.(+) INT.(-)	EXT.(+) INT.(-)
120	84	60	18	75.0	75.0
			24	75.0	75.0
			30	75.0	75.0
			36	74.0	75.0
			42	69.5	75.0
			48	65.4	75.0
		72	18	75.0	75.0
			24	74.8	75.0
			30	70.1	75.0
			36	66.0	75.0
			42	62.4	75.0
			48	59.1	73.9
		84	18	70.9	75.0
			24	66.7	75.0
			30	62.9	75.0
			36	59.6	74.5
			42	56.6	70.7
			48	53.9	67.3
		96	18	63.5	75.0
			24	60.1	75.0
			30	57.1	71.3
			36	54.3	67.9
			42	51.8	64.7
			48	49.5	61.9
126	84	60	18	75.0	75.0
			24	75.0	75.0
			30	70.7	75.0
			36	66.1	75.0
			42	62.1	75.0
			48	58.5	73.1
		72	18	71.2	75.0
			24	66.6	75.0
			30	62.5	75.0
			36	58.9	73.6
			42	55.7	69.6
			48	52.8	66.0
		84	18	62.9	75.0
			24	59.3	74.1
			30	56.0	70.0
			36	53.1	66.4
			42	50.5	63.1
		96	18	56.3	70.4
			24	53.4	66.7
			30	50.7	63.4
132	84	80	18	73.6	75.0
			24	68.2	75.0
			30	63.6	75.0
			36	59.5	74.4
			42	55.9	69.9
			48	52.8	65.9
		72	18	63.9	75.0
			24	59.8	74.7
			30	56.2	70.2
			36	53.0	66.2
			42	50.1	62.6
			48	47.6	59.4
		84	18	56.4	70.5
			24	53.2	66.5
			30	50.3	62.9
			36	47.7	59.7
		96	18	50.5	63.1
			24	47.9	59.9

DOOR MULLION LOAD CAPACITY - PSF					
NOMINAL DIMS.				MULL 'DM1'	MULL 'DM2'
FRAME HEIGHT INCHES	DOOR HEIGHT INCHES	WIDTH (W1) INCHES	WIDTH (W2) INCHES	EXT.(+) INT.(-)	EXT.(+) INT.(-)
138	84	60	18	66.7	75.0
			24	61.8	75.0
			30	57.6	72.0
			36	54.0	67.5
			42	50.8	63.4
			48	47.9	59.9
		72	18	57.8	72.3
			24	54.1	67.7
			30	50.9	63.6
			36	48.0	60.0
			42	45.5	56.8
		84	18	51.0	63.8
			24	48.2	60.2
			30	45.6	57.0
		96	18	45.7	57.1
144	84	60	18	60.8	75.0
			24	56.4	70.5
			30	52.6	65.7
			36	49.3	61.6
			42	46.3	57.9
			48	43.7	54.7
		72	18	52.7	65.8
			24	49.3	61.7
			30	46.4	58.0
			36	43.8	54.8
			42	41.5	51.9
		84	18	46.5	58.1
			24	43.9	54.8
			30	41.5	51.9
		96	18	41.6	52.0

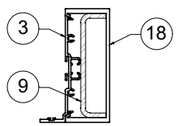
CHARTS ABOVE SHOWS DOOR MULLION CAPACITIES

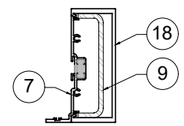
FOR LEVEL 'E' IMPACT RATING
LIMIT MAX. DESIGN LOAD TO 70.0 PSF

ANCHOR TYPES	TOTAL NO. OF ANCHORS AT DOOR MULLION HEAD
A	8
B	6
C	5
A1	6
B1	5
C1	4



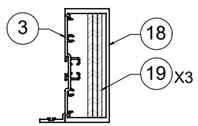
ANCHOR TYPES	TOTAL NO. OF ANCHORS AT DOOR MULLION BOTTOM
B	5
B1	4

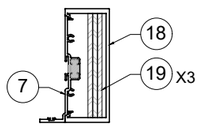




DOOR MULL 'DM1'

	Ix IN^4	Sx IN^3
ALUMINUM	5.0950	2.0993
STEEL	2.2740	1.1025
TOTAL Ix ALUM + Ix STL X2.9	11.6896	





DOOR MULL 'DM2'

	Ix IN^4	Sx IN^3
ALUMINUM	5.0950	2.0993
STEEL	3.281	1.590
TOTAL Ix ALUM + Ix STL X2.9	14.6099	

DOOR MULLION

FLORIDA APPROVAL:
FL#19002.1

YIPING WANG LICENSE 56683 STATE OF FLORIDA PROFESSIONAL ENGINEER

YIPING WANG, P.E.
FLORIDA REGISTRATION
NO. # 56983
C.A.N. 28677

December 30th, 2020

MCY ENGINEERING, INC.
GLAZING CONSULTANTS
12781 MIRAMAR PARKWAY. #301 P: 305.271.0117
MIRAMAR, FL 33027
mcy@mcyengineering.com
www.MCYEngineering.com

ENV-450 Alum. Window Wall System (LMI)

ENVIRALUM INDUSTRIES INC.
5110 N.W. 72 AVENUE BLDG.C
MIAMI, FL.33166
TEL:(305)752-4411 FAX:(305)406-3877

Rev. No.	Date	Drawn By	Description
1	12/30/20	James	FBC 2020 UPDATE

Drawn Date 12/30/2020

Scale

DRAWING NO.
AD20-39

CHART

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DOOR MULLION LOAD CAPACITY - PSF					
NOMINAL DIMS.				MULL 'DM1'	MULL 'DM2'
FRAME HEIGHT INCHES	DOOR HEIGHT INCHES	WIDTH (W1) INCHES	WIDTH (W2) INCHES	EXT.(+) INT.(-)	EXT.(+) INT.(-)
102	90	84	18	75.0	75.0
			24	75.0	75.0
			30	75.0	75.0
			36	75.0	75.0
			42	75.0	75.0
			48	75.0	75.0
		96	18	75.0	75.0
			24	75.0	75.0
			30	75.0	75.0
			36	75.0	75.0
			42	75.0	75.0
			48	75.0	75.0
108	90	72	18	75.0	75.0
			24	75.0	75.0
			30	75.0	75.0
			36	75.0	75.0
			42	75.0	75.0
			48	75.0	75.0
		84	18	75.0	75.0
			24	75.0	75.0
			30	75.0	75.0
			36	75.0	75.0
			42	75.0	75.0
			48	73.5	75.0
		96	18	75.0	75.0
			24	75.0	75.0
			30	75.0	75.0
			36	75.0	75.0
			42	71.4	75.0
			48	67.9	75.0
114	90	60	18	75.0	75.0
			24	75.0	75.0
			30	75.0	75.0
			36	75.0	75.0
			42	75.0	75.0
			48	75.0	75.0
		72	18	75.0	75.0
			24	75.0	75.0
			30	75.0	75.0
			36	75.0	75.0
			42	73.4	75.0
			48	69.3	75.0
		84	18	75.0	75.0
			24	75.0	75.0
			30	74.9	75.0
			36	70.6	75.0
			42	66.8	75.0
			48	63.4	75.0
		96	18	75.0	75.0
			24	72.0	75.0
			30	68.1	75.0
			36	64.5	75.0
			42	61.4	75.0
			48	58.5	73.1

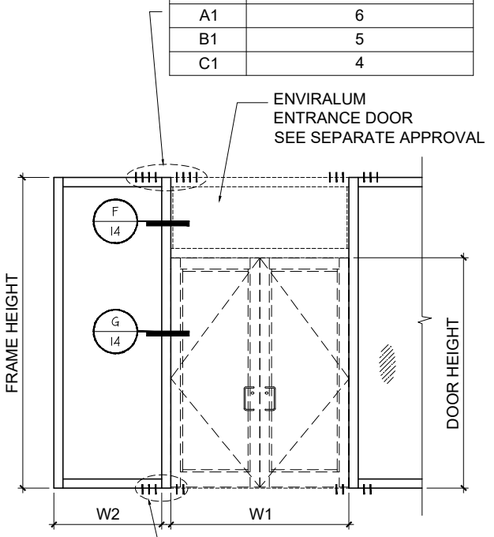
DOOR MULLION LOAD CAPACITY - PSF					
NOMINAL DIMS.				MULL 'DM1'	MULL 'DM2'
FRAME HEIGHT INCHES	DOOR HEIGHT INCHES	WIDTH (W1) INCHES	WIDTH (W2) INCHES	EXT.(+) INT.(-)	EXT.(+) INT.(-)
120	90	60	18	75.0	75.0
			24	75.0	75.0
			30	75.0	75.0
			36	75.0	75.0
			42	71.4	75.0
			48	67.2	75.0
		72	18	75.0	75.0
			24	75.0	75.0
			30	72.6	75.0
			36	68.2	75.0
			42	64.3	75.0
			48	60.8	75.0
		84	18	73.8	75.0
			24	69.2	75.0
			30	65.2	75.0
			36	61.7	75.0
			42	58.5	73.1
			48	55.6	69.4
		96	18	66.2	75.0
			24	62.5	75.0
			30	59.2	74.0
			36	56.3	70.3
			42	53.6	67.0
			48	51.1	63.9
126	90	60	18	75.0	75.0
			24	75.0	75.0
			30	72.5	75.0
			36	67.7	75.0
			42	63.5	75.0
			48	59.7	74.7
		72	18	73.4	75.0
			24	68.5	75.0
			30	64.2	75.0
			36	60.4	75.0
			42	57.0	71.3
			48	54.0	67.5
		84	18	64.9	75.0
			24	61.1	75.0
			30	57.6	72.0
			36	54.5	68.2
			42	51.8	64.7
		96	18	58.2	72.8
			24	55.1	68.8
			30	52.3	65.3
132	90	60	18	75.0	75.0
			24	69.7	75.0
			30	64.9	75.0
			36	60.6	75.0
			42	56.9	71.1
			48	53.6	67.0
		72	18	65.5	75.0
			24	61.2	75.0
			30	57.4	71.7
			36	54.0	67.5
			42	51.1	63.8
			48	48.4	60.5
		84	18	57.8	72.3
			24	54.5	68.1
			30	51.4	64.3
			36	48.8	60.9
		96	18	51.8	64.8
			24	49.1	61.4

DOOR MULLION LOAD CAPACITY - PSF					
NOMINAL DIMS.				MULL 'DM1'	MULL 'DM2'
FRAME HEIGHT INCHES	DOOR HEIGHT INCHES	WIDTH (W1) INCHES	WIDTH (W2) INCHES	EXT.(+) INT.(-)	EXT.(+) INT.(-)
138	90	60	18	67.9	75.0
			24	62.8	75.0
			30	58.5	73.1
			36	54.8	68.4
			42	51.4	64.3
			48	48.5	60.6
		72	18	58.9	73.6
			24	55.1	68.8
			30	51.7	64.7
			36	48.8	61.0
			42	46.1	57.7
		84	18	52.0	65.0
			24	49.0	61.3
			30	46.4	57.9
		96	18	46.6	58.2
144	90	60	18	61.6	75.0
			24	57.1	71.3
			30	53.2	66.5
			36	49.8	62.3
			42	46.8	58.5
			48	44.2	55.2
		72	18	53.4	66.8
			24	50.0	62.5
			30	47.0	58.7
			36	44.3	55.4
			42	42.0	52.4
		84	18	47.2	59.0
			24	44.5	55.6
			30	42.1	52.6
		96	18	42.2	52.8

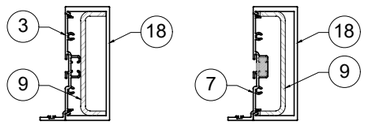
CHARTS ABOVE SHOWS DOOR MULLION CAPACITIES

FOR LEVEL 'E' IMPACT RATING
LIMIT MAX. DESIGN LOAD TO 70.0 PSF

ANCHOR TYPES	TOTAL NO. OF ANCHORS AT DOOR MULLION HEAD
A	8
B	6
C	5
A1	6
B1	5
C1	4

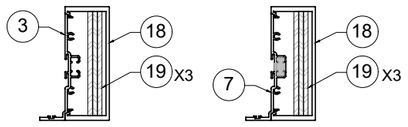


ANCHOR TYPES	TOTAL NO. OF ANCHORS AT DOOR MULLION BOTTOM
B	5
B1	4



DOOR MULL 'DM1'

	Ix IN^4	Sx IN^3
ALUMINUM	5.0950	2.0993
STEEL	2.2740	1.1025
TOTAL Ix ALUM + Ix STL X2.9	11.6896	



DOOR MULL 'DM2'

	Ix IN^4	Sx IN^3
ALUMINUM	5.0950	2.0993
STEEL	3.281	1.590
TOTAL Ix ALUM + Ix STL X2.9	14.6099	

DOOR MULLION

FLORIDA APPROVAL:
FL#19002.1

YIPING WANG
LICENSE
No. 55983
STATE OF FLORIDA
PROFESSIONAL ENGINEER

YIPING WANG, P.E.
FLORIDA REGISTRATION
NO. # 55983
C.A.N. 28677

December 30th, 2020

MCY ENGINEERING, INC.
GLAZING CONSULTANTS
12781 MIRAMAR PARKWAY. #301 P: 305.271.0117
MIRAMAR, FL 33027
mcy@mcyengineering.com
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TEL.:(305)752-4411 FAX:(305)406-3877

Rev. No.	Date	Drawn By	Description
1	12/30/20	James	FBC 2020 UPDATE

Drawn Date 12/30/2020

Scale

DRAWING NO.
AD20-39

CHART

10 OF 16

DOOR MULLION LOAD CAPACITY - PSF					
NOMINAL DIMS.				MULL 'DM1'	MULL 'DM2'
FRAME HEIGHT INCHES	DOOR HEIGHT INCHES	WIDTH (W1) INCHES	WIDTH (W2) INCHES	EXT.(+) INT.(-)	EXT.(+) INT.(-)
102	96	84	18	75.0	75.0
			24	75.0	75.0
			30	75.0	75.0
			36	75.0	75.0
			42	75.0	75.0
			48	75.0	75.0
		96	18	75.0	75.0
			24	75.0	75.0
			30	75.0	75.0
			36	75.0	75.0
			42	75.0	75.0
			48	75.0	75.0
108	96	72	18	75.0	75.0
			24	75.0	75.0
			30	75.0	75.0
			36	75.0	75.0
			42	75.0	75.0
			48	75.0	75.0
		84	18	75.0	75.0
			24	75.0	75.0
			30	75.0	75.0
			36	75.0	75.0
			42	75.0	75.0
			48	75.0	75.0
		96	18	75.0	75.0
			24	75.0	75.0
			30	75.0	75.0
			36	75.0	75.0
			42	75.0	75.0
			48	72.5	75.0
114	96	60	18	75.0	75.0
			24	75.0	75.0
			30	75.0	75.0
			36	75.0	75.0
			42	75.0	75.0
			48	75.0	75.0
		72	18	75.0	75.0
			24	75.0	75.0
			30	75.0	75.0
			36	75.0	75.0
			42	75.0	75.0
			48	72.5	75.0
		84	18	75.0	75.0
			24	75.0	75.0
			30	75.0	75.0
			36	74.6	75.0
			42	70.3	75.0
			48	66.6	75.0
		96	18	75.0	75.0
			24	75.0	75.0
			30	72.3	75.0
			36	68.3	75.0
			42	64.7	75.0
			48	61.6	75.0

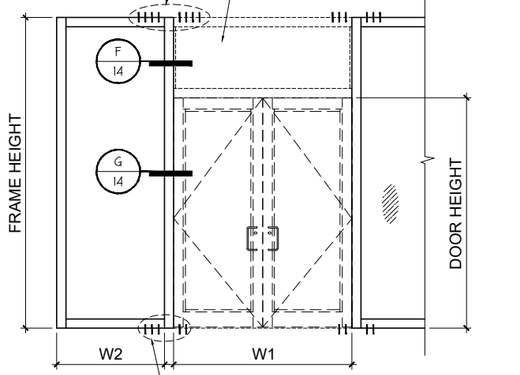
DOOR MULLION LOAD CAPACITY - PSF					
NOMINAL DIMS.				MULL 'DM1'	MULL 'DM2'
FRAME HEIGHT INCHES	DOOR HEIGHT INCHES	WIDTH (W1) INCHES	WIDTH (W2) INCHES	EXT.(+) INT.(-)	EXT.(+) INT.(-)
120	96	60	18	75.0	75.0
			24	75.0	75.0
			30	75.0	75.0
			36	75.0	75.0
			42	74.0	75.0
			48	69.5	75.0
		72	18	75.0	75.0
			24	75.0	75.0
			30	75.0	75.0
			36	71.0	75.0
			42	66.8	75.0
			48	63.1	75.0
		84	18	75.0	75.0
			24	72.7	75.0
			30	68.3	75.0
			36	64.4	75.0
			42	60.9	75.0
			48	57.8	72.2
		96	18	69.8	75.0
			24	65.7	75.0
			30	62.1	75.0
			36	58.8	73.5
			42	55.9	69.9
			48	53.3	66.6
126	96	60	18	75.0	75.0
			24	75.0	75.0
			30	74.9	75.0
			36	69.8	75.0
			42	65.3	75.0
			48	61.4	75.0
		72	18	75.0	75.0
			24	71.1	75.0
			30	66.5	75.0
			36	62.4	75.0
			42	58.8	73.5
			48	55.6	69.5
		84	18	67.7	75.0
			24	63.5	75.0
			30	59.8	74.7
			36	56.4	70.6
			42	53.5	66.9
		96	18	60.7	75.0
			24	57.3	71.6
			30	54.3	67.8
132	96	60	18	75.0	75.0
			24	71.7	75.0
			30	66.6	75.0
			36	62.1	75.0
			42	58.2	72.8
			48	54.8	68.5
		72	18	67.6	75.0
			24	63.0	75.0
			30	59.0	73.7
			36	55.5	69.3
			42	52.4	65.4
			48	49.6	61.9
		84	18	59.8	74.7
			24	56.2	70.2
			30	53.0	66.2
			36	50.1	62.6
		96	18	53.6	67.0
			24	50.7	63.3

DOOR MULLION LOAD CAPACITY - PSF					
NOMINAL DIMS.				MULL 'DM1'	MULL 'DM2'
FRAME HEIGHT INCHES	DOOR HEIGHT INCHES	WIDTH (W1) INCHES	WIDTH (W2) INCHES	EXT.(+) INT.(-)	EXT.(+) INT.(-)
138	96	60	18	69.5	75.0
			24	64.3	75.0
			30	59.8	74.7
			36	55.8	69.8
			42	52.4	65.5
			48	49.4	61.7
		72	18	60.4	75.0
			24	56.4	70.5
			30	52.9	66.1
			36	49.8	62.3
			42	47.1	58.8
		84	18	53.4	66.8
			24	50.3	62.8
			30	47.5	59.3
		96	18	47.9	59.8
144	96	60	18	62.8	75.0
			24	58.1	72.6
			30	54.1	67.6
			36	50.6	63.2
			42	47.5	59.4
			48	44.8	56.0
		72	18	54.5	68.1
			24	51.0	63.7
			30	47.8	59.8
			36	45.1	56.3
			42	42.6	53.3
		84	18	48.2	60.2
			24	45.4	56.7
			30	42.9	53.6
		96	18	43.1	53.9

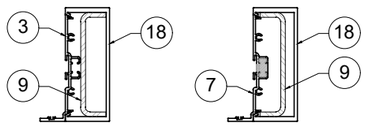
CHARTS ABOVE SHOWS DOOR MULLION CAPACITIES

FOR LEVEL 'E' IMPACT RATING
LIMIT MAX. DESIGN LOAD TO 70.0 PSF

ANCHOR TYPES	TOTAL NO. OF ANCHORS AT DOOR MULLION HEAD
A	8
B	6
C	5
A1	6
B1	5
C1	4

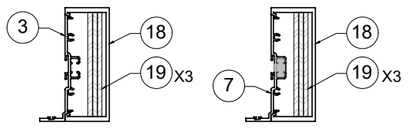


ANCHOR TYPES	TOTAL NO. OF ANCHORS AT DOOR MULLION BOTTOM
B	5
B1	4



DOOR MULL 'DM1'

	Ix IN^4	Sx IN^3
ALUMINUM	5.0950	2.0993
STEEL	2.2740	1.1025
TOTAL Ix ALUM + Ix STL X2.9	11.6896	



DOOR MULL 'DM2'

	Ix IN^4	Sx IN^3
ALUMINUM	5.0950	2.0993
STEEL	3.281	1.590
TOTAL Ix ALUM + Ix STL X2.9	14.6099	

DOOR MULLION

FLORIDA APPROVAL:
FL#19002.1

YIPING WANG LICENSE 55983 STATE OF FLORIDA PROFESSIONAL ENGINEER

YIPING WANG, P.E.
FLORIDA REGISTRATION
NO. # 55983
C.A.N. 28677

December 30th, 2020

MCY ENGINEERING, INC.
GLAZING CONSULTANTS
12781 MIRAMAR PARKWAY. #301 P: 305.271.0117
MIRAMAR, FL 33027
mcy@mcyengineering.com
www.MCYEngineering.com

ENV-450 Alum. Window Wall System (LMI)

ENVIRALUM INDUSTRIES INC.
5110 N.W. 72 AVENUE BLDG.C
MIAMI, FL.33166
TEL.(305)752-4411 FAX.(305)406-3877

Rev. No.	Date	Drawn By	Description
1	12/30/20	James	FBC 2020 UPDATE

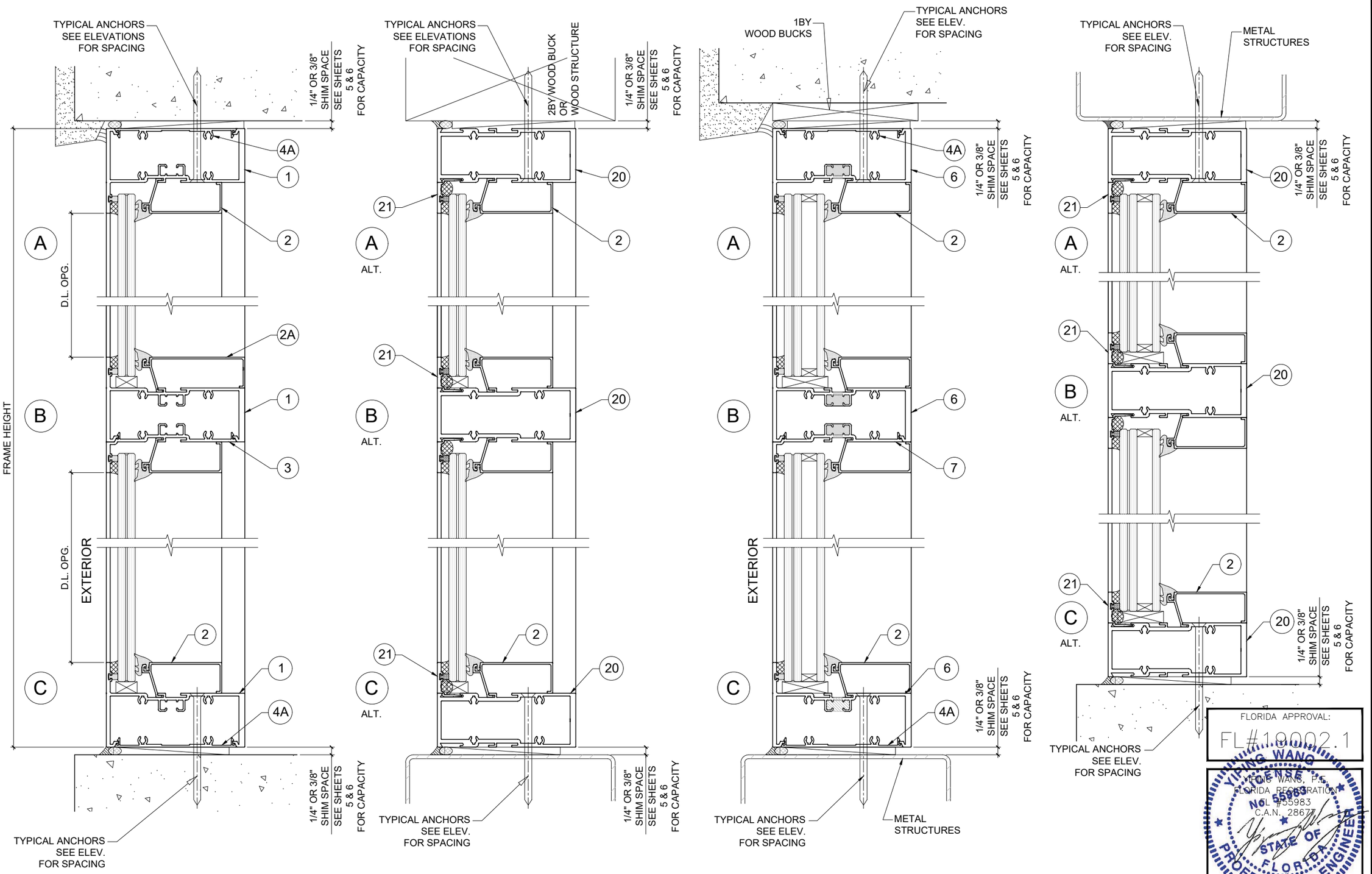
Drawn Date 12/30/2020

Scale

DRAWING NO.
AD20-39

CHART

11 OF 16



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D1

12 OF 16

FLORIDA APPROVAL:
FL#19002.1

YIPING WANG
LICENSE
NO. 55983
STATE OF FLORIDA
PROFESSIONAL ENGINEER
YIPING WANG, P.E.
FLORIDA REGISTRATION
LIC. # 55983
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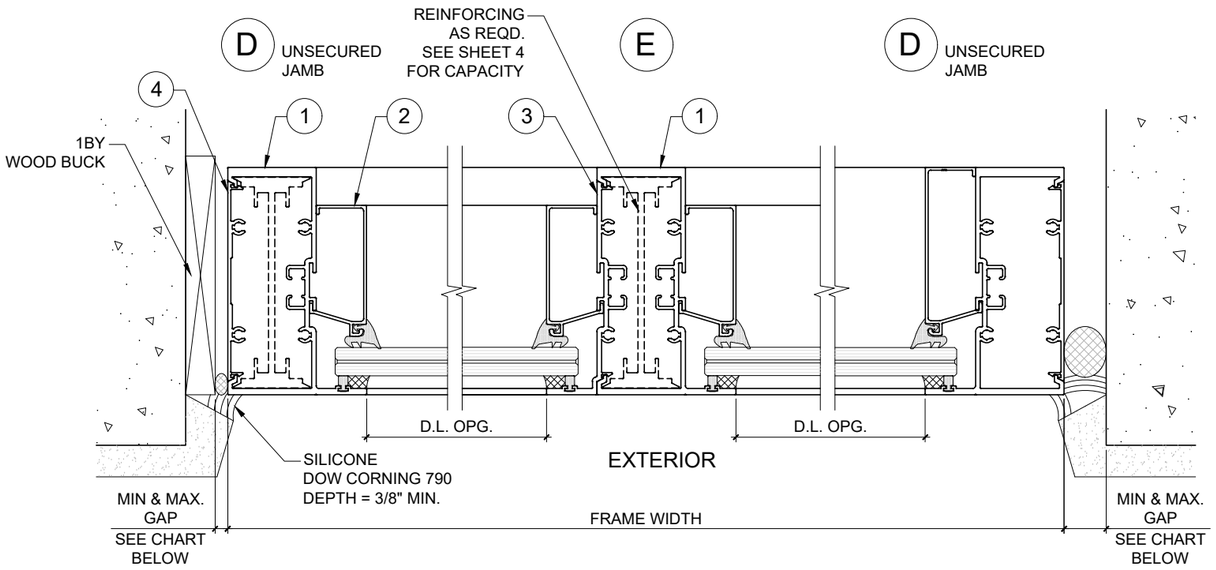
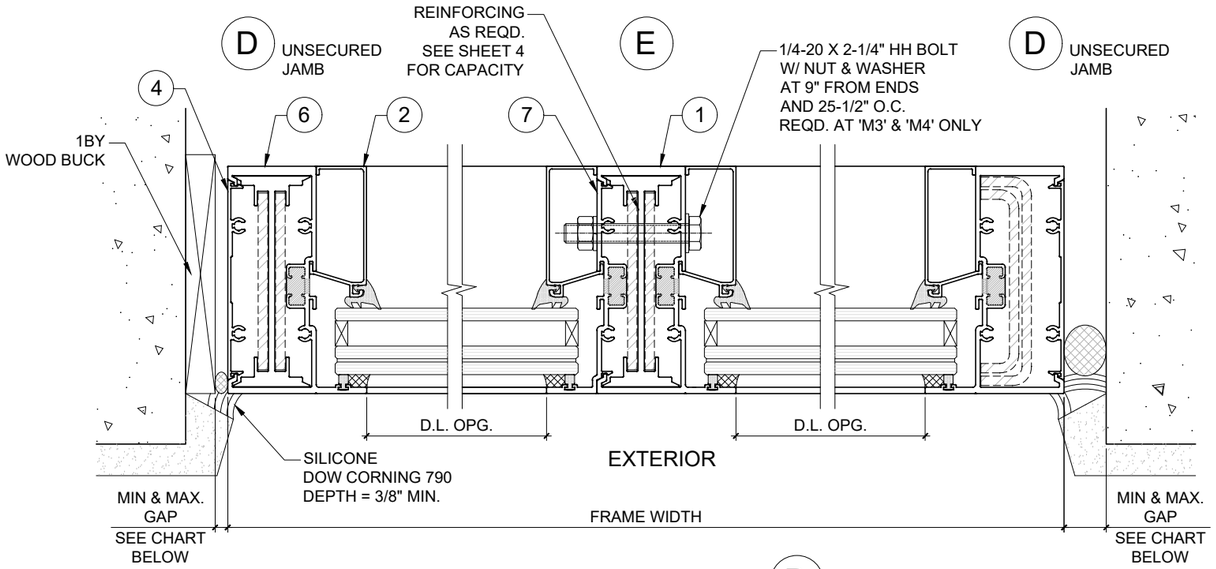
December 30th, 2020

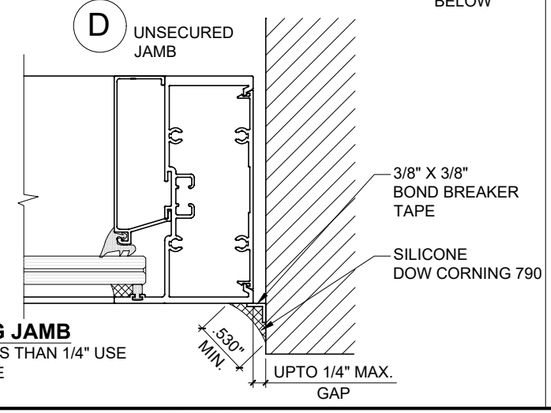




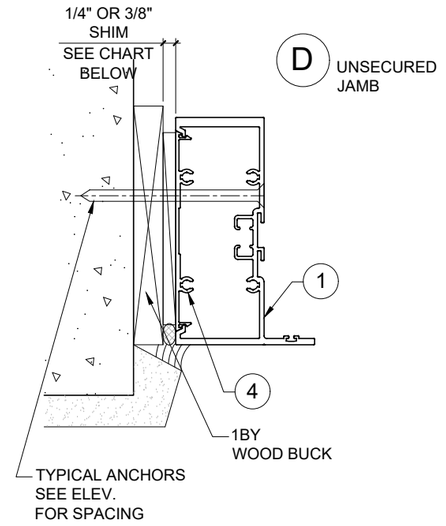
MAX. FRAME HEIGHT	GAP	
	MIN.	MAX.
84"	1/4"	1"
96"	5/16"	1"
120"	3/8"	1"
144"	1/2"	1"

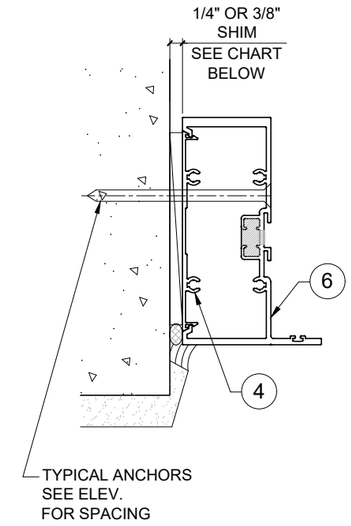
ALTERNATE SEALANTS AT JAMB GAPS CAN BE DESIGNED BY ENGINEER OF RECORD BASED ON MANUFACTURER GUIDE LINES.

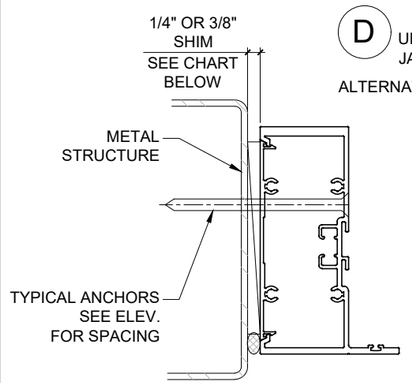
UNSECURED JAMBS FREE STANDING

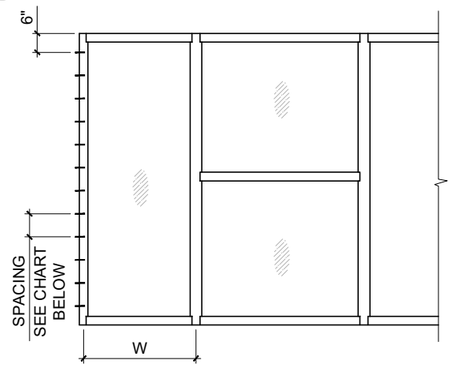


FREE STANDING JAMB
FOR JOINTS GAP LESS THAN 1/4" USE BOND BREAKER TAPE SEE DETAIL ABOVE









JAMB ANCHOR SPACING								
	1/4" MAX. SHIM			1/4" MAX. SHIM		3/8" MAX. SHIM		
	TYPE 'A'	TYPE 'AA'	TYPE 'B'&'C'	TYPE 'A1','B1','C1'	TYPE 'AA1'	TYPE 'A1'&'B1'	TYPE 'AA1'	TYPE 'C1'
WIDTH (W)	EXT.(+) INT.(-)	EXT.(+) INT.(-)	EXT.(+) INT.(-)	EXT.(+) INT.(-)	EXT.(+) INT.(-)	EXT.(+) INT.(-)	EXT.(+) INT.(-)	EXT.(+) INT.(-)
42"	10"	10"	10"	10"	10"	10"	10"	10"
48"	10"	9"	10"	10"	10"	10"	10"	10"
54"	10"	8"	10"	10"	9"	10"	9"	10"
60"	10"	7"	10"	10"	8"	10"	8"	10"
66"	9"	6"	10"	10"	7"	9"	7"	10"
72"	8"	6"	10"	10"	7"	8"	7"	10"

SECURED JAMBS
(REINFORCING NOT REQUIRED)

FLORIDA APPROVAL:
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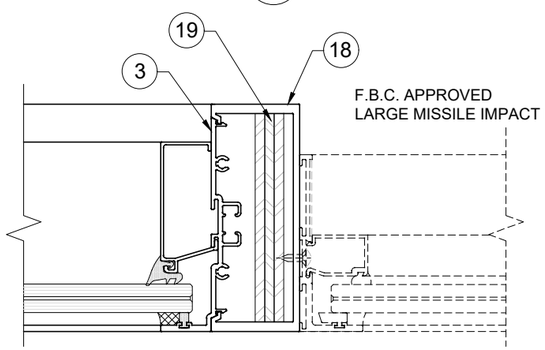
D2

SEE SEPARATE APPROVAL FOR DESIGN LOAD CAPACITY OF DOORS AND DOOR ANCHORS.

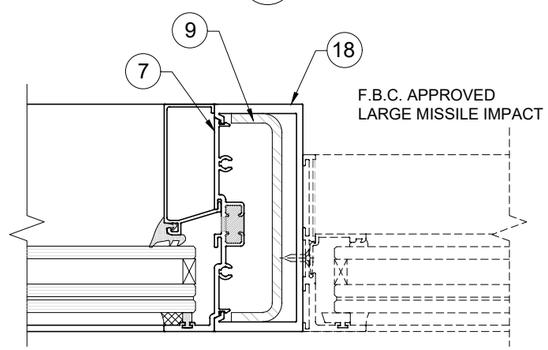
LOWER VALUES FROM DOORS APPROVAL OR STOREFRONT SYSTEM CAPACITY CHARTS WILL APPLY TO ENTIRE SYSTEM.

F



F.B.C. APPROVED
LARGE MISSILE IMPACT RESISTANT TRANSOM

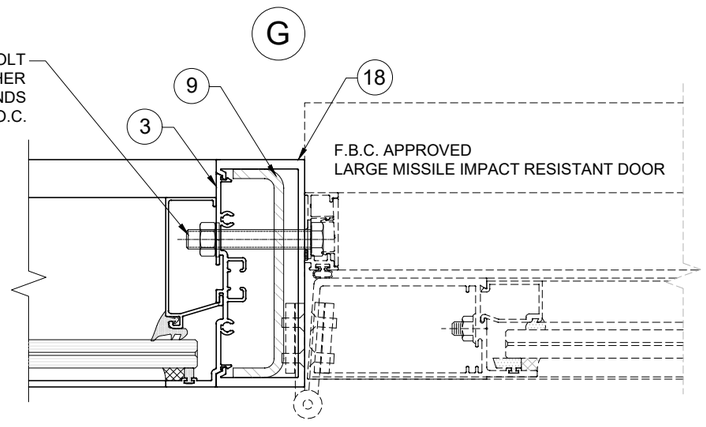
F



F.B.C. APPROVED
LARGE MISSILE IMPACT RESISTANT TRANSOM

G

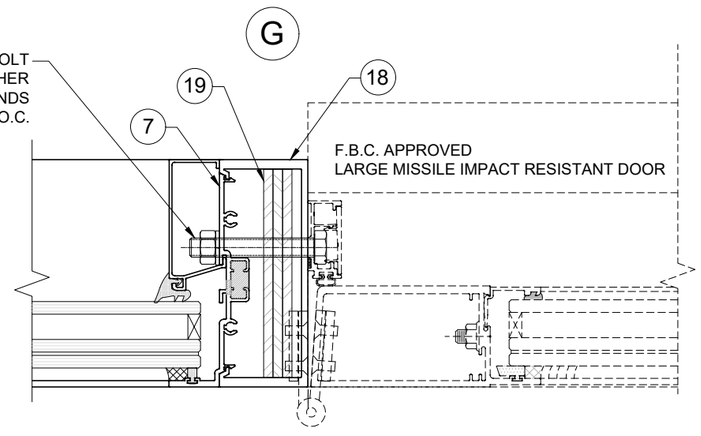
1/4-20 X 2-1/4" HH BOLT
W/ NUT & WASHER
AT 9" FROM ENDS
AND 25-1/2" O.C.



F.B.C. APPROVED
LARGE MISSILE IMPACT RESISTANT DOOR

G

1/4-20 X 2-1/4" HH BOLT
W/ NUT & WASHER
AT 9" FROM ENDS
AND 25-1/2" O.C.



F.B.C. APPROVED
LARGE MISSILE IMPACT RESISTANT DOOR

FLORIDA APPROVAL:
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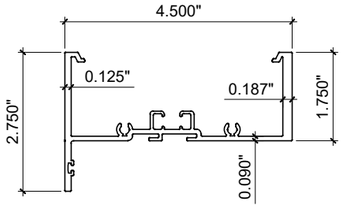
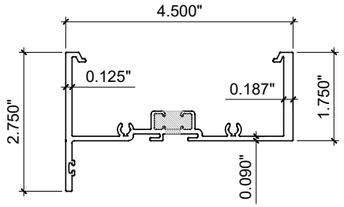
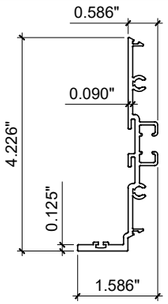
D3



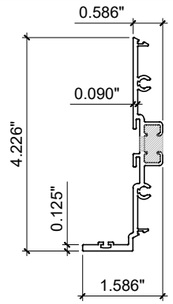
1 HEAD / SILL / JAMB / INTERMEDIATE



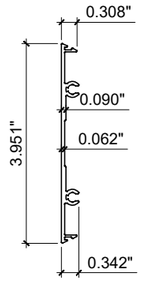
6 HEAD / SILL / JAMB / INTERMEDIATE



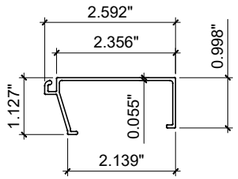
3 FIN SNAP



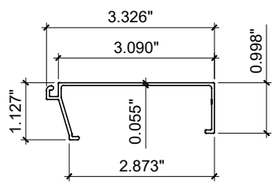
7 FIN SNAP



4 FLAT SNAP

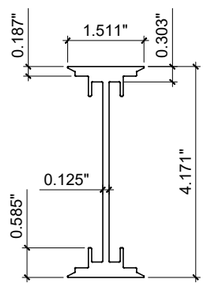


2 GLASS STOP

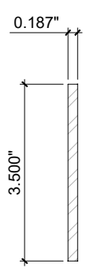


2A EXTENDED GLASS STOP

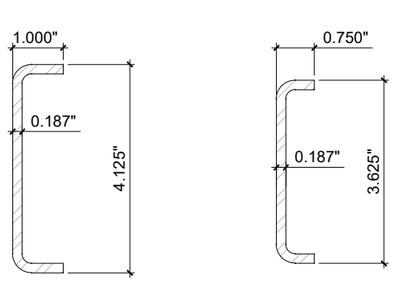
ITEM NO.	PARTNUMBER	QUANTITY	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
1	ENV-451	AS REQD.	HEAD/SILL/LAMB & INTERMIDATE	6063-T6	ENVIRALUM
2	ENV-452	AS REQD.	GLASS STOP	6063-T6	ENVIRALUM
2A	ENV-458	AS REQD.	EXTEND GLASS STOP (OPTION TO ENV-452)	6063-T6	ENVIRALUM
3	ENV-453	AS REQD.	FIN SNAP	6063--T6	ENVIRALUM
4	ENV-454	1/ FREE STANDING FRAME	FLAT SNAP FULL LENGTH OF VERTICAL	6063-T6	ENVIRALUM
4A	ENV-454-3	1/ INSTALL SCREW	FLAT SNAP, 3" LONG	6063-T6	ENVIRALUM
4B	ENV-454-7	1/ CORNER	FLAT SNAP, 7" LONG	6063-T6	ENVIRALUM
5	ENV-455	AS REQD.	ALUMINUM REINFORCEMENT	6063-T6	ENVIRALUM
6	ENV-451T	AS REQD.	HEAD/SILL/JAMB & INTERMEDIATE (THERMAL)	6063-T6	ENVIRALUM
7	ENV-453T	AS REQD.	FIN SNAP (THERMAL)	6063-T6	ENVIRALUM
8	ENV-ST1	AS REQD.	3/16" X 3-1/2" BAR	STEEL	Fy MIN. = 36 KSI
9	ENV-ST2	AS REQD.	1" X 4-1/8" X1" X 3/16" THK. CHANNEL	STEEL	Fy MIN. = 36 KSI
10	ENV-ST3	AS REQD.	3/4" X 3-5/8" THK. CHANNEL	STEEL	Fy MIN. = 36 KSI
11	ENV-G01	AS REQD.	INTERIOR GASKET	EPDM	GLAZING RUBBER PRODUCTS
12	ENV-G03	AS REQD.	SPACER GASKET	EPDM	GLAZING RUBBER PRODUCTS
13	ENV-SB01	1/ QUARTER POINT	3/8" X 1/2" X 2" SETTING BLOCKS, DUROMETER 70±5	EPDM	FRANK LOWE RUBBER
14	ENV-SB02	1/ QUARTER POINT	3/8" X 1-1/4" X 2" SETTING BLOCKS, DUROMETER 70±5	EPDM	FRANK LOWE RUBBER
15	DOW 791	AS REQD.	GLAZING COMPOUND	SILICONE	DOW CORNING
16	GE SCS2000	AS REQD.	GLAZING COMPOUND	SILICONE	GE MOMENTIVE
17	#12 X 1-1/2	4/ CORNER	FRAME ASSEMBLY SCREWS	ST. STEEL	HWH SMS
18	ENV-355	AS REQD.	DOOR MULLION	6063-T6	-
19	-	AS REQD.	3/16" X 4" BAR FOR DOOR MULLION	STEEL	Fy MIN. = 36 KSI
20	ENV-459	AS REQD.	O.G. FRAME HEAD/SILL/JAMB & INTERMEDIATE	6063-T6	ENVIRALUM
21	ENV-4510	AS REQD.	O.G. GLASS STOP	6063-T6	ENVIRALUM



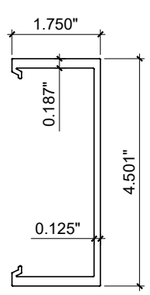
5 ALUM REINF.



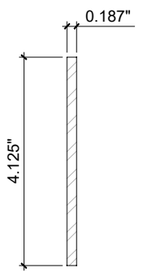
8 STEEL BAR REINF.



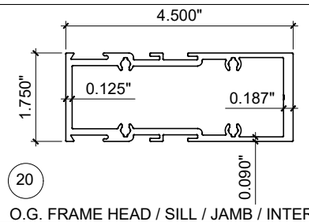
9 STEEL CHANNEL REINF. 10



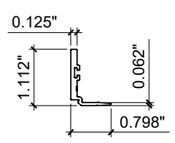
18 DOOR MULLION



19 DOOR MULLION REINF.



20 O.G. FRAME HEAD / SILL / JAMB / INTERMEDIATE



21 O.G. GLASS STOP

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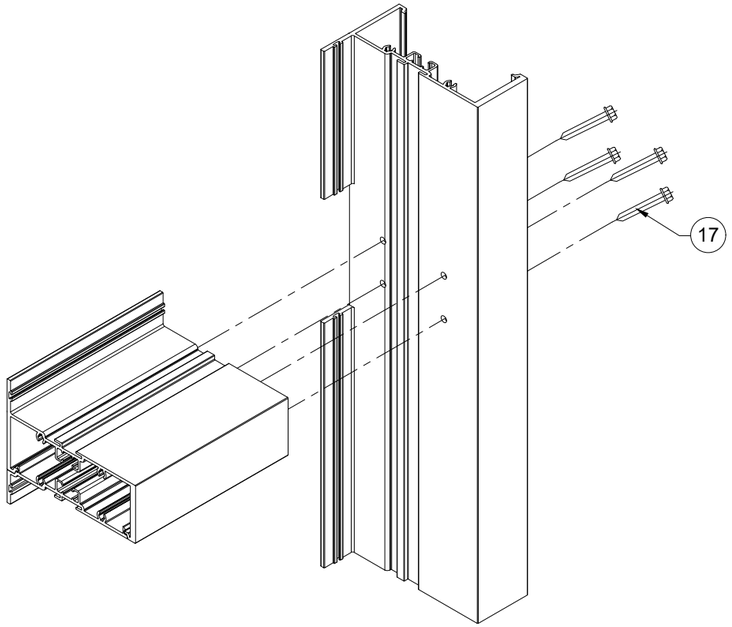
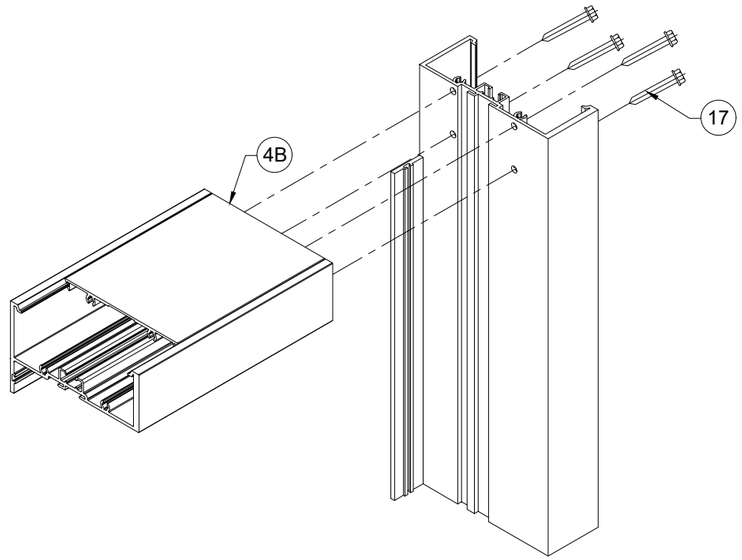
AD20-39

MATERIAL



INTERMEDIATE CORNERS

DOOR MULLION BOTTOM CORNER



TOP / BOTTOM CORNERS

FLORIDA APPROVAL:
FL#19002.1

YIPING WANG LICENSE 55983 STATE OF FLORIDA PROFESSIONAL ENGINEER

YIPING WANG, P.E.
FLORIDA REGISTRATION
NO. # 55983
C.A.N. 28677

December 30th, 2020

MCY ENGINEERING, INC.
GLAZING CONSULTANTS
12781 MIRAMAR PARKWAY. #301 P: 305.271.0117
MIRAMAR, FL 33027
www.MCYEngineering.com mcy@mcyengineering.com

ENV-450 Alum. Window Wall System (LMI)

ENVIRALUM INDUSTRIES
5110 N.W. 72 AVENUE BLDG.C
MIAMI, FL.33166
TEL.:(305)752-4411 FAX:(305)406-3877

Rev. No.	Date	Drawn By	Description
1	12/30/20	James	FBC 2020 UPDATE

Drawn Date 12/30/2020

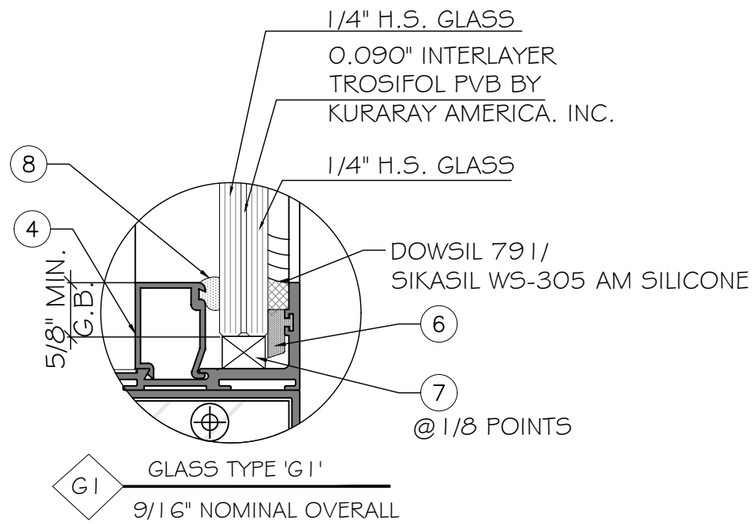
Scale

DRAWING NO.
AD20–39

ASSEMBLE

16 OF 16

ENVIRALUM INDUSTRIES INC.
ENV 3515 FIXED WINDOW - L.M.1



NOTE:
GLASS COMPLIES WITH ASTM E1300-09
(3 SEC. GUSTS).

GENERAL NOTES:

- THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE 7TH EDITION OF FLORIDA BUILDING CODE 2020 INCLUDING HIGH VELOCITY HURRICANE ZONE (HVHZ).

- WINDOWS RATED FOR LARGE MISSILE IMPACT. LMI SYSTEM TO BE USED FOR INSTALLATIONS UP TO 30 FT OF GRADE. IMPACT SHUTTERS ARE NOT REQUIRED.

- THESE WINDOWS ARE APPROVED FOR AIR AND WATER INFILTRATION.

- 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.

- MATERIALS INCLUDING BUT NOT LIMITED TO STEEL/ METAL SCREWS THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF THE 7TH EDITION OF FLORIDA BUILDING CODE 2020 SECTION AS APPLICABLE.

- METAL STRUCTURES BY OTHERS TO BE DESIGNED TO SUPPORT THE LOADS IMPOSED BY THIS GLAZING SYSTEM AND TO TRANSFER SUCH LOADS TO THE BUILDING MAIN STRUCTURE.

- ULTIMATE LOAD OBTAINED FROM ASCE 7-16, MULTIPLY BY 0.6 SHALL BE LESS THAN OR EQUAL TO MAX. DESIGN LOAD IN THIS DOCUMENT. THE DESIGN LOADS SHOWN IN THIS DOCUMENT ARE ALLOWABLE DESIGN LOADS.

- SEALANT:
ALL FRAME CORNERS, JOINTS, MULLION SEAMS AND PERIMETER GLAZING BEAD TO FRAME INSTALLATION FASTENERS SEALED WITH SILICONE SEALANT.

USE CHARTS AS FOLLOWS.

STEP 1: DETERMINE DESIGN WIND LOAD REQUIREMENTS BASED ON WIND VELOCITY, BLDG. HEIGHT, WIND ZONE USING APPLICABLE ASCE 7-16 STANDARD OR WIND TUNNEL REPORTS.

STEP 2: SEE SHEET E1 & E2 FOR APPROVED TYPICAL ELEVATION & CONFIGURATION.

STEP 3: SEE CHART IN SHEET E1 & E2 FOR ALLOWED WINDOW SIZE AND APPROVED DESIGN LOAD. SEE CHART IN SHEET M1 FOR MULLION CAPACITY.

STEP 4: ANCHOR OPTION SEE SHEET D2. ANCHOR LAYOUT SEE SHEET E1 & E2.

STEP 5: THE LOWEST VALUE RESULTING FROM STEPS 2,3 & 4 THAT EXCEED THE DESIGN WIND PRESSURES DETERMINED THRU STEP 1 SHALL APPLY TO ENTIRE SYSTEM.

FLORIDA APPROVAL:
FL#40528

ABBREVIATIONS AND SYMBOLS

G.B. - GLASS BITE
D.L.O. - DAYLITE OPENING
F.H. - FRAME HEIGHT
F.W. - FRAME WIDTH
W/ - WITH
W/O - WITHOUT
O.C. - ON CENTER

C
7
SECTION NUMBER
SHEET NUMBER

YIPING WANG P.E.
FLORIDA REGISTRATION
LIC. #55983
C.A.No. 29877
LICENSE No 55983
STATE OF FLORIDA
PROFESSIONAL ENGINEER
December 18,2021

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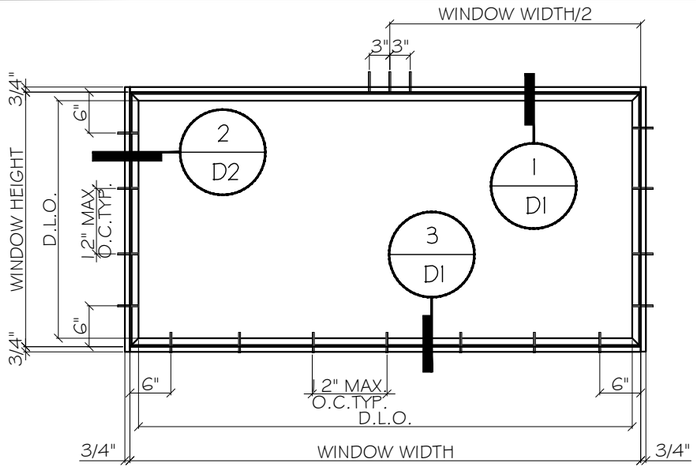
Rev. No.	Date	Drawn By	Description
1	11/09/2021	James	NEW FPA APPROVAL

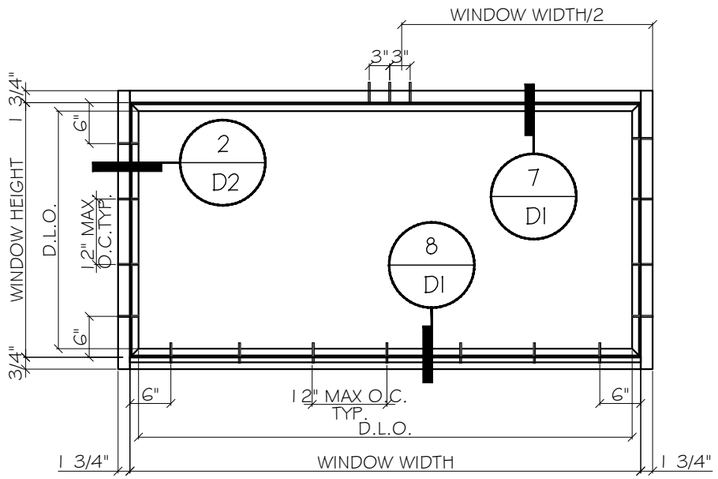
Drawn Date 10/09/2021
Scale

DRAWING NO.
AD21-24

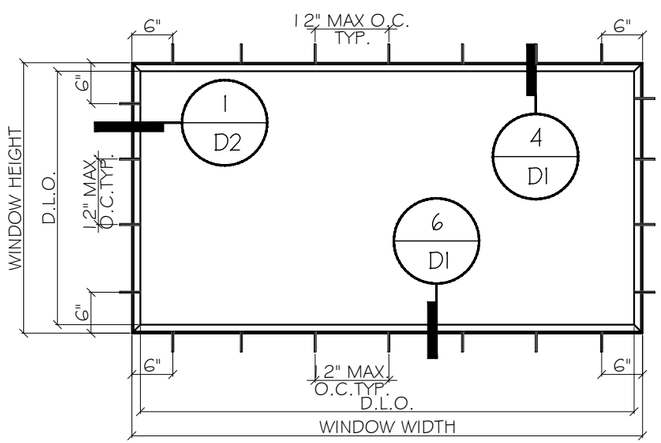
COVER



TYPICAL EXTERIOR ELEVATION

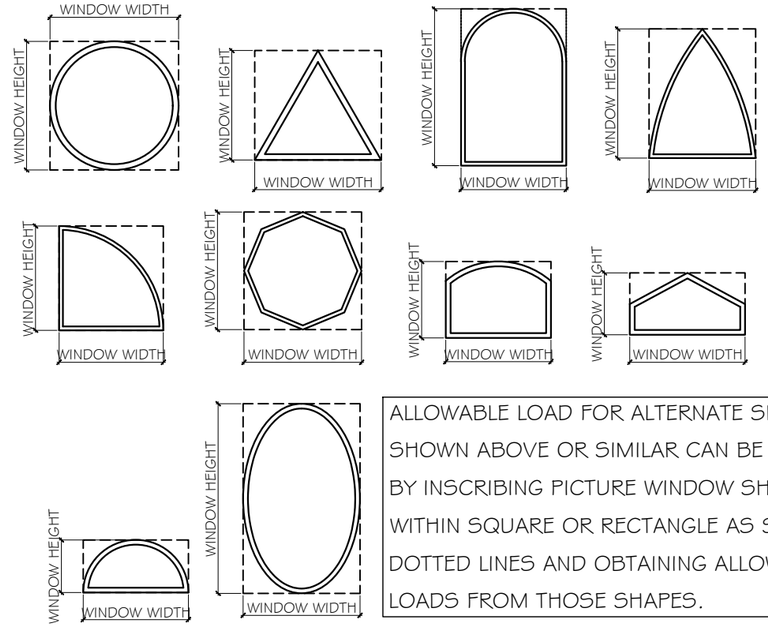


TYPICAL EXTERIOR ELEVATION



TYPICAL EXTERIOR ELEVATION

ALLOWABLE LOAD CAPACITY - PSF			
WINDOW DIMS.		GLASS TYPE	
HEIGHT (IN)	WIDTH (IN)	'G1' (+)	'G1' (-)
48.0	24.0	70.0	75.0
	30.0		
	36.0		
	42.0		
	48.0		
	54.0		
	60.0		
54.0	24.0	70.0	75.0
	30.0		
	36.0		
	42.0		
	48.0		
	54.0	67.0	67.0
	60.0	67.0	67.0
60.0	24.0	70.0	75.0
	30.0		
	36.0		
	42.0		
	48.0		
	54.0	67.0	67.0
	60.0	60.0	60.0
66.0	24.0	70.0	75.0
	30.0		
	36.0		
	42.0		
	48.0		
	54.0	67.0	67.0
	60.0	60.0	60.0
72.0	24.0	70.0	75.0
	30.0		
	36.0		
	42.0		
	48.0		
	54.0	67.0	67.0
	60.0	60.0	60.0
78.0	24.0	70.0	75.0
	30.0		
	36.0		
	42.0		
	48.0		
	54.0	67.0	67.0
84.0	24.0	70.0	75.0
	30.0		
	36.0		
	42.0		
	48.0		
	54.0	67.0	67.0
90.0	24.0	70.0	75.0
	30.0		
	36.0		
	42.0		
	48.0		
96.0	24.0	70.0	75.0
	30.0		
	36.0		
	42.0		
	48.0		



ALLOWABLE LOAD FOR ALTERNATE SHAPES AS SHOWN ABOVE OR SIMILAR CAN BE VERIFIED BY INSCRIBING PICTURE WINDOW SHAPE WITHIN SQUARE OR RECTANGLE AS SHOWN IN DOTTED LINES AND OBTAINING ALLOWABLE LOADS FROM THOSE SHAPES.

ALLOWABLE LOAD CAPACITY - PSF			
WINDOW DIMS.		GLASS TYPE	
HEIGHT (IN)	WIDTH (IN)	G1 (+)	G1 (-)
26	26.5	75	75
	37		
	53.125		
	74		
38.375	26.5	75	75
	37		
	53.125		
	74		
50.625	26.5	75	75
	37		
	53.125	71	71
	74		
63	26.5	75	75
	37		
	53.125	68	68
	74	-	-
76	26.5	75	75
	37		
	53.125	70	68
	74	-	-

FLORIDA APPROVAL:

FL#40528

YIPING WANG, P.E.
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LIC. #55983
C.A.N.52677
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December 18,2021

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TEL.:(305)752-4411 FAX:(305)406-3877

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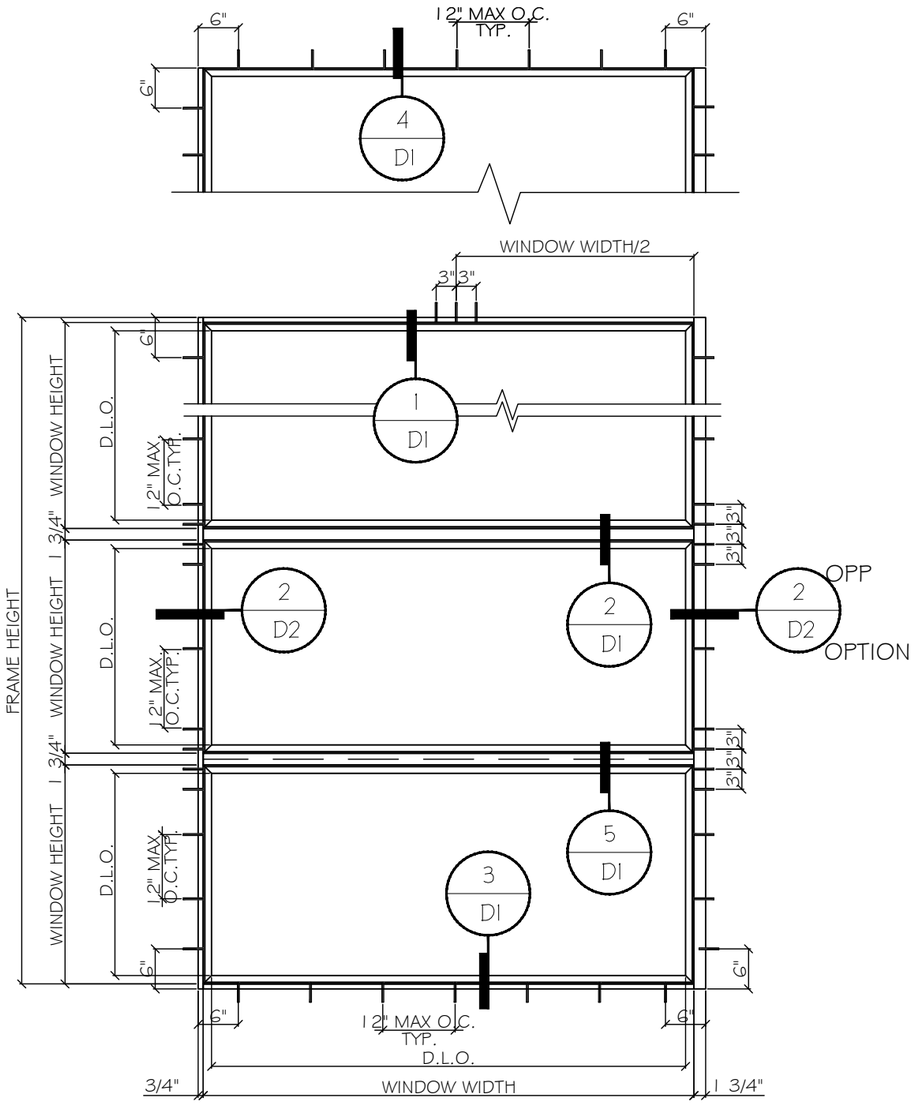
Drawn Date 10/09/2021

Scale

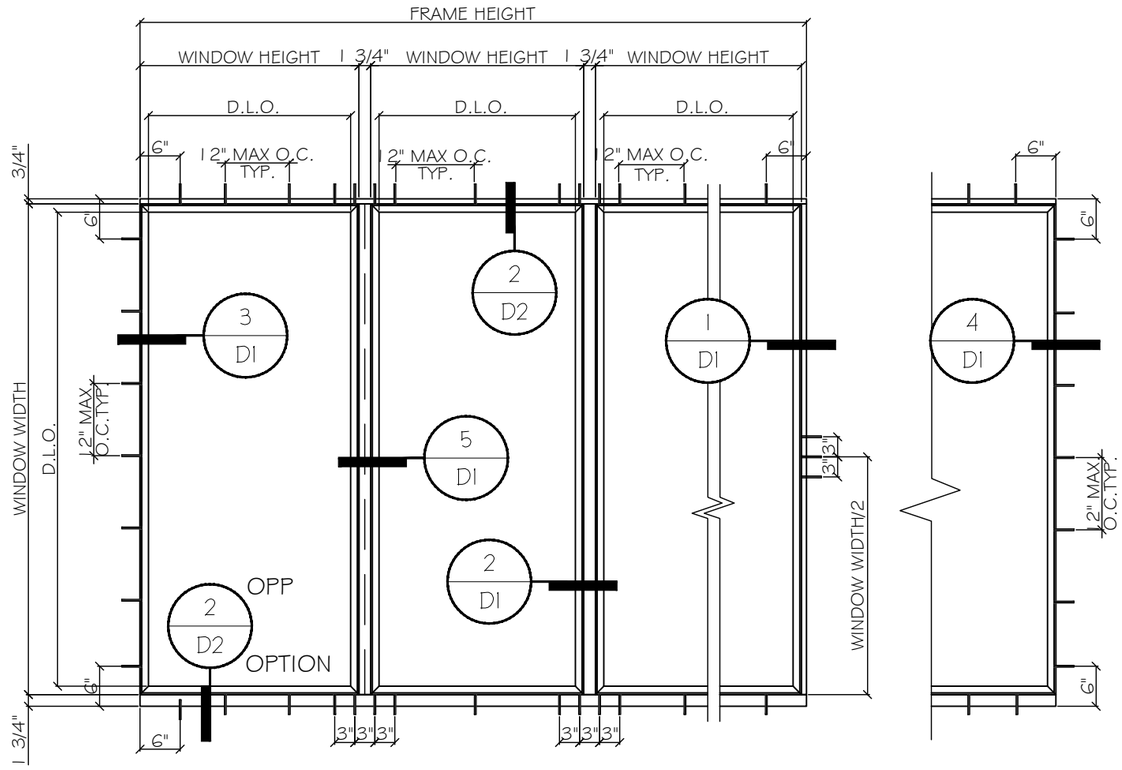
DRAWING NO.

AD21-24

E1



TYPICAL EXTERIOR ELEVATION



TYPICAL EXTERIOR ELEVATION

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P.E. #55983
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STATE OF FLORIDA PROFESSIONAL ENGINEER
LICENSE No 55983

December 18,2021

Drawn Date 10/09/2021
Scale

DRAWING NO.
AD21-24

E2

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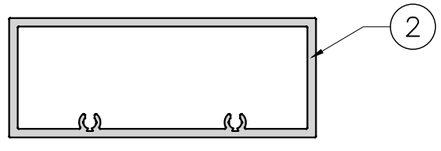
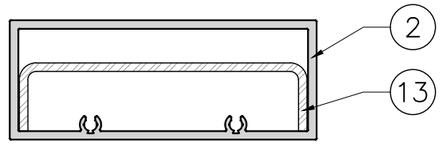
MULLION CAPACITY - PSF			
WINDOW DIMS.		MULLION TYPE	
HEIGHT	WIDTH	'M1'	'M2'
(IN)	(IN)	(+)/(-)	(+)/(-)
42.0	24.0 30.0 36.0 42.0 48.0 54.0 60.0	75.0	+70.0/-75.0
48.0	24.0 30.0 36.0 42.0 48.0 54.0 60.0	75.0	75.0
54.0	24.0 30.0 36.0 42.0 48.0 54.0 60.0	75.0	75.0
60.0	24.0 30.0 36.0 42.0 48.0 54.0 60.0	75.0	75.0
66.0	24.0 30.0 36.0 42.0 48.0 54.0 60.0	75.0	75.0
72.0	24.0 30.0 36.0 42.0 48.0 54.0 60.0	75.0	75.0
78.0	24.0 30.0 36.0 42.0 48.0 54.0 60.0	75.0 70.0	75.0
84.0	24.0 30.0 36.0 42.0 48.0 54.0	75.0 73.0 67.0 63.0	75.0
90.0	24.0 30.0 36.0 42.0 48.0	75.0 67.0 61.0	75.0
96.0	24.0 30.0 36.0 42.0 49.750	75.0 69.0 61.0 56.0	75.0



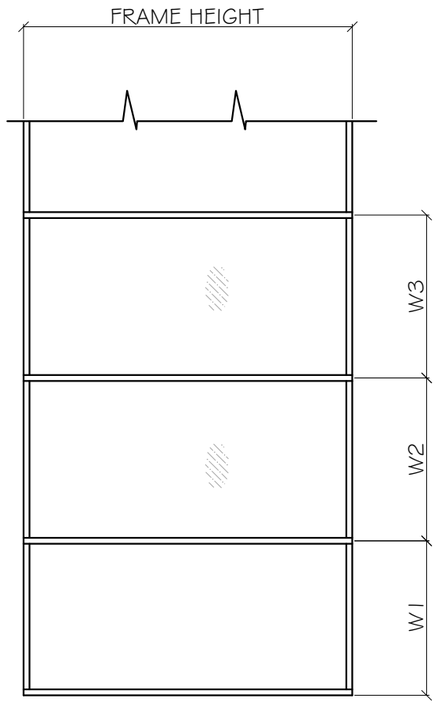
M1

M1	I.y IN ^4	Sy IN^3
ENV356	3.7507	1.667



M2

M2	I.y IN ^4	Sy IN^3
ENV356	3.7507	1.667
ENV ST2	2.0927	
TOTAL (IN ALUM)	9.8195	



$$\text{WIDTH (W)} = \frac{W1 + W2}{2} \text{ OR } \frac{W3 + W2}{2}$$

MULLION CAPACITY - PSF			
WINDOW DIMS.		MULLION TYPE	
HEIGHT	WIDTH	M1	M2
(IN)	(IN)	(+)/(-)	(+)/(-)
26	26.5 37 53.125 74	+70/-75	+70/-75
38.375	26.5 37 53.125 74	+70/-75	+70/-75
50.625	26.5 37 53.125 74	+70/-75	+70/-75
63	26.5 37 53.125 74	+70/-75	+70/-75
76	26.5 37 53.125 74	+70/-75 +70/-73.7 -	+70/-75 -

FLORIDA APPROVAL:

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December 18,2021

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AD21-24

M1

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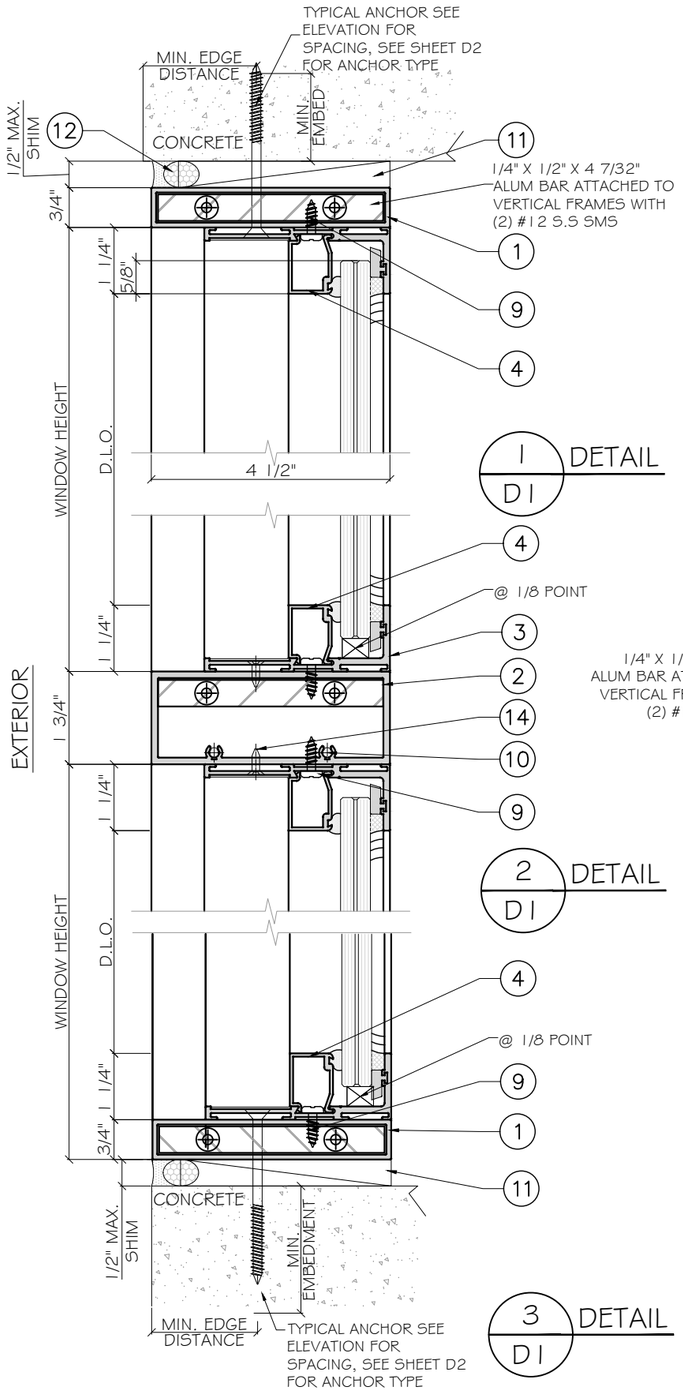

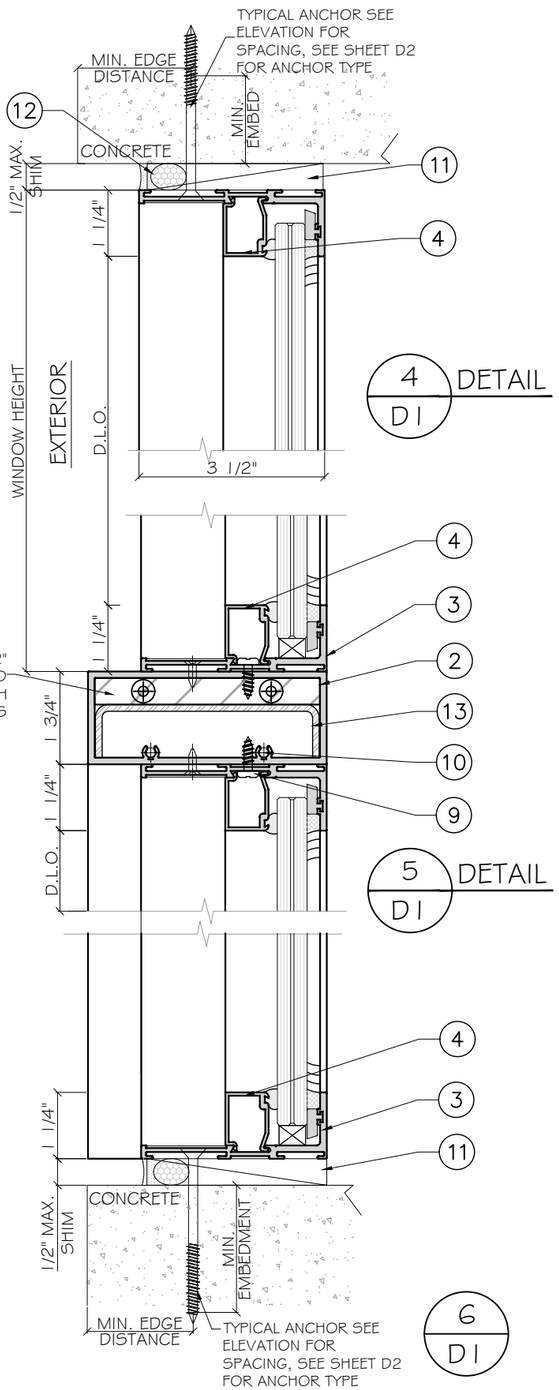

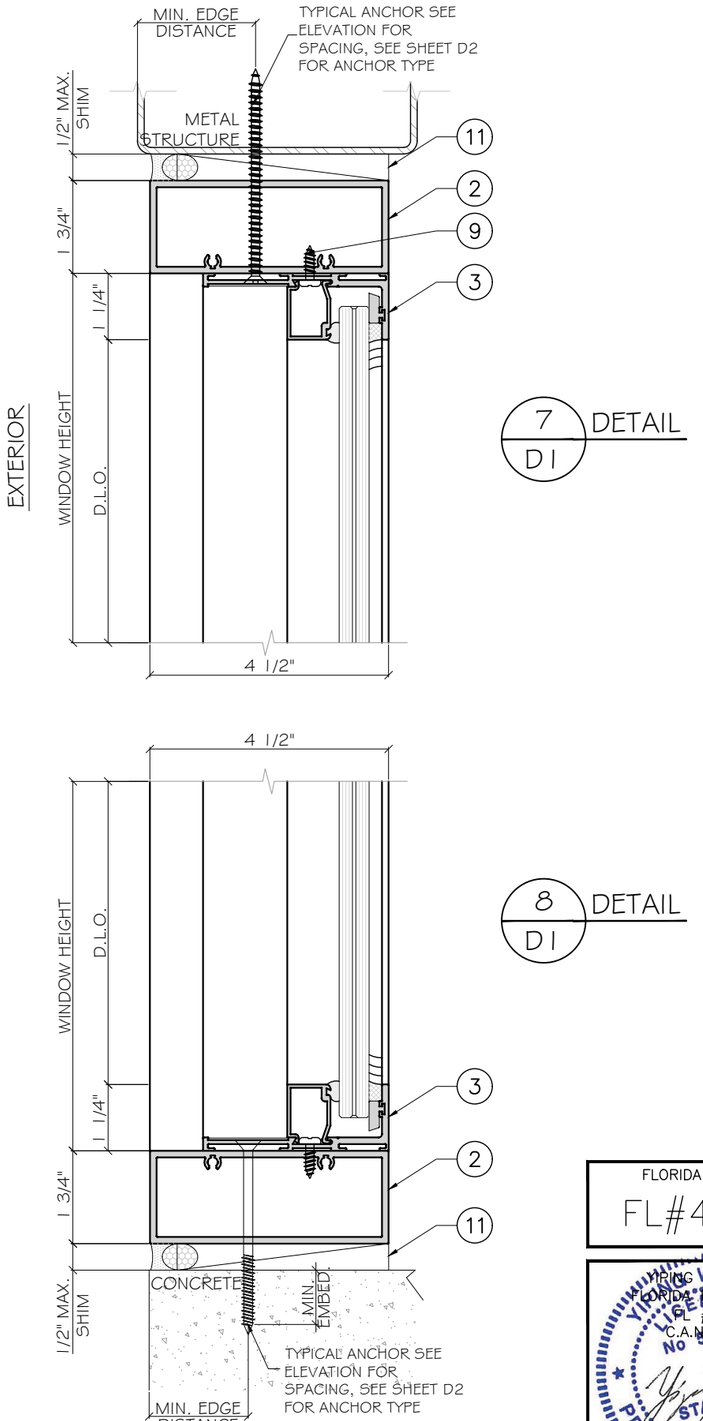

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AD21-24

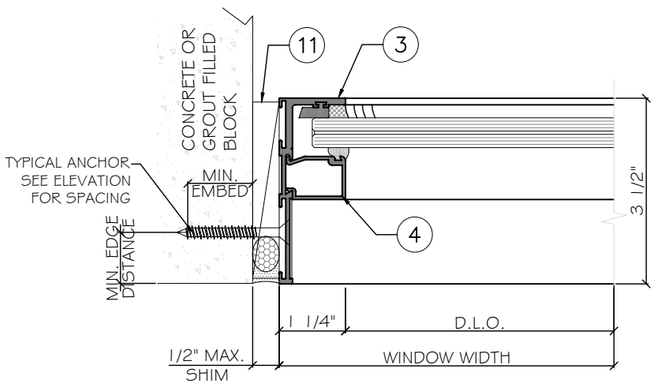
D1

5 OF 7

FLORIDA APPROVAL:
FL#40528

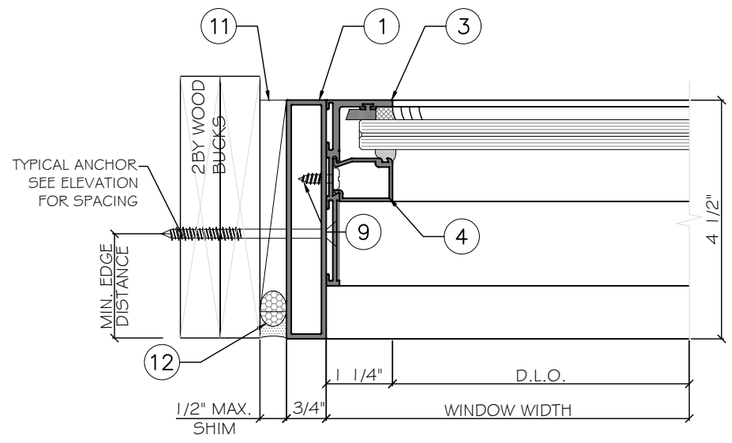
YIPING WANG, P.E.
FLORIDA REGISTRATION
FL #55983
C.A.No. 28877
STATE OF FLORIDA PROFESSIONAL ENGINEER
December 18,2021

WOOD BUCKS AND METAL STRUCTURE (NOT BY ENVIRALUM INDUSTRIES INC.) MUST SUSTAIN LOADS IMPOSED BY GLAZING SYSTEM AND TRANSOM THEM TO THE BUILDING STRUCTURE.



EXTERIOR

1/D2 DETAIL



EXTERIOR

2/D2 DETAIL

ANCHOR TYPES: (SEE ELEVATIONS FOR SPACING)

TYPE 'A' -- 5/16" DIA. ULTRACON BY 'DEWALT' (Fu=177KSI, Fy=155KSI)

INTO 2 BY WOOD BUCKS OR WOOD STRUCTURE.
1 1/2" MIN. PENETRATION INTO WOOD

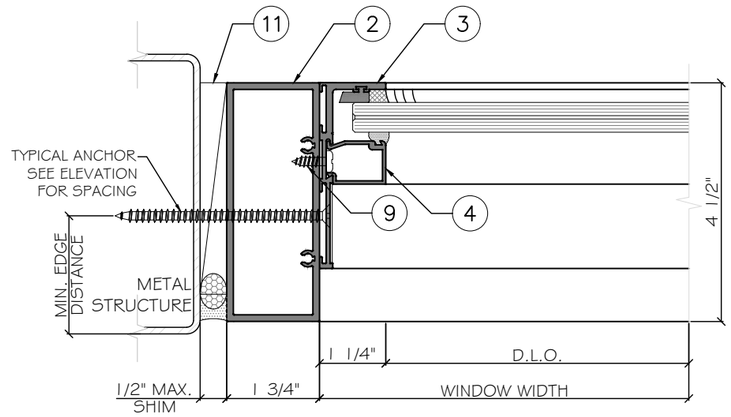
OR THROUGH 1 BY BUCK INTO GROUT FILLED BLOCK OR CONCRETE
1 3/4" MIN. EMBED INTO CONCRETE
1 3/4" MIN. EMBED INTO GROUT FILLED BLOCK (JAMB ONLY)

DIRECTLY INTO CONCRETE
WITH 1 3/4" MIN. EMBEDMENT (HEAD/ SILL/ JAMB)

TYPE 'B' -- 5/16" DIA. TEKS / SELF DRILLING SCREW (GRADE 5 CRS)
INTO FBC APPROVED MULLIONS (1/8" THK. MIN.) (6063-T5 MIN)
OR INTO METAL STRUCTURES, STEEL: 1/8" THK. MIN. (Fy=36 KSI MIN.)
(3) THREADS MIN. TO EXTEND BEYOND METAL THICKNESS
(STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)

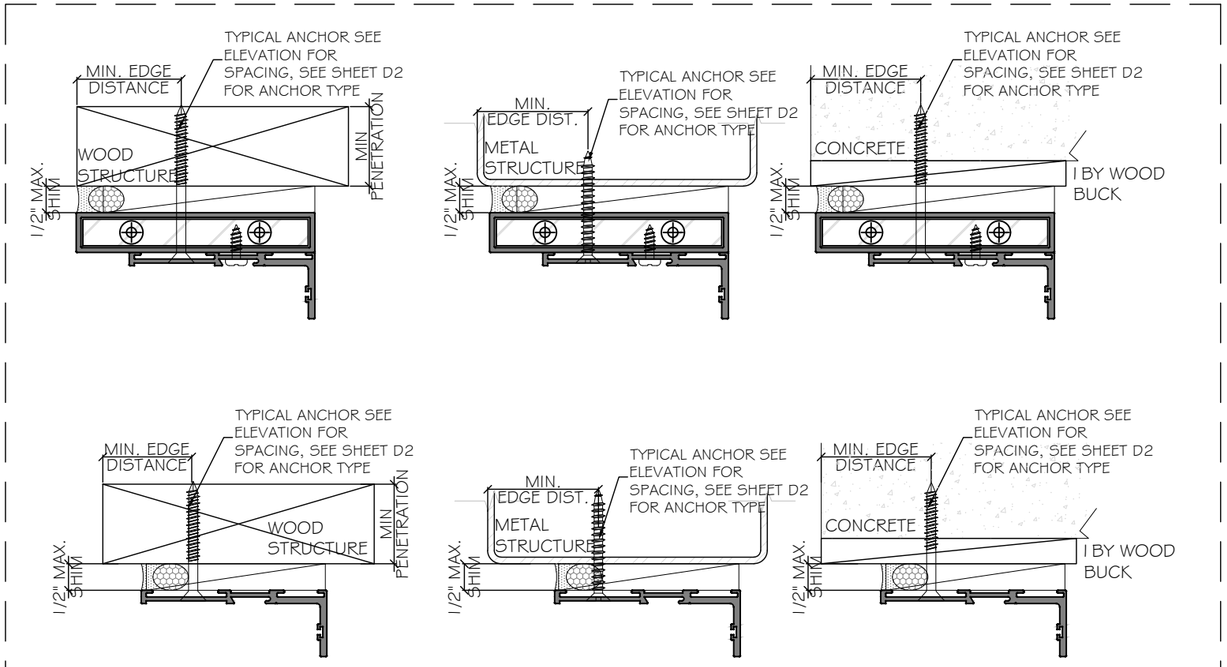
EDGE DISTANCE

INTO CONCRETE = 2-1/2" MIN.
INTO METAL STRUCTURE = 1/2" MIN.
INTO WOOD STRUCTURE = 3" MIN.
WOOD AT HEAD OR JAMBS SG = 0.55 MIN.
CONCRETE AT HEAD, SILL OR JAMB f'c=3000PSI MIN.
GROUT FILLED BLOCK AT JAMBS f'm=2000 PSI MIN.



EXTERIOR

2/D2 DETAIL OPTION



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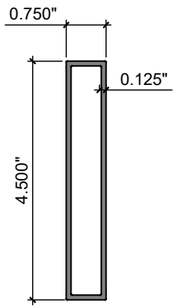
AD21-24

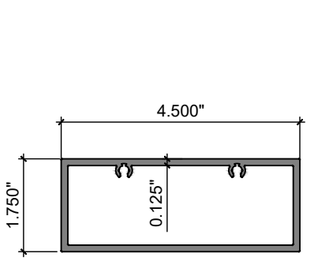
D2

MATERIAL LIST

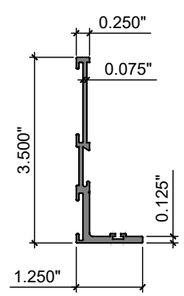
ITEM #	PART NUMBER	DESCRIPTION	MATERIAL	MANUFACTURER/REMARKS
1	ENV-3517	NARROW HEAD/JAMB	ALUM. 6063-T6	ENVIRALUM
2	ENV-356	FRAME HEAD/TRANSOM/JAMB	ALUM. 6063-T6	ENVIRALUM
3	ENV-3515	TRANSOM SASH	ALUM. 6063-T6	ENVIRALUM
4	ENV-358	GLASS STOP (LAM. GLASS)	ALUM. 6063-T6	ENVIRALUM
5		1/4" X 1/2" X 4 7/32" ALUM BAR	ALUM. 6063-T6	–
6	ENV-G06	SPACER GASKET	EPDM	GLAZING RUBBER PRODUCTS
7	ENV-SB01	3/8" x 1/2" x 2" SETTING BLOCKS, DUROMETER 80±5	EPDM	GLAZING RUBBER PRODUCTS
8	ENV-C01	FIXED INTERIOR GASKET	EPDM	GLAZING RUBBER PRODUCTS
9		#8 x 5/8" TRANSOM SASH PAN HEAD SCREWS	ST. STEEL	AT 3" FROM ENDS & 12" O.C.
10		#12 x 1-1/2" S.S. SMS FRAME ASSEMBLY SCREWS	ST. STEEL	–
11	SHIM	1/2" THK. SHIM	EPDM (70 DURO.)	TREMCO
12	DC 790 SILICONE	DC 790 SILICONE+BACK ROD	SILICONE	DOW CORNING
13	ENV ST2	1" X 4-1/8" X1" X 3/16" THK, CHANNEL	STEEL	ENVIRALUM
14		#8 X 5/8" COUNTERSUNK HEAD SCREW	STEEL	@12" O.C.
15		DOW791/ SIKASIL WS-305 AM SILICONE	SILICONE	DOWSIL/ SIKA



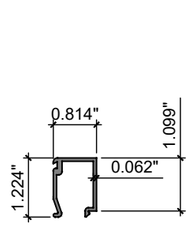
1 NARROW HEAD/JAMB
ENV3517. ALUM.6063-T6



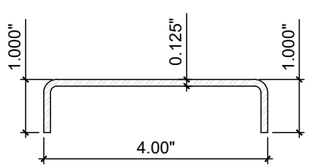
2 FRAME HEAD/TRANSOM/JAMB
ENV356. ALUM.6063-T6



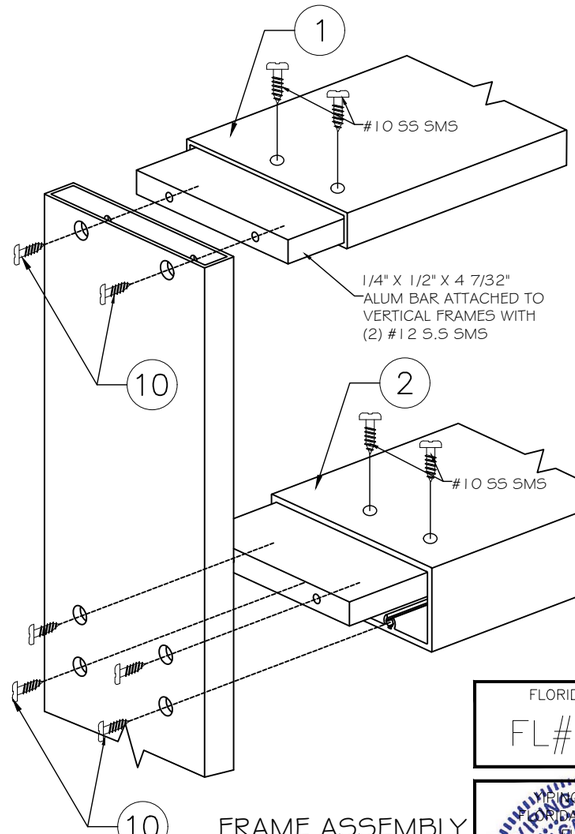
3 TRANSOM SASH
ENV3515. ALUM.6063-T6



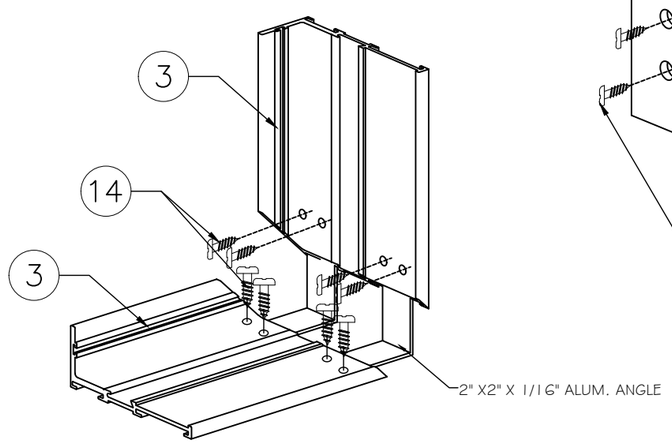
4 GLASS STOP
ENV358. ALUM.6063-T6



13 STEEL REIN.
ENV ST2. STEEL



FRAME ASSEMBLY



FLORIDA APPROVAL:
FL#40528

YIPING WANG
PRODUCT CERTIFICATION
LIC. #55983
C.A.No. 28877
STATE OF FLORIDA
PROFESSIONAL ENGINEER
December 18,2021

MCY ENGINEERING, INC.
GLAZING CONSULTANTS
12781 MIRAMAR PARKWAY. #301 P: 305.271.0117
MIRAMAR, FL 33027
mcy@mcyengineering.com
www.MCYEngineering.com

ENV 3515 FIXED WINDOW - L.M.I

ENVIRALUM INDUSTRIES INC.
5110 N.W. 72 AVENUE BLDG.C
MIAMI, FL.33166
TEL.:(305)752-4411 FAX:(305)406-3877

Rev. No.	Date	Drawn By	Description
1	11/09/2021	James	NEW FPA APPROVAL

Drawn Date 10/09/2021
Scale

DRAWING NO.
AD21-24

BOM

7 OF 7

Engineering Evaluation Report
Report FL #: 30297 for Greenheck model EHV-550D
Report FL #: 30298 for Airolite model SCC550MD

Manufacturers:
Greenheck Fan Corporation, PO Box 410, 400 Ross Ave, Schofield, WI 54476
The Airolite Company, LLC, PO Box 410, 400 Ross Ave, Schofield, WI 54476

Product Line(s):
Greenheck Louver Model EHV-550D, and equivalent nameplate Airolite Louver Model SCC550MD.

Compliance Method:
The above mentioned products have been evaluated for compliance with the requirements of the Florida Department of Business and Professional Regulation for Statewide Acceptance per Rule 61G20-3 of the FL Administrative Code, and comply with the 7th Edition (2020) Florida Building Code.

Product Description:
Aluminum louvers with vertical fixed blades and butt-type frame corner construction with blade/frame material as noted in its Miami-Dade NOA.

Performance Summary (for entire product line):
Tested design pressure is +/- 100 PSF. Passed ANSI/AMCA Standard 540-13 at Enhanced Impact Missile Level E (80 fps impact speed). Passed ANSI/AMCA Standard 550-15 (Rev. 09-18) with blades fully open. Passed TAS 201-94 (large missile, 50 fps impact speed), TAS 202-94, and TAS 203-94. Product can be used inside and outside of the HVHZ and is impact resistant.

Performance Standards:
1. ANSI/AMCA Standard 540-13, Test Method for Louvers Impacted by Wind Borne Debris.
2. ANSI/AMCA Standard 550-15 (Rev. 09-18), Test Method for High Velocity Wind Driven Rain Resistant Louvers (with louver blades in the fully open position).
3. FBC TAS 201-94, Impact Test Procedures, Basic Impact Missile Level D (50 fps impact speed).
4. FBC TAS 202-94, Criteria for Testing Impact & Non-Impact Resistant Building Envelope Components Using Uniform Static Air Pressure.
5. FBC TAS 203-94, Criteria for Testing Products Subject to Cyclic Wind Pressure Loading.

Supporting Technical Documents:
1. Approval Documents:
    a. NOA 21-0917.10 for EHV-550D, approved on 10/14/2021
    b. NOA 21-0917.11 for SCC550MD, approved on 10/14/2021
2. Listing Documents:
    a. AMCA License Agreement to use the AMCA Listing Label for ANSI/AMCA Standard 540 (Enhanced Impact Missile Level D, 80 fps) and ANSI/AMCA Standard 550:
        i. EHV-550D, issued 6/27/2019
        ii. SCC550MD, issued 6/27/2019
3. Test Reports:
    a. QCT18-5153.02, signed and sealed on 4/17/2019 by Brian Sasman, P.E., Quast Consulting & Testing, Inc., Mosinee, WI
        i. FBC TAS 201-94, FBC TAS 202-94, and FBC TAS 203-94
    b. QCT18-5093.06, signed and sealed on 4/17/2019 by Brian Sasman, P.E., Quast Consulting & Testing, Inc., Mosinee, WI
        i. ANSI/AMCA Standard 550-15 (Rev. 09-18)
    c. QCT18-5093.08, signed and sealed on 5/1/2019 by Brian Sasman, P.E., Quast Consulting & Testing, Inc., Mosinee, WI
        i. ANSI/AMCA Standard 540-13

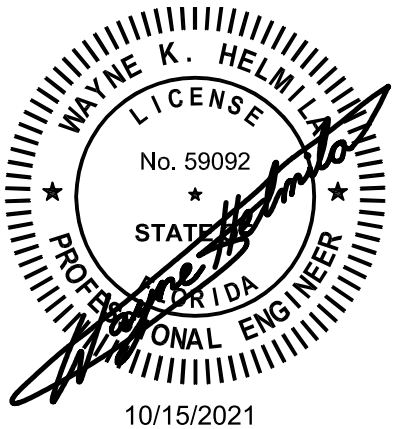
Limits and Conditions Use:

1. Limits/Conditions are as per their Miami-Dade NOA and AMCA Listing documents.
2. Maximum Design Pressure is +/- 100 PSF.
3. Maximum Panel Size is 60” wide x 96” high.
4. Rated to be used inside and outside of the HVHZ.
5. Impact resistant for Enhanced Impact Missile Level E (80 fps).
6. With blades fully open, the louver may be installed in a location where the room behind the louver is NOT designed to drain water penetrating into the room and the room may house NON-water resistant/proof equipment, components, and/or supplies.

Installation:
Must be installed in accordance with its Miami-Dade NOA document.

Certification of Independence:
Rice Engineering, Inc. and Wayne K Helmila, P.E. do not have and will not acquire a financial interest in any company manufacturing or distributing the products for which this report is being issued. Rice Engineering, Inc. and Wayne K Helmila, P.E., do not have and will not acquire a financial interest in any other entity involved in the approval process of the above listed products.

Evaluation Report By and PE Stamp:



10/15/2021
COA: 9090

RICE
ENGINEERING
105 School Creek Trail
Luxemburg, WI 54217
Phone: (920) 617-1042
Fax: (920) 617-1100
www.rice-inc.com

Florida Firm No: F-01000005061
Certificate of Authorization: #9090
Wayne K. Helmila
Registration No: 59092

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)

Greenheck Fan Corporation
1110 Greenheck Drive (PO Box 410)
Schofield, WI 54476

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 EHV-550D Aluminum Louver

APPROVAL DOCUMENT: Drawing No. **EHV-550D**, titled "EHV-550D", sheets 1 through 8 of 8, dated 06/06/2019, prepared by Greenheck Fan Corporation, signed and sealed by Wayne K. Helmila, P.E. on 09/09/2021, bearing the Miami-Dade County Product Control revision stamp with the NOA number and approval 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, Schofield, WI or Shelby, NC, 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 # 19-0430.03** 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 **Carlos M. Utrera, P.E.**

MIAMI-DADE COUNTY APPROVED

Greenheck Fan Corporation

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

1. Evidence submitted under NOA # 19-0430.03

A. DRAWINGS

1. Manufacturer's die drawings and sections.
2. Drawing No. **EHV-550D**, titled "EHV-550D", sheets 1 through 8 of 8, dated AUG 06, 2019, prepared by the RICE Engineering, signed and sealed by Wayne K. Helmila, P.E.

B. TESTS

1. Test reports on 1) Uniform Static Air Pressure Test, Loading per FBC TAS 202-94
   2) Large Missile Impact Test per FBC, TAS 201-94
   3) Cyclic Wind Pressure Loading per FBC, TAS 203-94
   along with marked-up drawings and installation diagram of Model EHV-550D Aluminum Vertical Louvers, prepared by Quast Consulting & Testing, Inc., Report No. **QCT18-5153.02,** dated 04/12/2019, signed and sealed by Brian N. Sasman, P.E.
   Note: This test report has been revised by an addendum letter dated 06/26/2019, issued Quast Consulting & Testing, Inc, signed and sealed by Brian N. Sasman, P.E.
2. Test Report No. **QCT18-5093.06**, issued by Quast Consulting & Testing, Inc. dated April 11, 2019 for Wind Driven Rain Resistance per ANSI/AMCA 550-15 (Rev 09-18), signed and sealed by Brian N. Sasman, P.E.

C. CALCULATIONS

1. Structural load calculations prepared by Rice Engineering, dated 04/25/2019, signed and sealed by Wayne K. Helmila, P.E.
2. Supplement Engineering evaluation of vertical shims dated June 25, 2019 and July 26, 2019, signed and sealed by Wayne K. Helmila, P.E.

D. QUALITY ASSURANCE

1. Miami-Dade Department of Regulatory and Economic Resources (RER)

E. MATERIAL CERTIFICATIONS

1. None.

F. STATEMENTS

1. Statement letter dated June 25, 2019 of compliance to FBC 2017(6th Edition) and "No financial interest, both dated June 25, 2019, issued by Rice Engineering, signed and sealed by Wayne K. Helmila, P.E.
2. Test Lab compliance statement, as part of the report.

Carlos M. Utrera, P.E.
Product Control Examiner
NOA No. 21-0917.10
Expiration Date: August 15, 2024
Approval Date: October 14, 2021

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

2. New evidence submitted

A. DRAWINGS

1. Drawing No. **EHV-550D**, titled "EHV-550D", sheets 1 through 8 of 8, dated 06/06/2019, prepared by Greenheck Fan Corporation, signed and sealed by Wayne K. Helmila, P.E. on 09/09/2021.

B. TESTS

1. None.

C. CALCULATIONS

1. Structural load calculations prepared by Rice Engineering, dated 09/08/2021, signed and sealed by Wayne K. Helmila, P.E.

D. QUALITY ASSURANCE

1. Miami-Dade Department of Regulatory and Economic Resources (RER).

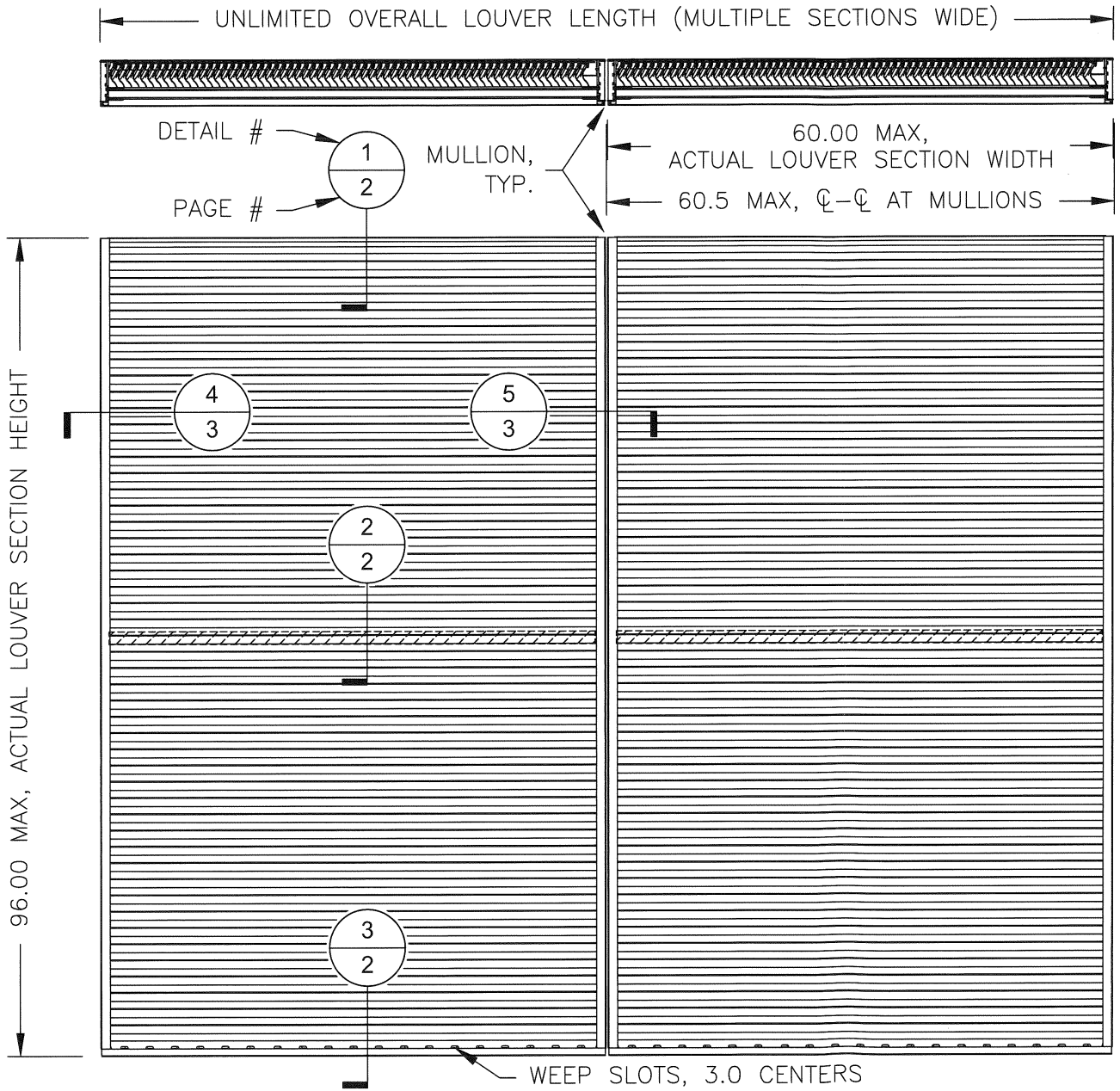
E. MATERIAL CERTIFICATIONS

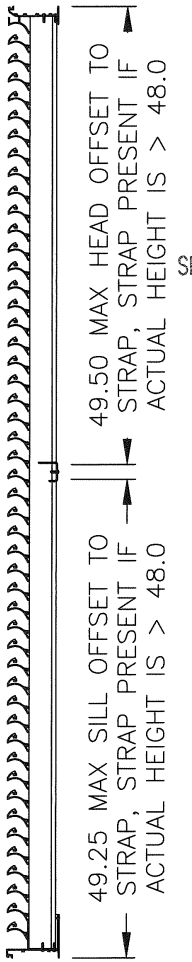
1. None.

F. STATEMENTS

1. Statement letter of code compliance to 7th edition (2020) of the FBC and of no financial interest, dated 09/09/2021, issued by Rice Engineering, signed and sealed by Wayne K. Helmila, P.E.

Carlos M. Utrera, P.E.
Product Control Examiner
NOA No. 21-0917.10
Expiration Date: August 15, 2024
Approval Date: October 14, 2021





RICE ENGINEERING
105 School Creek Trail
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www.rice-inc.com

Florida Firm No. F-01000005081
Certificate of Authorization #9090
Wayne K. Helmila
Registration No. 59092

DESIGN PRESSURE RATING
+/- 100 PSF

WAYNE K. HELMILA LICENSE No. 59092 STATE OF FLORIDA PROFESSIONAL ENGINEER

SEP 09 2021

PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. 21-0917.10
Expiration Date 08/15/2024
By
Miami-Dade Product Control

(FOR MIAMI-DADE D.R.E.R. USE ONLY)

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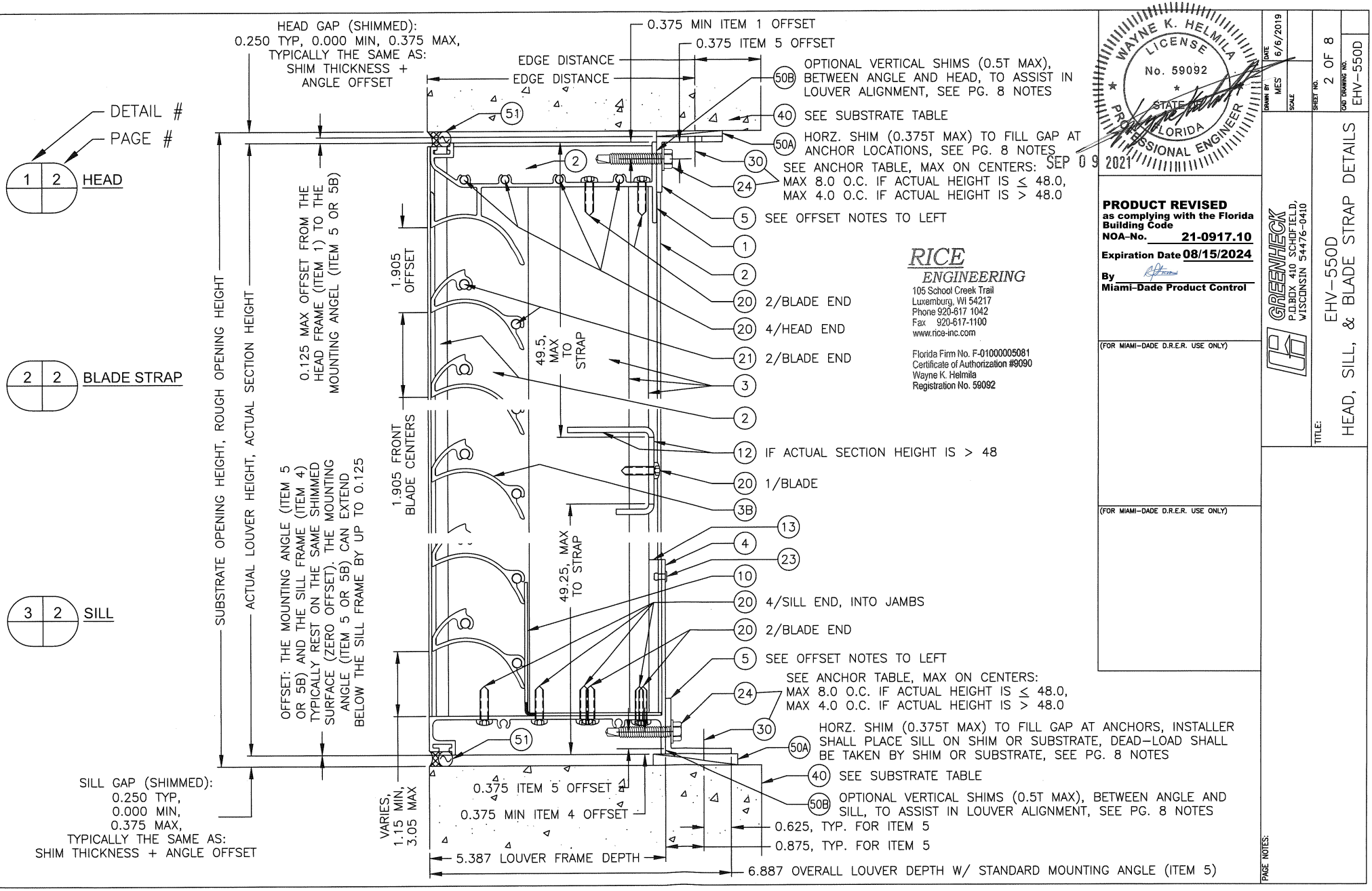
PAGE NOTES:

DRAWN BY: MES
DATE: 6/6/2019
SCALE:
SHEET NO.: 1 OF 8
CAD DRAWING NO.: EHV-550D

GREENHECK
P.O.BOX 410 SCHOFIELD, WISCONSIN 54476-0410

TITLE:
EHV-550D
ELEVATION & SECTION CUTS



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WAYNE K. HELMILA
LICENSE
No. 59092
STATE OF FLORIDA
PROFESSIONAL ENGINEER
SEP 0 9 2021

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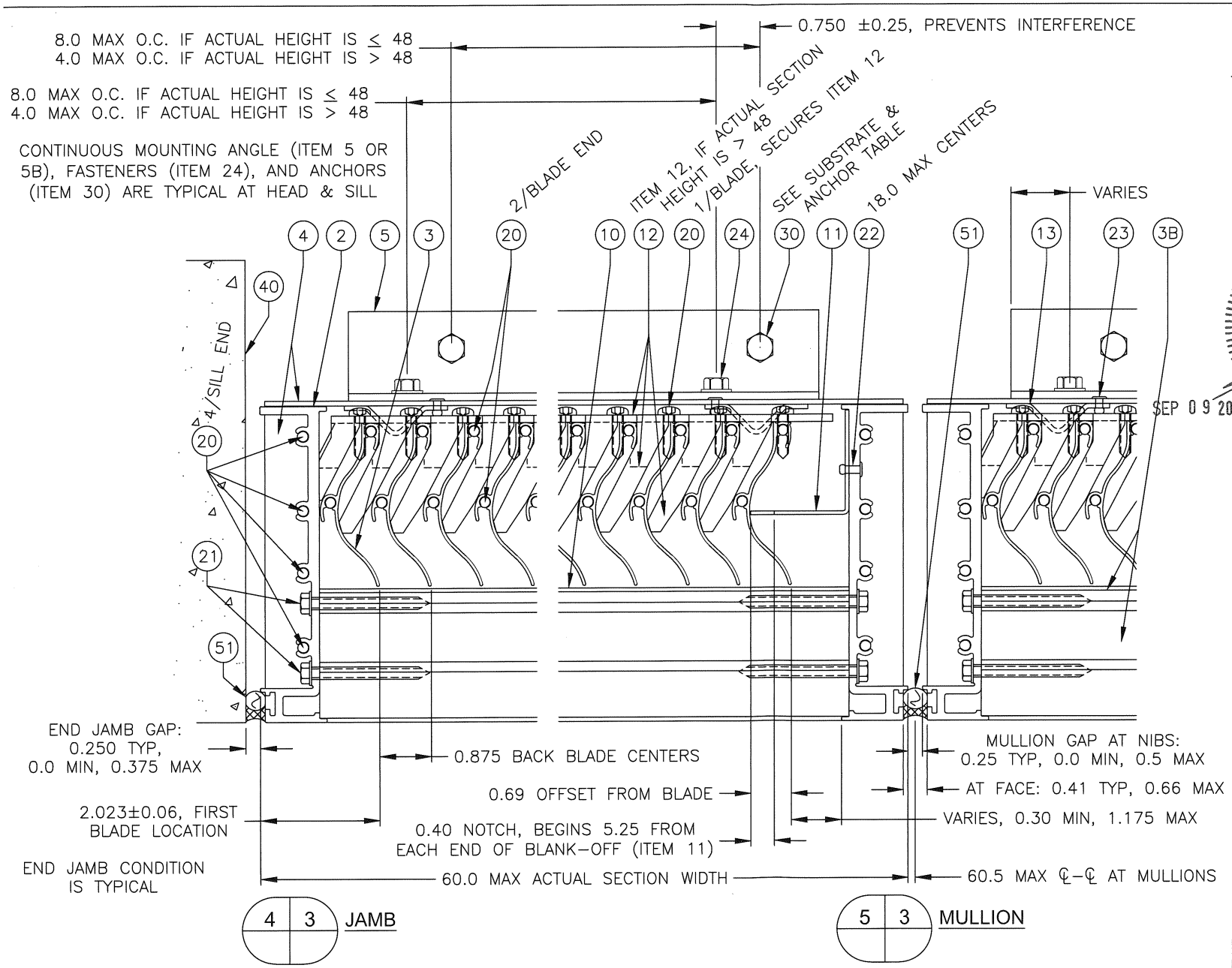
PAGE NOTES:

GREENHECK
P.O.BOX 410 SCHOFIELD, WISCONSIN 54476-0410

DRAWN BY: MES
DATE: 6/6/2019
SCALE:
SHEET NO.: 2 OF 8
CAD DRAWING NO.: EHV-550D

TITLE: EHV-550D HEAD, SILL, & BLADE STRAP DETAILS



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PAGE NOTES:

DRAWN BY MES | DATE 6/6/2019 | SCALE | SHEET NO. 3 OF 8 | CAD DRAWING NO. EHV-550D

GREENHECK
P.O.BOX 410 SCHOFIELD, WISCONSIN 54476-0410

TITLE: EHV-550D JAMB & MULLION DETAILS

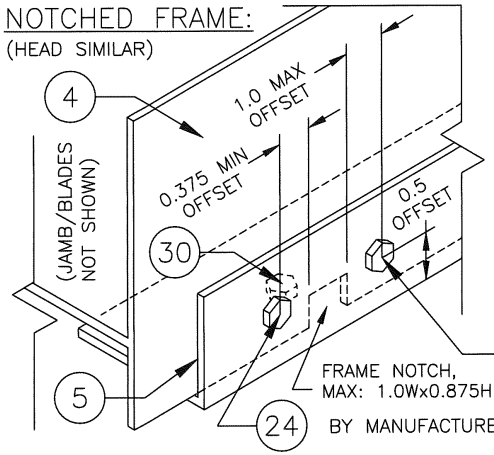
OPTIONAL INVERTED CONTINUOUS MOUNTING ANGLE: SETUPS, CAUTIONS, & NOTES

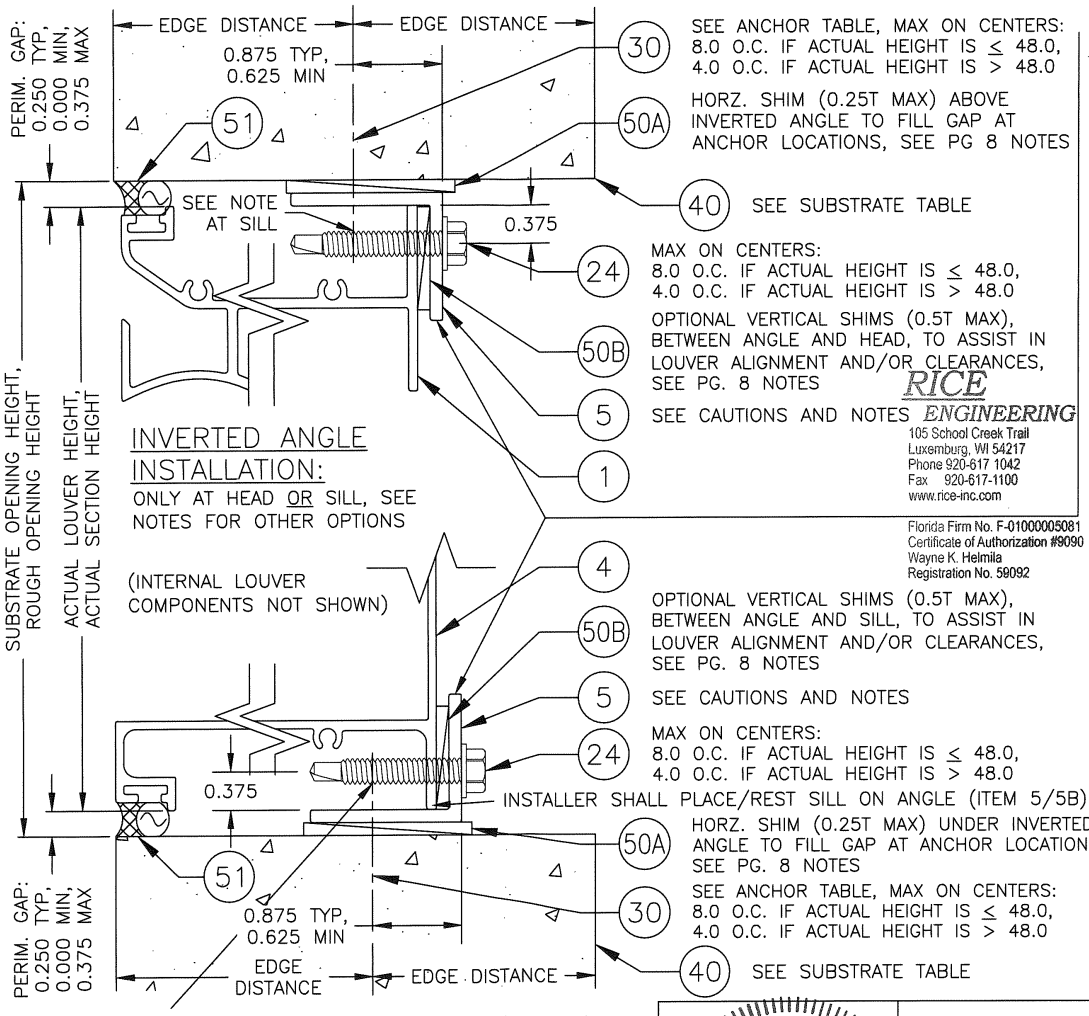
CAUTION! WITHOUT MODIFYING THE HEAD OR SILL FRAME MEMBER, THE CONTINUOUS MOUNTING ANGLES (ITEM 5 OR 5B) CAN ONLY BE USED IN THE INVERTED POSITION IF ONLY ONE OF THE ANGLES IS INVERTED. EITHER AT THE HEAD OR AT THE SILL, NOT BOTH. (LARGER SUBSTRATE ANCHOR (ITEM 30) HEAD STYLES MAY ALSO REQUIRE THE BELOW INVERTED ANGLE FIELD MODIFICATION EVEN IF ONLY ONE ANGLE IS INVERTED.)

WHY: DUE TO REQUIRED OFFSETS OF THE HOLES IN THE CONTINUOUS MOUNTING ANGLE, THE HORIZONTAL LEG OF THE ANGLE WILL BE UP AGAINST THE HEAD/SILL FRAME MEMBER (AS SHOWN ON THIS PAGE). THEREFORE, IT IS IMPOSSIBLE TO PRE-MOUNT BOTH THE HEAD AND SILL ANGLES TO THE SUBSTRATE IN THE INVERTED POSITION AND STILL HAVE CLEARANCE FOR THE LOUVER'S HEAD/SILL FRAME TO SLIDE PAST THE HEADS OF THE SUBSTRATE ANCHOR.

SOLUTION: TO OVERCOME THE ABOVE ISSUE AND BE ABLE TO INVERT THE ANGLE AT BOTH THE HEAD AND SILL LOCATIONS, THE HEAD AND/OR SILL FRAME MEMBER HAVE TO BE NOTCHED (BY OTHERS) AT EVERY LOCATION WHERE THE SUBSTRATE FASTENER HEAD WOULD CAUSE INTERFERENCE WITH SLIDING THE LOUVER UP TO THE CONTINUOUS MOUNTING ANGLE. AN ADDITIONAL ITEM 24 ANGLE TO LOUVER FASTENER SHALL BE USED AT EACH NOTCHED LOCATION, AND SHALL BE LOCATED AS SHOWN IN THE BELOW "NOTCHED FRAME" EXAMPLE. THE ADDITIONAL ITEM 24 FASTENER IS NOT PROVIDED BY THE MANUFACTURER. MAX NOTCH SIZE IS 1.0 INCH WIDE BY 0.875 INCH HIGH.

NOTCHED FRAME:
(HEAD SIMILAR)





INVERTED ANGLE INSTALLATION:
ONLY AT HEAD OR SILL, SEE NOTES FOR OTHER OPTIONS

(INTERNAL LOUVER COMPONENTS NOT SHOWN)

SEE ANCHOR TABLE, MAX ON CENTERS:
8.0 O.C. IF ACTUAL HEIGHT IS ≤ 48.0,
4.0 O.C. IF ACTUAL HEIGHT IS > 48.0

HORZ. SHIM (0.25T MAX) ABOVE INVERTED ANGLE TO FILL GAP AT ANCHOR LOCATIONS, SEE PG 8 NOTES

SEE SUBSTRATE TABLE

MAX ON CENTERS:
8.0 O.C. IF ACTUAL HEIGHT IS ≤ 48.0,
4.0 O.C. IF ACTUAL HEIGHT IS > 48.0

OPTIONAL VERTICAL SHIMS (0.5T MAX), BETWEEN ANGLE AND HEAD, TO ASSIST IN LOUVER ALIGNMENT AND/OR CLEARANCES, SEE PG. 8 NOTES

SEE CAUTIONS AND NOTES

OPTIONAL VERTICAL SHIMS (0.5T MAX), BETWEEN ANGLE AND SILL, TO ASSIST IN LOUVER ALIGNMENT AND/OR CLEARANCES, SEE PG. 8 NOTES

SEE CAUTIONS AND NOTES

MAX ON CENTERS:
8.0 O.C. IF ACTUAL HEIGHT IS ≤ 48.0,
4.0 O.C. IF ACTUAL HEIGHT IS > 48.0

INSTALLER SHALL PLACE/REST SILL ON ANGLE (ITEM 5/5B).

HORZ. SHIM (0.25T MAX) UNDER INVERTED ANGLE TO FILL GAP AT ANCHOR LOCATIONS, SEE PG. 8 NOTES

SEE ANCHOR TABLE, MAX ON CENTERS:
8.0 O.C. IF ACTUAL HEIGHT IS ≤ 48.0,
4.0 O.C. IF ACTUAL HEIGHT IS > 48.0

SEE SUBSTRATE TABLE

IF AN ALTERNATE CONTINUOUS MOUNTING ANGLE (ITEM 5B) IS USED, IT WILL BE NECESSARY TO OFFSET (UP TO 1.0 MAX) THE ANGLE'S LOUVER FASTENER AND SUBSTRATE ANCHOR HOLES IN ORDER TO REDUCE RISK OF FASTENER INTERFERENCE.

24 ADDITIONAL ITEM 24 FASTENER, BY OTHERS

NOTES: INVERTED ANGLE OPTION SHOWN UTILIZING THE THE MANUFACTURER PROVIDED STANDARD CONTINUOUS MOUNTING ANGEL (ITEM 5) AT THE HEAD/SILL. THE ANGEL SHALL NOT EXTEND MORE THAN THE THICKNESS OF THE ANGLE ABOVE/BELOW THE THE HEAD/SILL.

THE CONTINUOUS MOUNTING ANGLES (ITEM 5 OR 5B) CAN BE USED IN THE INVERTED POSITION AT BOTH THE HEAD AND SILL LOCATIONS ONLY IF THE ANGLES ARE FIELD NOTCHED (BY OTHERS) AND ONE ADDITIONAL FASTENER (BY OTHERS) IS REQUIRED PER EVERY NOTCH LOCATION. SEE "CAUTION/SOLUTION" NOTES AND "NOTCHED FRAME" EXAMPLE ON THIS PAGE.

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Expiration Date 08/15/2024
By
Miami-Dade Product Control

(FOR MIAMI-DADE D.R.E.R. USE ONLY)

WAYNE K. HELMILA LICENSE No. 59092 STATE OF FLORIDA PROFESSIONAL ENGINEER

SEP 09 2021

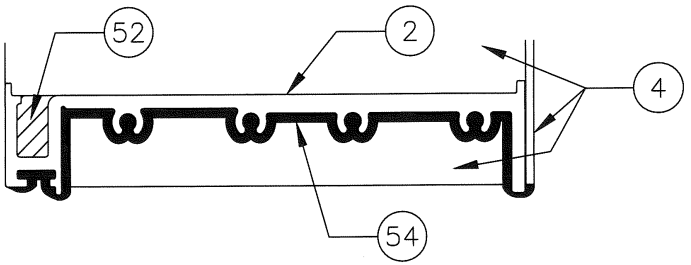
PAGE NOTES:

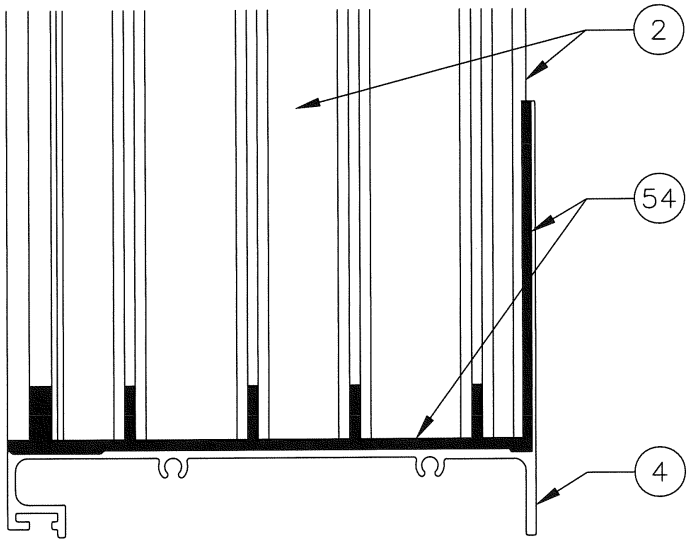
DRAWN BY: MES
DATE: 6/6/2019
SCALE:
SHEET NO.: 4 OF 8
CAD DRAWING NO.: EHV-550D

GREENHECK
P.O.BOX 410 SCHOFIELD, WISCONSIN 54476-0410

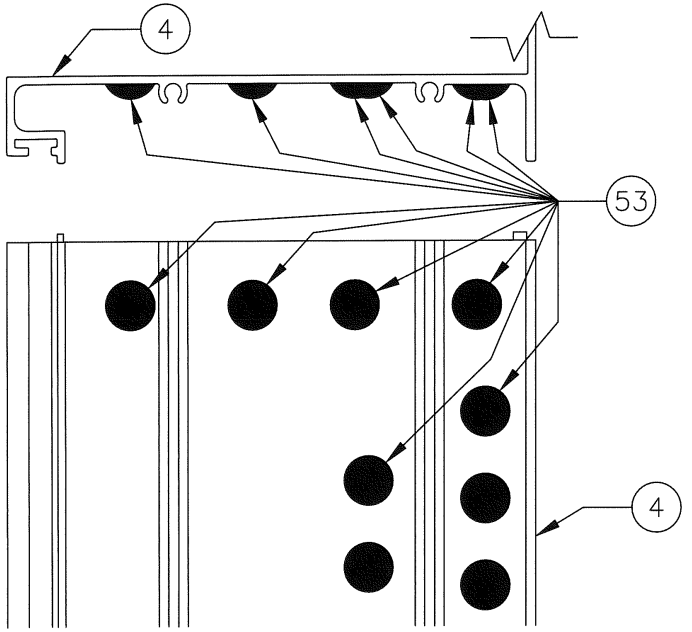
TITLE: EHV-550D OPTIONAL INVERTED ANGLE DETAILS

TYP CORNER SEALING,
TOP AND SIDE VIEW OF JAMB





TYP SILL SEALING,
SIDE AND BOTTOM VIEW OF SILL



THIS PAGE: ALL SHOWN SEALING IS BY MANUFACTURER, AND IS REQUIRED (ALONG WITH PERIMETER AND MULLION GAP SEALING, BY OTHERS) TO PASS ANSI/AMCA 550.

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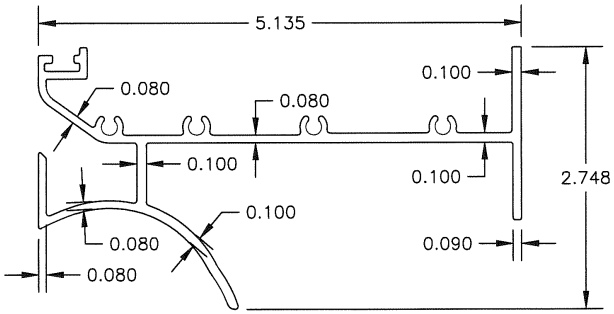
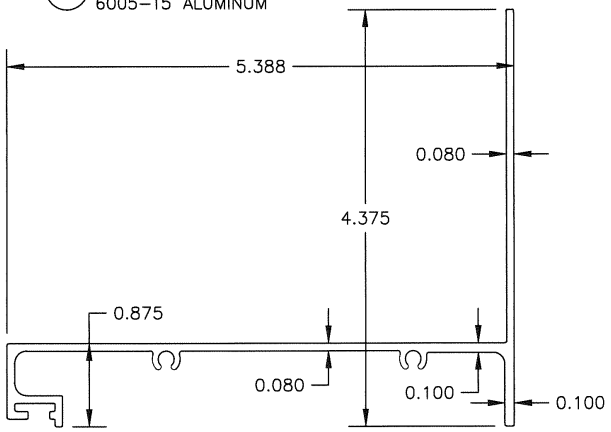
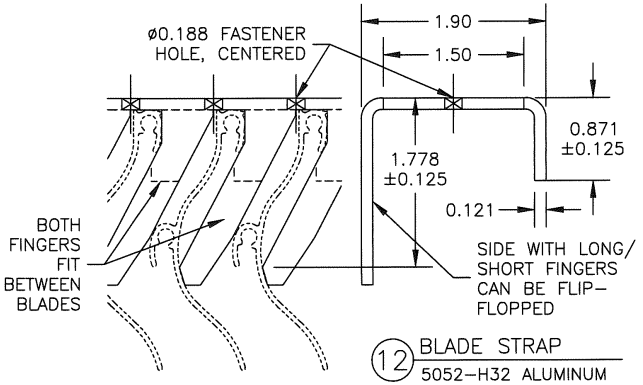
TITLE: EHV-550D FACTORY SEALING



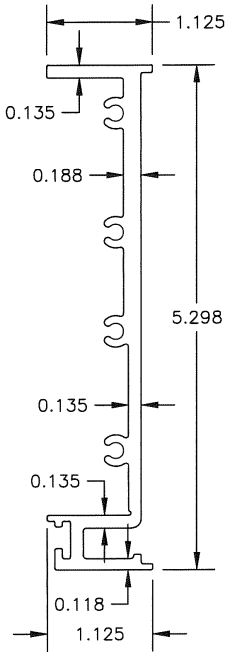
1 HEAD
6005–T5 ALUMINUM



4 SILL
6005–T5 ALUMINUM



12 BLADE STRAP
5052–H32 ALUMINUM



2 JAMB
6005–T5 ALUMINUM

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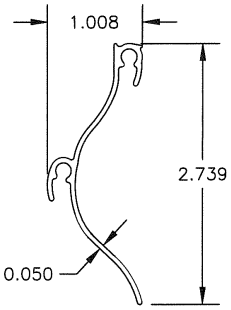
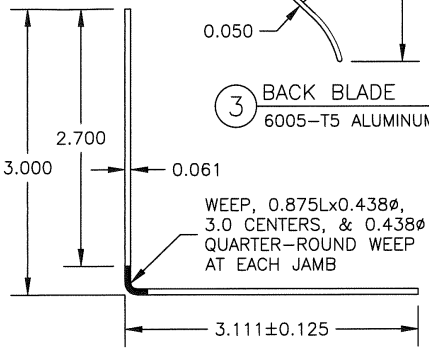
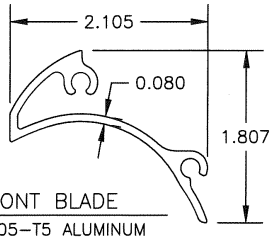


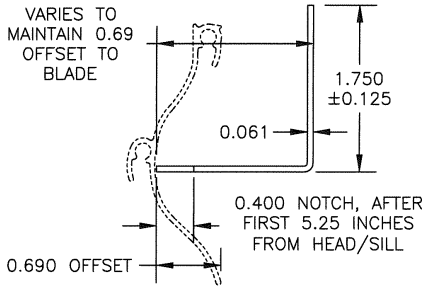
3 BACK BLADE
6005–T5 ALUMINUM



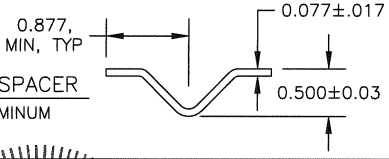
10 SILL BAFFLE
5052–H32 ALUMINUM



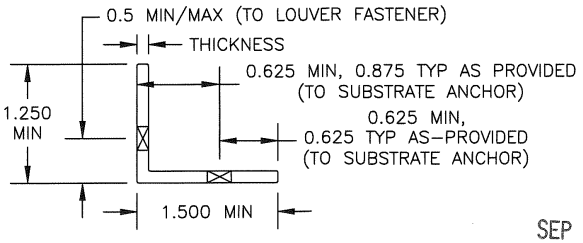
3B FRONT BLADE
6005–T5 ALUMINUM



11 JAMB BLANK–OFF
5052–H32 ALUMINUM



13 SILL BLADE SPACER
1100–H14 ALUMINUM



5 STANDARD CONTINUOUS MOUNTING ANGLE
6061–T6 ALUMINUM, 0.125 MIN THICKNESS, TYP AS PROVIDED

5B ALTERNATE CONTINUOUS MOUNTING ANGLE
6005–T5 ALUMINUM, 0.125 MIN THICKNESS, BY OTHERS

5B ALTERNATE CONTINUOUS MOUNTING ANGLE
A36 STEEL, 0.125 MIN THICKNESS, BY OTHERS

5B ALTERNATE CONTINUOUS MOUNTING ANGLE
1008 HOT ROLLED STEEL, 11GA MIN THICKNESS, BY OTHERS

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PAGE NOTES:

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P.O.BOX 410 SCHOFIELD, WISCONSIN 54476-0410

TITLE: EHV–550D PART PROFILES

SUBSTRATE & ANCHOR TABLE

MAX. ANCHOR SPACING IS BASED ON ACTUAL HEIGHT: 8.0 IN. FOR ≤ 48.0 IN., & 4.0 IN. FOR > 48.0 IN.

SUBSTRATE (ITEM 40)			ANCHOR (ITEM 30)	ANCHOR MINIMUMS				
TYPE	THICKNESS MIN. (IN.)	PROPERTY MINIMUM		LENGTH (IN.)	THREADED LENGTH (IN.)	EMBEDMENT (IN.)	TO EDGE (IN.)	Fy, Fu (KSI)
WOOD (7)	3, (2 LAYERS OF 2x_ LUMBER)	SG 0.42	1/4 IN. LAG SCREW, COATED STEEL (6) (1)	3	2 1/2	2 1/2	1 1/2	70, 105
			1/4 IN. LAG SCREW, 300 SERIES STAINLESS (1)					65, 100
			1/4 IN. SPAX POWERLAG, HEX OR T-STAR WASHER HEAD, COATED STEEL (6) (1)		1 3/4			70, -
			6 MM SPAX TIMBER SCREW, WASHER HEAD, 300 SERIES STAINLESS	80 MM	61 MM	2 11/16		65, -
STEEL (8)	16 GA	Fy 33 KSI Fu 45 KSI	1/4-14 DEWALT/ELCO BI-FLEX SCREW OR EQUAL 1/4-14 18-8 SS SCREW (1)	VARIES (2)	VARIES (2)	FULL	1/2	65, -
			1/4-20 BOLT, 300 SERIES STAINLESS (1)			BOLTED		
ALUMINUM (8)	1/8	Fy 25 KSI (6063-T6)	1/4-20 DEWALT/ELCO BI-FLEX SCREW OR EQUAL 1/4-20 18-8 SS SCREW (1)	VARIES (2)	VARIES (2)	FULL	1/2	65, -
			1/4-20 SCREW OR THRU BOLT, 300 SERIES STAINLESS (1)			FULL/BOLTED		
CONCRETE (3) (9)	4 (10)	Fc 2.5 KSI	3/8 IN. HILTI KWIK BOLT TZ EXPANSION, 304 OR 316 STAINLESS (5)	VARIES (2)	VARIES (2)	2 5/16 NOM.	3	-
GROUT FILLED CMU (4) (9)	4x4x16 (10)	Fm 1.5 KSI	3/8 IN. DEWALT SCREW-BOLT+, COATED STEEL (5) (6) (1)	VARIES (2)	VARIES (2)	3 1/4 NOM.	1 1/2	-
			1/2 IN. THREADED ROD W/ HIT-HY 270 ADHESIVE, 300 SERIES STAINLESS (5)			4 1/2 EFF.	1 3/4	65, -

1) ANCHOR MANUFACTURING PROCESS IS COLD-WORKED.

2) AS NEEDED TO COMPLY WITH THE EMBEDMENT WHILE ACCOUNTING FOR THE THICKNESS OF THE CONTINUOUS MOUNTING ANGLE, SHIM(S), ETC.

3) ANCHOR QUALIFIED FOR NON-CRACKED AND CRACKED CONCRETE SUBSTRATES, NORMAL WEIGHT CONCRETE, INCLUDING PRE-CAST. (1)

4) LIGHT/MEDIUM/NORMAL-WEIGHT CMU CONFORMING TO ASTM C90, TYPE II, GROUT FILLED CONFORMING TO C476, AS ALLOWED BY CURRENT FBC.

5) THE 1/4 IN. DIAMETER ANCHOR CLEARANCE HOLES IN THE MANUFACTURER PROVIDED STANDARD CONTINUOUS MOUNTING ANGLE (ITEM 5) WILL NEED TO BE FIELD ENLARGED TO ACCEPT THE ANCHOR.

6) WITH GALVANIZED COATING OR FIELD SEALED POST INSTALLATION WITH LIQUID PROSOCO FLASHING. (1)

7) 2x_ WOOD BUCK, BY OTHERS, TO BE PROPERLY DESIGNED AN SECURED TO TRANSFER IMPOSED LOADS, TO BE REVIEWED BY AUTHORITY HAVING JURISDICTION (A.H.J.).

8) METAL SUBSTRATE OR STUD, BY OTHERS, TO BE DESIGNED TO TRANSFER IMPOSED LOADS, TO BE REVIEWED BY A.H.J..

9) CONCRETE/CMU, BY OTHERS, TO BE DESIGNED TO TRANSFER IMPOSED LOADS, TO BE REVIEWED BY A.H.J..

10) SUBSTRATE THICKNESS SHALL ALSO MEET THE MINIMUMS AS ALLOWED PER THE CURRENT FBC.

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PAGE NOTES:
(1) 8/20/21 ADDED SEVERAL CALLOUTS TO REFERENCE NOTE 6, REPLACED 2 STEEL SUBSTRATE ANCHOR ROWS OF 1/4-14 SCREW WITH A SINGLE ROW OF 1/4-14 DEWALT/ELCO BI-FLEX OR EQUAL, REPLACED ALUMINUM SUBSTRATE ANCHOR 1/4-20 COATED STEEL SCREW WITH 1/4-20 DEWALT/ELCO BI-FLEX OR EQUAL, COMBINED CRACKED CONCRETE AND CONCRETE ROWS INTO A SINGLE ROW, ADDED QUALIFIED CONCRETES TO NOTE 3, AND REPLACED NOTE 6 WITH COMPLETELY NEW CONTENT.

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DRAWN BY: MES
DATE: 6/6/2019
SCALE:
SHEET NO.: 7 OF 8
CAD DRAWING NO.: EHV-550D

TITLE: EHV-550D SUBSTRATE & ANCHOR TABLE

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ITEM	DESCRIPTION	MATERIAL (MIN)	ID #	NOTES
1	LOUVER HEAD	6005-T5 ALUM	126145	---
2	LOUVER JAMB	6005-T5 ALUM	126147	---
3	LOUVER BACK BLADE	6005-T5 ALUM	126200	0.875 BLADE SPACING
3B	LOUVER FRONT BLADE	6005-T5 ALUM	126223	1.905 BLADE SPACING
4	LOUVER SILL	6005-T5 ALUM	126204	---
5	STANDARD CONTINUOUS MOUNTING ANGLE, TYPICAL AS PROVIDED BY MANUFACTURER	6061-T6 OR 6005-T5 ALUM	125811	ALONG HEAD AND SILL ONLY, MINIMUM LENGTH IS SECTION WIDTH MINUS 3.0, 0.125 MAX OFFSET FROM FRAME AT HEAD/SILL
5B	ALTERNATE CONTINUOUS MOUNTING ANGLE, NOT PROVIDED BY MANUFACTURER	VARIES	N/A	ALONG HEAD AND/OR SILL ONLY, AS AN ALTERNATE TO ITEM 5, MINIMUM LENGTH IS SECTION WIDTH MINUS 3.0, 0.125 MAX OFFSET FROM FRAME AT HEAD/SILL
---	---	---	---	---
10	LOUVER SILL BAFFLE	5052-H32 ALUM	100172	CONTINUOUS ALONG SILL, BETWEEN JAMBS
11	LOUVER JAMB BLANK OFF	5052-H32 ALUM	100172	CONTINUOUS ALONG ONE JAMB BETWEEN HEAD AND SILL, IS NOTCHED AFTER THE FIRST 5.25 IN. FROM THE HEAD AND SILL
12	LOUVER BLADE STRAP	5052-H32 ALUM	100172	APPROXIMATELY CENTERED, NOT CONNECTED TO EITHER JAMB
13	LOUVER SILL BLADE SPACER	1100-H14 ALUM	NA	BETWEEN FIRST/LAST PAIR OF BLADES, 2 PER SECTION
---	---	---	---	---
20	FRAME CORNER, BACK BLADE, AND BLADE STRAP SCREW, #10x0.75	300 SERIES SS	416108	4 PER FRAME CORNER, 2 PER BACK BLADE END, 1 PER BLADE ALONG STRAP
21	FRONT BLADE SCREW, #12x2	300 SERIES SS	417396	2 PER FRONT BLADE END
22	JAMB BLANK-OFF RIVET, ø1/8	ALUM	415706	18 IN. MAX CENTERS
23	SILL BLADE SPACER RIVET, ø1/8	ALUM	415706	1 PER SPACER
24	ANGLE TO LOUVER FASTENER, 1/4-20, DEWALT/ELCO BI-FLEX OR EQUAL	18-8 SS HEAD & SHANK	(1) ---	8.0 MAX O.C. FOR ACTUAL HEIGHT ≤ 48.0, 4.0 MAX O.C. FOR ACTUAL HEIGHT > 48.0, FIRST AND LAST END SPACE VARIES (6.0 MAX)
---	---	---	---	---
30	ANCHOR, TYPE VARIES BY SUBSTRATE, SEE "SUBSTRATE & ANCHOR TABLE"	VARIES	N/A	8.0 MAX O.C. FOR ACTUAL HEIGHT ≤ 48.0, 4.0 MAX O.C. FOR ACTUAL HEIGHT > 48.0, FIRST AND LAST END SPACE VARIES (6.0 MAX)
---	---	---	---	---
40	SUBSTRATE: WOOD, STEEL, ALUMINUM, CONCRETE, CRACKED CONCRETE, GROUT FILLED CMU	VARIES	N/A	BY OTHERS. MORE THAN ONE SUBSTRATE TYPE CAN BE USED. ONLY REQUIRED ALONG THE HEAD AND SILL. JAMB SUBSTRATE CAN BE ANY APPROPRIATE SUBSTRATE DEEMED SUITABLE PER AUTHORITY HAVING JURISDICTION. SEE "SUBSTRATE & ANCHOR TABLE" FOR REQUIREMENTS.
---	---	---	---	---
50A	HORIZONTAL SHIM, NON-COMPRESSIBLE, REQUIRED IF NOTED GAPS ARE PRESENT	VARIES	N/A	BY OTHERS. 50A SHALL SPAN ANY ITEM 5/5B & SUBSTRATE GAP. 50A=0.375T MAX IF BETWEEN NON-INVERTED ANGLE & SUBSTRATE. 50A=0.25T MAX IF BETWEEN INVERTED ANGLE & SUBSTRATE. 50B=0.5T MAX (FOR BETWEEN EITHER ANGLE TYPE & FRAME MEMBER). USE OF "U" SHAPED SHIMS AT ANCHOR/FASTENER LOCATIONS ONLY IS ACCEPTABLE (SHIMS DO NOT NEED TO BE CONTINUOUS). MIN 600 PSI COMPRESSIVE OR TENSILE STRENGTH.
50B	OPTIONAL VERTICAL SHIM, NON-COMPRESSIBLE, AS NEEDED TO ASSIST WITH ALIGNMENT	VARIES	N/A	
51	PERIMETER SEALANT / BACKER ROD	VARIES	N/A	BY OTHERS, REQUIRED TO PASS ANSI/AMCA 550
52	JAMB DRAIN SEALANT	SILICONE	N/A	AT HEAD-JAMB CORNERS ONLY, CLOSES OFF TOP OF JAMB DRAIN
53	BLADE SCREW SEALANT	SILICONE	N/A	ON ALL BLADE/JAMB SCREW HEADS UNDER SILL
54	FRAME JOINT SEALANT	SILICONE	N/A	ON JAMB-SILL JOINTS ONLY

4. THE MAXIMUM SINGLE SECTION ACTUAL SIZE IS 60.0 IN. WIDE (60.5 ℄-℄ AT MULLION) BY 96.0 IN. HIGH. SECTIONS MAY BE MOUNTED TO CREATE A MULTI-WIDE HORIZONTAL ASSEMBLY WITHOUT ANY ADDITIONAL FIELD SUPPORT.
5. GENERAL LOUVER CONSTRUCTION: HEAD, SILL, JAMBS, AND BLADES ARE EXTRUDED ALUMINUM, FRONT BLADE SPACING IS 1.905, BACK BLADE SPACING IS 0.875 IN., BLADES, HEADS, JAMBS, AND SILLS ARE SECURED WITH TWO SCREWS PER END.
6. THIS LOUVER PASSED ANSI/AMCA STANDARD 550, AND IS DESIGNED TO SIGNIFICANTLY DETER RAIN FROM PENETRATING THE SPACE BEHIND THE LOUVER. PER MIAMI-DADE D.R.E.R.: THE LOUVER MAY BE INSTALLED IN A LOCATION WHERE THE SPACE BEHIND THE LOUVER IS NOT DESIGNED TO DRAIN WATER PENETRATING INTO THE ROOM OR THE ROOM WILL HOUSE NON-WATER RESISTANT/PROOF EQUIPMENT, COMPONENTS, OR SUPPLIES.
7. INSTALLER TO PROVIDE SEPARATION OF DIS-SIMILAR MATERIALS AS REQUIRED (SEE CURRENT FLORIDA BUILDING CODE). SEE OLDER 2010 FL BUILDING CODE, BUILDING, CHAPTER 20, SECTION 2003.8.4, FOR ADDITIONAL INFORMATION ON SEPARATION OF DIS-SIMILAR MATERIALS.
8. ALL ALUMINUM, STAINLESS STEEL (SS), AND PLATED/COATED STEEL PARTS PROVIDED BY MANUFACTURER ARE INHERENTLY CORROSION RESISTANT OR HAVE A CORROSION RESISTANT COATING.
9. STEEL, STAINLESS STEEL, AND ALUMINUM PARTS MAY BE MADE OUT OF ALTERNATE ALLOYS THAT HAVE EQUAL OR GREATER YIELD & ULTIMATE STRENGTHS. PART DIMENSIONS ARE MINIMUMS UNLESS DEFINED OTHERWISE.
10. THE ITEM ID NUMBERS SHOWN ON THIS PAGE ARE FOR FACTORY USE AND INTERNAL TRACKING PURPOSES AND MAY BE UPDATED AT ANY TIME AND WILL BE DOCUMENTED IN THE Q.A. MANUAL. ANY UPDATES WILL NOT ALTER THE ITEM AS DESCRIBED HEREIN. ALL DIMENSIONS ARE IN INCHES (IMPERIAL/ USCS) UNLESS NOTED OTHERWISE.

(1)

1. IT IS THE RESPONSIBILITY OF THE PERMIT HOLDER TO VERIFY THE STRUCTURAL INTEGRITY OF THE EXISTING STRUCTURE TO SUPPORT THE LOADS IMPOSED BY THE LOUVER ASSEMBLY. THE LOUVER MANUFACTURER DOES NOT DETERMINE THE STRUCTURAL INTEGRITY OF THE SUBSTRATE STRUCTURE.
2. THIS LOUVER HAS BEEN DESIGNED AND TESTED IN ACCORDANCE WITH MIAMI-DADE COUNTY PROTOCOLS (AND QUALIFIED IN ACCORDANCE WITH THE CURRENT FLORIDA BUILDING CODE AND TEST PROTOCOLS/STANDARDS THEREIN): TAS 201 (LARGE MISSILE IMPACT, 50 FT/S IMPACT SPEED), TAS 202 (UNIFORM STATIC WIND PRESSURE), TAS 203 (UNIFORM CYCLIC WIND PRESSURE), AND ANSI/AMCA STANDARD 550-15 REV. 09-18 (HIGH VELOCITY WIND DRIVEN RAIN). (1)
3. THIS LOUVER HAS BEEN DESIGNED, TESTED, AND APPROVED TO WITHSTAND DESIGN PRESSURES OF UP TO AND INCLUDING +/-100 PSF.

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PAGE NOTES:
(1) 8/20/2021: REMOVED AMCA 550 EQUIVALENCY FROM NOTE 2, REMOVED NOTE 11, AND UPDATED ITEM 24 FROM DRIL-FLEX TO BI-FLEX.

DRAWN BY: MES
DATE: 6/6/2019
SCALE:
SHEET NO.: 8 OF 8
CAD DRAWING NO.: EHV-550D

GREENHECK
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TITLE:
EHV-550D
PART INDEX & NOTES

AMERICAN SHUTTER SYSTEMS ASSOCIATION

55 MMER ROLL SHUTTER
IMPACT RATED (HVHZ)
ESSENTIAL FACILITIES APPROVED

GENERAL NOTES:

1. THE PRODUCT SHOWN HEREIN IS DESIGNED AND MANUFACTURED TO COMPLY WITH THE CURRENT FLORIDA BUILDING CODE (FBC), INCLUDING HVHZ AND HAS BEEN EVALUATED ACCORDING TO THE FOLLOWING:
   - TAS 201-94
   - TAS 202-94
   - TAS 203-94
   - ASTM E330-02
   - ASTM E1886-12
   - ASTM E1996-12

2. ADEQUACY OF THE EXISTING STRUCTURAL CONCRETE/MASONRY AND 2X STUD FRAMING AS A MAIN WIND FORCE RESISTING SYSTEM CAPABLE OF WITHSTANDING AND TRANSFERRING APPLIED PRODUCT LOADS TO THE FOUNDATION IS THE RESPONSIBILITY OF THE ENGINEER OR ARCHITECT OF RECORD FOR THE PROJECT OF INSTALLATION.

3. 2X BUCKS (WHEN USED) SHALL BE DESIGNED AND ANCHORED TO PROPERLY TRANSFER ALL LOADS TO THE STRUCTURE. BUCK DESIGN AND INSTALLATION IS THE RESPONSIBILITY OF THE ENGINEER OR ARCHITECT OF RECORD FOR THE PROJECT OF INSTALLATION.

4. THE INSTALLATION DETAILS DESCRIBED HEREIN ARE GENERIC AND MAY NOT REFLECT ACTUAL CONDITIONS FOR A SPECIFIC SITE. IF SITE CONDITIONS CAUSE INSTALLATION TO DEVIATE FROM THE REQUIREMENTS DETAILED HEREIN, A LICENSED ENGINEER OR ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE WITH THIS DOCUMENT.

5. INSTALLATION OF ROLL DOWN MAY EITHER BE INSIDE OR OUTSIDE OF THE TIE BEAM.

6. ALL EXTRUSION MATERIAL: 6063-T6 ALUMINUM ALLOY, UNLESS OTHERWISE NOTED.

7. DESIGN AND OPERATION OF ROLL UP MECHANISM IS NOT PART OF THIS APPROVAL, MANUFACTURER SPECIFICATIONS SHOULD BE FOLLOWED. CARE SHOULD BE TAKEN WHEN SHUTTER IS IN MOTION ENSURING THAT PERSONAL INJURY OR DAMAGE TO THIS PRODUCT DOES NOT OCCUR.

8. FOR DESIGN PRESSURES SEE SHEET 2. SEE SHEET 16, 18 AND 19 FOR DESIGN PRESSURES BASED ON MULLIONS.

9. HOOD ASSEMBLY IS IMPACT RATED AND CAN BE PLACED INSIDE FRAME OPENING AS AN EXPOSED FEATURE.

10. OPTIONAL BOTTOM LOCK IS NOT REQUIRED FOR STRUCTURAL OR FORCED ENTRY RESISTANCE PERFORMANCE. FOR USE ON MAXIMUM 20' WIDE UNIT.

11. VENTED OR UNVENTED SLATS QUALIFIED.

12. SHUTTER MANUFACTURER LABEL SHALL BE LOCATED IN A READILY VISIBLE LOCATION, PER FBC CHAPTER 17.

INSTALLATION NOTES:

1. ONE (1) INSTALLATION ANCHOR IS REQUIRED AT EACH ANCHOR LOCATION SHOWN, UNLESS OTHERWISE STATED.

2. THE NUMBER OF INSTALLATION ANCHORS DEPICTED IS THE MINIMUM NUMBER OF ANCHORS TO BE USED FOR PRODUCT INSTALLATION.

3. INSTALL INDIVIDUAL INSTALLATION ANCHORS WITHIN A TOLERANCE OF ±1/2 INCH OF THE DEPICTED LOCATION IN THE ANCHOR LAYOUT DETAIL (I.E., WITHOUT CONSIDERATION OF TOLERANCES). TOLERANCES ARE NOT CUMULATIVE FROM ONE INSTALLATION ANCHOR TO THE NEXT.

4. REFER TO ANCHOR SCHEDULE CHART ON SHEETS 5, 6, 7, 9, 11, 12, & 14 FOR ANCHOR TYPE, SUBSTRATE TYPE, EDGE DISTANCE AND MINIMUM EMBEDMENT.

5. MINIMUM EMBEDMENT AND EDGE DISTANCE EXCLUDE WALL FINISHES, INCLUDING BUT NOT LIMITED TO STUCCO, FOAM, BRICK VENEER, AND SIDING.

6. ASSEMBLY FASTENERS SHALL BE COATED WITH AN HV COATING SYSTEM AS MANUFACTURED BY AN APPROVED COATING APPLICATOR REGISTERED WITH THE AMERICAN SHUTTER SYSTEMS ASSOCIATION.

7. EDGE DISTANCE IS MEASURED FROM FREE EDGE OF BLOCK OR EDGE OF MORTAR JOINT INTO FACE SHELL OF BLOCK.

8. INSTALLATION ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH ANCHOR MANUFACTURER'S INSTALLATION INSTRUCTIONS, AND ANCHORS SHALL NOT BE USED IN SUBSTRATES WITH STRENGTHS LESS THAN THE MINIMUM STRENGTH SPECIFIED BY THE ANCHOR MANUFACTURER.

9. INSTALLATION ANCHOR CAPACITIES FOR PRODUCTS HEREIN ARE BASED ON SUBSTRATE MATERIALS WITH THE FOLLOWING PROPERTIES:
   - 9.A. WOOD - MINIMUM SPECIFIC GRAVITY OF 0.55.
   - 9.B. CONCRETE -MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI. SEE ANCHOR SCHEDULES, SHEETS 5, 6, 8, 12, 14, 17 AND 20 FOR ADDITIONAL REQUIREMENTS.
   - 9.C. MASONRY - STRENGTH CONFORMANCE TO ASTM C-90, MIN 2000 PSI.
   - 9.D. STEEL - MINIMUM A36, $\frac{3}{16}$" THICKNESS
   - 9.E. ALUMINUM - MINIMUM 6063-T6 $\frac{1}{4}$" THICKNESS.

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2	ELEVATION & DESIGN PRESSURE TABLE
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4	VERTICAL SECTIONS
5	WALL MOUNT HORIZONTAL SECTIONS & ANCHOR SCHEDULE
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8	INSET MOUNT HORIZONTAL SECTIONS & ANCHOR SCHEDULE
9	INSET MOUNT HORIZONTAL SECTIONS & ANCHOR SCHEDULE
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15	CORNER ANGLE MOUNT HORIZONTAL SECTIONS & ANCHOR SCHEDULE
16	EQUALLY SPACED MULLIONS SELECTION
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18	END MULLION SELECTION
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20	END AND CORNER MULLION CONNECTIONS
21	SLAT END RETENTION AND HOOD VENT ASSEMBLY
22	VIEWPORT AND VENT DETAILS
23	COMPONENTS & BILL OF MATERIALS

Digitally signed by Hermes F Norero
Reason: I am approving this document
Date: 2022.04.11 10:22:43 -04'00'

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TITLE: *55 MMER ROLL SHUTTERS (HVHZ)(IMPACT)* *GENERAL & INSTALLATION NOTES*

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B.O. UPDATES	SM	01.14.20
2020 FBC UPDATE	NUS	08.18.20
ANCHOR UPDATE	SM	02.08.21
GUIDE RAIL UPDATE	MS	04.07.22

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HERMES F. NORERO LICENSE No. 73778 STATE OF FLORIDA PROFESSIONAL ENGINEER
HERMES F. NORERO, P.E.
FLORIDA P.E. NO. 73778
BUILDING DROPS, INC.
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DANIA BEACH, FL 33004
FBPE CERT. OF AUTHORIZATION NO. 29578

FL22558

DATE: 06.06.17

DWG. BY:	CHK. BY:
SM	HFN

SCALE: NTS

DWG. #: EMS003

SHEET: 1 OF 23

TABLE 1 - MAX ALLOWABLE DESIGN PRESSURE		
W/ END RETENTION		
TT MAX	POSITIVE	NEGATIVE
286.5	40	40
264	45	45
240	50	50
216	55	55
204	75	75
168	100	100
144	125	125
132	135	135
120	150	150
108	160	160
96	175	175
84	185	185
72	200	200

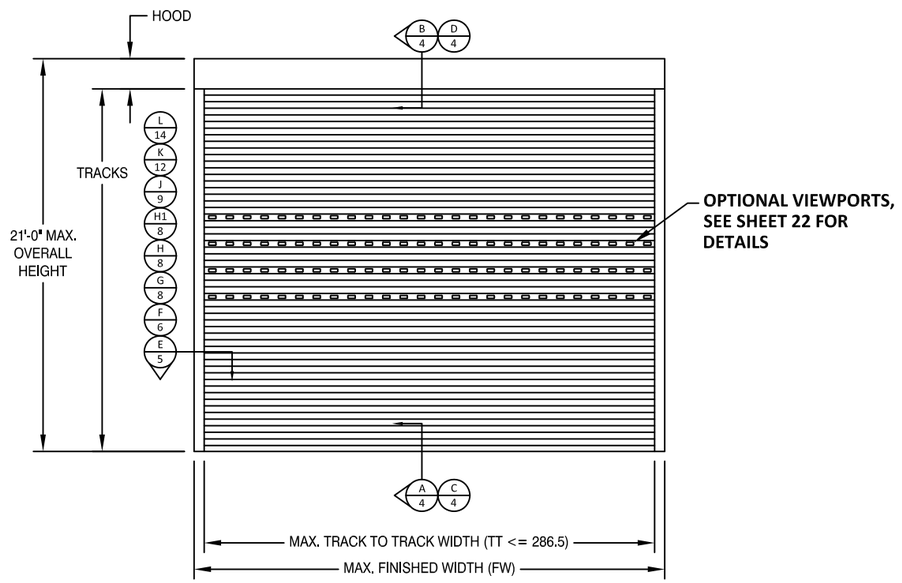
NOTES:
1. DESIGN PRESSURES MUST NOT EXCEED 200 PSF FOR END RETENTION SYSTEM.
2. SHUTTER SIZE (TT) MUST NOT EXCEED 286.5".

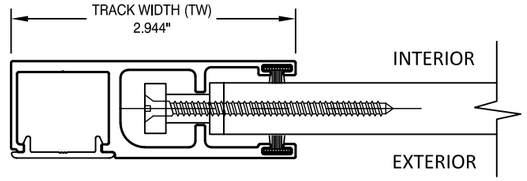
MULTIPLE SHUTTER NOTES:
1. USE TABLE 1 TO VERIFY MAXIMUM ALLOWABLE PRESSURE.
2. USE TABLE 2, 3 & 4 TO SELECT INTERMEDIATE AND END MULLIONS.
3. SELECT PROPER MULLION ANCHORAGE.

TABLE 2: GLASS SEPARATION (GS) INCHES													
LOAD (PSF)	TRACK TO TRACK (IN)												
	72	84	96	108	120	132	144	168	204	216	240	264	286.5
40	5.13	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	8.13	8.13	9.50	12.25
45	5.13	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.50	8.13	8.50	10.75	-
50	5.13	6.31	6.31	6.31	6.31	6.31	6.31	6.31	7.00	7.75	9.50	-	-
55	5.13	6.31	6.31	6.31	6.31	6.31	6.31	6.31	7.75	8.50	-	-	-
75	5.13	6.31	6.31	6.31	6.31	6.31	6.31	7.00	10.25	-	-	-	-
100	5.13	6.31	6.31	6.31	6.31	6.75	7.50	9.00	-	-	-	-	-
125	5.75	6.31	6.50	7.00	7.50	8.25	9.00	-	-	-	-	-	-
135	6.00	6.50	7.00	7.50	8.25	8.75	-	-	-	-	-	-	-
150	6.75	7.25	7.75	8.25	9.00	-	-	-	-	-	-	-	-
160	7.00	7.50	8.25	8.75	-	-	-	-	-	-	-	-	-
175	7.75	8.25	8.75	-	-	-	-	-	-	-	-	-	-
185	8.00	8.50	-	-	-	-	-	-	-	-	-	-	-
200	8.75	-	-	-	-	-	-	-	-	-	-	-	-

NOTES:
1. MINIMUM GLASS SEPARATION BASED ON MAXIMUM DEFLECTION + 1".
2. ANALYSIS IS LIMITED BY DEFLECTION UNDER STRUCTURAL LOADS AS WELL AS DEFLECTION DUE TO MISSILE LEVEL E LARGE MISSILE IMPACTS.
3. APPROPRIATE INSTALLATION METHOD SHALL BE USED TO ACHIEVE THE REQUIRED SEPARATION IN THE ABOVE TABLE

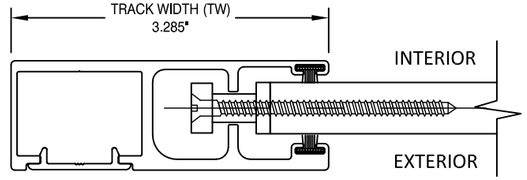
DESIGN PRESSURE RATINGS





SMALL GUIDE RAIL WITH END RETENTION

SECTION DETAILS ON FOLLOWING SHEETS SHOW LARGE GUIDE RAIL, SMALL GUIDE RAIL IS ALSO QUALIFIED FOR ANY MOUNTING CONDITION.



LARGE GUIDE RAIL WITH END RETENTION

DETAILS SHOWN HERE AND SECTION DETAILS ON FOLLOWING SHEETS SHOW OPEN GUIDE RAILS, ENCLOSED GUIDE RAILS ARE QUALIFIED FOR ANY APPROVED CONDITIONS. SEE B.O.M., SHEET 23 FOR DETAILS.

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TITLE: *55 MMER ROLL SHUTTERS (HVHZ)(IMPACT) ELEVATION & DESIGN PRESSURE TABLE*

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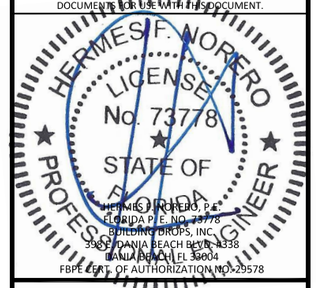

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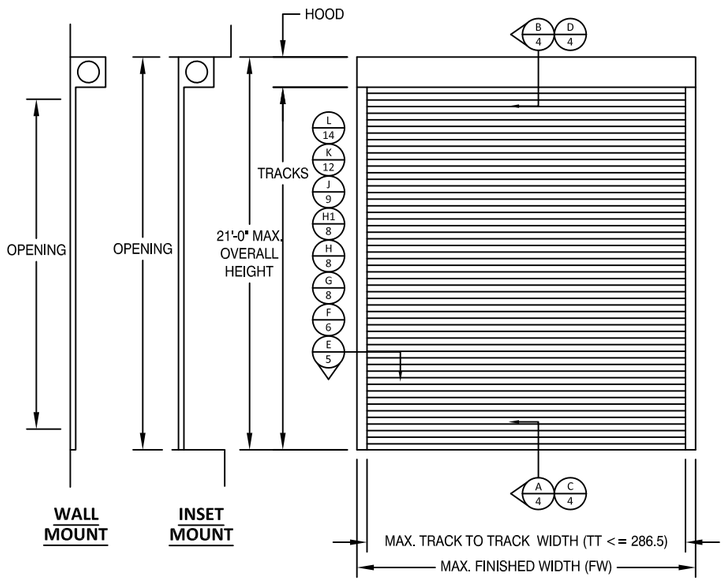
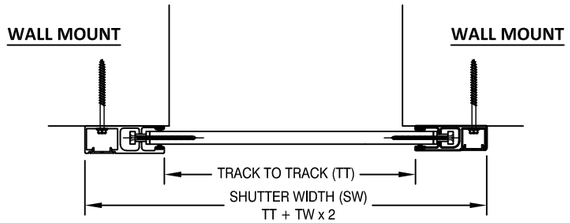
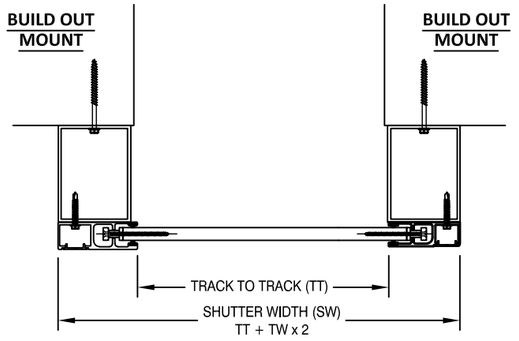
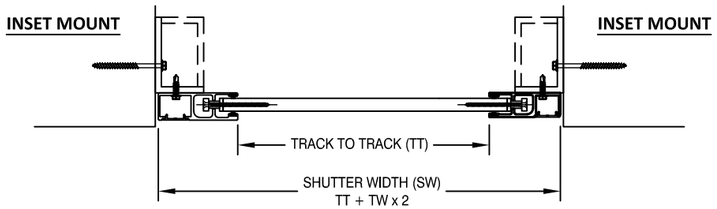
TYPICAL SINGLE UNIT ELEVATION

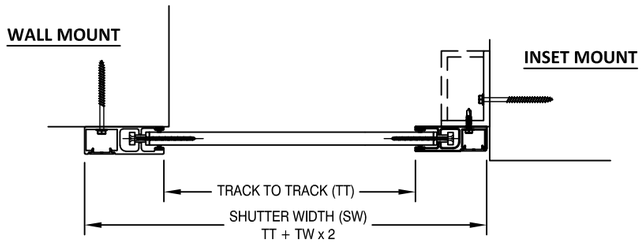


REVERSED INSTALLATION IS ACCEPTABLE



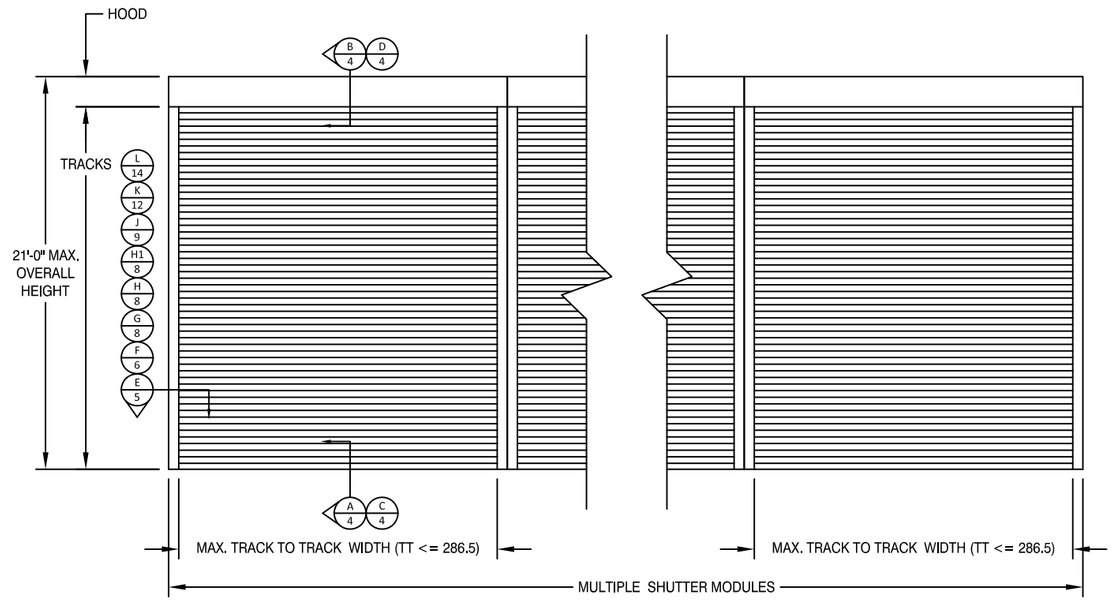


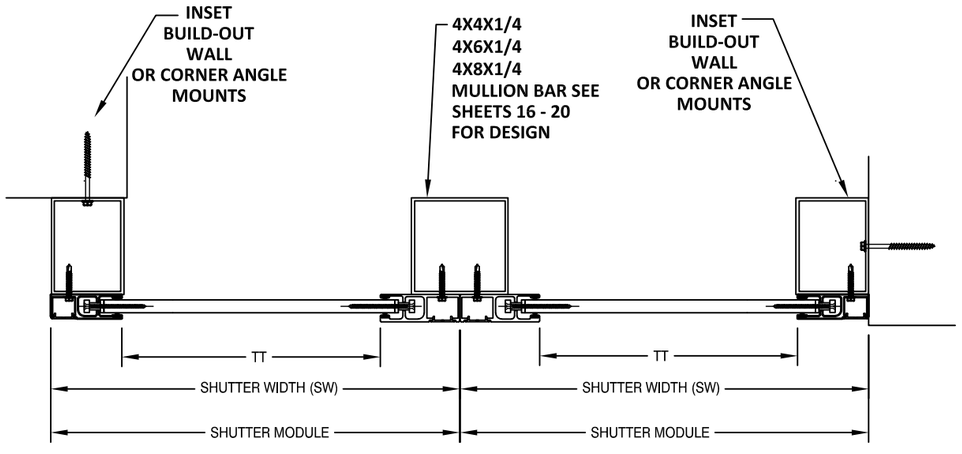




COMBINATION MOUNTED:
WALL, INSET, BUILD-OUT, AND CORNER ANGLE MOUNTS CAN BE INSTALLED BY MIXING ANY POSSIBLE COMBINATIONS. SEE PAGE 12 FOR FURTHER DETAILS OF OFFSET INSET MOUNT AND PAGE 14 FOR CORNER ANGLE MOUNTING.

TYPICAL MULTIPLE UNITS ELEVATION





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TITLE: *55 MMER ROLL SHUTTERS (HVHZ)(IMPACT)*
VERTICAL SECTIONS

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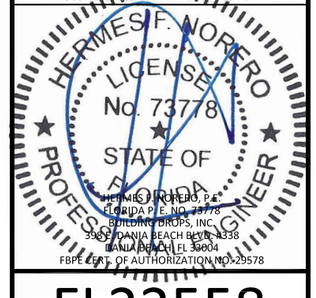

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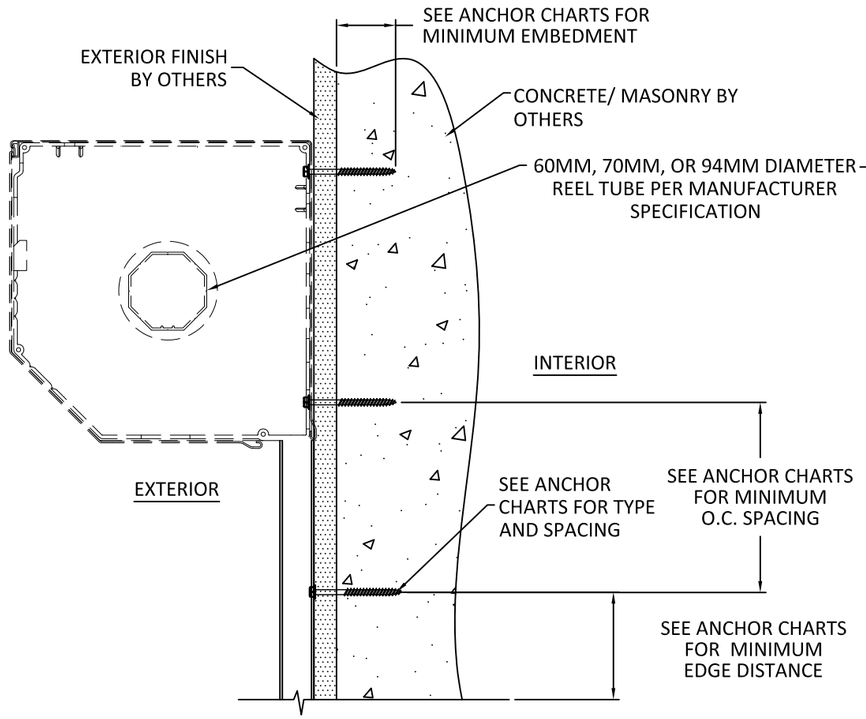
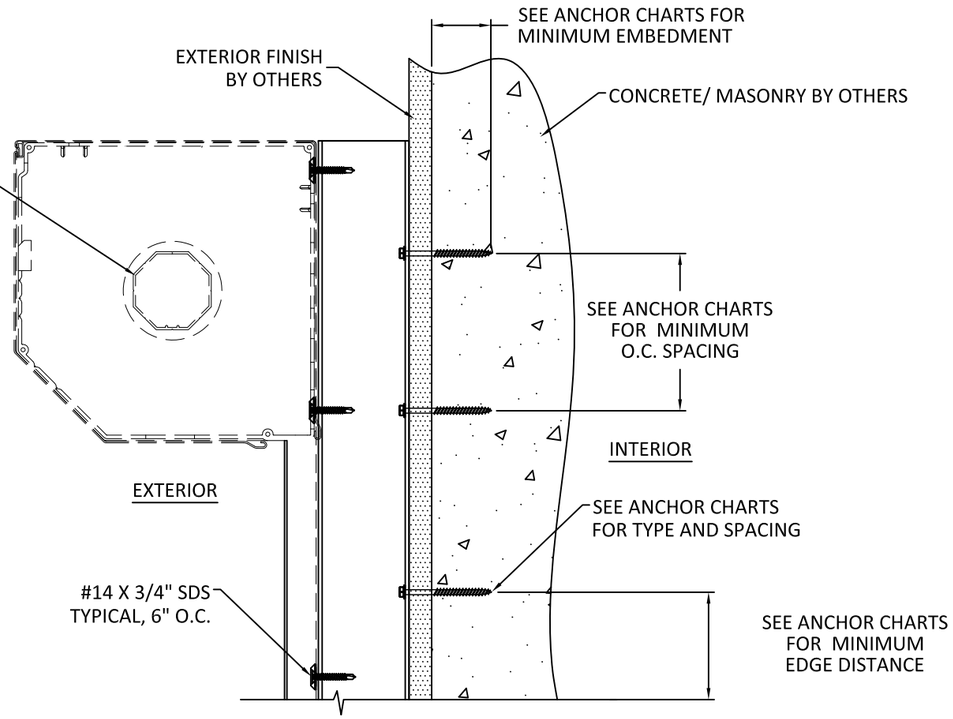
TYPICAL VERTICAL SECTIONS



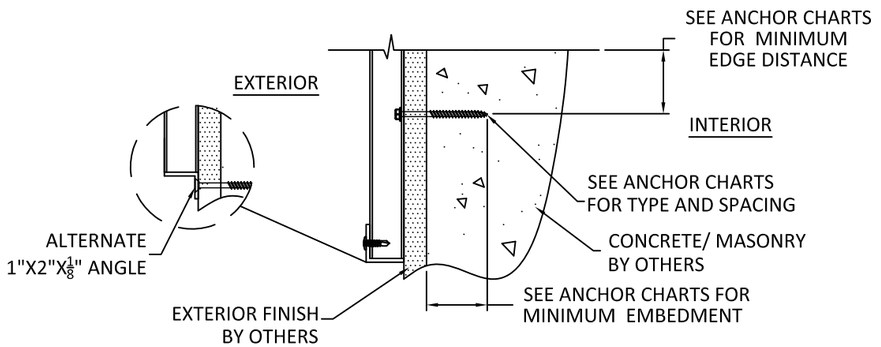
B/4 VERTICAL SECTION

MASONRY/CONCRETE SUBSTRATE - WALL MOUNT
SEE CHARTS ON SHEETS 5, 6, 8, 12 & 14 FOR OTHER SUBSTRATES



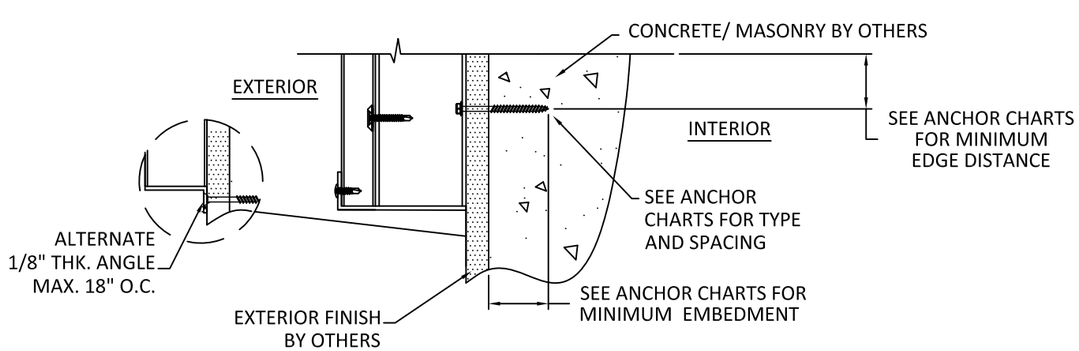
D/4 VERTICAL SECTION

MASONRY/CONCRETE SUBSTRATE - BUILDOUT
SEE CHARTS ON SHEETS 5, 6, 8, 12 & 14 FOR OTHER SUBSTRATES



A/4 VERTICAL SECTION

MASONRY/CONCRETE SUBSTRATE - WALL MOUNT
SEE CHARTS ON SHEETS 5, 6 & 8, 12 & 14 FOR OTHER SUBSTRATES



C/4 VERTICAL SECTION

MASONRY/CONCRETE SUBSTRATE - BUILDOUT
SEE CHARTS ON SHEETS 5, 6, 8, 12 & 14 FOR OTHER SUBSTRATES

NOTES:
1. SLATS NOT SHOWN FOR CLARITY
2. REVERSED INSTALLATION IS ACCEPTABLE

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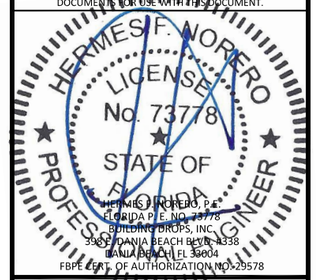

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TABLE 3 - ANCHOR SPACING				ANCHOR TYPE & SPACING WALL - MOUNT 1										ANCHOR TYPE & SPACING 1x3, 1x4, 2X4, 3X4, 3X3 OR 4X4 BO - MOUNT 2									
TT	PD	Vx	Vy	Vs	Ts	A	B	C	D	E	F	G	H	Vs	Ts	A	B	C	D	E	F	G	H
72	40	0.0	10.9	0.0	39.3	5	5	5	5	5	5	5	5	0.0	9.3	5	5	5	5	5	5	5	5
	45	0.0	12.3	0.0	44.2	5	5	5	5	5	5	5	5	0.0	10.4	5	5	5	5	5	5	5	5
	50	0.0	13.6	0.0	49.1	5	5	5	5	5	5	5	5	0.0	11.6	5	5	5	5	5	5	5	5
	55	0.0	15.0	0.0	54.0	5	5	5	5	5	5	5	5	0.0	12.8	5	5	5	5	5	5	5	5
	60	0.0	16.4	0.0	58.9	5	5	5	5	5	5	5	5	0.0	13.9	5	5	5	5	5	5	5	5
	65	0.0	17.7	0.0	63.9	5	5	5	5	5	5	5	5	0.0	15.1	5	5	5	5	5	5	5	5
	70	0.0	19.1	0.0	68.8	5	5	5	5	5	5	5	5	0.0	16.2	5	5	5	5	5	5	5	5
	75	0.0	20.5	0.0	73.7	5	5	5	5	5	5	5	5	0.0	17.4	5	5	5	5	5	5	5	5
	80	0.0	21.8	0.0	78.6	5	5	5	5	5	5	5	5	0.0	18.6	5	5	5	5	5	5	5	5
	85	0.0	23.2	0.0	83.5	5	5	5	5	5	5	5	5	0.0	19.7	5	5	5	5	5	5	5	5
	90	0.0	24.6	0.0	88.4	5	5	5	5	5	5	5	5	0.0	20.9	5	5	5	5	5	5	5	5
	95	138.3	25.9	138.3	38.9	5	5	4	5	5	5	5	4	138.3	333.8	5	3	-	-	-	-	3	-
	100	138.3	27.3	138.3	39.4	5	5	4	5	5	5	5	4	138.3	334.5	5	3	-	-	-	-	3	-
	105	138.3	28.6	138.3	40.0	5	5	4	5	5	5	5	4	138.3	335.1	5	3	-	-	-	-	3	-
	110	138.3	30.0	138.3	40.6	5	5	4	5	5	5	5	4	138.3	335.7	5	3	-	-	-	-	3	-
	115	138.3	31.4	138.3	41.1	5	5	4	5	5	5	5	4	138.3	336.4	5	3	-	-	-	-	3	-
	120	138.3	32.7	138.3	41.7	5	5	4	5	5	5	5	4	138.3	337.0	5	3	-	-	-	-	3	-
	125	138.3	34.1	138.3	42.2	5	5	4	5	5	5	5	4	138.3	337.7	5	3	-	-	-	-	3	-
	130	138.3	35.5	138.3	42.8	5	5	4	5	5	5	5	4	138.3	338.3	5	3	-	-	-	-	3	-
	135	138.3	36.8	138.3	43.4	5	5	4	5	5	5	5	4	138.3	338.9	5	3	-	-	-	-	3	-
	140	138.3	38.2	138.3	43.9	5	5	4	5	5	5	5	4	138.3	339.6	5	3	-	-	-	-	3	-
	145	138.3	39.6	138.3	44.5	5	5	4	5	5	5	5	4	138.3	340.2	5	3	-	-	-	-	3	-
	150	138.3	40.9	138.3	45.0	5	5	4	5	5	5	5	4	138.3	340.8	5	3	-	-	-	-	3	-
	155	138.3	42.3	138.3	45.6	5	5	4	5	5	5	5	4	138.3	341.5	5	3	-	-	-	-	3	-
	160	138.3	43.7	138.3	46.2	5	5	4	5	5	5	5	4	138.3	342.1	5	3	-	-	-	-	3	-
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84	40	0.0	12.6	0.0	45.3	5	5	5	5	5	5	5	5	0.0	10.7	5	5	5	5	5	5	5	5
	45	0.0	14.2	0.0	51.0	5	5	5	5	5	5	5	5	0.0	12.0	5	5	5	5	5	5	5	5
	50	0.0	15.7	0.0	56.6	5	5	5	5	5	5	5	5	0.0	13.4	5	5	5	5	5	5	5	5
	55	0.0	17.3	0.0	62.3	5	5	5	5	5	5	5	5	0.0	14.7	5	5	5	5	5	5	5	5
	60	0.0	18.9	0.0	67.9	5	5	5	5	5	5	5	5	0.0	16.1	5	5	5	5	5	5	5	5
	65	0.0	20.4	0.0	73.6	5	5	5	5	5	5	5	5	0.0	17.4	5	5	5	5	5	5	5	5
	70	0.0	22.0	0.0	79.3	5	5	5	5	5	5	5	5	0.0	18.7	5	5	5	5	5	5	5	5
	75	0.0	23.6	0.0	84.9	5	5	5	5	5	5	5	5	0.0	20.1	5	5	5	5	5	5	5	5
	80	0.0	25.2	0.0	90.6	5	5	5	5	5	5	5	5	0.0	21.4	5	5	5	5	5	5	5	5
	85	0.0	26.7	0.0	96.3	5	5	5	5	5	5	5	5	0.0	22.7	5	5	5	5	5	5	5	5
	90	0.0	28.3	0.0	101.9	5	5	5	5	5	5	5	5	0.0	24.1	5	5	5	5	5	5	5	5
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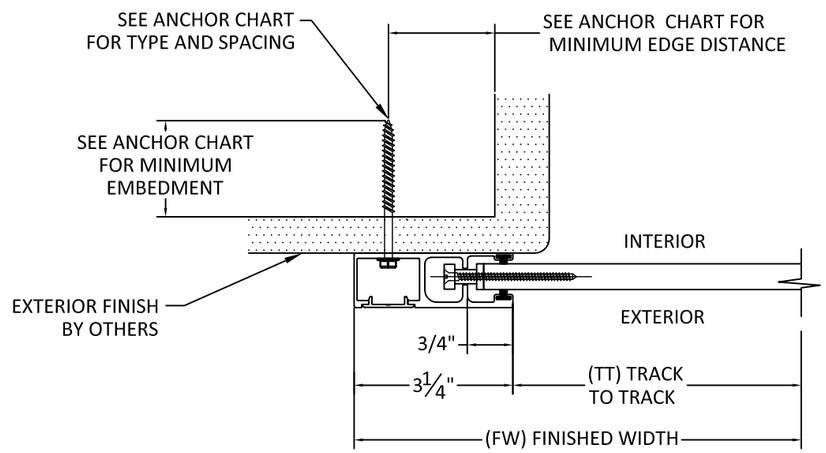
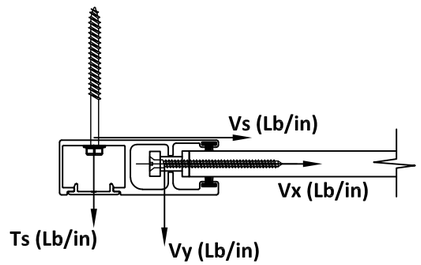
	120	170.2	37.7	170.2	50.2	5	5	3	5	5	5	5	3	170.2	413.6	5	-	-	-	-	-	-	-
	125	170.2	39.3	170.2	50.9	5	5	3	5	5	5	5	3	170.2	414.3	5	-	-	-	-	-	-	-
	130	170.2	40.9	170.2	51.5	5	5	3	5	5	5	5	3	170.2	415.1	5	-	-	-	-	-	-	-
	135	170.2	42.5	170.2	52.2	5	5	3	5	5	5	5	3	170.2	415.8	5	-	-	-	-	-	-	-
	140	170.2	44.0	170.2	52.8	5	5	3	5	5	5	5	3	170.2	416.5	5	-	-	-	-	-	-	-
	145	170.2	45.6	170.2	53.5	5	5	3	5	5	5	5	3	170.2	417.3	5	-	-	-	-	-	-	-
	150	170.2	47.2	170.2	54.1	5	5	3	5	5	5	5	3	170.2	418.0	5	-	-	-	-	-	-	-
	155	170.2	48.7	170.2	54.8	5	5	3	5	5	5	5	3	170.2	418.7	5	-	-	-	-	-	-	-
	160	170.2	50.3	170.2	55.4	5	5	3	5	5	5	5	3	170.2	419.5	5	-	-	-	-	-	-	-
	165	170.2	51.9	170.2	56.1	5	5	3	5	5	5	5	3	170.2	420.2	5	-	-	-	-	-	-	-
	170	170.2	53.5	170.2	56.7	5	5	3	5	5	5	5	3	170.2	420.9	5	-	-	-	-	-	-	-
	175	170.2	55.0	170.2	57.4	5	5	3	5	5	5	5	3	170.2	421.7	5	-	-	-	-	-	-	-
	180	170.2	56.6	170.2	58.0	5	5	3	5	5	5	5	3	170.2	422.4	5	-	-	-	-	-	-	-
	185	170.2	58.2	170.2	58.6	5	5	3	5	5	5	5	3	170.2	423.1	5	-	-	-	-	-	-	-

TYPICAL HORIZONTAL SECTIONS
WALL MOUNT



E/5 **HORIZONTAL SECTION**

MOUNT TYPE 1
WALL MOUNT
*WITH END RETENTION



CONTRACTOR TO VERIFY ADEQUACY OF STRUCTURE
NOTE: LOADS Vy AND Vx ARE LOADS IMPOSED BY SLAT ON TRACK. LOADS Ts AND Vs ARE LOADS IMPOSED ON STRUCTURE BY ANCHORS.

ANCHOR SCHEDULE:

ANCHOR	DESCRIPTION	MATERIAL	EDGE DISTANCE	EMBEDMENT
A	3/8" DEWALT SCREW-BOLT+	MIN. 3000 PSI CONCRETE	3 3/4"	3 1/2"
B	5/16" ITW TAPCON	MIN. 3000 PSI CONCRETE	2 3/16"	2 1/4"
C	3/8" DEWALT SCREW-BOLT+	GROUT FILLED C-90 BLOCK f'm ≥ 1500 PSI	2"	2 1/2"
D	5/16" ITW TAPCON	GROUT FILLED C-90 BLOCK f'm ≥ 2000 PSI	4"	2 1/4"
E	#14 ELCO DRIL-FLEX SELF DRILLING SCREW	MIN 1/4" 6063-T6 ALUM.	1/2"	3 THREADS PENETRATION
		A36 3/16" STEEL	3/8"	
F	5/16" DEWALT/ELCO ULTRACON	MIN. SG = 0.55 WOOD	1 1/2"	2"
G	5/16" DEWALT/ELCO ULTRACON	MIN. 3515 PSI CONCRETE	3 1/8"	2"
H	5/16" DEWALT/ELCO ULTRACON	GROUT FILLED C-90 BLOCK f'm ≥ 1500 PSI	2 1/2"	2 1/4"

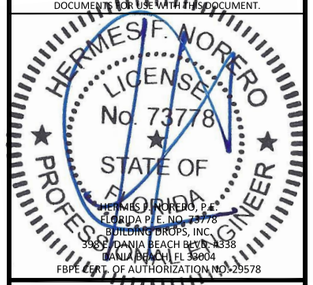
ASSA ABLOY
4268 WESTROADS DRIVE
WEST PALM BEACH, FL 33407
PH: 1-800-432-2204
FAX: 561-841-0852

TITLE: *55 MMER ROLL SHUTTERS (HVHZ)(IMPACT)*
HORIZONTAL SECTIONS

PREPARED BY:
BUILDING DROPS, INC.
398 E. DANIA BEACH BLVD., STE. 338
DANIA BEACH, FL 33004
PH: (954)399-8478
FAX: (954)744.4738
WEB: www.buildingdrops.com

REMARKS	BY	DATE
DWG UPDATES	SM	02.18.19
B.O. UPDATES	SM	01.14.20
2020 FBC UPDATE	NUS	08.18.20
ANCHOR UPDATE	SM	02.08.21
GUIDE RAIL UPDATE	MS	04.07.22

THE INSTALLATION DETAILS DESCRIBED HEREIN ARE GENERIC AND MAY NOT REFLECT ACTUAL CONDITIONS FOR A SPECIFIC SITE. IF SITE CONDITIONS CAUSE INSTALLATION TO DEVIATE FROM THE REQUIREMENTS DETAILED HEREIN, A LICENSED ENGINEER OR ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE WITH THIS DOCUMENT.

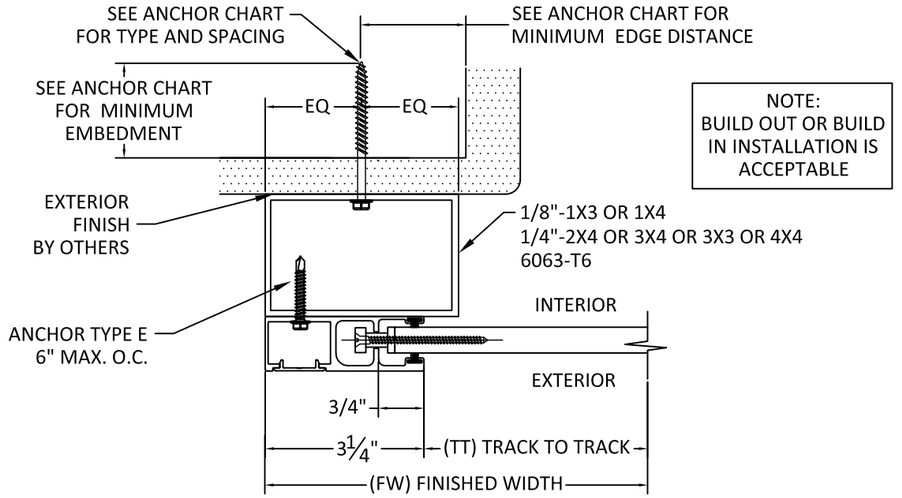


FL22558

DATE: 06.06.17
DWG. BY: SM
CHK. BY: HFN
SCALE: NTS
DWG. #: EMS003
SHEET: 5 OF 23

TABLE 3 - ANCHOR SPACING				ANCHOR TYPE & SPACING WALL - MOUNT 1										ANCHOR TYPE & SPACING 1x3, 1x4, 2X4, 3X4, 3X3 OR 4X4 BO - MOUNT 2									
TT	PD	Vx	Vy	Vs	Ts	A	B	C	D	E	F	G	H	Vs	Ts	A	B	C	D	E	F	G	H
96	40	0.0	14.2	0.0	51.3	5	5	5	5	5	5	5	5	0.0	12.1	5	5	5	5	5	5	5	5
	45	0.0	16.0	0.0	57.7	5	5	5	5	5	5	5	5	0.0	13.6	5	5	5	5	5	5	5	5
	50	0.0	17.8	0.0	64.1	5	5	5	5	5	5	5	5	0.0	15.1	5	5	5	5	5	5	5	5
	55	0.0	19.6	0.0	70.5	5	5	5	5	5	5	5	5	0.0	16.7	5	5	5	5	5	5	5	5
	60	0.0	21.4	0.0	76.9	5	5	5	5	5	5	5	5	0.0	18.2	5	5	5	5	5	5	5	5
	65	0.0	23.1	0.0	83.4	5	5	5	5	5	5	5	5	0.0	19.7	5	5	5	5	5	5	5	5
	70	0.0	24.9	0.0	89.8	5	5	5	5	5	5	5	5	0.0	21.2	5	5	5	5	5	5	5	5
	75	0.0	26.7	0.0	96.2	5	5	5	5	5	5	5	5	0.0	22.7	5	5	5	5	5	5	5	5
	80	0.0	28.5	0.0	102.6	5	5	5	5	5	5	5	5	0.0	24.2	5	5	5	5	5	5	5	5
	85	0.0	30.3	0.0	109.0	5	5	5	5	5	5	5	5	0.0	25.8	5	5	5	5	5	5	5	5
	90	0.0	32.1	0.0	115.4	5	5	5	5	5	5	5	5	0.0	27.3	5	5	5	5	5	5	5	5
	95	201.5	33.8	201.5	55.0	5	5	-	5	5	5	5	-	201.5	484.6	5	-	-	-	-	-	-	-
	100	201.5	35.6	201.5	55.8	5	5	-	5	5	5	5	-	201.5	485.4	5	-	-	-	-	-	-	-
	105	201.5	37.4	201.5	56.5	5	5	-	5	5	5	5	-	201.5	486.3	5	-	-	-	-	-	-	-
	110	201.5	39.2	201.5	57.2	5	5	-	5	5	5	5	-	201.5	487.1	5	-	-	-	-	-	-	-
	115	201.5	41.0	201.5	58.0	5	5	-	5	5	5	5	-	201.5	487.9	5	-	-	-	-	-	-	-
	120	201.5	42.7	201.5	58.7	5	5	-	5	5	5	5	-	201.5	488.8	5	-	-	-	-	-	-	-
	125	201.5	44.5	201.5	59.4	5	5	-	5	5	5	5	-	201.5	489.6	5	-	-	-	-	-	-	-
	130	201.5	46.3	201.5	60.2	5	5	-	5	5	5	5	-	201.5	490.4	5	-	-	-	-	-	-	-
	135	201.5	48.1	201.5	60.9	5	5	-	5	5	5	5	-	201.5	491.3	5	-	-	-	-	-	-	-
	140	201.5	49.9	201.5	61.6	5	5	-	5	5	5	5	-	201.5	492.1	5	-	-	-	-	-	-	-
	145	201.5	51.6	201.5	62.4	5	5	-	5	5	5	5	-	201.5	492.9	5	-	-	-	-	-	-	-
	150	201.5	53.4	201.5	63.1	5	5	-	5	5	5	5	-	201.5	493.8	5	-	-	-	-	-	-	-
	155	201.5	55.2	201.5	63.8	5	5	-	5	5	5	5	-	201.5	494.6	5	-	-	-	-	-	-	-
	160	201.5	57.0	201.5	64.5	5	5	-	5	5	5	5	-	201.5	495.4	5	-	-	-	-	-	-	-
	165	201.5	58.8	201.5	65.3	5	5	-	5	5	5	5	-	201.5	496.3	5	-	-	-	-	-	-	-
	170	201.5	60.5	201.5	66.0	5	5	-	5	5	5	5	-	201.5	497.1	5	-	-	-	-	-	-	-
	175	201.5	62.3	201.5	66.7	5	5	-	5	5	5	5	-	201.5	497.9	5	-	-	-	-	-	-	-
108	40	0.0	15.9	0.0	57.3	5	5	5	5	5	5	5	5	0.0	13.5	5	5	5	5	5	5	5	5
	45	0.0	17.9	0.0	64.5	5	5	5	5	5	5	5	5	0.0	15.2	5	5	5	5	5	5	5	5
	50	0.0	19.9	0.0	71.6	5	5	5	5	5	5	5	5	0.0	16.9	5	5	5	5	5	5	5	5
	55	0.0	21.9	0.0	78.8	5	5	5	5	5	5	5	5	0.0	18.6	5	5	5	5	5	5	5	5
	60	0.0	23.9	0.0	85.9	5	5	5	5	5	5	5	5	0.0	20.3	5	5	5	5	5	5	5	5
	65	0.0	25.9	0.0	93.1	5	5	5	5	5	5	5	5	0.0	22.0	5	5	5	5	5	5	5	5
	70	0.0	27.8	0.0	100.3	5	5	5	5	5	5	5	5	0.0	23.7	5	5	5	5	5	5	5	5
	75	0.0	29.8	0.0	107.4	5	5	5	5	5	5	5	5	0.0	25.4	5	5	5	5	5	5	5	5
	80	0.0	31.8	0.0	114.6	5	5	5	5	5	5	5	5	0.0	27.1	5	5	5	5	5	5	5	5
	85	0.0	33.8	0.0	121.8	5	5	5	5	5	5	5	5	0.0	28.8	5	5	5	5	5	5	5	5
	90	0.0	35.8	0.0	128.9	5	5	5	5	5	5	5	4	0.0	30.5	5	5	5	5	5	5	5	5
	95	231.2	37.8	231.2	62.7	5	5	-	4	5	4	5	-	231.2	555.5	5	-	-	-	-	-	-	-
	100	231.2	39.8	231.2	63.5	5	5	-	4	5	4	5	-	231.2	556.5	5	-	-	-	-	-	-	-
	105	231.2	41.8	231.2	64.4	5	5	-	4	5	4	5	-	231.2	557.4	5	-	-	-	-	-	-	-
	110	231.2	43.8	231.2	65.2	5	5	-	4	5	4	5	-	231.2	558.3	5	-	-	-	-	-	-	-
	115	231.2	45.7	231.2	66.0	5	5	-	4	5	4	5	-	231.2	559.3	5	-	-	-	-	-	-	-
	120	231.2	47.7	231.2	66.8	5	5	-	4	5	4	5	-	231.2	560.2	5	-	-	-	-	-	-	-
	125	231.2	49.7	231.2	67.6	5	5	-	4	5	4	5	-	231.2	561.1	5	-	-	-	-	-	-	-
	130	231.2	51.7	231.2	68.4	5	5	-	4	5	4	5	-	231.2	562.1	5	-	-	-	-	-	-	-
	135	231.2	53.7	231.2	69.3	5	5	-	4	5	4	5	-	231.2	563.0	5	-	-	-	-	-	-	-
	140	231.2	55.7	231.2	70.1	5	5	-	4	5	4	5	-	231.2	563.9	5	-	-	-	-	-	-	-
	145	231.2	57.7	231.2	70.9	5	5	-	4	5	4	5	-	231.2	564.8	5	-	-	-	-	-	-	-
	150	231.2	59.7	231.2	71.7	5	5	-	4	5	4	5	-	231.2	565.8	5	-	-	-	-	-	-	-
	155	231.2	61.7	231.2	72.5	5	5	-	4	5	4	5	-	231.2	566.7	5	-	-	-	-	-	-	-
	160	231.2	63.7	231.2	73.3	5	5	-	4	5	4	5	-	231.2	567.6	5	-	-	-	-	-	-	-

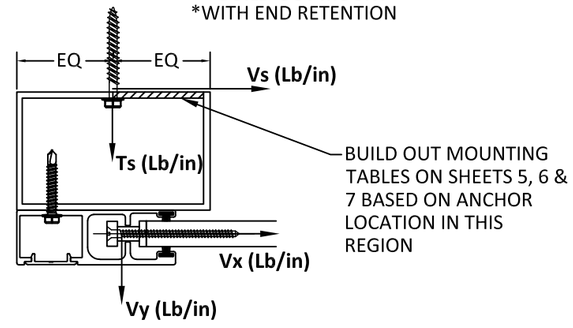
TYPICAL HORIZONTAL SECTIONS
BUILD OUT



NOTE:
BUILD OUT OR BUILD IN INSTALLATION IS ACCEPTABLE

F6 **HORIZONTAL SECTION**

MOUNT TYPE 2
BUILD-OUT MOUNT
*WITH END RETENTION



CONTRACTOR TO VERIFY ADEQUACY OF STRUCTURE
NOTE: LOADS Vy AND Vx ARE LOADS IMPOSED BY SLAT ON TRACK. LOADS Ts AND Vs ARE LOADS IMPOSED ON STRUCTURE BY ANCHORS.

ANCHOR SCHEDULE:

ANCHOR	DESCRIPTION	MATERIAL	EDGE DISTANCE	EMBEDMENT
A	3/8" DEWALT SCREW-BOLT+	MIN. 3000 PSI CONCRETE	3 3/4"	3 1/2"
B	5/16" ITW TAPCON	MIN. 3000 PSI CONCRETE	2 3/16"	2 1/4"
C	3/8" DEWALT SCREW-BOLT+	GROUT FILLED C-90 BLOCK f'm ≥ 1500 PSI	2"	2 1/2"
D	5/16" ITW TAPCON	GROUT FILLED C-90 BLOCK f'm ≥ 2000 PSI	4"	2 1/4"
E	#14 ELCO DRIL-FLEX SELF DRILLING SCREW	MIN 1/4" 6063-T6 ALUM.	1/2"	3 THREADS PENETRATION
		A36 3/16" STEEL	3/8"	
F	5/16" DEWALT/ELCO ULTRACON	MIN. SG = 0.55 WOOD	1 1/2"	2"
G	5/16" DEWALT/ELCO ULTRACON	MIN. 3515 PSI CONCRETE	3 1/8"	2"
H	5/16" DEWALT/ELCO ULTRACON	GROUT FILLED C-90 BLOCK f'm ≥ 1500 PSI	2 1/2"	2 1/4"

ASSA ABLOY
4268 WESTROADS DRIVE
WEST PALM BEACH, FL 33407
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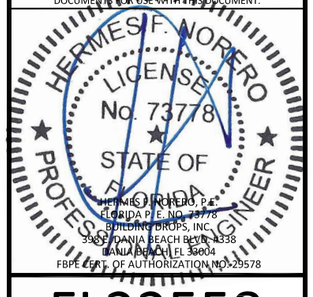
FAX: 561-841-0852

TITLE: *55 MMER ROLL SHUTTERS (HVHZ)(IMPACT)*
WALL MOUNT & BUILD OUT ANCHOR SPACING

PREPARED BY:
BUILDING DROPS, INC.
398 E. DANIA BEACH BLVD., STE. 338
DANIA BEACH, FL 33004
PH: (954)399-8478
FAX: (954)744.4738
WEB: www.buildingdrops.com

REMARKS	BY	DATE
DWG UPDATES	SM	02.18.19
B.O. UPDATES	SM	01.14.20
2020 FBC UPDATE	NUS	08.18.20
ANCHOR UPDATE	SM	02.08.21
GUIDE RAIL UPDATE	MS	04.07.22

THE INSTALLATION DETAILS DESCRIBED HEREIN ARE GENERIC AND MAY NOT REFLECT ACTUAL CONDITIONS FOR A SPECIFIC SITE. IF SITE CONDITIONS CAUSE INSTALLATION TO DEVIATE FROM THE REQUIREMENTS DETAILED HEREIN, A LICENSED ENGINEER OR ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE WITH THIS DOCUMENT.



FL22558

DATE: 06.06.17
DWG. BY: SM
CHK. BY: HFN
SCALE: NTS
DWG. #: EMS003
SHEET: 6 OF 23

TABLE 3 - ANCHOR SPACING				ANCHOR TYPE & SPACING WALL - MOUNT 1										ANCHOR TYPE & SPACING 1x3, 1x4, 2X4, 3X4, 3X3 OR 4X4 BO - MOUNT 2									
TT	PD	Vx	Vy	Vs	Ts	A	B	C	D	E	F	G	H	Vs	Ts	A	B	C	D	E	F	G	H
120	40	0.0	17.6	0.0	63.3	5	5	5	5	5	5	5	5	0.0	15.0	5	5	5	5	5	5	5	5
	45	0.0	19.8	0.0	71.2	5	5	5	5	5	5	5	5	0.0	16.8	5	5	5	5	5	5	5	5
	50	0.0	22.0	0.0	79.1	5	5	5	5	5	5	5	5	0.0	18.7	5	5	5	5	5	5	5	5
	55	0.0	24.2	0.0	87.0	5	5	5	5	5	5	5	5	0.0	20.6	5	5	5	5	5	5	5	5
	60	0.0	26.4	0.0	94.9	5	5	5	5	5	5	5	5	0.0	22.4	5	5	5	5	5	5	5	5
	65	0.0	28.6	0.0	102.9	5	5	5	5	5	5	5	5	0.0	24.3	5	5	5	5	5	5	5	5
	70	0.0	30.8	0.0	110.8	5	5	5	5	5	5	5	5	0.0	26.2	5	5	5	5	5	5	5	5
	75	0.0	33.0	0.0	118.7	5	5	5	5	5	5	5	5	0.0	28.0	5	5	5	5	5	5	5	5
	80	0.0	35.2	0.0	126.6	5	5	5	5	5	5	5	4	0.0	29.9	5	5	5	5	5	5	5	5
	85	0.0	37.4	0.0	134.5	5	5	5	5	5	5	5	4	0.0	31.8	5	5	5	5	5	5	5	5
	90	258.3	39.6	258.3	69.0	5	5	-	4	4	3	5	-	258.3	619.5	4	-	-	-	-	-	-	-
	95	258.3	41.8	258.3	69.9	5	5	-	4	4	3	5	-	258.3	620.6	4	-	-	-	-	-	-	-
	100	258.3	43.9	258.3	70.8	5	5	-	4	4	3	5	-	258.3	621.6	4	-	-	-	-	-	-	-
	105	258.3	46.1	258.3	71.7	5	5	-	4	4	3	5	-	258.3	622.6	4	-	-	-	-	-	-	-
	110	258.3	48.3	258.3	72.6	5	5	-	4	4	3	5	-	258.3	623.6	4	-	-	-	-	-	-	-
	115	258.3	50.5	258.3	73.5	5	5	-	4	4	3	5	-	258.3	624.7	4	-	-	-	-	-	-	-
	120	258.3	52.7	258.3	74.4	5	5	-	4	4	3	5	-	258.3	625.7	4	-	-	-	-	-	-	-
	125	258.3	54.9	258.3	75.3	5	5	-	4	4	3	5	-	258.3	626.7	4	-	-	-	-	-	-	-
	130	258.3	57.1	258.3	76.2	5	5	-	4	4	3	5	-	258.3	627.8	4	-	-	-	-	-	-	-
	135	258.3	59.3	258.3	77.1	5	5	-	4	4	3	5	-	258.3	628.8	4	-	-	-	-	-	-	-
	140	258.3	61.5	258.3	78.0	5	5	-	4	4	3	5	-	258.3	629.8	4	-	-	-	-	-	-	-
	145	258.3	63.7	258.3	78.9	5	5	-	4	4	3	5	-	258.3	630.8	4	-	-	-	-	-	-	-
	150	258.3	65.9	258.3	79.8	5	5	-	4	4	3	5	-	258.3	631.9	4	-	-	-	-	-	-	-
132	40	0.0	19.2	0.0	69.3	5	5	5	5	5	5	5	5	0.0	16.4	5	5	5	5	5	5	5	5
	45	0.0	21.7	0.0	78.0	5	5	5	5	5	5	5	5	0.0	18.4	5	5	5	5	5	5	5	5
	50	0.0	24.1	0.0	86.6	5	5	5	5	5	5	5	5	0.0	20.5	5	5	5	5	5	5	5	5
	55	0.0	26.5	0.0	95.3	5	5	5	5	5	5	5	5	0.0	22.5	5	5	5	5	5	5	5	5
	60	0.0	28.9	0.0	103.9	5	5	5	5	5	5	5	5	0.0	24.6	5	5	5	5	5	5	5	5
	65	0.0	31.3	0.0	112.6	5	5	5	5	5	5	5	5	0.0	26.6	5	5	5	5	5	5	5	5
	70	0.0	33.7	0.0	121.3	5	5	5	5	5	5	5	5	0.0	28.7	5	5	5	5	5	5	5	5
	75	0.0	36.1	0.0	129.9	5	5	5	5	5	5	5	4	0.0	30.7	5	5	5	5	5	5	5	5
	80	0.0	38.5	0.0	138.6	5	5	5	5	5	5	5	4	0.0	32.7	5	5	5	5	5	5	5	5
	85	282.0	40.9	282.0	74.4	5	5	-	3	3	3	5	-	282.0	675.3	3	-	-	-	-	-	-	-
	90	282.0	43.3	282.0	75.4	5	5	-	3	3	3	5	-	282.0	676.5	3	-	-	-	-	-	-	-
	95	282.0	45.7	282.0	76.4	5	5	-	3	3	3	5	-	282.0	677.6	3	-	-	-	-	-	-	-
	100	282.0	48.1	282.0	77.3	5	5	-	3	3	3	5	-	282.0	678.7	3	-	-	-	-	-	-	-
	105	282.0	50.5	282.0	78.3	5	5	-	3	3	3	5	-	282.0	679.9	3	-	-	-	-	-	-	-
	110	282.0	52.9	282.0	79.3	5	5	-	3	3	3	5	-	282.0	681.0	3	-	-	-	-	-	-	-
	115	282.0	55.3	282.0	80.3	5	5	-	3	3	3	5	-	282.0	682.1	3	-	-	-	-	-	-	-
	120	282.0	57.7	282.0	81.3	5	5	-	3	3	3	5	-	282.0	683.2	3	-	-	-	-	-	-	-
	125	282.0	60.1	282.0	82.3	5	5	-	3	3	3	5	-	282.0	684.4	3	-	-	-	-	-	-	-
	130	282.0	62.5	282.0	83.3	5	5	-	3	3	3	5	-	282.0	685.5	3	-	-	-	-	-	-	-
	135	282.0	65.0	282.0	84.3	5	5	-	3	3	3	5	-	282.0	686.6	3	-	-	-	-	-	-	-

TABLE 3 - ANCHOR SPACING				ANCHOR TYPE & SPACING WALL - MOUNT 1										ANCHOR TYPE & SPACING 1x3, 1x4, 2X4, 3X4, 3X3 OR 4X4 BO - MOUNT 2									
TT	PD	Vx	Vy	Vs	Ts	A	B	C	D	E	F	G	H	Vs	Ts	A	B	C	D	E	F	G	H
144	40	0.0	20.9	0.0	75.3	5	5	5	5	5	5	5	5	0.0	17.8	5	5	5	5	5	5	5	5
	45	0.0	23.5	0.0	84.7	5	5	5	5	5	5	5	5	0.0	20.0	5	5	5	5	5	5	5	5
	50	0.0	26.1	0.0	94.1	5	5	5	5	5	5	5	5	0.0	22.2	5	5	5	5	5	5	5	5
	55	0.0	28.8	0.0	103.5	5	5	5	5	5	5	5	5	0.0	24.5	5	5	5	5	5	5	5	5
	60	0.0	31.4	0.0	113.0	5	5	5	5	5	5	5	5	0.0	26.7	5	5	5	5	5	5	5	5
	65	0.0	34.0	0.0	122.4	5	5	5	5	5	5	5	5	0.0	28.9	5	5	5	5	5	5	5	5
	70	0.0	36.6	0.0	131.8	5	5	5	5	5	5	5	4	0.0	31.1	5	5	5	5	5	5	5	5
	75	0.0	39.2	0.0	141.2	5	5	5	5	5	5	5	3	0.0	33.4	5	5	5	5	5	5	5	5
	80	301.5	41.8	301.5	78.7	5	4	-	3	3	-	5	-	301.5	721.1	3	-	-	-	-	-	-	-
	85	301.5	44.4	301.5	79.8	5	4	-	3	3	-	5	-	301.5	722.3	3	-	-	-	-	-	-	-
	90	301.5	47.1	301.5	80.9	5	4	-	3	3	-	5	-	301.5	723.5	3	-	-	-	-	-	-	-
	95	301.5	49.7	301.5	82.0	5	4	-	3	3	-	5	-	301.5	724.8	3	-	-	-	-	-	-	-
	100	301.5	52.3	301.5	83.0	5	4	-	3	3	-	5	-	301.5	726.0	3	-	-	-	-	-	-	-
	105	301.5	54.9	301.5	84.1	5	4	-	3	3	-	5	-	301.5	727.2	3	-	-	-	-	-	-	-
	110	301.5	57.5	301.5	85.2	5	4	-	3	3	-	5	-	301.5	728.4	3	-	-	-	-	-	-	-
	115	301.5	60.1	301.5	86.3	5	4	-	3	3	-	5	-	301.5	729.6	3	-	-	-	-	-	-	-
	120	301.5	62.7	301.5	87.3	5	4	-	3	3	-	5	-	301.5	730.9	3	-	-	-	-	-	-	-
	125	301.5	65.4	301.5	88.4	5	4	-	3	3	-	5	-	301.5	732.1	3	-	-	-	-	-	-	-
168	40	0.0	24.2	0.0	87.3	5	5	5	5	5	5	5	5	0.0	20.6	5	5	5	5	5	5	5	5
	45	0.0	27.3	0.0	98.2	5	5	5	5	5	5	5	5	0.0	23.2	5	5	5	5	5	5	5	5
	50	0.0	30.3	0.0	109.1	5	5	5	5	5	5	5	5	0.0	25.8	5	5	5	5	5	5	5	5
	55	0.0	33.3	0.0	120.0	5	5	5	5	5	5	5	5	0.0	28.4	5	5	5	5	5	5	5	5
	60	0.0	36.4	0.0	131.0	5	5	5	5	5	5	5	4	0.0	30.9	5	5	5	5	5	5	5	5
	65	0.0	39.4	0.0	141.9	5	5	5	5	5	5	5	3	0.0	33.5	5	5	5	5	5	5	5	5
	70	324.7	42.4	324.7	83.7	5	4	-	-	3	-	4	-	324.7	775.3	3	-	-	-	-	-	-	-
	75	324.7	45.5	324.7	85.0	5	4	-	-	3	-	4	-	324.7	776.7	3	-	-	-	-	-	-	-
	80	324.7	48.5	324.7	86.2	5	4	-	-	3	-	4	-	324.7	778.1	3	-	-	-	-	-	-	-
	85	324.7	51.5	324.7	87.4	5	4	-	-	3	-	4	-	324.7	779.5	3	-	-	-	-	-	-	-
	90	324.7	54.6	324.7	88.7	5	4	-	-	3	-	4	-	324.7	781.0	3	-	-	-	-	-	-	-
	95	324.7	57.6	324.7	89.9	5	4	-	-	3	-	4	-	324.7	782.4	3	-	-	-	-	-	-	-
	100	324.7	60.6	324.7	91.2	5	4	-	-	3	-	4	-	324.7	783.8	3	-	-	-	-	-	-	-
204	40	0.0	29.2	0.0	105.3	5	5	5	5	5	5	5	5	0.0	24.9	5	5	5	5	5	5	5	5
	45	0.0	32.9	0.0	118.5	5	5	5	5	5	5	5	5	0.0	28.0	5	5	5	5	5	5	5	5
	50	93.0	36.6	93.0	34.0	5	5	5	5	5	5	5	5	93.0	233.4	5	5	3	5	4	5	5	-
	55	112.7	40.2	112.7	39.5	5	5	5	5	5	5	5	5	112.7	281.0	5	4	-	3	3	3	5	-
	60	129.1	43.9	129.1	44.4	5	5	4	5	5	5	5	4	129.1	321.0	5	3	-	3	-	-	4	-
	65	143.0	47.5	143.0	48.7	5	5	4	5	5	5	5	4	143.0	355.0	5	3	-	-	-	-	3	-
	70	155.0	51.2	155.0	52.7	5	5	3	5	5	5	5	3	155.0	384.5	5	-	-	-	-	-	3	-
	75	165.3	54.8	165.3	56.3	5	5	3	5	5	5	5	3	165.3	410.2	5	-	-	-	-	-	-	-
216	40	0.0	30.9	0.0	111.3	5	5	5	5	5	5	5	5	0.0	26.3	5	5	5	5	5	5	5	5
	45	0.0	34.8	0.0	125.2	5	5	5	5	5	5	5	4	0.0	29.6	5	5	5	5	5	5	5	5
	50	93.9	38.6	93.9	35.1	5	5	5	5	5	5	5	5	94.0	236.9	5	5	3	5	4	4	5	-
	55	113.8	42.5	113.8	40.7	5	5	5	5	5	5	5	5	114.0	285.1	5	4	-	3	3	3	4	-
240	40	38.7	34.2	38.7	22.0	5	5	5	5	5	5	5	5	38.9	106.5	5	5	5	5	5	5	5	4
	45	68.8	38.5	68.8	29.9	5	5	5	5	5	5	5	5	69.2	178.9	5	5	5	5	5	5	5	-
	50	92.8	42.8	92.8	36.5	5	5	5	5	5	5	5	5	93.4	237.3	5	5	3	5	4	4	5	-
264	40	73.1	37.6	73.1	30.4	5	5	5	5	5	5	5	5	73.9	189.6	5	5	4	5	5	5	5	-
	45	97.5	42.3	97.5	37.3	5	5	5	5	5	5	5	5	98.6	249.1	5	5	3	4	4	4	5	-
286.5	40	65.9	40.7	65.9	30.2	5	5	5	5	5	5	5	5	65.9	172.4	5	5	5	5	5	5	5	-

ASSA ABLOY

4268 WESTROADS DRIVE
WEST PALM BEACH, FL 33407
PH: 1-800-432-2204
FAX: 561-841-0852

TITLE: *55 MMER ROLL SHUTTERS (HVHZ)(IMPACT)*
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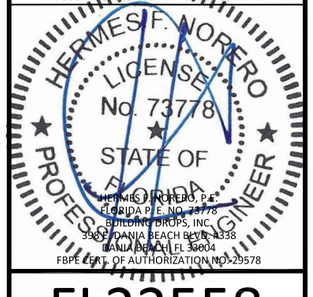


HERMES J. NORERO, P.E.
FLORIDA P.E. NO. 73778
BUILDING DROPS, INC.
398 E. DANIA BEACH BLVD. #338
DANIA BEACH, FL 33004
FBPE CERT. OF AUTHORIZATION NO. 29578

FL22558

DATE: 06.06.17

DWG. BY:	CHK. BY:
SM	HFN

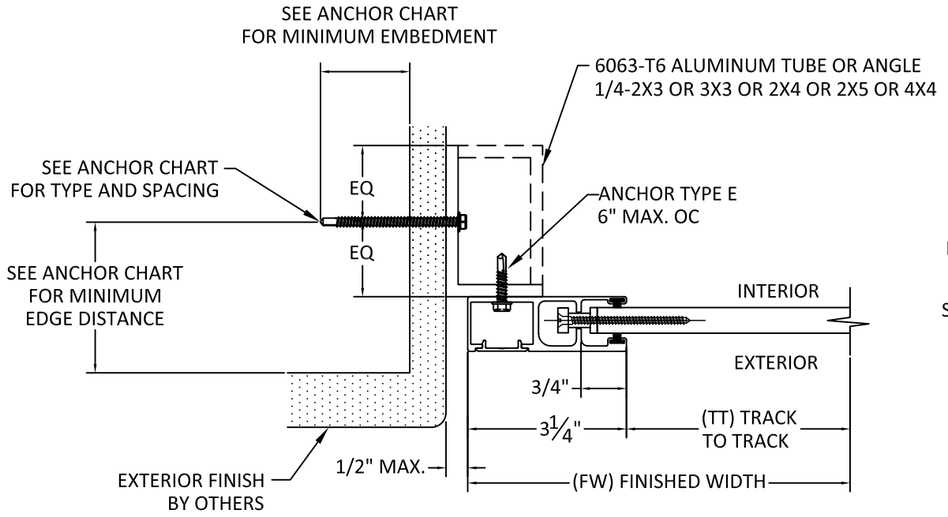
SCALE: NTS

DWG. #: EMS003

SHEET: OF 23

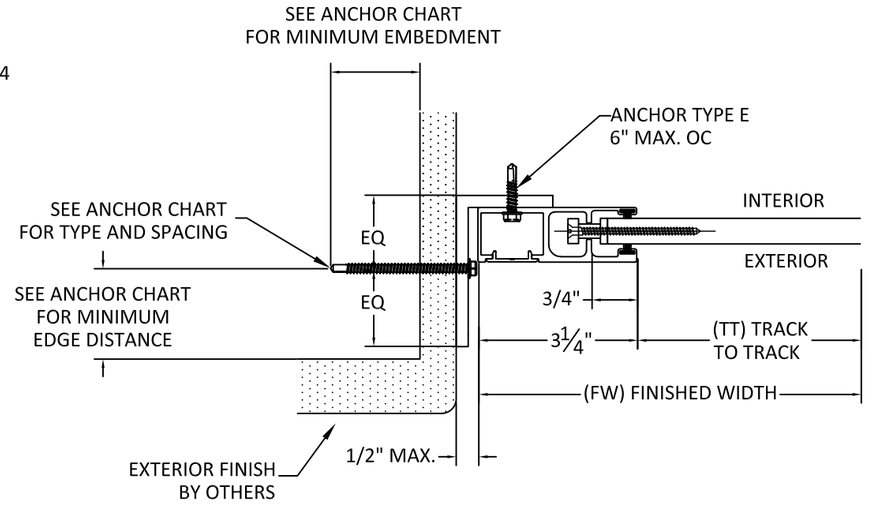
7

TYPICAL HORIZONTAL SECTIONS
INSET MOUNT



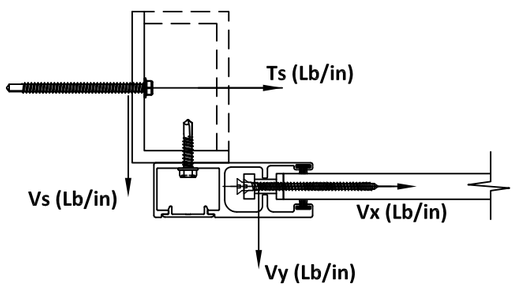
H 8 HORIZONTAL SECTION

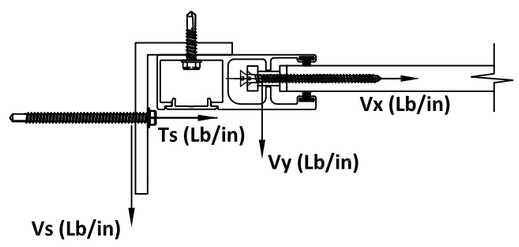
MOUNT TYPE 3
INSET MOUNT
*WITH END RETENTION



H1 8 HORIZONTAL SECTION

MOUNT TYPE 3 - ALTERNATE
INSET MOUNT
*WITH END RETENTION





CONTRACTOR TO VERIFY ADEQUACY OF STRUCTURE
NOTE: LOADS Vy AND Vx ARE LOADS IMPOSED BY SLAT ON TRACK. LOADS Ts AND Vs ARE LOADS IMPOSED ON STRUCTURE BY ANCHORS.

SEE SHEETS 9, 10 & 11 FOR ANCHOR SPACING TABLES

ANCHOR SCHEDULE:

ANCHOR	DESCRIPTION	MATERIAL	EDGE DISTANCE	EMBEDMENT
A	3/8" DEWALT SCREW-BOLT+	MIN. 3000 PSI CONCRETE	3 3/4"	3 1/2"
B	5/16" ITW TAPCON	MIN. 3000 PSI CONCRETE	2 3/16"	2 1/4"
C	3/8" DEWALT SCREW-BOLT+	GROUT FILLED C-90 BLOCK f'm ≥ 1500 PSI	2"	2 1/2"
D	5/16" ITW TAPCON	GROUT FILLED C-90 BLOCK f'm ≥ 2000 PSI	4"	2 1/4"
E	#14 ELCO DRIL-FLEX SELF DRILLING SCREW	MIN 1/4" 6063-T6 ALUM.	1/2"	3 THREADS PENETRATION
		A36 3/16" STEEL	3/8"	
F	5/16" DEWALT/ELCO ULTRACON	MIN. SG = 0.55 WOOD	1 1/2"	2"
G	5/16" DEWALT/ELCO ULTRACON	MIN. 3515 PSI CONCRETE	3 1/8"	2"
H	5/16" DEWALT/ELCO ULTRACON	GROUT FILLED C-90 BLOCK f'm ≥ 1500 PSI	2 1/2"	2 1/4"

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WEB: www.buildingdrops.com

REMARKS	BY	DATE
DWG UPDATES	SM	02.18.19
B.O. UPDATES	SM	01.14.20
2020 FBC UPDATE	NUS	08.18.20
ANCHOR UPDATE	SM	02.08.21
GUIDE RAIL UPDATE	MS	04.07.22

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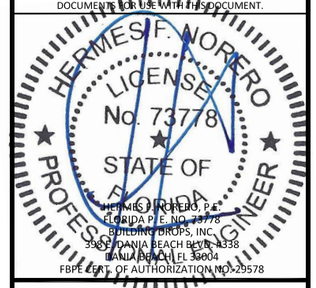


FL22558

DATE: 06.06.17

DWG. BY: SM | CHK. BY: HFN

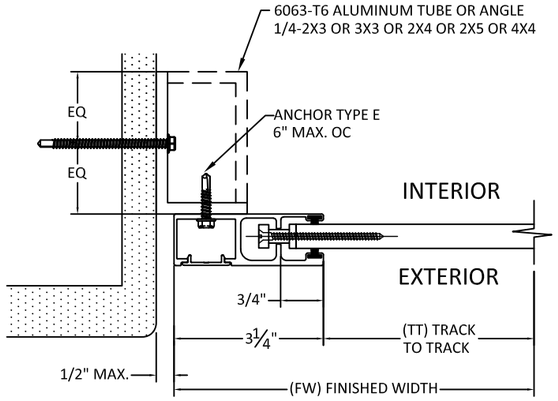
SCALE: NTS

DWG. #: EMS003

SHEET: 8 OF 23

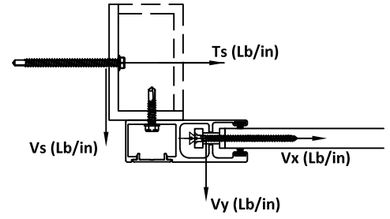
TABLE 4 - ANCHOR SPACING						ANCHOR TYPE & SPACING 2X3 OR 3X3 INSET - MOUNT 3								ANCHOR TYPE & SPACING 2X4 OR 4X4 INSET - MOUNT 3								ANCHOR TYPE & SPACING 2X5 INSET - MOUNT 3							
TT	PD	Vx	Vy	Vs	Ts	A	B	C	D	E	F	G	H	A	B	C	D	E	F	G	H	A	B	C	D	E	F	G	H
72	40	0	10.91	10.91	20.36	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	45	0	12.28	12.28	22.90	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	50	0	13.64	13.64	25.44	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	55	0	15.00	15.00	27.99	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	60	0	16.37	16.37	30.53	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	65	0	17.73	17.73	33.08	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	70	0	19.10	19.10	35.62	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	75	0	20.46	20.46	38.17	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	80	0	21.83	21.83	40.71	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	85	0	23.19	23.19	43.26	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	90	0	24.55	24.55	45.80	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	95	138.268	25.92	25.92	370.04	5	-	-	-	-	-	3	-	5	3	-	3	3	3	4	-	5	4	3	3	3	3	4	-
	100	138.268	27.28	27.28	372.58	5	-	-	-	-	-	3	-	5	3	-	3	3	3	4	-	5	4	3	3	3	3	4	-
	105	138.268	28.65	28.65	375.13	5	-	-	-	-	-	3	-	5	3	-	3	3	3	4	-	5	4	3	3	3	3	4	-
	110	138.268	30.01	30.01	377.67	4	-	-	-	-	-	3	-	5	3	-	3	3	3	4	-	5	3	-	3	3	3	4	-
	115	138.268	31.37	31.37	380.22	4	-	-	-	-	-	3	-	5	3	-	3	-	3	4	-	5	3	-	3	3	3	4	-
	120	138.268	32.74	32.74	382.76	4	-	-	-	-	-	3	-	5	3	-	3	-	3	4	-	5	3	-	3	3	3	4	-
	125	138.268	34.10	34.10	385.31	4	-	-	-	-	-	3	-	5	3	-	3	-	3	4	-	5	3	-	3	3	3	4	-
	130	138.268	35.47	35.47	387.85	4	-	-	-	-	-	3	-	5	3	-	3	-	3	3	-	5	3	-	3	3	3	4	-
	135	138.268	36.83	36.83	390.39	4	-	-	-	-	-	3	-	5	3	-	3	-	3	3	-	5	3	-	3	3	3	4	-
	140	138.268	38.19	38.19	392.94	4	-	-	-	-	-	3	-	5	3	-	3	-	3	3	-	5	3	-	3	3	3	4	-
	145	138.268	39.56	39.56	395.48	4	-	-	-	-	-	3	-	5	3	-	3	-	3	3	-	5	3	-	3	3	3	4	-
	150	138.268	40.92	40.92	398.03	4	-	-	-	-	-	3	-	5	3	-	3	-	3	3	-	5	3	-	3	3	3	4	-
	155	138.268	42.29	42.29	400.57	4	-	-	-	-	-	3	-	5	3	-	3	-	-	3	-	5	3	-	3	3	3	4	-
	160	138.268	43.65	43.65	403.12	4	-	-	-	-	-	3	-	5	3	-	3	-	-	3	-	5	3	-	3	-	3	4	-
	165	138.268	45.01	45.01	405.66	4	-	-	-	-	-	3	-	5	3	-	3	-	-	3	-	5	3	-	3	-	3	4	-
	170	138.268	46.38	46.38	408.21	4	-	-	-	-	-	3	-	5	3	-	3	-	-	3	-	5	3	-	3	-	3	4	-
	175	138.268	47.74	47.74	410.75	4	-	-	-	-	-	3	-	5	3	-	3	-	-	3	-	5	3	-	3	-	3	3	-
	180	138.268	49.11	49.11	413.29	4	-	-	-	-	-	3	-	5	3	-	3	-	-	3	-	5	3	-	3	-	3	3	-
	185	138.268	50.47	50.47	415.84	4	-	-	-	-	-	3	-	5	3	-	-	-	-	3	-	5	3	-	3	-	3	3	-
	190	138.268	51.83	51.83	418.38	4	-	-	-	-	-	3	-	5	3	-	-	-	-	3	-	5	3	-	3	-	3	3	-
	195	138.268	53.20	53.20	420.93	4	-	-	-	-	-	3	-	5	3	-	-	-	-	3	-	5	3	-	3	-	3	3	-
	200	138.268	54.56	54.56	423.47	4	-	-	-	-	-	3	-	5	3	-	-	-	-	3	-	5	3	-	3	-	-	3	-
84	40	0	12.58	12.58	23.46	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	45	0	14.15	14.15	26.40	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	50	0	15.72	15.72	29.33	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	55	0	17.30	17.30	32.26	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	60	0	18.87	18.87	35.20	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	65	0	20.44	20.44	38.13	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	70	0	22.01	22.01	41.06	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	75	0	23.59	23.59	44.00	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	80	0	25.16	25.16	46.93	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	85	0	26.73	26.73	49.86	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	90	0	28.30	28.30	52.79	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	95	170.1704	29.88	29.88	451.65	5	-	-	-	-	-	-	-	5	-	-	-	-	-	3	-	5	-	-	-	-	-	3	-
	100	170.1704	31.45	31.45	454.58	5	-	-	-	-	-	-	-	5	-	-	-	-	-	3	-	5	-	-	-	-	-	3	-
	105	170.1704	33.02	33.02	457.51	5	-	-	-	-	-	-	-	5	-	-	-	-	-	3	-	5	-	-	-	-	-	3	-
	110	170.1704	34.59	34.59	460.45	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	3	-
	115	170.1704	36.17	36.17	463.38	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	3	-
	120	170.1704	37.74	37.74	466.31	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	3	-
	125	170.1704	39.31	39.31	469.24	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	3	-
	130	170.1704	40.88	40.88	472.18	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	3	-
	135	170.1704	42.45	42.45	475.11	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	3	-
	140	170.1704	44.03	44.03	478.04	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	3	-
	145	170.1704	45.60	45.60	480.98	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	3	-
	150	170.1704	47.17	47.17	483.91	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
	155	170.1704	48.74	48.74	486.84	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
	160	170.1704	50.32	50.32	489.78	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
	165	170.1704	51.89	51.89	492.71	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
	170	170.1704	53.46	53.46	495.64	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
	175	170.1704	55.03	55.03	498.57	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
	180	170.1704	56.61	56.61	501.51	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
	185	170.1704	58.18	58.18	504.44	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-

TYPICAL HORIZONTAL SECTIONS INSET MOUNT

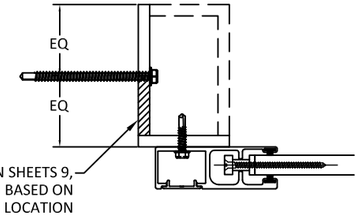


J/9 **HORIZONTAL SECTION**

MOUNT TYPE 3
INSET MOUNT
*WITH END RETENTION



CONTRACTOR TO VERIFY ADEQUACY OF STRUCTURE NOTE: LOADS Vy AND Vx ARE LOADS IMPOSED BY SLAT ON TRACK. LOADS Ts AND Vs ARE LOADS IMPOSED ON STRUCTURE BY ANCHORS.



TABLES ON SHEETS 9, 10 & 11 BASED ON ANCHOR LOCATION IN THIS REGION

ASSA ABLOY
4268 WESTROADS DRIVE
WEST PALM BEACH, FL 33407
PH: 1-800-432-2204
FAX: 561-841-0852

TITLE: *55 MMER ROLL SHUTTERS (HVHZ)(IMPACT)*
INSET MOUNT ANCHOR SPACING

PREPARED BY:
BUILDING DROPS, INC.
398 E. DANIA BEACH BLVD., STE. 338
DANIA BEACH, FL 33004
PH: (954)399-8478
FAX: (954)744.4738
WEB: www.buildingdrops.com

REMARKS	BY	DATE
DWG UPDATES	SM	02.18.19
B.O. UPDATES	SM	01.14.20
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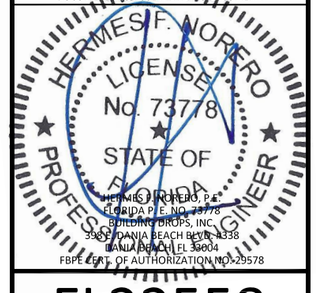


FL22558

DATE: 06.06.17

DWG. BY:	CHK. BY:
SM	HFN

SCALE: NTS

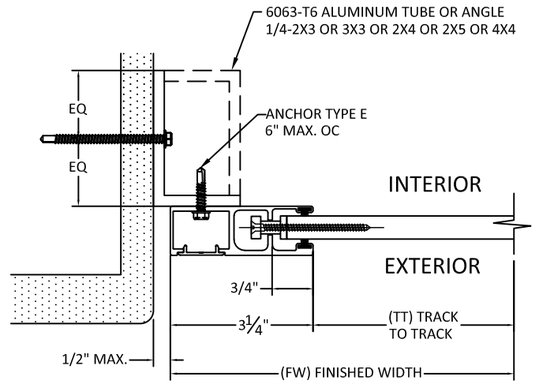
DWG. #: EMS003

SHEET: OF 23

9

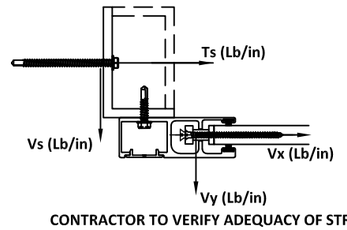
TABLE 4 - ANCHOR SPACING						ANCHOR TYPE & SPACING 2X3 OR 3X3 INSET - MOUNT 3								ANCHOR TYPE & SPACING 2X4 OR 4X4 INSET - MOUNT 3								ANCHOR TYPE & SPACING 2X5 INSET - MOUNT 3							
TT	PD	Vx	Vy	Vs	Ts	A	B	C	D	E	F	G	H	A	B	C	D	E	F	G	H	A	B	C	D	E	F	G	H
96	80	0	14.25	14.25	26.57	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	45	0	16.03	16.03	29.89	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	50	0	17.81	17.81	33.22	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	55	0	19.59	19.59	36.54	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	60	0	21.37	21.37	39.86	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	65	0	23.15	23.15	43.18	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	70	0	24.93	24.93	46.50	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	75	0	26.71	26.71	49.82	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	80	0	28.49	28.49	53.15	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	85	0	30.27	30.27	56.47	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	90	0	32.05	32.05	59.79	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	95	201.4766	33.83	33.83	531.87	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
	100	201.4766	35.61	35.61	535.19	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
	105	201.4766	37.40	37.40	538.51	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
	110	201.4766	39.18	39.18	541.83	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
	115	201.4766	40.96	40.96	545.15	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
	120	201.4766	42.74	42.74	548.48	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
	125	201.4766	44.52	44.52	551.80	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
	130	201.4766	46.30	46.30	555.12	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
	135	201.4766	48.08	48.08	558.44	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
	140	201.4766	49.86	49.86	561.76	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
	145	201.4766	51.64	51.64	565.08	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
	150	201.4766	53.42	53.42	568.41	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
	155	201.4766	55.20	55.20	571.73	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
	160	201.4766	56.98	56.98	575.05	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
	165	201.4766	58.76	58.76	578.37	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
	170	201.4766	60.54	60.54	581.69	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
	175	201.4766	62.33	62.33	585.01	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
108	80	0	15.91	15.91	29.68	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	45	0	17.90	17.90	33.39	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	50	0	19.89	19.89	37.10	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	55	0	21.88	21.88	40.81	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	60	0	23.87	23.87	44.52	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	65	0	25.86	25.86	48.23	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	70	0	27.85	27.85	51.94	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	75	0	29.84	29.84	55.65	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	80	0	31.83	31.83	59.36	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	85	0	33.81	33.81	63.07	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	90	0	35.80	35.80	66.78	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	95	231.1754	37.79	37.79	608.35	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
	100	231.1754	39.78	39.78	612.06	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
	105	231.1754	41.77	41.77	615.77	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
	110	231.1754	43.76	43.76	619.48	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
	115	231.1754	45.75	45.75	623.19	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
	120	231.1754	47.74	47.74	626.90	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
	125	231.1754	49.73	49.73	630.61	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
	130	231.1754	51.72	51.72	634.32	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
	135	231.1754	53.70	53.70	638.03	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
	140	231.1754	55.69	55.69	641.74	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
	145	231.1754	57.68	57.68	645.45	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
	150	231.1754	59.67	59.67	649.16	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
	155	231.1754	61.66	61.66	652.87	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
	160	231.1754	63.65	63.65	656.58	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-

TYPICAL HORIZONTAL SECTIONS INSET MOUNT

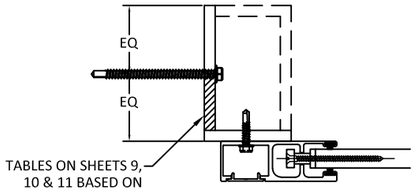


J/10 **HORIZONTAL SECTION**

MOUNT TYPE 3
INSET MOUNT
*WITH END RETENTION



CONTRACTOR TO VERIFY ADEQUACY OF STRUCTURE NOTE: LOADS Vy AND Vx ARE LOADS IMPOSED BY SLAT ON TRACK. LOADS Ts AND Vs ARE LOADS IMPOSED ON STRUCTURE BY ANCHORS.



TABLES ON SHEETS 9, 10 & 11 BASED ON ANCHOR LOCATION IN THIS REGION

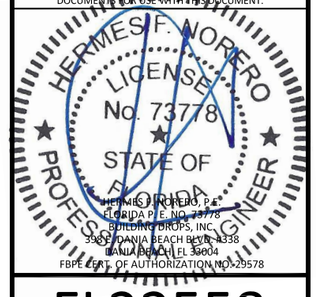
ASSA ABLOY
4268 WESTROADS DRIVE
WEST PALM BEACH, FL 33407
PH: 1-800-432-2204
FAX: 561-841-0852

TITLE: *55 MMER ROLL SHUTTERS (HVHZ)(IMPACT)*
INSET MOUNT ANCHOR SPACING

PREPARED BY:
BUILDING DROPS, INC.
398 E. DANIA BEACH BLVD., STE. 338
DANIA BEACH, FL 33004
PH: (954)399-8478
FAX: (954)744.4738
WEB: www.buildingdrops.com

REMARKS	BY	DATE
DWG UPDATES	SM	02.18.19
B.O. UPDATES	SM	01.14.20
2020 FBC UPDATE	NUS	08.18.20
ANCHOR UPDATE	SM	02.08.21
GUIDE RAIL UPDATE	MS	04.07.22

THE INSTALLATION DETAILS DESCRIBED HEREIN ARE GENERIC AND MAY NOT REFLECT ACTUAL CONDITIONS FOR A SPECIFIC SITE. IF SITE CONDITIONS CAUSE INSTALLATION TO DEVIATE FROM THE REQUIREMENTS DETAILED HEREIN, A LICENSED ENGINEER OR ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE WITH THIS DOCUMENT.



HERMES F. NORIEGA, P.E.
FLORIDA P.E. NO. 73778
BUILDING DROPS, INC.
398 E. DANIA BEACH BLVD. #338
DANIA BEACH, FL 33004
FBPE CERT. OF AUTHORIZATION NO. 29578

FL22558

DATE: 06.06.17

DWG. BY:	CHK. BY:
SM	HFN

SCALE: NTS

DWG. #: EMS003

SHEET: OF 23

10

TABLE 4 - ANCHOR SPACING						ANCHOR TYPE & SPACING 2X3 OR 3X3 INSET - MOUNT 3								ANCHOR TYPE & SPACING 2X4 OR 4X4 INSET - MOUNT 3								ANCHOR TYPE & SPACING 2X5 INSET - MOUNT 3							
TT	PD	Vx	Vy	Vs	Ts	A	B	C	D	E	F	G	H	A	B	C	D	E	F	G	H	A	B	C	D	E	F	G	H
120	40	0	17.58	17.58	32.79	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	45	0	19.78	19.78	36.89	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	50	0	21.97	21.97	40.99	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	55	0	24.17	24.17	45.09	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	60	0	26.37	26.37	49.19	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	65	0	28.57	28.57	53.29	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	70	0	30.76	30.76	57.38	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	75	0	32.96	32.96	61.48	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	80	0	35.16	35.16	65.58	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	85	0	37.36	37.36	69.68	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	90	258.3246	39.55	39.55	674.80	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
	95	258.3246	41.75	41.75	678.90	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
	100	258.3246	43.95	43.95	683.00	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
	105	258.3246	46.15	46.15	687.09	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
	110	258.3246	48.34	48.34	691.19	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
	115	258.3246	50.54	50.54	695.29	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
	120	258.3246	52.74	52.74	699.39	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
	125	258.3246	54.93	54.93	703.49	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
	130	258.3246	57.13	57.13	707.59	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
	135	258.3246	59.33	59.33	711.69	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
	140	258.3246	61.53	61.53	715.79	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
	145	258.3246	63.72	63.72	719.89	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
	150	258.3246	65.92	65.92	723.98	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
132	40	0	19.25	19.25	35.90	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	45	0	21.65	21.65	40.39	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	50	0	24.06	24.06	44.87	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	55	0	26.46	26.46	49.36	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	60	0	28.87	28.87	53.85	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	65	0	31.27	31.27	58.34	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	70	0	33.68	33.68	62.82	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	75	0	36.09	36.09	67.31	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	80	0	38.49	38.49	71.80	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	85	282.0454	40.90	40.90	732.49	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
	90	282.0454	43.30	43.30	736.98	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
	95	282.0454	45.71	45.71	741.47	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
	100	282.0454	48.11	48.11	745.96	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
	105	282.0454	50.52	50.52	750.44	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
	110	282.0454	52.93	52.93	754.93	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
	115	282.0454	55.33	55.33	759.42	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
	120	282.0454	57.74	57.74	763.91	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
	125	282.0454	60.14	60.14	768.39	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
	130	282.0454	62.55	62.55	772.88	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
	135	282.0454	64.95	64.95	777.37	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-

TABLE 4 - ANCHOR SPACING						ANCHOR TYPE & SPACING 2X3 OR 3X3 INSET - MOUNT 3								ANCHOR TYPE & SPACING 2X4 OR 4X4 INSET - MOUNT 3								ANCHOR TYPE & SPACING 2X5 INSET - MOUNT 3							
TT	PD	Vx	Vy	Vs	Ts	A	B	C	D	E	F	G	H	A	B	C	D	E	F	G	H	A	B	C	D	E	F	G	H
144	40	0	20.91	20.91	39.01	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	45	0	23.53	23.53	43.88	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	50	0	26.14	26.14	48.76	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	55	0	28.75	28.75	53.64	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	60	0	31.37	31.37	58.51	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	65	0	33.98	33.98	63.39	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	70	0	36.60	36.60	68.27	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	75	0	39.21	39.21	73.14	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	80	301.517	41.83	41.83	779.53	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
	85	301.517	44.44	44.44	784.40	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
	90	301.517	47.05	47.05	789.28	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
	95	301.517	49.67	49.67	794.16	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
	100	301.517	52.28	52.28	799.03	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
	105	301.517	54.90	54.90	803.91	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
	110	301.517	57.51	57.51	808.78	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
	115	301.517	60.12	60.12	813.66	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
	120	301.517	62.74	62.74	818.54	4	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
	125	301.517	65.35	65.35	823.41	4	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
168	40	0	24.25	24.25	45.23	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	45	0	27.28	27.28	50.88	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	50	0	30.31	30.31	56.53	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	55	0	33.34	33.34	62.19	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	60	0	36.37	36.37	67.84	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	65	0	39.40	39.40	73.49	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	70	324.6913	42.43	42.43	834.57	4	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
	75	324.6913	45.46	45.46	840.23	4	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
	80	324.6913	48.49	48.49	845.88	4	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
	85	324.6913	51.52	51.52	851.53	4	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
	90	324.6913	54.55	54.55	857.19	4	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
	95	324.6913	57.58	57.58	862.84	4	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
	100	324.6913	60.61	60.61	868.49	4	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
204	40	0	29.25	29.25	54.55	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	45	0	32.90	32.90	61.37	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	50	92.97349	36.56	36.56	284.50	5	5	3	4	4	4	5	-	5	5	4	5	4	5	5	-	5	5	4	5	5	5	5	-
	55	112.6951	40.21	40.21	337.21	5	3	-	3	3	3	4	-	5	4	3	4	3	3	5	-	5	4	3	4	4	4	5	-
	60	129.1298	43.87	43.87	382.26	5	3	-	-	-	-	3	-	5	3	-	3	-	3	4	-	5	4	-	3	3	3	4	-
	65	143.0361	47.52	47.52	421.44	5	-	-	-	-	-	3	-	5	3	-	-	-	-	3	-	5	3	-	3	-	-	3	-
	70	154.9558	51.18	51.18	455.99	5	-	-	-	-	-	-	-	5	-	-	-	-	-	3	-	5	-	-	-	-	-	3	-
	75	165.2862	54.84	54.84	486.84	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
216	40	0	30.91	30.91	57.66	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	45	0	34.78	34.78	64.87	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	50	93.89875	38.64	38.64	290.54	5	5	3	4	4	4	5	-	5	5	4	5	4	5	5	-	5	5	4	5	5	5	5	-
	55	113.8167	42.50	42.50	344.09	5	3	-	3	3	3	4	-	5	4	3	4	3	3	4	-	5	4	3	4	3	4	5	-
240	40	38.68479	34.25	34.25	153.88	5	5	5	5	5	5	5	-	5	5	5	5	5	5	5	3	5	5	5	5	5	5	5	3
	45	68.77296	38.53	38.53	231.87	5	5	5	5	5	5	5	-	5	5	5	5	5	5	5	-	5	5	5	5	5	5	5	-
	50	92.8435	42.81	42.81	295.86	5	4	3	4	3	4	5	-	5	5	4	5	4	4	5	-	5	5	4	5	5	5	5	-
264	40	73.11576	37.58	37.58	240.21	5	5	4	5	5	5	5	-	5	5	5	5	5	5	5	-	5	5	5	5	5	5	5	-
	45	97.48768	42.28	42.28	305.67	5	4	3	4	3	4	5	-	5	5	3	4	4	4	5	-	5	5	4	5	4	5	5	-
286.5	40	65.92552	40.70	40.70	229.31	5	5	5	5	5	5	5	-	5	5	5	5	5	5	5	-	5	5	5	5	5	5	5	-

ASSA ABLOY

4268 WESTROADS DRIVE
WEST PALM BEACH, FL 33407
PH: 1-800-432-2204
FAX: 561-841-0852

TITLE: *55 MMER ROLL SHUTTERS (HVHZ)(IMPACT)*

INSET MOUNT ANCHOR SPACING

PREPARED BY:
BUILDING DROPS, INC.
398 E. DANIA BEACH BLVD., STE. 338
DANIA BEACH, FL 33004
PH: (954)399-8478
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WEB: www.buildingdrops.com

REMARKS	BY	DATE
DWG UPDATES	SM	02.18.19
B.O. UPDATES	SM	01.14.20
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ANCHOR UPDATE	SM	02.08.21
GUIDE RAIL UPDATE	MS	04.07.22

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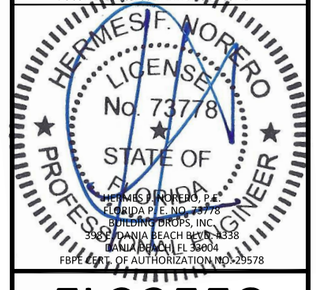

HERMES F. NORIEGA, P.E.
FLORIDA P.E. NO. 73778
BUILDING DROPS, INC.
398 E. DANIA BEACH BLVD. #338
DANIA BEACH, FL 33004
FBPE CERT. OF AUTHORIZATION NO. 29578

FL22558

DATE: 06.06.17

DWG. BY: SM | CHK. BY: HFN

SCALE: NTS

DWG. #: EMS003

SHEET: OF 23

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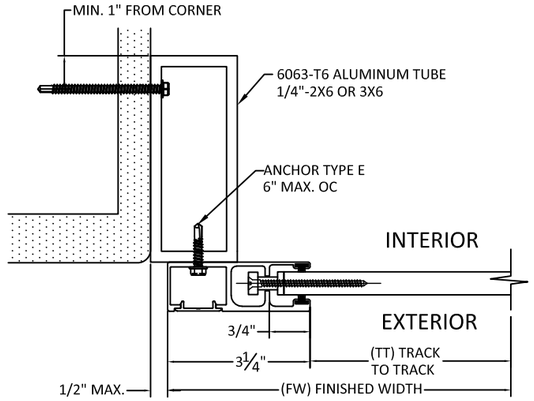
TABLE 5 - ANCHOR SPACING						ANCHOR TYPE & SPACING 2X6 OR 3X6 OFFSET ANCHOR INSET - MOUNT 4							
TT	PD	Vx	Vy	Vs	Ts	A	B	C	D	E	F	G	H
72	40	0	10.91	10.91	30.53	5	5	5	5	5	5	5	5
	45	0	12.28	12.28	34.35	5	5	5	5	5	5	5	5
	50	0	13.64	13.64	38.17	5	5	5	5	5	5	5	5
	55	0	15.00	15.00	41.98	5	5	5	5	5	5	5	5
	60	0	16.37	16.37	45.80	5	5	5	5	5	5	5	5
	65	0	17.73	17.73	49.62	5	5	5	5	5	5	5	5
	70	0	19.10	19.10	53.43	5	5	5	5	5	5	5	5
	75	0	20.46	20.46	57.25	5	5	5	5	5	5	5	5
	80	0	21.83	21.83	61.07	5	5	5	5	5	5	5	5
	85	0	23.19	23.19	64.88	5	5	5	5	5	5	5	5
	90	0	24.55	24.55	68.70	5	5	5	5	5	5	5	5
	95	138.268	25.92	25.92	969.86	3	-	-	-	-	-	-	-
	100	138.268	27.28	27.28	973.68	3	-	-	-	-	-	-	-
	105	138.268	28.65	28.65	977.50	3	-	-	-	-	-	-	-
	110	138.268	30.01	30.01	981.31	3	-	-	-	-	-	-	-
	115	138.268	31.37	31.37	985.13	3	-	-	-	-	-	-	-
	120	138.268	32.74	32.74	988.95	3	-	-	-	-	-	-	-
	125	138.268	34.10	34.10	992.76	3	-	-	-	-	-	-	-
	130	138.268	35.47	35.47	996.58	3	-	-	-	-	-	-	-
	135	138.268	36.83	36.83	1000.40	3	-	-	-	-	-	-	-
	140	138.268	38.19	38.19	1004.21	3	-	-	-	-	-	-	-
	145	138.268	39.56	39.56	1008.03	3	-	-	-	-	-	-	-
	150	138.268	40.92	40.92	1011.85	3	-	-	-	-	-	-	-
	155	138.268	42.29	42.29	1015.66	3	-	-	-	-	-	-	-
	160	138.268	43.65	43.65	1019.48	3	-	-	-	-	-	-	-
	165	138.268	45.01	45.01	1023.30	3	-	-	-	-	-	-	-
	170	138.268	46.38	46.38	1027.11	3	-	-	-	-	-	-	-
	175	138.268	47.74	47.74	1030.93	3	-	-	-	-	-	-	-
	180	138.268	49.11	49.11	1034.75	3	-	-	-	-	-	-	-
	185	138.268	50.47	50.47	1038.56	3	-	-	-	-	-	-	-
	190	138.268	51.83	51.83	1042.38	3	-	-	-	-	-	-	-
	195	138.268	53.20	53.20	1046.19	3	-	-	-	-	-	-	-
	200	138.268	54.56	54.56	1050.01	3	-	-	-	-	-	-	-
84	40	0	12.58	12.58	35.20	5	5	5	5	5	5	5	5
	45	0	14.15	14.15	39.60	5	5	5	5	5	5	5	5
	50	0	15.72	15.72	44.00	5	5	5	5	5	5	5	5
	55	0	17.30	17.30	48.40	5	5	5	5	5	5	5	5
	60	0	18.87	18.87	52.79	5	5	5	5	5	5	5	5
	65	0	20.44	20.44	57.19	5	5	5	5	5	5	5	5
	70	0	22.01	22.01	61.59	5	5	5	5	5	5	5	5
	75	0	23.59	23.59	65.99	5	5	5	5	5	5	5	5
	80	0	25.16	25.16	70.39	5	5	5	5	5	5	5	5
	85	0	26.73	26.73	74.79	5	5	5	5	5	5	5	5
	90	0	28.30	28.30	79.19	5	5	5	5	5	5	5	5
96	80	0	14.25	14.25	39.86	5	5	5	5	5	5	5	5
	45	0	16.03	16.03	44.84	5	5	5	5	5	5	5	5
	50	0	17.81	17.81	49.82	5	5	5	5	5	5	5	5
	55	0	19.59	19.59	54.81	5	5	5	5	5	5	5	5
	60	0	21.37	21.37	59.79	5	5	5	5	5	5	5	5
	65	0	23.15	23.15	64.77	5	5	5	5	5	5	5	5
	70	0	24.93	24.93	69.75	5	5	5	5	5	5	5	5
	75	0	26.71	26.71	74.74	5	5	5	5	5	5	5	5
	80	0	28.49	28.49	79.72	5	5	5	5	5	5	5	5
	85	0	30.27	30.27	84.70	5	5	5	5	5	5	5	5
	90	0	32.05	32.05	89.68	5	5	5	5	5	5	5	5

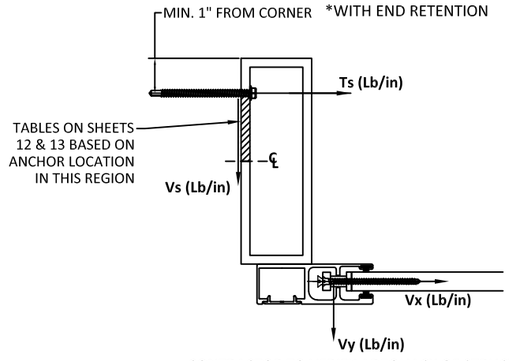
TYPICAL HORIZONTAL SECTIONS OFFSET ANCHOR INSET MOUNT



K 12 HORIZONTAL SECTION

MOUNT TYPE 4 - OFFSET ANCHOR INSET MOUNT

*WITH END RETENTION



CONTRACTOR TO VERIFY ADEQUACY OF STRUCTURE NOTE: LOADS Vy AND Vx ARE LOADS IMPOSED BY SLAT ON TRACK. LOADS Ts AND Vs ARE LOADS IMPOSED ON STRUCTURE BY ANCHORS.

ANCHOR SCHEDULE:

ANCHOR	DESCRIPTION	MATERIAL	EDGE DISTANCE	EMBEDMENT
A	3/8" DEWALT SCREW-BOLT+	MIN. 3000 PSI CONCRETE	3 3/4"	3 1/2"
B	5/16" ITW TAPCON	MIN. 3000 PSI CONCRETE	2 3/16"	2 1/4"
C	3/8" DEWALT SCREW-BOLT+	GROUT FILLED C-90 BLOCK f'm ≥ 1500 PSI	2"	2 1/2"
D	5/16" ITW TAPCON	GROUT FILLED C-90 BLOCK f'm ≥ 2000 PSI	4"	2 1/4"
E	#14 ELCO DRIL-FLEX SELF DRILLING SCREW	MIN 1/4" 6063-T6 ALUM.	1/2"	3 THREADS PENETRATION
		A36 3/16" STEEL	3/8"	
F	5/16" DEWALT/ELCO ULTRACON	MIN. SG = 0.55 WOOD	1 1/2"	2"
G	5/16" DEWALT/ELCO ULTRACON	MIN. 3515 PSI CONCRETE	3 1/8"	2"
H	5/16" DEWALT/ELCO ULTRACON	GROUT FILLED C-90 BLOCK f'm ≥ 1500 PSI	2 1/2"	2 1/4"

ASSA ABLOY
4268 WESTROADS DRIVE
WEST PALM BEACH, FL 33407
PH: 1-800-432-2204
FAX: 561-841-0852

TITLE: *55 MMER ROLL SHUTTERS (HVHZ)(IMPACT) OFFSET ANCHOR INSET MOUNT ANCHOR SPACING*

PREPARED BY:
BUILDING DROPS, INC.
398 E. DANIA BEACH BLVD., STE. 338
DANIA BEACH, FL 33004
PH: (954)399-8478
FAX: (954)744.4738
WEB: www.buildingdrops.com

REMARKS	BY	DATE
DWG UPDATES	SM	02.18.19
B.O. UPDATES	SM	01.14.20
2020 FBC UPDATE	NUS	08.18.20
ANCHOR UPDATE	SM	02.08.21
GUIDE RAIL UPDATE	MS	04.07.22

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FL22558

DATE: 06.06.17

DWG. BY: SM | CHK. BY: HFN

SCALE: NTS

DWG. #: EMS003

SHEET: OF 23

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TABLE 5 - ANCHOR SPACING						ANCHOR TYPE & SPACING 2X6 OR 3X6 OFFSET ANCHOR INSET - MOUNT 4							
TT	PD	Vx	Vy	Vs	Ts	A	B	C	D	E	F	G	H
108	80	0	15.91	15.91	44.52	5	5	5	5	5	5	5	5
	45	0	17.90	17.90	50.09	5	5	5	5	5	5	5	5
	50	0	19.89	19.89	55.65	5	5	5	5	5	5	5	5
	55	0	21.88	21.88	61.22	5	5	5	5	5	5	5	5
	60	0	23.87	23.87	66.78	5	5	5	5	5	5	5	5
	65	0	25.86	25.86	72.35	5	5	5	5	5	5	5	5
	70	0	27.85	27.85	77.92	5	5	5	5	5	5	5	5
	75	0	29.84	29.84	83.48	5	5	5	5	5	5	5	5
	80	0	31.83	31.83	89.05	5	5	5	5	5	5	5	5
	85	0	33.81	33.81	94.61	5	5	5	5	5	5	5	5
	90	0	35.80	35.80	100.18	5	5	5	5	5	5	5	5
120	40	0	17.58	17.58	49.19	5	5	5	5	5	5	5	5
	45	0	19.78	19.78	55.33	5	5	5	5	5	5	5	5
	50	0	21.97	21.97	61.48	5	5	5	5	5	5	5	5
	55	0	24.17	24.17	67.63	5	5	5	5	5	5	5	5
	60	0	26.37	26.37	73.78	5	5	5	5	5	5	5	5
	65	0	28.57	28.57	79.93	5	5	5	5	5	5	5	5
	70	0	30.76	30.76	86.08	5	5	5	5	5	5	5	5
	75	0	32.96	32.96	92.22	5	5	5	5	5	5	5	5
	80	0	35.16	35.16	98.37	5	5	5	5	5	5	5	5
	85	0	37.36	37.36	104.52	5	5	5	5	5	5	5	4
132	40	0	19.25	19.25	53.85	5	5	5	5	5	5	5	5
	45	0	21.65	21.65	60.58	5	5	5	5	5	5	5	5
	50	0	24.06	24.06	67.31	5	5	5	5	5	5	5	5
	55	0	26.46	26.46	74.04	5	5	5	5	5	5	5	5
	60	0	28.87	28.87	80.77	5	5	5	5	5	5	5	5
	65	0	31.27	31.27	87.51	5	5	5	5	5	5	5	5
	70	0	33.68	33.68	94.24	5	5	5	5	5	5	5	5
	75	0	36.09	36.09	100.97	5	5	5	5	5	5	5	5
	80	0	38.49	38.49	107.70	5	5	5	5	5	5	5	4

TABLE 5 - ANCHOR SPACING						ANCHOR TYPE & SPACING 2X6 OR 3X6 OFFSET ANCHOR INSET - MOUNT 4							
TT	PD	Vx	Vy	Vs	Ts	A	B	C	D	E	F	G	H
144	40	0	20.91	20.91	58.51	5	5	5	5	5	5	5	5
	45	0	23.53	23.53	65.83	5	5	5	5	5	5	5	5
	50	0	26.14	26.14	73.14	5	5	5	5	5	5	5	5
	55	0	28.75	28.75	80.46	5	5	5	5	5	5	5	5
	60	0	31.37	31.37	87.77	5	5	5	5	5	5	5	5
	65	0	33.98	33.98	95.08	5	5	5	5	5	5	5	5
	70	0	36.60	36.60	102.40	5	5	5	5	5	5	5	5
	75	0	39.21	39.21	109.71	5	5	5	5	5	5	5	4
168	40	0	24.25	24.25	67.84	5	5	5	5	5	5	5	5
	45	0	27.28	27.28	76.32	5	5	5	5	5	5	5	5
	50	0	30.31	30.31	84.80	5	5	5	5	5	5	5	5
	55	0	33.34	33.34	93.28	5	5	5	5	5	5	5	5
	60	0	36.37	36.37	101.76	5	5	5	5	5	5	5	5
	65	0	39.40	39.40	110.24	5	5	5	5	5	5	5	4
204	40	0	29.25	29.25	81.83	5	5	5	5	5	5	5	5
	45	0	32.90	32.90	92.06	5	5	5	5	5	5	5	5
	50	92.97349	36.56	36.56	705.68	5	-	-	-	-	-	-	-
	55	112.6951	40.21	40.21	843.90	4	-	-	-	-	-	-	-
	60	129.1298	43.87	43.87	960.78	3	-	-	-	-	-	-	-
	65	143.0361	47.52	47.52	1061.26	3	-	-	-	-	-	-	-
216	40	0	30.91	30.91	86.49	5	5	5	5	5	5	5	5
	45	0	34.78	34.78	97.30	5	5	5	5	5	5	5	5
	50	93.89875	38.64	38.64	717.51	5	-	-	-	-	-	-	-
	55	113.8167	42.50	42.50	857.59	4	-	-	-	-	-	-	-
240	40	38.68479	34.25	34.25	346.88	5	3	-	3	3	3	4	-
	45	68.77296	38.53	38.53	554.13	5	-	-	-	-	-	-	-
	50	92.8435	42.81	42.81	722.32	5	-	-	-	-	-	-	-
264	40	73.11576	37.58	37.58	3.00	5	5	5	5	5	5	5	5
	45	97.48768	42.28	42.28	750.98	5	-	-	-	-	-	-	-
286.5	40	65.92552	40.70	40.70	541.74	5	-	-	-	-	-	-	-

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HERMES F. NORIEGA LICENSE No. 73778 STATE OF FLORIDA PROFESSIONAL ENGINEER

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FLORIDA P.E. NO. 73778
BUILDING DROPS, INC.
398 E. DANIA BEACH BLVD. #338
DANIA BEACH, FL 33004
FBPE CERT. OF AUTHORIZATION NO. 29578

FL22558

DATE: 06.06.17

DWG. BY: SM | CHK. BY: HFN

SCALE: NTS

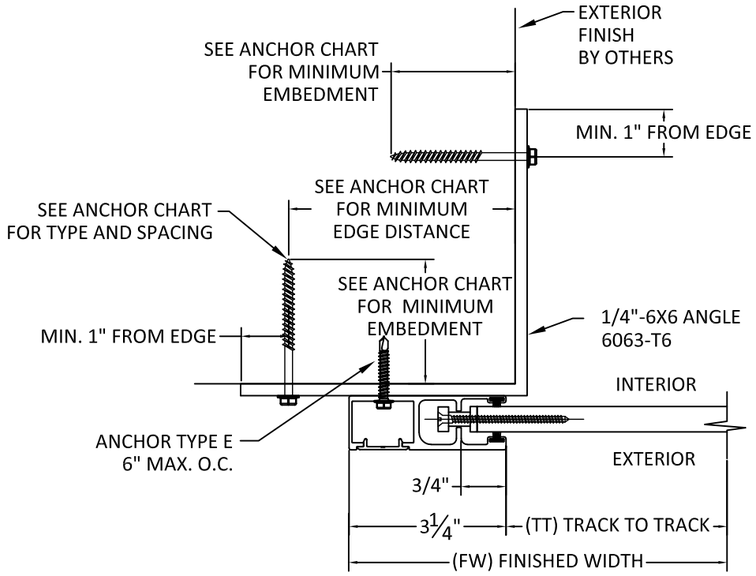
DWG. #: EMS003

SHEET: OF 23

13

TABLE 6 ANCHOR SPACING						ANCHOR TYPE & SPACING 6X6 CORNER ANGLE ANCHOR - MOUNT 5							
TT	PD	Vx	Vy	Vs	Ts	A	B	C	D	E	F	G	H
72	40	0	10.91	0.00	10.91	5	5	5	5	5	5	5	5
	45	0	12.28	0.00	12.28	5	5	5	5	5	5	5	5
	50	0	13.64	0.00	13.64	5	5	5	5	5	5	5	5
	55	0	15.00	0.00	15.00	5	5	5	5	5	5	5	5
	60	0	16.37	0.00	16.37	5	5	5	5	5	5	5	5
	65	0	17.73	0.00	17.73	5	5	5	5	5	5	5	5
	70	0	19.10	0.00	19.10	5	5	5	5	5	5	5	5
	75	0	20.46	0.00	20.46	5	5	5	5	5	5	5	5
	80	0	21.83	0.00	21.83	5	5	5	5	5	5	5	5
	85	0	23.19	0.00	23.19	5	5	5	5	5	5	5	5
	90	0	24.55	0.00	24.55	5	5	5	5	5	5	5	5
	95	138.268	25.92	138.27	25.92	5	5	4	5	5	5	5	4
	100	138.268	27.28	138.27	27.28	5	5	4	5	5	5	5	4
	105	138.268	28.65	138.27	28.65	5	5	4	5	5	5	5	4
	110	138.268	30.01	138.27	30.01	5	5	4	5	5	5	5	4
	115	138.268	31.37	138.27	31.37	5	5	4	5	5	5	5	4
	120	138.268	32.74	138.27	32.74	5	5	4	5	5	5	5	4
	125	138.268	34.10	138.27	34.10	5	5	4	5	5	5	5	4
	130	138.268	35.47	138.27	35.47	5	5	4	5	5	5	5	4
	135	138.268	36.83	138.27	36.83	5	5	4	5	5	5	5	4
	140	138.268	38.19	138.27	38.19	5	5	4	5	5	5	5	4
	145	138.268	39.56	138.27	39.56	5	5	4	5	5	5	5	4
	150	138.268	40.92	138.27	40.92	5	5	4	5	5	5	5	4
	155	138.268	42.29	138.27	42.29	5	5	4	5	5	5	5	4
	160	138.268	43.65	138.27	43.65	5	5	4	5	5	5	5	4
	165	138.268	45.01	138.27	45.01	5	5	4	5	5	5	5	4
	170	138.268	46.38	138.27	46.38	5	5	4	5	5	5	5	4
	175	138.268	47.74	138.27	47.74	5	5	4	5	5	5	5	4
	180	138.268	49.11	138.27	49.11	5	5	4	5	5	5	5	4
	185	138.268	50.47	138.27	50.47	5	5	4	5	5	5	5	4
	190	138.268	51.83	138.27	51.83	5	5	4	5	5	5	5	4
	195	138.268	53.20	138.27	53.20	5	5	4	5	5	5	5	4
	200	138.268	54.56	138.27	54.56	5	5	4	5	5	5	5	3
84	40	0	12.58	0.00	12.58	5	5	5	5	5	5	5	5
	45	0	14.15	0.00	14.15	5	5	5	5	5	5	5	5
	50	0	15.72	0.00	15.72	5	5	5	5	5	5	5	5
	55	0	17.30	0.00	17.30	5	5	5	5	5	5	5	5
	60	0	18.87	0.00	18.87	5	5	5	5	5	5	5	5
	65	0	20.44	0.00	20.44	5	5	5	5	5	5	5	5
	70	0	22.01	0.00	22.01	5	5	5	5	5	5	5	5
	75	0	23.59	0.00	23.59	5	5	5	5	5	5	5	5
	80	0	25.16	0.00	25.16	5	5	5	5	5	5	5	5
	85	0	26.73	0.00	26.73	5	5	5	5	5	5	5	5
	90	0	28.30	0.00	28.30	5	5	5	5	5	5	5	5
	95	170.1704	29.88	170.17	29.88	5	5	3	5	5	5	5	3
	100	170.1704	31.45	170.17	31.45	5	5	3	5	5	5	5	3
	105	170.1704	33.02	170.17	33.02	5	5	3	5	5	5	5	3
	110	170.1704	34.59	170.17	34.59	5	5	3	5	5	5	5	3
	115	170.1704	36.17	170.17	36.17	5	5	3	5	5	5	5	3
	120	170.1704	37.74	170.17	37.74	5	5	3	5	5	5	5	3
	125	170.1704	39.31	170.17	39.31	5	5	3	5	5	5	5	3
	130	170.1704	40.88	170.17	40.88	5	5	3	5	5	5	5	3
	135	170.1704	42.45	170.17	42.45	5	5	3	5	5	5	5	3
	140	170.1704	44.03	170.17	44.03	5	5	3	5	5	5	5	3
	145	170.1704	45.60	170.17	45.60	5	5	3	5	5	5	5	3
	150	170.1704	47.17	170.17	47.17	5	5	3	5	5	5	5	3
	155	170.1704	48.74	170.17	48.74	5	5	3	5	5	5	5	3
	160	170.1704	50.32	170.17	50.32	5	5	3	5	5	5	5	3
	165	170.1704	51.89	170.17	51.89	5	5	3	5	5	5	5	3
	170	170.1704	53.46	170.17	53.46	5	5	3	5	5	5	5	3
	175	170.1704	55.03	170.17	55.03	5	5	3	5	5	5	5	3
	180	170.1704	56.61	170.17	56.61	5	5	3	5	5	5	5	-
	185	170.1704	58.18	170.17	58.18	5	5	3	5	5	5	5	-

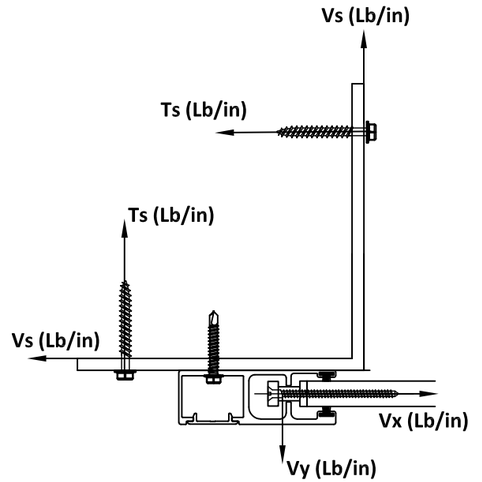
TYPICAL HORIZONTAL SECTIONS
CORNER ANGLE



L 14

HORIZONTAL SECTION

MOUNT TYPE 5
CORNER ANGLE MOUNT
*WITH END RETENTION



CONTRACTOR TO VERIFY ADEQUACY OF STRUCTURE
NOTE: LOADS Vy AND Vx ARE LOADS IMPOSED BY SLAT ON TRACK. LOADS Ts AND Vs ARE LOADS IMPOSED ON STRUCTURE BY ANCHORS.

ANCHOR SCHEDULE:

ANCHOR	DESCRIPTION	MATERIAL	EDGE DISTANCE	EMBEDMENT
A	3/8" DEWALT SCREW-BOLT+	MIN. 3000 PSI CONCRETE	3 3/4"	3 1/2"
B	5/16" ITW TAPCON	MIN. 3000 PSI CONCRETE	2 3/16"	2 1/4"
C	3/8" DEWALT SCREW-BOLT+	GROUT FILLED C-90 BLOCK f'm ≥ 1500 PSI	2"	2 1/2"
D	5/16" ITW TAPCON	GROUT FILLED C-90 BLOCK f'm ≥ 2000 PSI	4"	2 1/4"
E	#14 ELCO DRIL-FLEX SELF DRILLING SCREW	MIN 1/4" 6063-T6 ALUM.	1/2"	3 THREADS PENETRATION
		A36 3/16" STEEL	3/8"	
F	5/16" DEWALT/ELCO ULTRACON	MIN. SG = 0.55 WOOD	1 1/2"	2"
G	5/16" DEWALT/ELCO ULTRACON	MIN. 3515 PSI CONCRETE	3 1/8"	2"
H	5/16" DEWALT/ELCO ULTRACON	GROUT FILLED C-90 BLOCK f'm ≥ 1500 PSI	2 1/2"	2 1/4"

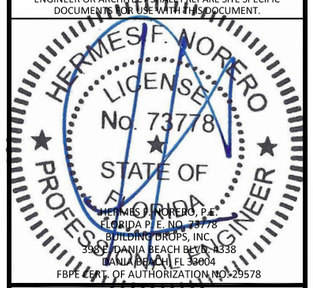
ASSA ABLOY
4268 WESTROADS DRIVE
WEST PALM BEACH, FL 33407
PH: 1-800-432-2204
FAX: 561-841-0852

TITLE: *55 MMER ROLL SHUTTERS (HVHZ)(IMPACT) CORNER ANGLE MOUNT ANCHOR SPACING*

PREPARED BY:
BUILDING DROPS, INC.
398 E. DANIA BEACH BLVD., STE. 338
DANIA BEACH, FL 33004
PH: (954)399-8478
FAX: (954)744.4738
WEB: www.buildingdrops.com

REMARKS	BY	DATE
DWG UPDATES	SM	02.18.19
B.O. UPDATES	SM	01.14.20
2020 FBC UPDATE	NUS	08.18.20
ANCHOR UPDATE	SM	02.08.21
GUIDE RAIL UPDATE	MS	04.07.22

THE INSTALLATION DETAILS DESCRIBED HEREIN ARE GENERIC AND MAY NOT REFLECT ACTUAL CONDITIONS FOR A SPECIFIC SITE. IF SITE CONDITIONS CAUSE INSTALLATION TO DEVIATE FROM THE REQUIREMENTS DETAILED HEREIN, A LICENSED ENGINEER OR ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE WITH THIS DOCUMENT.



FL22558

DATE: 06.06.17

DWG. BY: SM | CHK. BY: HFN

SCALE: NTS

DWG. #: EMS003

SHEET: 14 OF 23

TABLE 6 - ANCHOR SPACING						ANCHOR TYPE & SPACING 6X6 CORNER ANGLE ANCHOR - MOUNT 5							
TT	PD	Vx	Vy	Vs	Ts	A	B	C	D	E	F	G	H
96	80	0	14.25	0.00	14.25	5	5	5	5	5	5	5	5
	45	0	16.03	0.00	16.03	5	5	5	5	5	5	5	5
	50	0	17.81	0.00	17.81	5	5	5	5	5	5	5	5
	55	0	19.59	0.00	19.59	5	5	5	5	5	5	5	5
	60	0	21.37	0.00	21.37	5	5	5	5	5	5	5	5
	65	0	23.15	0.00	23.15	5	5	5	5	5	5	5	5
	70	0	24.93	0.00	24.93	5	5	5	5	5	5	5	5
	75	0	26.71	0.00	26.71	5	5	5	5	5	5	5	5
	80	0	28.49	0.00	28.49	5	5	5	5	5	5	5	5
	85	0	30.27	0.00	30.27	5	5	5	5	5	5	5	5
	90	0	32.05	0.00	32.05	5	5	5	5	5	5	5	5
	95	201.4766	33.83	201.48	33.83	5	5	-	5	5	5	5	-
	100	201.4766	35.61	201.48	35.61	5	5	-	5	5	5	5	-
	105	201.4766	37.40	201.48	37.40	5	5	-	5	5	5	5	-
	110	201.4766	39.18	201.48	39.18	5	5	-	5	5	5	5	-
	115	201.4766	40.96	201.48	40.96	5	5	-	5	5	5	5	-
	120	201.4766	42.74	201.48	42.74	5	5	-	5	5	5	5	-
	125	201.4766	44.52	201.48	44.52	5	5	-	5	5	5	5	-
	130	201.4766	46.30	201.48	46.30	5	5	-	5	5	5	5	-
	135	201.4766	48.08	201.48	48.08	5	5	-	5	5	5	5	-
	140	201.4766	49.86	201.48	49.86	5	5	-	5	5	5	5	-
	145	201.4766	51.64	201.48	51.64	5	5	-	5	5	5	5	-
	150	201.4766	53.42	201.48	53.42	5	5	-	5	5	5	5	-
	155	201.4766	55.20	201.48	55.20	5	5	-	5	5	5	5	-
	160	201.4766	56.98	201.48	56.98	5	5	-	5	5	5	5	-
	165	201.4766	58.76	201.48	58.76	5	5	-	5	5	5	5	-
	170	201.4766	60.54	201.48	60.54	5	5	-	5	5	5	5	-
	175	201.4766	62.33	201.48	62.33	5	5	-	5	5	5	5	-
108	80	0	15.91	0.00	15.91	5	5	5	5	5	5	5	5
	45	0	17.90	0.00	17.90	5	5	5	5	5	5	5	5
	50	0	19.89	0.00	19.89	5	5	5	5	5	5	5	5
	55	0	21.88	0.00	21.88	5	5	5	5	5	5	5	5
	60	0	23.87	0.00	23.87	5	5	5	5	5	5	5	5
	65	0	25.86	0.00	25.86	5	5	5	5	5	5	5	5
	70	0	27.85	0.00	27.85	5	5	5	5	5	5	5	5
	75	0	29.84	0.00	29.84	5	5	5	5	5	5	5	5
	80	0	31.83	0.00	31.83	5	5	5	5	5	5	5	5
	85	0	33.81	0.00	33.81	5	5	5	5	5	5	5	5
	90	0	35.80	0.00	35.80	5	5	5	5	5	5	5	5
	95	231.1754	37.79	231.18	37.79	5	5	-	5	5	4	5	-
	100	231.1754	39.78	231.18	39.78	5	5	-	5	5	4	5	-
	105	231.1754	41.77	231.18	41.77	5	5	-	5	5	4	5	-
	110	231.1754	43.76	231.18	43.76	5	5	-	5	5	4	5	-
	115	231.1754	45.75	231.18	45.75	5	5	-	5	5	4	5	-
	120	231.1754	47.74	231.18	47.74	5	5	-	5	5	4	5	-
	125	231.1754	49.73	231.18	49.73	5	5	-	5	5	4	5	-
	130	231.1754	51.72	231.18	51.72	5	5	-	4	5	4	5	-
	135	231.1754	53.70	231.18	53.70	5	5	-	4	5	4	5	-
	140	231.1754	55.69	231.18	55.69	5	5	-	4	5	4	5	-
	145	231.1754	57.68	231.18	57.68	5	5	-	4	5	4	5	-
	150	231.1754	59.67	231.18	59.67	5	5	-	4	5	4	5	-
	155	231.1754	61.66	231.18	61.66	5	5	-	4	5	4	5	-
	160	231.1754	63.65	231.18	63.65	5	5	-	4	5	4	5	-

TABLE 6 - ANCHOR SPACING						ANCHOR TYPE & SPACING 6X6 CORNER ANGLE ANCHOR - MOUNT 5							
TT	PD	Vx	Vy	Vs	Ts	A	B	C	D	E	F	G	H
120	40	0	17.58	0.00	17.58	5	5	5	5	5	5	5	5
	45	0	19.78	0.00	19.78	5	5	5	5	5	5	5	5
	50	0	21.97	0.00	21.97	5	5	5	5	5	5	5	5
	55	0	24.17	0.00	24.17	5	5	5	5	5	5	5	5
	60	0	26.37	0.00	26.37	5	5	5	5	5	5	5	5
	65	0	28.57	0.00	28.57	5	5	5	5	5	5	5	5
	70	0	30.76	0.00	30.76	5	5	5	5	5	5	5	5
	75	0	32.96	0.00	32.96	5	5	5	5	5	5	5	5
	80	0	35.16	0.00	35.16	5	5	5	5	5	5	5	5
	85	0	37.36	0.00	37.36	5	5	5	5	5	5	5	5
	90	258.3246	39.55	258.32	39.55	5	5	-	4	4	3	5	-
	95	258.3246	41.75	258.32	41.75	5	5	-	4	4	3	5	-
	100	258.3246	43.95	258.32	43.95	5	5	-	4	4	3	5	-
	105	258.3246	46.15	258.32	46.15	5	5	-	4	4	3	5	-
	110	258.3246	48.34	258.32	48.34	5	5	-	4	4	3	5	-
	115	258.3246	50.54	258.32	50.54	5	5	-	4	4	3	5	-
	120	258.3246	52.74	258.32	52.74	5	5	-	4	4	3	5	-
	125	258.3246	54.93	258.32	54.93	5	5	-	4	4	3	5	-
	130	258.3246	57.13	258.32	57.13	5	5	-	4	4	3	5	-
	135	258.3246	59.33	258.32	59.33	5	5	-	4	4	3	5	-
	140	258.3246	61.53	258.32	61.53	5	5	-	4	4	3	5	-
	145	258.3246	63.72	258.32	63.72	5	5	-	4	4	3	5	-
	150	258.3246	65.92	258.32	65.92	5	5	-	4	4	3	5	-
132	40	0	19.25	0.00	19.25	5	5	5	5	5	5	5	5
	45	0	21.65	0.00	21.65	5	5	5	5	5	5	5	5
	50	0	24.06	0.00	24.06	5	5	5	5	5	5	5	5
	55	0	26.46	0.00	26.46	5	5	5	5	5	5	5	5
	60	0	28.87	0.00	28.87	5	5	5	5	5	5	5	5
	65	0	31.27	0.00	31.27	5	5	5	5	5	5	5	5
	70	0	33.68	0.00	33.68	5	5	5	5	5	5	5	5
	75	0	36.09	0.00	36.09	5	5	5	5	5	5	5	5
	80	0	38.49	0.00	38.49	5	5	5	5	5	5	5	5
	85	282.0454	40.90	282.05	40.90	5	5	-	3	4	3	5	-
	90	282.0454	43.30	282.05	43.30	5	5	-	3	4	3	5	-
	95	282.0454	45.71	282.05	45.71	5	5	-	3	3	3	5	-
	100	282.0454	48.11	282.05	48.11	5	5	-	3	3	3	5	-
	105	282.0454	50.52	282.05	50.52	5	5	-	3	3	3	5	-
	110	282.0454	52.93	282.05	52.93	5	5	-	3	3	3	5	-
	115	282.0454	55.33	282.05	55.33	5	5	-	3	3	3	5	-
	120	282.0454	57.74	282.05	57.74	5	5	-	3	3	3	5	-
	125	282.0454	60.14	282.05	60.14	5	5	-	3	3	3	5	-
	130	282.0454	62.55	282.05	62.55	5	5	-	3	3	3	5	-
	135	282.0454	64.95	282.05	64.95	5	5	-	3	3	3	5	-

TABLE 6 - ANCHOR SPACING						ANCHOR TYPE & SPACING 6X6 CORNER ANGLE ANCHOR - MOUNT 5							
TT	PD	Vx	Vy	Vs	Ts	A	B	C	D	E	F	G	H
144	40	0	20.91	0.00	20.91	5	5	5	5	5	5	5	5
	45	0	23.53	0.00	23.53	5	5	5	5	5	5	5	5
	50	0	26.14	0.00	26.14	5	5	5	5	5	5	5	5
	55	0	28.75	0.00	28.75	5	5	5	5	5	5	5	5
	60	0	31.37	0.00	31.37	5	5	5	5	5	5	5	5
	65	0	33.98	0.00	33.98	5	5	5	5	5	5	5	5
	70	0	36.60	0.00	36.60	5	5	5	5	5	5	5	5
	75	0	39.21	0.00	39.21	5	5	5	5	5	5	5	5
	80	301.517	41.83	301.52	41.83	5	5	-	3	3	-	5	-
	85	301.517	44.44	301.52	44.44	5	4	-	3	3	-	5	-
	90	301.517	47.05	301.52	47.05	5	4	-	3	3	-	5	-
	95	301.517	49.67	301.52	49.67	5	4	-	3	3	-	5	-
	100	301.517	52.28	301.52	52.28	5	4	-	3	3	-	5	-
	105	301.517	54.90	301.52	54.90	5	4	-	3	3	-	5	-
	110	301.517	57.51	301.52	57.51	5	4	-	3	3	-	5	-
	115	301.517	60.12	301.52	60.12	5	4	-	3	3	-	5	-
	120	301.517	62.74	301.52	62.74	5	4	-	3	3	-	5	-
	125	301.517	65.35	301.52	65.35	5	4	-	3	3	-	5	-
168	40	0	24.25	0.00	24.25	5	5	5	5	5	5	5	5
	45	0	27.28	0.00	27.28	5	5	5	5	5	5	5	5
	50	0	30.31	0.00	30.31	5	5	5	5	5	5	5	5
	55	0	33.34	0.00	33.34	5	5	5	5	5	5	5	5
	60	0	36.37	0.00	36.37	5	5	5	5	5	5	5	5
	65	0	39.40	0.00	39.40	5	5	5	5	5	5	5	5
	70	324.6913	42.43	324.69	42.43	5	4	-	-	3	-	4	-
	75	324.6913	45.46	324.69	45.46	5	4	-	-	3	-	4	-
	80	324.6913	48.49	324.69	48.49	5	4	-	-	3	-	4	-
	85	324.6913	51.52	324.69	51.52	5	4	-	-	3	-	4	-
	90	324.6913	54.55	324.69	54.55	5	4	-	-	3	-	4	-
	95	324.6913	57.58	324.69	57.58	5	4	-	-	3	-	4	-
	100	324.6913	60.61	324.69	60.61	5	4	-	-	3	-	4	-
204	40	0	29.25	0.00	29.25	5	5	5	5	5	5	5	5
	45	0	32.90	0.00	32.90	5	5	5	5	5	5	5	5
	50	92.97349	36.56	92.97	36.56	5	5	5	5	5	5	5	5
	55	112.6951	40.21	112.70	40.21	5	5	5	5	5	5	5	5
	60	129.1298	43.87	129.13	43.87	5	5	4	5	5	5	5	4
	65	143.0361	47.52	143.04	47.52	5	5	4	5	5	5	5	4
	70	154.9558	51.18	154.96	51.18	5	5	3	5	5	5	5	3
	75	165.2862	54.84	165.29	54.84	5	5	3	5	5	5	5	3
216	40	0	30.91	0.00	30.91	5	5	5	5	5	5	5	5
	45	0	34.78	0.00	34.78	5	5	5	5	5	5	5	5
	50	93.89875	38.64	93.90	38.64	5	5	5	5	5	5	5	5
	55	113.8167	42.50	113.82	42.50	5	5	5	5	5	5	5	5
240	40	38.68479	34.25	38.68	34.25	5	5	5	5	5	5	5	5
	45	68.77296	38.53	68.77	38.53	5	5	5	5	5	5	5	5
	50	92.8435	42.81	92.84	42.81	5	5	5	5	5	5	5	5
264	40	73.11576	37.58	73.12	37.58	5	5	5	5	5	5	5	5
	45	97.48768	42.28	97.49	42.28	5	5	5	5	5	5	5	5
286.5	40	65.92552	40.70	65.93	40.70	5	5	5	5	5	5	5	5

ASSA ABLOY

4268 WESTROADS DRIVE
WEST PALM BEACH, FL 33407
PH: 1-800-432-2204
FAX: 561-841-0852

TITLE: *55 MMER ROLL SHUTTERS (HVHZ)(IMPACT) CORNER ANGLE MOUNT ANCHOR SPACING*

PREPARED BY:
BUILDING DROPS, INC.
398 E. DANIA BEACH BLVD., STE. 338
DANIA BEACH, FL 33004
PH: (954)399-8478
FAX: (954)744.4738
WEB: www.buildingdrops.com

REMARKS	BY	DATE
DWG UPDATES	SM	02.18.19
B.O. UPDATES	SM	01.14.20
2020 FBC UPDATE	NUS	08.18.20
ANCHOR UPDATE	SM	02.08.21
GUIDE RAIL UPDATE	MS	04.07.22

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FL22558

DATE: 06.06.17

DWG. BY:	CHK. BY:
SM	HFN

SCALE: NTS

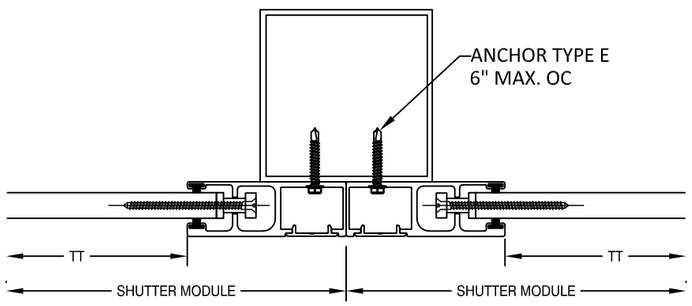
DWG. #: EMS003

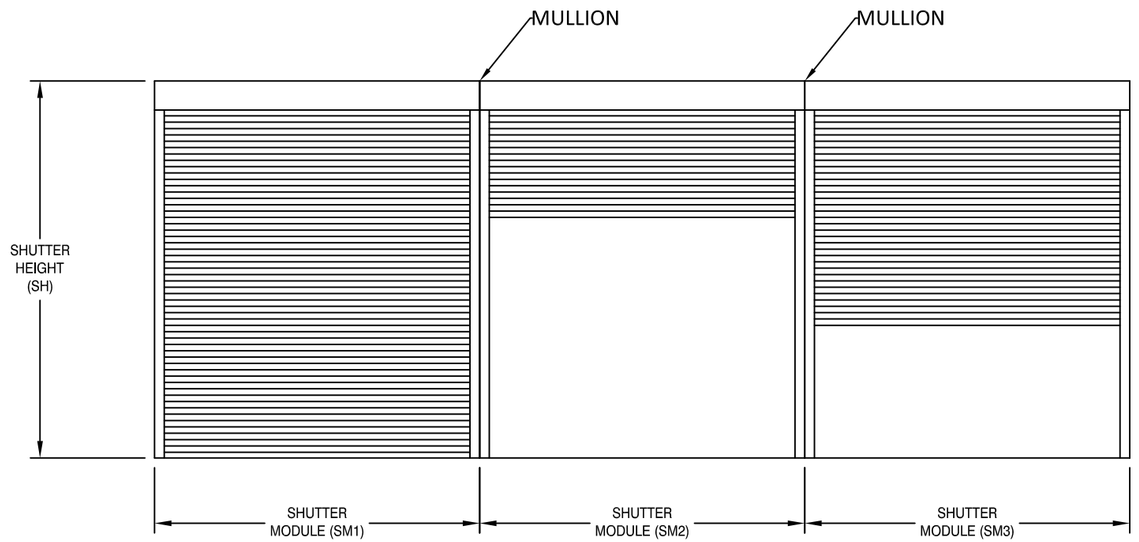
SHEET: OF 23

15

EQUALLY SPACED MULLIONS SELECTION

FACE MOUNT MULLION



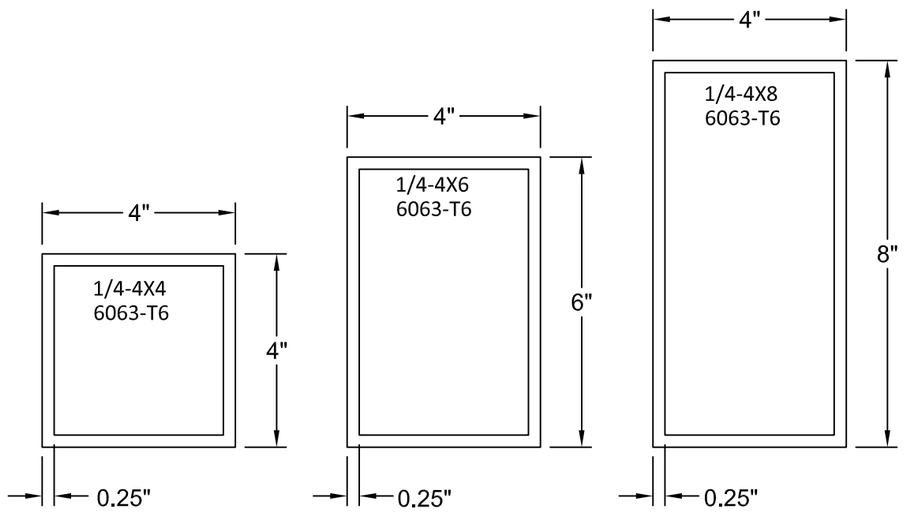


SM1 = SM2 = SM3

MAXIMUM MULLION DESIGN PRESSURE (PSF)

TT Max.	1/4-4x8 MULLION SPAN			1/4-4x6 MULLION SPAN			1/4-4x4 MULLION SPAN		
	144	120	96	144	120	96	144	120	96
286.5	34	40	40	N/A	29	40	N/A	N/A	21
264	37	45	45	N/A	31	45	N/A	N/A	23
240	41	50	50	20	35	50	N/A	N/A	25
216	45	55	55	22	39	55	N/A	N/A	28
204	48	75	75	23	41	75	N/A	N/A	30
168	58	100	100	29	50	98	N/A	N/A	36
144	68	118	125	33	58	114	N/A	22	42
132	74	129	135	36	63	124	N/A	24	46
120	82	142	150	40	70	137	N/A	26	51
108	91	158	160	45	78	152	N/A	29	57
96	103	175	175	50	87	171	N/A	33	64
84	117	185	185	58	100	185	21	37	73
72	137	200	200	67	117	200	25	44	85

NOTES:
1. MULLIONS WERE DESIGNED BY RATIONAL ANALYSIS BASED ON THE ALUMINUM DESIGN MANUAL AND THE FLORIDA BUILDING CODE. ABOVE LOADS ARE ALSO LIMITED BY THE MAX. CAPACITY OF THE PRODUCT.
2. DEFLECTION CRITERIA: MAX. SPAN/180
3. VALUES ABOVE ARE APPLICABLE ONLY FOR EQUAL MODULES SM1=SM2=SM3
4. UNEQUAL MODULES ARE TO BE DESIGNED BY RATIONAL ANALYSIS IN A CASE BY CASE BASIS.



ASSA ABLOY

4268 WESTROADS DRIVE
WEST PALM BEACH, FL 33407
PH: 1-800-432-2204
FAX: 561-841-0852

TITLE: *55 MMER ROLL SHUTTERS (HVHZ)(IMPACT)*

EQUALLY SPACED MULLION

PREPARED BY:
BUILDING DROPS, INC.
398 E. DANIA BEACH BLVD., STE. 338
DANIA BEACH, FL 33004
PH: (954)399-8478
FAX: (954)744.4738
WEB: www.buildingdrops.com

REMARKS	BY	DATE
DWG UPDATES	SM	02.18.19
B.O. UPDATES	SM	01.14.20
2020 FBC UPDATE	NUS	08.18.20
ANCHOR UPDATE	SM	02.08.21
GUIDE RAIL UPDATE	MS	04.07.22

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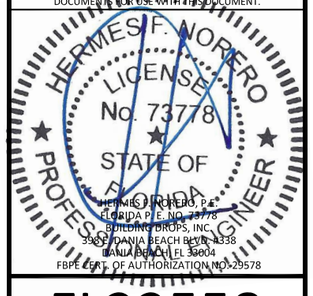


FL22558

DATE: 06.06.17

DWG. BY:	CHK. BY:
SM	HFN

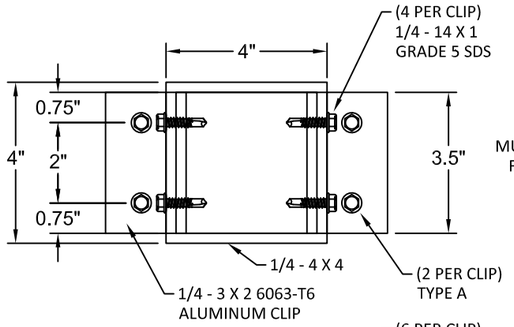
SCALE: NTS

DWG. #: EMS003

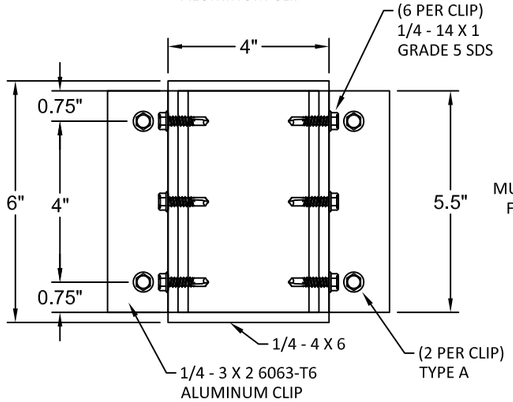
SHEET: OF 23

16

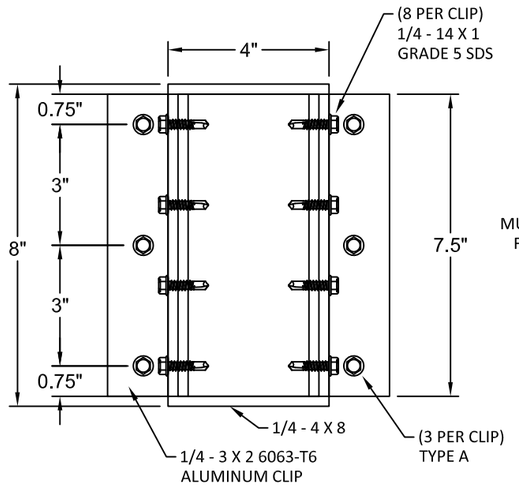
EQUALLY SPACED MULLIONS WALL AND INSET CONNECTIONS



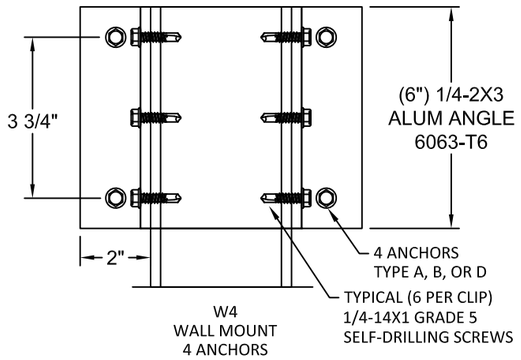
FC1 - 4X4
MULL ANCHORAGE
FLOOR/CEILING
MOUNT



FC2 - 4X6
MULL ANCHORAGE
FLOOR/CEILING
MOUNT



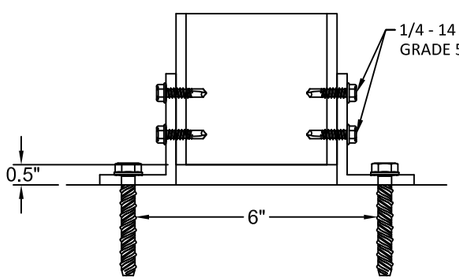
FC3 - 4X8
MULL ANCHORAGE
FLOOR/CEILING
MOUNT



W4
WALL MOUNT
4 ANCHORS

WALL MOUNT ANCHOR SELECTION			
ANCHOR TYPE	MULLION TYPE		
	4X4	4X6	4X8
A	W4	W4	W4
B	W4	N/A	N/A
D	W4	N/A	N/A
G	W4	N/A	N/A

FLOOR/CEILING MOUNT ANCHOR SELECTION			
ANCHOR TYPE	MULLION TYPE		
	4X4	4X6	4X8
A	FC1	FC2	FC3



NOTE: ANGLE CLIP TO BE PLACED OUTSIDE OR INSIDE TUBE

ANCHOR SCHEDULE:

ANCHOR	DESCRIPTION	MATERIAL	EDGE DISTANCE	EMBEDMENT
A	3/8" DEWALT SCREW-BOLT+	MIN. 3000 PSI CONCRETE	3 3/4"	3 1/2"
B	5/16" ITW TAPCON	MIN. 3000 PSI CONCRETE	2 3/16"	2 1/4"
D	5/16" ITW TAPCON	GROUT FILLED C-90 BLOCK f'm ≥ 2000 PSI	4"	2 1/4"
G	5/16" DEWALT/ELCO ULTRACON	MIN. 3515 PSI CONCRETE	3 1/8"	2"

ASSA ABLOY
4268 WESTROADS DRIVE
WEST PALM BEACH, FL 33407
PH: 1-800-432-2204
FAX: 561-841-0852

TITLE: *55 MMER ROLL SHUTTERS (HVHZ)(IMPACT) EQUALLY SPACED MULLION ANCHORS*

PREPARED BY:
BUILDING DROPS, INC.
398 E. DANIA BEACH BLVD., STE. 338
DANIA BEACH, FL 33004
PH: (954)399-8478
FAX: (954)744.4738
WEB: www.buildingdrops.com

REMARKS	BY	DATE
DWG UPDATES	SM	02.18.19
B.O. UPDATES	SM	01.14.20
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ANCHOR UPDATE	SM	02.08.21
GUIDE RAIL UPDATE	MS	04.07.22

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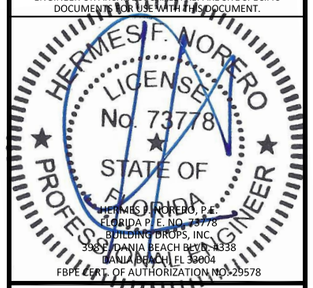


HERMES F. NORERO, P.E.
FLORIDA P.E. NO. 73778
BUILDING DROPS, INC.
398 E. DANIA BEACH BLVD. #338
DANIA BEACH, FL 33004
FBPE CERT. OF AUTHORIZATION NO. 29578

FL22558

DATE: 06.06.17

DWG. BY: SM | CHK. BY: HFN

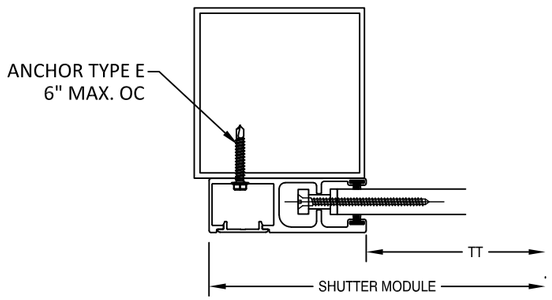
SCALE: NTS

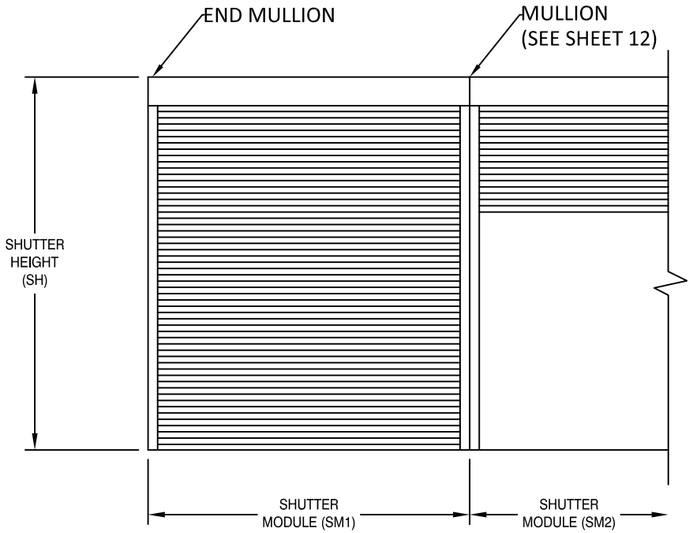
DWG. #: EMS003

SHEET: 17 OF 23

END MULLION SELECTION

FACE MOUNT MULLION



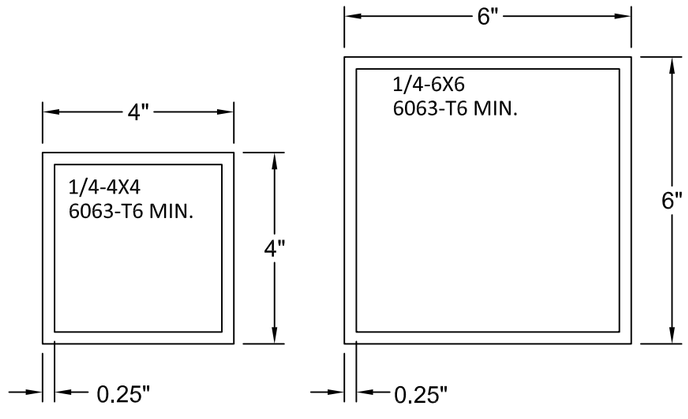


SM1 = SM2

MAXIMUM END MULLION SPANS AND DESIGN PRESSURES

TT MAX (in)	ALLOWABLE DP (PSF)	ALLOWABLE MULLION SPANS (FT)	
		4" x 4" X 0.25" 6063-T6 MIN.	6" x 6" X 0.25" 6063-T6 MIN.
72	200	12.00	12.00
84	185	12.00	12.00
96	175	12.00	12.00
108	160	11.93	12.00
120	150	11.49	12.00
132	135	11.16	12.00
144	125	10.92	12.00
168	100	10.65	12.00
204	75	10.04	12.00
216	55	9.70	12.00
240	50	10.82	12.00
264	45	11.03	12.00
286.5	40	11.41	12.00

NOTES:
1. MULLIONS WERE DESIGNED BY RATIONAL ANALYSIS BASED ON THE ALUMINUM DESIGN MANUAL AND THE FLORIDA BUILDING CODE. ABOVE LOADS ARE ALSO LIMITED BY THE MAX. CAPACITY OF THE PRODUCT.
2. VALUES ABOVE ARE APPLICABLE FOR END MULLIONS ONLY



ASSA ABLOY

4268 WESTROADS DRIVE
WEST PALM BEACH, FL 33407
PH: 1-800-432-2204
FAX: 561-841-0852

TITLE: *55 MMER ROLL SHUTTERS (HVHZ)(IMPACT)*

END MULLION

PREPARED BY:
BUILDING DROPS, INC.
398 E. DANIA BEACH BLVD., STE. 338
DANIA BEACH, FL 33004
PH: (954)399-8478
FAX: (954)744.4738
WEB: www.buildingdrops.com

REMARKS	BY	DATE
DWG UPDATES	SM	02.18.19
B.O. UPDATES	SM	01.14.20
2020 FBC UPDATE	NUS	08.18.20
ANCHOR UPDATE	SM	02.08.21
GUIDE RAIL UPDATE	MS	04.07.22

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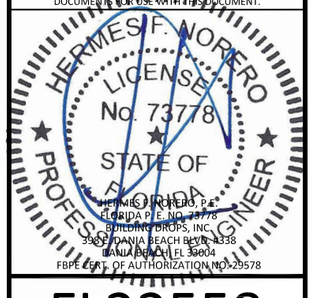
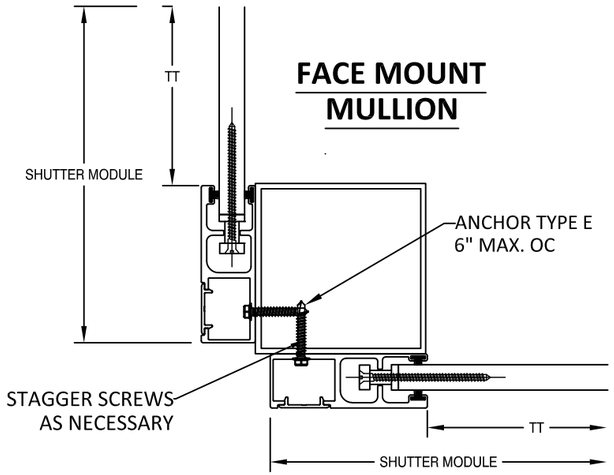


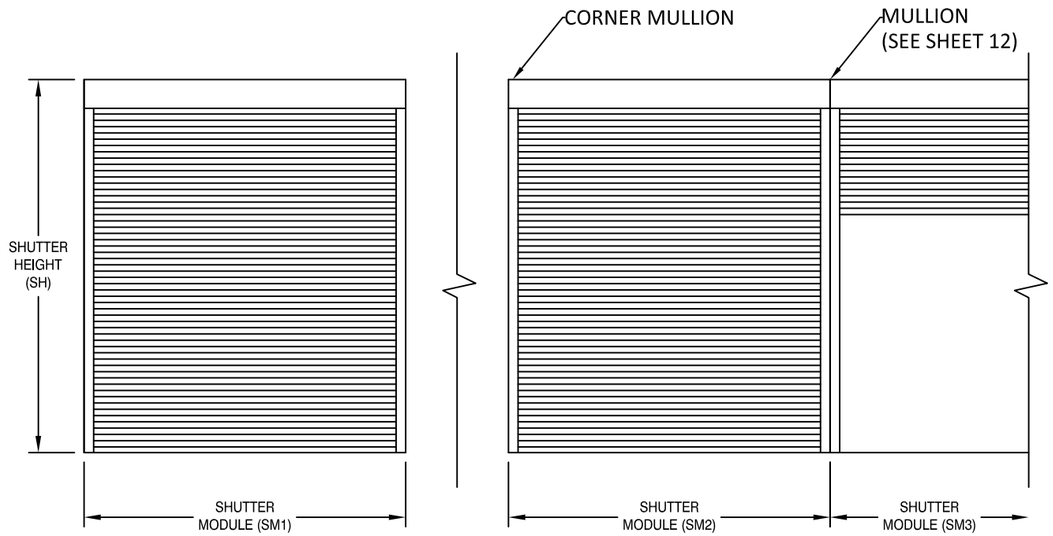
FL22558

DATE:	06.06.17
DWG. BY: SM	CHK. BY: HFN
SCALE:	NTS
DWG. #:	EMS003
SHEET:	OF 23

18

CORNER MULLION SELECTION



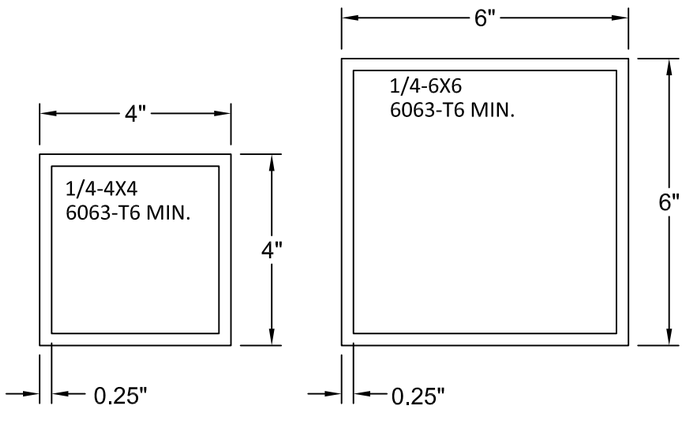


SM1 = SM2 = SM3

MAXIMUM CORNER MULLION SPANS AND DESIGN PRESSURES

TT MAX (in)	ALLOWABLE DP (PSF)	ALLOWABLE MULLION SPANS (FT)	
		4" x 4" X 0.25" 6063-T6 MIN.	6" x 6" X 0.25" 6063-T6 MIN.
72	200	10.75	12.00
84	185	9.88	12.00
96	175	9.19	12.00
108	160	8.70	12.00
120	150	8.29	12.00
132	135	8.02	12.00
144	125	7.80	12.00
168	100	7.61	11.78
204	75	7.10	10.99
216	55	6.87	10.63
240	50	7.95	12.00
264	45	8.16	12.00
286.5	40	8.56	12.00

NOTES:
1. MULLIONS WERE DESIGNED BY RATIONAL ANALYSIS BASED ON THE ALUMINUM DESIGN MANUAL AND THE FLORIDA BUILDING CODE. ABOVE LOADS ARE ALSO LIMITED BY THE MAX. CAPACITY OF THE PRODUCT.
2. VALUES ABOVE ARE APPLICABLE FOR CORNER MULLIONS ONLY WITH EQUAL WIDTH SHUTTERS ON BOTH SIDES, UNEQUAL SHUTTERS SHALL BE EVALUATED ON A CASE BY CASE BASIS.



ASSA ABLOY

4268 WESTROADS DRIVE
WEST PALM BEACH, FL 33407
PH: 1-800-432-2204
FAX: 561-841-0852

TITLE: *55 MMER ROLL SHUTTERS (HVHZ)(IMPACT)*
CORNER MULLION

PREPARED BY:
BUILDING DROPS, INC.
398 E. DANIA BEACH BLVD., STE. 338
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PH: (954)399-8478
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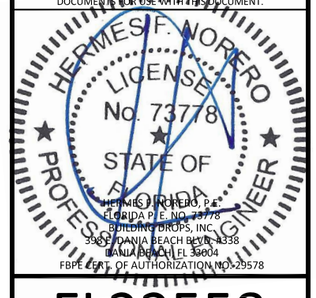


FL22558

DATE: 06.06.17

DWG. BY:	CHK. BY:
SM	HFN

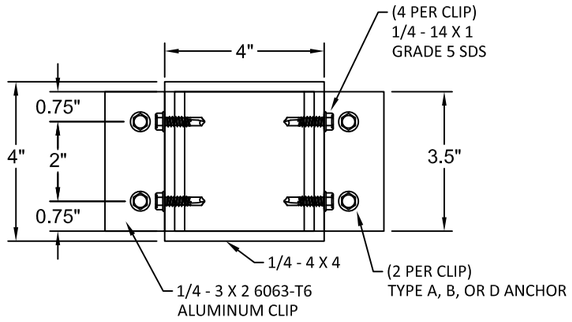
SCALE: NTS

DWG. #: EMS003

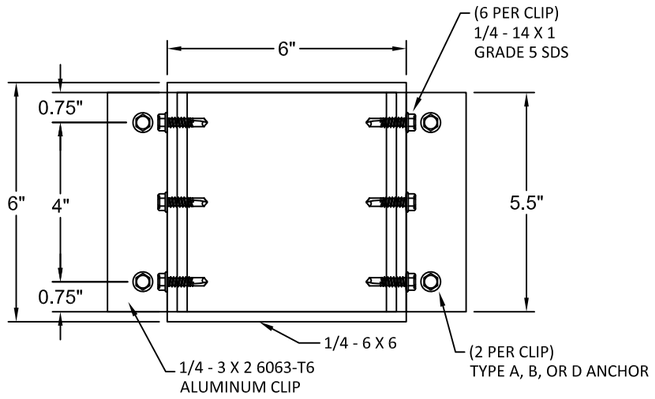
SHEET: OF 23

19

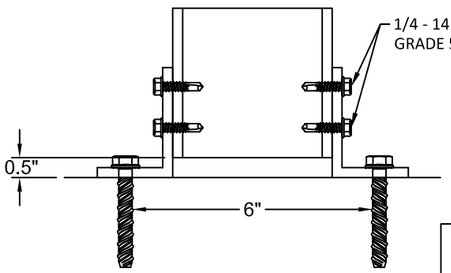
END MULLION AND CORNER MULLION WALL AND INSET CONNECTIONS

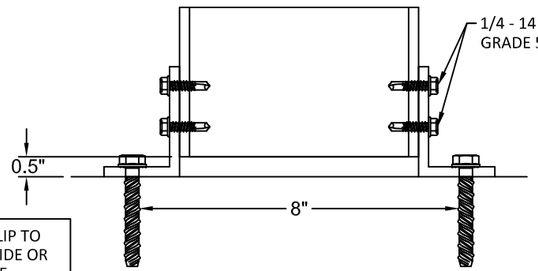


FC1 - 4X4
MULL ANCHORAGE
FLOOR/CEILING
MOUNT



FC2 - 6X6
MULL ANCHORAGE
FLOOR/CEILING
MOUNT

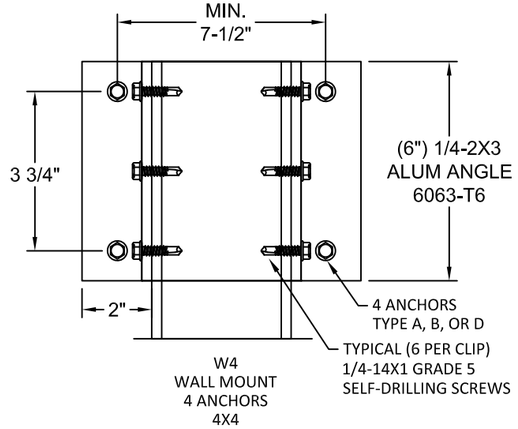




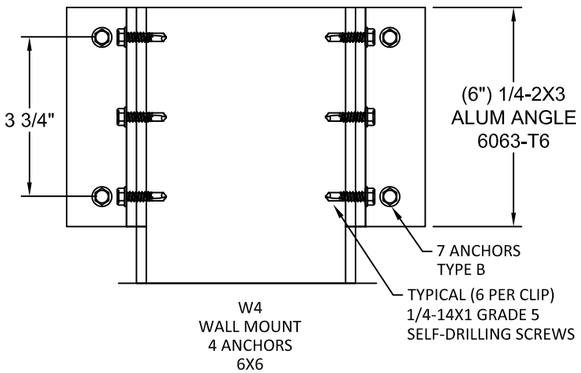
NOTE: ANGLE CLIP TO
BE PLACED OUTSIDE OR
INSIDE TUBE

MULL FLOOR/CEILING MOUNT ANCHOR SELECTION				
ANCHOR TYPE	END MULLION TYPE		CORNER MULLION TYPE	
	4X4	6X6	4X4	6X6
A	FC1	FC2	FC1	FC2
B	N/A	FC2	N/A	N/A
D	N/A	FC2	N/A	N/A
G	N/A	FC2	N/A	N/A

END MULLION WALL CONNECTIONS



W4
WALL MOUNT
4 ANCHORS
4X4



W4
WALL MOUNT
4 ANCHORS
6X6

WALL MOUNT ANCHOR SELECTION		
ANCHOR TYPE	END MULLION TYPE	
	4X4	6X6
A	W4	W4
B	W4	W4
D	W4	W4
G	W4	W4

ANCHOR SCHEDULE:

ANCHOR	DESCRIPTION	MATERIAL	EDGE DISTANCE	EMBEDMENT
A	3/8" DEWALT SCREW-BOLT+	MIN. 3000 PSI CONCRETE	3 3/4"	3 1/2"
B	5/16" ITW TAPCON	MIN. 3000 PSI CONCRETE	2 3/16"	2 1/4"
D	5/16" ITW TAPCON	GROUT FILLED C-90 BLOCK f'm ≥ 2000 PSI	4"	2 1/4"
G	5/16" DEWALT/ELCO ULTRACON	MIN. 3515 PSI CONCRETE	3 1/8"	2"

ASSA ABLOY
4268 WESTROADS DRIVE
WEST PALM BEACH, FL 33407
PH: 1-800-432-2204
FAX: 561-841-0852

TITLE: *55 MMER ROLL SHUTTERS (HVHZ)(IMPACT)*
CORNER MULLION ANCHORS

PREPARED BY:
BUILDING DROPS, INC.
398 E. DANIA BEACH BLVD., STE. 338
DANIA BEACH, FL 33004
PH: (954)399-8478
FAX: (954)744.4738
WEB: www.buildingdrops.com

REMARKS	BY	DATE
DWG UPDATES	SM	02.18.19
B.O. UPDATES	SM	01.14.20
2020 FBC UPDATE	NUS	08.18.20
ANCHOR UPDATE	SM	02.08.21
GUIDE RAIL UPDATE	MS	04.07.22

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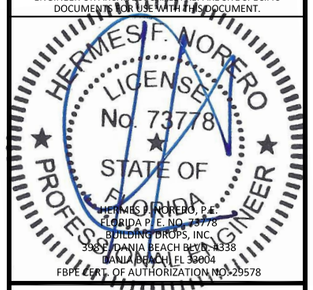
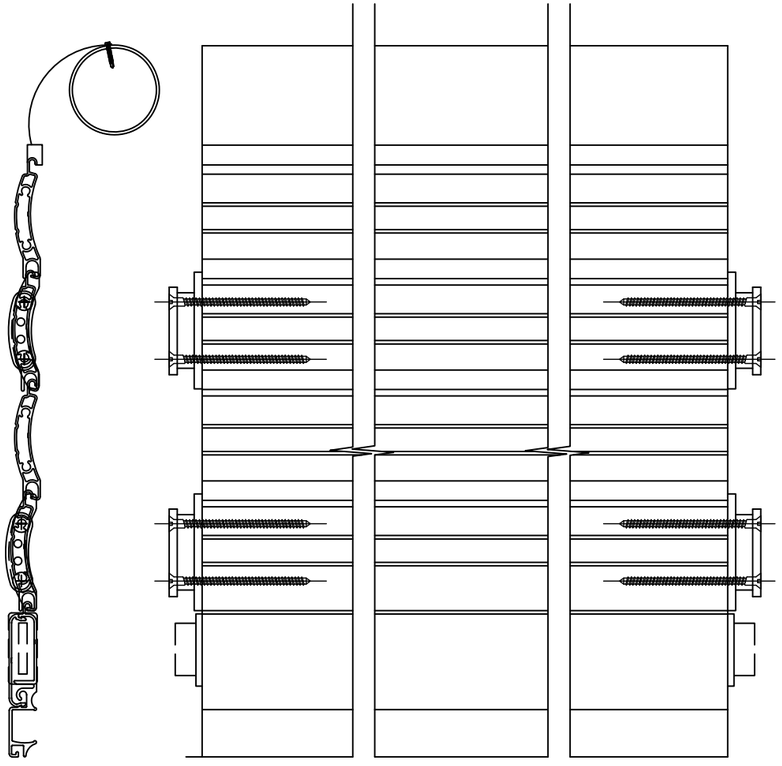
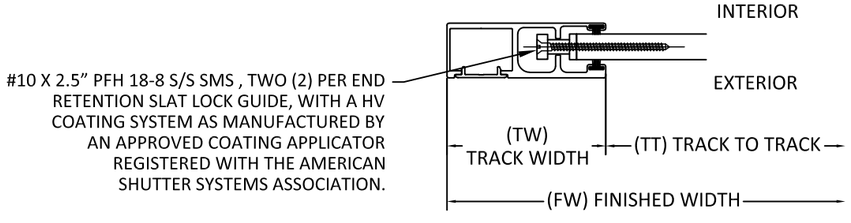


FL22558

DATE: 06.06.17
DWG. BY: SM
CHK. BY: HFN
SCALE: NTS
DWG. #: EMS003
SHEET: 20 OF 23

SLAT END RETENTION LAY-OUT

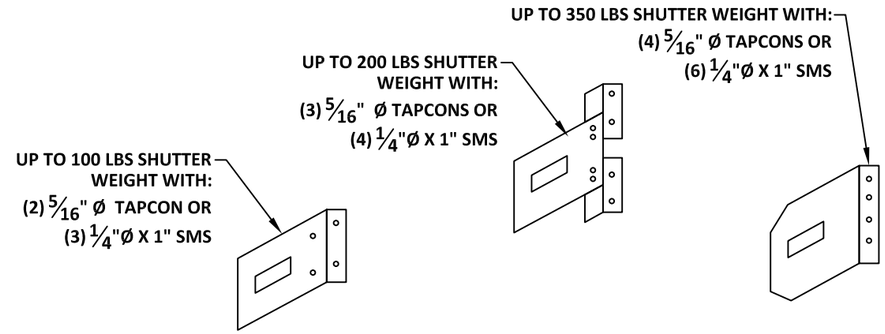




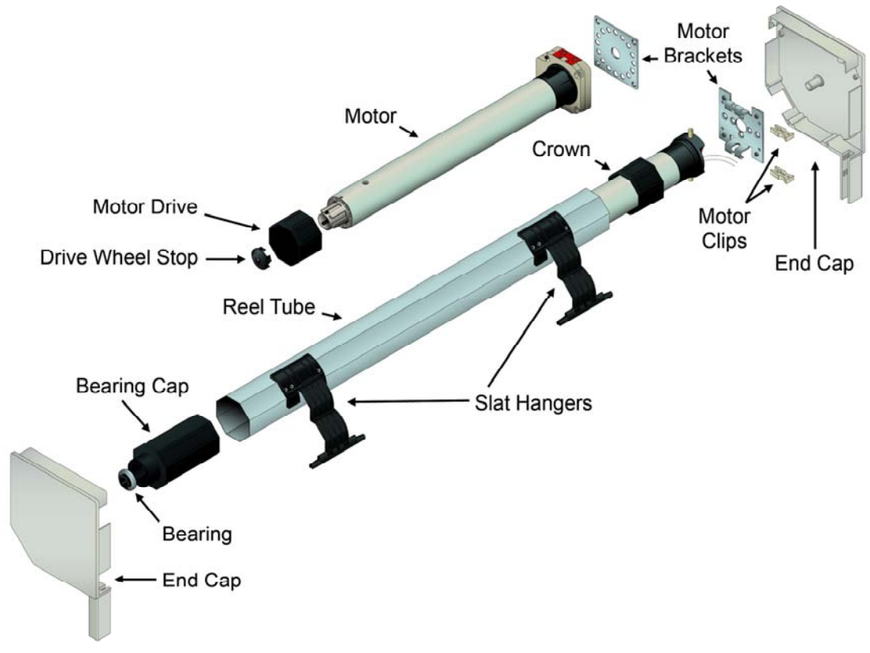
#10 X 2.5" PFH 18-8 S/S SMS , TWO (2) PER END RETENTION SLAT LOCK GUIDE, WITH A HV COATING SYSTEM AS MANUFACTURED BY AN APPROVED COATING APPLICATOR REGISTERED WITH THE AMERICAN SHUTTER SYSTEMS ASSOCIATION.

NOTES:
1. SLAT END RETENTION LOCK TO BE AT EVERY OTHER SLAT
2. INSTALLATION SCREWS SHALL BE COATED WITH A HV COATING SYSTEM AS MANUFACTURED BY AN APPROVED COATING APPLICATOR REGISTERED WITH THE AMERICAN SHUTTER SYSTEMS ASSOCIATION.

MOUNTING BRACKET



ROLL-UP MECHANISM EXPLODED



NOTES:
1. THE ROLL-UP MECHANISM (GEARS, MOTOR, SUPPORTING END PLATES) ARE NOT A PART OF THIS APPROVAL AND SHALL BE SELECTED BASED ON MANUFACTURER'S SPECIFICATIONS.
2. 60MM, 70MM, OR 94MM DIAMETER REEL TUBE PER MANUFACTURER SPECIFICATION
3. TUBULAR MOTOR MAY BE REPLACED WITH GEAR FOR MANUAL OPERATION.
4. OPTIONAL BOTTOM LOCK IS NOT REQUIRED FOR STRUCTURAL OR FORCED ENTRY RESISTANCE PERFORMANCE. FOR USE ON MAXIMUM 20' WIDE UNIT.
5. BASE SLAT IS OPTIONAL AND IS NOT REQUIRED FOR STRUCTURAL OR FORCED ENTRY RESISTANCE PERFORMANCE. FOR USE ON MAXIMUM 20' WIDE UNIT.

ASSA ABLOY
4268 WESTROADS DRIVE
WEST PALM BEACH, FL 33407
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FAX: 561-841-0852

TITLE: *55 MMER ROLL SHUTTERS (HVHZ)(IMPACT)*
SLAT END RETENTION & HOOD ASSEMBLY

PREPARED BY:
BUILDING DROPS, INC.
398 E. DANIA BEACH BLVD., STE. 338
DANIA BEACH, FL 33004
PH: (954)399-8478
FAX: (954)744.4738
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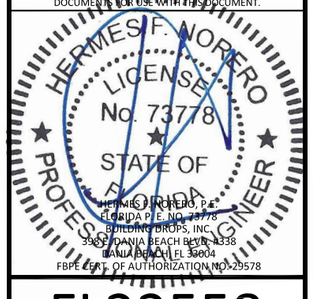

FL22558

DATE:	06.06.17	
DWG. BY:	SM	CHK. BY: HFN
SCALE:	NTS	
DWG. #:	EMS003	
SHEET:		OF 23

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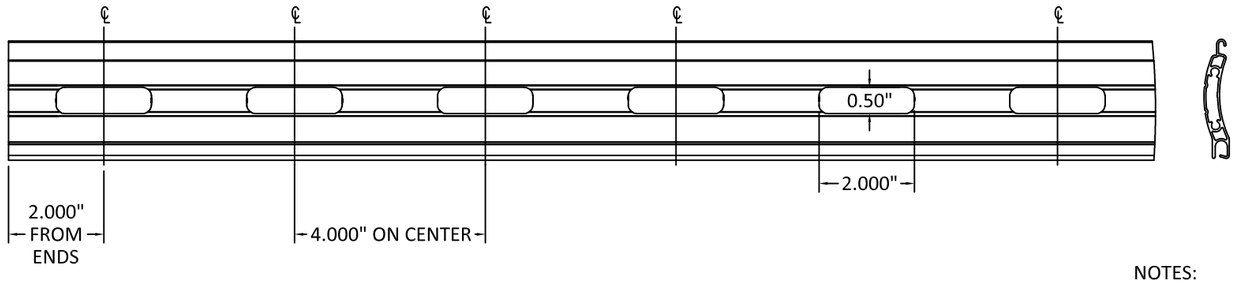
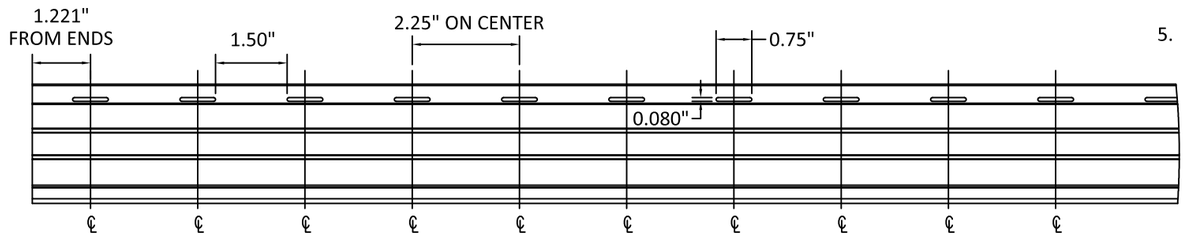
VIEWPORT SLAT DETAIL



VENTED SLAT DETAIL



NOTES:

1. USE OF VIEWPORT SLATS SHALL BE LIMITED TO EVERY OTHER SLAT. MAY BE USED FOR FULL DOOR HEIGHT, EXCEPT FOR WITHIN 36" OF BOTTOM OF FRAME.
2. VIEWPORT SLATS MAY ONLY BE USED ON SLATS WITH END RETENTION.
3. VIEWPORTS USE MAKROLON POLYCARBONATE INSERT WITH CURRENT NOA.
4. END RETENTION LOCKS ARE REQUIRED EVERY OTHER SLAT.
5. VENTED OR UN-VENTED SLATS QUALIFIED.

ASSA ABLOY

4268 WESTROADS DRIVE
WEST PALM BEACH, FL 33407
PH: 1-800-432-2204
FAX: 561-841-0852

TITLE: *55 MMER ROLL SHUTTERS (HVHZ)(IMPACT)*

VIEWPORT AND VENT DETAILS

PREPARED BY:
BUILDING DROPS, INC.
398 E. DANIA BEACH BLVD., STE. 338
DANIA BEACH, FL 33004
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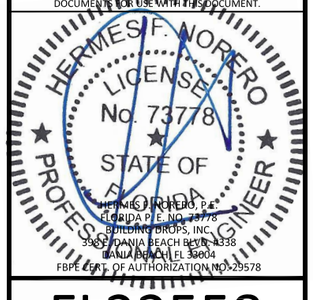


HERMES F. NORIEGA, P.E.
FLORIDA P.E. NO. 73778
BUILDING DROPS, INC.
398 E. DANIA BEACH BLVD. #338
DANIA BEACH, FL 33004
FBPE CERT. OF AUTHORIZATION NO. 29578

FL22558

DATE: 06.06.17

DWG. BY: SM | CHK. BY: HFN

SCALE: NTS

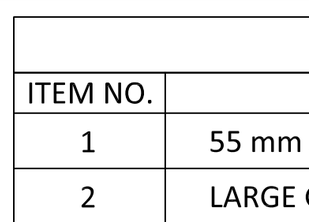
DWG. #: EMS003

SHEET: 22 OF 23

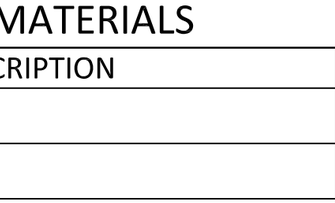
BILL OF MATERIALS

ITEM NO.	DESCRIPTION	MATERIAL
1	55 mm SLAT	6063-T6
2	LARGE GUIDE RAIL	6063-T6
2A	LARGE GUIDE RAIL - ENCLOSED	6063-T6
3	SMALL GUIDE RAIL	6063-T6
3A	SMALL GUIDE RAIL - ENCLOSED	6063-T6
4	COVER CAP	6063-T6
5	SLAT LOCK - 2 PIECE	POLYACETAL
5A	SLAT LOCK - 1 PIECE	POLYACETAL
6	BOTTOM SLAT COVER	6063-T6
7	BOTTOM SLAT	6063-T6

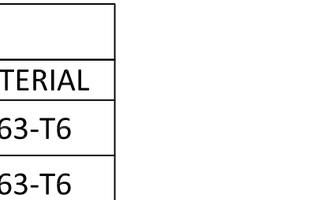
(1) SLAT 6063-T6



(2) LARGE GUIDE RAIL 6063-T6



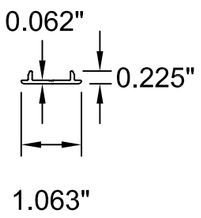
(2A) LARGE GUIDE RAIL ENCLOSED 6063-T6



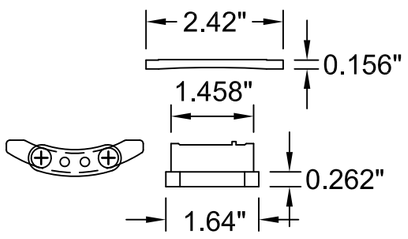
(3) SMALL GUIDE RAIL 6063-T6

(3A) SMALL GUIDE RAIL ENCLOSED 6063-T6

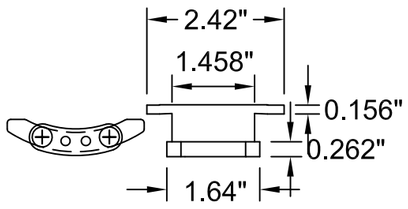
(4) COVER CAP 6063-T6



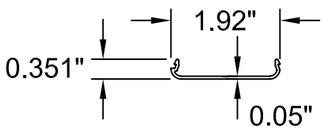
(5) SLAT LOCK - 2 PIECE POLYACETAL



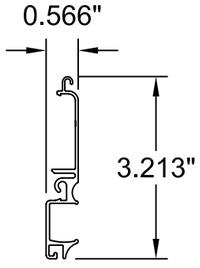
(5A) SLAT LOCK - 1 PIECE POLYACETAL



(6) BOTTOM SLAT COVER



(7) BOTTOM SLAT



ASSA ABLOY

4268 WESTROADS DRIVE
WEST PALM BEACH, FL 33407
PH: 1-800-432-2204
FAX: 561-841-0852

TITLE: *55 MMER ROLL SHUTTERS (HVHZ)(IMPACT)*

BOM & COMPONENTS

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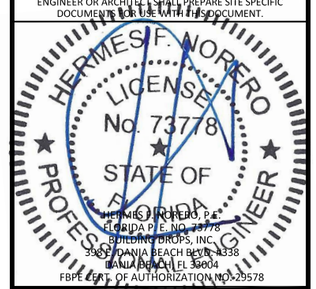

FL22558

DATE: 06.06.17

DWG. BY:	CHK. BY:
SM	HFN

SCALE: NTS

DWG. #: EMS003

SHEET: OF 23

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	INDEX OF DRAWING
SHEET NO.	DESCRIPTION
1	COVER PAGE, GENERAL NOTES
1.1 & 1.2	GLAZING DETAILS
2, 2.1 & 2.2	SINGLE & DOUBLE DOORS TYP. ELEVATIONS & CAPACITY
3 & 3.1	SINGLE & DOUBLE DOORS WITH TRANSOM, ELEVATIONS & CAPACITY CHART
4 THRU 4.2	LOCK OPTIONS & LIMITATIONS
5 & 5.1	HORIZONTAL RAILS, HEAD / SILL DETAILS & TYPICAL ANCHORS
6	VERTICAL STILES, JAMB DETAILS
7	TRANSOM HEAD / SILL / JAMB DETAILS
7.1 & 7.2	WATER INFILTRATION RESISTANT DOOR DETAILS
7.3	ADA COMPLIANT THRESHOLD DETAILS
8	PARTS DRAWINGS
9	BILL OF MATERIALS & HINGE OPTIONS
10	CORNER CONSTRUCTION DETAILS

SERIES ENV-350
ALUMINUM OUTSWING ENTRANCE DOOR

DOORS WITH STANDARD SECTION DETAILS NOT APPROVED FOR INSTALLATIONS WHERE WATER INFILTRATION RESISTANCE IS REQUIRED. SEE SHEET 5 & 6 FOR DETAILS.

DOORS WITH WATER RESISTANT COMPONENTS APPROVED FOR INSTALLATIONS WHERE WATER INFILTRATION RESISTANCE IS REQUIRED. SEE SHEET 7.1 & 7.2 FOR DETAILS.

THESE DOORS MAY BE USED IN CONJUNCTION WITH F.B.C. APPROVED LARGE MISSILE IMPACT RESISTANT STOREFRONT SYSTEM. LOWER DESIGN PRESSURE FROM DOOR OR STOREFRONT APPROVAL WILL APPLY TO ENTIRE SYSTEM.

CODE REQUIREMENTS FOR SAFEGUARDS MUST BE OBSERVED.

THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE 2020 (7TH EDITION) FLORIDA BUILDING CODE INCLUDING HIGH VELOCITY HURRICANE ZONE (HVHZ).

1BY OR 2BY WOOD BUCKS & BUCK FASTENERS BY OTHERS, MUST BE DESIGNED AND INSTALLED ADEQUATELY TO TRANSFER APPLIED PRODUCT LOADS TO THE BUILDING STRUCTURE.

ANCHORS SHALL BE CORROSION RESISTANT, SPACED AS SHOWN ON DETAILS AND INSTALLED PER MANUF'S INSTRUCTIONS. SPECIFIED EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO.

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 2020 (7TH EDITION) FLORIDA BLDG. CODE & ADOPTED STANDARDS.

THIS PRODUCT APPROVAL IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SITE SPECIFIC PROJECT, i.e. LIFE SAFETY OF THIS PRODUCT, ADEQUACY OF STRUCTURE RECEIVING THIS PRODUCT AND SEALING AROUND OPENING FOR WATER INFILTRATION RESISTANCE ETC.
CONDITIONS NOT SHOWN IN THIS DRAWING ARE TO BE ANALYZED SEPARATELY, AND TO BE REVIEWED BY BUILDING OFFICIAL.

MANUFACTURER'S LABEL SHALL BE LOCATED ON A READILY VISIBLE LOCATION IN ACCORDANCE WITH SECTION 1709.9.3 OF FLORIDA BUILDING CODE. LABELING TO COMPLY WITH SECTION 1709.9.2.

SEALANT
ALL DOOR STOP, HINGES, DRIP CAP,FRAME CORNERS, JOINTS, MULLION SEAMS AND PERIMETER OF GLAZING BEAD TO FRAME SEALED WITH SILICONE SEALANT.

INSTRUCTIONS:

USE DRAWING AS FOLLOWS.

1. SELECT SINGLE OR DOUBLE DOORS FROM SHEETS 2 & 2.1 OR SINGLE OR DOUBLE DOORS WITH TRANSOM FROM SHEETS 3 & 3.1.
2. SELECT DOOR AND FRAME SIZE.
3. DETERMINE IF THE DOOR WILL BE INSTALLED IN AN OPENING WHERE THE WATER REQUIREMENT IS NEEDED OR NOT.
4. DETERMINE Dp RATING FROM SHEET 2, 2.1 OR 3 & 3.1.
5. SELECT GLASS TYPE FROM. SHEET 1.1.
6. SELECT LOCK OPTION AND CORRESPONDING MAX. DESIGN LOAD FROM SHEET 4 THRU 4.2.
7. SELECT ANCHORING CONDITION AND CORRESPONDING ANCHOR TYPE AND NUMBER OF ANCHORS FROM SHEET 5.
8. SELECT JAMB OPTIONS FROM SHEET 6.
9. SELECT HINGE OPTION FROM SHEET 9.
10. DETERMINE FINAL DESIGN PRESSURE FOR THE SYSTEM, TAKEN AS THE LOWEST OF ALL Dp VALUES OBTAINED.

DOORS ARE RATED FOR LARGE & SMALL MISSILE IMPACT.
SHUTTERS ARE NOT REQUIRED.

A - CONTRACTOR TO BE RESPONSIBLE FOR THE SELECTION, PURCHASE AND INSTALLATION OF THIS PRODUCT BASED ON THIS PRODUCT EVALUATION PROVIDED HE/SHE DOES NOT DEVIATE FROM THE CONDITIONS DETAILED ON THIS DOCUMENT.

B - THIS PRODUCT EVALUATION DOCUMENT WILL BE CONSIDERED INVALID IF ALTERED BY ANY MEANS.

C - SITE SPECIFIC PROJECTS SHALL BE PREPARED BY A FLORIDA REGISTERED ENGINEER OR ARCHITECT WHICH WILL BECOME THE ENGINEER 0F RECORD(E.O.R.) FOR THE PROJECT AND WHO WILL BE RESPONSIBLE FOR THE PROPER USE OF THE P.E.D. ENGINEER OF RECORD, ACTING AS A DELEGATED ENGINEER TO THE P.E.D. ENGINEER SHALL SUBMIT TO THIS LATTER THE SITE SPECIFIC DRAWINGS FOR REVIEW.

D - THIS P.E.D. SHALL BEAR THE DATE AND ORIGINAL SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER OF RECORD THAT PREPARED IT.

FLORIDA APPROVAL:
FL#20701.5

YIRIS WANG P.E.
FLORIDA REGISTRATION
LIC. #55983
C.A.No. 28877
STATE OF FLORIDA
PROFESSIONAL ENGINEER
LICENSE No 55983

October 18, 2021

MCY ENGINEERING, INC.
GLAZING CONSULTANTS
12781 MIRAMAR PARKWAY. #301 P: 305.271.0117
MIRAMAR, FL 33027
www.MCYEngineering.com mcy@mcyengineering.com

Series ENV-350E Aluminum Outswing Entrance Door - L.M.I

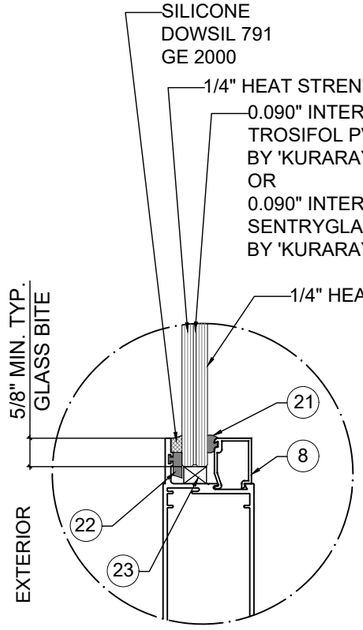
ENVIRALUM INDUSTRIES INC.
5110 N.W. 72 AVENUE BLDG.C
MIAMI, FL.33166
TEL:(305)752-4411 FAX:(305)406-3877

Rev. No.	Date	Drawn By	Description
2	10/09/21	James	REVISION
1	12/30/20	James	FBC 2020 UPDATE

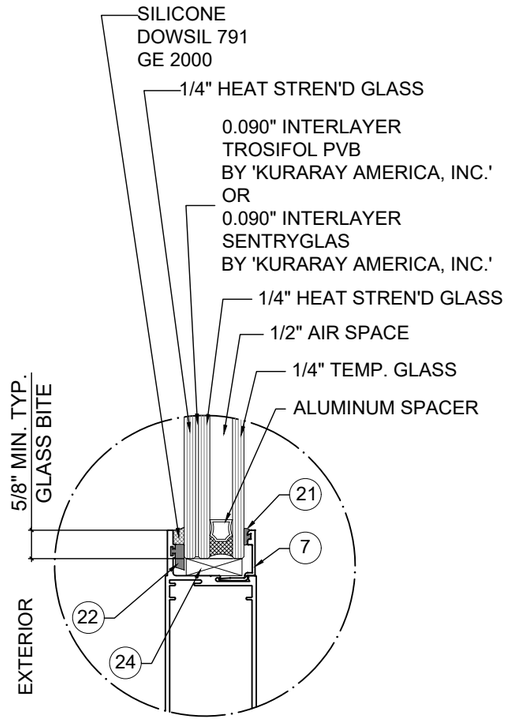
Drawn Date 10/09/2021
Scale

DRAWING NO.
AD20-44

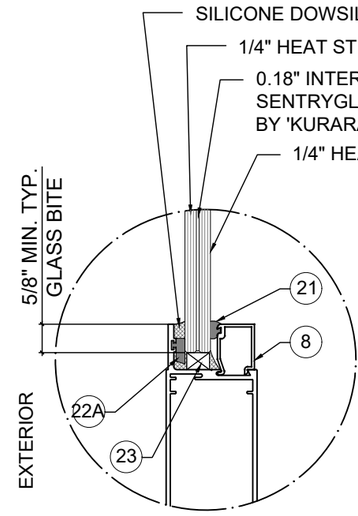
COVER



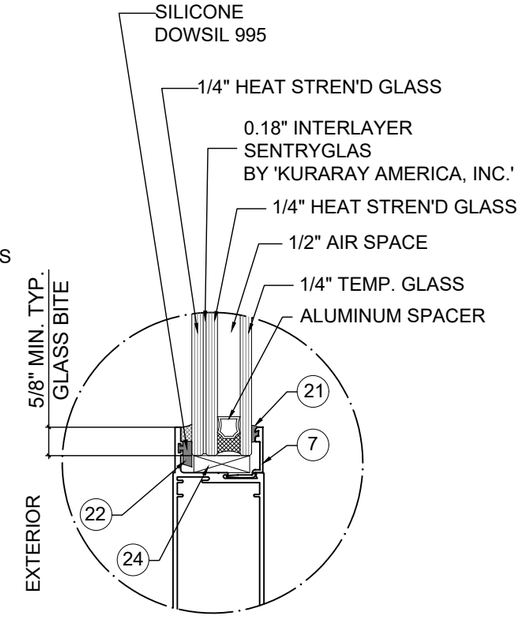
GLASS TYPE 'A'



GLASS TYPE 'A1'



GLASS TYPE 'B'

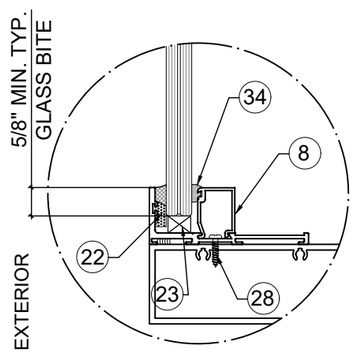


GLASS TYPE 'B1'

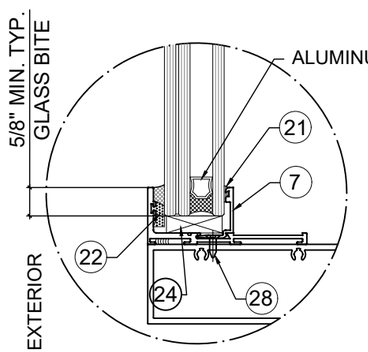
GLASS TYPE 'A' GLASS TYPE 'A1' GLASS TYPE 'B' GLASS TYPE 'B1'

GLAZING DETAILS DOOR
LEVEL 'D' IMPACT

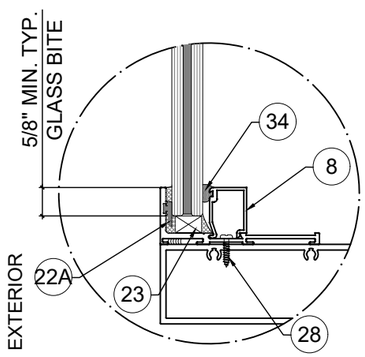
GLAZING DETAILS DOOR
LEVEL 'E' IMPACT



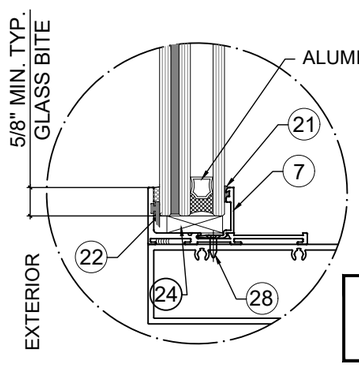
GLASS TYPE 'A'



GLASS TYPE 'A1'



GLASS TYPE 'B'



GLASS TYPE 'B1'

GLAZING DETAILS TRANSOM
LEVEL 'D' IMPACT

1/2" AIR SPACE CONSISTING OF:

SPACER:
ALUMINUM BOX SPACER AROUND
THE PERIMETER OF THE GLASS

PERIMETER SEALANT:
SILICONE
DOWSIL 791
GE 2000

GLAZING DETAILS TRANSOM
LEVEL 'E' IMPACT

FLORIDA APPROVAL:
FL#20701.5

YIRUO WANG P.E.
FLORIDA REGISTRATION
LICENSE
No 55983
STATE OF FLORIDA
PROFESSIONAL ENGINEER
P.E. #55983
C.A.No. 29877
October 18, 2021

MCY ENGINEERING, INC.
GLAZING CONSULTANTS
12781 MIRAMAR PARKWAY. #301 P: 305.271.0117
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Series ENV-350E Aluminum Outswing Entrance Door - L.M.I.

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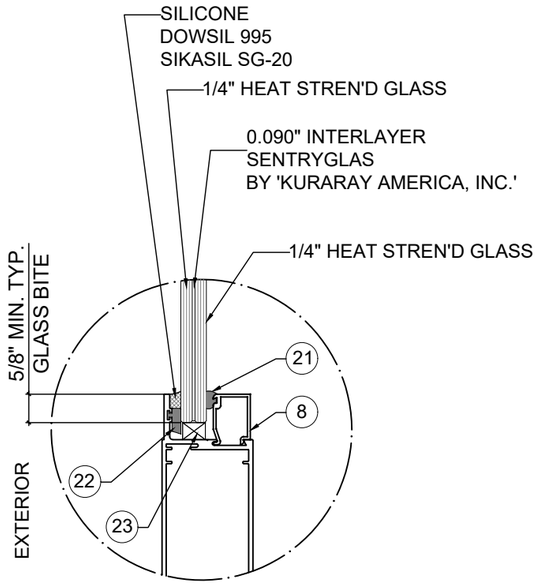
Drawn Date 10/09/2021
Scale

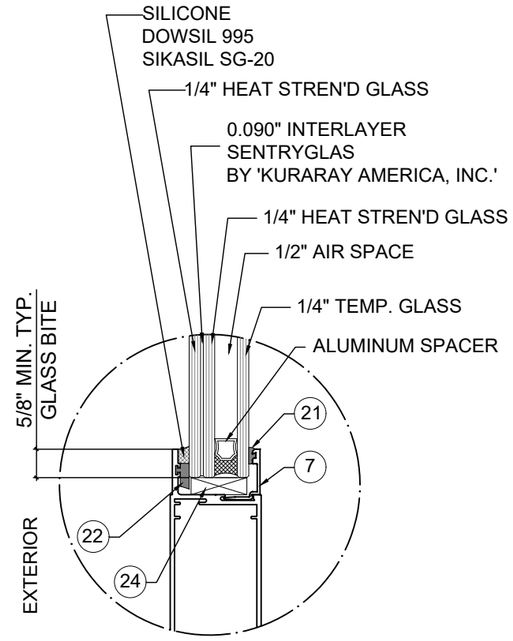
DRAWING NO.
AD20-44

G1

1.1 OF 10



GLASS TYPE 'C'



GLASS TYPE 'C1'

GLAZING DETAILS DOOR
LEVEL 'D' IMPACT

1/2" AIR SPACE CONSISTING OF:

SPACER:

ALUMINUM BOX SPACER AROUND
THE PERIMETER OF THE GLASS

PERIMETER SEALANT:

SILICONE
DOWSIL 791
GE 2000

FLORIDA APPROVAL:
FL#20701.5

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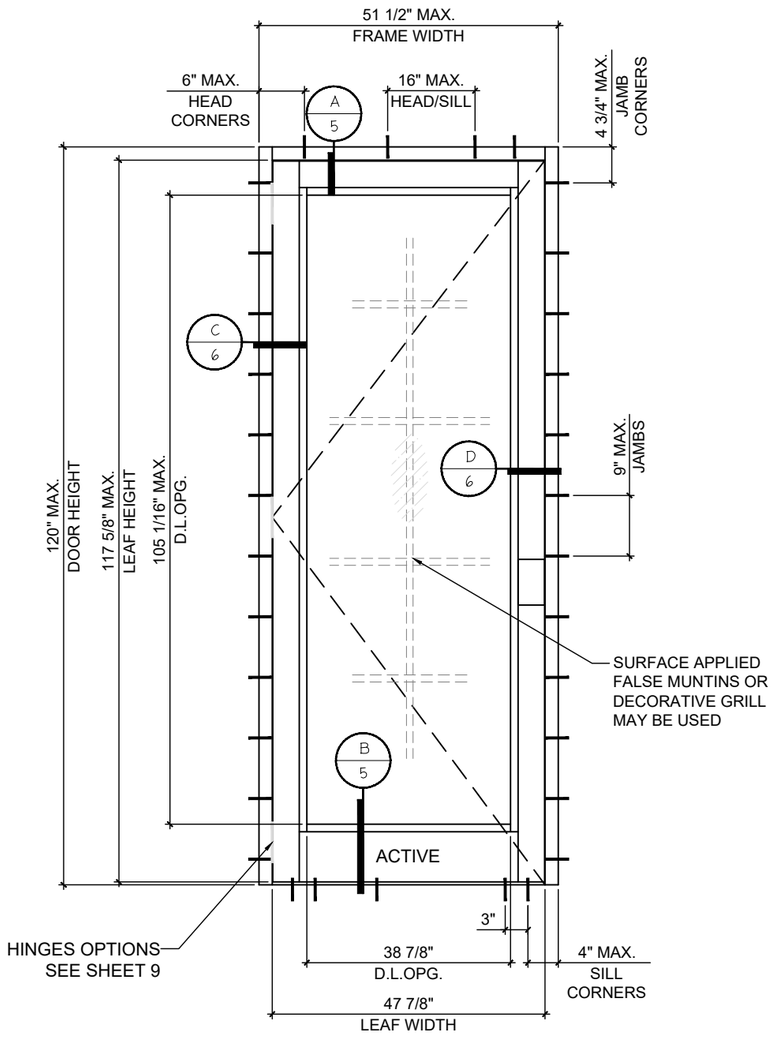
Scale

DRAWING NO.
AD20-44

G2

1.2 OF 10

ANCHORS TYPES	NO. OF ANCHORS AT MTG. STILE ENDS	
	1/4" SHIM	3/8" SHIM
A	6	8
B	6	8
C	5	6
A1	8	-
B1	6	-
C1	6	-



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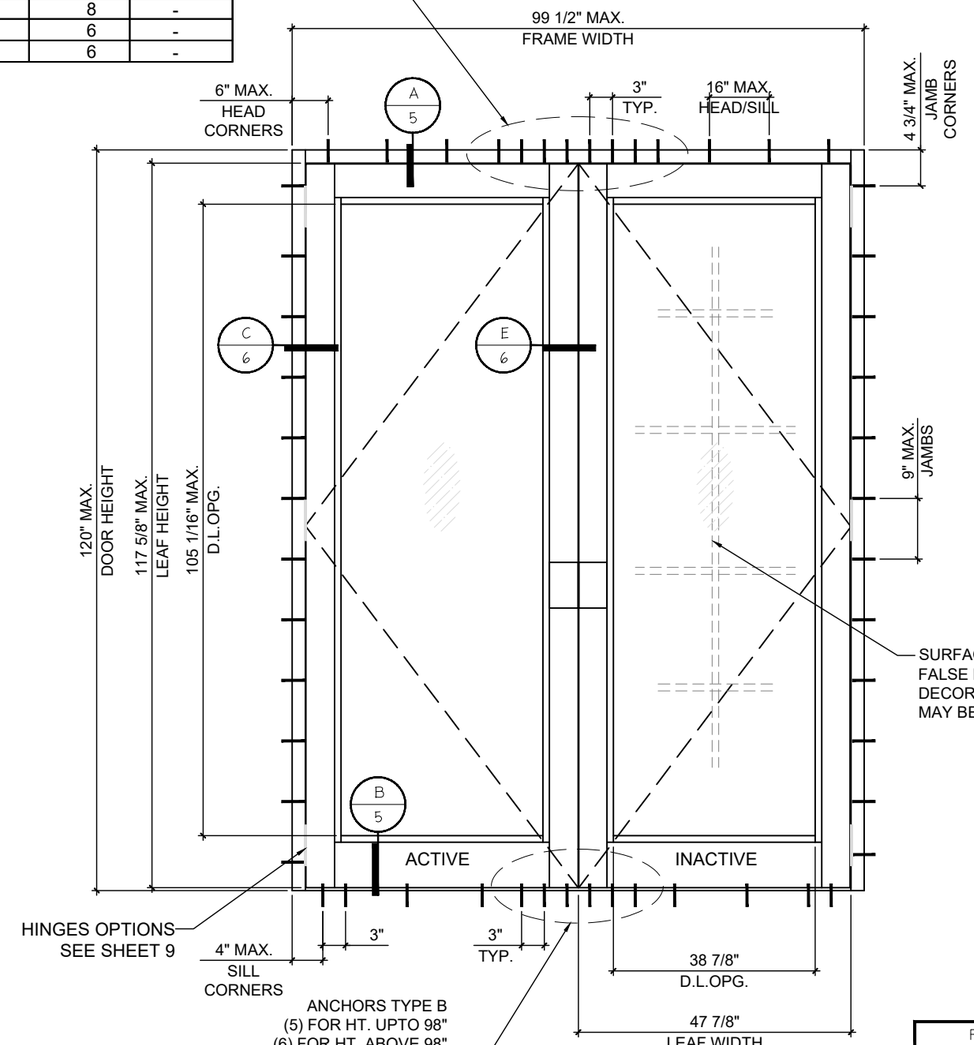

(XX)

LEVEL 'D' IMPACT

DESIGN PRESSURE RATING (GLASS TYPE 'A' & 'A1')			REMARKS
	WHERE WATER INFILTRATION REQUIREMENT IS NEEDED	WHERE WATER INFILTRATION REQUIREMENT IS NOT NEEDED	SEE SHEETS 4 & 4.1 FOR LOCK OPTIONS AND LIMITATIONS
POSITIVE	+60 PSF	+100 PSF	
NEGATIVE	-100 PSF	-100 PSF	
	WITH WATER RESISTANT COMPONENTS ADDED SEE SHEETS 7.1 & 7.2	WITH STANDARD DOOR SECTIONS SEE SHEETS 5 & 6	

NOTE:
GLASS CAPACITIES ON THIS SHEET ARE BASED ON ASTM E1300-09 (3 SEC. GUSTS) AND FLORIDA BUILDING COMMISSION DECLARATORY STATEMENT DCA05-DEC-219

GLASS D.L.O. DIMS.
D.L.O. HEIGHT = DOOR FRAME HEIGHT - 14.9375"
D.L.O. WIDTH (X DOORS) = FRAME WIDTH - 12.8125"
D.L.O. WIDTH (XX DOORS) = (FRAME WIDTH - 21.875")/2

FLORIDA APPROVAL:
FL#20701.5

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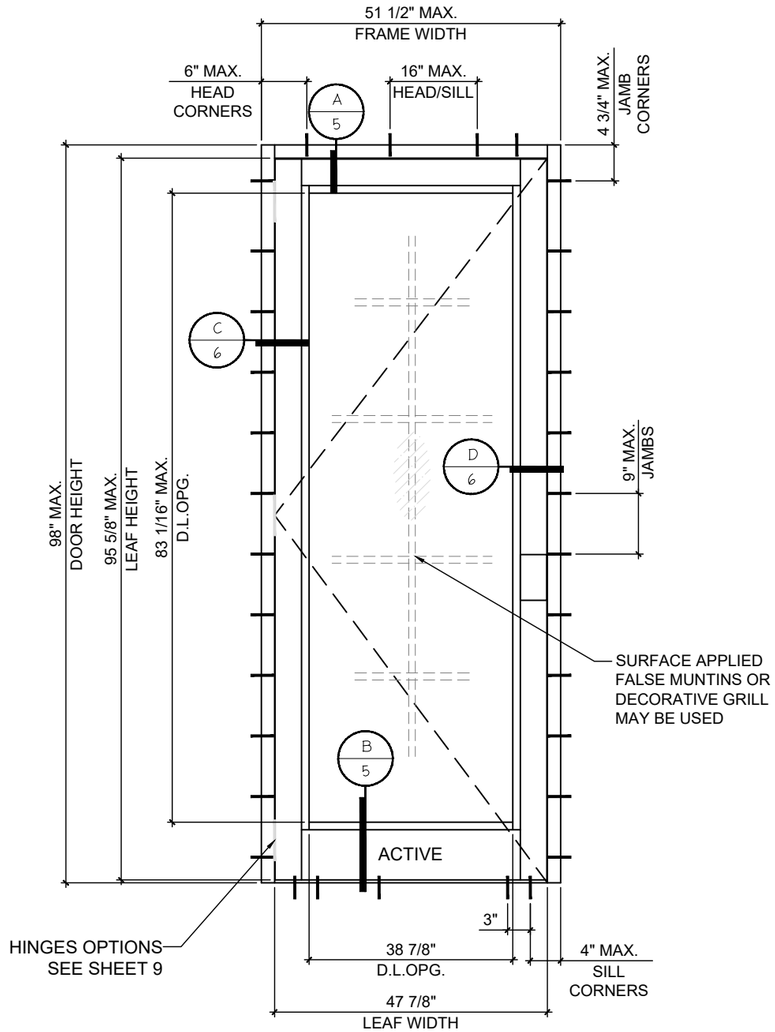
Scale

DRAWING NO.
AD20-44

E1

ANCHORS TYPES	NO. OF ANCHORS AT MTG. STILE ENDS	
	1/4" SHIM	3/8" SHIM
A	5	7
B	5	7
C	4	5
A1	7	-
B1	5	-
C1	5	-



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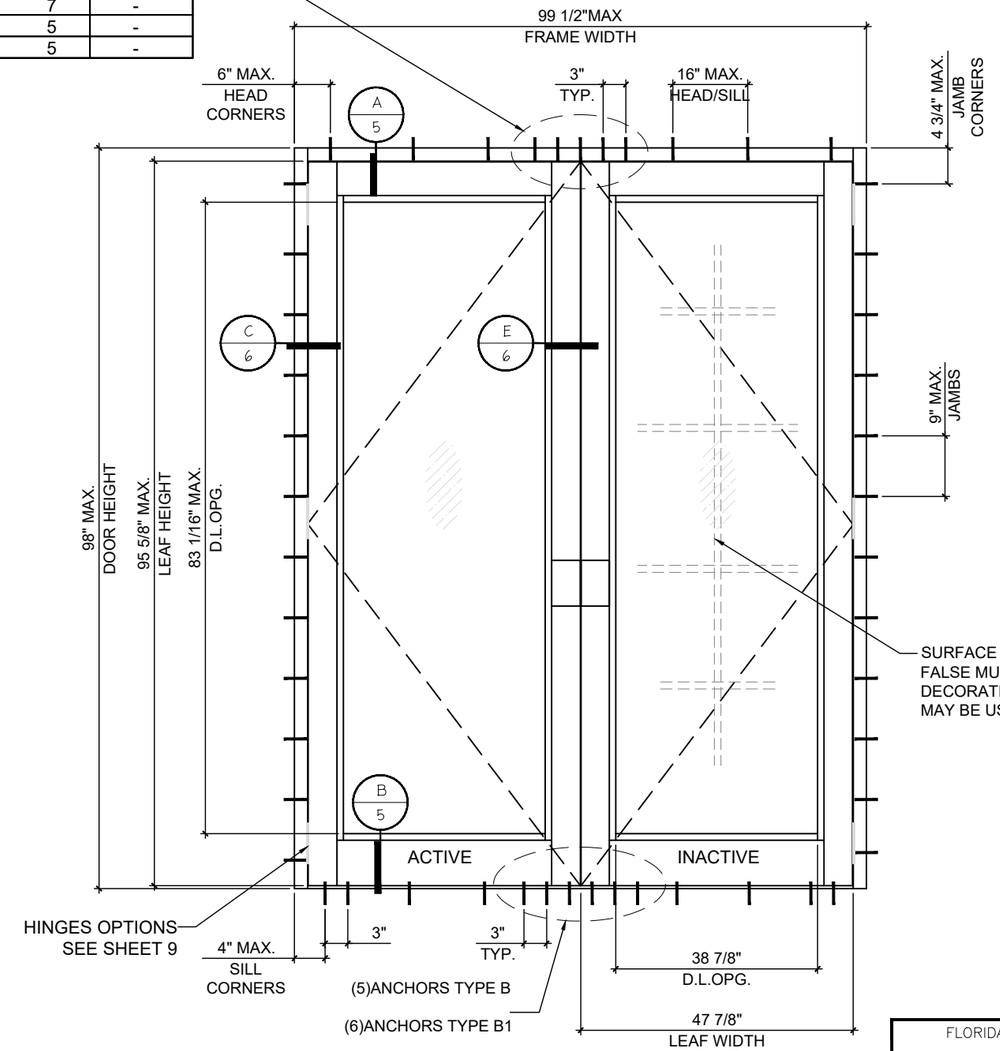

(XX)

LEVEL 'E' IMPACT

DESIGN PRESSURE RATING (GLASS TYPE 'B' & 'B1')			REMARKS
	WHERE WATER INFILTRATION REQUIREMENT IS NEEDED	WHERE WATER INFILTRATION REQUIREMENT IS NOT NEEDED	SEE SHEETS 4.2 FOR LOCK OPTIONS AND LIMITATIONS
POSITIVE	+60 PSF	+100 PSF	
NEGATIVE	-100 PSF	-100 PSF	
	WITH WATER RESISTANT COMPONENTS ADDED SEE SHEETS 7.1 & 7.2	WITH STANDARD DOOR SECTIONS SEE SHEETS 5 & 6	

NOTE:
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D.L.O. HEIGHT = DOOR FRAME HEIGHT - 14.9375"
D.L.O. WIDTH (X DOORS) = FRAME WIDTH - 12.8125"
D.L.O. WIDTH (XX DOORS) = (FRAME WIDTH - 21.875")/2

FLORIDA APPROVAL:
FL#20701.5

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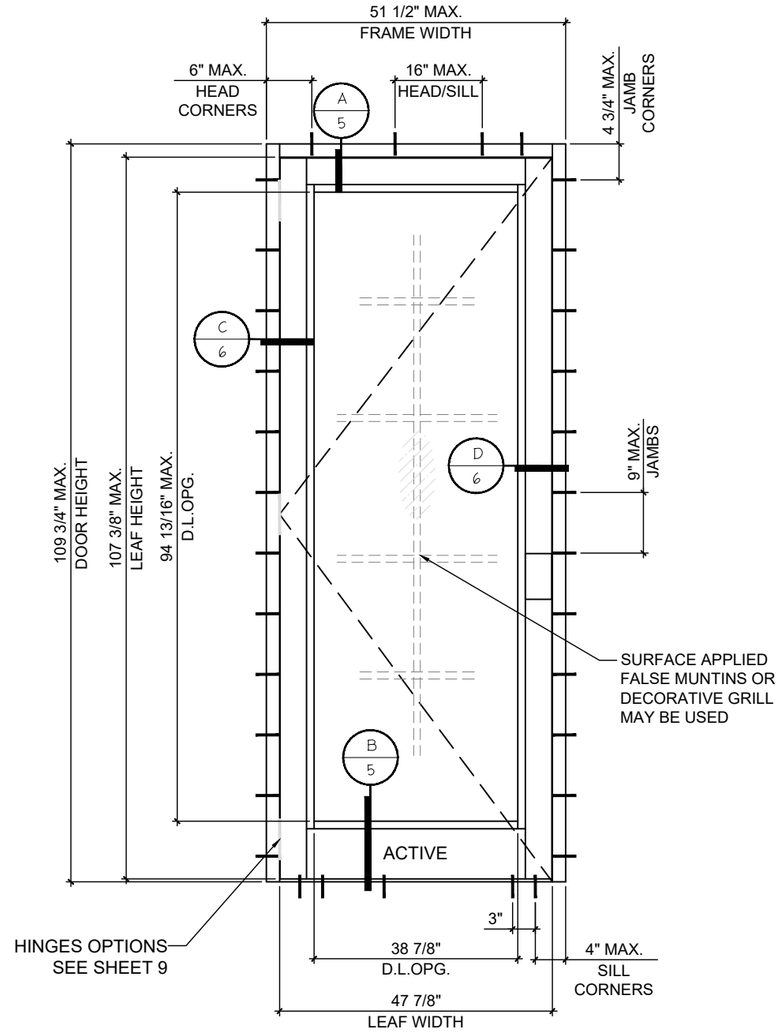
DRAWING NO.
AD20-44

E2

2.1 OF 10

ANCHORS TYPES	NO. OF ANCHORS AT MTG. STILE ENDS	
	1/4" SHIM	3/8" SHIM
A	8	10
B	6	10
C	6	8
A1	11	-
B1	7	-
C1	7	-



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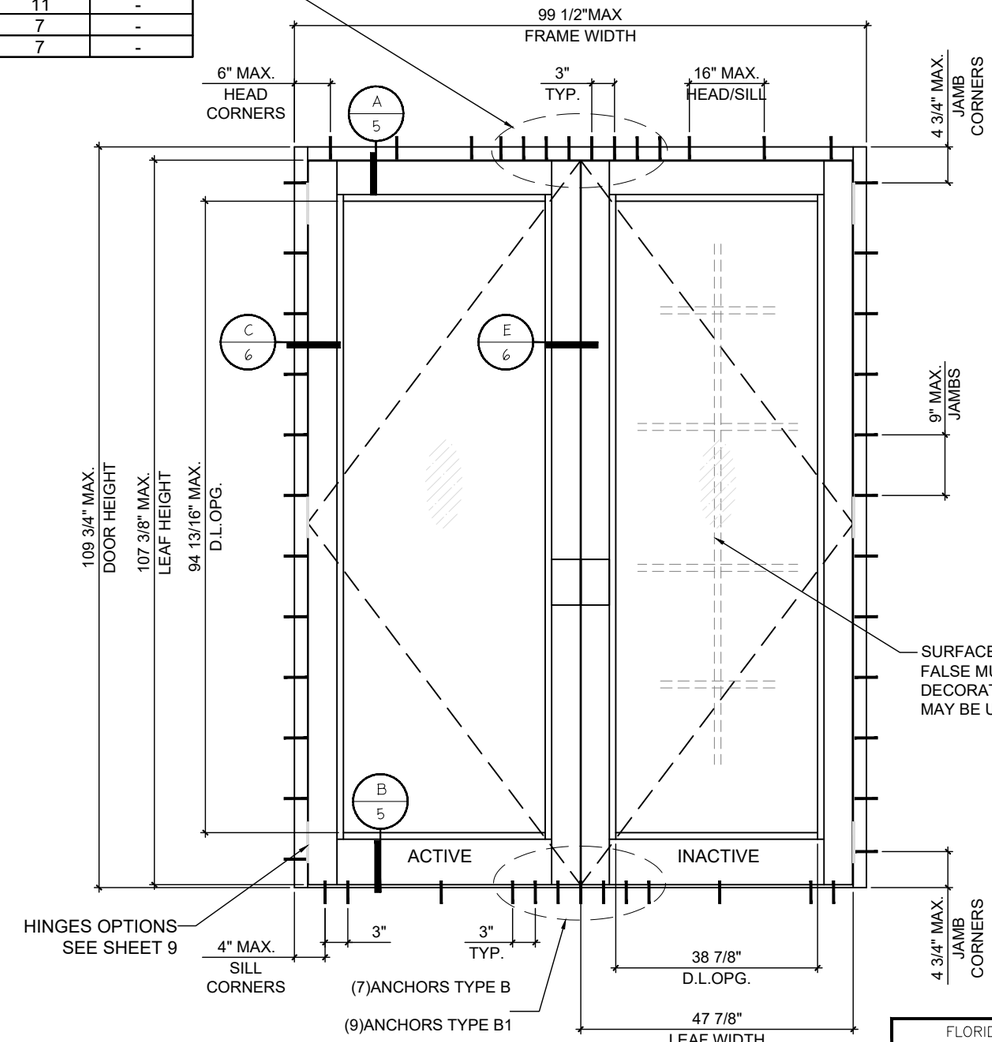

(XX)

LEVEL 'D' IMPACT

DESIGN PRESSURE RATING (GLASS TYPE 'C' & 'C1')		REMARKS
	WHERE WATER INFILTRATION REQUIREMENT IS NOT NEEDED	SEE SHEETS 4 & 4.1 FOR LOCK OPTIONS AND LIMITATIONS
POSITIVE	+100 PSF	
NEGATIVE	-144 PSF	
	WITH STANDARD DOOR SECTIONS SEE SHEETS 5 & 6	

NOTE:
GLASS CAPACITIES ON THIS SHEET ARE BASED ON ASTM E1300-09 (3 SEC. GUSTS) AND FLORIDA BUILDING COMMISSION DECLARATORY STATEMENT DCA05-DEC-219

GLASS D.L.O. DIMS.
D.L.O. HEIGHT = DOOR FRAME HEIGHT - 14.9375"
D.L.O. WIDTH (X DOORS) = FRAME WIDTH - 12.8125"
D.L.O. WIDTH (XX DOORS) = (FRAME WIDTH - 21.875")/2

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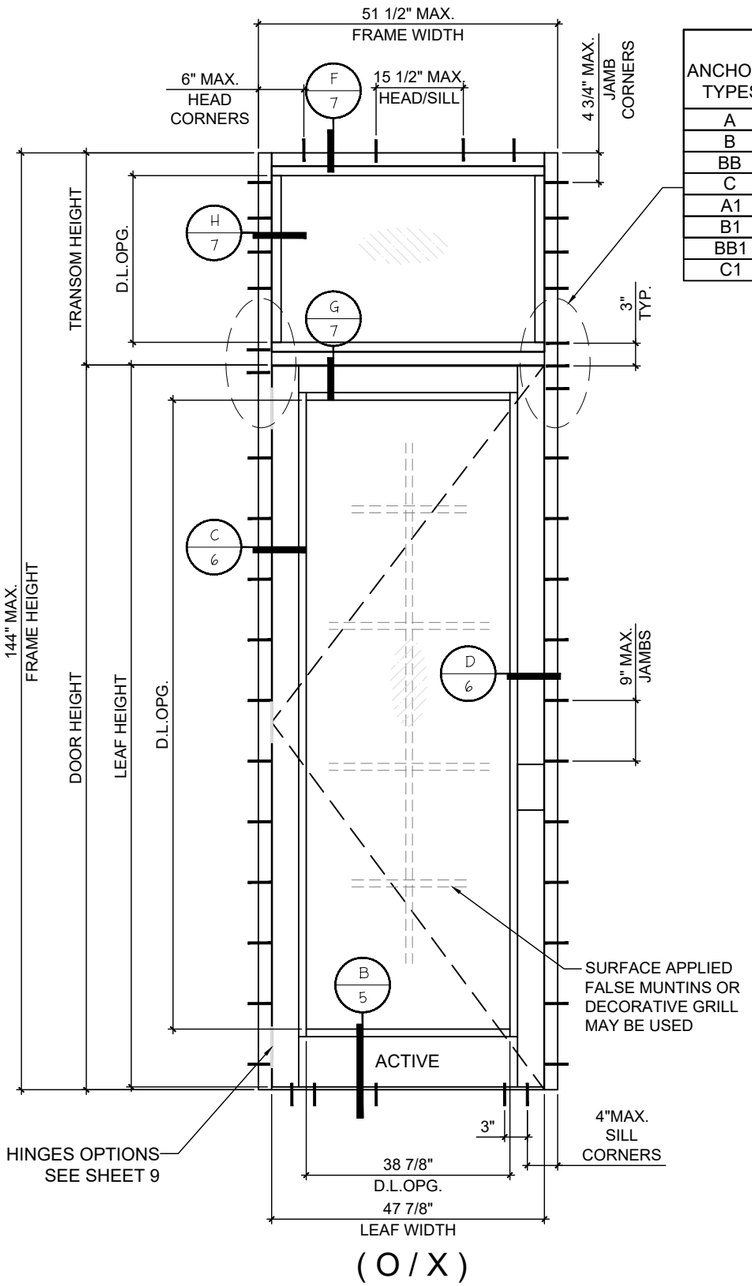
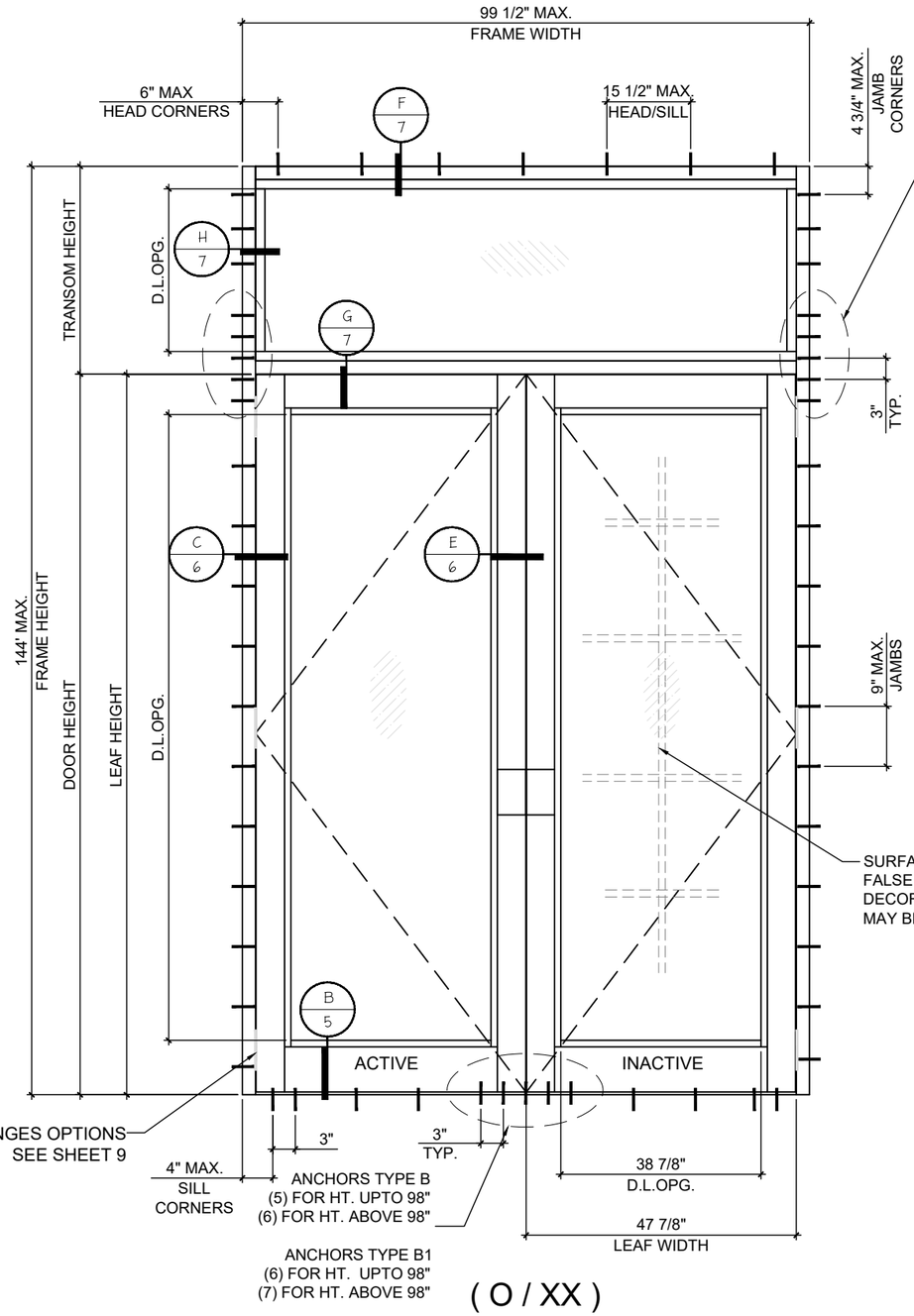
DRAWING NO.
AD20-44

E3



(O / X)

ANCHORS TYPES	NO. OF ANCHORS AT TRANSOM ENDS	
	1/4" SHIM	3/8" SHIM
A	2	2
B	2	2
BB	2	3
C	2	2
A1	3	-
B1	2	-
BB1	3	-
C1	2	-



(O / XX)

ANCHORS TYPES	NO. OF ANCHORS AT TRANSOM ENDS	
	1/4" SHIM	3/8" SHIM
A	5	4
B	3	4
BB	5	5
C	3	3
A1	6	-
B1	3	-
BB1	6	-
C1	3	-

DOOR WITH TRANSOM.

SEE SHEET 3.1 FOR TRANSOM (HORIZ. MULLION) DESIGN LOAD CAPACITY.

FLORIDA APPROVAL:
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AD20-44

E4

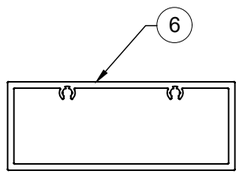
3 OF 10

SINGLE OR DOUBLE DOORS WITH TRANSOM CAPACITY– PSF

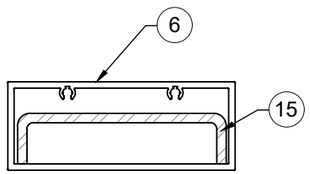
FRAME/ TRANSOM WIDTH (INCH)		DOOR HEIGHT (INCH)	TRANSOM HEIGHT (INCH)	INSIDE GLAZING METHOD FOR LEVEL D & LEVEL E		OUTSIDE GLAZING METHOD FOR LEVEL D
				WITHOUT REIN. (PSF)	WITH REIN. (PSF)	WITHOUT REIN. (PSF)
37–3/4 (X)	75–1/2 (XX)	80	24	78.3	100.0	75.0
			30	72.2	100.0	72.2
			36	66.7	100.0	66.7
			42	61.7	95.7	61.7
			48	57.2	87.8	57.2
40–3/4 (X)	81–1/2 (XX)		24	65.7	100.0	65.7
			30	60.3	95.1	60.3
			36	55.4	86.4	55.4
			42	50.9	78.6	50.9
			48	46.9	71.4	46.9
43–3/4 (X)	87–1/2 (XX)		24	55.7	88.7	55.7
			30	50.7	79.9	50.7
			36	46.3	72.0	46.3
			42	42.4	64.8	42.4
			48	38.8	58.3	38.8
46–3/4 (X)	93–1/2 (XX)		24	47.5	75.6	47.5
			30	43.0	67.5	43.0
			36	39.0	60.2	39.0
			42	35.4	53.6	35.4
49–3/4 (X)	99–1/2 (XX)		24	40.8	64.8	40.8
			30	36.7	57.2	36.7
			36	33.0	50.5	33.0
37–3/4 (X)	75–1/2 (XX)	84	24	75.4	100.0	75.0
			30	69.7	100.0	69.7
			36	64.4	100.0	64.4
			42	59.7	92.7	59.7
			48	55.4	85.1	55.4
40–3/4 (X)	81–1/2 (XX)		24	63.3	100.0	63.3
			30	58.1	91.8	58.1
			36	53.5	83.5	53.5
			42	49.3	76.1	49.3
			48	45.5	69.3	45.5
43–3/4 (X)	87–1/2 (XX)		24	53.6	85.4	53.6
			30	49.0	77.1	49.0
			36	44.8	69.6	44.8
			42	41.0	62.8	41.0
			48	37.6	56.6	37.6
46–3/4 (X)	93–1/2 (XX)		24	45.7	72.8	45.7
			30	41.5	65.1	41.5
			36	37.7	58.2	37.7
			42	34.3	51.9	34.3
49–3/4 (X)	99–1/2 (XX)		24	39.3	62.4	39.3
			30	35.4	55.2	35.4
			36	31.9	48.8	31.9
37–3/4 (X)	75–1/2 (XX)	90	24	71.5	100.0	71.5
			30	66.2	100.0	66.2
			36	61.4	96.2	61.4
			42	57.0	88.5	57.0
			48	53.0	81.4	53.0
40–3/4 (X)	81–1/2 (XX)		24	60.0	95.6	60.0
			30	55.2	87.2	55.2
			36	51.0	79.6	51.0
			42	47.1	72.6	47.1
			48	43.5	66.3	43.5
43–3/4 (X)	87–1/2 (XX)		24	50.8	80.9	50.8
			30	46.5	73.2	46.5
			36	42.7	66.3	42.7
			42	39.2	59.9	39.2
46–3/4 (X)	93–1/2 (XX)		24	43.3	69.0	43.3
			30	39.5	61.9	39.5
			36	35.9	55.1	35.9
49–3/4 (X)	99–1/2 (XX)		24	37.2	59.1	37.2
			30	33.6	52.5	33.6

SINGLE OR DOUBLE DOORS WITH TRANSOM CAPACITY– PSF

FRAME/ TRANSOM WIDTH (INCH)		DOOR HEIGHT (INCH)	TRANSOM HEIGHT (INCH)	INSIDE GLAZING METHOD FOR LEVEL D & LEVEL E		OUTSIDE GLAZING METHOD FOR LEVEL D
				WITHOUT REIN. (PSF)	WITH REIN. (PSF)	WITHOUT REIN. (PSF)
37–3/4 (X)	75–1/2 (XX)	96	24	67.9	100.0	67.9
			30	63.0	99.7	63.0
			36	58.6	91.8	58.6
			42	54.5	84.6	54.5
			48	50.8	78.0	50.8
40–3/4 (X)	81–1/2 (XX)		24	57.0	90.9	57.0
			30	52.6	83.1	52.6
			36	48.7	75.9	48.7
			42	45.0	69.5	45.0
			48	41.7	63.5	41.7
43–3/4 (X)	87–1/2 (XX)		24	48.2	76.9	48.2
			30	44.3	69.7	44.3
			36	40.7	63.2	40.7
46–3/4 (X)	93–1/2 (XX)		24	41.2	65.5	41.2
			30	37.6	58.9	37.6
49–3/4 (X)	99–1/2 (XX)		24	35.4	56.1	35.4
37–3/4 (X)	75–1/2 (XX)	102	24	64.7	100.0	64.7
			30	60.2	95.1	60.2
			36	56.0	87.8	56.0
			42	52.3	81.1	52.3
40–3/4 (X)	81–1/2 (XX)		24	54.2	86.5	54.2
			30	50.2	79.8	50.2
			36	46.5	72.6	46.5
			42	43.2	66.6	43.2
43–3/4 (X)	87–1/2 (XX)		24	45.9	73.2	45.9
			30	42.3	66.6	42.3
46–3/4 (X)	93–1/2 (XX)		24	39.2	62.4	39.2
37–3/4 (XX)	75–1/2 (XX)	108	24	61.7	98.5	61.7
			30	57.5	91.0	57.5
			36	53.7	84.1	53.7
40–3/4 (X)	81–1/2 (XX)		24	51.8	82.6	51.8
			30	48.0	75.8	48.0
			36	44.6	69.6	44.6
43–3/4 (X)	87–1/2 (XX)		24	43.9	69.9	43.9



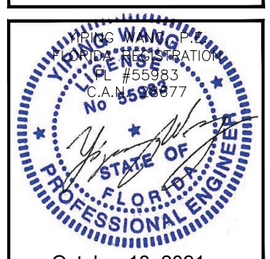
TRANSOM WITHOUT REINF.



TRANSOM WITH REINF.

NOTE:
GLASS CAPACITIES ON THIS ARE
BASED ON ASTM E1300-09 (3 SEC . GUSTS)
AND FLORIDA BUILDING COMMISSION
DECLARATORY STATEMENT DCA05-DEC-219

FLORIDA APPROVAL:
FL#20701.5



October 18, 2021

MCY ENGINEERING, INC.
GLAZING CONSULTANTS
12781 MIRAMAR PARKWAY. #301 P: 305.271.0117
MIRAMAR, FL 33027
www.MCYEngineering.com mcy@mcyengineering.com

Series ENV-350E Aluminum Outswing Entrance Door - L.M.I

ENVIRALUM INDUSTRIES INC.
5110 N.W. 72 AVENUE BLDG.C
MIAMI, FL.33166
TEL.(305)752-4411 FAX.(305)406-3877

Rev. No.	Date	Drawn By	Description
2	10/09/21	James	REVISION
1	12/30/20	James	FBC 2020 UPDATE

Drawn Date 10/09/2021

Scale

DRAWING NO.
AD20–44

CHART

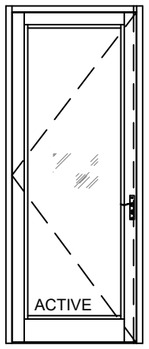
3.1 OF 10

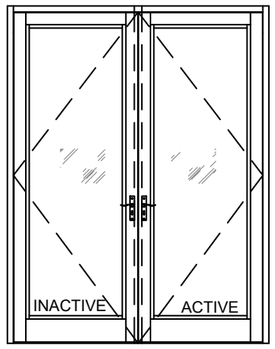
LOCK OPTIONS: LEVEL 'D' IMPACT

STD.3 POINT LOCK (LEVEL 'D' IMPACT ONLY)
MAX. FRAME HEIGHT = 120 IN.
MAX. LEAF WIDTH = 48 IN.
MAX. DESIGN LOAD = 100 PSF

ACTIVE LEAF:
3 POINT LOCK SYSTEM BY 'INTERLOCK' AT 40" FROM BOTTOM
HANDLE ACTIVATES DEAD BOLT AND SHOOT BOLTS ENGAGING AT HEAD AND SILL
KEY OPERATED ON EXTERIOR AND THUMB TURN ON INTERIOR
FASTENED TO ACTIVE LEAF LOCK STILE WITH
(2) #8-32X2" OH MS

INACTIVE LEAF:
2 POINT LOCK SYSTEM BY 'INTERLOCK' AT 40" FROM BOTTOM
HANDLE ACTIVATES SHOOT BOLTS ENGAGING AT HEAD AND SILL
FASTENED TO INACTIVE LEAF LOCK STILE WITH
(2) #8-32 X2" OH MS

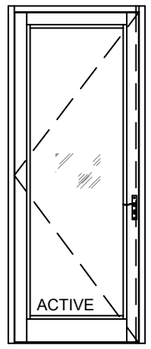


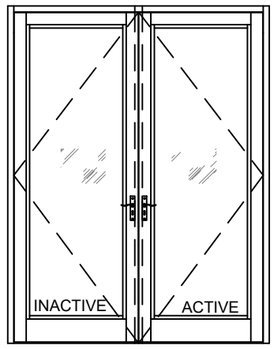


STD.3 POINT LOCK (LEVEL 'D' IMPACT ONLY)
MAX. FRAME HEIGHT = 120 IN.
MAX. LEAF WIDTH = 48 IN.
MAX. DESIGN LOAD = 100 PSF

ACTIVE LEAF:
THREE POINT LOCK SYSTEM SERIES 2222 BY 'REGENT HARDWARE'
KEY OPERATED FROM EXTERIOR AND THUMB TURN ON INTERIOR WITH CONCEALED FLUSH BOLTS AT TOP & BOTTOM OF LOCK STILE
LOCATED AT 40" FROM BOTTOM OF LEAF

INACTIVE LEAF:
MANUALLY OPERATED TWO POINT LOCK SYSTEM BY 'REGENT HARDWARE' WITH CONCEALED FLUSH BOLTS AT TOP & BOTTOM OF LOCK STILE
FASTENED WITH
(2) #8-32 X 1/4" PH MACHINE SCREWS



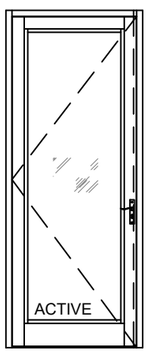


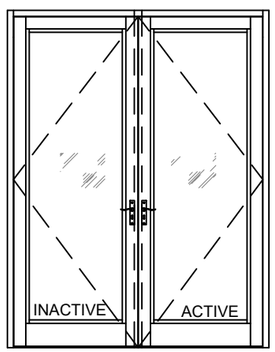
STD.3 POINT LOCK (LEVEL 'D' IMPACT ONLY)
MAX. FRAME HEIGHT = 109-3/4 IN.
MAX. LEAF WIDTH = 48 IN.
MAX. DESIGN LOAD = 144 PSF

FRAME HEIGHT DOES INCLUDE OPTIONAL TRANSOM

MULTI- POINT LOCK (LEVEL 'D' IMPACT ONLY)
MAX. FRAME HEIGHT = 109-3/4 IN.
MAX. LEAF WIDTH = 48 IN.
MAX. DESIGN LOAD = 144 PSF

ACTIVE & INACTIVE LEAF:
MULTI POINT LOCK SYSTEM '7000 SERIES' BY 'SARGENT'
LEVER TYPE HANDLE WITH KEY CYLINDER ON EXTERIOR AND INTERIOR, LOCATED AT 40" FROM BOTTOM, ACTIVATES CONCEALED FLUSH BOLTS ENGAGING AT HEAD AND SILL

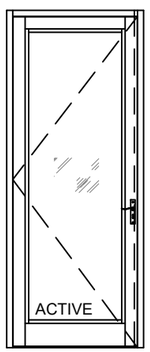


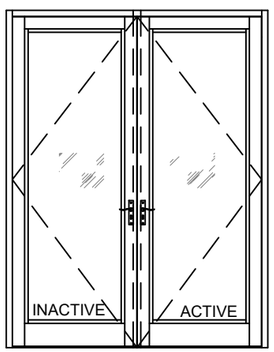


STD.3 POINT LOCK (LEVEL 'D' IMPACT ONLY)
MAX. FRAME HEIGHT = 120 IN.
MAX. LEAF WIDTH = 48 IN.
MAX. DESIGN LOAD = 100 PSF

ACTIVE LEAF:
KEY OPERATED THREE POINT LOCK SYSTEM BY 'ADAMS RITE' WITH CONCEALED FLUSH BOLTS AT TOP & BOTTOM OF LOCK STILE AND A THUMB TURN ON THE INTERIOR, LOCATED AT 40" FROM BOTTOM OF PANEL
FASTENED WITH
(2) #12-24 X 1/2" FH MACHINE SCREWS

INACTIVE LEAF:
MANUALLY OPERATED TWO POINT LOCK SYSTEM BY 'ADAMS RITE' WITH CONCEALED FLUSH BOLTS AT TOP & BOTTOM OF LOCK STILE
FASTENED WITH
(2) #8-32 X 1/4" PH MACHINE SCREWS





STD.3 POINT LOCK (LEVEL 'D' IMPACT ONLY)
MAX. FRAME HEIGHT = 109-3/4 IN.
MAX. LEAF WIDTH = 48 IN.
MAX. DESIGN LOAD = 144 PSF

FLORIDA APPROVAL:
FL#20701.5

YIPING WANG
FLORIDA REGISTRATION
LIC. #55983
C.A.No. 32877
STATE OF FLORIDA
PROFESSIONAL ENGINEER
October 18, 2021

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Drawn Date 10/09/2021
Scale

DRAWING NO.
AD20-44

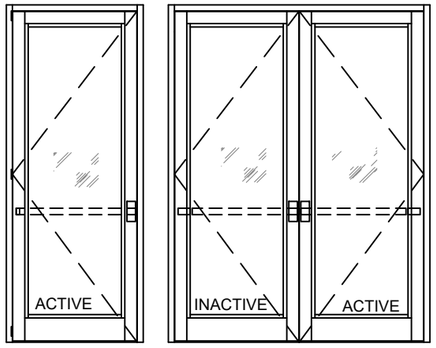
CONFIGURATION

LOCK OPTIONS: LEVEL 'D' IMPACT

PANIC EXIT DEVICE (LEVEL 'D' IMPACT ONLY)
MAX. FRAME HEIGHT = 98 IN.
MAX. LEAF WIDTH = 48 IN.
MAX. DESIGN LOAD = 75 PSF

ACTIVE & INACTIVE LEAF:

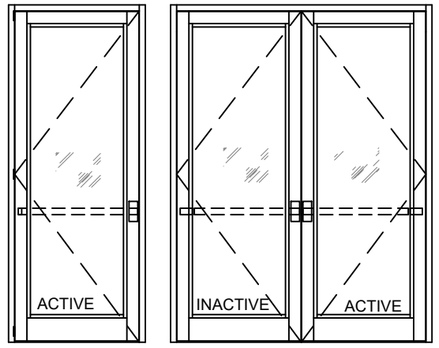
CONCEALED VERTICAL ROD PANIC EXIT DEVICE # 5770 BY
'REGENT HARDWARE' LOCATED AT 40"
FROM SILL AT EACH LEAF.
FASTENED WITH .
(1) #10 X 3/8" FH SELF DRILLING SCREW AT ONE END AND
(2) #10 X 1/2" FH SELF DRILLING SCREWS AT OTHER END



PANIC EXIT DEVICE (LEVEL 'D' IMPACT ONLY)
MAX. FRAME HEIGHT = 120 IN.
MAX. LEAF WIDTH = 48 IN.
MAX. DESIGN LOAD = 100 PSF

ACTIVE & INACTIVE LEAF:

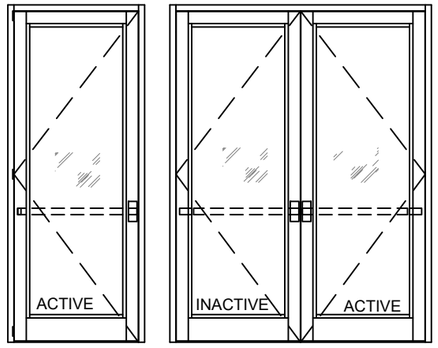
CONCEALED VERTICAL ROD PANIC EXIT DEVICE # G86 OR EX76
BY 'ADAMS RITE' LOCATED AT 40" FROM SILL
AT EACH LEAF.
FASTENED WITH
(2) #10-32 X 3/4" FH MACHINE SCREWS AT ONE END AND
(2) #10-24 X 1/2" FH MACHINE SCREWS AT OTHER END



PANIC EXIT DEVICE (LEVEL 'D' IMPACT ONLY)
MAX. FRAME HEIGHT = 120 IN.
MAX. LEAF WIDTH = 48 IN.
MAX. DESIGN LOAD = 100 PSF

ACTIVE & INACTIVE LEAF:

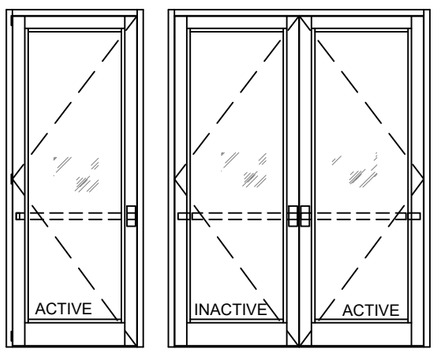
CONCEALED VERTICAL ROD PANIC EXIT DEVICE PRECISION 2800
BY 'STANLEY' LOCATED AT 40" FROM SILL
AT EACH LEAF.
FASTENED WITH
(2) #10-32 X 3/4" FH MACHINE SCREWS AT ONE END AND
(2) #10-24 X 1/2" FH MACHINE SCREWS AT OTHER END



PANIC EXIT DEVICE (LEVEL 'D' IMPACT ONLY)
MAX. FRAME HEIGHT = 109-3/4 IN.
MAX. LEAF WIDTH = 48 IN.
MAX. DESIGN LOAD = 144 PSF

ACTIVE & INACTIVE LEAF:

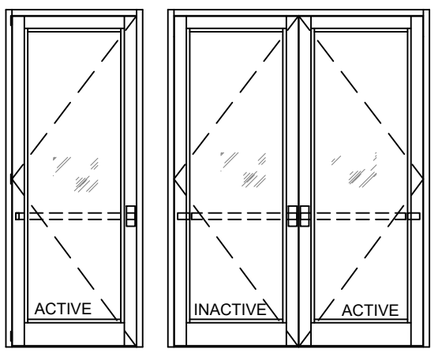
CONCEALED VERTICAL ROD PANIC EXIT DEVICE SERIES 8400 / 8600
BY 'SARGENT ASSA ABLOY' LOCATED AT 40"
FASTENED WITH .
(2) #12 X 1" HH SELF DRILLING SCREW AT ONE END AND
(2) #14 X 3/4" PH SELF DRILLING SCREWS AT OTHER END



PANIC EXIT DEVICE (LEVEL 'D' IMPACT ONLY)
MAX. FRAME HEIGHT = 98 IN.
MAX. LEAF WIDTH = 48 IN.
MAX. DESIGN LOAD = 100 PSF

ACTIVE & INACTIVE LEAF:

'VON DUPRIN 98 / 99' CONCEALED VERTICAL ROD PANIC EXIT DEVICE
LOCATED AT 40" FROM BOTTOM
FASTENED TO ACTIVE LEAF WITH WITH
(6) 10-24 X 1-1/8" PH MS



FLORIDA APPROVAL:
FL#20701.5

ERIC WANG, P.E.
FLORIDA REGISTRATION
LIC. #55983
C.A.No. 28877

STATE OF FLORIDA PROFESSIONAL ENGINEER
YIRONG WANG LICENSE No 55983

October 18, 2021

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Scale

DRAWING NO.
AD20-44

CONFIGURATION

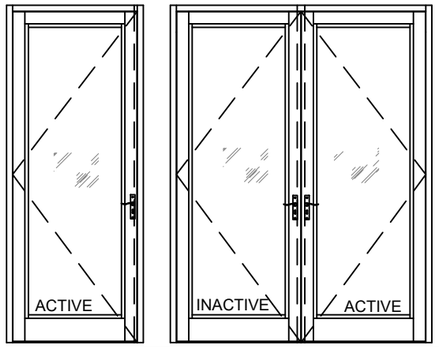
4.1 OF 10

LOCK OPTIONS: LEVEL 'E' IMPACT

STD.3 POINT LOCK (LEVEL 'E' IMPACT)
MAX. FRAME HEIGHT =98 IN.
MAX. LEAF WIDTH = 48 IN.
MAX. DESIGN LOAD = 100 PSF

ACTIVE LEAF:
THREE POINT LOCK SYSTEM SERIES 2222 BY
'REGENT HARDWARE'
KEY OPERATED FROM EXTERIOR AND THUMB TURN
ON INTERIOR WITH CONCEALED FLUSH BOLTS
AT TOP & BOTTOM OF LOCK STILE
LOCATED AT 40" FROM BOTTOM OF LEAF

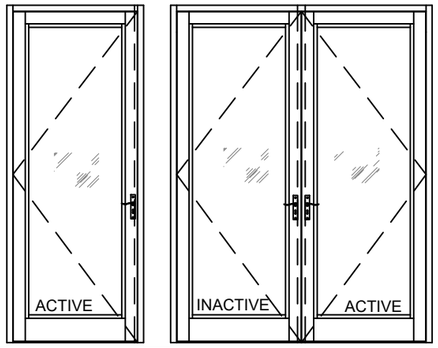
INACTIVE LEAF:
MANUALLY OPERATED TWO POINT LOCK SYSTEM BY
'REGENT HARDWARE' WITH CONCEALED FLUSH BOLTS
AT TOP & BOTTOM OF LOCK STILE
FASTENED WITH
(2) #8-32 X 1/4" PH MACHINE SCREWS



STD.3 POINT LOCK (LEVEL 'E' IMPACT)
MAX. FRAME HEIGHT =98 IN.
MAX. LEAF WIDTH = 48 IN.
MAX. DESIGN LOAD = 100 PSF

ACTIVE LEAF:
KEY OPERATED THREE POINT LOCK SYSTEM BY
'ADAMS RITE' WITH CONCEALED FLUSH BOLTS AT TOP &c
BOTTOM OF LOCK STILE AND A THUMB TURN ON THE
INTERIOR, LOCATED AT 40" FROM BOTTOM OF PANEL
FASTENED WITH
(2) #12-24 X 1/2" FH MACHINE SCREWS

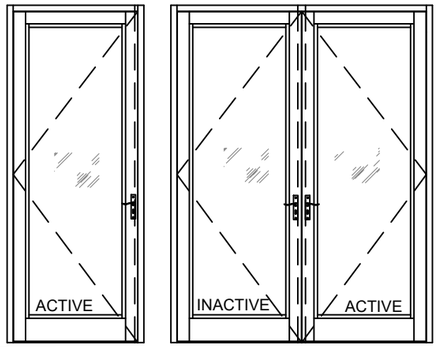
INACTIVE LEAF:
MANUALLY OPERATED TWO POINT LOCK SYSTEM BY
'ADAMS RITE' WITH CONCEALED FLUSH BOLTS AT TOP &
BOTTOM OF LOCK STILE
FASTENED WITH
(2) #8-32 X 1/4"PH MACHINE SCREWS



MULTI- POINT LOCK (LEVEL 'E' IMPACT)
MAX. FRAME HEIGHT = 98 IN.
MAX. LEAF WIDTH = 48 IN.
MAX. DESIGN LOAD = 100 PSF

ACTIVE & INACTIVE LEAF:

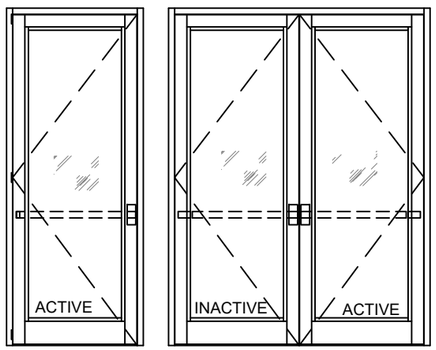
MULTI POINT LOCK SYSTEM '7000 SERIES' BY
'SARGENT'
LEVER TYPE HANDLE WITH KEY CYLINDER ON
EXTERIOR AND INTERIOR, LOCATED AT 40" FROM
BOTTOM, ACTIVATES CONCEALED FLUSH BOLTS
ENGAGING AT HEAD AND SILL



PANIC EXIT DEVICE (LEVEL 'E' IMPACT)
MAX. FRAME HEIGHT = 98 IN.
MAX. LEAF WIDTH = 48 IN.
MAX. DESIGN LOAD = 100 PSF

ACTIVE & INACTIVE LEAF:

CONCEALED VERTICAL ROD PANIC EXIT DEVICE PRECISION 2800
BY 'STANLEY' LOCATED AT 40" FROM SILL
AT EACH LEAF.
FASTENED WITH
(2) #10-32 X 3/4" FH MACHINE SCREWS AT ONE END AND
(2) #10-24 X 1/2" FH MACHINE SCREWS AT OTHER END



PANIC EXIT DEVICE (LEVEL 'E' IMPACT)
MAX. FRAME HEIGHT = 98 IN.
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ACTIVE & INACTIVE LEAF:

CONCEALED VERTICAL ROD PANIC EXIT DEVICE PRECISION 8400 / 8600
BY 'SARGENT ASSA ABLOY' LOCATED AT 40"
FASTENED WITH
(2) #12 X 1" HH SELF DRILLING SCREW AT ONE END AND
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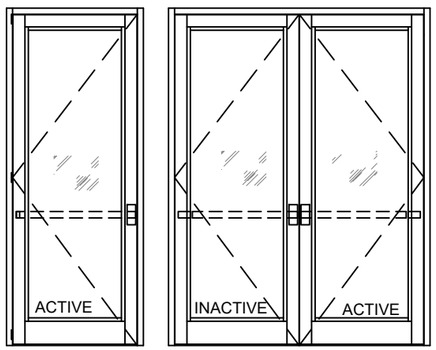

PANIC EXIT DEVICE (LEVEL 'E' IMPACT)
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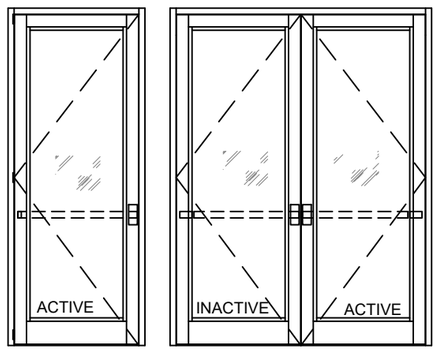
ACTIVE & INACTIVE LEAF:

'VON DUPRIN 98 / 99' CONCEALED VERTICAL ROD PANIC EXIT DEVICE
LOCATED AT 40" FROM BOTTOM
FASTENED TO ACTIVE LEAF WITH WITH
(6) 10-24 X 1-1/8" PH MS



FLORIDA APPROVAL:
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YING WANG
LICENSE
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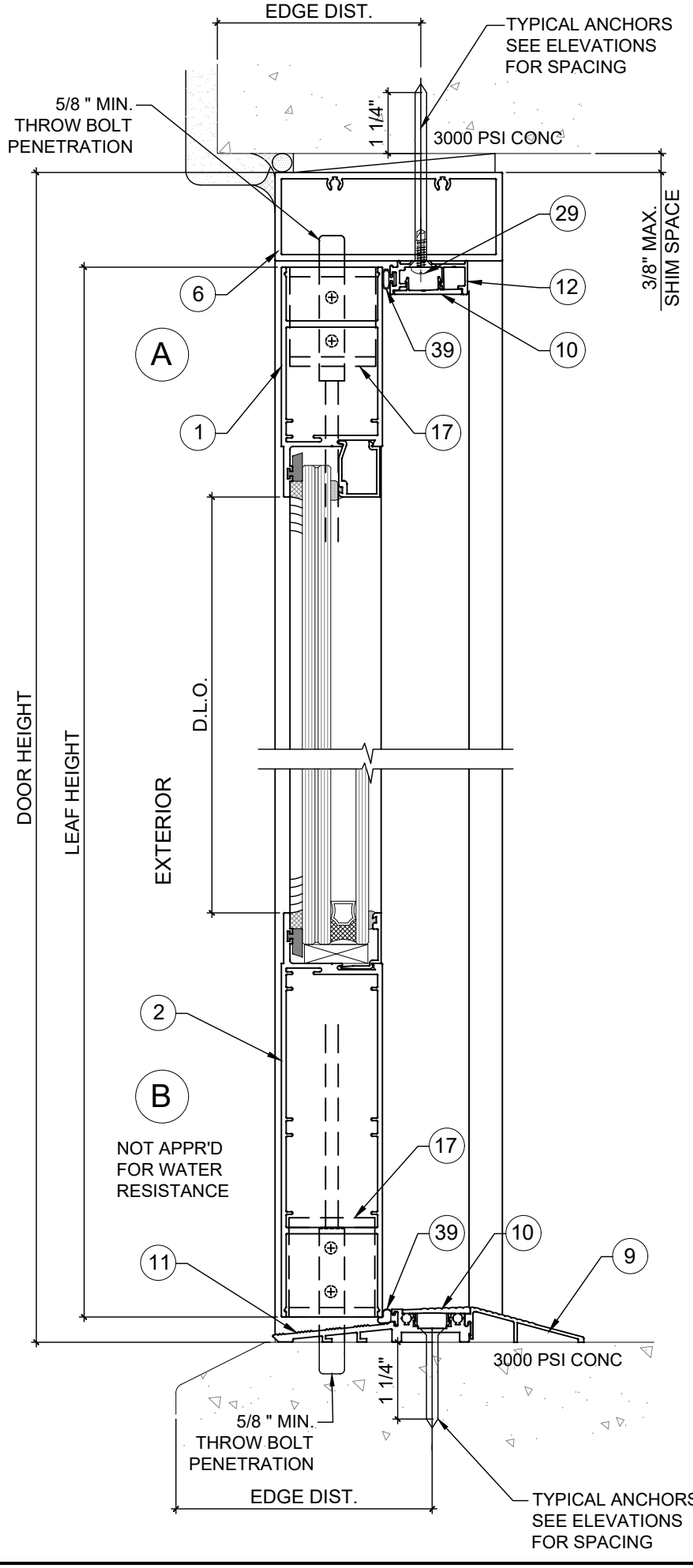
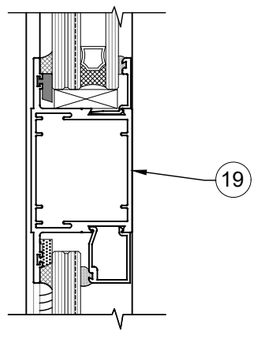
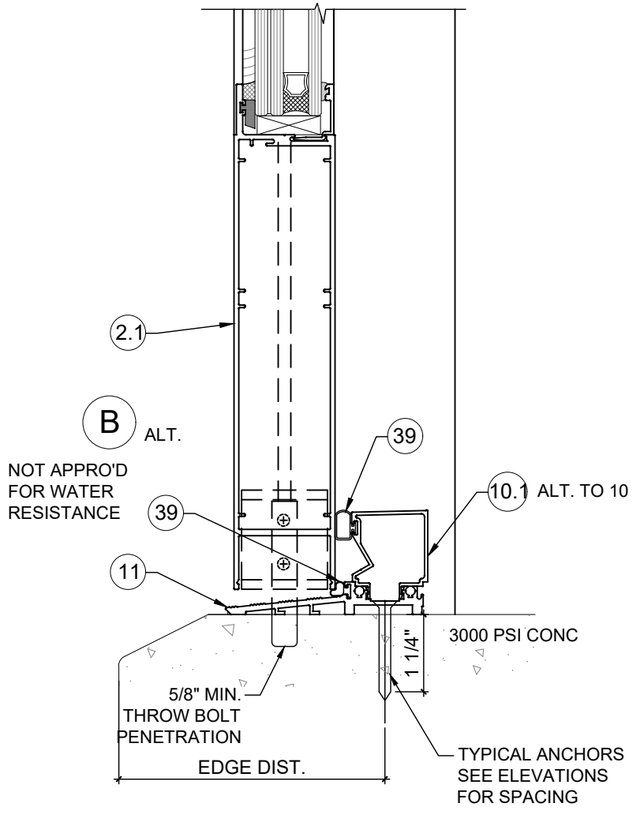
CONFIGURATION





MID-RAIL OPTIONAL



THRESHOLD NOT ADA COMPLIANT
SEE SHEET 7.3 FOR ADA COMPLIANCE

FLORIDA APPROVAL:
FL#20701.5

YIPING WANG P.E.
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C.A. #26877
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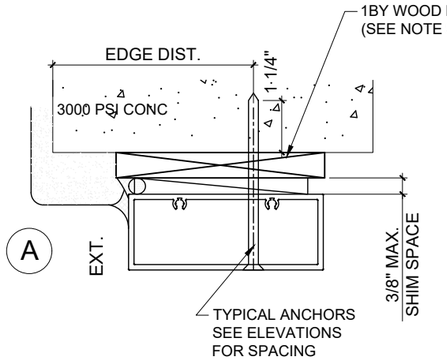
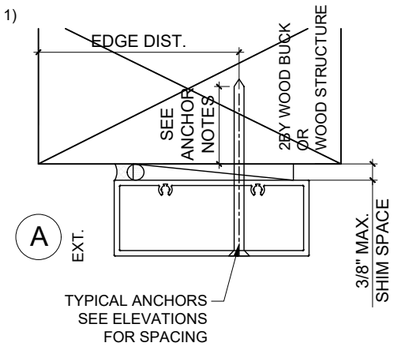
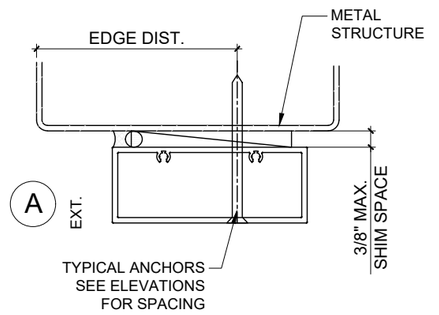
AD20-44

D1

5 OF 10







WOOD BUCKS AND METAL STRUCTURE NOT BY ENVIRALUM MUST SUSTAIN LOADS IMPOSED BY GLAZING SYSTEM AND TRANSFER THEM TO THE BUILDING STRUCTURE.

TYPICAL ANCHORS: SEE ELEV. FOR SPACING

TYPE 'A'- **5/16" DIA ULTRACON BY 'DEWALT'** (Fu=177 KSI, Fy=155 KSI)
INTO WOOD STRUCTURES
2" MIN. PENETRATION INTO WOOD (HEAD / JAMBS)

THRU 1BY OR 2BY BUCKS INTO CONC. OR MASONRY
1-3/4" MIN. EMBED INTO CONCRETE (HEAD / JAMBS)
1- 3/4" MIN. EMBED INTO FILLED BLOCKS (JAMBS)

DIRECTLY INTO MASONRY
.1- 3/4" MIN. EMBED INTO FILLED BLOCKS (JAMBS)

ANCHOR EDGE DISTANCES
INTO CONCRETE AND MASONRY = 2-1/2"MIN.
INTO WOOD STRUCTURE = 1-1/4" MIN.

ANCHOR CL TO CL DISTANCE
INTO CONCRETE = 3" MIN.
INTO FILLED BLOCKS = 4" MIN.

TYPE 'B'- **5/16" DIA ULTRACON BY 'DEWALT'** (Fu=177 KSI, Fy=155 KSI)
DIRECTLY INTO CONCRETE
1-3/4" MIN. EMBED INTO CONCRETE (HEAD / SILL / JAMBS)

TYPE 'BB'- **5/16" DIA ULTRACON BY 'DEWALT'** (Fu=177 KSI, Fy=155 KSI)
DIRECTLY INTO GROUT FILLED BLOCKS
1-3/4" MIN. EMBED INTO FILLED BLOCKS (JAMBS)

ANCHOR EDGE DISTANCES
INTO CONCRETE = 2- 3/16" MIN.
INTO FILLED BLOCKS = 2-1/2MIN.

ANCHOR CL TO CL DISTANCE
INTO CONCRETE = 3" MIN.
INTO FILLED BLOCKS = 5" MIN.

TYPE 'C'- **5/16" DIA. TEKS OR SELF DRILLING SCREWS** (GRADE 5 CRS)
INTO F.B.C. APPROVED MULLIONS
OR
INTO METAL STRUCTURES.
(3) THREADS MIN. PENETRATION BEYOND METAL SUBSTRATE
ALUMINUM: 1/8" THK. MIN. (6063-T5 MIN.)
STEEL: 1/8" THK. MIN. (Fy = 36 KSI MIN.)
(STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)

ANCHOR EDGE DISTANCES
INTO METAL STRUCTURE = 1 /2" MIN.

WOOD AT HEAD, SILL OR JAMBS SG = 0.55 MIN.
CONCRETE AT HEAD, SILL OR JAMBS f'c = 3000 PSI MIN.
C-90 GROUT FILLED BLOCK AT JAMBS f'm = 2000 PSI MIN.

TYPE 'A1'- **1/4" DIA ULTRACON+ BY 'DEWALT'** (Fu=164 KSI, Fy=148 KSI)
INTO 2BY WOOD BUCKS OR WOOD STRUCTURES
1-1/2" MIN. PENETRATION INTO WOOD (HEAD / JAMBS)

THRU 1BY INTO CONC. OR MASONRY
1-3/4" MIN. EMBED INTO CONCRETE (HEAD / JAMBS)
1-3/4" MIN. EMBED INTO FILLED BLOCKS (JAMBS)

DIRECTLY INTO MASONRY
1-3/4" MIN. EMBED INTO FILLED BLOCKS (JAMBS)

ANCHOR EDGE DISTANCES
INTO CONCRETE AND MASONRY = 2-1 /2" MIN.
INTO WOOD STRUCTURE = 1" MIN.

ANCHOR CL TO CL DISTANCE
INTO CONCRETE = 3" MIN.
INTO FILLED BLOCKS = 3" MIN.

TYPE 'B1'- **1/4" DIA ULTRACON+ BY 'DEWALT'** (Fu=164 KSI, Fy=148 KSI)
DIRECTLY INTO CONCRETE
1-3/4" MIN. EMBED INTO CONCRETE (HEAD / SILL / JAMBS)

TYPE 'BB1'- **1/4" DIA ULTRACON+ BY 'DEWALT'** (Fu=164 KSI, Fy=148 KSI)
DIRECTLY INTO GROUT FILLED BLOCKS
1-3/4" MIN. EMBED INTO FILLED BLOCKS (JAMBS)

ANCHOR EDGE DISTANCES
INTO CONCRETE = 2- 1/2" MIN.

ANCHOR CL TO CL DISTANCE
INTO CONCRETE = 3" MIN.
INTO FILLED BLOCKS = 4" MIN.

TYPE 'C1'- **1/4" DIA. TEKS OR SELF DRILLING SCREWS** (GRADE 5 CRS)
INTO F.B.C. APPROVED MULLIONS
OR
INTO METAL STRUCTURES
(3) THREADS MIN. PENETRATION BEYOND METAL SUBSTRATE
ALUMINUM: 1/8" THK. MIN. (6063-T5 MIN.)
STEEL: 1/8" THK. MIN. (Fy = 36 KSI MIN.)
(STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)

ANCHOR EDGE DISTANCES
INTO METAL STRUCTURE = 1/2" MIN.

WOOD AT HEAD, SILL OR JAMBS SG = 0.55 MIN.
CONCRETE AT HEAD, SILL OR JAMBS f'c = 3000 PSI MIN.
C-90 GROUT FILLED BLOCK AT JAMBS f'm = 2000 PSI MIN.

NOTE : FOR ALL 1/4" DIA. ANHORS LIMIT SHIMS TO 1/4" MAX.

FLORIDA APPROVAL:
FL#20701.5

YIPING WANG P.E.
FLORIDA REGISTRATION
LIC. #55983
C.A. #26877

October 18, 2021

MCY ENGINEERING, INC.
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www.MCYEngineering.com mcy@mcyengineering.com

Series ENV-350E Aluminum Outswing Entrance Door - L.M.I

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1	12/30/20	James	FBC 2020 UPDATE

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DRAWING NO.
AD20-44

CONFIGURATION

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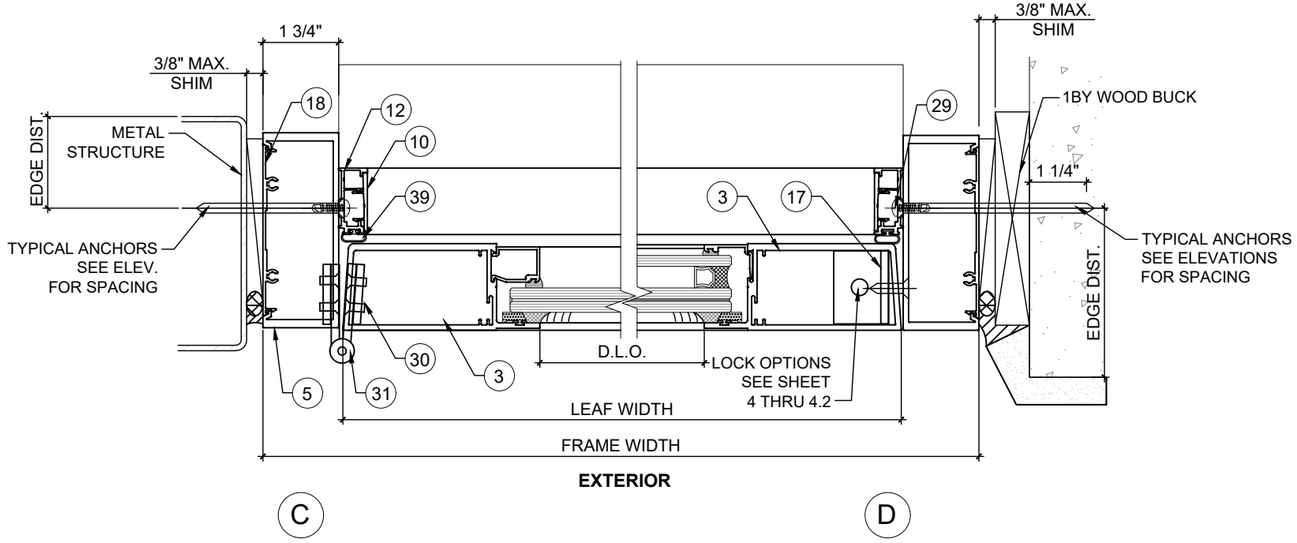
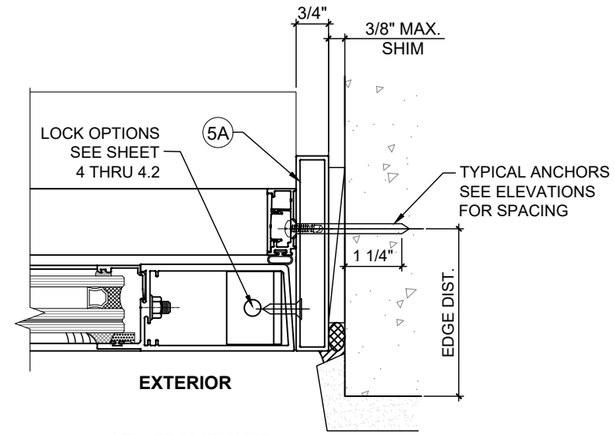
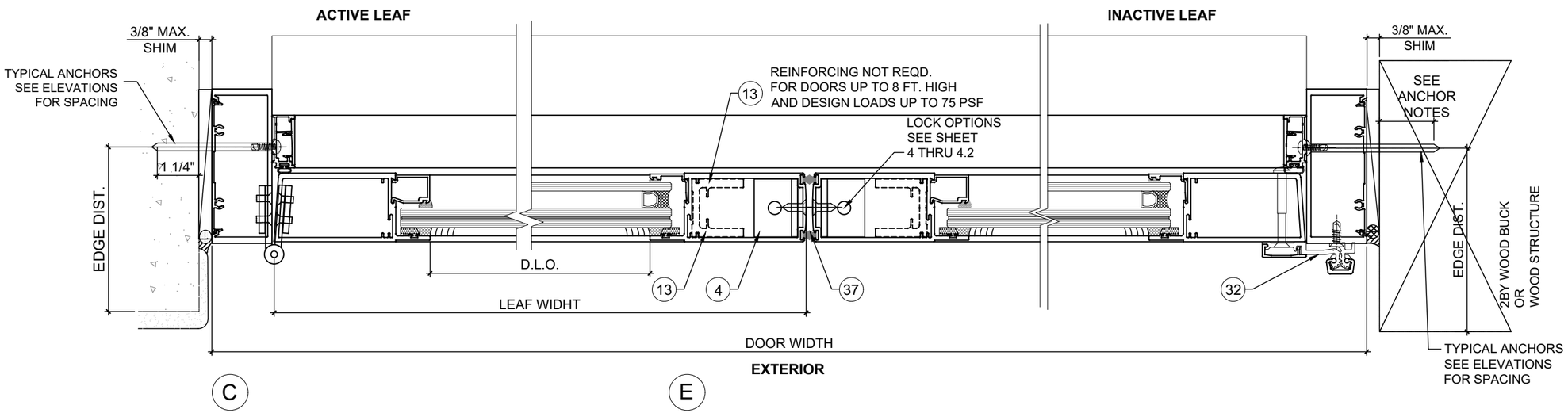




ATL. FRAME JAMB



DOOR DETAILS

FLORIDA APPROVAL:
FL#20701.5

YIRONG WANG
FLORIDA REGISTRATION
LIC. #55983
C.A.No. 29877
STATE OF FLORIDA
PROFESSIONAL ENGINEER
October 18, 2021

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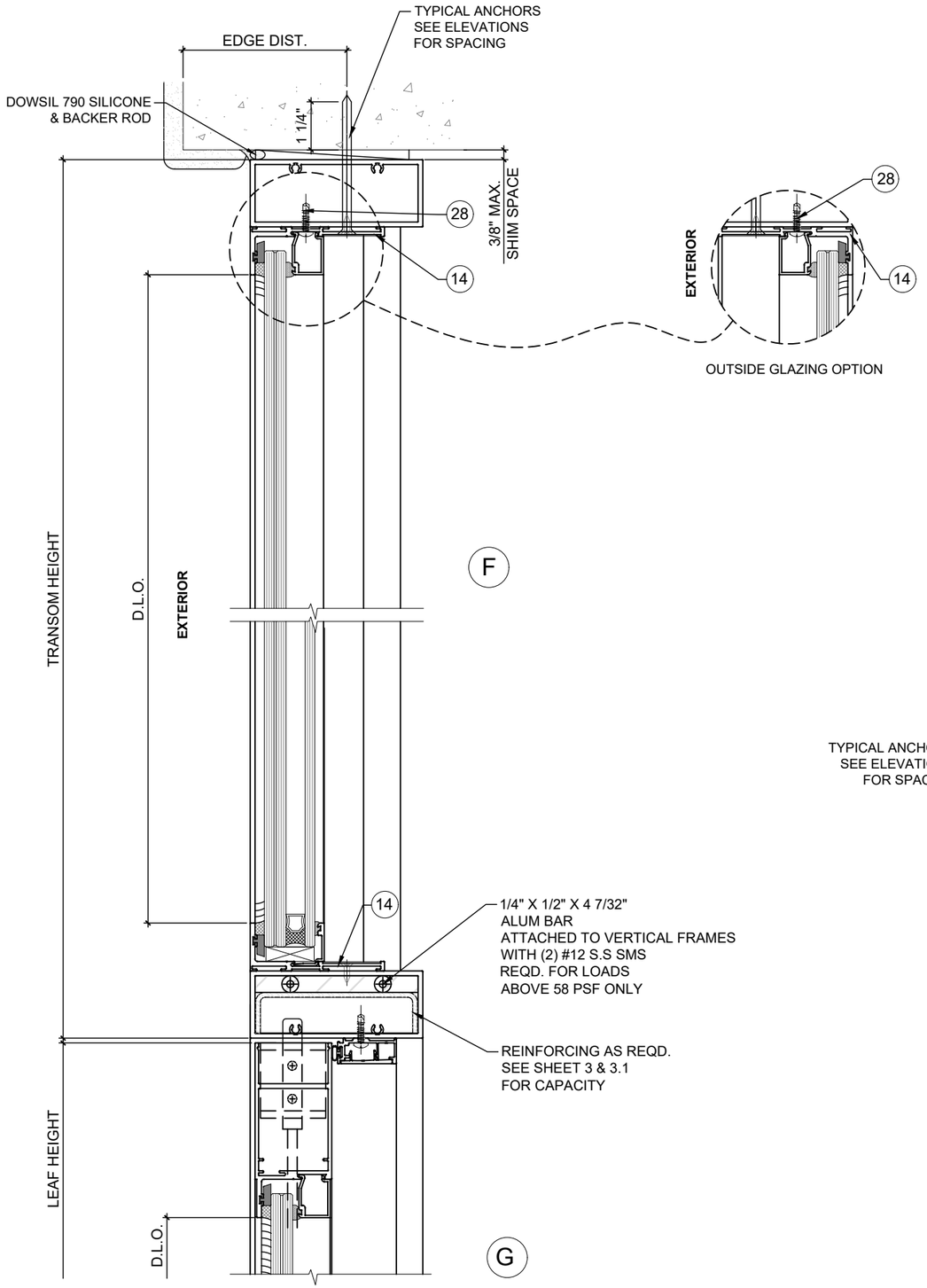
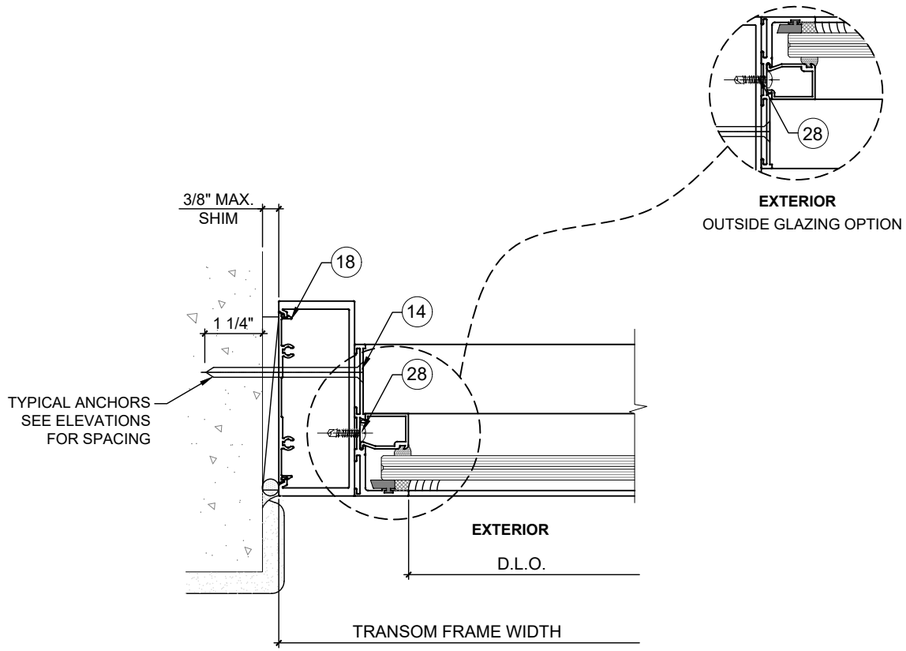
D2





TRANSOM DETAILS

FLORIDA APPROVAL:
FL#20701.5

YIRONG WANG, P.E.
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P.E. #55983
C.A.No. 28877

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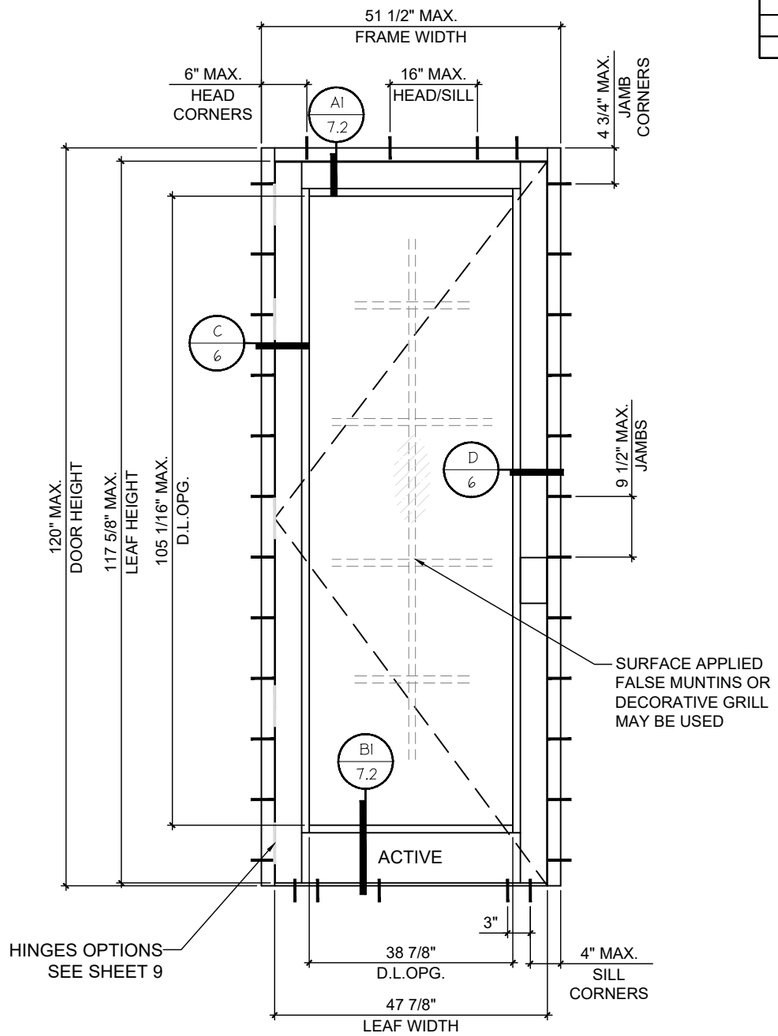
D3

ANCHORS TYPES	NO. OF ANCHORS AT MTG. STILE ENDS	
	1/4" SHIM	3/8" SHIM
A	6	8
B	6	8
C	5	6
A1	8	-
B1	6	-
C1	6	-



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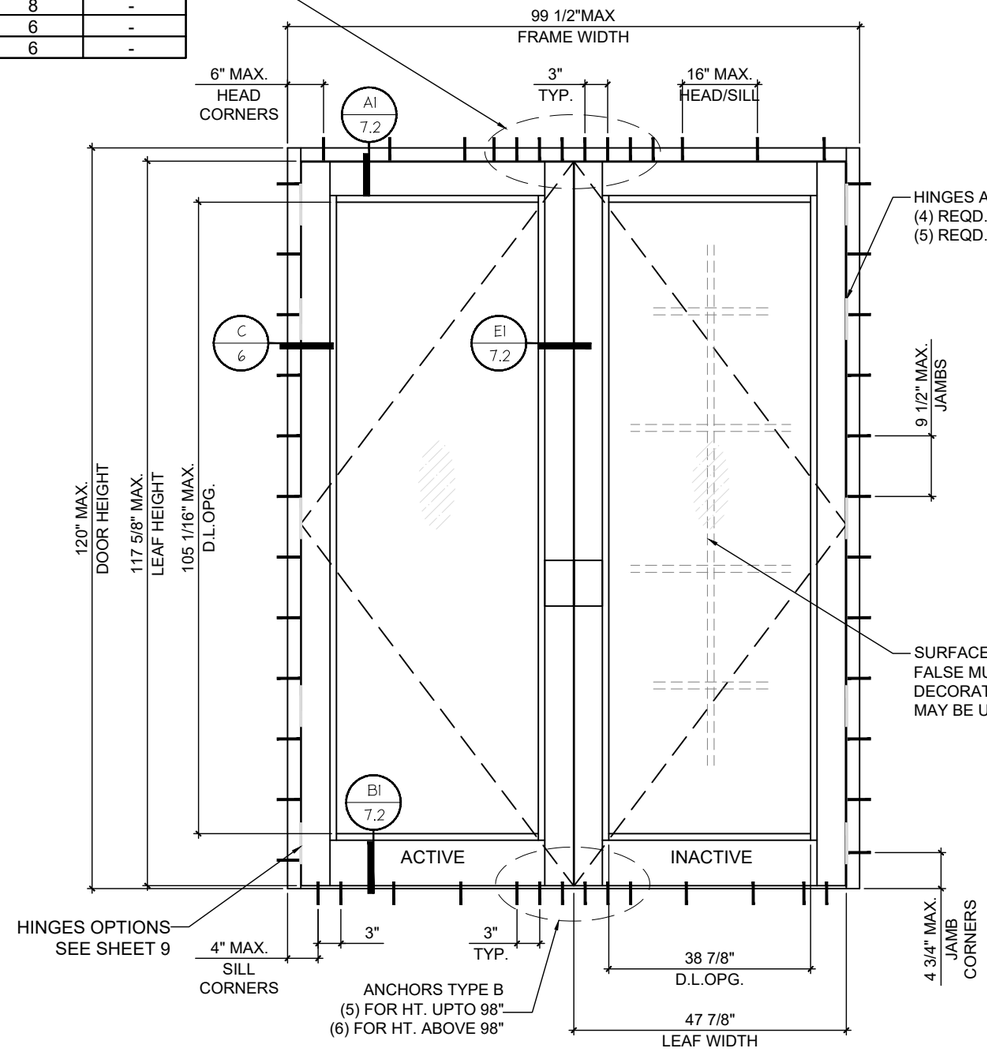

(XX)

TYPICAL ELEVATIONS

DOORS TO MEET WATER REQUIREMENTS

NOTE:
FOR DOORS WITH GLASS TYPE 'B' (LEVEL 'E' IMPACT)
LIMIT MAX. DOOR HEIGHTS TO 98 INCHES.

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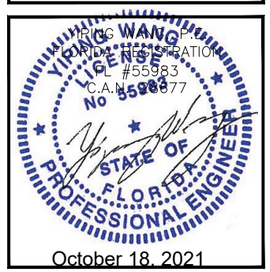

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FLORIDA REGISTRATION
LIC. #55983
C.A. No. 28877

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E5

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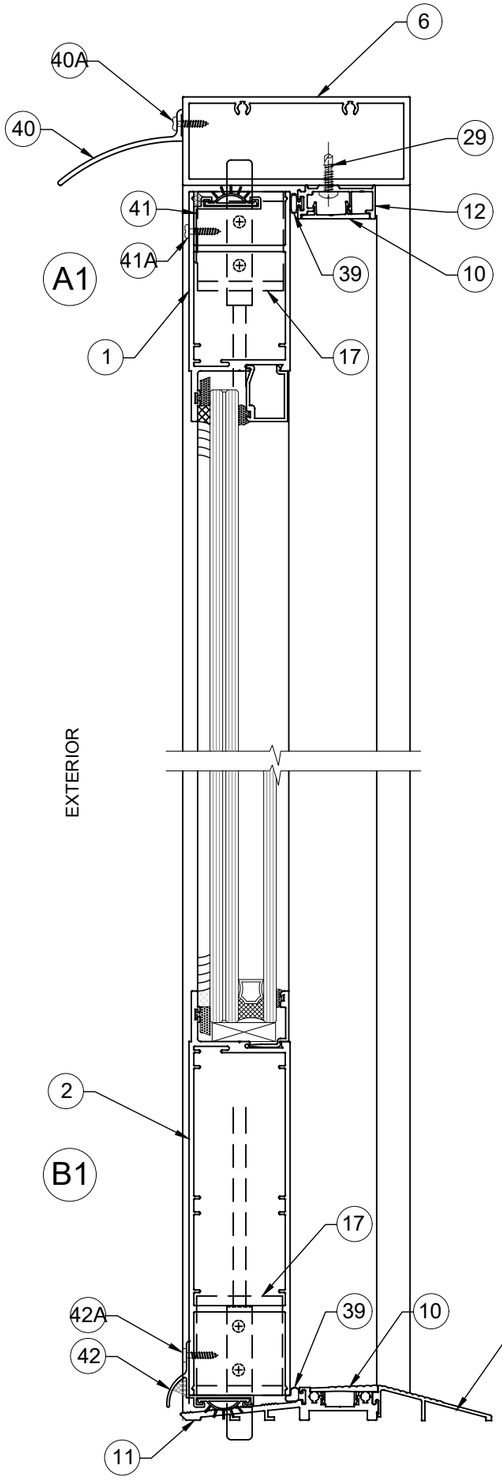
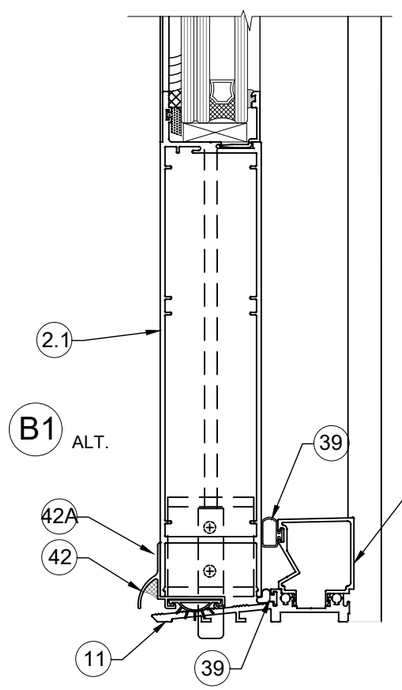
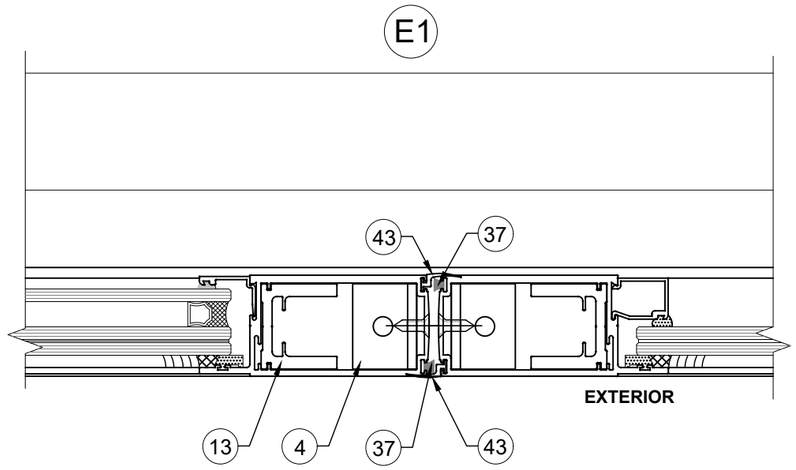


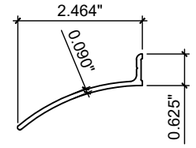
DETAILS

DOORS TO MEET WATER REQUIREMENTS

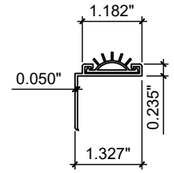
ITEM NUMBERS 40, 41, 42, AND 43 ADDED TO STANDARD DOOR SECTIONS TO MEET WATER INFILTRATION RESISTANT REQUIREMENT. SEE SHEETS 5 AND 6 FOR STD. DOOR DETAILS.



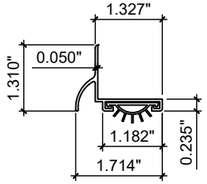




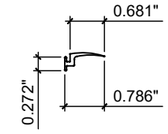
40 DRIP CAP



41 DOOR SWEEP (TOP)



42 DOOR SWEEP (BOTTOM)



43 WATER FLAP

WATER RESISTANT DOOR COMPONENTS

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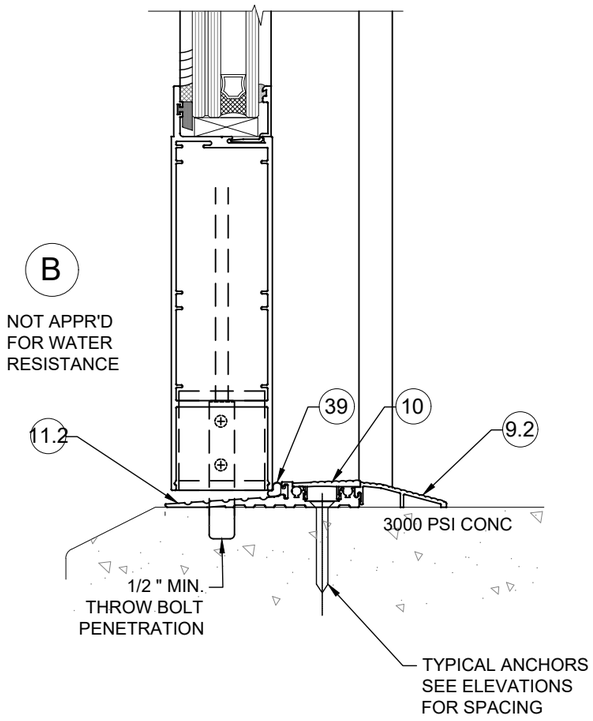

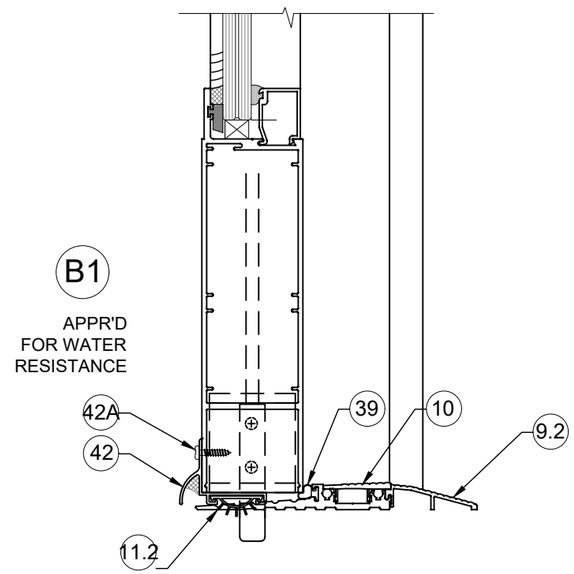

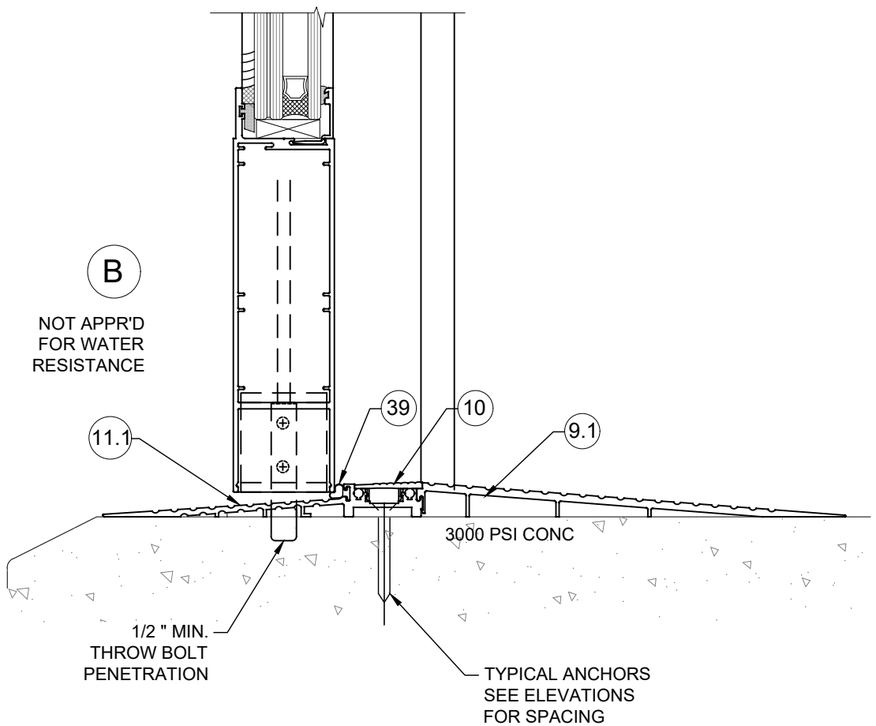

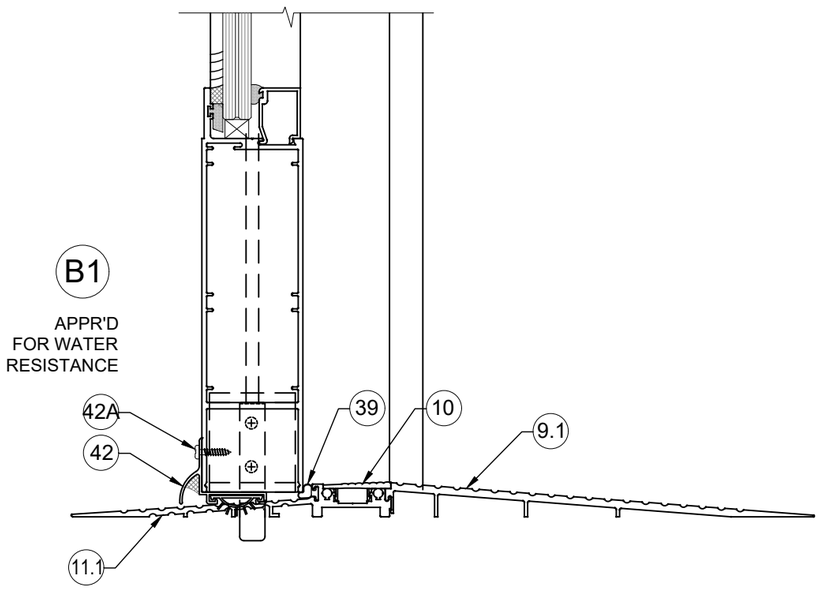

ADA COMPLIANT THRESHOLD

MCY ENGINEERING, INC.
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D4

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No 55983
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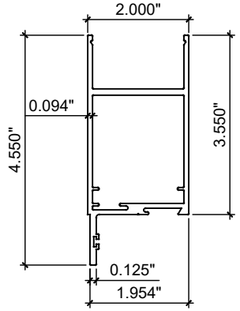
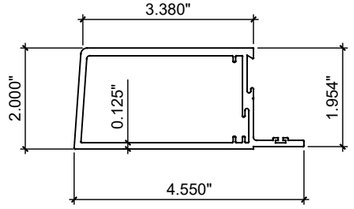
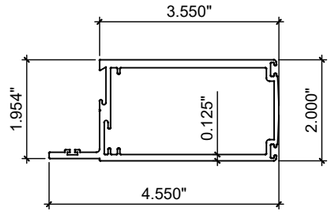
October 18, 2021



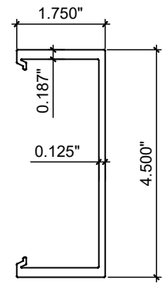
1 TOP RAIL



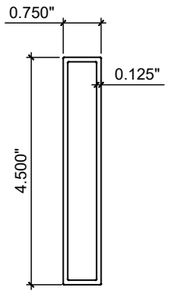
3 HINGE STILE



4 LOCK STILE



5 FRAME JAMB



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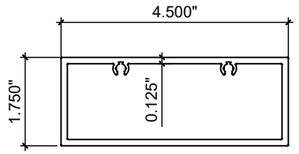
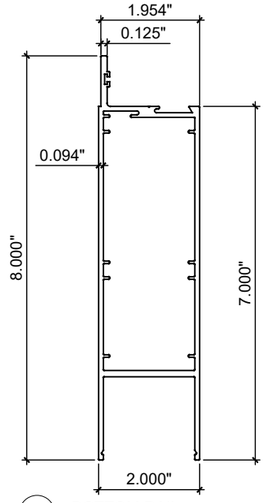
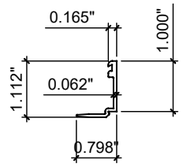


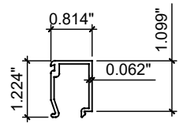
6 FRAME HEAD



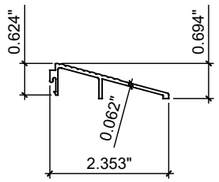
2 BOTTOM RAIL



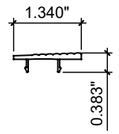
7 GLASS STOP
(INSUL. LAM. GLASS)



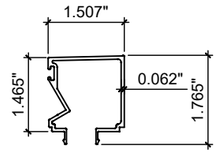
8 GLASS STOP
(LAM. GLASS)



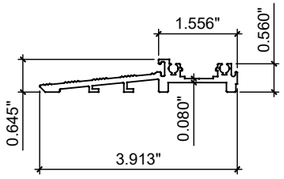
9 RAMP THRESHOLD TYPE 1



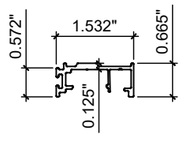
10 THRESHOLD / DOOR STOP COVER



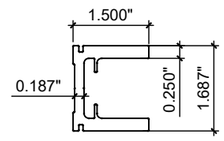
10.1 ALT. THRESHOLD COVER



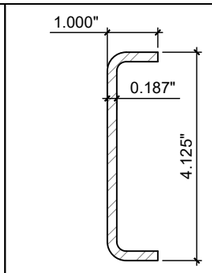
11 THRESHOLD TYPE 1



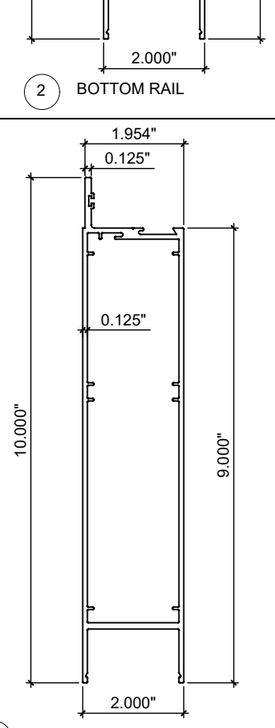
12 DOOR STOP



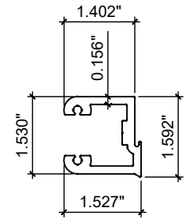
13 STILE REINFORCEMENT



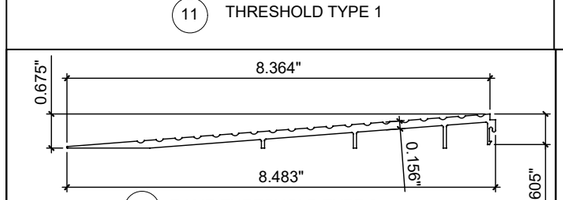
15 STEEL CHANNEL REINF.



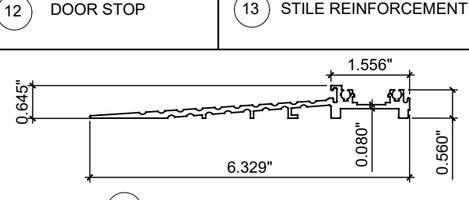
2.1 ALT.BOTTOM RAIL



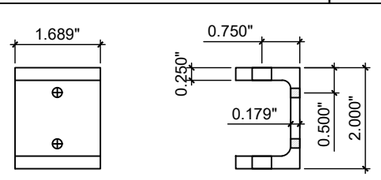
16 SHEAR BLOCK



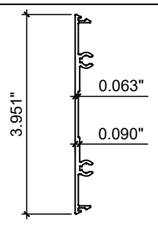
9.1 RAMP THRESHOLD TYPE 2



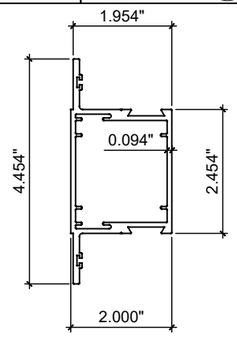
11.1 THRESHOLD TYPE 2



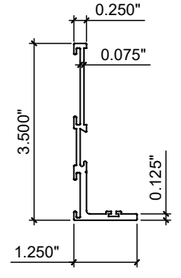
17 GUIDE CHANNEL FOR TOP & BOTTOM PIN



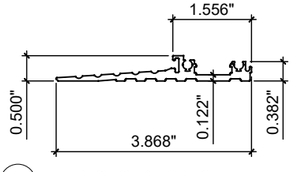
18 FLAT FILLER



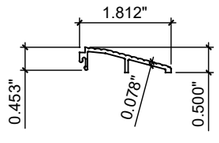
19 MID - RAIL



14 TRANSOM SASH



11.2 THRESHOLD TYPE 3



9.2 RAMP THRESHOLD TYPE 3

MCY ENGINEERING, INC.
GLAZING CONSULTANTS
12781 MIRAMAR PARKWAY. #301 P: 305.271.0117
MIRAMAR, FL 33027
www.MCYEngineering.com mcy@mcyengineering.com

Series ENV-350E Aluminum Outswing Entrance Door - L.M.I.

ENVIRALUM INDUSTRIES INC.
5110 N.W. 72 AVENUE BLDG.C
MIAMI, FL.33166
TEL.:(305)752-4411 FAX:(305)406-3877

Rev. No.	Date	Drawn By	Description
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Drawn Date 10/09/2021

Scale

DRAWING NO.
AD20-44

MATERIAL

8 OF 10

FLORIDA APPROVAL:
FL#20701.5

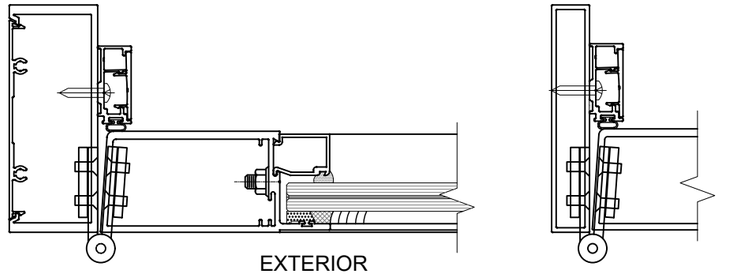
YIPING WANG P.E.
FLORIDA REGISTRATION
LIC. #55983
C.A.No. 32677
STATE OF FLORIDA
PROFESSIONAL ENGINEER

October 18, 2021

ITEM NO.	PART NUMBER	QUANTITY	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
1	ENV-351	1/ LEAF	TOP RAIL	6063-T6	ENVIRALUM
2.1	ENV-352	1/ LEAF	BOTTOM RAIL (8" HIGH)	6063-T6	ENVIRALUM
2	ENV-3521	1/ LEAF	ALT. BOTTOM RAIL(10" HIGH)	6063-T6	ENVIRALUM
3	ENV-353	1/ LEAF	HINGE STILE	6063-T6	ENVIRALUM
4	ENV-354	1/ LEAF	LOCK STLE	6o63-T6	ENVIRALUM
5	ENV-355	2/ DOOR	STANDARD JAMB	6063-T6	ENVIRALUM
5A	ENV-3517	2/ DOOR	NARROW HEAD/ JAMB	6063-T6	ENVIRALUM
6	ENV-356	1/ DOOR	FRAME HEAD	6063-T6	ENVIRALUM
7	ENV-357	4/ LITE	GLASS STOP (INSULATED GLASS)	6063-T6	ENVIRALUM
8	ENV-358	4/ LITE	GLASS STOP (LAMINATED GLASS)	6063-T6	ENVIRALUM
9	ENV-359	AS REOD.	RAMP THRESHOLD TYPE 1	6063-T6	ENVIRALUM
9.1	ENV-3520	AS REQD.	RAMPTHRESHOLD TYPE 2	6063-T6	ENVIRALUM
9.2	ENV-3527	AS REQD.	RAMPTHRESHOLD TYPE 3	6063-T6	ENVIRALUM
10	ENV-3510	AS REQD.	THRESHOLD/DOOR STOP COVER	6063-T6	ENVIRALUM
10.1	ENV-3518	AS REQD.	ALT. THRESHOLD COVER (HI-RISE)	6063-T6	ENVIRALUM
11	ENV-3511	1/ DOOR	THRESHOLD TYPE 1	6063-T6	ENVIRALUM
11.1	ENV-3519	1/ DOOR	THRESHOLD TYPE 2	6063-T6	ENVIRALUM
11.2	ENV-3526	1/ DOOR	THRESHOLD TYPE 3	6063-T6	ENVIRALUM
12	ENV-3512	3/ DOOR	DOOR STOP	6063-T6	ENVIRALUM
13	ENV-3513	AS REQD.	STILE REINFORCEMEN, REQD. FOR DOORS ABOVE 8 FT. HIGH	6063-T6	ENVIRALUM
14	ENV-3515	4/ TRANSOM	TRANSOM SASH	6063-T6	ENVIRALUM
15	ENV-ST2	AS REQD.	1" × 4-1/8" x 1" x 3/16" THK, CHANNEL	STEEL	ENVIRALUM
16	ENV-3516	1/ LEAF CORNER	SHEAR BLOCK	6063-T6	ENVIRALUM
17	ENV-G01	2/ LEAF	GUIDE CHANNEL FOR TOP & BOTTOM PIN	6063-T6	ENVIRALUM
18	ENV-454	ASREQD.	FLAT SNAP. 3" LONG	6o63-T6	ENVIRALUM
19	ENV-3514	AS REQD.	MID-RAIL (OPTIONAL)	6063-T5	ENVIRALUM
21	ENV-G04	AS REOD.	INTERIOR GASKET	EPDM	GLAZING RUBBER PRODUCTS
22	ENV-G06	AS REQD.	SPACER GASKET	EPDM	GLAZING RUBBER PRODUCTS
22A	ENV-C06	1/ QUARTER POINT	SPACER GASKET, 1" LONG	EPDM	GLAZING RUBBER PRODUCTS
23	ENV-SB01	1/ QUARTER POINT	3/8" x 1/2" x 2" SETTING BLOCKS, DUROMETER 80±5	EPDM	GLAZING RUBBER PRODUCTS
24	ENV-SB02	1/ QUARTER POINT	3/8" x 1-1/4" x 2" SETTING BLOCKS, DUROMETER 80±5	EPDM	GLAZING RUBBER PRODUCTS
25	DOW 791	AS REQD.	GLAZING COMPOUND	SILICONE	DOWSIL
26	CE SCS2000	AS REQD.	GLAZING COMPOUND	SILICONE	GE MOMENTIVE
27	#12 x1-1/2	4/ CORNER	FRAME ASSEMBLY SCREWS	ST. STEEL	HWH SMS. AT 16" O.C.
28	#8 x 5/8"	AS REQD.	TRANSOM SASH SCREWS	ST. STEEL	AT 3" FROM ENDS & 12" O.C.
29	#8 x 5/8"	AS REQD.	DOOR STOP ASSEMBLY SCREWS, @ 3" FROM ENDS & 20" O.C.	ST. STEEL	HWH SMS
30	ENV-BP1	2/ HINGE	HINGE BACKING PLATE, 1-1/2" × 1/4" THK. x 8-3/8" LONG	ALUMINUM	-
31	-	3/ LEAF	4-1/2" x 4" BUTT HINGES	ST. STEEL	-
32	SL-21	1/ LEAF	CONT. GEAR HINGE	ALUMINUM	SELECT PRODUCTS LTD.
32A	PEMKO-FS	1/ LEAF	CONT. GEAR HINGE	ALUMINUM	PEMKO
33	1/4 - 20 x 1"	10/ LEAF	CORNER BLOCK ASSEMBLY	ST. STEEL	HEX HEAD BOLT W/ WASHER
34	ENV-C01	AS REQD.	FIXED INTERIOR GASKET	EPDM	GLAZING RUBBER PRODUCTS
37	ENV-WP1	AS REQD.	WOOL PILE W'STRIPPING	TRLOBAL YARN	ULTRAFAB
38	ENV-WP2	AS REQD.	WOOL PILE W'STRIPPING	TRLOBAL YARN	ULTRAFAB
39	ENV-BG1	AS REQD.	BULB W'STRIPPING, (.475 BULB W/ FLAP x .270 BK.)	EPDM	ULTRAFAB
40	ENV-3518	AS REQD.	DRIP CAP	ALUMINUM	PEMKO
40A	#8 x 5/8"	AS REQD.	DRIP CAP FASTENERS, AT 3" FROM ENDS & 6" O.C.	ST. STEEL	HWH SELF DRILLING SCREWS
41	ENV-3512	AS REQD.	DOOR SWEEP (TOP)	ALUMINUM	PEMKO
41A	#8 x 1/2"	AS REQD.	DOOR SWEEP FASTENERS, AT 3" FROM ENDS & 6" O.C.	ST. STEEL	FH SELF DRILLING SCREWS
42	ENV-3523	AS REQD.	DOOR SWEEP (BOTTOM)	ALUMINUM	PEMKO
42A	#8 × 3/4"	AS REQD.	DOOR SWEEP FASTENERS, AT 3" FROM ENDS & 6" O.C.	ST. STEEL	HH SELF DRILLING SCREWS
43	ENV-WF1	AS REQD.	WATER FLAP	EPDM	ULTRAFAB
44	DOW 790	AS REQD.	PERIMETER SEALANT	SILICONE	DOWSIL

HINGE OPTION #1:

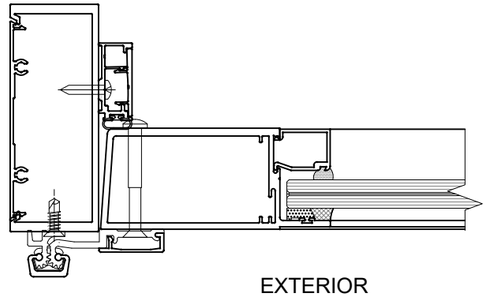
4"X4-1/2" X.130" THK. ST. STEEL KNUCKLE HINGE
SERIES 4001 BY 'REGENT HARDWARE' OR
SERIES FBB 191 BY 'STANLEY SECURITY SOLUTIONS' OR
SERIES TA2314/TA2714 BY 'MCKINNEY ASSA ABLOY"
3 PER LEAF
TOP/BOTTOM HINGES AT 7" FROM EACH END
CENTER HINGE AT MIDSPAN
FASTENED TO
FRAME JAMB WITH (4) 12-24 X 1/2" FH MS
DOOR STILE WITH (4) 12-24 X 1/2" FH MS



EXTERIOR

HINGE OPTION #2:

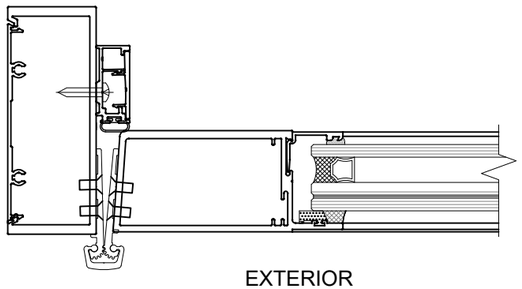
CONTINUOUS GEAR ALUMINUM HINGE 'PEMKO-FS' OR 'SELECT SL-21'
FASTENED TO
FRAME JAMB WITH #12 X 3/4" FH SCREWS AT 6" O.C.
DOOR STILE WITH 1/4-20 X 1-1/4" FH MS WITH HEX BOLT AT 6" O.C.



EXTERIOR

HINGE OPTION #3:

CONTINUOUS ALUMINUM ROTTON HINGE 'PEMKO-FM' OR 'SELECT SL 27'
FASTENED TO FRAME JAMB AND TO JAMB STILE WITH
(22) #12-24 X 1/2" FH MS SCREWS



EXTERIOR

FLORIDA APPROVAL:
FL#20701.5

YIPING WANG P.E.
FLORIDA REGISTRATION
LICENSE #55983
C.A.No. 8528677
STATE OF FLORIDA PROFESSIONAL ENGINEER

October 18, 2021

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GLAZING CONSULTANTS
12781 MIRAMAR PARKWAY. #301 P: 305.271.0117
MIRAMAR, FL 33027
www.MCYEngineering.com mcy@mcyengineering.com

Series ENV-350E Aluminum Outswing Entrance Door - L.M.I

ENVIRALUM INDUSTRIES INC.
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MIAMI, FL.33166
TEL:(305)752-4411 FAX:(305)406-3877

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1	12/30/20	James	FBC 2020 UPDATE

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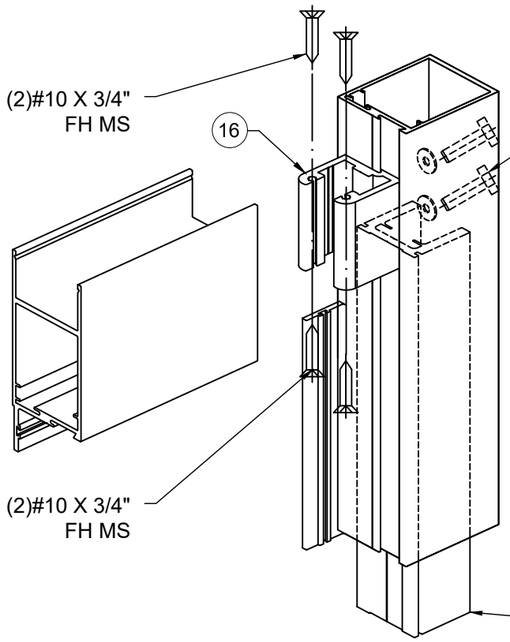
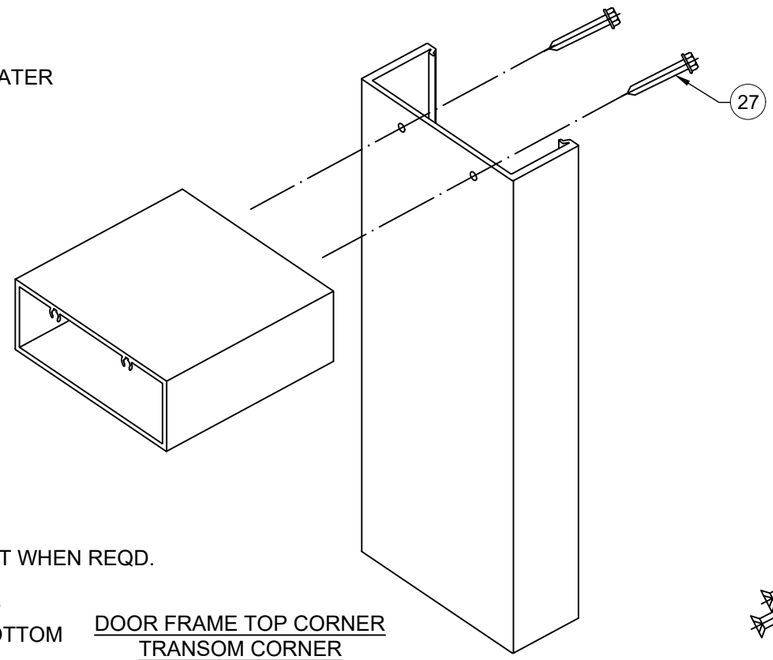
BOM

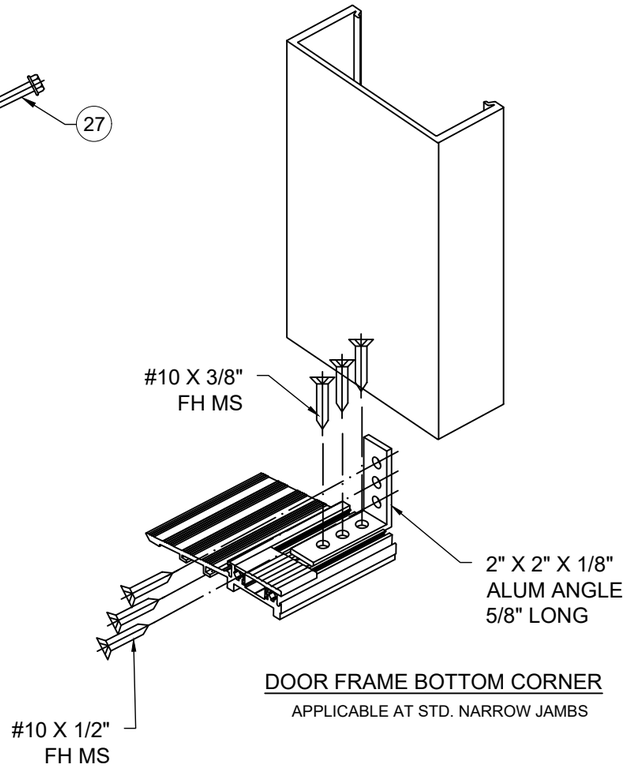


DOOR LEAF TOP CORNER

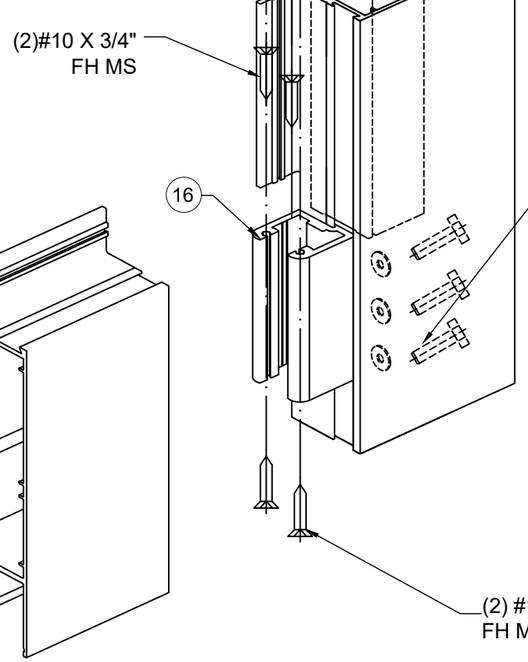


REINFORCEMENT WHEN REQD.
TO BE WITH
3-1/2" FROM TOP
AND 7" FROM BOTTOM

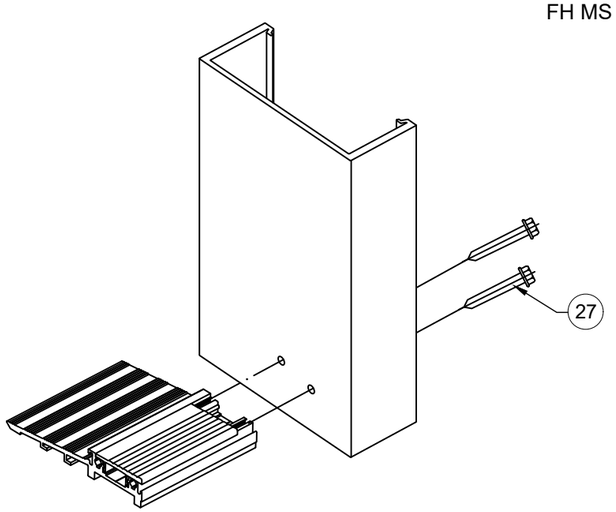
DOOR FRAME TOP CORNER
TRANSOM CORNER



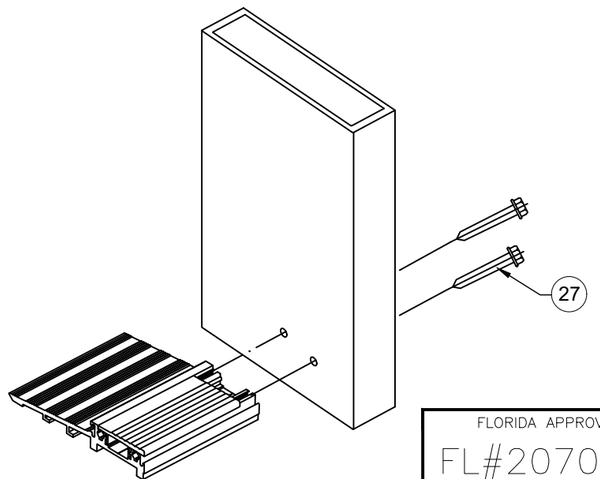
DOOR FRAME BOTTOM CORNER
APPLICABLE AT STD. NARROW JAMBS



DOOR LEAF BOTTOM CORNER



DOOR FRAME BOTTOM CORNER



DOOR FRAME BOTTOM CORNER

FLORIDA APPROVAL:
FL#20701.5

YIPING WANG, P.E.
FLORIDA REGISTRATION
LIC. #55983
C.A.N.#26877

STATE OF FLORIDA PROFESSIONAL ENGINEER
YIPING WANG LICENSE No 55983

October 18, 2021

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Scale

DRAWING NO.
AD20-44

ASSEMBLE

10 OF 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
Miami, Florida 33175-2474
T (786) 315-2590 F (786) 315-2599
www.miamidade.gov/economy

NOTICE OF ACCEPTANCE (NOA)

Schlage Lock Company
11819 N. Pennsylvania Street
Carmel, IN 46032

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: SteelCraft H Series Single Flush Outswing Commercial Steel Door w/wo Panic Exit-LMI

APPROVAL DOCUMENT: Drawing No **IRFS07 Rev P**, titled "Steelcraft H series Single Flush outswing", sheets 1 through 14 of 14, prepared by the manufacturer, dated 05-20-07 and last revised on 07/18/2022, signed and sealed by Hermes F. Norero, P.E., bearing the Miami-Dade County Product Control Renewal 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

Limitations:

1. See sheets **1** & **2** for Design Pressures, Sizes and Hardware. See sheets **5** and **6** for door sizes VS threshold types, brand and water infiltration limitations. Lower design Pressure shall control the entire assembly.
2. Use of Ives viewers (model U696/U698) is limited to +/-75 PSF.
3. The top strike plates **338** and **4188** can be used w/wo roller option for Concealed Rod Panic devices (CVR) shown in sheet **9.**
4. Electrical/Electronic functions and Fire ratings are **not** part of this approval, such functions to be reviewed and approved by AHJ.

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** & **renews NOA #20-1005.18** and consists of this page 1 and evidence pages E-1, E-2, E-3, E-4, E-5, E-6 and E-7, as well as approval document mentioned above.
The submitted documentation was reviewed by **Ishaq I. Chanda, P.E.**

MIAMI-DADE COUNTY APPROVED

Ishaq I. Chanda

NOA No. 22-0427.01
Expiration Date: May 05, 2028
Approval Date: August 04, 2022

Schlage Lock Company

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

1. **Evidence submitted under previous approvals**

A. DRAWINGS

1. Manufacturer's parts and sections drawings (Submitted under file as below).
2. Drawing No **IRFS07 Rev L**, titled "Steelcraft H series Single Flush outswing", sheets 1 through 15 of 15, prepared by the manufacturer, dated 05-20-07 and last revised on 08/11/15, signed and sealed by Thomas Gordon, P.E.

B. TESTS (Submitted under files #**15-0826.23**/#**13-1217.16**/#**12-0305.14/** #**10-0209.07/#07-0829.04**)

1. Test report on
    1) Air Infiltration Test, per TAS 202-94
    2) Uniform Static Air Pressure Test, Loading per TAS 202-94
    3) Large Missile Impact Test per FBC, TAS 201-94
    4) Cyclic Wind Pressure Loading per FBC, TAS 203-94
    5) Forced Entry Test, per PA 202-94

Along with manufacturer's parts and section drawings of Single outswing steel doors w/ Stainless steel continuous Hinges & modified Hat stiffeners, marked by Certified Testing Lab, Test Reports No(s). **CTLA-3045W** dated February 16, 2015, signed and sealed by Ramesh Patel, P.E.

Along with manufacturer's parts and section drawings of double outswing steel doors w/CVC panic exit and Peep hole, marked by Element Material Technology, Test Reports No(s). **ESP011623P** dated May 14, 2013, signed and sealed by Jason Sheen, P.E.

Along with manufacturer's parts and section drawings of double flush outswing steel doors, marked by National Certified Testing Lab, Test Reports No. **NCTL-210- 3580-2,** dated March 25, 2009, signed and sealed by Gerry Ferrara, P. E.

2. Test reports
    1) Uniform Static Air Pressure Test, Loading per FBC TAS 202-94.
    2) Water Resistance Test per FBC TAS 202-94

Along with marked-up drawings and installation diagram of double steel commercial doors, prepared by National Certified Testing Laboratories Inc., Test Report No. **NCTL- 210-03-0514-11,** dated August 31, 2004, **NCTL 210- 03-3511-1** dated 04/09/08 and **NCTL 210- 03-3549-1** dated 08/26/08, all signed and sealed by Gerry Ferrara, P. E.

Note: Test report No(s): NCTL210-3549-1 and NCTL-210-3511-1 have been revised by an addendum letter, issued by Lab, dated Feb. 04, 2009, signed & sealed by Gerard J. Ferrara, P. E

3. Test report on (submitted under file # **07-0829.04**)
    1) Air Infiltration Test, per TAS 202-94
    2) Uniform Static Air Pressure Test, Loading per TAS 202-94
    3) Large Missile Impact Test per FBC, TAS 201-94
    4) Cyclic Wind Pressure Loading per FBC, TAS 203-94
    5) Forced Entry Test, per PA 202-94

Along with manufacturer's parts and section drawings of double-glazed outswing steel doors, marked by Certified Testing Lab, Test Reports No(s). **CTLA-776W** dated February 20, 2002, **CTLA-975W** dated Jan 23, 2003, **CTLA-882W** dated Aug 29, 2002, **CTLA-1035W** dated May 28, 2003 and, **CTLA-1086-W** dated Nov. 17, 2003 and **CTLA-1107W-3** dated June 30, 2004, all signed and sealed by Ramesh Patel, P.E. (this report has addendum letter dated Feb 20, 2009, signed and sealed by Ramesh Patel, P.E.

Ishaq I. Chanda

Ishaq I. Chanda, P.E.
Product Control Unit Supervisor
NOA No. 22-0427.01
Expiration Date: May 05, 2028
Approval Date: August 04, 2022

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

C. CALCULATIONS: (Submitted under file # **15-0826.23**)

1. Anchor verification calculation complying w/ FBC 2014(5th Edition) dated 08/10/15, prepared, signed & sealed by Thomas Gordon., P.E.
2. Hinge Load Evaluation report dtd 01/04/04, prepared, signed & sealed by Thomas Gordon, P.E. (Submitted under file # **10-0209.09**)

D. QUALITY ASSURANCE BY

1. Miami Dade Department of Regulatory and Economic Resources (RER).

E. MATERIAL CERTIFICATIONS (submitted under files #**12-0305.16/**# **10-0209.09**)

1. Material composition & Flammability properties and Material Safety Data sheet of Pyrophobic P25C-60 core by Pyrophobic System LTD, dated DEC 05, 2010, issued by I. Zhvanetsky, chemical consultant.
2. Material composition & Flammability properties and Material Safety Data sheet of Calcium Silicate mineral block, issued by Marshfield Door Sys, Inc., Marshfield. WI 54449.
3. Test Report No. **12-11177**, Nov 29, 2012, issued by Commercial Testing Co. for "Surface Flame spread & Smoke density Characteristics of Building material" per ASTME84-12 for "Elfoam P200", issued to Elliott Co. of Indianapolis Inc.
4. Test Report No. **16206-122543 (1015P200(3))**, dated November 29, 2004 for "Surface Burning Characteristics of Bldg material" per ASTME84 and self-Ignition per ASTM1929D for "Polyisocyanurate" issued by Omega Point Laboratories, Inc. to Elliot Co., Indianapolis, IN.
5. Tensile test report # CTLA-776W (0194H), dtd 02/25/02 prepared by CTL, Architectural Division, sheet samples, tested per ASTM E8, signed & sealed by Ramesh Patel, P.E.
6. Tensile Test report No: A103W1-Test 1, 2 & 3 dated 23 APR 03 per ASTME-8 for steel face sheet, prepared by Certified Testing laboratory, signed and sealed by Ramesh Patel, P.E.
7. Test Report No. **3094867SAT-001**, April 13, 2006, issued by Intertek for "Surface Burning Characteristics of Building material" per ASTME84 and self-Ignition per ASTM1929D for "EPS", issued to Falcon Foam, a Div of Atlas Roofing, re-named as "ATLAS EPS'.

F. STATEMENTS: Except items #1, balanced items submitted under files #**13-1217.16/** #**10-0209.09**

1. Letter of conformance to **FBC 2014** and **"**No financial interest**"**, dated 09/23/15, prepared, signed and sealed by Gordon Thomas, P.E.
2. Statement letter dated Nov. 26, 2013 issued by Ingersoll-Rand for name change, signed by Jim Donlan, Compliance Engineer.
3. Ingersoll–Rand press release, dated 12/10/12, integrating the brands of Ingersoll–Rand and Schlage among others.
4. Department of State Certification of Reinstatement for **SCHLAGE LOCK COMPANY, LLC** as a limited liability company, active and organized under the laws of the State of Florida, dated 03/17/06 and filed with the Secretary of State
5. Certification of Formation dated 12-08-2003 of Schlage Lock Company, LLC, issued by Secretary of State of Delaware.
6. Laboratory Compliance Statements issued as part of above test reports.
7. Addendum letter dated DEC 19, 2011, issued by Certified Testing Lab verifying wire anchors, strength of grout, stud anchor, Strike plate and MA series Mortise Lock, supplemented w/ marked-up drawings, signed and sealed by Ramesh Patel, P.E.
8. Letter of certification dated 04/20/10, issued by Ingersoll-Rand for electronic CO lock series mechanical /functional parts same as AD, ND and AD-M series.

Ishaq I. Chanda

Ishaq I. Chanda, P.E.
Product Control Unit Supervisor
NOA No. 22-0427.01
Expiration Date: May 05, 2028
Approval Date: August 04, 2022

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

G. OTHER

1. This NOA **renews NOA #15-0826.23,** expiring on 05/05/18.
2. Request for 1-Year renewal by Schlage Company dated 04/20/17, signed by James Donlan.
3. Test proposals # **14-0252**, **-0254**, #**14-1086**, #**14-0254-R1** and #**12-0797R** approved by RER.
4. Consolidation Test proposal # **06-2468**, dated 04/27/07 approved by BCCO.
5. Previously consolidated NOA(s) associated with this file are NOA(s) #1029.07, 07-829.04, 020712.01, 02-0712.03, 03-0908.03, 04-0303.03 and 05-0103.01.
6. Technical brochures of butt Hinges, continuous Hinges, Schlage & Falcon Mortise Locks, Supplied by Schlage Company (former Ingersoll-Rand).

2. Previous evidence submitted under file #17-0326.06.

A. DRAWINGS

1. Drawing No **IRFS07 Rev M**, titled "Steelcraft H series Single Flush outswing", sheets 1 through 14 of 14, prepared by the manufacturer, dated 05-20-07 and last revised on 03/29/18, signed and sealed by Hermes F. Norero, P.E.

B. TESTS

1. Additional Test report on
    1) Uniform Static Air Pressure Test, Loading per TAS 202-94
    2) Large Missile Impact Test per FBC, TAS 201-94
    3) Cyclic Wind Pressure Loading per FBC, TAS 203-94
    4) Forced Entry Test, per PA 202-94

Along with manufacturer's parts and section drawings of double flush outswing steel doors, marked by National Certified Testing Lab, Test Reports No. **NCTL-210- 3580-2,** dated March 25, 2009, signed and sealed by Gerry Ferrara, P. E.

Along with manufacturer's parts and section drawings of glazed outswing double steel doors, marked by Certified Testing Lab, Test Reports No(s). **NCTL-210-3232-1** dated 02/24/06 and **NCTL-210-3357-1** dated Dec 28, 2006, signed and sealed by Gerard J. Ferrara, P.E.

Along with manufacturer's parts and section drawings of glazed outswing double steel doors, marked by Certified Testing Lab, Test Reports No(s). **NCTL-210-3232-1** dated 02/24/06 and **NCTL-210-3357-1** dated Dec 28, 2006, signed and sealed by Gerard J. Ferrara, P.E

2. Additional Reference test report No. CTLA-1107W for strap anchor qualification.

C. CALCULATIONS:

1. Anchor verification calculation complying w/ FBC 2017(6th Edition) dated 04/04/2017 and last revised on 02/12/2018, prepared by Building Drops, signed & sealed by Hermes F. Norero., P.E.

D. QUALITY ASSURANCE BY

1. Miami Dade Department of Regulatory and Economic Resources (RER).

E. MATERIAL CERTIFICATIONS:

1. None.

F. STATEMENTS: (items # 2 thru 6, submitted under file # **17-1026.24**)

1. Letter of adoption of another Engineer's work per FLA rule 61G15-27, dated 03/14/2017, prepared by Building Drops, Inc., signed and sealed by Hermes F. Norero, P.E.
2. Letter of conformance to FBC 2014 (**5th** Edition) and FBC 2017 (6th Edition), dated 02/08/18, prepared by Building Drops, Inc., signed and sealed by Hermes F. Norero, P.E.
3. Ingersoll–Rand press release, dated 12/10/12, integrating the brands of Ingersoll–Rand and Schlage among others.

Ishaq I. Chanda

Ishaq I. Chanda, P.E.
Product Control Unit Supervisor
NOA No. 22-0427.01
Expiration Date: May 05, 2028
Approval Date: August 04, 2022

F. STATEMENTS: (continue)

4. Department of State Certification of Reinstatement for **SCHLAGE LOCK COMPANY, LLC** as a limited liability company, active and organized under the laws of the State of Florida, dated 03/17/06 and filed with the Secretary of State
5. Certification of Formation dated 12-08-2003 of Schlage Lock Company, LLC, issued by Secretary of State of Delaware.
6. Statement letter dated Nov. 26, 2013 issued by Ingersoll-Rand for name change, signed by Jim Donlan, Compliance Engineer.
7. Letter of certification dated 04/20/10, issued by Ingersoll-Rand for electronic CO lock series mechanical /functional parts same as AD, ND and AD-M series.
8. Addendum letters dated Feb 20, 2009 for test reports Test report CTLA-1035W, issued by Certified Testing lab, signed and sealed by Ramesh Patel, P.E
9. Addendum letter dated DEC 19, 2011, issued by Certified Testing Lab verifying wire anchors, strength of grout, stud anchor, Strike plate and MA series Mortise Lock, supplemented w/ marked-up drawings, signed and sealed by Ramesh Patel, P.E.

G. OTHER

1. This NOA **revises** & **renews NOA #17-0326.06,** expiring on 05/05/23.
2. Test proposals # **14-0252**, **-0254**, #**14-1086**, #**14-0254-R1** and #**12-0797R** approved by RER.
3. Consolidation Test proposal # **06-2468**, dated 04/27/07 approved by BCCO.
4. Technical brochures of butt Hinges, continuous Hinges, Schlage & Falcon Mortise Locks, Supplied by Schlage Company (former Ingersoll-Rand).

3. Evidence submitted in previous NOA

A. DRAWINGS

1. Drawing No **IRFS07 Rev M**, titled "Steelcraft H series Single Flush outswing", sheets 1 through 14 of 14, prepared by the manufacturer, dated 05-20-07 and last revised on 03/29/18, signed and sealed by Hermes F. Norero, P.E.

B. TEST

1. Test report on
    1) Uniform Static Air Pressure Test, Loading per TAS 202-94
    2) Large Missile Impact Test per FBC, TAS 201-94
    3) Cyclic Wind Pressure Loading per FBC, TAS 203-94

Along with manufacturer's parts and section drawings of Single outswing Flush steel doors w/ SVR and top Strike #338 w/roller, issued by UL Testing Lab, Test Reports No(s). **SV31245-20190521** dated SEP 03, 2019, signed and sealed by Alex Spyrou, P.E.

Along with manufacturer's parts and section drawings of Single outswing glazed steel doors w/ SVR and top Strike #338 w/roller, issued by UL Testing Lab, Test Reports No(s). **SV31245-20190624** dated SEP 03, 2019, signed and sealed by Alex Spyrou, P.E.

C. CALCULATIONS

1. None

D. QUALITY ASSURANCE

1. Miami Dade Department of Regulatory and Economic Resources (RER).

Ishaq I. Chanda

Ishaq I. Chanda, P.E.
Product Control Unit Supervisor
NOA No. 22-0427.01
Expiration Date: May 05, 2028
Approval Date: August 04, 2022

E. MATERIAL CERTIFICATIONS

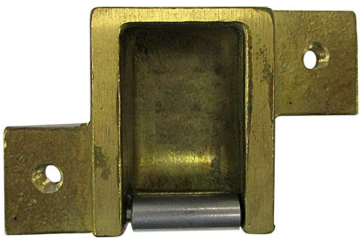
1. None

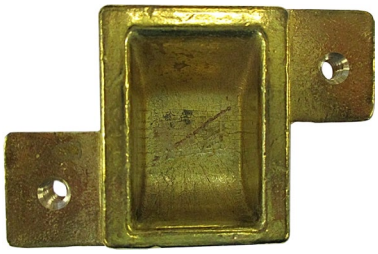
F. STATEMENTS (submitted under file **# 17-0426.02**)

1. Statement letter of conformance to FBC 2017(6th edition) dated 02-08-2018, prepared by Building Drops, signed & sealed by Hermes F. Norero, P.E.
2. Statement letter of adopting another Engineer's work per Florida Rules 61G615-27 dated March 14, 2017, prepared by Building Drops, signed & sealed by Hermes F. Norero, P.E.

G. OTHER

1. This NOA **revises NOA # 17-0426.02**, expiring 05/05/23.
2. Optional CVR top strikes #338 w/wo Roller (see below)





4. Evidence submitted previous approval

A. DRAWINGS

1. Drawing No **IRFS07 Rev N**, titled "Steelcraft H series Single Flush outswing", sheets 1 through 14 of 14, prepared by the manufacturer, dated 05-20-07 and last revised on 03/04/2020, signed and sealed by Hermes F. Norero, P.E.

B. TEST

1. None.

C. CALCULATIONS

1. None.

D. QUALITY ASSURANCE

1. Miami Dade Department of Regulatory and Economic Resources (RER).

E. MATERIAL CERTIFICATIONS

1. None.

F. STATEMENTS (submitted under file **# 19-1016.03**)

1. Statement letter of conformance to FBC 2017(6th edition) dated 02-08-2018, prepared by Building Drops, signed & sealed by Hermes F. Norero, P.E.
2. Application request of address change only by Schlage Lock company, signed by Donald James.

G. OTHER

1. This NOA **revises NOA # 19-1016.03**, expiring 05/05/23.

Ishaq I. Chanda

Ishaq I. Chanda, P.E.
Product Control Unit Supervisor
NOA No. 22-0427.01
Expiration Date: May 05, 2028
Approval Date: August 04, 2022

5. Evidence submitted previous approval

A. DRAWINGS

1. Drawing No **IRFS07 Rev O**, titled "Steelcraft H series Single Flush outswing", sheets 1 through 14 of 14, prepared by the manufacturer, dated 05-20-07 and last revised on 01/29/2021, signed and sealed by Hermes F. Norero, P.E.

B. TEST

1. None.

C. CALCULATIONS

1. None.

D. QUALITY ASSURANCE

1. Miami Dade Department of Regulatory and Economic Resources (RER).

E. MATERIAL CERTIFICATIONS

1. None.

F. STATEMENTS

1. Statement letter of conformance to **FBC 7th Edition (2020)** and of no financial interest, dated 09/02/20, issued by Building Drops, Inc., signed and sealed by Hermes F. Norero, P.E.
2. Statement letter dated 09/02/20 issued by Allegion in reference to DWG. revision changes, signed by Donlan James, code compliance Engineer.

G. OTHER

1. This NOA **revises NOA # 20-0310.08**, expiring 05/05/23.

Ishaq I. Chanda

Ishaq I. Chanda, P.E.
Product Control Unit Supervisor
NOA No. 22-0427.01
Expiration Date: May 05, 2028
Approval Date: August 04, 2022

6. New Evidence submitted

A. DRAWINGS

1. Drawing No **IRFS07 Rev P**, titled "Steelcraft H series Single Flush outswing", sheets 1 through 14 of 14, prepared by the manufacturer, dated 05-20-07 and last revised on 07/18/2022, signed and sealed by Hermes F. Norero, P.E.

B. TEST

1. Test report on
    1) Uniform Static Air Pressure Test, Loading per TAS 202-94
    2) Large Missile Impact Test per FBC, TAS 201-94
    3) Cyclic Wind Pressure Loading per FBC, TAS 203-94
    4) Forced Entry Test, per PA 202-94

Along with manufacturer's parts and section drawings of double flush outswing steel doors w/ CVR Panic with Falcon 4188 w/Roller (top strike) & Falcon 2130 (bottom strike), marked by Under Writers (UL) Lab, LLC, Test Reports No. SV31245-20220217-R3**,** dated March 24, 2022, signed and sealed by Alexis Spyrou, P. E.

C. CALCULATIONS

1. Hilti's anchor verification calculation dated 05/04/2022, using Hilti's software prepared by Building drops, Inc, signed and sealed by Hermes F. Norero, P.E.

D. QUALITY ASSURANCE

1. Miami Dade Department of Regulatory and Economic Resources (RER).

E. MATERIAL CERTIFICATIONS

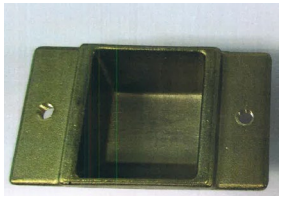
1. None.

F. STATEMENTS

1. Statement letter of conformance to **FBC 7th Edition (2020)** and of no financial interest, dated 05-05-2022, issued by Building Drops, Inc., signed and sealed by Hermes F. Norero, P.E.

G. OTHER

1. This NOA **revises** & **renews NOA # 20-1005.18**, expiring 05/05/28.
2. CVR Falcon 4188 (top strike) options w/wo Roller

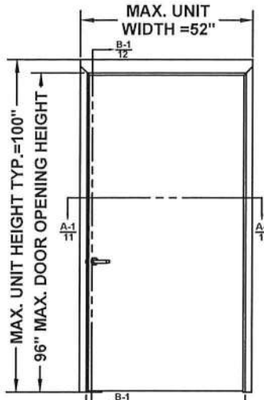


4188 Top strike without Roller

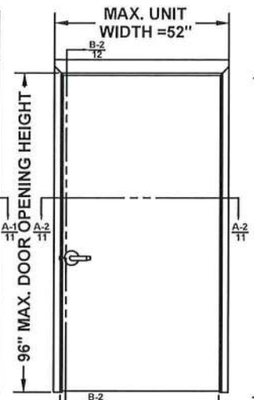
4188 Top strike with Roller

Ishaq I. Chanda

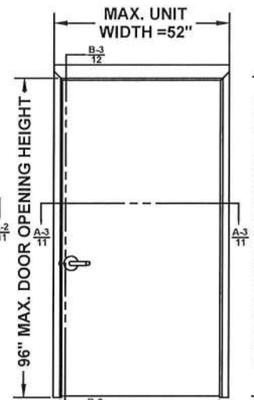
Ishaq I. Chanda, P.E.
Product Control Unit Supervisor
NOA No. 22-0427.01
Expiration Date: May 05, 2028
Approval Date: August 04, 2022



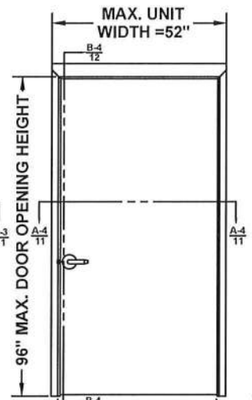
CONFIG.	DESIGN PRESSURE RATING, PSF	
	WHERE WATER INFILTRATION REQUIREMENT IS NEEDED SEE SHEET 5	WHERE WATER INFILTRATION REQUIREMENT IS NOT NEEDED SEE SHEET 6
1	±75	±75



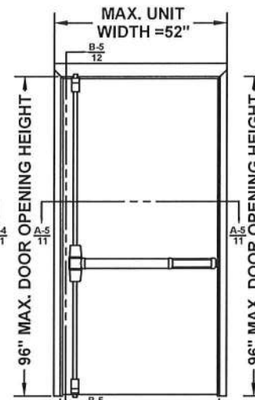
CONFIG.	DESIGN PRESSURE RATING, PSF	
	WHERE WATER INFILTRATION REQUIREMENT IS NEEDED SEE SHEET 5	WHERE WATER INFILTRATION REQUIREMENT IS NOT NEEDED SEE SHEET 6
2	±55	±55



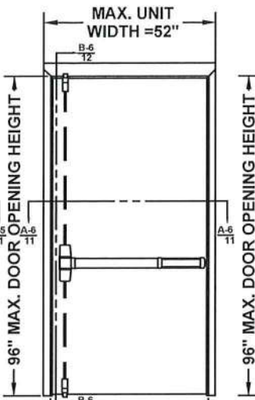
CONFIG.	DESIGN PRESSURE RATING, PSF	
	WHERE WATER INFILTRATION REQUIREMENT IS NEEDED SEE SHEET 5	WHERE WATER INFILTRATION REQUIREMENT IS NOT NEEDED SEE SHEET 6
3	±65	±65



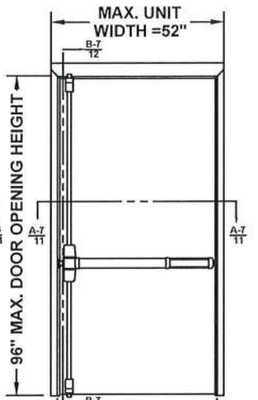
CONFIG.	DESIGN PRESSURE RATING, PSF	
	WHERE WATER INFILTRATION REQUIREMENT IS NEEDED SEE SHEET 5	WHERE WATER INFILTRATION REQUIREMENT IS NOT NEEDED SEE SHEET 6
4	±75	±75



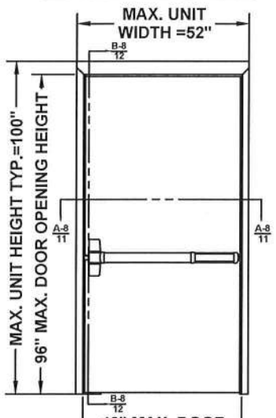
CONFIG.	DESIGN PRESSURE RATING, PSF	
	WHERE WATER INFILTRATION REQUIREMENT IS NEEDED SEE SHEET 5	WHERE WATER INFILTRATION REQUIREMENT IS NOT NEEDED SEE SHEET 6
5	±70	±70



CONFIG.	DESIGN PRESSURE RATING, PSF	
	WHERE WATER INFILTRATION REQUIREMENT IS NEEDED SEE SHEET 5	WHERE WATER INFILTRATION REQUIREMENT IS NOT NEEDED SEE SHEET 6
6	±70	±70

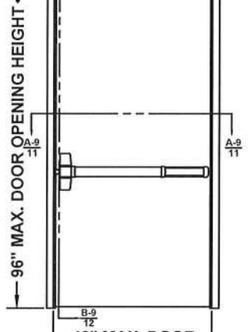


CONFIG.	DESIGN PRESSURE RATING, PSF	
	WHERE WATER INFILTRATION REQUIREMENT IS NEEDED SEE SHEET 5	WHERE WATER INFILTRATION REQUIREMENT IS NOT NEEDED SEE SHEET 6
7	±70	±70



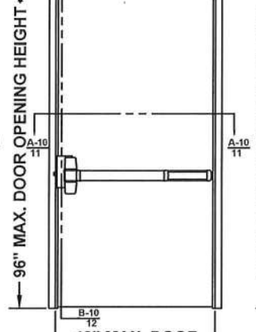
CONFIG.	DESIGN PRESSURE RATING, PSF	
	WHERE WATER INFILTRATION REQUIREMENT IS NEEDED SEE SHEET 5	WHERE WATER INFILTRATION REQUIREMENT IS NOT NEEDED SEE SHEET 6
8	±70	±70

RIM EXIT DEVICE



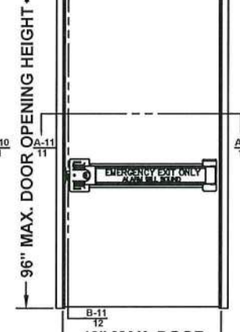
CONFIG.	DESIGN PRESSURE RATING, PSF	
	WHERE WATER INFILTRATION REQUIREMENT IS NEEDED SEE SHEET 5	WHERE WATER INFILTRATION REQUIREMENT IS NOT NEEDED SEE SHEET 6
9	±75	±100

RIM EXIT DEVICE



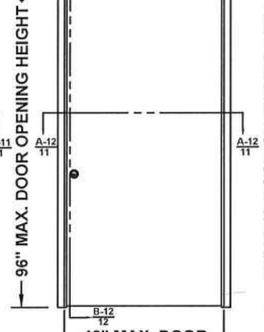
CONFIG.	DESIGN PRESSURE RATING, PSF	
	WHERE WATER INFILTRATION REQUIREMENT IS NEEDED SEE SHEET 5	WHERE WATER INFILTRATION REQUIREMENT IS NOT NEEDED SEE SHEET 6
10	±70	±70

MORTISE EXIT DEVICE



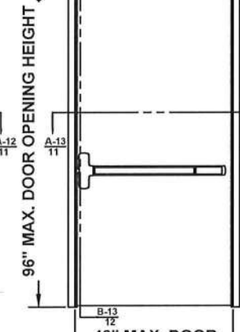
CONFIG.	DESIGN PRESSURE RATING, PSF	
	WHERE WATER INFILTRATION REQUIREMENT IS NEEDED SEE SHEET 5	WHERE WATER INFILTRATION REQUIREMENT IS NOT NEEDED SEE SHEET 6
11	±55	±55

EXIT ALARM LOCK



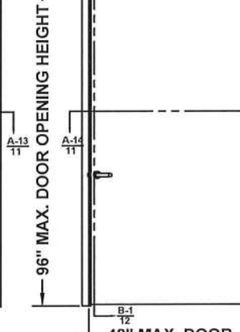
CONFIG.	DESIGN PRESSURE RATING, PSF	
	WHERE WATER INFILTRATION REQUIREMENT IS NEEDED SEE SHEET 5	WHERE WATER INFILTRATION REQUIREMENT IS NOT NEEDED SEE SHEET 6
12	±60	±60

CYLINDRICAL DEADLOCK



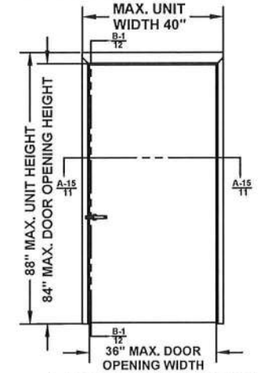
CONFIG.	DESIGN PRESSURE RATING, PSF	
	WHERE WATER INFILTRATION REQUIREMENT IS NEEDED SEE SHEET 5	WHERE WATER INFILTRATION REQUIREMENT IS NOT NEEDED SEE SHEET 6
13	+70/-55	+70/-55

RIM EXIT DEVICE



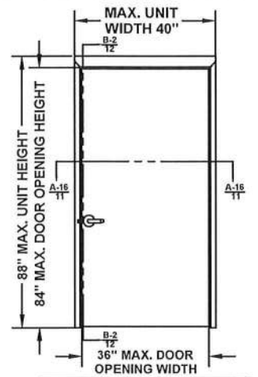
CONFIG.	DESIGN PRESSURE RATING, PSF	
	WHERE WATER INFILTRATION REQUIREMENT IS NEEDED SEE SHEET 5	WHERE WATER INFILTRATION REQUIREMENT IS NOT NEEDED SEE SHEET 6
14	±60	±60

MORTISE LOCKSET WITHOUT DEADBOLT



CONFIG.	DESIGN PRESSURE RATING, PSF	
	WHERE WATER INFILTRATION REQUIREMENT IS NEEDED SEE SHEET 5	WHERE WATER INFILTRATION REQUIREMENT IS NOT NEEDED SEE SHEET 6
15	±75	±75

MORTISE LOCKSET WITHOUT DEADBOLT



CONFIG.	DESIGN PRESSURE RATING, PSF	
	WHERE WATER INFILTRATION REQUIREMENT IS NEEDED SEE SHEET 5	WHERE WATER INFILTRATION REQUIREMENT IS NOT NEEDED SEE SHEET 6
16	±75	±75

CYLINDRICAL LOCKSET WITH 1/2" THROW LATCH

NOTE:
SEE SHEETS 5 & 6 FOR THRESHOLD TYPES, WEATHERSTRIP COMPONENTS, DOOR SIZE, AND DP LIMITATIONS.

REVISIONS

LTR	DESCRIPTION		DATE	APPROVED
A	APPROVAL DWG	YMF	05/20/07	
G	REVISED DWG	YMF	01/20/10	
H	REVISED DWG	YMF	04/07/10	
J	REVISED NAME	JPD	11/01/13	
K	REVISED DWG	JPD	02/01/15	
L	REVISED DWG	JPD	05/05/15	
M	ENGINEER CHANGE	LA	02/16/17	
N	ADDRESS UPDATE	SM	02/27/20	
O	2020 FBC UPDATE	NUS	07/07/20	
P	ANCHOR/STRIKE UPDATE	LL	04/06/22	

HERMES F. NORERO LICENSE NO. 73778 STATE OF FLORIDA PROFESSIONAL ENGINEER
7-18-2022
HERMES F. NORERO, P.E.
FLORIDA P.E. NO. 73778
BUILDING DROPS, INC.
398 E. DANIA BEACH BLVD. #338
DANIA BEACH, FL. 33004
FBPE CERT. OF AUTHORIZATION NO. 29578

PRODUCT RENEWED
as complying with the Florida Building Code
NOA-No. 22-0427.01
Expiration Date 05/05/2028
By Ishaq I. Chanda
Miami-Dade Product Control

COMPLIANCE STATEMENT:
1. THESE PRODUCTS HAVE BEEN TESTED TO HVHZ PROTOCOLS TAS 201, 202 & 203-94 AND COMPLY WITH THE 2020 (7TH EDITION) FLORIDA BUILDING CODE.

NOTES:
1. INTERIOR VIEWS ARE SHOWN FOR ALL ELEVATIONS
2. SEE TABLE 1 ON SHEET 2 FOR HARDWARE APPLICATIONS AND LIMITATIONS
3. SEE SHEETS 3 & 14 FOR HINGE REQUIREMENTS AND OPTIONS
4. SEE SHEET 4 FOR ANCHORING TYPES AND LIMITATIONS. SEE SHEETS 3, 5 AND 6 FOR SILL INSTALLATION DETAILS & CAULKING.
5. SEE SHEET 5 TABLES 3.1 AND 3.2 FOR WATER RATED THRESHOLD AND WEATHERSTRIPPING INSTALLATION AND LIMITATIONS
6. SEE SHEET 6 TABLES 4.1 AND 4.2 FOR NON WATER RATED THRESHOLD AND WEATHERSTRIPPING INSTALLATION AND LIMITATIONS
7. ALL CONFIGURATIONS MEET LARGE AND SMALL MISSILE IMPACT REQUIREMENTS - LARGE MISSILE IMPACT AT (50 F/S)

BEND RADIUS

THIRD ANGLE PROJECTION

DRAWN	DATE
YMF	05/20/07
CHECKED	
APPROVED	
ENG. APPVL JPD	10/11/07

SCHLAGE LOCK COMPANY, LLC
11819 N. PENNSYLVANIA STREET
CARMEL, IN 46032

MANUFACTURING FACILITY:
STEELCRAFT
9017 BLUE ASH ROAD
CINCINNATI, OH 45242

TITLE: STEELCRAFT H SERIES SINGLE FLUSH OUTSWING COMMERCIAL STEEL DOORS WITH AND WITHOUT PANIC EXIT DEVICES

MIAMI-DADE COUNTY PRODUCT APPROVAL
FLUSH OUTSWING DOORS AND HARDWARE CONFIGURATIONS
COMMERCIAL DOOR OPENING SINGLE FLUSH DOORS.

SIZE	FLAT	DWG NO.	REV
		IRFS07	P

SCALE: NTS | AUTOCAD | SHEET 1 of 14

Door Configuration	Maximum Design Pressure, PSF		Maximum Door Opening Size, in.		Locking Hardware Description				Comments
	Positive	Negative	Width	Height	Hardware Family	Model/Series	Strike Models	Brand	
1	75	75	48	96	Mortise Lock	L/LV9400/AD/CO MD	10-072	Schlage	Functions with deadbolt, 3/4" min. throw latch & 1" min. throw deadbolt
	75	75	48	96	Mortise Lock	MA	ANSI	Falcon	
2	55	55	48	96	Cylindrical Lock	AL	10-025	Schlage	1/2" throw latch
3	65	65	48	96	Cylindrical Lock	D/ND/AD/CO CYL	10-025	Schlage	1/2" throw latch
4	75	75	48	96	Cylindrical Lock	D/ND/AD/CO CYL	10-025	Schlage	3/4" throw latch
	75	75	48	96	Cylindrical Lock	T	ANSI	Falcon	3/4" throw latch
5	70	70	48	96	Surface Vertical Rod Exit Device	9827, 9927, 9827-F, 9927-F	299F/499F Top, 304L Bottom	Von Duprin	
	70	70	48	96	Surface Vertical Rod Exit Device	25-V, F-25-V	3788 Top, 2130 Bottom	Falcon	
6	70	70	48	96	Concealed Vertical Rod Exit Device	9847-F, 9947-F, HH9847, HH9947	338 Top, 304L Bottom	Von Duprin	HH98/9947 devices have a 2-3/4" backset
	70	70	48	96	Concealed Vertical Rod Exit Device	F-25-C	4188 Top, 2130 Bottom	Falcon	4188 for use with or without roller
7	70	70	48	96	Three-Point Latching Device	9857, 9957, 9857-F, 9957-F	299F/499F Top/Middle, 304L Bottom	Von Duprin	
8	70	70	48	96	Rim Exit Device	98, 99, 98-F, 99-F	299F/499F	Von Duprin	
	70	70	48	96	Rim Exit Device	88-F	268,468	Von Duprin	
9	75/100 SEE NOTE 2.	75/100 SEE NOTE 2.	48	96	Rim Exit Device	XP98, XP99, XP98-F, XP99-F	909/954	Von Duprin	
10	70	70	48	96	Mortise Exit Device	9875, 9975, 9875-F, 9975-F	575	Von Duprin	
	70	70	48	96	Mortise Exit Device	8875, 8875-F	575	Von Duprin	
	70	70	48	96	Mortise Exit Device	25-M, F-25-M	1279	Falcon	
11	55	55	48	96	Exit Alarm Lock	2670 GUARD-X	267	Von Duprin	
12	60	60	48	96	Cyl. Deadlock	B600/700/800	10-055	Schlage	1" min. throw deadbolt
13	70	55	48	96	Rim Exit Device	25-R, F-25-R	299F/499F	Falcon	
14	60	60	48	96	Mortise Lock	L/LV9000/AD/CO MS	10-072	Schlage	Functions without deadbolt, 3/4" min. throw latch
15	75	75	36	84	Mortise Lock	L/LV9000/AD/CO MS	10-072	Schlage	Functions without deadbolt, 3/4" min. throw latch
	75	75	36	84	Mortise Lock	MA	ANSI	Falcon	
16	75	75	36	84	Cylindrical Lock	D/ND/AD/CO CYL	10-025	Schlage	1/2" throw latch
	75	75	36	84	Cylindrical Lock	T	ANSI	Falcon	

TABLE 1.

NOTES:

1. SEE SHEETS 8, 9 & 10 FOR LOCKING HARDWARE.
2. DOOR CONFIGURATION 9 IS RATED FOR MAXIMUM DESIGN PRESSURE UP TO ±75 PSF WITH ZERO INT'L THRESHOLD 11A OR FOR DOOR OPENINGS UP TO 3'-0"X7'-0" WITH NGP THRESHOLD 11B AND ±50 PSF FOR DOOR OPENINGS UP TO 4'-0"X8'-0" WITH NGP THRESHOLD 11B WHEN WATER IN FILTRATION REQUIREMENT IS NEEDED. SEE SHEET 5.

2.1 DOOR CONFIGURATION 9 IS RATED FOR A MAXIMUM DESIGN PRESSURE UP TO ±75 PSF WITH ZERO INT'L THRESHOLD OPTIONS AND UP TO ±100 PSF WITH THE NGP THRESHOLD OPTIONS WHEN WATER INFILTRATION REQUIREMENT IS NOT NEEDED. SEE SHEET 6

3. SCHLAGE AL-SERIES CYLINDRICAL LOCK, DOOR CONFIGURATION 2, IS LIMITED TO ±55 PSF MAXIMUM DESIGN PRESSURE

REVISIONS

LTR	DESCRIPTION		DATE	APPROVED
A	APPROVAL DWG	YMF	05/20/07	
B	REVISED DWG	RAP	10/11/07	
C	REVISED DWG	RAP	12/10/07	
D	REVISED DWG	YMF	01/04/08	
E	REVISED DWG	YMF	03/31/08	
F	REVISED DWG	YMF	06/02/08	
G	REVISED DWG	YMF	03/03/09	
H	REVISED DWG	YMF	04/07/10	
J	REVISED NAME	JPD	11/01/13	
J	REVISED NAME	JPD	11/01/13	
M	ENGINEER CHANGE	LA	02/16/17	
N	ADDRESS CHANGE	JPD	01/10/20	
O	2020 FBC UPDATE	NUS	07/07/20	
P	STRIKE UPDATE	LL	04/06/22	

PRODUCT RENEWED
as complying with the Florida Building Code
NOA-No. 22-0427.01
Expiration Date 05/05/2028
By Ishaq I. Chanda
Miami-Dade Product Control

HERMES F. NORIERO LICENSE No. 73778 STATE OF FLORIDA PROFESSIONAL ENGINEER
7-10-2022
HERMES F. NORIERO, P.E.
FLORIDA P.E. NO.73778
BUILDING PROD. 1, INC.
398 E. DANIA BEACH BLVD. #338
DANIA BEACH, FL 33004
FBPE CERT. OF AUTHORIZATION NO. 29578

BEND RADIUS

THIRD ANGLE PROJECTION

DRAWN	DATE
YMF	05/20/07
CHECKED	
APPROVED	
ENG. APPVL JPD	10/11/07

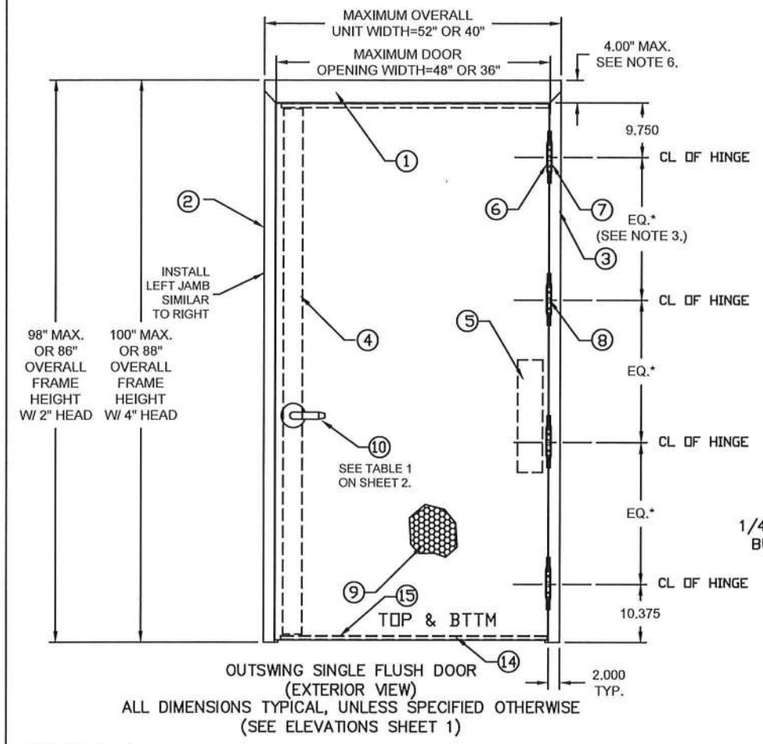
SCHLAGE LOCK COMPANY, LLC
11819 N. PENNSYLVANIA STREET
CARMEL, IN 46032

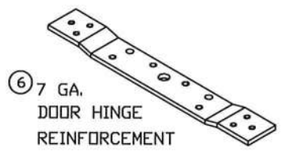
MANUFACTURING FACILITY:
STEELCRAFT
9017 BLUE ASH ROAD
CINCINNATI, OH 45242

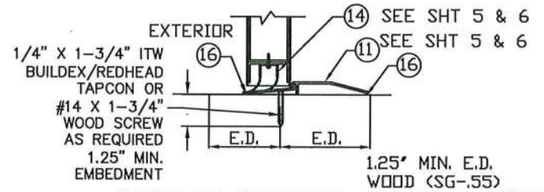
TITLE: STEELCRAFT H SERIES SINGLE FLUSH OUTSWING COMMERCIAL STEEL DOORS WITH AND WITHOUT PANIC EXIT DEVICES
MIAMI-DADE COUNTY PRODUCT APPROVAL
FLUSH OUTSWING DOORS AND HARDWARE CONFIGURATIONS
COMMERCIAL DOOR OPENING SINGLE FLUSH DOORS.

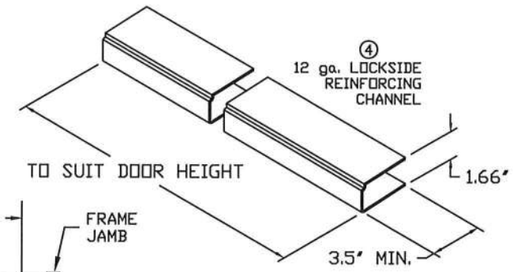
SIZE	FLAT	DWG NO.	REV
		IRFS07	P

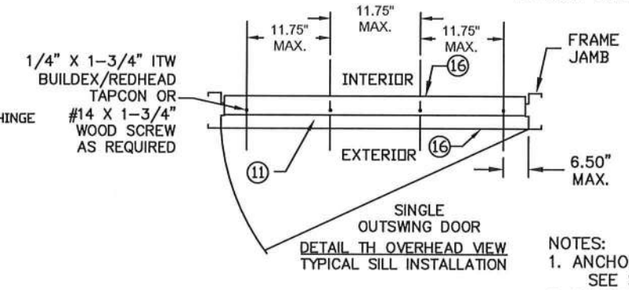
SCALE:	NTS	AUTOCAD		SHEET	2 of 14











REVISIONS				
LTR	DESCRIPTION		DATE	APPROVED
C	REVISED DWGS.	RAP	12/10/07	
E	REVISED DWGS.	YMF	03/24/08	
F	REVISED DWGS.	YMF	06/02/08	
G	REVISED DWGS.	YMF	03/03/09	
H	REVISED DWGS.	YMF	04/07/10	
J	REVISED NAME	JPD	11/01/13	
K	REVISED DWG	JPD	02/01/15	
L	REVISED DWG	JPD	02/01/15	
M	ENGINEER CHANGE	LA	02/16/17	
N	ADDRESS UPDATE	SM	02/27/20	
O	2020 FBC UPDATE	NUS	07/07/20	
P	STRIKE UPDATE	LL	04/06/22	

TABLE 2.

	QUANTITY	DESCRIPTION	MATERIAL	SIZE
1	1	HEAD SEE SHT 7 ASTM A366	.053" MIN. STL	MAX. 52"
2	1	STRIKE JAMB SEE SHT. 7 ASTM A366	.053" MIN. STL	MAX. 100"
3	1	HINGE JAMB SEE SHT 7 ASTM A366	.053" MIN. STL	MAX. 100"
4	1	LOCK SIDE REINFORCEMENT CHANNEL	.093" MIN. STL	3.5 X 93.44 MAX
5	1	HINGE SIDE PANIC REINFORCEMENT	.067" MIN. STL	MAX. 20"
6	NOTE 3.	HINGE REINFORCEMENT DOOR ASTM A621	.167" MIN. STL.	1.23" X 9.19" MIN.
7	NOTE 3.	HINGE REINFORCEMENT FRAME ASTM A621	.167" MIN. STL.	1.5" X 9.187" MIN.
8	NOTE 3.	4.5" X 4.5" BUTT HINGES	.134" MIN. STL.	(8) #12-24 MS PER HINGE
		OPTIONAL CONTINUOUS HINGE	.075" MIN. STL/.110 ALUM	MAX. 95"
9	1	CORE MATERIAL (SHT. 13)	D) HONEYCOMB C) STEEL STIFFENED A/F) POLYSTYRENE B/F) POLYURETHANE/POLYISOCYANURATE E) MINERAL BOARD TEMPERATURE RISE CORE	
10	1	LOCKING HARDWARE - SEE SHEET 2, TABLE 1		
11	1	THRESHOLD SILL W/BUMPER GASKET		
		11A) 566 ZERO SEE SHT. 5 WATER RATED & 6 NON-WATER	.125" ALUM. 6063 T5	5.0"X0.5"X48"MAX.
		11B) 950 NGP SEE SHT. 5 WATER RATED & 6 NON-WATER	.078" ALUM. 6063 T5	
		11C) 65 ZERO SEE SHT. 6 NON-WATER RATED	.125" ALUM. 6063 T5	
		11D) 568 ZERO SEE SHT. 6 NON-WATER RATED	.125" ALUM. 6063 T5	6.0"X0.5"X48"MAX.
12	NOTE 2.	JAMB ANCHOR ASTM A924	SEE SHEET 4	
13	SEE SHEET 6	13A) PS074 DOOR SEAL STEELCRAFT	TPE	MAX. 20"
		13B)188S, 13C)117S, 13D)8144S, 13E)8150S DOOR SEAL ZERO	SILICONE	
14	1	FAS-SEAL DOOR SWEEP SEE SHEETS 5 & 6	TPE	MAX. 48"
15	2	END CHANNEL ASTM A924 (14 GA - INVERTED)	.067" MIN. STEEL	.69" X 1.66" X 48" MAX.
16	AS NEEDED	CAULK - BUTYL RUBBER OR 100% SILICONE	SEE SHEETS 5 & 6	
17	1	DOOR SLAB (16 OR 14 GA)	SEE SHEET 7	4' X 8' MAX.
18	1	18A 188S DOOR SEAL BY ZERO INT'L	SILICONE SEE SHEET 5	MAX. 20'
		18B PS074 DOOR SEAL BY STEELCRAFT	TPE SEE SHEET 5	
19	2	202N DOOR SEAL BY NGP	TPE SEE SHEET 5	MAX. 96"
20	1	20A 139 DOOR SWEEP BY ZERO INT'L	SEE SHEET 5	MAX. 48"
		20B 328 DOOR SWEEP BY ZERO INT'L		
		20C 200N DOOR SWEEP BY NGP		
21	3	21A 475 ADJUSTABLE SEAL BY ZERO INT'L	TPE SEE SHEET 5	MAX. 96"
	1	21B 170N ADJUSTABLE SEAL BY NGP		
22	1	22A 142 RAIN DRIP BY ZERO INT'L	SEE SHEET 5	MAX. 52"
		22B 11 RAIN DRIP BY ZERO INT'L		
		22C 16A RAIN DRIP BY NGP		
23	1	TOP CAP GALV. A60 ASTM A924	.020" MIN. STL	0.5" X 1.76" X 48" MAX.
24	1	IVES 698/U698 DOOR VIEWER	BRASS	

NOTES:
1. ANCHOR REQUIREMENTS:
   SEE SHEET 4 FOR APPROVED ANCHORS AND INSTALLATION.
2. HINGE REQUIREMENTS: 4.5" STD WT. MIN.
   FOR DOOR OPENING UP TO 90" HIGH – MIN (3) HINGES
   FOR DOOR OPENING OVER 90" – 96" HIGH – MIN (4) HINGES
   STD LOCATIONS: 9.75" FROM RABBET IN HEAD TO CL OF TOP HINGE
   10.38" FROM FLOOR TO CL OF BOTTOM HINGE, EQUALLY SPACED
   IN BETWEEN. HINGE LOCATIONS MAY VARY, MAX SPACING DO NOT EXCEED 35.5" FOR 3 HINGES.
   SEE SHEET 14 FOR APPROVED CONTINUOUS HINGE MODELS
3. SEE SHEETS 1, 2 & 3 FOR AVAILABLE STANDARD OPENING SIZES AND SPECIFICATIONS.
4. HARDWARE INSTALLATION AS PER MANUFACTURER'S INSTRUCTIONS.
5. 4" FACE FRAME HEAD IS AVAILABLE. SEE SHEET 4
6. APPLY CAULK TO FULL LENGTH OF SILL AND ENTIRE PERIMETER OF FRAME. SEE SHEETS 5 & 6
7. WEATHERSTRIPPING:
   – WHEN WATER INFILTRATION IS REQUIRED INSTALL PER SHEET 5. (ZERO INTL 566 VS NGP 950)
   – WHEN WATER INFILTRATION IS NOT REQUIRED – INSTALL PER SHEET 6. (ZERO INTL 566, 65 & 568 VS NGP 950)
8. SEE SHEET 11 FOR HORIZONTAL CROSS SECTION A–A, SEE SHEET 12 FOR VERTICAL CROSS SECTION B–B.
9. TYPICAL SILL INSTALLATION SHALL BE ANCHORED PER OVERHEAD AND SIDEVIEW VIEW TH DETAILS ON THIS SHEET.
10. ELECTRIFIED AND FIRE RATED OPTIONS OF APPROVED HARDWARE ARE ACCEPTABLE. INSTALLATION AND APPLICATION IS UNDER SEPARATE APPROVAL AND IS REVIEWED BY THE CORRESPONDING AUTHORITY.
11. OPTIONAL POWER TRANSFERS, MONITORING SWITCHES, SUPPLEMENTAL MAGNETIC LOCKS MAY BE USED AS ALLOWED BY CODE AND IT DOES NOT EFFECT THE MECHANICAL PROPERTIES OF EXIT DEVICE OR LOCK AND/OR INHIBIT EGRESS; TO BE REVIEWED BY THE BUILDING OFFICIAL.

PRODUCT RENEWED
as complying with the Florida Building Code
NOA-No. 22-0427.01
Expiration Date 05/05/2028
By Ishaq I. Chanda
Miami-Dade Product Control

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THIRD ANGLE PROJECTION

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MANUFACTURING FACILITY:
STEELCRAFT
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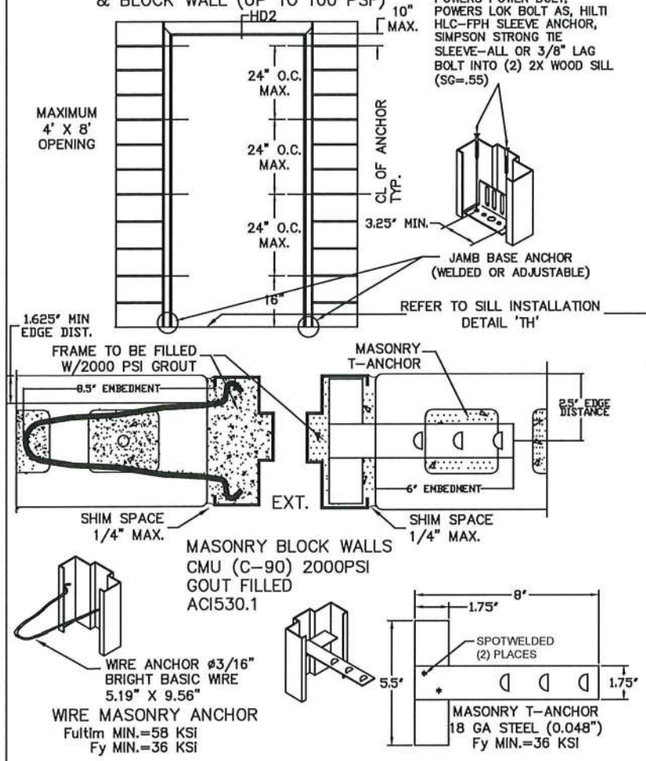
DRAWN	DATE
YMF	05/20/07
CHECKED	
APPROVED	
ENG. APPVL: JPD	10/11/07

TITLE: STEELCRAFT H SERIES SINGLE FLUSH OUTSWING COMMERCIAL STEEL DOORS WITH AND WITHOUT PANIC EXIT DEVICES
MIAMI-DADE COUNTY PRODUCT APPROVAL
H-SERIES FLUSH SINGLE DOORS (OUTSWING)

SIZE	FLAT	DWG NO.	REV
		IRFS07	P
SCALE: NTS	AUTOCAD		SHEET 3 of 14

A WIRE OR T MASONRY ANCHOR INTO GROUT FILLED FRAME & BLOCK WALL (UP TO 100 PSF)

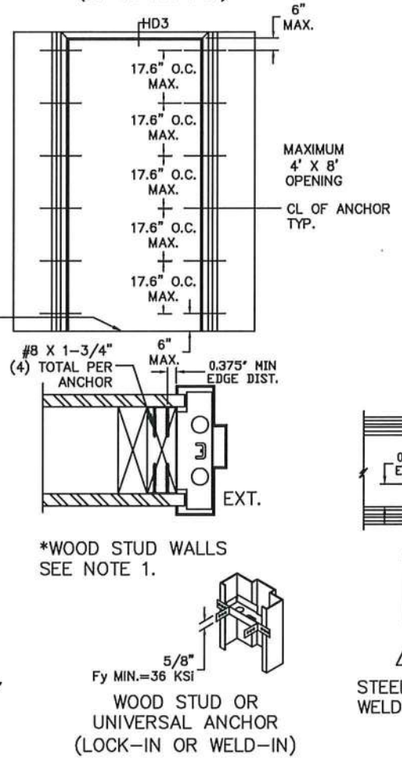


JAMB BASE ANCHOR ø0.375" WITH 2" MIN. EMBEDMENT POWERS POWER BOLT, POWERS LOK BOLT AS, HILTI HLC-FPH SLEEVE ANCHOR, SIMPSON STRONG TIE SLEEVE-ALL OR 3/8" LAG BOLT INTO (2) 2X WOOD SILL (SG=.55)

JAMB BASE ANCHOR (WELDED OR ADJUSTABLE)

REFER TO SILL INSTALLATION DETAIL 'TH'

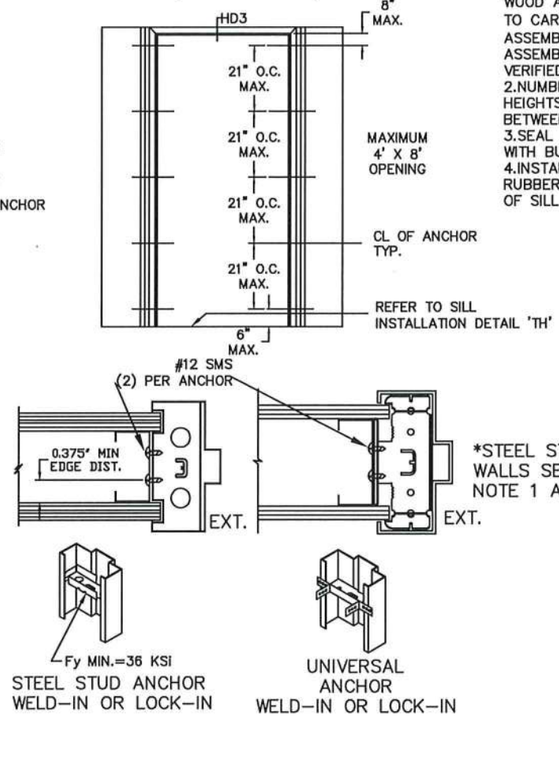
B WOOD STUD ANCHOR (UP TO 100 PSF)



*WOOD STUD WALLS SEE NOTE 1.

WOOD STUD OR UNIVERSAL ANCHOR (LOCK-IN OR WELD-IN)

C STEEL STUD ANCHOR (UP TO 100 PSF)



*STEEL STUD WALLS SEE NOTE 1 ABOVE.

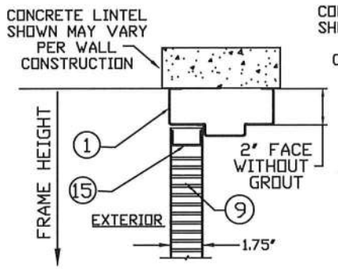
STEEL STUD ANCHOR WELD-IN OR LOCK-IN

UNIVERSAL ANCHOR WELD-IN OR LOCK-IN

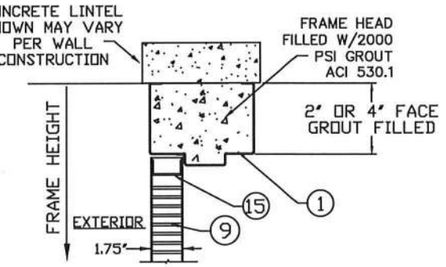
NOTES:
1.(*)WOOD OR (*)STEEL STRUCTURAL MEMBERS OF WOOD AND STEEL-STUD WALLS MUST BE DESIGNED TO CARRY AT LEAST 312 #/FT. LOAD FOR ASSEMBLIES RATED @75 PSF,AND 416#/FT. FOR ASSEMBLIES RATED @100 PSF, WHICH SHOULD BE VERIFIED BY THE APPROPRIATE OFFICIAL.
2.NUMBER OF ANCHORS FOR VARIOUS OPENING HEIGHTS IS LIMITED BY MAXIMUM DISTANCE BETWEEN ANCHORS, SHOWN ON THIS SHEET.
3.SEAL ALL JOINTS WHERE FRAME MEETS WALL WITH BUTYL RUBBER OR 100% SILICONE CAULK
4.INSTALL THRESHOLD INTO BEAD OF BUTYL RUBBER OR 100% SILICONE CAULK FULL LENGTH OF SILL

REVISIONS

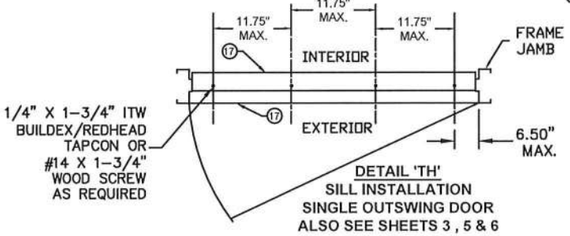
LTR	DESCRIPTION		DATE	APPROVED
A	APPROVAL DWG	YMF	05/20/07	
G	REVISED DWG	YMF	03/03/09	
H	REVISED DWG	YMF	04/07/10	
J	REVISED NAME	JPD	11/01/13	
K	REVISED DWG	JPD	02/01/15	
L	REVISED DWG	JPD	05/05/15	
M	ENGINEER CHANGE	LA	02/16/17	
N	ADDRESS UPDATE	SM	02/27/20	
O	2020 FBC UPDATE	NUS	07/07/20	
P	ANCHOR/STRIKE UPDATE	LL	04/06/22	



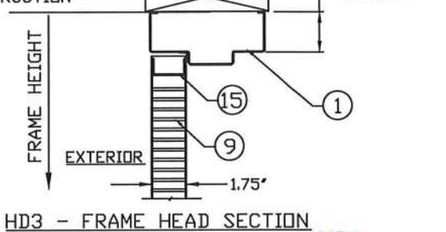
HD1 - FRAME HEAD SECTION



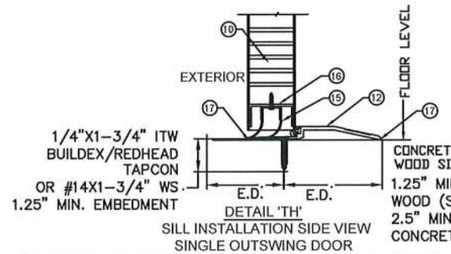
HD2 - FRAME HEAD SECTION



DETAIL 'TH' SILL INSTALLATION SINGLE OUTSWING DOOR ALSO SEE SHEETS 3 , 5 & 6

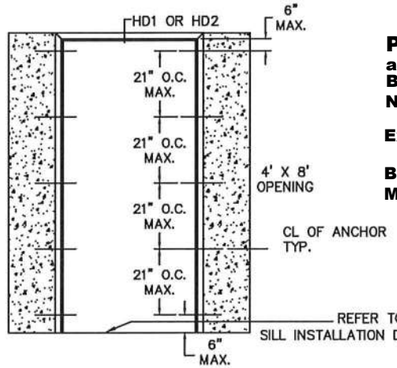


HD3 - FRAME HEAD SECTION

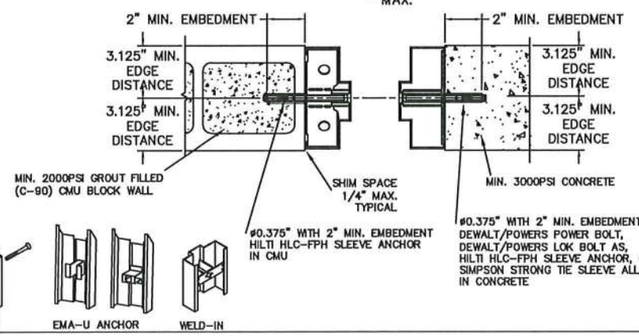


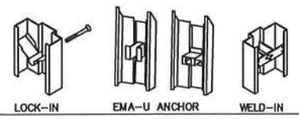
DETAIL 'TH' SILL INSTALLATION SIDE VIEW SINGLE OUTSWING DOOR

D EXISTING MASONRY ANCHOR (EMA) INTO CONCRETE OR CMU (UP TO 100 PSF)

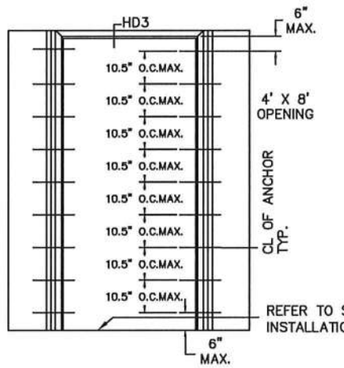


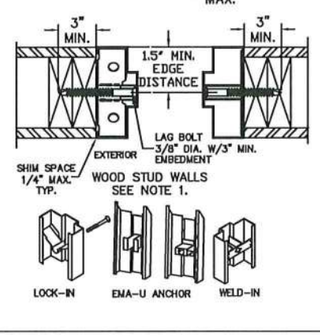
PRODUCT RENEWED
as complying with the Florida Building Code
NOA-No. 22-0427.01
Expiration Date 05/05/2028
By Ishaq I. Chanda
Miami-Dade Product Control





E EXISTING MASONRY ANCHOR (EMA) WITH LAG BOLT INTO WOOD STUD WALL (UP TO 100 PSF)





HERMES F. NORERO LICENSE No. 73778 STATE OF FLORIDA 4-18-2022 HERMES F. NORERO, P.E. FLORIDA PE# 73778 BUILDING DROPS INC. 368 E. DANIA BEACH BLVD. #368 DANIA BEACH, FL 33004 FIRE CERT. OF AUTHORIZATION NO. 29578 PROFESSIONAL ENGINEER

BEND RADIUS

THIRD ANGLE PROJECTION

DRAWN	DATE
YMF	05/20/07
CHECKED	
APPROVED	
ENG. APPVL	
JPD	10/11/07

SCHLAGE LOCK COMPANY, LLC
11819 N. PENNSYLVANIA STREET
CARMEL, IN 46032

MANUFACRURING FACILITY:
STEELCRAFT
9017 BLUE ASH ROAD
CINCINNATI, OH 45242

TITLE: STEELCRAFT H SERIES SINGLE FLUSH OUTSWING COMMERCIAL STEEL DOORS WITH AND WITHOUT PANIC EXIT DEVICES

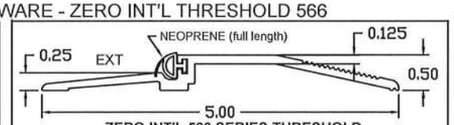
FRAME ANCHOR DETAILS & INSTALLATION CONDITIONS.

SIZE	FLAT	DWG NO.	REV
		IRFS07	P
SCALE: NTS	AUTOCAD		SHEET 4 of 14

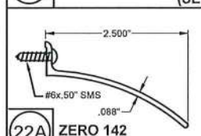
TABLE 3.1 WATER RATED PERIMETER SEAL HARDWARE - ZERO INT'L THRESHOLD 566

ITEM NUMBER	MODEL No./ DESCRIPTION	MFG.
11A	566 THRESHOLD	ZERO INT'L
14	FAS-SEAL SWEEP	STEELCRAFT
15	END CHANNEL	STEELCRAFT
18A	188S DOOR SEAL	ZERO INT'L
20A	139 DOOR SWEEP	ZERO INT'L
20B	328 DOOR SWEEP	ZERO INT'L
21A	475 ADJUSTABLE SEAL	ZERO INT'L
22A	142 RAIN DRIP	ZERO INT'L
22B	11 RAIN DRIP	ZERO INT'L
23	DOOR TOP CAP	STEELCRAFT

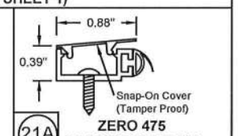
ZERO INT'L 566 THRESHOLD GASKETING SYSTEM REQUIREMENTS FOR WATER INFILTRATION - MAXIMUM DESIGN PRESSURE RATING 75PSF - MAXIMUM DOOR SIZE 4'-0" X 8'-0" (SEE ELEVATIONS SHEET 1)



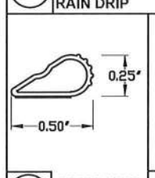
11A ZERO INT'L 566 SERIES THRESHOLD UP TO MAX. DESIGN PRESSURE +/- 75 PSF (SEE SHEET 1)



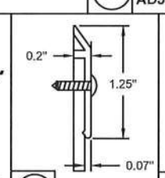
22A ZERO 142 RAIN DRIP



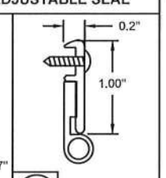
21A ZERO 475 ADJUSTABLE SEAL



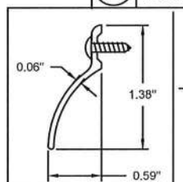
18A ZERO 188S DOOR SEAL



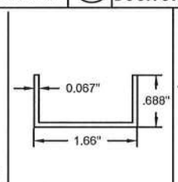
20A ZERO 139 DOOR SWEEP



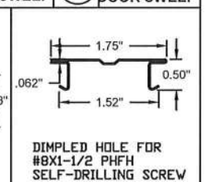
20B ZERO 328 DOOR SWEEP



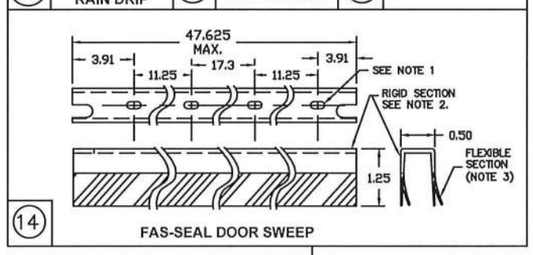
22B ZERO 11 RAIN DRIP



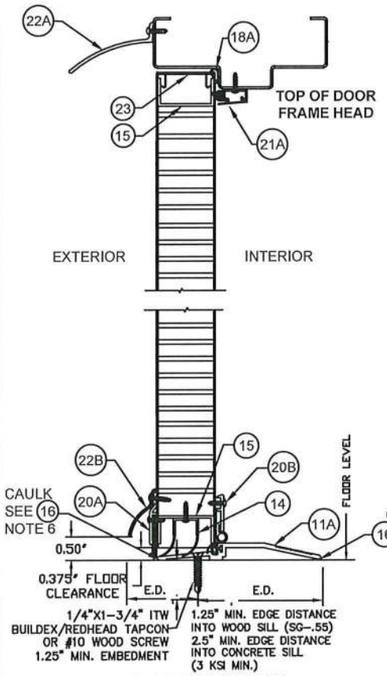
15 DOOR END CHANNEL



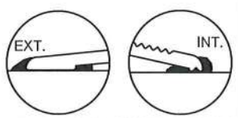
23 DOOR TOP CAP



14 FAS-SEAL DOOR SWEEP



BOTTOM OF DOOR WEATHERSTRIPPING AND SILL INSTALLATION



TYPICAL THRESHOLD SET INTO BEAD OF CAULK SEE NOTE 6

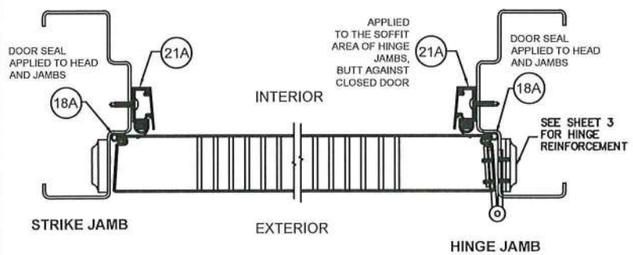
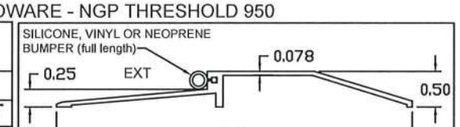


TABLE 3.2 WATER RATED PERIMETER SEAL HARDWARE - NGP THRESHOLD 950

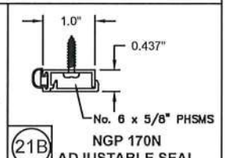
ITEM NUMBER	MODEL No./ DESCRIPTION	MFG.
11B	950 THRESHOLD	NGP
14	FAS-SEAL SWEEP	STEELCRAFT
15	END CHANNEL	STEELCRAFT
18B	PS074 DOOR SEAL	STEELCRAFT
19	202N DOOR SEAL	NGP
20C	200N DOOR SWEEP	NGP
21B	170N ADJUSTABLE SEAL	NGP
22C	16A RAIN DRIP	NGP
23	DOOR TOP CAP	STEELCRAFT

NGP 950 THRESHOLD GASKETING SYSTEM REQUIREMENTS FOR WATER INFILTRATION - MAXIMUM DESIGN PRESSURE RATING 75PSF FOR MAXIMUM DOOR SIZE OF 3'-0" X 7'-0" MAXIMUM DESIGN PRESSURE 50 PSF FOR MAXIMUM DOOR SIZE OF 4'-0" X 8'-0" (SEE ELEVATIONS SHEET 1)

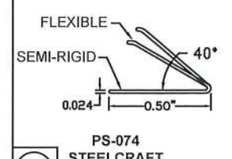


11B NATIONAL GUARD 950 SERIES THRESHOLD MAX. DESIGN PRESSURE +/- 50 PSF 4'-0"x8'-0" MAX. MAX. DESIGN PRESSURE +/- 75 PSF 3'-0"x7'-0" MAX. SEE SHEET 1

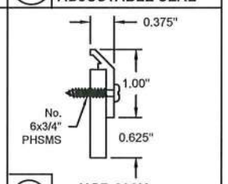
22C NGP 16 RAIN DRIP



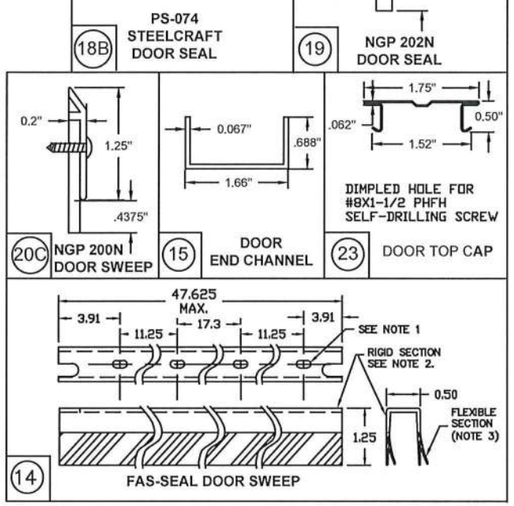
21B NGP 170N ADJUSTABLE SEAL

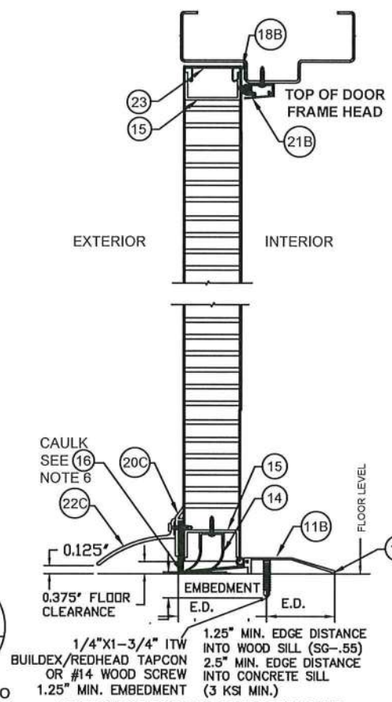


18B PS-074 STEELCRAFT DOOR SEAL

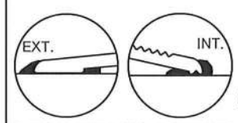


19 NGP 202N DOOR SEAL

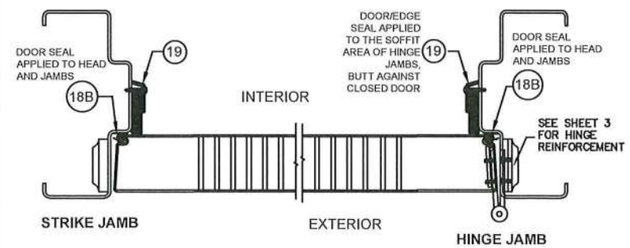




BOTTOM OF DOOR WEATHERSTRIPPING AND SILL INSTALLATION



TYPICAL THRESHOLD SET INTO BEAD OF CAULK SEE NOTE 6



NOTES:
1. SLOT LOCATIONS MAY VARY WITH DIFFERENT DOOR WIDTH.
2. DOOR SWEEP RIGID SECTION IS MADE OF PRO-FAX #PD-199 POLYPROPYLENE HOMOPOLYMER.
3. DOOR SWEEP FLEXIBLE SECTION IS MADE OF SANTOPRENE #101-73
4. FAS-SEAL DOOR SWEEP (14), AND THRESHOLD (11A OR 11B) ARE REQUIRED FOR ALL INSTALLATIONS.
5. SEAL ALL JOINTS WHERE FRAME MEETS WALL WITH BUTYL RUBBER OR 100% SILICONE CAULK
6. INSTALL THRESHOLD INTO BEAD OF BUTYL RUBBER OR 100% SLICONE CAULK FULL LENGTH OF SILL

REVISIONS				
LTR	DESCRIPTION		DATE	APPROVED
B	REVISED DWG	RAP	10/11/07	
D	REVISED DWG	YMF	01/07/07	
E	REVISED DWG	YMF	04/03/08	
F	REVISED DWG	YMF	06/03/08	
G	REVISED DWG	YMF	03/03/09	
H	REVISED DWG	YMF	04/07/10	
J	REVISED NAME	JPD	11/01/13	
K	REVISED DWG	JPD	02/01/15	
L	REVISED DWG	JPD	05/05/15	
M	ENGINEER CHANGE	LA	02/03/17	
N	ADDRESS UPDATE	SM	02/27/20	
O	2020 FBC UPDATE	NUS	07/07/20	
P	ANCHOR/STRIKE UPDATE	LL	04/06/22	

PRODUCT RENEWED
as complying with the Florida Building Code
NOA-No. 22-0427.01
Expiration Date 05/05/2028
By Ishaq I. Chanda
Miami-Dade Product Control

HERMES F. NORERO LICENSE No. 73778 STATE OF PROFESSIONAL ENGINEER
7-18-2022
HERMES F. NORERO, P.E.
FLORIDA P.E. NO. 73778
BUILDING DROPS, INC.
108 E. DANIA BEACH BLVD. #338
DANIA BEACH, FL 33004
FBPE CERT. OF AUTHORIZATION NO. 29578

BEND RADIUS
THIRD ANGLE PROJECTION

DRAWN	DATE
YMF	05/20/07
CHECKED	
APPROVED	
ENG. APPVL JPD	10/11/07

SCHLAGE LOCK COMPANY, LLC
11819 N. PENNSYLVANIA STREET
CARMEL, IN 46032

MANUFACTURING FACILTITY:
STEELCRAFT
9017 BLUE ASH ROAD
CINCINNATI, OH 45242

TITLE: STEELCRAFT H SERIES SINGLE FLUSH OUTSWING COMMERCIAL STEEL DOORS WITH AND WITHOUT PANIC EXIT DEVICES

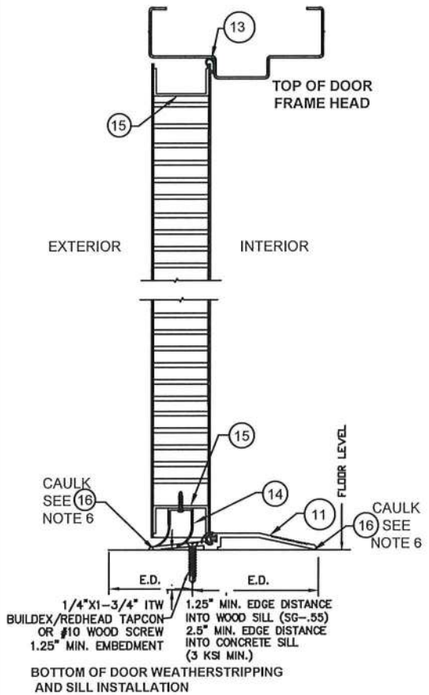
SINGLE FLUSH DOOR PERIMETER SEAL HARDWARE APPROVED WHERE WATER INFILTRATION IS REQUIRED

SIZE	FLAT	DWG NO.	REV
		IRFS07	P
SCALE: NTS	AUTOCAD		SHEET 5 of 14

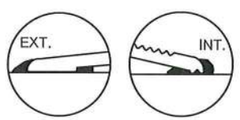
TABLE 4.1 NON WATER RATED PERIMETER SEAL HARDWARE - ZERO INT'L THRESHOLDS

ITEM NUMBER	MODEL No./ DESCRIPTION		MFG.
11	12A	566 THRESHOLD	ZERO INT'L
	12C	65 THRESHOLD	ZERO INT'L
	12D	568 THRESHOLD	ZERO INT'L
13	14A	PS074 DOOR SEAL	STEELCRAFT
	14B	188S DOOR SEAL	ZERO INT'L
	14C	117S DOOR SEAL	ZERO INT'L
	14D	8144S DOOR SEAL	ZERO INT'L
	14E	8150S DOOR SEAL	ZERO INT'L
14		FAS-SEAL SWEEP	STEELCRAFT
15		END CHANNEL	STEELCRAFT

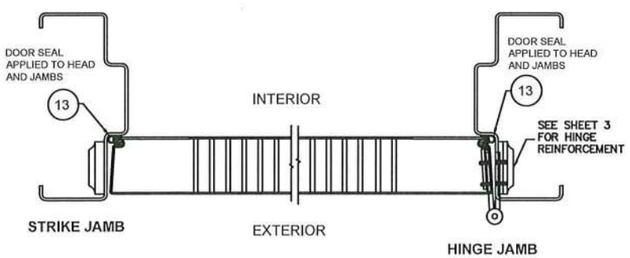
ZERO INT'L 566, 65 AND 568 THRESHOLD GASKETING SYSTEM REQUIREMENTS WHEN WATER INFILTRATION IS NOT REQUIRED MAXIMUM DESIGN PRESSURE RATING 75PSF - MAXIMUM DOOR SIZE 4'-0" X 8'-0" (SEE ELEVATIONS SHEET 1)

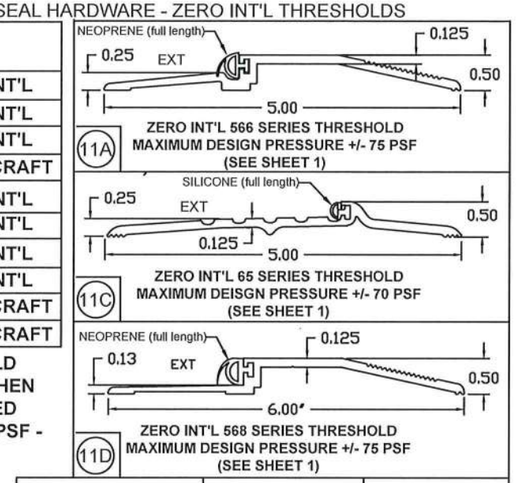


BOTTOM OF DOOR WEATHERSTRIPPING AND SILL INSTALLATION



TYPICAL THRESHOLD SET INTO BEAD OF CAULK SEE NOTE 6





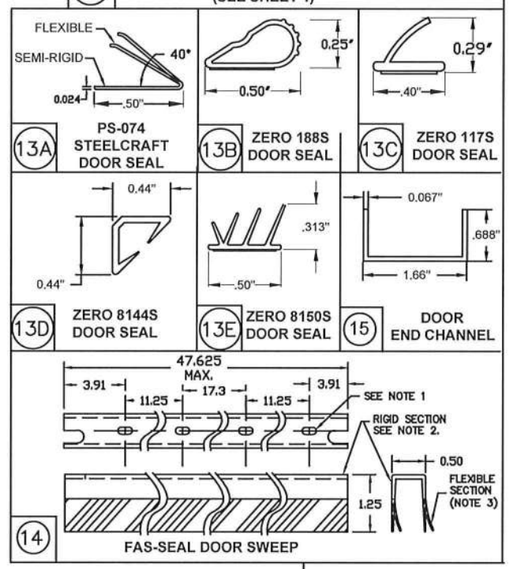
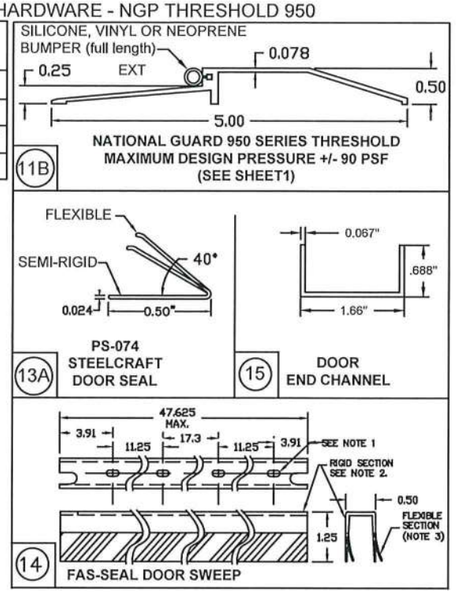
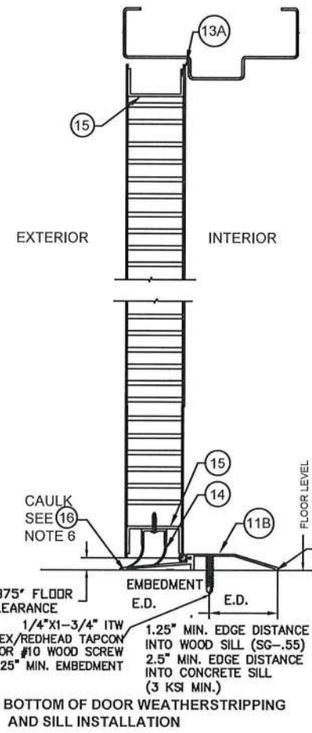


TABLE 4.2 NON WATER RATED PERIMETER SEAL HARDWARE - NGP THRESHOLD 950

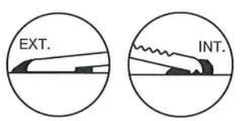
ITEM NUMBER	MODEL No./ DESCRIPTION	MFG.
11B	950 THRESHOLD	NGP
13A	PS074 DOOR SEAL	STEELCRAFT
14	FAS-SEAL SWEEP	STEELCRAFT
15	END CHANNEL	STEELCRAFT

NGP 950 THRESHOLD GASKETING SYSTEM REQUIREMENTS WHEN WATER INFILTRATION IS NOT REQUIRED - MAXIMUM DESIGN PRESSURE 100 PSF FOR MAXIMUM DOOR SIZE OF 4'-0" X 8'-0" (SEE ELEVATIONS SHEET 1)

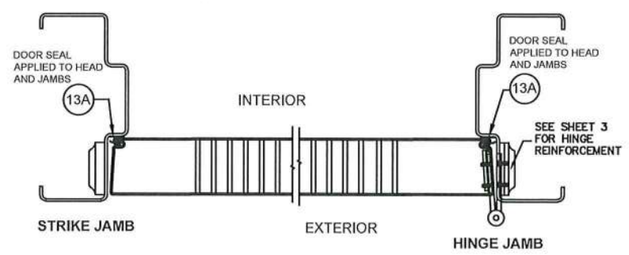




BOTTOM OF DOOR WEATHERSTRIPPING AND SILL INSTALLATION



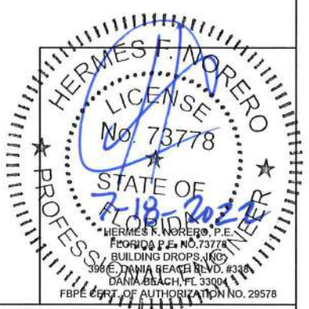
TYPICAL THRESHOLD SET INTO BEAD OF CAULK SEE NOTE 6



REVISIONS				
LTR	DESCRIPTION		DATE	APPROVED
B	REVISED DWG	RAP	10/11/07	
D	REVISED DWG	YMF	01/07/07	
E	REVISED DWG	YMF	04/03/08	
F	REVISED DWG	YMF	06/03/08	
G	REVISED DWG	YMF	03/03/09	
H	REVISED DWG	YMF	04/07/10	
J	REVISED NAME	JPD	11/01/13	
K	REVISED DWG	JPD	02/01/15	
L	REVISED DWG	JPD	05/05/15	
M	ENGINEER CHANGE	LA	02/03/17	
N	ADDRESS UPDATE	SM	02/27/20	
O	2020 FBC UPDATE	NUS	07/07/20	
P	ANCHOR/STRIKE UPDATE	LL	04/06/22	

PRODUCT RENEWED
as complying with the Florida Building Code
NOA-No. 22-0427.01
Expiration Date 05/05/2028
By Ishaq I. Chanda
Miami-Dade Product Control

NOTES:
1. SLOT LOCATIONS MAY VARY WITH DIFFERENT DOOR WIDTH.
2. DOOR SWEEP RIGID SECTION IS MADE OF PRO-FAX #PD-199 POLYPROPYLENE HOMOPOLYMER.
3. DOOR SWEEP FLEXIBLE SECTION IS MADE OF SANTOPRENE #101-73
4. FAS-SEAL DOOR SWEEP (15), DOOR SEAL (13A, 13B, 13C, 13D, 13E) AND THRESHOLD (11A, 11B, 11C, 11D) AS APPLICABLE, ARE REQUIRED FOR ALL INSTALLATIONS.
5. SEAL ALL JOINTS WHERE FRAME MEETS WALL WITH BUTYL RUBBER OR 100% SILICONE CAULK
6. INSTALL THRESHOLD INTO BEAD OF BUTYL RUBBER OR 100% SILICONE CAULK FULL LENGTH OF SILL



BEND RADIUS

THIRD ANGLE PROJECTION

DRAWN	DATE
YMF	05/20/07
CHECKED	
APPROVED	
ENG. APPVL JPD	10/11/07

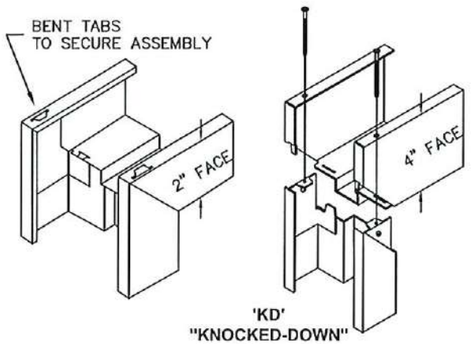
SCHLAGE LOCK COMPANY, LLC
11819 N. PENNSYLVANIA STREET
CARMEL, IN 46032

MANUFACTURING FACILTITY:
STEELCRAFT
9017 BLUE ASH ROAD
CINCINNATI, OH 45242

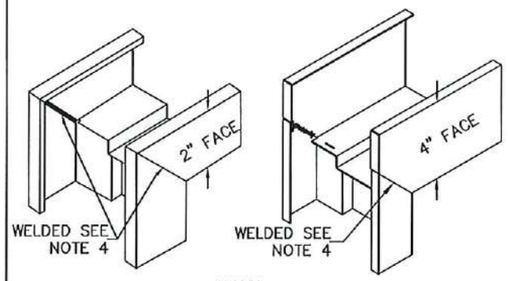
TITLE: STEELCRAFT H SERIES SINGLE FLUSH OUTSWING COMMERCIAL STEEL DOORS WITH AND WITHOUT PANIC EXIT DEVICES

SINGLE FLUSH DOOR PERIMETER SEAL HARDWARE
APPROVED WHERE WATER INFILTRATION IS NOT REQUIRED

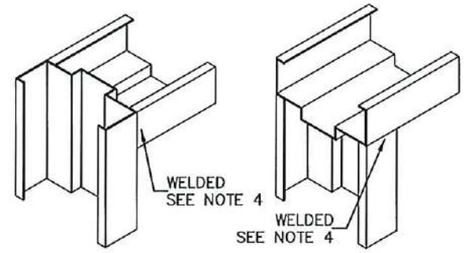
SIZE	FLAT	DWG NO.	REV
		IRFS07	P
SCALE: NTS	AUTOCAD		SHEET 6 of 14



'KD'
"KNOCKED-DOWN"
ASSEMBLY

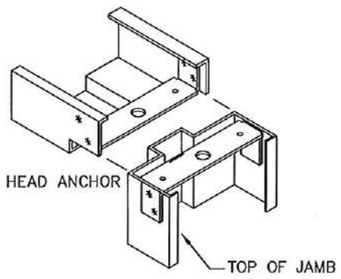


'SUA'
SET-UP AND ARC-WELDED
ASSEMBLY

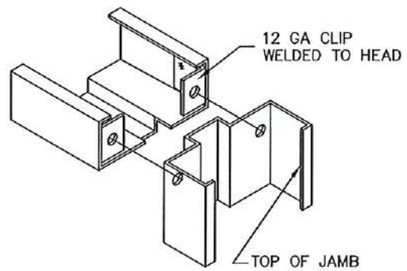


HEAD NOTCHED
AND BUTTED BETWEEN JAMBS

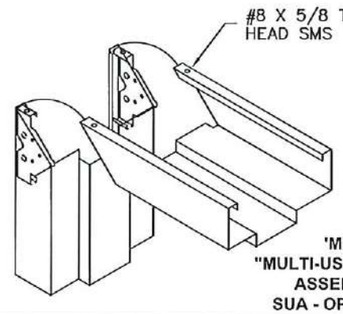
HEAD SITS ON TOP
OF NOTCHED JAMBS



HEAD NOTCHED
AND BOLTED ON TOP OF JAMBS



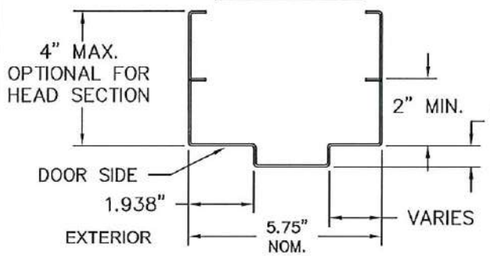
HEAD NOTCHED
AND BOLTED BETWEEN JAMBS

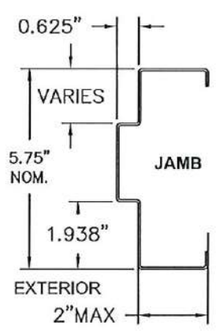


'MU'
"MULTI-USE" SERIES
ASSEMBLY
SUA - OPTIONAL

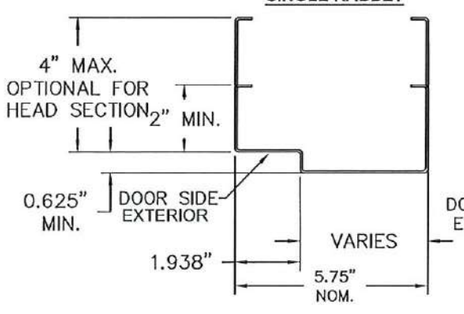
AVAILABLE DOOR PANEL CONFIGURATIONS

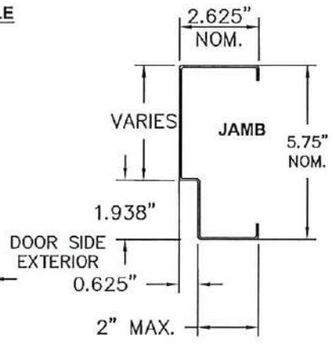
TYPICAL FRAME PROFILE
DOUBLE RABBET

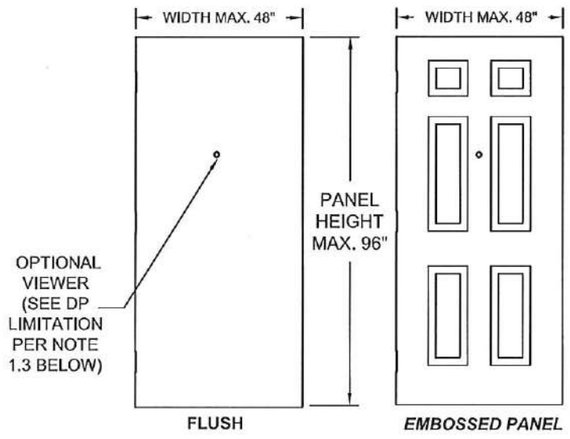




OPTIONAL FRAME PROFILE
SINGLE RABBET







NOTES:
1. DOOR CONSTRUCTION
1.1. MINIMUM DOOR THICKNESS – 1 3/4"
1.2. DOOR SIZE MAY VARY, SUBJECTED TO COMPLIANCE WITH FLORIDA BUILDING CODE AND PRODUCT(DOOR, FRAME AND HARDWARE) AVAILABILITY FROM MANUFACTURER (SEE SHEET 2 FOR AVAILABLE HARDWARE)
1.3 DOOR VIEWERS ARE PERMITTED TO BE USED IN DOOR WITH A DESIGN PRESSURE OF +/–75PSF OR LESS. MAXIMUM 9/16" DIAMETER HOLE THROUGH DOOR FOR VIEWER INSTALLATION.
2. FRAME CONSTRUCTION
2.1 NOMINAL JAMB DEPTH – 5–3/4", STOP HEIGHT – 5/8"
2.2 FRAMES AVAILABLE AS FLUSH (F–SERIES) AND MULTI–USE (MU–SERIES) (SEE TABLE 6)
3. FOR DOOR/FRAME MATERIAL SPECIFICATIONS REFERENCE SEE TABLE 7.
4. CONTINUOUS BACK WELD WITH FULL PENETRATION TO FACE SEAM. GRIND, SMOOTH, PRIME, & PAINT. WELD CLSSIFICATION – E70XX

TABLE 7. STEEL DOOR/FRAME MECHANICAL PROPERTIES

MATERIAL	ASTM REF.	YIELD KSI	TENSILE KSI
CRS	A366	MIN. 30.1	MIN. 44.7
HRS	A1011		
GALV: A60	A924		
SS: 304,316	A240	MIN. 31.2	MIN. 73.2

PRODUCT RENEWED
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NOA–No. 22–0427.01
Expiration Date 05/05/2028
By Ishaq I. Chanda
Miami–Dade Product Control

REVISIONS				
LTR	DESCRIPTION		DATE	APPROVED
D	REVISED DWG	YMF	01/08/08	
H	REVISED DWG	YMF	04/07/10	
J	REVISED NAME	JPD	11/01/13	
K	REVISED NAME	JPD	02/01/15	
M	ENGINEER CHANGE	LA	02/16/17	
N	ADDRESS UPDATE	SM	02/27/20	
O	2020 FBC UPDATE	NUS	07/07/20	
P	ANCHOR/STRIKE UPDATE	LL	04/06/22	

TABLE 5. AVAILABLE STEELCRAFT DOOR CONFIGURATIONS

CORE MATERIAL PER SHT.4	MAXIMUM OPENING SIZE WIDTH	HEIGHT	SKIN MATERIAL DESCR.	GA./MIN. THK
HONEYCOMB POLYSTYRENE POLYURETHANE (POLYISOCYANURATE) TEMPERATURE RISE STEEL STIFFENED	VARIES SEE SHEET 2 TABLE 1		CRS GALV	16/.053" 14/.067"
HONEYCOMB POLYSTYRENE POLYURETHANE	VARIES SEE SHEET 2 TABLE 1		STAINLESS STEEL	16/.053"

TABLE 6. AVAILABLE STEELCRAFT FRAME CONFIGURATIONS

FRAME SERIES	JAMB DEPTH	MAX. OPENING SIZE WIDTH	HEIGHT	MATERIAL DESCR.	GA./MIN. THK
F	5.75" NOM.	VARIES SEE SHEET 2 TABLE 1		CRS/HRS GALV	16/.053" 14/.067" 12/.099"
				STAINLESS STEEL	16/.053"
MU	5.75" NOM.	VARIES SEE SHEET 2 TABLE 1		CRS/HRS GALV	16/.053" 14/.067"

HERMES E. NORERO
LICENSE
No. 73778
STATE OF
PROFESSIONAL ENGINEER
4-7-18-2022
HERMES E. NORERO, P.E.
FLORIDA P.E. NO. 73778
BUILDING DROPS, INC.
3300 E. DANA BEACH BLVD. #300
DANA BEACH, FL 33062
FBPE CERT. OF AUTHORIZATION NO. 29578

BEND RADIUS
THIRD ANGLE PROJECTION

DRAWN	YMF	DATE 05/20/07
CHECKED		
APPROVED		
ENG. APPVL	JPD	10/11/07

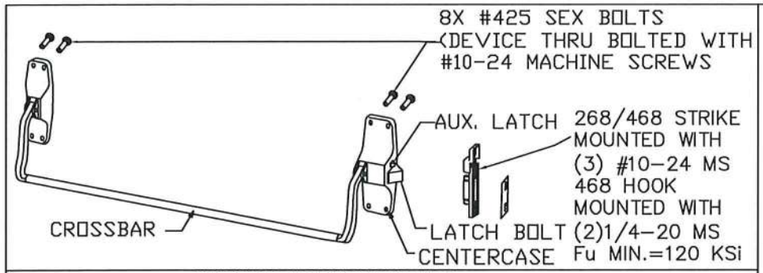
SCHLAGE LOCK COMPANY, LLC
11819 N. PENNSYLVANIA STREET
CARMEL, IN 46032

MANUFACTURING FACILITY:
STEELCRAFT
9017 BLUE ASH ROAD
CINCINNATI, OH 45242

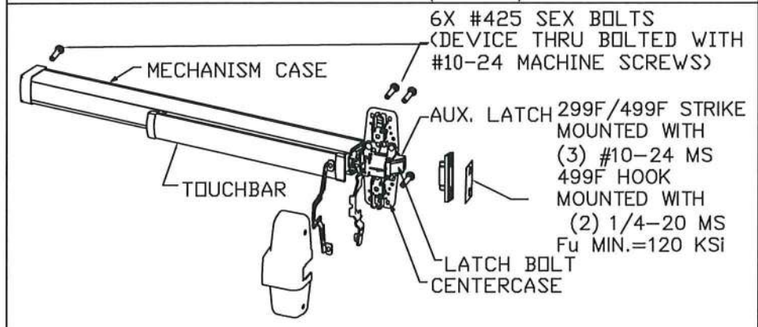
TITLE STEELCRAFT H SERIES SINGLE FLUSH OUTSWING COMMERCIAL STEEL DOORS WITH AND WITHOUT PANIC EXIT DEVICES
FRAME PROFILE, CORNER DETAILS AND DOOR FRAME MATERIAL, AND SIZE OPTIONS

SIZE	FLAT	DWG NO.	REV
		IRFS07	P

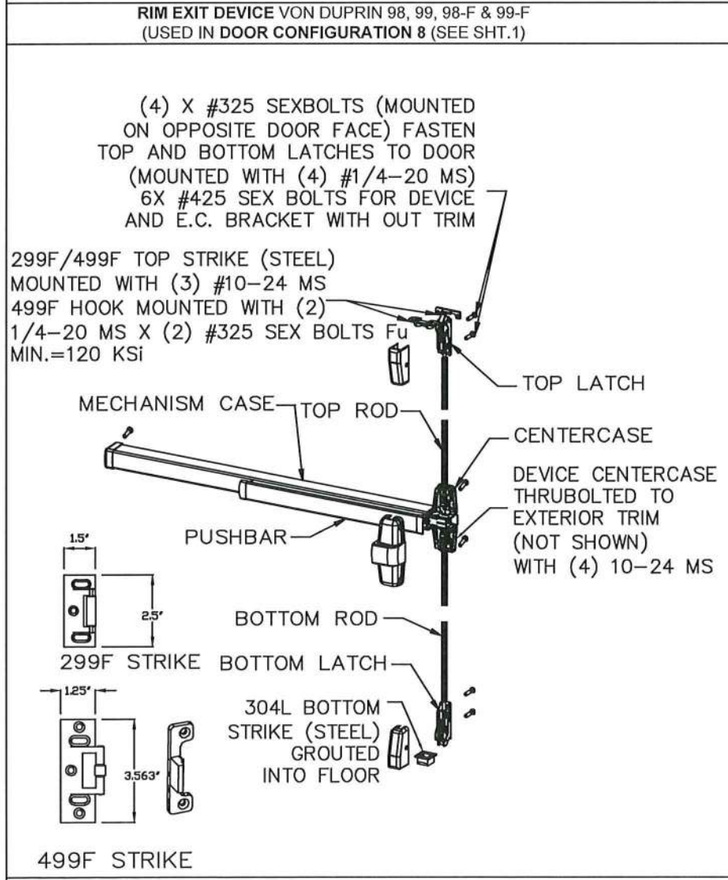
SCALE: NTS | AUTOCAD | SHEET 7 of 14



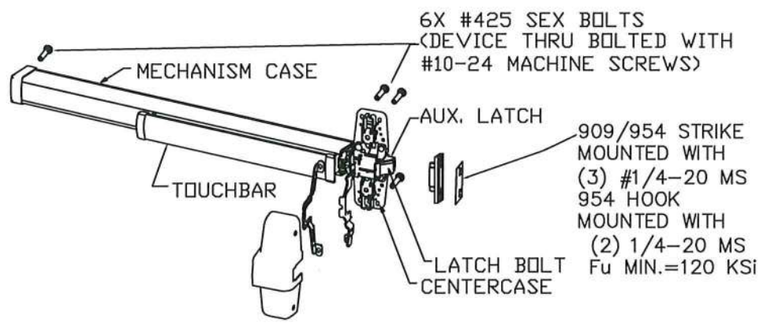
RIM EXIT DEVICE VON DUPRIN 88-F
USED IN **DOOR CONFIGURATION 8** (SEE SHT.1)



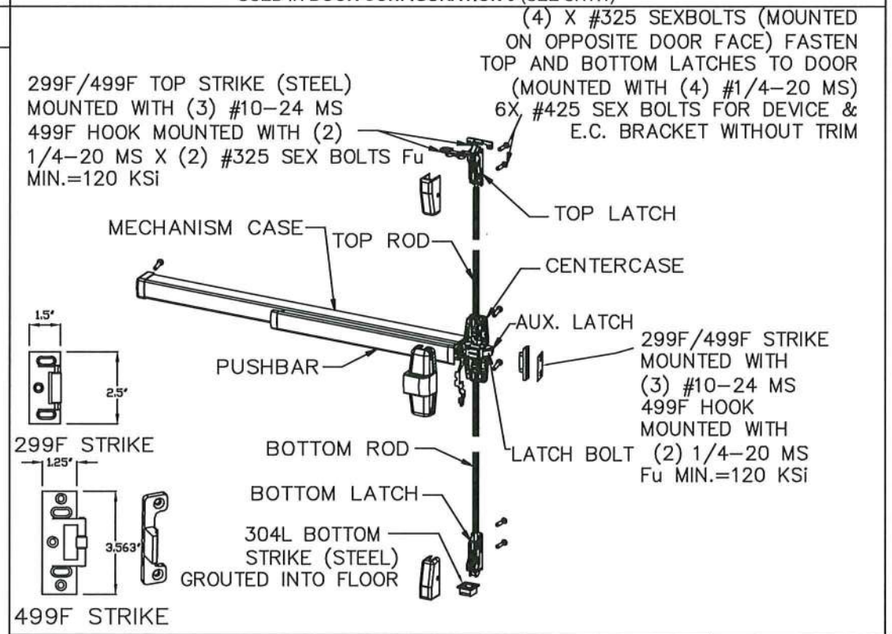
RIM EXIT DEVICE VON DUPRIN 98, 99, 98-F & 99-F
(USED IN **DOOR CONFIGURATION 8** (SEE SHT.1)



SURFACE VERTICAL ROD EXIT DEVICE VON DUPRIN 9827, 9927, 9827-F & 9927-F
USED IN **DOOR CONFIGURATION 5** (SEE SHT.1)



RIM EXIT DEVICE VON DUPRIN XP98, XP99, XP98-F & XP99-F
USED IN **DOOR CONFIGURATION 9** (SEE SHT.1)



THREE-POINT EXIT DEVICE VON DUPRIN 9857, 9957, 9857-F & 9957-F
USED IN **DOOR CONFIGURATION 7** (SEE SHT.1)

NOTES:
ELECTRIFIED AND FIRE RATED OPTIONS OF APPROVED HARDWARE ARE ACCEPTABLE. INSTALLATION AND APPLICATION IS UNDER SEPARATE APPROVAL AND IS REVIEWED BY THE CORRESPONDING AUTHORITY.

EXIT HARDWARE OPTIONS:
FOR 98/99 XP98/99 SERIES - E, RX, LX, SS, EL, QEL, CX, F, ALK, CD, PN
TRIMS: ALL APPLICABLE TRIMS AVAILABLE.
PN MODEL OFFERED.

BEND RADIUS

THIRD ANGLE PROJECTION

DRAWN: YMF	DATE: 05/20/07
CHECKED	CDATE
APPROVED	ADATE
ENG. APPVL: JPD	EDATE: 10/11/07

REVISIONS

LTR	DESCRIPTION		DATE	APPROVED
A	APPROVAL DWG	YMF	05/20/07	
D	REVISED DWG	YMF	01/08/08	
F	REVISED DWG	YMF	06/03/08	
G	REVISED DWG	YMF	03/03/09	
H	REVISED DWG	YMF	04/07/10	
J	REVISED NAME	JPD	11/01/13	
K	REVISED DWG	JPD	02/01/15	
M	ENGINEER CHANGE	LA	02/16/17	
N	ADDRESS CHANGE	JPD	01/10/20	
O	2020 FBC UPDATE	NUS	07/07/20	
P	ANCHOR/STRIKE UPDATE	LL	04/06/22	

PRODUCT RENEWED
as complying with the Florida Building Code
NOA-No. 22-0427.01
Expiration Date 05/05/2028
By Ishaq I. Chanda
Miami-Dade Product Control

HERMES F. NORERO LICENSE No 73778 STATE OF FLORIDA PROFESSIONAL ENGINEER
7-18-2022
HERMES F. NORERO, P.E.
FLORIDA P.E. NO. 73778
BUILDING DROPS, INC.
398 E. DANIA BEACH BLVD. 9338
DANIA BEACH, FL 33004
FBPE CERT. OF AUTHORIZATION NO. 29578

SCHLAGE LOCK COMPANY, LLC
11819 N. PENNSYLVANIA STREET
CARMEL, IN 46032

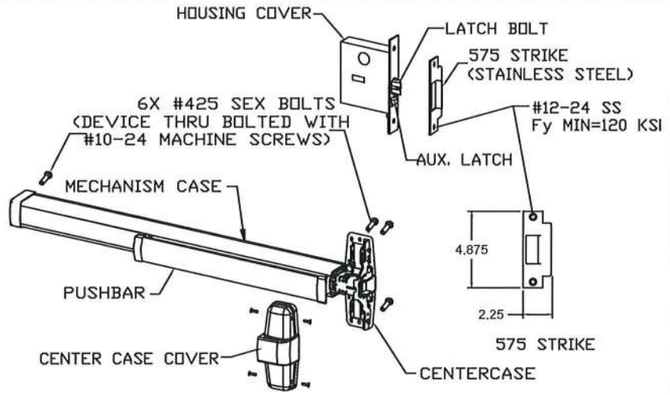
MANUFACTURING FACILITY:
STEELCRAFT
9017 BLUE ASH ROAD
CINCINNATI, OH 45242

TITLE: STEELCRAFT H SERIES SINGLE FLUSH OUTSWING COMMERCIAL STEEL DOORS WITH AND WITHOUT PANIC EXIT DEVICES

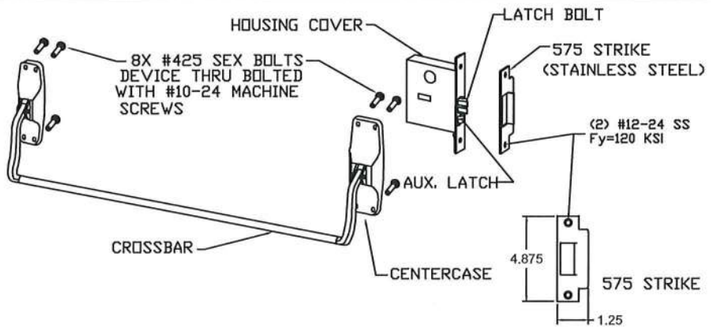
EXIT HARDWARE OPTIONS FOR FLUSH SINGLE DOORS

SIZE	FLAT	DWG NO.	REV
		IRFS07	P

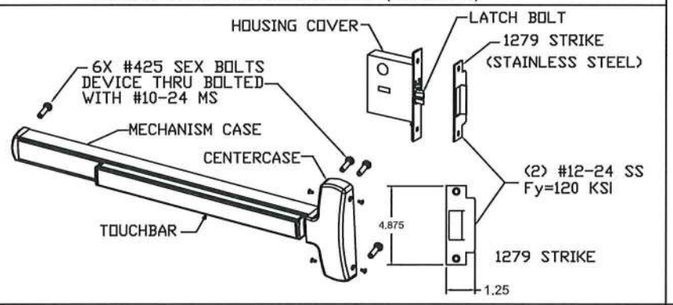
SCALE:			SHEET
NTS	AUTOCAD		8 of 14



MORTISE EXIT DEVICE VON DUPRIN 9875, 9975, 9875-F & 9975-F
USED IN **DOOR CONFIGURATION 10** (SEE SHT.1)

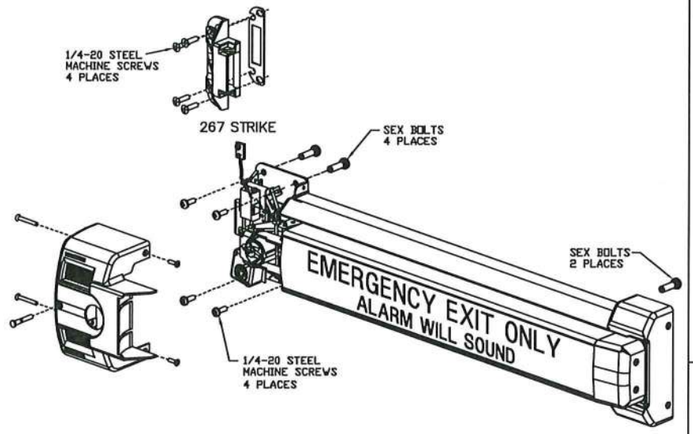


`**MORTISE EXIT DEVICE** VON DUPRIN 8875 & 8875-F
USED IN **DOOR CONFIGURATION 10** (SEE SHT.1)

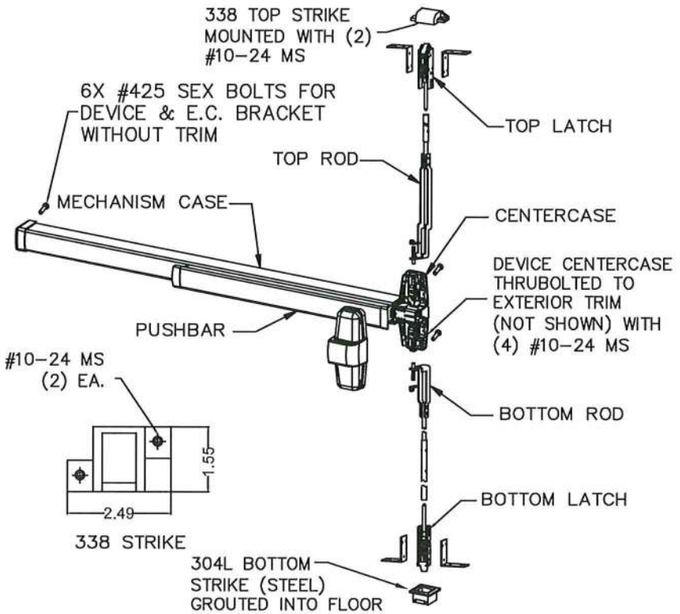


MORTISE EXIT DEVICE FALCON 25-M & F-25-M
USED IN **DOOR CONFIGURATION 10** (SEE SHT.1)

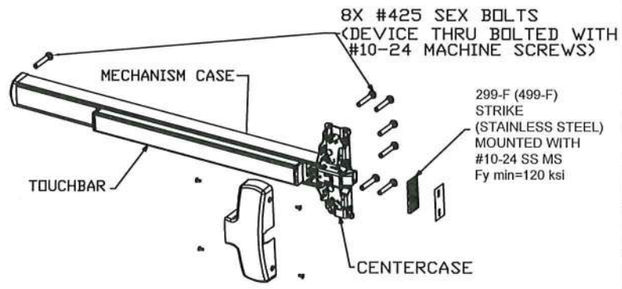
NOTES:
1. ELECTRIFIED AND FIRE RATED OPTIONS OF APPROVED HARDWARE ARE ACCEPTABLE. INSTALLATION AND APPLICATION IS UNDER SEPARATE APPROVAL AND IS REVIEWED BY THE CORRESPONDING AUTHORITY.
2. EXIT HARDWARE OPTIONS:
FOR 98/99 & XP98/99 SERIES - E, RX, LX, SS, EL, QEL, CX, F ALK, CD, PN
TRIMS: ALL APPLICABLE TRIMS AVAILABLE.
FOR 88-F SERIES RIM - OPTION E
TRIMS: ALL APPLICABLE TRIMS AVAILABLE. PN MODEL OFFERED.
FOR 2670 GUARD-X
TRIMS: ALL APPLICABLE TRIMS AVAILABLE.
FOR FALCON (F)25-R, (F)25-M, F-25-C & (F)25-V SERIES - AE, DM, LM, LK, KOR, ED, MEL, EA, FSA, FSE, CD, LD, HWEA
TRIMS: ALL APPLICABLE TRIMS AVAILABLE.



EXIT ALARM LOCK VON DUPRIN 2670 GUARD-X
USED IN **DOOR CONFIGURATION 11** (SEE SHT.1)

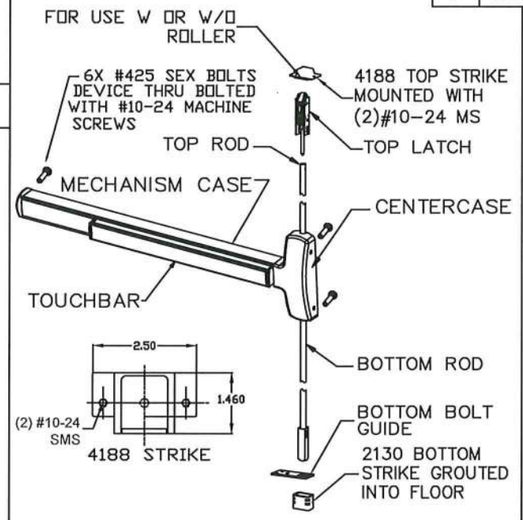


CONCEALED VERTICAL ROD EXIT DEVICE VON DUPRIN
98/9947-F & HH98/9947 WITH 2-3/4" BACKSET
USED IN **DOOR CONFIGURATION 6** (SEE SHT.1)

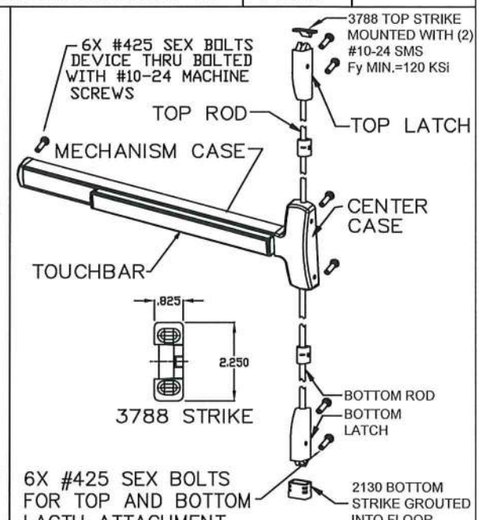


RIM EXIT DEVICE FALCON (F)25-R
USED IN **DOOR CONFIGURATION 13** (SEE SHT.1)

REVISIONS				
LTR	DESCRIPTION		DATE	APPROVED
A	APPROVAL DWG	YMF	05/20/07	
E	REVISED DWG	YMF	04/08/08	
F	REVISED DWG	YMF	06/03/08	
G	REVISED DWG	YMF	03/03/09	
H	REVISED DWG	YMF	04/07/10	
J	REVISED NAME	JPD	11/01/13	
K	REVISED DWG	JPD	02/01/15	
M	ENGINEER CHANGE	LA	03/10/17	
N	ADDRESS CHANGE	JPD	01/10/20	
O	2020 FBC UPDATE	NUS	07/07/20	
P	ANCHOR/STRIKE UPDATE	LL	04/06/22	



CONCEALED VERTICAL ROD EXIT DEVICE FALCON F-25-C
USED IN **DOOR CONFIGURATION 6** (SEE SHT.1)



SURFACE VERTICAL ROD EXIT DEVICE FALCON (F)25-V
USED IN **DOOR CONFIGURATION 5** (SEE SHT.1)

PRODUCT RENEWED
as complying with the Florida Building Code
NOA-No. 22-0427.01
Expiration Date 05/05/2028
By Ishaq I. Chanda
Miami-Dade Product Control

HERMES F. NORERO LICENSE No. 73778 STATE OF FLORIDA PROFESSIONAL ENGINEER
2-18-2022
HERMES F. NORERO, P.E.
FLORIDA PE. NO. 73778
BUILDING DROPS, INC.
3985 E. DANIA BEACH BLVD. #338
DANIA BEACH, FL 33004
FBPE CERT. OF AUTHORIZATION NO. 29578

BEND RADIUS

THIRD ANGLE PROJECTION

DRAWN	DATE
YMF	05/20/07
CHECKED	
APPROVED	
ENG. APPVL JPD	10/11/07

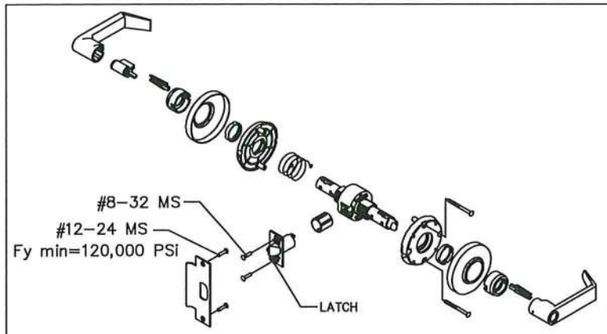
SCHLAGE LOCK COMPANY, LLC
11819 N. PENNSYLVANIA STREET
CARMEL, IN 46032

MANUFACTURING FACILITY:
STEELCRAFT
9017 BLUE ASH ROAD
CINCINNATI, OH 45242

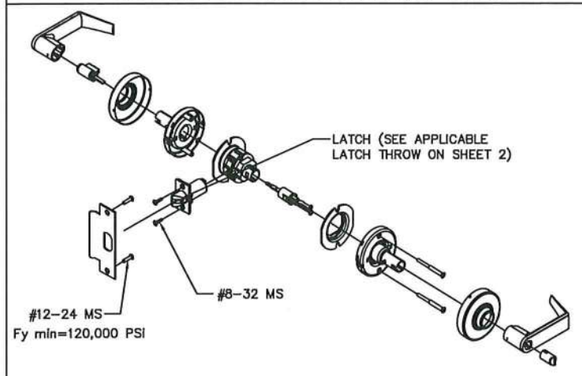
TITLE: STEELCRAFT H SERIES SINGLE FLUSH OUTSWING COMMERCIAL STEEL DOORS WITH AND WITHOUT PANIC EXIT DEVICES

EXIT HARDWARE OPTIONS FOR FLUSH SINGLE DOORS

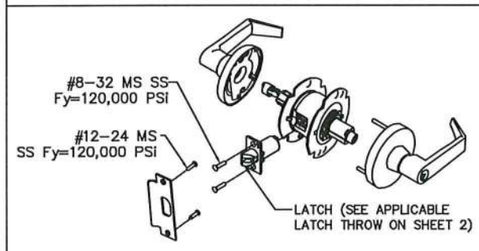
SIZE	FLAT	DWG NO.	REV
		IRFS07	O
SCALE: NTS	AUTOCAD		SHEET 9 of 14



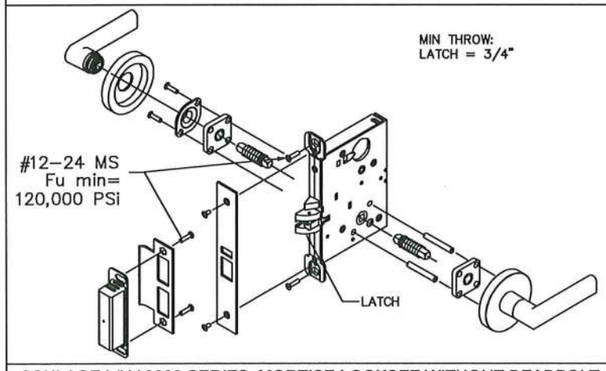
SCHLAGE AL-SERIES **CYLINDRICAL LOCKSET** WITH 1/2" THROW LATCH
USED IN **DOOR CONFIGURATION 2** (SEE SHT.1)



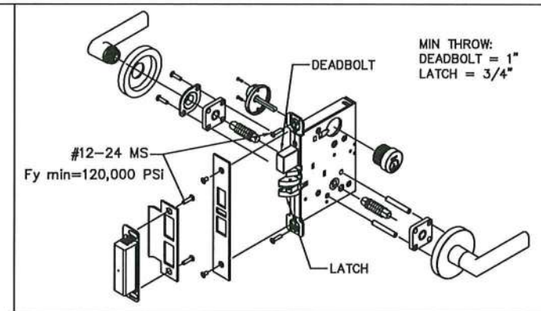
SCHLAGE D/ND-SERIES CYLINDRICAL LOCKSET
USED IN **DOOR CONFIGURATIONS 3 & 4 & 16** (SEE SHTS.1&2)



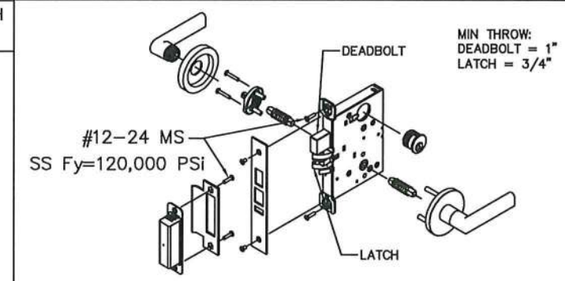
FALCON T-SERIES CYLINDRICAL LOCKSET
USED IN **DOOR CONFIGURATIONS 4 & 16** (SEE SHTS.1&2)



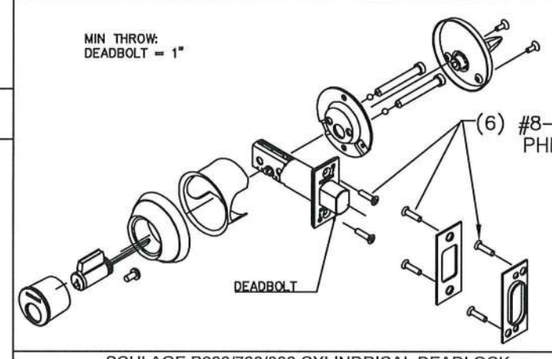
SCHLAGE L/LV 9000 SERIES MORTISE **LOCKSET** WITHOUT DEADBOLT
USED IN **DOOR CONFIGURATIONS 14 & 15** (SEE SHTS.1&2)



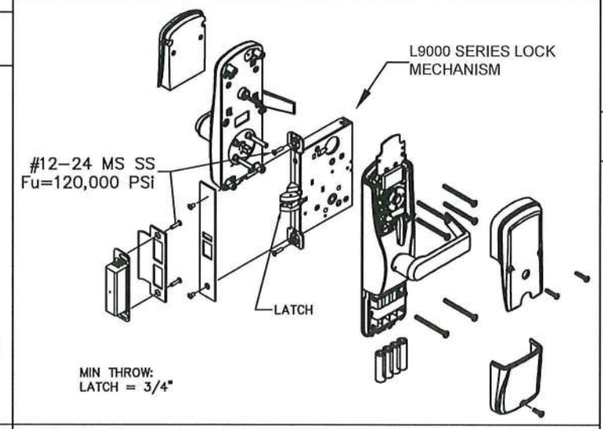
SCHLAGE L/LV 9400 SERIES MORTISE LOCKSET WITH DEADBOLT
FUNCTION USED IN **DOOR CONFIGURATION 1** (SEE SHTS.1&2)



FALCON MA-SERIES MORTISE LOCKSET WITH DEADBOLT FUNCTION
USED IN **DOOR CONFIGURATION** 1 (SEE SHTS.1&2)



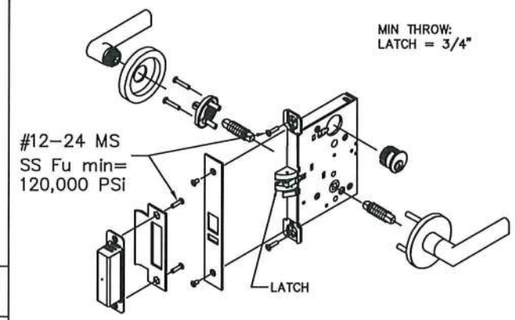
SCHLAGE B600/700/800 CYLINDRICAL DEADLOCK
USED IN **DOOR CONFIGURATION 12** (SEE SHTS.1&2)



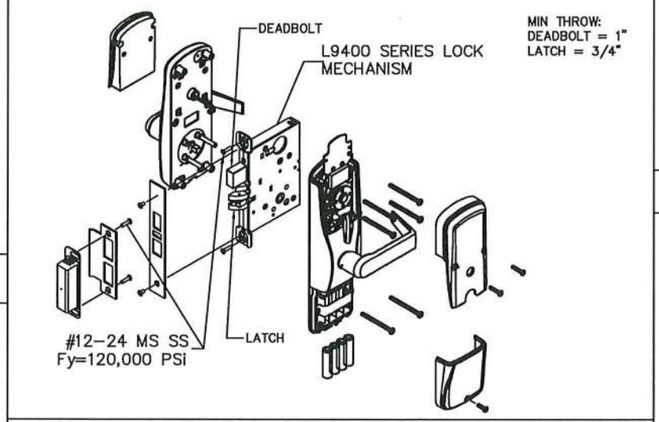
SCHLAGE AD/CO MS SERIES MORTISE LOCKSET WITHOUT DEADBOLT
USED IN **DOOR CONFIGURATIONS 14 & 15** (SEE SHTS.1&2)

NOTE: ELECTRIFIED AND FIRE RATED OPTIONS OF APPROVED HARDWARE ARE ACCEPTABLE. INSTALLATION AND APPLICATION IS UNDER SEPARATE APPROVAL AND IS REVIEWED BY THE CORRESPONDING AUTHORITY.

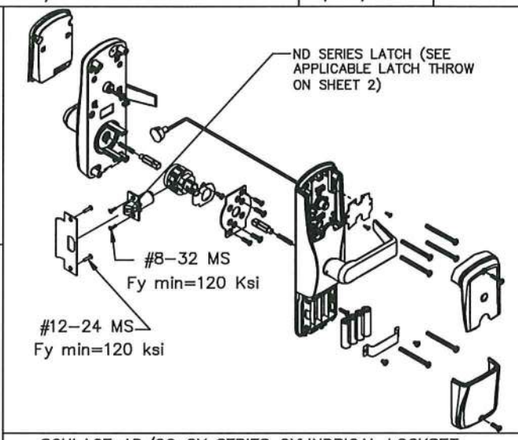
PRODUCT RENEWED
as complying with the Florida Building Code
NOA–No. 22–0427.01
Expiration Date 05/05/2028
By Ishaq I. Chanda
Miami–Dade Product Control



FALCON MA-SERIES MORTISE LOCKSET
WITHOUT DEADBOLT FUNCTION USED IN **DOOR CONFIGURATION 15** (SEE SHTS.1&2)



SCHLAGE AD/CO MD SERIES MORTISE LOCKSET W/DEADBOLT
USED IN CONFIGURATIONS: 1 (SEE SHTS. 1&2)



SCHLAGE AD/CO CY SERIES CYLINDRICAL LOCKSET
USED IN CONFIGURATIONS: 3 & 4 & 16 (SEE SHTS.1&2)

HERMES F. NORERO LICENSE No 73778 STATE OF FLORIDA PROFESSIONAL ENGINEER
7/5/2022
HERMES F. NORERO, P.E.
FLORIDA P.E. NO. 73778
BUILDING DOORS, INC.
2999 E. DANIA BEACH BLVD. #338
DANIA BEACH, FL 33004
FBPE CERT. OF AUTHORIZATION No. 29578

REVISIONS

LTR	DESCRIPTION		DATE	APPROVED
A	APPROVAL DWG	YMF	05/20/07	
D	REVISED DWG	YMF	01/08/08	
E	REVISED DWG	YMF	04/08/08	
F	REVISED DWG	YMF	06/03/08	
G	REVISED DWG	YMF	03/03/09	
H	REVISED DWG	YMF	04/07/10	
J	REVISED NAME	JPD	11/01/13	
K	REVISED DWG	JPD	02/01/15	
M	ENGINEER CHANGE	LA	02/16/17	
N	ADDRESS UPDATE	SM	02/27/20	
O	2020 FBC UPDATE	NUS	07/07/20	
P	ANCHOR/STRIKE UPDATE	LL	04/06/22	

BEND RADIUS

THIRD ANGLE PROJECTION

DRAWN YMF	DATE 05/20/07
CHECKED	
APPROVED	
ENG. APPVL JPD	10/11/07

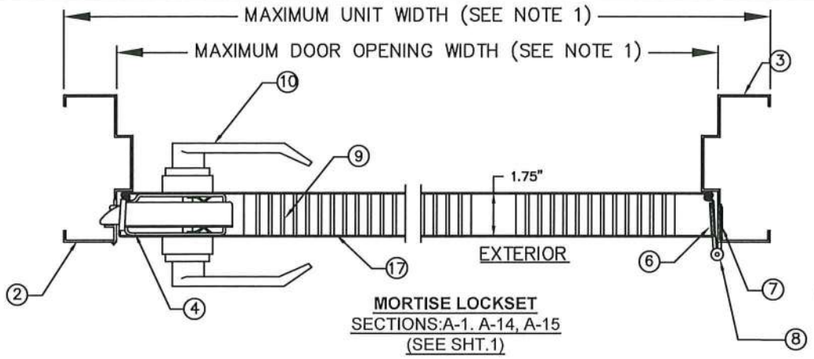
SCHLAGE LOCK COMPANY, LLC
11819 N. PENNSYLVANIA STREET
CARMEL, IN 46032

MANUFACTURING FACILITY:
STEELCRAFT
9017 BLUE ASH ROAD
CINCINNATI, OH 45242

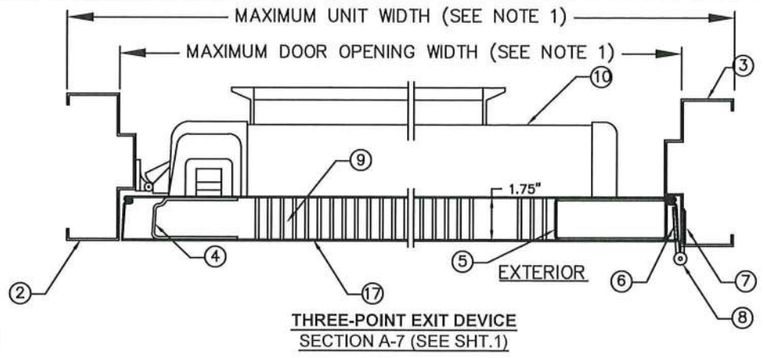
TITLE: STEELCRAFT H SERIES SINGLE FLUSH OUTSWING COMMERCIAL STEEL DOORS WITH AND WITHOUT PANIC EXIT DEVICES

HARDWARE OPTIONS FOR FLUSH SINGLE DOORS.

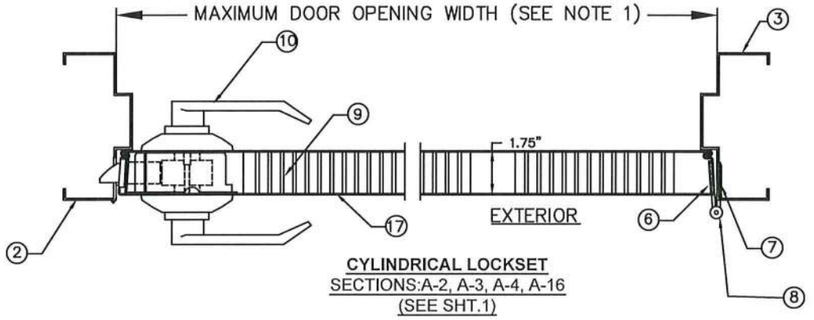
SIZE	FLAT	DWG NO.	REV
		IRFS07	P
SCALE: NTS	AUTOCAD		SHEET 10 of 14



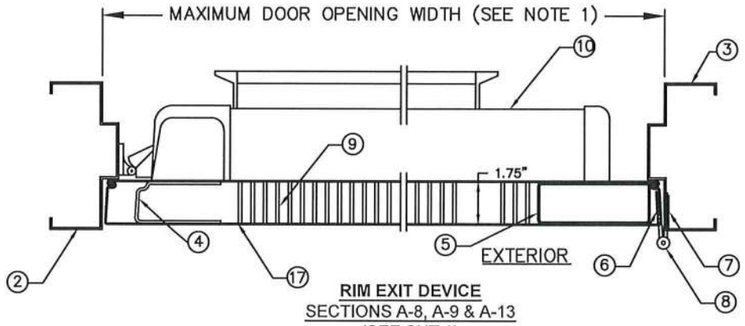
MORTISE LOCKSET
SECTIONS:A-1. A-14, A-15
(SEE SHT.1)



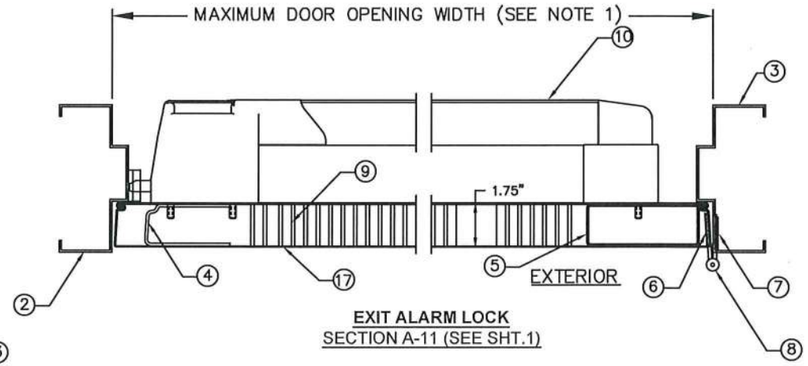
THREE-POINT EXIT DEVICE
SECTION A-7 (SEE SHT.1)



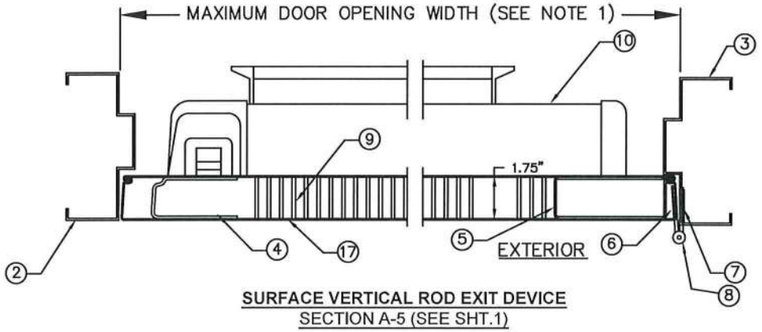
CYLINDRICAL LOCKSET
SECTIONS:A-2, A-3, A-4, A-16
(SEE SHT.1)



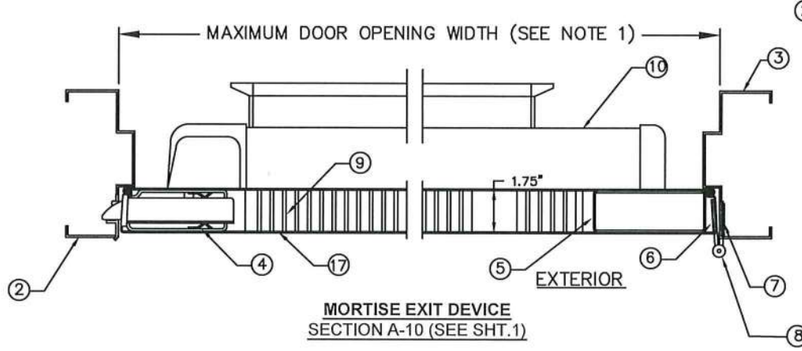
RIM EXIT DEVICE
SECTIONS A-8, A-9 & A-13
(SEE SHT.1)



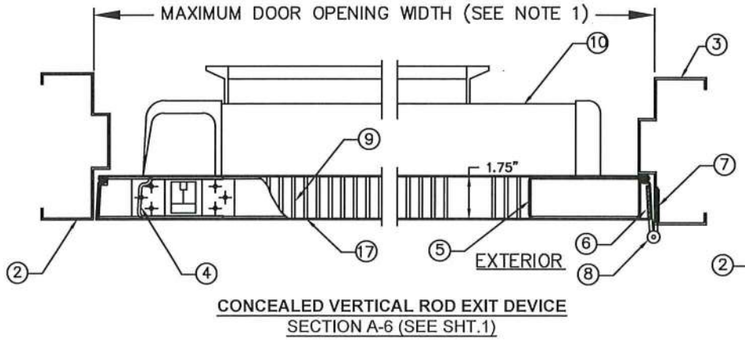
EXIT ALARM LOCK
SECTION A-11 (SEE SHT.1)



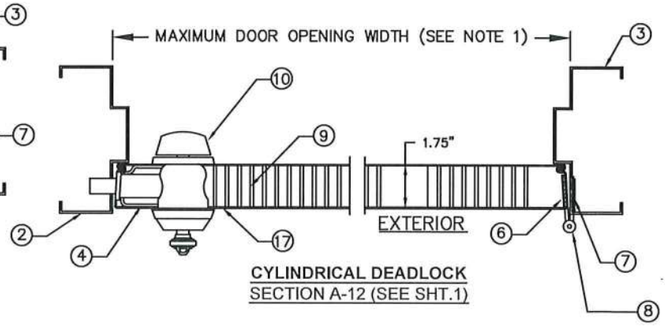
SURFACE VERTICAL ROD EXIT DEVICE
SECTION A-5 (SEE SHT.1)



MORTISE EXIT DEVICE
SECTION A-10 (SEE SHT.1)



CONCEALED VERTICAL ROD EXIT DEVICE
SECTION A-6 (SEE SHT.1)



CYLINDRICAL DEADLOCK
SECTION A-12 (SEE SHT.1)

NOTES:

1. FOR MAXIMUM OPENING DIMENSION SIZES AND MAX UNIT SIZES SEE SHEETS 1, 2, 3, 11 & 12.
2. SINGLE OUTSWING DOORS, SEE SHEET 4 FOR INSTALLATION INFORMATION.

REVISIONS

LTR	DESCRIPTION		DATE	APPROVED
A	APPROVAL DWG	YMF	05/20/07	
F	REVISED DWG	YMF	06/03/08	
G	REVISED DWG	YMF	03/04/09	
H	REVISED DWG	YMF	04/07/10	
J	REVISED NAME	JPD	11/01/13	
M	ENGINEER CHANGE	LA	03/10/17	
N	ADDRESS UPDATE	SM	02/27/20	
O	2020 FBC UPDATE	NUS	07/07/20	
P	ANCHOR/STRIKE UPDATE	LL	04/06/22	

PRODUCT RENEWED
as complying with the Florida Building Code
NOA-No. 22-0427.01
Expiration Date 05/05/2028
By Ishaq I. Chanda
Miami-Dade Product Control

HERMES F. NORERO, P.E.
LICENSE No. 73778
STATE OF FLORIDA
PROFESSIONAL ENGINEER
7-18-2022
HERMES F NORERO, P.E.
FLORIDA P.E. NO.73778
BUILDING DROPS, INC.
398 E. DANIA BEACH BLVD. #338
DANIA BEACH, FL 33004
FBPE CERT. OF AUTHORIZATION NO. 29578

BEND RADIUS

THIRD ANGLE PROJECTION

DRAWN: YMF	DATE: 05/20/007
CHECKED:	
APPROVED:	
ENG. APPVL: JPD	10/11/07

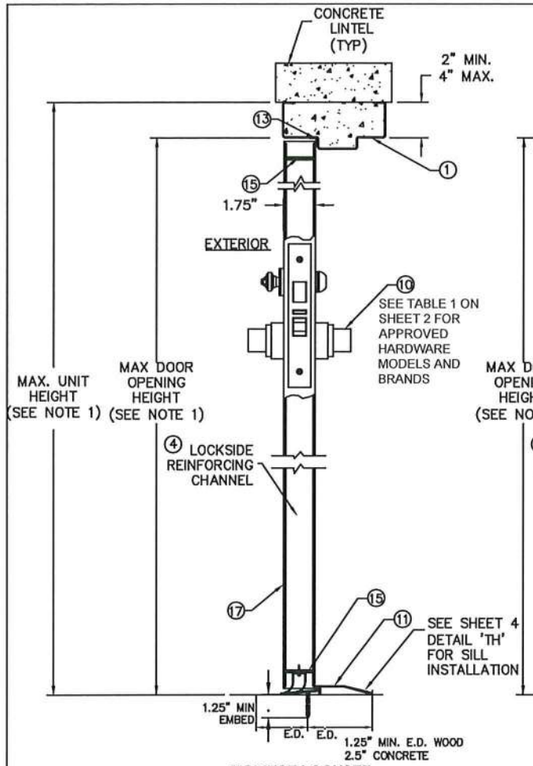
SCHLAGE LOCK COMPANY, LLC
11819 N. PENNSYLVANIA STREET
CARMEL, IN 46032

MANUFACTURING FACILITY:
STEELCRAFT
9017 BLUE ASH ROAD
CINCINNATI, OH 45242

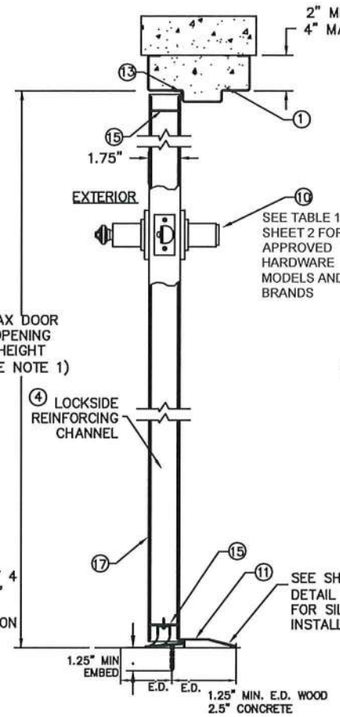
TITLE: STEELCRAFT H SERIES SINGLE FLUSH OUTSWING COMMERCIAL STEEL DOORS WITH AND WITHOUT PANIC EXIT DEVICES
HORIZONTAL CROSS SECTIONS FOR FLUSH SINGLE DOORS.

SIZE	FLAT	DWG NO.	REV
		IRFS07	P

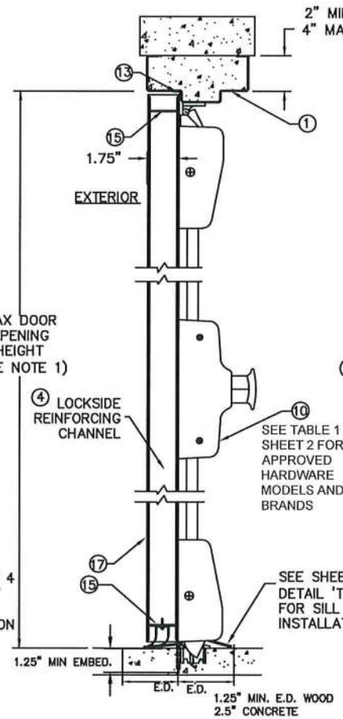
SCALE: NTS | AUTOCAD | SHEET 11 of 14



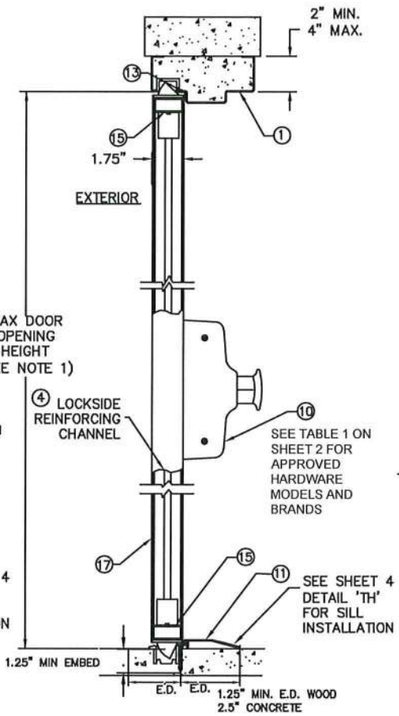
MORTISE LOCKSET
SECTION: B-1
(SEE SHT.1)



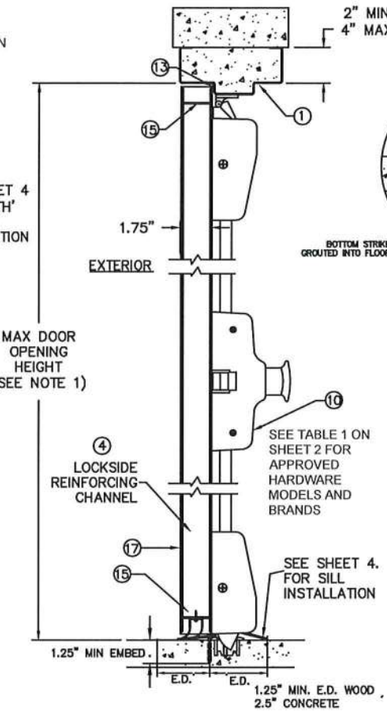
CYLINDRICAL LOCKSET
SECTIONS B-2, B-3, B-4 & B-16
(SEE SHT.1)



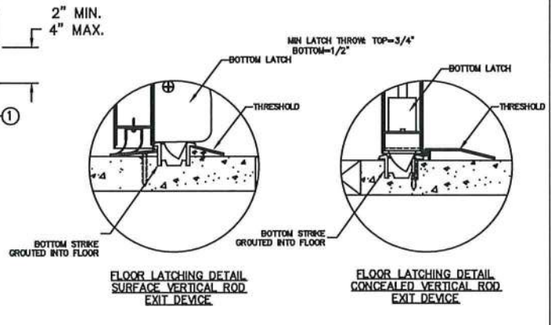
SURFACE VERTICAL ROD EXIT DEVICE
SECTION B-5 (SEE SHT.1)

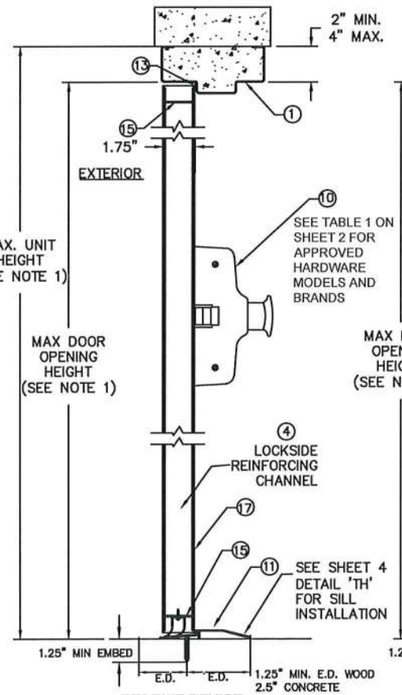


CONCEALED VERTICAL ROD EXIT DEVICE
SECTION B-6 (SEE SHT.1)

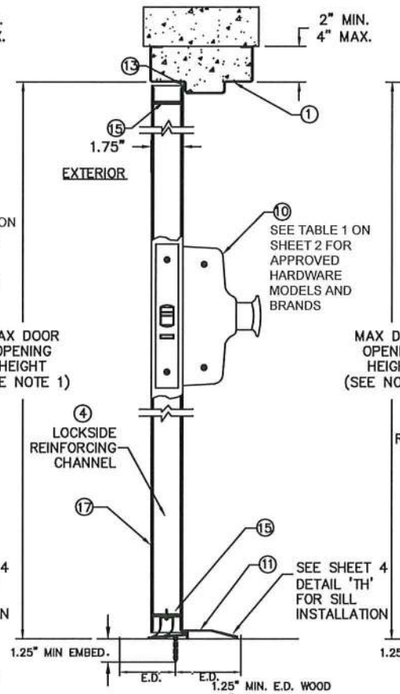


THREE-POINT EXIT DEVICE
SECTION B-7 (SEE SHT.1)

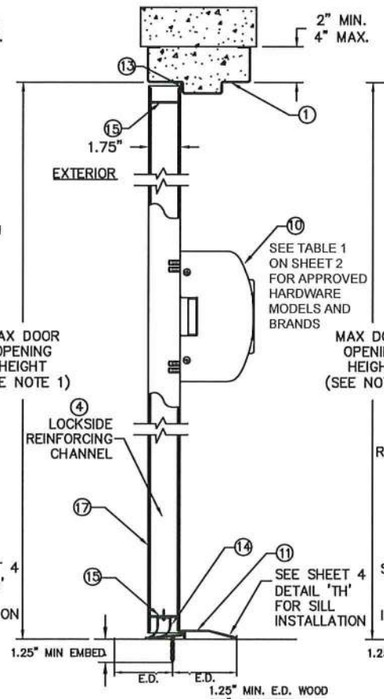




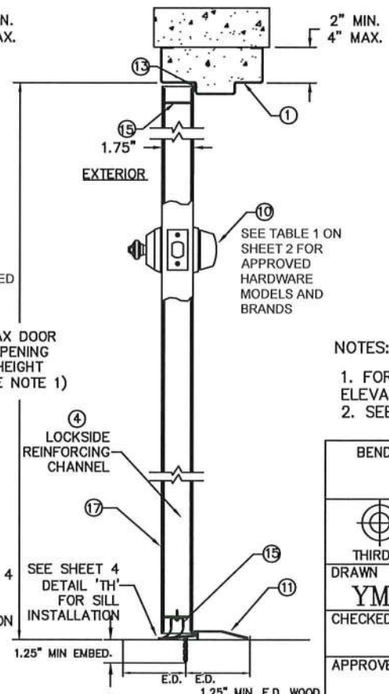
RIM EXIT DEVICE
SECTIONS B-8, B-9 & B-13
(SEE SHT.1)



MORTISE EXIT DEVICE
SECTION B-10 (SEE SHT.1)



EXIT ALARM LOCK
SECTION B-11 (SEE SHT.1)



CYLINDRICAL DEADLOCK
SECTION B-12 (SEE SHT.1)

REVISIONS				
LTR	DESCRIPTION		DATE	APPROVED
A	APPROVAL DWG	YMF	05/20/07	
G	REVISED DWG	YMF	03/04/09	
H	REVISED DWG	YMF	04/07/10	
J	REVISED NAME	JPD	11/01/13	
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M	ENGINEER CHANGE	LA	03/10/17	
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O	2020 FBC UPDATE	NUS	07/07/20	
P	ANCHOR/STRIKE UPDATE	LL	04/06/22	

PRODUCT RENEWED
as complying with the Florida Building Code
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Expiration Date 05/05/2028
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Miami–Dade Product Control

HERMES H. NORERO LICENSE No. 73778 STATE OF FLORIDA PROFESSIONAL ENGINEER
2-18-2022
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FLORIDA P.E. NO.73778
BUILDING DROPS, INC.
539 E. DANIA BEACH BLVD. #338
DANIA BEACH, FL 33004
FBPE CERT. OF AUTHORIZATION NO. 29578

NOTES:

1. FOR MAXIMUM DOOR & UNIT OPENING SIZES SEE ELEVATION SHEET 1 AND TABLE 1 ON SHEET 2 AND SHEETS 11 & 12.
2. SEE SHEET 4 FOR ANCHOR INSTALLATION DETAILS.

BEND RADIUS

THIRD ANGLE PROJECTION

DRAWN: YMF	DATE: 05/20/07
CHECKED:	
APPROVED:	
ENG. APPVL: JPD	10/11/07

SCHLAGE LOCK COMPANY, LLC
11819 N. PENNSYLVANIA STREET
CARMEL, IN 46032

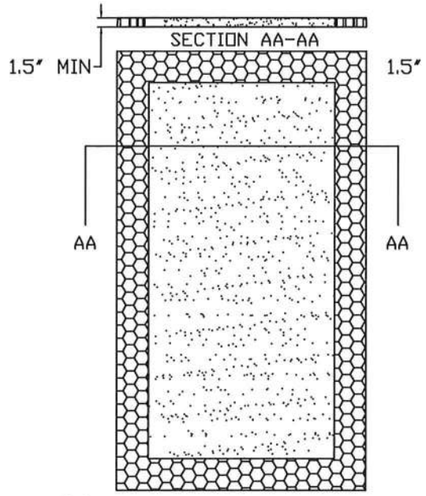
MANUFACTURING FACILITY:
STEELCRAFT
9017 BLUE ASH ROAD
CINCINNATI, OH 45242

TITLE: STEELCRAFT H SERIES SINGLE FLUSH OUTSWING COMMERCIAL STEEL DOORS WITH AND WITHOUT PANIC EXIT DEVICES

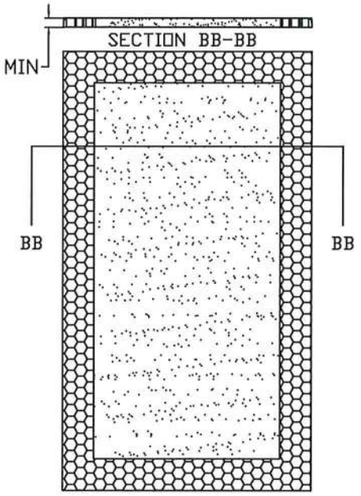
VERTICAL CROSS SECTIONS FOR FLUSH SINGLE DOORS.

SIZE	FLAT	DWG NO.	REV
		IRFS07	P

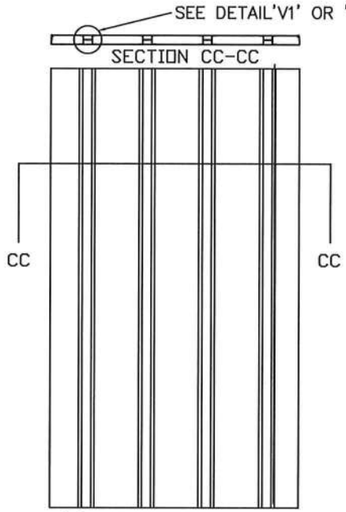
SCALE: NTS | AUTOCAD | SHEET 12 of 14



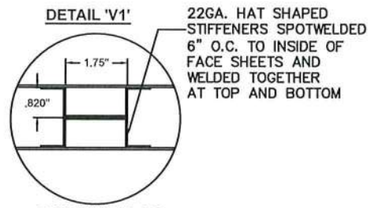
(A) EXPANDED POLYSTYRENE FOAM
BY ATLAS EPS
DENSITY: 1.0 LBS/FT^3

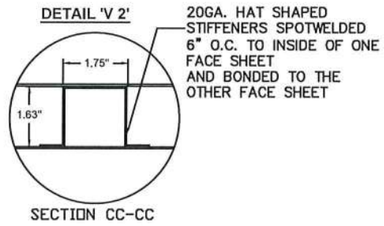


(B) POLYISOCYANURATE
(POLYURETHANE)
BY ELLIOT CO. OF INDIANAPOLIS, IN
DENSITY: 2 LBS/FT^3

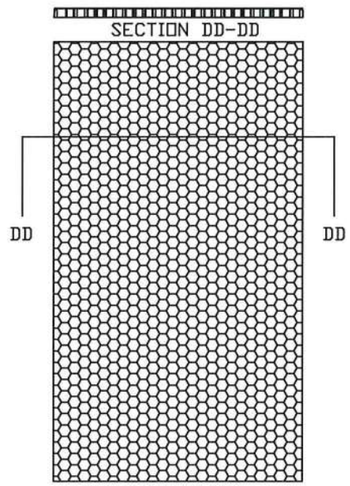


(C) STEEL STIFFENED
HAT SHAPED SECTIONS

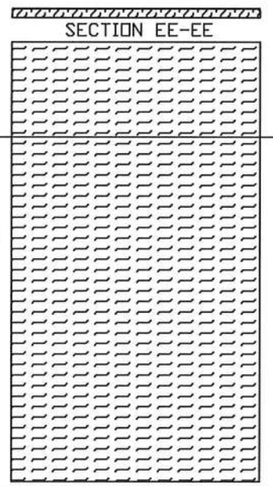




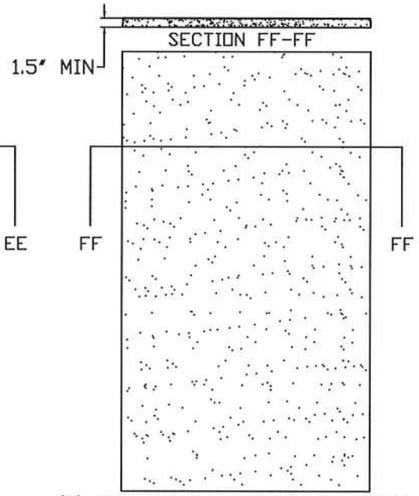
REVISIONS				
LTR	DESCRIPTION		DATE	APPROVED
A	APPROVAL DWG	JPD	02/03/14	
B	REVISED DWG	JPD	02/01/15	
C	REVISED DWG	JPD	05/05/15	
M	ENGINEER CHANGE	LA	03/10/17	
N	ADDRESS UPDATE	SM	02/27/20	
□	2020 FBC UPDATE	NUS	07/07/20	
□	ANCHOR/STRIKE UPDATE	LL	04/06/22	



(D) HONEYCOMB
KRAFT PAPER.



(E) TEMPERATURE RISE CORE
MINERAL FIBER BOARD
DENSITY: 17±1.5 LBS/FT^3
PYROPHIBIC SYSTEMS LTD
PYROPHOBIC PSL P25C-60 CORE
OR
MARSHFIELD DOOR SYSTEMS
CALCIUM SILICATE MINERAL CORE



(F) EXPANDED POLYSTYRENE FOAM
BY ATLAS EPS DENSITY: 1.0 LB/FT^3
OR POLYISOCYANURATE
(POLYURETHANE)
BY ELIOTT CO. OF INDIANAPOLIS, IN
DENSITY: 2 LBS/FT^3

PRODUCT RENEWED
as complying with the Florida Building Code
NOA-No. 22-0427.01
Expiration Date 05/05/2028
By Ishaq I. Chanda
Miami-Dade Product Control

HERMES R. NORERO
LICENSE
No. 73778
STATE OF
FLORIDA
PROFESSIONAL ENGINEER
3-18-2022
HERMES F. NORERO, P.E.
FLORIDA P.E. NO. 73778
BUILDING DRAFTS, INC.
C/98 E. DANIA BEACH BLVD. #338
DANIA BEACH, FL 33004
FBPE CERT. OF AUTHORIZATION NO. 29578

NOTES:
1. CORE MATERIAL SHOWN WITHOUT CUTOUTS FOR REINFORCEMENTS

BEND RADIUS

THIRD ANGLE PROJECTION

DRAWN	DATE
JPD	02/03/14
CHECKED	
APPROVED	
ENG. APPVL	

SCHLAGE LOCK COMPANY, LLC
11819 N. PENNSYLVANIA STREET
CARMEL, IN 46032

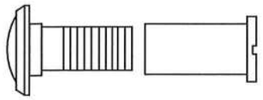
MANUFACTURING FACILITY:
STEELCRAFT
9017 BLUE ASH ROAD
CINCINNATI, OH 45242

TITLE: STEELCRAFT H SERIES SINGLE FLUSH OUTSWING COMMERCIAL STEEL DOORS WITH AND WITHOUT PANIC EXIT DEVICES
MIAMI-DADE COUNTY PRODUCT APPROVAL
DOOR CORE OPTIONS

SIZE	FLAT	DWG NO.	REV
		IRFS07	P

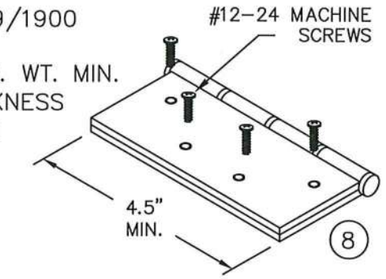
SCALE: NTS | AUTOCAD | SHEET 13 of 14

REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED
A	APPROVAL DWGS.	09/05/13	
B	REVISED	02/01/15	
M	ENGINEER CHANGE LA	03/10/17	
N	ADDRESS UPDATE SM	02/27/20	
O	2020 FBC UPDATE NUS	07/07/20	
P	ANCHOR/STRIKE UPDATE LL	04/06/22	

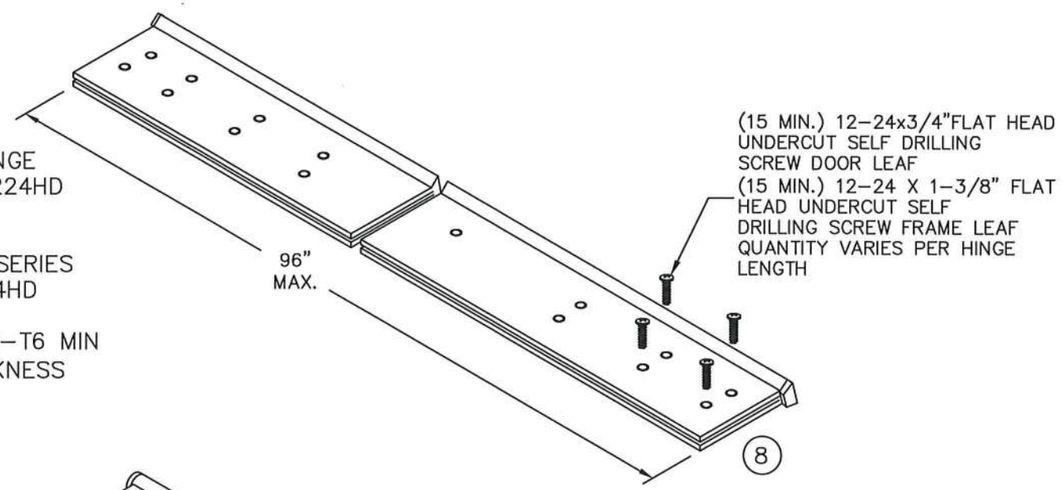


(24) IVES 698/U698 DOOR VIEWER
APPLICATION LIMITED TO +/- 75 PSF
DESIGN PRESSURE OR LESS

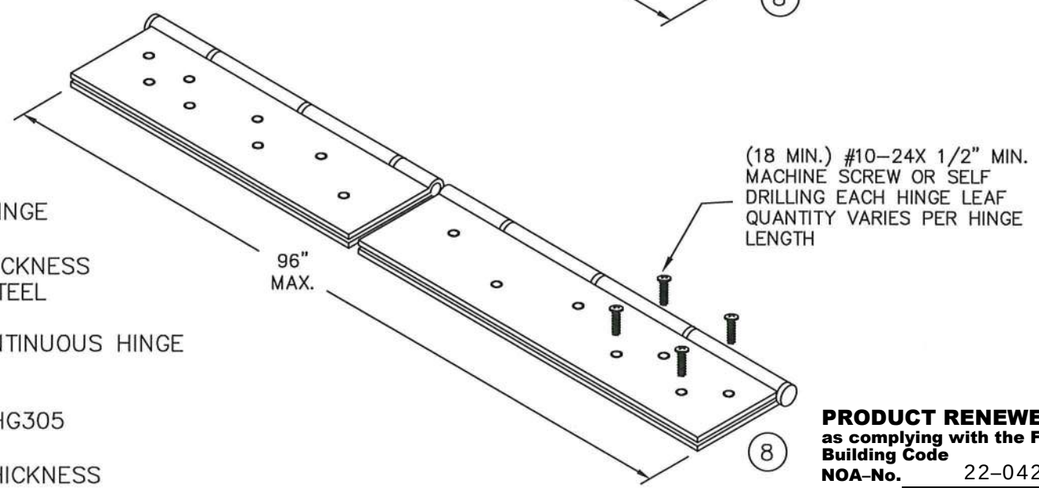
STEEL BUTT HINGE
IVES 5BB1/3CB1
STANLEY FBB179/1900
HAGER BB1279
4.5" X 4.5" STD. WT. MIN.
.134" MIN. THICKNESS
Fy MIN. = 36ksi



CONTINUOUS HINGE
IVES 112HD & 224HD
STANLEY 661HD
SELECT SL11HD
PEMKO FM_HD SERIES
HAGER 780-224HD
ABH A240HD
ALUMINUM 6036-T6 MIN
.110" MIN. THICKNESS



STEEL CONTINUOUS HINGE
IVES 600
.075 MIN. (14GA.) THICKNESS
1012 COLD ROLLED STEEL
Fy MIN. 45ksi
STAINLESS STEEL CONTINUOUS HINGE
IVES 700, 700CS
HAGER 790-900
MARKAR FM-300 & HG305
ABH A500
.075" MIN. (14GA.) THICKNESS
304 STAINLESS STEEL
Fy MIN. 31ksi



PRODUCT RENEWED
as complying with the Florida Building Code
NOA-No. 22-0427.01
Expiration Date 05/05/2028
By Ishaq I. Chanda
Miami-Dade Product Control

CONTINUOUS HINGE NOTES:
1. QUANTITY OF SCREWS VARIES PER HINGE LENGTH, MANUFACTURER AND MODEL NUMBER
2. SCREW SPACING VARIES PER HINGE LENGTH, MANUFACTURER AND MODEL NUMBER
3. INSTALL HINGES PER THE MANUFACTURERS INSTALLATION INSTRUCTIONS

HERMES F. MORERO LICENSE No. 73778 STATE OF FLORIDA PROFESSIONAL ENGINEER
7-19-2022
HERMES F. MORERO, P.E.
FLORIDA P.E. NO. 73778
BUILDING PROS, INC.
3900 E. DANIA BEACH BLVD. #338
DANIA BEACH, FL 33004
FBPE CERT. OF AUTHORIZATION NO. 29578

BEND RADIUS

THIRD ANGLE PROJECTION

DRAWN	DATE
JPD	02/03/14
CHECKED	
APPROVED	
ENG. APPVL	

SCHLAGE LOCK COMPANY, LLC
11819 N. PENNSYLVANIA STREET
CARMEL, IN 46032

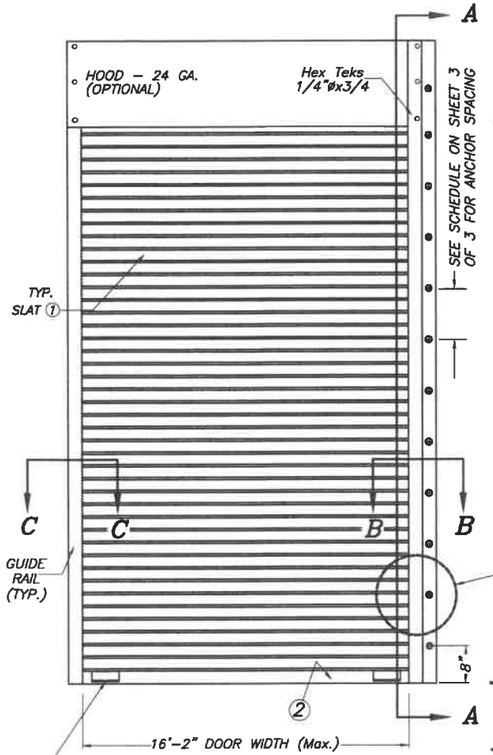
MANUFACTURING FACILITY:
STEELCRAFT
9017 BLUE ASH ROAD
CINCINNATI, OH 45242

TITLE: STEELCRAFT H SERIES SINGLE FLUSH OUTSWING COMMERCIAL STEEL DOORS WITH AND WITHOUT PANIC EXIT DEVICES

HINGE AND VIEWER OPTIONS

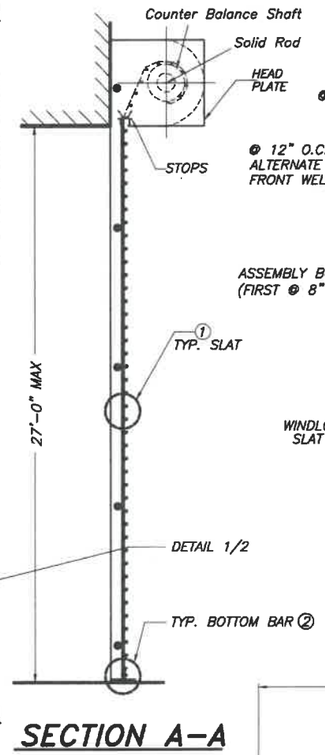
SIZE	FLAT	DWG NO.	REV
		IRFS07	P

SCALE:			SHEET
NTS	AUTOCAD		14 of 14



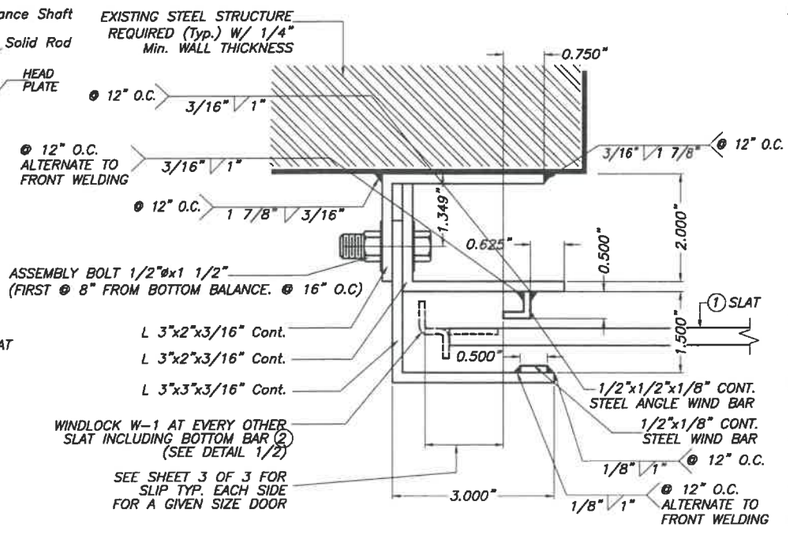
TYPICAL DOOR ELEVATION

N. T. S.



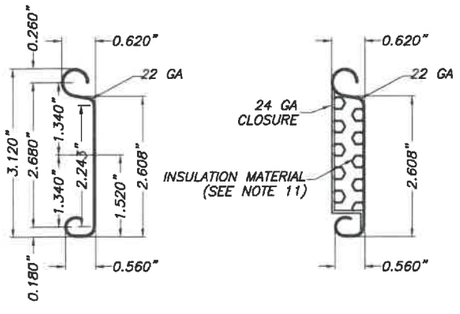
SECTION A–A

N. T. S.



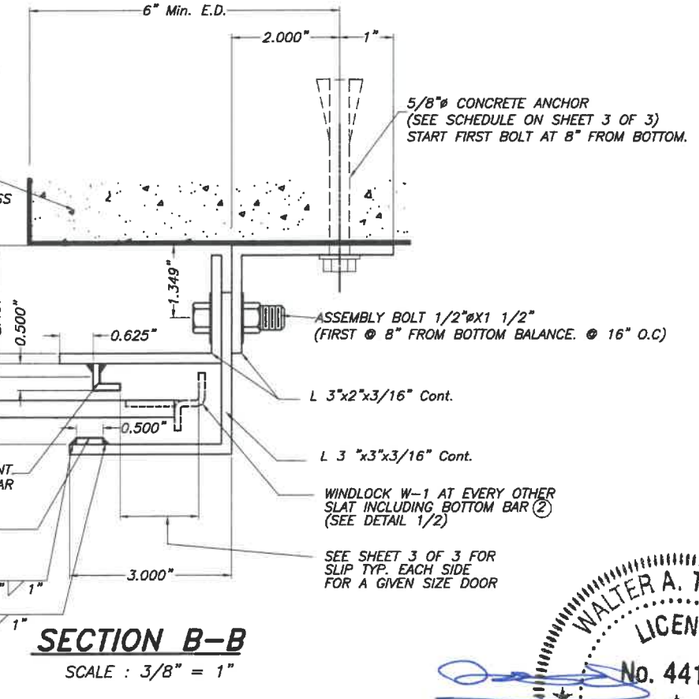
SECTION C–C

SCALE : 3/8" = 1"



PLAIN

INSULATED



SECTION B–B

SCALE : 3/8" = 1"

(1) FLAT SLAT

SCALE : 1/2" = 1"

THIS DRAWING SHALL ONLY BE USED TO OBTAIN PERMITS IN THE STATE OF FLORIDA

GENERAL NOTES:

1– ROLL–UP DOOR SHOWN ON THIS PRODUCT EVALUATION DOCUMENT (P.E.D.) HAS BEEN VERIFIED FOR CODE COMPLIANCE IN ACCORDANCE WITH THE **2020** (7th EDITION) OF THE FLORIDA BUILDING CODE. DESIGN WIND LOADS SHALL BE DETERMINED AS PER SECTION **1620** OF THE ABOVE MENTIONED CODE, FOR A WIND SPEED AS REQUIRED BY THE JURISDICTION WHERE THESE SHUTTERS WILL BE INSTALLED AND FOR A DIRECTIONALITY FACTOR Kd=0.85. USING ASCE 7–16 AND SHALL NOT EXCEED THE MAXIMUM (A.S.D.) DESIGN PRESSURE RATINGS INDICATED ON THIS NOTE 1.

IN ORDER TO VERIFY THE ABOVE CONDITION, ULTIMATE DESIGN WIND LOADS DETERMINED PER ASCE 7–16 SHALL BE FIRST REDUCED TO A.S.D. DESIGN WIND LOADS BY MULTIPLYING THEM BY 0.6 IN ORDER TO TO COMPARE THESE W/ MAX. (A.S.D) DESIGN PRESSURE RATINGS INDICATED ON THIS NOTE 1.

ROLL–UP DOOR'S ADEQUACY FOR IMPACT AND FATIGUE RESISTANCE HAS BEEN VERIFIED IN ACCORDANCE WITH SECTION **1626** OF THE ABOVE MENTIONED CODE AS PER FENESTRATION TESTING LABORATORY, INC. REPORT # 5081, PER TAS–201, TAS–202 & TAS–203 PROTOCOLS.

MAX. A.S.D. DESIGN PRESSURE RATING: +65.0, –65.0 PSF

2– SLAT TO BE A.S.T.M. A–653 GR 50 STRUCTURAL QUALITY STEEL WITH MIN Fy = 50.0 ksi. AND G–90 GALVANIZING PER A.S.T.M. A–653, OR A.I.S.I. 304 SERIES STAINLESS STEEL MANUFACTURED WITH A MINIMUM YIELD STRENGTH OF Fy = 50.0 ksi.

3– ALL STEEL ANGLES TO BE A.S.T.M. A–36 DESIGNATION, SHOP PRIMED AGAINST CORROSION PRIOR TO INSTALLATION.

4– WINDLOCKS TO BE "MALLEABLE IRON" Fy = 42 ksi OR A.I.S.I. DESIGNATION STEEL W/ Fy = 40 ksi., CHROME OR NICKEL PLATED.

5– ALL ASSEMBLY BOLTS TO BE S.A.E. GRADE 2 CADMIUM PLATED OR GALVANIZED STEEL.

6– STEEL WINDBARS TO BE A.S.T.M. A–36 DESIGNATION, SHOP PRIMED PRIOR TO INSTALLATION.

7– HOOD TO BE 24 GA. A.S.T.M. A–653 DESIGNATION G–90 FINISH TYPE COATING.

8– ALL RIVETS TO BE A.I.S.I. C1006 SPHERODIZED ANNEALED ALUMINUM LOW CARBON COLD HEADING QUALITY STEEL, ZINC PLATED, W/ 55.0 ksi. MINIMUM TENSILE STRENGTH, AS MANUFACTURED BY UNIVERSAL RIVET, INC.

9– CONCRETE ANCHORS TO BE AS PER SHEET 3 OF 3 AND SHALL BE INSTALLED FOLLOWING ALL OF THE RECOMMENDATIONS AND SPECIFICATIONS OF THE ANCHOR'S MANUFACTURER.

10– ALL WELDING TO CONFORM TO AMERICAN WELDING SOCIETY'S AWS D1.1 REGULATIONS. USE A.W.S A5.1 OR A5.5 E60XX ELECTRODES MIN. 3/16" FILLET SIZE.

11– INSULATION MATERIAL SHALL BE EPS–EXPANDED POLYSTYRENE INSULATION, MANUFACTURED BY DYPLAST PRODUCTS LLC., W/ MIAMI DADE COUNTY PRODUCT APPROVAL.

2– IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THAT THE EXISTING STRUCTURE IS DESIGNED TO SUPPORT Vx AND Vy FORCES AT BOTH JAMBS. SEE SCHEDULE ON SHEET 3 OF 3, FOR Vx & Vy VALUES.

13– ROLL–UP MECHANISM NOT PART OF THIS APPROVAL.

14– (A) THIS P.E.D. PREPARED BY THIS ENGINEER IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SITE SPECIFIC PROJECT; I.E. WHERE THE SITE CONDITIONS DEVIATE FROM THE P.E.D.
(B) CONTRACTOR TO BE RESPONSIBLE FOR THE SELECTION, PURCHASE AND INSTALLATION OF THIS PRODUCT BASED ON THIS P.E.D. PROVIDED HE/SHE DOES NOT DEVIATE FROM THE CONDITIONS DETAILED ON THIS DOCUMENT. CONSTRUCTION SAFETY AT SITE IS THE CONTRACTOR'S RESPONSIBILITY.
(C) THIS P.E.D. WILL BE CONSIDERED INVALID IF MODIFIED.
(D) SITE SPECIFIC PROJECTS SHALL BE PREPARED BY A FLORIDA REGISTERED ENGINEER OR ARCHITECT WHICH WILL BECOME THE ENGINEER OF RECORD (E.O.R.) FOR THE PROJECT AND WHO WILL BE RESPONSIBLE FOR THE PROPER USE OF THE P.E.D. ENGINEER OF RECORD, ACTING AS A DELEGATED ENGINEER TO THE P.E.D. ENGINEER, SHALL SUBMIT TO THIS LATTER THE SITE SPECIFIC DRAWINGS FOR REVIEW.
(E) ORIGINAL P.E.D. SHALL BEAR THE DATE AND ORIGINAL SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER OF RECORD THAT PREPARED IT.

15– PRODUCTS MANUFACTURER'S LABEL SHALL BE LOCATED ON A READILY VISIBLE LOCATION AT DOOR. ONE LABEL SHALL BE PLACED FOR EVERY OPENING. LABELING TO COMPLY WITH SECTION **1709.5.2.1.1** OF THE FLORIDA BUILDING CODE.

WALTER A. TILLIT JR. LICENSE No. 44167 STATE OF FLORIDA PROFESSIONAL ENGINEER

Florida Building Code (High Velocity Hurricane Zone)

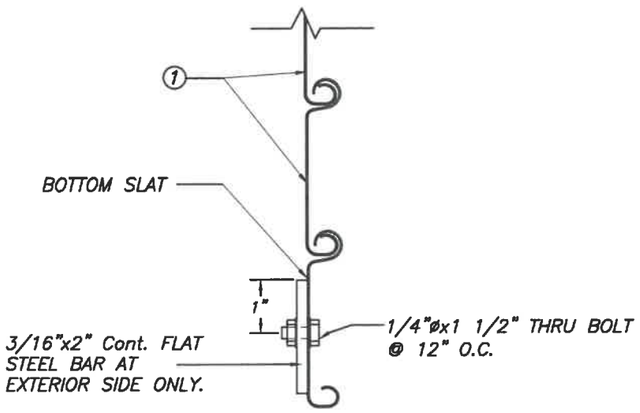
©2020 TILTECO, INC.

TILTECO INC.
TILLIT TESTING & ENGINEERING COMPANY
6363 NW 36th. St. Ste. 305, VIRGINIA GARDENS, FL. 33166
PHONE: (305)871–1530 . Fax : (305)871–1531
e–mail: tilteco@aol.com
CA–0006719
WALTER A. TILLIT Jr. P.E.
FLORIDA Lic. # 44167

16'–2" MAX. 22 GAGE SLAT ROLL–UP DOOR	DRAWN BY: F.P.
ROLLING DOOR INDUSTRIES, LLC. 8214 NW 64 ST MIAMI, FL. 33166 PH: 305–599–9977 FAX: 305–599–9979	07/21/2020 DATE 20–212 DRAWING No

REV. NO	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	OLD 17–245	07/21/20			
2					

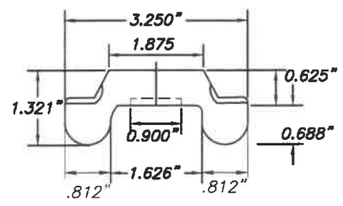
SHEET 1 OF 3

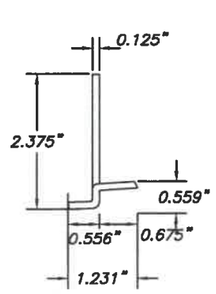


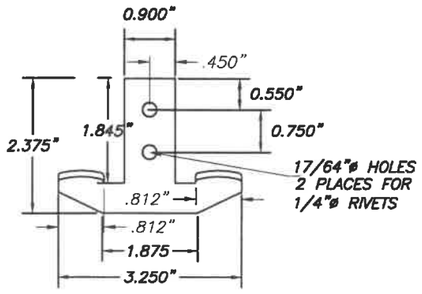
SECTION X1

② BOTTOM BAR DETAIL

SCALE : 3/8" = 1"

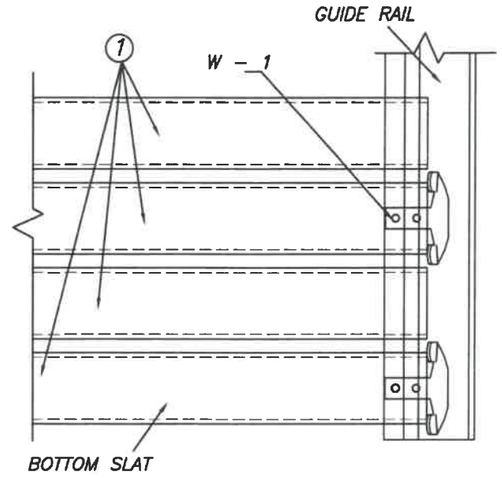






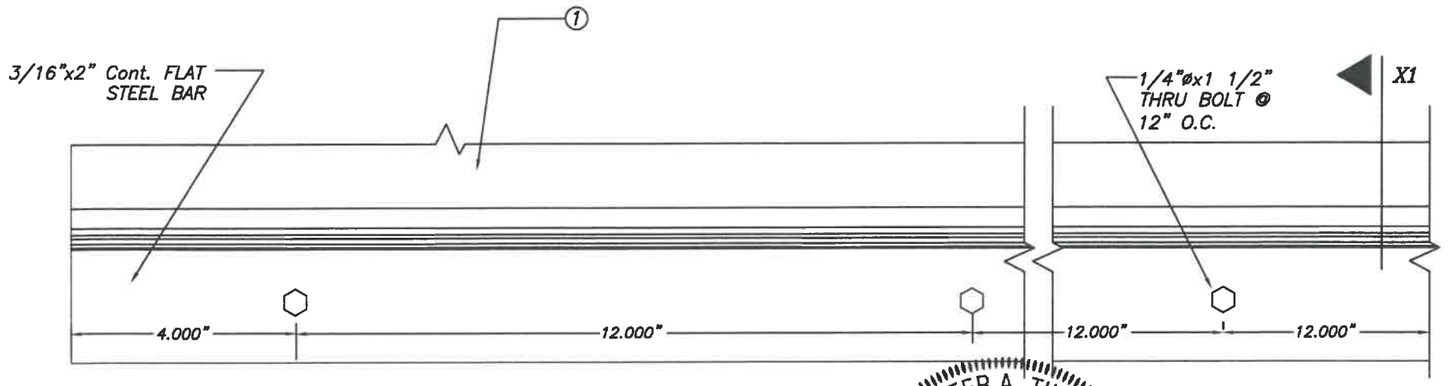
TYPICAL WINDLOCK W – 1 DETAIL

SCALE : 3/8" = 1"



DETAIL 1 (elevation)

N. T. S.



ELEVATION

BOTTOM BAR ②

SCALE : 3/8" = 1"

WALTER A. TILLIT JR. LICENSE No. 44167 STATE OF FLORIDA PROFESSIONAL ENGINEER

Florida Building Code (High Velocity Hurricane Zone)

©2020 TILTECO, INC.

TILTECO INC.
TILLIT TESTING & ENGINEERING COMPANY
6355 N.W. 36th. St., Ste. 305, VIRGINIA GARDENS, FL. 33166
Phone : (305)871-1530 . Fax : (305)871-1531
e-mail: tilteco@aol.com
CA-0006719
WALTER A. TILLIT Jr. P.E.
FLORIDA Lic. # 44167

16'-2" MAX. 22 GAGE SLAT ROLL-UP DOOR

DRAWN BY: F.P.

ROLLING DOOR INDUSTRIES, LLC.
8214 NW 64 ST
MIAMI, FL. 33166
PH: 305-599-9977 FAX: 305-599-9979

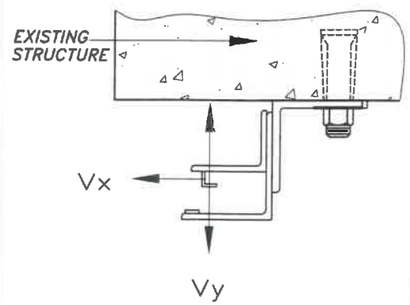
07/21/2020 DATE

20-212 DRAWING No

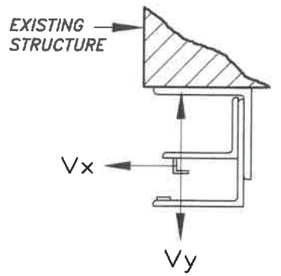
REV. NO	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	OLD 17-245	07/21/20			
2					

Vx & Vy REACTIONS & ANCHOR SPACING SCHEDULE

MAXIMUM A.S.D. DESIGN PRESSURE RATING (PSF)	DOOR WIDTH (Ft.)	SLIP (In)	Vx (Lb/Ft)	Vy (Lb/Ft)	MAX. ANCHOR SPACING TO POURED CONCRETE													
					A *		B *				C *				D *			
					f'c = 2 ksi Min.	f'c = 3 ksi Min. OR GREATER	f'c = 2 ksi Min.	f'c = 3 ksi Min.	f'c = 4 ksi Min.	f'c = 6 ksi Min.	f'c = 2 ksi Min.	f'c = 3 ksi Min.	f'c = 4 ksi Min.	f'c = 6 ksi Min.	f'c = 2 ksi Min.	f'c = 3 ksi Min.	f'c = 4 ksi Min.	f'c = 6 ksi Min.
+50.0, −50.0	10−0"	7/32"	891	250	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"
	12'−0"	3/8"	1051	300	12"	12"	12"	12"	12"	12"	11"	12"	12"	12"	11"	12"	12"	12"
	14'−0"	5/8"	1125	350	12"	12"	12"	12"	12"	12"	10 1/2"	12"	12"	12"	10"	12"	12"	12"
	16'−2"	1"	1179	404	12"	12"	12"	12"	12"	12"	9 1/2"	11 1/2"	12"	12"	9 1/2"	12"	12"	12"
+55.0, −55.0	10−0"	7/32"	1017	275	12"	12"	12"	12"	12"	12"	11 1/2"	12"	12"	12"	11 1/2"	12"	12"	12"
	12'−0"	3/8"	1180	330	12"	12"	12"	12"	12"	12"	10"	12"	12"	12"	10"	12"	12"	12"
	14'−0"	5/8"	1254	385	12"	12"	11 1/2"	12"	12"	12"	9"	11"	12"	12"	9"	11 1/2"	12"	12"
	16'−2"	1"	1308	445	12"	12"	11"	12"	12"	12"	8 1/2"	10 1/2"	12"	12"	8 1/2"	10 1/2"	12"	12"
+60.0, −60.0	10−0"	7/32"	1141	300	12"	12"	12"	12"	12"	12"	10 1/2"	12"	12"	12"	10 1/2"	12"	12"	12"
	12'−0"	3/8"	1307	360	12"	12"	11"	12"	12"	12"	9"	10 1/2"	12"	12"	9"	11"	12"	12"
	14'−0"	5/8"	1381	420	11 1/2"	12"	10 1/2"	11 1/2"	12"	12"	8 1/2"	10"	11 1/2"	12"	8 1/2"	10 1/2"	12"	12"
	16'−2"	1"	1436	485	11"	12"	10"	11"	12"	12"	8"	9 1/2"	11"	12"	8"	9 1/2"	11 1/2"	12"
+65.0, −65.0	10−0"	7/32"	1263	325	12"	12"	11 1/2"	12"	12"	12"	9 1/2"	11"	12"	12"	9 1/2"	11 1/2"	12"	12"
	12'−0"	3/8"	1432	390	11"	12"	10"	11 1/2"	12"	12"	8"	9 1/2"	11 1/2"	12"	8"	10"	12"	12"
	14'−0"	5/8"	1507	455	10 1/2"	12"	9 1/2"	10 1/2"	11 1/2"	12"	7" ◊	9"	10 1/2"	12"	7 1/2"	9 1/2"	11"	12"
	16'−2"	1"	1562	525	10"	12"	9"	10"	11"	12"	6 1/2" ◊	8 1/2"	10"	12"	7 1/2"	9"	10 1/2"	11 1/2"



LOAD DIAGRAM



LOAD DIAGRAM

*

A – 5/8"ø HILTI KWIK BOLT TZ EXPANSION ANCHOR @ 10" Min. SPACING.

B – 5/8"ø HILTI KWIK BOLT 3 EXPANSION ANCHOR @ 9" Min. SPACING. ONLY ALLOWED TO BE USED AT JURISDICTIONS WHERE COMPLIANCE W/ ACI 318−05 APPENDIX D IS NOT ENFORCED BY BUILDING OFFICIAL.

C – 5/8"ø HILTI HUS−H SCREW ANCHOR @ 8" Min. SPACING EXCEPT WHERE ◊ MARK 6 1/2" Min. SPACING IS ALLOWED.

D – 5/8"ø DEWALT WEDGE BOLT ANCHOR W/ 7 1/2" Min. SPACING.

ALL 3 ANCHORS W/ 4" MINIMUM EMBEDMENT, 6" MIN. EDGE DISTANCE & 8" MIN. WALL THICKNESS.

WALTER A. TILLIT JR. LICENSE No. 44167 STATE OF FLORIDA PROFESSIONAL ENGINEER

Florida Building Code (High Velocity Hurricane Zone)

©2020 TILTECO, INC.

TILTECO INC.
TILLIT TESTING & ENGINEERING COMPANY
6355 N.W. 36th. St., Ste. 305, VIRGINIA GARDENS, Fl. 33166
Phone : (305)871−1530 . Fax : (305)871−1531
e−mail: tilteco@aol.com
CA−0006719
WALTER A. TILLIT Jr. P.E.
FLORIDA Lic. # 44167

16'−2" MAX. 22 GAGE SLAT ROLL−UP DOOR

DRAWN BY: F.P.

ROLLING DOOR INDUSTRIES, LLC.
8214 NW 64 ST
MIAMI, FL. 33166
PH: 305−599−9977 FAX: 305−599−9979

07/21/2020 DATE

20−212 DRAWING No

REV. NO	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	OLD 17−245	07/21/20			
2					

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)

Next Door Company
4005 E. 10th Court
Hialeah, Fl. 33013

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" S-808-IL" Outswing Louvered Steel Doors-Impact

APPROVAL DOCUMENT: Drawing No. **W10-35 Rev J** titled "Series "S-808-IL" Outswing Louvered Steel Door (LMI)" Sheets 1 through 6 of 6, prepared by Al-Farooq Corporation, dated 06-03-10 and last revised on AUG 30, 2023, signed and sealed by Jalal Farooq, 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. Not approved where **Air** and **Water infiltration** requirements are needed.
2. Door and louver shall meet min yield and ultimate strength per sheet 5.

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", 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 #21-0504.08** and consists of this page 1 and evidence pages E-1, E-2, E-3, E-4 & E-5, as well as approval document mentioned above.

The submitted documentation was reviewed by **Ishaq I. Chanda, P.E.**

MIAMI-DADE COUNTY APPROVED

Ishaq I. Chanda

NOA No. 23-0913.10
Expiration Date: January 13, 2026
Approval Date: October 12, 2023

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

1. Evidence submitted under previous approvals

A. DRAWINGS

1. Manufacturer's die drawings and sections (submitted under files #see below)
2. Drawing No. **W10-35 Rev F** titled "Series "S-808-IL" Outswing Louvered Steel Door (LMI)" Sheets 1 through 6 of 6, prepared by Al-Farooq Corporation, dated 06-03-10 and last revised on APR 15, 2015, P.E.

B. TESTS (submitted under files **#14-0911.02/#12-0229.03/#10-0727.02)**

1. Test reports on 1) Air Infiltration Test, per FBC TAS 202-94 (Not Performed)
   2) Uniform Static Air Pressure Test Loading per FBCTAS 202-94
   3) Water Resistance Test, per FBC TAS 202-94 (Not Performed)
   4) Forced Entry Resistance Test, per FBC TAS 202-94
   5) Large Missile Impact Test, FBC TAS 201-94
   6) Cyclic Loading Test, per FBC TAS 203-94

Along with installation diagram of double outswing Louvered steel door, marked-up by Fenestration Testing Laboratories, Inc. Test Reports Nos. **FTL 6167 (FTL09009)** and **FTL 6267 (FTL10049)**, dated 04/28/10, signed and sealed by Jorge A. Causo, P.E.
Note: This test report has been revised by an addendum letter dated Dec. 10, 2010, issued by Fenestration Testing Lab, signed and sealed by Jorge A. Causo, P.E.

C. CALCULATIONS

1. Anchor verification calculations and structural analysis, complying with FBC-2014, prepared by Al Farooq Corporation, dated 07/02/14 and last revised on JAN14, 2015, signed and sealed by Javad Ahmad, P.E.
2. Glazing complies w/ ASTME-1300-02, -04 &-09

D. QUALITY ASSURANCE

1. Miami Dade Department of Regulatory and Economic Resources (RER).

E. MATERIAL CERTIFICATIONS

1. Tensile Test report No. **6167 (FTL09009)** Sp #A-1 dated 04/14/10 per ASTM A-3705 for steel face sheet, prepared by Fenestration Testing lab, signed & sealed by Carlos Rionda, P.E.
2. Notice of Acceptance No. **06-1228.07** issued to Carpenter Company for "EPS-Expanded Polystyrene Insulation", expiring on 04/11/17
3. Test Report No. **3145021COQ-004**, dated March 28, 2008, issued by Intertek. to Next Door Company for "RA-24" Batt Fiberglass Insulation for "Self Ignition Temperature Test" per ASTM E-84-08 for smoke density & Flame spread and Test Report No. **3145021COQ-005**, dated March 28, 2008 for "Surface Burning Characteristics" per ASTMD-1929.
4. Test Report No. **3145021COQ-006**, dated March 28, 2008, issued by Intertek. to Next Door Company for "RA-24" Batt Fiberglass Insulation for "Rate of Burning" per ASTM D-635-06.

Ishaq I. Chanda

Ishaq I. Chanda, P.E.
Product Control Unit Supervisor
NOA No. 23-0913.10
Expiration Date: January 13, 2026
Approval Date: October 12, 2023

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

F. STATEMENTS

1. Statement letter of conformance to FBC 2014(**5th** edition) and "renewal with No change", prepared by Al Farooq Corporation, dated 07/21/15, signed and sealed by Javad Ahmad, P.E
2. Statement letter of conformance to FBC 2014(**5th** edition) and letter of no financial interest, prepared by Al Farooq Corporation, dated 06/30/14, signed and sealed by Javad Ahmad, P.E.
3. Lab compliance as part of the above referenced test report.

G. OTHER

1. This NOA **renews** NOA #**12-0229.03**, expiring on January 13, 2021.

2. Evidence submitted under previous NOA.

A. DRAWINGS

1. Drawing No. **W10-35 Rev G** titled "Series "S-808-IL" Outswing Louvered Steel Door (LMI)" Sheets 1 through 6 of 6, prepared by Al-Farooq Corporation, dated 06-03-10 and last revised on JAN 25, 2018, signed and sealed by Javad Ahmad, P. E.

B. TESTS

1. None.

C. CALCULATIONS

1. Anchor verification calculations and structural analysis, complying with **FBC 2017 (**6th Edition**)**, prepared by Al-Farooq Corporation, dated 01/25/18, signed and sealed by Javad Ahmad, P. E.

D. QUALITY ASSURANCE

1. Miami Dade Department of Regulatory and Economic Resources (RER).

E. MATERIAL CERTIFICATIONS

1. None.

F. STATEMENTS

1. Statement letter of conformance to **FBC 6th Edition (2017)** and of no financial interest, prepared by Al Farooq Corporation, dated 12/29/17, signed and sealed by Javad Ahmad, P.E.
2. Statement of lab compliance, as part of test report.

G. OTHER

1. This NOA **revises NOA # 15-0728.04**, expiring 01/13/21.

Ishaq I. Chanda

Ishaq I. Chanda, P.E.
Product Control Unit Supervisor
NOA No. 23-0913.10
Expiration Date: January 13, 2026
Approval Date: October 12, 2023

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

3. Evidence submitted under previous approval.

A. DRAWINGS

1. Drawing No. **W10-35 Rev H** titled "Series "S-808-IL" Outswing Louvered Steel Door (LMI)" Sheets 1 through 6 of 6, prepared by Al-Farooq Corporation, dated 06-03-10 and last revised on 09/04/2020, signed and sealed by Jalal Farooq, P. E.

B. TESTS

1. None.

C. CALCULATIONS

1. Anchor verification calculations and structural analysis, complying with **FBC 2020 (**7th Edition**)**, prepared by Al-Farooq Corporation, dated 09/04/20, signed and sealed by Jalal Farooq, P. E.

D. QUALITY ASSURANCE

1. Miami Dade Department of Regulatory and Economic Resources (RER).

E. MATERIAL CERTIFICATIONS

1. None.

F. STATEMENTS

1. Statement letter of conformance to **FBC 7th Edition (2020)** and of no financial interest, prepared by Al Farooq Corporation, dated 09/04/20, signed and sealed by Jalal Farooq, P.E.
2. Statement of lab compliance, as part of test report.

G. OTHER

1. This NOA **revises & renews NOA # 18-0205.10**, expiring 01/13/26.

Ishaq I. Chanda

Ishaq I. Chanda, P.E.
Product Control Unit Supervisor
NOA No. 23-0913.10
Expiration Date: January 13, 2026
Approval Date: October 12, 2023

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

4. Evidence submitted under previous approval.

A. DRAWINGS

1. Drawing No. **W10-35 Rev I** titled "Series "S-808-IL" Outswing Louvered Steel Door (LMI)" Sheets 1 through 6 of 6, prepared by Al-Farooq Corporation, dated 06-03-10 and last revised on 05/30/2021, signed and sealed by Jalal Farooq, P. E.

B. TESTS

1. None.

C. CALCULATIONS (submitted under previous approval**)**

1. None.

D. QUALITY ASSURANCE

1. Miami Dade Department of Regulatory and Economic Resources (RER).

E. MATERIAL CERTIFICATIONS

1. None.

F. STATEMENTS

1. Statement letter of conformance to **FBC 7th Edition (2020)**, prepared by Al Farooq Corporation, dated 05/30/21, signed and sealed by Jalal Farooq, P.E.

G. OTHER

1. This NOA **revises NOA # 20-0910.03**, expiring 01/13/26.

Ishaq I. Chanda

Ishaq I. Chanda, P.E.
Product Control Unit Supervisor
NOA No. 23-0913.10
Expiration Date: January 13, 2026
Approval Date: October 12, 2023

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

5. New Evidence submitted.

A. DRAWINGS

1. Drawing No. **W10-35 Rev J** titled "Series "S-808-IL" Outswing Louvered Steel Door (LMI)" Sheets 1 through 6 of 6, prepared by Al-Farooq Corporation, dated 06-03-10 and last revised on AUG 30, 2023, signed and sealed by Jalal Farooq, P. E.

B. TESTS

1. None.

C. CALCULATIONS (submitted under previous approval**)**

1. None.

D. QUALITY ASSURANCE

1. Miami Dade Department of Regulatory and Economic Resources (RER).

E. MATERIAL CERTIFICATIONS

1. None.

F. STATEMENTS

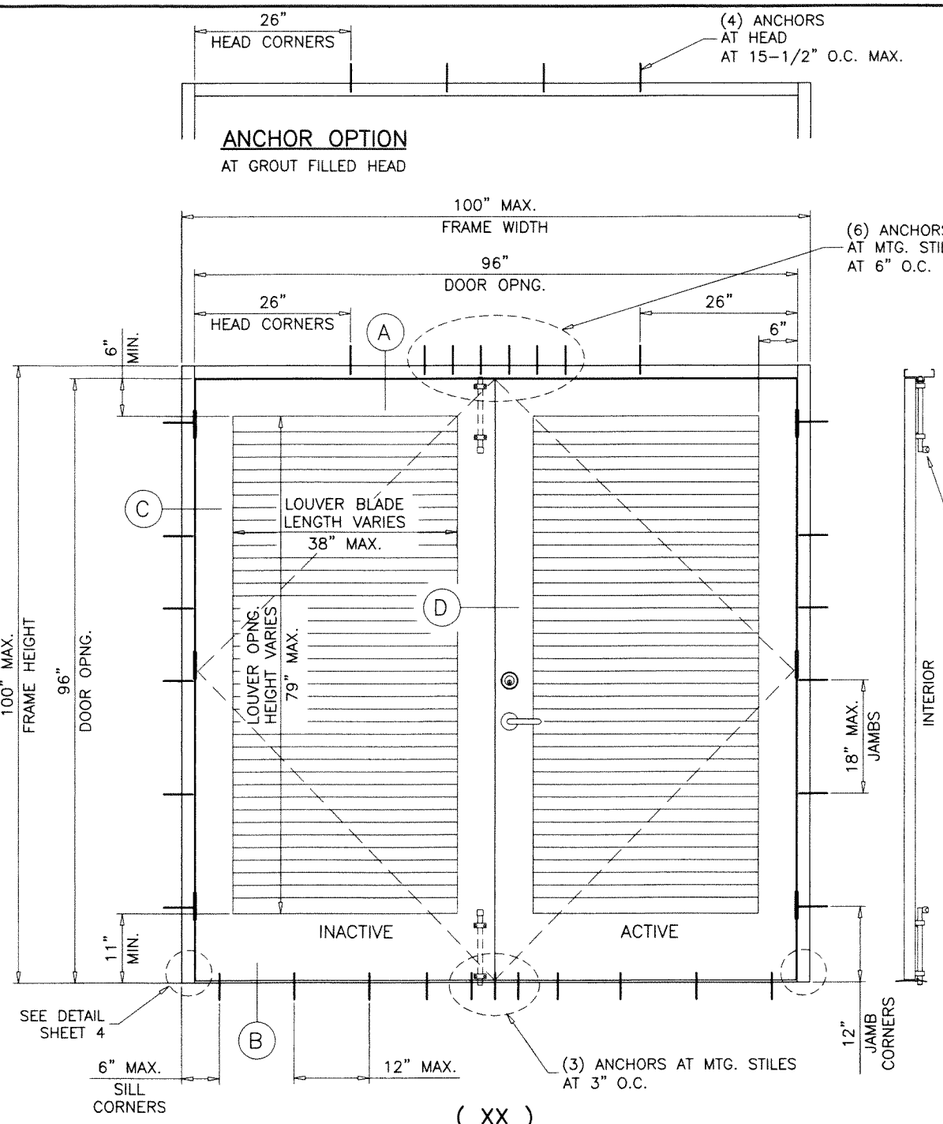
1. Statement letter of conformance to **FBC 8th Edition (2023)** and of no financial interest, prepared by Al Farooq Corporation, dated 09/06/23, signed and sealed by Jalal Farooq, P.E.
2. Statement letter of conformance to **FBC 7th Edition (2020)**, prepared by Al Farooq Corporation, dated 05/30/21, signed and sealed by Jalal Farooq, P.E.

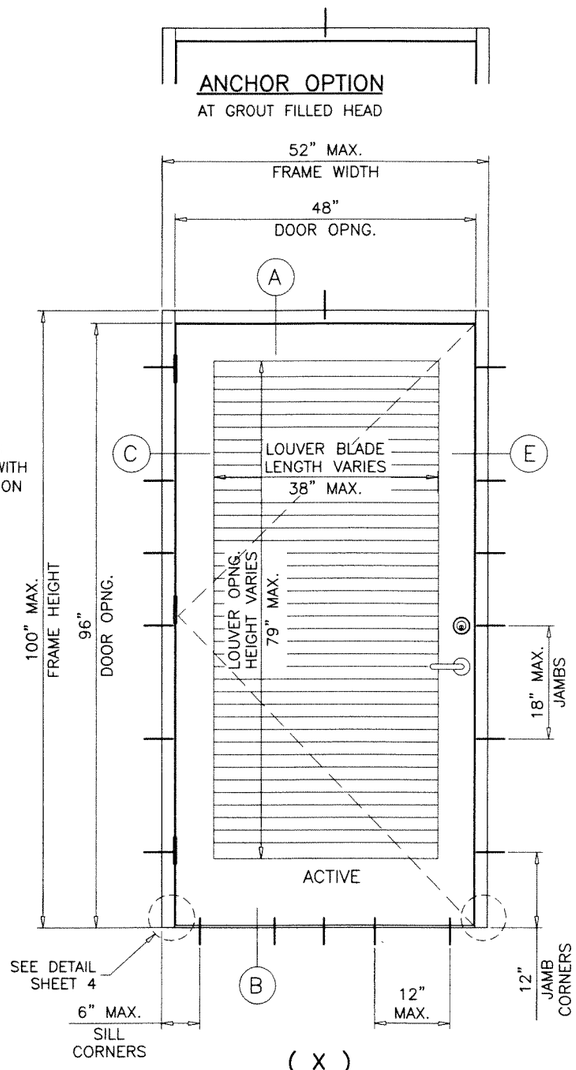
G. OTHER

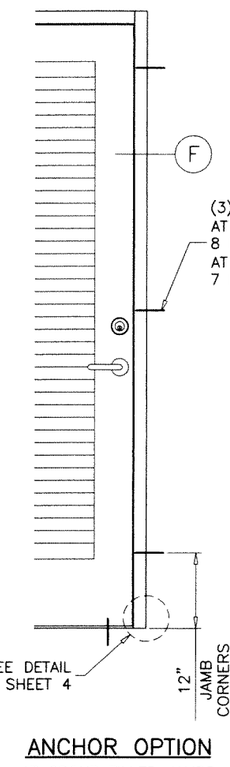
1. This NOA **revises NOA # 21-0504.08** and updates to FBC 2023, expiring 01/13/26.

Ishaq I. Chanda

Ishaq I. Chanda, P.E.
Product Control Unit Supervisor
NOA No. 23-0913.10
Expiration Date: January 13, 2026
Approval Date: October 12, 2023







ANCHOR OPTION
AT GROUT FILLED JAMBS

PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. 23-0913.10
Expiration Date 02/13/2026
By Ishaq I. Chanda
Miami-Dade Product Control

THESE DOORS ARE RATED FOR LARGE & SMALL MISSILE IMPACT.
SHUTTERS ARE NOT REQUIRED.

TYPICAL EXTERIOR ELEVATIONS

MAXIMUM DESIGN LOAD RATING = + 70.0 PSF
(FOR SIZES SHOWN ABOVE OR SMALLER) − 70.0 PSF
AS LIMITED BY CODE

NOTE:
EGRESS REQUIREMENTS TO BE REVIEWED BY BUILDING OFFICIAL.

SERIES-8080-IL
OUT-SWING LOUVERED STEEL DOOR

DOORS NOT APPROVED FOR INSTALLATIONS WHERE AIR AND WATER INFILTRATION RESISTANCE IS REQUIRED.

SEE SHEET 6 FOR VARIOUS FRAME SIZE OPTIONS.
FRAME JAMB TRIM (WIDTH) = 1-1/4" TO 2"
FRAME JAMB DEPTH = 4-3/4" TO 8-3/4"
FRAME HEAD TRIM (WIDTH) = 1-1/4" TO 4"

HEAD/JAMB DEPTH TO BE MATCHED, TRIM MAY VARY.

THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE 2020 (7TH EDITION)/2023 (8TH EDITION) FLORIDA BUILDING CODE INCLUDING HIGH VELOCITY HURRICANE ZONE (HVHZ).

ANCHORS SHALL BE CORROSION RESISTANT, SPACED AS SHOWN ON DETAILS AND INSTALLED PER MANUF'S INSTRUCTIONS. SPECIFIED EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO.

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 2020/2023 FLORIDA BLDG. CODE & ADOPTED STANDARDS.

THIS PRODUCT APPROVAL IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SITE SPECIFIC PROJECT, i.e. LIFE SAFETY OF THIS PRODUCT, ADEQUACY OF STRUCTURE RECEIVING THIS PRODUCT AND SEALING AROUND OPENING FOR WATER INFILTRATION RESISTANCE ETC.
CONDITIONS NOT SHOWN IN THIS DRAWING ARE TO BE ANALYZED SEPARATELY, AND TO BE REVIEWED BY BUILDING OFFICIAL.

DESIGN LOADS SHOWN ARE BASED ON 'ALLOWABLE STRESS DESIGN (ASD)'.

AUG 3 0 2023

JALAL FAROOQ LICENSE No. 81223 STATE OF FLORIDA PROFESSIONAL ENGINEER

afc
AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173 (C.A.N. 3538)
TEL. (305) 264-8100 FAX. (305) 262-6978
COMP-ANL\W10-35NDC

S-8080-IL OUT-SWING LOUVERED STEEL DOOR (L.M.I.)

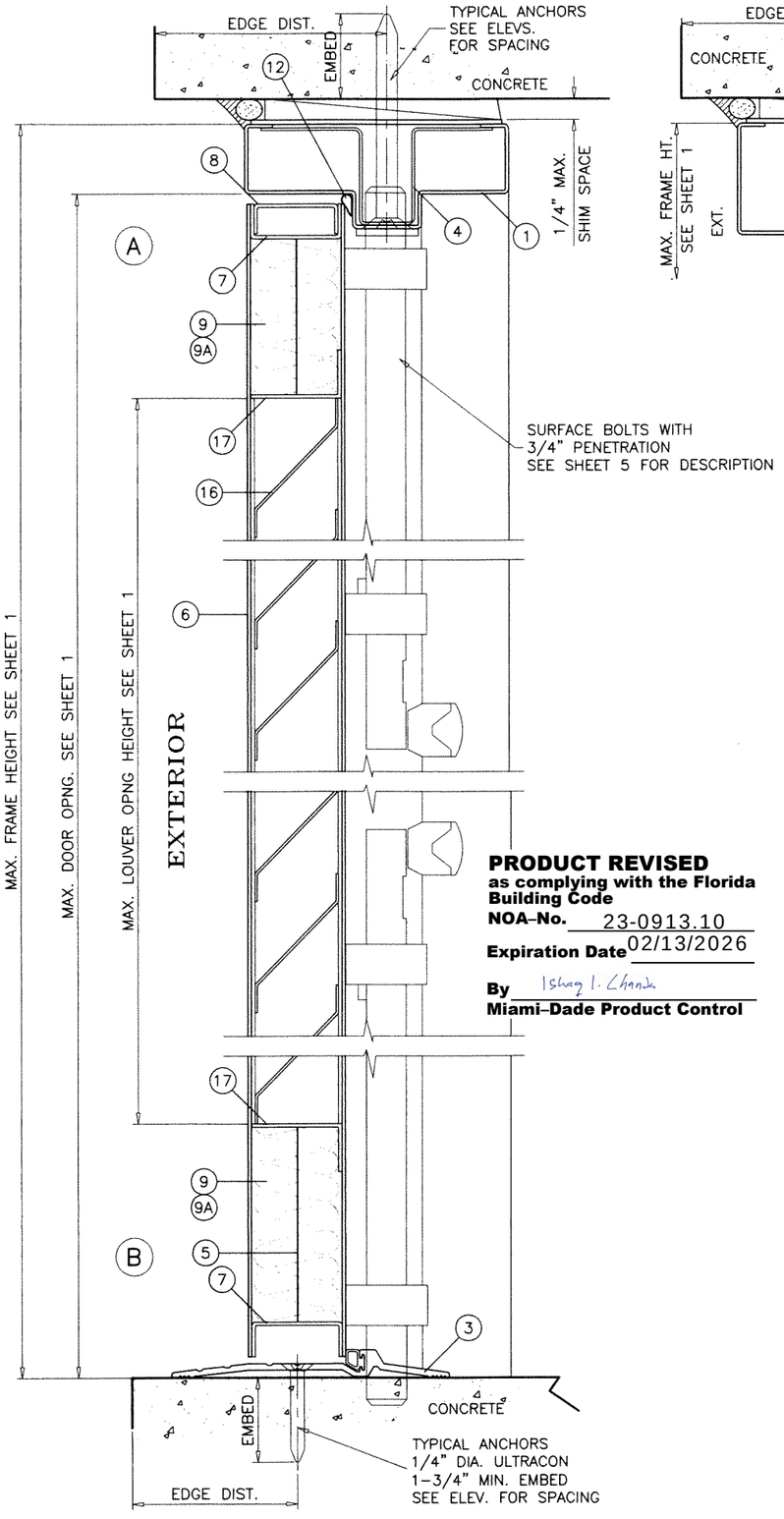
Next Door Company
4005 E 10th Court
Hialeah, FL. 33013
Tel. (954) 772-6666 Fax. (954) 772-8466

revisions:			
no	date	by	description
G	01.10.18		UPDATED TO 2017 FBC
H	07.30.20		UPDATED TO 2020 FBC
I	04.27.21		MANUF. ADDRESS REV.
J	08.28.23		UPDATED TO 2023 FBC

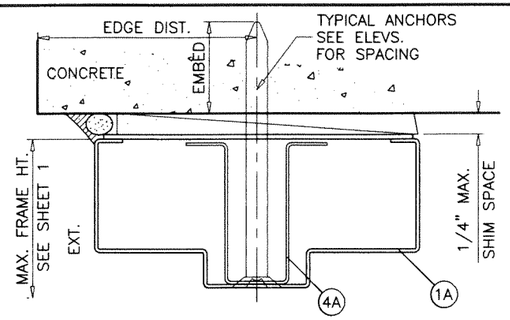
date: 06-03-10
scale: 1/2"=1'-0"
dr. by: TARIQ
chk. by:

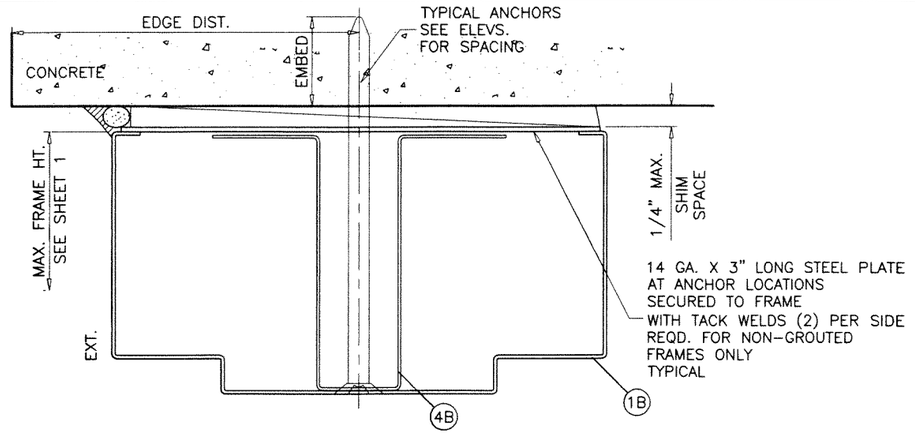
drawing no.
W10-35

sheet 1 of 6



PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. 23-0913.10
Expiration Date 02/13/2026
By Ishaq I. Chanda
Miami-Dade Product Control





METAL STRUCTURES NOT BY 'NEXT DOOR CO.' MUST SUPPORT LOADS IMPOSED BY DOOR SYSTEM AND TRANSFER THEM TO THE BUILDING STRUCTURE.

TYPICAL ANCHORS @ HEAD/JAMB: SEE ELEV. FOR SPACING

3/8" DIA. HLC SLEEVE ANCHOR BY 'HILTI'
DIRECTLY INTO fc'=3000 PSI CONCRETE, 3-1/2" MIN. EDGE DIST.
DIRECTLY INTO fc'=2000 PSI MASONRY BLOCK, 4" MIN. EDGE DIST.
1-1/4" MIN. EMBED INTO CONCRETE (HEAD/JAMBS)
1-1/4" MIN. EMBED INTO GROUT FILLED BLOCK (JAMBS)

3/8" DIA. SUP-R-SLEEVE ANCHOR BY 'MKT'
DIRECTLY INTO fc'=3500 PSI CONCRETE (HEAD/JAMBS)
3-3/4" MIN. EDGE DISTANCE
1-1/4" MIN. EMBED

3/8" DIA. SLEEVE ANCHOR BY 'WEJ-IT'
DIRECTLY INTO fc'=4000 PSI CONCRETE, 2-1/2" MIN. EDGE DIST.
DIRECTLY INTO fc'=2000 PSI MASONRY BLOCK, 3-3/4" MIN. EDGE DIST.
2-1/2" MIN. EMBED INTO CONCRETE (HEAD/JAMBS)
1-1/2" MIN. EMBED INTO GROUT FILLED BLOCK (JAMBS)

3/8" DIA. POWER-BOLT BY 'DEWALT'
DIRECTLY INTO fc'=3000 PSI CONCRETE, 3" MIN. EDGE DIST.
DIRECTLY INTO fc'=2000 PSI MASONRY BLOCK, 3" MIN. EDGE DIST.
2-1/2" MIN. EMBED INTO CONCRETE (HEAD/JAMBS)
2" MIN. EMBED INTO GROUT FILLED BLOCK (JAMBS)

3/8" DIA. SMS OR MACHINE BOLTS (MIN. GRADE 2 CRS)
INTO METAL STRUCTURES (STEEL OR ALUMINUM 1/8" MIN. THICK.)
STEEL : Fy = 36 KSI MIN.
ALUMINUM : 6063-T6 MIN.
(STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)

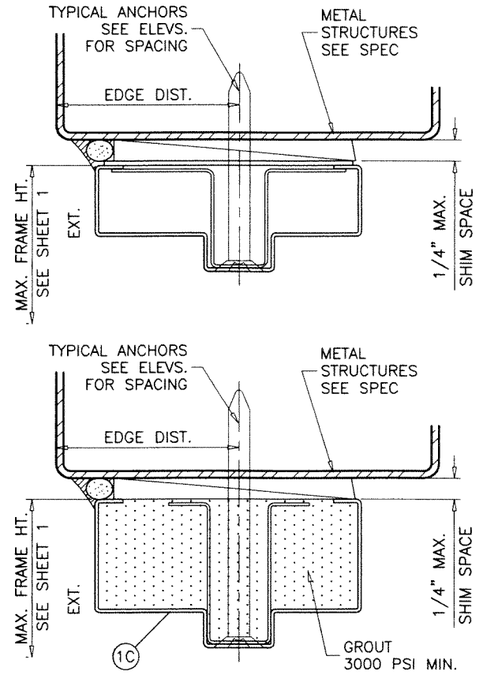
TYPICAL ANCHORS @ THRESHOLD ONLY:

1/4" DIA. ULTRACON+ BY 'DEWALT' (Fu=164 KSI, Fy=148 KSI)
DIRECTLY INTO fc'=3000 PSI CONCRETE
2-1/2" MIN. EDGE DISTANCE
1-3/4" MIN. EMBED

CONCRETE AT HEAD, SILL OR JAMBS MIN. f'c = SEE APPLICABLE ANCHOR

SEALANT:

ALL JOINTS AND CORNERS SEALED WITH SILICONE.



GROUT FILLED HEAD OPTION

ANCHOR PLATES NOT REQUIRED FOR GROUTED FRAMES

AUG 3 0 2023

JALAL FAROOQ LICENSE No. 81223 STATE OF FLORIDA PROFESSIONAL ENGINEER

AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173 (C.A.N. 3538)
TEL. (305) 264-8100 FAX. (305) 262-6978
COMP-ANL\W10-35NDC

S-8080-IL OUT-SWING LOUVERED STEEL DOOR (L.M.I.)

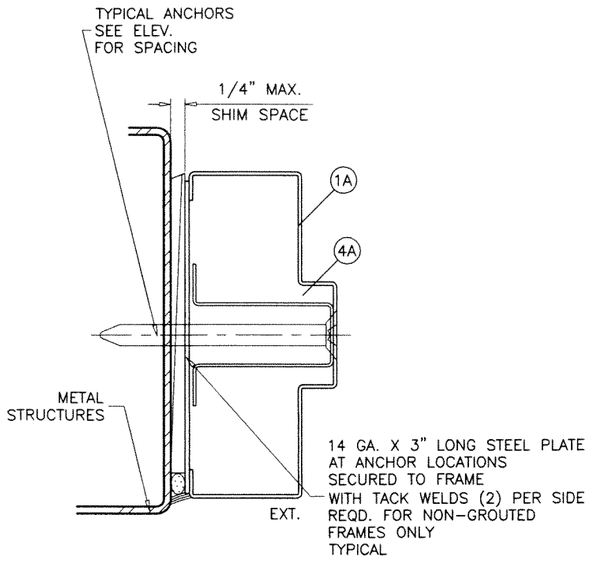
Next Door Company
4005 E 10th Court
Hialeah, FL. 33013
Tel. (954) 772-6666 Fax. (954) 772-8466

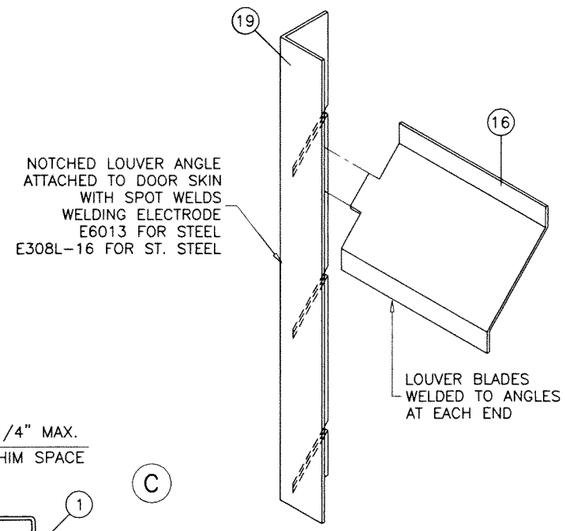
revisions:			
no	date	by	description
G	01.10.18		UPDATED TO 2017 FBC
H	07.30.20		UPDATED TO 2020 FBC
I	04.27.21		MANUF. ADDRESS REV.
J	08.28.23		NO CHANGE THIS SHEET

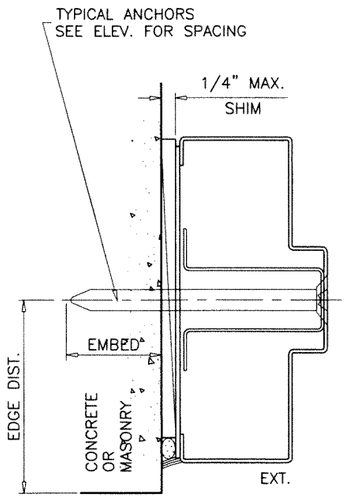
date: 06-03-10
scale: 3/8" = 1"
dr. by: TARIQ
chk. by:

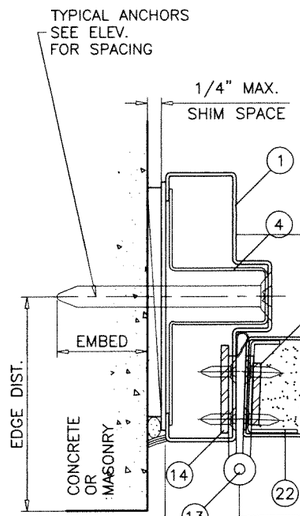
drawing no. W10-35

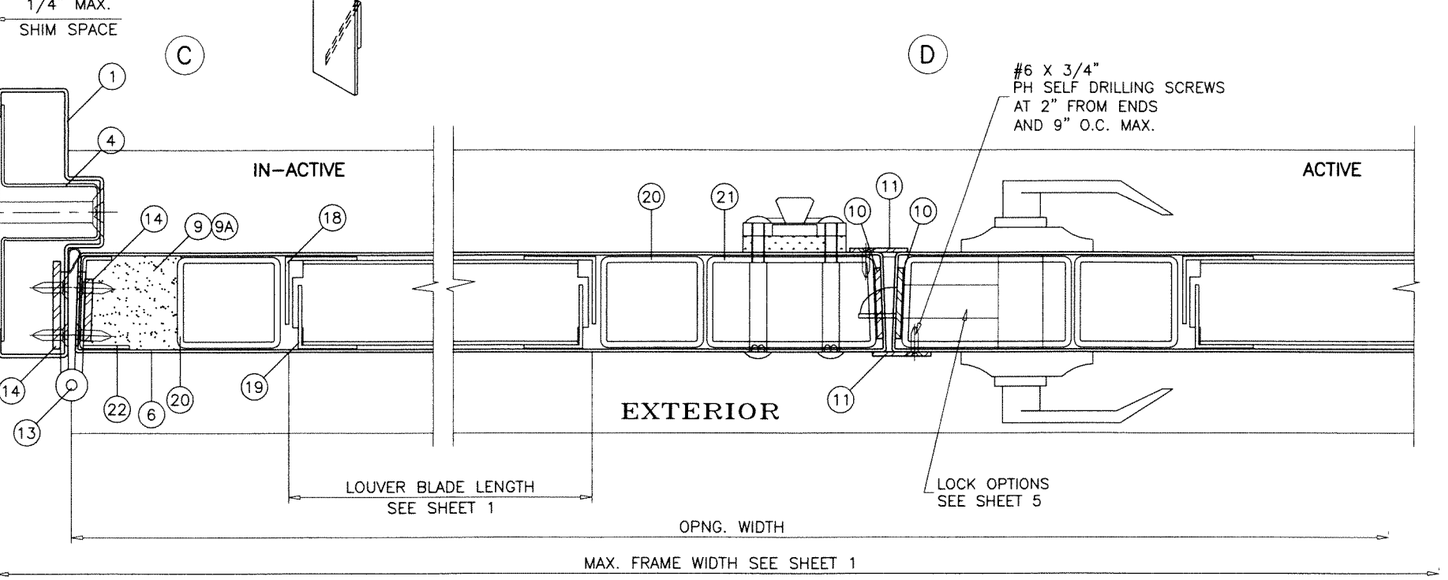
sheet 2 of 6

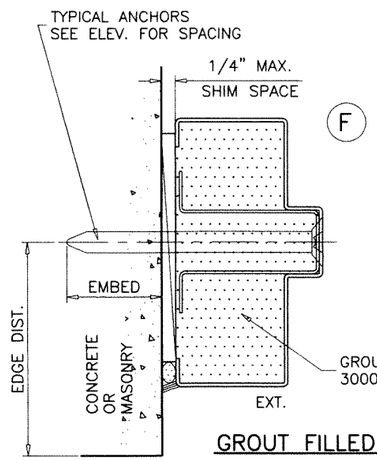












GROUT FILLED JAMBS OPTION

ANCHOR PLATES NOT REQUIRED FOR GROUTED FRAMES

PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. 23-0913.10
Expiration Date 02/13/2026
By Ishaq I. Chanda
Miami-Dade Product Control

AUG 3 0 2023

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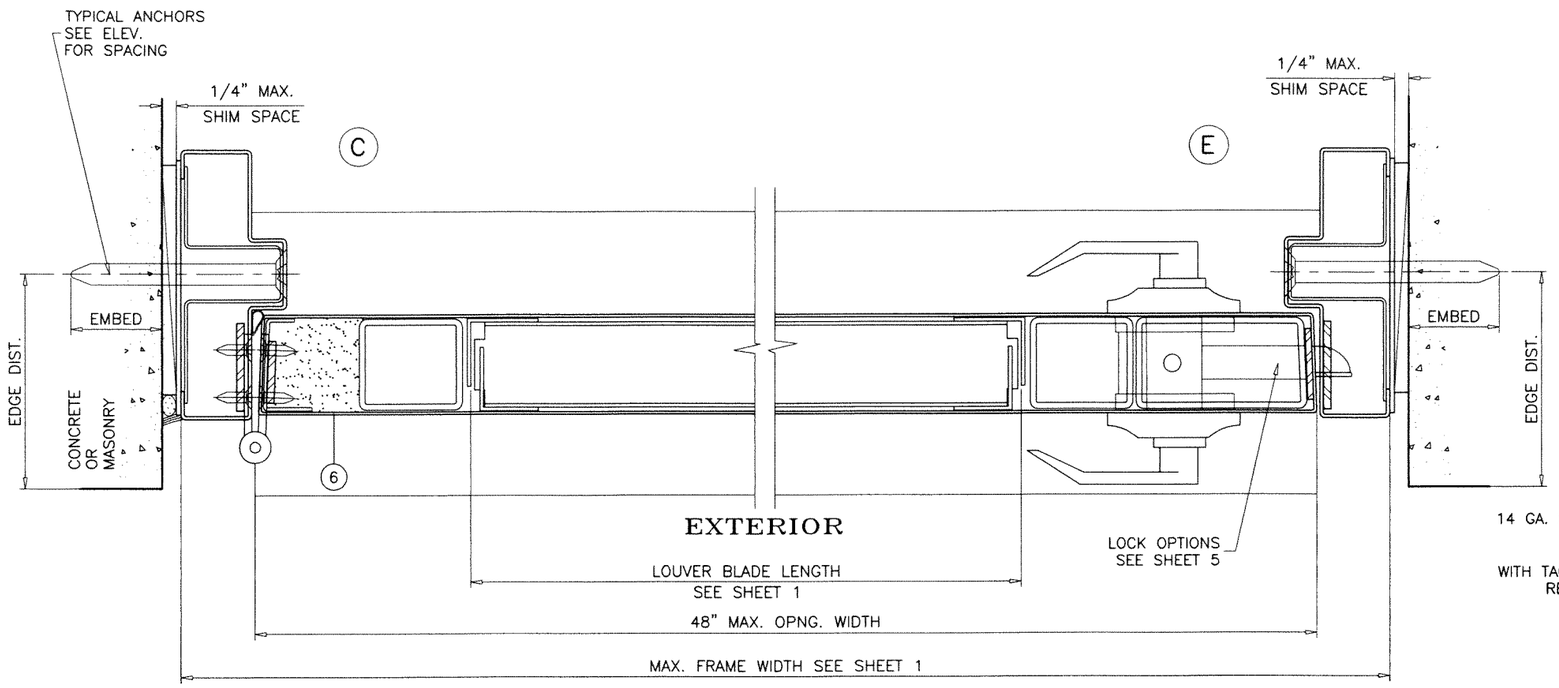
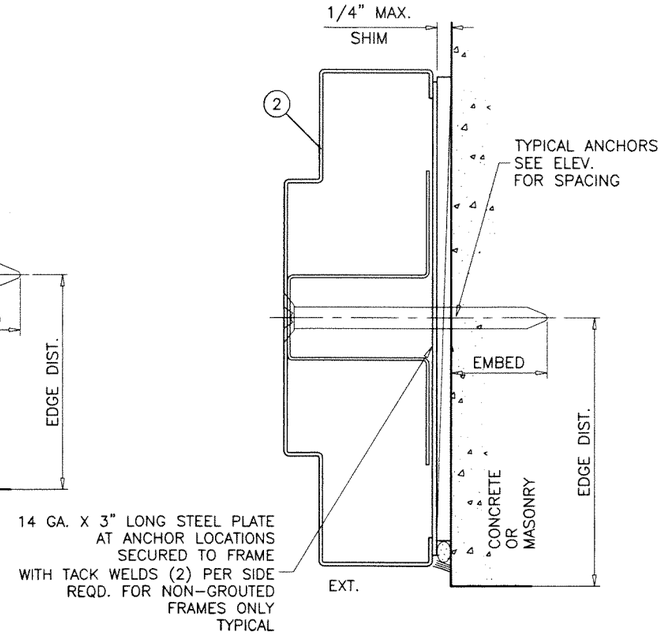
W10-35

sheet 3 of 6





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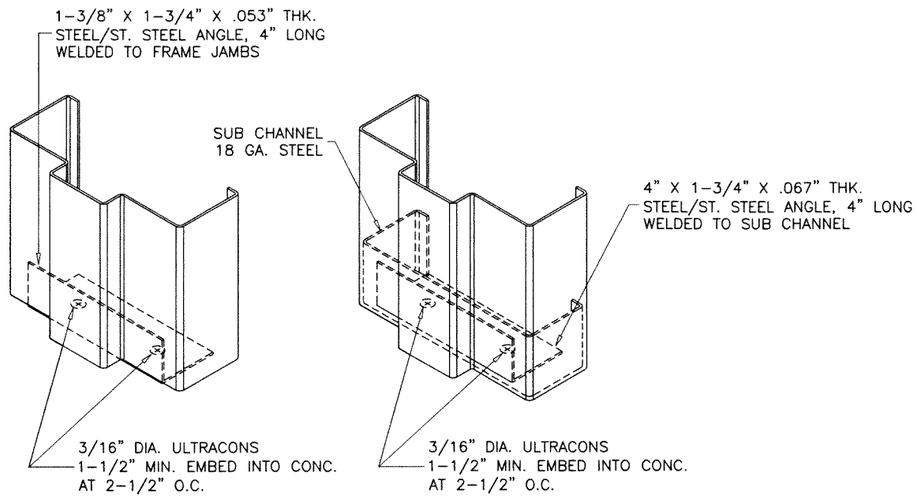

BOTTOM CORNER ANCHORS DETAIL

AUG 3 0 2023

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chk. by:

drawing no.
W10-35

sheet 4 of 6

ITEM NO.	PART NO.	QUANTITY	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
1	–	AS REQD.	FRAME HEAD/JAMB (4–3/4" X 1–1/4")	STEEL/ST. STL.	16 GA. (.053") MIN. Fy=47.1 KSI, Fu=56.6 KSI
1A	–	AS REQD.	FRAME HEAD/JAMB (5–3/4" X 2")	STEEL/ST. STL.	16 GA. (.053") MIN. Fy=47.1 KSI, Fu=56.6 KSI
1B	–	AS REQD.	FRAME HEAD/JAMB (8–3/4" X 4")	STEEL/ST. STL.	16 GA. (.053") MIN. Fy=47.1 KSI, Fu=56.6 KSI
1C	–	AS REQD.	FRAME HEAD/JAMB (4–3/4" X 2")	STEEL/ST. STL.	16 GA. (.053") MIN. Fy=47.1 KSI, Fu=56.6 KSI
2	–	AS REQD.	FRAME JAMB (8–3/4" X 2")	STEEL/ST. STL.	16 GA. (.053") MIN. Fy=47.1 KSI, Fu=56.6 KSI
3	2005AT	1	THRESHOLD	ALUMINUM	PEMKO
4	–	AS REQD.	BOLT SPACER (1–1/4" FRAME)	STEEL/ST. STL.	18 GA.
4A	–	AS REQD.	BOLT SPACER (2" FRAME)	STEEL/ST. STL.	18 GA.
4B	–	AS REQD.	BOLT SPACER (4" FRAME)	STEEL/ST. STL.	18 GA.
5	–	AS REQD.	HAT STIFFENER IN PAIRS	STEEL/ST. STL.	22 GA.
6	–	–	DOOR	STEEL/ST. STL.	16 GA. (.053") MIN. Fy=47.1 KSI, Fu=56.6 KSI
7	–	2/ LEAF	TOP AND BOTTOM RAIL CHANNEL (FULL LENGTH)	STEEL/ST. STL.	7/8 X 1–21/32 X 7/8 X 14 GA.
8	–	1/ LEAF	TOP RAIL CAP (FULL LENGTH)	STEEL/ST. STL.	3/4 X 1–1/2 X 3/4 X 16 GA.
9	–	1	POLYSTYRENE	EPS	CARPENTER CO. W/ CURRENT NOA
9A	–	1	THERMAL INSULATION	–	OWENS CORNING RA–24 BATT
10	–	2/ LOCK	SPACER	STEEL/ST. STL.	12 GA.
11	–	–	FLAT BAR ASTRAGAL	STEEL/ST. STL.	12 GA.
12	S88	AS REQD.	FRAME W'STRIPPING	VINYL	PEMKO
13	–	3/ LEAF	MORTISE HINGES	STEEL	–
14	–	2/ HINGE	HINGE REINFORCEMENT (FRAME/DOOR)	STEEL/ST. STL.	1–1/4" X 10" X 7 GA.
16	–	AS REQD.	Z LOUVER BLADE	STEEL/ST. STL.	16 GA. (.053") MIN. Fy=49.0 KSI, Fu=53.1 KSI
17	–	2/ LEAF	LOUVER ANGLE (HORIZ.)	STEEL/ST. STL.	16 GA. (.053") MIN. Fy=49.0 KSI, Fu=53.1 KSI
18	–	2/ LEAF	LOUVER ANGLE (VERT.)	STEEL/ST. STL.	16 GA. (.053") MIN. Fy=49.0 KSI, Fu=53.1 KSI
19	–	2/ LEAF	LOUVER ANGLE (NOTCHED)	STEEL/ST. STL.	16 GA. (.053") MIN. Fy=49.0 KSI, Fu=53.1 KSI
20	–	2/ LEAF	HINGE STILE REINFORCEMENT TUBE, FULL LENGTH	STEEL/ST. STL.	12 GA. (.100") MIN. Fy=49.0 KSI, Fu=53.1 KSI
21	–	1/ LEAF	MTG. STILE REINFORCEMENT TUBE, FULL LENGTH	STEEL/ST. STL.	12 GA. (.100") MIN. Fy=49.0 KSI, Fu=53.1 KSI
22	–	1/ LEAF	EDGE REINFORCEMENT	STEEL/ST. STL.	14 GA.

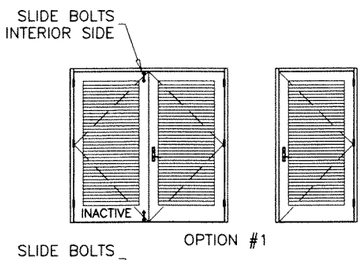
ST. STEEL MIN. Fy = 51.9 KSI
ST. STEEL MIN. Fu = 86.7 KSI

LOCK OPTIONS:

ACTIVE LEAF:

OPTION #1:

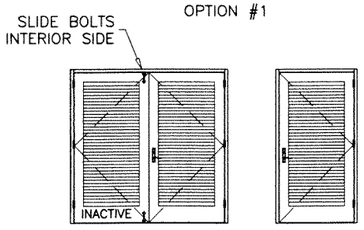
'SCHLAGE' L SERIES MORTISE LOCK (FUNCTION MUST INCLUDE DEADBOLT) MOUNTED 38" FROM FINISHED FLOOR TO CENTERLINE OF STRIKE



OPTION #1

OPTION #2:

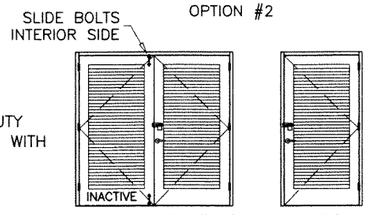
'YALE' 8800 SERIES MORTISE LOCK (FUNCTION MUST INCLUDE DEADBOLT) MOUNTED 38" FROM FINISHED FLOOR TO CENTERLINE OF STRIKE



OPTION #2

OPTION #3:

'YALE' 5400LN SERIES CYLINDRICAL LOCK (PASSAGE) AT 38" FROM FINISHED FLOOR. 'STANLEY' 941 SURFACE MOUNTED HEAVY DUTY HINGE HASPS AT 48" FROM FINISHED FLOOR WITH 'BEST' 41B SERIES PADLOCK.



OPTION #3 (W/ PADLOCK)

INACTIVE LEAF

'MCKINNEY' SB12HD SURFACE BOLT MANUALLY OPERATED 12" LONG SLIDE BOLT AT TOP AND BOTTOM OF LEAF ASA STRIKE 4–7/8" X 1–1/4" X 1/16" MOUNTED 38" FROM FINISHED FLOOR TO CENTERLINE OF STRIKE.

NOTE: TOP AND BOTTOM SURFACE BOLTS MUST BE ENGAGED DURING PERIODS OF HURRICANE WARNING.

TYPICAL EXTERIOR ELEVATIONS
(SEE SHEET 1 FOR MAX. SIZE)

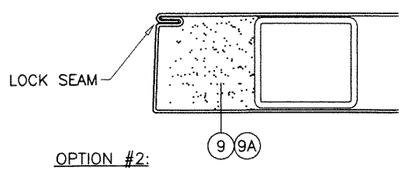
HINGES:

MORTISE HINGES 3 PER LEAF AT 7–1/4" FROM TOP TO CL OF HINGE, AT 12–1/4" FROM BOTTOM TO CL OF HINGE, CENTER HINGE EQUALLY SPACED FROM TOP & BOTTOM HINGE FASTENED WITH #12–24 X 1/2" FH MACHINE SCREWS FOUR PER HASP(LEAF).

DOOR EDGE CONSTRUCTION OPTIONS:

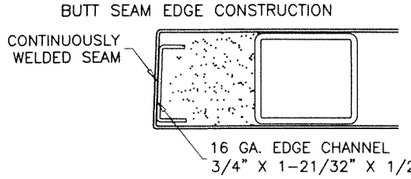
OPTION #1:

LOCK SEAM EDGE CONSTRUCTION



OPTION #2:

BUTT SEAM EDGE CONSTRUCTION



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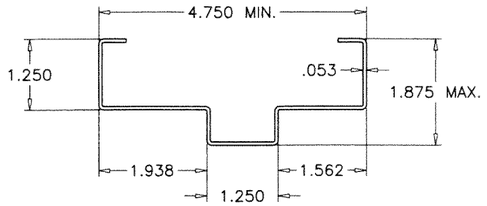
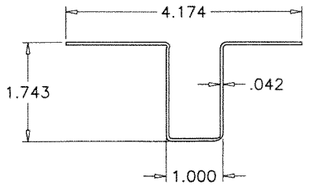
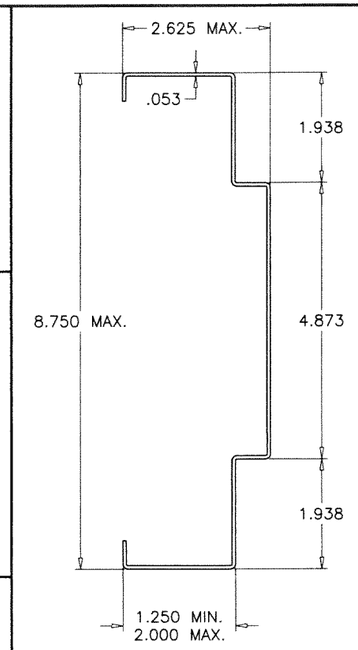


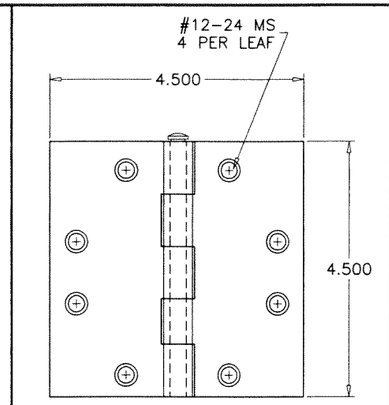
(1) FRAME HEAD/JAMB



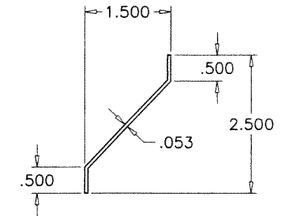
(4) BOLT SPACER



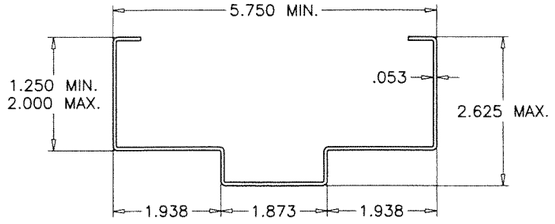
(2) FRAME JAMB



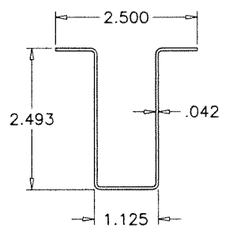
(13) .134" THICK HINGE



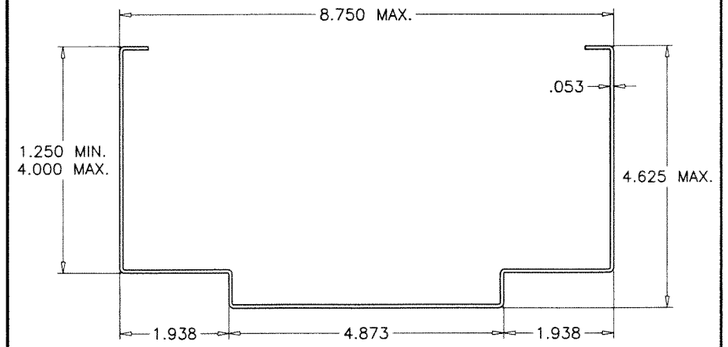
(16) LOUVER BLADE



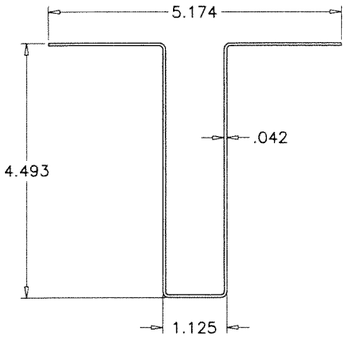
(1A) FRAME HEAD/JAMB



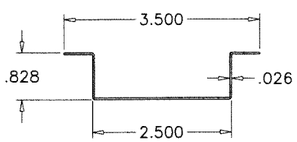
(4A) BOLT SPACER



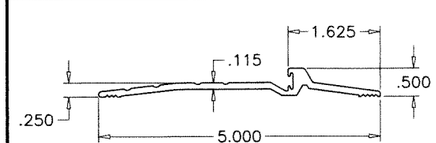
(1B) FRAME HEAD



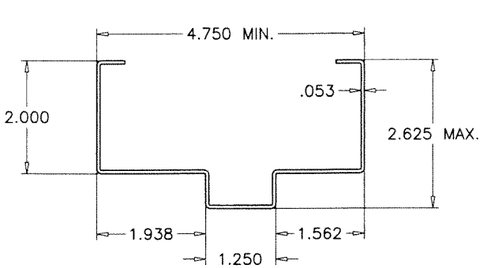
(4B) BOLT SPACER



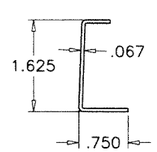
(5) HAT CHANNEL REINFORCING



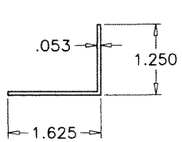
(3) BUMPER THRESHOLD



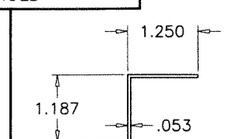
(1C) FRAME HEAD/JAMB (GROUT FILLED)



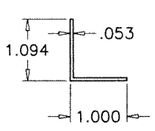
(22) EDGE REINF.



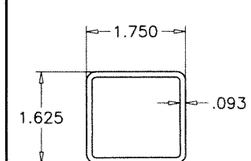
(17) LOUVER ANGLE (HORIZ.)



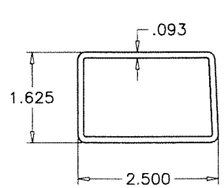
(18) LOUVER ANGLE (VERT.)



(19) LOUVER ANGLE (NOTCHED)

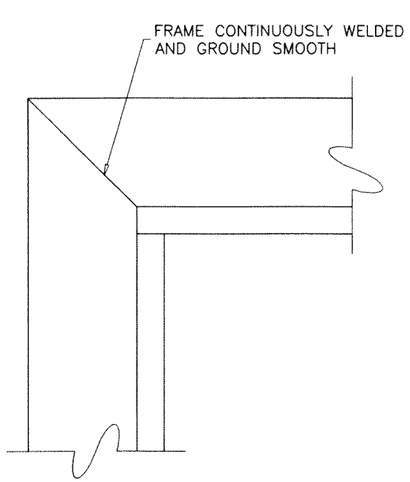


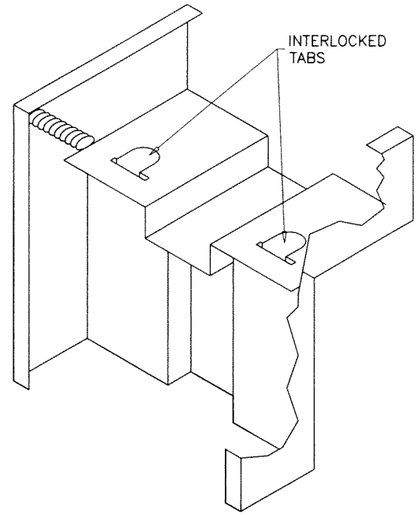
(20) HINGE STILE REINF.



(21) MTG. STILE REINF.

PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. 23-0913.10
Expiration Date 02/13/2026
By Ishaq I. Chanda
Miami-Dade Product Control





FRAME CORNERS

AUG 30 2021

JALAL FAROOQ LICENSE No. 81223 STATE OF FLORIDA PROFESSIONAL ENGINEER

AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173 (C.A.N. 3538)
TEL. (305) 264-8100 FAX. (305) 262-6978

COMP-ANL\W10-35NDC

S-8080-IL OUT-SWING LOUVERED STEEL DOOR (L.M.I.)

Next Door Company
4005 E 10th Court
Hialeah, FL. 33013
Tel. (954) 772-6666 Fax. (954) 772-8466

revisions:

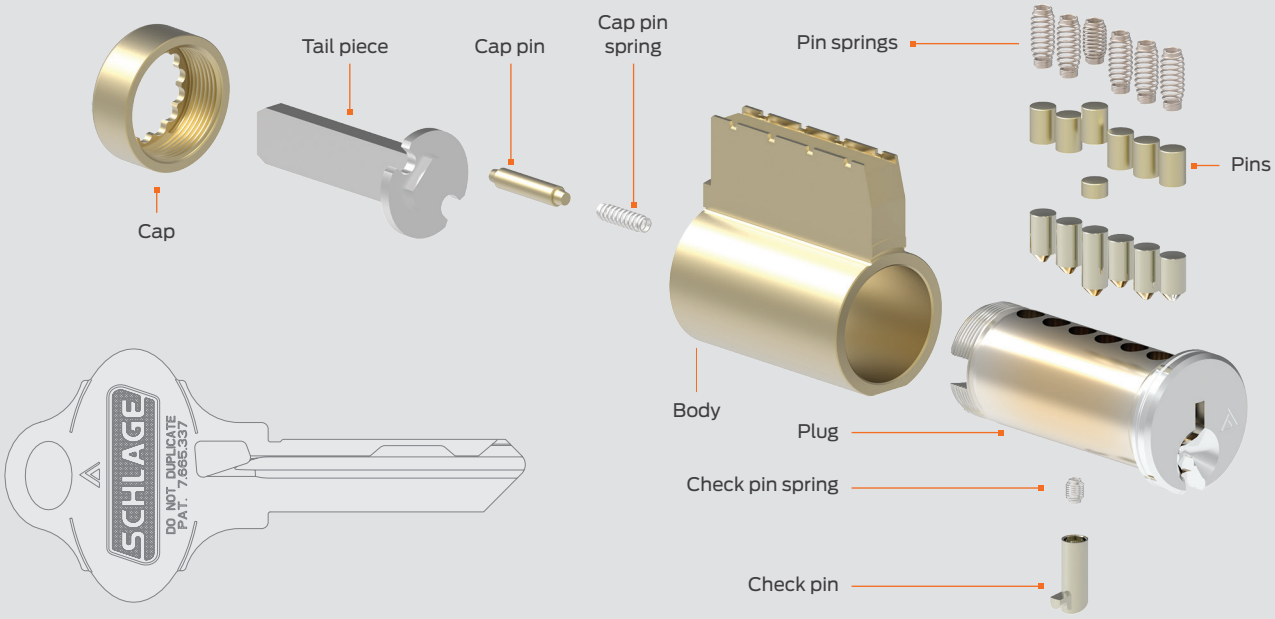
no	date	by	description
G	01.10.18		UPDATED TO 2017 FBC
H	07.30.20		EDITORIAL CHANGES
I	04.27.21		MANUF. ADDRESS REV.
J	08.28.23		NO CHANGE THIS SHEET

date: 06-03-10
scale: 3/8" = 1"
dr. by: TARIQ
chk. by:

drawing no. W10-35

sheet 6 of 6

Key Cylinder Specs



Everest 29 keyways

The essential building blocks of a well protected Schlage key system begin with Everest 29 keyways. These keyway families offer the greatest levels of versatility as part of layered security plan and the greatest compatibility to existing Schlage and competitive locksets.

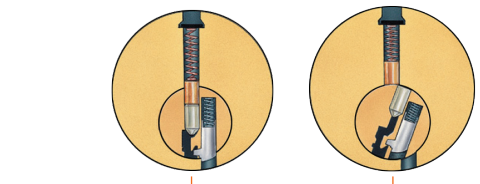
Patent protection to 2029

Everest 29 key systems protect against unauthorized duplication two ways. First, key blanks are tightly controlled by Schlage to ensure access for only authorized dealers. Secondly, patent protection deters duplication of the design—an offense subject to federal law. They are available as both open and restricted keyways to give you the level of security you need for every application.

Benefits

- Key: through-cut technology enables a unique undercut key design; 20% increase in thickness for greater strength
- Cylinder: unique check pin interaction improves physical security of the lock

Everest 29 keys work by lifting the check pin when the key is inserted into the cylinder allowing the key to turn and the lock to rotate open. This patented interaction ensures the integrity of the system at every opening.

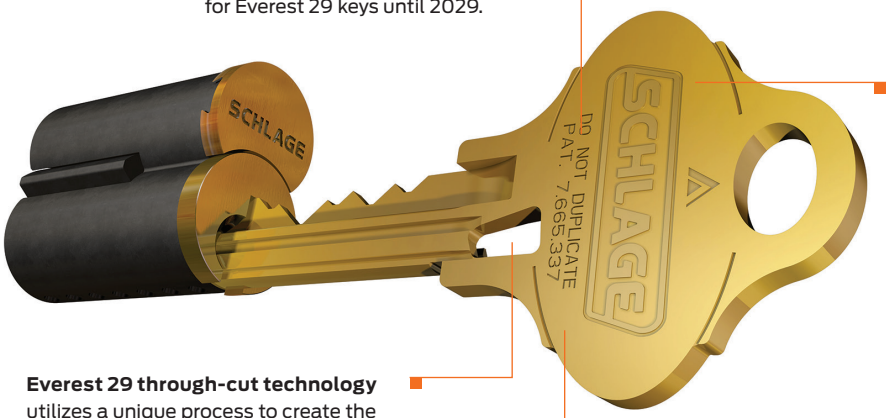


Undercut keyway profile is patented

When check pin is lifted, cylinder is free to rotate

Key Cylinder Specs

Everest 29 keyways



Patent protection until 2029
thanks to a new undercut design that provides patent protection for Everest 29 keys until 2029.

Distinctive bow
a larger, rounded key bow creates quick visual differentiation between Everest and Everest 29.

Everest 29 through-cut technology
utilizes a unique process to create the patented Everest 29 undercut design.

Proven strength
shear-strength tested to perform with the same toughness and reliability the Everest family is known for.

Best practices: Everest 29

Everest 29 is designed with both new construction and retrofit in mind. For new construction, you have the opportunity to define a full spectrum of layered security utilizing Everest 29, and Everest 29 Primus XP with and without the UL 437 option (see page 6). For retrofit applications, Everest 29 is made to be integrated into many existing systems.

- Available formats: Conventional and FSIC (S and T families); Conventional SL and SFIC (R family)
- Backward compatible to Everest keyways
- Cylinders available to fit an extensive list of competitor's locks
- Multiple key sections

Upgrade legacy Everest systems

Everest 29 keyway families are each backward compatible to specific Everest B, C and D keyway families making migration of an existing key system less complex. You can selectively upgrade cylinders in your facility to regain patent protection. In both Everest and Everest 29 cylinders, Primus XP upgrades can be applied where security is most critical.

Note: Everest 29 keys will work in an existing Everest keyway, but legacy Everest keys will not work in a new Everest 29 keyway.

Compatibility

Legacy Everest[1]	Patent protected Everest 29	
B	R	▪ SFIC ▪ Restricted keyway ▪ Letter of authorization required
C	S[2]	▪ FSIC and conventional ▪ Open keyway ▪ Duplication through authorized dealers only
D	T	▪ FSIC and conventional ▪ Restricted keyway ▪ Letter of authorization required

1 Legacy Everest keyways are still available to order
2 Everest 29 S123 is the default for Schlage commercial locks. Everest 29 S145 is the default keyway for new master key systems.

Von Duprin Closer Model

4040XP/4040XPT Series

4040XP Series

The 4040XP is LCN's most durable and flexible heavy duty closer designed for institutional and other demanding high traffic applications.

Features

Certifications	Grade 1 - ANSI A156.4, UL 10C, ADA, 100 hour salt spray, meets BAA - Buy American Act
Body construction	▪ Cast iron body ▪ Full complement bearing ▪ 1 ½" diameter piston ▪ Double heat treated pinion journal
Fluid	All weather liquid X fluid
Handing	Non-handed
Templating	Peel-n-Stick templates - 2 ¼" x 5" mounting hole pattern
Size	Adjustable spring size 1-6, includes patented green dial
Warranty	30 years

Cover	▪ Plastic Cover (PC), standard ▪ Metal Cover (MC), optional
Fasteners	Self reaming and tapping screws (SRT)
Mounting	Hinge (pull side), top jamb (push side), parallel arm (push side)
Arms	Regular arm
Finishes/colors/ powder coat	▪ 689 Aluminum ▪ 690 Statuary bronze ▪ 691 Light bronze ▪ 693 Black ▪ 695 Dark bronze ▪ 696 Brass ▪ Custom colors optional ▪ Optional SRI primer - powder coat only ▪ Optional plated finishes

Special templates | Customized installation templates or products may be available to solve non-standard applications. Contact LCN Product Support for assistance.

Mounting						Finish		Cover		Cylinder			Arm function*							
Hinge (pull) side	Top jamb (pull)	Top jamb (push)	Parallel arm	Stop face		Powder coat	Plated	Plastic	Metal	Non-handed	Non-sized	Accessibility	Delay Action***	CYLAVB**	Regular (double)	Standard (single)	Hold Open	Fusible Link	EDA/HEDA	CUSH/HCUSH	SCUSH/SHCUSH	Double Egress
■	■	■	■	■		■	■	■	■	■	■	♿	■	■	120°	■	120°	■	180°	110°	110°	■

■ Available
■ Not available

♿ Closer available with less than 5.0 lbs. opening force on 36" door.
* Maximum opening/hold open point with standard template.
** Advanced Variable Back Check.
*** Delay feature incorporates standard 4040 cylinder (not XP).

The City Of PEMBROKE PINES

Frequently Asked Questions regarding the Proposal Submission Form / Questionnaire

Question 1) In regards to the proposal submission form, it states "the summary worksheet shows your overall progress for the questionnaire", but we downloaded the file and fill in the requested information, and no value appears on the summary worksheet. Should we submit the form without the progress shown on the summary worksheet?

Answer: Please see attached example picture. In this example, Tab "1" has been fully completed, as a result, the "% Complete" column shows "100%" and the Progress Bar is fully green. The other Tabs or "Question Set"s are not complete, as a result, they show "0.00%" and the progress bar is empty and there is a pink box at the end of those rows. When you have completed all of the sections, all of your "% Complete" sections should be "100.00%" and your progress bars should be green.

Summary

Question Set	Questions	% Complete	Progress
1	14	100.00%	
2	80	0.00%	
3	5	0.00%	
4	10	0.00%	
5	12	0.00%	
6	11	0.00%	
Total	**132**	**10.61%**	

The City Of PEMBROKE PINES

Question 2) We completed all the boxes in all the sheets and even so, there are boxes in pink (as I understand the book is taking them as if they were not filled) and therefore the summary does not give 100%, in our case it gives 87.12%.

Answer: The issue is that all of your responses should be included in the "Response" Column... depending on the response that you put in the "Response" column (as some of the responses are selections from a drop down box), you will be required to also add a comment to the "Comment" column. See attached screen shot of acceptable and unacceptable responses. If a row shows that it is still in Pink, you need to add some information to either the "Response" column or the "Comment" column.

Question Set 6: Vendor Registration Checklist

Question Set 6 Instructions

The City has included various documents in the Vendor Registration portal on the Bonfire website. This process is intended to make the bidding process easier for vendors that bid on multiple City projects. This process will allow vendors to complete and submit the following standard forms and documents at any time prior to bidding on a project. In addition, the vendors will be able to utilize these same forms without the need to re-fill and re-submit the forms each time they bid on a City project. In the event that the City does not have one of the forms or documents listed below for your company, the City may reach out to your company after the bid has closed to obtain the document(s).

Furthermore, please make sure to update this information on an as-needed basis so that all pertinent information is accurate, such as local business tax receipts, and any other relevant information.

This section will summarize your responses to those relevant documents.

#	Question	Response	Comment	
Equal Benefits Certification Form				
6.7.1	Which option did you select on the Equal Benefits Certification Form?	A) Complies		
Vendor Drug-Free Workplace Certification Form				
6.8.1	Which option did you select on the Vendor Drug-Free Workplace Certification Form?	Does Not Comply		A comment is required for this response
E-Verify System Certification Statement				
6.9.1	Did you submit a completed E-Verify System Certification Statement in the Vendor Registration Portal?	Yes		
Local Business Tax Receipts				
6.10.1	Did you submit your Local Business Tax Receipts in the Vendor Registration Portal?	No	I do not currently have a copy of the my Local Business Tax Receipts, however I am working on getting a copy to upload to the vendor registration portal.	
Scrutinized Company Certification				
6.11.1	Did you submit a completed Scrutinized Company Certification in the Vendor Registration Portal?		Yes	
11 Questions			**81.82% Complete**	

RE-24-05 - Replacement of Windows and Doors to Impact Rated Material at Various City Parks

City of Pembroke Pines Back to list

Project Details

Project: Replacement of Windows and Doors to Impact Rated Material at Various City Parks

Ref. #: RE-24-05

Type: IFB

Status: CLOSED

Open Date: Jan 23rd 2024, 8:00 PM EST

Intent to Bid Due Date: Apr 2nd 2024, 2:00 PM EDT

Questions Due Date: Mar 19th 2024, 11:30 PM EDT

Contact Information: Procurement Department, 954-518-9020

Close Date: Apr 2nd 2024, 2:00 PM EDT

Days Left: Submissions are now closed

April 2024 prev next

Sun	Mon	Tue	Wed	Thu	Fri	Sat
31 OPEN	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	1	2	3	4

Project Description:
The City of Pembroke Pines is seeking proposals from qualified firms, hereinafter referred to as the Contractor, for replacement of exterior windows, pedestrian doors, roll up windows, storefront systems, louvers and louvered doors as necessary at the referenced locations in accordance with the terms, conditions, and specifications contained in this solicitation.

Important Events:

Search

PASSED	Open Date	Online Portal **Portal**	Posting date for the Opportunity	Jan 23rd 2024, 8:00 PM EST	N/A
PASSED	NON-MANDATORY PRE-BID MEETING / SITE VISIT	It is mandatory to visit all sites prior to submitting a bid for this project. There is scheduled site visit on February 7, 2024 at 10:00 a.m. The order of sites for the meeting will be as follows: 1. Paul J. Maxwell Park - 1200 SW 72nd Avenue Pembroke Pines, FL 33023 2. Pines Recreation Center - 7400 Pines Blvd Pembroke Pines, FL 33024 3. Fletcher Park - 7900 Johnson Street Pembroke Pines, FL 33024 4. Pembroke Falls Aquatic Center - 1361 NW 129th Avenue Pembroke Pines, FL 33028 5. Flamingo Park - 1900 NW 122nd Terrace Pembroke Pines, FL 33026 6.	There will be a non-mandatory scheduled pre-bid meeting on February 7, 2024 at 10:00 a.m. Meeting location will be at the Public Services Building, Large Conference Room, located at 8300 S. Palm Drive, Pembroke Pines, FL 33025. In the event that a contractor cannot attend the scheduled pre-bid meeting, or if a contractor would like a follow up visit to the site, they may request a site visit by contacting Danny Benedit at 954-518-9022. We urge all contractors to attend the scheduled meeting, as a separate or follow-up meeting may not be afforded to the requester due to scheduling and availability of staff to assist with any additional meetings. In addition, if making a request for a separate or follow-up meeting, contractors are urged to make these requests as early as possible.	Feb 7th 2024, 10:00 AM EST - Feb 7th 2024, 2:00 PM EST	No

Skip Top Navigation

		Towngate Park - 901 NW 155th Avenue Pembroke Pines, FL 33028 7. Pembroke Shores Park YMCA Family Center - 501 SW 172nd Avenue Pembroke Pines, FL 33029 8. Rose G. Price Park - 901 NW 208th Avenue Pembroke Pines, FL 33029			
PASSED	Questions Due Date	Online Portal	Deadline to submit Questions	Mar 19th 2024, 11:30 PM EDT	N/A
PASSED	Close Date	Online Portal	Deadline for Submissions	Apr 2nd 2024, 2:00 PM EDT	N/A
PASSED	Intent to Bid Due Date	Online Portal	Deadline to indicate your intent to Bid	Apr 2nd 2024, 2:00 PM EDT	Yes

Portal

Commodity Codes:

US_NAICS_2022 23 **Construction**

US_NAICS_2022 31 **Manufacturing**

US_NAICS_2022 332321 **Metal Window and Door Manufacturing**

Supporting Documentation:

Download All Files | Search

File	Type	Description	Date Created	Actions
Addendum 1.pdf	Other	Document - Addendum # 1	Feb 14th 2024, 6:08 PM EST	Download
Addendum 2.pdf	Other	Document - Addendum 2	Feb 22nd 2024, 4:04 PM EST	Download
df	Other	Document - Addendum # 3	Mar 4th 2024, 4:31 PM EST	Download

Skip Top Navigation

			EDT	Download

Portal

Attachment C - Specimen Contract - Construction Agreement.pdf	Documentation	Attachment C	Jan 22nd 2024, 4:53 PM EST	Download
Attachment D - Standard Release of Lien.pdf	Documentation	Attachment D	Jan 22nd 2024, 4:53 PM EST	Download
Attachment E - Construction Drawings Pembroke Pines Windows and Doors.pdf	Documentation	Attachment E	Jan 22nd 2024, 4:55 PM EST	Download
Attachment E - Construction Drawings Windows and Doors YMCA Aquatic Park.pdf	Other	Document - Attachment E - Read more...	Feb 20th 2024, 4:13 PM EST	Download
Attachment F - Storefront System NOA.pdf	Documentation	Attachment F	Jan 22nd 2024, 4:56 PM EST	Download
Attachment G - Fixed Windows NOA.pdf	Documentation	Attachment G	Jan 22nd 2024, 4:57 PM EST	Download
Attachment H - Aluminum Louver NOA.pdf	Documentation	Attachment H	Jan 22nd 2024, 4:57 PM EST	Download
Attachment I - Rolling Shutters NOA.pdf	Documentation	Attachment I	Jan 22nd 2024, 4:58 PM EST	Download
Attachment J - Glass Door NOA.pdf	Documentation	Attachment J	Jan 22nd 2024, 4:58 PM EST	Download
Attachment K - Metal Door NOA.pdf	Documentation	Attachment K	Jan 22nd 2024, 4:58 PM EST	Download
Attachment L - Rolling Door NOA.pdf	Documentation	Attachment L	Jan 22nd 2024, 4:59 PM EST	Download
Attachment M - Louverd Door NOA.pdf	Documentation	Attachment M	Jan 22nd 2024, 4:59 PM EST	Download
Attachment N - Key Cylinder Specs.pdf	Other	Document - Additional Attachments	Feb 20th 2024, 4:32 PM EST	Download
Attachment O - Von Duprin Closer Model.pdf	Other	Document - Additional Attachments	Feb 20th 2024, 4:32 PM EST	Download
Attachment P - Von Duprin Concealed Vertical Exit Device Model.pdf	Other	Document - Additional Attachments	Feb 20th 2024, 4:32 PM EST	Download
Bonfire FAQs regarding Questionnaires.pdf	Other	Bonfire FAQs regarding Questionnaires	Mar 24th 2022, 1:40 PM EDT	Download
3 **-Collusive Affidavit.pdf**	Documentation	Attachment A	Oct 27th 2021, 12:18 PM EDT	Download

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02-26-24 - 03-20-24.pdf		Read more...	EDT	Download
RE-24-05 Questions Answers from City Architect.pdf	Other	Document - RE-24-05 Questions Read more...	Mar 20th 2024, 9:51 AM EDT	Download
RE-24-05 Questions Answers.pdf	Other	Document - RE-24-05 Questions Answers	Mar 12th 2024, 12:10 PM EDT	Download
RE-24-05 Replacement of Windows and Doors to Impact Rated Material at Various City Parks.pdf	Documentation	1) IFB	Jan 23rd 2024, 8:04 PM EST	Download
RE-24-05 Site Visits Sign In Sheet - Additional.pdf	Documentation	RE-24-05 Site Visits Sign In Sheet - Additional.	Mar 12th 2024, 12:11 PM EDT	Download
RE-24-05 Site Visits Sign In Sheet.pdf	Other	Document - RE-24-03 Site Visits Sign In Sheet	Feb 7th 2024, 5:58 PM EST	Download
Sample Insurance Certificate.pdf	Documentation	Attachment B	Aug 9th 2022, 3:33 PM EDT	Download
Submission Instructions - RE-24-05.pdf	Documentation	Submission Instructions - RE-24-05	Jan 22nd 2024, 5:07 PM EST	Download

Requested Information:
Listed below are the documents and information needed to complete your submission:

Pricing Sheet / Bid Tables

Name	Type	# Files	Requirement	Instructions	Actions
Pricing Sheet (BT-89HQ)	BidTable: Excel (.xlsx)	1	REQUIRED UNIQUE PER ALTERNATE	You will need to fill out the provided Response Template for this BidTable.	Download

Questionnaires

Name	Type	# Files	Requirement	Instructions	Actions
Proposal Submission (Q-35FW)	Questionnaire: Excel (.xlsx)	1	REQUIRED	You will need to fill out the provided Response Template for this Questionnaire.	Download

Other Completed Documents

Name	Type	# Files	Requirement	Instructions	Actions
ve Affidavit	File Type: PDF (.pdf)	1	REQUIRED		

Trade Secrets	**Portal**	File Type: PDF (.pdf)	Multiple	OPTIONAL
Proposal Security (Bid Bond Form or Cashier's Check), only required in the event that the proposal exceeds $200,000		File Type: PDF (.pdf)	Multiple	OPTIONAL
Financial Statements		File Type: PDF (.pdf)	Multiple	OPTIONAL
Alternatives		File Type: PDF (.pdf)	Multiple	OPTIONAL
Additional Information		File Type: PDF (.pdf)	Multiple	OPTIONAL

Document Takers

Search

Vendors	# Files	Actions
A-1 Property Services Group, Inc	98	View
ABS General Contractors Inc.	78	View
All pro construction builders, Inc.	1	View
Bejar Construction, Inc.	31	View
BidNet	28	View
Bigfoot Construction Inc.	16	View
Caliste Construction LLC	75	View
Calvo Duran, LLC	2	View
Cambridge LTD	645	View
Centerline Services Group	46	View
CNPG Group LLC	76	View
Conengineers Builders LLC	1	View
Constructconnect	7	View
ConstructConnect	17	View
D.A.N ENTERPRISES LLC	5	View

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[illegible]	[illegible]	View
DMS Contractors LLC	5	View
Dodge Data & Analytics	30	View
Dodge Data and Analytics	3	View
Edifica LLC	1	View
FAR Government	1	View
Freebee	56	View
Green Engineering & Construction, INC	14	View
HE Builders	1	View
JCA Surety Group, LLC.	7	View
KER Construction LLC	63	View
Kismet USA Inc	2	View
Kyzen Group, LLC	76	View
Louminel General Contractor LLC	25	View
M&J CONSULTING GROUP CORP DBA M&J GENERAL CONTRACTOR	4	View
Manjor Investment Corp	39	View
MDX Construction Inc	68	View
Metro Contractor Inc	103	View
Nonstop Construction LLC	16	View
North America Procurement Council Inc., PBC	7	View
Onvia, Inc	29	View
Panizza Construction Services Corp	47	View
Planhub	18	View
[illegible]inum General Contracting & Land Development LLC	1	View

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Prism Painting	27	View
SFL Property Maintenance Corp	17	View
SFL Property Maintenance Corp	35	View
Shay Enterprise	41	View
Shutter Hangers, Inc.	18	View
SOLAR CHAMPS LLC	49	View
SOLAR IMPACT SOLUTIONS, INC	11	View
Solarguard Roofing, Inc.	16	View
Solarguard Roofing,inc.	9	View
Southeast Specialty Products, Inc.	11	View
Stone Concept Miami Inc.	42	View
Sunryse Construction Services, Inc.	1	View
TECHGROUPONE, Inc	63	View
Tough Tek Metals	2	View
VISUAL	2	View

Interested Subcontractors

Search

Vendors	Contact	Email	Phone	Subcontract Services
No data available in table				

Messages

Public Notices (13*) Vendor Discussions (94*)

Skip Top Navigation

Portal

Danny Benedit
RE-24-05 Questions Answers from City Architect
RE-24-05 Questions Answers from City Architect
9:51 AM

Danny Benedit
The question attached are from the original Q&A submitted on 02-26-24 - 03-20-24
The question attached are from the original Q&A submitted on 02-26-24 - 03-20-24
9:45 AM

Danny Benedit
Questions & Answers 03-20-24
The question attached are from the original Q&A submitted on Mar 12th 2024, 12:10 PM EDT
9:32 AM

Danny Benedit
Rolling Door added to price sheet
As per Addendum # 4, The City has added line item to the Pricing Sheet / Bid Table for each location w…
3:02 PM

Danny Benedit
Addendum 4
Addendum 4
12:10 PM

Click New Public Notice or click a conversation on the left to see message here.

Submissions and Subcontracting

This project is not open for proposal submissions at this time.

Portal

Vendor Discussions

Questions For Parks

Feb 09, 2024 1:07 PM EST
1. In Rose G Price Park there is the main building where pool is located, the bathroom building, and there is a storage building next to the storage lot. In building next to storage lot there 2 large openings where there is plywood behind some concrete decorative louvers are there supposed to be windows installed inside? 2. In most parks there are concrete louvers are we changing that to impact louvers? 3. For Pembroke Falls Aquatic Center I don't see any drawings nor any NOAs for that park how do i get a copy for that park?

Bid Closing Date

Feb 20, 2024 4:41 PM EST
I wanted to inform all Contractors that the Project Manager is currently awaiting answers to questions related to the Architect's design and specifications. Consequently, the City will update the Bid Opening Date after posting the Questions & Answers.

Bid Closing Date

Feb 28, 2024 3:58 PM EST
On Monday, March 4th, the City will issue Addendum #3 which will include a new Bid Closing Date. Thank you for your patience.

Parks

, Mar 15, 2024 11:09 AM EDT
Was the submission date extended?

Bid Closing Date

Feb 20, 2024 4:41 PM EST
I wanted to inform all Contractors that the Project Manager is currently awaiting answers to questions related to the Architect's design and specifications. Consequently, the City will update the Bid Opening Date after posting the Questions & Answers.

Bid Closing Date

Feb 28, 2024 3:58 PM EST
On Monday, March 4th, the City will issue Addendum #3 which will include a new Bid Closing Date. Thank you for your patience.

Bid Closing Date

Feb 20, 2024 4:41 PM EST
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Bid Closing Date

Feb 28, 2024 3:58 PM EST
On Monday, March 4th, the City will issue Addendum #3 which will include a new Bid Closing Date. Thank you for your patience.

Bid Closing Date

Feb 20, 2024 4:41 PM EST
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Bid Closing Date

Feb 28, 2024 3:58 PM EST
On Monday, March 4th, the City will issue Addendum #3 which will include a new Bid Closing Date. Thank you for your patience.

Bigfoot Construction Inc.

Bid Closing Date

Feb 20, 2024 4:41 PM EST
I wanted to inform all Contractors that the Project Manager is currently awaiting answers to questions related to the Architect's design and specifications. Consequently, the City will update the Bid Opening Date after posting the Questions & Answers.

Bid Closing Date

Feb 20, 2024 4:41 PM EST
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Bid Closing Date

Feb 20, 2024 4:41 PM EST
I wanted to inform all Contractors that the Project Manager is currently awaiting answers to questions related to the Architect's design and specifications. Consequently, the City will update the Bid Opening Date after posting the Questions & Answers.
Feb 26, 2024 6:09 PM EST
*Please advise which aluminum finish is required for each park, Clear anodized, White, Bronze or custom *Please advise which glass tint is required for each park, Clear, Gray, Solexia Green, Bronze or custom tint. (Note: This does not take into account the required Low-E coating in specs) *Doors scheduled to be inswing at various parks using FL#20701.1 Enviralum Inswing will not be able to meet water infiltration requirement on all hardware#1 ‘Water compliant’ *In Rose G. Park Club Building. There are numerous type A & Type B storefronts noted in the plan that lack an opening existing on the jobsite. Also there are arches on top of existing windows that are not figured in the architectural plan. Please advise *No door closers are noted in any of the hardware schedules. Will they be required? *The spec states "Enviralum or equal product" as manufacturer. Will Trulite Glass & Aluminum solutions be accepted for the storefronts and Enviralum for the doors?

Mar 11, 2024 2:44 PM EDT
Hi, good afternoon. We need to clarify the questions we asked on February 26th, 2024, in order to send the bid with the requested specs. Please let us know if there are any updates or if you are going to modify the close date.

Bid Closing Date

Feb 28, 2024 3:58 PM EST
On Monday, March 4th, the City will issue Addendum #3 which will include a new Bid Closing Date. Thank you for your patience.

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Feb 08, 2024 11:56 AM EST
1. Can we utilize an approved equal window/glass door & storefront company instead of the one specified in the bid docs? 2. Do we need to remove any existing accordion shutters/window grilles/screens etc.. and patch/paint to match existing walls? 3. Who will be responsible for patching and painting the existing interior/exterior walls around the new windows and doors? 4. Who will be responsible for painting the new metal doors/rolling doors/overhead doors?

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Missing Forms

, Feb 08, 2024 8:06 PM EST
Looking through all the attachments, we cannot locate the following forms. Please assist. Thank you, 1.6.1 Vendor Information Form 1.6.3 Company Profile Form 1.6.4 Sworn Statement on Public Entity Crimes Form 1.6.5 Equal Benefits Certification Form 1.6.6 Vendor Drug-Free Workplace Certification Form 1.6.7 Scrutinized Company Certification 1.6.8 E-Verify System Certification Statement

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Replacement of Windows and Doors to Impact Rated Material at Various City Parks

Jan 25, 2024 10:23 AM EST
Could you please clarify if the prebid meeting will be prior to the site visits to the project locations? Also confirm that the meeting address at 10 am on 2/27/2024 will be Public Services Building, Large Conference Room, located at 8300 S. Palm Drive, Pembroke Pines, FL 33025. and after that meeting will go to the park locations
Jan 25, 2024 10:29 AM EST
the information is confusing. On ITB states that the meeting will be at the Pines Point Senior Residence at 401-601 NW 103 Ave, Pembroke Pines, FL 33024. and on the web site states at the Public Services Building, Large Conference Room, located at 8300 S. Palm Drive, Pembroke Pines, FL 33025- Could you please clarify?
Jan 25, 2024 10:34 AM EST
Also, ITB states del site visit are mandatory and the web site states is not mandatory. The Questions Due Date on ITB states 2/5/24 and web site 2/13/24. Due date on ITB will be 2/20/24 and the web states 2/27/24 . Please clarify
Jan 25, 2024 10:36 AM EST
please disregard the last two questions.

RE-24-05 - Replacement of Windows and Doors to Impact Rated Material at Various City Parks

Feb 13, 2024 9:22 AM EST

The 120 calendars days for the time of completion of the project includes the processing of the permits? Do you accept substitutions in Windows and Doors? Provided drawings are sufficient for permit application? Or should we include new drawings? Do you require samples as established in article 3.7 of the ITB of the windows and doors manufacturer substitution? Davis Bacon or Responsible Wages apply for this project? Permit fees will be waived? Please confirm if work is to be performed Monday through Thursday only. Confirm if window shutters are required. In the Door Glass, Do you require a 1/2" air space between the 3 layers of glass? What is the required overall thickness of the glass doors? Confirm if the windows where the louvers go, also go windows? If yes, what type of windows are they? A dumpster can be placed in the site? In which item do you want the price of the rolling door to be presented? Check the name on the site plans for Pembrokes Falls Aquatic Center and Pembroke Shores Park YMCA Family Center. In drawings both buildings have the same identification. Please clarify. Page 2 Attachment 6. Drawing A-101 PINES PINES RECREATION PARK - BCC BUILDING WINDOW AND DOOR RETROFIT, louvers are drawn and dimensioned on the south and north facades, but not in plan. Please confirm if the louvers are within the scope of work. Page 3 Attachment 6. Drawing A-101 ROSE G. PARK CLUB BUILDING BUILDING WINDOW AND DOOR RETROFIT, in the East Facade is not drawn the door type 2 that is in the floor plan. Please confirm which is true. Confirm if doors type 2 in West and East Facade are louvered. And the window type E Fixed does not match the floor plan window type F Roll-Up. Confirm which is true. On the North façade an unspecified double door is drawn and on the floor a type E window. Please confirm which of the two is true. Page 4 Attachment 6. Drawing A-101 ROSE G. PRICE PARK STORAGE BUILDING WINDOW AND DOOR RETROFIT, confirm if Door type 2 on south façade is in scope. Page 6 Attachment 6. Drawing A-101 PEMBROKE SHORES NORTH CONCESSION BUILDING WINDOW AND DOOR RETRO, On the South façade there are two type 1 doors, but one is not on the floor plan. Which plan should we consider? On the North and South facades there are louvers. Confirms if are in scope. In the drawings there are no storefronts in this building. Please delete this item from the pricing sheets. Page 7. Attachment 6. PEMBROKE SHORES SOUTH CONCESSION BUILDING WINDOW AND DOOR RETROFIT, Confirm if the doors louvers drawn in East façade is in scope. Confirm if the window louvers drawn on the North, South and East façades are in scope. If yes, please specify. Confirm where the type C windows indicated in the Window Schedule are located on the floor plan and facade. Page 8. Attachment 6. FLETCHER PARK BASEBALL BUILDING WINDOW AND DOOR RETROFIT, Confirm if the louvers on North and South facades are in scope. Page 10. Attachment 6. FLAMINGO PARK CONCESSION BUILDING WINDOW AND DOOR RETROFIT, Confirm that the louvers drawn on the South, East and West façades are not in scope. Page 12. Attachment 6. MAXWELL PARK MAINTENANCE BUILDING WINDOW AND DOOR RETRO, Confirm that the louvers drawn on the North and South façades are not in scope. Page 15. Attachment 6. TOWNGATE CLUBHOUSE WINDOW AND DOOR RETROFIT, Confirm that the window drawn on the West façades are not in scope. Confirm that the type 4 door is a full louver door.

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Replacement of Windows and Doors to Impact Rated Material at Various City Parks

Mar 15, 2024 4:59 PM EDT
There are some existing Hollow metal doors, required in the Schedule as Aluminum glass doors, Please confirm these doors are to remain Hollow metal doors? Or do you really want to replace them with Aluminum Glass doors? Please specify the required hardware for Hollow Metal Doors- Please clarify the hardware to use on the Aluminum glass doors.

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March 20, 2024

PEMBROKE PINES
CITY COMMISSION

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MAYOR
954-450-1020
fortis@ppines.com

Iris A. Siple
VICE MAYOR
DISTRICT 3
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Jay D. Schwartz
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Thomas Good, Jr.
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tgood@ppines.com

Angelo Castillo
COMMISSIONER
DISTRICT 4
954-450-1030
acastillo@ppines.com

Charles F. Dodge
CITY MANAGER
954-450-1040
cdodge@ppines.com

RE-24-05 Window & Door Replacement at Various Parks

Questions & Answers

The question below is from the original Q&A submitted on Mar 12th 2024, 12:10 PM EDT

11. Confirm if the windows where the louvers go, also go windows? If yes, what type of windows are they?

Answer: Contractor should consider no window where only aluminum shutters are specified.

The question below is from the original Q&A submitted on Feb 26th 2024, 6:09 PM EST

1.*Please advise which aluminum finish is required for each park, Clear anodized, White, Bronze or custom

Answer: Aluminum finish will vary per park, but will either be White or Bronze.

2.*Please advise which glass tint is required for each park, Clear, Gray, Solexia Green, Bronze or custom tint. (Note: This does not take into account the required Low-E coating in specs)

Answer: Glass tint will be clear.

Danny Benedit, Procurement Specialist
City of Pembroke Pines, Procurement Department
8300 South Palm Drive, Pembroke Pines, FL 33025
Hours: Monday – Thursday, 7:00 A.M. – 6:00 P.M.
(P): (954) 518-9022 (E): dbenedit@ppines.com

March 19, 2024

ATTN: Dayana Castellon
City of Pembroke Pines
Parks and Recreation Dept.
601 City Center Way
Pembroke Pines, FL 33025

WINDOW AND DOOR REPLACEMENT, PARKS AND RECREATION

To whom it may concern:

I am pleased to submit our responses to Requests for Information related to Window and Door Replacement for Pembroke Pines Parks and Recreation.

MARCH 18 – ADDITIONAL RFIS

1. There are some existing Hollow metal doors, required in the Schedule as Aluminum glass doors, Please confirm these doors are to remain Hollow metal doors? Or do you really want to replace them with Aluminum Glass doors?

   Some existing hollow metal doors are to be replaced with glass doors as noted in plans (generally where the doors are serving public areas). Other existing hollow metal doors are to be replaced by new hollow metal doors as noted in plans (generally in non-public spaces).

2. Please specify the required hardware for Hollow Metal Doors-

   Where panic hardware is specified, use Von Duprin 98/99 concealed vertical rod per NOA configuration. Where Mortise lock is specified, use Schlage Mortise lock per NOA configuration. Threshold Zero Intl 566 and related water infiltration hardware as specified in NOA. Von Duprin 4040xp Closer.

3. Please clarify the hardware to use on the Aluminum glass doors.

   Where panic hardware is specified, use Von Duprin 98/99 concealed vertical rod per NOA configuration. Where Mortise lock is specified, use Sargent "7000 Series" lock per NOA configuration. Threshold 11.2 and 9.2 and related water infiltration hardware as specified in NOA. Von Duprin 4040xp Closer.

4. Doors scheduled to be inswing at various parks using FL#20701.1 Enviralum Inswing will not be able to meet water infiltration requirement on all hardware#1 'Water compliant' *In Rose G. Park Club

   In-swing door at Rose G Park Club building is under roof cover and does not require water infiltration rating.

MARCH 19 – ADDITIONAL RFIS

1. *Please advise which aluminum finish is required for each park, Clear anodized, White, Bronze or custom

   Aluminum finish TBD

2. *Please advise which glass tint is required for each park, Clear, Gray, Solexia Green, Bronze or custom tint. (Note: This does not take into account the required Low-E coating in specs)

   Glass tint TBD

3. *Doors scheduled to be inswing at various parks using FL#20701.1 Enviralum Inswing will not be able to meet water infiltration requirement on all hardware#1 'Water compliant'

   In-swing doors are either under roof cover or for non-habitable storage

4. *In Rose G. Park Club Building. There are numerous type A & Type B storefronts noted in the plan that lack an opening existing on the jobsite. Also there are arches on top of existing windows that are not figured in the architectural plan. Please advise

   Rose G. Park Club building window openings in plan and elevation are accurate. Please specify any instances where you believe otherwise. For your reference, please see image below:

5. *No door closers are noted in any of the hardware schedules. Will they be required?

   Yes, Von Duprin 4040xp Closer

6. *The spec states "Enviralum or equal product" as manufacturer. Will Trulite Glass & Aluminum solutions be accepted for the storefronts and Enviralum for the doors?

   In buildings with storefront openings and glass doors, both products must be from the same manufacturer. An alternative may be acceptable, pending review of product specifications.

Should you have any questions regarding the above, do not hesitate to contact me. Sincerely,

Moshe Laniado
Architect II
E: mlaniado@synalovki.com
P: (954) 961 - 6806

March 12, 2024

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Angelo Castillo
COMMISSIONER
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acastillo@ppines.com

Charles F. Dodge
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RE-24-05 Window & Door Replacement at Various Parks

Questions & Answers

1. The 120 calendars days for the time of completion of the project includes the processing of the permits?

Answer: No, this does not include the time spent on the permitting process. 120 calendar days begin after Notice to Proceed is issued which will be upon permit approval.

2. Do you accept substitutions in Windows and Doors?

Answer: The City is accepting pricing for alternate equivalent products.

See Section 1.5.1 Pricing Sheet / Bid Tables "3. Additional Responses: This tab of the Bid Table allows for bidders to submit alternative options. Substitutions of brands or products must be submitted as an alternative for the City's review and approval.
a. To submit an alternative, the vendor must copy the information for the corresponding line item from the "#" column in the "Primary Responses" tab and paste it into the "Additional Reponses" tab to identify which item they are providing an alternative option for.
b. Vendors are required to identify the substitution of brands or products in the "Vendor Notes" column.
c. For additional information on uploading supporting documentation for the proposed alternative(s), please refer to Section 1.5.4(3).

Section 1.5.4(3).

a. If you are submitting an alternative product, please upload any related information in this section (such as specification sheets, etc.).

3. Provided drawings are sufficient for permit application? Or should we include new drawings?

Answer: Provided drawings and NOA's are sufficient for permit application.

However, contractor must comply with all building department requirements to include but not limited to window & door calculations, pressures, additional window & Door schedules/tables, forms, etc.

Please refer to the City of Pembroke Pines Building Departments Website Applications & Forms section to view their Window & Door Permits checklist.
https://www.ppines.com/165/Applications-Forms

4. Do you require samples as established in article 3.7 of the ITB of the windows and doors manufacturer substitution?

Answer: See Section 1.5.4 Optional Documentation

b. In addition, pursuant to Section 3.7 “Brand Names,” if and wherever in the specifications a brand name, make, name of manufacturer, trade name, or vendor catalog number is mentioned, it is for the purpose of establishing a grade or quality of material only. Since the City does not wish to rule out other competition and equal brands or makes, the phrase “OR EQUAL” is added. However, if a product other than that specified is bid, Proposers shall indicate on their proposal and clearly state the proposed substitution and deviation. It is the vendor’s responsibility to provide any necessary documentation and samples within their bid submittal to prove that the product is equal to that specified. Such samples are to be furnished before the date of bid opening, unless otherwise specified. Additional evidence in the form of documentation and samples may be requested if the proposed brand is other than that specified. The City retains the right to determine if the proposed brand shall be considered as an approved equivalent or not.

5. Davis Bacon or Responsible Wages apply for this project?

Answer: No.

6. Permit fees will be waived?

Answer: Please refer to section 1.4.1 of the IFB ‘With the exception of the City related permit, license, impact or inspection fees (including the Building Department and Engineering Department Permit Fees), which will be waived for this project, the City does not anticipate any additional permit, license, impact or inspection fees for this project.’

7. Please confirm if work is to be performed Monday through Thursday only.

Answer: Work can be performed Monday through Friday. Contractor may work on Saturdays and Sundays if they chose to.

8. Confirm if window shutters are required.

Answer: Window shutters are not required as we are replacing all products with Impact Rated Products. Please refer to window & door schedules.

9. In the Door Glass, Do you require a 1/2" air space between the 3 layers of glass?

Answer: For Door Glass, ½” Air Space Is Not Required

10. What is the required overall thickness of the glass doors?

Answer: Doors Glass Thickness Should Be Per Type “A” In the Product Approval

11. Confirm if the windows where the louvers go, also go windows? If yes, what type of windows are they?

Answer: Answer to this question is pending

12. A dumpster can be placed in the site?

Answer: Dumpsters can be placed on-site. Contractor to coordinate with City’s project manager to approve dumpster location.

13. In which item do you want the price of the rolling door to be presented?

Answer: Please see Addendum 4

14. Check the name on the site plans for Pembrokes Falls Aquatic Center and Pembroke Shores Park YMCA Family Center. In drawings both buildings have the same identification. Please clarify.

Answer: Pembroke Falls YMCA Aquatic Center Is Included in Scope. Pembroke Shores Park YMCA Family Center Is Excluded from This Scope.

15. Page 2 Attachment 6. Drawing A-101 PINES PINES RECREATION PARK - BCC BUILDING WINDOW AND DOOR RETROFIT, louvers are drawn and dimensioned on the south and north facades, but not in plan. Please confirm if the louvers are within the scope of work.

Answer: Existing Concrete Louvers Are to Remain and Not in Scope.

16. Page 3 Attachment 6. Drawing A-101 ROSE G. PARK CLUB BUILDING BUILDING WINDOW AND DOOR RETROFIT, in the East Facade is not drawn the door type 2 that is in the floor plan. Please confirm which is true.

Answer: Refer to the Floor Plan for Door 2 Location.

17. Confirm if doors type 2 in West and East Facade are louvered.

Answer: Louvers Should Be Provided to Match Existing. Contractor to Verify During Site Visit.

18. And the window type E Fixed does not match the floor plan window type F Roll-Up. Confirm which is true.

Answer: Refer to Floor Plan for Window Type.

19. On the North façade an unspecified double door is drawn and on the floor a type E window. Please confirm which of the two is true.

Answer: Refer To Floor Plan for Window Type. Contractor To Verify Existing Condition During Site Visit.

20. Page 4 Attachment 6. Drawing A-101 ROSE G. PRICE PARK STORAGE BUILDING WINDOW AND DOOR RETROFIT, confirm if Door type 2 on south façade is in scope.

Answer: Refer To Floor Plan for Doors in Scope. Contractor To Verify Existing Condition During Site Visit.

21. Page 6 Attachment 6. Drawing A-101 PEMBROKE SHORES NORTH CONCESSION BUILDING WINDOW AND DOOR RETRO, On the South façade there are two type 1 doors, but one is not on the floor plan. Which plan should we consider?

Answer: Refer To Floor Plan for Doors in Scope. Contractor to Verify Existing Condition During Site Visit.

22. On the North and South facades there are louvers. Confirm if are in scope.

Answer: Existing Concrete Louvers Are to Remain and Not in Scope.

23. In the drawings there are no storefronts in this building. Please delete this item from the pricing sheets.

Answer: There are storefronts in multiple locations. Please refer to the window & door schedules in the plans.

24. Page 7. Attachment 6. PEMBROKE SHORES SOUTH CONCESSION BUILDING WINDOW AND DOOR RETROFIT, Confirm if the doors louvers drawn in East façade is in scope.

Answer: Existing Concrete Louvers Are to Remain and Not in Scope

25. Confirm if the window louvers drawn on the North, South and East façades are in scope. If yes, please specify.

Answer: Existing Concrete Louvers Are to Remain and Not in Scope

26. Confirm where the type C windows indicated in the Window Schedule are located on the floor plan and facade.

Answer: Type “C” Openings In The South Concesion Bldg Are Located Identically To The North Concesion Bldg. There Are (3) Openings In The Concessions Room.

27. Page 8. Attachment 6. FLETCHER PARK BASEBALL BUILDING WINDOW AND DOOR RETROFIT, Confirm if the louvers on North and South facades are in scope.

Answer: Existing Concrete Louvers Are To Remain.

28. Page 10. Attachment 6. FLAMINGO PARK CONCESSION BUILDING WINDOW AND DOOR RETROFIT, Confirm that the louvers drawn on the South, East and West façades are not in scope.

Answer: Existing Concrete Louvers Are To Remain And Not In Scope

29. Page 12. Attachment 6. MAXWELL PARK MAINTENANCE BUILDING WINDOW AND DOOR RETRO, Confirm that the louvers drawn on the North and South façades are not in scope.

Answer: Existing Concrete Louvers Are to Remain and Not In Scope

30. Page 15. Attachment 6. TOWNGATE CLUBHOUSE WINDOW AND DOOR RETROFIT, Confirm that the window drawn on the West façades are not in scope.

Answer: No Windows on West Facade

31. Confirm that the type 4 door is a full louver door.

Answer: Louvers Should Be Provided to Match Existing. Contractor To Verify During Site Visit.

32. In Rose G Price Park there is the main building where pool is located, the bathroom building, and there is a storage building next to the storage lot. In building next to storage lot there 2 large openings where there is plywood behind some concrete decorative louvers are there supposed to be windows installed inside?
Answer: Concrete Louvers Are to Remain.

33. In most parks there are concrete louvers are we changing that to impact louvers?

Answer: Concrete Louvers Are to Remain.

34. For Pembroke Falls Aquatic Center I don't see any drawings nor any NOAs for that park how do I get a copy for that park?

Answer: The drawing for the Pembroke Falls Aquatic Center has been uploaded. All NOA's referenced in the plans are on Bonfire.

35. Looking through all the attachments, we cannot locate the following forms. Please assist. Thank you,
1.6.1 Vendor Information Form
1.6.3 Company Profile Form
1.6.4 Sworn Statement on Public Entity Crimes Form
1.6.5 Equal Benefits Certification Form
1.6.6 Vendor Drug-Free Workplace Certification Form
1.6.7 Scrutinized Company Certification
1.6.8 E-Verify System Certification Statement

Answer: These are vendor registration forms that can be found on your Bonfire Profile under settings.

36. Can we utilize an approved equal window/glass door & storefront company instead of the one specified in the bid docs?

Answer: Please see question #2 and #4

37. Do we need to remove any existing accordion shutters/window grilles/screens etc.. and patch/paint to match existing walls?

Answer: Contractor is responsible for the removal of any existing accordion shutters/windows grilles/screens and to patch/paint to match the existing walls as required.

38. Who will be responsible for patching and painting the existing interior/exterior walls around the new windows and doors?

Answer: Contractors is responsible for patching and painting the existing interior/exterior walls around the new windows and doors.

39. Who will be responsible for painting the new metal doors/rolling doors/overhead doors?

Answer: Contractor is responsible for painting the new metal dooring/rolling doors/overhead doors. Contractor has the option to order the doors pre-painted or paint them on-site. City to choose and approve color.

Danny Benedit, Procurement Specialist
City of Pembroke Pines, Procurement Department
8300 South Palm Drive, Pembroke Pines, FL 33025
Hours: Monday – Thursday, 7:00 A.M. – 6:00 P.M.
(P): (954) 518-9022 (E): dbenedit@ppines.com

The City Of PEMBROKE PINES

Public Notices

Site Visit Reminder

Feb 06, 2024 5:23 PM EST

It is mandatory to visit all sites prior to submitting a bid for this project. There is scheduled site visit on February 7, 2024 at 10:00 a.m. The order of sites for the meeting will be as follows: 1. Paul J. Maxwell Park - 1200 SW 72nd Avenue Pembroke Pines, FL 33023 2. Pines Recreation Center - 7400 Pines Blvd Pembroke Pines, FL 33024 3. Fletcher Park - 7900 Johnson Street Pembroke Pines, FL 33024 4. Pembroke Falls Aquatic Center - 1361 NW 129th Avenue Pembroke Pines, FL 33028 5. Flamingo Park - 1900 NW 122nd Terrace Pembroke Pines, FL 33026 6. Towngate Park - 901 NW 155th Avenue Pembroke Pines, FL 33028 7. Pembroke Shores Park YMCA Family Center - 501 SW 172nd Avenue Pembroke Pines, FL 33029 8. Rose G. Price Park - 901 NW 208th Avenue Pembroke Pines, FL 33029 In the event that a contractor cannot attend the scheduled pre-bid meeting, or if a contractor would like a follow up visit to the site, they may request a site visit by contacting Danny Benedit at 954-518-9022. We urge all contractors to attend the scheduled meeting, as a separate or follow-up meeting may not be afforded to the requester due to scheduling and availability of staff to assist with any additional meetings. In addition, if making a request for a separate or follow-up meeting, contractors are urged to make these requests as early as possible. Contractors may be required to sign in at any of the meetings to show proof of attendance. It is the vendor’s responsibility to make sure that they sign in at the meeting.

RE-24-03 Site Visits Sign In Sheet

Feb 07, 2024 5:58 PM EST

Please see the attached RE-24-03 Site Visits Sign In Sheet

Addendum # 1

Feb 14, 2024 6:08 PM EST

Please see the attached Addendum #1

Attachment E - Construction Drawings Windows and Doors / YMCA Aquatic Park

Feb 20, 2024 4:13 PM EST
As per Addendum 1 attached please find Attachment E - Construction Drawings Windows and Doors / YMCA Aquatic Park

Additional Attachments

Feb 20, 2024 4:32 PM EST
Additional Attachments Attachment N - Key Cylinder Specs Attachment O - Von Duprin Closer Model Attachment P - Von Duprin Concealed Vertical Exit Device Model

Addendum 2

Feb 22, 2024 4:04 PM EST
- Project Close Date changed - Project Intent to Bid Due Date Changed - Project Questions Due Date Changed

Addendum # 3

Mar 04, 2024 4:31 PM EST
- Project Close Date changed - Project Intent to Bid Due Date Changed - Project Questions Due Date Changed

RE-24-05 Questions Answers

Mar 12, 2024 12:10 PM EDT
RE-24-05 Questions Answers

Addendum 4

Mar 12, 2024 12:10 PM EDT
Addendum 4

Rolling Door added to price sheet

Mar 14, 2024 3:02 PM EDT
As per Addendum # 4, The City has added line item to the Pricing Sheet / Bid Table for each location where the rolling door will be located. Pembroke Shores Flamingo Park Maxwell Park Pembroke Falls Aquatic Park Pines Recreation Center Rose Price Park Towngate Park

Questions & Answers 03-20-24

Mar 20, 2024 9:32 AM EDT
The question attached are from the original Q&A submitted on Mar 12th 2024, 12:10 PM EDT

The question attached are from the original Q&A submitted on 02-26-24 - 03-20-24

, Mar 20, 2024 9:45 AM EDT
The question attached are from the original Q&A submitted on 02-26-24 - 03-20-24

RE-24-05 Questions Answers from City Architect

, Mar 20, 2024 9:51 AM EDT
RE-24-05 Questions Answers from City Architect