

December 13, 2022

Mr. Thomas Mooney, AICP  
Planning Director  
City of Miami Beach  
1700 Convention Center Drive, 2<sup>nd</sup> Floor  
Miami Beach, Florida 33139

**Re: 125 Collins, LLC – Petition for Administrative Appeal to Board of Adjustment (ZBA22-0143)**

Dear Mr. Mooney:

This shall constitute our Letter of Intent on behalf of 125 Collins, LLC (the “Appellant”), in support of its petition for an administrative appeal to the Board of Adjustment pursuant to Section 118-9(b)(1) of the City of Miami Beach Land Development Regulations (the “Code”) in connection with the Planning Director’s determination issued on November 15, 2022 and attached hereto as Exhibit “A” (the “Determination”).

The Appellant is the owner of the properties located at 153, 151, 141, 137, and 125 Collins Avenue, Miami Beach, Florida, as identified by Folio Nos.: 02-4203-003-0290 (153 Collins Avenue), 02-4203-003-0281 (151 Collins Avenue), 02-4203-003-0280 (141 Collins Avenue), 02-4203-003-0270 (137 Collins Avenue), and 02-4203-003-0250 (125 Collins Avenue) (the “Appellant’s Property”).<sup>1</sup> The Determination erroneously concluded that the portion of the Appellant’s Property located at 153 Collins Avenue and identified by Folio No. 02-4203-003-0290 (the “Strip”)<sup>2</sup> was part of the building site tied to the parcel of land located at 157 Collins Avenue (the “157 Parcel”).<sup>3</sup> As such, the Appellant is a property owner affected by this Determination and eligible to appeal in accordance with 118-9(b)(2)(i) and (iii) of the Code.

The Appellant hereby appeals the City’s determination that the Strip and the 157 Parcel constitute “one building site.”<sup>4</sup> As a preliminary matter, the Strip is already part of a unified

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<sup>1</sup> The legal description of the Appellant Property is as follows: North ½ of Lot 15 Block 2, South ½ Lot 15 Block 2, Lot 14 Block 2, North ½ Lot 13 Block 2, Lot 12 & South ½ of Lot 13 Block 2, all of OCEAN BEACH SUBDIVISION, as recorded in Plat Book 2, at Page 38, of the Public Records of Dade County, Florida.

<sup>2</sup> The legal description of the Strip is as follows: The North ½ of Lot 15 Block 2 of OCEAN BEACH SUBDIVISION, as recorded in Plat Book 2, at Page 38, of the Public Records of Dade County, Florida.

<sup>3</sup> The legal description of the 157 Parcel is as follows: Lot 16 Block 2 of OCEAN BEACH SUBDIVISION, as recorded in Plat Book 2, at Page 38, of the Public Records of Dade County, Florida.

<sup>4</sup> Section 114-1 of the Code defines “building site” as:

development site, pursuant to Section 118-5 of the Code, that includes all of Appellant's Property, as confirmed by recorded covenants and recorded board orders. The City, therefore, cannot lawfully excise the Strip from the unified development site and attach it to a separate building site owned by a third party. Moreover, even if the Strip were not already a part of a separate unified development site, the Determination must be set aside because it is based on a fundamentally flawed application of Section 114-1 and 118-321 of the Code. Sections 114-1 and 118-321 provide that contiguous lots containing related "structures" and "improvements" shall constitute one building site. In this case, the Strip does not contain "structures" or "improvements" that were permitted in connection with the 157 Parcel and therefore cannot be considered part of the 157 Parcel building site.

For these reasons, and other reasons set forth below, we file this formal appeal of the Determination and respectfully request the immediate rescission and/or reversal of the Determination.

#### I. Background

On September 8, 2022, counsel for the owners of the 157 Parcel wrote to the City of Miami Beach Planning Director requesting a formal zoning determination that the Strip and the 157 Parcel combine to constitute "one building site." As noted above, on November 15, 2022, the Planning Director issued the Determination concluding that the Strip and the 157 Parcel are "one building site" based on permit records.

In reaching the erroneous conclusion in the Determination that the Strip and the 157 Parcel are part of same building site, the City made the following claims:

1. That "it appears that the Strip is not currently part of a unified development site or single building site with the properties to the immediate south."
2. That certain interior features of the 157 Parcel are accessible through the Strip, thereby creating a unified building site.
3. That certain devices associated with the 157 Parcel – including an underground grease trap, electrical meter, and gas meter – are encroaching onto, or buried beneath, the Strip, thereby creating a unified building site.

The first claim is factually inaccurate. Furthermore, this claim ignores the applicable legal descriptions provided in the permit records and disregards the zoning history of the Appellant's Property. The second and third claims are based on a flawed and unsupportable

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*Building site* means any improved lot, plot, or parcel of land where there may exist a main permitted structure and any accessory/auxiliary building or structure including, but not limited to, swimming pools, tennis courts, walls, fences, or any other improvement which was heretofore constructed on property containing one or more platted lots or portions thereof shall constitute one building site.

reading of Section 118-321 of the Code. Together, these claims form the basis of an erroneous determination that the 157 Parcel and the Strip constitute “one building site.”

This Determination unduly burdens the Appellant’s property rights and must be rescinded and/or reversed.

II. The Strip Is Part Of A Unified Development Site With The Appellant’s Property And Cannot Be Excised From This Unified Development Site And Attached To The 157 Parcel

It is axiomatic that a property cannot be part of two separate development sites at the same time. In this case, the Strip is part of a unified development site including all the Appellant’s Property. The unified development site is memorialized in a Covenant Running With the Land, recorded in Official Records Book 14864 at Page 725 of the Public Records of Miami-Dade County, Florida (the “Covenant”). A copy of the Covenant is attached as Exhibit “B”. The Covenant, which is the equivalent of unity of title,<sup>5</sup> unified the Appellant’s Property for the purpose of providing parking facilities to the property located at 136 Collins Avenue.<sup>6</sup> The Covenant was drafted and recorded in accordance with the approval of the following three Board of Adjustment applications for variances to permit the development of a proposed parking facility (collectively, the “1990 BOA Orders”):

- i. File No. 2083-B recorded in Official Records Book 14864 at Page 716 of the Public Records of Miami-Dade County, Florida;
- ii. File No. 2082-B recorded in Official Records Book 14864 at Page 719 of the Public Records of Miami-Dade County, Florida; and
- iii. File No. 2081-B recorded in Official Records Book 14864 at Page 722 of the Public Records of Miami-Dade County, Florida.

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<sup>5</sup> The City of Miami Beach Zoning Ordinance 89-2665, with an effective date of October 1, 1989, (“1989 Zoning Code”) sets forth requirements for unification of lots in Section 7-3.B in connection with off-site parking facilities, states:

Where the required parking spaces are not located to the Lot where the Parking Lot or garage is located. Where the required parking spaces are not located on the same Lot with the Building or Use served and used as allowed in paragraph 7-3.A above, a Unity of Title shall be prepared for the purpose of ensuring that the required parking is provided. Said Unity of Title shall be executed by owners of the properties concerned, approved as to form by the City Attorney, recorded in the public records of Dade County as a covenant running with the land and shall be filed with the application for a Building Permit.

<sup>6</sup> Additionally, 157 Collins LLC (the “157 Owner”) signed an agreement when it purchased the 157 Parcel expressly acknowledging that the sale of the property did not include any right, easement, or license to use the Strip (Exhibit “C”). This agreement served to confirm that 157 Owner, who remains the owner of the 157 Parcel, did not have a right of ingress, egress, or any other authorization to use the Strip other than through a lease of that parcel. While this was a private agreement between 157 Owner and the seller, it further demonstrates that 157 Owner acted in bad faith when it sought the Determination from the City.

Copies of the 1990 BOA Orders are attached as Exhibit "D". Each of the 1990 BOA Orders included a condition (Condition No. 3) that required that the lots "shall be combined ... through a covenant running with the land to inure that parking is provided..." Consistent with these conditions, the terms of the Covenant provided, in relevant part:

"That the property shall be considered as ***one plot and parcel of land***, and that no portion of said plot and parcel of land shall be sold, transferred conveyed, devised, assigned, or encumbered by mortgage or otherwise, separately, (except in its entirety as one plot or parcel of land) except for use as parking for a restaurant use at 136 Collins Avenue. The undersigned further agrees that this condition, restriction, and limitation shall be deemed a covenant running with the land and ***shall remain in full force and effect and be binding upon the undersigned, its successors and assigns and may only be terminated and canceled by the Owner, its successors or assigns upon (i) the written consent of the City Manager of the City of Miami Beach, and the approval and consent by appropriate action of the City of Miami Beach Board of Adjustment or (ii) all improvements at 136 Collins Avenue being removed or demolished.*** (***Emphasis added***). (Exhibit "B")

The effect of the Covenant is that the Appellant's Property is considered part of a unified building site under single ownership. Importantly, the Covenant shall be construed as a unity of title for the parking use pursuant to Section 7-3.B of the 1989 Zoning Code. Moreover, no portion of the Appellant's Property may be encumbered in any way unless the Covenant is terminated *by the Appellant* upon written consent from the City, which has not occurred.

The Planning Director's Determination is based on the erroneous assumption that "the Strip is not currently a part of a unified development site or single building site with the properties to the immediate south." As detailed above, however, the Strip *is* part of a unified development site with the remainder of the Appellant's Property and the City cannot unilaterally remove the Strip from its unified development site and attach it to the 157 Parcel. Doing so would violate the Covenant and the 1990 BOA Orders. Above all, doing so would unjustly burden the Appellant's Property.

At this juncture, because the Strip is included in the unified development site that is the Appellant's Property, we believe the Determination is fatally flawed and it is unnecessary to respond to the substantive claims and legal analysis included in the Determination. However, because the Determination is based on an erroneous interpretation and application of Section 118-321, we respond to the Planning Director's analysis in the section that follows.



### III. The Determination Misapplied Section 118-321 Of The Code

The Planning Director's finding that the Strip and the 157 Parcel are part of the same building site is based on a series of critical errors regarding the application of Section 118-321 of the Code to the instant case.

Under Section 118-321 of the Code, contiguous lots are considered part of the same building site if they contain related "structures" or "improvements" that have been "constructed" in connection with a single development. In other words, if the structures and improvements belonging to a single development spill onto multiple platted lots, those lots become tied into one development site. Section 118-321 further provides that a building site may only have one "main permitted structure." If an owner wishes to construct two "main permitted structures" on a single property, the owner must subdivide the property into two lots, thus creating two separate building sites. The relevant portion of Section 118-321 states as follows:

"In order to maintain open space and neighborhood character, wherever there may exist a main permitted structure and any accessory/auxiliary **building or structure** including, but not limited to, swimming pools, tennis courts, walls, fences, or any **other improvement** that was heretofore **constructed on property** containing one or more platted lots or portions thereof, such lots shall thereafter constitute only one building site and no permit shall be issued for the construction of more than one main permitted structure on the site unless the site is approved for the division or lot split by the planning board." (**Emphasis added**). (Exhibit "E").

The Planning Director makes several critical errors in applying Section 118-321 to the instant case.

First, the Planning Director determines that the Strip is part of the 157 Parcel's building site because "[t]he Strip serves as a means of ingress and egress to 157 Collins." The problem with the Planning Director's analysis is that Section 118-321 does not provide that a property may be drawn in an abutting property's building site simply by providing "ingress" or "egress" to the abutting property. By injecting this concept into Section 118-321, the Planning Director is radically transforming the meaning and operation of the Section 118-321 and threatening to deprive property owners throughout the City of valuable property rights simply because their properties allow "access" to abutting properties.

Second, the Planning Director determines that an underground grease trap, an electrical meter, and a gas meter encroaching onto the Strip constitute "improvements" that were "constructed" in connection with the 157 Parcel. This conclusion is wrong for several reasons. As an initial matter, these items are *devices*, not "improvements" and therefore do

not fall under the ambit of Section 118-321.<sup>7</sup> Moreover, these devices were not “constructed” on the Strip, but rather were attached or installed and can easily be detached and/or relocated to other areas within the 157 Parcel. Finally, these devices are not captured by the legislative intent of Section 118-321, which is to “maintain open space and neighborhood character” by limiting the number of above-ground structures and improvements located on a building site. Section 118-321 is not intended to address devices, equipment, and fixtures that are not structural and – in the case of the grease trap – not even *visible* from the right-of-way. The Section is intended to prevent unsightly clusters of structural improvements on a single building site. Again, the Planning Director’s expansive reading of Section 118-321 – which deprives property owners of valuable property rights based on the existence of non-structural, non-visible devices – cannot be justified.

Third, the Planning Director determines that the Appellant may not construct any improvement on its own property – not even a simple fence – without first obtaining Planning Board approval for a lot split. But Section 118-321 only requires a lot split “for the construction of *more than one main permitted structure* on [a] site.” (Emphasis added). It does not require a lot split for the construction of an accessory/auxiliary non-habitable structure, such as a fence. The Planning Director’s conclusion is inconsistent with the plain language of Section 118-321.

Fourth, the Planning Director determines that the Appellant may not develop or improve any portion of the Strip without the express approval of the 157 Parcel’s owner. According to the Planning Director: “Any modifications to, or development of, the Strip . . . would require a joint application by both the owner of the Strip and the owner of 157 Collins for permit approval.” The Planning Director’s determination effectively makes the owner of the 157 Parcel a “co-owner” of the Strip, shattering the most basic principles of property rights. This determination has no basis in the Code or other applicable law.

In sum, the Planning Director’s Determination, which strips the Appellant of virtually all its property rights, is based on a series of untenable assumptions and interpretations of Section 118-321. The Strip is part of a platted plot owned by the Appellant and tied to the Appellant’s Property by the Covenant. There has been no request made to divide the land and the Covenant remains in place on the title for the Appellant’s Property.

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<sup>7</sup> The Miami-Dade County Department of Environmental and Regulatory Management (“DERM”) defines a grease trap – also referred to as a grease interceptor – as a “device.” The Fats, Oil, and Grease (“FOG”) Control Device Guidance Manual, June 2021, defines a grease interceptor as: “FOG control **device** connected to a building grease waste drain or located between one or more fixtures (e.g., three-compartment sink, mop sink, dishwasher, etc.) and a building sanitary drain or grease waste (GW) drain line, above or below ground. The term ‘grease interceptor’ is also commonly used to describe the same **device**. For the intents and purposes of this document the term ‘grease interceptor’ would be used instead of ‘grease trap.’” Grease interceptors shall not receive sanitary sewage waste (bathrooms).” (Emphasis added) (Exhibit “F”)

#### IV. Building Permit Records For The 157 Parcel Did Not Include The Strip

The Determination overlooked the legal descriptions provided in the permit records that it referenced. The legal description used in those permit plans and board orders for the 157 Parcel contain legal descriptions only for “lot 16.” The legal description for the Strip is not included in The Big Pink permit documents.

A thorough review of the permit records for The Big Pink and Ted’s Hideaway obtained through requests for public records contains only two references to the Appellant’s Property. The first is the Ted’s Hideaway grease trap permit (Proces No.: BP980583, the “1995 Permit”). The second is in the context of a concrete repair that required scaffolding and potentially construction staging beyond the limits of the 157 Parcel (Process No.: B1405045, the “2014 Permit”).

The 1995 Permit was issued for the 157 Parcel in connection with the installation of a grease trap device. The plans associated with this permit do not provide a legal description or location sketch that includes the Strip. Further, as noted in the preceding section of this Appeal, a grease trap is not an improvement but a device, utilized in connection with a particular food service function, that is not essential to a building site, and that can be removed and/or relocated. Even if the Appellant’s predecessor in interest consented to the 1995 Permit, neither this consent nor the work completed under this permit created a new building site.

The 2014 Permit was issued for the 157 Parcel in connection with concrete repair and scaffolding only. The 2014 Permit lists 157 Collins Avenue as the address for The Big Pink. The sole reference to the Strip (on page 8 of 18) is a reference to the location of the work as 151 Collins Avenue in addition to 157 Collins Avenue. Note that 151 Collins Avenue is not the address of the Strip. This page contains a map that highlights what appears to be 151, 153, and 157 Collins Avenue together in one square, likely to describe where construction staging will be located. Additionally, the 2014 Permit has a hand-circled provision styled “Public Works Plan Review Notice,” which states: “All construction and/or use of equipment in the right-of-way and/or easements requires a separate Public Works Department permit prior to start of construction.” The statement is signed and dated 7/10/2014 and labeled as “The Bing Pink Building.” (sic). At the time of the construction (2014), there may have been consent from the owner for this particular scope of work that was temporary in nature and needed in order to effectuate repairs on the existing building. This reference does not indicate that 151 Collins Avenue was any part of a building site. The 2014 Permit is clearly labeled as a permit for repairs.

Copies of the 157 Parcel permit records are attached as Exhibit “G”. Based on the prima facie evidence set forth in the permit records referenced above, the Strip is not a part of the 157 Parcel building site.

V. Conclusion

The City's Determination, which concludes that the Strip and 157 Parcel are part of the same building site, is flawed, inconsistent with the Code, and must be rescinded and/or reversed. As a preliminary matter, the Strip is already part of a unified development site that includes all the Appellant's Property, and the City lacks the authority to detach the Strip from the Appellant's Property and attach it to an unrelated property owned by a third party. The Planning Director's Determination is also fatally flawed because it is based on a series of critical errors in the application of Section 118-321 of the Code. If left undisturbed, the Determination will unjustly burden the Appellant's Property in perpetuity.

Based on the above, we respectfully seek an approval of the appeal by the Board of Adjustment, along with a determination that:

The Strip is in fact already a part of another building site, unified with the Appellant's Property, under single ownership and not a part of the building site of the 157 Parcel.

In the alternative, we respectfully seek an approval of this appeal by the Board of Adjustment, along with a determination that:

The Strip does not contain "structures" or "improvements" that were "constructed" in connection with the 157 Parcel and is not part of the 157 Parcel building site.

The construction of a fence on the Strip does not require a lot split because a fence is not a "main permitted structure."

Thank you in advance for your considerate attention to this appeal. If you have any questions or require additional information, please feel free to call me directly at (305) 989-8272.

Respectfully submitted,

**LSN Law, P.A.**

A handwritten signature in blue ink that reads "Tracy Slavens". The signature is fluid and cursive, with the last name "Slavens" being more prominent.

Tracy R. Slavens, Esq.

Enclosures

CC: Nick Kallergis, Esq.  
Adele Valencia, Esq.

Exhibit "A"

Determination Letter

# MIAMI BEACH

## PLANNING DEPARTMENT

**City of Miami Beach**, 1700 Convention Center Drive, Miami Beach, Florida 33139

Tel: (305) 673-7550, Fax: (305) 673-7559

November 15, 2022

Paul A. Shelowitz  
Strook & Strook & Lavan LLP  
200 South Biscayne Blvd, Suite 3100  
Miami, FL 33131

**Subject: Request for Zoning Determination  
153 Collins Avenue (Folio 02-4203-003-0290) & 157 Collins Avenue (Folio 02-4203-003-0300), Miami Beach, Florida**

Dear Mr. Shelowitz:

This correspondence is in response to your September 8, 2022 request (attached) for a written determination regarding the properties located at 153 Collins Avenue and 157 Collins Avenue. Specifically, you have requested a determination pertaining to the following:

1. Whether the property located at 153 Collins Avenue (the "Strip") and the property located at 157 Collins Avenue ("157 Collins") constitute "one building site" pursuant to Section 114-1 of the City Code.<sup>1</sup>
2. Whether a lot split would be required to develop the Strip, including erecting a fence immediately adjacent to 157 Collins.

### **Property Description and Ownership**

For purposes of this determination letter, the following are the applicable properties and ownership:

1. 153 Collins Avenue (the "Strip"), which is legally described as the North ½ of Lot 15 of Block 2 in the Ocean Beach Subdivision. Lawrence F. Kaine purchased the Strip in 1986. The current owner of the Strip, 125 Collins LLC, purchased the property from the Patricia M Kaine Trust and Lawrence F Kaine Living Trust in 2022.
2. 157 Collins Avenue ("157 Collins"), which is legally described as Lot 16 of Block 2 in the Ocean Beach Subdivision. Lawrence F. Kaine purchased 157 Collins in 1983. In 2008, 157 Collins was sold to the current owner, 157 Collins Ave LLC.

The determination herein is specific to the Strip and 157 Collins, and does not include or provide any conclusions regarding the properties to the immediate south of the Strip. As more specifically noted herein, it appears that the Strip is not currently part of a unified development site or single

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<sup>1</sup> While on page 3 of the letter dated September 8, 2022 addressed to the Planning Director, the applicant references Section 118-564 of the City Code, the term "building site" is defined in Section 114-1 of the City Code.

building site with the properties to the immediate south (i.e., the lots at 137 - 151 Collins Avenue, which have a combined legal description of the South ½ of Lot 15 and Lots 12 - 14 of Block 2 in the Ocean Beach Subdivision).

### **Building Site Analysis**

In accordance with Section 114-1 of the City's Land Development Regulations (LDRs), a building site is defined as follows:

*"...Building site means any improved lot, plot, or parcel of land where there may exist a main permitted structure and any accessory/auxiliary building or structure including, but not limited to, swimming pools, tennis courts, walls, fences, **or any other improvement which was heretofore constructed on property containing one or more platted lots or portions thereof shall constitute one building site**."* (Emphasis added).

The subject site consists of two abutting lots on the east side of Collins Avenue, between 1<sup>st</sup> Street and 2<sup>nd</sup> Street. Both lots are zoned R-PS3 and located in the Ocean Beach Historic District.

The Strip was initially developed in the 1920s with a one-story hotel building. According to City Building Department records, a permit was issued for the total demolition of this structure on May 21, 1971. Shortly thereafter, a permit to pave the lot and install a ten (10') foot driveway was issued.

157 Collins was first developed in 1925 when a building permit was issued for the construction of a two-story commercial building. This building remains substantially intact and is occupied by two commercial tenants at the ground level: (i). Big Pink Restaurant, located within the western portion of the building; and (ii). Ted's Hideaway, located within the eastern portion of the building.

On September 6, 1994, the City issued a building permit for "Renovations to Big Pink".<sup>2</sup> The approved plans include the construction of a one-story addition located along the south property line of 157 Collins, immediately abutting the north property line of the Strip. As shown on Sheet A-1 the addition contained a foyer, trash room and storage room. Access to the foyer is provided via a single door located on the south property line and internally through the kitchen and back of house area of the restaurant. The trash room is accessible only from the Strip via a roll-up gate.

Also, on February 10, 1998, the City issued a building permit for the buildout of Ted's Hideaway.<sup>3</sup> Sheet P.1 of the approved plans includes the installation of a grease trap within the Strip. A sub permit was issued for the new grease trap (BP980583) on March 13, 1998 and a Certificate of Completion was issued for the project on March 4, 1999 after City inspections were performed.

The aforementioned improvements were constructed when the previous property owner (Lawrence F. Kaine) was the sole owner of the Strip. Additionally, gas meters and electrical service panels are shown encroaching into the Strip on the property survey submitted by the current owner of 157 Collins.<sup>4</sup>

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<sup>2</sup> Building Permit plans B9400397 entitled "Renovations for Big Pink" are attached as **Exhibit A**.

<sup>3</sup> Building Permit plans B9801070 entitled "Interior Renovations for Ted's Hideaway" are attached as **Exhibit B**.

<sup>4</sup> Property Survey dated 10-05-22 is attached as **Exhibit C**.

The Strip serves as a means of ingress and egress to 157 Collins and contains improvements critical to the operations of the restaurant and bar located within 157 Collins. Consequently, 157 Collins and the Strip, together, meet the definition noted above pertaining to a "building site" and therefore constitute one building site.

### **Lot Split Requirements**

In accordance with Section 118-321 of the LDRs, a lot split is required as follows:

*".....wherever there may exist a main permitted structure and any accessory/auxiliary building or structure including, but not limited to, swimming pools, tennis courts, walls, fences, or any other improvement that was heretofore constructed on property containing one or more platted lots or portions thereof, such lots shall thereafter constitute only **one building site** and no permit shall be issued for the construction of more than one main permitted structure on the site unless the site is approved for the division or lot split by the planning board."* (Emphasis added).

As noted above, the Strip and 157 Collins together constitute one building site. As such, any modifications to, or development of the Strip, including, but not limited to, site improvements (e.g., fencing), as well as new construction, would require a joint application by both the owner of the Strip and the owner of 157 Collins for permit approval. Additionally, the separation of the Strip from 157 Collins would require lot split approval from the Planning Board.

### **Conclusion**

Based upon the foregoing, the following is noted regarding the requested determination:

1. The property located at 153 Collins Avenue (the "Strip") and the property located at 157 Collins Avenue ("157 Collins") constitute "one building site", in accordance with the regulations of the City Code. Any modifications to, or development of the Strip, including, but not limited to, site improvements (e.g., fencing), as well as new construction, would require a joint application by both the owner of the Strip and the owner of 157 Collins for permit approval
2. To develop the Strip independently from 157 Collins, including the erection of a fence, a lot split approval by the Planning Board would be required. The request for a lot split would require a joint application by both the owner of the Strip and the owner of 157 Collins.

In accordance with City Code Section 118-9, this administrative determination will be published on the City's website for a period of at least 30 days. An eligible party, as defined in Section 118-9 of the City Code, shall have up to 30 days from the posting on the web page to appeal this administrative determination.

Sincerely,



Thomas R. Mooney, AICP  
Planning Director

TRM/DJT



Exhibit "B"

Covenant Running with the Land

1991 JAN 17 PM 4:14

91R018864

OFF. REC. 14864 PG 725

LOUISIANA F. KANE  
ATTORNEY AT LAW  
305 N.W. 12th Ave  
MIAMI, FLORIDA 33136

COVENANT RUNNING WITH LAND

WHEREAS, the undersigned is the owner ("Owner") of the following property located in Miami Beach, Dade County, Florida described as follows:

North 1/2 of Lot 15, Block 2, OCEAN BEACH SUBDIVISION, as recorded in Plat Book 2, at Page 38, of the Public Records of Dade County, Florida (the "Property"), and

Lots 12 and South 1/2 of Lot 13, Block 2, OCEAN BEACH SUBDIVISION, as recorded in Plat Book 2, at Page 38, of the Public Records of Dade County, Florida (the "Property"), and

Lot 14, Block 2, OCEAN BEACH SUBDIVISION, as recorded in Plat Book 2, at Page 38, of the Public Records of Dade County, Florida (the "Property"); and

WHEREAS, at the request of the Owner, the City of Miami Beach has, through, its properly constituted Zoning Board of Adjustment, granted unto the Owner certain variances from the City of Miami Beach Zoning Ordinance (the "Variances") to permit the Owner to rehabilitate the Property and construct parking facilities on the Property; and

WHEREAS, the City of Miami Beach has requested and the Owner has agreed to execute and record in the public records of Dade County, Florida, this Covenant Running with the Land as to the Property; and

WHEREAS, the undersigned recognizes and acknowledges that for the public health, welfare, and safety, the Property should not be used by separate owners for non-parking purposes until such time as provided herein.

NOW, THEREFORE, in consideration of the issuance of the Variances and for other good valuable considerations, the undersigned hereby agrees to restrict the use of the Property in the following manner:

1. That the Property shall be considered as one plot and parcel of land and that no portion of said plot and parcel of land shall be sold, transferred, conveyed, devised, assigned or encumbered by mortgage or otherwise, separately, (except in its entirety as one plot or parcel of land) except for use as parking for a restaurant use at 136 Collins Avenue (the "Restaurant").

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2. The undersigned further agrees that this condition, restriction and limitation shall be deemed a covenant running with the land and shall remain in full force and effect and be binding upon the undersigned, its successors and assigns and may only be terminated and canceled by the Owner, its successors or assigns upon (i) the written consent of the City Manager of the City of Miami Beach, and the approval and consent by appropriate action of the City of Miami Beach Board of Adjustment or (ii) all improvements at 136 Collins Avenue (the "Restaurant") being removed or demolished.

The undersigned does hereby fully warrant that it has good title to the Property and that it has full power and authority to execute this Covenant.

IN WITNESS WHEREOF, LAWRENCE F. Kaine, has caused these presence to be executed and signed on this 7 day of DECEMBER, 1990, in Miami Beach, Dade County, Florida.

By: Lawrence F. Kaine  
Lawrence F. Kaine

STATE OF FLORIDA:  
: SS.  
COUNTY OF DADE :

BEFORE ME, the undersigned authority, duly authorized to administer oaths and take acknowledgments, personally appeared, Lawrence F. Kaine, and acknowledged the foregoing in his capacity as same for the purposes herein described on behalf of the corporation, this 7th day of December, 1990.

Angela N. Kaine  
NOTARY PUBLIC, State of  
Florida

My Notary Public State of Florida:  
MY COMMISSION EXP. AUG. 24, 1994  
BONDED THRU GENERAL INS. UND.

a:\kainecon.mis

RECORDED IN OFFICIAL RECORDS BOOK  
OF DADE COUNTY, FLORIDA.  
UND VERIFIED  
Clerk of Circuit & County  
Court

Exhibit "C"

The Agreement and Deed

Location Sketch  
NTS



**LEGAL DESCRIPTION:**

Lot 16, Block 2, OCEAN BEACH FLORIDA, according to the Plat thereof, as recorded in Plat Book 2, Page 38, of the Public Records of MIAMI-DADE County, Florida.

CERTIFIED TO: 157 Collins Avenue, LLC; Beloff & Schwartz, Chicago Title Insurance Company, Wachovia Bank, N.A., its successors and/or assigns.

PREPARED FOR: 157 Collins Avenue, LLC, 157 Collins Avenue, Miami Beach, FL 33139

**Encroachments:**

1. Overhead utility lines.
2. Portion of the building is encroaching over the North boundary line.
3. Portion of the building is encroaching over the West boundary line.
4. Portion of the building is encroaching over the East boundary line.
5. Portion of the building, a 6 foot high wood fence, the concrete slab for a compactor / dumpster, and the electric service boxes are encroaching over the South boundary line.

- All clearances and/or encroachments shown hereon are of apparent nature. Fence ownership by visual means. Legal ownership of fences not determined.  
 Encroachments Noted: 5  
 Underground structures, if any, not located.  
 Bearings, if shown, are based on assumed meridian or Plat of Record.  
 Lands shown hereon were not abstracted for easements and/or right-of-ways of record.  
 Legal description provided by client.  
 This certification is only for land as described. It is not a certification of title, zoning, easements, or freedom from encumbrances. ABSTRACT NOT REVIEWED.  
 There may be additional restrictions not shown on this survey that may be found in the public records of this county. ABSTRACT NOT REVIEWED.  
 This BOUNDARY SURVEY has been prepared for the exclusive use of the entities named hereon. The Certificate does not extend to any unnamed party.  
 This survey was based on the monuments found on the field. No construction in any manner should be made without the prior written consent of the Surveyor.

SURVEYOR'S SEAL

Unless it bears the signature and the original raised seal of a Florida licensed surveyor and mapper, this map/report is for informational purposes only and is not valid.

REVISÉ:

## BOUNDARY SURVEY

I HEREBY CERTIFY: That the attached survey was made under my responsible charge and substantially meets the minimum technical standards as set forth by the FLORIDA BOARD OF LAND SURVEYORS in Chapter 61G17-5, Florida Administrative Code, pursuant to Section 472.027, Florida Statutes. There are no encroachments, overlapping claimants appearing on the plat or visible easements other than as shown hereon.

KNOWN HERETO  
NELSON MOJARENA

Registered Surveyor & Mapper No. 5504  
State of Florida

State of Florida

MOJA



FLOOD ZON

DATE \_\_\_\_\_

05-05-08

(A)

E.) Seller agrees to waive and not accept rent for the months of May and June, 2008, if Buyer will replace the roof and pay for said repairs.

F.) The parties acknowledge and agree that the seller may effectuate a 1031 like kind exchange with respect to this transaction. The parties agree to cooperate with each other in effectuating any such exchange.

Louise & Kenia

Levy

157 Collins Ave, LLC

by [Signature]  
for

This side does not include the N 1/2 of Lot 15 nor does it include a right, easement, or license to use the N 1/2 of Lot 15 for any purpose without the seller's written permission.

[Signature]

Cheryl Barr witness

STATE OF FLORIDA

COUNTY OF MIAMI DADE

SUBSCRIBED AND SWORN TO BEFORE ME THIS 21<sup>ST</sup> DAY OF APRIL, 2008

[Signature]  
ELISA GARCIA witness

[Signature]

UHAVYNIA EUSTIAQUINO  
NOTARY PUBLIC - STATE OF FLORIDA  
COMMISSION # BD369350  
EXPIRES 11/4/2008  
BONDED THRU 1-888-NOTARY1

13



CFN 20080544293  
DR Bk 26460 Pgs 1553 - 1554 (2pgs)  
RECORDED 07/02/2008 09:40:07  
DEED DDC TAX 42,000.00  
SURTAX 31,500.00  
HARVEY RUVIN, CLERK OF COURT  
MIAMI-DADE COUNTY, FLORIDA

Prepared by and return to:

Carla C. Jackson  
Legal Assistant  
Blass & Frankel, P.A.  
One S.E. Third Avenue Suite 2130  
Miami, FL 33131

File Number: **KAINE-PINK**  
Will Call No.:

Parcel Identification No. **02-4203-003-0300**

[Space Above This Line For Recording Data]

## Warranty Deed

(STATUTORY FORM - SECTION 689.02, F.S.)

**This Indenture** made this 30th day of June, 2008 between **LAWRENCE F. KAINE**, a married man whose post office address is 170 N.E. 29th Street, Miami, FL 33137 of the County of Miami-Dade, State of Florida, grantor\*, and **157 COLLINS AVE., LLC**, a Florida limited liability company whose post office address is 157 Collins Avenue, 2nd Floor, Miami, FL 33139 of the County of Miami-Dade, State of Florida, grantee\*,

**Witnesseth** that said grantor, for and in consideration of the sum of TEN AND NO/100 DOLLARS (\$10.00) and other good and valuable considerations to said grantor in hand paid by said grantee, the receipt whereof is hereby acknowledged, has granted, bargained, and sold to the said grantee, and grantee's heirs and assigns forever, the following described land, situate, lying and being in **Miami-Dade County, Florida**, to-wit:

**Lot 16, Block 2, OCEAN BEACH**, according to the Plat thereof, as recorded in Plat Book 2 at Page 38, of the Public Records of Miami-Dade County, Florida.

Subject to real estate taxes and all assessments for the year 2008 and subsequent years, which are not yet due and payable.

Subject to zoning ordinances and other municipal, state or Federal laws as may be applicable, covenants, conditions, restrictions, limitations, reservations and easements of record, if any, none of which shall be deemed reimposed hereby.

Grantor warrants that at the time of this conveyance, the subject property is not the Grantor's homestead within the meaning set forth in the constitution of the state of Florida, nor is it contiguous to or a part of homestead property.

and said grantor does hereby fully warrant the title to said land, and will defend the same against lawful claims of all persons whomsoever.

\* "Grantor" and "Grantee" are used for singular or plural, as context requires.

DoubleTime®

**In Witness Whereof**, grantor has hereunto set grantor's hand and seal the day and year first above written.

Signed, sealed and delivered in our presence.

Witness Name: \_\_\_\_\_

MELVIN F. FRANKEL

Lawrence F. Kaine (Seal)  
LAWRENCE F. KAINE, a married man

Witness Name: \_\_\_\_\_

CARLA C. JACKSON

State of Florida

County of Miami-Dade

The foregoing instrument was acknowledged before me this 28th day of May, 2008 by LAWRENCE F. KAINE, a married man, who ☐ is personally known or ☒ has produced a driver's license as identification.

[Notary Seal]



Carla C. Jackson  
Notary Public

Printed Name: CARLA C. JACKSON

My Commission Expires: 9/27/2009  
DD-470808



Exhibit "D"

1990 Board of Adjustment Orders

1991 JAN 17 PM 4:14

91R018861

1. NAME OF CASE  
2. DATE OF HEARING  
3. LOCATION OF HEARING  
4. NAME OF APPLICANT

OFF. REC. 1486470 716

**BEFORE THE BOARD OF ADJUSTMENT  
OF THE CITY OF MIAMI BEACH, FLORIDA**

IN RE: The application of **FILE NO. 2083-B**  
**LAWRENCE F. KAINÉ** **MEETING DATE: NOVEMBER 2, 1990**  
**153 COLLINS AVENUE**  
**NORTH 1/2 OF LOT 15; BLOCK 2;**  
**OCEAN BEACH SUBDIVISION; PB 2/38**

**A M E N D E D O R D E R**

The applicant, Lawrence F. Kaine, filed an application with the Director of the Planning and Zoning Department requesting the modification of conditions listed in the previous Final Order associated with the following variances considered by the Board on April 6, 1990:

1. Applicant wishes to waive 6,749 sq. ft. of the required minimum lot area of 10,000 sq. ft. in order to reconstruct and operate a parking lot as an accessory use to a restaurant which is located at 136 Collins Avenue.
2. Applicant wishes to waive 75 ft. of the minimum required lot width of 100 ft. in order to operate a parking lot as an accessory use to a restaurant at 136 Collins Avenue.
3. Applicant wishes to waive 15 ft. of the minimum required 20 ft. front yard setback in order to restore the parking lot providing a front yard setback of 5 ft.
4. Applicant wishes to waive 6 ft. of the minimum required 7'-6" north and south side yard setbacks in order to locate three (3) lightpoles 1'-6" from the north and south side property lines.

Notice of the request for variance was given as required by law and mailed to owners of property within a distance of 375 feet of the exterior limits of the property on which application was made. The Board finds that the property in question is located in the CPS-1 Zoning District. The Board further finds:

That special conditions and circumstances exist which are peculiar to the land, structure, or building involved and which are not applicable to other lands, structures, or buildings in the same zoning district, to wit:

That the special conditions and circumstances do not result from the action of the applicant;

continued . . .

150

File No. 2083-B amended (continued)  
Lawrence F. Kaine  
153 Collins Avenue

That granting the variance requested will not confer on the applicant any special privilege that is denied by this Ordinance to other lands, buildings, or structures in the same zoning district;

That literal interpretation of the provisions of this Ordinance would deprive the applicant of rights commonly enjoyed by other properties in the same zoning district under the terms of this Ordinance and would work unnecessary and undue hardship on the applicant;

That the variance granted is the minimum variance that will make possible the reasonable use of the land, building or structure;

That the granting of the variance will be in harmony with the general intent and purpose of this Ordinance and that such variance will not be injurious to the area involved or otherwise detrimental to the public welfare.

IT IS THEREFORE ORDERED, by the Board, that a variance as requested and set forth above be APPROVED with the following conditions to which the applicant has agreed:

1. Variance requests numbers 1, 2 and 4 as stated above were approved; variance request number 3 was withdrawn.
2. The applicant shall construct a new sidewalk with brick pavers, landscaping, tree grates, irrigation, curb and gutter prior to the issuance of an Occupational License for the parking lots. The plans for these improvements shall be approved by the Planning and Zoning Department and the Public Works Department prior to the issuance of a building permit.
3. The lots associated with File Nos. 2081, 2082 and 2083 shall be combined with the restaurant property located at 136 Collins Avenue through a covenant running with the land to insure that parking is provided for the commercial use of that property. All terms and conditions of this Agreement shall be approved by the City.
4. Construction shall be completed within seven (7) months of the date construction began.
5. If the City or the Redevelopment Agency purchases the parking lots, then the owner of property at 136 Collins Avenue shall reappear before the Board of Adjustment for purposes of mitigating the impact of allowing the operation of a restaurant without adequate parking facilities.

continued . . .

OFF. REC. 148647 718

File No. 2083-B amended (continued)  
Lawrence F. Kaine  
153 Collins Avenue

6. The Board shall retain jurisdiction of this file.
7. If the City or the Redevelopment Agency purchases the restaurant building at 136 Collins Avenue, then the parking lots shall not be used on a commercial basis and may only be used in accordance with the City's Zoning Ordinance.

PROVIDED, the applicant shall take all necessary steps to have a permit issued by the Building Department within a period of six (6) months from the date of the hearing (November 2, 1990), otherwise this Order shall become null and void, unless the issuance of such permit is stayed by an appeal to the appropriate court. This Order does not constitute a permit, but upon presentation of this Order to the Planning and Zoning Department, a permit shall be approved and processed in accordance and pursuant to the ordinances of the City of Miami Beach.

Dated this 17<sup>th</sup> day of January, 1990.

RECORDED IN OFFICIAL RECORDS BOOK  
OF DADE COUNTY, FLORIDA  
RECORD VERIFIED  
Clerk of Circuit & County  
Courts

BOARD OF ADJUSTMENT OF  
THE CITY OF MIAMI BEACH,  
FLORIDA

BY: 

RUSSELL GALBUT  
CHAIRMAN

STATE OF FLORIDA)  
                                  )SS  
COUNTY OF DADE )

BEFORE ME personally appeared RUSSELL GALBUT to me well known and known to me to be the person described in and who executed the foregoing instrument, and acknowledged to and before me that he executed said instrument for the purpose therein expressed.

WITNESS my hand and official seal, this 17<sup>th</sup> day of

January A.D. 1990.

  
NOTARY PUBLIC  
STATE OF FLORIDA

My commission expires NOTARY PUBLIC STATE OF FLORIDA  
MY COMMISSION EXP. MAR. 6, 1993  
BONDED INTO GENERAL FNS. UND.

Richard A. Gatti, Public Works Directors  
Dean Grandin, Jr., Planning & Zoning Director  
Approved As To Form, Legal Department

a:\2083Bamd.ord

(14)  
(15)  
(16)

1991 JAN 17 PM 4:14

91R018862

OFF.  
REC. 1486470 719

1486470 719  
JAN 17 1991  
MAY 17 1991

**BEFORE THE BOARD OF ADJUSTMENT  
OF THE CITY OF MIAMI BEACH, FLORIDA**

IN RE: The application of

FILE NO. 2082-B

MEETING DATE: NOVEMBER 2, 1990

LAWRENCE F. KAINÉ  
141 COLLINS AVENUE  
LOTS 14; BLOCK 2;  
OCEAN BEACH SUBDIVISION; PB 2/38

**A M E N D E D O R D E R**

The applicant, Lawrence F. Kaine, filed an application with the Director of the Planning and Zoning Department requesting the modification of conditions listed in the previous Final Order associated with the following variances considered by the Board on April 6, 1990:

1. Applicant wishes to waive 3,498 sq. ft. of the required minimum lot area of 10,000 sq. ft. in order to reconstruct and operate a parking lot as an accessory use to a restaurant which is located at 136 Collins Avenue.
2. Applicant wishes to waive 50 ft. of the minimum required lot width of 100 ft. in order to operate a parking lot as an accessory use to a restaurant at 136 Collins Avenue.
3. Applicant wishes to waive 15 ft. of the minimum required 20 ft. front yard setback in order to restore the parking lot providing a front yard setback of 5 ft.
4. Applicant wishes to waive 6 ft. of the minimum required 7'-6" north and south side yard setbacks in order to locate three (3) lightpoles 1'-6" from the north and south side property lines.

Notice of the request for variance was given as required by law and mailed to owners of property within a distance of 375 feet of the exterior limits of the property on which application was made. The Board finds that the property in question is located in the CPS-1 Zoning District. The Board further finds:

That special conditions and circumstances exist which are peculiar to the land, structure, or building involved and which are not applicable to other lands, structures, or buildings in the same zoning district, to wit:

That the special conditions and circumstances do not result from the action of the applicant;

continued . . .

File No. 2082-B amended (continued)  
Lawrence F. Kaine  
141 Collins Avenue

That granting the variance requested will not confer on the applicant any special privilege that is denied by this Ordinance to other lands, buildings, or structures in the same zoning district;

That literal interpretation of the provisions of this Ordinance would deprive the applicant of rights commonly enjoyed by other properties in the same zoning district under the terms of this Ordinance and would work unnecessary and undue hardship on the applicant;

That the variance granted is the minimum variance that will make possible the reasonable use of the land, building or structure;

That the granting of the variance will be in harmony with the general intent and purpose of this Ordinance and that such variance will not be injurious to the area involved or otherwise detrimental to the public welfare.

IT IS THEREFORE ORDERED, by the Board, that a variance as requested and set forth above be APPROVED with the following conditions to which the applicant has agreed:

1. Variance requests numbers 1, 2 and 4 as stated above were approved; variance request number 3 was withdrawn.
2. The applicant shall construct a new sidewalk with brick pavers, landscaping, tree grates, irrigation, curb and gutter prior to the issuance of an Occupational License for the parking lots. The plans for these improvements shall be approved by the Planning and Zoning Department and the Public Works Department prior to the issuance of a building permit.
3. The lots associated with File Nos. 2081, 2082 and 2083 shall be combined with the restaurant property located at 136 Collins Avenue through a covenant running with the land to insure that parking is provided for the commercial use of that property. All terms and conditions of this Agreement shall be approved by the City.
4. Construction shall be completed within seven (7) months of the date construction began.
5. If the City or the Redevelopment Agency purchases the parking lots, then the owner of property at 136 Collins Avenue shall reappear before the Board of Adjustment for purposes of mitigating the impact of allowing the operation of a restaurant without adequate parking facilities.

continued . . .

OFF: 1486470 721  
REC:

File No. 2082-B amended (continued)  
Lawrence F. Kaine  
141 Collins Avenue

6. The Board shall retain jurisdiction of this file.
7. If the City or the Redevelopment Agency purchases the restaurant building at 136 Collins Avenue, then the parking lots shall not be used on a commercial basis and may only be used in accordance with the City's Zoning Ordinance.

PROVIDED, the applicant shall take all necessary steps to have a permit issued by the Building Department within a period of six (6) months from the date of the hearing (November 2, 1990), otherwise this Order shall become null and void, unless the issuance of such permit is stayed by an appeal to the appropriate court. This Order does not constitute a permit, but upon presentation of this Order to the Planning and Zoning Department, a permit shall be approved and processed in accordance and pursuant to the ordinances of the City of Miami Beach.

Dated this 17th day of January, 1990.

RECORDED IN OFFICIAL RECORDS BOOK  
OF DADE COUNTY, FLORIDA.  
RECORD VERIFIED  
Clerk of Circuit & County  
Courts

BOARD OF ADJUSTMENT OF  
THE CITY OF MIAMI BEACH,  
FLORIDA

BY: 

RUSSELL GALBUT  
CHAIRMAN

STATE OF FLORIDA)  
                          ) SS  
COUNTY OF DADE )

BEFORE ME personally appeared RUSSELL GALBUT to me well known and known to me to be the person described in and who executed the foregoing instrument, and acknowledged to and before me that he executed said instrument for the purpose therein expressed.

WITNESS my hand and official seal, this 17th day of

January

A.D. 1990.

  
NOTARY PUBLIC

STATE OF FLORIDA

My commission expires   
NOTARY PUBLIC STATE OF FLORIDA  
MY COMMISSION EXP. MAR. 6, 1993  
BONDED THRU GENERAL INS. UND.

Richard A. Gatti, Public Works Directors  
Dean Grandin, Jr., Planning & Zoning Director  
Approved As To Form, Legal Department

a:\2082Bamd.ord

1991 JAN 17 PM 4: 14

91R018863

OFF. REC. 1486470 722

BEFORE THE BOARD OF ADJUSTMENT  
OF THE CITY OF MIAMI BEACH, FLORIDA

IN RE: The application of  
LAWRENCE F. Kaine  
125 COLLINS AVENUE  
LOTS 12 and SOUTH 1/2 OF LOT 13;  
BLOCK 2; OCEAN BEACH SUBDIVISION; PB 2/38

MEETING DATE: NOVEMBER 2, 1990  
FILE NO. 2081-B

A M E N D E D O R D E R

The applicant, Lawrence F. Kaine, filed an application with the Director of the Planning and Zoning Department requesting the modification of conditions listed in the previous Final Order associated with the following variances considered by the Board on April 6, 1990:

1. Applicant wishes to waive 247 sq. ft. of the required minimum lot area of 10,000 sq. ft. in order to reconstruct and operate a parking lot as an accessory use to a restaurant which is located at 136 Collins Avenue.
2. Applicant wishes to waive 25 ft. of the minimum required lot width of 100 ft. in order to operate a parking lot as an accessory use to a restaurant at 136 Collins Avenue.
3. Applicant wishes to waive 15 ft. of the minimum required 20 ft. front yard setback in order to restore the parking lot providing a front yard setback of 5 ft.
4. Applicant wishes to waive 6 ft. of the minimum required 7'-6" north and south side yard setbacks in order to locate three (3) lightpoles 1'-6" from the north and south side property lines.

Notice of the request for variance was given as required by law and mailed to owners of property within a distance of 375 feet of the exterior limits of the property on which application was made. The Board finds that the property in question is located in the CPS-1 Zoning District. The Board further finds:

That special conditions and circumstances exist which are peculiar to the land, structure, or building involved and which are not applicable to other lands, structures, or buildings in the same zoning district, to wit:

That the special conditions and circumstances do not result from the action of the applicant;

continued . . .



File No. 2081-B amended (continued)  
Lawrence F. Kaine  
125 Collins Avenue

That granting the variance requested will not confer on the applicant any special privilege that is denied by this Ordinance to other lands, buildings, or structures in the same zoning district;

That literal interpretation of the provisions of this Ordinance would deprive the applicant of rights commonly enjoyed by other properties in the same zoning district under the terms of this Ordinance and would work unnecessary and undue hardship on the applicant;

That the variance granted is the minimum variance that will make possible the reasonable use of the land, building or structure;

That the granting of the variance will be in harmony with the general intent and purpose of this Ordinance and that such variance will not be injurious to the area involved or otherwise detrimental to the public welfare.

IT IS THEREFORE ORDERED, by the Board, that a variance as requested and set forth above be APPROVED with the following conditions to which the applicant has agreed:

1. Variance requests numbers 1, 2 and 4 as stated above were approved; variance request number 3 was withdrawn.
2. The applicant shall construct a new sidewalk with brick pavers, landscaping, tree grates, irrigation, curb and gutter prior to the issuance of an Occupational License for the parking lots. The plans for these improvements shall be approved by the Planning and Zoning Department and the Public Works Department prior to the issuance of a building permit.
3. The lots associated with File Nos. 2081, 2082 and 2083 shall be combined with the restaurant property located at 136 Collins Avenue through a covenant running with the land to insure that parking is provided for the commercial use of that property. All terms and conditions of this Agreement shall be approved by the City.
4. Construction shall be completed within seven (7) months of the date construction began.
5. If the City or the Redevelopment Agency purchases the parking lots, then the owner of property at 136 Collins Avenue shall reappear before the Board of Adjustment for purposes of mitigating the impact of allowing the operation of a restaurant without adequate parking facilities.

continued . . .

File No. 2081-B amended (continued)  
Lawrence F. Kaine  
125 Collins Avenue

6. The Board shall retain jurisdiction of this file.
7. If the City or the Redevelopment Agency purchases the restaurant building at 136 Collins Avenue, then the parking lots shall not be used on a commercial basis and may only be used in accordance with the City's Zoning Ordinance.

PROVIDED, the applicant shall take all necessary steps to have a permit issued by the Building Department within a period of six (6) months from the date of the hearing (November 2, 1990), otherwise this Order shall become null and void, unless the issuance of such permit is stayed by an appeal to the appropriate court. This Order does not constitute a permit, but upon presentation of this Order to the Planning and Zoning Department, a permit shall be approved and processed in accordance and pursuant to the ordinances of the City of Miami Beach.

Dated this 17th day of January, 1990.

RECORDED IN OFFICIAL RECORDS BOOK  
OF DADE COUNTY, FLORIDA  
RECORD VERIFIED  
Clerk of Circuit & County  
Courts

BOARD OF ADJUSTMENT OF  
THE CITY OF MIAMI BEACH,  
FLORIDA

BY: Russell Galbut

RUSSELL GALBUT  
CHAIRMAN

STATE OF FLORIDA)  
                                  )SS  
COUNTY OF DADE )

BEFORE ME personally appeared RUSSELL GALBUT to me well known and known to me to be the person described in and who executed the foregoing instrument, and acknowledged to and before me that he executed said instrument for the purpose therein expressed.

WITNESS my hand and official seal, this 17th day of

January A.D. 1990.

Jane L. Melnick  
NOTARY PUBLIC  
STATE OF FLORIDA

My commission expires NOTARY PUBLIC STATE OF FLORIDA  
MY COMMISSION EXP. MAR. 6, 1993  
BONDED IN MY GENERAL TRS. UND.

Richard A. Gatti, Public Works Directors  
Dean Grandin, Jr., Planning & Zoning Director  
Approved As To Form, Legal Department

a:\2081Bamd.ord

Exhibit "E"

City of Miami Beach Code Section 118-321

Sec. 118-321. - Purpose, standards and procedure.

In order to maintain open space and neighborhood character, wherever there may exist a main permitted structure and any accessory/auxiliary building or structure including, but not limited to, swimming pools, tennis courts, walls, fences, or any other improvement that was heretofore constructed on property containing one or more platted lots or portions thereof, such lots shall thereafter constitute only one building site and no permit shall be issued for the construction of more than one main permitted structure on the site unless the site is approved for the division or lot split by the planning board.

No lot(s), plot(s) or parcel(s) of land, whether improved or unimproved or building site, as defined herein, designated by number, letter or other description in a plat of a subdivision, shall be further divided or split, for the purpose, whether immediate or future, of transfer of ownership or development, without prior review and approval by the planning board. Lots shall be divided in such a manner that all of the resulting lots are in compliance with the regulations of these land development regulations. All lot lines resulting from the division of a lot shall be straight lines and consistent with the configuration of the adjoining lots.

If a main permitted structure is demolished or removed therefrom, whether voluntarily, involuntarily, by destruction or disaster, no permit shall be issued for construction of more than one main permitted structure on the building site unless the site is approved for the division or lot split by the planning board.

A. *Procedure.*

- (1) All applicants shall provide as part of the application process copies of all deed restrictions, reservations or covenants applicable to the building site, lot, plot or parcel of land being considered for division or split, and an opinion of title that, as of a date not more than 120 days before the planning board's decision upon the application, none of such matters prevent or serve as exceptions to the division or split requested. No variance from this requirement shall be allowed.
- (2) Any applicant requesting a public hearing on any application pursuant to this section shall pay upon submission all applicable fees in section 118-7. No application shall be considered complete until all requested information has been submitted and all applicable fees paid.

B. *Review criteria.* In reviewing an application for the division of lot and lot split, the planning board shall apply the following criteria:

- (1) Whether the lots that would be created are divided in such a manner that they are in compliance with the regulations of these land development regulations.
- (2) Whether the building site that would be created would be equal to or larger than the majority of the existing building sites, or the most common existing lot size, and of the same character as the surrounding area.

(3)

Whether the scale of any proposed new construction is compatible with the as-built character of the surrounding area, or creates adverse impacts on the surrounding area; and if so, how the adverse impacts will be mitigated. To determine whether this criterion is satisfied, the applicant shall submit massing and scale studies reflecting structures and uses that would be permitted under the land development regulations as a result of the proposed lot split, even if the applicant presently has no specific plans for construction.

- (4) Whether the building site that would be created would result in existing structures becoming nonconforming as they relate to setbacks and other applicable regulations of these land development regulations, and how the resulting nonconformities will be mitigated.
- (5) Whether the building site that would be created would be free of encroachments from abutting buildable sites.
- (6) Whether the proposed lot split adversely affects architecturally significant or historic homes, and if so, how the adverse effects will be mitigated. The board shall have the authority to require the full or partial retention of structures constructed prior to 1942 and determined by the planning director or designee to be architecturally significant under subsection 142-108(a).
- (7) The structure and site complies with the sea level rise and resiliency review criteria in chapter 133, article II, as applicable.

C. *Final decision.* In granting a division of land/lot split, the planning board may prescribe appropriate conditions and safeguards, including, but not limited to, a condition restricting the size of new structures to be built on the resulting lots, based upon the application's satisfaction of and consistency with the criteria in subsection B above, and the board's authority under section 118-51. Violation of such conditions and safeguards, when made a part of the terms under which the division of land/lot split is granted, shall be deemed a violation of these land development regulations.

The decision of the planning board shall be final and there shall be no further review thereof except by resort to an appellate court of competent jurisdiction by petition for writ of certiorari.

(Ord. No. 89-2665, § 5-8, eff. 10-1-89; Ord. No. 91-2768, eff. 11-2-91; Ord. No. 94-2959, eff. 12-17-94; Ord. No. 95-2993, eff. 5-27-95; Ord. No. 2001-3325, § 1, 10-17-01; Ord. No. 2007-3564, § 1, 7-11-07; Ord. No. 2009-3625, § 1, 1-28-09; Ord. No. 2009-3637, § 1, 5-13-09; Ord. No. 2015-3978, § 6, 12-9-15, eff. 4-1-16; Ord. No. 2017-4123, § 4, 7-26-17)

Exhibit "F"

Miami-Dade County Fats, Oil, and Grease Control Device Manual, June 2021



# FOG<sup>2.5</sup> Control Device Guidance Manual

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## **FOG Control Program**

**Miami-Dade County**

**Department of Regulatory and Economic Resources (RER)**

**Division of Environmental Resources Management (DERM)**

**Carlos L. Hernandez, PE, CFM, CEHP, LEED AP**

**Water & Wastewater Division Chief**

**June 2021**

This manual was developed in collaboration with the Water & Wastewater Division staff.

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FOG<sup>2.5</sup> Control Device Guidance Manual

1.0 Introduction

The Fats, Oil, and Grease (FOG) Control Device Guidance Manual is intended to serve as a design guide for Professional Engineers designing FOG Control Devices for Food Service Establishments in Miami-Dade County. It is NOT intended to replace engineering judgment or replace the engineering design process. It is NOT a “recipe” book; instead, it provides “minimum” requirements. The Professional Engineer shall use sound engineering judgment and consider (Section 61G15, Florida Administrative Code):

- 1. The selection of engineering alternatives to be investigated and the comparison of alternatives for engineering works.
- 2. The selection or development of design standards or methods, and materials to be used.
- 3. The selection or development of techniques or methods of testing to be used in evaluating materials or completed works, either new or existing.
- 4. The development and control of operating and maintenance procedures.

2.0 FOG Terms, Definitions, and Acronyms

To establish a consistent basis for reviewing and approving plans and confirming compliance, the following terms are to be used.

Back of the House -	All areas where food is stored, processed, cooked, prepared, and assembled and cleanup areas. It does not include offices, dry storage or front of the house areas.
Best Management Practices -	Activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or minimize pollution.
Black Grease -	Any FOG commingled with septic wastes (bathroom wastes).
Brown Grease -	FOG waste collected in, or removed from, a FOG control device.
Building Sewer-	The part of the building drainage system that extends from the end of the building drain and conveys the discharge to utility or non-utility owned or operated sanitary sewer system.

Building Sanitary Drains -	The pipes intended to receive sanitary wastewater and effluent from FOG control devices where FOG control devices are installed or required. FOG or food waste shall not be discharged into the building sanitary drains.
Dish machine -	Equipment used to sanitize only not to wash.
Dishwasher -	Equipment that washes and sanitizes.
Equipment -	All stoves, ranges, cook tops, griddles, ovens, grills, hoods, fryers, meat blocks, tables, counters, cabinets, refrigerators, freezers, sinks, dishwashing machines, steam tables, plumbing drains, and similar items, other than utensils, used in the operation of a food service establishment.
Fats, Oil and Grease (FOG) -	Any substance such as vegetable or animal product used in, or a byproduct of, the cooking or food preparation process, that can cause or lead to corrosion, blockages, reduced flow, or interference with the sanitary sewer system when discharged alone or combined with other materials or waste.
FOG Capacity Limit -	The combined FOG and solids depth equal to twenty-five (25) percent of the design hydraulic depth in any location of a FOG control device, or seventy-five (75) percent of the rated FOG and solids capacity established by third party certification.
FOG Control Device- (FCD)	Equipment designed to remove, hold and prevent the passage of FOG to onsite sewage treatment and disposal systems, and sanitary sewer systems.
FOG Control System-	The FOG Control Device, and all associated fixtures, and appurtenances including solids separator, flow control device, and sampling port receiving FOG waste, and involved in the pretreatment process prior to connection to the sanitary sewer system.
FOG Control Device Operator -	Person or entity which has management control for FOG control devices which serve other FOG generators.
FOG Generator -	Any nonresidential facility, including, but not limited to, restaurants, bakeries, hotel and cafeteria kitchens, commercial kitchens, kitchens serving hospitals, nursing homes, daycares, assisted living facilities and other healthcare facilities, food processing plants or such other nonresidential facilities that can introduce food waste or FOG into building sanitary drains, building sewers, onsite sewage treatment and disposal systems, or non-utility or utility sanitary sewer systems. A FOG generator also includes those nonresidential facilities that produce yellow grease.

FOG Discharge Control Operating Permit -	Operating permit issued to FOG generators or FOG control device operators pursuant to Sections 24-18 and 24-42.6. Also referred to as a GDO permit.
FOG Sampling Point -	A reasonably accessible location for sampling the effluent of a FOG control device.
Food-	As defined by the Florida Department of Health FAC 64E-11: Any raw, cooked or processed edible substance, ice, beverage or ingredient used or intended for use in whole, or in part, for human consumption.
Food Preparation-	As defined by the Florida Department of Health FAC 64E-11: The manipulation of foods intended for human consumption by such means as washing, slicing, peeling, chipping, shucking, scooping, and/or portioning. The term also includes those activities involving temperature changes, combining ingredients, opening ready-to-eat food packages, or any other activity causing physical or chemical alterations in the food.
Front of the House -	Office space, dry storage, and in general all areas not included in the back of the house.
Gravity Grease Interceptor-	FOG control device that primarily relies on the difference in specific gravity between wastewater and FOG to affect separation of FOG from wastewater.
Grease Interceptor -	FOG control device connected to a building grease waste drain or located between one or more fixtures (e.g., three-compartment sink, mop sink, dishwasher, etc.) and a building sanitary drain or grease waste (GW) drain line, above or below ground. The term “grease interceptor” is also commonly used to describe the same device. For the intents and purposes of this document the term grease interceptor would be used instead of grease trap. Grease interceptors shall not receive sanitary sewage waste (bathrooms).
Grease Waste Drains -	The pipes intended to receive FOG and food waste. They convey the discharge to solids separators and FOG control devices.
Hydromechanical Grease Interceptor-	FOG control device that is third party tested and certified, and relies on the difference in specific gravity between wastewater and FOG to affect separation of FOG from wastewater, and may incorporate a flow control device, air entrainment, and other means or principles to improve the efficacy of separation as demonstrated by third-party testing, validation and certification.

Interceptor Monitoring Alarm-	System and its components capable of monitoring a FOG control device on a regular interval. The system shall trigger a visual and audible alarm at the FOG Capacity Limit.
Interceptor Monitoring Device-	System and its components capable of monitoring floating and settled solids in a FOG control device on a regular interval, triggering a visual and audible alarm at the FOG Capacity Limit, and reporting data electronically to the Department at a frequency and format approved by the Director or Director's designee
Kitchenware -	All multi-use utensils other than tableware.
Ordinary Restaurant -	Food service establishment with reusable plates and silverware.
Residential FOG Source-	Residential kitchen that can introduce food waste or FOG into a building drain, building sewer, onsite sewage treatment and disposal system, or non-utility or utility sanitary sewer system.
Single-service article –	Any cups, containers, closures, plates, straws, place mats, napkins, doilies, spoons, stirrers, paddles, knives, forks, wrapping materials and all similar articles which are constructed wholly or in part from paper, paperboard, molded pulp, foil, wood, plastic, synthetic or other readily destructible materials, and which are intended by the manufacturers to be for one-time, one-person use, then to be discarded.
Single Service Article Restaurant -	Food service establishment with throw away utensils, plates, etc.
Solids Separator (SS)-	Separator intended to capture solids and allow grease to pass through. It is installed at the source or on the grease waste drains prior to a grease interceptor. SS are recommended to improve the operation of grease interceptors. However, SS are always required after a food/solids grinder and before a hydromechanical interceptor.
Tableware-	Multi-use eating and drinking utensils.
Third Party Certified-	A certification by an independent entity that specific equipment or devices have been tested and meet or exceed standards established by the certifying entity and which the certifying entity has reviewed or audited the manufacturing process. The certifying entity shall be recognized by the Director or Director's designee and can include, but is not limited to, the National Sanitation Foundation (NSF), American Society of Mechanical Engineers (ASME), Plumbing and Drainage Institute (PDI) or Canadian Standards Association (CSA) or combination of these and other entities to include the aforementioned requirements.

Utensils-	Implements such as pots, pans, ladles or food containers used in the preparation, storage, transportation or serving of food.
Ware washing -	Cleaning and sanitizing of utensils and food-contact surfaces or equipment.
Wash-Down Area -	Area where FOG generators wash the back of the house mats or equipment.
Yellow Grease -	FOG generated as a byproduct from cooking or food preparation that is not mixed with water, wastewater or other waste.

## List of Acronyms

ASME	American Society of Mechanical Engineers
BMPs	Best management Practices
FBC-P	Florida Building Code, Plumbing
FCD	FOG Control Device
FCS	FOG Control System
FOG	Fats, Oil, and Grease
FSE	Food Service Establishment
DFU	Drainage Fixture Units
GI	Grease Interceptor
GW	Grease Waste
OSTDS	Onsite Sewage Treatment and Disposal Systems
PDI	Plumbing and Drainage Institute
PIC	Permitting and Inspection Center
SP	Sampling Port
SS	Solid Separator
WPS	Wastewater Permitting Section

## 3.0 Rules & Regulations

What facilities or uses can introduce FOG to a utility or non-utility sanitary sewer system? Restaurants, bakeries, cafeterias, hotels, coffee shops, banquet halls, ice cream parlor, and catering establishments are just a few obvious examples of facilities or uses that can introduce FOG to a utility or non-utility sanitary sewer system. Others are less obvious; e.g., Bank with full kitchen, day care, fish market, tea shop, etc.

Chapter 24, Environmental Code of Miami-Dade County (Section 24-18), requires that FOG Control Devices (FCDs) be installed, and that a sampling point be provided on the effluent/discharge side (i.e., beyond point of no further treatment) of the FCD, for all nonresidential generators, and food/beverage service establishments, or areas discharging into a publicly or privately operated sanitary sewer collection system if fats, oil, and grease can be introduced into the sanitary sewer system, interim package sewage treatment plants, or onsite sewage treatment and disposal system located in a wellfield protection area<sup>1</sup> of any utility or non-utility potable water supply wells, in quantities which have the potential to affect or hinder the operation of sewage collection, transmission or treatment facilities. Concentrations as low as 150 mg/L of FOG can impact the collection, transmission and treatment facilities.

Applicable Chapter 24 code sections are provided below.

24-5	Definitions
24-15	Plan Approval Required
	24-15(2) Waste water facilities
	24-15.1 Procedures for approval of plans
	24-15.2 Registered Engineer required
	24-15.3 Standards for preparation of plans
	24-15.3(3) FOG control device required
24-18	Operating Permit required
24-42.4	Sanitary sewer discharge limitations and pretreatment standards
24-42.6	Fats, Oils and Grease Control Program

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<sup>1</sup> <https://www.miamidade.gov/environment/wellfields.asp>



Other applicable codes and regulations:

- Florida Building Code – Chapter 10 – Plumbing

Section 1003 Interceptors and Separators

- Florida Administrative Code

Rule 64E-6 Standards for onsite sewage treatment and disposal

64E-6.013 Construction Materials and Standards for Treatment Receptacles

Rule 64E-11 Food hygiene

### 4.0 FCD Permitting Process

#### 4.1 Where to submit plans

Note that the first step for any construction project subject to this guide manual is to “submit” construction drawings to the Building Department having jurisdiction over the establishment/site under construction. Once a process number or construction permit number is provided by the Building Department, plans must be submitted for DERM’s approval. Revisions to drawings after a DERM approval is obtained, along with the previously DERM-Grease approved sheets as reference, are also required to be submitted to DERM for review and approval.

New plans requiring DERM Grease Review are no longer being reviewed at the Permitting and Inspection Center (11805 SW 26 Street, Miami FL, 33175) for DERM review, and are only being reviewed electronically by the Overtown Transit Village (OTV) staff engineers.

Plans are submitted electronically for DERM review by the applicant using the link below to the web portal by following the instructions under “Building Permit-Related Applications & Plans Submissions”. All instructions are to be carefully read, and followed to ensure a faster review process.

<https://wwwx.miamidade.gov/Apps/RER/EPSPortal>

For facilities located within a municipal Building Department utilizing the e-Municipal system, plans will be sent to DERM Plan Review using their electronic transfer protocols. Prior to uploading any plans to the web portal, the applicant should verify if the facility is located within a municipality whose Building Department uses the e-Municipal system.

#### 4.2 When DERM Grease Review is Required

A DERM Grease Review is required for non-residential facilities/areas that can introduce FOG to a utility or non-utility sanitary sewer system or onsite sewage treatment and disposal system (OSTDS) located in a wellfield protection area<sup>1</sup> of any utility or non-utility potable water supply well.

There are two main entry points for a Grease Review: Plan Review, and Certificate of Use (CU) / Occupational License (OL) Application Review. Plan Review is required for all new development, additions or enlargements,

renovations, construction, and changes in use. CU/OL Application Reviews are required for all new uses, changes in use, and changes in name or ownership.

### **4.2.1 Plan Review Process**

Plan review is required for the following type of work:

- New construction
- Interior remodeling
- Change in seating capacity, and/or change in area, or expansion
- Changes in ownership, or type of use
- FCD update to comply with discharge limitations
- Revisions to master permit

### **4.2.2 Certificate of Use / Occupational License Application Submittal**

Certificate of Use (CU)/ Occupational License (OL) Application Reviews are required for all new uses, changes in use, and changes in name or ownership.

For facilities located within a municipality/incorporated Miami-Dade County, the CU/OL application process starts at the municipal Building Department, where the application is completed by the applicant, reviewed accordingly by the municipality, and is to be sent to DERM electronically for all the DERM specialty reviews prior to obtaining the final approval from the municipality to issue the associated licenses to operate. Municipal CU/OL applications are submitted electronically for DERM review by the applicant using the link below following the instructions under “Submit for Review and Approval a Municipal Certificate of Use”.

<https://wwwx.miamidade.gov/Apps/RER/EPSPortal>

Instructions for CU/OL applications located within Unincorporated Miami-Dade County can be found at the following website: <https://www.miamidade.gov/permits/zoning-certificate.asp>

### 4.2.3 Certificate of Use / Occupational License Application Review

Food service establishments (FSEs) with an active FOG Discharge Control operating permit (often referred to as a Grease Discharge Operating permit, or GDO permit) proposing only change in ownership are required to bring along with the FOG Discharge Control operating permit application<sup>2</sup>, and the Existing FOG Control Device (FCD) condition assessment report<sup>3</sup> to assure that the FCD is in operating condition.

FSEs with an active FOG Discharge Control operating permit proposing a change in the food service establishment type, or change in seating capacity, or change in area, are required to provide new plumbing plans signed, sealed, and dated by a Florida licensed Professional Engineer, to show compliance with the requirements included in Section 24-42.6 of the MDC Code. Said plans shall include facility layout, required fixture connections, compliance with FCD sizing calculations per MDC Section 24-42.6(9), proposed pump out frequency, and the FCD condition assessment using the Department's template<sup>3</sup>. Plans may be required to be submitted to Building Department and DERM Plan Review.

FSEs with FOG Discharge Control operating permit inactive/closed for a period of more than 12 months, or existing FSEs that never had a GDO permit, are required to provide, along with the OL Application, new plumbing plans signed, sealed, and dated by a Florida licensed Professional Engineer, to show compliance with the requirements included in Section 24-42.6 of the MDC Code. Said plans shall include facility layout, required fixture connections, compliance with FCD sizing calculations per MDC Section 24-42.6(9), proposed pump out frequency, and the FCD condition assessment using the Department's template. Plans may be required to be submitted to Building Department and DERM Plan Review. FSEs with open enforcement will be required to correct the violation before the CU/OL is approved.

Existing FOG generators and FOG control device operators that discharge to an onsite sewage treatment and disposal system (OSTDS) located in a wellfield protection area<sup>1</sup> of any utility potable water supply wells, without a valid FOG Discharge Control Operating permit issued prior to March 5, 2018, per MDC Environmental Protection Code, Section 24-42.6(6)(5) are required to submit the FCD condition assessment

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<sup>2</sup> Blank FOG Discharge Control - Operating permit Application available at <http://www.miamidade.gov/permits/library/grease-discharge.pdf>

<sup>3</sup> Blank Existing FCD condition assessment reports available at <http://www.miamidade.gov/environment/fats-oils-grease.asp>. Form must be completed by a professional engineer, licensed plumber pursuant to Part III of Chapter 489 of Florida Status, and Part III of Rule 64E-6, FAC

prepared by a licensed plumber or Florida Professional Engineer, and new plans prepared by a Florida Professional Engineer- to include facility layout, required fixture connections, compliance with FCD sizing calculations per MDC Section 24-42.6(9), proposed pump out frequency, and the FCD condition assessment using the Department's template, to be submitted within 12 months of the Department's notification.

**Attachment 1** FOG 2.5 CU/OL Review Decision Matrix provides more specific information about the requirements for approval of CU/OL applications.

### 4.3. Atypical FSEs

#### 4.3.1 Day Cares, and Adult Day Cares

This category includes facilities such as Day Cares, Adult Cares and others regulated by the Florida Department of Health (FDOH). Food service establishments under FDOH authority are regulated by the Chapter 64E-11, Florida Administrative Code, which clearly outlines when the operation requires to have washing equipment and when it does not. Florida Building Code Chapter 4 provides regulations for these types of facilities as well. These distinctions are used to determine the requirement of a grease interceptor; when washing equipment is required then a grease interceptor is required.

Basically, if the establishment uses or intends to use multiuse equipment and utensils, then washing equipment is required. Washing equipment can be comprised of a three compartment sink, and/or a two compartment sink and dishwashing machines. FDOH rules do not require dishwashing equipment if the establishment will ONLY use single service articles, or if the establishment caters food AND the catering contract/agreement indicates that all multiuse utensils/equipment will be returned to the caterer<sup>4</sup>.

The local FDOH offices issue a Food Permit or a Sanitation Certificate to the establishments under its jurisdiction, which outlines the limitations and prohibitions. Food permits are available upon request from the local FDOH office.

See below extract from a FDOH inspection to a Day Care Facility that caters food and uses all disposable utensils.

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<sup>4</sup> Email communication with Mr. Ric Mathis, EHPC, Food Safety and Sanitation Program, FL Department of Health, Division of Disease Control and Health Protection

Shown on Plan	Provide	N/A	Items
R/R		1	Three-compartment sink with hot and cold running water. Sanitizing by appropriate chemical (Water temperature not to exceed 120 °F) or hot water at 170 °F
R/R	1		A 1-compartment <input type="checkbox"/> and/or 2-compartment <input checked="" type="checkbox"/> sink with hot and cold running water.
R/R	1		Drain-boards provided for two/three compartment sink(s), or moveable dish-table.
R/R	1		Utility sink with hot and cold running water.
R/R		1	Residential automatic dishwasher of approved type.
R/R		1	Dipper well (required for the service of bulk ice cream)
R/R	1		Water Heater of adequate size for ALL operations requiring hot water
R/R	1		Hand-wash sink(s) in the food preparation/dish-washing area(s) with hot and cold running water
R/R	1		Adequate protection against the entrance of vermin at ALL openings.
R/R	1		Adequate garbage disposal facilities
R/R	1		Adequate refrigeration facilities equipped with accurate thermometers.
R/R	1		Adequate restroom fixtures for the facility capacity.
R/R	1		Walls and floors of a smooth, durable, easily cleanable impervious material
R/R	1		A coved-type baseboard at the juncture of the wall and the floor.
R/R	1		All stationary equipment sealed to adjacent surfaces or enough space behind the units to facilitate cleaning.

**ADDITIONAL REQUIREMENTS:**

Catering food only. All disposable utensils used. No hand washing. Hand wash sink in kitchen. No grease trap/dishwasher required by DOH. Final approval given by DOH inspector

I understand that an inspection of this establishment will be made for ALL of the requirements in the previously listed Chapters of the Florida Administrative Code.

Figure 1. Sample FDOH inspection form

For DERM, with regards to FOG, the requirements for a grease interceptor are summarized in Table 1.

Any facility that:	Any facility that:	Any facility that:
<p>(1) Prepares/Cooks food, or</p> <p>(2) Serves/Handles food prepared on site, catered, or delivered with multi-use utensils (kitchenware)</p>	<p>(1) Requires "Equipment" for washing utensils and/or kitchenware, or</p> <p>(2) Has or Proposes "Equipment" for washing utensils and/or kitchenware</p>	<p>(1) Only uses/requires single-service articles, AND</p> <p>(2) Does not Prepare/Cook food, AND</p> <p>(3) Does not Require "Equipment" for washing Utensils, AND</p> <p>(4) Does not have or propose "Equipment" for washing utensils and/or kitchenware</p>
Must provide washing equipment, and therefore must provide a grease interceptor	Must provide a Grease Interceptor.	Is NOT required (BY DERM) to have a Grease Interceptor (they are NOT prohibited from having a Grease Interceptor)

Table 1. FSEs under FDOH authority required to have a grease interceptor

Table 2 provides an overview of how the different types of facilities are regulated for food safety and the jurisdictions of the different Departments involved.

Department of Agriculture and Consumer Services (DACS)	Department of Business and Professional Regulations (DBPR)	Florida Department of Health (FDOH)
<ul style="list-style-type: none"> <li>• <b>Grocery stores</b></li> <li>• <b>Food processing plants</b></li> <li>• <b>Food storage</b></li> <li>• <b>Food distribution points</b></li> </ul>	<ul style="list-style-type: none"> <li>• Restaurants</li> <li>• Mobile food vehicles</li> <li>• Caterers</li> </ul>	<ul style="list-style-type: none"> <li>• Institutions</li> <li>• Schools</li> <li>• Civic or fraternal organizations</li> <li>• Bars and lounges</li> <li>• Theaters that serve traditional Theater foods (such as soft drinks, popcorn, hot dogs, etc.)</li> <li>• Locations that participate in the USDA Afterschool Meal Program.</li> <li>• Temporary food events, mobile food units, and vending machines that operate at or through any of these facilities.</li> </ul>
Source: <a href="http://www.floridahealth.gov/environmental-health/food-safety-and-sanitation/food-manager-code-standards.html">http://www.floridahealth.gov/environmental-health/food-safety-and-sanitation/food-manager-code-standards.html</a>		

**Table 2. FSEs and their respective food safety authority**

## 4.3.2 Facilities utilizing OSTDS

Facilities served by Onsite Sewage Treatment and Disposal Systems (OSTDS) are regulated by the Florida Department of Health (FDOH), and therefore the type of grease interceptor must comply with FDOH regulations per Rule 64E-6 (gravity interceptors), as well as Florida Building Code Plumbing Chapter 10, and Miami-Dade County Section 24-42.6 when located in a wellfield protection area<sup>1</sup>.

FOG generators discharging to an OSTD located in a wellfield protection area<sup>1</sup> of any utility or non-utility potable water supply wells require a FOG Discharge Control Operating permit.

Pursuant to MDC Section 24-42.6(6), existing FSEs discharging to an OSTD located in a wellfield protection area<sup>1</sup>, without a valid FOG Discharge Control Operating permit issued prior to March 5, 2018 shall submit as-built plans prepared by a Florida-registered Professional Engineer, within one year of the Department notifying them of their obligation to obtain a FOG Discharge Control Operating permit. Said plans shall comply with the following:

- (a) Include an Existing FOG control device condition assessment~~Error! Bookmark not defined.~~ prepared by a licensed plumber or Florida Professional Engineer to demonstrate that the FCD is functioning in accordance with the manufacture's specifications and that there is a sampling point that complies with Section 24-42.6(8).
- (b) Demonstrate that all existing back of the house fixtures discharge to existing FOG control devices.
- (c) FOG control devices comply with Chapter 64E-6, FAC.
- (d) Demonstrate that existing yellow and brown grease storage areas prevent the release of FOG to ground, groundwater, surface waters or storm sewers.
- (e) That existing mat and equipment wash-down areas prevent the release of FOG to ground, groundwater, surface waters or storm sewers and prevent inflow of stormwater.

In the event that the FSE cannot comply with the above, plan submittal to Building Department and DERM will be required to upgrade the facility. The upgrades shall be implemented within one (1) year of the Department's notification.

Within five (5) days of the Director or the Director designee's approval of the as-built plans or plans to upgrade the facility, a FOG Discharge Control Operating permit application shall be submitted to the Department pursuant to Sections 24-18(A)(18) and 24-42.6(10).

### **4.3.3 Beer House/ Wine Bar**

In general, facilities operating only as beer house or a wine bar, serving only beer, or wine respectively, are not required to install a grease interceptor if NO open food is served at the establishment. The DERM Grease Reviewers will carefully analyze each case.

### **4.3.4 Second User**

Facilities applying as a second user, sharing the space with an existing GDO permitted site where this second user will utilize the equipment, and fixtures contributing to the FOG generation, are required to provide new as-built plans by a FL licensed Professional Engineer. Plans shall show compliance with Section 24-42.6 of the MDC Code including the facility layout, plumbing fixture connections, the existing FCD condition assessment, and updated sizing calculations in accordance with Section 24-42.6(9) that reflect flow and FOG loading from all users connected to the grease interceptor. A FOG Discharge Control Operating permit is required for each user.



### 4.3.5 Kiosks

Food/beverage service kiosks without an available connection to a sewer line, and operating with a holding tank for the wastewater, are required to either install a grease interceptor to treat the waste before the discharge to a holding tank, or the untreated collected waste from a holding tank needs to be disposed directly into a fully Code compliant FOG Control System at a DERM GDO-permitted facility, and never in a storage area for holding (such as in drums, tanks, etc.) for a future pump out.

Facilities establishing the use, are required to submit plans to their Building Department, and DERM Plan Review. Plumbing plans shall be signed, sealed, and dated by a Florida-registered Professional Engineer, and shall include at the minimum the following information:

- For a kiosk with a holding tank **proposing their own** FOG Control System (FCS):
  - a) Site plan with the exact location of the kiosk in reference to the rest of the facility.
  - b) All the plumbing fixtures discharging into the holding tank that comply with FBC Plumbing.
  - c) Size of the holding tank at kiosk, to be emptied daily.
  - d) The exact point of discharge where the treated waste collected in the holding tank is to be disposed of.
  - e) Calculation of the FOG load (in pounds) generated at the kiosk.
  - f) Total gallons of wastewater generated per day.
  - g) Sizing calculations shall follow the current codes according to the type of grease interceptor that will be receiving the waste.
  - h) All other requirements for a new FCS per the appropriate type of grease interceptor as required by the Section 24-42.6 of the MDC Code.
- For a kiosk with a holding tank **NOT proposing their own** FOG Control System (FCS), and will be discharging to an existing DERM GDO-permitted, and fully Code compliant FCD, plans shall show:
  - a) Site plan with the exact location of the kiosk reference to the rest of the facility.
  - b) For the existing FCS that the kiosk will discharge their waste in to, provide the following:
  - c) A Condition Assessment of the existing FCD being discharged to- For existing GIs, provide a condition assessment report for the appropriate type of GI- and all required attachments. GI shall be empty to assure that it is functioning as designed and in good working condition. If damaged, it may not be reused, and must be REPLACED. Update information accordingly in plans. All documents, manifests, photos shall be submitted with plans. Blank forms <http://www.miamidade.gov/environment/fats-oils-grease.asp>
  - d) Site plan with the exact physical location of the FCS that will be receiving the kiosk waste- capacity of the FCS shall be labeled.
  - e) The exact point of discharge where the treated waste collected in the holding tank is to be disposed of in the existing system for treatment.

- f) Sizing calculations per MDC-Section Section 24-42.6(9) or the appropriate FCS, demonstrating that the existing FCS has capacity to receive the wastewater, and grease was load generated by the kiosk.
- g) Calculations, according to the code, of the entire load received by the FOG Control System (detailed flow, and grease waste load received from every tenant) to assure that the existing system has sufficient capacity. Calculations shall provide the load received from each establishment/tenant.
- h) Updated grease interceptor pump out frequency calculations.
- i) The existing FCS shall be in compliance with current regulations per MDC Section 24-42.6- including but not limited to: 99% efficiency, solids separator for hydromechanical grease interceptors, and for gravity grease interceptors: pH requirements, State Health Office tank approval #, FDOT certification, etc.
- j) Letter from the owner of the existing GI, granting permission to this specific establishment to discharge X amount of gallons of grease waste into their existing GI.

### **4.3.6 Others**

Fire stations, clubhouses, pantries, event spaces, offices, hotel buffet areas; Food/beverage products do not have to be considered “commercially” sold in order for a commercial-use facility to require a FOG control system. Florida Building Code Plumbing section, and Miami-Dade County Code requires a FOG control device for any areas located outside of an individual dwelling unit, or private living quarters that have any drainage pipes with potential to discharge FOG to the sanitary sewer system. Plans will be analyzed carefully by the Reviewer on a case by case basis.

### 5.0 FOG Design Requirements

Several factors must be considered when designing a FOG control device: the type of system, available space to install the FCD, volume of the waste generated by the Food Service Establishment, influent concentration, temperature, flow rate, and number of fixtures to be connected to the interceptor, among others. All designs shall be prepared by a Florida Professional Engineer [Section 24.42.6(8)(a) of the Code].

### 5.1 Types of FOG Control Devices

Even though all FOG control devices operate on the principle that water and FOG have different specific gravities, for design there are two major types of systems: hydromechanical and gravity.

Hydromechanical systems are commonly available up to 100 gallons per minute (gpm), but can be found up to 200gpm, of rated flow capacity, and are generally but not always, located indoors close to the fixture source of FOG.

Gravity systems must be located outdoors, the capacity is measured in gallons, and are most commonly made of concrete, but are also found in fiberglass, plastic, and protected steel.

For the separation of the FOG from the waste stream, hydromechanical FCDs utilize the difference in specific gravity, air entrainment, baffles, and hydraulic flow action; whereas for the gravity FCDs the separation of FOG relies on gravity flow, stokes law and retention time<sup>5</sup>.

Hydromechanical FCDs must be third party certified by one of the following standards ASME A112.14.3 Appendix A, ASME A112.14.4, CSA B481.3 or PDI G101. The certification is for certain flow-through rate in gallons per minute and certain pounds of FOG retention capacity. Hydromechanical FCDs are included in Section 24-42.6 of the Code, and in the Florida Building Code Plumbing (FBC-P), Chapter 10. Where a conflict exists between Section 24-42.6 and FBC-P, the stricter requirement shall apply. When proposing hydromechanical FCDs the engineer should indicate in plans the FCD's third party certifier, capacity in gpm, and capacity in pounds of grease retention at 99% removal efficiency. Testing results from the certification of the hydromechanical FCD must be obtained from the manufacturer.

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<sup>5</sup> Source: Grease Interceptors, Continuing Education from the American Society of Plumbing Engineers, CEU 199, May 2013.

Gravity FCDs are included in Section 24-42.6 of the MDC Code and Florida Administrative Code (FAC) Rule 64E-6. Per FAC Rule 64E-6.013(7) the minimum volume of any gravity grease interceptor shall be 750-gallons and the maximum volume of an individual single grease interceptor chamber shall be 1,250-gallons. When the required effective capacity of the grease interceptor is greater than 1,250-gallons, installation of multi-chambered grease interceptors or grease interceptors in SERIES is required. Florida Building Code Plumbing section allows for gravity grease interceptors to be designed, and tested in accordance with ASME A112.14.6, and IAPMO/ANSI Z1001 standards. For Z1001, sizing per peak flow along with FOG generation shall be accounted for. Where a conflict exists between Section 24-42.6 and FAC Rule 64E6, the stricter requirement shall apply.

The material of the interceptor shall also be compatible with a pH of 3.0. Concrete protective liners, mechanically anchored or coatings, which specifications indicate that they are for wastewater immersion, and approved for use in wastewater wet wells, pump stations, manholes, AND for corrosion/acid protection, not simply waterproofing or damp-proofing will be accepted. Plan sheets shall include documentation by the manufacturer with the specifications for the liners/coatings applied by the casting facility/tank manufacturer during the casting process. For coatings the design engineer shall confirm that the coating provides abrasion protection compatible with scraping and pressure washing performed under normal maintenance, pursuant to Section 61G15, Florida Administrative Code. For instances where the casting facility does not provide the pH coating during the casting process, on site application on coatings may be allowed. Plans will need to show the proposed coating will meet our requirements, and what company will be applying the coating in accordance with the manufacturer application instructions. DERM FOG construction inspectors will verify the coating is applied, and all other aspects of the installations are completed per approved plans prior to issuing the construction inspection approval.

When proposing gravity FCDs, the engineer is required to show in plans the State Health Office's designated approval number that demonstrates that the proposed interceptor was approved for use as grease interceptor [FAC 64E-6.013(3)]. FDOH website provides an updated list of approved grease interceptors<sup>6</sup>.

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<sup>6</sup> [http://www.floridahealth.gov/environmental-health/onsite-sewage/products/\\_documents/septic-tanks.pdf](http://www.floridahealth.gov/environmental-health/onsite-sewage/products/_documents/septic-tanks.pdf)

Pursuant Section 24-42.6(8)(q) of the Code, for concrete precast interceptors, the engineer is required to obtain from the manufacturer, and include in plans, the name of the concrete precast plant and name of the plant's certifying agent approved by the Department of Transportation (NPCA, CCI and PCI<sup>7</sup>).

Contact information at the certifying agents are provided below:

Construction Certification Institute, Inc. (CCI)

Fred L. McGee, President  
12710 Summerwood Drive, Suite G, Fort Myers, FL 33908  
Telephone: (239) 454-7663  
Fax: (239) 454-6787  
info@cciweb.us  
<http://www.cciweb.us/>

National Precast Concrete Association (NPCA)

Richard M. Krolewski, Promotion Specialist  
1320 City Center Drive, Suite 200, Carmel, Indiana 46032  
Telephone: (800) 366-7731  
Fax: (317) 571-0041  
rkrolewski@precast.org  
<http://www.precast.org/>

Precast/Prestressed Concrete Institute (PCI)

Michael Kesselmayer, Managing Director - Quality Programs  
200 W. Adams St., Suite 2100, Chicago, Illinois 60606  
Telephone: (312) 583-6770  
mkesselmayer@pci.org  
<http://www.pci.org>

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<sup>7</sup> <http://www.fdot.gov/materials/quality/programs/plantcertification/index.shtm>

## 5.2 Fixtures to be connected to the FOG Control Device

All plumbing fixtures with potential to discharge grease-laden waste located in food and beverage preparation and service areas must be routed through a FCD. The obvious fixtures include:

- Preparation (Prep) sinks,
- Pre-rinse sinks,
- Pot sinks,
- Three-compartment sinks,
- Mop sinks,
- Dishwashers (ware washers), and
- Floor and trench drains

There are other fixtures that can contribute FOG (e.g., wok stations, pasta stations, etc.). All fixtures that can contribute FOG shall connect to the building grease waste (GW) drain line. The GW drain line shall be clearly marked with GW to distinguish it from the sanitary line serving bathrooms and other sources that should not be plumbed to the FCD. **Attachment 2** provides the typical fixture and fixture symbols shown in plans.

The location of the fixture is also important, for example, a floor drain located behind the service counter shall be connected to the GW drain line even if there is no direct FOG discharge connected to it. Some judgment should be exercised for existing facilities as it applies to floor sinks or floor drains. In some applications, floor drains can't be used to discharge greasy water and only serve to provide a point of discharge for an indirect discharge (e.g., ice maker).



## 5.3 Wastewater Flow Rate and FOG Mass Rate

Wastewater flow rate and mass rate are determining factors in the design of a grease waste pretreatment system. Calculations and considerations will differ for hydromechanical and gravity FCDs.

### 5.3.1 Wastewater Flow Rate

Peak flow must be calculated to properly size a grease interceptor to a particular use. When the final configuration of fixtures, and total number of fixtures is unknown (shell FCD installation), peak flow can be calculated using Manning's Formula for full pipe flow for the grease waste drain nominal diameter and slope and a roughness coefficient of 0.0113. See Section 5.7 of this Guidance Manual.

For plans for a build out, or renovation, where the number of fixtures is a known factor, peak flow can be estimated as:

- **Full Pipe Flow** (diameter and slope). Calculated using Manning's formula for full pipe flow for the grease waste drain nominal diameter and slope and a roughness coefficient of 0.0113, or
- **Drain Time**. Based on total fixture flow rate using one (1) or two minutes (2) drain time, or
- **Drainage Fixture Units** (DFUs). Based on drainage fixture units (DFUs) by multiplying the proposed DFUs by the flow rate calculated using Manning's Formula for full pipe flow and a roughness coefficient of 0.0113 and divided by the maximum number of DFUs allowed under the Florida Building Code, latest edition, for the grease waste drain diameter and slope. Calculated flow shall not be less than the minimum peak flow in the table below from Section 24-42.6(9)(g) of the Code .

Nominal pipe size in inches	Minimum Total Flow Rate at Grease Interceptor Influent
1.25 – 2.5	20 gpm
3	23 gpm
4	50 gpm
5	91 gpm
6	147 gpm
8	317 gpm

**Table 3. Minimum peak flows when using DFUs to determine the peak flow**

## 5.3.2 FOG Loading

Fats Oils and Grease loading to the interceptor is used to calculate cleaning frequencies, and as a factor to properly calculate the size of the grease interceptor. The production of FOG per meal or unit of production changes according to the type of food service establishment. The following values may be used to estimate the FOG loading to the grease interceptor per meal.

Restaurant Type	Grease Production Values <sup>8</sup>	Food Service Establishment (FSE) Type
Low Grease Producer	0.005 lbs/meal (no flatware)	Elementary cafeteria, grocery meat department, hotel breakfast bar, sub shop, sushi, take-and-bake pizza
	0.0065 lbs/meal (with flatware)	
Medium Grease Producer	0.025 lbs/meal (no flatware)	Café, coffee shop, convenience store, grocery deli, Greek, Indian, Japanese, Korean, Thai, Vietnamese
	0.0325 lbs/meal (with flatware)	
High Grease Producer	0.035 lbs/meal (no flatware)	Full-fare family, fast-food, hamburger bar and grill, German, Italian, fast-food Mexican
	0.0455 lbs/meal (with flatware)	
Very High Grease Producer	0.058 lbs/meal (no flatware)	Full-fare BBQ, fast-food fried chicken, full-fare Mexican, steak and seafood, Chinese, Hawaiian
	0.075 lbs/meal (with flatware)	

**Table 4. FOG Loading**

## 5.4 Hydromechanical FCD Selection & Configuration

Sizing requirements are included in Section 24-42.6(9)(c) of the code. When sizing for a hydromechanical grease interceptor the engineer should consider flow rating capacity (gpm) as well as the grease retention capacity at 99% removal efficiency of the interceptor. Where more than one (1) hydromechanical grease interceptor is required to provide the required removal efficiency, they shall be installed in series and the removal efficiency shall be based on the third party testing of the proposed configuration per Section 24-42.6(9)(d) of the code. The engineer designing the system shall obtain from the manufacturer testing information, and include it in plumbing plans.

The minimum size and number of grease interceptors shall be the greatest of the following:

- i) 20 gallons per minute
- ii) Calculations based on the Florida Building Code, latest edition.
- iii) Calculations based on peak flow rate

AND

Grease Interceptor's FOG Storage Capacity at 99% removal efficiency > M (meals/day) x FOGMEAL(lbs/meal) x T (Cleaning Frequency)

<sup>8</sup> Refer to ASPE Plumbing Engineer Design Handbook Volume 4, Chapter 8, Table 8-3



Where,

M = maximum number of meals served per day

FOGMEAL = average pounds of Fats, Oils and Grease contained per meal (See Table 4)

Refer to **Attachment 3** for sample calculations.

## 5.5 Gravity FCD Selection & Configuration

FCD sizing requirements are included in Section 24-42.6 (9)(a) of the Code. Grease Interceptor(s) proposed shall comply with minimum and maximum size (effective volume) requirements of 64E6, FAC.

The minimum size and number of grease interceptors shall be the greatest of the following:

- i) Grease interceptor volume based on the Florida Building Code, latest edition.
- ii) Alternative calculations:
  - a. Third party certification of the effluent concentration showing that complies with discharge standards per Section 24-42.4 (150 mg/L), or of the FOG removal efficiency at 99%.

Or,

- b. Grease interceptor volume based on peak flow rate ( $Q_{PEAK}$ ) and thirty (30)-minute hydraulic detention time. Total calculated volume shall be increased to account for the maximum volume of waste stored between cleaning cycles ( $V_{FOG}$ ).

$$V = Q_{PEAK} \times 30 \text{ min} + V_{FOG}$$

$Q_{PEAK}$  = peak flow rate, gpm (full pipe flow based on pipe diameter, slope & DFUs)

$V_{FOG}$  = volume of waste stored between cleaning cycles

- iii) Grease Interceptor Volume (V) calculated based on Chapter 64E-6, Florida Administrative Code.

$$V = [S \times HR/12 \times GS \times RF] + [M \times GM \times LF] + V_{FOG}$$

Where,

S = Number of seats (indoor and outdoor)

HR = Hours of Operation, including prep time and closing

GS = Gallons per seat (25 gallons for ordinary restaurants and 10 gallons for single service article restaurant)

RF = Road factor: use 2.0 interstate highways, 1.5 other freeways, 1.25 recreational areas, 1.0 main highway, and 0.75 other roads.

LF = No ware washer 0.75, with ware washer 1.0 (additional hydraulic detention time for surfactants and heat)

M = Number of meals served per day, excluding sit-down restaurant meals (take out, drive-thru, banquet, room service, other commercial kitchen use, etc.).

If no take-out meals, specify NO Take-Out Meals. If no drive-thru, specify NO Drive-Thru.

GM = 5 gallons per meal

LF = Ware washer 1.0, without use 0.75

V<sub>FOG</sub> = Volume of waste stored between cleaning cycles

The following multiplication factors can be used as an alternative to calculating the maximum volume of waste stored between cleaning cycles

Cleaning Cycle	Multiplying Factor
Every 30 days	1.0
Every 60 days	1.15
Every 90 days	1.25

Table 5. Gravity Cleaning Cycle Factors

Refer to **Attachment 4** for sample calculations.

## 5.6 Shared FCD Sizing Considerations

Some facilities share FCDs, more common cases are observed in malls, and multiuse buildings. When a FCD serves more than one site, the administrator/operator of the system shall keep track of the capacity allocated to each site, as follows:

### Gravity systems

- For restaurants: number of seats, hours of operation, type of establishment (ordinary restaurant or single service article restaurant), and number of take-out meals per day.
- Commercial kitchens: number of meals per day and whether the site is equipped with dishwasher or not.

### Hydromechanical systems

- Number of DFUs or GPM allocated per site.
- Grease production factor according to the type of FSE

Plans submitted for a FSE with a shared FOG control device shall incorporate sizing calculations for all the FSEs in the system to show available capacity for the project. Also see Section 5.10.7 of this Guidance Manual regarding the FOG Master Plan.

### 5.7 FCD Sizing for Shell Spaces

When sizing FCDs for shell spaces, where the configuration of the system is unknown, the size of the FCD provided shall be adequate for the maximum capacity of the grease waste (GW) drain line. Pursuant to Section 24-42(6)(9)(g)(i) peak flow shall be calculated using Manning's Formula for full pipe flow for the grease waste drain nominal diameter and slope and a roughness coefficient of 0.0113.

Regarding FOG loading, when the engineer has knowledge of future occupant, and occupancy, another possibility is to include well informed engineering assumptions with the sizing calculations, and size the system as if it is a build-out. The engineer designing the system should exercise caution as the capacity of the FCD will limit future use, and be advised future buildouts will still require updated calculations with the known information at that time.

For example, when proposing a gravity system, the engineer may determine the seating area for the future FSE and based on occupation rates estimate the seating capacity. Table 1004.5 of the Florida Building Code, provides occupational loads for restaurants/dining room area as 1/15, i.e., for a dining area of 600 square feet, the estimated number of seats can be derived based on number of people allowed as 600/15, 40 people/seats. In any case, the engineer shall include complete calculations, that is:

For Gravity Interceptors, the minimum size must be the greatest of:

- Peak flow calculations that consider the 30-minute hydraulic detention time and pump out cycle [MDC Section 24-42.6(9)(a)(ii)(1)]
- Calculations per FAC, Rule 64E-6 [MDC Section 24-42.6(9)(a)(iii)] where the number of seats/meals are derived from the engineering assumptions and pump out cycle

For Hydromechanical Interceptors, the minimum size must be the greatest of:

- 20 gpm [MDC Section 24-42.6(9)(c)(i)]

- Calculations based on Peak Flow, pump out cycle, and FCD grease retention capacity at 99% removal efficiency.

ALL shell space plans, and shell FCDs submitted for review must include the following note: “Plans in this set are for a shell FOG Control Device/System installation only, the approval of this shell is not valid for obtaining Certificate of Use/Occupational License approvals. Plans for the buildout to connect to this FOG Control Device/System are required to be submitted to the Building Department, and DERM Plan Review for Grease Review approval and compliance with MDC Section 24-42.6.”

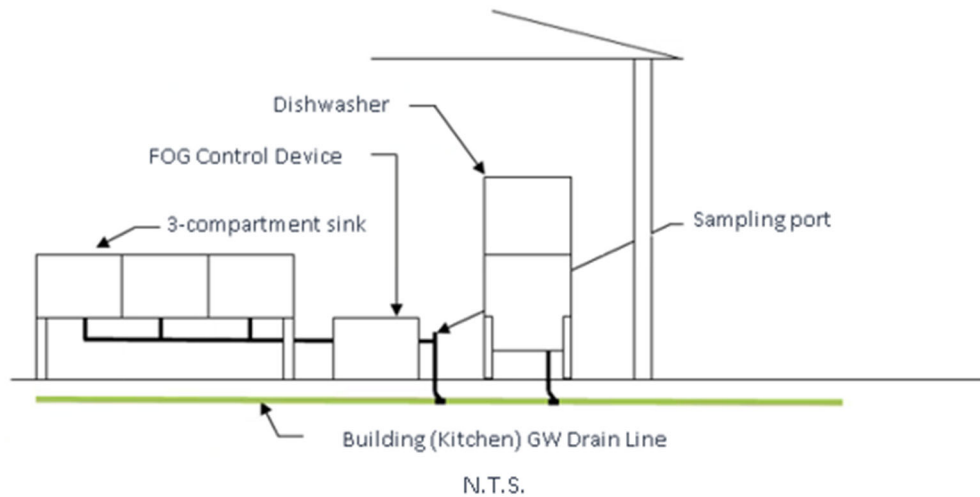
Plan approval for shell FCD installations require construction inspection approval prior to any buildout plan approvals. DERM FOG construction inspection green cards for municipal projects, or proof of Plumbing Department inspection for unincorporated Miami-Dade County projects will be required at buildout plan review level to verify the shell installation was completed per shell FCD approved plans. Plans for buildouts will be limited to the flow, and FOG retention capacities of the FCD installed under the approved shell plans, and the engineer designing buildout plans is also responsible for the buildout facility’s FCD compliance with MDC Section 24-42.6.

### **5.8 FCD Sampling Point**

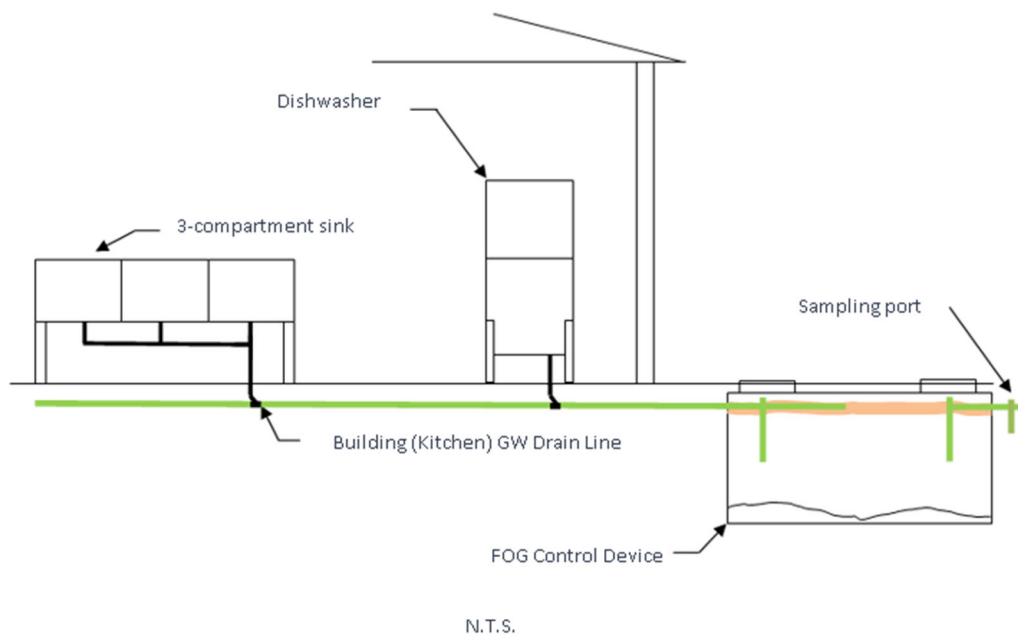
Pursuant Section 24-42.6(8) of the code, a reasonably accessible location to sample the effluent of the FOG control device shall be provided. The sampling point shall be located after the point of no further treatment. Sampling points located after an individual FCD shall not be considered sufficient for the purpose of demonstrating compliance if there are other fixtures that can introduce FOG beyond the sampling point. A sampling point located after an individual FCD can be used to evaluate the performance of the individual interceptor, but not for overall compliance. Therefore when the system consists of more than one FCD, it is required to provide one compliance sampling point after the flow from all FCDs is combined.

Referring to Figure 2 below, note that the existing FCD location is inadequate because there are fixtures (e.g., dishwasher) that can introduce FOG into the private or public sewer connected to the building (kitchen) drain after the FCD . Also note that the sampling point is inadequate for the same reason.

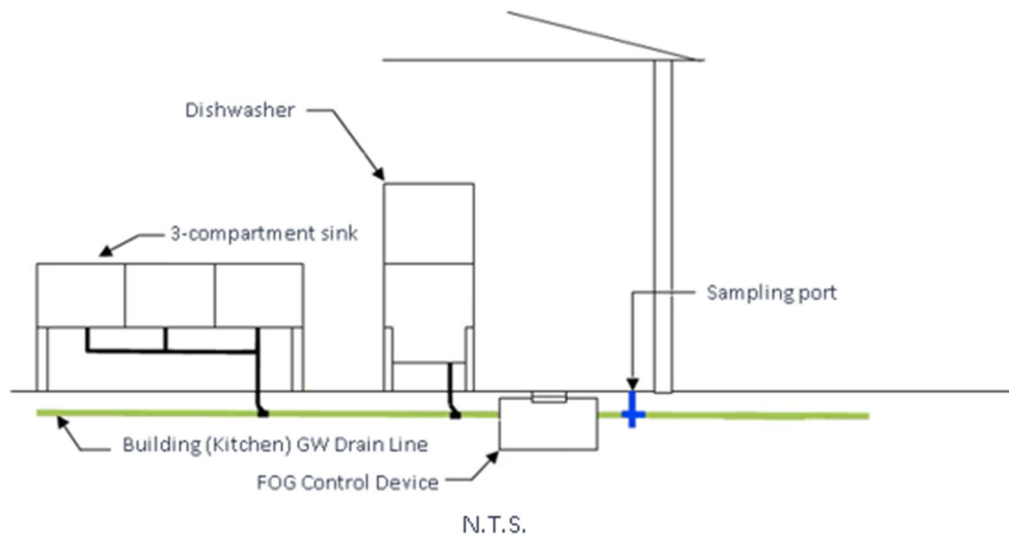
In Figure 3 and Figure 4, note that the existing FCD location is adequate because it is located beyond all fixtures that can introduce FOG into the private or public sewer, and is also installed below ground/grade to intersect the building grease waste drain. Also note that the sampling point is adequate for the same reasons.



**Figure 2. FCD and sampling port inadequate location**



**Figure 3. FCD and sampling port adequate location**



**Figure 4. FCD and sampling port adequate location**

It shall be noted that Figures, 2, 3, and 4 above do not include any solids separators in the schematics, however the same logic for placement of the FCD, and sampling port applies to the location of the solids separator when installing a FCD that requires one- see Section 5.10.8 of this Guidance Manual.

Some grease interceptors have a built-in sampling port (point) while others have “viewing ports”. Based on field data collected over past years, the Department requires the use of an external sampling point located outside the FCD. Several grease interceptor manufacturers have sampling points/ports that can be used to collect a compliance sample; some are included in Figure 5.



**Figure 5. Sampling port configurations**

Manufactured sampling ports are preferred, and shall have sufficient access and depth to facilitate efficient sampling collection, as well as allow for a 3-inch diameter x 6-inch long sample bottle used by DERM FOG inspection staff.

For existing FCDs a plumbing fitting configured to allow sample collection will be allowed. Sampling point design shall at least comply with:

- A double sanitary tee installed on the building (kitchen) GW Drain Line and located hydraulically beyond all fixtures that can contribute FOG (e.g., 3-compartment sink, mop sink, dish washer, prep-sink, etc.).
- The double sanitary tee sampling point includes a PVC-CAP on the bottom of the vertical axis to create the sampling sump.
- Minimum diameter vertical axis is 6-inch, and minimum depth of the sump 6-inch.

**The engineer of record shall design/select the most appropriate sampling point design to assure consistent and representative sampling results based on site-specific facility and operation conditions.** The sampling point shall be directly accessible for visual inspection and sampling. A permanent minimum clearance for sampling port is 3 feet horizontal and 4 feet vertical from the out edge of the lid, and shall be shown in plans.

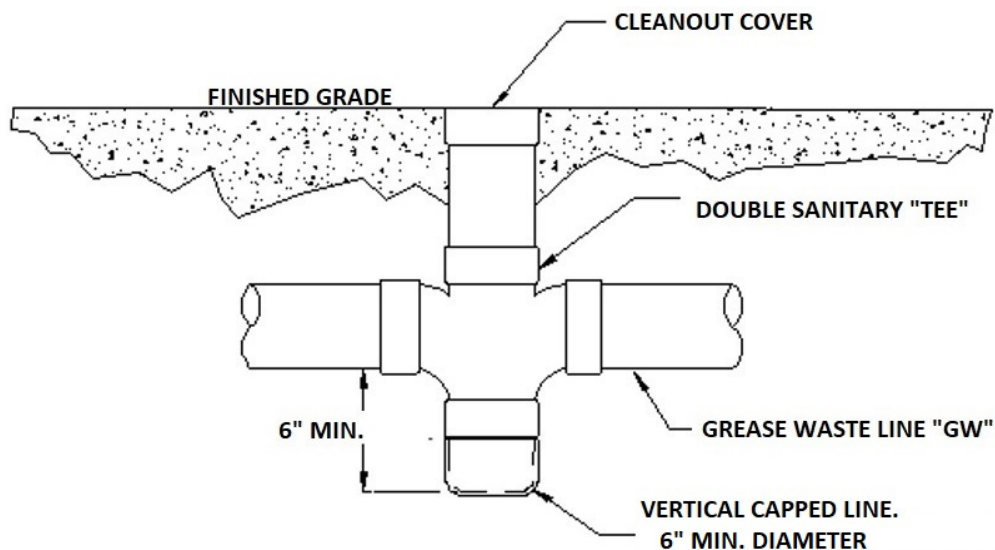
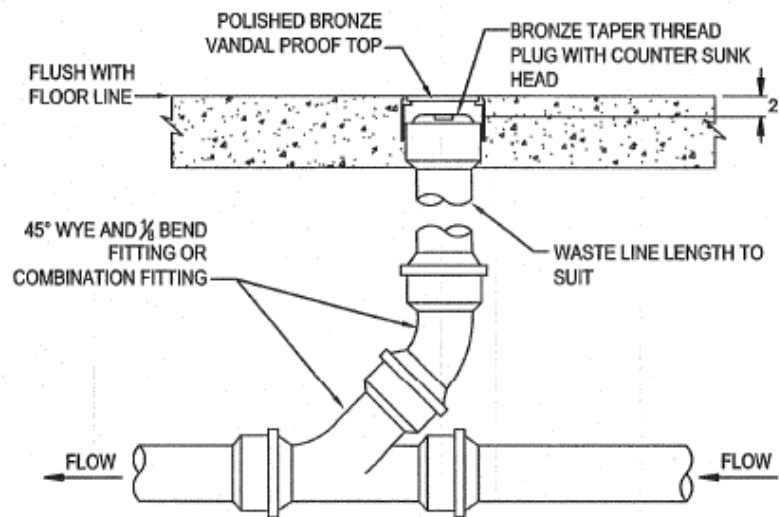


Figure 6. Minimum sampling port requirements



The sampling point shall not be confused with a cleanout, which are part of most systems and are there to provide access to the line, but are not configured to allow sample collection. FBC-Plumbing Section 708 indicates that cleanouts when required must be accessible and shall not be covered with cement or plaster.



**Figure 7. Cleanout schematic**

## 5.9 Location of the FOG Control Device

Proposed FCDs cannot receive flow from more than one property (8), unless a unity of title, in a form approved by Director, or Director's designee, is executed. Note that covenant in lieu of unity of title is NOT a unity of title and is therefore not acceptable.

A unity of title must be provided at the time of the plan submittal. If an easement, or area outside of the project's property boundary is to be used for the installation of a system, it too requires documentation at plan level.

A boundary survey that delineates property lines, including delineating "common" areas/land, parking spaces, utilities, etc. may be requested at the time of plan submittal.

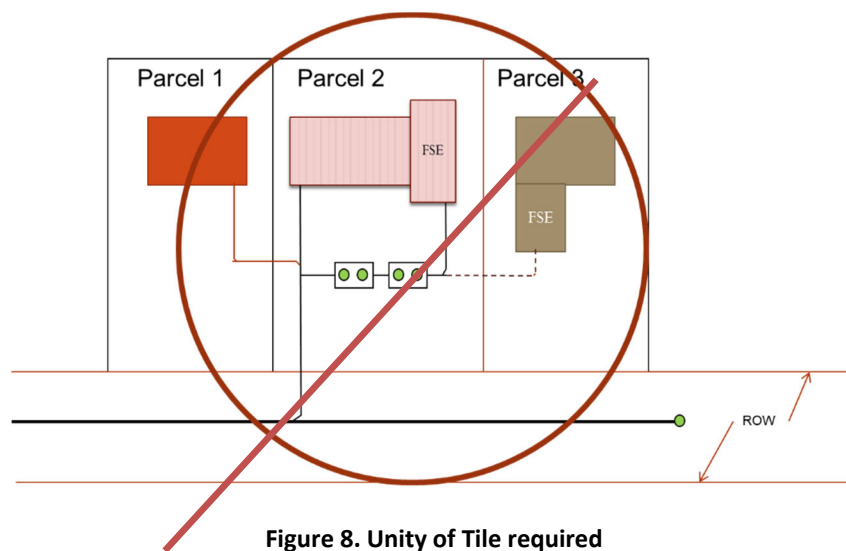


Figure 8. Unity of Title required

### 5.9.1 FCD Accessibility

Accessibility is a very important consideration when deciding location of the FCD. In the case of hydromechanical systems located inside the establishment, installations under the 3-compartment sinks or under counters are not accepted. The design shall give enough clearance for maintenance and inspection purposes. Typically four (4) feet of vertical clearance will be enough, depending on the size of the FCD, and location of installation. Ultimately the dimensions of the FCD, and installation location shall determine the required clearance. A minimum permanent clearance of 4 feet vertical and 3 feet horizontal from the outer edge of the lids shall be shown on plans for interceptor and sampling point. FCDs shall also be installed below grade pursuant Section 24-42.6(8)(g) of the Code.

Systems with manholes as access points shall not be located in areas with high traffic such as drive-thru lanes, entry/exit driveways, garage entry and exit ramps, drive aisles, parking lot spaces, etc. Plumbing floor/site

plans are required to show the area of the proposed FCD location on site within the property boundary (landscape area, sidewalk, corridor, bollarded no parking zone, etc.). Access routes to the FCDs for DERM FOG inspections, sampling, pump outs, and maintenance shall be considered in the design taking into account areas where the customers will be, or where the operations of the establishment occur so that these areas will not be disturbed during these activities.

## 5.9.2 ADA Parking Spaces

Solids separators, grease interceptors, and sampling point openings/manholes shall be provided with a minimum horizontal of 4-ft clearance, measured from the outer edge of the closest opening to all Handicap/ADA Parking spaces and adjacent access aisles. This 4-ft horizontal clearance created by this MINIMUM separation shall not encroach into ANY Handicap parking space and the adjacent access aisle. Proposed installation locations may not obstruct, or occupy the entry/exit way of the parking space. If at any time, including field inspection, there is less than 4-ft horizontal clearance, measured from the outside edge of an opening/manhole, the system shall be required to be removed/abandoned and all flows to it immediately cease in accordance with MDC Code Section 24-42.6(8)(i), 2019 Florida Statutes TITLE XXIII, Ch. 316 Sec. 316.1955

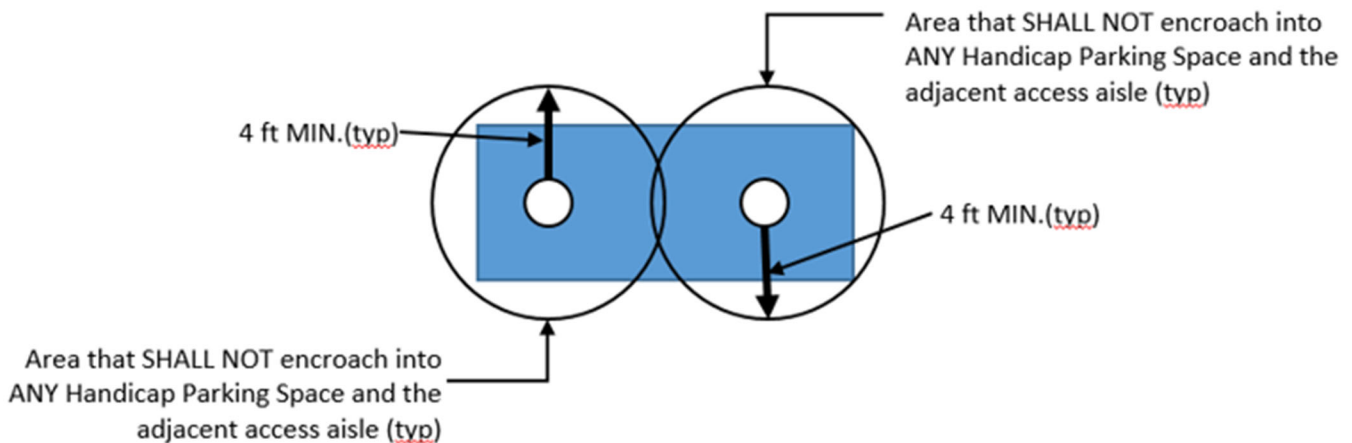


Figure 9. ADA encroachment restrictions

### 5.9.3 Other Installations

FCDs shall be installed below grade pursuant Section 24-42.6(8)(g) of the Code. For any other installations approved by the Director or Director's designee the plans shall consider the safety, and practical accessibility for all persons who will be accessing the FCDs.

Sufficient access to the tops of the solids separators, FCDs, and sampling port for inspection, sampling, and maintenance purposes shall be demonstrated in plans. Plans shall provide a safe, and permanent access structure, raised platform, or standing platform to provide access to the elevated system with minimum 3-feet horizontal clearances to be met from the outer edge of the lid of each solids separator, FCD, and sampling port.

Any proposed platforms shall provide sufficient access to the tops of the solids separators, FCDs, and sampling port shall be from the top of the manholes/lids.

At a minimum, 7-feet unobstructed clearance from the standing point of the platform shall be provided for personnel to access. The maximum height allowed from the top of the standing platform to the top of the tallest manhole lid is 40-inches, provided that a manufacturer approved lightweight lid is specified in plans. Proposed width of standing platforms shall be a minimum of 36-inches to also meet the minimum horizontal clearance requirement.

Platform heights, widths, and any associated safety railings and shall encompass the platform, and any stairways provided shall be a permanent structure, with non-slip, flat-footed steps. Plans shall clearly show all elevation, aerial, and plan view details with heights, and dimensions of all components of FCDs, and the proposed access design drawn to scale. Of course, any proposals shall conform to all other industry safety regulations.

The manufacturer cut sheet/shop drawing for the alternative lightweight lids need to be provided in plans, and specified as typical for each grease interceptor, and solids separator, sampling port as applicable MDC Code Section 24-42.6(8)(i).

### 5.9.4 Horizontal Runs

Horizontal run is another aspect of the design sometimes overlooked when designing the system. To avoid clogging of pipes with congealed grease, the location of the grease interceptor more than 25-feet from the source is not advised (PDI-G101-installation).

Section 24-42.6(8)(v) of the Code provides that when the location of the interceptor is at a distance greater than or equal to 50-feet from the source of FOG, access points must be provided at least every 50-feet measured center-to-center. Additional design measures are required when the distance is greater than 100-feet. Linear distances may be required to be shown at the time of plan review where the run is suspected of being greater than 50-feet.

### 5.9.5 Clogging Prevention

The Code provides that anytime the horizontal run from the source of food waste and FOG is greater than 100 feet, plans shall include provisions for preventing the clogging of the line by FOG and other waste- this is in addition to the access points required at every 50-feet. Mechanisms to achieve this is to install a heat trace on the pipe, frequency of jetting of the lines, etc. The design and installation of heat trace is regulated under the IEeE 515.1 standard. Note that Interceptor Monitoring Alarms or Devices, are not accepted as clogging prevention methods.

### 5.9.6 FOG Monitoring Alarms & Devices

FCDs installed in remote locations including a different floor, or any horizontal distance exceeding 100 feet from the back of the house area, require an Interceptor Monitoring Alarm (IMA), or an Interceptor Monitoring Device (IMD) to be provided in plans for installation.

- Interceptor Monitoring Alarm shall mean a system and its components capable of monitoring levels in a FOG control device on a regular interval. The system shall trigger a visual and audible alarm at the FOG Capacity Limit. Proposed IMAs shall indicate in plumbing plans for installation: the height of the water (in inches) at which it will alarm- not to exceed the crown of the pipe in the outlet side of the tank.
- Interceptor Monitoring Device shall mean a system and its components capable of monitoring floating and settled solids in a FOG control device on a regular interval, triggering a visual and audible alarm at the FOG Capacity Limit, and reporting data electronically to the Department at a frequency and format approved by the Director or Director's designee. Proposed IMDs shall indicate in plumbing plans: the FOG capacity limit/height of the combined FOG and solids depth at which the alarm will be triggered (25% for gravity, and 75% for hydromechanical).

The FCD manufacturer, and IMA/IMD manufacturer should be contacted accordingly to provide all required specifications, and diagrams.

The visual and audio alarm system panel is required at the location of each user discharging to the FCD to be able to receive notifications. The alarm system may also be centrally located at a Building Management Office with their consent if they are maintaining the FCD.

## 5.10 Other Design Considerations

### 5.10.1 Existing FOG Control Devices

When a new facility is connecting to an existing DERM GDO-permitted FCD, or when an expansion or renovation is proposed that requires providing more FCD capacity, the existing system shall be updated to fully comply with the new regulations under Section 24-42.6 of the Code.

### 5.10.2 Facilities Adding Seating Capacity

Adding seating is directly correlated with the FCD capacity therefore the Florida-registered Professional Engineer shall, at a minimum, show new sizing and pump out calculations to comply with Section 24-42.6(9) of the Code, as well as an existing FCD Condition Assessment, and demonstrating that all required plumbing fixtures are connected to the FCD.

### 5.10.3 Other Increases to FOG Loading

All sources of FOG contributions shall be considered at plan level including but not limited to changes in use, or operations which also increase FOG generation in the cooking or cleaning processes such as:

- Adding any additional services: take-out, delivery/delivery app services catering, drive-thru, etc.
- Addition of exhaust hoods
- Addition of cooking equipment
- Addition of new display areas for storing food items
- New additions to the existing menu

### 5.10.4 Stormwater/Rainwater

The installation of a FCD shall not allow the infiltration of rain water in the sewer system. To avoid rainwater infiltration in the system, mop sinks, and other outdoor drains are not allowed.

### 5.10.5 Trash Room Floor Drains

Any trash areas located outdoors with floor drains discharging to grease waste or sanitary lines, shall provide a permanently roofed, and bermed enclosure to prevent stormwater infiltration to the sanitary sewer system.

### 5.10.6 No Direct Connection for 3-Compartment Sinks

Per FBC-802.1.8 sinks used for the washing, rinsing or sanitizing of utensils, dishes, pots, pans or service ware used in the preparation, serving or eating of food shall discharge indirectly through an air gap or an air break to the drainage system.

### 5.10.7 FOG Master Plan

For facilities such as plazas, malls, hotels with multiple food service establishments (FSEs), or areas which discharge to shared FCDs, a FOG Master Plan (FMP) shall be provided, and updated accordingly in plans at the time of each FSEs plan review submittal to keep track of flow, FOG loading used and available capacity in the shared FCDs. The FMP will compound information for all FSEs contributing FOG waste to the FCD, or for any changes in FSE. The most current FMP should be kept by building management office for their tenants, and be provided to the customer or design engineers as it will be asked for at the time of plan review. The FMP template may be found as **Attachment 5**.

### 5.10.8 Solids Separators

Grease waste systems receive solids and food solids mainly as a result of lack of best management practices during cleaning activities (untrained staff). Solids separation is a critical component to preventing plumbing backups, and to reduce the frequency of pump/maintenance for the FOG control device; therefore it is important to install adequate solids separators.

The accumulation of solids reduces the effectiveness of the FCD by reducing hydraulic detention time, and is problematic for the flow control mechanisms as solids can block the flow control, which effectively reduces pipe size; most if not all hydromechanical units, require a flow control.

Per Section 24-42.6(8)(u) of the Code, solid separation is required for all FCDs that are equipped with a flow control device or that are not certified to handle solids. Solid separators shall at a minimum meet calculated peak flow rate of entering the FCD.

It shall be noted that per FBC-Plumbing Section 1003.3.2 food waste disposers, or grinders shall not discharge to the FCD.



### 5.10.9 Construction Inspection

When municipal construction plans are approved, an installation inspection by DERM FOG Inspectors is required prior to obtaining a GDO permit, Certificate of Use/Occupational License/Business Tax Receipt approval, or buildout approval for previously approved shell FCDs. A passed construction installation inspection will result in the issuance of a green approval card for the DERM-Grease approved process number. A failed construction inspection will result in the issuance of a red disapproval card, and a detailed inspection report identifying why the inspection was not approved. A few reasons failed construction inspections may occur are: approved plans are not on site, installation was not completed per approved plans, FOG Control System components are inaccessible, FOG approved sheets were voided and revised and not sent back to DERM-Grease for re-approval, etc.

To schedule a construction inspection, follow the instruction on the “FOG 2.0 RER-DERM FCS Installation Inspection” stamp that is required on all municipal FOG approved plans. An email shall be sent to [iFOG2@miamidade.gov](mailto:iFOG2@miamidade.gov) requesting the inspection 24-hours prior to the desired inspection date- the email shall include the DERM-Grease approved process number, the complete address of the facility, folio number, and name and telephone number of the contact person to be present during the inspection. DERM-Grease approved plan sheets are required to be on site for inspection.

DERM-Grease Review plans approved for unincorporated Miami-Dade County projects (folios beginning in 30) are inspected by the Building/Plumbing Department inspectors.

### 5.10.10 FCD Labeling

Labels on all FOG control devices, both hydromechanical and gravity, shall be visible at the time of construction inspection, and shall remain visible after the installation is completed. Plan review staff will verify that all shop drawings are provided showing the location of identification labels which will remain visible after the installation is complete. At a minimum, the following must be shown on the label:

Hydromechanical: the manufacturer name, model number, rated flow rate, pounds of FOG/grease capacity at the rated % efficiency per lab testing results

Gravity: State Health Office/FDOH approval number

Acceptable means of applying permanent marking shall include legible, permanently-affixed and protected: metal plates, etching, mechanical stamping, stamping with a permanent non-water soluble ink, molding in, and adhesive labels when placed on a surface that is not-normally submerged in water, and uses non-water soluble ink.

### **5.10.11 Yellow Grease Storage Areas**

Yellow and brown grease storage areas shall be designed to prevent the release of FOG to ground, groundwater, surface waters or storm sewers. Locations and details for all stored waste, including yellow and brown grease, shall be shown and labeled in plans. Storage containers shall be sized so they do not exceed ninety percent capacity prior to being emptied. All storage containers shall have a lid that prevents rainwater inflow and can be locked to prevent vandalism (Section 24-42.6 (8)(s) of the Code).

Plans shall show calculations for the quantity of yellow and brown grease generated by the user, capacity in gallons of the storage container, and frequency of emptying of the storage container at 90% capacity of the container or sooner.

### **5.10.12 Wash-Down Areas**

All wash-down areas shall be designed to prevent the release of wash-water and FOG to ground, groundwater, surface waters, storm sewer (Section 24-42.6 (8)(t) of the Code). Plans submitted for review shall show wash-down areas for the washing of larger equipment, floor mats, can washing, etc. if wash-down services are to be performed in a mop sink, the mop sink shall be labeled as such with mop sink discharging to the FCD. If equipment for wash down services are taken off site and performed by a contracted servicing company, a note with the information regarding the specifics shall be included in the plumbing plans.

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Attachment 2	Plumbing Fixture and Fixture Symbols
Attachment 3	Sample Sizing Calculations for Hydromechanical FCD
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Attachment 5	FOG Master Plan Templates
Attachment 6	Plan Review Checklist

# **ATTACHMENT 1**

## **FOG 2.5 CU/OL DECISION MATRIX**

FOG<sup>2,5</sup> CU/OL Review Decision Matrix  
December 11, 2020

Facility Status	GDO Permit Status	Type	CU (or Municipal Equivalent) Review	Actions by CU Reviewer	Actions by FOG Review Engineer
Existing Facility Discharging to Public Sewers	NGT or UNKN <sup>(1)</sup>	A	FSE with Status 13 (NGT/UNKN) - these are the "Original" NGTs that the Department issued GDOs with NGT Shell.	Advise applicant that they will need to submit plans to the Building Department and DERM-Grease for the installation of a FCD.	
	Active GDO Permit [Status 1 to 5]  OR  Prior use had a valid GDO operating permit within the last 12 months	B	1. NO change in FSE type, NO change in seating, NO change in area, & NO open enforcement. 2. GDO Application is completed properly with required signatures. MDC Section 24-42.6(7)(c)	Activate FOG Review to verify FOG Control Device (FCD) condition assessment results.	FOG Review to include FOG Control Device (FCD) Condition Assessment <sup>(2), (3)</sup> . CU Approved if GI is not breached. Otherwise CU NOT approved, advise applicant that they will need to submit plans to the BLDG and DERM-Grease in compliance with Section 24-4.2.6 (FOG 2.0). Deficiencies reported in the condition assessment, other than breached tank, shall be referred to the inspection group via email.
		C	Change in FSE type; increased seating capacity, dining area, or drive-thru capacity <sup>(1)</sup> MDC Section 24-42.6(7)(b)	Activate FOG Review, CU NOT approved. Advise applicant that a FOG review is required to determine if existing system has adequate capacity and if it is in compliance with with Section 24-42.6	Plans with sizing calculations Signed by a P.E., to show compliance with MDC Section 24-42.6 AND FOG Control Device Condition Assessment <sup>(2), (3)</sup> required with the OL Application. 1. If no plumbing changes, AS-BUILT showing compliance with MDC Section 24-42.6 (OL Intake). **A, **B 2. If plumbing changes construction plans (BLDG & DERM) submittal required (Building Intake). 3. If adding outdoor seating not previously approved, construction plans (BLDG & DERM-Grease) submittal required (Building Intake). 4. If breached interceptor (per condition assessment) construction plans (BLDG & DERM-Grease) submittal required (Building Intake). 5. If insufficient capacity construction plans (BLDG & DERM) submittal required (Building Intake). **A_For facilities with existing hydromechanical FCD, if the FCD does not comply with 99% removal efficiency, then request construction plans, instead of as-built. **B_As-builts with existing gravity FCDs are NOT required to show compliance with pH, DOH number and, concrete precasting facility.
		D	Open enforcement.	Advise customer that violation needs to be corrected prior to CU issuance.	Follow instructions in FNOV/WN.
		E	No previous record of CU approved by DERM	Activate FOG Review, CU NOT approved.	1. NO change in FSE type, NO change in seating, NO change in area, & NO open enforcement, go to B. 2. Change in FSE type; increased seating capacity, dining area, or drive-thru capacity <sup>(1)</sup> , go to C.
		F	Plans approved by DERM-Grease after January 1, 2015	Activate FOG Review to Confirm Plans Match GDO Application.	Confirm approved plans, and GDO application match for the same business. If plans approved under FOG2.0 and plans are for a MUNICIPALITY, DERM Construction Inspection Approval card required.
	Closed/Inactive GDO permit > 12 months [Status 7] OR Never had a GDO permit MDC Section 24-42.6(5)(A)	G	NO change in FSE type, NO change in seating, NO change in area, & NO open enforcement.	Activate FOG Review, CU NOT approved.	Plans with sizing calculations Signed by a P.E., to show compliance with MDC Section 24-42.6 AND Grease Interceptor Condition Assessment <sup>(2), (3)</sup> required with the OL Application. 1. If no plumbing changes, AS-BUILT showing compliance with MDC Section 24-42.6 (OL Intake). **A, **B 2. If plumbing changes construction plans (BLDG & DERM) submittal required (Building Intake). 3. If adding outdoor seating not previously approved, construction plans (BLDG & DERM-Grease) submittal required (Building Intake). 4. If breached interceptor (per condition assessment) construction plans (BLDG & DERM-Grease) submittal required (Building Intake). 5. If insufficient capacity construction plans (BLDG & DERM) submittal required (Building Intake). **A_For facilities with existing hydromechanical FCD, if the FCD does not comply with 99% removal efficiency, then request construction plans, instead of as-built. **B_As-builts with existing gravity FCDs, are NOT required to show compliance with pH, DOH number and, concrete precasting facility.
		H	Change in FSE type; increased seating capacity, dining area, or drive-thru capacity <sup>(1)</sup>		
		I	FSE with existing FCD, NEVER HAD A GDO PERMIT, NO record of plans approved by DERM- Grease after January 1, 2015		
		J	No previous record of CU approved by DERM		
		K	Open enforcement.	Advise customer that violation needs to be corrected prior to CU issuance.	Follow instructions in NOV/WN.
		L	Plans approved by DERM-Grease after January 1, 2015	Activate FOG Review to Confirm Plans Match GDO Application.	1. Confirm Plans Match GDO Application. 2. If plans approved under FOG2.0 AND plans are for a MUNICIPALITY, confirm DERM Construction Inspection Approved.
		M	Only for GDO permits closed >12 months: NO change in FSE type, NO change in seating, NO change in area, & NO open enforcement.	Activate FOG Review, CU NOT approved.	See Type G above or, facility may qualify for Abeyance for review on a case by case basis (See attached).
	Second User [Any Status]	N	FSE proposing second use	Activate FOG Review, CU NOT approved.	Same as H. Note that a GDO permit will be issued to each user, and authorization letter is required from existing user to allow the additional discharge to the interceptor.
Existing Facility Discharging to SEPTIC (OSTDS)	Never had a GDO permit	O	FSE located outside a Wellfield Protection Area, AND public sewer not abutting, GDO permit not required.	CU Approved, FOG Review Not Required	
		P	FSE located inside a Wellfield Protection Area - NO change in FSE type, NO change in seating, NO change in area, & NO open enforcement. Per MDC Section 24-42.6(6), GDO permit required within 12 months.	Activate FOG Review	FOG review to confirm if the applicant was notified of 12-months to comply with MDC Section 24-42.6(6). To search for the date of the notification -- Go to PEN Database and look for the open task (NumLock T). 1. If not previously notified, provide the applicant the information on MDC Section 24-42.6(6), available online <sup>(4)</sup> . Fill out a FOG Plan Review Tracking Form to open the permit Shell, refer the case via e-mail to the inspection group (iFOG2@miamidade.gov) AND approve CU. 2. If more than 12-months after the notification As-Built plans signed by PE, to show compliance with MDC Section 24-42.6, FOG Control Device Condition Assessment <sup>(2), (3)</sup> AND GDO permit application required. 3. If the applicant does not comply with the requirements listed under 2), disapprove CU and refer case to inspection group.
		Q	FSE located inside a Wellfield Protection Area - Change in FSE type; increased seating capacity, dining area, or drive-thru capacity <sup>(1)</sup> . Per MDC Section 24-42.6(6), GDO permit required within 12 months.	Activate FOG Review	CU not approved. Plans submittal required to comply with MDC Section 24-42.6(6).
New Facility	No GDO permit	R	Plans approved by DERM-Grease after January 1, 2015	Activate FOG Review to Confirm Plans Match GDO Application.	Confirm approved plans, and GDO application match for the same business. If plans approved under FOG2.0 and plans are for a MUNICIPALITY, DERM Construction Inspection Approval card required.
		S	NO record of plans approved by DERM-Grease after January 1, 2015	CU NOT approved. Advise applicant that construction plans (BLDG & DERM-Grease) submittal required.	

NOTES

<sup>(1)</sup> Increasing square feet, increasing dining areas seating (chairs and/or stools), modifying (adding or subtracting) plumbing system, adding or expanding drive-thru lanes capacity; or adding, replacing or modifying FOG control devices. Any of these impacts FOG generation and therefore require Engineering FOG review.

<sup>(2)</sup> FOG Control Device (FCD) condition assessment, forms must be signed by PE, or a Certified Plumber  
Template available at: <https://www.miamidade.gov/environment/fats-oils-grease.asp>

<sup>(3)</sup> Condition Assessment valid for 12 months, and not required for new systems for 12 months

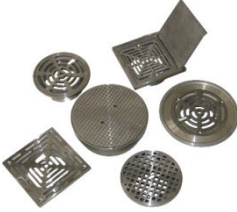






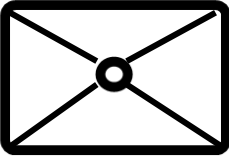
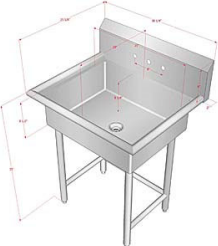


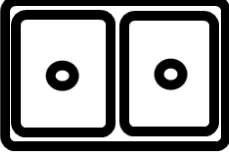
<sup>(4)</sup> Instructions for sites on Septic and in the WPA, available at: <https://www.miamidade.gov/environment/fats-oils-grease.asp>

<sup>(5)</sup> NGT facilities are placed under Status 13, after plans are approved, to indicate that DERM inspection is required.

ALL STATUS 13<sup>(5)</sup> and 16 SHALL PROVIDE DERM CONSTRUCTION INSPECTION APPROVAL CARD

Customer shall schedule inspection by email at: [iFOG2@miamidade.gov](mailto:iFOG2@miamidade.gov)

## Attachment 2. Fixtures and Fixtures Symbols

Type of Fixture		Plumbing Symbols
Floor Drains		FD 
Trench /Channel Drains		
Floor Sink		FS 
Mop Sink		
Single Compartment Sink		
Two Compartment Sink		



# **ATTACHMENT 3**

## **HYDROMECHANICAL FCD SAMPLE SIZING CALCULATIONS**

## Hydromechanical Grease Interceptor Sizing - Sample 1

### 1. Peak Flow based on - Drain Time- Total fixture flow rate using one (1) or two (2) minutes drain time

Fixtures	L	W	D	Quantity	Volume	
	inches	inches	inches		in <sup>3</sup>	gallons
3-comp sink	20	18	12	3	12,960	56.1
3-comp sink	18	15	12	3	9,720	42.1
Hand Sink	12	9	6	1	648	2.8
Mop Sink	23	18	18	1	7,452	32.3
2-comp sink	20	18	12	2	8,640	37.4
Total						171

V = 171 gallons  
 75% of V = 128 gallons  
 Drain Time = 2 min  
 $Q_{\text{DRAIN FIXTURE}} = 64 \text{ gpm}$   
 Grease Waste Drain Diameter = 4 inch  
 Drainage Fixture Units = 180 DFUs  
 Peak Flow Rate = 64 gpm  
 Select FCD by matching Q = 75 gpm

### 2. FOG Load

Seats = 100 Seats  
 Seatings rotations = 3 meals/seat  
 Meals from seats = 300 meals/day  
 Take-Out Meals = 150 meals/day  
 Drive-Thru Meals = 0 meals/day  
 Banquet/Meeting Meals = 0 meals/day  
 Room Service meals = 0 meals/day  
 Total Meals = 450 meals/day

Pounds FOG/Meal = 0.05 lbs/meal  
 Pounds FOG/day = 22.5

<b>Pump out Frequency =</b>	<b>30 days</b>	<b>60 days</b>	<b>90 days</b>
Pounds of FOG @ POF =	675 FOG lbs	1350 FOG lbs	2025 FOG lbs

### 3. Select the FCD assuming the following grease holding capacity on the FCDs at the required 75 gpm

One (1) FCD FOG Capacity @99% = 1,000 Lbs Tested  
 Two (2) FCD FOG Capacity @99% = 1,827 Lbs Tested  
 Three (3) FCD FOG Capacity @99% = 2,329 Lbs Extrapolated

## Hydromechanical Grease Interceptor Sizing - Sample 2

### 1. Peak Flow - based on maximum capacity of the drain line

Grease Waste Drain Diameter = 4 inch  
Max. Drainage Fixture Units = 180 DFUs  
Peak Flow Rate = 100 gpm

### 2. FOG Load

#### FOG Based on Seats:

S = 254 Seats  
Seating per seat = 3  
Meals = 762 meals/day

Total Meals = 912 meals/day  
Pounds FOG/Meal = 0.05 lbs/meal  
Pounds FOG/day = 46 FOG lbs/day

#### FOG Based on Other Meals:

Take-Out Meals = 150 meals/day  
Drive-Thru Meals = 0 meals/day  
Banquet/Meeting Meals = 0 meals/day  
Room Service meals = 0 meals/day  
Total Meals = 912 meals/day

Pump out Frequency (POF) = 30 days

Pounds of FOG @ POF = 1368 FOG lbs

### 3. Select the FCD assuming the following grease holding capacity on the FCDs at the required rated capacity of 100 gpm

One (1) FCD FOG Capacity @99% = 1,000 Lbs Tested  
Two (2) FCD FOG Capacity @99% = 1,827 Lbs Tested  
Three (3) FCD FOG Capacity @99% = 2,329 Lbs Extrapolated

## Hydromechanical Grease Interceptor Sizing - Sample 3

### 1. Peak Flow based on Drainage Fixture Units (DFUs)

Grease Waste Drain Diameter = 4 inch  
 Proposed Drainage Fixture Units (DFUs) = 65 DFUs  
 DFU/gpm = 1.7  
 Calculated Flow rate = 38  
 Minimum Flow rate = 50 gpm

Diameter (inches)	DFU/gpm	Minimum Total Flow Rate
3	0.8	23 gpm
4	1.7	50 gpm
5	2.1	91 gpm
6	2.3	147 gpm
8	2.4	317 gpm

### 2. FOG Load

#### FOG Based on Seats:

S = 30 Seats  
 Seating per seat = 3  
 Meals = 90 meals/day

Total Meals = 170 meals/day  
 Pounds FOG/Meal = 0.05 lbs/meal  
 Pounds FOG/day = 9 FOG lbs/day

#### FOG Based on Other Meals:

Take-Out Meals = 80 meals/day  
 Drive-Thru Meals = 0 meals/day  
 Banquet/Meeting Meals = 0 meals/day  
 Room Service meals = 0 meals/day  
 Total Meals = 170 meals/day

Pump out Frequency (POF) = 60 days

Pounds of FOG @ POF = 510 FOG lbs

### 3. Select the FCD assuming the following grease holding capacity on the FCDs at the required rated capacity of 50 gpm

One (1) FCD FOG Capacity @99% = 250 Lbs      Tested  
 Two (2) FCD FOG Capacity @99% = 600 Lbs      Tested

# **ATTACHMENT 4**

## **GRAVITY FCD SAMPLE SIZING CALCULATIONS**

### Gravity Grease Interceptor Sizing - Sample 1: Seats + Meals

Grease Waste Drain Diameter = 4 inch  
 Drainage Fixture Units = 180 DFUs  
 Peak Flow Rate = 100 gpm

#### Volume Based on Seats:

Effective Capacity =  $S \times \text{HR}/12 \times \text{GS} \times \text{RF} \times \text{F}$

**Type = Single service article restaurant**

**Location = Interstate Highway**

**Pump Out Frequency = 90 days**

**S = 50 Seats**

**HR = 12 hrs per day, including Pre & Closing**

**GS = 10 gallons per seat**

**RF = 2 Interstate Highway**

**F = 1.25 Pump Out Frequency Factor**

DERM Effective Capacity = 1,250 gallons

FBC (64E-6, FAC) Min. Capacity = 1,000 gallons

#### Volume Based on Meals:

Effective Capacity =  $M \times \text{GM} \times \text{LF} \times \text{F}$

**M = 300**

**Ware Washer = Yes**

**Pump Out Frequency = 90 days**

**GM = 5 gal/meal**

**LF = 1**

**F = 1.25**

DERM Effective Capacity = 1875 gallons

FBC (64E-6, FAC) Min. Capacity = 1500 gpm

**Volume by 64E-6 + DERM = 1250 gallons + 1875 gallons = 3,125 gallons**

Pounds of FOG/Meal = 0.05 lbs/meal

Meals (using 4 rotations) = 200 meals/day

Pounds of FOG/day = 10 FOG lbs/day

Pounds of FOG @Pump Out Frequency= 900 FOG lbs

FOG in gallons (6.8lbs/gal)= 132 FOG gallons

Pounds of FOG/Meal = 0.05 lbs/meal

Meals = 300 meals/day

Pounds of FOG/day = 15 FOG lbs/day

Pounds of FOG @Pump Out Frequency= 1,350 FOG lbs

FOG in gallons = 199 FOG gallons

**Volume of FOG = 132 + 66 gallons = 331 gallons**

**The minimum volume shall be the largest of the following:**

**Volume by 64E-6 + DERM = 1,250 gallons + 1875 gallons = 3,125 gallons**

**Volume = QPEAK x 30 min + VFOG = 3,000 gallons + 331 gallons = 3,331 gallons**

S = Number of seats (indoor and outdoor)

HR = Hours of Operation, including prep time and closing

GS = Gallons per seat (25 gallons for ordinary restaurants and

RF = Road factor: use 2.0 interstate highways, 1.5 other

WWF = No ware washer 1, with ware washer 1.25 (additional

M = Number of meals served per day

GM = Gallons per meal, use 5 gallons

LF = Ware washer 1, without use 0.75

F = Pump out frequency: use 1.25 for 90 days, 1.15 for 60 days & 1 for 30 days

## Gravity Grease Interceptor Sizing - Sample 2: Seats + Meals

Grease Waste Drain Diameter = 4 inch  
 Drainage Fixture Units = 180 DFUs  
 Peak Flow Rate = 100 gpm

### Volume Based on Seats:

Effective Capacity =  $S \times HR / 12 \times GS \times RF \times F$

Type = Single service article restaurant

Location = Interstate Highway

Pump Out Frequency = 90 days

S = 254 Seats

HR = 12 hrs per day, including Pre & Closing

GS = 10 gallons per seat

RF = 2 Interstate Highway

F = 1.25 Pump Out Frequency Factor

DERM Effective Capacity = 6,350 gallons

FBC (64E-6, FAC) Min. Capacity = 5,080 gallons

### Volume Based on Meals:

Effective Capacity =  $M \times GM \times LF \times F$

M = 100

Ware Washer = Yes

Pump Out Frequency = 90 days

GM = 5 gal/meal

LF = 1

F = 1.25

DERM Effective Capacity = 625 gallons

FBC (64E-6, FAC) Min. Capacity = 500 gpm

**Volume by 64E-6 + DERM = 6350 gallons + 625 gallons = 6,975 gallons**

Pounds of FOG/Meal = 0.05 lbs/meal

Meals (using 4 rotations) = 1,016 meals/day

Pounds of FOG/day = 51 FOG lbs/day

Pounds of FOG @ Pump Out Frequency = 4,572 FOG lbs

FOG in gallons (6.8lbs/gal) = 672 FOG gallons

Pounds of FOG/Meal = 0.05 lbs/meal

Meals = 100 meals/day

Pounds of FOG/day = 5 FOG lbs/day

Pounds of FOG @ Pump Out Frequency = 450 FOG lbs

FOG in gallons = 66 FOG gallons

**Volume of FOG = 672 + 66 gallons = 739 gallons**

The minimum volume shall be the largest of the following:

Volume by 64E-6 + DERM = 6,350 gallons + 625 gallons = **6,975 gallons**

Volume = QPEAK x 30 min + VFOG = 3,000 gallons + 739 gallons = **3,739 gallons**

S = Number of seats (indoor and outdoor)

HR = Hours of Operation, including prep time and closing

GS = Gallons per seat (25 gallons for ordinary restaurants and

RF = Road factor: use 2.0 interstate highways, 1.5 other

WWF = No ware washer 1, with ware washer 1.25 (additional

M = Number of meals served per day

GM = Gallons per meal, use 5 gallons

LF = Ware washer 1, without use 0.75

F = Pump out frequency: use 1.25 for 90 days, 1.15 for 60 days & 1 for 30 days

## Gravity Grease Interceptor Sizing - Sample 3: Fast Food Restaurant based on MEALS

Grease Waste Drain Diameter = 4 inch  
 Drainage Fixture Units = 180 DFUs  
 Peak Flow Rate ( $Q_{PEAK}$ ) = 100 gpm

### Volume Based on Meals:

Effective Capacity =  $M \times GM \times LF \times F$   
**Number of Seats = 60**  
**Number of Seat Rotations = 5**  
**Meals from seats = 300**  
**Meals from Take-Out = 200**  
**Meals from Drive Thru = 320**  
**TOTAL MEALS PER DAY (M) = 820**

**Ware Washer = Yes**  
**Pump Out Frequency = 90 days**  
**GM = 5 Gallons per Meal**  
**LF = 1 (ware washer factor)**  
**F = 1.25** POF (1.25 for 90 days, 1.15 for 60 days, 1 for 30 days)

DERM Effective Capacity = 5,125 gallons  
 FBC (64E-6, FAC) Min. Capacity = 4,100 gallons

<b>Volume by 64E-6 x DERM POF-F =</b>	<b>5,125 gallons</b>
---------------------------------------	----------------------

Pounds of FOG/Meal = 0.035 lbs/meal  
 Meals = 820 meals/day  
 Pounds of FOG/day = 29 FOG lbs/day  
 Pounds of FOG @ Pump Out Frequency = 2,583 FOG lbs

<b>FOG in gallons (6.8lbs/gal) = <math>V_{FOG}</math> =</b>	<b>380 FOG gallons</b>
---	------------------------

The minimum volume shall be the **largest** of the following:

<b>Volume by 64E-6 x DERM POF-F =</b>	<b>5,125</b>
---------------------------------------	--------------

<b>Volume = <math>Q_{PEAK} \times 30 \text{ min} + V_{FOG}</math> =</b>	<b>3,000 + 380 = 3,380 gallons</b>
---	------------------------------------

M = Number of meals served per day  
 GM = Gallons per meal, use 5 gallons  
 LF = Ware washer 1, without use 0.75  
 F = Pump out frequency: use 1.25 for 90 days, 1.15 for 60 days & 1 for 30 days



## Gravity Grease Interceptor Sizing - Sample 4: Fast Food Restaurant based on MEALS

Grease Waste Drain Diameter = 4 inch  
 Drainage Fixture Units = 180 DFUs  
 Peak Flow Rate ( $Q_{PEAK}$ ) = 100 gpm

### Volume Based on Meals:

Effective Capacity =  $(M \times GM \times LF) + V_{FOG}$   
 Number of Seats = 60  
 Number of Seat Rotations = 5  
 Meals from seats = 300  
 Meals from Take-Out = 200  
 Meals from Drive Thru = 320  
**TOTAL MEALS PER DAY (M) = 820**

Ware Washer = Yes  
 Pump Out Frequency = 90 days  
 GM = 5 Gallons per Meal  
 LF = 1 (ware washer factor)

DERM Effective Capacity = 4,480 gallons  
 FBC (64E-6, FAC) Min. Capacity = 4,100 gallons

<b>Volume by 64E-6 +gallons FOG @POF =</b>	<b>4,480 gallons</b>
--	----------------------

Pounds of FOG/Meal = 0.035 lbs/meal  
 Meals = 820 meals/day  
 Pounds of FOG/day = 29 FOG lbs/day  
 Pounds of FOG @Pump Out Frequency= 2,583 FOG lbs

<b>FOG in gallons (6.8lbs/gal) = <math>V_{FOG}</math> =</b>	<b>380 FOG gallons</b>
---	------------------------

The minimum volume shall be the **largest** of the following:

<b>Volume by 64E-6 + DERM <math>V_{FOG}</math> =</b>	<b>4,100</b>	+	<b>380</b>	=	<b>4,480</b>	<b>gallons</b>
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<b>Volume = <math>Q_{PEAK} \times 30 \text{ min} + V_{FOG}</math> =</b>	<b>3,000</b>	+	<b>380</b>	=	<b>3,380</b>	<b>gallons</b>
---	--------------	---	------------	---	--------------	----------------

M = Number of meals served per day  
 GM = Gallons per meal, use 5 gallons  
 LF = Ware washer 1, without use 0.75

# **ATTACHMENT 5**

## **FOG MASTER PLAN (FMP) TEMPLATE**

# Miami-Dade County DERM FOG Control Program

## FOG MASTER PLAN ( GRAVITY SYSTEMS )

**SYSTEM ID:**

<b>SITE:</b>	<b>Date:</b>		
<b>FULL ADDRESS:</b>	<b>FOLIO(S):</b>		
<b>CONTACT PERSON:</b>	<b>PHONE NUMBER:</b>	<b>EMAIL:</b>	

No.	GDO #	ADDRESS:	SPACE/SUITE/ BAY/KIOSK	DERM APPROVED PROCESS NUMBER:	FOOD SERVICE ESTABLISHMENT (DBA)	A TOTAL SEATS	B GALLONS/SEAT *	C # HOURS OF OPERATION	D LOADING FACTOR (ROAD) **	E TAKE-OUT MEALS/DAY	F GAL/TAKE- OUT MEAL	G LOADING FACTOR (DISHWASHING)***	H CAPACITY (Gallons)	I POF Factor ****	J ALLOCATED CAPACITY (gallons)	K DFU's
1											5		0		0	
2											5		0		0	
3											5		0		0	
4											5		0		0	
5											5		0		0	
6											5		0		0	
7											5		0		0	
8											5		0		0	
9											5		0		0	
10											5		0		0	
11											5		0		0	
12											5		0		0	
13											5		0		0	
14											5		0		0	
15											5		0		0	
16											5		0		0	
17											5		0		0	
18											5		0		0	
19											5		0		0	
20											5		0		0	
						0							0		0	0

**\* GALLONS OF WASTE PER SEAT**

- 25** Ordinary Restaurant
- 10** Single Service Restaurant
- 5** Take-Out Meals

**\*\* LOADING FACTOR (ROAD)**

- 2.00** interstate highways,
- 1.50** other freeways,
- 1.25** recreational areas,
- 1.00** main highways, and
- 0.75** other roads.

**\*\*\* LOADING FACTOR (DISHWASHING)**

- 1.00** with dishwashing
- 0.75** without dishwashing

$$H = (A \times B \times C / 12 \times D) + (E \times F \times G)$$

$$J = H \times I$$

**\*\*\*\* POF FACTOR**

- 1.00** every 30 days
- 1.15** every 60 days
- 1.25** every 90 days

TOTAL CAPACITY OF SYSTEM		GALLONS
TOTAL ALLOCATED CAPACITY	0	GALLONS
TOTAL AVAILABLE CAPACITY	0	GALLONS

**PIPE SIZE AT INLET OF THE INTERCEPTOR:**  INCHES

**PEAK FLOW x 30min RETENTION=**  GALLONS

# Miami-Dade County DERM FOG Control Program

## FOG MASTER PLAN ( HYDROMECHANICAL SYSTEMS )

**SYSTEM ID:**

<b>SITE:</b>		<b>Date:</b>		
<b>FULL ADDRESS:</b>		<b>FOLIO(S):</b>		
<b>CONTACT PERSON:</b>		<b>PHONE NUMBER:</b>		<b>EMAIL:</b>

No.	GDO #	ADDRESS:	SPACE /SUITE / BAY/KIOSK	DERM APPROVED PROCESS NUMBER:	FOOD SERVICE ESTABLISHMENT (DBA)	A TOTAL SEATS	B SEAT ROTATION	C GREASE PRODUCTION FACTOR *	D TAKE-OUT MEALS/DAY	E GREASE PRODUCTION FACTOR *	F FOG LBS/DAY	G POF*	H TOTAL FOG AT SELECTED POF	I PEAK FLOW (GPM)	J DFU's
1											0		0		
2											0		0		
3											0		0		
4											0		0		
5											0		0		
6											0		0		
7											0		0		
8											0		0		
9											0		0		
10											0		0		
11											0		0		
12											0		0		
13											0		0		
14											0		0		
15											0		0		
16											0		0		
17											0		0		
18											0		0		
19											0		0		
20											0		0		
						0			0		0		0		0

**\* GREASE PRODUCTION FACTORS (lbs/meal)**

	NO FLATWARE	WITH FLATWARE	
LOW GREASE	0.0050	0.0065	
MEDIUM GREASE	0.0250	0.0325	
HIGH GREASE	0.0350	0.0455	F=(AxBxC)+(DxE)
VERY HIGH GREASE	0.0580	0.0750	H=FxG

TOTAL CAPACITY OF SYSTEM (GPM)		GPM
TOTAL CAPACITY OF SYSTEM (LBS)		LBS
TOTAL ALLOCATED CAPACITY	0	LBS
TOTAL AVAILABLE CAPACITY	0	LBS

**PIPE SIZE AT INLET OF THE INTERCEPTOR:**  INCHES

# **ATTACHMENT 6**

## **FOG 2.5 PLAN REVIEW CHECKLIST**

# DERM<sup>2.5</sup> FOG Plan Review Checklist

Updated 6/24/2021

Accepted	Not Accepted	N/A	Item / Criteria
<b>1. General</b>			
			Electronic plans being submitted are <b>legible</b> and include Facility Name, address (include unit/bay) and GDO permit No. (existing facilities with grease discharge operating permit).
			Architectural, Civil and Plumbing drawings match (where applicable).
			Drawings indicate <b>Type</b> of Food Service Establishment, i.e., full service restaurant, cafeteria, bakery, ice cream parlor, day care, etc.
			All <b>seats</b> (bar, table, booth, etc.) shown and counted.
			Drive-thru shown (for existing and/or proposed).
			List/include “ <b>daily maximum meals</b> ” for dine-in, take-out, drive-thru, delivery, etc.
			Existing Labeled “ <b>Existing</b> ” and Proposed labeled “ <b>Proposed</b> .”
			Projects proposing to use <b>Existing FOG Control Devices (FCDs)</b> include Condition Assessment for each tank/unit. Blank Condition Assessment Forms for Gravity and Hydromechanical tanks available at <a href="https://www.miamidade.gov/environment/fats-oils-grease.asp">https://www.miamidade.gov/environment/fats-oils-grease.asp</a>
<b>2. Plumbing Sheets</b> <a href="#">MDC Code Section 24-42.6(8)</a>			
			Signed/sealed/dated by a <b>Florida Registered-Professional Engineer</b> . <a href="#">MDC Code Sections 24-42.6(8)(a), and 24-15.2.</a>
			<b>Floor plan</b> and <b>Isometric</b> drawings show sanitary and grease drain lines and fixtures ( <b>Existing &amp; Proposed</b> ).
			All appliances connected to plumbing shown and identified ( <b>Existing &amp; Proposed</b> ).
			All <b>drainage fixtures</b> identified/labeled. DFUs, slope and diameter shown in plan and isometric ( <b>Existing &amp; Proposed</b> ).
			<b>Grease waste line</b> labeled “ <b>GW</b> ” to distinguish it from the sanitary (bathroom) waste line. All GW lines connected to a FCD ( <b>Existing &amp; Proposed</b> ).
			<b>Sanitary line</b> labeled “Sanitary” or “ <b>SS</b> ” to distinguish it from GW line ( <b>Existing &amp; Proposed</b> ).
			All <b>Drainage Fixtures</b> located in food and beverage preparation areas ( <b>back of house</b> ) are connected to the grease waste line (GW), and routed through a FCD. Drainage fixtures include but are not limited to kitchen sinks (one, two, or three compartment), mop sinks, hand sinks, floor and trench drains, sink drains, dishwasher, pasta stations, etc.
			<b>Sanitary (bathroom) waste line</b> does not connect to GW lines or FCD.

# DERM<sup>2.5</sup> FOG Plan Review Checklist

Updated 6/24/2021

Accepted	Not Accepted	N/A	Item / Criteria
Plumbing Sheets (continuation)			
			<b>FCD</b> shown in plan and isometric drawings ( <b>Existing &amp; Proposed</b> ). Label as Hydro mechanical or Gravity and indicate installation above ground or below ground.
			Locations and details for all <b>wash-down areas</b> shown and labeled. All wash-down areas are designed to prevent the release of wash-water and FOG to ground, groundwater, surface waters, or stormwater. Where mat and equipment wash-down is to be performed in a mop sink; the mop sink shall be properly sized and labeled.
			Locations and details for all stored waste, including <b>yellow and brown grease</b> , shown and labeled. Storage areas designed to prevent the release of FOG to ground, groundwater, surface waters or storm sewers. <b>Storage containers</b> are identified by waste type and capacity in gallons and sized to prevent overfilling. All storage containers have a lid that prevents rainwater inflow.  Plans shall show quantity of yellow and brown grease generated, with cleaning/emptying of the storage container frequency at 90% capacity of the container or sooner.
			Where the <b>horizontal run</b> from the source of food waste and FOG is greater than 100 feet, provisions for preventing clogging by FOG and other waste is included.
			Where the <b>horizontal run</b> from the source of FOG is greater than 50 feet from the solids separator or FOG control device, plans show access points every 50 feet measured center-to-center. Details for access point provided in drawings.
			Where the FOG control device is located at a different floor or at a horizontal distance exceeding 100 feet from the back of the house area, an Interceptor <b>Monitoring Alarm or Device</b> is provided.
			Plan profiles and sections demonstrate how all <b>labels and markings</b> on FCDs remain visible during and after installation.
			<div> <div>Gravity FCD</div> <div> <p>Effective Volume, material of tank and all appurtenances (e.g., inlet/outlet, cover, etc.), Plan and Elevation Details and dimensions (e.g., length, width, depth, inlet/outlet dimensions), and DOH Number shown.  <a href="http://ww10.doh.state.fl.us/pub/bos/Tanks/Tank-List.pdf">http://ww10.doh.state.fl.us/pub/bos/Tanks/Tank-List.pdf</a>  Gravity FCDs located outside per FAC Rule 64E-6.  Material of the interceptor compatible with the waste stored (pH of 3.0).  Specifications for concrete protective liners mechanically anchored or coatings indicate that it is for wastewater immersion, approved for use in wastewater wet wells, pump stations, manholes, AND for corrosion/acid protection, not simply waterproofing or damp-proofing.  Plans indicate that coating application will be by the manufacturer.  For proposed concrete precast FCDs, the precast concrete plant name and precast concrete plant certifying agency accepted by the Florida Department of Transportation (NPCA, CCI and PCI<sup>*1</sup>) is shown and labeled accordingly.  <sup>*1</sup> <a href="http://www.fdot.gov/materials/quality/programs/plantcertification/index.shtm">http://www.fdot.gov/materials/quality/programs/plantcertification/index.shtm</a></p> </div> </div>

# DERM<sup>2.5</sup> FOG Plan Review Checklist

Updated 6/24/2021

Accepted	Not Accepted	N/A	Item / Criteria
<b>Plumbing Sheets (continuation)</b>			
			<p>Make/Model No., PDI/ASME/CSA Certification, Flow Rate (gpm), FOG Capacity (lbs) at 99% grease removal efficiency shown in plumbing plans.</p> <p>Every Unit Must Show/Install Vented Flow Control/Air Inlet – Not Just First!</p> <p><b>Solids separation</b> is provided prior to existing or proposed FOG control devices that require a flow control device or that are not certified to handle solids.</p> <p>FOG control devices installed <b>below ground</b>/grade to intersect the building grease waste drain.</p>
			<p><b>Hydromechanical FCD</b></p>
			<p><b>Sampling Point</b> located after the point of no further treatment, shown in plan and isometric drawings and labeled.</p> <p>When more than one FCD, a compliance sampling point is required after the flow from all FCDs are combined (excluding sanitary lines).</p> <p>Sampling point detail shall be provided and be consistent with pipe sizes.</p> <p>The sampling point shall be directly accessible for visual inspection and sampling. Minimum diameter for the vertical axis is 4-inches. Minimum clearance for sampling port is 3 ft horizontal and 4 ft vertical and shall be shown in plans.</p> <p><u>Note that utilizing DERM's retrofit sampling point detail is not mandatory.</u> The engineer of record shall design/select the most appropriate sampling point design to assure consistent and representative sampling results based on site-specific facility and operation conditions.</p> <p>Access to <b>Sampling Point</b> shown in plan and elevation Minimum 4-ft vertical and 3-ft horizontal clearance required.</p>
			<p><b>Access to FCD</b> shown in plan and elevation. Minimum 4-ft vertical and 3-ft horizontal clearance required. Horizontal clearance may be equivalent to the width of the FCD but not less than 30-inches.</p>
			<p>Where the FOG control device will <b>serve multiple users/tenants</b>, each user/tenant shall be identified and their flows and loading rates shall also be included on the plans. Clearly detail capacity allocated to this project/facility, and capacity for other facilities. Provide address with bay/unit number of all the facilities.</p>
			<p>FCD <b>sizing calculations</b> shall be provided and <b>include cleaning (pump-out) frequency</b>. Refer to sizing requirements below. All assumptions, factors, variables and information used to size system shall be included. Minimum information is provided below.</p>



# DERM<sup>2.5</sup> FOG Plan Review Checklist

Updated 6/24/2021

Accepted	Not Accepted	N/A	Item / Criteria
3. Gravity FCD Sizing [MDC Section 24-42.6(9)(a) and (b)]			
			FCD(s) proposed shall comply with minimum and maximum size (effective volume) requirements of 64E6, FAC.
			The minimum volume for gravity FCDs shall be <b>the largest of the following</b> :
			i) FCD volume based on the Florida Building Code, latest edition.
			ii) FCD volume based on peak flow rate (QPEAK) and thirty (30)-minute hydraulic detention time. Total calculated volume shall be increased to account for the maximum volume of waste stored between cleaning cycles (POF method, or VFOG method)
			<b>POF Method</b>  V = Qpeak x 30 min x POF,  x 1.0 For pump out frequency every 30 days V = Qpeak x 30 min x 1.15 For pump out frequency every 60 days x 1.25 For pump out frequency every 90 days  QPEAK = peak flow rate, gpm (See section 5),  POF = Multiplication Factor to account for the volume of waste stored between cleaning cycles  <b>Or,</b>  <b>VFOG Method</b>  V = (Qpeak x 30 min) + VFOG  VFOG can be calculated as follows  VFOG = [meals/day x Lbs. of FOG/meal x days between Pump out Cycles] / 6.8 Lbs./gal.

# DERM<sup>2.5</sup> FOG Plan Review Checklist

Updated 6/24/2021

Accepted	Not Accepted	N/A	Item / Criteria
Gravity FCD Sizing (continuation)			
			<p>iii) FCD Volume (V) calculated based on Chapter 64E-6, Florida Administrative Code.</p> $V = [(S \times HR/12 \times GS \times RF) + [M \times GM \times LF]] \times POF$ <p>Or,</p> $V = [S \times HR/12 \times GS \times RF] + [M \times GM \times LF] + V_{FOG}$ <p>Where,</p> <p>S = Number of seats (indoor and outdoor)</p> <p>HR = Hours of Operation, including prep time and closing</p> <p>GS = Gallons per seat 25 gallons for ordinary restaurants, and 10 gallons for single service article restaurant</p> <p>RF = Road factor: 2.0 interstate highways, 1.5 other freeways, 1.25 recreational areas, 1.0 main highway and 0.75 other roads.</p> <p>LF = Loading Factor: 0.75, no ware washer, 1, with ware washer (additional hydraulic detention time for surfactants and heat)</p> <p>M = Number of meals served per day, excluding sit-down restaurant meals (take out, drive-thru, banquet, room service, etc.). If no take-out meals, specify NO Take-Out Meals. If no drive-thru, specify NO Drive-Thru.</p> <p>GM = 5 gallons per meal</p> <p>LF = Loading Factor: 0.75, no ware washer, 1, with ware washer</p> <p>V<sub>FOG</sub> = Volume of waste stored between cleaning cycles</p> <p>POF = Multiplication Factor to account for the volume of waste stored between cleaning cycles</p>
			All Gravity FCDs shall be connected in series.

# DERM<sup>2.5</sup> FOG Plan Review Checklist

Updated 6/24/2021

Accepted	Not Accepted	N/A	Item / Criteria																			
			<b>4. Hydromechanical FCD Sizing [MDC Section 24-42.6(9)(c)(d)]</b>																			
			<b>Peak Flow Rate</b> shall be calculated based on Full pipe flow, or Fixture Drain Time (1 or 2 minutes), or pipe diameter/DFUs (see section 5 in next page).																			
			FCD(s) shall be sized based on FOG production and proposed cleaning frequency and matched to Peak Flow Rate (gpm). Minimum size accepted 20 gpm.																			
			FOG production shall be based on total number of meals and FOG per meal (FOG lbs/meal).																			
			The minimum size and number of FCDs shall be <b>the greatest of the following</b> : i) 20 gallons per minute ii) Calculations based on the Florida Building Code, latest edition. iii) Calculations based on peak flow rate AND FCD FOG Storage Capacity at 99% efficiency > M(meals/day) x FOG/MEAL (lbs/meal) X T (Cleaning Frequency) Where, M = maximum number of meals served per day FOG/MEAL* = average grease production value per meal																			
			<table><tr><th>Restaurant Type</th><th>Grease Production Values</th><th>Food Service Establishment (FSE) Type</th></tr><tr><td rowspan="2">Low Grease Producer</td><td>0.005 lbs/meal (no flatware)</td><td rowspan="2">Elementary Cafeteria, grocery meat department, hotel breakfast bar, sub shop, sushi, take-and-bake pizza</td></tr><tr><td>0.0065 lbs/meal (with flatware)</td></tr><tr><td rowspan="2">Medium Grease Producer</td><td>0.025 lbs/meal (no flatware)</td><td rowspan="2">Café, coffee shop, convenience store, grocery deli, Greek, Indian, Japanese, Korean, Thai, Vietnamese</td></tr><tr><td>0.0325 lbs/meal (with flatware)</td></tr><tr><td rowspan="2">High Grease Producer</td><td>0.035 lbs/meal (no flatware)</td><td rowspan="2">Full-fare family, fast-food, hamburger bar and grill, German, Italian, fast-food Mexican</td></tr><tr><td>0.0455 lbs/meal (with flatware)</td></tr><tr><td rowspan="2">Very High Grease Producer</td><td>0.058 lbs/meal (no flatware)</td><td rowspan="2">Full-fare BBQ, Fast-food fried chicken, full-fare Mexican, steak and seafood, Chinese, Hawaiian</td></tr><tr><td>0.075 lbs/meal (with flatware)</td></tr></table>	Restaurant Type	Grease Production Values	Food Service Establishment (FSE) Type	Low Grease Producer	0.005 lbs/meal (no flatware)	Elementary Cafeteria, grocery meat department, hotel breakfast bar, sub shop, sushi, take-and-bake pizza	0.0065 lbs/meal (with flatware)	Medium Grease Producer	0.025 lbs/meal (no flatware)	Café, coffee shop, convenience store, grocery deli, Greek, Indian, Japanese, Korean, Thai, Vietnamese	0.0325 lbs/meal (with flatware)	High Grease Producer	0.035 lbs/meal (no flatware)	Full-fare family, fast-food, hamburger bar and grill, German, Italian, fast-food Mexican	0.0455 lbs/meal (with flatware)	Very High Grease Producer	0.058 lbs/meal (no flatware)	Full-fare BBQ, Fast-food fried chicken, full-fare Mexican, steak and seafood, Chinese, Hawaiian	0.075 lbs/meal (with flatware)
Restaurant Type	Grease Production Values	Food Service Establishment (FSE) Type																				
Low Grease Producer	0.005 lbs/meal (no flatware)	Elementary Cafeteria, grocery meat department, hotel breakfast bar, sub shop, sushi, take-and-bake pizza																				
	0.0065 lbs/meal (with flatware)																					
Medium Grease Producer	0.025 lbs/meal (no flatware)	Café, coffee shop, convenience store, grocery deli, Greek, Indian, Japanese, Korean, Thai, Vietnamese																				
	0.0325 lbs/meal (with flatware)																					
High Grease Producer	0.035 lbs/meal (no flatware)	Full-fare family, fast-food, hamburger bar and grill, German, Italian, fast-food Mexican																				
	0.0455 lbs/meal (with flatware)																					
Very High Grease Producer	0.058 lbs/meal (no flatware)	Full-fare BBQ, Fast-food fried chicken, full-fare Mexican, steak and seafood, Chinese, Hawaiian																				
	0.075 lbs/meal (with flatware)																					
			* Refer to ASPE Plumbing Engineer Design Handbook Volume 4, Chapter 8, Table 8-3																			
			Other FOG/MEAL values accepted with appropriate study reference.																			
			Where more than one (1) hydromechanical FCD is required, installation shall be proposed in series and removal efficiency based on third party testing of the proposed configuration and number of FCDs proposed.  The test configuration, including flow control, air entrainment and other appurtenances, shall match the proposed field installation.																			

# DERM<sup>2.5</sup> FOG Plan Review Checklist

Updated 6/24/2021

Accepted	Not Accepted	N/A	Item / Criteria																
<b>5. Peak Flow Rate [MDC Section 24-42.6(9)(g)]</b>																			
			<p>Peak flow Rate shall be estimated as follows:</p> <ol style="list-style-type: none"> <li>Full Pipe Flow (diameter and slope) Calculated using Manning's Formula for full pipe flow for the grease waste drain nominal diameter and slope and a roughness coefficient of 0.0113.</li> <li>Or,</li> <li>Drain Time Based on total fixture flow rate using one (1) or two minutes (2) drain time</li> <li>Or,</li> <li>Drainage Fixture Units (DFUs) Based on drainage fixture units (DFUs) by multiplying the proposed DFUs by the flow rate calculated using Manning's Formula for full pipe flow and a roughness coefficient of 0.0113 and divided by the maximum number of DFUs allowed under the Florida Building Code, latest edition, for the grease waste drain diameter and slope.</li> </ol> <p>Calculated flow shall not be less than the minimum peak flow in the table below. (Section 24-42.6(9)(g) of the Code).</p> <table border="1"> <thead> <tr> <th>Nominal pipe size (inches)</th> <th>Minimum Total Flow Rate at FCD Influent</th> </tr> </thead> <tbody> <tr> <td>1.25 – 2.5</td> <td>20 gpm</td> </tr> <tr> <td>3</td> <td>23 gpm</td> </tr> <tr> <td>4</td> <td>50 gpm</td> </tr> <tr> <td>5</td> <td>91 gpm</td> </tr> <tr> <td>6</td> <td>147 gpm</td> </tr> <tr> <td>8</td> <td>317 gpm</td> </tr> <tr> <td>10</td> <td>576 gpm</td> </tr> </tbody> </table>	Nominal pipe size (inches)	Minimum Total Flow Rate at FCD Influent	1.25 – 2.5	20 gpm	3	23 gpm	4	50 gpm	5	91 gpm	6	147 gpm	8	317 gpm	10	576 gpm
Nominal pipe size (inches)	Minimum Total Flow Rate at FCD Influent																		
1.25 – 2.5	20 gpm																		
3	23 gpm																		
4	50 gpm																		
5	91 gpm																		
6	147 gpm																		
8	317 gpm																		
10	576 gpm																		

Exhibit "G"

157 Parcel Permit Records



# MIAMI BEACH

## Plan Routing Sheet

General Information		
Date 4-24-14	Process/Permit Number Re-Submittals Only B1403549	Historic (Y/N)
Job Address 157 Collins Ave		
Contact Name KC Oliver	E-mail	Telephone 31273-1120

**Re-submittals - New Sheets:**

☐

Yes

☒

No

**List all new sheets:**

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### OFFICE USE ONLY

#### Required Approvals - As Indicated

<input checked="" type="checkbox"/> Planning & Zoning	<input checked="" type="checkbox"/> Fire	<input type="checkbox"/> Public Works
<input checked="" type="checkbox"/> Flood Plain Management	<input type="checkbox"/> Building	<input checked="" type="checkbox"/> Structural
<input type="checkbox"/> Electrical	<input type="checkbox"/> Mechanical	<input type="checkbox"/> Plumbing
<input type="checkbox"/> Elevator		

Comments:

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Reviewer:

M. SCHAD

Date:

4-24-14

☒

Walk Thru

☐

Drop Off

# B1403549



DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)  
BOARD AND CODE ADMINISTRATION DIVISION

## NOTICE OF ACCEPTANCE (NOA)

MIAMI-DADE COUNTY  
PRODUCT CONTROL SECTION  
11805 SW 26 Street, Room 208  
T (786) 315-2590 E (786) 315-2599  
[www.miamidade.gov/economy](http://www.miamidade.gov/economy)

Eco Window Systems, LLC  
9114 NW 106 Street  
Medley, FL 33178

### SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER - Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code, including the High Velocity Hurricane Zone.

**DESCRIPTION:** Series "Eco-Guard 100" Aluminum Single Hung Window - L.M.I.

**APPROVAL DOCUMENT:** Drawing No. W09-08, titled "Eco-Guard Series-100 Alum. S.H. Wdw. (L.M.I.)", sheets 1 through 6 of 6, dated 02/12/09, with revision C dated 02/06/14, prepared by Al Farooq Corporation, signed and sealed by Javad Ahmad, P.E., bearing the Miami-Dade County Product Control Revision stamp with the Notice of Acceptance number and expiration date by the Miami-Dade County Product Control Section.

**MISSILE IMPACT RATING:** Large and Small Missile Impact Resistant

**LABELING:** Each unit shall bear a permanent label with the manufacturer's name or logo, city, state, model/series, and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

**RENEWAL** of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

**TERMINATION** of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

**ADVERTISEMENT:** The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

**INSPECTION:** A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA revises and renews NOA# 13-0206.04 and consists of this page 1 and evidence pages E-1 and E-2, as well as approval document mentioned above.

The submitted documentation was reviewed by Manuel Perez, P.E.



74/3/14

NOA No. 14-0317.02  
Expiration Date: April 08, 2019  
Approval Date: April 10, 2014  
Page 1

Law

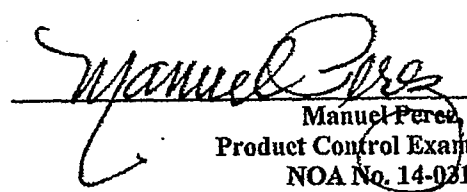
**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**A. DRAWINGS**

1. Manufacturer's die drawings and sections.
2. Drawing No W09-08, titled "Eco-Guard Series-100 Alum. S.H. Wdw. (L.M.I.)", sheets 1 through 6 of 6, dated 02/12/09, with revision C dated 02/06/14, prepared by Al-Farooq Corporation, signed and sealed by Javad Ahmad, 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  
4) Forced Entry Test, per FBC 2411.3.2.1, and TAS 202-94  
along with marked-up drawings and installation diagram of an aluminum single hung window, prepared by Fenestration Testing Laboratory, Inc., Test Report No. FTL-7635, dated 12/09/14, signed and sealed by Marlin D. Brinson, P.E.
2. Test reports on: 1) Air Infiltration Test, per FBC, TAS 202-94  
2) Uniform Static Air Pressure Test, Loading per FBC TAS 202-94  
3) Water Resistance Test, per FBC, TAS 202-94  
4) Forced Entry Test, per FBC 2411 3.2.1 and TAS 202-94  
along with installation diagram of a 106-1/2" wide x 76" high ECO-Guard Series 100 aluminum single hung window, prepared by Hurricane Engineering & Testing Inc. Test Report No. HETI-08-2166A, dated 12/15/09, signed and sealed by Candido F. Font, P.E.  
(Submitted under NOA#09-0224.07)
3. Test reports on: 1) Large Missile Impact Test per FBC, TAS 201-94  
2) Cyclic Wind Pressure Loading per FBC, TAS 203-94  
along with installation diagram of a 106-1/2" wide x 76" high ECO-Guard Series 100 aluminum single hung window, prepared by Hurricane Engineering & Testing Inc. Test Report No. HETI-08-2166C, dated 12/ 15/09, signed and sealed by Candido F. Font, P.E.  
(Submitted under NOA#09-0224.07)
4. Test reports on: 1) Air Infiltration Test, per FBC, TAS 202-94  
2) Uniform Static Air Pressure Test, Loading per FBC, TAS 20294  
3) Water Resistance Test, per FBC, TAS 202-94  
4) Forced Entry Test, per FBC 2411 3.2.1 and TAS 202-94  
along with installation diagram of a 53-1/4" wide x 76" high ECO-Guard Series 100 aluminum single hung window, prepared by Hurricane Engineering & Testing Inc. Test Report No. HETI-08-2168, dated 12/15/09, signed and sealed by Candido F. Font, P.E.  
(Submitted under NOA#09-0224.07)

  
Manuel Perea, P.E.  
Product Control Examiner  
NOA No. 14-0317.02  
Expiration Date: April 08, 2019  
Approval Date: April 10, 2014



NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

**B. TESTS (CONTINUED)**

5. Test reports on: 1) Large Missile Impact Test per FBC, TAS 201-94  
2) Cyclic Wind Pressure Loading per FBC, TAS 203-94  
along with installation diagram of a 53-1/4" wide x 76-1/4" high ECO-Guard Series 100 aluminum single hung window, prepared by Hurricane Engineering & Testing Inc. Test Report No. HETI-08-2170, dated 12/15/09, signed and sealed by Candido F. Font, P.E.  
(Submitted under NOA#09-0224.07)

**C. CALCULATIONS**

1. Anchor verification calculations and structural analysis, complying with FBC-2010, dated 02/24/14, prepared by Al-Farooq Corporation, signed and sealed by Javad Ahmad, P.E.
2. Glazing complies with ASTM E1300-09

**D. QUALITY ASSURANCE**

1. Miami-Dade Department of Regulatory and Economic Resources (RER)

**E. MATERIAL CERTIFICATIONS**

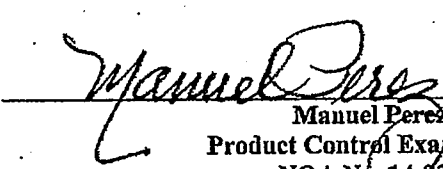
1. Notice of Acceptance No. 13-0129.27 issued to E.I. DuPont DeNemours & Co., Inc. for their "DuPont Butacite® PVB Interlayer" dated 04/11/13, expiring on 12/11/16.

**F. STATEMENTS**

1. Statement letter of conformance, complying with FBC-2010, and of no financial interest, February 24, 2014, signed and sealed by Javad Ahmad, P.E.
2. Proposal issued by the Product Control Section, dated 03/25/13, signed by Jaime Gascon, P.E., Chief, Product Control Section.

**G. OTHER**

1. Notice of Acceptance No. 13-0206.04, issued to Eco Window Systems, LLC for their Series "Eco-Guard 100" Aluminum Single Hung Window - L.M.I.", approved on 05/02/13 and expiring on 04/08/14.

  
Manuel Perez, P.E.  
Product Control Examiner  
NOA No. 14-0317.02  
Expiration Date: April 08, 2019  
Approval Date: April 10, 2014

# MecaWind Std v2.2.4.5 per ASCE 7-10

Developed by MECA Enterprises, Inc. Copyright [www.mecaenterprises.com](http://www.mecaenterprises.com)

Date : 4/2/2014 Project No. :  
 Company Name : COCONUT GROVE GLASS & MIRROR Designed By : EDWARD A. LANDERS, P.E.  
 Address : 3660 N.W. 41 ST. Description : IMPACT WINDOWS  
 City : MIAMI Customer Name : BIG PINK  
 State : FL. Proj Location : 157 COLLINS AVE. 2nd FLOOR  
 File Location: C:\Documents and Settings\edwardv\Application Data\MecaWind\Default.wnd

## Input Parameters: Envelope Procedure per ASCE 7-10 Chapter 28 Part 1

Basic Wind Speed(V)	=	175.00 mph	Exposure Category	=	D
Structural Category	=	II	Flexible Structure	=	No
Natural Frequency	=	N/A	Kd Directional Factor	=	0.85
Importance Factor	=	1.00	Zg	=	700.00 ft
Alpha	=	11.50	Bt	=	1.07
At	=	0.09	Bm	=	0.80
Am	=	0.11	l	=	650.00 ft
Cc	=	0.15	Zmin	=	7.00 ft
Epsilon	=	0.13	Slope of Roof(Theta)	=	.00 Deg
Slope of Roof	=	0 : 12	Type of Roof	=	MONOSLOPE
Ht: Mean Roof Ht	=	28.00 ft	Eht: Eave Height	=	28.00 ft
RHt: Ridge Ht	=	28.00 ft	Overhead Type	=	No Overhang
OH: Roof Overhang at Eave	=	.00 ft	Bldg Width Across Ridge	=	50.00 ft
Bldg Length Along Ridge	=	140.00 ft			

## Gust Factor Calculations

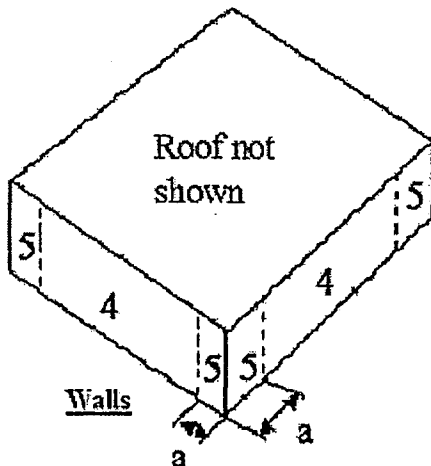
Gust Factor Category I Rigid Structures - Simplified Method  
 Gust1: For Rigid Structures (Nat. Freq.>1 Hz) use 0.85 = 0.85

Gust Factor Category II Rigid Structures - Complete Analysis  
 Zm:  $0.6 \cdot H_t$  = 16.80 ft  
 lzm:  $C_c \cdot (33/Z_m)^{1/4}$  = 0.17  
 Lzm:  $1 \cdot (Z_m/33)^{1/4} \cdot Epsilon$  = 597.40 ft  
 Q:  $(1/(1+0.63 \cdot ((B \cdot H_t)/L_z)^{0.63}))^{0.5}$  = 0.92  
 Gust2:  $0.925 \cdot ((1+1.7 \cdot l_z \cdot C_c \cdot (33/Z_m)^{1/4}) / (1+1.7 \cdot 3.4 \cdot lzm))$  = 0.89

Gust Factor Summary  
 Not a Flexible Structure use the Lesser of Gust1 or Gust2 = 0.85

Table 26.11-1 Internal Pressure Coefficients for Buildings, GCpi  
 GCpi : Internal Pressure Coefficient = +/-0.18

## Wind Pressure on Components and Cladding



2	2	3
2	1	1
3	2	2

Gable Roof  $\theta \leq 7$

All pressures shown are based upon ASD Design, with a Load Factor of .6

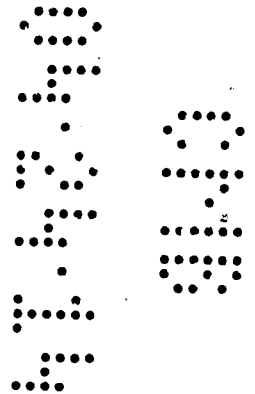
Width of Pressure Coefficient Zone "a" = 5.00 ft

Description	Width ft	Span ft	Area Zone ft <sup>2</sup>	Max GCp	Min GCp	Max P psf	Min P psf
MKS. " C & D"	2.00	5.00	10.0	4	0.90 -0.99	49.59	-53.72
MKS. "C & D"	2.00	5.00	10.0	5	0.90 -1.26	49.59	-66.12

*Edward A. Landers*  
 4-18-14

MKS. "A & B"  
MKS. "A & B"

3.08	5.25	16.2	4	0.87	-0.96	48.06	-52.20
3.08	5.25	16.2	5	0.87	-1.19	48.06	-63.07



*[Handwritten signature]*  
4-18-14



DEPARTMENT OF PERMITTING, ENVIRONMENT, AND REGULATORY  
AFFAIRS (PERA)

BOARD AND CODE ADMINISTRATION DIVISION

**NOTICE OF ACCEPTANCE (NOA)**

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/pera/](http://www.miamidade.gov/pera/)

**PGT Industries**  
1070 Technology Drive,  
North Venice, FL 34275

**SCOPE:**

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County PERA - Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. PERA reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code, including the High Velocity Hurricane Zone.

**DESCRIPTION: Series "PGT" Clipped Extruded Aluminum Tube Mullion - L.M.I.**

**APPROVAL DOCUMENT:** Drawing No. 6300JR, titled "Impact-Resistant Aluminum Tube Mullions", sheets 1 through 22 of 22, prepared by manufacturer, dated 08/29/11, signed and sealed by Anthony Lynn Miller, P.E., bearing the Miami-Dade County Product Control Revision stamp with the Notice of Acceptance number and expiration date by the Miami-Dade County Product Control Section.

**MISSILE IMPACT RATING: Large and Small Missile Impact Resistant**

**LABELING:** Each unit shall bear a permanent label with the manufacturer's name or logo, city, state, model/series, and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

**RENEWAL** of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

**TERMINATION** of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

**ADVERTISEMENT:** The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

**INSPECTION:** A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA revises NOA # 10-0819.05 and consists of this page 1 and evidence page E-1, as well as approval document mentioned above.

The submitted documentation was reviewed by Manuel Perez, P.E.

MIAMI-DADE COUNTY  
APPROVED

NOA No. 11-0922.01  
Expiration Date: May 26, 2016  
Approval Date: December 08, 2011  
Page 1

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**A. DRAWINGS**

1. Manufacturer's die drawings and sections.
2. Drawing No. 6300JR, titled "Impact-Resistant Aluminum Tube Mullions", sheets 1 through 22 of 22, prepared by manufacturer, dated 08/29/11, signed and sealed by Anthony Lynn Miller, P.E.

**B. TESTS**

1. Test reports on: 1) Air Infiltration Test, per FBC, TAS 202-94  
2) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94  
3) Water Resistance Test, per FBC, TAS 202-94  
4) Large Missile Impact Test per FBC, TAS 201-94  
5) Cyclic Wind Pressure Loading per FBC, TAS 203-94  
6) Forced Entry Test, per FBC 2411.3.2.1, and TAS 202-94  
along with marked-up drawings and installation diagram of clipped aluminum mullions, prepared by Fenestration Testing Lab, Inc., Test Report No. FTL 6443 (samples A-1 thru E-1), dated 02/28-11, and addendum letter dated 05/05/11, all signed and sealed by Marlin D. Brinson, P. E.  
(Submitted under previous NOA #10-0819.05)

**C. CALCULATIONS**

1. Anchor verification calculations and structural analysis, complying with FBC-2007 and FBC-2010, prepared by manufacturer, dated 09/20/11, signed and sealed by Anthony Lynn Miller, P.E.

**D. QUALITY ASSURANCE**

1. Miami-Dade Department of Permitting, Environment, and Regulatory Affairs (PERA).

**E. MATERIAL CERTIFICATIONS**

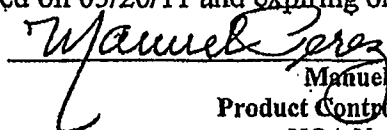
1. None.

**F. STATEMENTS**

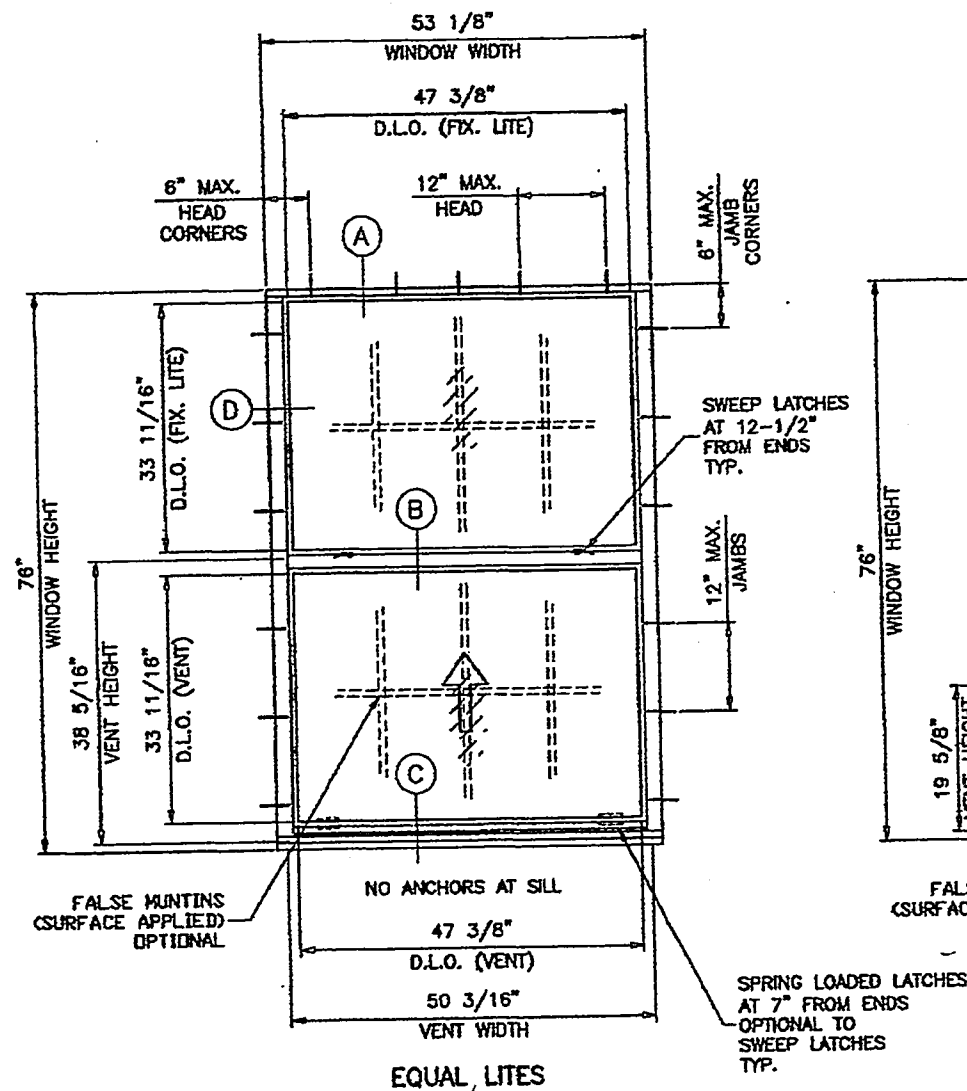
1. Statement letter of conformance with the FBC-2007 and FBC-2010, and no financial interest, dated June 06, 2011, signed and sealed by Anthony Lynn Miller, P.E.
2. Proposal # 10-1070-R issued by BNC to PGT Industries, dated 01/07/11, signed by Ishaq I. Chanda, Product Control Examiner.

**G. OTHER**

1. Notice of Acceptance No. 10-0819.05, issued to PGT Industries, for their PGT Series Aluminum Clipped Mullion - L.M.I., approved on 05/26/11 and expiring on 05/26/16.

  
Manuel Perez, P.E.  
Product Control Examiner  
NOA No. 11-0922.01

Expiration Date: May 26, 2016  
Approval Date: December 08, 2011



TYPICAL ELEVATIONS  
TESTED UNITS

**ECO-GUARD SERIES-100  
ALUMINUM SINGLE HUNG WINDOW**

DESIGN LOAD RATINGS FOR THESE WINDOWS TO BE AS PER CHARTS SHOWN ON SHEETS 2.

APPROVAL APPLIES TO SINGLE UNITS OR SIDE BY SIDE COMBINATIONS OF S.H./S.H. OR SINGLE HUNG WITH OTHER WINDOW TYPES IN MODULES OF TWO OR MORE WINDOWS USING MIAMI-DADE COUNTY APPROVED MULLIONS IN BETWEEN. LOWER DESIGN PRESSURE FROM WINDOWS OR MULLION APPROVAL WILL APPLY TO ENTIRE SYSTEM.

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

WOOD BUCKS BY OTHERS, MUST BE ANCHORED PROPERLY TO TRANSFER LOADS TO THE STRUCTURE.

ANCHORS SHALL BE AS LISTED, SPACED AS SHOWN ON DETAILS, ANCHORS EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO.

ANCHORING OR LOADING CONDITIONS NOT SHOWN IN THESE DETAILS ARE NOT PART OF THIS APPROVAL.

A LOAD DURATION INCREASE IS USED IN DESIGN OF ANCHORS INTO WOOD ONLY.

MATERIALS INCLUDING BUT NOT LIMITED TO STEEL/METAL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF THE FLORIDA BLDG. CODE SECTION 2003.8.4.

THESE WINDOWS ARE RATED FOR LARGE & SMALL MISSILE IMPACT. SHUTTERS ARE NOT REQUIRED.

Engr. JAVAD AHMAD  
CIVIL  
FLA. PE # 70592  
MAILED 11/1/2014

PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No. 14-0317-02  
Expiration Date 8/8/2019  
By *Manuel Perez*  
Miami Dade Product Control

**AL-FAROOQ CORPORATION**  
ENGINEERS & PRODUCT DEVELOPMENT  
12355 S.W. 87 AVE  
MIAMI, FLORIDA 33174  
TEL (305) 264-8100 FAX (305) 262-6978  
COMP-ANL\W09-08ECO

ECO-GUARD SERIES-100 ALUM S.H. WDW. (L.M.I.)  
**ECO WINDOW SYSTEMS, LLC.**  
9118 N.W. 106 STREET  
MEDLEY, FL 33178  
TEL (305) 885-5299 FAX (305) 885-5902

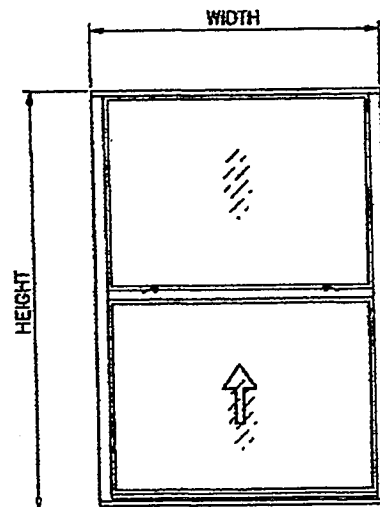
NO.	DATE	BY	DESCRIPTION
A	02.15.12		UPDATED TO 2010 FBC
B	01.11.13		MANUF. ADDRESS REV.
C	02.08.14		GLASS & LATCH OPTION ADDED

date: 02-12-09  
scale: 1/2"=1'-0"  
dr. by: HAMD  
chk. by:

drawing no.  
**W09-08**  
sheet 1 of 6

EQUAL LITES WINDOWS			
DESIGN LOAD CAPACITY - PSF			
FLANGE DIMS.		GLASS TYPES 'A', 'B' & 'C'	
WIDTH	HEIGHT	EXT.(+)	INT.(-)
19-1/8"	26" (3)	75.0	90.0
24"		75.0	90.0
26-1/2"		75.0	90.0
32"		75.0	90.0
37"		75.0	90.0
40"		75.0	90.0
48"		75.0	90.0
53-1/8"		75.0	90.0
19-1/8"	38-3/8" (3)	75.0	90.0
24"		75.0	90.0
26-1/2"		75.0	90.0
32"		75.0	90.0
37"		75.0	90.0
40"		75.0	90.0
48"		75.0	90.0
53-1/8"		75.0	90.0
19-1/8"	50-5/8" (4)	75.0	90.0
24"		75.0	90.0
26-1/2"		75.0	90.0
32"		75.0	90.0
37"		75.0	90.0
40"		75.0	90.0
48"		75.0	90.0
53-1/8"		75.0	90.0
19-1/8"	63" (5)	75.0	90.0
24"		75.0	90.0
26-1/2"		75.0	90.0
32"		75.0	90.0
37"		75.0	90.0
40"		75.0	90.0
48"		75.0	90.0
53-1/8"		75.0	90.0
19-1/8"	76" (6)	75.0	90.0
24"		75.0	90.0
26-1/2"		75.0	90.0
32"		75.0	90.0
37"		75.0	90.0
40"		75.0	90.0
48"		75.0	90.0
53-1/8"		75.0	90.0

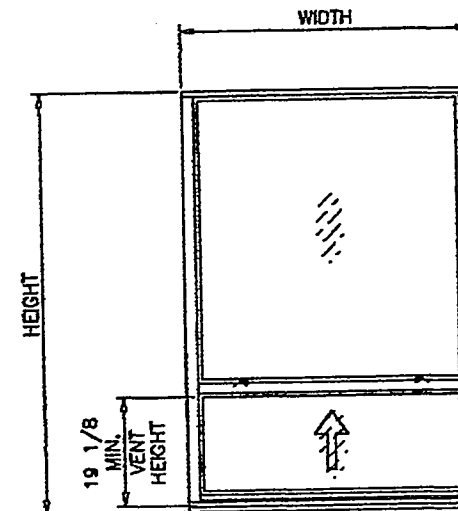
\* NO. IN PARENTHESIS INDICATE NO. OF ANCHORS PER JAMB.



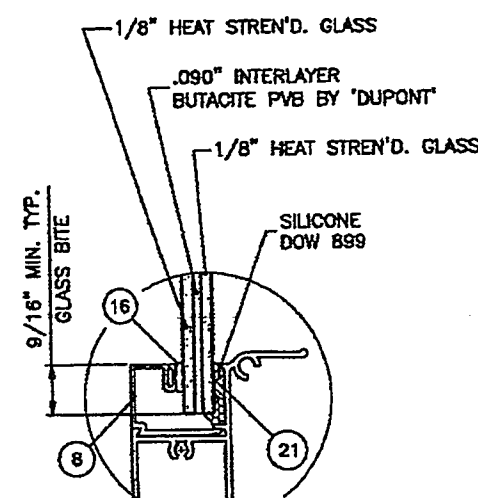
EQUAL LITES

UNEQUAL LITES WINDOWS					
DESIGN LOAD CAPACITY - PSF					
FLANGE DIMS.		GLASS TYPE 'A'		GLASS TYPES 'B' & 'C'	
WIDTH	HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
19-1/8"	50-5/8" (4)	75.0	90.0	75.0	90.0
24"		75.0	90.0	75.0	90.0
26-1/2"		75.0	90.0	75.0	90.0
32"		75.0	90.0	75.0	90.0
37"		75.0	90.0	75.0	90.0
40"		75.0	90.0	75.0	90.0
48"		75.0	90.0	75.0	90.0
53-1/8"		75.0	90.0	75.0	90.0
19-1/8"	63" (5)	75.0	90.0	75.0	90.0
24"		75.0	90.0	75.0	90.0
26-1/2"		75.0	90.0	75.0	90.0
32"		75.0	90.0	75.0	90.0
37"		75.0	90.0	75.0	90.0
40"		75.0	90.0	75.0	90.0
48"		-	-	75.0	90.0
53-1/8"		-	-	75.0	90.0
19-1/8"	76" (6)	75.0	90.0	75.0	90.0
24"		75.0	90.0	75.0	90.0
26-1/2"		75.0	90.0	75.0	90.0
32"		75.0	90.0	75.0	90.0
37"		-	-	75.0	90.0
40"		-	-	75.0	90.0
48"		-	-	75.0	90.0
53-1/8"		-	-	75.0	90.0

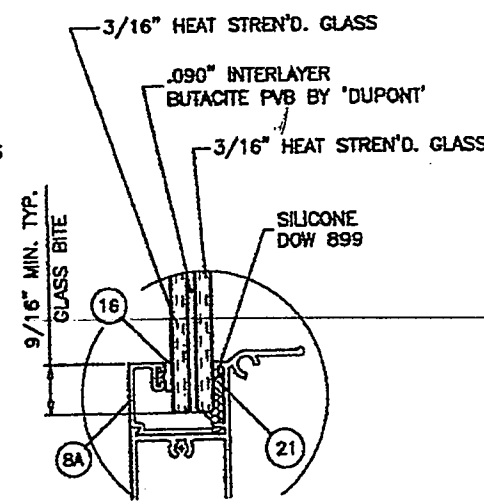
\* NO. IN PARENTHESIS INDICATE NO. OF ANCHORS PER JAMB.



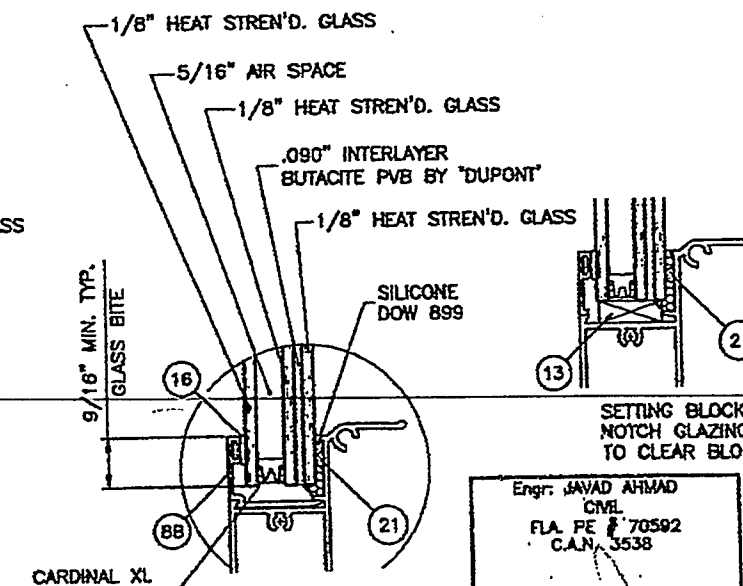
UNEQUAL LITES (ORIEL TYPE)



GLASS TYPE 'A'



GLASS TYPE 'B'



GLASS TYPE 'C'

GLAZING OPTIONS

TO QUALIFY FOR SMALL MISSILE IMPACT RATING  
EXTERIOR PLY OF GLASS TYPE 'C' MUST BE TEMPERED.

NOTE:  
GLASS CAPACITIES ON THIS SHEET ARE  
BASED ON ASTM E1300-09 (3 SEC. GUSTS)  
AND FLORIDA BUILDING COMMISSION  
DECLARATORY STATEMENT DCA05-DEC-219

Engr. JAVAD AHMAD  
CML  
FLA. PE # 70592  
C.A.N. 3538

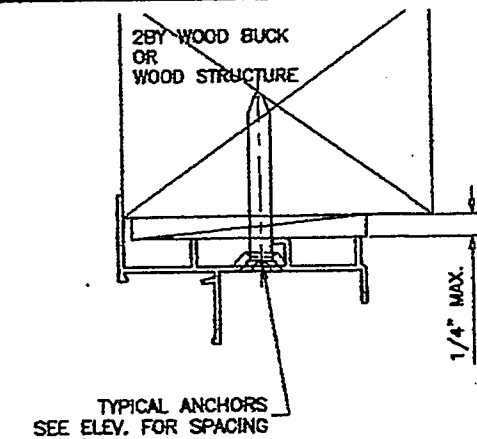
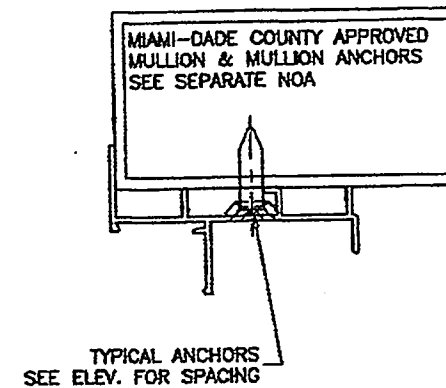
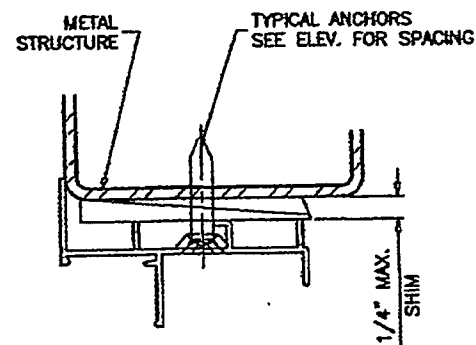
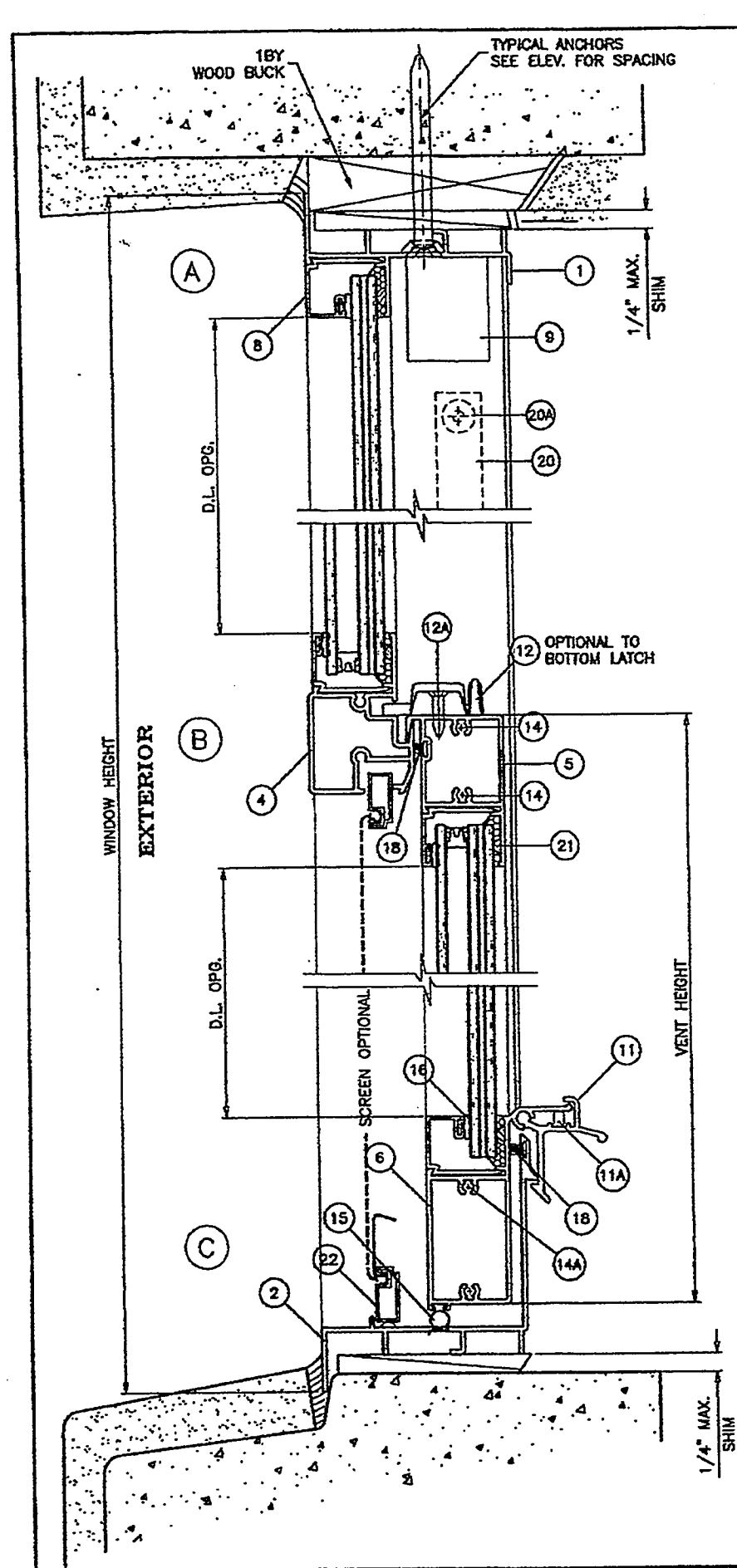
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Acceptance No. 14-0317.02  
Expiration Date April 2, 2019  
By *[Signature]*  
Miami Dade Product Control

**af c**  
**AL-FAROOQ CORPORATION**  
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COMP-ANL W09-08ECO

ECO-GUARD SERIES-100 ALUM S.H. WDW. (L.M.I.)  
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3114 N.W. 106 STREET  
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NO.	DATE	BY	DESCRIPTION
A	02.15.12		NO CHANGE THIS SHEET
B	01.11.13		MANUF. ADDRESS REV.
C	02.06.14		GLASS & LATCH OPTION ADDED

date: 02-12-08  
scale: 1/2" = 1"  
dr. by: HAMID  
chk. by:  
drawing no.  
**W09-08**  
sheet 2 of 6



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

**TYPICAL ANCHORS:** SEE ELEV. FOR SPACING

1/4" DIA. TAPCON BY 'ITW' (Fu=120 KSI, Fy=92 KSI)

INTO 2x4 WOOD BUCKS OR WOOD STRUCTURES  
1-1/2" MIN. PENETRATION INTO WOOD

THRU 1x4 BUCKS INTO CONC. OR MASONRY  
1-1/4" MIN. EMBED INTO CONC. OR MASONRY

DIRECTLY INTO CONC. OR MASONRY  
1-1/2" MIN. EMBED INTO CONC. OR MASONRY

1/4" DIA. TEKs OR SELF DRILLING SCREWS (GRADE 5 CRS)  
INTO METAL STRUCTURES

STEEL : 1/8" THK. MIN. (Fy = 36 KSI MIN.)

ALUMINUM : 1/8" THK. MIN. (6063-T5 MIN.)

(STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)

#14 SMS OR SELF DRILLING SCREWS (GRADE 2 CRS)

INTO MIAMI-DADE COUNTY APPROVED MULLIONS (MIN. THK. = .090")  
(NO SHIM SPACE)

**TYPICAL EDGE DISTANCE**

INTO CONCRETE AND MASONRY = 2-1/2" MIN.

INTO WOOD STRUCTURE = 1" MIN.

INTO METAL STRUCTURE = 3/4" MIN.

CONCRETE f'c = 3000 PSI MIN.

MASONRY f'm = 2000 PSI MIN.

**SEALANT:**

ALL JOINTS AND FRAME CONNECTIONS SEALED WITH JOINT SEALER.

Eng: JAVAD AHMAD  
CIVIL  
FLA. PE # 70592  
C.A.N. 3538

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Expiration Date APRIL 3, 2019  
By *Manuel Torres*  
Miami Dade Product Control

**AL-FAROOQ CORPORATION**  
ENGINEERS & PRODUCT DEVELOPMENT  
1296 S.W. 87 AVE  
MIAMI, FLORIDA 33174  
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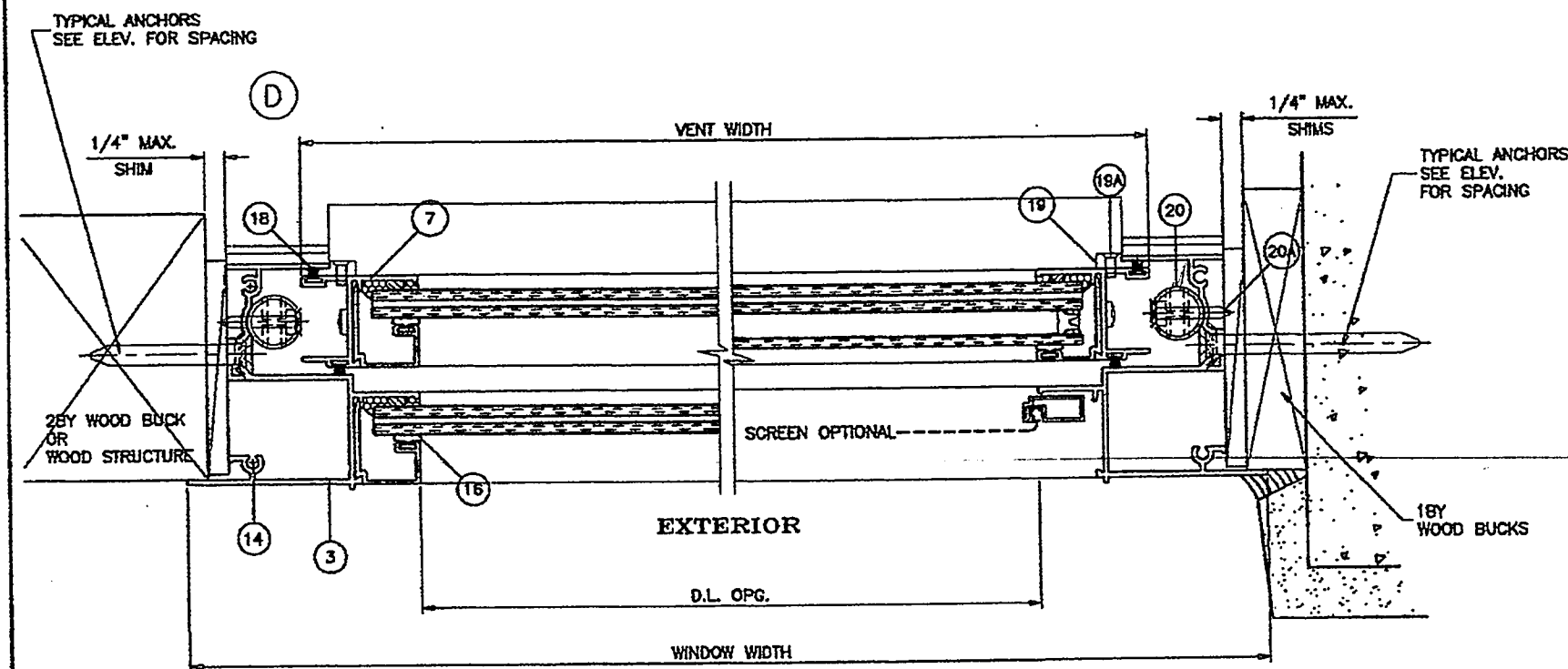
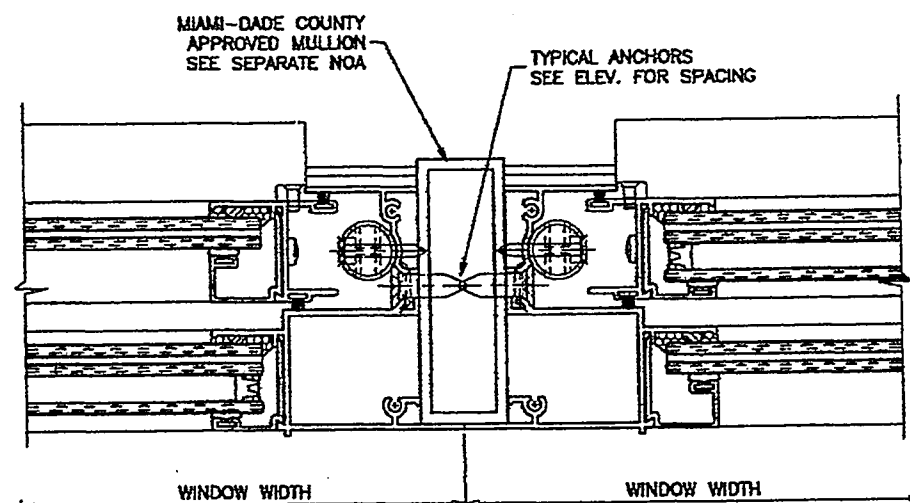
ECO-GUARD SERIES-100 ALUM S.H. WDW. (L.M.I.)  
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1114 N.W. 106 STREET  
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REVISIONS:	NO.	DATE	BY	DESCRIPTION
	1	02.15.12	NO	NO CHANGE THIS SHEET
	2	01.11.13	MANUF.	ADDRESS REV.
	3	02.08.14	GLASS & LATCH	OPTION ADDED

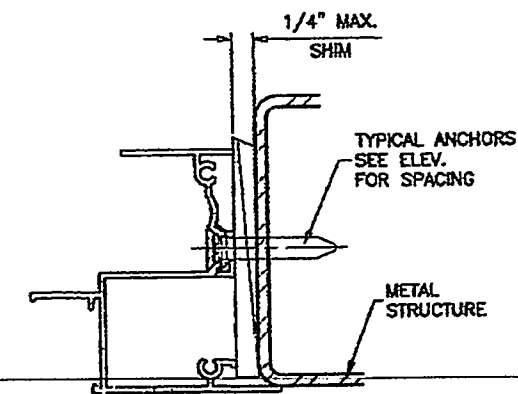
date: 02-12-09  
scale: 1/2" = 1"  
dr. by: HAMID  
chk. by:

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**W09-08**  
sheet 3 of 6





ITEM #	PART #	REQD.	DESCRIPTION	MATERIAL	MANP./SUPPLIER/REMARKS
1	FY101	1	FRAME HEAD	6063-T6	-
2	FY115	1	FRAME SILL	6063-T6	-
3	FY103	2	FRAME JAMB	6063-T6	-
4	FY104	1	FIXED MTG. RAIL	6063-T6	-
5	FY105	1	VENT TOP RAIL	6063-T6	-
6	FY114	1	VENT BOTTOM RAIL	6063-T6	-
7	FY107	2	VENT SIDE RAIL	6063-T6	-
8	FY108	AS REQD.	GLAZING BEAD (5/16" LAM. GLASS)	6063-T6	-
8A	FY109	AS REQD.	GLAZING BEAD (7/16" LAM. GLASS)	6063-T6	-
8B	FY110	AS REQD.	GLAZING BEAD (INSUL. LAM. GLASS)	6063-T6	-
9	FY116	2/VENT	SASH STOP	6063-T5	-
11	FY113	2/VENT	SPRING LOADED LATCH, AT 7" FROM ENDS	6063-T6	-
11A	-	1/ LATCH	LATCH SPRING	ST. STEEL	-
12	SL203P	2/VENT	SWEEP LATCH, AT 12-1/2" FROM ENDS	ZAMAK	SULLIVAN & ASSOC.
12A	#8 X 5/8"	2/ LATCH	LATCH INST. SCREWS	ST. STEEL	FH SMS
13	-	2/ LITE	SETTING BLOCK	EPDM	-
14	#8 X 1"	AS REQD.	FRAME & VENT ASSEMBLY SCREWS	CRS	PH SMS
14A	#8 X 3/8"	2/ VENT	BOTTOM RAIL ASSEMBLY SCREWS	CRS	PH SMS
15	E207	AS REQD.	BOTTOM RAIL SEAL - SERIES 101	NEOPRENE	ULTRAFAB
16	E203	AS REQD.	GLAZING BEAD BULB	SANTOPRENE	ULTRAFAB
18	W23181	AS REQD.	FIN SEAL W/STRIPPING	-	ULTRAFAB
19	FY117	4/ VENT	SASH GUIDE	CELCON	M&M PLASTICS
19A	#6 X 3/8"	1/ GUIDE	SASH GUIDE INST. SCREW	CRS	OH SMS TYPE B
20	F210	2/VENT	SASH BALANCE	-	SUPERBOOST BY BSI
20A	#8 X 5/8"	1/ BALANCE	BALANCE INST. SCREW	-	P FH SMS
21	-	AS REQD.	GLASS SPACER	SILICONE	FRANK LOWE
22	-	1	5/16" BOX SCREEN	-	OPTIONAL
23	FY120	-	FLUSH FRAME ADAPTER	6063-T6	OPTIONAL



Engr. JAVAD AHMAD  
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FLA. PE # 70582  
C.A.N. 3538

PRODUCT REVISED  
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Expiration Date 04-12-2019

By: *Manuel Perez*  
Miami/Dade Product Control

**AL-FAROOQ CORPORATION**  
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MIAMI, FLORIDA 33174  
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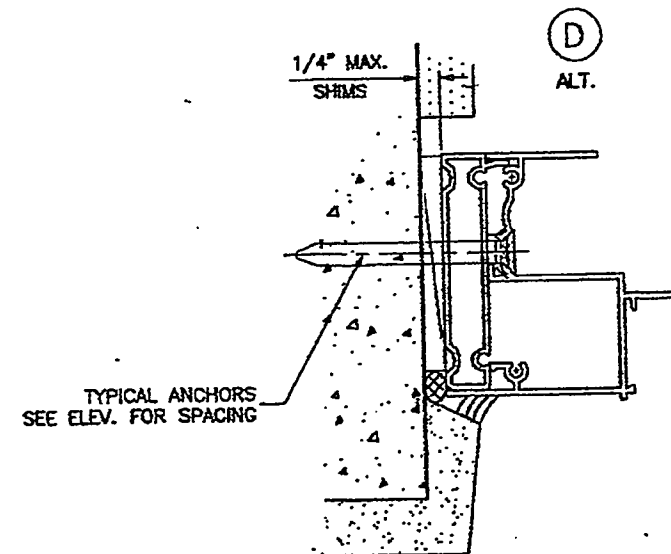
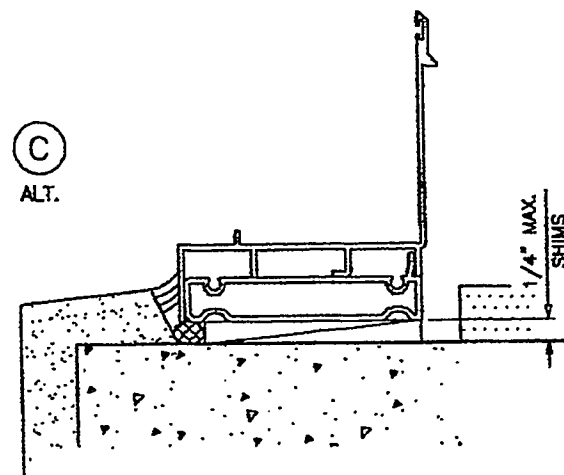
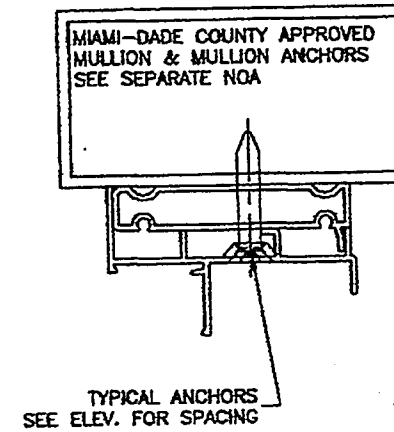
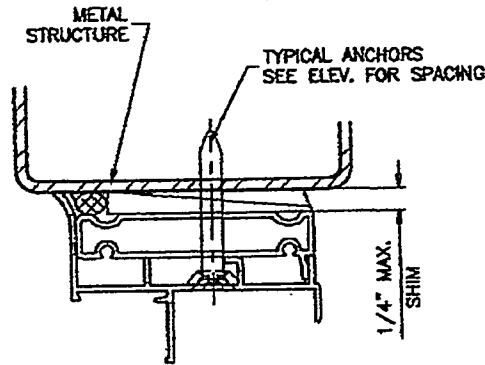
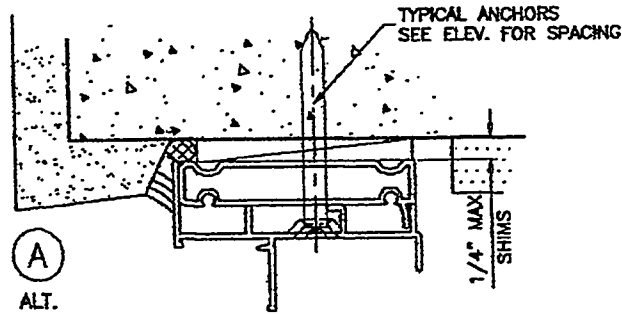
ECO-GUARD SERIES-100 ALUM. S.H. WDW. (L.M.I.)  
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date: 02-12-09  
scale: 1/2" = 1"  
dr. by: HAMID  
chk. by:

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**W09-08**  
sheet 4 of 6



# INSTALLATION DETAILS WITH FLUSH FRAME ADAPTER

Engr: JAVAD AHMAD  
CIVIL  
FLA. PE # 70592  
C.A.N. 3538

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Expiration Date April 8, 2019

By: *Manuel Siro*  
Miami Dade Product Control

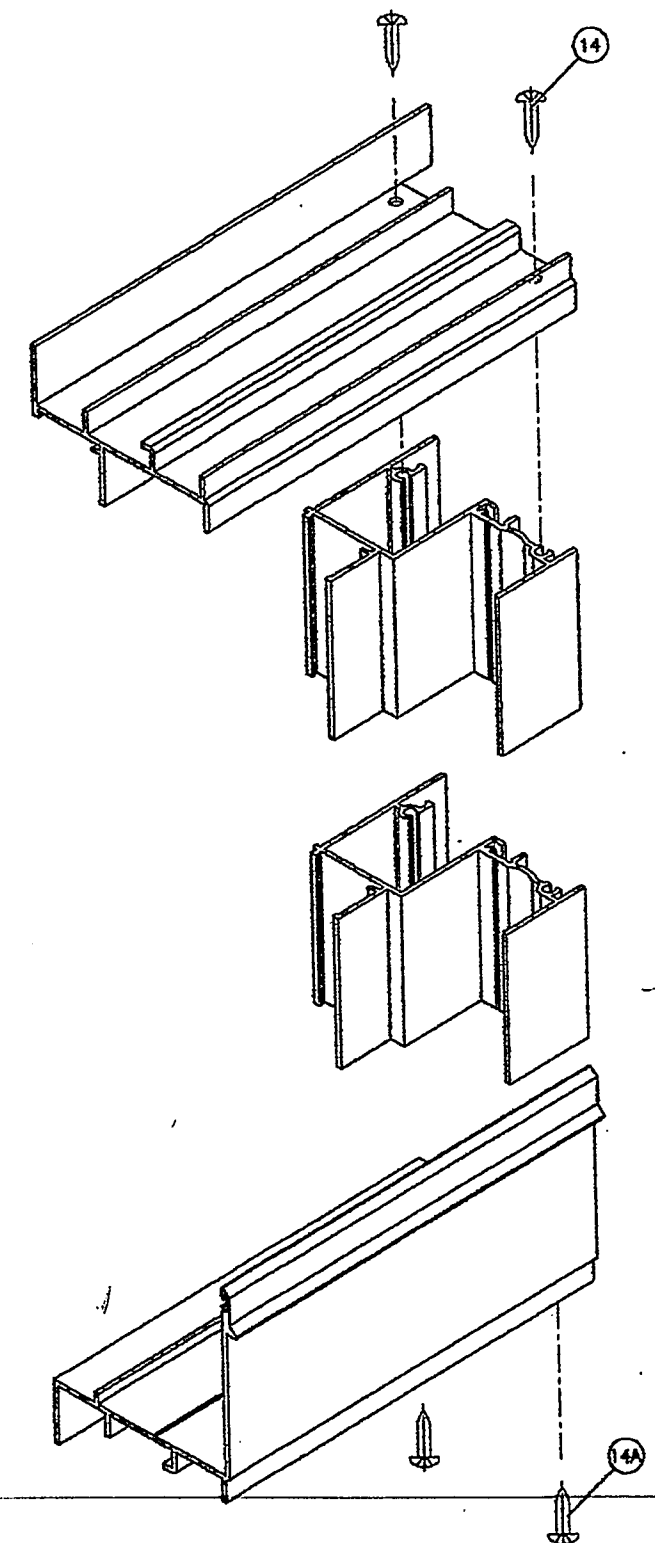
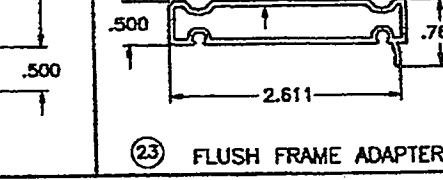
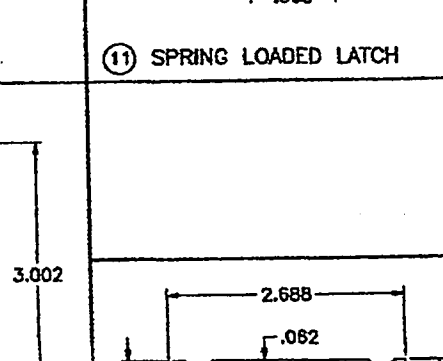
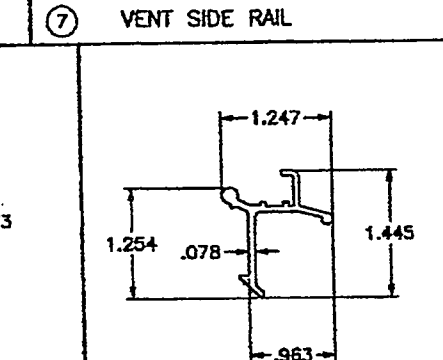
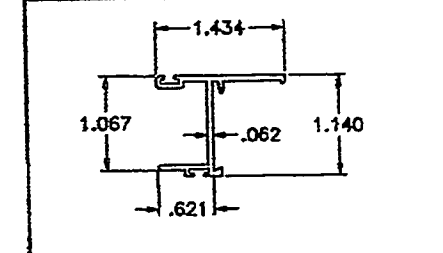
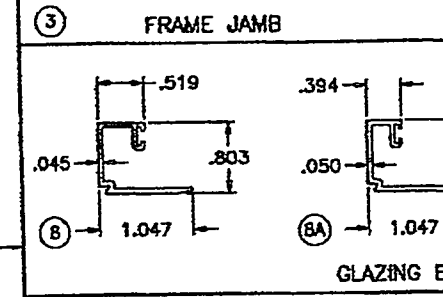
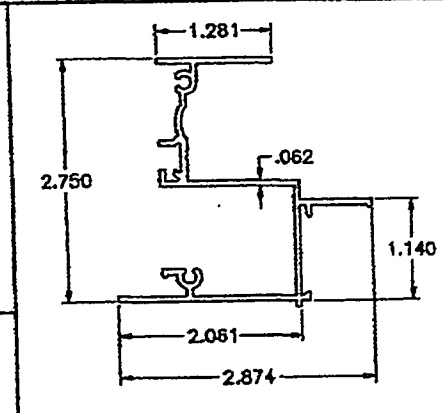
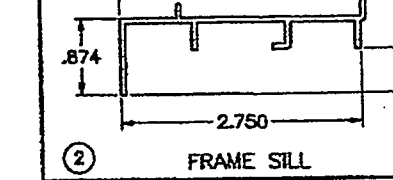
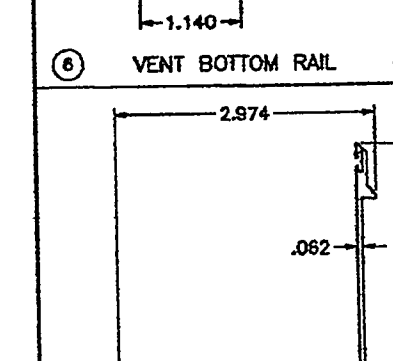
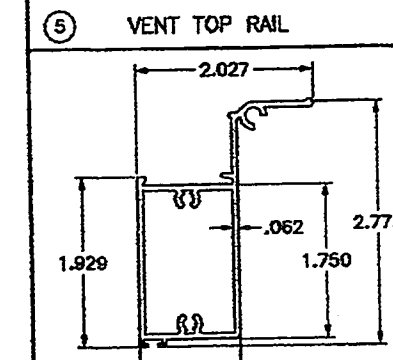
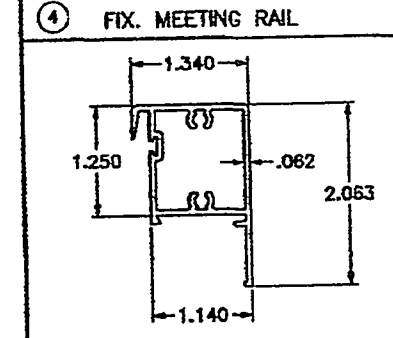
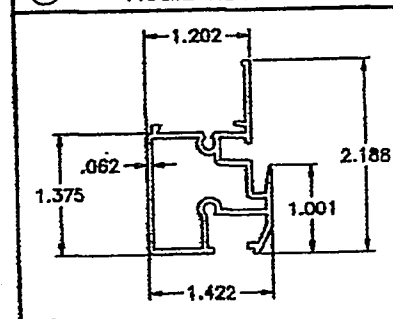
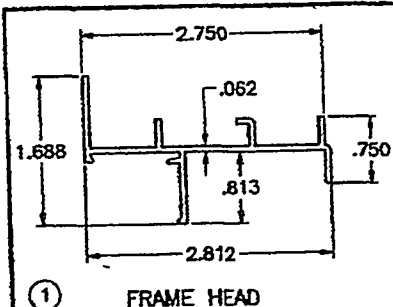
**AL-FAROOQ CORPORATION**  
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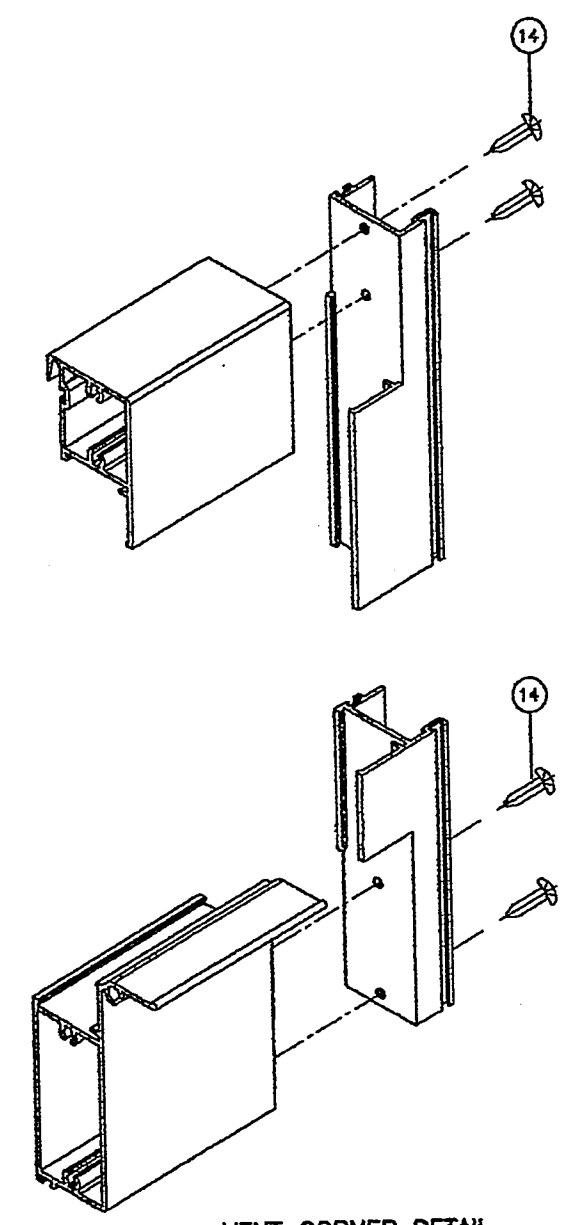
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C	02.08.14		NO CHANGE THIS SHEET

date: 02-12-08  
scale: 1/2" = 1"  
dr. by: HAMID  
chk. by:

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**W09-08**  
sheet 5 of 6



FRAME CORNERS DETAIL



VENT CORNER DETAIL

Engr. JAVAD AHMAD  
CIVIL  
FLA. PE # 70592  
C.A.N. 35538

PRODUCT REVISED  
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Expiration Date April 5, 2019  
By: *Mamad Feroz*  
Miami/Dade Product Control

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1235 S.W. 87 AVE  
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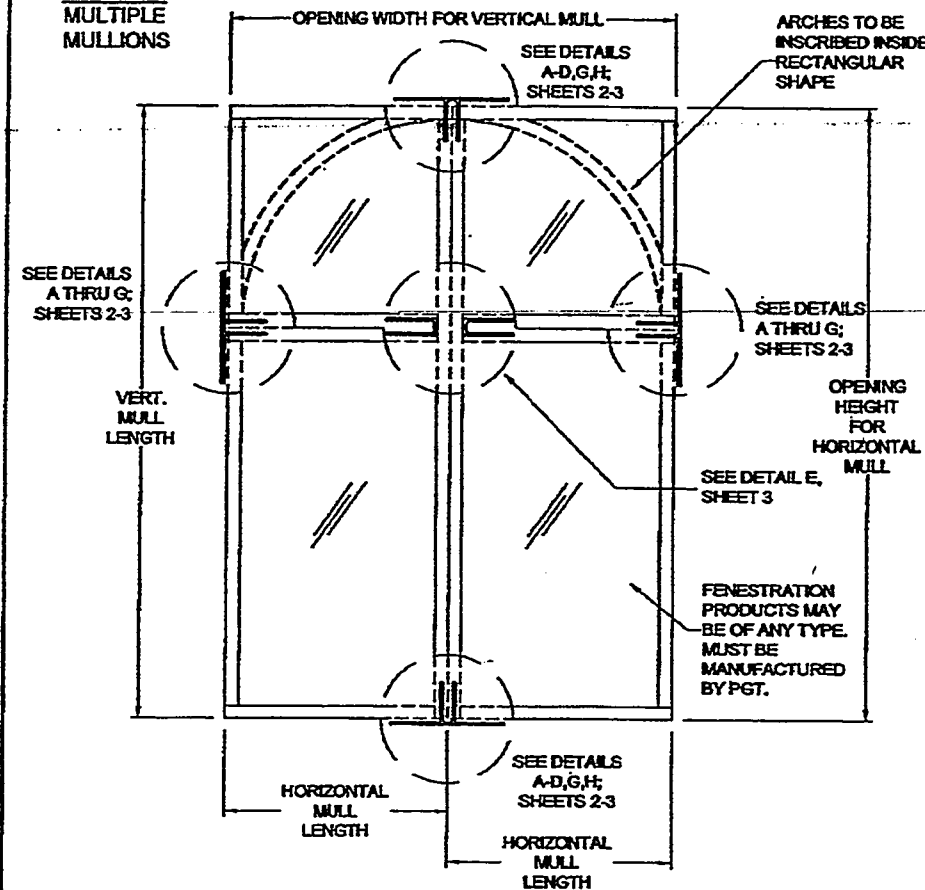
**ECO WINDOW SYSTEMS, LLC.**  
914 NW 106 STREET  
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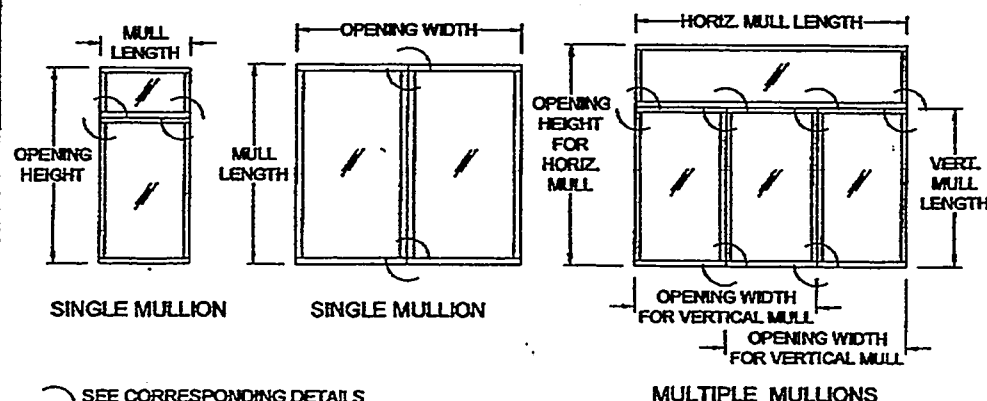
date: 02-12-09	scale: 1/2" = 1"	dr. by: HAMID	chk. by:
drawing no. W09-08		sheet 6 of 6	

SUITABLE FOR ALL LOCATIONS REQUIRING  
NON-IMPACT OR LARGE AND SMALL  
MISSILE IMPACT-RESISTANT PRODUCTS

FIGURE 1:  
MULTIPLE  
MULLIONS



ADDITIONAL EXAMPLES OF MULL CONFIGURATIONS:



SEE CORRESPONDING DETAILS  
FROM FIGURE 1 ABOVE.

GENERAL NOTES:

1) DETAILS SHOWN ARE FOR THE MULLION ONLY. ANCHORS SHOWN ARE IN ADDITION TO ANY ANCHORS REQUIRED FOR THE FENESTRATION PRODUCT INSTALLATION. TYPICAL APPLICATIONS ARE SHOWN. EACH SITUATION IS UNIQUE AND SHOULD BE EVALUATED BY AN EXPERIENCED INSTALLER FOR THE BEST INSTALLATION METHOD. OPTIONAL 1X OR 2X WOOD BUCKS IF USED, MUST BE ANCHORED PROPERLY TO TRANSFER LOADS AND ARE TO BE DESIGNED BY OTHERS.

2) THE TYPE AND NUMBER OF ANCHORS IS CRITICAL TO THE STRUCTURAL PERFORMANCE OF THE MULLED UNITS. MULLIONS HAVE BEEN TESTED AS "FREE-FLOATING" AND DO NOT NEED TO BE DIRECTLY ATTACHED TO THE MULLION CLIPS, BUT SHALL NOT HAVE A GAP OF MORE THAN 1/4" FROM THE CLIP.

3) THE ANCHORAGE METHODS SHOWN HAVE BEEN DESIGNED TO RESIST THE WINDLOADS CORRESPONDING TO THE REQUIRED DESIGN PRESSURE. MULLIONS ARE CALCULATED TO DEFLECT NO MORE THAN L/180. THE 1/3 STRESS INCREASE WAS NOT USED IN THIS ANCHOR EVALUATION. THE 1.6 LOAD DURATION FACTOR WAS USED FOR THE EVALUATION OF WOOD SCREWS.

4) PROPER SEALING OF ENTIRE ASSEMBLY IS THE RESPONSIBILITY OF OTHERS AND IS BEYOND THE SCOPE OF THESE INSTRUCTIONS.

5) USE THE COMBINED WIDTH OR HEIGHT OF ONLY TWO ADJACENT FENESTRATION PRODUCTS TO DETERMINE PRESSURES AND ANCHORAGE FOR THE COMMON MULLION, SEE EXAMPLES ON THIS SHEET AND SHEET 21. FOR MULTIPLE UNITS, CONSIDER ONLY TWO ADJACENT UNITS AT A TIME WHEN USING THE DESIGN PRESSURE AND ANCHORAGE TABLES. THE LOWEST DESIGN PRESSURE OF MULTIPLE MULLIONS OR FENESTRATION PRODUCTS SHALL APPLY.

6) WHEN FINDING YOUR SIZE IN THE MULLION TABLES, ALWAYS ROUND UP TO THE NEXT SIZE SHOWN ON THE TABLE(S).

7) ANCHOR EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO. WOOD BUCKS BY OTHERS, MUST BE ANCHORED PROPERLY TO TRANSFER LOADS TO THE STRUCTURE. ANCHORS SHALL BE COATED OR CORROSION RESISTANT AS APPROPRIATE FOR SUBSTRATE MATERIAL. DISSIMILAR MATERIALS SHALL BE PROTECTED AS REQUIRED TO PREVENT REACTIONS.

8) REFERENCE: TEST REPORTS: FTL-6443; ELCO ULTRACON/AGGRE-GATOR-NOA'S; ANSI/AF&PA NDS FOR WOOD CONSTRUCTION; ADM-ALUMINUM DESIGN MANUAL

9) MULLIONS AND CLIPS HAVE BEEN DESIGNED & TESTED TO COMPLY WITH THE REQUIREMENTS OF THE FLORIDA BUILDING CODE, AND ARE APPROVED FOR IMPACT AND NON-IMPACT APPLICATIONS. MULLIONS ARE ONLY TO BE USED WITH PGT-APPROVED FENESTRATION PRODUCTS HAVING CURRENT APPROVALS.

10) MULLIONS ARE IN COMPLIANCE FOR USE IN THE HVHZ.

INSTRUCTIONS:

1) DETERMINE THE DESIGN PRESSURE REQUIREMENT (LBS/FT<sup>2</sup>) FOR THE OPENING USING THE ASCE-7 STANDARD.

2) CHOOSE A MULLION TYPE THAT WILL FIT THE DEPTH OF THE FENESTRATION PRODUCT'S FRAME DEPTH.

3) REFER TO SHEET 22 TO DETERMINE IF THE WIND LOADING IS "RECTANGULAR" OR "TRIANGULAR/TRAPEZOIDAL".

4) FIND THE CHOSEN MULLION'S MULLION CAPACITY (LBS/FT<sup>2</sup>) FROM TABLES 1A THROUGH 13A, ON SHEETS 5 THROUGH 17 RESPECTIVELY, USING THE MULLION TYPE, LENGTH AND OPENING WIDTH OR HEIGHT (DEPENDING IF THE MULLION IS SPANNING VERTICALLY OR HORIZONTALLY). THE MULLION CAPACITY (LBS/FT<sup>2</sup>) OBTAINED SHALL MEET OR EXCEED THE DESIGN PRESSURE REQUIREMENT (LBS/FT<sup>2</sup>) FOR THE OPENING OBTAINED IN STEP 1).

5) FROM THE SAME TABLE USED IN STEP 4) ABOVE, FIND THE VALUE IN THE NEXT COLUMN ANCHOR CAPACITY REQUIRED (LBS). THIS VALUE REPRESENTS THE WINDLOAD TRANSFERRED TO THE SUBSTRATE BY THE ANCHORS AND MUST BE MET TO ATTAIN THE FULL MULLION CAPACITY.

6) FROM THE ANCHOR CAPACITY (LBS) TABLE ON THE SAME SHEET AND USING YOUR ACTUAL SUBSTRATE CONDITION ( MULTIPLE ANCHOR/SUBSTRATE/ANCHOR-CLIP PATTERN MAY APPLY) SELECT AN ANCHOR CLIP PATTERN AND VERIFY THAT THE REQUIRED ANCHOR CAPACITY IS MET.

7) IF THE MULLION CAPACITY (LBS/FT<sup>2</sup>) OBTAINED IN THE TABLE IS HIGHER THAN THE DESIGN PRESSURE REQUIREMENT (LBS/FT<sup>2</sup>) FOR THE OPENING, YOU MAY USE THE "ANCHOR CAPACITY ADJUSTMENT FORMULA" TO OBTAIN THE LOWER ANCHOR CAPACITY REQUIRED. WITH THIS VALUE A LOWER ANCHOR CAPACITY OPTION MAY BE SELECTED FOR THE SAME SUBSTRATE

8) VERIFY THE DESIGN PRESSURE RATING (LBS/FT<sup>2</sup>) FOR THE FENESTRATION PRODUCT TO BE USED AND COMPARE WITH THE FINAL MULLION CAPACITY (LBS/FT<sup>2</sup>) OBTAINED FOR THE MULLION SYSTEM. THE LOWER OF THE TWO SHALL APPLY FOR THE ENTIRE MULLED FENESTRATION PRODUCT ASSEMBLY.

9) HIGHLIGHT OPTION USED AND TABLE VALUES USED IN A SPECIFIC APPLICATION WHEN USING THIS NOA TO APPLY FOR A PERMIT.

GENERAL NOTES	1
INSTRUCTIONS	1
ELEVATIONS	1
MULL TO 2X WOOD	2
MULL TO 1X & MASONRY	2
INSTALLATION NOTES	2
MULL TO MASONRY	3
MULL TO STEEL STUD	3
MULL TO MULL	3
ANCHOR SPECS	3
ALTERNATE CLIPS	4
BAY MULL INSTALLATION	4
1 X 2 X .125 MULL SPECS	5
1 X 2 X .375 MULL SPECS	6
1 X 2.75 X .375 MULL SPECS	7
1 X 2.75 X .65 MULL SPECS	8
1 X 3.125 X .500 MULL SPECS	9
1 X 4 X .125 MULL SPECS	10
1 X 4 X .375 MULL SPECS	11
1.25 X 3.188 X .265 MULL SPECS	12
2 X 4 X .25 MULL SPECS	13
2 X 6 X .25 MULL SPECS	14
1.28 X 2.11 X .125 MULL SPECS	15
30" X 3.25 BAY MULL SPECS	16
45" X 3.25 BAY MULL SPECS	17
MULLION & CLIP DIMENSIONS	18-20
EXAMPLES 1 & 2	21
LOADING EXAMPLES	22

IMPACT-RESISTANT ALUMINUM TUBE MULLIONS

GENERAL NOTES AND ELEVATION

Sheet 1 of 22

Drawing No. 6300JR

Scale: N/A

Checked By: J. R. SCHWARTZ

Date: 08/29/11

Rev. By: J. R. SCHWARTZ

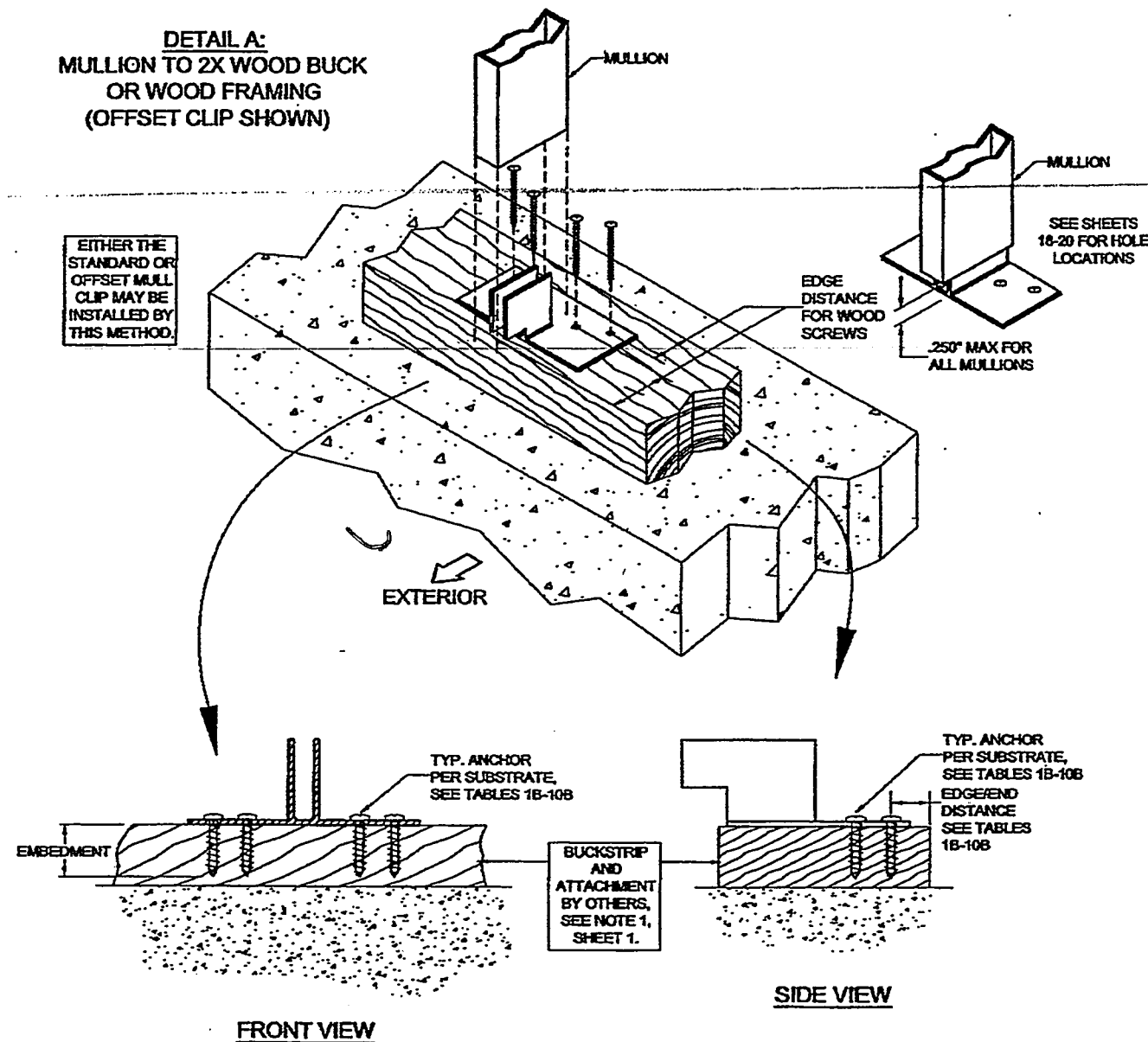
Date: 08/29/11

Revision:

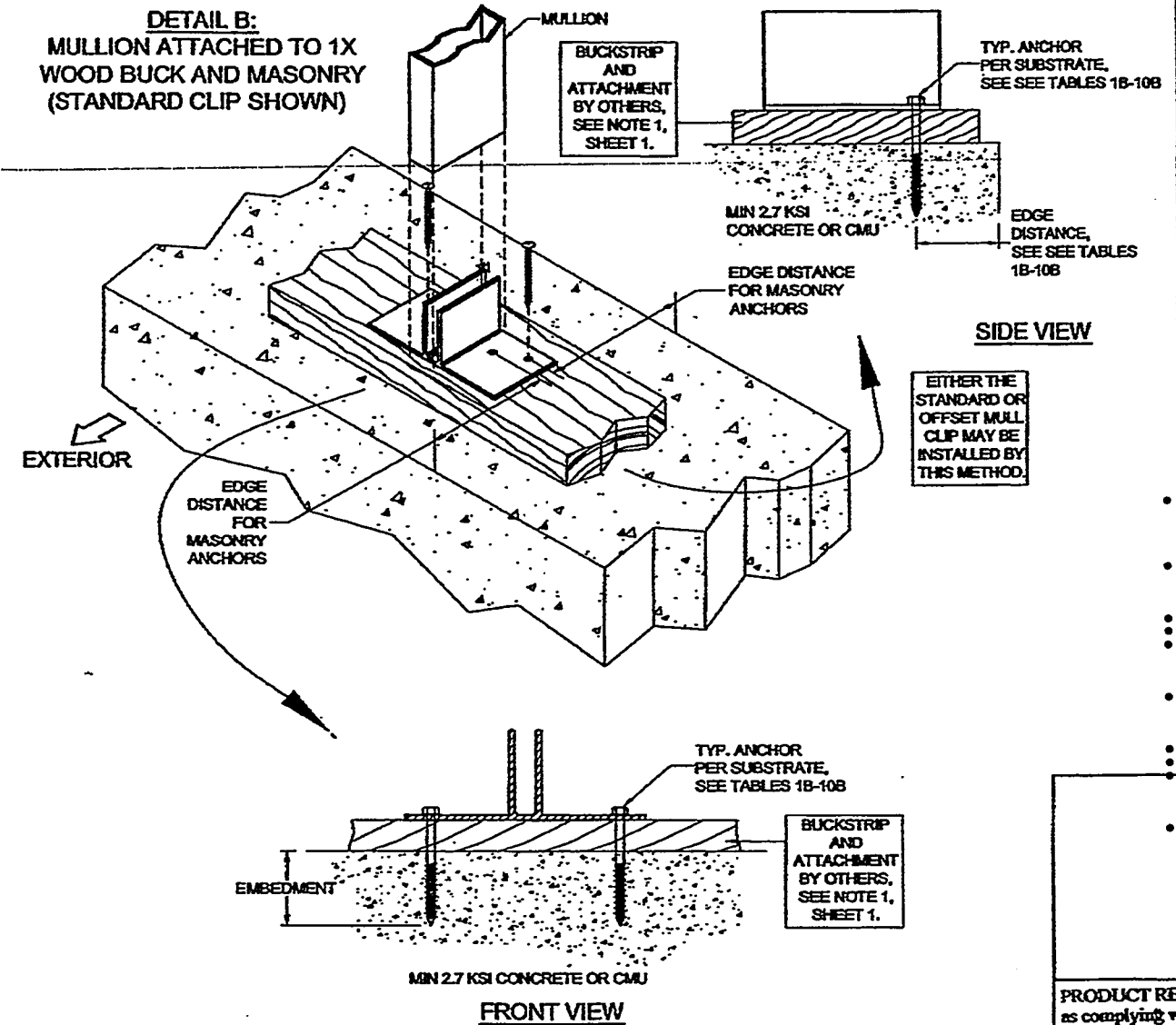
PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No 11-0922.01  
Expiration Date 11/26/2016  
By: [Signature]  
Miami/Dade Product Control

ANTHONY LYNN MILLER  
LICENSE  
No. 58705  
a2  
11/30/11  
STATE OF  
FLORIDA  
PROFESSIONAL ENGINEER  
A. LYNN MILLER, P.E.  
FL P.E.# 58705

**DETAIL A:**  
MULLION TO 2X WOOD BUCK  
OR WOOD FRAMING  
(OFFSET CLIP SHOWN)



**DETAIL B:**  
MULLION ATTACHED TO 1X  
WOOD BUCK AND MASONRY  
(STANDARD CLIP SHOWN)



**INSTALLATION NOTES:**

- 1) ANCHOR EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO.
- 2) QUANTITY OF ANCHORS AND MULLION SIZE SHOWN ABOVE ARE FOR PICTORIAL REPRESENTATION ONLY. BECAUSE THE ANCHOR CAPACITY IS BASED PARTLY ON THE ANCHOR TO ANCHOR DISTANCE, THE CORRECT QUANTITY AND LOCATION OF ANCHORS MUST BE FOLLOWED, REFER TO THE TABLES ON THE FOLLOWING SHEETS. FOR DETAILS A-D, EITHER THE STANDARD OR INTERIOR CLIP MAY BE USED.
- 3) ANCHOR HEAD TYPE MAY BE PANHEAD, HEXHEAD OR FLATHEAD.
- 4) WOOD BUCKS ARE OPTIONAL, SEE DETAIL C, SHEET 3.
- 5) FOR MASONRY APPLICATIONS IN MIAMI-DADE COUNTY, USE ONLY MIAMI-DADE COUNTY APPROVED ELCO ULTRACON OR ELCO 1/4\" S.S. AGGREGATOR MASONRY ANCHORS.

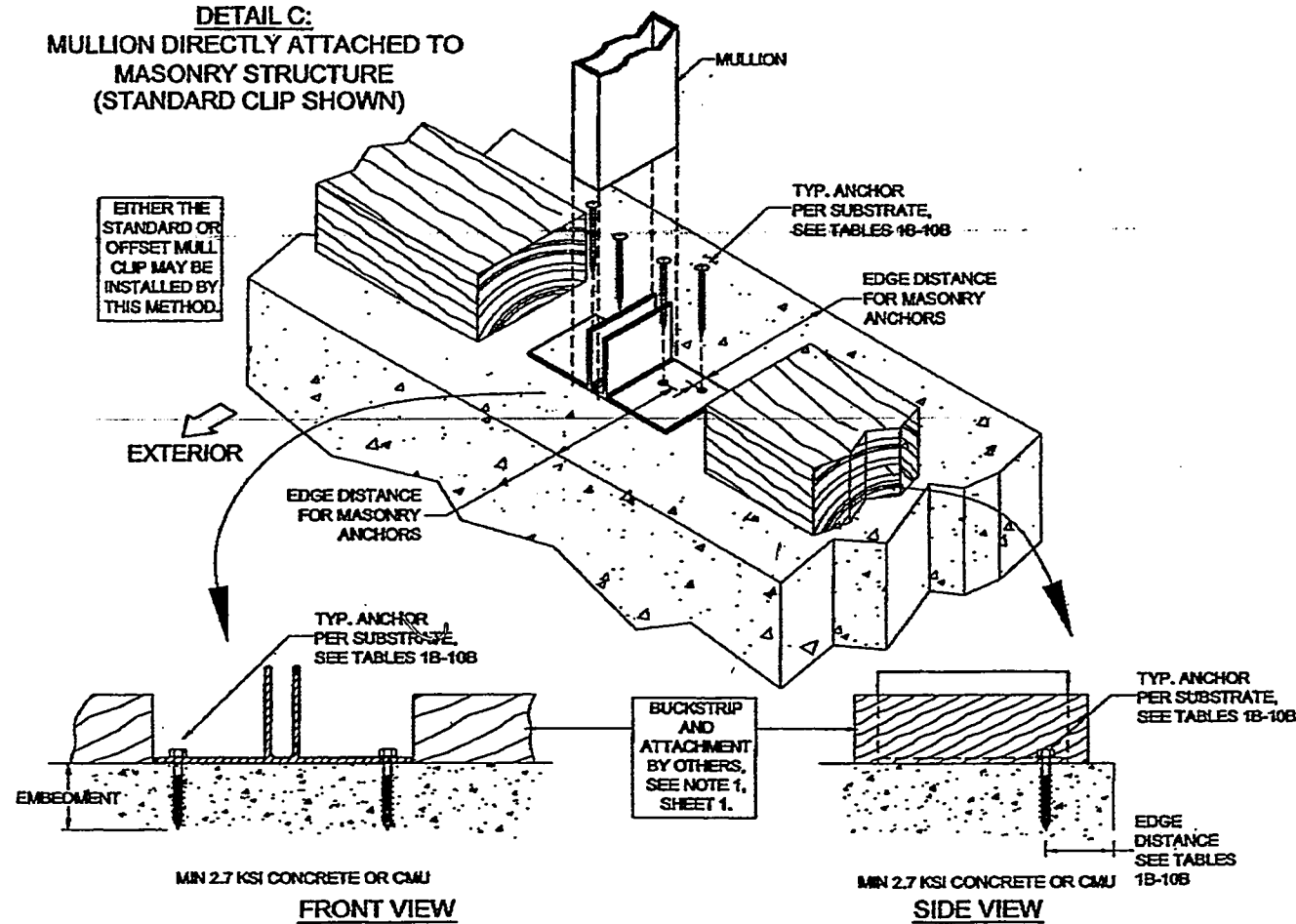
**ELCO**  
1070 TECHNOLOGY DRIVE  
N. VENICE, FL 33475  
P.O. BOX 1529  
MIAMI, FL 33124  
FL CERT. OF AUTH. # 28268

**IMPACT-RESISTANT ALUMINUM TUBE MULLIONS**  
**INSTALLATION INSTRUCTIONS A**  
Sheet: 2 of 22  
Rev: 2  
Series: N/A  
Drawing No: 6300JR  
Date: 08/29/11  
Checked By: J. ROSOWSKI  
Rev. By: J. ROSOWSKI

PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No 11-0922.01  
Expiration Date 11/30/16  
By *Manuel J. Miller*  
Miami Dade Product Control

ANTHONY LYNN MILLER  
LICENSE  
No. 58705  
11/30/11  
STATE OF  
FLORIDA  
PROFESSIONAL ENGINEER  
A. LYNN MILLER, P.E.  
FL P.E.# 58705

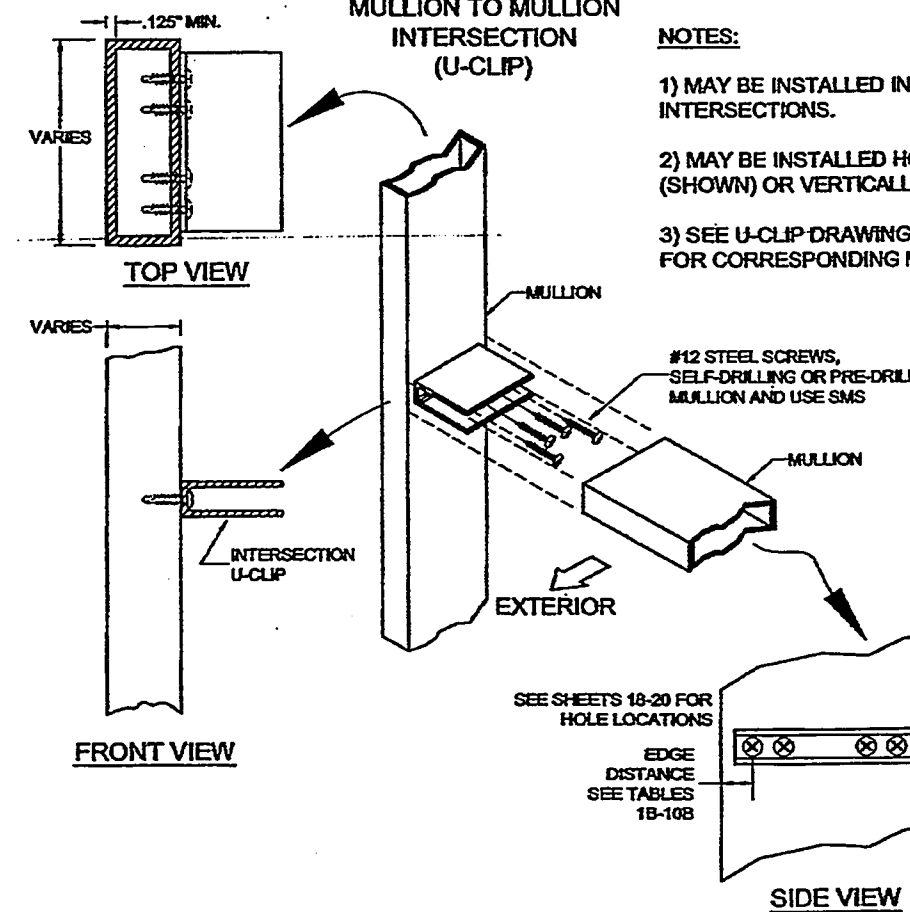
**DETAIL C:**  
MULLION DIRECTLY ATTACHED TO  
MASONRY STRUCTURE  
(STANDARD CLIP SHOWN)



**INSTALLATION NOTES:**

- 1) ANCHOR EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO.
- 2) QUANTITY OF ANCHORS AND MULLION SIZE SHOWN ABOVE ARE FOR PICTORIAL REPRESENTATION ONLY. BECAUSE THE ANCHOR CAPACITY IS BASED PARTLY ON THE ANCHOR TO ANCHOR DISTANCE, THE CORRECT QUANTITY AND LOCATION OF ANCHORS MUST BE FOLLOWED, REFER TO THE TABLES ON THE FOLLOWING SHEETS. FOR DETAILS A-D, EITHER THE STANDARD OR INTERIOR CLIP MAY BE USED.
- 3) ANCHOR HEAD TYPE MAY BE PANHEAD, HEXHEAD OR FLATHEAD.
- 4) WOOD BUCKS ARE OPTIONAL, SEE DETAIL C, SHEET 3.
- 5) FOR MASONRY APPLICATIONS IN MIAMI-DADE COUNTY, USE ONLY MIAMI-DADE COUNTY APPROVED ELCO ULTRACON OR ELCO 1/4" S.S. AGGREGATOR MASONRY ANCHORS.

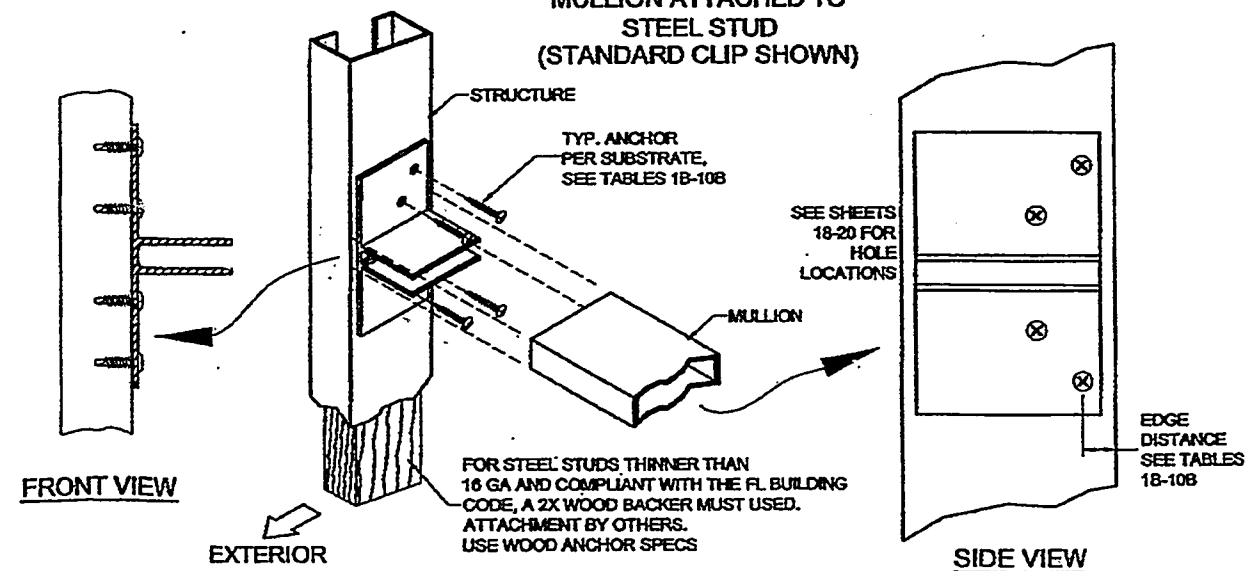
**DETAIL E:**  
MULLION TO MULLION  
INTERSECTION  
(U-CLIP)



**NOTES:**

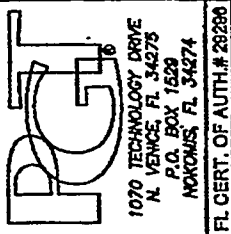
- 1) MAY BE INSTALLED IN "TEE" OR "CROSS" INTERSECTIONS.
- 2) MAY BE INSTALLED HORIZONTALLY (SHOWN) OR VERTICALLY.
- 3) SEE U-CLIP DRAWINGS, SHEETS 18-20 FOR CORRESPONDING MULLION.

**DETAIL D:**  
MULLION ATTACHED TO  
STEEL STUD  
(STANDARD CLIP SHOWN)



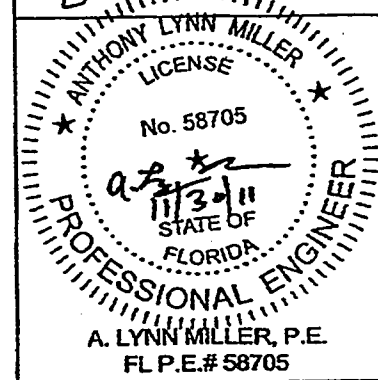
**NOTES:**

- 1) FOR 2X WOOD-BACKED STEEL STUDS, WOOD ANCHOR VALUES MAY BE USED.
- 2) SEE CORRESPONDING MULLION TABLES, SHEETS 6-17, FOR QUANTITY OF SCREWS.



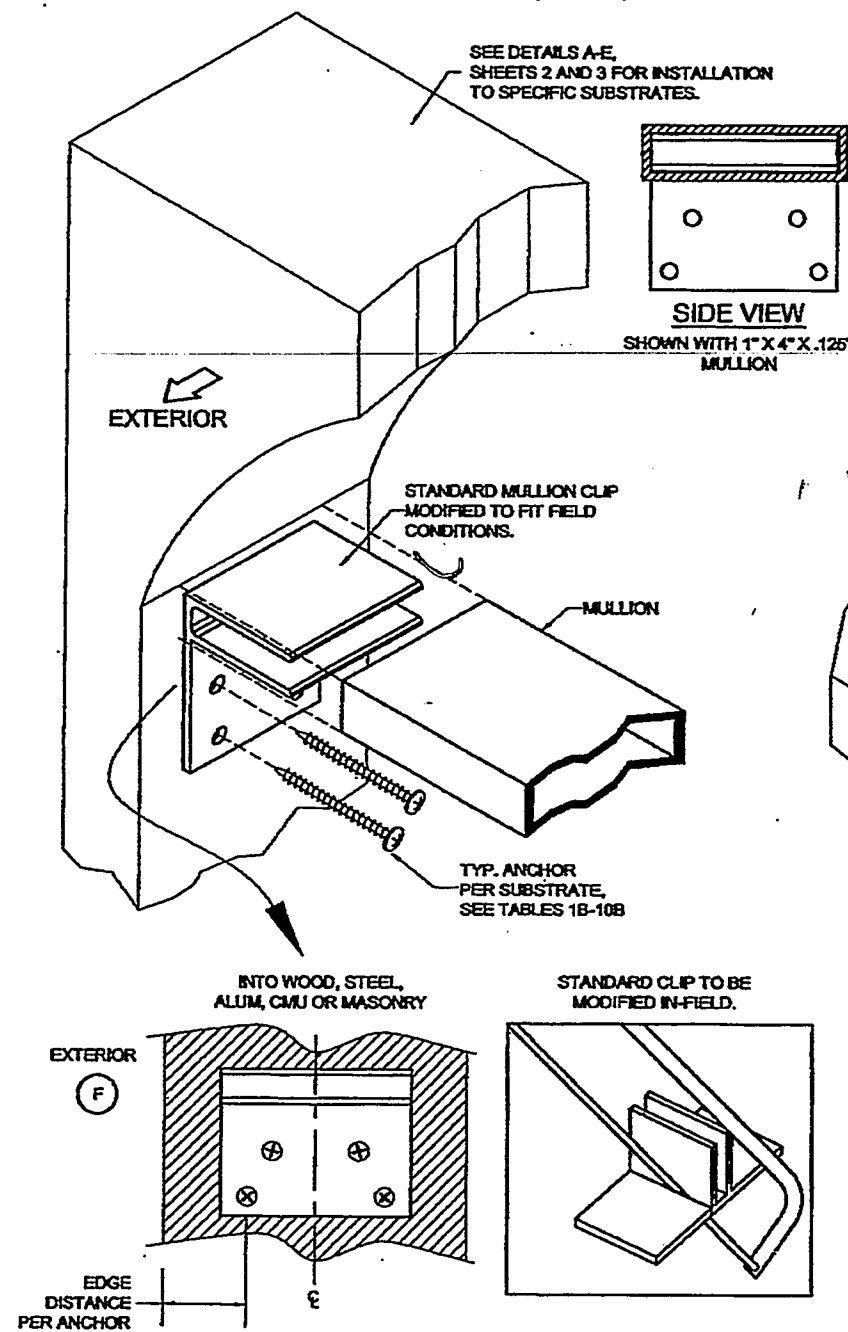
1070 TECHNOLOGY DRIVE N. VENICE, FL 33576 P.O. BOX 1529 NORONAS, FL 34274 FL CERT. OF AUTH. # 29298	Sheet 3 of 22	Rev.
6300JR	Date:	Rev.
6300JR	Checked By:	Rev.
6300JR	Date:	Rev.
6300JR	Date:	Rev.

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as complying with the Florida  
Building Code  
Acceptance No. 11-0922.01  
Expiration Date 01/26/2016  
By *Manuel Perez*  
Miami Dade Product Control

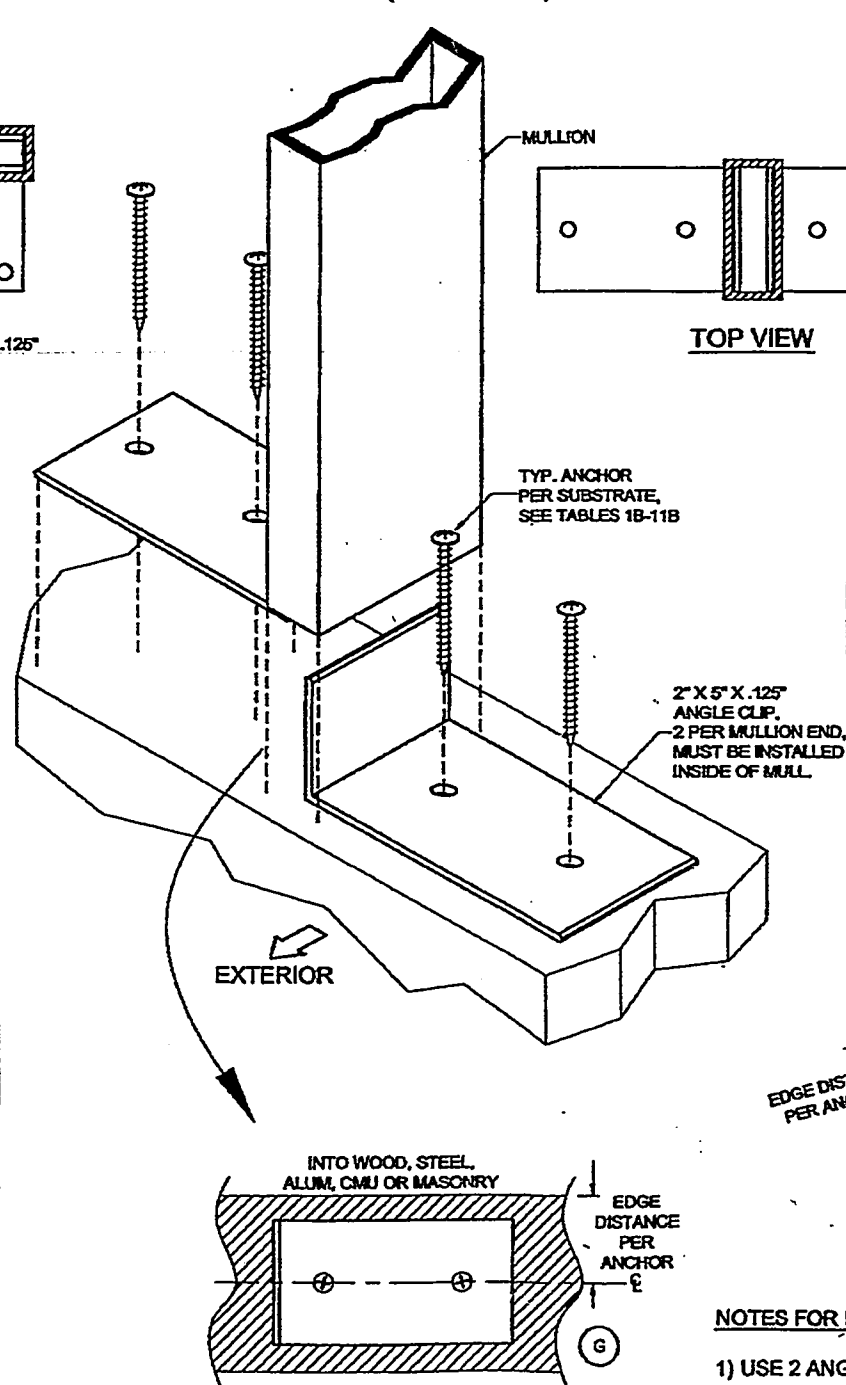




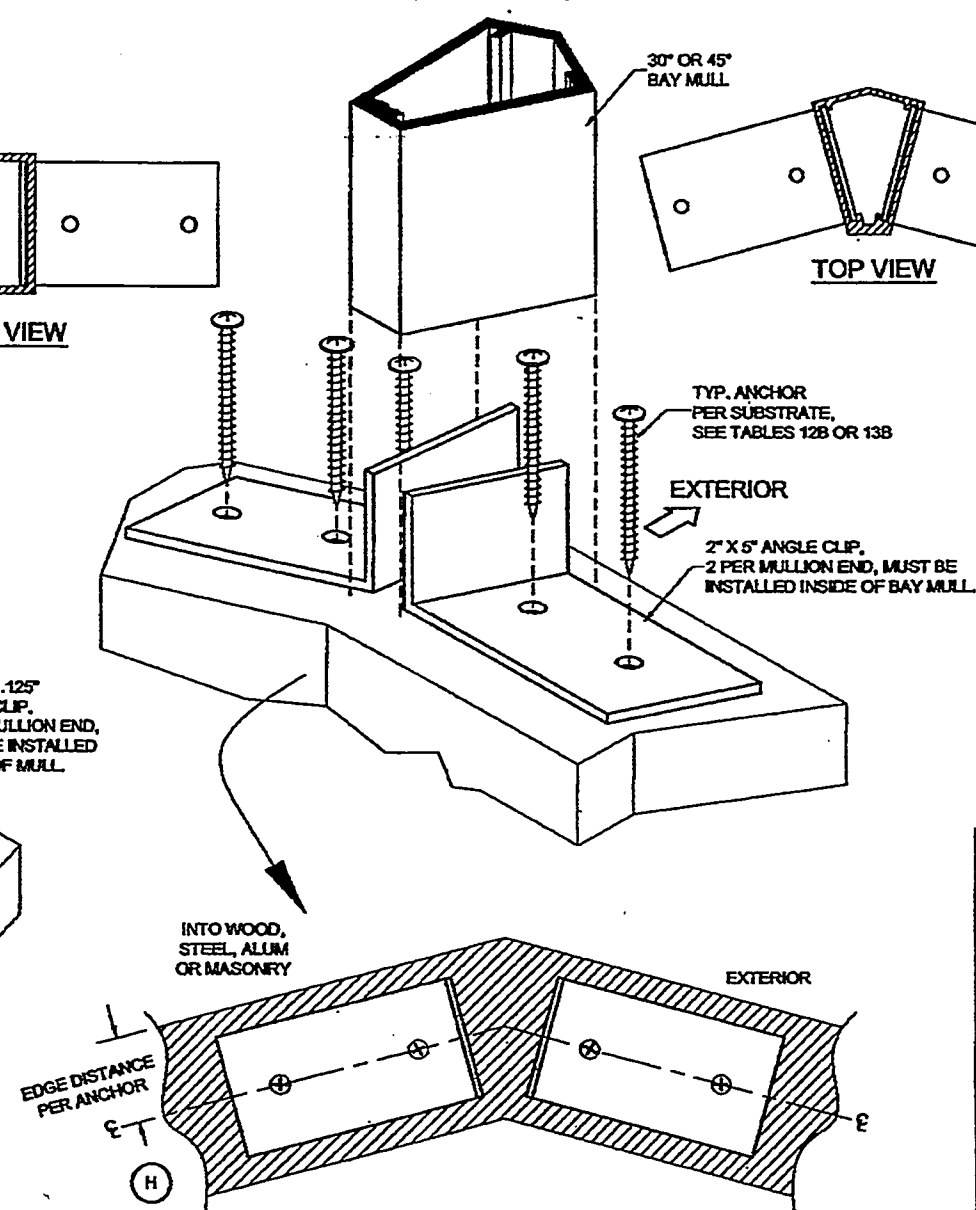
DETAIL F:  
FIELD-MODIFIED MULLION CLIP  
(F-CLIP)



DETAIL G:  
ANGLE MULLION CLIP  
(ANGLE CLIP)



DETAIL H:  
BAY MULLION INSTALLATION  
(ANGLE CLIP)



NOTES FOR INSTALLATION OPTIONS F:

- 1) DETAIL IS NOT APPLICABLE FOR THE BAY OR 1.26\" X 2.11\" X .125\" MULLION.
- 2) SEE TABLES 1B-10B FOR ANCHOR QUANTITIES AND SHEETS 18-20 FOR HOLE LOCATIONS.
- 3) THE 2X5 CLIP IS NOT SUITABLE FOR THIS APPLICATION.

NOTES FOR INSTALLATION OPTION G & H:

- 1) USE 2 ANGLE CLIPS PER MULLION END. CLIPS MUST BE INSERTED INSIDE OF MULLION.
- 2) DETAIL G: SEE TABLES 1B-11B FOR ANCHOR QUANTITIES AND SHEETS 18-20 FOR HOLE LOCATIONS.
- 3) DETAIL H: SEE TABLES 12B OR 13B FOR ANCHOR QUANTITIES AND SHEETS 18-20 FOR HOLE LOCATIONS.

PRODUCT REVISED  
as complying with the Florida  
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Acceptance No. 11-0922.01  
Expiration Date 11/30/2016  
By: [Signature]  
Miami Dade Product Company

ANTHONY LYNN MILLER  
LICENSE  
No. 58705  
11/3/11  
STATE OF  
FLORIDA  
PROFESSIONAL ENGINEER  
A. LYNN MILLER, P.E.  
FL P.E.# 58705

TABLE 1A

1 x 2 x .125 Alum. Tube Mullion		Mullion Capacity Table (lbs/ft <sup>2</sup> )																																							
		Opening Width (for vertically-spanning mullions) or Opening Height (for horizontally-spanning mullions)																																							
		50 in				60 in				70 in				80 in				90 in				100 in				120 in				140 in				160 in							
		Rectangular Loading		Trap/Triang. Loading		Rectangular Loading		Trap/Triang. Loading		Rectangular Loading		Trap/Triang. Loading		Rectangular Loading		Trap/Triang. Loading		Rectangular Loading		Trap/Triang. Loading		Rectangular Loading		Trap/Triang. Loading		Rectangular Loading		Trap/Triang. Loading		Rectangular Loading		Trap/Triang. Loading		Rectangular Loading		Trap/Triang. Loading					
Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)						
Mull Length	42 in	111.8	406	129.5	332	93.2	408	115.5	325	79.9	408	107.8	321	69.9	408	104.4	319	62.1	408	104.0	319	55.9	408	104.0	319	48.5	408	104.0	319	39.9	408	104.0	319	35.0	408	104.0	319				
	48 in	74.9	312	83.8	258	62.4	312	73.4	252	53.5	312	67.0	248	46.8	312	63.2	246	41.6	312	61.3	244	37.5	312	61.0	244	31.2	312	61.0	244	26.8	312	61.0	244	23.4	312	61.0	244				
	50.625 in	63.9	281	70.8	234	53.2	281	61.5	228	45.6	281	55.7	224	39.9	281	52.1	222	35.5	281	50.1	220	31.9	281	49.3	219	26.6	281	49.3	219	22.8	281	49.3	219	20.0	281	49.3	219				
	54 in	52.6	247	57.5	207	43.9	247	49.8	202	37.6	247	44.8	199	32.9	247	41.5	196	29.2	247	39.4	194	28.3	247	38.4	193	21.9	247	38.1	193	18.6	247	38.1	193	16.4	247	38.1	193				
	60 in	38.4	200	41.2	170	32.0	200	35.4	166	27.4	200	31.5	163	24.0	200	28.9	160	21.3	200	27.1	159	19.2	200	25.9	157	16.0	200	25.0	156												
	63 in	33.1	181	35.3	155	27.6	181	30.3	152	23.7	181	28.9	149	20.7	181	24.5	146	18.4	181	22.8	144	16.5	181	21.7	143																
	66 in	28.8	165	30.6	142	24.0	165	26.1	139	20.6	165	23.1	136	18.0	165	21.0	134																								
	72 in	22.2	139	23.3	120	18.5	139	19.9	118	15.9	139	17.5	116																												
	76 in	18.9	125	19.7	109	16.7	125	16.8	107																																
	78 in	17.5	118	18.2	104																																				

TABLE 1B

Anchor Clip Patterns		Anchor Capacity Table (lbs)													
		Substrate:		2.7k Concrete				3.5k Conc.		Hollow CMU				Filled CMU	PT Wood
		Anchor Type:		3/16" Elco Ultracon		1/4" Elco Ultracon		5/16" Elco Ultracon		3/16" Elco Ultracon		1/4" Elco Ultracon		1/4" SS Elco AggreGator	5/16" Elco Ultracon
		Edge Distance (in):		1"	2-1/2"	1"	2-1/2"	1"	2-1/2"	1"	2-1/2"	1"	2-1/2"	2"	3-1/8"
		Embedment (in):		1-3/4"	1-3/4"	1-3/4"	1-3/4"	2"	2"	1-1/4"	1-1/4"	1-1/4"	1-1/4"	1-1/4"	1-1/4"
2 Anchors @ 4.75" Min. O.C. / Standard or Offset Clip (Fig. 1):				390 lbs	390 lbs	450 lbs	890 lbs	1644 lbs	270 lbs	280 lbs	354 lbs	740 lbs	468 lbs	664 lbs	1182 lbs
4 Anchors @ 1.15" Min. O.C. / Standard (or Offset) Clip (Fig. 2):				480 lbs	700 lbs	N/A	N/A	N/A	N/A	360 lbs	N/A	N/A	N/A	662 lbs	840 lbs
4 Anchors @ 3" Min. O.C. / (2) 2x5 Angle Clips / (Fig. 3):				780 lbs	780 lbs	880 lbs	1580 lbs	1888 lbs	540 lbs	560 lbs	N/A	700 lbs	836 lbs	880 lbs	2364 lbs
2 Anchors @ 0.45" Min. O.C. / U-Clip, Into 1/8" Alum. (Fig. 4):				N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1 Anchor / F-Clip (Fig. 5):				195 lbs	195 lbs	225 lbs	445 lbs	822 lbs	135 lbs	140 lbs	177 lbs	370 lbs	234 lbs	332 lbs	591 lbs
2 Anchors @ 1.15" Min. O.C. / F-Clip (Fig. 6):				240 lbs	350 lbs	N/A	N/A	N/A	N/A	190 lbs	N/A	N/A	N/A	N/A	328 lbs

NOTE: FOR THE OFFSET CLIP, USE THE SAME ANCHOR PATTERN AND ANCHOR VALUES AS THE STANDARD CLIP.

FIGURE 1:

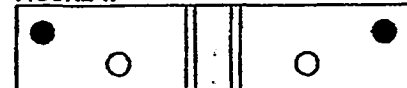


FIGURE 2:

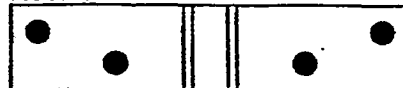


FIGURE 3:



ANGLE CLIP MUST BE USED IN PAIRS.

FIGURE 4:



FIGURE 5:

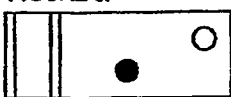
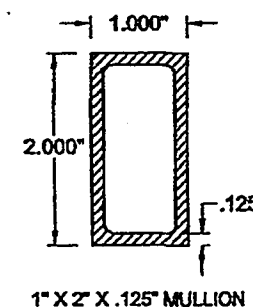


FIGURE 6:



## TABLE NOTES:

- SEE SHEET 1 FOR INSTRUCTIONS ON USING THE TABLES AND SHEET 22 FOR INFORMATION ON LOADING. SEE SHEETS 2-4 FOR GENERAL INSTALLATION METHODS.
- LINEAR INTERPOLATION BETWEEN MULL LENGTHS AND/OR OPENING WIDTHS IS ALLOWABLE.
- MULLION AND MULLION CLIPS SHOWN ARE NOT TO SCALE. FOR EXACT DIMENSIONS, SEE SHEETS 18-20. ALL MULLION CLIPS MAY BE FACTORY MACHINED AND CONTAIN UNUSED HOLES. HOLES MAY BE DRILLED IN THE FIELD FOLLOWING DIMENSIONS SHOWN ON SHEETS 18-20.
- SUBSTRATES: CONCRETE SHALL CONFORM TO ACI 301 SPECIFICATIONS. HOLLOW AND GROUT-FILLED CONCRETE BLOCK UNIT (CMU) SHALL CONFORM TO ASTM C-90. WOOD SHALL BE PRESSURE-TREATED YELLOW SOUTHERN PINE WITH AN SG OF 0.55. ALUMINUM SHALL BE 6063-T5 AND BE A MINIMUM OF .125" THICK. STEEL STUDS TO BE A MINIMUM GRADE 33 AND .045" THICK (18 GAUGE). STRUCTURAL STEEL TO BE AT LEAST .125" THICK AND A36. ALL ANCHORS INTO METAL SHALL EXTEND AT LEAST 3 SCREW THREADS BEYOND THE MATERIAL.



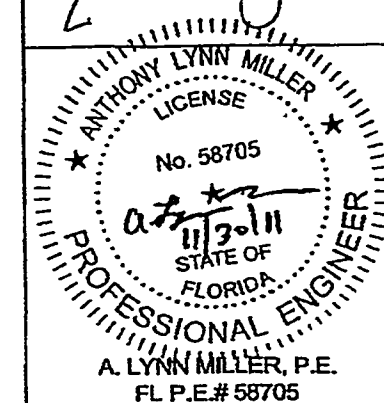
## ANCHOR CAPACITY ADJUSTMENT FORMULA:

$(DP_{min}) \times \left( \frac{\text{ANCHOR CAP. FROM TABLE}}{\text{MULLION CAP. FROM TABLE}} \right) = \text{ANCHOR CAP. ADJUSTED}$

USE THIS FORMULA TO OBTAIN THE "ANCHOR CAPACITY REQUIRED" CORRESPONDING TO AN ACTUAL PRESSURE REQUIREMENT FOR THE OPENING, WHEN IT IS LOWER THAN THE MULLION CAPACITY (FROM THE TABLE) OF THE SELECTED MULLION. IT WILL YIELD A MINIMUM ANCHOR CAPACITY WHICH MAY BE USED TO QUALIFY ADDITIONAL ANCHOR OPTIONS FROM THE ANCHOR CAPACITY TABLE.

PRODUCT REVISED  
as complying with the Florida  
Building Code  
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Expiration Date 11/30/11

By *Anthony Lynn Miller*  
Miami Dade Product Control



1 X 2 X .125 MULL SPECS

Sheet: 5 of 22  
 Drawing No: 6300JR  
 Checked By: J. ROSOWSKI  
 Date: 08/29/11  
 Revision:

1070 TECHNOLOGY DRIVE  
 N. VENICE, FL 34278  
 P.O. BOX 1829  
 NORONAS, FL 34274

FL CERT. OF AUTH.# 29286



TABLE 3A

1 x 2.75 x .375 Alum. Tube Mullion		Mullion Capacity Table (lbs/ft <sup>2</sup> )																																						
		Opening Width (for vertically-spanning mullions) or Opening Height (for horizontally-spanning mullions)																																						
		50 in				60 in				70 in				80 in				90 in				100 in				120 in				140 in				160 in						
		Rectangular Loading		Trap/Triang. Loading		Rectangular Loading		Trap/Triang. Loading		Rectangular Loading		Trap/Triang. Loading		Rectangular Loading		Trap/Triang. Loading		Rectangular Loading		Trap/Triang. Loading		Rectangular Loading		Trap/Triang. Loading		Rectangular Loading		Trap/Triang. Loading		Rectangular Loading		Trap/Triang. Loading								
		Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)									
Mull Length	42 in	170.0	620	170.0	435	170.0	744	170.0	478	170.0	888	170.0	508	170.0	992	170.0	519	170.0	1116	170.0	521	170.0	1240	170.0	521	148.7	1301	170.0	521	127.5	1301	170.0	521	111.6	1301	170.0	521	97.6	1301	
	48 in	170.0	708	170.0	524	170.0	850	170.0	584	170.0	992	170.0	630	170.0	1133	170.0	661	151.8	1139	170.0	677	136.6	1139	170.0	680	113.9	1139	170.0	680	97.6	1139	170.0	680	85.4	1139	170.0	680	69.1	1139	
	50.625 in	170.0	747	170.0	563	170.0	896	170.0	631	167.8	1032	170.0	684	148.8	1032	170.0	723	130.5	1032	170.0	747	117.4	1032	170.0	756	97.9	1032	170.0	756	83.9	1032	170.0	756	73.4	1032	170.0	756	58.3	1032	
	54 in	170.0	797	170.0	612	181.3	907	170.0	691	136.2	907	164.7	730	120.9	907	152.5	720	107.5	907	145.0	714	96.8	907	141.1	710	80.8	907	140.0	709	69.1	907	140.0	709	60.5	907	140.0	709	46.4	907	
	60 in	141.1	735	151.5	625	117.6	735	130.3	611	100.8	735	116.0	599	88.2	735	106.2	590	78.4	735	99.6	583	70.5	735	95.1	578	58.8	735	91.8	574	50.4	735	91.8	574	44.1	735	91.8	574	33.1	735	
	63 in	121.9	698	130.0	570	101.6	688	111.5	557	87.0	688	98.9	547	78.2	688	90.1	638	67.7	668	83.9	531	60.9	668	79.8	526	50.8	668	75.8	521	43.5	668	75.8	521	38.1	668	75.8	521	29.2	668	
	66 in	106.0	607	112.4	522	88.3	607	96.1	511	75.7	607	85.0	501	66.2	607	77.1	493	58.9	607	71.5	486	53.0	607	67.8	481	44.2	607	63.4	476	37.9	607	62.7	474	33.1	607	62.7	474	25.5	607	
	72 in	81.6	510	86.8	443	68.0	510	73.0	434	58.3	510	64.3	426	51.0	510	57.9	419	45.4	510	53.3	413	40.8	510	50.0	408	34.0	510	45.9	402	28.2	510	44.4	399	25.5	510	44.3	399	19.3	510	
	76 in	69.4	458	72.6	400	57.8	458	61.7	382	49.6	458	54.1	385	43.4	458	48.6	378	38.6	458	44.6	373	34.7	458	41.6	368	28.9	458	37.7	362	24.8	458	36.0	359	21.7	458	35.7	359	16.1	458	
	78 in	64.2	435	67.0	381	53.5	435	56.8	373	45.9	435	49.8	368	40.1	435	44.7	360	35.7	435	40.9	355	32.1	435	38.1	351	28.8	435	34.4	344	22.9	435	32.6	341	20.1	435	32.2	340	15.1	435	
	90 in	41.8	327	43.1	290	34.8	327	36.4	285	29.9	327	31.8	280	26.1	327	28.3	275	23.2	327	25.7	271	20.9	327	23.7	268	17.4	327	21.0	262	14.9	327	19.3	258							
	96 in	34.4	287	35.4	257	28.7	287	29.9	252	24.6	287	26.0	248	21.5	287	23.1	244	19.1	287	20.9	240	17.2	287	19.3	237	14.4	287	16.9	232											
	108 in	24.2	227	24.7	205	20.2	227	20.8	201	17.3	227	18.0	196	15.1	227	16.0	195																							
	111 in	22.3	215	22.7	194	16.6	215	19.1	191	15.9	215	16.6	188																											
	120 in	17.6	184	17.9	167																																			

TABLE 3B

Anchor Clip Patterns		Anchor Capacity Table (lbs)											
		Substrate											
		2.7k Concrete				3.5k Conc.		Hollow CMU				Filled CMU	
		Anchor Type		Edge Distance (in)		Embedment (in)		Anchor Type		Edge Distance (in)		Embedment (in)	
		3/16" Elco Ultracon	1/4" Elco Ultracon	1"	2-1/2"	1"	2-1/2"	3/16" Elco Ultracon	1/4" Elco Ultracon	1"	2-1/2"	1/4" SS Elco AggreGator	5/16" Elco Ultracon
2 Anchors @ 4.75" Min. O.C. / Standard or Offset Clip (Fig. 1)		390 lbs	390 lbs	1-3/4"	1-3/4"	2"	2"	270 lbs	280 lbs	1-1/4"	1-1/4"	1-1/4"	1-1/4"
4 Anchors @ 1.15" Min. O.C. / Standard (or Offset) Clip (Fig. 2)		480 lbs	700 lbs	N/A	N/A	N/A	N/A	380 lbs	N/A	N/A	N/A	N/A	N/A
4 Anchors @ 3" Min. O.C. / (2) 2x5 Angle Clips / (Fig. 3)		780 lbs	780 lbs	680 lbs	1590 lbs	1890 lbs	640 lbs	580 lbs	N/A	780 lbs	936 lbs	880 lbs	2364 lbs
2 Anchors @ 0.45" Min. O.C. / U-Clip, into 1/8" Alum. (Fig. 4)		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1 Anchor / F-Clip (Fig. 5)		195 lbs	195 lbs	225 lbs	445 lbs	622 lbs	135 lbs	140 lbs	177 lbs	370 lbs	234 lbs	332 lbs	591 lbs
2 Anchors @ 1.15" Min. O.C. / F-Clip (Fig. 6)		240 lbs	350 lbs	N/A	N/A	N/A	N/A	190 lbs	N/A	N/A	N/A	N/A	328 lbs

NOTE: FOR THE OFFSET CLIP, USE THE SAME ANCHOR PATTERN AND ANCHOR VALUES AS THE STANDARD CLIP.

CIRCLED VALUES ARE USED IN THE EXAMPLE ON SHEET 21.

FIGURE 1:



FIGURE 2:



FIGURE 3:



ANGLE CLIP MUST BE USED IN PAIRS.

FIGURE 4:



FIGURE 5:



FIGURE 6:



## TABLE NOTES:

1) SEE SHEET 1 FOR INSTRUCTIONS ON USING THE TABLES AND SHEET 22 FOR INFORMATION ON LOADING. SEE SHEETS 2-4 FOR GENERAL INSTALLATION METHODS.

2) LINEAR INTERPOLATION BETWEEN MULL LENGTHS AND/OR OPENING WIDTHS IS ALLOWABLE.

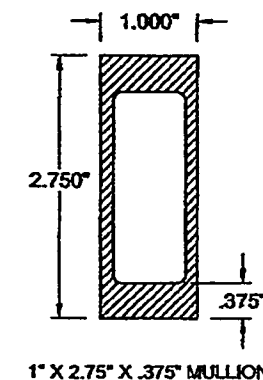
3) MULLION AND MULLION CLIPS SHOWN ARE NOT TO SCALE. FOR EXACT DIMENSIONS, SEE SHEETS 18-20. ALL MULLION CLIPS MAY BE FACTORY MACHINED AND CONTAIN UNUSED HOLES. HOLES MAY BE DRILLED IN THE FIELD FOLLOWING DIMENSIONS SHOWN ON SHEETS 18-20.

4) SUBSTRATES: CONCRETE SHALL CONFORM TO ACI 301 SPECIFICATIONS. HOLLOW AND GROUT-FILLED CONCRETE BLOCK UNIT (CMU) SHALL CONFORM TO ASTM C-90. WOOD SHALL BE PRESSURE-TREATED YELLOW SOUTHERN PINE WITH AN SG OF 0.55. ALUMINUM SHALL BE 6063-T5 AND BE A MINIMUM OF .125" THICK. STEEL STUDS TO BE A MINIMUM GRADE 33 AND .045" THICK (18 GAUGE). STRUCTURAL STEEL TO BE AT LEAST .125" THICK AND A36. ALL ANCHORS INTO METAL SHALL EXTEND AT LEAST 3 SCREW THREADS BEYOND THE MATERIAL.

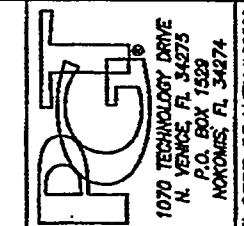
## ANCHOR CAPACITY ADJUSTMENT FORMULA:

$$(DP_{min}) \times \left( \frac{\text{ANCHOR CAP. FROM TABLE}}{\text{MULLION CAP. FROM TABLE}} \right) = \text{ANCHOR CAP. MIN.}$$

USE THIS FORMULA TO OBTAIN THE "ANCHOR CAPACITY REQUIRED" CORRESPONDING TO AN ACTUAL PRESSURE REQUIREMENT FOR THE OPENING, WHEN IT IS LOWER THAN THE MULLION CAPACITY (FROM THE TABLE) OF THE SELECTED MULLION. IT WILL YIELD A MINIMUM ANCHOR CAPACITY WHICH MAY BE USED TO QUALIFY ADDITIONAL ANCHOR OPTIONS FROM THE ANCHOR CAPACITY TABLE.



1" X 2.75" X .375" MULLION



IMPACT-RESISTANT ALUMINUM TUBE MULLIONS

Description: 1" X 2.75" X .375" MULLION SPECS

Sheet: 7 of 22

Series: N/A

Drawing No: 6300JR

Checked By: J. ROSOWSKI

Date: 08/29/13

Rev. By: J. ROSOWSKI

Date: 08/29/13

Rev. By: J. ROSOWSKI

PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No. 11-0922-01  
Expiration Date: MAY 26, 2016

By: *Anthony Lynn Miller*  
Miami Dade Product Control

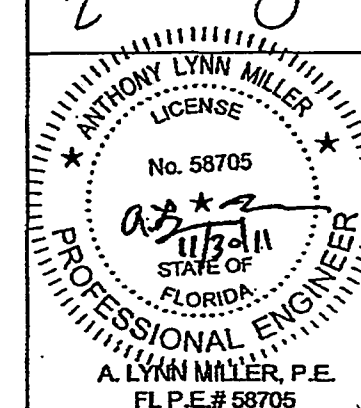


TABLE 4A

1 x 2.75 x .650 Alum. Tube Mullion		Mullion Capacity Table (lbs/ft <sup>2</sup> )																			
		Opening Width (for vertically-spanning mullions) or Opening Height (for horizontally-spanning mullions)																			
		50 in		60 in		70 in		80 in		90 in		100 in		120 in		140 in		160 in		180 in	
		Rectangular Loading	Trap/Triang. Loading	Rectangular Loading	Trap/Triang. Loading	Rectangular Loading	Trap/Triang. Loading	Rectangular Loading	Trap/Triang. Loading	Rectangular Loading	Trap/Triang. Loading	Rectangular Loading	Trap/Triang. Loading	Rectangular Loading	Trap/Triang. Loading	Rectangular Loading	Trap/Triang. Loading	Rectangular Loading	Trap/Triang. Loading	Rectangular Loading	Trap/Triang. Loading
Mull Length		Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)
42 in		170.0	620	170.0	435	170.0	744	170.0	478	170.0	868	170.0	508	170.0	992	170.0	519	170.0	1116	170.0	521
48 in		170.0	708	170.0	524	170.0	850	170.0	584	170.0	992	170.0	630	170.0	1133	170.0	681	170.0	1275	170.0	677
50.625 in		170.0	747	170.0	563	170.0	896	170.0	631	170.0	1046	170.0	684	170.0	1195	170.0	723	162.6	1286	170.0	747
54 in		170.0	797	170.0	612	170.0	958	170.0	691	170.0	1116	170.0	754	150.7	1130	170.0	803	133.9	1130	170.0	837
60 in		170.0	885	170.0	701	146.5	915	162.3	761	125.5	915	144.5	746	108.9	915	132.3	735	97.8	915	123.9	726
63 in		151.8	830	161.9	710	128.5	830	138.9	694	108.5	830	123.2	681	94.9	830	112.2	670	84.4	830	104.6	662
66 in		132.1	757	140.0	650	110.0	757	119.8	638	94.3	757	105.9	624	82.5	757	96.1	614	73.4	757	89.1	606
72 in		101.7	636	108.6	552	84.8	636	91.0	540	72.7	636	80.1	530	63.6	636	72.2	521	58.5	636	66.5	514
76 in		86.5	571	90.4	498	72.1	571	76.8	488	61.8	571	67.4	479	54.1	571	60.8	471	48.0	571	55.5	464
78 in		80.0	542	83.4	474	66.7	542	70.8	465	57.1	542	62.1	458	50.0	542	55.7	446	44.4	542	51.0	442
80 in		52.1	407	53.7	381	43.4	407	45.4	355	37.2	407	39.6	349	32.5	407	35.3	343	28.9	407	32.1	338
96 in		42.9	358	44.1	320	35.8	358	37.2	314	30.7	358	32.4	309	26.8	358	28.8	304	23.8	358	26.1	300
108 in		30.1	283	30.8	255	25.1	283	25.9	251	21.5	283	22.5	247	18.8	283	19.9	244	16.7	283	18.0	240
111 in		27.8	287	28.3	242	23.1	287	23.8	238	19.8	287	20.6	235	17.3	287	18.3	231	15.4	287	16.5	228
120 in		22.0	229	22.3	208	18.3	229	18.8	205	15.7	229	16.2	202								

TABLE 4B

Anchor Capacity Table (lbs)																
Anchor Clip Patterns	Substrate:	2.7k Concrete						3.5k Conc.	Hollow CMU				Filled CMU	PT Wood		Metal
	Anchor Type:	3/16" Eico Ultracon		1/4" Eico Ultracon		5/16" Eico Ultracon	3/16" Eico Ultracon		1/4" Eico Ultracon		1/4" SS Eico AggreGator	5/16" Eico Ultracon	1/4" SS Eico AggreGator	#10 Steel Screw (G5)	#12 Steel Screw (G5)	#12 Steel Screw (G5)
	Edge Distance (in):	1"	2-1/2"	1"	2-1/2"	3-1/8"	1"	2-1/2"	1"	2-1/2"	2"	3-1/8"	2"	0.45"	0.54"	0.324"
	Embedment (in):	1-3/4"	1-3/4"	1-3/4"	1-3/4"	2"	1-1/4"	1-1/4"	1-1/4"	1-1/4"	1-1/4"	1-1/4"	2"	1-3/8"	1-3/8"	(see note)
2 Anchors @ 4.75" Min. O.C. / Standard or Offset Clip (Fig. 1):		360 lbs	390 lbs	450 lbs	590 lbs	1644 lbs	270 lbs	280 lbs	354 lbs	740 lbs	468 lbs	664 lbs	1182 lbs	328 lbs	420 lbs	560 lbs
4 Anchors @ 1.15" Min. O.C. / Standard (or Offset) Clip (Fig. 2):		480 lbs	700 lbs	N/A	N/A	N/A	N/A	390 lbs	N/A	N/A	N/A	N/A	N/A	652 lbs	(640 lbs)	1120 lbs
4 Anchors @ 3" Min. O.C. / (2) 2x5 Angle Clips / (Fig. 3):		780 lbs	780 lbs	690 lbs	1580 lbs	1895 lbs	540 lbs	680 lbs	N/A	780 lbs	938 lbs	880 lbs	2364 lbs	652 lbs	(640 lbs)	1120 lbs
2 Anchors @ 0.45" Min. O.C. / U-Clip, into 1/8" Alum. (Fig. 4):		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	716 lbs
1 Anchor / F-Clip (Fig. 5):		195 lbs	195 lbs	225 lbs	445 lbs	822 lbs	135 lbs	140 lbs	177 lbs	370 lbs	234 lbs	332 lbs	591 lbs	163 lbs	210 lbs	280 lbs
2 Anchors @ 1.15" Min. O.C. / F-Clip (Fig. 6):		240 lbs	360 lbs	N/A	N/A	N/A	N/A	190 lbs	N/A	N/A	N/A	N/A	N/A	328 lbs	420 lbs	560 lbs

ANCHOR CAPACITY ADJUSTMENT FORMULA:

$$(DP_{min}) \times \left( \frac{\text{ANCHOR CAP. FROM TABLE}}{\text{MULLION CAP. FROM TABLE}} \right) = \text{ANCHOR CAP. ADJ.}$$

USE THIS FORMULA TO OBTAIN THE "ANCHOR CAPACITY REQUIRED" CORRESPONDING TO AN ACTUAL PRESSURE REQUIREMENT FOR THE OPENING, WHEN IT IS LOWER THAN THE MULLION CAPACITY (FROM THE TABLE) OF THE SELECTED MULLION. IT WILL YIELD A MINIMUM ANCHOR CAPACITY WHICH MAY BE USED TO QUALIFY ADDITIONAL ANCHOR OPTIONS FROM THE ANCHOR CAPACITY TABLE.

FIGURE 1:



FIGURE 2:

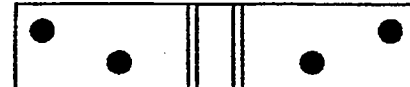


FIGURE 3:



ANGLE CLIP MUST BE USED IN PAIRS.

FIGURE 4:



FIGURE 5:

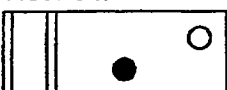
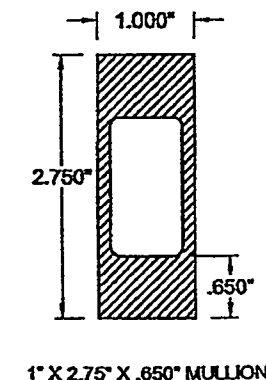


FIGURE 6:

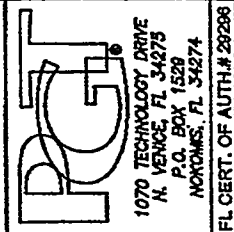


TABLE NOTES:

- SEE SHEET 1 FOR INSTRUCTIONS ON USING THE TABLES AND SHEET 22 FOR INFORMATION ON LOADING. SEE SHEETS 2-4 FOR GENERAL INSTALLATION METHODS.
- LINEAR INTERPOLATION BETWEEN MULL LENGTHS AND/OR OPENING WIDTHS IS ALLOWABLE.
- MULLION AND MULLION CLIPS SHOWN ARE NOT TO SCALE. FOR EXACT DIMENSIONS, SEE SHEETS 18-20. ALL MULLION CLIPS MAY BE FACTORY MACHINED AND CONTAIN UNUSED HOLES. HOLES MAY BE DRILLED IN THE FIELD FOLLOWING DIMENSIONS SHOWN ON SHEETS 18-20.
- SUBSTRATES: CONCRETE SHALL CONFORM TO ACI 301 SPECIFICATIONS. HOLLOW AND GROUT-FILLED CONCRETE BLOCK UNIT (CMU) SHALL CONFORM TO ASTM C-90. WOOD SHALL BE PRESSURE-TREATED YELLOW SOUTHERN PINE WITH AN SG OF 0.55. ALUMINUM SHALL BE 6063-T5 AND BE A MINIMUM OF .125" THICK. STEEL STUDS TO BE A MINIMUM GRADE 33 AND .045" THICK (18 GAUGE). STRUCTURAL STEEL TO BE AT LEAST .125" THICK AND A36. ALL ANCHORS INTO METAL SHALL EXTEND AT LEAST 3 SCREW THREADS BEYOND THE MATERIAL.



1" X 2.75" X .650" MULLION



1070 TECHNOLOGY DRIVE  
N. VENICE, FL 33429  
P.O. BOX 1529  
NOKOMIS, FL 34274  
FL CERT. OF AUTH. # 29288

Sheet: 8 of 22  
Rev: 08/28/11  
Drawing No. 6300JR  
Checked By: J. ROSOWSKI  
Date: 08/28/11  
Revised By: J. ROSOWSKI  
Date: 08/28/11

PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No. 11-0922-01  
Expiration Date 11/30/16  
By: *Anthony Lynn Miller*  
Miami Dade Product Control

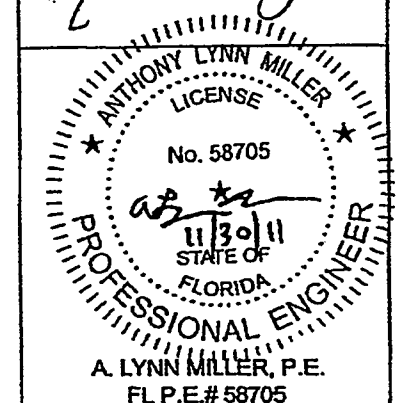


TABLE 5A

1" x 3.125" x .500" Alum Tube Mull		Mullion Capacity Table (lbs/ft <sup>2</sup> )																															
		Opening Width (for vertically-spanning mullions) or Opening Height (for horizontally-spanning mullions)																															
		50 in		60 in		70 in		80 in		90 in		100 in		120 in		140 in		160 in															
		Rectangular Loading	Trap/Triang. Loading	Rectangular Loading	Trap/Triang. Loading	Rectangular Loading	Trap/Triang. Loading	Rectangular Loading	Trap/Triang. Loading	Rectangular Loading	Trap/Triang. Loading	Rectangular Loading	Trap/Triang. Loading	Rectangular Loading	Trap/Triang. Loading	Rectangular Loading	Trap/Triang. Loading	Rectangular Loading	Trap/Triang. Loading														
Mull Length	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)							
	42 in	170.0	620	170.0	435	170.0	744	170.0	478	170.0	888	170.0	506	170.0	992	170.0	519	170.0	1148	170.0	521	170.0	1240	170.0	521	170.0	1735	170.0	521	170.0	1802	170.0	521
	48 in	170.0	708	170.0	524	170.0	850	170.0	584	170.0	992	170.0	630	170.0	1133	170.0	661	170.0	1275	170.0	677	170.0	1417	170.0	680	135.1	1577	170.0	680	118.2	1577	170.0	680
	50.625 in	170.0	747	170.0	563	170.0	896	170.0	631	170.0	1046	170.0	684	170.0	1195	170.0	723	170.0	1345	170.0	747	170.0	1484	170.0	756	141.7	1485	170.0	756	121.5	1495	170.0	756
	54 in	170.0	797	170.0	612	170.0	956	170.0	691	170.0	1116	170.0	754	170.0	1275	170.0	803	166.1	1401	170.0	837	148.5	1401	170.0	856	124.6	1401	170.0	861	106.8	1401	170.0	861
	60 in	170.0	885	170.0	701	170.0	1063	170.0	797	158.5	1158	170.0	878	138.7	1158	167.0	928	123.3	1158	158.5	917	111.0	1158	148.7	910	92.5	1158	144.5	903	79.3	1158	144.5	903
	63 in	170.0	930	170.0	745	158.8	1049	170.0	850	137.0	1049	155.5	860	119.8	1049	141.7	846	108.5	1049	132.0	836	85.9	1049	125.5	828	73.9	1049	119.3	820	68.5	1049	118.9	819
	66 in	168.8	955	170.0	789	138.0	955	151.3	804	119.1	955	133.7	788	104.2	955	121.4	775	92.8	955	112.6	785	83.4	955	106.4	757	80.5	955	98.8	749	59.8	955	98.7	746
	72 in	128.5	803	134.9	697	107.0	803	114.9	682	91.8	803	101.1	670	80.3	803	91.2	659	71.4	803	83.9	649	64.2	803	78.8	642	53.6	803	72.2	632	45.9	803	69.8	628
	76 in	109.2	721	114.1	629	91.0	721	97.0	616	78.0	721	86.1	605	68.3	721	78.5	585	60.7	721	70.1	586	54.8	721	65.4	579	45.5	721	58.4	589	39.0	721	58.8	564
	78 in	101.0	684	105.4	599	84.2	684	89.4	587	72.2	684	78.4	576	63.1	684	70.4	567	58.1	684	64.4	558	50.5	684	59.9	551	42.1	684	54.1	541	36.1	684	51.3	538
	80 in	65.8	514	67.9	456	54.8	514	57.3	448	47.0	514	50.0	440	41.1	514	44.8	433	38.5	514	40.5	427	32.9	514	37.3	421	27.4	514	33.0	412	23.5	514	30.4	406
	96 in	54.2	452	55.7	404	45.2	452	47.0	396	38.7	452	40.9	390	33.9	452	38.4	384	30.1	452	32.9	378	27.1	452	30.3	373	22.8	452	26.6	365	19.4	452	24.2	359
	108 in	38.1	357	38.9	322	31.7	357	32.7	317	27.2	357	28.4	312	23.8	357	25.2	306	21.1	357	22.7	303	19.0	357	20.8	299	15.9	357	18.0	283	13.6	357	16.2	287
111 in	35.1	338	35.6	306	29.2	338	30.1	301	25.0	338	26.1	296	21.9	338	23.1	282	19.5	338	20.8	286	17.5	338	19.0	284	14.6	338	16.5	278	12.5	338	14.8	273	
120 in	27.7	289	28.2	263	23.1	289	23.7	259	19.8	289	20.5	256	17.3	289	18.1	252	15.4	289	16.3	249	13.9	289	14.9	248	11.6	289	12.8	240	9.9	289	11.4	236	

TABLE 5B

Anchor Clip Patterns		Anchor Capacity Table (lbs)											
		2.7k Concrete				3.5k Conc.				Hollow CMU			
		3/16" Elco Ultracon		1/4" Elco Ultracon		5/16" Elco Ultracon		3/16" Elco Ultracon		1/4" Elco Ultracon		1/4" SS Elco AggreGator	
Anchor Type:		3/16" Elco Ultracon		1/4" Elco Ultracon		5/16" Elco Ultracon		3/16" Elco Ultracon		1/4" Elco Ultracon		1/4" SS Elco AggreGator	
Edge Distance (in):		1"		2-1/2"		3-1/8"		1"		2-1/2"		2"	
Embedment (in):		1-3/4"		1-3/4"		2"		1-1/4"		1-1/4"		1-1/4"	
2 Anchors @ 4.75" Min. O.C. / Standard Clip (Fig. 1):		390 lbs	390 lbs	450 lbs	690 lbs	1844 lbs	270 lbs	280 lbs	354 lbs	740 lbs	498 lbs	684 lbs	1182 lbs
4 Anchors @ 1.15" Min. O.C. / Standard Clip (Fig. 2):		480 lbs	700 lbs	N/A	N/A	N/A	N/A	380 lbs	N/A	N/A	N/A	N/A	852 lbs
4 Anchors @ 3" Min. O.C. / (2) 2x5 Angle Clips (Fig. 3):		780 lbs	780 lbs	680 lbs	1580 lbs	1896 lbs	540 lbs	580 lbs	N/A	760 lbs	936 lbs	880 lbs	2364 lbs
3 Anchors @ 0.45" Min. O.C. / U-Clip, into 1/8" Alum. (Fig. 4):		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1 Anchor / F-Clip (Fig. 5):		195 lbs	195 lbs	225 lbs	445 lbs	822 lbs	135 lbs	140 lbs	177 lbs	370 lbs	234 lbs	332 lbs	501 lbs
2 Anchors @ 1.15" Min. O.C. / F-Clip (Fig. 6):		240 lbs	350 lbs	N/A	N/A	N/A	N/A	180 lbs	N/A	N/A	N/A	N/A	326 lbs

NOTE: FOR THE OFFSET CLIP, USE THE SAME ANCHOR PATTERN AND ANCHOR VALUES AS THE STANDARD CLIP.

FIGURE 1:



FIGURE 2:



FIGURE 3:



ANGLE CLIP MUST BE USED IN PAIRS.

FIGURE 4:



FIGURE 5:



FIGURE 6:

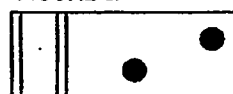


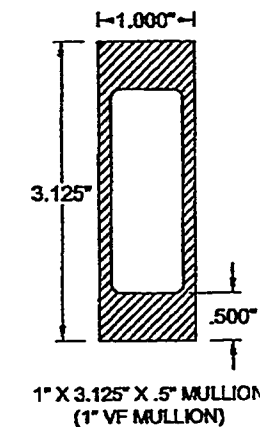
TABLE NOTES:

- SEE SHEET 1 FOR INSTRUCTIONS ON USING THE TABLES AND SHEET 22 FOR INFORMATION ON LOADING. SEE SHEETS 2-4 FOR GENERAL INSTALLATION METHODS.
- LINEAR INTERPOLATION BETWEEN MULL LENGTHS AND/OR OPENING WIDTHS IS ALLOWABLE.
- MULLION AND MULLION CLIPS SHOWN ARE NOT TO SCALE. FOR EXACT DIMENSIONS, SEE SHEETS 18-20. ALL MULLION CLIPS MAY BE FACTORY MACHINED AND CONTAIN UNUSED HOLES. HOLES MAY BE DRILLED IN THE FIELD FOLLOWING DIMENSIONS SHOWN ON SHEETS 18-20.
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ANCHOR CAPACITY ADJUSTMENT FORMULA:

$$(DP_{min}) \times \left( \frac{\text{ANCHOR CAP. FROM TABLE}}{\text{MULLION CAP. FROM TABLE}} \right) = \text{ANCHOR CAP. REQ.}$$

USE THIS FORMULA TO OBTAIN THE "ANCHOR CAPACITY REQUIRED" CORRESPONDING TO AN ACTUAL PRESSURE REQUIREMENT FOR THE OPENING. WHEN IT IS LOWER THAN THE MULLION CAPACITY (FROM THE TABLE) OF THE SELECTED MULLION. IT WILL YIELD A MINIMUM ANCHOR CAPACITY WHICH MAY BE USED TO QUALIFY ADDITIONAL ANCHOR OPTIONS FROM THE ANCHOR CAPACITY TABLE.



**IMPACT-RESISTANT ALUMINUM TUBE MULLIONS**

1" x 3.125" x .5" MULL SPEC'S

Sheet: 9 of 22

Rev: 6300JR

Date: 08/29/11

Drawn By: J. JROWSKI

Checked By: J. JROWSKI

Rev. By: J. JROWSKI

FL CERT. OF AUTH. # 28296

PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No. 11-0922-01  
Expiration Date 11/30/11

By: *Manuel Perez*  
Miami/Dade Product Control

ANTHONY LYNN MILLER  
LICENSE  
No. 58705  
11/30/11  
STATE OF  
FLORIDA  
PROFESSIONAL ENGINEER  
A. LYNN MILLER, P.E.  
FL P.E. # 58705

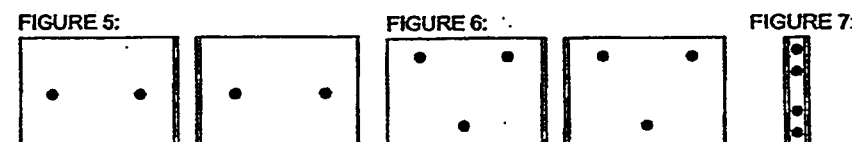
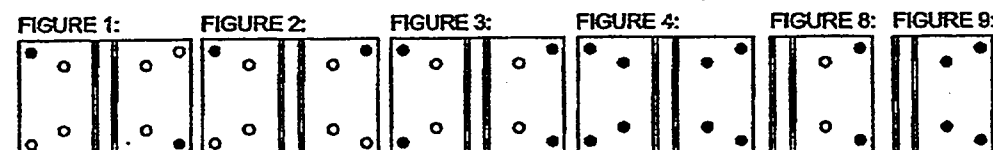
TABLE 6A

1 x 4 x .125 Alum. Tube Mullion		Mullion Capacity Table (lbs/ft <sup>2</sup> )																																				
		Opening Width (for vertically-spanning mullions) or Opening Height (for horizontally-spanning mullions)																																				
		50 in				60 in				70 in				80 in				90 in				100 in				120 in				140 in				160 in				
		Rectangular Loading		Trap/Tilting Loading		Rectangular Loading		Trap/Tilting Loading		Rectangular Loading		Trap/Tilting Loading		Rectangular Loading		Trap/Tilting Loading		Rectangular Loading		Trap/Tilting Loading		Rectangular Loading		Trap/Tilting Loading		Rectangular Loading		Trap/Tilting Loading		Rectangular Loading		Trap/Tilting Loading		Rectangular Loading		Trap/Tilting Loading		
		Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)			
Mull Length	42 in	170.0	620	170.0	435	170.0	744	170.0	478	170.0	888	170.0	508	170.0	982	170.0	519	170.0	1116	170.0	521	170.0	1240	170.0	521	170.0	1488	170.0	521	145.8	1489	170.0	521	127.6	1489	170.0	521	
	48 in	170.0	708	170.0	524	170.0	850	170.0	584	170.0	992	170.0	630	170.0	1133	170.0	661	170.0	1275	170.0	677	170.0	156.3	1303	170.0	680	130.3	1303	170.0	680	111.7	1303	170.0	680	97.7	1303	170.0	680
	50.625 in	170.0	747	170.0	563	170.0	896	170.0	631	170.0	1046	170.0	684	170.0	1195	170.0	723	156.1	1235	170.0	747	140.6	1235	170.0	756	117.1	1235	170.0	756	100.4	1235	170.0	756	87.8	1235	170.0	756	
	54 in	170.0	797	170.0	612	170.0	956	170.0	691	170.0	1116	170.0	754	154.4	1158	170.0	803	137.2	1158	170.0	837	123.5	1158	170.0	856	102.9	1158	170.0	861	88.2	1158	170.0	861	77.2	1158	170.0	861	
	60 in	170.0	885	170.0	701	166.7	1042	170.0	797	142.9	1042	161.1	832	125.1	1042	146.7	815	111.2	1042	136.8	801	100.0	1042	130.2	791	83.4	1042	125.1	782	71.5	1042	125.1	782	62.5	1042	125.1	782	
	63 in	170.0	930	170.0	745	151.2	992	163.6	818	128.6	992	144.4	799	113.4	992	131.0	782	100.8	992	121.4	768	90.7	992	114.8	768	75.8	992	108.4	745	64.8	992	108.0	744	56.7	992	108.0	744	
	66 in	165.4	947	170.0	789	137.8	947	148.0	786	116.1	947	130.3	768	103.4	947	117.7	752	91.9	947	108.7	738	82.7	947	102.2	727	68.9	947	95.1	713	58.1	947	94.0	711	51.7	947	94.0	711	
	72 in	135.9	849	142.7	737	113.2	849	121.6	722	97.0	849	106.9	708	84.9	849	96.4	696	75.5	849	88.7	686	67.9	849	82.7	675	56.6	849	75.3	659	48.5	849	72.5	652	42.6	849	72.4	651	
	76 in	115.6	762	120.7	665	96.3	762	102.6	652	82.5	762	90.0	640	72.2	762	80.9	629	64.2	762	74.2	620	57.8	762	69.2	613	48.1	762	62.8	602	41.3	762	59.9	597	36.1	762	59.4	595	
	78 in	106.9	724	111.4	634	89.0	724	94.6	621	78.3	724	82.9	609	68.8	724	74.4	599	59.4	724	68.1	591	53.4	724	63.4	583	44.5	724	57.3	573	38.2	724	54.3	567	33.4	724	53.5	565	
	90 in	69.6	543	71.8	483	58.0	543	60.7	474	49.7	543	62.9	466	43.5	543	47.1	458	38.8	543	42.8	452	34.8	543	39.5	446	29.0	543	34.9	436	24.8	543	32.1	430	21.7	543	30.7	426	
	96 in	57.3	478	58.9	427	47.8	478	49.7	419	40.9	478	43.2	412	35.8	478	38.5	406	31.8	478	34.8	400	28.7	478	32.9	396	23.9	478	28.1	388	20.5	478	25.8	380	17.9	478	24.2	376	
	106 in	40.3	377	41.1	341	33.6	377	34.6	336	28.8	377	30.0	330	25.2	377	26.6	326	22.4	377	24.0	321	20.1	377	22.0	317	16.8	377	19.0	310	14.4	377	17.1	304					
	111 in	37.1	357	37.8	323	30.9	357	31.8	318	26.5	357	27.6	313	23.2	357	24.4	309	20.6	357	22.0	305	18.5	357	20.1	301	15.4	357	17.4	294									
	120 in	29.3	306	29.8	279	24.5	306	25.1	274	21.0	306	21.7	270	18.3	306	19.2	267	16.3	306	17.3	263																	
	144 in	17.0	212	17.2	196																																	

TABLE 6B

Anchor Capacity Table (lbs)																
Anchor Clip Patterns	Substrate	2.7k Concrete				3.5k Conc.	Hollow CMU				Filled CMU	PT Wood		Metal		
	Anchor Type:	3/16" Elco Ultracon		1/4" Elco Ultracon		5/16" Elco Ultracon	3/16" Elco Ultracon		1/4" Elco Ultracon		1/4" SS Elco AggreGator	5/16" Elco Ultracon	1/4" SS Elco AggreGator	#10 Steel Screw (G5)	#12 Steel Screw (G5)	#12 Steel Screw (G5)
	Edge Distance (in):	1"	2-1/2"	1"	2-1/2"	3-1/8"	1"	2-1/2"	1"	2-1/2"	2"	3-1/8"	2"	0.45"	0.54"	0.324"
	Embedment (in):	1-3/4"	1-3/4"	1-3/4"	1-3/4"	2"	1-1/4"	1-1/4"	1-1/4"	1-1/4"	1-1/4"	1-1/4"	2"	1-3/8"	1-3/8"	(see note)
2 Anchors @ 4.75" Min. O.C. / Standard Clip (Fig. 1 or 2):		390 lbs	390 lbs	450 lbs	890 lbs	1644 lbs	270 lbs	280 lbs	354 lbs	740 lbs	468 lbs	664 lbs	1182 lbs	328 lbs	420 lbs	580 lbs
4 Anchors @ 2.25" Min. O.C. / Standard Clip (Fig. 3):		700 lbs	700 lbs	580 lbs	1410 lbs	952 lbs	N/A	560 lbs	N/A	630 lbs	N/A	880 lbs	N/A	852 lbs	840 lbs	1120 lbs
8 Anchors @ 1.15" Min. O.C. / Standard Clip (Fig. 4):		960 lbs	1400 lbs	N/A	N/A	N/A	N/A	760 lbs	N/A	N/A	N/A	N/A	N/A	1304 lbs	1680 lbs	2240 lbs
4 Anchors @ 3" Min. O.C. / (2) 2x5 Angle Clips (Fig. 5):		780 lbs	780 lbs	900 lbs	1780 lbs	3288 lbs	540 lbs	580 lbs	708 lbs	1480 lbs	938 lbs	1328 lbs	2364 lbs	852 lbs	840 lbs	1120 lbs
8 Anchors @ 3" Min. O.C. / (2) 2x5 Angle Clips (Fig. 6):		1170 lbs	1170 lbs	1020 lbs	2340 lbs	2844 lbs	610 lbs	840 lbs	N/A	1140 lbs	1404 lbs	1320 lbs	3546 lbs	978 lbs	1260 lbs	1680 lbs
4 Anchors @ 0.45 Min. O.C. / U-Clip, into 1/8" Alum. (Fig. 7):		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1432 lbs
2 Anchors @ 2.25" Min. O.C. / F-Clip (Fig. 8):		350 lbs	350 lbs	280 lbs	705 lbs	476 lbs	N/A	269 lbs	N/A	315 lbs	0 lbs	440 lbs	0 lbs	326 lbs	420 lbs	560 lbs
4 Anchors @ 1.15" Min. O.C. / F-Clip (Fig. 9):		480 lbs	700 lbs	N/A	N/A	N/A	N/A	380 lbs	N/A	N/A	N/A	N/A	N/A	852 lbs	840 lbs	1120 lbs

NOTE: FOR THE OFFSET CLIP, USE THE SAME ANCHOR PATTERN AND ANCHOR VALUES AS THE STANDARD CLIP.



ANGLE CLIP (FIGURES 5&amp;6) MUST BE USED IN PAIRS.

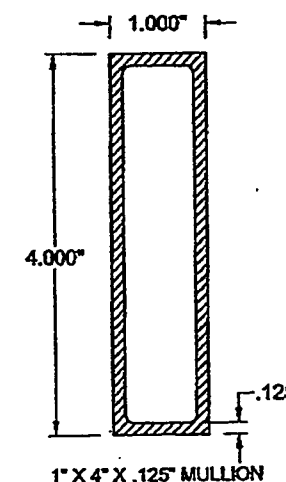
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- 1) SEE SHEET 1 FOR INSTRUCTIONS ON USING THE TABLES AND SHEET 22 FOR INFORMATION ON LOADING. SEE SHEETS 2-4 FOR GENERAL INSTALLATION METHODS.
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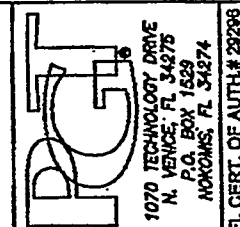
## ANCHOR CAPACITY ADJUSTMENT FORMULA:

$$(DP_{min}) \times \left( \frac{\text{ANCHOR CAP. (FROM TABLE)}}{\text{MULLION CAP. (FROM TABLE)}} \right) = \text{ANCHOR CAP.}_{min}$$

USE THIS FORMULA TO OBTAIN THE "ANCHOR CAPACITY REQUIRED" CORRESPONDING TO AN ACTUAL PRESSURE REQUIREMENT FOR THE OPENING, WHEN IT IS LOWER THAN THE MULLION CAPACITY (FROM THE TABLE) OF THE SELECTED MULLION. IT WILL YIELD A MINIMUM ANCHOR CAPACITY WHICH MAY BE USED TO QUALIFY ADDITIONAL ANCHOR OPTIONS FROM THE ANCHOR CAPACITY TABLE.



1" x 4" x .125" MULLION



1070 TECHNOLOGY DRIVE  
N. VENICE, FL 33426  
P.O. BOX 1539  
NOROWAS, FL 33474  
FL CERT. OF AUTH. # 29298

IMPACT-RESISTANT ALUMINUM TUBE MULLIONS

1" x 4" x .125" MULL SPEC'S

Sheet: 10 of 22  
Rev: 10/22/11  
Drawing No: 6300JR  
Date: 10/22/11  
Checked By: J. ROSOWSKI  
Rev: 10/22/11

PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No. 11-0922-01  
Expiration Date 11/22/2016  
By: *Manuel Perez*  
Miami Trade Product Control

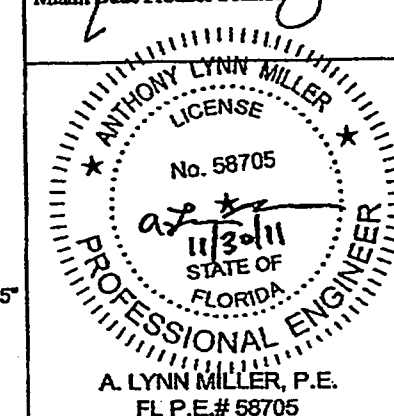
A. LYNN MILLER, P.E.  
FL P.E.# 58705



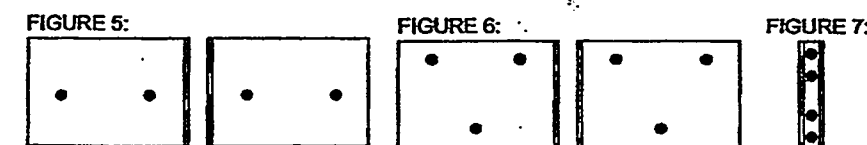
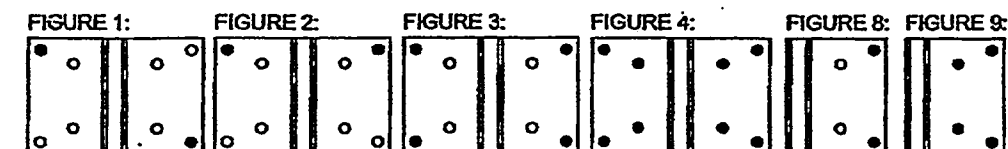
TABLE 7A

1 x 4 x .375 Alum. Tube Mullion		Mullion Capacity Table (lbs/ft <sup>2</sup> )																																													
		Opening Width (for vertically-spanning mullions) or Opening Height (for horizontally-spanning mullions)																																													
		50 in		60 in		70 in		80 in		90 in		100 in		120 in		140 in		160 in																													
		Rectangular Loading	Trap/Tiling, Loading	Rectangular Loading	Trap/Tiling, Loading	Rectangular Loading	Trap/Tiling, Loading	Rectangular Loading	Trap/Tiling, Loading	Rectangular Loading	Trap/Tiling, Loading	Rectangular Loading	Trap/Tiling, Loading	Rectangular Loading	Trap/Tiling, Loading	Rectangular Loading	Trap/Tiling, Loading	Rectangular Loading	Trap/Tiling, Loading																												
Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)																												
Mull Length	42 in	170.0	620	170.0	435	170.0	744	170.0	478	170.0	868	170.0	508	170.0	992	170.0	519	170.0	1116	170.0	521	170.0	1240	170.0	521	170.0	1488	170.0	521	170.0	1735	170.0	521	170.0	1983	170.0	521	170.0	2244								
	48 in	170.0	708	170.0	524	170.0	850	170.0	564	170.0	992	170.0	630	170.0	1133	170.0	661	170.0	1275	170.0	677	170.0	1417	170.0	680	170.0	1700	170.0	680	170.0	1963	170.0	680	170.0	2224	170.0	680	170.0	2484								
	50.625 in	170.0	747	170.0	563	170.0	896	170.0	631	170.0	1046	170.0	684	170.0	1195	170.0	723	170.0	1345	170.0	747	170.0	1494	170.0	756	170.0	1793	170.0	756	170.0	1999	170.0	756	170.0	2264	170.0	756	170.0	2524								
	54 in	170.0	797	170.0	612	170.0	956	170.0	691	170.0	1116	170.0	754	170.0	1275	170.0	803	170.0	1434	170.0	837	170.0	1594	170.0	856	170.0	1799	170.0	861	170.0	1999	170.0	861	170.0	2264	170.0	861	170.0	2524								
	60 in	170.0	885	170.0	701	170.0	1063	170.0	797	170.0	1240	170.0	876	170.0	1417	170.0	944	170.0	1594	170.0	968	170.0	1619	170.0	1033	170.0	1799	170.0	1033	170.0	1999	170.0	1033	170.0	2264	170.0	1033	170.0	2524								
	63 in	170.0	930	170.0	745	170.0	1118	170.0	850	170.0	1302	170.0	940	170.0	1488	170.0	1015	170.0	1587	170.0	1076	170.0	1619	170.0	1076	170.0	1799	170.0	1076	170.0	1999	170.0	1076	170.0	2264	170.0	1076	170.0	2524								
	66 in	170.0	974	170.0	789	170.0	1169	170.0	903	170.0	1364	170.0	1002	170.0	1542	170.0	1066	170.0	1638	170.0	1148	170.0	1688	170.0	1148	170.0	1799	170.0	1148	170.0	1999	170.0	1148	170.0	2264	170.0	1148	170.0	2524								
	72 in	170.0	1063	170.0	878	170.0	1275	170.0	1009	170.0	150.8	1320	1082	117.3	1320	137.8	1066	105.6	1320	128.6	1046	88.0	1320	128.6	1046	88.0	1320	128.6	1046	88.0	1320	128.6	1046	88.0	1320	128.6	1046	88.0	1320	128.6	1046	88.0	1320				
	76 in	170.0	1122	170.0	937	170.0	1345	170.0	1063	170.0	158.7	1320	1101	117.3	1320	137.8	1066	105.6	1320	128.6	1046	88.0	1320	128.6	1046	88.0	1320	128.6	1046	88.0	1320	128.6	1046	88.0	1320	128.6	1046	88.0	1320	128.6	1046	88.0	1320				
	78 in	188.1	1124	170.0	967	170.0	1345	170.0	1063	170.0	158.7	1320	1101	117.3	1320	137.8	1066	105.6	1320	128.6	1046	88.0	1320	128.6	1046	88.0	1320	128.6	1046	88.0	1320	128.6	1046	88.0	1320	128.6	1046	88.0	1320	128.6	1046	88.0	1320				
	80 in	188.1	1124	170.0	967	170.0	1345	170.0	1063	170.0	158.7	1320	1101	117.3	1320	137.8	1066	105.6	1320	128.6	1046	88.0	1320	128.6	1046	88.0	1320	128.6	1046	88.0	1320	128.6	1046	88.0	1320	128.6	1046	88.0	1320	128.6	1046	88.0	1320				
	86 in	188.1	1124	170.0	967	170.0	1345	170.0	1063	170.0	158.7	1320	1101	117.3	1320	137.8	1066	105.6	1320	128.6	1046	88.0	1320	128.6	1046	88.0	1320	128.6	1046	88.0	1320	128.6	1046	88.0	1320	128.6	1046	88.0	1320	128.6	1046	88.0	1320				
	106 in	62.6	586	63.9	530	62.1	586	63.9	530	62.1	586	63.9	530	62.1	586	63.9	530	62.1	586	63.9	530	62.1	586	63.9	530	62.1	586	63.9	530	62.1	586	63.9	530	62.1	586	63.9	530	62.1	586	63.9	530	62.1	586	63.9	530		
	111 in	57.6	555	68.8	503	68.0	555	68.8	503	68.0	555	68.8	503	68.0	555	68.8	503	68.0	555	68.8	503	68.0	555	68.8	503	68.0	555	68.8	503	68.0	555	68.8	503	68.0	555	68.8	503	68.0	555	68.8	503	68.0	555	68.8	503	68.0	555
	120 in	45.6	475	68.4	433	68.0	475	68.4	433	68.0	475	68.4	433	68.0	475	68.4	433	68.0	475	68.4	433	68.0	475	68.4	433	68.0	475	68.4	433	68.0	475	68.4	433	68.0	475	68.4	433	68.0	475	68.4	433	68.0	475	68.4	433	68.0	475
144 in	28.4	330	28.7	305	22.0	330	22.4	301	18.9	330	19.3	297	16.5	330	17.0	293																															

TABLE 7B

Anchor Clip Patterns		Anchor Capacity Table (lbs)											
		Substrate											
		2.7k Concrete				3.5k Conc.		Hollow CMU				Filled CMU	PT Wood
		3/16" Elco Ultracon		1/4" Elco Ultracon		5/16" Elco Ultracon		1/4" Elco Ultracon		1/4" SS Elco Aggregator		#10 Steel Screw (GS)	#12 Steel Screw (GS)
Anchor Type		3/16" Elco Ultracon		1/4" Elco Ultracon		5/16" Elco Ultracon		1/4" Elco Ultracon		1/4" SS Elco Aggregator		#10 Steel Screw (GS)	#12 Steel Screw (GS)
Edge Distance (in)		1"	2-1/2"	1"	2-1/2"	3-1/8"	1"	2-1/2"	1"	2-1/2"	2"	0.48"	0.54"
Embedment (in)		1-3/4"	1-3/4"	1-3/4"	1-3/4"	2"	1-1/4"	1-1/4"	1-1/4"	1-1/4"	1-1/4"	1-3/8"	1-3/8"
2 Anchors @ 4.75" Min. O.C. / Standard Clip (Fig. 1 or 2)		390 lbs	390 lbs	450 lbs	860 lbs	1644 lbs	270 lbs	280 lbs	354 lbs	740 lbs	468 lbs	1182 lbs	326 lbs
4 Anchors @ 2.25" Min. O.C. / Standard Clip (Fig. 3)		700 lbs	700 lbs	580 lbs	1410 lbs	952 lbs	N/A	580 lbs	N/A	630 lbs	N/A	852 lbs	840 lbs
8 Anchors @ 1.15" Min. O.C. / Standard Clip (Fig. 4)		980 lbs	1400 lbs	N/A	N/A	N/A	N/A	780 lbs	N/A	N/A	N/A	1304 lbs	1680 lbs
4 Anchors @ 3" Min. O.C. / (2) 2x5 Angle Clips (Fig. 5)		780 lbs	780 lbs	900 lbs	1780 lbs	3288 lbs	540 lbs	560 lbs	708 lbs	1480 lbs	936 lbs	1326 lbs	840 lbs
6 Anchors @ 3" Min. O.C. / (2) 2x5 Angle Clips (Fig. 6)		1170 lbs	1170 lbs	1020 lbs	2340 lbs	2844 lbs	610 lbs	840 lbs	N/A	1140 lbs	1404 lbs	1320 lbs	1680 lbs
4 Anchors @ 0.45 Min. O.C. / U-Clip, into 1/8" Alum. (Fig. 7)		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2 Anchors @ 2.25" Min. O.C. / F-Clip (Fig. 8)		350 lbs	350 lbs	280 lbs	705 lbs	476 lbs	N/A	280 lbs	N/A	315 lbs	0 lbs	326 lbs	420 lbs
4 Anchors @ 1.15" Min. O.C. / F-Clip (Fig. 9)		480 lbs	700 lbs	N/A	N/A	N/A	N/A	380 lbs	N/A	N/A	N/A	652 lbs	840 lbs

NOTE: FOR THE OFFSET CLIP, USE THE SAME ANCHOR PATTERN AND ANCHOR VALUES AS THE STANDARD CLIP.



ANGLE CLIP (FIGURES 5&amp;6) MUST BE USED IN PAIRS.

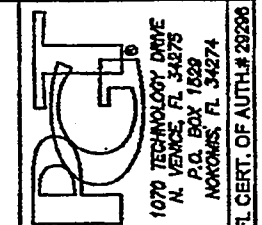
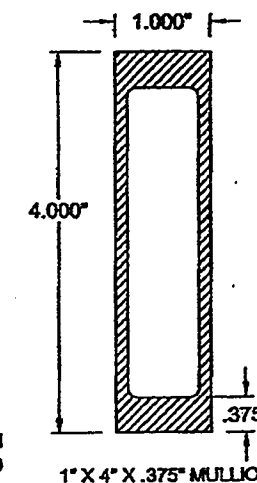
## TABLE NOTES:

- SEE SHEET 1 FOR INSTRUCTIONS ON USING THE TABLES AND SHEET 22 FOR INFORMATION ON LOADING. SEE SHEETS 2-4 FOR GENERAL INSTALLATION METHODS.
- LINEAR INTERPOLATION BETWEEN MULL LENGTHS AND/OR OPENING WIDTHS IS ALLOWABLE.
- MULLION AND MULLION CLIPS SHOWN ARE NOT TO SCALE. FOR EXACT DIMENSIONS, SEE SHEETS 18-20. ALL MULLION CLIPS MAY BE FACTORY MACHINED AND CONTAIN UNUSED HOLES. HOLES MAY BE DRILLED IN THE FIELD FOLLOWING DIMENSIONS SHOWN ON SHEETS 18-20.
- SUBSTRATES: CONCRETE SHALL CONFORM TO ACI 301 SPECIFICATIONS. HOLLOW AND GROUT-FILLED CONCRETE BLOCK UNIT (CMU) SHALL CONFORM TO ASTM C-90. WOOD SHALL BE PRESSURE-TREATED YELLOW SOUTHERN PINE WITH AN SG OF 0.55. ALUMINUM SHALL BE 6063-T5 AND BE A MINIMUM OF .125" THICK. STEEL STUDS TO BE A MINIMUM GRADE 33 AND .045" THICK (18 GAUGE). STRUCTURAL STEEL TO BE AT LEAST .125" THICK AND A36. ALL ANCHORS INTO METAL SHALL EXTEND AT LEAST 3 SCREW THREADS BEYOND THE MATERIAL.

## ANCHOR CAPACITY ADJUSTMENT FORMULA:

$$(DP_{min}) \times \left( \frac{\text{ANCHOR CAP. FROM TABLE}}{\text{MULLION CAP. FROM TABLE}} \right) = \text{ANCHOR CAP. ADJ.}$$

USE THIS FORMULA TO OBTAIN THE "ANCHOR CAPACITY REQUIRED" CORRESPONDING TO AN ACTUAL PRESSURE REQUIREMENT FOR THE OPENING, WHEN IT IS LOWER THAN THE MULLION CAPACITY (FROM THE TABLE) OF THE SELECTED MULLION. IT WILL YIELD A MINIMUM ANCHOR CAPACITY WHICH MAY BE USED TO QUALIFY ADDITIONAL ANCHOR OPTIONS FROM THE ANCHOR CAPACITY TABLE.

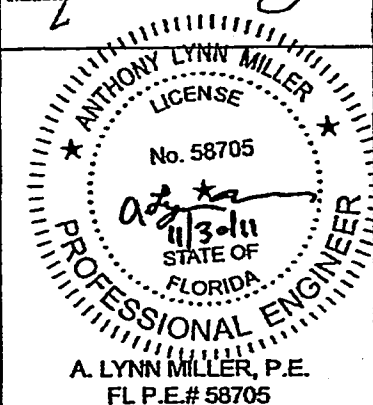


IMPACT-RESISTANT ALUMINUM TUBE MULLIONS

Description: 1 X 4 X .375 MULL SPECS

Sheet: 11 of 22  
 Scale: N/A  
 Drawing No: 6300JR  
 Checked By: J. ROSOWSKI  
 Date: 08/29/16  
 Revision:

PRODUCT REVISED  
 as complying with the Florida  
 Building Code  
 Acceptance No. 11-0922-01  
 Expiration Date MAY 26, 2016  
 By: [Signature]  
 Miami Dade Product Control



A. LYNN MILLER, P.E.  
 FL P.E. # 58705

TABLE 8A

1.25" x 3.188" x .265" Alum Tube Mull		Mullion Capacity Table (lbs/ft <sup>2</sup> )																																			
		Opening Width (for vertically-spanning mullions) or Opening Height (for horizontally-spanning mullions)																																			
		50 in				60 in				70 in				80 in				90 in				100 in				120 in				140 in				160 in			
		Rectangular Loading		Trap/Triang. Loading		Rectangular Loading		Trap/Triang. Loading		Rectangular Loading		Trap/Triang. Loading		Rectangular Loading		Trap/Triang. Loading		Rectangular Loading		Trap/Triang. Loading		Rectangular Loading		Trap/Triang. Loading		Rectangular Loading		Trap/Triang. Loading		Rectangular Loading		Trap/Triang. Loading		Rectangular Loading		Trap/Triang. Loading	
		Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)		
Mull Length	42 in	170.0	620	170.0	435	170.0	744	170.0	478	170.0	868	170.0	506	170.0	892	170.0	519	170.0	1116	170.0	521	170.0	1240	170.0	521	170.0	1488	170.0	521	170.0	1736	170.0	521	151.6	1768	170.0	521
	48 in	170.0	708	170.0	524	170.0	850	170.0	584	170.0	982	170.0	630	170.0	1133	170.0	681	170.0	1276	170.0	677	170.0	1417	170.0	680	154.8	1548	170.0	680	132.7	1548	170.0	680	116.1	1548	170.0	680
	50.625 in	170.0	747	170.0	563	170.0	898	170.0	631	170.0	1048	170.0	684	170.0	1195	170.0	723	170.0	1345	170.0	747	167.0	1468	170.0	758	138.2	1488	170.0	758	119.3	1488	170.0	758	104.4	1488	170.0	758
	54 in	170.0	797	170.0	612	170.0	958	170.0	691	170.0	1118	170.0	754	170.0	1275	170.0	803	163.1	1376	170.0	837	148.8	1376	170.0	856	122.3	1376	170.0	861	104.8	1376	170.0	861	91.7	1376	170.0	861
	60 in	170.0	885	170.0	701	170.0	1063	170.0	797	158.9	1158	170.0	878	139.0	1158	167.4	830	123.6	1158	166.8	919	111.2	1158	160.0	912	82.7	1158	144.8	905	79.4	1158	144.8	905	69.5	1158	144.8	905
	63 in	170.0	930	170.0	746	160.1	1051	170.0	860	137.2	1051	155.9	862	120.1	1051	142.0	848	106.7	1051	132.3	837	96.1	1051	125.7	830	80.1	1051	119.5	822	68.6	1051	119.1	821	60.0	1051	119.1	821
	66 in	167.1	957	170.0	789	139.3	967	151.6	805	119.4	957	134.0	790	104.4	957	121.6	777	92.8	957	112.8	787	83.6	957	106.6	759	69.8	957	100.0	760	59.7	957	98.9	748	52.2	957	98.9	748
	72 in	128.7	804	135.2	698	107.3	804	115.2	684	91.9	804	101.3	671	80.4	804	91.4	660	71.5	804	84.1	650	64.4	804	78.8	643	53.8	804	72.3	633	46.0	804	69.9	629	40.2	804	69.8	628
	76 in	109.4	722	114.4	630	91.2	722	97.2	616	78.2	722	85.3	606	68.4	722	78.7	598	60.8	722	70.3	588	64.7	722	65.6	580	45.6	722	59.5	570	39.1	722	58.7	585	34.2	722	58.2	584
	78 in	101.2	685	105.8	600	84.4	686	89.8	588	72.3	685	78.5	577	63.3	685	70.5	568	58.2	685	64.6	580	60.8	685	60.1	563	42.2	685	54.3	543	36.2	685	51.4	537	31.6	685	50.7	536
	90 in	65.9	515	68.0	457	54.9	515	57.5	449	47.1	515	50.1	441	41.2	515	44.7	434	36.6	515	40.6	428	33.0	515	37.4	422	27.6	515	33.1	413	23.5	515	30.5	407	20.6	515	29.1	404
	96 in	54.3	453	55.8	404	45.3	453	47.1	397	38.8	453	41.0	391	33.9	453	36.4	385	30.2	453	33.0	379	27.2	453	30.4	374	22.8	453	28.6	366	19.4	453	24.3	360	17.0	453	22.9	356
	108 in	38.1	358	39.0	323	31.8	358	32.8	318	27.2	358	28.4	313	23.8	358	25.2	308	21.2	358	22.7	304	19.1	358	20.6	300	15.9	358	18.0	293								
	111 in	35.1	338	35.6	308	29.3	338	30.1	301	25.1	338	26.1	297	22.0	338	23.2	293	19.5	338	20.9	289	17.6	338	19.1	285												
	120 in	27.8	290	28.3	264	23.2	290	23.8	260	19.9	290	20.6	258	17.4	290	18.2	253	15.4	290	16.4	249																
	144 in	16.1	201	16.3	188																																

TABLE 8B

Anchor Clip Patterns		Anchor Capacity Table (lbs)											
		2.7k Concrete				3.5k Conc.				Hollow CMU			
		3/16" Eico Ultracon		1/4" Eico Ultracon		5/16" Eico Ultracon		3/16" Eico Ultracon		1/4" Eico Ultracon		1/4" SS Eico AggreGator	
		Edge Distance (in)	Embedment (in)	Edge Distance (in)	Embedment (in)	Edge Distance (in)	Embedment (in)	Edge Distance (in)	Embedment (in)	Edge Distance (in)	Embedment (in)	Edge Distance (in)	Embedment (in)
2 Anchors @ 4.75" Min. O.C. / Standard Clip (Fig. 1)		1"	1-3/4"	1"	1-3/4"	1"	1-3/4"	1"	1-3/4"	1"	1-3/4"	2"	1-3/4"
4 Anchors @ 1.15" Min. O.C. / Standard Clip (Fig. 2)		1"	1-3/4"	1"	1-3/4"	1"	1-3/4"	1"	1-3/4"	1"	1-3/4"	2"	1-3/4"
4 Anchors @ 3" Min. O.C. / (2) 2x5 Angle Clips (Fig. 3)		1"	1-3/4"	1"	1-3/4"	1"	1-3/4"	1"	1-3/4"	1"	1-3/4"	2"	1-3/4"
4 Anchors @ 0.45" Min. O.C. / U-Clip, into 1/8" Alum. (Fig. 4)		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1 Anchor / F-Clip (Fig. 5)		1"	1-3/4"	1"	1-3/4"	1"	1-3/4"	1"	1-3/4"	1"	1-3/4"	2"	1-3/4"
2 Anchors @ 1.15" Min. O.C. / F-Clip (Fig. 6)		1"	1-3/4"	1"	1-3/4"	1"	1-3/4"	1"	1-3/4"	1"	1-3/4"	2"	1-3/4"
		360 lbs	390 lbs	450 lbs	890 lbs	1644 lbs	270 lbs	280 lbs	354 lbs	740 lbs	488 lbs	684 lbs	1182 lbs
		480 lbs	700 lbs	N/A	N/A	N/A	N/A	360 lbs	N/A	N/A	N/A	N/A	652 lbs
		780 lbs	790 lbs	680 lbs	1580 lbs	1988 lbs	540 lbs	680 lbs	N/A	760 lbs	936 lbs	880 lbs	2384 lbs
		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	852 lbs
		195 lbs	195 lbs	225 lbs	445 lbs	822 lbs	135 lbs	140 lbs	177 lbs	370 lbs	234 lbs	332 lbs	591 lbs
		240 lbs	350 lbs	N/A	N/A	N/A	N/A	190 lbs	N/A	N/A	N/A	N/A	328 lbs
													420 lbs
													560 lbs

NOTE: FOR THE OFFSET CLIP, USE THE SAME ANCHOR PATTERN AND ANCHOR VALUES AS THE STANDARD CLIP.

FIGURE 1:



FIGURE 2:



FIGURE 3:

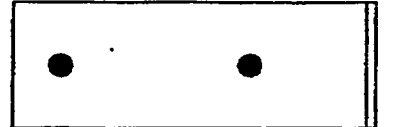


FIGURE 4:

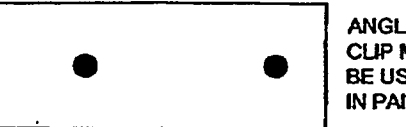


FIGURE 5:

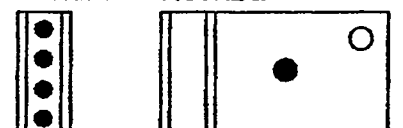


FIGURE 6:

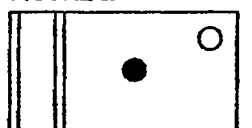
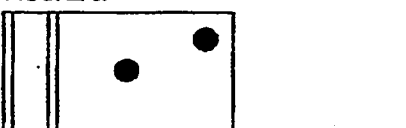


FIGURE 7:



ANGLE CLIP MUST BE USED IN PAIRS.

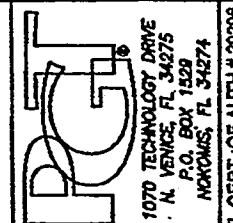
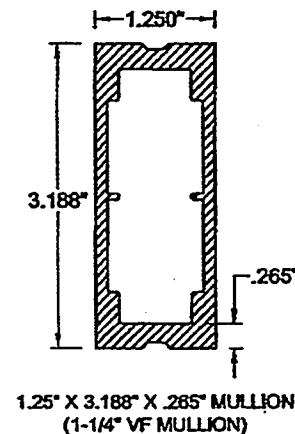
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## ANCHOR CAPACITY ADJUSTMENT FORMULA:

$$(DP_{min}) \times \left( \frac{\text{ANCHOR CAP. FROM TABLE}}{\text{MULLION CAP. FROM TABLE}} \right) = \text{ANCHOR CAP.}_{min}$$

USE THIS FORMULA TO OBTAIN THE "ANCHOR CAPACITY REQUIRED" CORRESPONDING TO AN ACTUAL PRESSURE REQUIREMENT FOR THE OPENING, WHEN IT IS LOWER THAN THE MULLION CAPACITY (FROM THE TABLE) OF THE SELECTED MULLION. IT WILL YIELD A MINIMUM ANCHOR CAPACITY WHICH MAY BE USED TO QUALIFY ADDITIONAL ANCHOR OPTIONS FROM THE ANCHOR CAPACITY TABLE.



IMPACT-RESISTANT ALUMINUM TUBE MULLIONS  
Description: 1.25 X 3.188 X .265 MULL. SPECS  
Scale: N/A  
Drawing No. 6300JR  
Sheet 12 of 22  
Rev. 1  
Date  
Created By: J. ROSOWSKI  
Date: 08/29/14  
Rev. 1  
Revision:

PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No. 11-0922-01  
Expiration Date 11/30/2016  
By: [Signature]  
Miami Made Product Control

ANTHONY LYNN MILLER  
LICENSE  
No. 58705  
9/2/11  
11/30/11  
STATE OF  
FLORIDA  
PROFESSIONAL ENGINEER  
A. LYNN MILLER, P.E.  
FL P.E.# 58705

2 x 4 x .25 Alum. Tube Mullion		Mullion Capacity Table (lbs/ft <sup>2</sup> )																																			
		Opening Width (for vertically-spanning mullions) or Opening Height (for horizontally-spanning mullions)																																			
		50 in				60 in				70 in				80 in				90 in				100 in				120 in				140 in				160 in			
		Rectangular Loading		Trap/Triang. Loading		Rectangular Loading		Trap/Triang. Loading		Rectangular Loading		Trap/Triang. Loading		Rectangular Loading		Trap/Triang. Loading		Rectangular Loading		Trap/Triang. Loading		Rectangular Loading		Trap/Triang. Loading		Rectangular Loading		Trap/Triang. Loading		Rectangular Loading		Trap/Triang. Loading					
Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)						
Mull Length	42 in	170.0	620	170.0	435	170.0	744	170.0	478	170.0	868	170.0	508	170.0	992	170.0	519	170.0	1118	170.0	521	170.0	1240	170.0	521	170.0	1488	170.0	521	170.0	1735	170.0	521	170.0	1983	170.0	521
	48 in	170.0	708	170.0	524	170.0	850	170.0	584	170.0	992	170.0	630	170.0	1133	170.0	661	170.0	1275	170.0	677	170.0	1417	170.0	680	170.0	1700	170.0	680	170.0	1983	170.0	680	170.0	2267	170.0	680
	50.825 in	170.0	747	170.0	563	170.0	898	170.0	631	170.0	1048	170.0	684	170.0	1185	170.0	723	170.0	1345	170.0	747	170.0	1494	170.0	756	170.0	1793	170.0	756	170.0	2092	170.0	756	170.0	2391	170.0	756
	54 in	170.0	797	170.0	612	170.0	956	170.0	691	170.0	1116	170.0	754	170.0	1275	170.0	803	170.0	1434	170.0	837	170.0	1594	170.0	858	170.0	1913	170.0	861	170.0	2231	170.0	861	170.0	2550	170.0	861
	60 in	170.0	885	170.0	701	170.0	1063	170.0	797	170.0	1240	170.0	878	170.0	1417	170.0	944	170.0	1594	170.0	996	170.0	1771	170.0	1033	170.0	2125	170.0	1063	170.0	2479	170.0	1063	160.8	2580	170.0	1063
	63 in	170.0	930	170.0	745	170.0	1116	170.0	850	170.0	1302	170.0	940	170.0	1488	170.0	1015	170.0	1673	170.0	1076	170.0	1859	170.0	1122	170.0	2231	170.0	1189	166.7	2553	170.0	1171	145.9	2553	170.0	1171
	66 in	170.0	974	170.0	789	170.0	1189	170.0	903	170.0	1384	170.0	1002	170.0	1558	170.0	1066	170.0	1753	170.0	1155	170.0	1948	170.0	1210	170.0	2338	170.0	1275	161.9	2437	170.0	1286	132.9	2437	170.0	1286
	72 in	170.0	1063	170.0	878	170.0	1275	170.0	1009	170.0	1488	170.0	1126	170.0	1700	170.0	1228	170.0	1913	170.0	1315	170.0	2125	170.0	1387	146.6	2184	170.0	1488	124.8	21						

Anchor Capacity Table (lbs)																		
Anchor Clip Patterns	Substrate	2.7k Concrete						3.5k Conc.		Hollow CMU				Filled CMU	PT Wood		Metal	
		Anchor Types		3/16" Elico Ultracon		1/4" Elico Ultracon		5/16" Elico Ultracon	3/16" Elico Ultracon		1/4" Elico Ultracon		1/4" SS Elico AggreGator	5/16" Elico Ultracon	1/4" SS Elico AggreGator	#10 Steel Screw (G5)	#12 Steel Screw (G5)	#12 Steel Screw (G5)
				1"	2-1/2"	1"	2-1/2"	3-1/8"	1"	2-1/2"	1"	2-1/2"	2"	3-1/8"	2"	0.48"	0.54"	0.324"
		Edge Distance (in)	1"	2-1/2"	1"	2-1/2"	3-1/8"	1"	2-1/2"	1"	2-1/2"	2"	3-1/8"	2"	0.48"	0.54"	0.324"	
Embedment (in)	1-3/4"	1-3/4"	1-3/4"	1-3/4"	2"	1-1/4"	1-1/4"	1-1/4"	1-1/4"	1-1/4"	1-1/4"	2"	1-3/8"	1-3/8"	(see note)			
2 Anchors @ 4.75" Min. O.C. / Standard Clip (Fig. 1 or 2):		360 lbs	390 lbs	450 lbs	890 lbs	1844 lbs	270 lbs	280 lbs	354 lbs	740 lbs	468 lbs	884 lbs	1182 lbs	328 lbs	420 lbs	560 lbs		
4 Anchors @ 2.68" Min. O.C. / Standard Clip (Fig. 3):		740 lbs	740 lbs	630 lbs	1485 lbs	1424 lbs	N/A	580 lbs	N/A	665 lbs	N/A	660 lbs	N/A	652 lbs	840 lbs	1120 lbs		
6 Anchors @ 1.71" Min. O.C. / Standard Clip (Fig. 4):		865 lbs	1050 lbs	758 lbs	1948 lbs	N/A	N/A	705 lbs	N/A	799 lbs	N/A	N/A	N/A	978 lbs	1280 lbs	1680 lbs		
4 Anchors @ 3" Min. O.C. / (2) 2x5 Angle Clips (Fig. 5):		780 lbs	780 lbs	680 lbs	1580 lbs	1898 lbs	540 lbs	660 lbs	N/A	760 lbs	936 lbs	880 lbs	2364 lbs	652 lbs	840 lbs	1120 lbs		
6 Anchors @ 5" Min. O.C. / (2) 2x5 Angle Clips (Fig. 6):		1170 lbs	1170 lbs	1020 lbs	2340 lbs	2844 lbs	810 lbs	840 lbs	N/A	1140 lbs	1404 lbs	1320 lbs	3546 lbs	978 lbs	1280 lbs	1680 lbs		
3 Anchors @ 1.34" Min. O.C. / U-Clip, into 1/8" Alum. (Fig. 7):		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1074 lbs		
6 Anchors @ 0.84" Min. O.C. / U-Clip, into 1/8" Alum. (Fig. 8):		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2148 lbs		
2 Anchors @ 2.68" Min. O.C. / F-Clip (Fig. 9):		370 lbs	370 lbs	315 lbs	743 lbs	712 lbs	N/A	280 lbs	N/A	348 lbs	N/A	440 lbs	N/A	326 lbs	420 lbs	560 lbs		
3 Anchors @ 1.71" Min. O.C. / F-Clip (Fig. 10):		360 lbs	360 lbs	340 lbs	780 lbs	948 lbs	270 lbs	280 lbs	N/A	380 lbs	468 lbs	440 lbs	1182 lbs	326 lbs	420 lbs	560 lbs		

FIGURE 1:

FIGURE 2:

FIGURE 3:

FIGURE 4:

FIGURE 5:

FIGURE 6:

FIGURE 7:

FIGURE 8:

FIGURE 9:

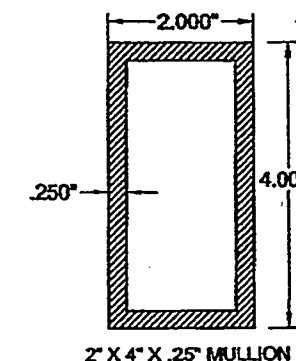
FIGURE 10:

ANGLE CLIP  
(FIGURES 5&6)  
MUST BE USED  
IN PAIRS.

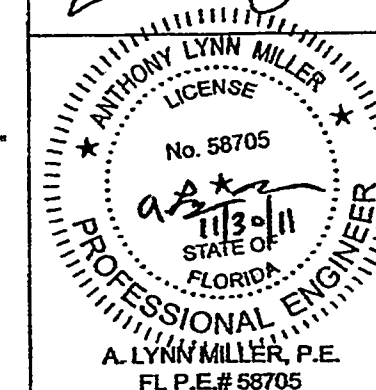
- 1) SEE SHEET 1 FOR INSTRUCTIONS ON USING THE TABLES AND SHEET 22 FOR INFORMATION ON LOADING. SEE SHEETS 2-4 FOR GENERAL INSTALLATION METHODS.
- 2) LINEAR INTERPOLATION BETWEEN MULL LENGTHS AND/OR OPENING WIDTHS IS ALLOWABLE.
- 3) MULLION AND MULLION CLIPS SHOWN ARE NOT TO SCALE. FOR EXACT DIMENSIONS, SEE SHEETS 18-20. ALL MULLION CLIPS MAY BE FACTORY MACHINED AND CONTAIN UNUSED HOLES. HOLES MAY BE DRILLED IN THE FIELD FOLLOWING DIMENSIONS SHOWN ON SHEETS 18-20.
- 4) SUBSTRATES: CONCRETE SHALL CONFORM TO ACI 301 SPECIFICATIONS. HOLLOW AND GROUT-FILLED CONCRETE BLOCK UNIT (CMU) SHALL CONFORM TO ASTM C-90. WOOD SHALL BE PRESSURE-TREATED YELLOW SOUTHERN PINE WITH AN SG OF 0.55. ALUMINUM SHALL BE 6063-T5 AND BE A MINIMUM OF .125" THICK. STEEL STUDS TO BE A MINIMUM GRADE 33 AND .045" THICK (18 GAUGE). STRUCTURAL STEEL TO BE AT LEAST .125" THICK AND A36. ALL ANCHORS INTO METAL SHALL EXTEND AT LEAST 3 SCREW THREADS BEYOND THE MATERIAL.

$$(DP_{\text{REQ}}) \times \left( \frac{\text{ANCHOR CAP. FROM TABLE}}{\text{MILLION CAP.}} \right) = \text{ANCHOR CAP. REQ.}$$

USE THIS FORMULA TO OBTAIN THE "ANCHOR CAPACITY REQUIRED" CORRESPONDING TO AN ACTUAL PRESSURE REQUIREMENT FOR THE OPENING, WHEN IT IS LOWER THAN THE MULLION CAPACITY (FROM THE TABLE) OF THE SELECTED MULLION. IT WILL YIELD A MINIMUM ANCHOR CAPACITY WHICH MAY BE USED TO QUALIFY ADDITIONAL ANCHOR OPTIONS FROM THE ANCHOR CAPACITY TABLE.



PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No 11-0972-01  
Expiration Date MAY 22, 2016  
By *Manuel Pina*  
Miami Trade Product Control



THE  
IMPACT-RESISTANT APPLICATOR IN TIRE MILLIONS

Description: 2X4 X 25 MILL SECS

Series:	Scale:	Drawing No.
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N/A	N/A	
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Drawn By: J. ROSOWSKI  
Date: 08/29/11  
Checked By:

Rev. By:	• • • • •	Date:	• • • • •	Revision:	• • • • •
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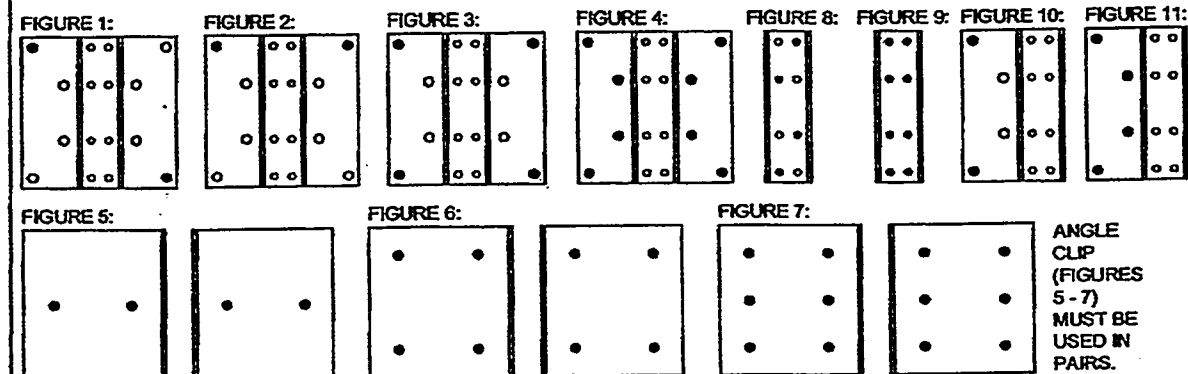
**PG**  
11070 TECHNOLOGY DRIVE  
N. VENICE, FL 34275  
P.O. BOX 1529  
NOKOMIS, FL 34274

**FL CERT. OF AUTH.# 29280**



2 x 6 x .25 Alum. Tube Mullion		Mullion Capacity Table (lbs/ft <sup>2</sup> )																																			
		Opening Width (for vertically-spanning mullions) or Opening Height (for horizontally-spanning mullions)																																			
		50 in				60 in				70 in				80 in				90 in				100 in				120 in				140 in				160 in			
		Rectangular Loading		Trap/Tiling Loading		Rectangular Loading		Trap/Tiling Loading		Rectangular Loading		Trap/Tiling Loading		Rectangular Loading		Trap/Tiling Loading		Rectangular Loading		Trap/Tiling Loading		Rectangular Loading		Trap/Tiling Loading		Rectangular Loading		Trap/Tiling Loading		Rectangular Loading		Trap/Tiling Loading		Rectangular Loading		Trap/Tiling Loading	
Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)				
Mull Length	42 in	170.0	620	170.0	435	170.0	744	170.0	478	170.0	868	170.0	506	170.0	982	170.0	519	170.0	1116	170.0	521	170.0	1240	170.0	521	170.0	1468	170.0	521	170.0	1735	170.0	521	170.0	1983	170.0	521
	48 in	170.0	708	170.0	524	170.0	850	170.0	584	170.0	992	170.0	630	170.0	1133	170.0	661	170.0	1275	170.0	677	170.0	1417	170.0	680	170.0	1700	170.0	680	170.0	1963	170.0	680	170.0	2267	170.0	680
	50.625 in	170.0	747	170.0	583	170.0	886	170.0	631	170.0	1046	170.0	684	170.0	1195	170.0	723	170.0	1345	170.0	747	170.0	1494	170.0	758	170.0	1793	170.0	758	170.0	2082	170.0	758	170.0	2381	170.0	758
	54 in	170.0	787	170.0	612	170.0	958	170.0	691	170.0	1116	170.0	754	170.0	1275	170.0	803	170.0	1434	170.0	837	170.0	1594	170.0	856	170.0	1913	170.0	861	170.0	2231	170.0	861	170.0	2550	170.0	861
	60 in	170.0	885	170.0	701	170.0	1083	170.0	787	170.0	1240	170.0	876	170.0	1417	170.0	944	170.0	1594	170.0	998	170.0	1771	170.0	1033	170.0	2125	170.0	1083	170.0	2479	170.0	1083	170.0	2833	170.0	1083
	66 in	170.0	930	170.0	745	170.0	1116	170.0	850	170.0	1302	170.0	940	170.0	1488	170.0	1015	170.0	1673	170.0	1076	170.0	1859	170.0	1122	170.0	2231	170.0	1169	170.0	2603	170.0	1171	170.0	2975	170.0	1171
	68 in	170.0	974	170.0	789	170.0	1189	170.0	903	170.0	1364	170.0	1002	170.0	1558	170.0	1088	170.0	1763	170.0	1156	170.0	1948	170.0	1210	170.0	2336	170.0	1275	170.0	2727	170.0	1286	170.0	3117	170.0	1286
	72 in	170.0	1063	170.0	878	170.0	1275	170.0	1009	170.0	1488	170.0	1128	170.0	1700	170.0	1228	170.0	1913	170.0	1315	170.0	2125	170.0	1387	170.0	2550	170.0	1488	170.0	2975	170.0	1529	170.0	3400	170.0	1530
	78 in	170.0	1122	170.0	937	170.0	1346	170.0	1080	170.0	1570	170.0	1209	170.0	1794	170.0	1322	170.0	2019	170.0																	

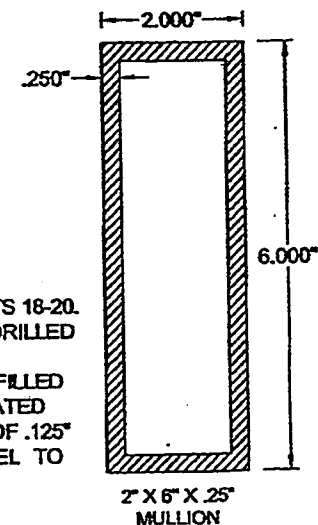
Anchor Clip Patterns	Substrate	2.7k Concrete						Hollow CMU						Filled CMU	PT Wood		Metal	
		Anchor Type		3/16" Eico Ultracon		1/4" Eico Ultracon		3/16" Eico Ultracon		1/4" Eico Ultracon		1/4" SS Eico AggroGator	1/4" SS Eico AggroGator	#10 Steel Screw (G5)	#12 Steel Screw (G5)	#12 Steel Screw (G5)		
		Edge Distance (in)		1"	2-1/2"	1"	2-1/2"	3-1/8"	1"	2-1/2"	1"	2-1/2"	2"	3-1/8"	2"	0.45"	0.64"	0.324"
		Embedment (in)		1-3/4"	1-3/4"	1-3/4"	1-3/4"	2"	1-1/4"	1-1/4"	1-1/4"	1-1/4"	1-1/4"	2"	1-3/8"	1-3/8"	(see note 4)	
2 Anchors @ 4.75" Min. O.C. / Standard Clip (Fig. 1):		390 lbs	390 lbs	450 lbs	890 lbs	1644 lbs	270 lbs	280 lbs	354 lbs	740 lbs	468 lbs	664 lbs	1182 lbs	326 lbs	420 lbs	690 lbs		
4 Anchors @ 4.68" Min. O.C. / Standard Clip (Fig. 3):		780 lbs	780 lbs	900 lbs	1780 lbs	3084 lbs	540 lbs	560 lbs	708 lbs	1480 lbs	936 lbs	1104 lbs	2364 lbs	652 lbs	840 lbs	1120 lbs		
6 Anchors @ 1.71" Min. O.C. / Standard Clip (Fig. 4):		1180 lbs	1400 lbs	1010 lbs	2565 lbs	N/A	N/A	940 lbs	N/A	1065 lbs	N/A	N/A	N/A	1304 lbs	1680 lbs	2240 lbs		
4 Anchors @ 3" Min. O.C. / (2) 2x5 Angle Clips (Fig. 5):		780 lbs	780 lbs	890 lbs	1560 lbs	1696 lbs	540 lbs	560 lbs	N/A	760 lbs	936 lbs	880 lbs	2364 lbs	652 lbs	840 lbs	1120 lbs		
8 Anchors @ 3" Min. O.C. / (2) 2x5 Angle Clips (Fig. 6):		1560 lbs	1560 lbs	1360 lbs	3120 lbs	3782 lbs	1080 lbs	1120 lbs	N/A	1520 lbs	1872 lbs	1760 lbs	4728 lbs	1304 lbs	1680 lbs	2240 lbs		
12 Anchors @ 1.5" Min. O.C. / (2) 2x5 Angle Clips (Fig. 7):		1680 lbs	2100 lbs	1440 lbs	3780 lbs	N/A	N/A	1320 lbs	N/A	1500 lbs	N/A	N/A	N/A	1856 lbs	2620 lbs	3360 lbs		
4 Anchors @ 1.34" Min. O.C. / U-Clip, Into 1/8" Alum. (Fig. 8):		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1432 lbs		
8 Anchors @ 0.64" Min. O.C. / U-Clip, Into 1/8" Alum. (Fig. 9):		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2864 lbs		
2 Anchors @ 4.68" Min. O.C. / F-Clip (Fig. 10):		390 lbs	390 lbs	450 lbs	890 lbs	1532 lbs	270 lbs	280 lbs	354 lbs	740 lbs	468 lbs	664 lbs	1182 lbs	326 lbs	420 lbs	690 lbs		
4 Anchors @ 1.71" Min. O.C. / F-Clip (Fig. 11):		580 lbs	700 lbs	505 lbs	1298 lbs	N/A	N/A	470 lbs	N/A	533 lbs	N/A	N/A	N/A	652 lbs	840 lbs	1120 lbs		



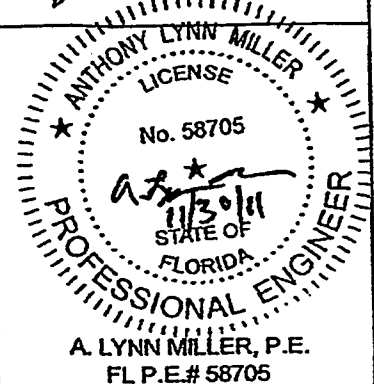
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- 3) MULLION AND MULLION CLIPS SHOWN ARE NOT TO SCALE. FOR EXACT DIMENSIONS, SEE SHEETS 18-20. ALL MULLION CLIPS MAY BE FACTORY MACHINED AND CONTAIN UNUSED HOLES. HOLES MAY BE DRILLED IN THE FIELD FOLLOWING DIMENSIONS SHOWN ON SHEETS 18-20.
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$$(DP_{-}) \times \left( \frac{\text{ANCHOR CAP. FROM TABLE}}{\text{MILLION CAP. FROM TABLE}} \right) = \text{ANCHOR CAP. REQ.}$$

USE THIS FORMULA TO OBTAIN THE "ANCHOR CAPACITY REQUIRED" CORRESPONDING TO AN ACTUAL PRESSURE REQUIREMENT FOR THE OPENING, WHEN IT IS LOWER THAN THE MILLION CAPACITY (FROM THE TABLE) OF THE SELECTED MILLION. IT WILL YIELD A MINIMUM ANCHOR CAPACITY WHICH MAY BE USED TO QUALIFY ADDITIONAL ANCHOR OPTIONS FROM THE ANCHOR CAPACITY TABLE.



**PRODUCT REVISED**  
as complying with the Florida  
Building Code  
Acceptance No. 11-0922.01  
Expiration Date MAY 26, 2016  
By: Maurice P. [Signature]  
Miami Code Product Control



Title: IMPACT RESISTANT ALUMINUM TUBE MULLIONS

2 X 6 X .25 MULL SPECS

Series: A 11 A  
Scale: A 11 A  
Drawing No.

N/A	N/A	
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Drawn By: [Signature] Date: 8/20/14  
Checked By: [Signature]

J ROSOWSKI	08/29/17
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Rev. By:	• • • • •	Date:	• • • • •	Revision:	• • • • •
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TABLE 11A

1.26" x 2.11" x .125" Alum Tube Mull		Mullion Capacity Table (lbs/ft <sup>2</sup> )																			
		Opening Width (for vertically-spanning mullions) or Opening Height (for horizontally-spanning mullions)																			
		50 in		60 in		70 in		80 in		90 in		100 in		120 in		140 in		160 in			
		Rectangular Loading	Trap/Tiang. Loading	Rectangular Loading	Trap/Tiang. Loading	Rectangular Loading	Trap/Tiang. Loading	Rectangular Loading	Trap/Tiang. Loading	Rectangular Loading	Trap/Tiang. Loading	Rectangular Loading	Trap/Tiang. Loading	Rectangular Loading	Trap/Tiang. Loading	Rectangular Loading	Trap/Tiang. Loading	Rectangular Loading	Trap/Tiang. Loading	Rectangular Loading	Trap/Tiang. Loading
Mull Length	42 in	144.2	528	187.0	428	120.2	528	148.9	419	103.0	528	138.9	414	90.1	528	134.1	411	80.1	528	134.1	411
	48 in	98.6	403	108.0	333	80.5	403	94.7	326	69.0	403	86.4	320	60.4	403	81.4	317	63.7	403	79.1	315
	60.625 in	82.3	362	91.0	301	68.6	362	79.3	294	58.8	362	71.9	289	51.5	362	67.2	286	45.7	362	64.6	284
	64 in	67.8	318	74.1	267	58.5	318	64.2	261	48.5	318	57.7	256	42.4	318	53.5	253	37.7	318	50.6	250
	68 in	49.5	258	53.1	218	41.2	258	45.7	214	35.3	258	40.7	210	30.9	258	37.2	207	27.5	258	34.9	204
	63 in	42.7	234	45.6	200	35.6	234	39.1	195	30.5	234	34.7	192	26.7	234	31.6	189	23.7	234	29.4	186
	66 in	37.2	213	38.4	183	31.0	213	33.7	179	28.5	213	29.8	176	23.2	213	27.0	173	20.6	213	25.1	170
	72 in	28.6	179	30.1	155	23.9	179	25.6	152	20.4	179	22.5	149	17.9	179	20.3	147	15.9	179	18.7	145
	76 in	24.3	161	25.4	140	20.3	161	21.6	137	17.4	161	19.0	135	15.2	161	17.0	133				
	78 in	22.5	152	23.5	133	18.8	152	19.9	131	16.1	152	17.5	128								

TABLE 11B

Anchor Clip Patterns		Anchor Capacity Table (lbs)													
		Substrate:		2.7k Concrete				3.5k Conc.		Hollow CMU				Filled CMU	PT Wood
		Anchor Type:		3/16" Elco Ultracon		1/4" Elco Ultracon		5/16" Elco Ultracon		3/16" Elco Ultracon		1/4" Elco Ultracon		1/4" SS Elco AggroGator	5/16" Elco Ultracon
		Edge Distance (in):		1"	2-1/2"	1"	2-1/2"	3-1/8"	1"	2-1/2"	1"	2-1/2"	1"	2"	3-1/8"
		Embedment (in):		1-3/4"	1-3/4"	1-3/4"	1-3/4"	2"	1-1/4"	1-1/4"	1-1/4"	1-1/4"	1-1/4"	2"	1-3/8"
		4 Anchors @ 3" Min. O.C. / (2) 2x6 Angle Clips (Fig. 1)		780 lbs	780 lbs	680 lbs	1580 lbs	1895 lbs	540 lbs	560 lbs	N/A	760 lbs	936 lbs	880 lbs	2384 lbs
															652 lbs
															840 lbs
															1432 lbs

ANCHOR CAPACITY ADJUSTMENT FORMULA:

$$(DP_{min}) \times \left( \frac{\text{ANCHOR CAP. FROM TABLE}}{\text{MULLION CAP. FROM TABLE}} \right) = \text{ANCHOR CAP.}_{min}$$

USE THIS FORMULA TO OBTAIN THE "ANCHOR CAPACITY REQUIRED" CORRESPONDING TO AN ACTUAL PRESSURE REQUIREMENT FOR THE OPENING, WHEN IT IS LOWER THAN THE MULLION CAPACITY (FROM THE TABLE) OF THE SELECTED MULLION. IT WILL YIELD A MINIMUM ANCHOR CAPACITY WHICH MAY BE USED TO QUALIFY ADDITIONAL ANCHOR OPTIONS FROM THE ANCHOR CAPACITY TABLE.

FIGURE 1:

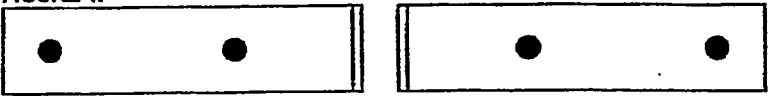
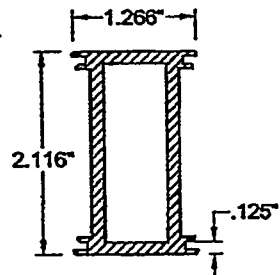


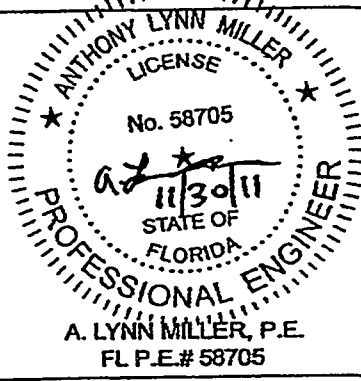
TABLE NOTES:

- 1) SEE SHEET 1 FOR INSTRUCTIONS ON USING THE TABLES AND SHEET 22 FOR INFORMATION ON LOADING. SEE SHEETS 2-4 FOR GENERAL INSTALLATION METHODS.
- 2) LINEAR INTERPOLATION BETWEEN MULL LENGTHS AND/OR OPENING WIDTHS IS ALLOWABLE.
- 3) MULLION AND MULLION CLIPS SHOWN ARE NOT TO SCALE. FOR EXACT DIMENSIONS, SEE SHEETS 18-20. ALL MULLION CLIPS MAY BE FACTORY MACHINED AND CONTAIN UNUSED HOLES. HOLES MAY BE DRILLED IN THE FIELD FOLLOWING DIMENSIONS SHOWN ON SHEETS 18-20.
- 4) SUBSTRATES: CONCRETE SHALL CONFORM TO ACI 301 SPECIFICATIONS. HOLLOW AND GROUT-FILLED CONCRETE BLOCK UNIT (CMU) SHALL CONFORM TO ASTM C-90. WOOD SHALL BE PRESSURE-TREATED YELLOW SOUTHERN PINE WITH AN SG OF 0.55. ALUMINUM SHALL BE 6063-T5 AND BE A MINIMUM OF .125" THICK. STEEL STUDS TO BE A MINIMUM GRADE 33 AND .045" THICK (18 GAUGE). STRUCTURAL STEEL TO BE AT LEAST .125" THICK AND A36. ALL ANCHORS INTO METAL SHALL EXTEND AT LEAST 3 SCREW THREADS BEYOND THE MATERIAL.



1.26" X 2.11" X .125" MULLION (INTEGRAL FIN MULLION)

PRODUCT REVISED  
 as complying with the Florida  
 Building Code  
 Acceptance No. 11-0926-01  
 Expiration Date May 26, 2016  
 By *Manuel Lopez*  
 Miami Dade Product Control



1070 TECHNOLOGY DRIVE  
 N. VENICE, FL 34275  
 P.O. BOX 1629  
 NOKOMIS, FL 34274  
 FL CERT. OF AUTH. # 29298

Title: IMPACT-RESISTANT ALUMINUM TUBE MULLIONS  
 Description: 1.26 X 2.11 X .125 MULL SPECS  
 Series: N/A  
 Drawing No: 6300JR  
 Date: N/A  
 Checked By: J ROSOWSKI  
 Date: 08/29/11  
 Rev. By: N/A  
 Revision:

TABLE 12A

3.25" 30 DEG. AL BAY MULL		Mullion Capacity Table (lbs/ft <sup>2</sup> )																																			
		Opening Width (for vertically-spanning mullions) or Opening Height (for horizontally-spanning mullions)																																			
		50 in				60 in				70 in				80 in				90 in				100 in				120 in				140 in				160 in			
		Rectangular Loading		Trap/Triang. Loading		Rectangular Loading		Trap/Triang. Loading		Rectangular Loading		Trap/Triang. Loading		Rectangular Loading		Trap/Triang. Loading		Rectangular Loading		Trap/Triang. Loading		Rectangular Loading		Trap/Triang. Loading		Rectangular Loading		Trap/Triang. Loading		Rectangular Loading		Trap/Triang. Loading					
Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)				
Mull Length	42 in	170.0	620	170.0	435	170.0	744	170.0	478	170.0	888	170.0	508	170.0	982	170.0	519	170.0	1118	170.0	521	170.0	1240	170.0	521	170.0	1488	170.0	521	170.0	1735	170.0	521	149.1	1740	170.0	521
	48 in	170.0	708	170.0	524	170.0	850	170.0	584	170.0	982	170.0	630	170.0	1133	170.0	661	170.0	1275	170.0	677	170.0	1417	170.0	680	152.2	1622	170.0	680	130.6	1522	170.0	680	114.2	1522	170.0	680
	50.625 in	170.0	747	170.0	583	170.0	898	170.0	631	170.0	1048	170.0	684	170.0	1195	170.0	723	170.0	1345	170.0	747	170.0	1443	170.0	756	136.8	1443	170.0	756	117.3	1443	170.0	756	102.6	1443	170.0	756
	54 in	170.0	797	170.0	612	170.0	958	170.0	691	170.0	1116	170.0	754	170.0	1275	170.0	803	180.4	1353	170.0	837	144.3	1353	170.0	856	120.3	1353	170.0	861	103.1	1353	170.0	861	90.2	1353	170.0	861
	60 in	170.0	885	170.0	701	170.0	1063	170.0	797	167.0	1218	170.0	878	148.1	1218	170.0	944	128.9	1218	158.8	936	116.9	1218	152.1	824	97.4	1218	146.1	913	83.5	1218	146.1	913	73.1	1218	146.1	913
	63 in	170.0	830	170.0	745	170.0	1116	170.0	850	150.2	1150	168.8	933	131.4	1150	163.0	914	116.8	1150	141.8	898	105.1	1150	134.2	885	87.6	1150	126.7	871	75.1	1150	126.2	870	65.7	1150	126.2	870
	66 in	170.0	974	170.0	788	152.4	1048	165.8	881	130.8	1048	148.6	864	114.3	1048	133.1	850	101.6	1048	123.4	839	91.4	1048	116.6	830	76.2	1048	108.4	821	65.3	1048	108.2	818	57.1	1048	108.2	818
	72 in	140.8	880	147.9	784	117.4	880	128.0	748	100.8	880	110.8	734	88.0	880	100.0	722	78.2	880	92.0	712	70.4	880	86.2	703	58.7	880	79.2	685	50.3	880	78.5	688	44.0	880	78.4	688
	76 in	118.7	790	125.1	690	98.8	790	106.4	678	85.5	790	93.3	663	74.8	790	83.9	652	68.5	790	78.9	643	58.9	790	71.7	635	49.9	790	65.1	624	42.8	790	62.1	619	37.4	790	61.5	619
	78 in	110.6	750	115.5	657	92.3	750	98.1	644	79.1	750	85.9	632	69.2	750	77.1	621	61.5	750	70.6	612	55.4	750	65.7	605	46.2	750	58.4	594	39.6	750	56.2	588	34.6	750	55.5	588
	80 in	72.1	583	74.4	500	60.1	563	62.9	491	51.5	563	54.8	483	45.1	563	46.9	475	40.1	563	44.4	468	36.1	563	40.9	462	30.0	563	36.2	452	25.8	563	33.3	445	22.6	563	31.6	445
	86 in	59.4	495	61.1	443	49.5	495	51.5	435	42.4	495	44.8	427	37.1	495	39.9	421	33.0	495	36.1	415	29.7	495	33.2	409	24.8	495	29.1	400	21.2	495	26.6	394	18.6	495	25.0	394
	108 in	41.7	391	42.6	353	34.8	391	35.9	348	29.8	391	31.1	342	26.1	391	27.6	337	23.2	391	24.9	333	20.9	391	22.8	326	17.4	391	19.7	321	14.9	391	17.8	315				
	111 in	38.4	370	39.2	335	32.0	370	33.0	330	27.5	370	28.6	325	24.0	370	25.3	320	21.4	370	22.8	318	19.2	370	20.9	312	16.0	370	18.1	305								
120 in	30.4	317	30.9	289	25.3	317	26.0	284	21.7	317	22.5	280	19.0	317	19.9	276	16.9	317	17.9	273																	
144 in	17.6	220	17.8	203																																	

TABLE 12B

Anchor Clip Patterns		Anchor Capacity Table (lbs)											
		Substrate:		2.7k Concrete				3.5k Conc.		Hollow CMU			
		Anchor Type:		3/16" Elco Ultracon		1/4" Elco Ultracon		5/16" Elco Ultracon		3/16" Elco Ultracon		1/4" Elco Ultracon	
		Edge Distance (in):	Embedment (in):	1"	2-1/2"	1"	2-1/2"	1"	2-1/2"	1"	2-1/2"	1"	2-1/2"
2 Anchors @ 5" Min. O.C. / (2) 2x5 Angle Clips (Fig. 1):		1-3/4"	1-3/4"	390 lbs	390 lbs	450 lbs	890 lbs	1700 lbs	270 lbs	280 lbs	354 lbs	740 lbs	488 lbs
4 Anchors @ 3.5" Min. O.C. / (2) 2x5 Angle Clips (Fig. 2):		1-3/4"	1-3/4"	780 lbs	780 lbs	790 lbs	1670 lbs	2625 lbs	540 lbs	560 lbs	N/A	1120 lbs	936 lbs
6 Anchors @ 2.71" Min. O.C. / (2) 2x5 Angle Clips (Fig. 3):		1-3/4"	1-3/4"	1120 lbs	1120 lbs	958 lbs	2246 lbs	2254 lbs	N/A	840 lbs	N/A	1059 lbs	N/A

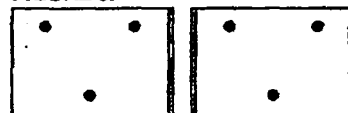
FIGURE 1:



FIGURE 2:



FIGURE 3:



ANGLE CLIP (FIGURES 1-3) MUST BE USED IN PAIRS.

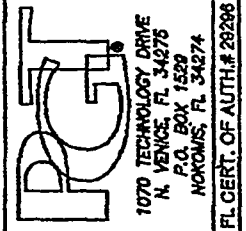
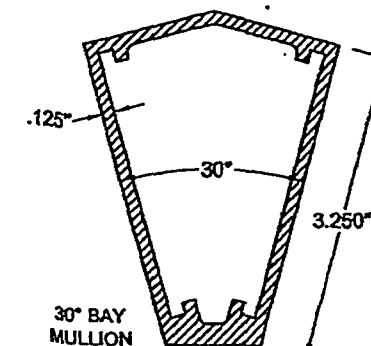
## TABLE NOTES:

- SEE SHEET 1 FOR INSTRUCTIONS ON USING THE TABLES AND SHEET 22 FOR INFORMATION ON LOADING. SEE SHEETS 2-4 FOR GENERAL INSTALLATION METHODS.
- LINEAR INTERPOLATION BETWEEN MULL LENGTHS AND/OR OPENING WIDTHS IS ALLOWABLE.
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- SUBSTRATES: CONCRETE SHALL CONFORM TO ACI 301 SPECIFICATIONS. HOLLOW AND GROUT-FILLED CONCRETE BLOCK UNIT (CMU) SHALL CONFORM TO ASTM C-90. WOOD SHALL BE PRESSURE-TREATED YELLOW SOUTHERN PINE WITH AN SG OF 0.55. ALUMINUM SHALL BE 6063-T5 AND BE A MINIMUM OF .125" THICK. STEEL STUDS TO BE A MINIMUM GRADE 33 AND .045" THICK (18 GAUGE). STRUCTURAL STEEL TO BE AT LEAST .125" THICK AND A36. ALL ANCHORS INTO METAL SHALL EXTEND AT LEAST 3 SCREW THREADS BEYOND THE MATERIAL.

## ANCHOR CAPACITY ADJUSTMENT FORMULA:

$$(DP_{min}) \times \left( \frac{\text{ANCHOR CAP.}_{\text{FROM TABLE}}}{\text{MULLION CAP.}_{\text{FROM TABLE}}} \right) = \text{ANCHOR CAP.}_{\text{ADJUSTED}}$$

USE THIS FORMULA TO OBTAIN THE "ANCHOR CAPACITY REQUIRED" CORRESPONDING TO AN ACTUAL PRESSURE REQUIREMENT FOR THE OPENING, WHEN IT IS LOWER THAN THE MULLION CAPACITY (FROM THE TABLE) OF THE SELECTED MULLION. IT WILL YIELD A MINIMUM ANCHOR CAPACITY WHICH MAY BE USED TO QUALIFY ADDITIONAL ANCHOR OPTIONS FROM THE ANCHOR CAPACITY TABLE.



IMPACT-RESISTANT ALUMINUM TUBE MULLIONS

30 DEGREE BAY MULL SPECS

Sheet 16 of 22

Drawing No. 6300JR

Checked By: J. ROSOWSKI

Date: 08/29/11

Rev. By: J. ROSOWSKI

PRODUCT REVISED as complying with the Florida Building Code

Acceptance No. 11-0992.01

Expiration Date 11/30/16

By: Manuel Lopez

Miami/Dade Product Control

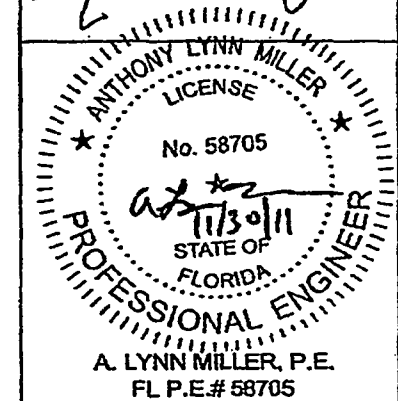
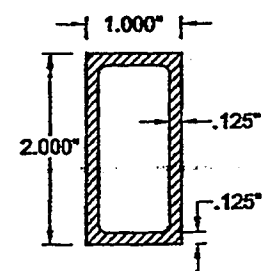
A. LYNN MILLER, P.E.  
FL P.E.# 58705

TABLE 13A

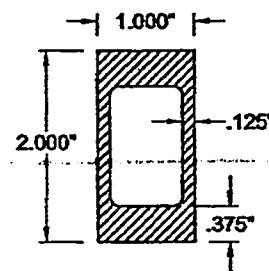
3.25" 45 DEG. AL BAY MULL		Mullion Capacity Table (lbs/ft <sup>2</sup> )																																				
		Opening Width (for vertically-spanning mullions) or Opening Height (for horizontally-spanning mullions)																																				
		50 in		60 in		70 in		80 in		90 in		100 in		120 in		140 in		160 in																				
		Rectangular Loading	Trap/Triang. Loading	Rectangular Loading	Trap/Triang. Loading	Rectangular Loading	Trap/Triang. Loading	Rectangular Loading	Trap/Triang. Loading	Rectangular Loading	Trap/Triang. Loading	Rectangular Loading	Trap/Triang. Loading	Rectangular Loading	Trap/Triang. Loading	Rectangular Loading	Trap/Triang. Loading	Rectangular Loading	Trap/Triang. Loading																			
		Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)	Mullion Capacity (lbs/ft <sup>2</sup> )	Anchor Capacity Required (lbs)					
Mull Length	42 in	170.0	620	170.0	435	170.0	744	170.0	478	170.0	888	170.0	508	170.0	982	170.0	519	170.0	1118	170.0	521	170.0	1240	170.0	521	170.0	1488	170.0	521	170.0	1735	170.0	521	180.3	1871	170.0	521	
	48 in	170.0	708	170.0	524	170.0	850	170.0	584	170.0	992	170.0	630	170.0	1133	170.0	661	170.0	1275	170.0	677	170.0	1417	170.0	680	170.0	1637	170.0	680	140.3	1637	170.0	680	122.8	1637	170.0	680	
	50.625 in	170.0	747	170.0	563	170.0	898	170.0	631	170.0	1046	170.0	684	170.0	1185	170.0	723	170.0	1345	170.0	747	170.0	1494	170.0	758	170.0	1552	170.0	758	128.1	1552	170.0	758	110.4	1552	170.0	758	
	54 in	170.0	797	170.0	612	170.0	958	170.0	691	170.0	1116	170.0	754	170.0	1275	170.0	803	170.0	1434	170.0	837	170.0	1552	1455	170.0	856	170.0	1552	170.0	861	110.8	1455	170.0	861	97.0	1455	170.0	861
	60 in	170.0	885	170.0	701	170.0	1063	170.0	797	170.0	1240	170.0	878	170.0	1397	170.0	944	170.0	1537	170.0	986	170.0	1635	170.0	994	170.0	1635	170.0	994	104.6	1309	157.1	982	89.8	1309	157.1	982	
	63 in	170.0	930	170.0	745	170.0	1118	170.0	850	170.0	1247	170.0	940	170.0	1425	170.0	983	170.0	1526	170.0	965	170.0	1635	170.0	994	170.0	1635	170.0	994	104.6	1309	157.1	982	89.8	1309	157.1	982	
	66 in	170.0	974	170.0	789	170.0	1169	170.0	903	170.0	1299	170.0	985	170.0	1479	170.0	1010	170.0	1547	170.0	945	170.0	1635	170.0	994	170.0	1635	170.0	994	104.6	1309	157.1	982	89.8	1309	157.1	982	
	72 in	161.6	1010	169.8	877	134.7	1010	144.6	850	115.4	1010	127.2	842	101.0	1010	114.7	828	88.8	1010	105.6	817	80.8	1010	96.9	807	67.3	1010	90.8	705	57.7	1010	67.8	790	50.5	1010	67.7	789	
	78 in	137.4	908	143.6	792	114.5	908	122.0	775	96.1	908	107.1	761	85.9	908	98.2	740	76.3	908	88.2	738	68.7	908	82.3	728	57.3	908	74.7	716	49.1	908	71.2	710	42.9	908	70.6	708	
	78 in	127.1	861	132.5	754	105.9	861	112.5	738	90.8	861	98.8	725	78.4	861	88.5	713	70.6	861	81.0	703	63.6	861	75.4	684	53.0	861	68.1	681	45.4	861	64.5	675	39.7	861	63.7	672	
	90 in	82.7	648	85.4	574	68.9	648	72.1	584	58.1	648	62.9	554	51.7	648	58.1	545	46.0	648	50.9	537	41.4	648	47.0	530	34.5	648	41.5	519	29.5	648	38.2	511	25.9	648	38.5	507	
	96 in	58.2	588	70.1	506	55.8	588	59.1	499	48.7	588	51.4	491	42.6	588	45.8	483	37.9	588	41.4	478	34.1	588	38.1	470	28.4	588	33.4	459	24.3	588	30.5	452	21.3	588	28.7	447	
	108 in	47.9	449	48.9	405	39.9	449	41.2	390	34.2	449	35.7	383	29.9	449	31.7	387	26.6	449	28.6	382	23.9	449	26.1	377	20.0	449	22.7	368	17.1	449	20.4	361	15.0	449	18.9	356	
	111 in	44.1	425	45.0	385	36.8	425	37.9	379	31.5	425	32.8	373	27.6	425	29.1	367	24.5	425	26.2	362	22.1	425	24.0	358	18.4	425	20.7	350	15.8	425	18.6	343					
	120 in	34.9	384	35.5	331	29.1	384	29.8	326	24.9	384	25.8	321	21.8	384	22.8	317	19.4	384	20.5	313	17.5	384	18.7	309													
	144 in	20.2	263	20.4	233	16.8	253	17.1	230																													

TABLE 13B

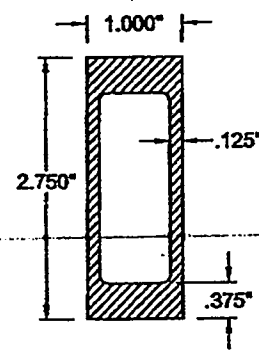
Anchor Capacity Table (lbs)																
Anchor Clip Patterns	Substrate:	2.7k Concrete				3.5k Conc.	Hollow CMU				Filled CMU	PT Wood		Metal		
	Anchor Type:	3/16" Elco Ultracon		1/4" Elco Ultracon		5/16" Elco Ultracon	3/16" Elco Ultracon		1/4" Elco Ultracon		1/4" SS Elco AggreGator	5/16" Elco Ultracon	1/4" SS Elco AggreGator	#10 Steel Screw (G5)	#12 Steel Screw (G5)	#12 Steel Screw (G5)
	Edge Distance (in):	1"	2-1/2"	1"	2-1/2"	3-1/8"	1"	2-1/2"	1"	2-1/2"	2"	3-1/8"	2"	0.48"	0.54"	0.324"
	Embedment (in):	1-3/4"	1-3/4"	1-3/4"	1-3/4"	2"	1-1/4"	1-1/4"	1-1/4"	1-1/4"	1-1/4"	1-1/4"	2"	1-3/8"	1-3/8"	(see note)
2 Anchors @ 5" Min. O.C. / (2) 2x5 Angle Clips (Fig. 1):		360 lbs	360 lbs	450 lbs	880 lbs	1700 lbs	270 lbs	280 lbs	354 lbs	740 lbs	468 lbs	720 lbs	1182 lbs	326 lbs	420 lbs	580 lbs
4 Anchors @ 3.5" Min. O.C. / (2) 2x5 Angle Clips (Fig. 2):		780 lbs	780 lbs	790 lbs	1670 lbs	2525 lbs	540 lbs	560 lbs	N/A	1120 lbs	936 lbs	880 lbs	2364 lbs	652 lbs	840 lbs	1120 lbs
6 Anchors @ 2.7" Min. O.C. / (2) 2x5 Angle Clips (Fig. 3):		1120 lbs	1120 lbs	958 lbs	2248 lbs	2254 lbs	N/A	840 lbs	N/A	1059 lbs	N/A	1320 lbs	N/A	978 lbs	1280 lbs	1680 lbs



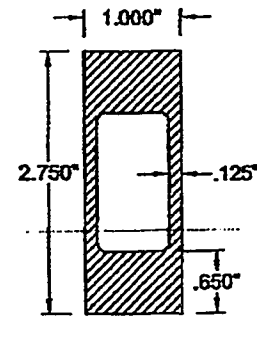
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6063-T6 ALUM.  
X-SECTION



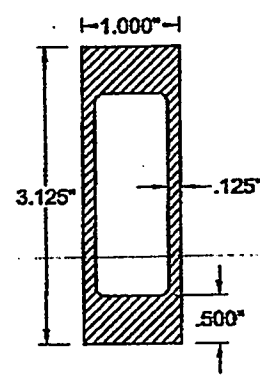
1" X 2" X .375" MULLION  
6063-T6 ALUM.  
X-SECTION



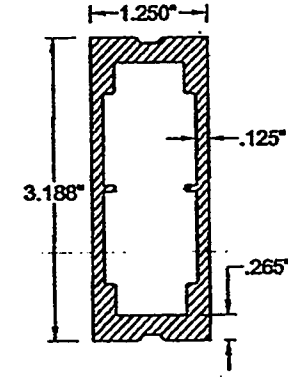
1" X 2.75" X .375" MULLION  
6063-T6 ALUM.  
X-SECTION



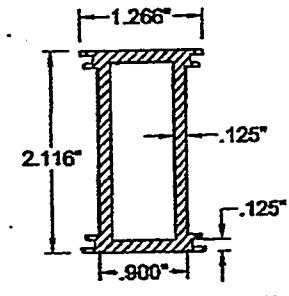
1" X 2.75" X .650" MULLION  
6063-T6 ALUM.  
X-SECTION



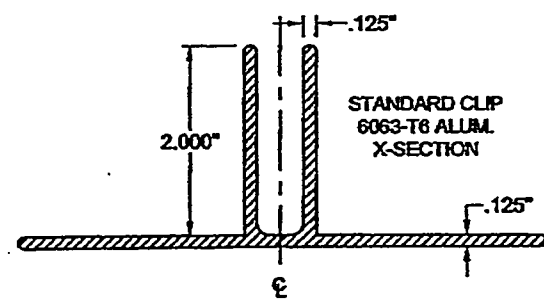
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6063-T6 ALUM.  
X-SECTION



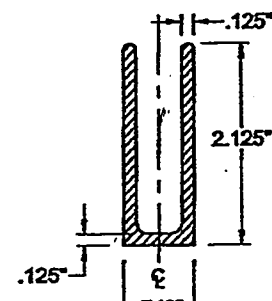
1.25" X 3.188" X .265" MULLION  
6063-T6 ALUM.  
X-SECTION



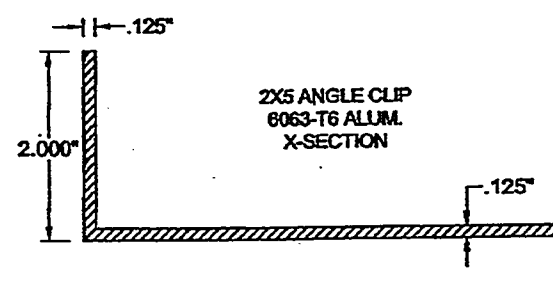
1.26" X 2.11" X .125" MULLION  
6063-T6 ALUM.  
X-SECTION



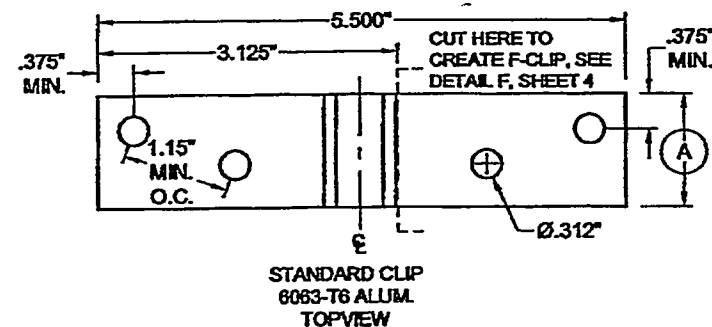
STANDARD CLIP  
6063-T6 ALUM.  
X-SECTION



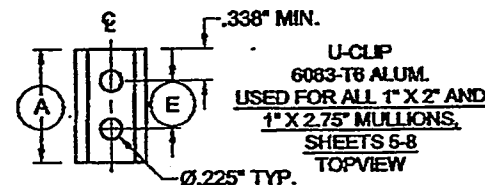
U-CLIP  
6063-T6 ALUM.  
X-SECTION



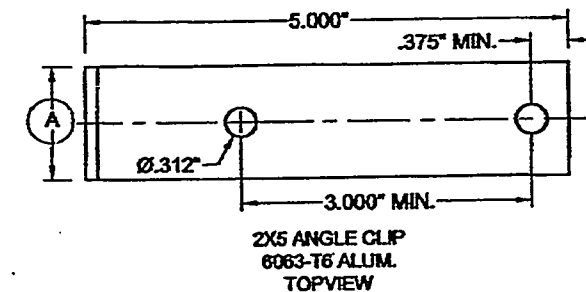
2X5 ANGLE CLIP  
6063-T6 ALUM.  
X-SECTION



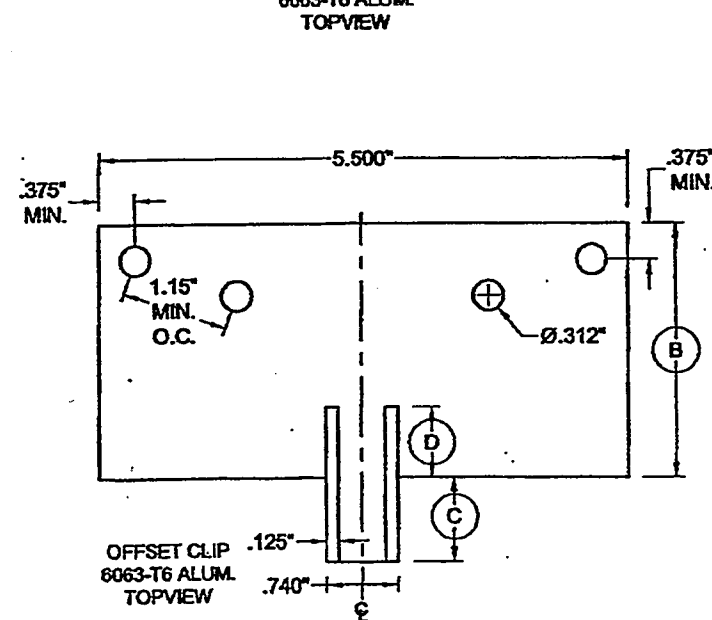
STANDARD CLIP  
6063-T6 ALUM.  
TOPVIEW



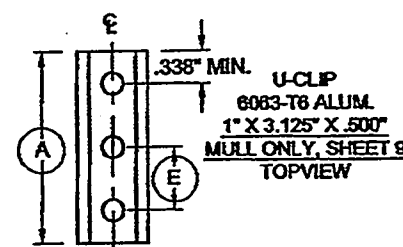
U-CLIP  
6063-T6 ALUM.  
USED FOR ALL 1" X 2" AND  
1" X 2.75" MULLIONS,  
SHEETS 6-8  
TOPVIEW



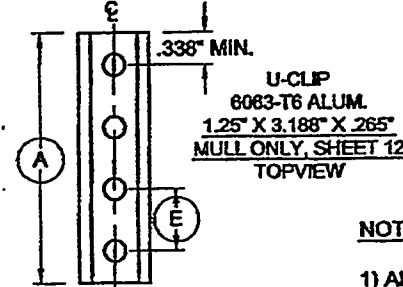
2X5 ANGLE CLIP  
6063-T6 ALUM.  
TOPVIEW



OFFSET CLIP  
6063-T6 ALUM.  
TOPVIEW



U-CLIP  
6063-T6 ALUM.  
1" X 3.125" X .500"  
MULL ONLY, SHEET 9  
TOPVIEW



U-CLIP  
6063-T6 ALUM.  
1.25" X 3.188" X .265"  
MULL ONLY, SHEET 12  
TOPVIEW

TABLE B

Mull Dimension (sheet #)	PGT Part #				
	Mullion	Std. Clip	Offset Clip	U-Clip	Angle Clip
1" X 2" X .125" (5)	66605	666113M	6661118M	666243M	666511M
1" X 2" X .375" (6)	66606	666114M	6661119M	666244M	666512M
1" X 2.75" X .375" (7)	66607	666115M	6661120M	666245M	666513M
1" X 2.75" X .650" (8)	66608	666116M	6661121M	666246M	666514M
1" X 3.125" X .500" (9)	66637M	6661116M	6661114M	666242M	666515M
1.25" X 3.188" X .265" (12)	66641M	6661117M	6661113M	666241M	666516M
1.26" X 2.11" X .125" (15)	69370	N/A	N/A	N/A	666517M

NOTES:

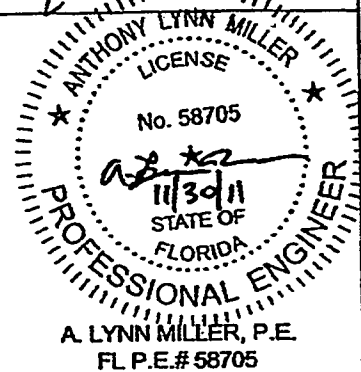
1) ALL MULLION CLIPS MAY BE FACTORY MACHINED AND CONTAIN UNUSED HOLES. IF NEEDED, HOLES MAY BE DRILLED IN THE FIELD FOLLOWING DIMENSIONS GIVEN ON THIS SHEET.

2) SEE SHEETS 2-4 FOR GENERAL INSTALLATION METHODS.

TABLE A

Dimension	Value (in)	For Mullion:
A	1.625	1" X 2" X .125" Aluminum Tube Mullion
B	2.654	
C	0.895	
D	0.740	
E	.450 Min.	
A	1.125	1" X 2" X .375" Aluminum Tube Mullion
B	2.404	
C	0.635	
D	0.490	
E	0.450	
A	1.875	1" X 2.75" X .375 Aluminum Tube Mullion
B	3.000	
C	0.757	
D	1.118	
E	.450 Min.	
A	1.312	1" X 2.75" X .650" Aluminum Tube Mullion
B	3.000	
C	0.478	
D	0.838	
E	.450 Min.	
A	2.000	1" X 3.125" X .500" Alum Tube Mull
B	2.637	
C	0.863	
D	1.137	
E	.450 Min.	
A	2.625	1.25" X 3.188" X .265" Alum Tube Mull
B	3.262	
C	0.862	
D	1.762	
E	.450 Min.	
A	1.813	1.26" X 2.11" X .121" Alum Tube Mull

PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No. 11-0922.01  
Expiration Date 11/30/16  
By *Anthony Lynn Miller*  
Miami Dade Product Control



IMPACT-RESISTANT ALUMINUM TUBE MULLIONS  
Description: MULLION AND CLIP DIMENSIONS A  
Series: N/A  
Drawing No. 6300JR  
Scale: N/A  
Date: 08/29/11  
Checked By: J. Rosowski  
Rev. By:

Sheet: 18 of 22  
Rev: 1  
Date: 11/30/11  
Rev. By: J. Rosowski

PGT  
1070 TECHNOLOGY DRIVE  
N. VENICE, FL 34275  
P.O. BOX 1529  
NORONAS, FL 34274  
FL CERT. OF AUTH. # 29288

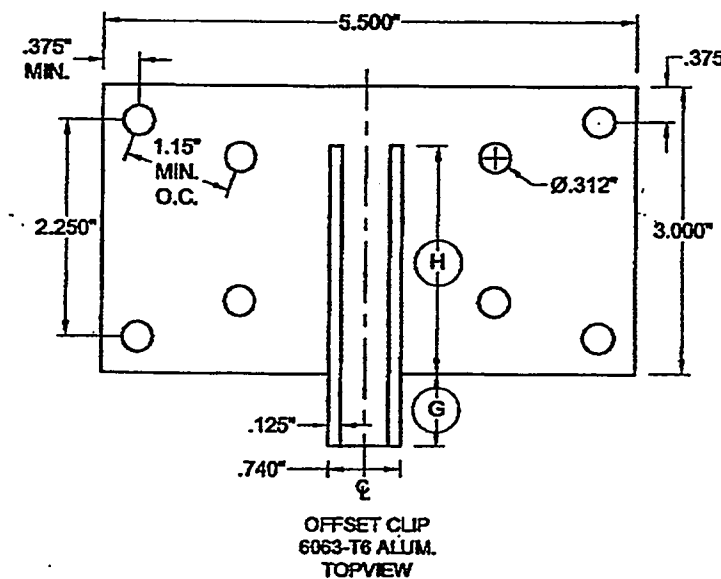
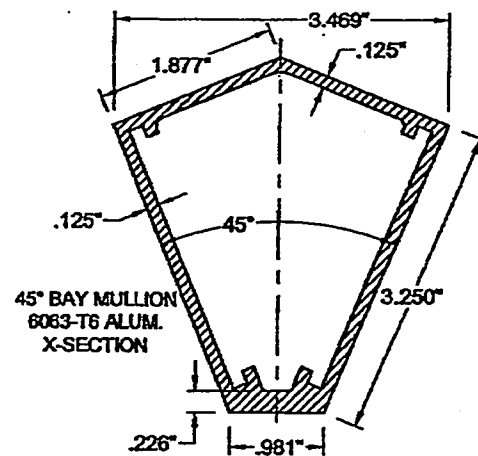
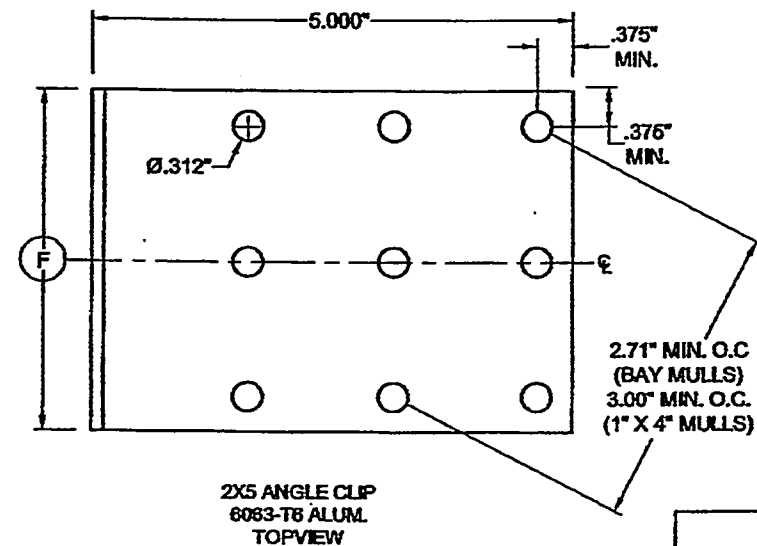
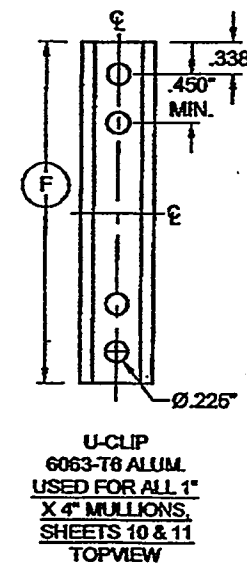
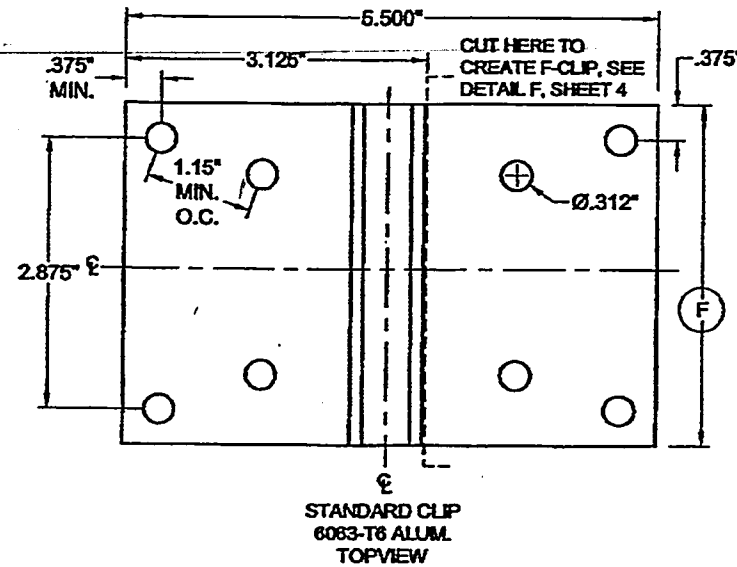
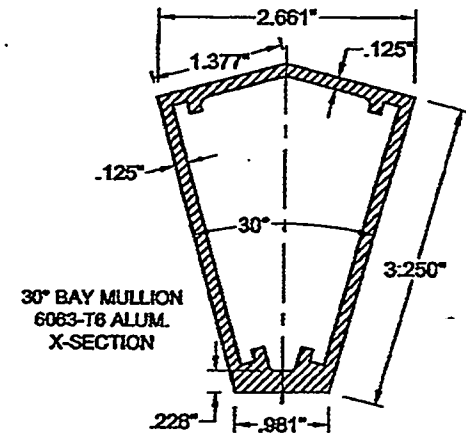
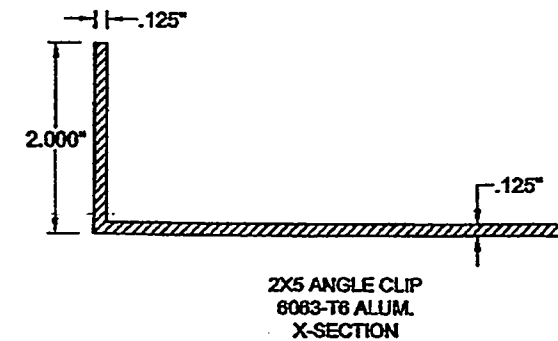
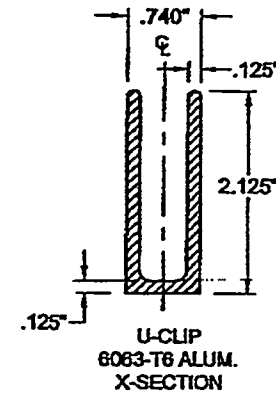
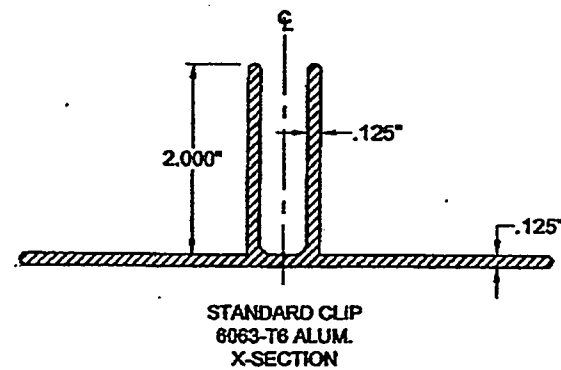
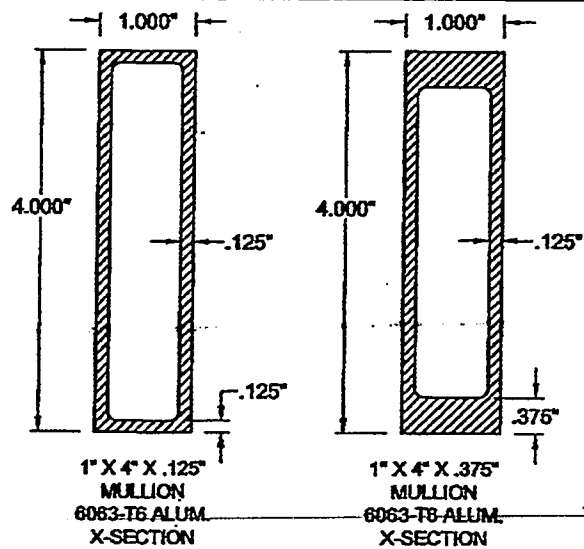


TABLE C

Dimension	Value (In)	For Mullion:
F	3.687	1" X 4" X .125" Aluminum Tube Mullion
G	1.000	
H	2.680	
F	3.187	1" X 4" X .375" Aluminum Tube Mullion
G	0.757	
H	2.430	
F	2.813	30° Bay Mull
F	2.875	45° Bay Mull

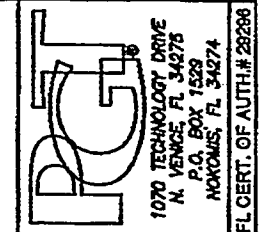
TABLE D

Mull Dimension (sheet #)	PGT Part #				
	Mullion	Std. Clip	Offset Clip	U-Clip	Angle Clip
1" X 4" X .125" (10)	69364	666111M	6661122M	666241M	666518M
1" X 4" X .375" (11)	66610	666112M	6661123M	666242M	666519M
30 Degree (16)	66649	N/A	N/A	N/A	6665110M
45 Degree (17)	66650	N/A	N/A	N/A	6665111M

NOTES:

1) ALL MULLION CLIPS MAY BE FACTORY MACHINED AND CONTAIN UNUSED HOLES. IF NEEDED, HOLES MAY BE DRILLED IN THE FIELD FOLLOWING DIMENSIONS GIVEN ON THIS SHEET.

2) SEE SHEETS 2-4 FOR GENERAL INSTALLATION METHODS.



IMPACT-RESISTANT ALUMINUM TUBE MULLIONS

MULLION AND CLIP DIMENSIONS B

Sheet: 19 of 22  
 Scale: N/A  
 Drawing No: 6300JR  
 Checked By: J. ROSOWSKI  
 Date: 08/20/11  
 Rev. By: J. ROSOWSKI  
 Rev. No: 1

PRODUCT REVISED  
 as complying with the Florida  
 Building Code  
 Acceptance No. 11-0922-01  
 Expiration Date May 26, 2016  
 By: [Signature]  
 Miami Dade Product Control

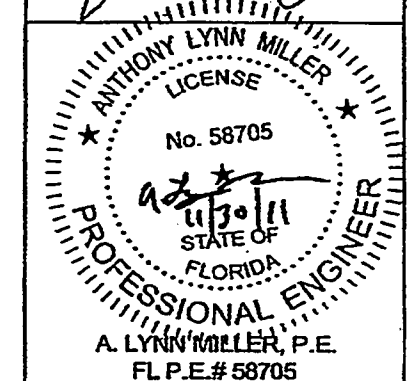




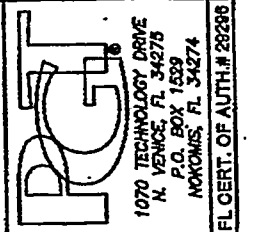
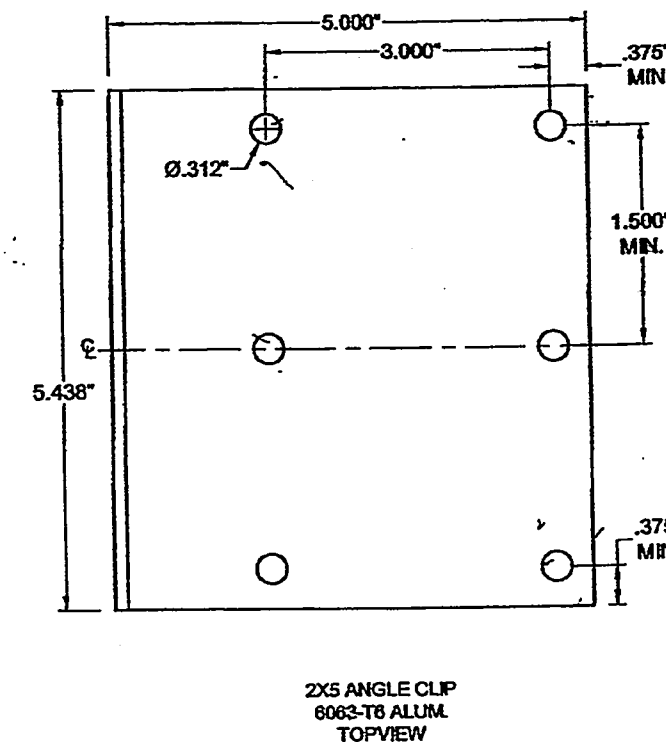
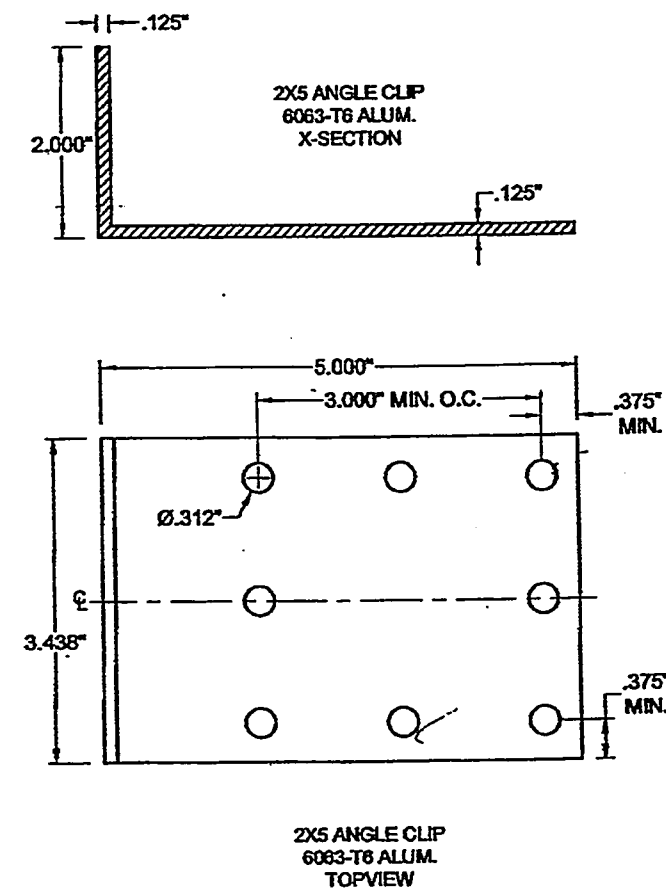
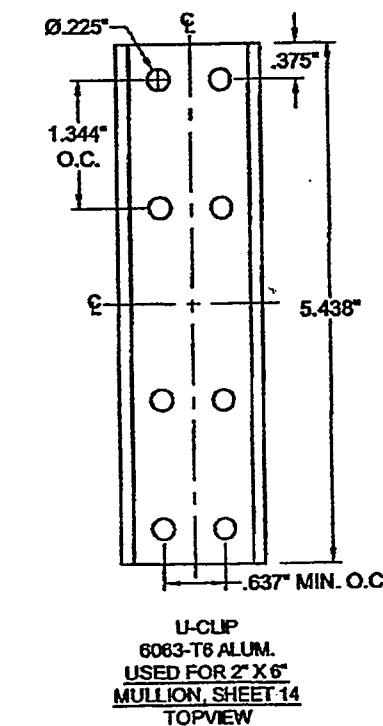
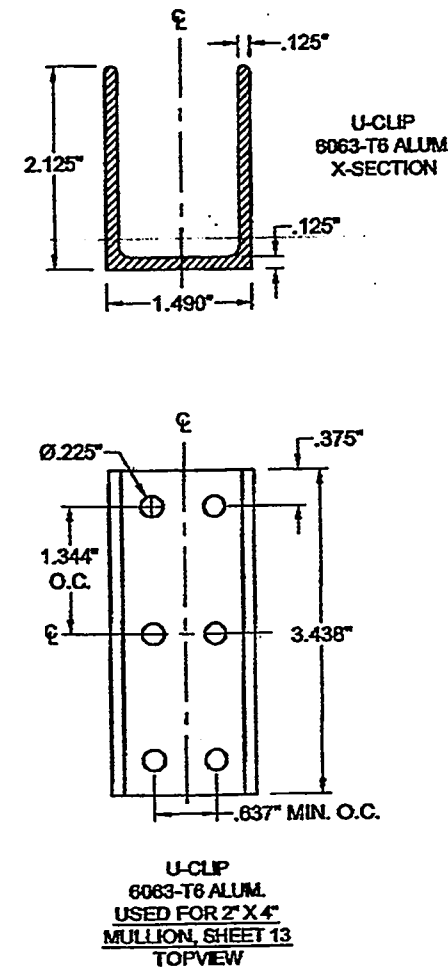
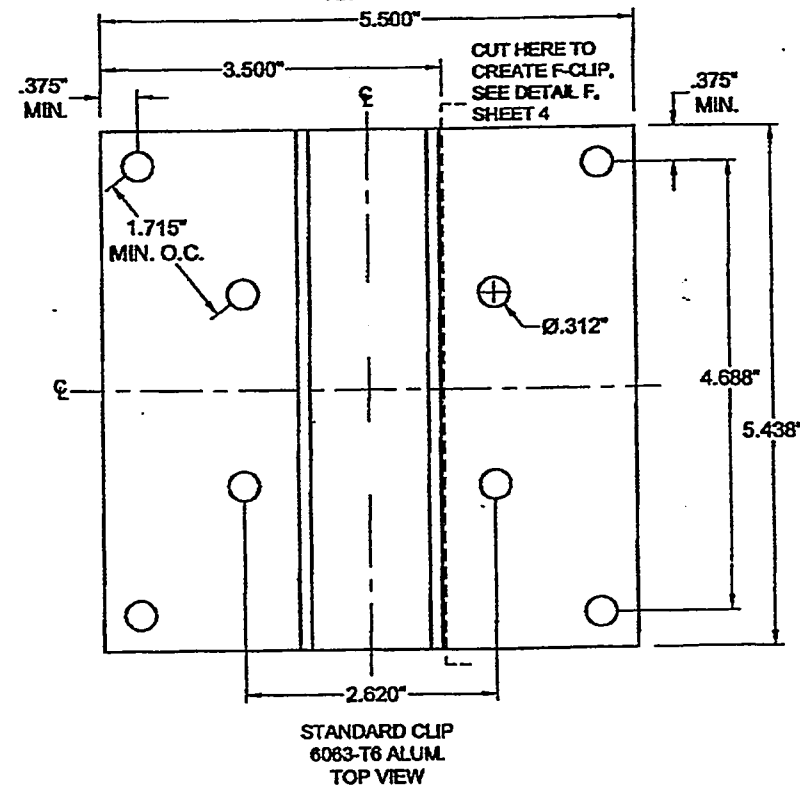
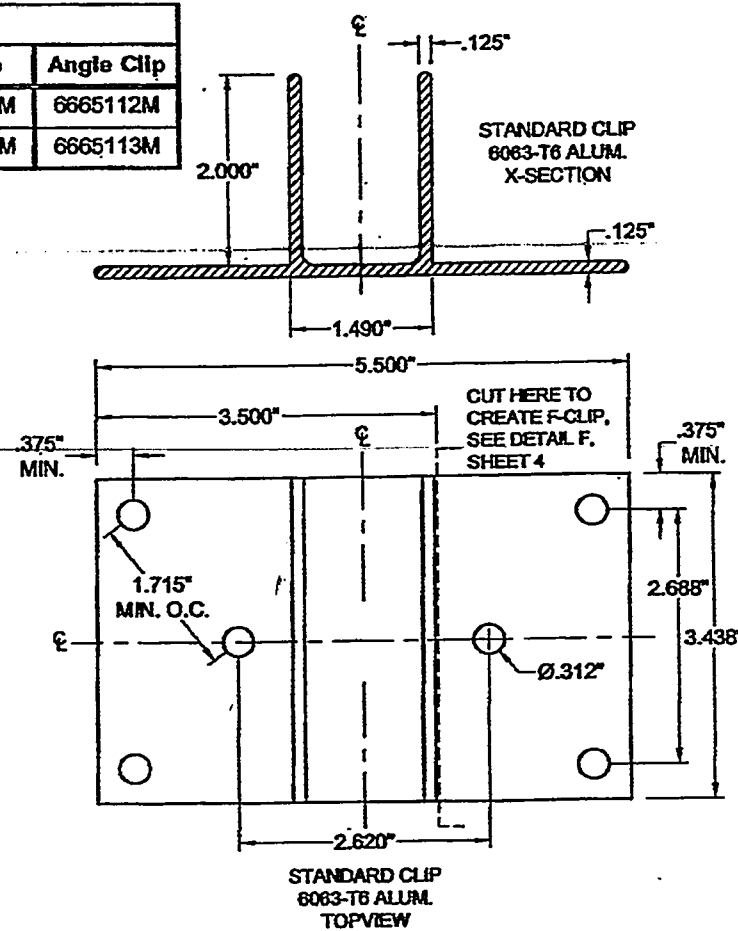
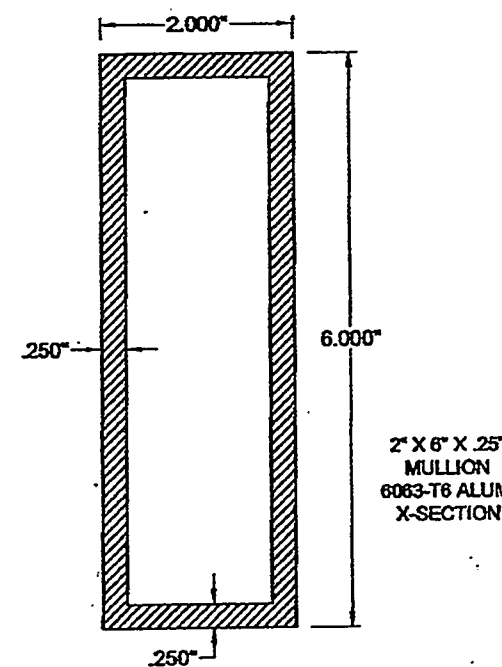
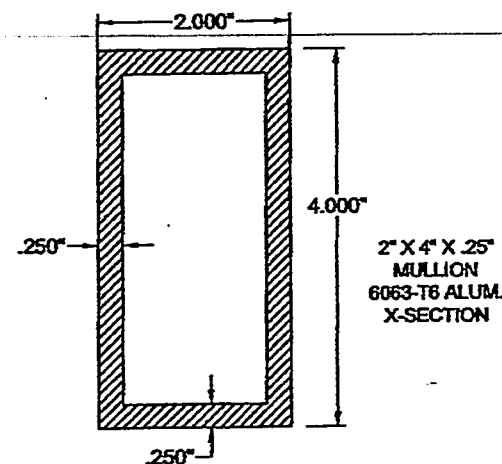
TABLE E

Mull Dimension (sheet #)	PGT Part #			
	Mullion	Std. Clip	U-Clip	Angle Clip
2" X 4" X .25" (13)	66602	666261M	666271M	6665112M
2" X 6" X .25" (14)	66604	666262M	666272M	6665113M

## NOTES:

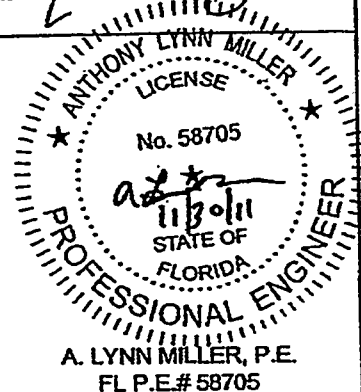
1) ALL MULLION CLIPS MAY BE FACTORY MACHINED AND CONTAIN UNUSED HOLES. IF NEEDED, HOLES MAY BE DRILLED IN THE FIELD FOLLOWING DIMENSIONS GIVEN ON THIS SHEET.

2) SEE SHEETS 2-4 FOR GENERAL INSTALLATION METHODS.

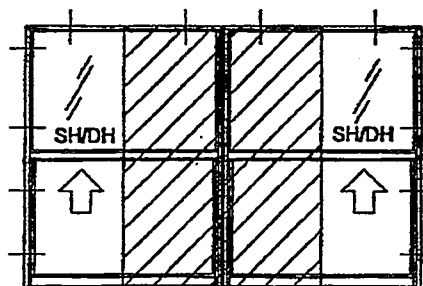


IMPACT-RESISTANT ALUMINUM TUBE MULLIONS	
Revision: MULLION AND CLIP DIMENSIONS C	Sheet: 20 of 22
Series: N/A	Drawing No: 6300JR
Scale: N/A	Date: 08/29/11
Drawn By: J. ROSOWSKI	Checked By: [Signature]
Rev. By: [Signature]	Revision: [Signature]

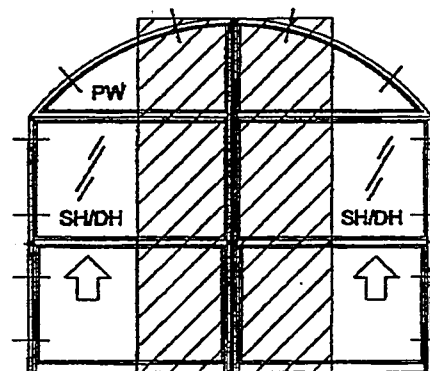
PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No. 11-0922.01  
Expiration Date 11/14/2016  
By [Signature]  
Miami Dade Product Control



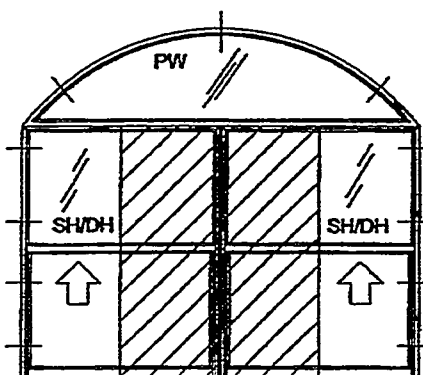
EXAMPLES OF RECTANGULAR LOADING:



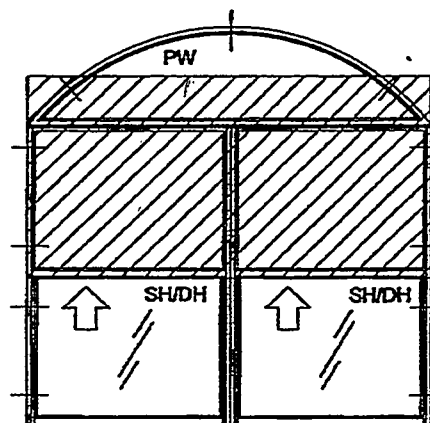
LOADING OF VERTICAL MULLION  
SILL OF WINDOWS NOT ANCHORED



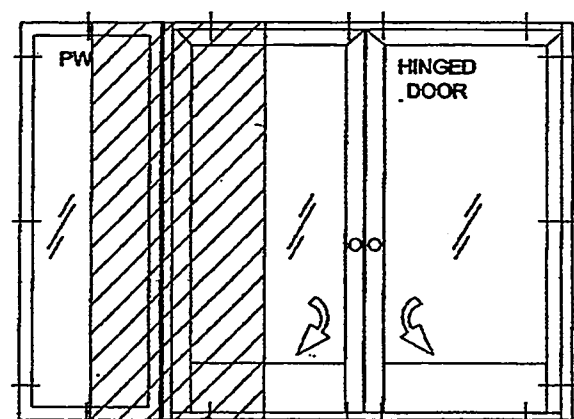
LOADING OF VERTICAL MULLION  
WITH INTERSECTING HORIZONTAL MULLIONS



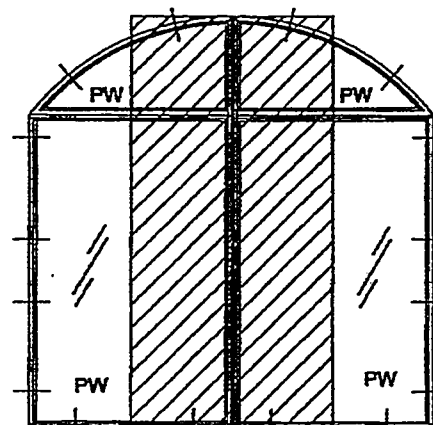
LOADING OF VERTICAL MULLION  
SILL OF WINDOWS NOT ANCHORED



LOADING OF HORIZONTAL MULLION  
WITH INTERSECTING VERTICAL MULLION

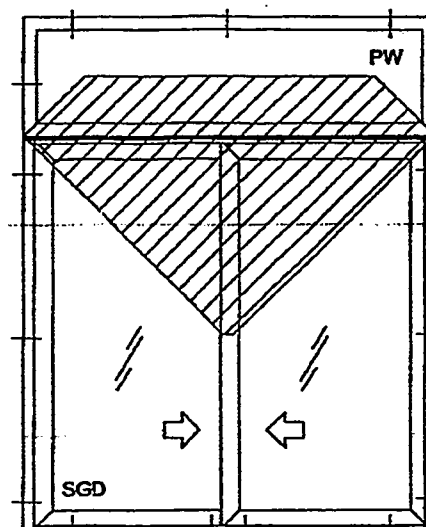


LOADING OF VERTICAL MULLION  
PANEL OF HINGED DOOR IS NOT CAPTURED OR ANCHORED

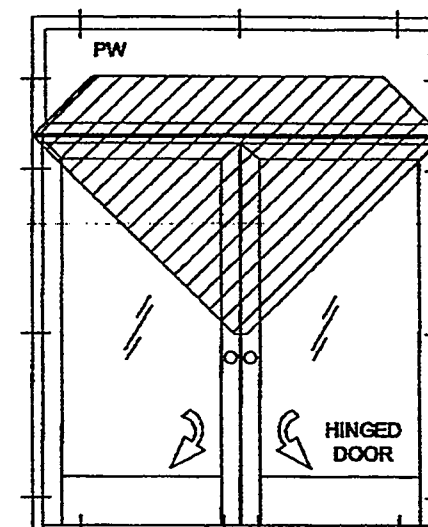


LOADING OF VERTICAL MULLION  
WITH INTERSECTING HORIZONTAL MULLIONS

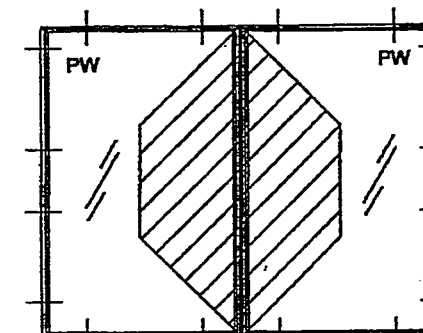
EXAMPLES OF TRAPEZOIDAL/TRIANGULAR LOADING:



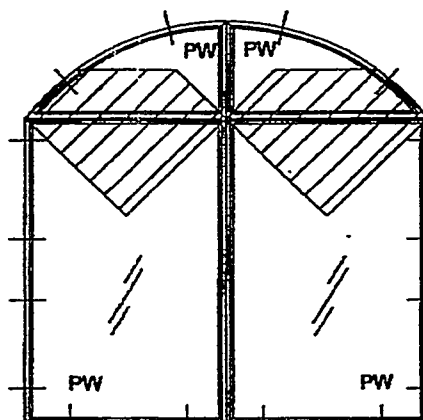
LOADING OF HORIZONTAL MULLION



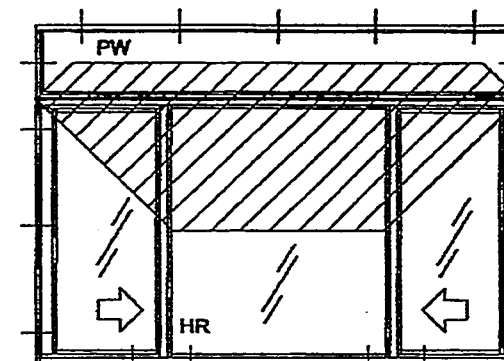
LOADING OF HORIZONTAL MULLION



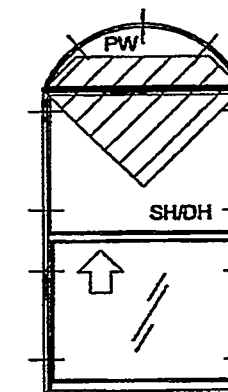
LOADING OF VERTICAL MULLION



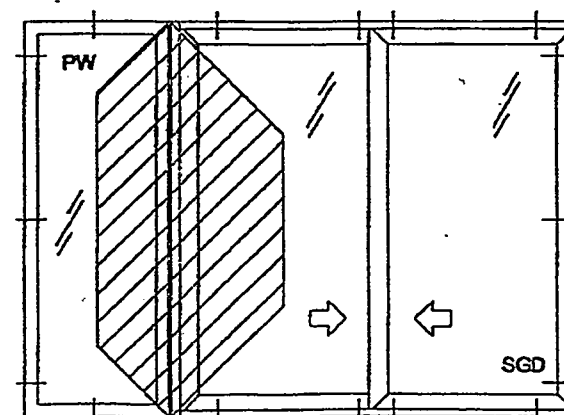
LOADING OF (2) HORIZONTAL MULLIONS



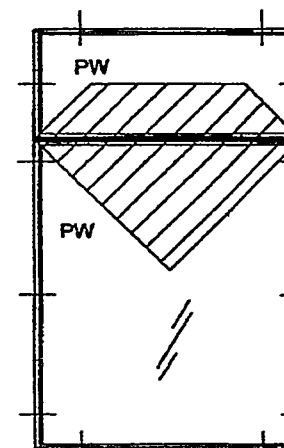
LOADING OF HORIZONTAL MULLION



LOADING OF HORIZONTAL MULLION



LOADING OF VERTICAL MULLION



LOADING OF HORIZONTAL MULLION

NOTES:

1) DRAWINGS ARE RERPRESENTATIONS OF TYPICAL CONFIGURATIONS. CONFIGURATIONS NOT SHOWN MAY BE EXTRAPOLATED FROM THOSE SHOWN.

2) IF THE LOADING TYPE CANNOT BE DETERMINED, USE RECTANGULAR LOADING.

3) SEE PRODUCTS' APPROVAL FOR ACTUAL ANCHOR LOCATIONS.

1070 TECHNOLOGY DRIVE  
N. VENICE, FL 33429  
P.O. BOX 1829  
NOKOMIS, FL 33424

FL CERT. OF AUTH. # 28298

IMPACT RESISTANT ALUMINUM TUBE MULLIONS

LOADING EXAMPLES

Sheet 22 of 22

6300JR

Scale: N/A

Drawn By: J ROSOWSKI

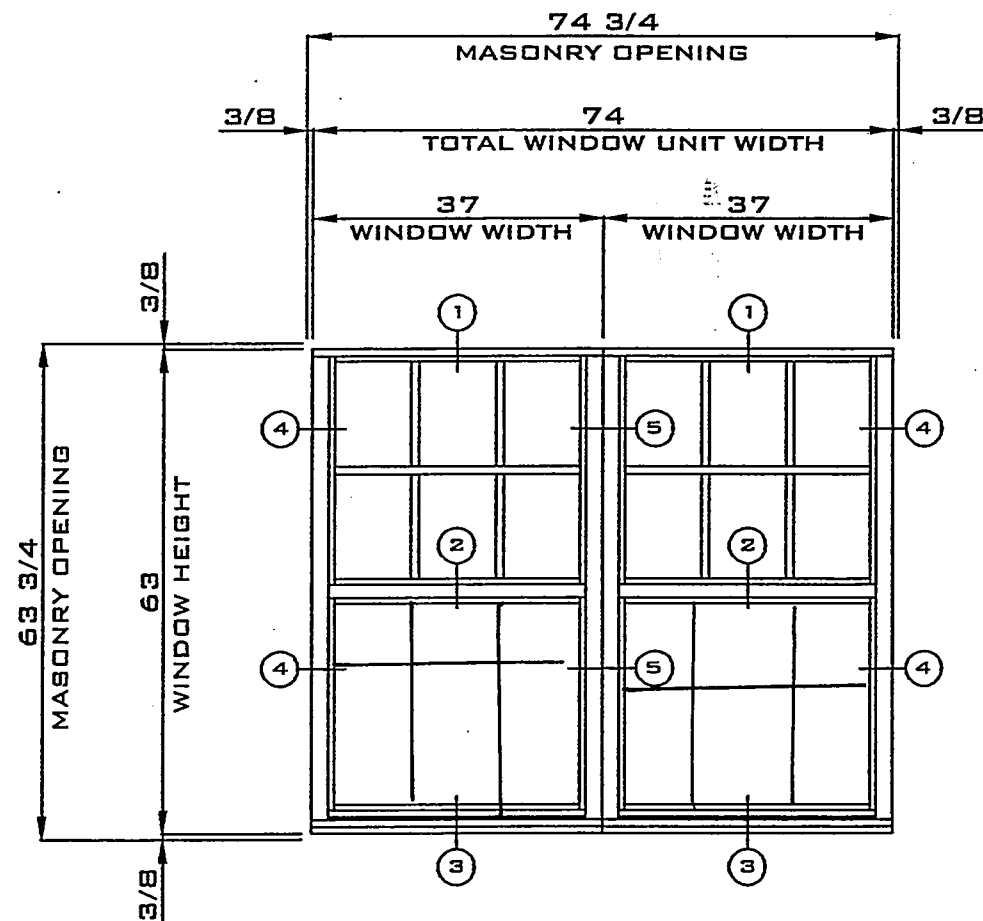
Rev. By: J ROSOWSKI

Date: 08/29/11

Rev. Date: 08/29/11

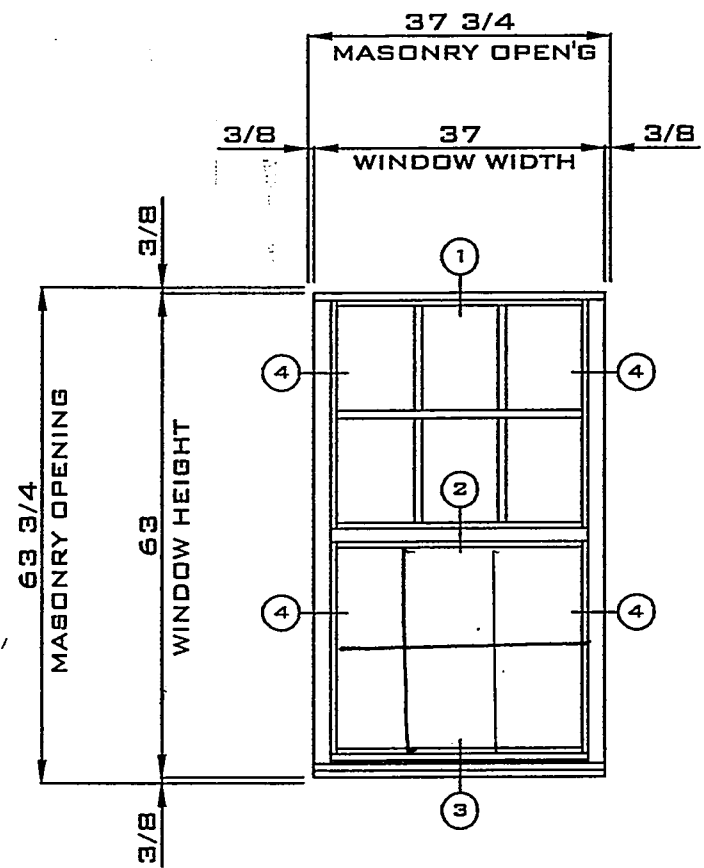
PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No. 110992.01  
Expiration Date 12/31/16  
By: *Anthony Lynn Miller*  
Miami Trade Product Control

ANTHONY LYNN MILLER  
LICENSE  
No. 58705  
STATE OF  
FLORIDA  
PROFESSIONAL ENGINEER  
A. LYNN MILLER, P.E.  
FL P.E. # 58705



**A** ELEVATION 9- REQ'D.

ECO WINDOW SYSTEMS, LLC. SERIES "ECO-GUARD100"  
 ALUM. IMPACT SINGLE HUNG WINDOW IN CLEAR ANODIZED  
 ALUM. FRAME WITH 5/16" CLEAR LAMINATED IMPACT GLASS  
 N.O.A. 14-0317.02



**B** ELEVATION 5- REQ'D.

F.G.T. INDUSTRIES 1" X 4" STANDARD  
 ALUMINUM WALL TUBE CLIPPED  
 MULLION IN CLEAR ANODIZED FINISH  
 N.O.A. 11-0922.01

*[Handwritten signature]*  
 4/20/14

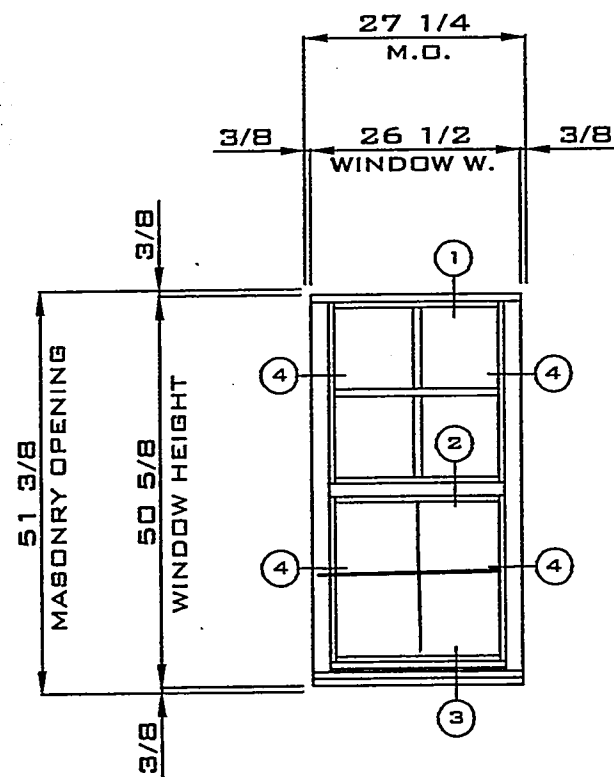


COCONUT GROVE GLASS & MIRROR  
 3660 N.W. 41 TH STREET  
 MIAMI, FLORIDA 33142  
 TEL: 305-634-3420 FAX: 305-634-3421

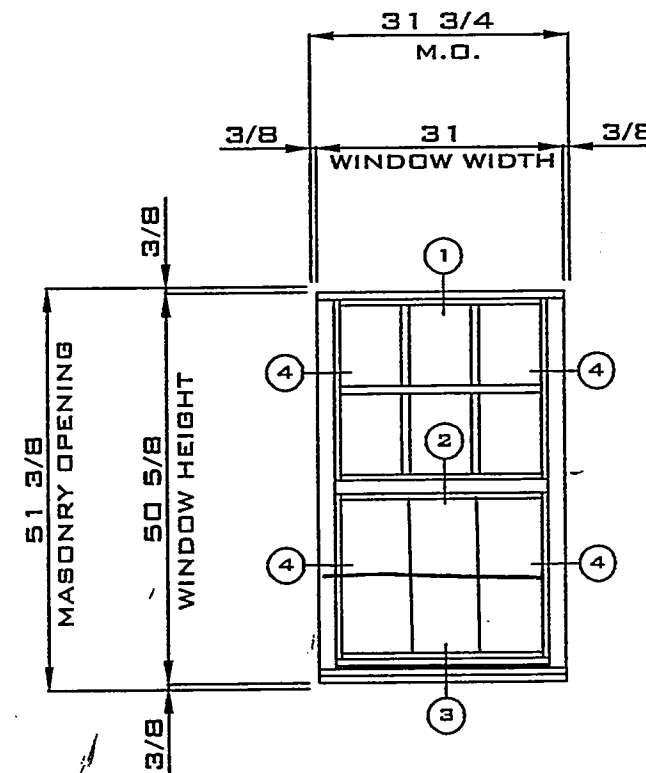
BIG PINK (157 COLLINS AVE. LLC.)  
 157 COLLINS AVE. 2ND FLOOR  
 MIAMI BEACH, FL. 33139  
 TEL: 305-538-9996

DRAWN BY:  
 E.R.  
 DATE:  
 04-03-14  
 SHEET NUMBER  
 CG-2  
 OF 5





**ELEVATION 1- REQ'D.**



**ELEVATION 3- REQ'D.**

ECO WINDOW SYSTEMS, LLC. SERIES "ECO-GUARD100"  
ALUM. IMPACT SINGLE HUNG WINDOW IN CLEAR ANODIZED  
ALUM. FRAME WITH 5/16" CLEAR LAMINATED IMPACT GLASS  
N.O.A. 14-0317.02

*Handwritten signature and date: 4/18/04*



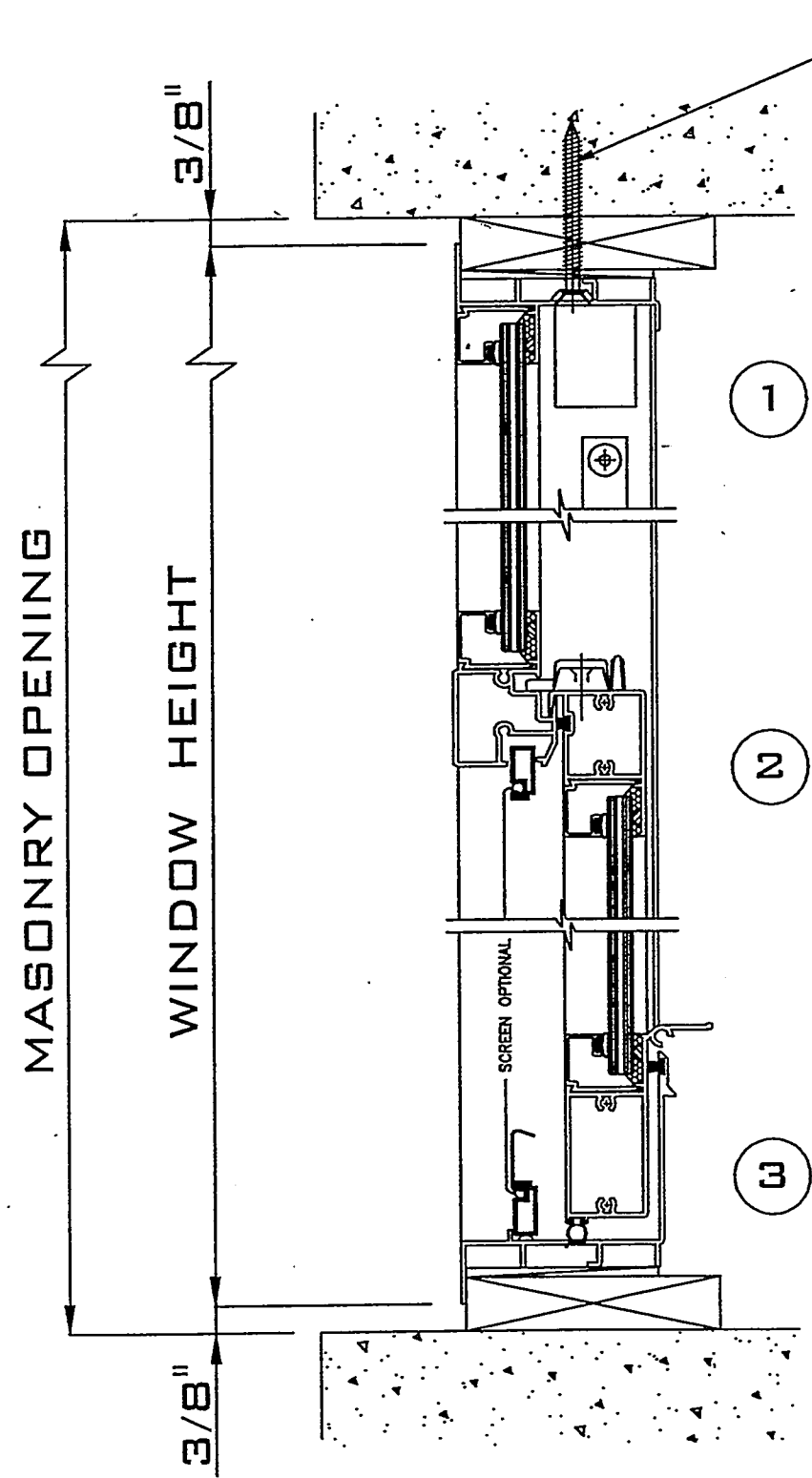
COCOONUT GROVE GLASS & MIRROR  
3660 N.W. 41 TH STREET  
MIAMI, FLORIDA 33142  
TEL: 305-634-3420 FAX: 305-634-3421

BIG PINK (157 COLLINS AVE. LLC.)  
157 COLLINS AVE. 2ND FLOOR  
MIAMI BEACH, FL. 33139  
TEL: 305-538-9996

DRAWN BY:  
E.R.

DATE:  
04-03-14

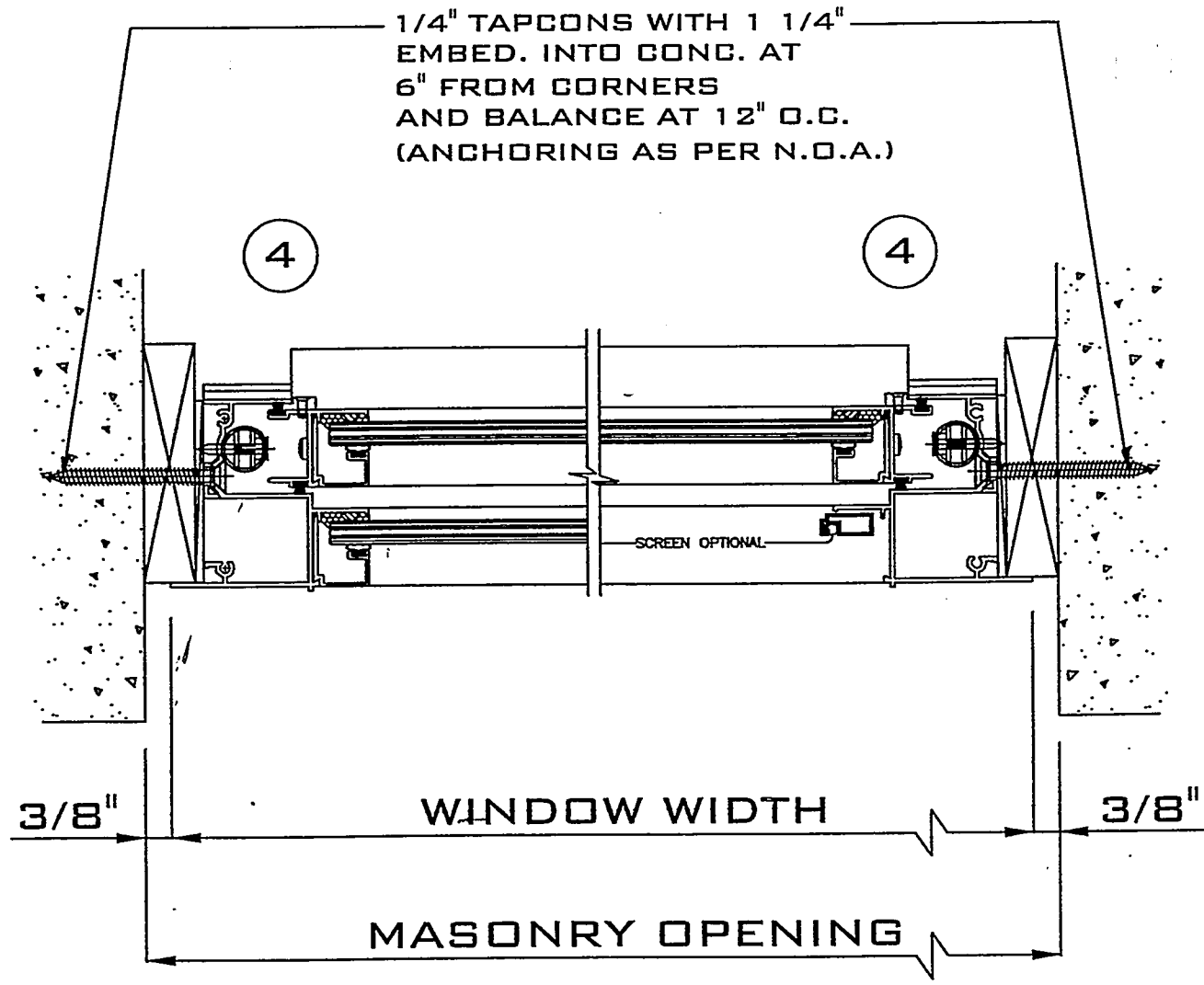
SHEET NUMBER  
CG-3  
OF 5



SECTION

1/4" TAPCONS WITH 1 1/4" EMBED. INTO CONG. AT 6" FROM CORNERS AND BALANCE AT 12" O.C. (ANCHORING AS PER N.O.A.)

ECO WINDOW SYSTEMS, LLC. SERIES "ECO-GUARD 100" ALUM. IMPACT SINGLE HUNG WINDOW IN CLEAR ANODIZED ALUM. FRAME WITH 5/16" CLEAR LAMINATED IMPACT GLASS N.O.A. 14-03-17-02



SECTION

*Handwritten signature and date:*  
4-18-14



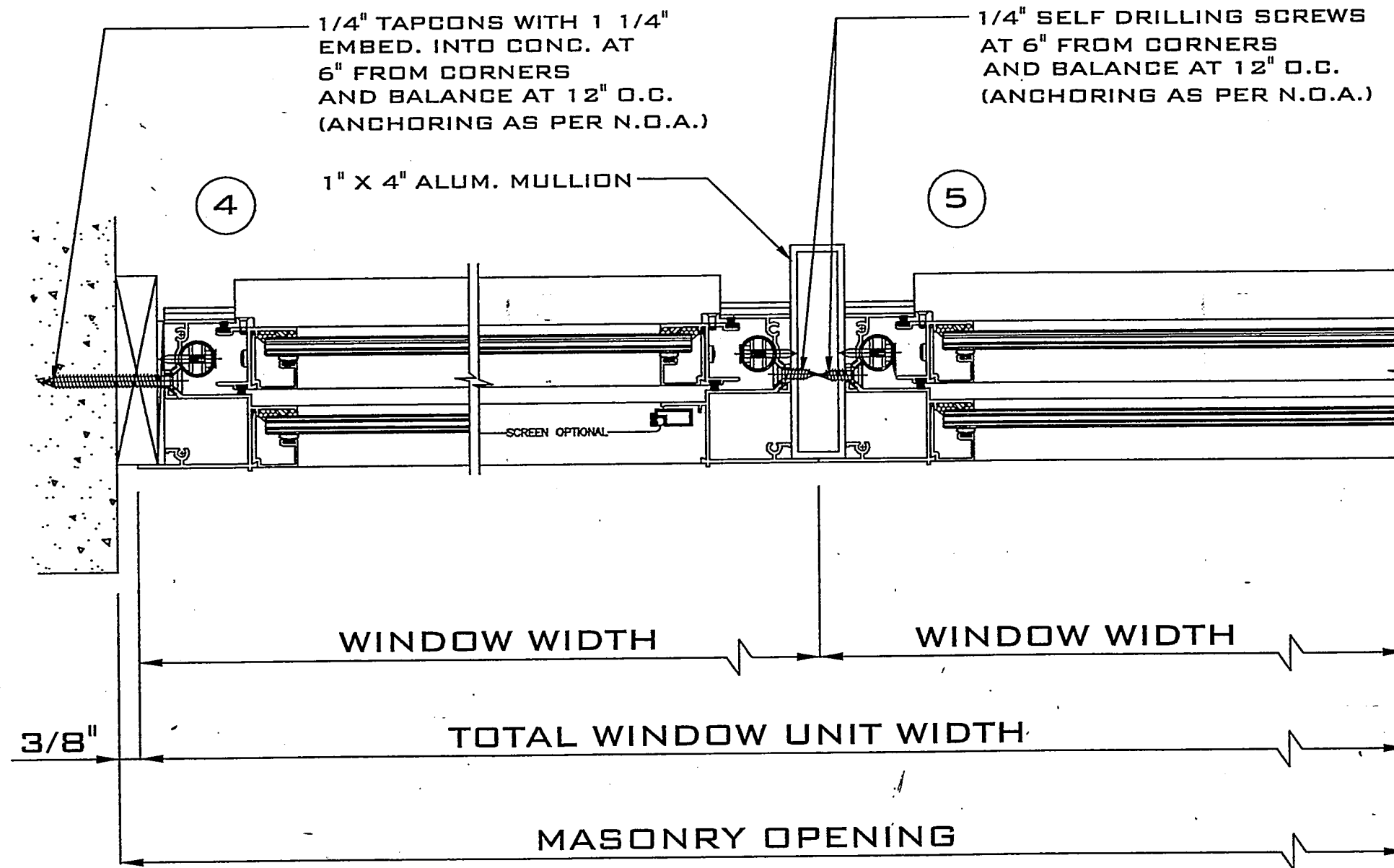
COCOONUT GROVE GLASS & MIRROR  
3660 N.W. 41 TH STREET  
MIAMI, FLORIDA 33142  
TEL: 305-634-3420 FAX: 305-634-3421

BIG PINK (157 COLLINS AVE. LLC.)  
157 COLLINS AVE. 2ND FLOOR  
MIAMI BEACH, FL. 33139  
TEL: 305-538-9996

DRAWN BY:  
E.R.

DATE:  
04-03-14

SHEET NUMBER  
CG-4  
OF 5



# SECTION

ECO WINDOW SYSTEMS, LLC. SERIES "ECO-GUARD100"  
ALUM. IMPACT SINGLE HUNG WINDOW IN CLEAR ANODIZED  
ALUM. FRAME WITH 5/16" CLEAR LAMINATED IMPACT GLASS  
N.O.A. 14-0317.02

P.G.T. INDUSTRIES 1" X 4" STANDARD  
ALUMINUM WALL TUBE CLIPPED  
MULLION IN CLEAR ANODIZED FINISH  
N.O.A. 11-0922.01

*[Signature]*  
4/10/04

BIG PINK (157 COLLINS AVE. LLC.)  
157 COLLINS AVE. 2ND FLOOR  
MIAMI BEACH, FL. 33139  
TEL: 305-538-9996

DRAWN BY:  
E.R.

DATE:  
04-03-14

SHEET NUMBER  
CG-5  
OF 5

COCONUT GROVE GLASS & MIRROR  
3600 N.W. 41 TH STREET  
MIAMI, FLORIDA 33142  
TEL: 305-634-3420 FAX: 305-634-3421





B1403549

157 Collins Ave

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# MIAMI BEACH

Building Department  
1700 Convention Center Drive, 2nd Flr  
Miami Beach, FL 33139

## NOTICE TO THE CITY OF MIAMI BEACH BUILDING DEPARTMENT OF EMPLOYMENT AS SPECIAL INSPECTOR UNDER THE FLORIDA BUILDING CODE

I have been retained by: OWNERS to perform special inspector services under the Florida Building Code at the 157 COLLINS AVE project on the below listed structures as of 6-2-14 (date). I am a professional engineer licensed in the State of Florida.

Process Number: B140 5045 Master Permit (IF APPLICABLE): \_\_\_\_\_

- ☐ Special Inspector for Pilings, FBC 1822.1.20
- ☐ Special Inspector for Lightweight Insulating Concrete, FBC 1917.2
- ☐ Special Inspector for Soil Compaction, FBC 1820.3.1
- ☐ Special Inspector for Precast Units and Attachments, FBC 1927.12.2 (By P.E. or R.A..)
- ☐ Special Inspector for Reinforced Masonry, FBC 2122.4 (By P.E. or R.A.)
- ☐ Special inspection for Steel Bolted & Welded Connections, FBC 2218.2 (By P.E. or R.A..)
- ☐ Special Inspector for Trusses over 35 feet long or 6 feet high, FBC 2319.17.2.4.2 (By P.E. or R. A..)
- ☒ Special Inspector for Concrete Repair

NOTE: Only the marked boxes apply.

The following individual's employed by this firm or me are authorized representatives to perform inspections

- |                           |          |
|---------------------------|----------|
| 1. <u>DANIEL GONZALEZ</u> | 2. _____ |
| 3. <u>LUIS MONTERO</u>    | 4. _____ |

\* Special inspectors utilizing authorized representatives shall insure the authorized representative is qualified by education or licensure to perform the duties assigned by the Special Inspector. The qualifications shall include: licensure as a professional engineer or architect; graduation from an engineering education program in civil or structural engineering; graduation from an architectural education program; successful completion of the NCEES Fundamentals Examination; or registration as a building inspector or general contractor.

I will notify the City of Miami Beach Building Department of any changes regarding authorized personnel performing inspection services.

I, understand that all mandatory inspections, as required by the Florida Building Code, shall be requested by the permit holder and approved by the Building Department Inspectors. Inspections performed by the Special Inspector hired by the Owner are in addition to the mandatory inspections performed by the Building Department. A Special Inspection Log for each building must be displayed in a convenient location on the site for inspection by the Building Department Inspectors. Further, upon completion of the work under each building permit, I will submit to the Building Department at the time of final inspection the completed Inspection Log form and sealed statement that, to the best of my knowledge, belief and professional judgment those portions outlined above meet the intent of the Florida Building Code and are in subsequent accordance with the approved plans.

Signed and Sealed  
038398  
License Number

Architect/Engineer Signature:

Architect/Engineer

Name Printed:

Address:

Phone Number:

Owner/Agent Signature: X

Owner/Agent Name Printed: X

Building Department

Accepted By:

EDWARD A. LAWLERS, P.E.  
7850 NW 146TH ST. #509, MIAMI LAKES, FL 33016  
305-823-3938  
X   
Anthony Ortiz  
X   
R 7/10/14

Date: 6-2-14



MIAMI BEACH

Building Department  
1700 Convention Center Drive, 2nd Flr  
Miami Beach, Fl 33139

**NOTICE TO THE CITY OF MIAMI BEACH BUILDING  
DEPARTMENT OF EMPLOYMENT AS SPECIAL INSPECTOR  
UNDER THE FLORIDA BUILDING CODE**

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- ☐ Special Inspector for Trusses over 35 feet long or 6 feet high, FBC 2319.17.2.4.2 (By P.E. or R. A..)
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NOTE: Only the marked boxes apply.

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Signed and Sealed  
038398  
License Number

Architect/Engineer Signature:  
Architect/Engineer  
Name Printed:

Address:

Phone Number:

Owner/Agent Signature: ☒

Owner/Agent Name Printed: ☒

Building Department

Accepted By:

\_\_\_\_\_

EDWARD A. LAWLOR, P.E.

7850 NW 146th St. #509, Miami Lakes, FL 33016

305-823-3838

\_\_\_\_\_

Anthony Ortiz

AV 7/10/14

Date: 6-2-14



MIAMI BEACH

Building Department  
1700 Convention Center Drive, 2nd Flr  
Miami Beach, Fl 33139

**NOTICE TO THE CITY OF MIAMI BEACH BUILDING  
DEPARTMENT OF EMPLOYMENT AS SPECIAL INSPECTOR  
UNDER THE FLORIDA BUILDING CODE**

I have been retained by: OWNER to perform special inspector services under the Florida Building Code at the 157 COLLINS AVE project on the below listed structures as of 7-18-14 (date). I am a professional engineer licensed in the State of Florida.

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- ☐ Special Inspector for Pilings, FBC 1822.1.20
- ☐ Special Inspector for Lightweight Insulating Concrete, FBC 1917.2
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- ☐ Special inspection for Steel Bolted & Welded Connections, FBC 2218.2 (By P.E. or R.A..)
- ☐ Special Inspector for Trusses over 35 feet long or 6 feet high, FBC 2319.17.2.4.2 (By P.E. or R. A..)
- ☒ Special Inspector for SCAFFOLDING FOR WALK PLATFORM

**NOTE: Only the marked boxes apply.**

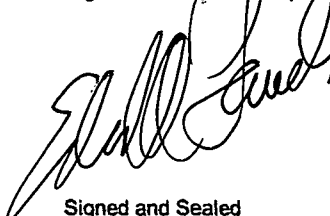
The following individual's employed by this firm or me are authorized representatives to perform inspections

- |                           |          |
|---------------------------|----------|
| 1. <u>LUIS MONTE</u>      | 2. _____ |
| 3. <u>DANIEL GONZALEZ</u> | 4. _____ |

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Signed and Sealed  
038398  
License Number

Architect/Engineer Signature:

Architect/Engineer

Name Printed:

Address:

Phone Number:

Owner/Agent Signature:

Owner/Agent Name Printed:

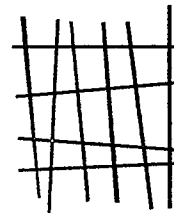
Building Department

Accepted By:

EDWARD A. LAWRENCE P.E.  
7850 NW 146th ST, #509, MIAMI GARDENS, FL 33016  
305-823-3938

Date: 7-18-14





**Edward A.  
LANDERS, P.E.**  
CONSULTING ENGINEERS

June 2, 2014

City of Miami Beach  
Building and Zoning Department  
1700 Convention Center Drive  
Miami Beach, Florida

Attn: Building Official

Re: Structural Report on Concrete Repairs

Project: Big Pink Building  
157 Collins Avenue  
Miami Beach, Florida

Dear Sir;

We inspected the current condition of the existing second floor exterior walls to include, columns, tie beams and lintels at the above referenced project. The investigation of repairs was limited to the exterior elements of the building structure at this time. The existing concrete structural elements exhibit spalled and deteriorated concrete at window lintels, jambs and sills, as well as tie beams and tie columns of the building. The concrete surfaces require removal of all spalled and deteriorated concrete, the cleaning and coating of rebar, crack repair and the application of hand applied repair materials.

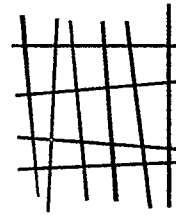
We recommend, therefore, that the following repair procedure be implemented to repair the existing second floor concrete walls and cracks on all designated surfaces, to prevent further deterioration. All repairs shall be made in accordance with approved methods and procedures and per the manufacturers' material recommendations

**Work under this permit application will not reduce the structural strength of the building or any member thereof.**

**The Structure has less than Substantial Structural Damage.**

### **CONCRETE REPAIR RECOMMENDATIONS**

The following is our recommended repair procedure for all spalled concrete areas as well as cracks in concrete surfaces. The specific areas include the concrete spalling at second floor window openings, to include lintels, jambs, sills, tie beams and tie columns, or any additional observed conditions. We recommend concrete repair for the structural elements and submit the following procedure described as follows:



**Edward A.  
LANDERS, P.E.**  
CONSULTING ENGINEERS

1. Remove all loose and deteriorated concrete with a light-chipping hammer in all areas that exhibit concrete cracks and spalling.
2. Randomly test areas with a hammer to determine any additional areas for removal. Do not remove any sound concrete from around rebar.
3. Tie-up and secure any sagging re-bar and support as required. Do not remove any existing re-bar without prior authorization.
4. Replace deteriorated re-bar only as required by the Engineer.
5. Wire brush all exposed re-bar to remove all loose scale, concrete and rust.
6. All cleaned re-bar should be coated with a rust inhibitor as soon as possible after cleaning. The following are acceptable coatings:
  - a. Sika Armatek 110 EpoCem, by Sika Chemical Co.
  - b. Zinc Rich Epoxy Primer, B-6270, by Delta Labs
  - c. Corr-bond Euclid Chemical Co.
  - d. Sonnoborn "Sonoprep"
  - e. Approved Equals.
7. The patching material should be a cement-based product designed specifically as a patching material. The following are recommended products that must be mixed, applied, etc., in accordance with the manufacturer's recommendations;  
( Coastal Construction Products, 305-757-2121)
  - a. Thorite, by Thoro Products,
  - b. Euco Verticoat, by Euclid Chemical,
  - c. Sonnoborn "Gelpatch"
  - d. Sikacrete 211, by Sika Chemical.
  - e. Sika Top 122 Plus, by Sika Chemical.
8. Apply patching to all prepared surfaces either by hand or sprayed finished sufficiently to match the adjacent concrete surfaces. Concrete may be used to repair the undersides of the main beams. All work to be performed by a qualified application contractor in accordance with approved procedures and recommendations.
9. All cracks should be "V'd" out to sound and secure material. The crack must be filled with a Sonneborn NP1 primer and polysulfide sealant per the Manufacturers recommendations. The wall surface may then be applied with stucco and painted.

Please call if we can provide any additional information or assistance.

Very truly yours,

  
Edward A. Landers, P.E.

# Design Elements of Pedestrian Scaffold

① Design Loading.

Design Loads:

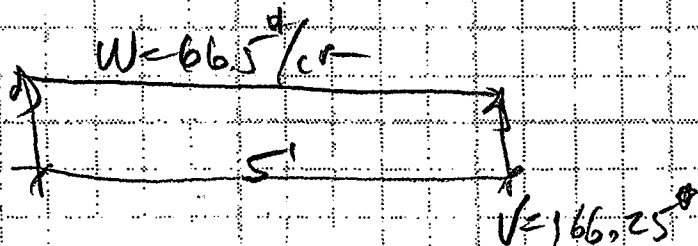
LL = 40 PSF

DL = 10 PSF

TOTAL = 50 PSF

Trab = 1.33 SF/CR

W = 50 x 1.33 = 66.5 PLF



$$M = \frac{66.5(5)^2}{8} = 2493.7 \text{ ft-lb}$$

$$S_{reqd} = \frac{2493.7}{12000} = 2.07 \text{ in}^3$$

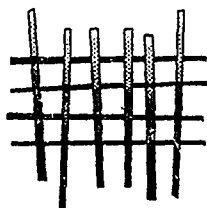
$$S_{2x4} = \frac{1.5(3.5)^2}{6} = 3.06 \text{ in}^3 > 2.07 \text{ in}^3$$

(OK)

Check Deflection:  $\Delta_{max} = \frac{5}{180} = \frac{5(12)}{180} = 0.33$

$$\Delta_{actual} = \frac{5(66.5)(5)^4}{384(1.6 \times 10^6)(5.96)} = 0.11 \text{ in} < 0.33 \text{ in}$$

(OK)



Edward A.  
**LANDERS, P.E.**  
CONSULTING ENGINEERS

P.E. #038398

7-18-14  
(305)823-3938

BIG PINK BLDG  
157 COUNTRY AVE

Area

7-17-14

1

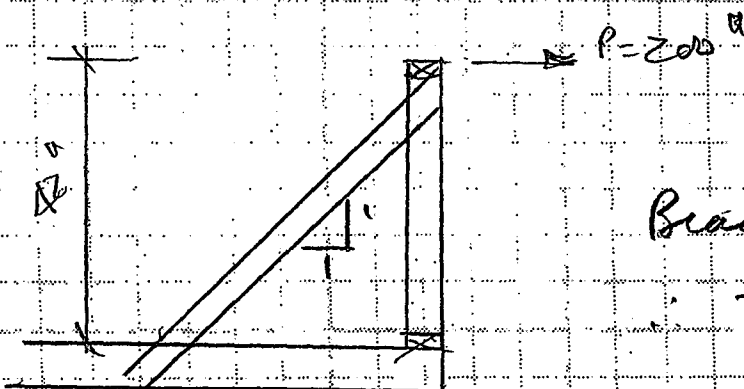
check shear:  $V = 166.25^{\#}$

$$f_v = \frac{3}{2} \frac{(166.25)}{1.5(3.5)} = 47.5 \text{ psi} < 90 \text{ psi} \text{ (OK)}$$

Deck  
Joists

USE: 2x4's @ 16" oc  
w/ 3/4" Ply wnal

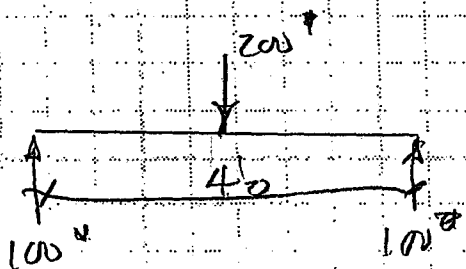
(2) check Temporary Wall @ perimeter



Reaction Load = 200# @ top

Brace @ 4'0" oc

200



Max Moment in top Rail

$$= 100(2.0)(12) = 2400 \text{ in}^{\#}$$

$$S_{req'd} = \frac{2400}{1200} = 2.0 \text{ in}^3$$

$$S_{2x4} = \frac{1.5(3.5)^2}{6} = 3.06 \text{ in}^3 > 2.0 \text{ in}^3 \text{ OK}$$

USE: 2x4 For Top Rail



Edward A.  
**LANDERS, P.E.**  
CONSULTING ENGINEERS

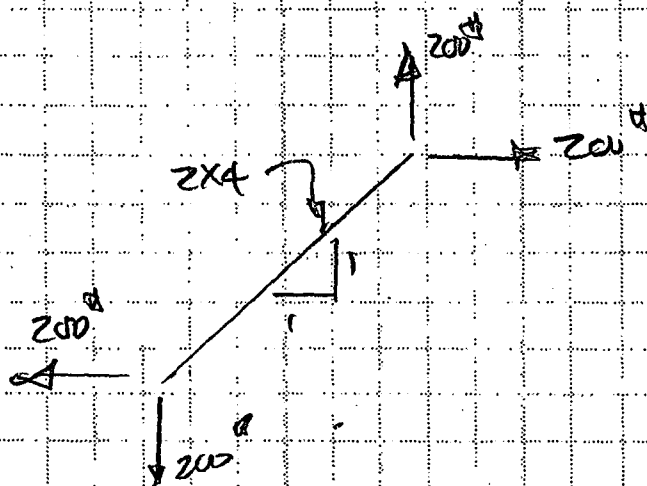
P.E. #038398

(305)823-3938

CALCF

7-17-14

2



$$\text{LOAD ON } 2 \times 4 = \\ (200 + 200)^2 = 282.8 \text{ lb}$$

connectors for 4-10d nails  
Capacity shear = 75 lb/nail

$$\therefore \text{Try 4-10d nails} \\ = 4 \times 75 = 300 \text{ lb} > 282.8 \text{ lb (OK)}$$

Block USE: 4-10d Nails  
2x4 @ 48" OC

(3) Check Beam OF SCAFFOLD Post.

$$\text{TRIB Area} = 7.0 \times 5 = 35 \text{ SF}$$

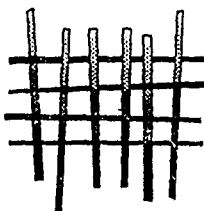
$$\text{Design Load} = 50 \text{ PSF}$$

$$\text{TOTAL Load} = 50 \times 35 = 1750 \text{ lb/Post}$$

$$\text{Beam Capacity} = 2000 \text{ PSF} > 1750 \text{ lb/Post (OK)}$$

LEG  
SUPPORT  
PAD.

USE: 2" x 12" x 12" wood Bsq PAD  
UNDER each LEG



Edward A.  
**LANDERS, P.E.**  
CONSULTING ENGINEERS

P.E. #038398

(305)823-3938

CALC

7-17-04

3



B1405045



NOTICE: In addition to the requirement of this permit there may be additional restrictions applicable to this property that may be found in the Police Records of this County and there may be additional permits required from other government entities such as water management districts, state agencies, or federal agencies. The City of Miami Beach assumes no responsibility to compliance with results from these plans, which are approved subject to compliance with all Federal, State and Local Laws, Rules, and Regulations.

**FRONT**

C-1  
SHEET NUMBER



BIG PINK BUILDING  
157 COLLINS AVE  
MIAMI BEACH, FLORIDA



AREA OF WORK



LOCATION PLAN  
N.T.S.

INDEX

COVER SHEET

C-1 LOCATION PLAN

ARCHITECTURAL

A-1 GROUND FLOOR PLAN

SECOND FLOOR PLAN

SK-1 SCAFFOLD FIRST FLOOR

EGRESS PLAN.

SK-2 SCAFFOLD FRAMING PLAN

STRUCTURAL

S-0 NOTES

S-1 ELEVATIONS

S-2 DETAILS

S-3 DETAILS NOTES

SCOPE OF WORK

ALTERATION LEVEL II

1. CONCRETE REPAIR, CRACKS, AND CONCRETE SPALLING
2. NO ELECTRICAL
3. NO MECHANICAL
4. NO PLUMBING

City of Miami Beach  
Fire Prevention Division  
PLANS APPROVED



Edward A.  
LANDERS, P.E.  
CONSULTING ENGINEERS  
7550 NW 146TH STREET, SUITE 509 MIAMI LAKES FL 33016  
Tel. (305) 823-3938  
Fax (305) 823-9355

CONCRETE REPAIR

PERMIT  
SET

DWG INFO:

1413474

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VERIFY ALL DIMENSIONS AND SHALL NOT  
RELY ON SCALED DIMENSIONS. NOTIFY THE  
ENGINEER OF ANY DISCREPANCIES PRIOR TO  
COMMENCING WORK.

APPROVED BY

DATE


BIG PINK BUILDING

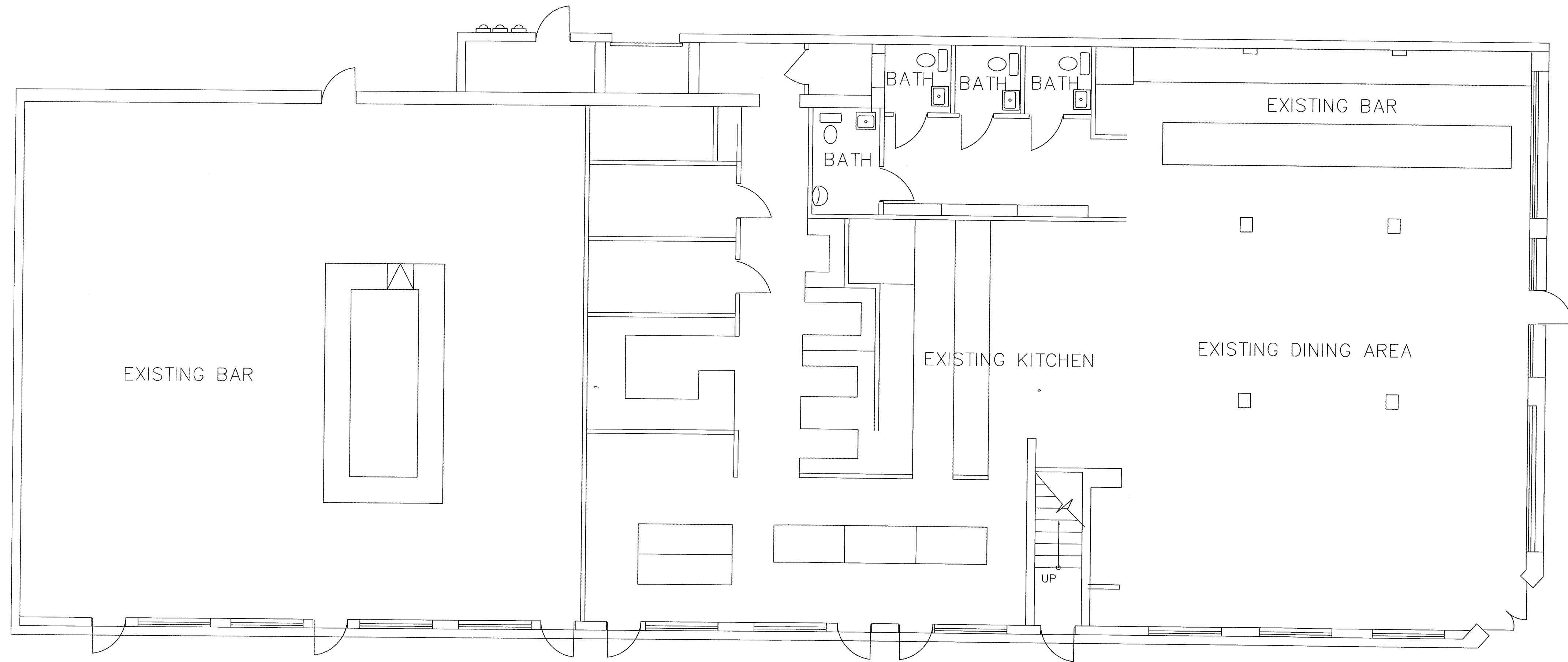
157 COLLINS AVE  
MIAMI BEACH, FLORIDA 33139

TO:

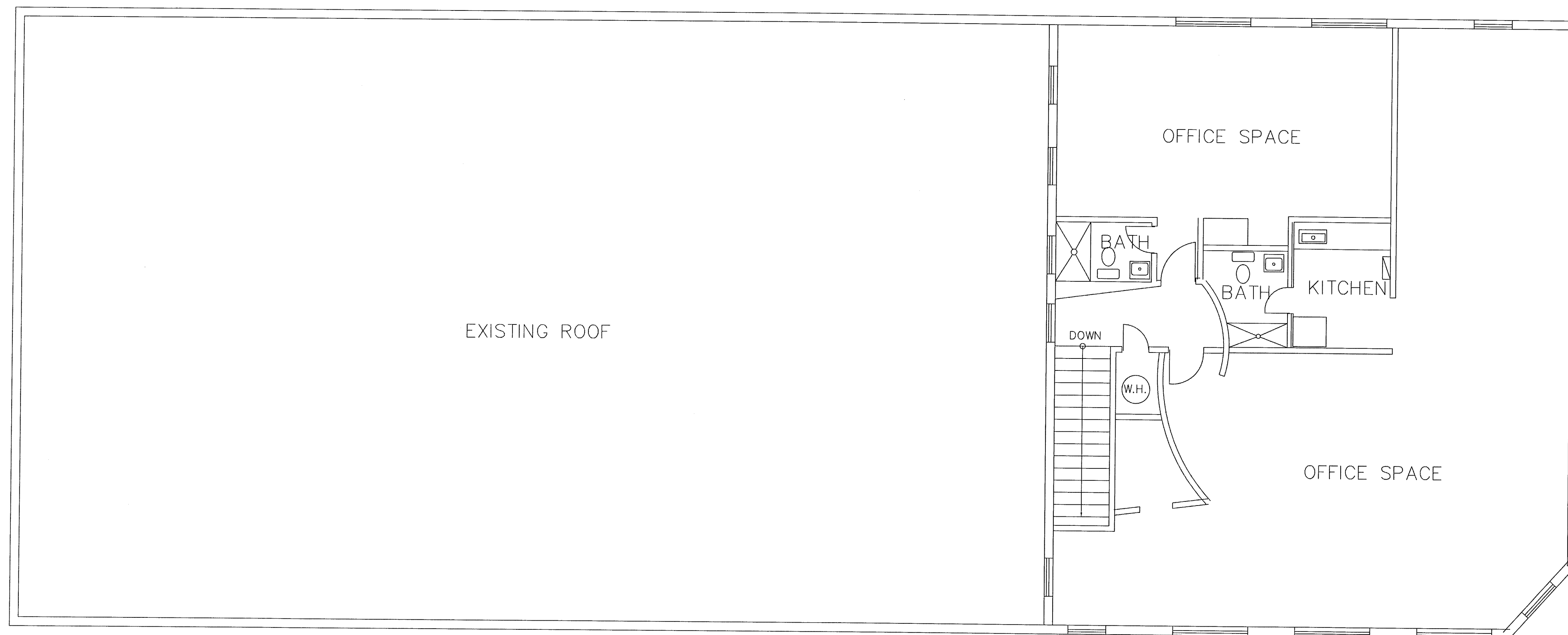
C-1

SHEET NUMBER





**FIRST FLOOR PLAN (FOR REFERENCE ONLY)**  
 SCALE: 3/4" = 1' - 0"



**SECOND FLOOR PLAN (FOR REFERENCE ONLY)**  
 SCALE: 3/16" = 1' - 0"

City of Miami Beach  
 Fire Prevention Division  
**PLANS APPROVED**



*Handwritten signature and date: 7/18/17*

**Edward A. LANDERS, P.E.**  
 CONSULTING ENGINEERS  
 7800 NW 140TH STREET, SUITE 509 MIAMI LAKES, FL 33016  
 Tel: (305) 823-3938  
 Fax: (305) 823-9355

**CONCRETE REPAIR**

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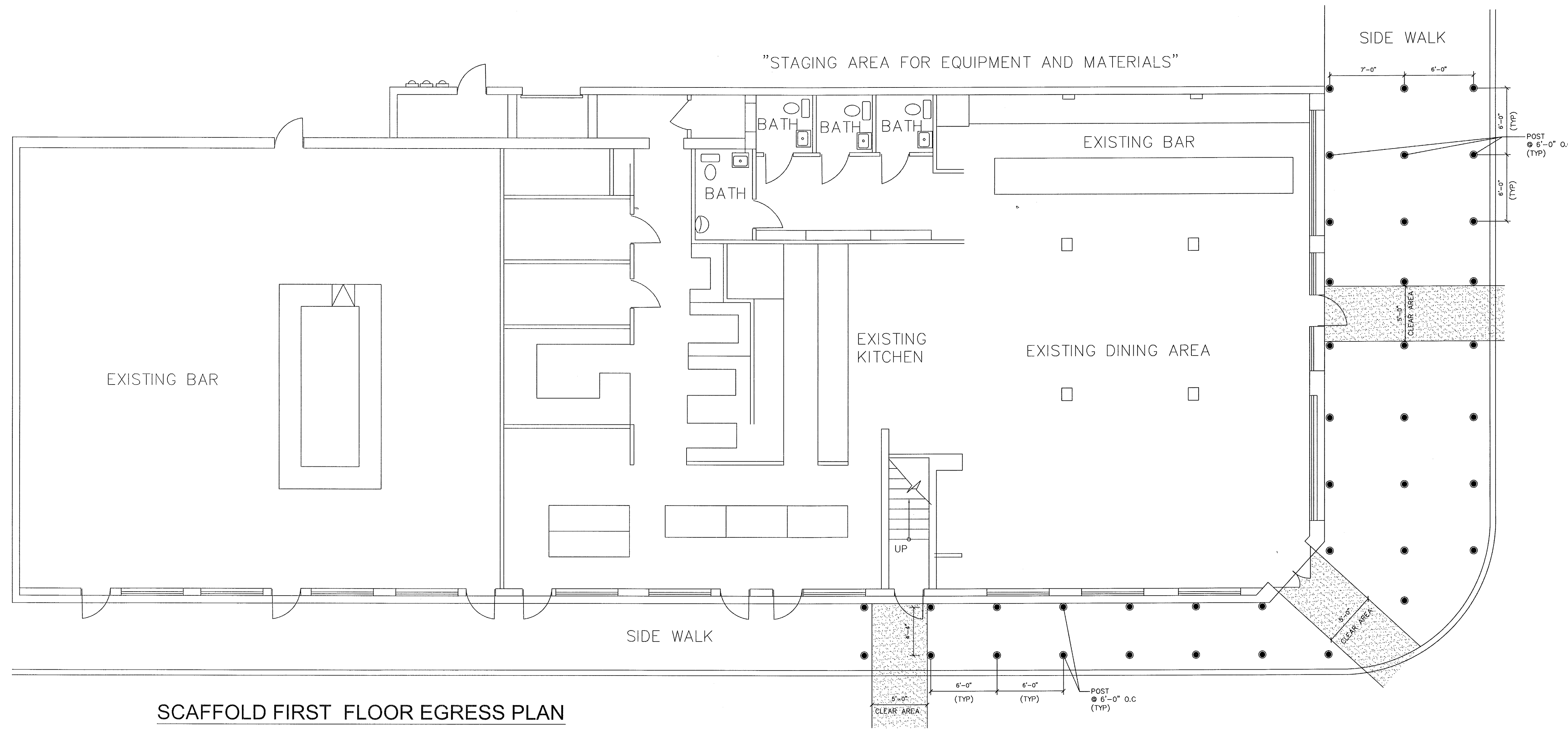
**BIG PINK BUILDING**

157 COLLINS AVE  
 MIAMI BEACH, FLORIDA 33139

TO:

**A-1**  
 SHEET NUMBER





SCAFFOLD FIRST FLOOR EGRESS PLAN  
SCALE: 3/4" = 1' - 0"

City of Miami Beach  
Fire Prevention Division  
PLANS APPROVED



*Ed Paul*  
7-18-17

WORK SCAFFOLD PLAN  
FOR PEDESTRIANS PROTECTION

PERMIT  
SET

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ENGINEER OF ANY DISCREPANCIES PRIOR TO  
COMMENCING WORK.

APPROVED BY	DATE

TO:  
**BIG PINK BUILDING**  
157 COLLINS AVE  
MIAMI BEACH, FLORIDA 33139

SK-1  
SHEET NUMBER

WORK SCAFFOLD PLAN  
FOR PEDESTRIANS PROTECTION

PERMIT  
SET

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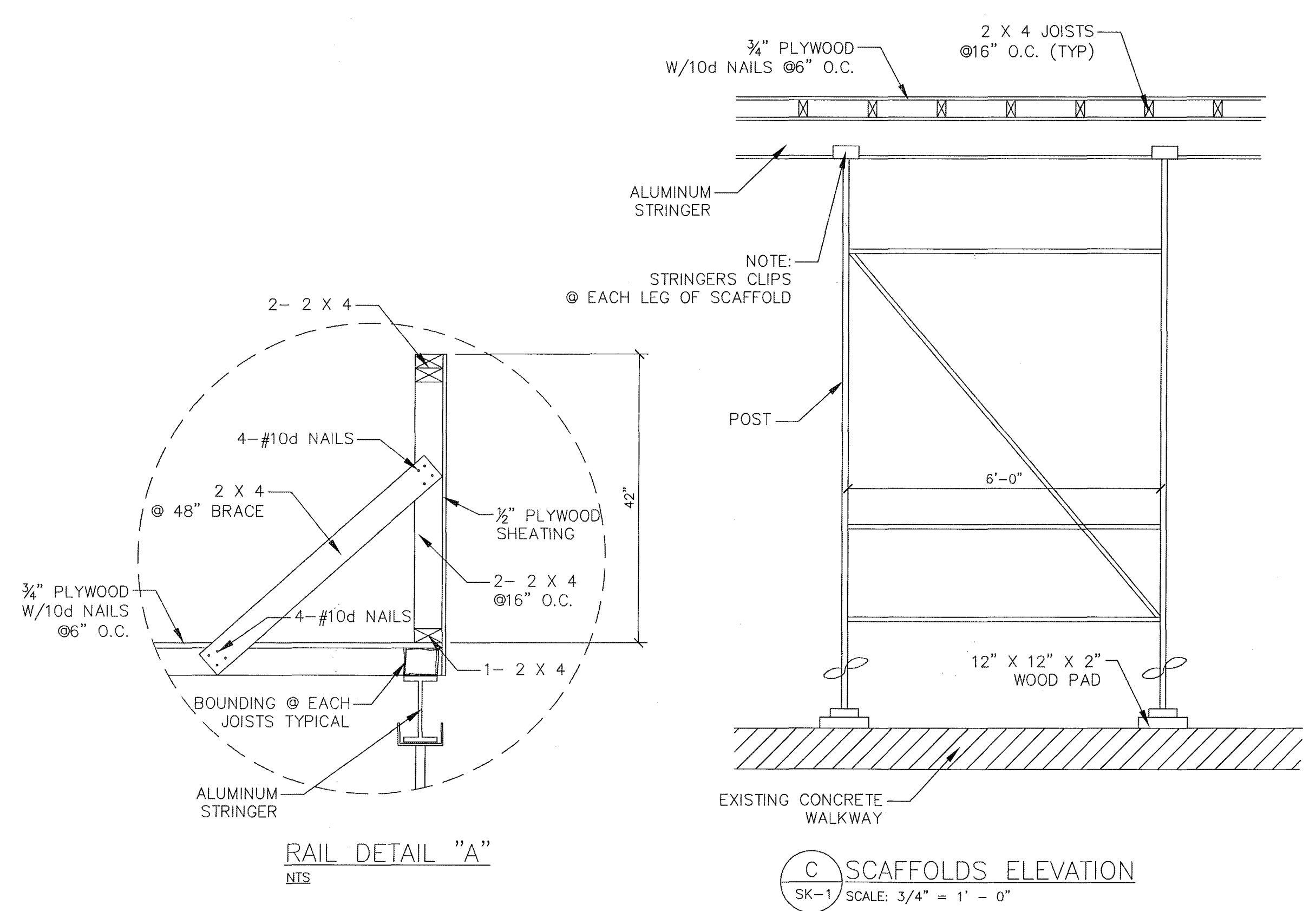
APPROVED BY	DATE

TO: **BIG PINK BUILDING**  
157 COLLINS AVE  
MIAMI BEACH, FLORIDA 33139

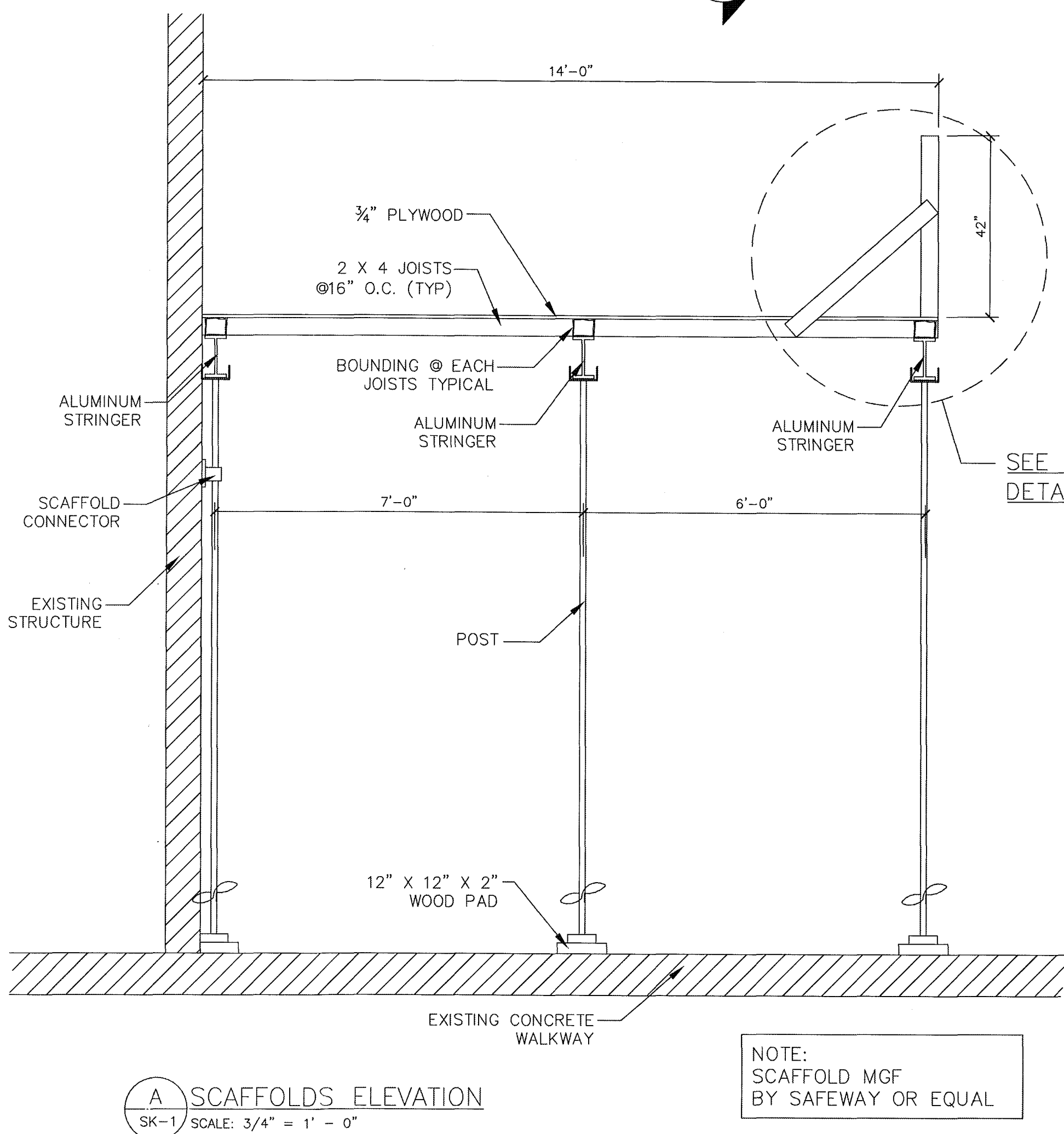
SK-2  
SHEET NUMBER



SCAFFOLD FRAMING PLAN  
SCALE: 3/16" = 1' - 0"

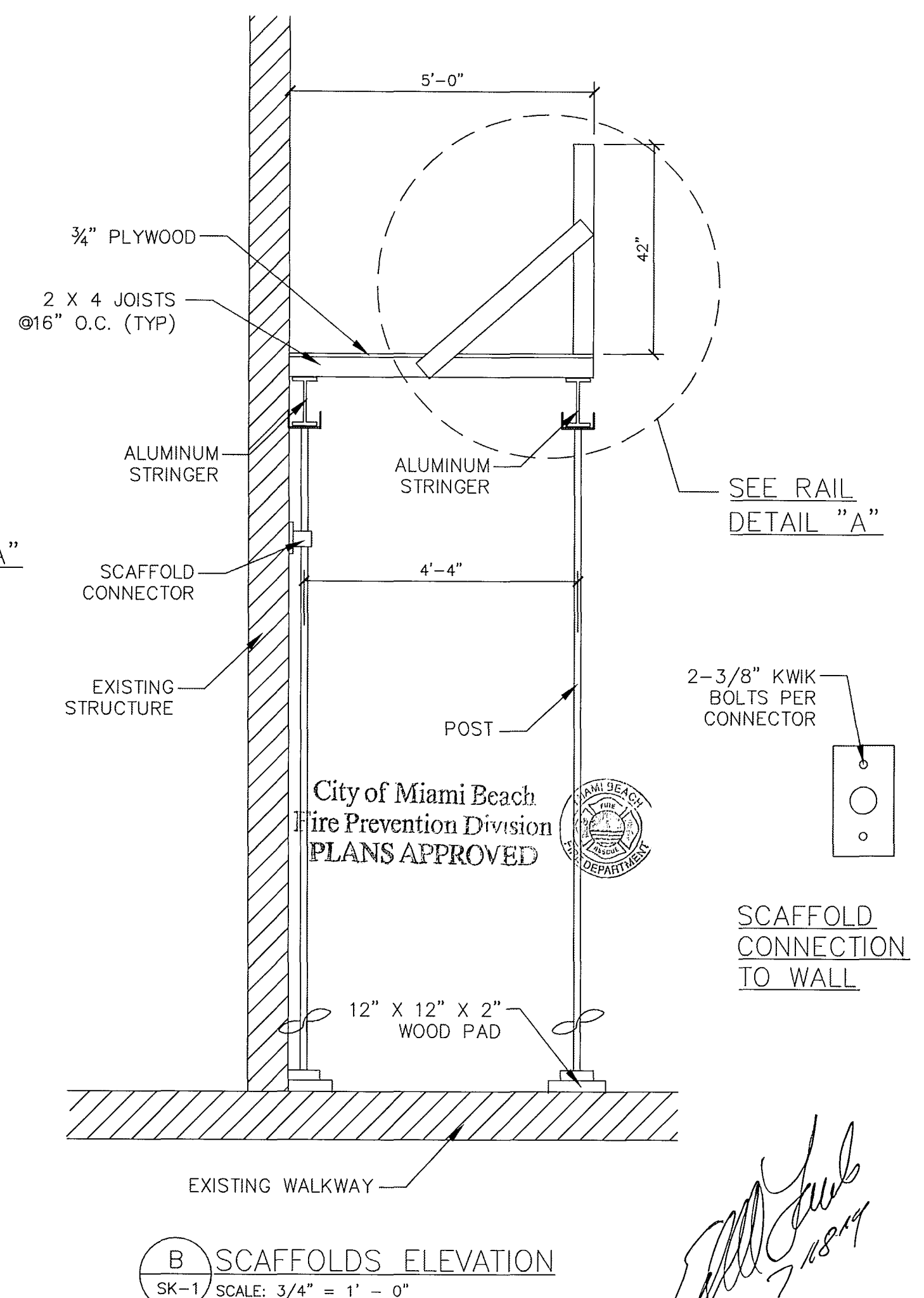


C SCAFFOLDS ELEVATION  
SK-1 SCALE: 3/4" = 1' - 0"



A SCAFFOLDS ELEVATION  
SK-1 SCALE: 3/4" = 1' - 0"

NOTE:  
SCAFFOLD MGF  
BY SAFEWAY OR EQUAL



B SCAFFOLDS ELEVATION  
SK-1 SCALE: 3/4" = 1' - 0"

City of Miami Beach  
Fire Prevention Division  
PLANS APPROVED

SCAFFOLD  
CONNECTION  
TO WALL

*[Signature]*  
7/18/11

GENERAL:

1. THE DRAWINGS ARE INTENDED TO SHOW THE GENERAL ARRANGEMENT, DESIGN AND EXTENT OF THE WORK AND ARE PARTIALLY DIAGRAMMATIC. THEY ARE NOT INTENDED TO BE SCALED FOR ROUGH-IN MEASUREMENTS, OR TO SERVE AS SHOP DRAWINGS OR PORTIONS THEREOF.
2. ALL DETAILS AND SECTIONS SHOWN ON THE DRAWINGS ARE INTENDED TO BE TYPICAL AND SHALL BE CONSTRUED TO APPLY TO ANY SIMILAR SITUATION ELSEWHERE ON THE PROJECT, EXCEPT WHERE A DIFFERENT DETAIL OR SECTION IS SHOWN.
3. PRIOR TO START OF CONSTRUCTION, THE CONTRACTOR AND ALL THE SUBCONTRACTORS SHALL VERIFY ALL GRADES, LINES, LEVELS, DIMENSIONS AND COORDINATE EXISTING CONDITIONS AT THE JOB SITE WITH THE PLANS AND SPECIFICATIONS. THEY SHALL REPORT ANY INCONSISTENCIES OR ERRORS IN THE ABOVE TO THE ARCHITECT/ENGINEER BEFORE COMMENCING WORK. THE CONTRACTOR AND HIS SUBCONTRACTORS SHALL LAY OUT THEIR WORK FROM ESTABLISHED REFERENCE POINTS AND BE RESPONSIBLE FOR ALL LINES, ELEVATIONS AND MEASUREMENTS IN CONNECTION WITH THEIR WORK.
4. IF ANY ERRORS OR OMISSIONS APPEAR IN THE DRAWINGS, GENERAL NOTES OR OTHER DOCUMENTS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING OF SUCH OMISSION OR ERROR PRIOR TO PROCEEDING WITH ANY WORK WHICH APPEARS IN QUESTION. IN THE EVENT OF THE CONTRACTOR'S FAILING TO GIVE SUCH AN ADVANCED NOTICE, HE SHALL BE HELD RESPONSIBLE FOR THE RESULTS OF ANY SUCH ERRORS OR OMISSIONS AND THE COST OF RECTIFYING THE SAME.
5. THE CONTRACTOR SHALL USE THE STRUCTURAL DRAWINGS AND SPECIFICATIONS TOGETHER WITH THE ARCHITECTURAL, MECHANICAL, ELECTRICAL AND OTHER TRADE DRAWINGS AND SHOP DRAWINGS, TO LOCATE DEPRESSED SLABS, SLOPES, DRAINS, OUTLETS, RECESSES, OPENINGS, BOLT SETTING, SLEEVES, DIMENSIONS, ETC. NOTIFY ARCHITECT/ENGINEER, IN WRITING, OF ANY POTENTIAL CONFLICTS BEFORE PROCEEDING WITH THE WORK.

SHOP DRAWINGS & DELEGATED ENGING:

1. ALL SHOP DRAWINGS SHALL BE SUBMITTED FOR ENGINEER'S REVIEW ONLY AFTER THEY HAVE BEEN THOROUGHLY REVIEWED BY THE CONTRACTOR FOR CONSTRUCTION METHODS, DIMENSIONS AND OTHER TRADE REQUIREMENTS, AND STAMPED WITH THE CONTRACTOR'S APPROVAL STAMP. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR DIMENSIONS, QUANTITIES, ENGINEERING DESIGN BY DELEGATED ENGINEERS, ERRORS OR OMISSIONS AS A RESULT OF REVIEWING ANY SHOP DRAWINGS. ANY ERRORS OR OMISSIONS MUST BE MADE GOOD BY THE CONTRACTOR, IRRESPECTIVE OF RECEIPT, CHECKING OR REVIEW OF DRAWINGS BY THE ENGINEER AND EVEN THOUGH WORK IS DONE IN ACCORDANCE WITH SUCH DRAWINGS.
2. BEFORE STRUCTURAL INSPECTIONS CAN BE MADE ON A PORTION OF THE STRUCTURE, ALL RELATED SHOP DRAWINGS, DELEGATED ENGINEERING, PRODUCT APPROVAL, MANUFACTURER'S DATA AND OTHER RELATED INFORMATION, MUST BE REVIEWED AND ACCEPTED BY THE ENGINEER-OF-RECORD AND APPROVED BY THE BUILDING DEPARTMENT.
3. ALL SHOP DRAWINGS SHALL CONTAIN THE MINIMUM INFORMATION, OUTLINED IN THE FLORIDA BUILDING CODE
4. ALL DELEGATED ENGINEER'S SHOP DRAWINGS SHALL COMPLY WITH ALL THE REQUIREMENTS OF THE FLORIDA BUILDING CODE  
SHOP DRAWINGS SHALL CONTAIN ALL INFORMATION SHOWN ON THE STRUCTURAL PLANS (RELATED TO THE DELEGATED DESIGN) INCLUDING ALL DESIGN LOADS, IN ADDITION TO THE INFORMATION REQUIRED BY THE DELEGATED ENGINEER'S DESIGN.
5. THE ENGINEER OF RECORD SHALL REVIEW ALL SHOP DRAWINGS, PREPARED AND SIGNED AND SEALED BY THE CONTRACTOR'S DELEGATED ENGINEER, ONLY FOR GENERAL COMPLIANCE WITH THE DESIGN INTENT, REQUIRED LOADING AND COORDINATION WITH THE STRUCTURE DESIGNED BY THE ENGINEER OF RECORD.
6. CONTRACTOR SHALL SUBMIT TO THE ENGINEER OF RECORD, ONLY ONE SET OF SEPIA AND ONE SET OF BLUE PRINTS OF THE STRUCTURAL SHOP DRAWINGS FOR ENGINEER'S REVIEW, BEFORE STARTING FABRICATION. THE ENGINEER WILL RETURN THE MARKED-UP AND STAMPED SEPIA TO THE ARCHITECT. THESE SEPIA COPIES SHALL BE USED TO MAKE PRINTS AS REQUIRED FOR HE SHOP DRAWING DISTRIBUTION. SETS OF BLUE PRINTS (WITHOUT SEPIA) WILL NOT BE ACCEPTED.

CONSTRUCTION MEANS AND METHODS:

1. THE CONTRACTOR IS RESPONSIBLE AND SHALL COMPLY WITH THE SAFETY REQUIREMENTS OF THE FLORIDA BUILDING CODE AND ALL LOCAL, STATE AND FEDERAL LAWS.
2. PROVIDE ALL SHORING, BRACING AND SHEETING AS REQUIRED FOR SAFETY, STRUCTURAL STABILITY AND FOR THE PROPER EXECUTION OF THE WORK. REMOVE WHEN WORK IS COMPLETED.
3. PROVIDE AND MAINTAIN GUARD LIGHTS AT ALL BARRICADES, RAILINGS, OBSTRUCTIONS IN THE STREETS, ROADS OR SIDEWALKS AND ALL TRENCHES OR PITS ADJACENT TO PUBLIC WALKS OR ROADS.
4. AT ALL TIMES, PROVIDE PROTECTION AGAINST WEATHER (RAIN, WIND, STORMS OR THE SUN), SO AS TO MAINTAIN ALL WORK, MATERIALS, APPARATUS AND FIXTURES FREE FROM INJURY OR DAMAGE.
5. AT THE END OF THE DAYS WORK, COVER ALL WORK LIKELY TO BE DAMAGED. ANY WORK DAMAGED BY FAILURE TO PROVIDE PROTECTION SHALL BE REMOVED AND REPLACED WITH NEW WORK AT THE CONTRACTOR'S EXPENSE.
6. THE CONTRACTOR SHALL PAY FOR ALL DAMAGES TO ADJACENT PROPERTY

GENERAL STRUCTURAL NOTES

(Florida Building Code 2010 Edition)

STRUCTURAL OBSERVATIONS:

1. THE ENGINEER-OF-RECORD SUBMIT A STATEMENT, AT THE COMPLETION OF THE CONSTRUCTION WORK, REGARDING THE COMPLIANCE OF THE WORK WITH THE APPROVED PERMIT PLANS (F.B.C.
2. IN THE EVENT THAT THE ENGINEER OF RECORD WERE NOT RETAINED TO PERFORM STRUCTURAL OBSERVATIONS, THE OWNER AND THE CONTRACTOR MUST NOTIFY THE BUILDING DEPARTMENT AND OBTAIN AN APPROVAL OF THE ENGINEER ENGAGED TO PERFORM THE INSPECTIONS, BEFORE START OF ANY STRUCTURAL WORK.
3. IT IS UNDERSTOOD THAT THE ENGINEER WILL NOT BE HELD RESPONSIBLE AND LIABLE FOR ANY OF THE CONTRACTOR'S WORK WHICH WAS NOT PROPERLY OBSERVED BY THE ENGINEER-OF-RECORD (OR HIS REPRESENTATIVE) OR FOR ANY WORK, APPROVED BY THE INSPECTING ENGINEER (OTHER THAN THE ENGINEER-OF-RECORD) WHICH MODIFIES OR CHANGES THE STRUCTURAL PERMIT RECORD DOCUMENTS.

STRUCTURAL DESIGN CRITERIA:

1. THE DESIGN COMPLIES WITH THE REQUIREMENTS OF THE FLORIDA BUILDING CODE - (2010 EDITION) AND OTHER REFERENCED CODES AND SPECIFICATIONS. ALL CODES AND SPECIFICATIONS SHALL BE LATEST EDITION AT TIME OF PERMIT.

2. WIND LOAD CRITERIA: GCPI = ±0.18

BASED ON ANSI/ASCE 7-10 BASIC WIND VELOCITY 175 MPH, OCCUPANCY CATEGORY II (AT HURRICANE OCEANLINE), EXPOSURE "D".

3. ROOF DESIGN LOADS: (SUPERIMPOSED)  
DEAD LOADS: . . . . . 25 PSF  
LIVE LOADS: . . . . . 30 PSF
4. FLOOR DESIGN LOADS: (SUPERIMPOSED)  
DEAD LOADS: . . . . . 25 PSF  
LIVE LOADS: . . . . . 40 PSF

CONCRETE AND REINFORCING:

1. CONCRETE DESIGN AND REINFORCEMENT IN ACCORDANCE WITH "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" AND WITH "DETAILS AND DETAILING OF CONCRETE REINFORCEMENT"
2. ALL CONCRETE WORK IN ACCORDANCE WITH "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDING" PRODUCTION OF CONCRETE, DELIVERY, PLACING AND CURING TO BE IN ACCORDANCE WITH "HOT WEATHER CONCRETING"
3. ALL CONCRETE TO BE REGULAR WEIGHT WITH A DESIGN STRENGTH OF 5,000 P.S.I. AT 28 DAYS. MAXIMUM SLUMP 4".
4. ALL REINFORCING TO BE NEW BILLET STEEL CONFORMING TO THE LATEST A.S.T.M. A-615 GRADE 60, FABRICATED IN ACCORDANCE WITH C.R.S.I. MANUAL OF STANDARD PRACTICE AND PLACED IN ACCORDANCE WITH LAP SPLICE PER A.C.I. 318-02 SEC. 12.2.3,30.5" MIN
5. CONCRETE COVER UNLESS OTHERWISE DETAILED ON DRAWINGS:  
GRADE BEAMS: (BOTTOM) . . . . . 3"  
(TOP & SIDES) . . . . . 2"  
EXTERIOR SLABS ON GRADE: (BOTTOM) . . . . 2"  
(TOP) . . . . . 1-1/2"  
COLUMNS AND BEAMS: (TO THE TIES) . . . . . 1-1/2"
6. COLUMN REINFORCEMENT: DOWELS TO BE SAME SIZE AND NUMBER AS VERTICAL REBARS ABOVE.  
PROVIDE RIGID TEMPLATES FOR DOWEL LOCATION. PROVIDE STANDARD HOOKS AT TOP OF ALL VERTICAL REINFORCEMENT AT NONCONTINUOUS COLUMNS (U.O.N.). SEE ATTACHED TABLE FOR SPLICE LENGTH  
LAP SPLICES FOR BEAMS AND COLUMNS PER ACI 318-08 CHAPTER #12
7. ALL DOWELS FOR COLUMNS SHALL BE SECURED IN POSITION PRIOR TO CONCRETING. PUSHING THE DOWELS INTO POSITION IN WET CONCRETE IS NOT PERMITTED.
8. BEAM REINFORCEMENT: (SEE BEAM DIAGRAM ON PLAN). BOTTOM BARS SPLICED ONLY AT SUPPORTS, TOP BARS SPLICED ONLY AT MID-SPAN. ALL TOP BARS HOOKED AT NONCONTINUOUS EDGES (U.O.N.). ALL HOOKS TO BE STANDARD 90 DEGREE HOOKS AS REQUIRED (U.O.N.). SEE ATTACHED TABLE FOR SPLICE LENGTH
9. ADDED REINFORCEMENT: PROVIDE ADDITIONAL CORNER BARS BENT 36 INCHES MINIMUM EACH WAY AT "L" AND "T" CORNERS IN OUTER FACES OF ALL BEAMS TO MATCH ALL HORIZONTAL BAR (TOP, BOTTOM AND INTERMEDIATE REBARS).
10. SEE PLAN FOR MINIMUM SIZE CONCRETE TIE BEAM REQUIREMENTS.
11. TIE BEAM & GRADE BEAM SHALL HAVE CORNER BARS W/30"BENDS

SOIL STATEMENT

THE NATURE AND CHARACTER OF THE SOIL CONDITION BENEATH THE STRUCTURAL FOOTING HAS BEEN OBSERVED TO HAVE UNDISTURBED SAND AND ROCK PRESUMED TO HAVE AN ALLOWABLE BEARING CAPACITY OF 2,000 PSF AT THE TIME OF CONSTRUCTION, A FLORIDA REGISTERED ENGINEER SHALL PROVIDE A SIGN AND SEALED WRITTEN REPORT VERIFYING ACTUAL SOIL BEARING VALUES. STATING THAT THE SOIL BEARING ARE AS ASSUMED.

TERMITE PROTECTION COMPLIANCE

GENERAL CONTRACTOR TO PROVIDE A CERTIFICATE OF COMPLIANCE BY LICENSED PEST CONTROL COMPANY THAT CONTAINS THE FOLLOWING STATEMENT AS PER FBC 2010 SECTION 1816.1.7

"THE BUILDING HAS RECEIVED A COMPLETE TREATMENT FOR THE PREVENTION OF SUBTERRANEAN TERMITE TREATMENT IS IN ACCORDANCE WITH RULES AND LAWS ESTABLISHED BY THE FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES"

City of Miami Beach  
Fire Prevention Division  
PLANS APPROVED



*Ed Landers*  
10/24/14

Edward A. LANDERS, P.E.

CONSULTING ENGINEERS

7000 NW 140TH STREET, SUITE 200 MIAMI LAKES, FL 33016  
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APPROVED BY	DATE

BIG PINK BUILDING

157 COLLINS AVE  
MIAMI BEACH, FLORIDA 33139

S-0

SHEET NUMBER



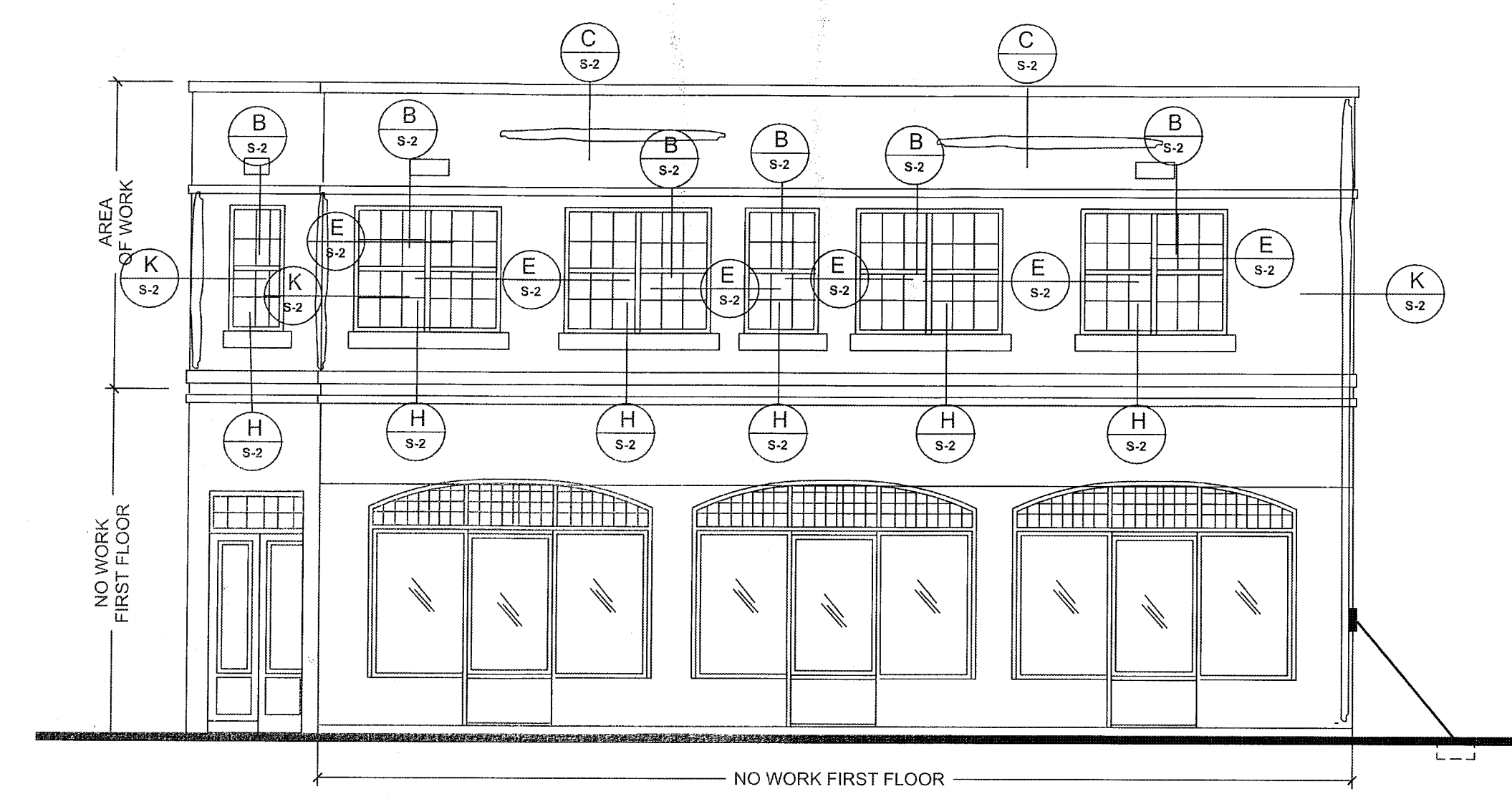
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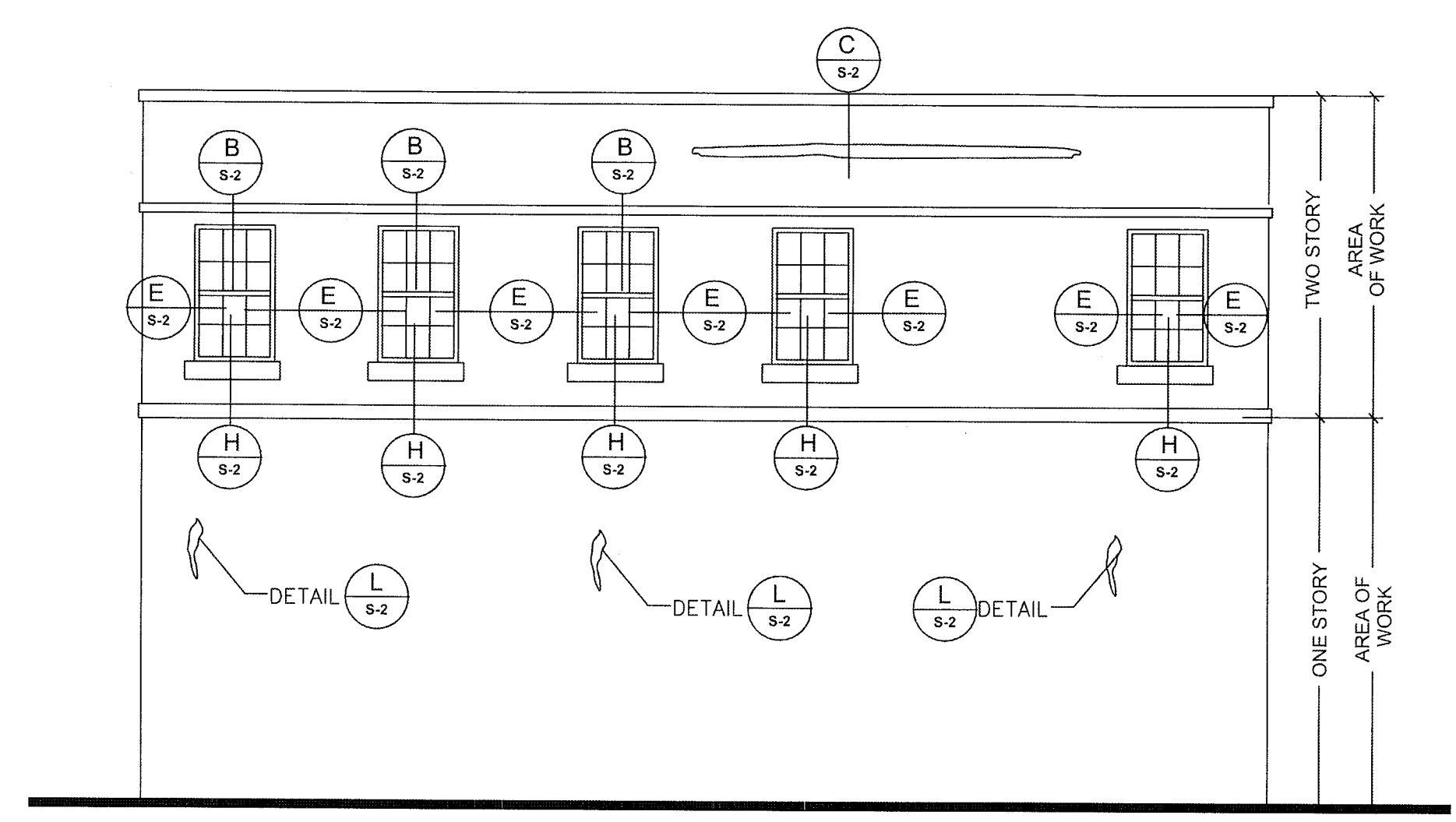
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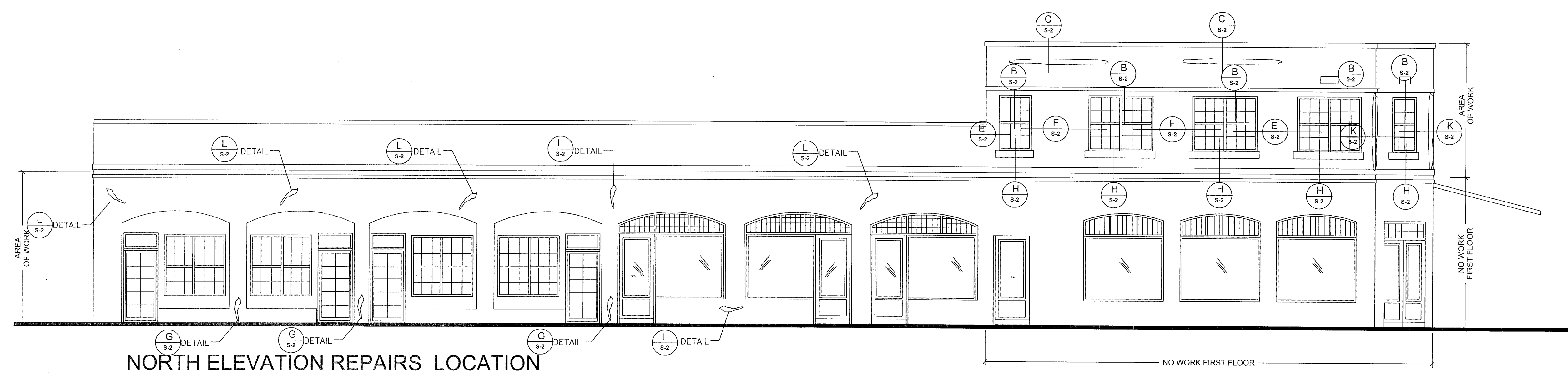
BUILDING



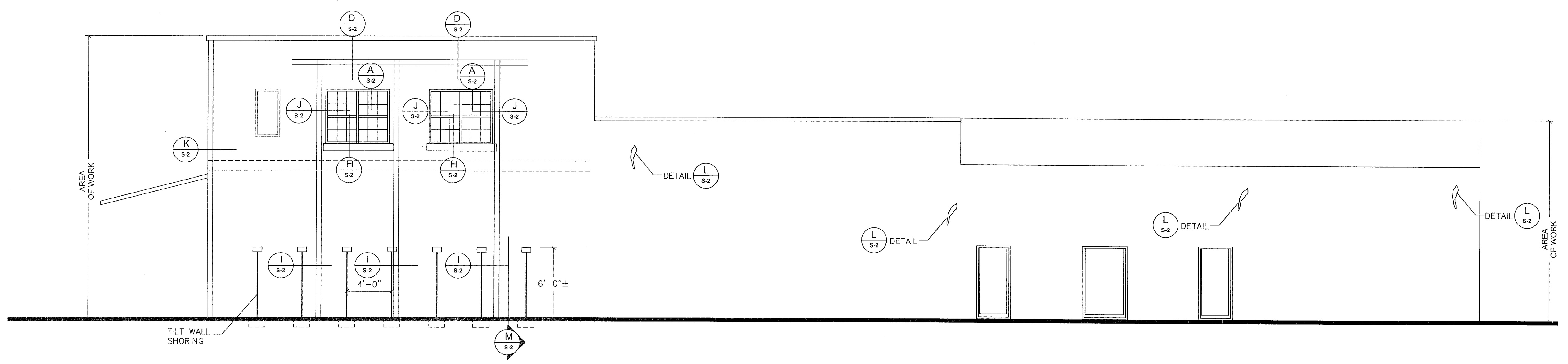
WEST ELEVATION REPAIRS LOCATION  
SCALE: 3/16" = 1' - 0"



EAST ELEVATION REPAIRS LOCATION  
SCALE: 3/16" = 1' - 0"



NORTH ELEVATION REPAIRS LOCATION  
SCALE: 3/16" = 1' - 0"



SOUTH ELEVATION REPAIRS LOCATION  
SCALE: 3/16" = 1' - 0"

V100

CONCRETE REPAIR

PERMIT SET

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1413474

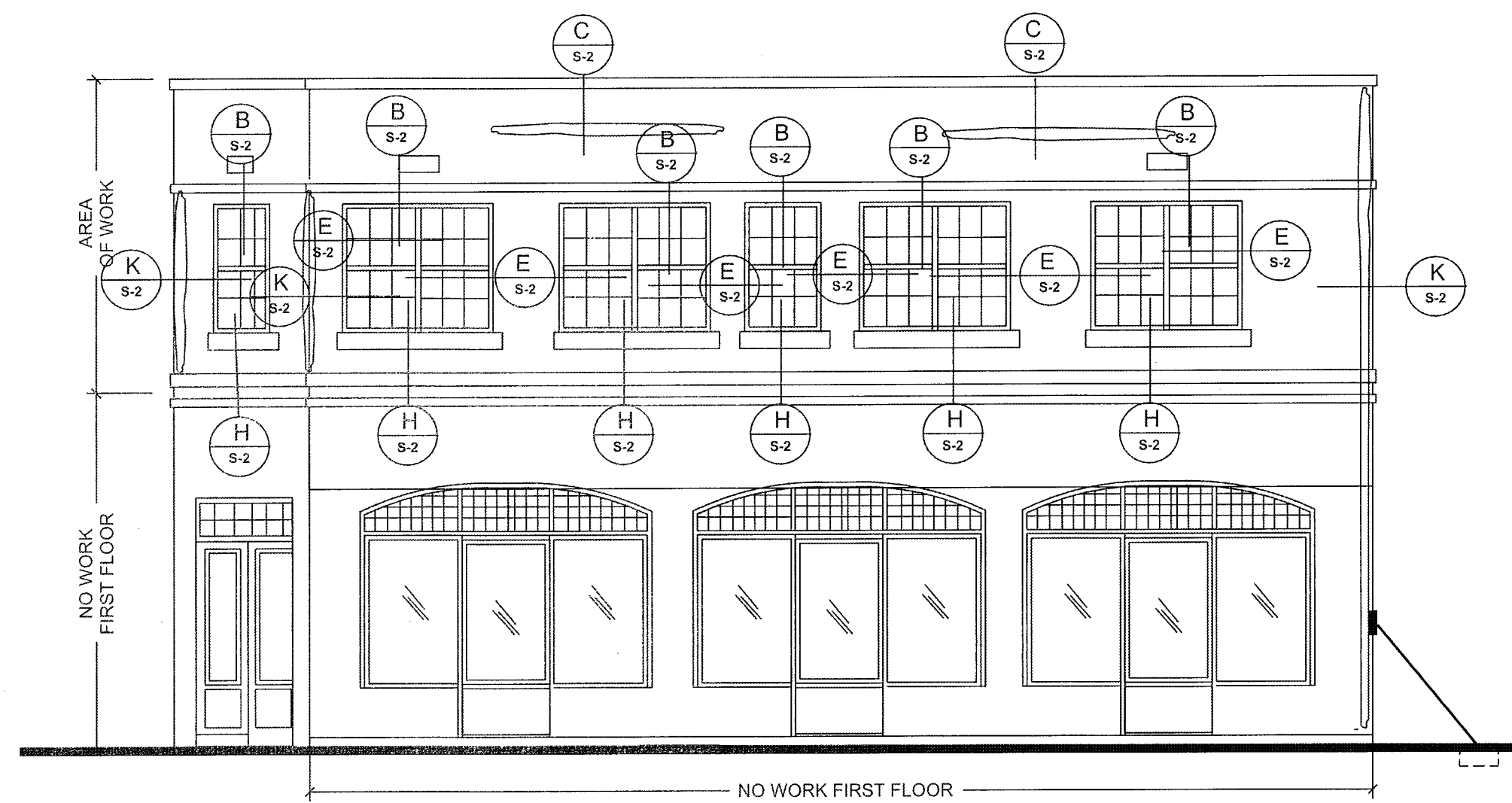
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APPROVED BY	DATE

BIG PINK BUILDING

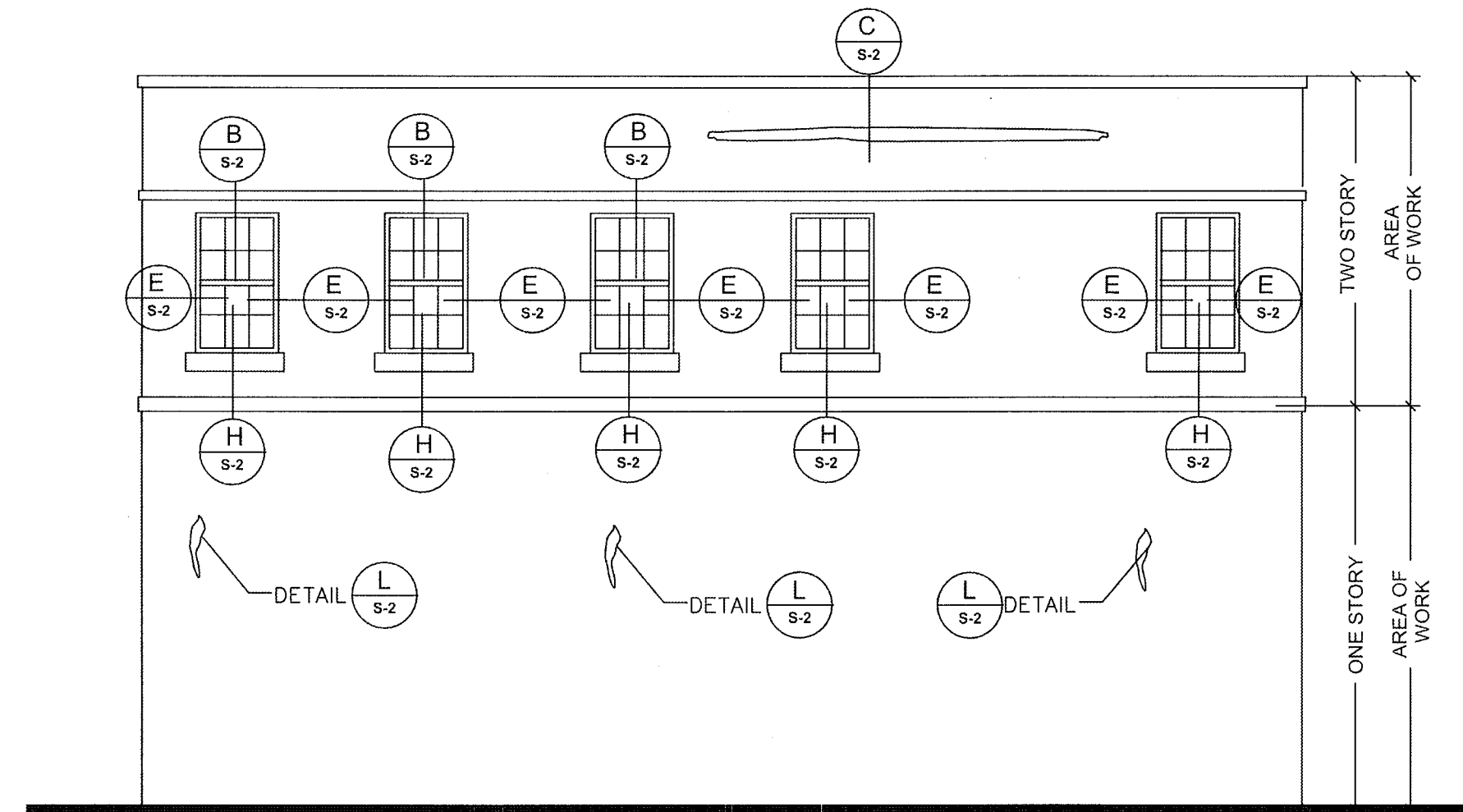
157 COLLINS AVE  
MIAMI BEACH, FLORIDA 33139

S-1  
SHEET NUMBER



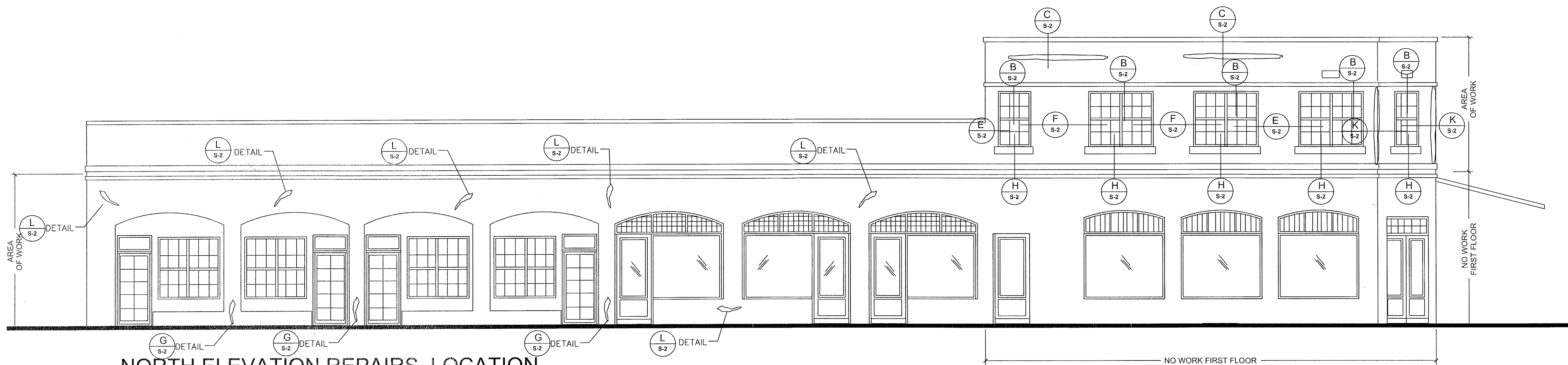
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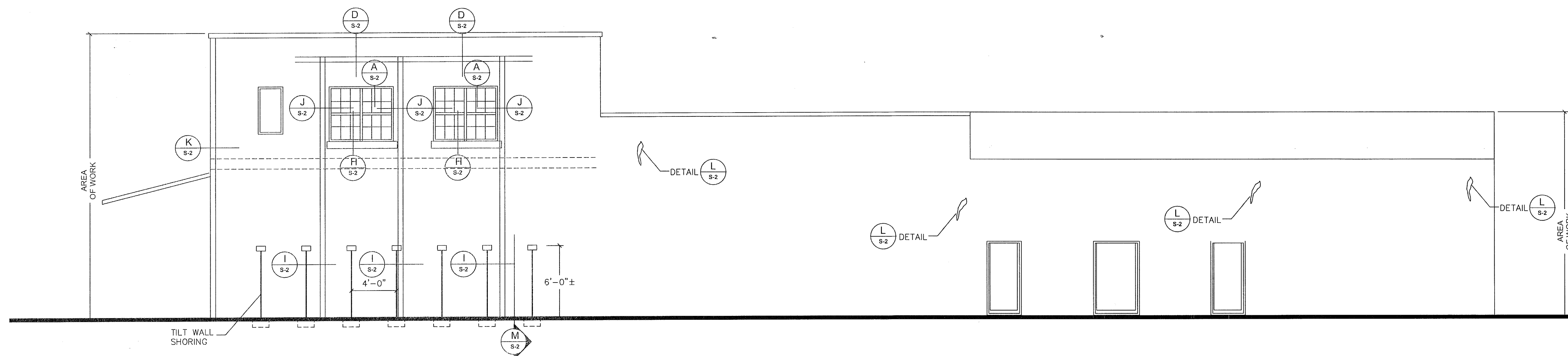
EAST ELEVATION REPAIRS LOCATION

SCALE: 3/16" = 1' - 0"



NORTH ELEVATION REPAIRS LOCATION

SCALE: 3/16" = 1' - 0"



SOUTH ELEVATION REPAIRS LOCATION

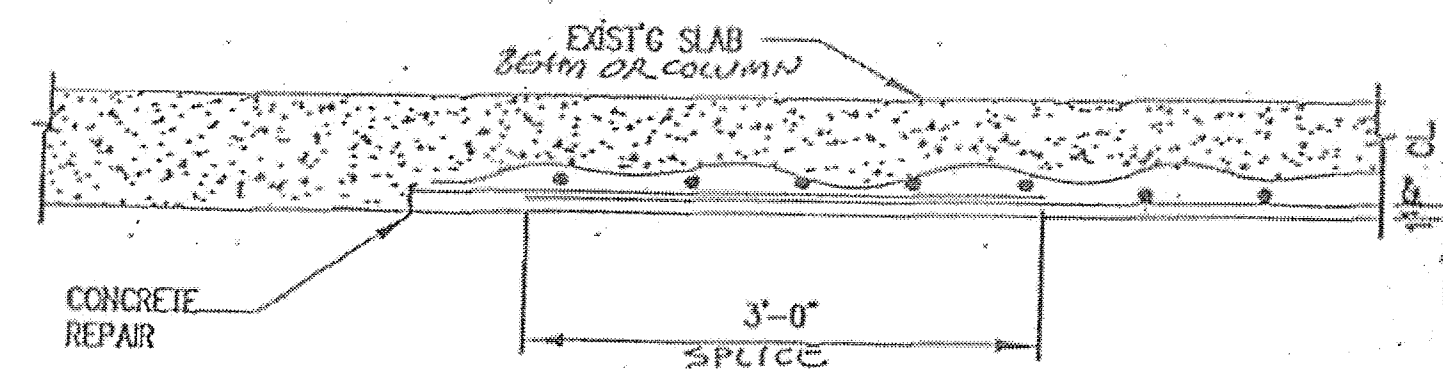
SCALE: 3/16" = 1' - 0"

City of Miami Beach  
Fire Prevention Division  
PLANNING APPROVAL

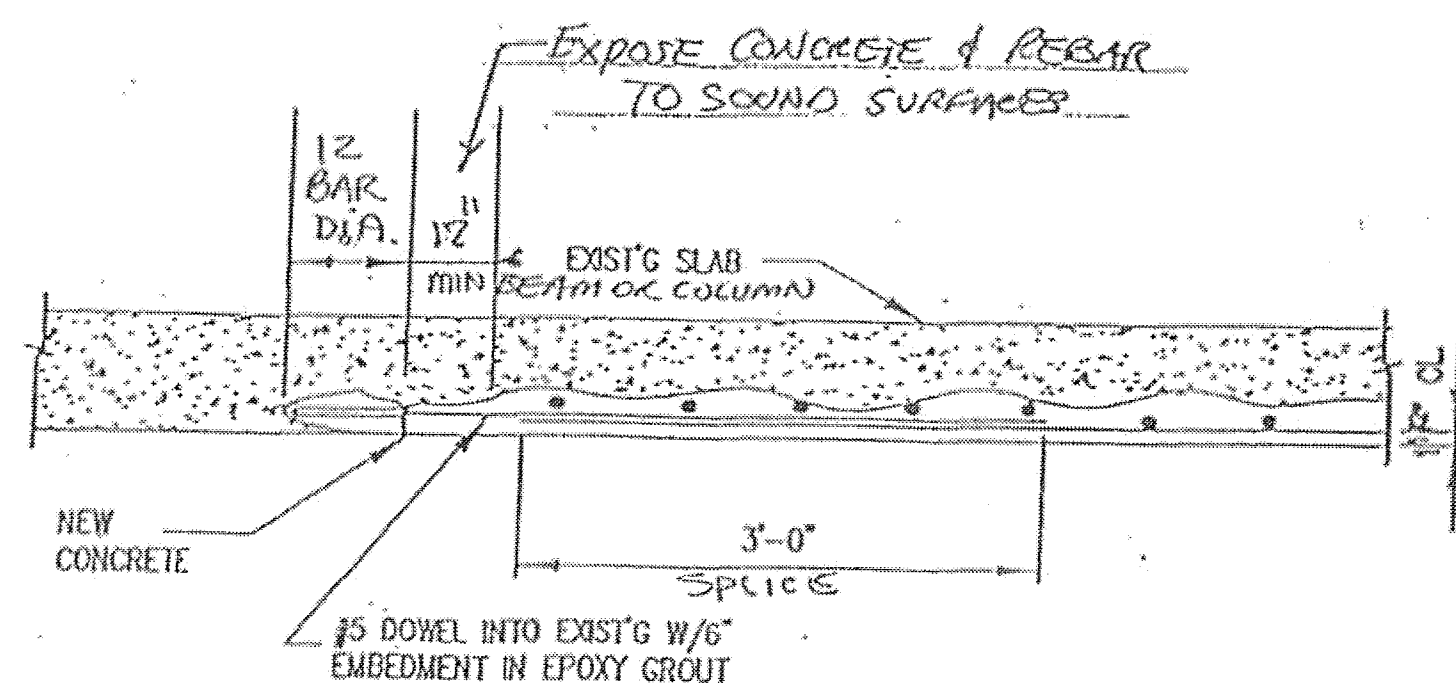


*Paul*  
7/18/14





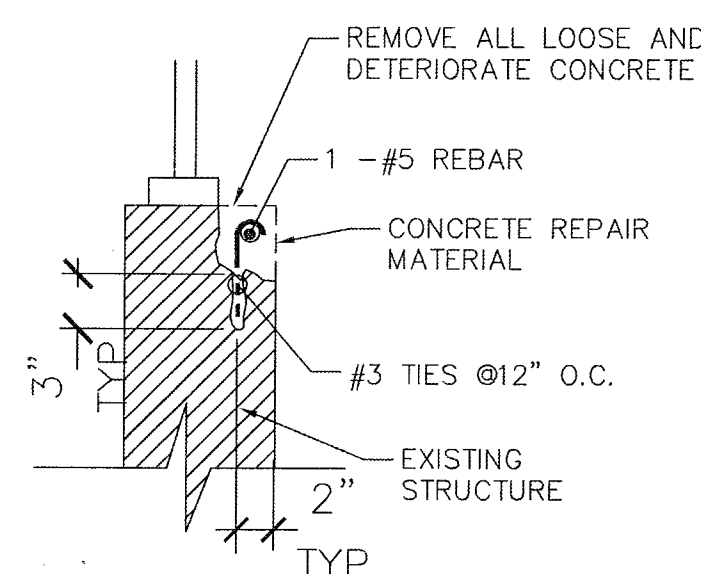
TYPICAL REBAR SPLICE DETAIL



REBAR SPLICE & DOWEL DETAILS

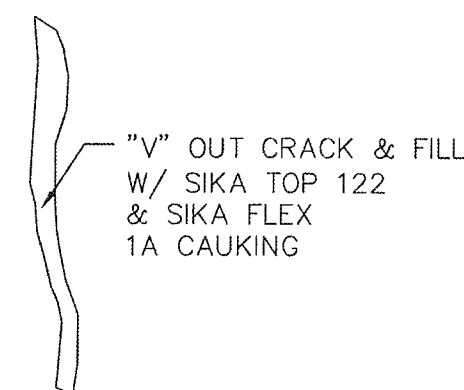
### STANDARD SPLICE & LAP DETAILS

SCALE: NTS



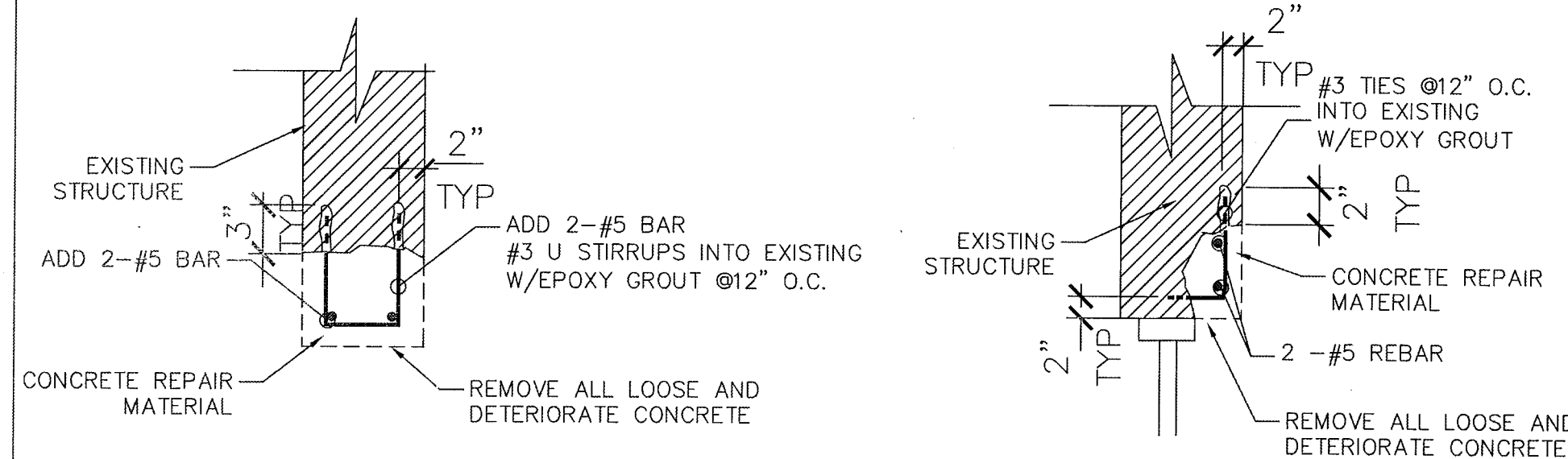
H TYP SILL REPAIR DETAIL

S-2



L CRACK REPAIR

SCALE: 1-1/2" = 1' - 0"



A FULL DEPTH REPAIR

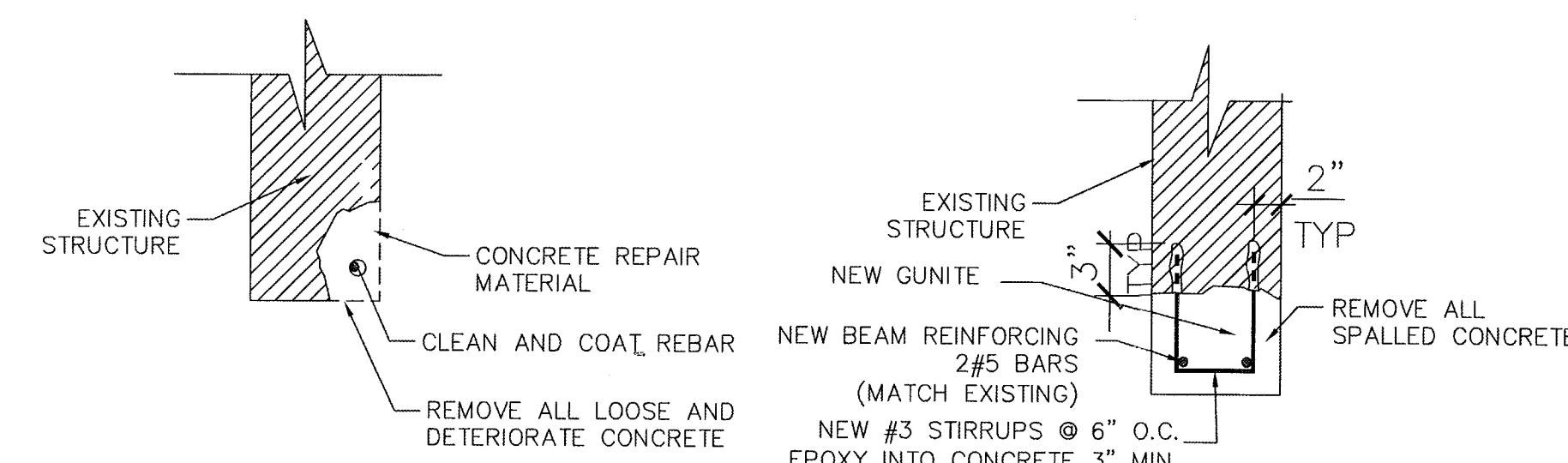
S-2

B PARTIAL HEADER REPAIR

S-2

### WINDOW LINTEL REPAIR DETAILS

SCALE: 1-1/2" = 1' - 0"

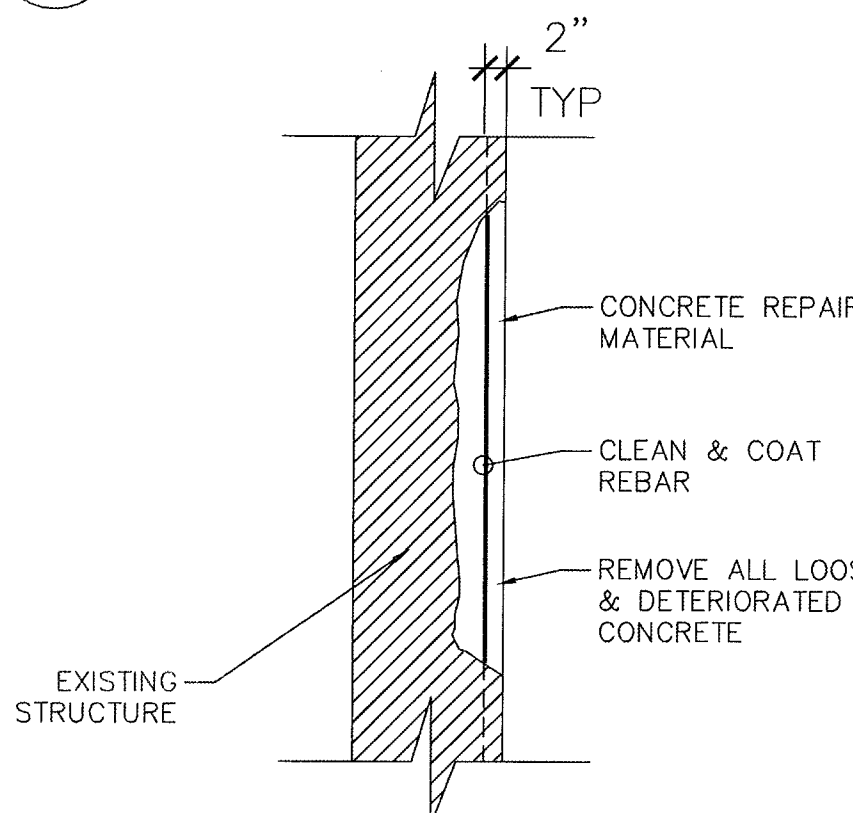


E PARTIAL DEPTH DETAIL

S-2

F FULL DEPTH

S-2

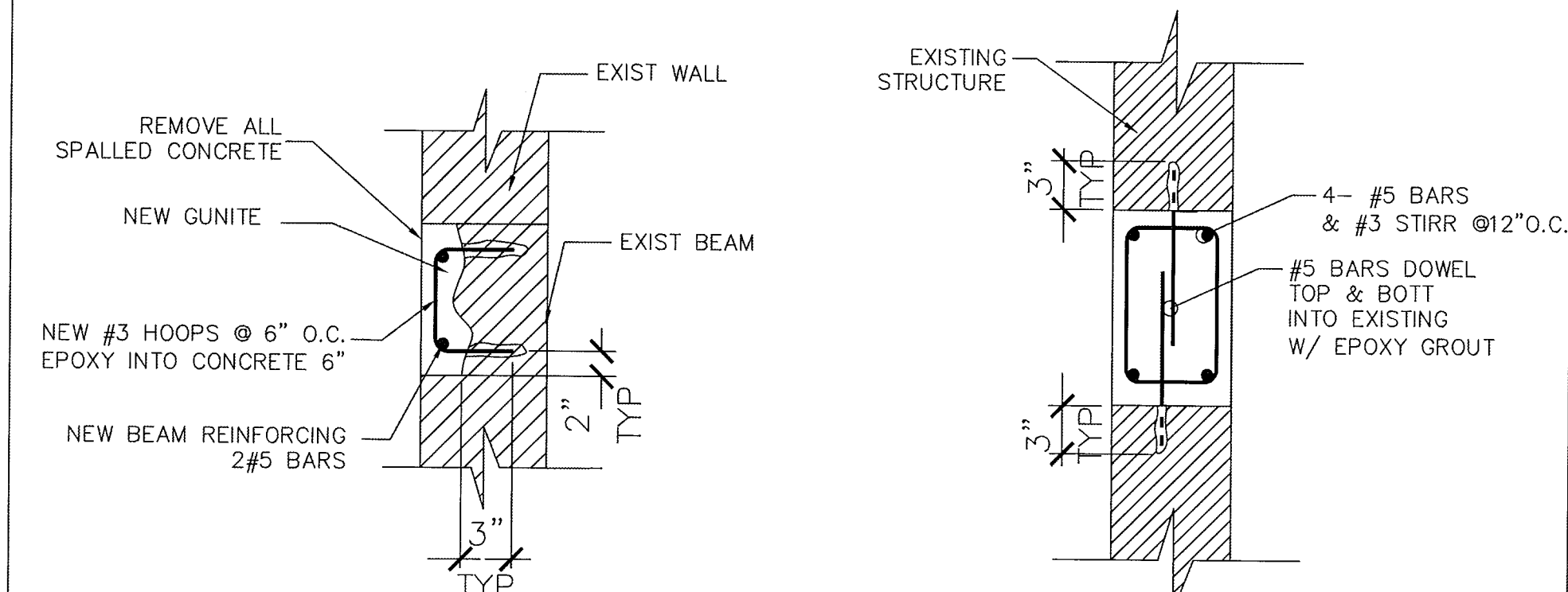


G TYP JAMB REPAIR DETAIL

S-2

### JAMB REPAIR DETAIL

SCALE: 1-1/2" = 1' - 0"



C PARTIAL DEPTH REPAIR (TB)

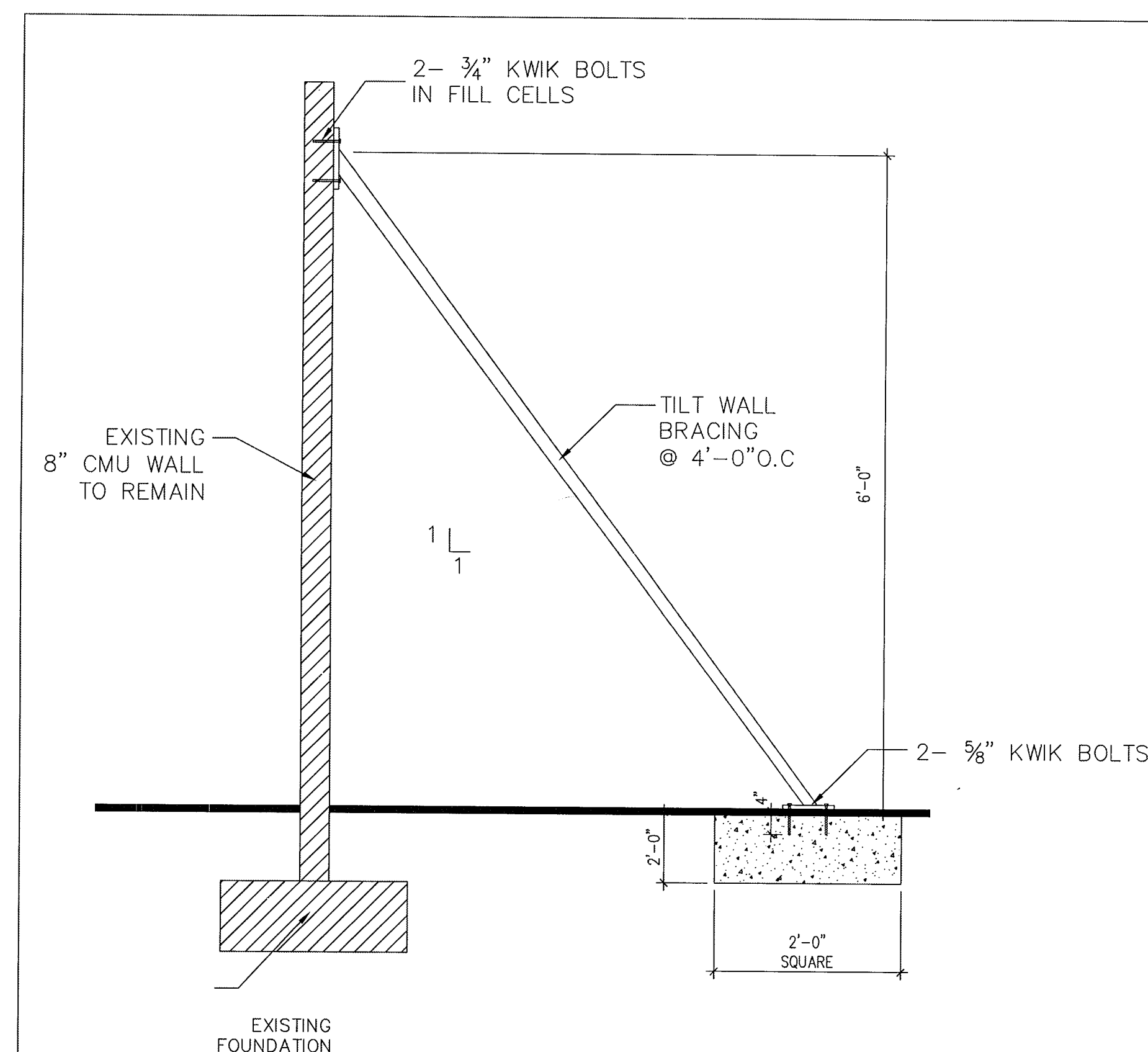
S-2

D FULL DEPTH REPAIR

S-2

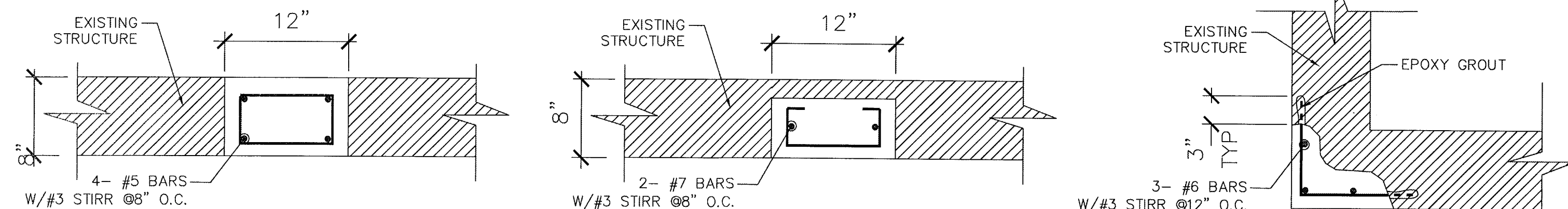
### TIE BEAM REPAIR DETAILS

SCALE: 1-1/2" = 1' - 0"



M TILT WALL BRACING DETAIL

SCALE: 1/2" = 1' - 0"



J FULL DEPTH REPAIR

S-2

I PARTIAL DEPTH REPAIR

S-2

K CORNER REPAIR DETAILS

S-2

### TIE COLUMN REPAIR DETAILS

SCALE: 1-1/2" = 1' - 0"

City of Miami Beach  
Fire Prevention Division  
PLANS APPROVAL

#### CONCRETE REPAIR NOTES

1. Gunite (All repairs).....5000psi
2. Prepackaged Concrete Repair.....3000psi
3. Rebar.....Grade 60
4. Do not remove any re-bar with less than 10% Corrosion, sandblast and coat per attached Specifications.
5. Make all cuts square.
6. Trowel finish all repaired surfaces.
7. Add epoxy bonding agent to surfaces prior to concrete application.

Edward A. Landers, P.E.  
CONSULTING ENGINEERS  
700 NW 14TH STREET, SUITE 200, MIAMI, FL 33136  
Tel. (305) 823-3338  
Fax (305) 823-9355

CONCRETE REPAIR

PERMIT SET

DWG INFO:

1413474

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EDWARD A. LANDERS P.E., INC. HEREBY RESERVE THEIR COPYRIGHTS TO THE IDEAS AND DRAWINGS SHOWN. THESE DRAWINGS ARE TO BE USED FOR THE PROJECT STATED ONLY AND SHALL NOT BE USED OR REPRODUCED FOR ANY OTHER PURPOSE WITHOUT THE WRITTEN CONSENT OF EDWARD A. LANDERS P.E., INC. CONTRACTORS SHALL VERIFY ALL DIMENSIONS AND SHALL NOT RELY ON SCALED DIMENSIONS. NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO COMMENCING WORK.

APPROVED BY	DATE

BIG PINK BUILDING

157 COLLINS AVE  
MIAMI BEACH, FLORIDA 33139

S-2

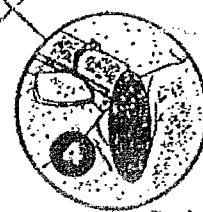
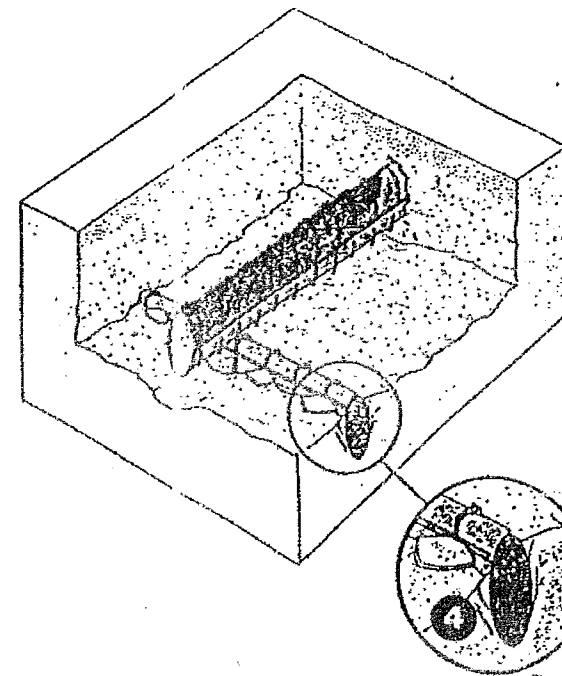
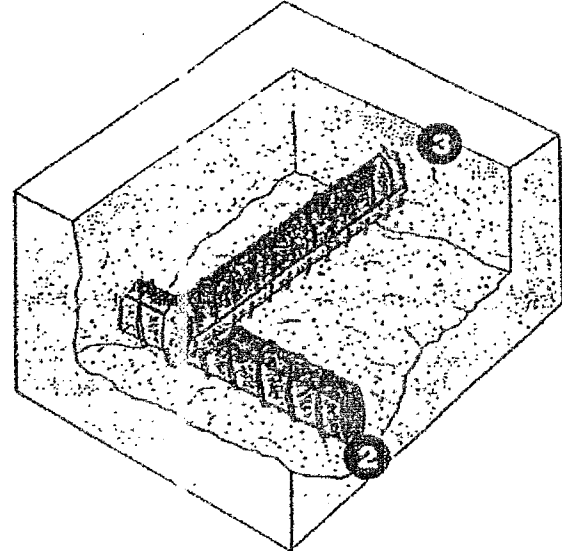
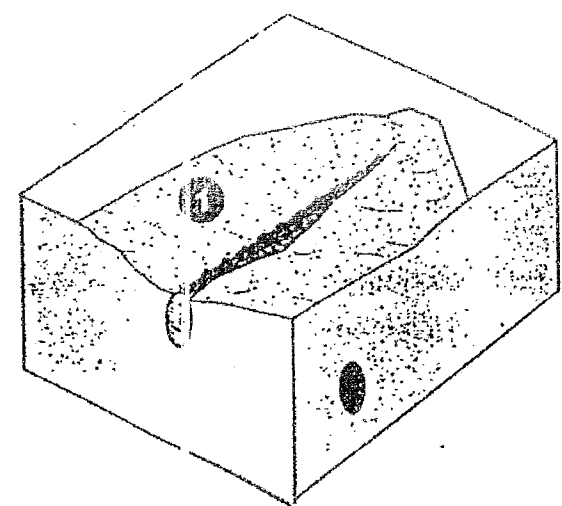
SHEET NUMBER



## Exposing and Undercutting of Reinforcing Steel

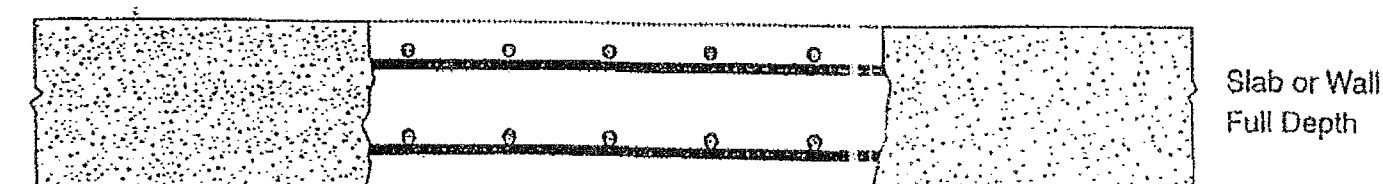
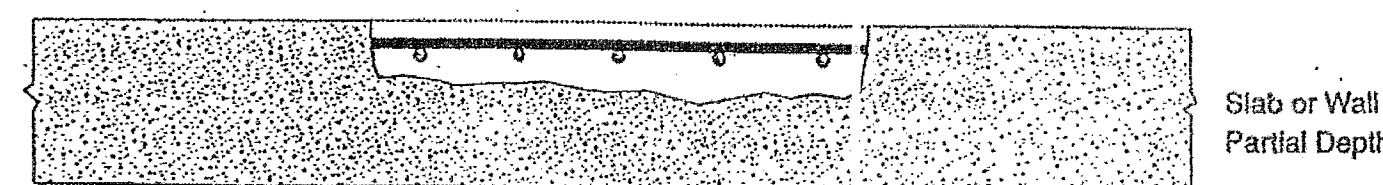
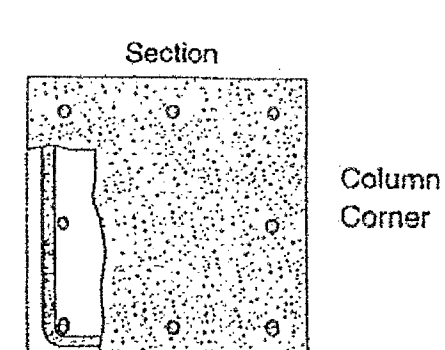
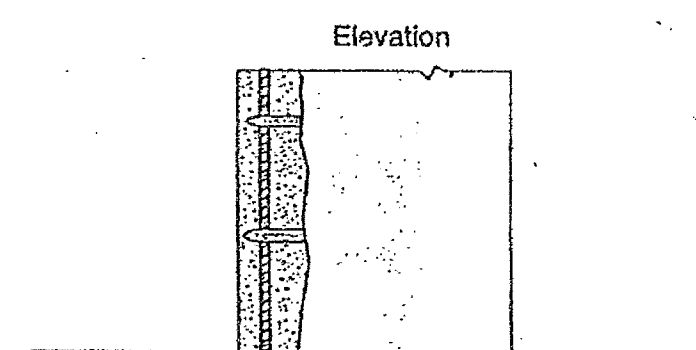
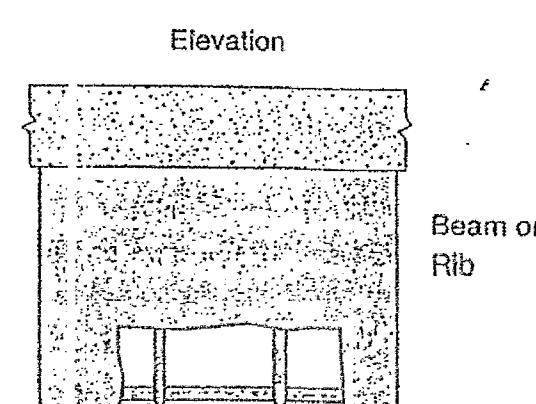
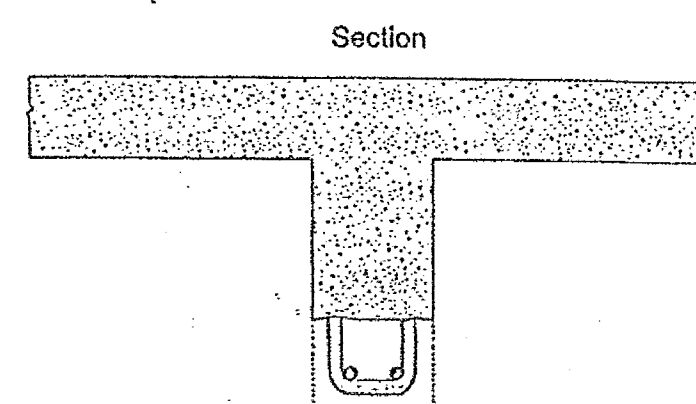
These details are applicable to horizontal, vertical, and overhead locations. They are also applicable to removal by hydro-demolition, hydro-milling, and electric, pneumatic or hydraulic impact breakers.

- 1 Remove loose or delaminated concrete above corroded reinforcing steel.
- 2 Once initial removals are made, proceed with the undercutting of all exposed corroded bars. Undercutting will provide clearance for under bar cleaning and full bar circumference bonding to surrounding concrete, and will secure the repair structurally. Provide minimum 1/4 inch (19 mm) clearance between exposed rebar and surrounding concrete or 1/4 inch (6 mm) larger than largest aggregate in repair material, whichever is greater.
- 3 Concrete removals shall extend along the bars to locations along the bar free of bond inhibiting corrosion, and where the bar is well bonded to surrounding concrete.
- 4 If non-corroded reinforcing steel is exposed during the undercutting process, care shall be taken not to damage the bar's bond to surrounding concrete. If bond between bar and concrete is broken, undercutting of the bar shall be required.
- 5 Any reinforcement which is loose shall be secured in place by tying to other secured bars or by other approved methods.



## Removal Geometry

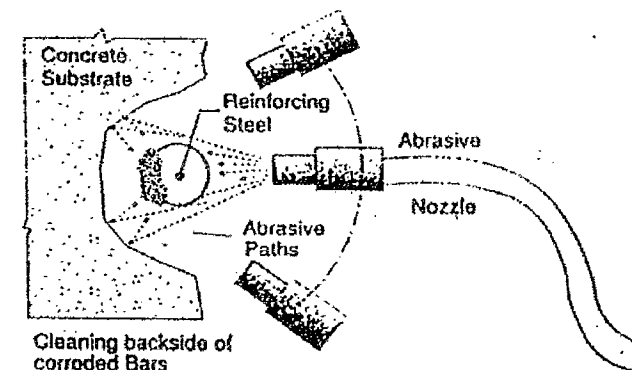
**Caution!** Before starting removals, review effect of removals on structural integrity. Provide shoring of members if necessary. Particular care shall be exercised at slab-beam connections to columns.



## Cleaning and Repair of Reinforcing Steel

### Cleaning of Reinforcing Steel

- 1 All heavy corrosion and scale should be removed from the bar as necessary to promote maximum bond of replacement material. Oil free abrasive blast is the preferred method. A tightly bonded light rust build-up on the surface is usually not detrimental to bond, unless a protective coating is being applied to the bar surface, in which case the coating manufacturer's recommendations for surface preparation should be followed.

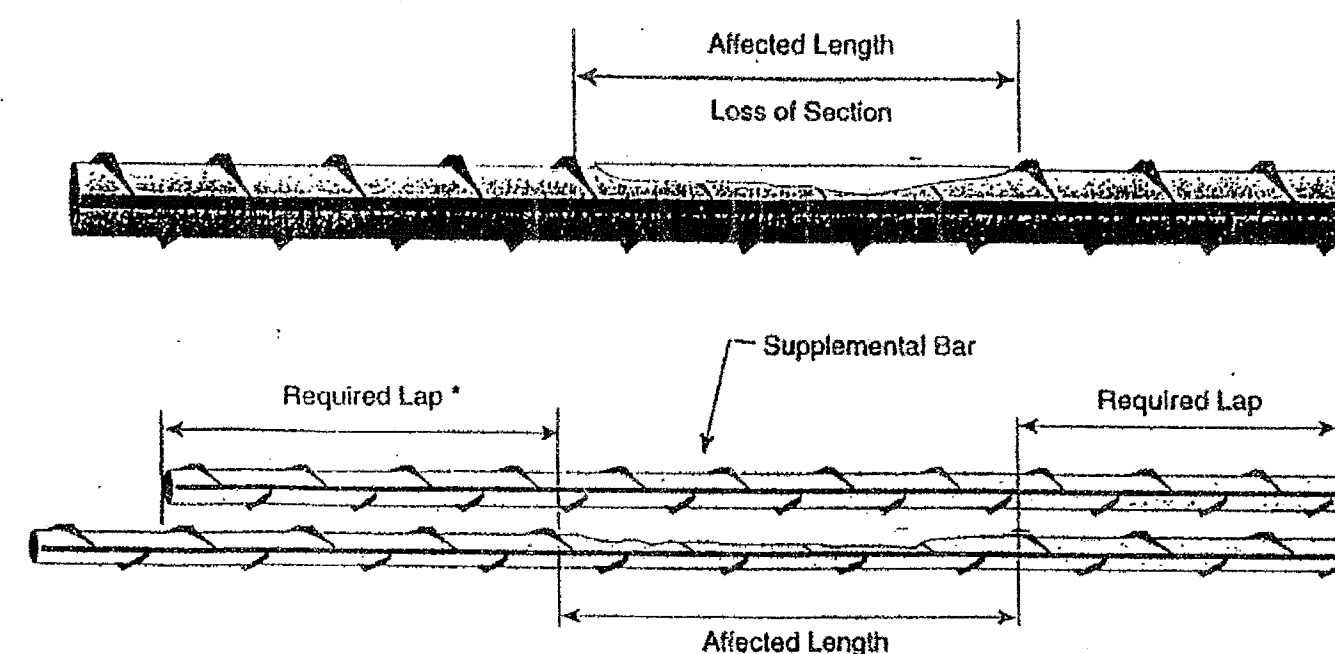


### Repair of Reinforcing Steel Due to Loss of Section

If reinforcing steel has lost significant cross section, a structural engineer should be consulted. If repairs are required to the reinforcing steel, one of the following repair methods should be used:

- Complete bar replacement, or
- Addition of supplemental bar over affected section.

New bars may be mechanically spliced to old bars or placed parallel to and approximately 1/4 in. (19 mm) from existing bars. Lap lengths shall be determined in accordance with ACI 318; also refer to CRSI and AASHTO manual.



### ACI CODE REQUIREMENTS

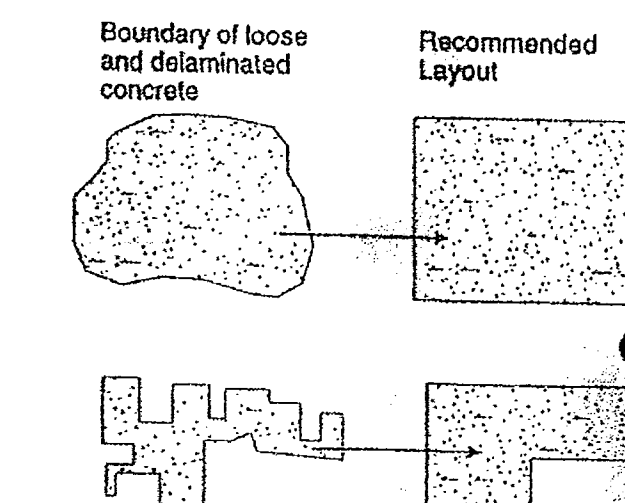
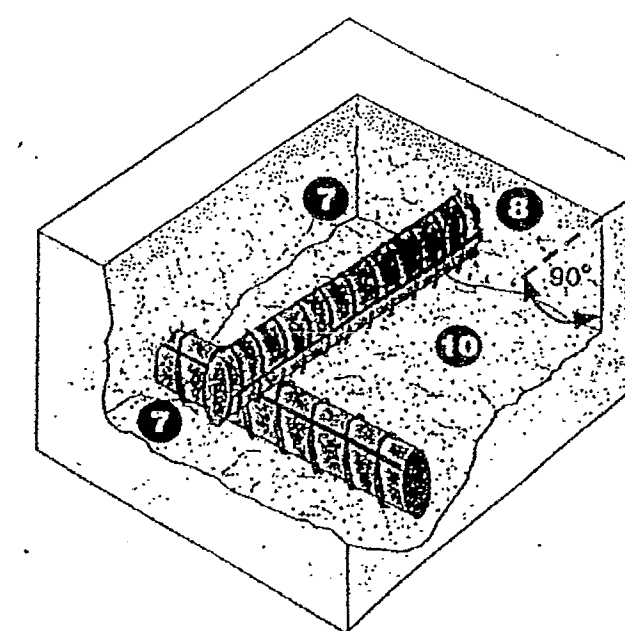
ACI 315 and ACI Manual of Standard Practice  
ACI 318 Building Code Requirements for Reinforced Concrete  
ACI 506 Edge Preparation Guidelines  
ACI 506.2 Specification for Materials, Proportioning, and Application of Shotcrete  
ACI 506.4R-94 Guide for the Evaluation of Shotcrete  
ACI 546R-96 Concrete Repair Guide  
ACI 224.1-93 (98) Causes, Evaluation & Repair of Cracks in Concrete Structures  
ACI 228.1R In-Place Methods for Determining of Concrete Strength

## Edge and Surface Conditioning of Concrete

These details are applicable to horizontal, vertical, and overhead locations. They are also applicable to removal by hydro-demolition, hydromilling, and electric, pneumatic or hydraulic impact breakers.

*Do not use these details for shotcrete applications for shotcrete repairs refer to ACI 506 Edge Preparation Guidelines.*

- 1 Remove delaminated concrete, undercut reinforcing steel (refer to "Exposing and Undercutting of Reinforcing Steel" on page 3), remove additional concrete as required to provide minimum required thickness of repair material.
- 2 At edge locations, provide right angle cuts to the concrete surface with either of the following methods:
  - Sawcut 1/2" (13 mm) or less as required to avoid cutting reinforcing steel.
  - Use power equipment such as hydrodemolition or impact breakers. Avoid feather edges.
- 3 Repair configurations should be kept as simple as possible, preferably with squared corners.
- 4 After removals and edge conditioning are complete, remove bond inhibiting materials (dirt, concrete slurry, loosely bonded aggregates) by abrasive blasting or high pressure waterblasting with or without abrasive. Check the concrete surfaces after cleaning to insure that surface is free from additional loose aggregate, or that additional delaminations are not present.
- 5 If hydrodemolition is used, cement and particulate slurry must be removed from the prepared surfaces before slurry hardens.



### Concrete Repair Recommendations

The following is our recommended repair procedure for all spalled concrete areas. The specific areas include concrete slabs, concrete columns, beams or any additional observed conditions. We recommend concrete repair for the structural elements and submit the following procedure described as follows:

1. Remove all loose and deteriorated concrete with a light-chipping hammer in all areas that exhibit concrete cracks and areas that are spalled.
2. Randomly test areas with a hammer to determine any additional areas for removal. Do not remove any sound concrete from around rebar.
3. Tie-up and secure any sagging re-bar and support as required. Do not remove any existing re-bar without prior authorization.
4. Replace deteriorated re-bar only as required by the Engineer.
5. Wire brush all exposed re-bar to remove all loose scale, concrete and rust.
6. All cleaned re-bar should be coated with a rust inhibitor as soon as possible after cleaning. The following are acceptable coatings:
  - a. Sika Top 110 Armatex, by Sika Chemical Co.
  - b. Zinc Rich Epoxy Primer, B-6270, by Delta Labs
  - c. Corr-bond Euclid Chemical Co.
  - d. Sonoborn "Sonoprep"
  - e. Approved Equals.
7. The patching material should be a cement-based product designed specifically as a patching material. The following are recommended products that must be mixed, applied, etc., in accordance with the manufacturer's recommendations:
  - a. Thorite, by Thoro Products,
  - b. Eucco Verticoat, by Euclid Chemical,
  - c. Sonoborn "Gelpatch"
  - d. Sikacrete 211, by Sika Chemical.
  - e. sika top 122 plus, by Sika chemical.
8. Apply patching to all prepared surfaces either by hand or sprayed finished sufficiently to match the adjacent concrete surfaces. concrete may be used to repair the undersides of the main beams. All work to be performed by a qualified application contractor in accordance with approved procedures and recommendations.

City of Miami Beach  
Fire Prevention Division  
PLANS APPROVED



*Handwritten signature and date 7/2/94*

Edward A. LANDERS, P.E.  
CONSULTING ENGINEERS  
7550 NW 145TH STREET, SUITE 208, MIAMI LAKES, FL 33181  
Tel: (305) 823-3938  
Fax: (305) 823-9355

# CONCRETE REPAIR

## PERMIT SET

DWG INFO:  
1413474

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ONLY AND SHALL NOT BE USED OR  
REPRODUCED FOR ANY OTHER PURPOSE  
WITHOUT THE WRITTEN CONSENT. CONTRACTORS SHALL  
VERIFY ALL DIMENSIONS AND SHALL NOT  
RELY ON SCALED DIMENSIONS. NOTIFY THE  
ENGINEER OF ANY DISCREPANCIES PRIOR TO  
COMMENCING WORK.

APPROVED BY	DATE

# BIG PINK BUILDING

157 COLLINS AVE  
MIAMI BEACH, FLORIDA 33139

S-3  
SHEET NUMBER

B1405045

157 Collins

ALL



**PERMIT NUMBER**

B4400347

**ADDRESS**

\_\_\_\_\_

13

B9400397

13

+

12

+

~~Asbestos~~ Reports for  
Roofing

**S. D. I.**

Architecture • Engineering • Interior • Inspections • Construction Management

STRUCTURAL DESIGN, INC.

**INSPECTION REPORT**

**TO:** City Of Miami Beach  
Building Department  
555 Hank Meyer Blvd.  
Miami Beach, Florida 33139

**PROJECT:** 157 Collins Ave.  
Miami Beach, Fl

**CONTRACTOR:** Construction International, Inc  
6915 Red Road, Suite 213-c  
Coral Gables, Fl 33143

**PERMIT NO:** B-9400397

**INSPECTOR:** Farrokh Rasekhi, P.E.

**DATE OF INSP.:** Aug. 25, 1995

**WEATHER:** Sunny

**CONSTRUCTION PHASE:** Beams and columns

**CONSTRUCTION AREA:** Exterior walls on the South and West

**WORK DESCRIPTION:** Inspection of the reinforcements and forming of the proposed reinforcements in the columns on the North and West walls, including the existing beams

**REMARKS:** All reinforcements were inspected and instructions given on adding new bars at all areas requiring additional bars.

BY

*Farrokh Rasekhi* 8/25/95  
FARROKH RASEKHI, P.E.  
Fl. Registration #38001  
Special Inspector #919

13

RECEIVED

APR 15 1997

CITY OF MIAMI BEACH  
BUILDING DEPARTMENT

LOCATION SKETCH

Scale: N.T.S.

FLOOD ZONE: AE THIS IS A FLOOD HAZARDOUS ZONE  
COMMUNITY PANEL NO 125003 ; PANEL NO 122 SUFFIX F  
BASE FLOOD ELEV. - 8.00'  
LOWEST FIN. FL. ELEV. - 8.77'  
HIGHEST ADJ. GRADE - 6.77'

OFFICE COPY

CITY OF MIAMI BEACH

ENCROACHMENTS NOTED: 1

UNDERGROUND ENCROACHMENTS, IF ANY, UNAPPROVED FOR PERMIT BY THE FOLLOWING:

CERTIFIED TO: FIRST BANK OF FLORIDA INC. AND  
COMMERCIAL LAND TITLE INSURANCE CO.  
BILL F. & LYNN WILSON SPOKES  
UNION TITLE SERVICES, INC. ZONING: 100-116/97

PLUMBING: \_\_\_\_\_  
ELECTRICAL: \_\_\_\_\_ BLOCK: 1  
SURVEY OF LOT: 7  
SUBDIVISION: BAYVIEW VILL SUBDIVISION 124-100-0000  
ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK NO. 152 AT PAGE No. 152  
PUBLIC RECORDS OF: 124-100-0000 COUNTY, FLORIDA  
ENGINEERING: \_\_\_\_\_  
PUBLIC WORKS: \_\_\_\_\_  
I hereby certify that the above described property is true and correct to the best of my knowledge and belief as surveyed and plotted under my direction. I further certify that this survey meets the minimum requirements adopted by the Society of Professional Land Surveyors and the Florida Legislature. There are no encroachments noted on this survey.  
Notes: 1. If shown bearings are to an assumed meridian (By plot)  
2. If shown elevations are referred to M.S.L. (By plot)  
3. This is a land survey closure above 1:7500  
4. D.C. & N.E. A-54 - ELEVATION 114.27 FEET  
THOMAS J. KELLY, Inc. (Not Valid Unless Imprinted With An Embossed Surveyor's Seal)  
SCALE: F=

THOMAS J. KELLY INC.	
255 ALHAMBRA CIRCLE SUITE # 404	
CORAL GABLES, FLORIDA. 33134	
FOR: BILL F. & LYNN WILSON SPOKES	
DATE: 4/10/97	(305) 444-7892
SURVEY: 91-1368	SHEET 1 OF 1

13

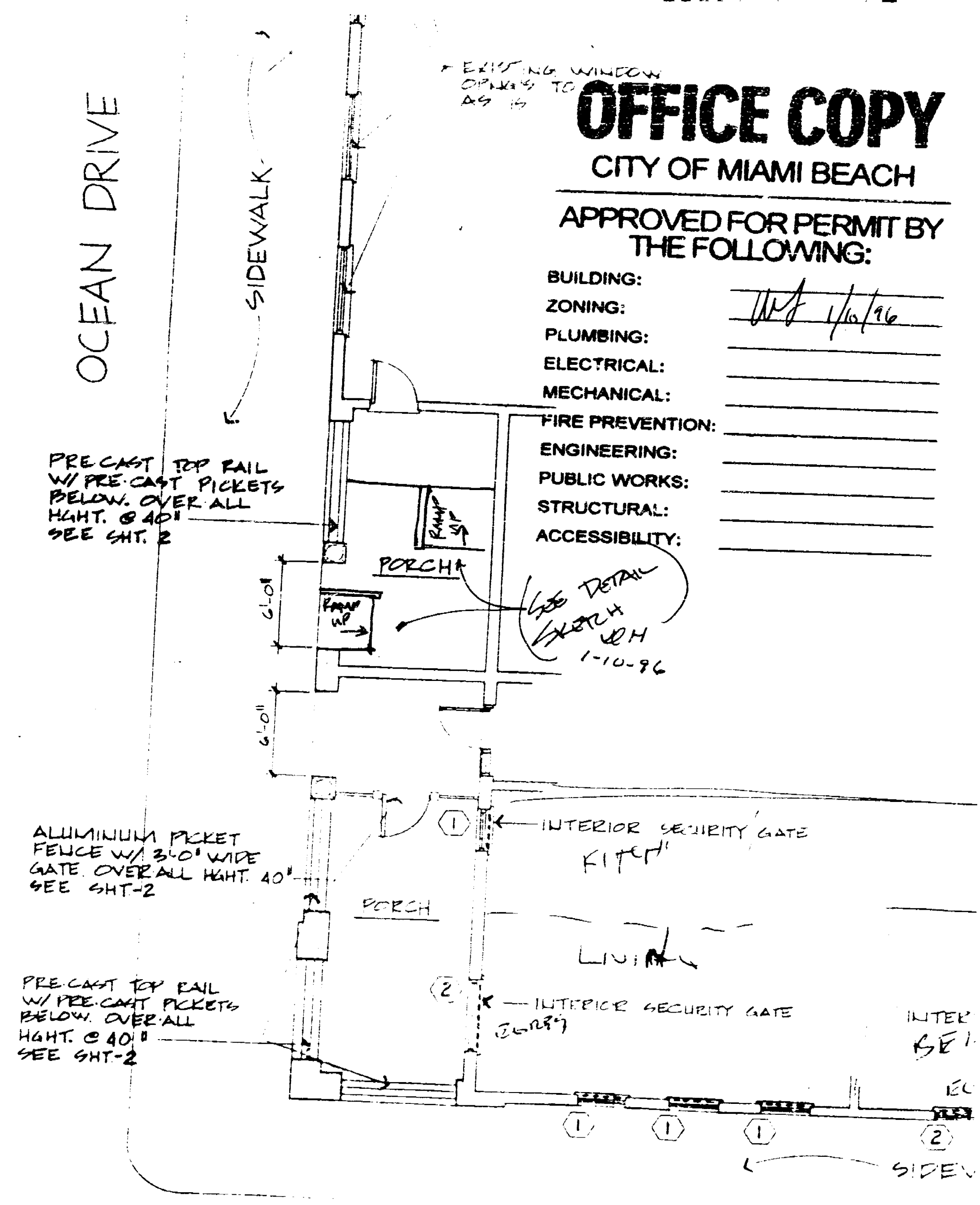
IN 10-10-14

# OFFICE COPY

CITY OF MIAMI BEACH

APPROVED FOR PERMIT BY  
THE FOLLOWING:

BUILDING:	
ZONING:	WF 1/10/96
PLUMBING:	
ELECTRICAL:	
MECHANICAL:	
FIRE PREVENTION:	
ENGINEERING:	
PUBLIC WORKS:	
STRUCTURAL:	
ACCESSIBILITY:	



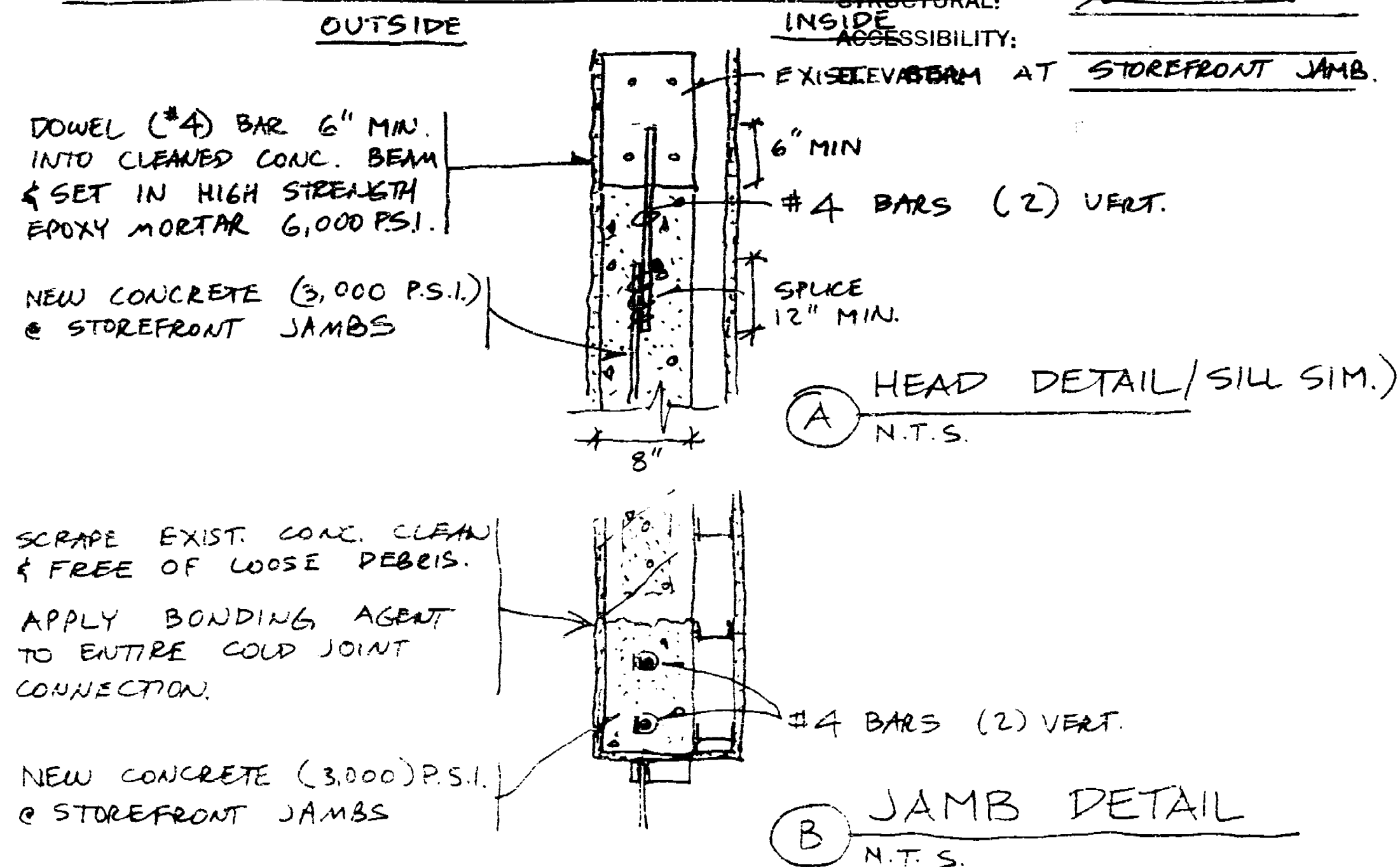
# JOB COPY

BLAKE THORSON, AIA CITY OF MIAMI BEACH

DATE: JAN. 7, 1997  
TO: BUILDING INSPECTOR  
RE: VOLK RETAIL  
124 11TH ST.  
MIAMI BEACH, FL 33139  
JOB NO. 9636  
PERMIT NO. B9700715

APPROVED FOR PERMIT BY  
THE FOLLOWING:

BUILDING: 1/7/97  
ZONING: \_\_\_\_\_  
PLUMBING: \_\_\_\_\_  
ELECTRICAL: \_\_\_\_\_  
MECHANICAL: \_\_\_\_\_  
FIRE PREVENTION: \_\_\_\_\_  
ENGINEERING: \_\_\_\_\_  
PUBLIC WORKS: \_\_\_\_\_  
STRUCTURAL: 1/7/97



Blake  
Thorson

BLAKE THORSON ARCHITECTURE & DESIGN, INC.  
(BTAD)

419 C ESPANOLA WAY, 2ND FLOOR, MIAMI BEACH, FL 33139  
TEL 305.531.1800 FAX 305.3889 BPR 732.3571 LIC# AA0002769

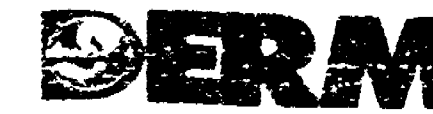
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METROPOLITAN DADE COUNTY, FLORIDA



September 18, 1996



ENVIRONMENTAL RESOURCES MANAGEMENT  
WATER AND SEWER DIVISION  
33 S.W. 2nd AVENUE  
SUITE 500  
MIAMI, FLORIDA 33130-1540  
(305) 372-6500

Mr. Vincent Akhimie  
Director of Public Works Dept.  
City of Miami Beach  
1700 Convention Center Drive  
Miami Beach, FL 33139

RE: Sewer Connection Approval For Lago Properties L.C.  
832 Collins Avenue, Miami Beach, FL

Dear Mr. Akhimie:


This Department has evaluated plans and documents related to the above referenced project which is more particularly described below.

PREV. USE: residential PROP. USE: retail  
PREV. FLOW: 4000 GPD PROP. FLOW: 442 GPD  
JOB DESCRIPTION: conversion of 20 existing 8964 sq.ft. of  
apartment units @ 200 GPD per unit to a retail space @  
5/100 sq.ft.

Based on this evaluation, it has been determined that this project will not result in an increase of flows to the sanitary sewer collection/transmission system over and above the flows from the most recent use at the property. Accordingly, this request is found to be in compliance with the provisions of the First Partial Consent Decree (Case No. 93-1109 CIV MORENO) between Metropolitan Dade County and the United States of America, and a Sewer Service Capacity Certification Letter is not required.

By copy of this letter we are advising the appropriate building official of our Department's determination. Should you have any further questions regarding this matter, please contact the Water and Sewer Division at 372-6524.

Sincerely,

  
Vicente E. Arrebola, P.E.  
Chief, Water & Sewer Division

VEA:rmg

cc: Paul Gioia  
Daniel Aubray

13

METROPOLITAN DADE COUNTY, FLORIDA



September 18, 1996

ENVIRONMENTAL RESOURCES MANAGEMENT  
WATER AND SEWER DIVISION  
33 S.W. 2nd AVENUE  
SUITE 500  
MIAMI, FLORIDA 33130-1540  
(305) 372-6500

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Director of Public Works Dept.  
City of Miami Beach  
1700 Convention Center Drive  
Miami Beach, FL 33139

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832 Collins Avenue, Miami Beach, FL

Dear Mr. Akhimie:

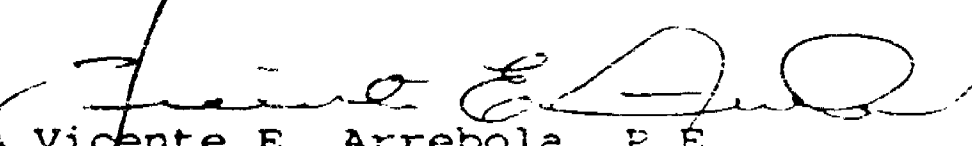
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Vicente E. Arrebola, P.E.  
Chief, Water & Sewer Division

VEA:rmg

cc: Paul Gioia  
Daniel Aubray

13

# CITY OF MIAMI BEACH

1700 CONVENTION CENTER DRIVE, MIAMI BEACH, FLORIDA 33139



ENGINEERING & CONSTRUCTION MANAGEMENT

Telephone: (305) 673-7620  
Fax: (305) 673-7647

## WATER AND SEWER VERIFICATION FORM

DATE: September 11, 1996

NAME OF OWNER: LAGO Properties, L.C. % Cantor & Morante

MAILING ADDRESS: 777 Brickell Ave. Suite 500 Miami, FL 33131

PROPERTY ADDRESS: 832 Collins Avenue Miami Beach, FL 33139

PROPERTY LEGAL DESCRIPTION: Ocean Beach Addition No #1: PB 3-11 Lot 4:  
Block 32

FOLIO NUMBER: 4203-004-0460

The above referenced property is serviced by:

An existing 8" inch Gravity Sewer Main.

An existing 6" inch Water Main.

Further approval of all service connection must be obtained from D.E.R.M.

By: [Signature]

Print Name

Denise L. Moore

13

+

652-9999

Shantell  
930-1101  
X 2378

6

13



SH 3/16 GLASS  
METROPOLITAN DADE COUNTY, FLORIDA  
METRO DADE FLAGLER BUILDING  
BUILDING CODE COMPLIANCE DEPARTMENT  
SUITE 200  
METRO DADE FLAGLER BUILDING  
140 WEST FLAGLER STREET  
MIAMI, FLORIDA 33130-1563  
(305) 375-2901  
FAX (305) 375-2908

**PRODUCT CONTROL NOTICE OF ACCEPTANCE**

Sunshine Windows Manufacturing, Inc.  
1745 W. 33rd. Place  
Hialeah, FL 33012

Please File with  
B 9600 976 Days

Your application for Product Approval of:  
*Series 2000 Aluminum Single Hung Window*  
under Chapter 8 of the Metropolitan Dade County Code governing the use of Alternate Materials and  
Types of Construction, and completely described in the plans, specifications and calculations as submitted  
by:

OK To Use on Job  
10/11/96

*Ernest E. Mitchell, P.E. along with Miami Testing Laboratory test report No. MTL-16175  
dated: July 9, 1994*

has been recommended for acceptance by the Building Code Compliance office to be used in Dade  
County, Florida under the Specific Conditions set forth on pages 2 et. seq. and the Standard Conditions  
on page 3 for glazed products.

This approval shall be valid for a period of four years. The Office of Code Compliance reserves  
the right to secure this product or material at anytime from a jobsite or manufacturer's plant for quality  
control testing. If this product or material fails to perform in the approved manner, the Code Compliance  
Department may revoke, modify, or suspend the use of such product or material immediately. The Building  
Code Compliance Department reserves the right to require retesting of this product or material should any  
amendments to the South Florida Building Code be enacted affecting this product or material.

The expense of such testing will be incurred by the manufacturer.

Acceptance No. 94-0726 03

Expires: 07/31/98

*Gil Diamond*  
Gil Diamond, P.E.  
Product Control Division  
Supervisor

~~THIS IS THE COVERSHEET, SEE ADDITIONAL PAGES FOR SPECIFIC AND GENERAL  
CONDITIONS.~~

**BUILDING CODE COMMITTEE**

This application for Product Approval has been reviewed by the Metropolitan Dade County Building  
Code Compliance Department and approved by the Building Code Committee to be used in Dade  
County, Florida under the conditions set forth above

*Charles Danger*  
Charles Danger, P.E.  
Director  
Building Code Compliance Dept  
Metropolitan Dade County

Approved: 09/12/94

13

Sunshine Window Mfg. Inc.

ACCEPTANCE No.: 94-0726.03

APPROVED : SEP 12 1994

EXPIRES : July 31, 1998

NOTICE OF ACCEPTANCE: SPECIFIC CONDITIONS

DESCRIPTION OF UNIT

MODEL DESIGNATION:

Series 2000 Aluminum Single  
Hung Window

ASSIGNED ACCEPTANCE MARKINGS

ANSI-AAMA 101-93 DII-R70

AAMA 1302.5-76

Dade County Approval # 94-0726.03

Expires: July 31, 1998

OVERALL SIZE:

4' 5 1/4" wide by 5' 3" high by 2" deep

CONFIGURATION: O/X

No. & SIZE OF VENTS: One, 50 1/2" by 31 7/8" high; one fixed light frame glazed at the top with a clear opening of 48 1/4" by 28" high (O/X).

WEATHERSTRIPPING: Single pile in fixed meeting rail and vent jamb rails on exterior. Single vinyl bulb in vent bottom rail. One adhesive open cell foam pad at each lower frame corner. One plastic guide at each end of the vent jamb rails on the interior.

OPERATORS & LOCATIONS: Spiral balances. One plastic cam lock at vent meeting rail, 12 1/2" from each end, locking into a groove in the fixed meeting rail.

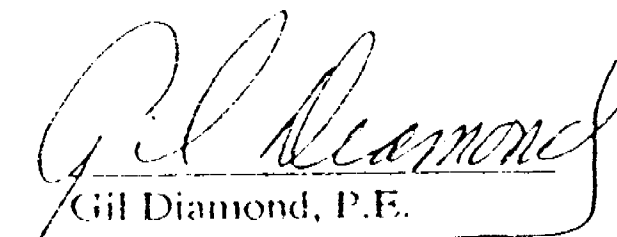
GLAZING MATERIAL: 3/16" annealed glass.

GLAZING METHOD: Interior glazed using clear adhesive bedding compound and glazing foam tape and aluminum extruded snap-on glazing bead with a vinyl bulb between bead and glass.

WEEPHOLES: One 1/2" weep notch at each end of exterior sill screen retainer.

MUNTINS: None

REINFORCEMENT: None

  
Gil Diamond, P.E.  
Product Control Division  
Supervisor

13

Sunshine Window Mfg. Inc.

ACCEPTANCE No.: 94-0726.03

APPROVED : SEP 12 1994

EXPIRES : July 31, 1998

**NOTICE OF ACCEPTANCE: SPECIFIC CONDITIONS**

**FRAME AND VENT CONSTRUCTION:** Frame corners and fixed meeting rail, butt corner construction, using two No. 8 by 1" sheet metal screws; vent, lower corners constructed with two No. 8 by 1 1/4" sheet metal screws; upper corners, two No. 8 by 1 1/2" sheet metal screws.

**ADDITIONAL DESCRIPTION:** Flange type frame. 3" high overall interior sill flange. Unit tested using high rise vent bottom rail. Unit tested in 2 x 6 PT wood test buck and installed with three No. 10 by 1 1/2" sheet metal screws in frame sill and head; four of same type screws in each frame jamb.

TEST	RESULTS
EXTERIOR WIND LOAD (PSF) ASTM E330 POSITIVE	+105.0 PSF
INTERIOR WIND LOAD (PSF) ASTM E330 NEGATIVE	-105.0 PSF
WATER RESISTANCE (PSF) ASTM E547/E331	14.70 PSF
AIR INFILTRATION @ 1.57 PSF ASTM E283 (<0.37 CFM/FT)	0.13 CFM/FT
FORCED-ENTRY RESISTANCE (FER) AAMA 1302.5-76	MTL-16175
Design Pressure Rating (Positive)	+70.0 PSF
Design Pressure Rating (Negative)	-70.0 PSF

*Gil Diamond*  
Gil Diamond, P.E.  
Supervisor  
Product Control Division

13



Sunshine Window Mfg. Inc.

ACCEPTANCE No.: 94-0726.03

APPROVED : SEP 12 1994

EXPIRES : July 31, 1998

NOTICE OF ACCEPTANCE: SPECIFIC CONDITIONS

INSTALLATION:

SCREWS AND METHOD OF ATTACHMENT:

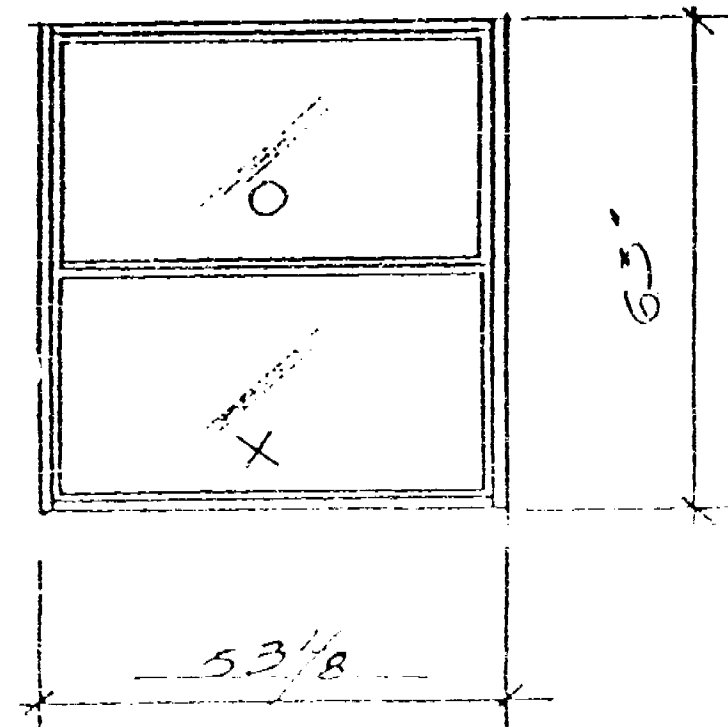
**SILL** : #10 x 1 1/2" FH SMS @ a max. of 6" from corners and a max. of 24" apart.

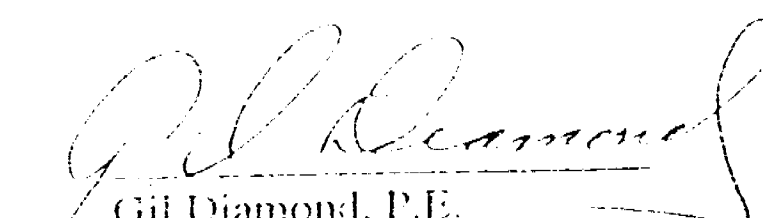
**HEAD** : #10 x 1 1/2" FH SMS @ a max. of 6" from corners and 21" apart.

**JAMBS** : #10 x 1 1/2" FH SMS @ a max. of 6" from corners and a max. of 17" apart.

Note: Please see note #11, Page 3

A copy of this approval as well as manufacturer's installation instructions shall be provided to the permit applicant by the manufacturer or his distributors and shall be available for inspections at the jobsite at all time.



  
Gil Diamond, P.E.  
Supervisor  
Product Control Division

Sunshine Window Mfg. Inc.

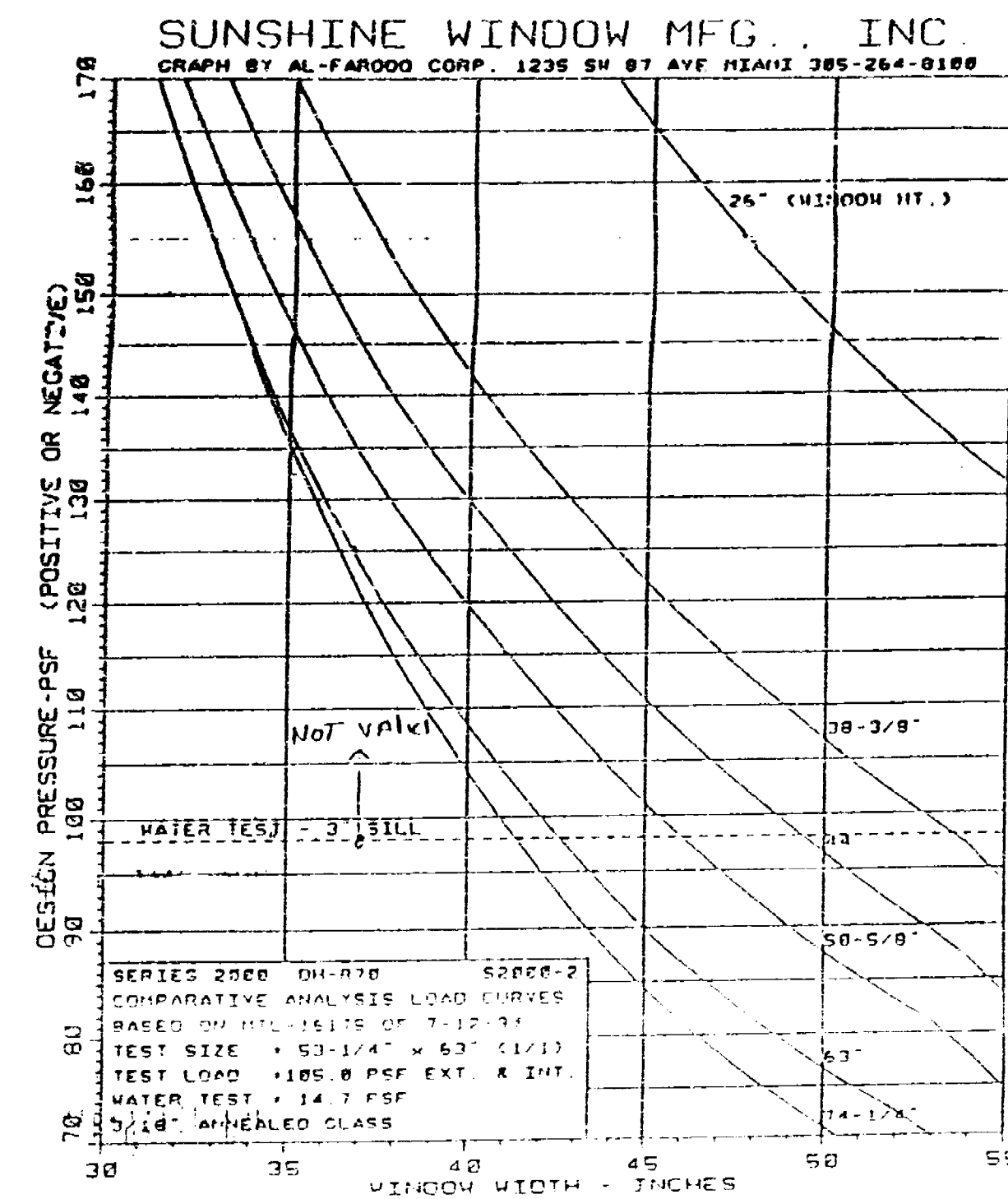
ACCEPTANCE No.: 94-0726.03

APPROVED : SEP 12 1994

EXPIRES : July 31, 1998

NOTICE OF ACCEPTANCE: SPECIFIC CONDITIONS

Comparative Analysis



Gil Diamond, P.E.  
Supervisor  
Product Control Division

13

Sunshine Window Mfg. Inc.

ACCEPTANCE No.: 94-0726.03

APPROVED : SEP 12 1994

EXPIRES : July 31, 1998

NOTICE OF ACCEPTANCE: SPECIFIC CONDITIONS

This approval applies to single unit applications only, as shown on page 2b.

Units with dimensions smaller than those shown above shall qualify under this approval.  
Deviations are accepted only thru comparative analysis.

Sub-bucks shall be of pressure treated material at least 2" nominal thickness, and secured in at least 6 points on each leg with 3" or equivalent fasteners.


Fasteners must have their own Notice of Acceptance and must be made of stainless steel or have adequate protection against corrosion, per DIN 50018. Aluminum contacting metals not considered compatible shall be properly protected.

APPROVED FOR

Design Pressure Rating of positive +70.0 p.s.f. and negative -70.0

p.s.f.

Note: The installation of this unit will require a hurricane protective system. }

  
Gil Diamond, P.E.  
Supervisor  
Product Control Division

13



METROPOLITAN DADE COUNTY, FLORIDA  
METRO-DADE FLAGLER BUILDING

NOTICE OF ACCEPTANCE: STANDARD CONDITIONS FOR GLAZED PRODUCTS

1. For multiple window installations, approved mullion drawings and calculations must be filed with Product Control.
2. This Acceptance will qualify smaller units of the same design and as the unit tested.
3. **Any and all approved products shall be permanently labeled with the manufacturer's name, city, state, and the following statement: "Dade County Product Control Approved."**
4. **Extension of Acceptance may be considered after a new application has been filed and the supporting data, for test reports less than four (4) years old, has been re-evaluated.**
5. **Any revision or change in materials, use or manufacture of the product shall automatically be cause for termination, unless prior approval is granted for revision or change.**
6. Any unsatisfactory performance of this product or a change in Code provisions shall be grounds for re-evaluation.
7. This Acceptance shall not be used as an endorsement of any product sales or advertising purposes.
8. Aluminum windows and sliding doors have been tested in accordance with ANSI AAMA 101-93 or for wood window unit by ANSI/NWDA I.S. 2-93 and sliding doors ANSI/NWDA I.S. 3-88 and swing doors ANSI/NWDA I.S. 8-88.
9. Swinging doors shall be tested for positive and negative wind pressures as per Chapter 23 of the South Florida Building code.
10. Hardware for all windows and doors shall conform to Security and Forced Entry Prevention, Chapter 36 of the South Florida Building Code.
11. The spacing of fasteners shall be as tested or 24" whichever is less.
12. The first fastener shall be located a maximum of 6" from each corner and mullion or stile. Minimum penetration of fastener shall be as tested or 3/4" whichever is higher. No wood or plastic shields or pins shall be used.

Unless otherwise noted, all products must be tested in accordance with the South Florida Building Code, Chapter 23, and Chapter 36, and must be tested in accordance with the South Florida Building Code, Chapter 23, and Chapter 36.

13

PERMIT #

B 94000397

ADDRESS

1680 Michigan Av.

CITY OF MIAMI BEACH
PERMIT: 4/13/05
ATTN: Building Official
I, the undersigned, a Professional Engineer, Registered Architect, registered in the State of Florida, have been retained by the owners, LAURENCE F. KATZ, to perform all the duties of a Special Inspector, as defined in Section 305.3 of the South Florida Building Code.

CITY OF MIAMI BEACH
PERMIT: 4/13/05
Project Number: 45418755
157 COLLINS AV
Permit Number: 45418755
Status: APPROVED
This type: APPLICATION BUILD
Date Applied: 07/01/94
Date Approved: 09/06/94
Date Completed: 09/06/94
Date to Expire: 09/06/94

CITY OF MIAMI BEACH
PERMIT: 4/13/05
Project Number: 45418755
157 COLLINS AV
Permit Number: 45418755
Status: APPROVED
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Date Approved: 09/06/94
Date Completed: 09/06/94
Date to Expire: 09/06/94

B940000 397

**INSTRUCTIONS FOR SPECIAL INSPECTORS**

1. A special inspector and a threshold special inspector are each private professionals who are working for and with the consent of the Building Official.

2. No matter who is paying the bills, when it comes to the inspections to be made, only the requirements of the code, the Building Official and your own expertise and experience should be considered.

3. As an inspector you (the Special Inspector) are present to observe and to reach one of the three possible conclusions:  
a. "this is correct". It is in close compliance with approved drawings and the code.  
b. "this is not correct". It is not close compliance etc.  
c. "no decision can be made" usually due to insufficient information, the following is needed:

4. Inspections are made on an as required basis, the only exception to this is threshold buildings which require by law that all work of structural nature be inspected by a threshold Certified Special Inspector on a continuous basis. As a special inspector you must remind the contractor that he/she still has a responsibility to notify the Cities Building & Trade Inspectors of all mandatory inspections so that they can perform a complimentary inspection desired.

5. A written report is required for each day of inspection on each project. This report will list inspection made and conclusions reached. If any action is taken, said action will be detailed. If any item of inspection is "not approved" or any other problem is perceived, it shall be presented to the Building Official as part of the inspection report. All problems and failures reported must be followed up in subsequent reports detailing what actions were taken to correct the deficiencies.

6. Copies of all field reports and such other information as shall be necessary to specify the "conditions" of the structures under construction shall be kept on the job site as an inspection log. Signed and sealed copies of all field reports, and such other information as is necessary shall be submitted at regular intervals not to exceed 30 (thirty) working days. The special inspector will make himself/herself available should the Building Official require additional information.

7. As a special inspector, you have a great responsibility to help preserve the public safety. All dangerous conditions must be reported in writing to the Building Official as quickly as possible. Conditions which are immediately dangerous will require further action. Common sense will be required in determining a proper response to any situation.

B94000397



City of Miami Beach  
Building Department  
555 East Sunset Blvd. (17th St.)  
Miami Beach, Florida 33139  
(305) 673-7610 Hours of Operation 8:30 to 5:00

157 COLLINS AV  
Permit Number: B9406397  
Project Number: A9410755

TOTAL THIS DATE	
*** Fees Required ***	160.30
*** Fees Collected & Credits ***	
Fees:	160.30
Adjustments:	.00
Total Fees:	160.30
Total Credits:	.00
Total Payments:	160.30
Balance Due:	.00

Distribution: 1-Building Inspection (with Cashier Stamp), 2-Building Insp  
3-City Accounting Division, 4-Metro Dade Co. Tax Assessor Dept., 5-Applicant  
(Rev: 9001, PFBIDG01.en)

CITY OF MIAMI BEACH  
Building Department  
555 East Sunset Blvd. (17th St.)  
Miami Beach, Florida 33139  
(305) 673-7610 Hours of Operation 8:30 to 5:00

DATE: 4/18/75

ATTENTION: BUILDING OFFICIAL

OWNER'S AFFIDAVIT

I, LAWRENCE F. KALIE certify that I am the owner of the property described as:

ADDRESS: 157 COLLINS AVE  
LOT: 116 BLOCK: 2 SUBDIVISION: OCEAN BEACH

I authorize to obtain a building permit for the following work: WINDOWS & DOORS STRUCTURAL REPAIRS  
TO BEACHES RESTAURANT

On this the 18 day of April, 1975  
before me, the undersigned Notary Public of the State of Florida, personally appeared:  
LAWRENCE F. KALIE  
and whose name(s) is/are subscribed to the within instrument, and he/she/they acknowledged that he/she/they executed it.  
Witness my hand and official seal.  
NOTARY PUBLIC, STATE OF FLORIDA

(Type of Notary Public: Print or Type as Commissioner)  
Personally known to me, or  
Produced ID: \_\_\_\_\_ (Type of ID Produced)  
DID take an oath, or  
DID NOT take an oath.

NOTICE OF COMMENCEMENT MUST BE FILED IF JOB VALUATION EXCEEDS \$ 2,500.00 IN LABOR AND MATERIAL.  
NOTICE OF COMMENCEMENT MUST BE POSTED PRIOR TO JOB COMMENCING  
NOTICE OF COMMENCEMENT CAN BE FILED AT:  
44 WEST FLAGLER STREET, 5TH FLOOR, MIAMI, FLORIDA

#### WARNING TO OWNER

Your failure to record a notice of commencement may result in your paying twice for improvements to your property.

If you intend to obtain financing, consult with your lender or an attorney before recording your Notice of Commencement. If not seeking financing, contact your attorney or the Florida Department of Agriculture and Consumer Services. A failure to understand your rights and responsibilities may result in your either having to pay for the work two (2) times or losing your property if you do not pay.

#### WHAT IS THE CONSTRUCTION LIEN LAW?

A. The new Florida "Construction Lien Law" (Chapter 71, Florida Statutes, as amended) is the current law which replaces the older Mechanics Lien Law. The Construction Lien Law is a method by which a contractor may file a lien on real property which they have performed work or provided materials.

#### WHEN DOES THE CONSTRUCTION LIEN LAW APPLY TO ME?

A. Yes! If.....

\* You own an interest in real property that is being improved.

\* The cost of the improvements exceeds \$2,500.00.

\* You are employing someone other than yourself to supply materials & labor.

#### WHEN DOES THE CONSTRUCTION LIEN LAW BECOME EFFECTIVE?

A. Section 13, Conditional Payment of Bonds, requires that the contractor file a bond with the Clerk of the Circuit Court in the county where the work will be performed, and post a certified copy of the bond with the Clerk of the Circuit Court in the county where the work will be performed.

#### WHY SHOULD I, AS A PERSON WHO WILL, BE EMPLOYED BY THE CONSTRUCTION LIEN LAW?

A. Because a failure to make proper construction payments can result in a lien being filed which may result in your property being sold to satisfy the debt.

#### WHY SHOULD I, AS A PERSON WHO WILL, BE EMPLOYED BY THE CONSTRUCTION LIEN LAW?

A. Yes! When the homeowner doesn't make sure the construction payments are proper, he can again be required to pay an unpaid laborer, material man,

subcontractor, or other person to the extent of the unpaid balance of the contract.

#### WHO IS RESPONSIBLE FOR THE CONSTRUCTION LIEN LAW?

A. (With few exceptions), every person who is improving property on the State of Florida.

#### IS A HOMEOWNER, WHO STAYS OUT OF THE WAY, EXEMPT FROM THE CONSTRUCTION LIEN LAW?

A. Before you begin construction, file a F.O.C.I.C. with the Clerk of the Circuit Court in the county where the work will be performed, and post a certified copy of the bond with the Clerk of the Circuit Court in the county where the work will be performed.

#### BEFORE YOU MAKE ANY PAYMENT ON THE JOB, MAKE SURE YOU OBTAIN A RELEASE OF THE BALANCE OF THE WORK PERFORMED.

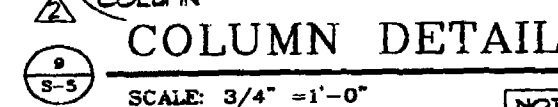
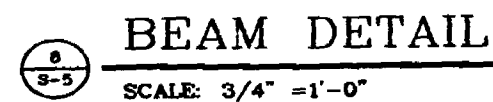
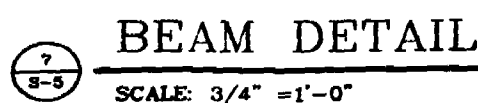
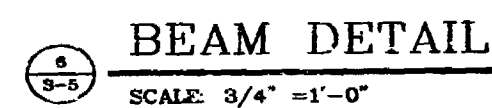
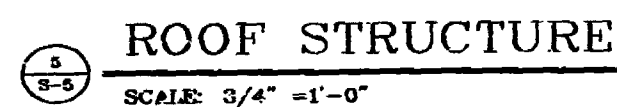
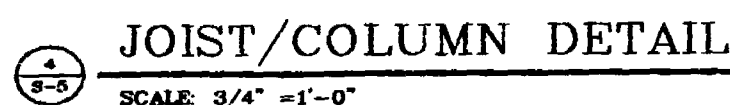
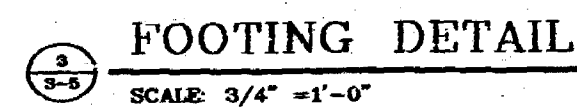
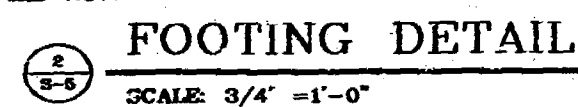
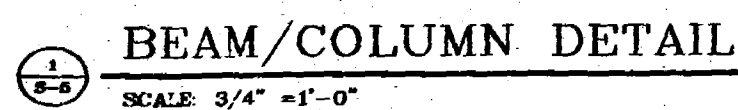
Before final payment is made, you must receive a final release of the balance of the work performed from your contractor, subcontractors, and suppliers.

#### UNDER NO CIRCUMSTANCES SHOULD YOU MAKE PAYMENT WITHOUT RECEIVING A RELEASE!

PERMIT #  
B 9400397

ADDRESS  
157 Collins Avenue





NOTE: STEEL MANUFACTURERS TO SUBMIT SHOP DRAWINGS TO ARCHITECT/ENGINEER FOR APPROVAL PRIOR TO FABRICATION

RENOVATIONS TO:  
**BIG, PINK**  
157 Collins Avenue  
Miami Beach, Florida 33139

## STRUCTURAL DETAILS

revisions

Δ 06-19-96

Δ 07-08-96

print date 05-04-96  
project code/f:ls nm BP  
scale 3/4"=1'-0"  
drawn by V.B.  
approved

S-51

# Renovations to: BIG PINK

157 Collins Avenue

Miami Beach, Florida

## LIST OF DRAWINGS

### ARCHITECTURAL

- A-0 COVER SHEET
- A-1 GROUND LEVEL FLOOR PLAN
- A-2 GROUND LEVEL REFLECTED CEILING PLAN
- A-3 SECOND FLOOR PLAN
- A-4 SECOND FLOOR REFLECTED CEILING PLAN
- A-5 ROOF PLAN
- A-6 GENERAL NOTES
- A-7 INTERIOR ELEVATIONS AND DETAILS
- A-7a INTERIOR ELEVATIONS AND DETAILS
- A-8 ENLARGED PUBLIC RESTROOMS
- A-8a ENLARGED BATHROOMS
- A-9 ARCHITECTURAL DETAILS
- A-10 SCHEDULES AND SPECIFICATIONS

### EQUIPMENT

- Q-1 EQUIPMENT PLAN
- Q-2 PLUMBING ROUGH-IN
- Q-3 ELECTRICAL ROUGH-IN

### ELECTRICAL

- E-1 GROUND FLOOR ELECTRICAL POWER PLAN
- E-2 SECOND FLOOR ELECTRICAL POWER PLAN
- E-3 GROUND FLOOR LIGHTING PLAN
- E-4 SECOND FLOOR LIGHTING PLAN
- E-5 PANELS, RISER
- E-6 NOTES

### STRUCTURAL

- S-1 FOUNDATION/GROUND FLOOR FRAMING PLAN
- S-2 SECOND FLOOR AND LOW ROOF FRAMING PLAN
- S-3 ROOF FRAMING PLAN
- S-4 STRUCTURAL BUILDING SECTIONS
- S-5 STRUCTURAL DETAILS

### PLUMBING

- P-1 GROUND FLOOR PLUMBING PLAN
- P-2 SECOND FLOOR PLUMBING PLAN
- P-3 DIAGRAM
- P-4 DIAGRAMS AND DETAILS

### MECHANICAL

- M-1 GROUND FLOOR HVAC PLAN
- M-2 SECOND FLOOR HVAC PLAN
- M-3 NOTES AND DETAILS

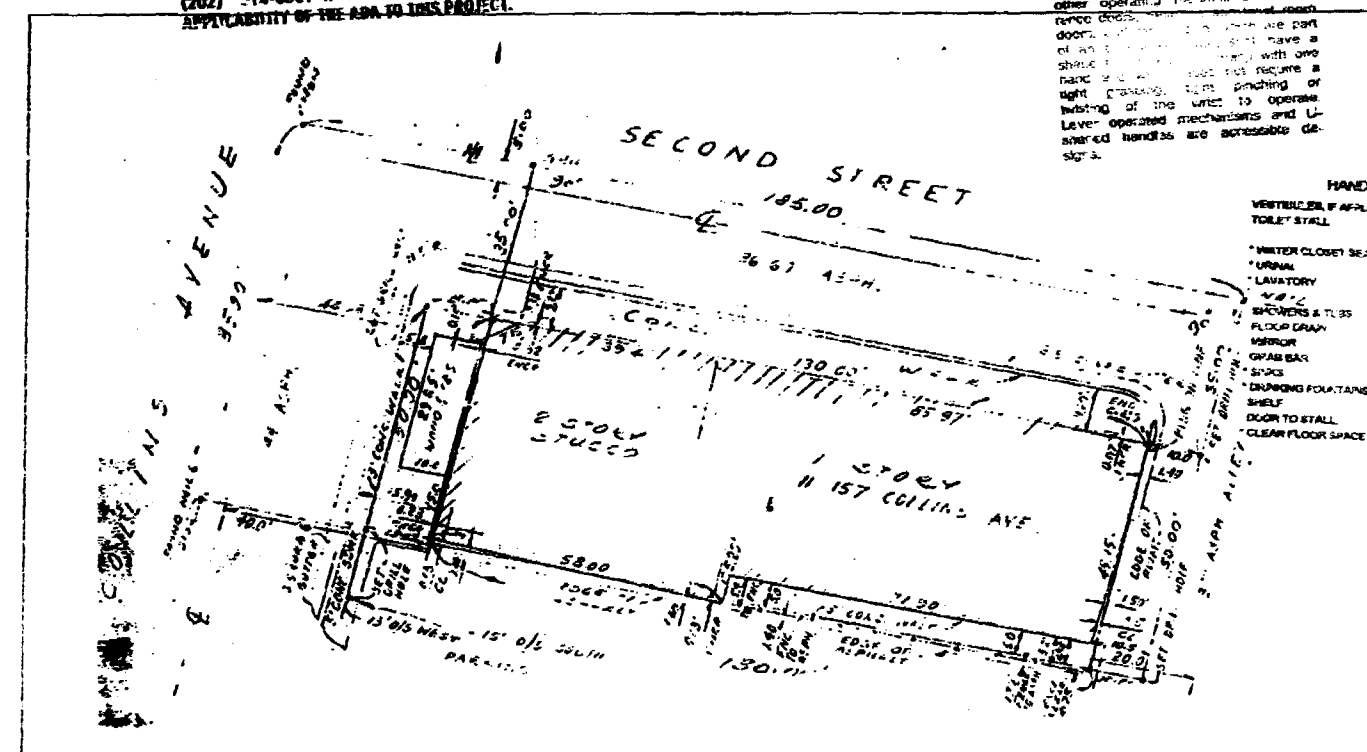
## OFFICE COPY CITY OF MIAMI BEACH

APPROVED FOR PERMIT BY  
THE FOLLOWING:

BUILDING: [Signature]  
ZONING: [Signature]  
PLUMBING: [Signature]  
ELECTRICAL: [Signature]  
MECHANICAL: [Signature]  
FIRE PREVENTION: [Signature]  
ENGINEERING: [Signature]  
PUBLIC WORKS: [Signature]  
STRUCTURAL: [Signature]  
ACCESSIBILITY: [Signature]  
ELEVATOR: [Signature]

**NOTICE TO OWNER, DESIGNER & CONTRACTOR**  
THIS PLAN HAS BEEN REVIEWED FOR COMPLIANCE WITH THE PRESENT REQUIREMENTS OF THE SOUTH FLORIDA BUILDING CODE ONLY. PLEASE CONTACT THE OFFICE OF THE AMERICANS WITH DISABILITIES ACT (ADA) AT (305) 514-0301 IF YOU HAVE CONCERNS ABOUT THE APPLICABILITY OF THE ADA TO THIS PROJECT.

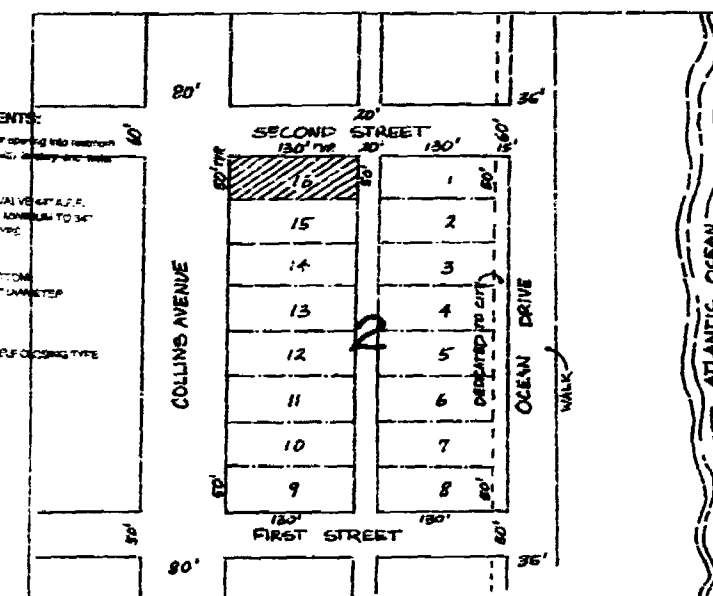
## SURVEY



DOOR HARDWARE: (Specification)  
HANDLES, PULLS, KNOBS AND OTHER OPERATING MECHANISMS ON EXTERIOR DOORS SHALL BE LOCATED AT A MAXIMUM HEIGHT OF 48 INCHES ABOVE FINISHED FLOOR. INTERIOR DOORS SHALL BE LOCATED AT A MAXIMUM HEIGHT OF 48 INCHES ABOVE FINISHED FLOOR. HANDLES, PULLS, KNOBS AND OTHER OPERATING MECHANISMS ON INTERIOR DOORS SHALL BE LOCATED AT A MAXIMUM HEIGHT OF 48 INCHES ABOVE FINISHED FLOOR. HANDLES, PULLS, KNOBS AND OTHER OPERATING MECHANISMS ON EXTERIOR DOORS SHALL BE LOCATED AT A MAXIMUM HEIGHT OF 48 INCHES ABOVE FINISHED FLOOR.

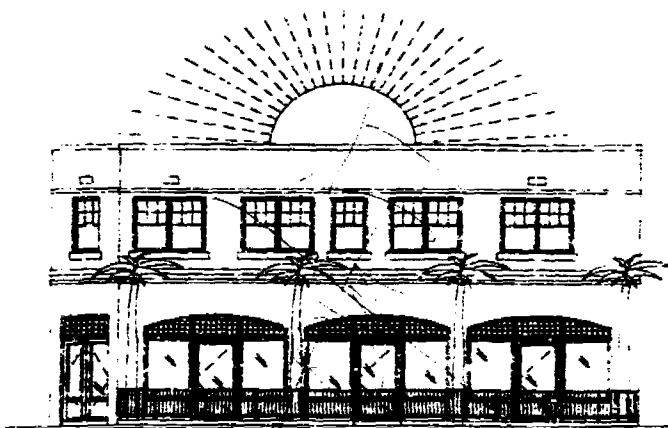
**HANDICAP MINIMUM REQUIREMENTS:**  
VERTICAL CLEARANCE: Minimum 80" for wheelchair and other mobility devices.  
TOILET STALL: Minimum 56" wide clear floor space.  
WATER CLOSET SEAT: Minimum 18" high.  
URINAL: Minimum 17" high.  
LAVATORY: Minimum 28" high.  
SINK: Minimum 28" high.  
FLOOR DRAIN: Minimum 18" high.  
SHOWER: Minimum 48" high.  
OVEN/BURNER: Minimum 34" high.  
SINK: Minimum 28" high.  
DISHWASHER: Minimum 34" high.  
REFRIGERATOR: Minimum 34" high.  
STOVE: Minimum 34" high.  
CUPBOARD: Minimum 34" high.  
COUNTER: Minimum 34" high.  
SINK: Minimum 28" high.  
DISHWASHER: Minimum 34" high.  
REFRIGERATOR: Minimum 34" high.  
STOVE: Minimum 34" high.  
CUPBOARD: Minimum 34" high.  
COUNTER: Minimum 34" high.

## LOCATION MAP



## LEGAL DESCRIPTION

LOT 16, BLOCK 2, OCEAN BEACH, FLORIDA SUBDIVISION,  
RECORDED IN PLAT BOOK 2 AT PAGE 38 OF THE  
PUBLIC RECORDS OF DADE COUNTY, FLORIDA  
AREA OF LOT IS 6500 SQ.FT. OR 0.149 Ac. ±



studiolido inc. • architecture • interiors • furniture • 940 Lincoln road • suite 314 • miami beach • florida 33139

STRUCTURAL ENGINEER  
ED LANDERS  
(305) 823-3838

M.E.P. ENGINEER  
DAVID PUGA & ASSOCIATES  
(305) 661-7700

SURVEYORS  
ZURWELLE-WHITAKER, INC.  
(305) 534-4658

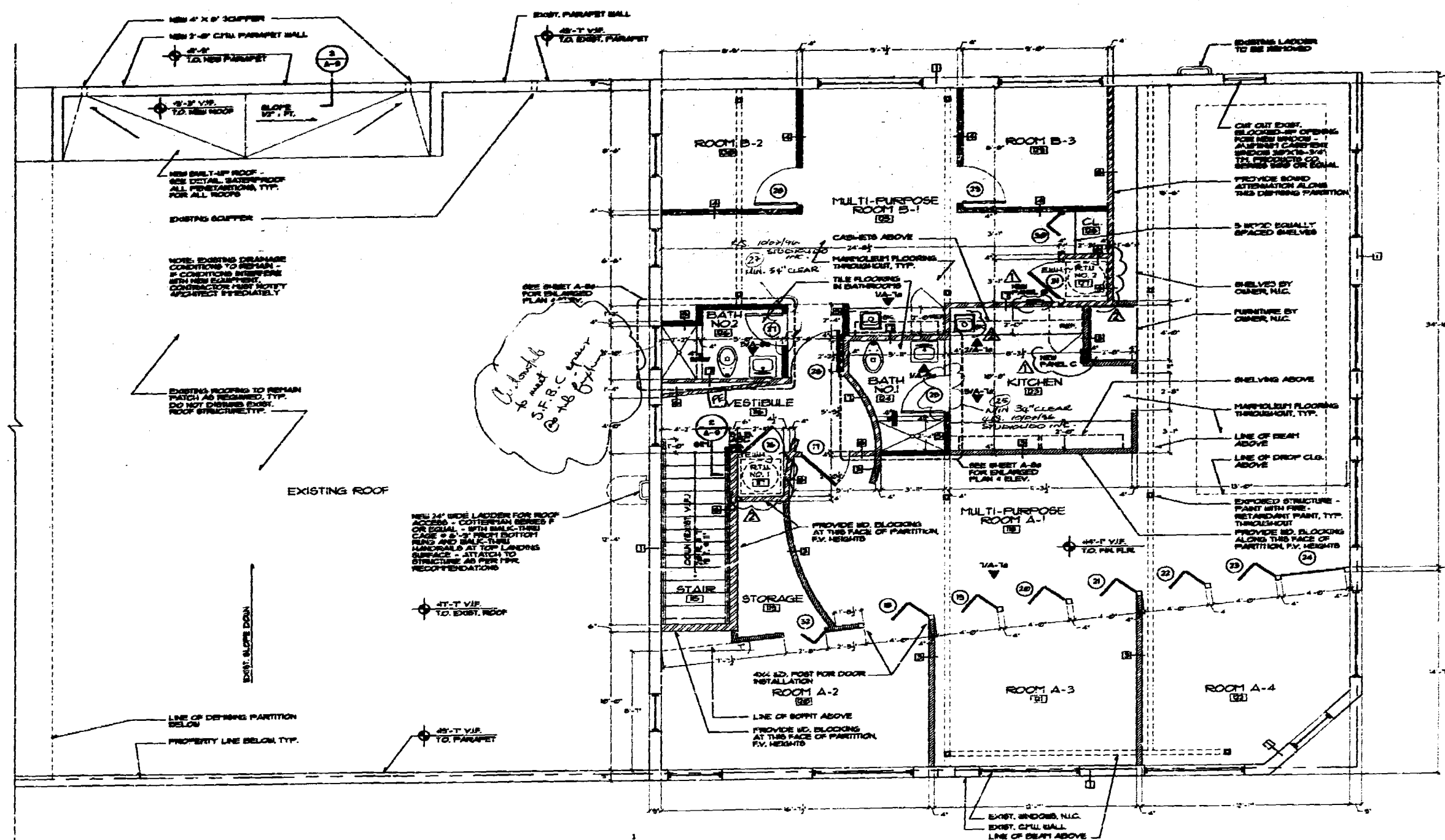
EQUIPMENT BY ARROW INDUSTRIES  
RAUL PINERO  
(305) 635-6500












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



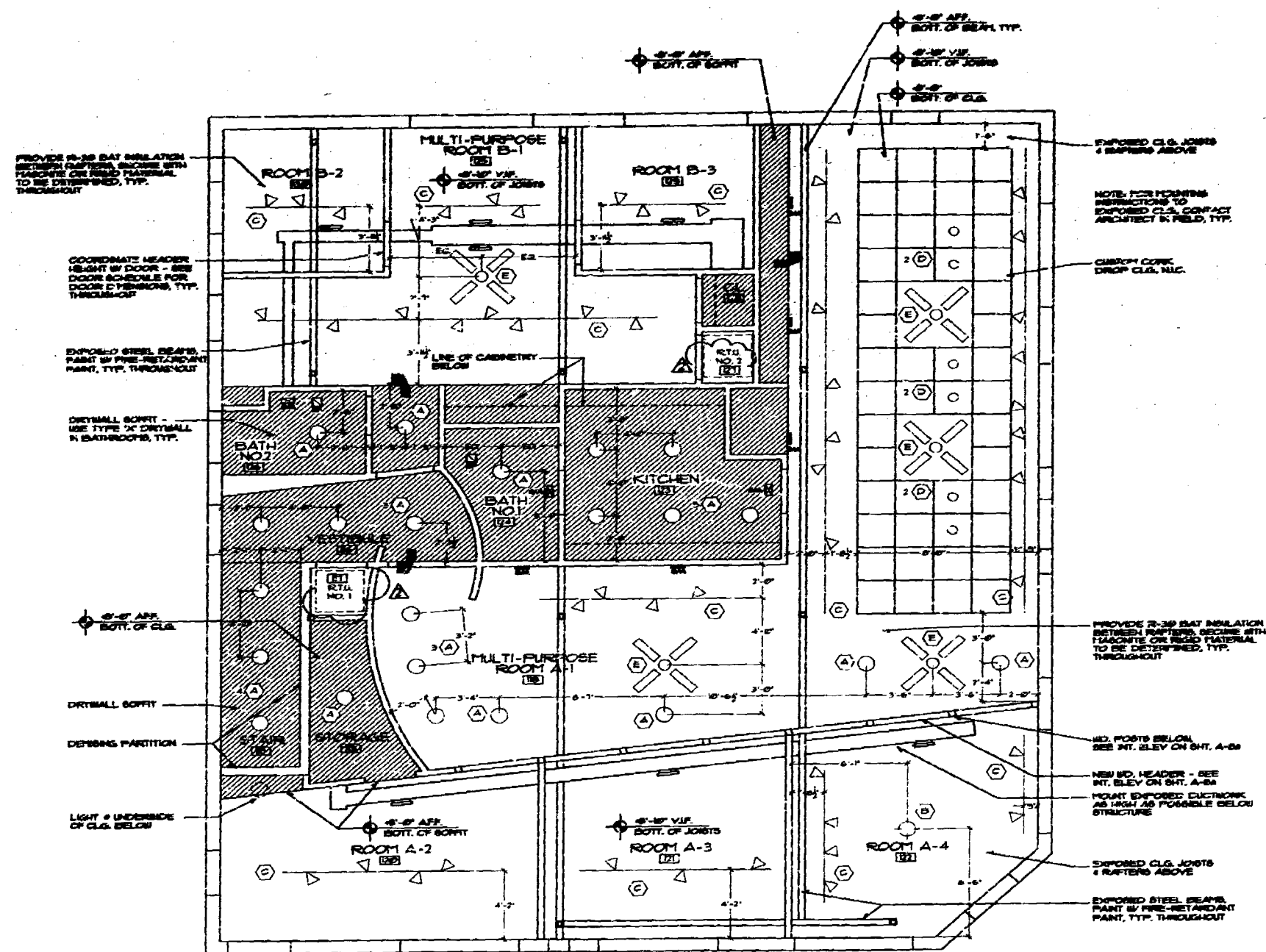
**OFFICE COPY**  
 CITY OF MIAMI BEACH  
 APPROVED FOR PERMIT BY  
 THE FOLLOWING:

BUILDING: \_\_\_\_\_  
 ZONING: \_\_\_\_\_  
 PLUMBING: \_\_\_\_\_  
 ELECTRICAL: \_\_\_\_\_  
 MECHANICAL: \_\_\_\_\_  
 FIRE ALARMS: \_\_\_\_\_  
 ELEVATORS: \_\_\_\_\_  
 PUBLIC WORKS: \_\_\_\_\_  
 STRUCTURAL: \_\_\_\_\_  
 ACCESSIBILITY: \_\_\_\_\_  
 ELEVATOR: \_\_\_\_\_

RENOVATIONS TO: <b>BIG PINK</b> 157 Collins Avenue Miami Beach, Florida 33139	
SECOND FLOOR PLAN	PERMIT NO.: 07-19-96 EXPIRATION DATE: 08-07-96
PROJECT NO.: 87-88-96 PROJECT CODE/TYPE: 800 SCALE: 1/4" = 1'-0" DRAWN BY: V.B. CHECKED BY:	A-3

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 DOCUMENT MAY BE REPRODUCED OR  
 TRANSMITTED IN ANY FORM OR BY ANY  
 MEANS, ELECTRONIC OR MECHANICAL,  
 INCLUDING PHOTOCOPYING, RECORDING,  
 OR BY ANY INFORMATION STORAGE AND  
 RETRIEVAL SYSTEM, WITHOUT PERMISSION  
 IN WRITING FROM THE CITY OF MIAMI BEACH.





REFLECTED CEILING PLAN  
SCALE: 1/4" = 1'-0"

- LIGHTING SYMBOLS**
- (A) ○ SURFACE MOUNTED UTILITY FIXTURE (18" DIA.)
  - (B) ○ SURFACE MOUNTED RECESSED FIXTURE (18" DIA.)
  - (C) △ TRACK LIGHTING
  - (D) ○ 4" RECESSED CAN FIXTURE
  - (E) X 6" x 6" x 1" TYPE A-100 SPEED BALL FIXTURE
- NOTE: SEE LIGHTING FIXTURE SCHEDULES ON SHEET A-10 FOR LIGHTING SPECIFICATIONS

- HVAC SYMBOLS**
- EXHAUST FAN
  - RETURN AIR REGISTER
  - SUPPLY AIR REGISTER
  - SPECIAL SUPPLY AIR REGISTER
  - EXHAUST DUCTWORK (18" DIA. AT SECOND FLOOR)
- NOTE: HANG EXHAUST DUCTWORK AS HIGH AS POSSIBLE THROUGHOUT
- NOTE: IN CASE OF DISCREPANCY, NOTIFY ARCHITECT PRIOR TO PROCEEDING

**OFFICE COPY**  
CITY OF MIAMI BEACH  
APPROVED FOR PERMIT BY THE FOLLOWING:

BUILDING: \_\_\_\_\_  
ELECTRICAL: \_\_\_\_\_  
MECHANICAL: \_\_\_\_\_  
FIRE PROTECTION: \_\_\_\_\_  
ENGINEERING: \_\_\_\_\_  
PUBLIC WORKS: \_\_\_\_\_  
STRUCTURAL: \_\_\_\_\_  
ACCESSIBILITY: \_\_\_\_\_  
ELEVATOR: \_\_\_\_\_

RENOVATIONS TO:  
**BIG PINK**  
157 Collins Avenue  
Miami Beach, Florida 33139

SECOND FLOOR  
REFL. CLG. PLAN

DATE: 08-07-96

PROJECT: 08-08-96

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

Drawn by: V.B.

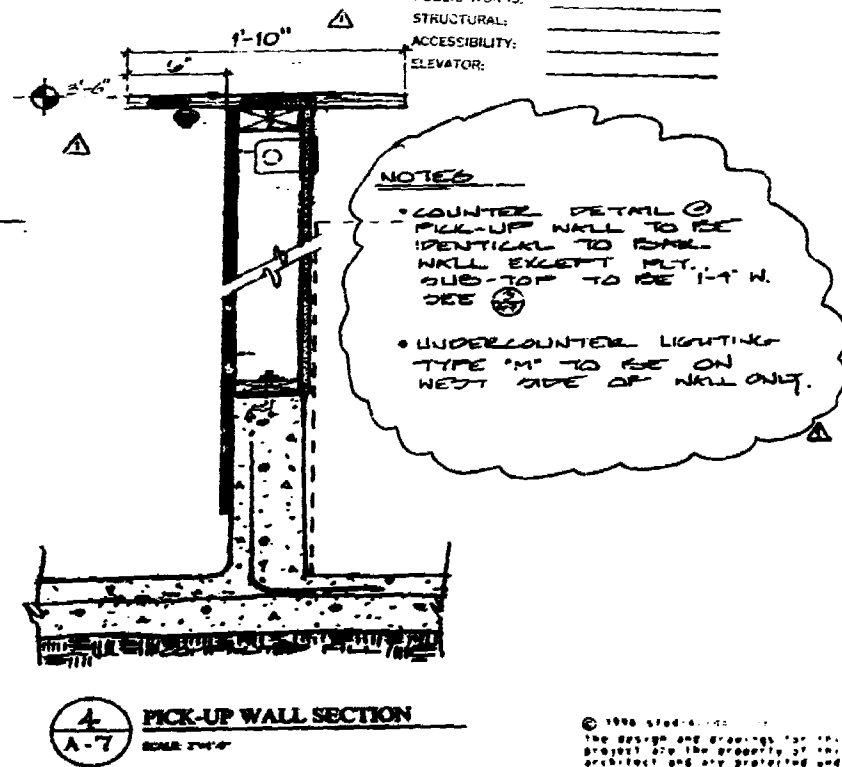
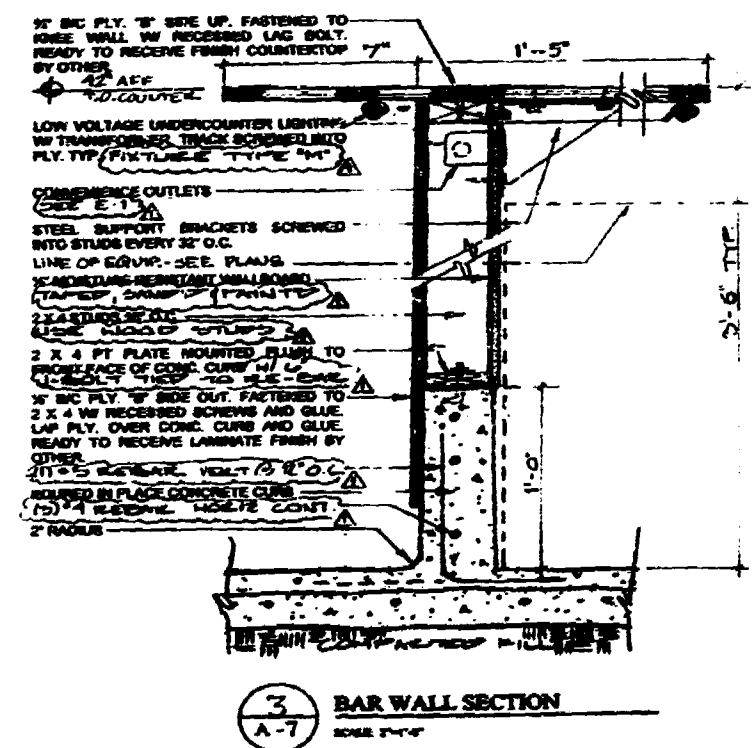
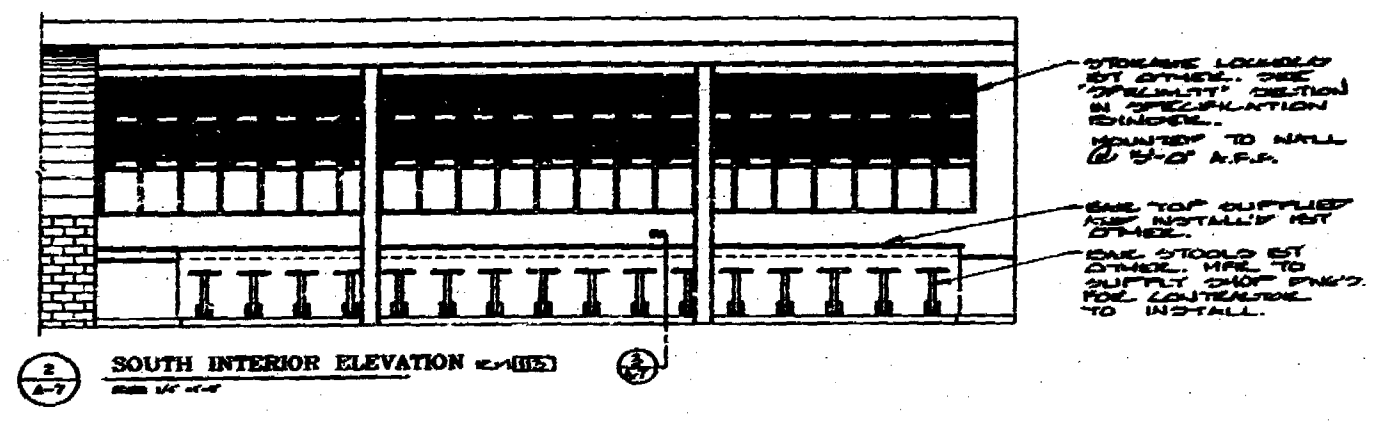
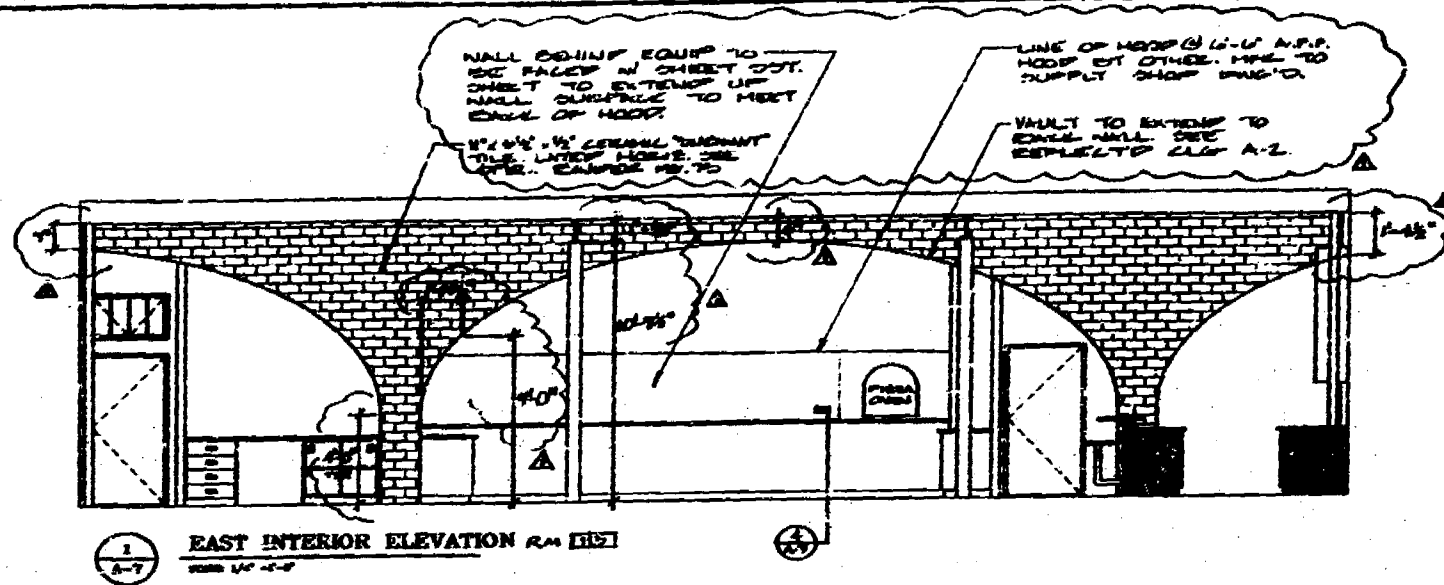
Approved: \_\_\_\_\_

A-4









# OFFICE COPY CITY OF MIAMI BEACH

APPROVED FOR PERMIT BY THE FOLLOWING:

BUILDING: \_\_\_\_\_

ZONING: \_\_\_\_\_

PLANNING: \_\_\_\_\_

ELECTRICAL: \_\_\_\_\_

Mechanical: \_\_\_\_\_

FIRE: \_\_\_\_\_

ENGINEERING: \_\_\_\_\_

PUBLIC WORKS: \_\_\_\_\_

STRUCTURAL: \_\_\_\_\_

ACCESSIBILITY: \_\_\_\_\_

ELEVATOR: \_\_\_\_\_

NOTES:

COUNTERTOP DETAIL TO BE IDENTICAL TO WALL EXCEPT PLY. ONE TOP TO BE 1" x 10" PLY.

UNDERCOUNTER LIGHTING TYPE "M" TO BE ON WEST SIDE OF WALL ONLY.

RENOVATIONS TO:  
**BIG PINK**  
187 Collins Avenue  
Miami Beach, Florida 33139

INT. ELEVATIONS AND DETAILS

DATE: 11 JULY 76

PROJECT: 11-76-00-00

BY: [Signature]

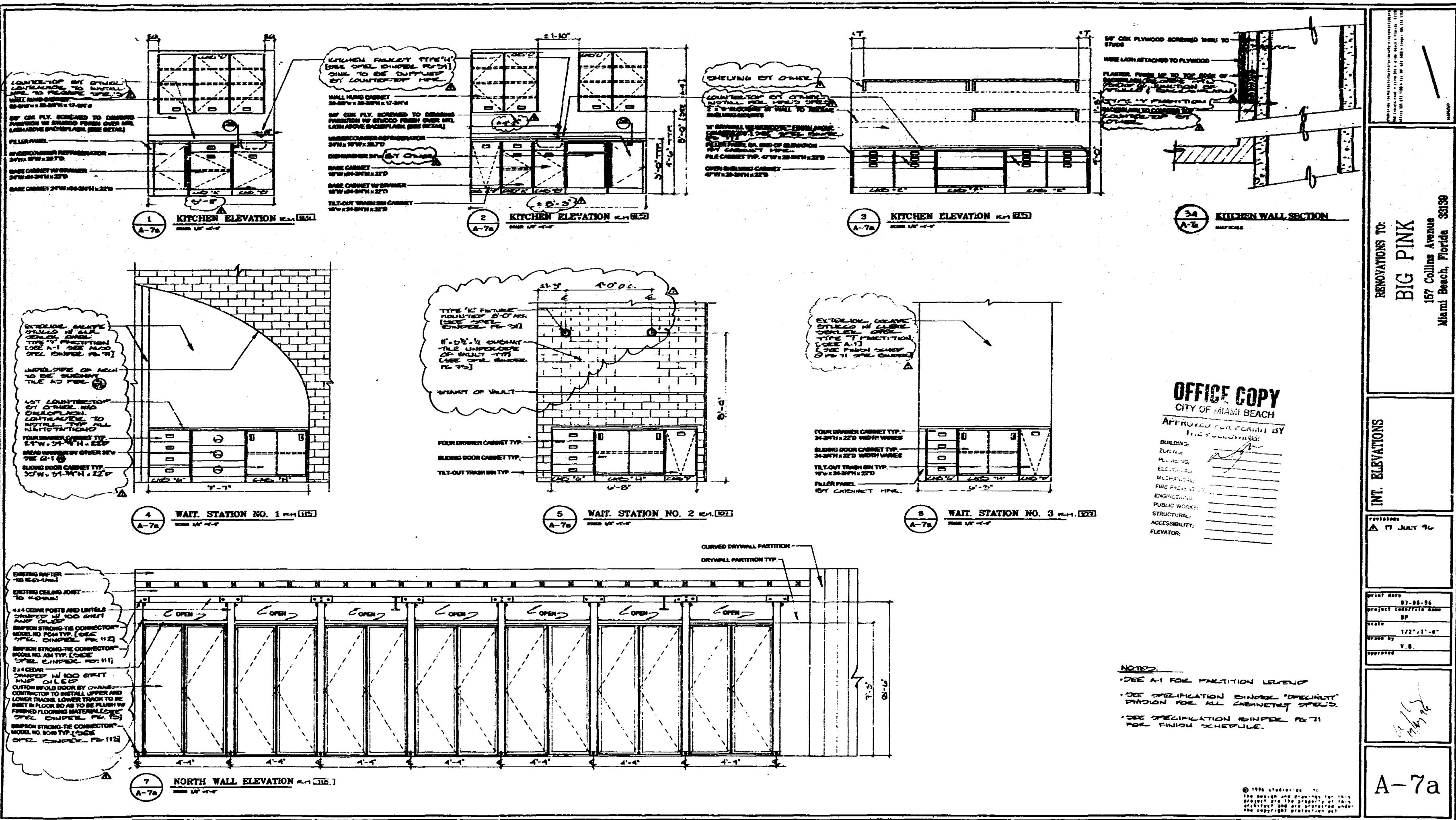
SCALE: 1/4" = 1'-0"

APPROVED BY: V.B.

APPROVED: [Signature]

A-7





RENOVATIONS TO:  
**BIG PINK**  
157 Collins Avenue  
Miami Beach, Florida 33139

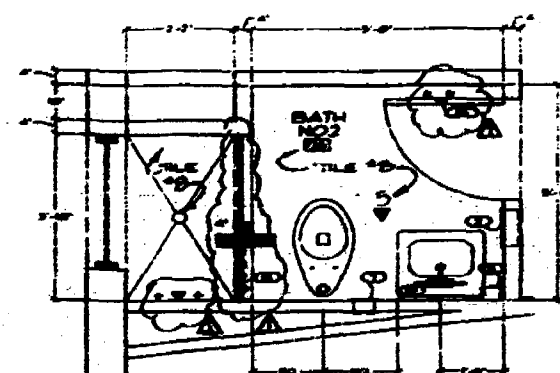
INT. ELEVATIONS

DATE: 07-08-90

PROJECT: RENOVATION OF  
SCALE: 1/2" = 1'-0"  
DRAWN BY: V.B.  
CHECKED BY: \_\_\_\_\_

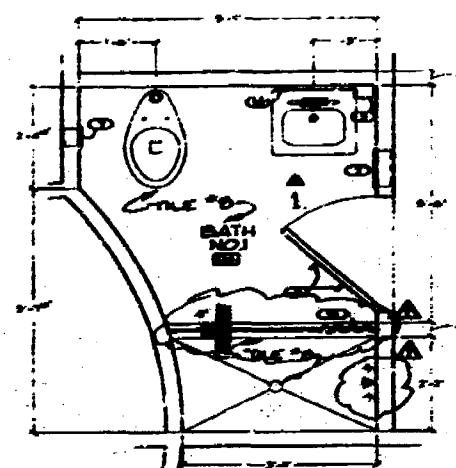
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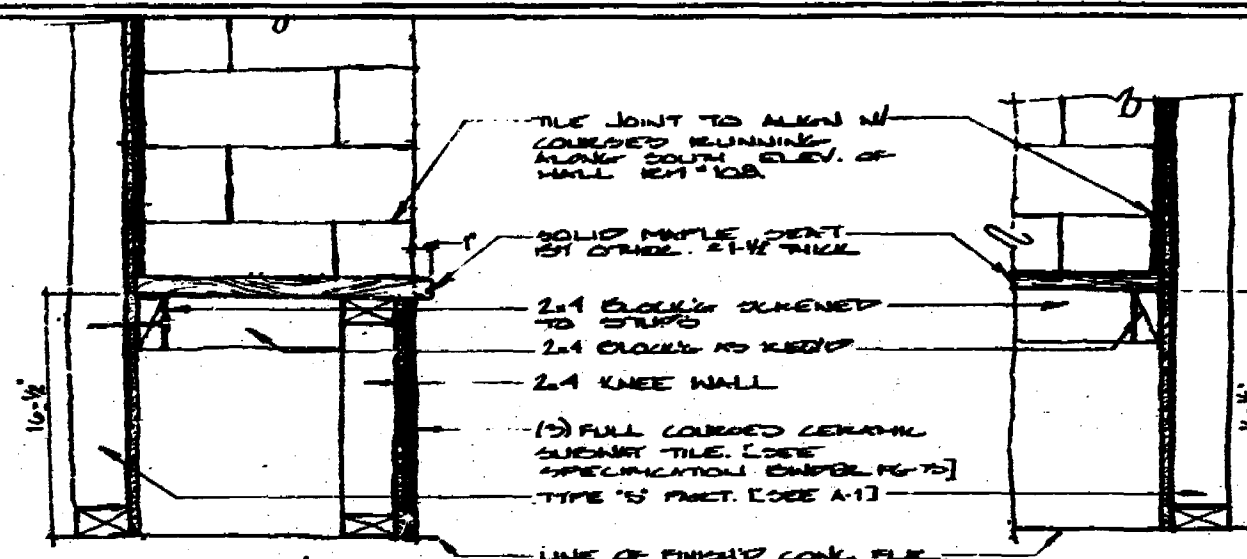
BATHROOM NO.1

SCALE: 1/2" = 1'-0"



BATHROOM NO.2

SCALE: 1/2" = 1'-0"

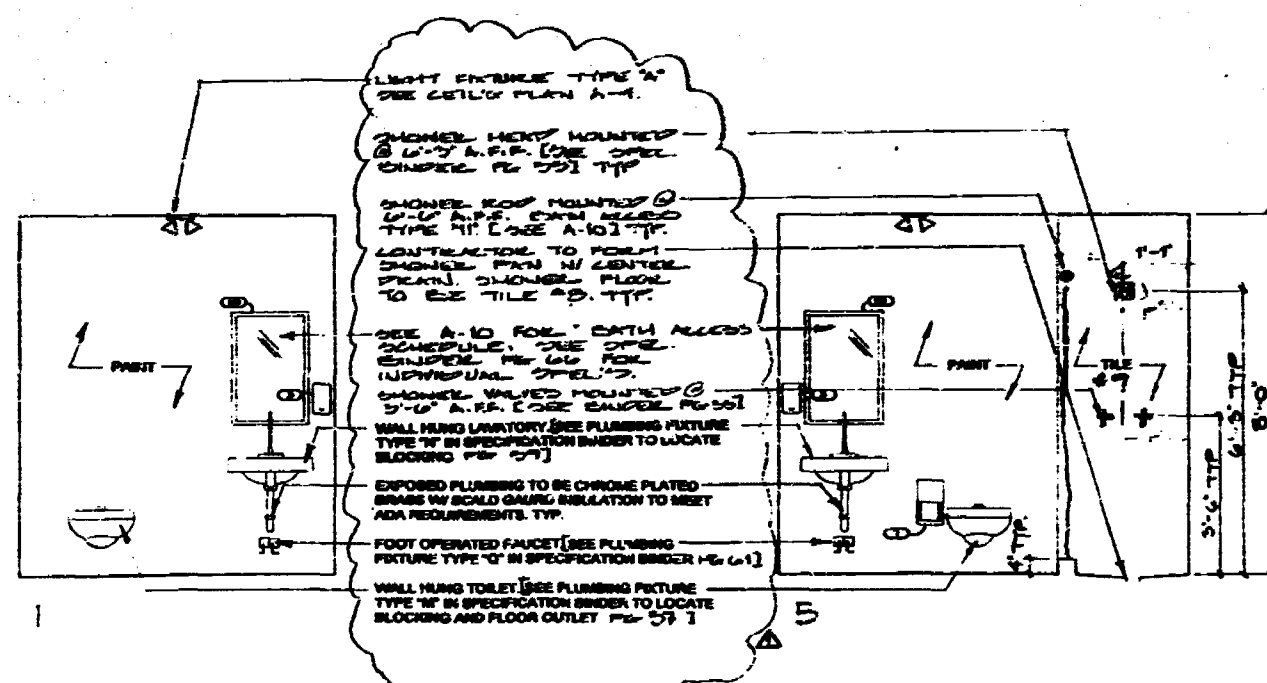


BENCH SECTION

SCALE: 2" = 1'-0"

BENCH SECTION

SCALE: 2" = 1'-0"



INTERIOR ELEVATIONS

SCALE: 1/2" = 1'-0"

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CITY OF MIAMI BEACH

APPROVED FOR PERMIT BY

BUILDING	
PLUMBING	
ELECTRICAL	
Mechanical	
ENGINEERING	
PUBLIC WORKS	
STRUCTURAL	
ACCESSIBILITY	
ELEVATOR	

NOTES

- SEE A-1 FOR PARTITION LEGEND
- SEE A-10 FOR PLUMBING FIXTURE SCHEDULE
- SEE A-10 FOR BATHROOM ACCESSORY SCHEDULE
- SEE SPECIFICATION BOOK FOR BLOCKING REQUIREMENTS FOR EACH ITEM
- SEE FINISH SCHEDULE FOR FINISHES, COORDINATION, FINISH AND COLOR, TYPE, ETC. - SEE PG. 7-2
- SEE A-2 FOR PICTURE HANGING HEIGHTS

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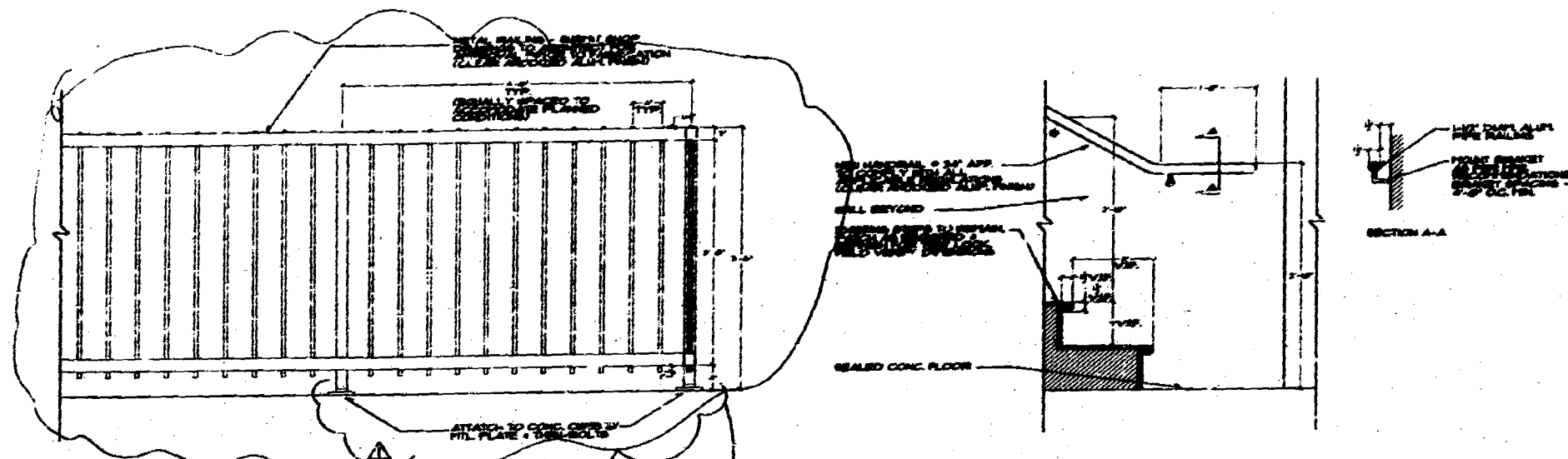
RENOVATIONS TO:  
**BIG PINK**  
157 Collins Avenue  
Miami Beach, Florida 33139

INT. ELEVATIONS  
& DETAILS

Permitted  
17 JULY 1996

PRINT DATE: 07-08-96  
PROJECT: 1007777777  
SHEET: 01  
AS NOTED  
BY: V.B.  
CHECKED:

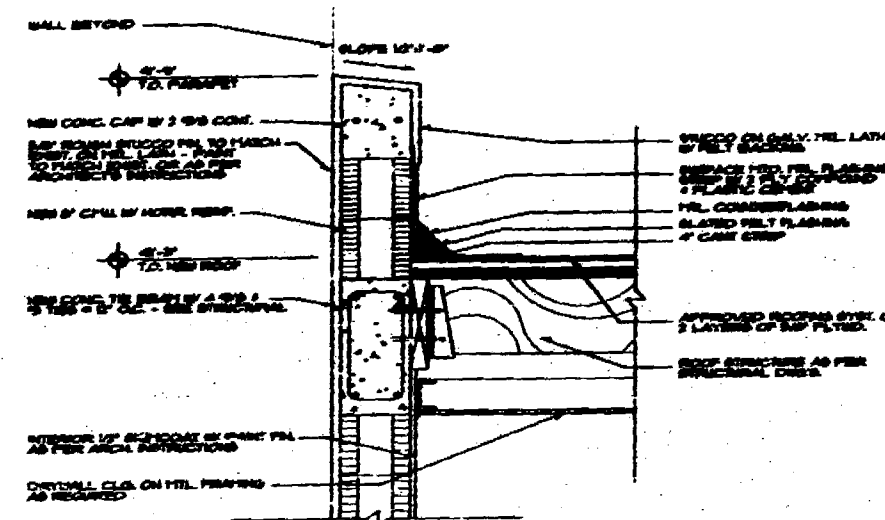
A-8a



1  
A-9  
**RAILING DETAIL**  
SCALE 1" = 1'-0"

2  
A-9  
**RISER/RAILING DETAIL**  
SCALE 1" = 1'-0"

*Not part of this project*



3  
A-9  
**PARAPET DETAIL**  
SCALE 1" = 1'-0"

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CITY OF MIAMI BEACH

APPROVED FOR PERMIT BY  
THE FOLLOWING:

BUILDING	
ZONING	
PLANNING	
ELECTRICAL	
Mechanical	
Fire Protection	
ENGINEERING	
Public Works	
Structural	
Accessibility	
Other	

RENOVATIONS TO  
**BIG PINK**  
157 Collins Avenue  
Miami Beach, Florida 33139

DETAILS

POSITION  
07-19-96

PROJECT NO. 07-08-96  
PROJECT DESCRIPTION  
BP  
SCALE AS NOTED  
DRAWN BY V.B.  
CHECKED BY

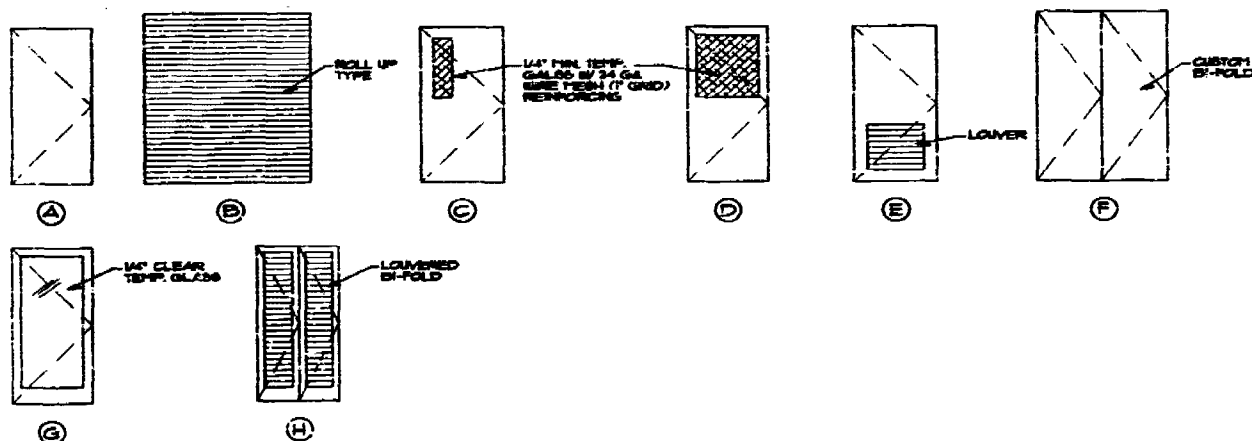
A-9

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DOOR SCHEDULE														
FLOOR	NO.	TYPE	DOOR SIZE	DOOR MATERIAL	FRAME MATERIAL	FRAME TYPE	FRAME FINISH	FRAME TYPE	FRAME FINISH	FRAME TYPE	FRAME FINISH	FRAME TYPE	FRAME FINISH	REMARKS
1	B	1	7'-0" x 2'-0"	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	TRASH ROOM, 1ST - REOL UP DOOR
2	A	1	7'-0" x 2'-0"	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	FOYER, 1ST - 1/2" REEF HOLE 6" x 6" AFF
3	C	1	7'-0" x 2'-0"	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	STORAGE, 1ST
4	A	1	7'-0" x 2'-0"	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	BY FPL, 1ST - FREEZER, BY KIT, EQUIP. SUPPLIER
5	A	1	7'-0" x 2'-0"	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	BY FPL, 1ST - DRY STORAGE, 1ST
6	A	1	7'-0" x 2'-0"	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	BY FPL, 1ST - SINK, 1ST - SINK, BY KIT, EQUIP. SUPPLIER
7	A	1	7'-0" x 2'-0"	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	BY FPL, 1ST - SINK, 1ST - SINK, BY KIT, EQUIP. SUPPLIER
8	A	1	7'-0" x 2'-0"	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	BY FPL, 1ST - SINK, 1ST - SINK, BY KIT, EQUIP. SUPPLIER
9	A	1	7'-0" x 2'-0"	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	BY FPL, 1ST - SINK, 1ST - SINK, BY KIT, EQUIP. SUPPLIER
10	A	1	7'-0" x 2'-0"	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	BY FPL, 1ST - SINK, 1ST - SINK, BY KIT, EQUIP. SUPPLIER
11	A	1	7'-0" x 2'-0"	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	BY FPL, 1ST - SINK, 1ST - SINK, BY KIT, EQUIP. SUPPLIER
12	A	1	7'-0" x 2'-0"	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	BY FPL, 1ST - SINK, 1ST - SINK, BY KIT, EQUIP. SUPPLIER
13	A	1	7'-0" x 2'-0"	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	BY FPL, 1ST - SINK, 1ST - SINK, BY KIT, EQUIP. SUPPLIER
14	A	1	7'-0" x 2'-0"	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	BY FPL, 1ST - SINK, 1ST - SINK, BY KIT, EQUIP. SUPPLIER
15	A	1	7'-0" x 2'-0"	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	BY FPL, 1ST - SINK, 1ST - SINK, BY KIT, EQUIP. SUPPLIER
16	A	1	7'-0" x 2'-0"	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	BY FPL, 1ST - SINK, 1ST - SINK, BY KIT, EQUIP. SUPPLIER
17	A	1	7'-0" x 2'-0"	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	BY FPL, 1ST - SINK, 1ST - SINK, BY KIT, EQUIP. SUPPLIER
18	A	1	7'-0" x 2'-0"	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	BY FPL, 1ST - SINK, 1ST - SINK, BY KIT, EQUIP. SUPPLIER
19	A	1	7'-0" x 2'-0"	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	BY FPL, 1ST - SINK, 1ST - SINK, BY KIT, EQUIP. SUPPLIER
20	A	1	7'-0" x 2'-0"	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	BY FPL, 1ST - SINK, 1ST - SINK, BY KIT, EQUIP. SUPPLIER
21	A	1	7'-0" x 2'-0"	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	BY FPL, 1ST - SINK, 1ST - SINK, BY KIT, EQUIP. SUPPLIER
22	A	1	7'-0" x 2'-0"	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	BY FPL, 1ST - SINK, 1ST - SINK, BY KIT, EQUIP. SUPPLIER
23	A	1	7'-0" x 2'-0"	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	BY FPL, 1ST - SINK, 1ST - SINK, BY KIT, EQUIP. SUPPLIER
24	A	1	7'-0" x 2'-0"	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	BY FPL, 1ST - SINK, 1ST - SINK, BY KIT, EQUIP. SUPPLIER
25	A	1	7'-0" x 2'-0"	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	BY FPL, 1ST - SINK, 1ST - SINK, BY KIT, EQUIP. SUPPLIER
26	A	1	7'-0" x 2'-0"	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	BY FPL, 1ST - SINK, 1ST - SINK, BY KIT, EQUIP. SUPPLIER
27	A	1	7'-0" x 2'-0"	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	BY FPL, 1ST - SINK, 1ST - SINK, BY KIT, EQUIP. SUPPLIER
28	A	1	7'-0" x 2'-0"	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	BY FPL, 1ST - SINK, 1ST - SINK, BY KIT, EQUIP. SUPPLIER
29	A	1	7'-0" x 2'-0"	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	BY FPL, 1ST - SINK, 1ST - SINK, BY KIT, EQUIP. SUPPLIER
30	A	1	7'-0" x 2'-0"	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	BY FPL, 1ST - SINK, 1ST - SINK, BY KIT, EQUIP. SUPPLIER
31	A	1	7'-0" x 2'-0"	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	BY FPL, 1ST - SINK, 1ST - SINK, BY KIT, EQUIP. SUPPLIER
32	A	1	7'-0" x 2'-0"	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	WOOD	BY FPL, 1ST - SINK, 1ST - SINK, BY KIT, EQUIP. SUPPLIER

\* HARDWARE SETS A-G, REFER TO SPECIFICATIONS FOR HARDWARE DESCRIPTIONS

#### DOOR TYPES



NOTE: VERIFY ALL COLORS AND PAINT FINISHES WITH ARCHITECT PRIOR TO PURCHASES

BATH ACCESSORY SCHEDULE							
TYPE	ROOM	DESCRIPTION	MANUFACTURER	MODEL NO.	FINISH	QUANTITY	REMARKS
1	TOILET ROOM	HOSE SPOT	CHICAGO FACET	7-20	POLISHED CHROME	4	ALSO LISTED IN PLUMBING FIXTURES SCHEDULE
2	TOILET ROOM	PAPER TOWEL DISPENSER	ROBBEROCK	8-3000	BATH STAINLESS	4	RECEIVED
3	TOILET ROOM	SOAP DISPENSER	ROBBEROCK	8-300	BATH STAINLESS	4	RECEIVED
4	TOILET ROOM	STL THERM	ROBBEROCK	8-300-1000	BATH STAINLESS	4	SURFACE POLISHED
5	T. ROOM/HALL	ASHTRAY	ROBBEROCK	8-300	BATH STAINLESS	4	SURFACE POLISHED
6	TOILET ROOM	SHOWER HEAD	ROBBEROCK	8-300	BATH STAINLESS	4	RECEIVED
7	TOILET ROOM	TOILET PAPER DISPENSER	ROBBEROCK	8-300	BATH STAINLESS	4	RECEIVED
8	TOILET ROOM	CLOSET HOOK	ROBBEROCK	8-300	BATH STAINLESS	4	RECEIVED
9	TOILET ROOM	SHOWER HEAD	ROBBEROCK	8-300	BATH STAINLESS	4	CONCEALED MOUNTING
10	TOILET ROOM	SHOWER HEAD	ROBBEROCK	8-300	BATH STAINLESS	4	RECEIVED
11	TOILET ROOM	SHOWER HEAD	ROBBEROCK	8-300	BATH STAINLESS	2	3" - 1/2" x 4" LENSING
12	TOILET ROOM	SHOWER HEAD	ROBBEROCK	8-300-3	MIXE	3	
13	TOILET ROOM	SHOWER HEAD	ROBBEROCK	8-300-4	BATH STAINLESS	34	

LIGHTING FIXTURE SCHEDULE								
TYPE	ROOM	DESCRIPTION	MANUFACTURER	MODEL NO.	FINISH	VOLTAGE	QUANTITY	REMARKS
A	GENERAL	GENERAL LIGHTING	RED DOT	L-80	GREY ENAMEL	120V	1	SURFACE MOUNTED UTILITY LIGHT
B	ROOM A-1	PENDING	WAC	8000-100	TBD.	120V	1	
C	2ND FLOOR	TRACK LIGHTING	HERBELL	TBR-10	WHITE ENAMEL	120V	40	FOR LENSING - SEE REF. CLG. PLAN
D	2ND FLOOR	RECESSED CAN	JACO	TCR-100	WHITE	120V	4	
E	2ND FLOOR	CEILING FAN	HERBELL	RECESSED-20	GREY EN.	120V	2	HONG DEPOSIT
F	KITCHEN	2" X 4" FLUORESCENT	HERBELL	2000	WHITE ENAMEL	120V	2	RECESSED, DAYLIGHT SPECTRUM LAMP
G	GROUND FLOOR	4" CLG. FAN	DAYTON	PAL-2000-10	YELLOW ENAMEL	120V	10	GRANITE SCISS
H	DRESS ROOM	GENERAL LIGHTING	POWELL	SL-100-1000	CHROME	120V	4	GRANITE SCISS, 2000W QUARTZ HALOGEN
J	HOT LINE	TRK. LAMP	TRK. LIGHTING	800	CHROME	120V	1	
K	WASH.	STANDARD WHEEL RECESSED	RESEA LIGHT	1000-10	CHROME	120V	1	2000W TRANSFORMER LAMP SUPPLIED
L	TOILET ROOMS	WALL LIGHT	WEST FLYING	1000-10	CHROME	120V	12	TRANSFORMER RELOCATE LOCATION LAMP SUPPLIED
M	BAR	BAR LIGHTING	TBD.	TBD.	TBD.	120V	4	
N	DRESS ROOM	HIGH COSET	SLT	TBD.	TBD.	120V	2	TRANSFORMER REQUIRED
P	SHOWER	WALL SCISS	RED DOT	60-20-200	BLACK	120V	2	
Q	BAR	BAR TOP LIGHTING	WESTFHA	60-20-200	GREY ENAMEL	120V	1	GRANITE 4-SS

PLUMBING FIXTURE SCHEDULE							
TYPE	ROOM	DESCRIPTION	MANUFACTURER	MODEL NO.	FINISH	QUANTITY	REMARKS
A	1ST-2ND	HOSE SPOT	CHICAGO FACET	7-20	POLISHED CHROME	4	REMOVABLE HANDLE
B	1ST-2ND	STAINLESS STEEL, 8" x 10"	BRADLEY	8-100	BATH	4	1/4" FAUCET, REQUIRES REAR ACCESS PANEL
C	1ST-2ND	FAUCET	BRADLEY	8-100	CHROME	4	
D	1ST-2ND	STAINLESS URINAL	BRADLEY	8-100	BATH STAINLESS	4	REQUIRES FLUSH VALVE BOX
E	1ST-2ND	STAINLESS TOILET	BRADLEY	8-100	BATH STAINLESS	4	REQUIRES FLUSH VALVE BOX
F	1ST-2ND	STAINLESS TOILET	BRADLEY	8-100	STAINLESS STEEL	4	REQUIRES FLUSH VALVE BOX
G	1ST-2ND	ACCESS BOX	BRADLEY	8-100	BATH STAINLESS	4	
H	1ST-2ND	SHOWER HEAD	CHICAGO FACET	7-20	CHROME	2	WITHOUT DECK PLATE
I	2ND FLOOR	SHOWER HEAD	CHICAGO FACET	6-1	CHROME	2	
J	2ND FLOOR	SHOWER VALVE	CHICAGO FACET	7-17-18	CHROME	2	WITHOUT HEAD OR ARM
K	2ND FLOOR	FLUSH-PISTON	BLON	ROYAL 1-1-1-1-1	CHROME	2	
L	2ND FLOOR	TOILET	AMERICAN STANDARD	258-AS	WHITE	2	APPROX. 21" LG
M	2ND FLOOR	LAVATORY	AMERICAN STANDARD	148-AS-1	WHITE	2	
N	2ND FLOOR	LAV. FAUCET SPOT	CHICAGO FACET	6-30-FC	CHROME	2	
O	2ND FLOOR	LAV. FAUCET VALVE	CHICAGO FACET	6-30	CHROME	2	FOOT PEDAL
P	2ND FLOOR	LAV. FAUCET DRAIN	CHICAGO FACET	3-17-1	CHROME	2	
Q	2ND FLOOR	SHOWER DRAIN	BLON	6-1	CHROME	4	STAINLESS STEEL
R	2ND FLOOR	FLUSH VALVE	BLON	6-1	CHROME	4	FOR URINAL TYPE "E"
S	2ND FLOOR	FLUSH VALVE	BLON	6-1	CHROME	1	FOR URINAL TYPE "D"

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CITY OF MIAMI BEACH

APPROVED FOR CONSTRUCTION

THE ENGINEER

BUILDING

ZONING

PERMIT

RECEIVED

NO. 10000000

SINCE 1/1/1917

ENGINEER

PUBLIC WORKS

STRUCTURAL

ACCESSIBILITY

12/1/17

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[Signature]  
[Date]

RENOVATIONS TO:  
**BIG PINK**  
167 Collins Avenue  
Miami Beach, Florida 33139

SCHEDULES & SPECIFICATIONS

REVISIONS:  
01-15-56  
02-07-56

DATE: 07-08-56  
PROJECT: COASTAL BLDG  
BY: [Signature]  
CHECKED BY: [Signature]  
DATE: 7/8/56

A-10

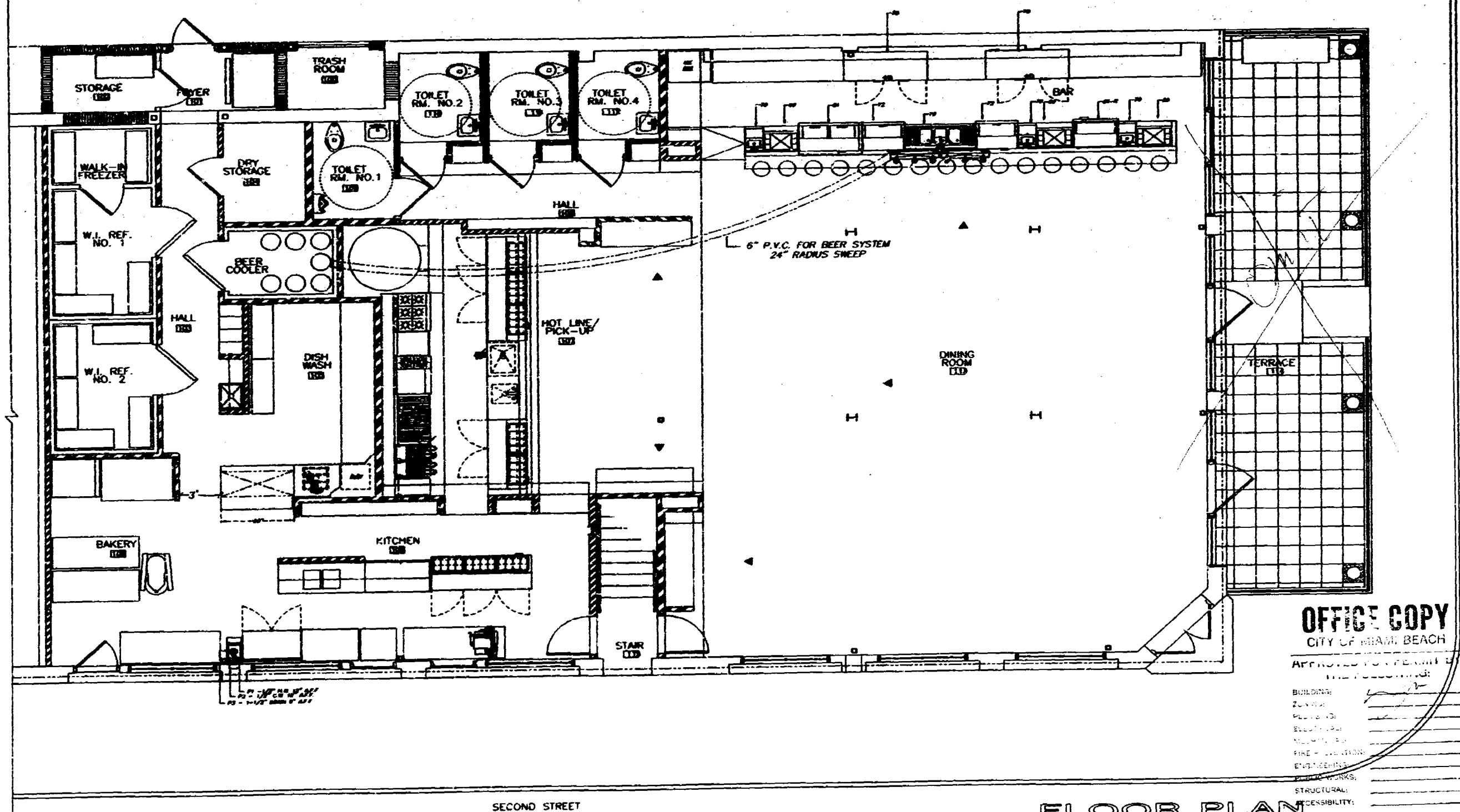












**FLOOR PLAN**  
SCALE: 1/4" = 1'-0"

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CITY OF MIAMI BEACH  
APPROVED FOR PERMIT  
DATE: 07/29/96

BUILDING  
ZONING  
PLUMBING  
ELECTRICAL  
MECHANICAL  
FIRE PROTECTION  
ENVIRONMENTAL  
PAINTS/POLISHES  
STRUCTURAL  
ACCESSIBILITY

COLLINS AVENUE

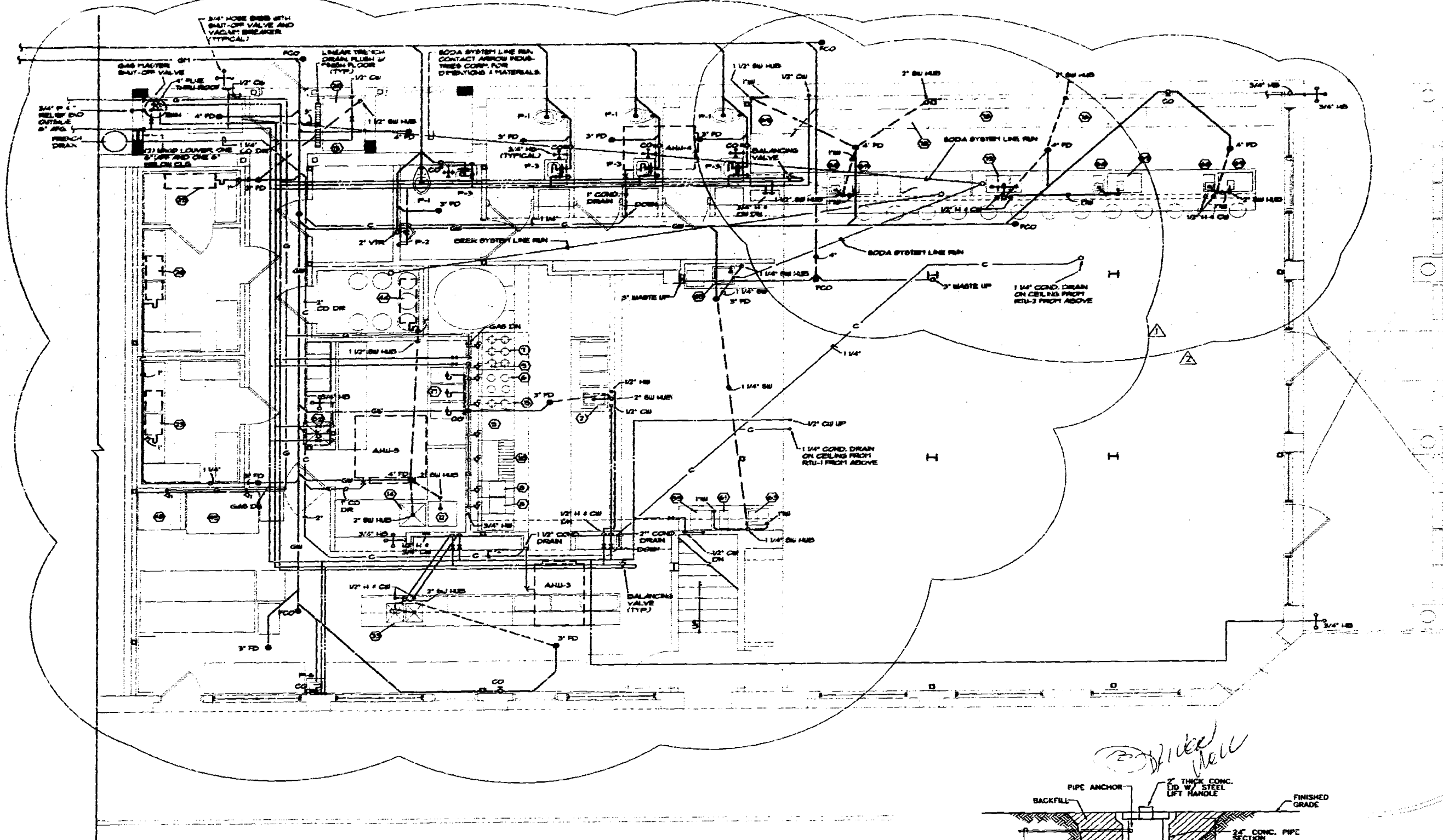
REV.	DATE	BY	APP.
1	07/29/96	J. RAUCH	


**JOB NAME:**  
**BIG PINK**  
COLLINS AVE. & SECOND STREET

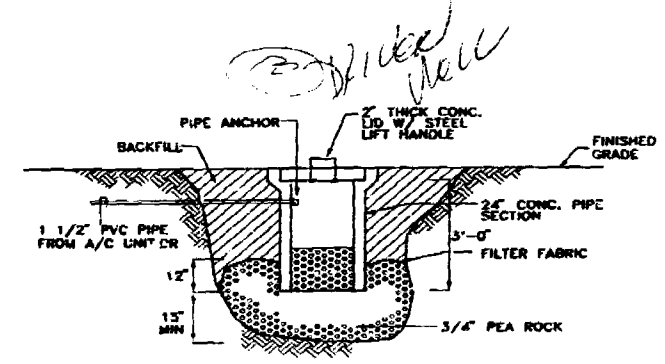
**LEE EQUIPMENT CO.**  
1000 PEMBROKE ROAD  
HALLANDALE, FLORIDA 33008 USA  
Tel #: (305) 456-7500  
Fax #: (305) 456-7555

**DATE:**  
07/29/96  
**DRAWING #:**  
729-96R  
**FOOD SERVICE DESIGNER:**  
J. BRANDT  
**EQUIPMENT LAYOUT**  
**K-2**  
SHEET 2 OF 2

○ CAD. BY J. RAUCH ○ LEE EQUIPMENT COMPANY ○ ○ ○





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

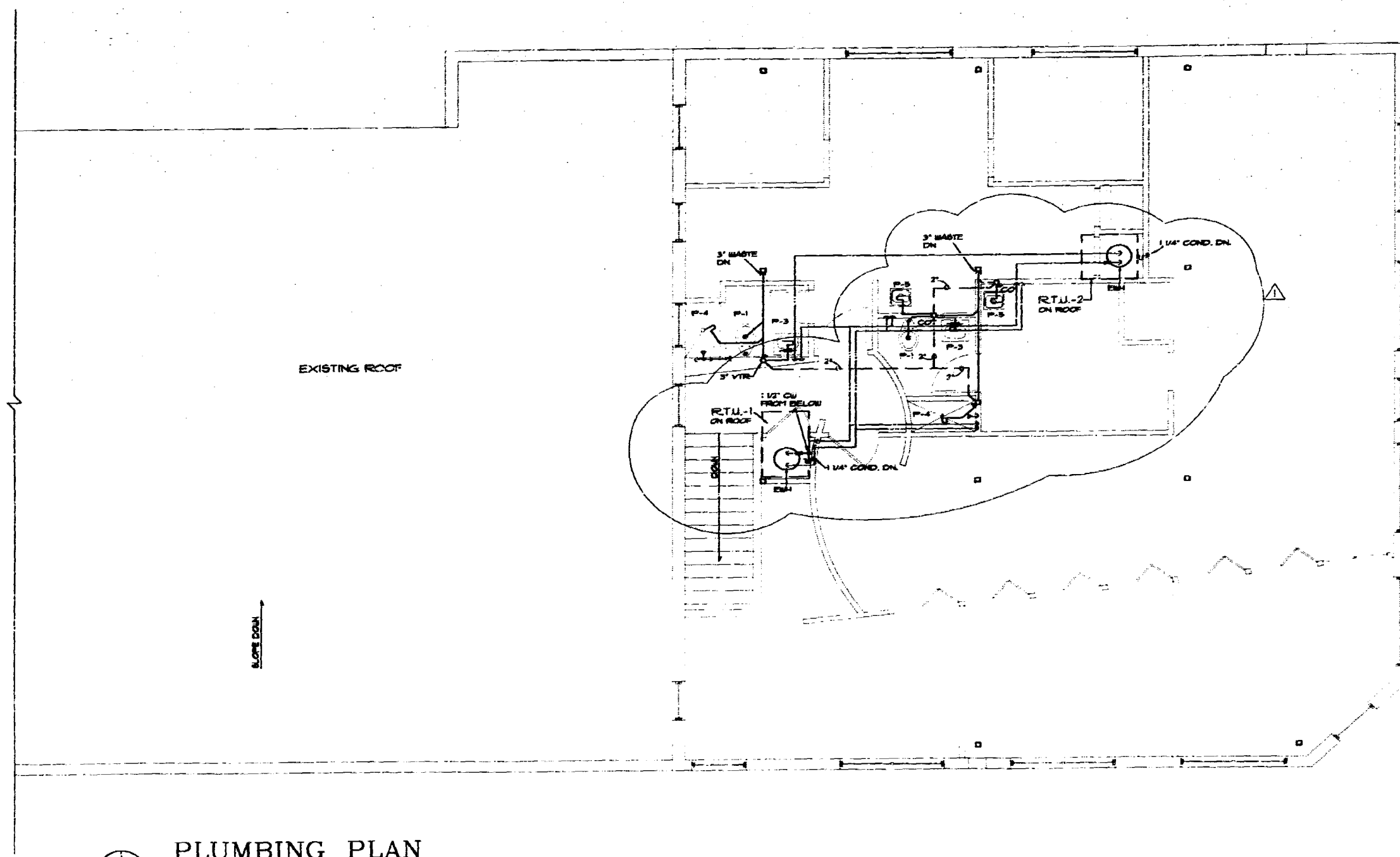



**COND. FRENCH DRAIN DETAIL**  
 R.T.A.

**OFFICE COPY**  
 CITY OF MIAMI BEACH  
 APPROVED FOR RECORD BY  
 (Signature)  
 BUILDING DEPT.  
 ZONING DEPT.  
 FIRE DEPT.  
 PUBLIC WORKS  
 STRUCTURAL  
 ACCESSIBILITY  
 ELEC. DEPT.


**Page and Associates, Inc.**  
 Engineers/Consultants  
 # 33 000593  
 4870 S.W. 72 Avenue, #107  
 Miami, Florida 33155  
 (305) 681-7700

RENOVATIONS TO: <b>BIG PINK</b> 157 Collins Avenue Miami Beach, Florida 33139	
GROUND FLOOR PLUMBING PLAN	
REVISIONS: 8-8-96 8-16-96	DATE: 07-08-96 PROJECT CODE: 96-004 SCALE: 1/4" = 1'-0" DRAWN BY: P.T. CHECKED BY:
P-1	





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

**OFFICE COPY**  
CITY OF MIAMI BEACH

Approved for record by  
the following:

SUBMITTER: \_\_\_\_\_  
 DESIGNER: \_\_\_\_\_  
 REVIEWER: \_\_\_\_\_  
 CHECKED: \_\_\_\_\_  
 APPROVED: \_\_\_\_\_  
 PUBLIC WORKS: \_\_\_\_\_  
 STRUCTURAL: \_\_\_\_\_  
 ACCESSIBILITY: \_\_\_\_\_  
 ELEVATOR: \_\_\_\_\_


**Page and Associates, Inc.**  
 Engineers/Consultants  
 4570 S.W. 72 Avenue, #107  
 Miami, Florida 33155  
 (305) 661-7700

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RENOVATIONS TO:  
**BIG PINK**  
 157 Collins Avenue  
 Miami Beach, Florida 33139

SECOND FLOOR  
 PLUMBING PLAN

REVISIONS  
 8-8-96

DATE: 07-06-96  
 PROJECT: 157 Collins Avenue  
 SHEET: 20  
 SCALE: 1/4" = 1'-0"  
 DRAWN BY: E.T.  
 CHECKED BY:



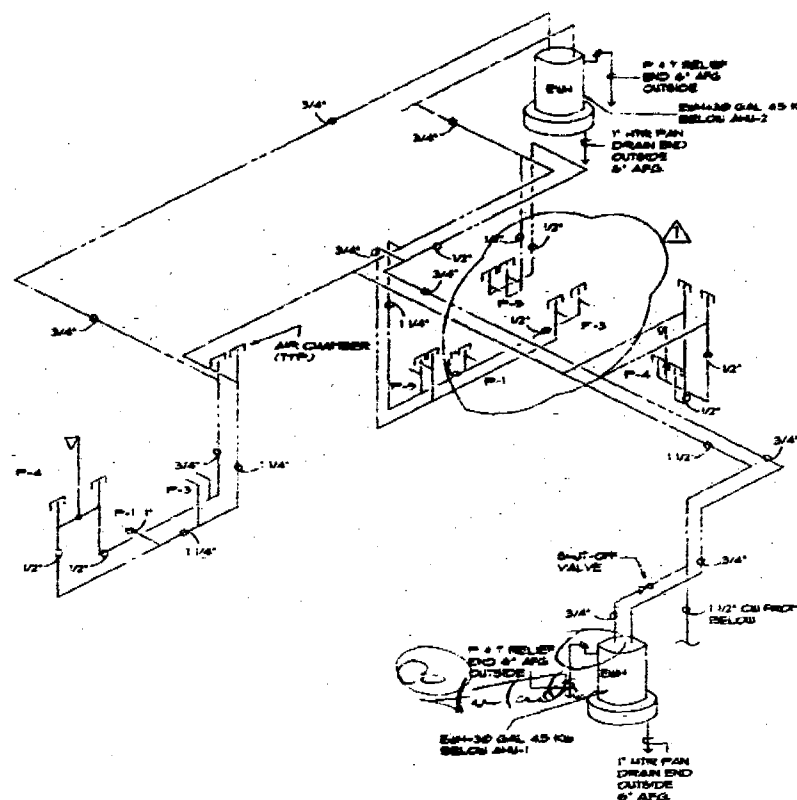
P-2



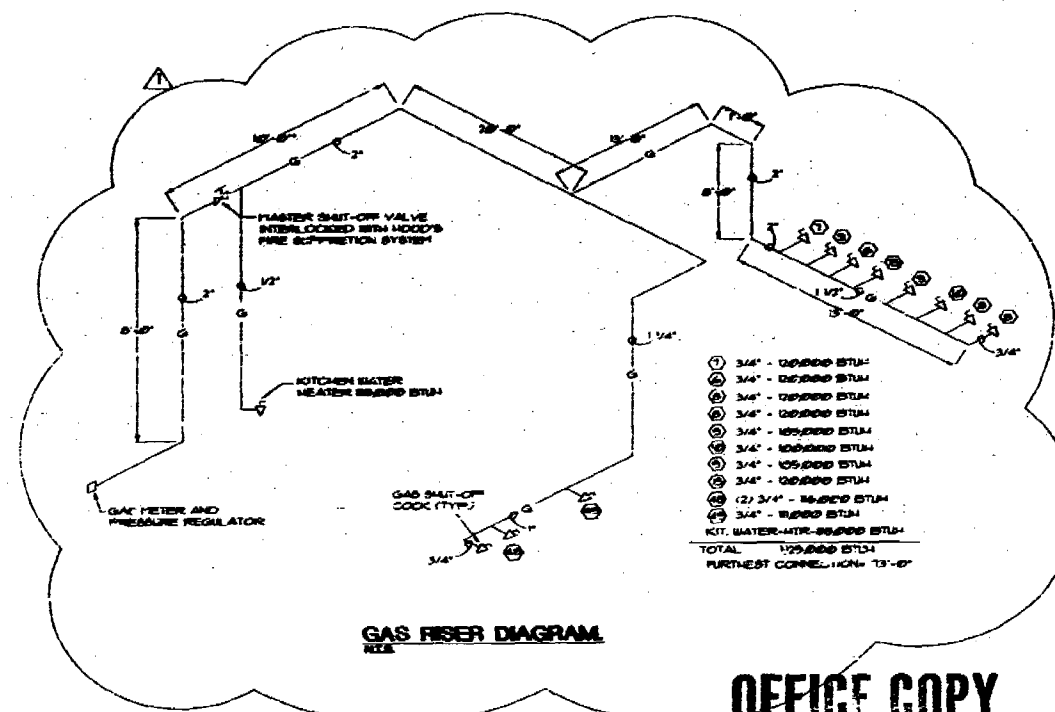
### GENERAL FLIGHTING NOTES

- 
- Diagram illustrating the components of a 1000-gallon, 100-psi water storage tank. The diagram shows a cross-section of the tank with various internal and external parts labeled:
- 1. 1000 GAL. TANK
  - 2. 100 PSI PRESSURE
  - 3. 100 PSI PRESSURE
  - 4. 100 PSI PRESSURE
  - 5. 100 PSI PRESSURE
  - 6. 100 PSI PRESSURE
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  - 100. 100 PSI PRESSURE

### WATER HEATER DIAGRAM



**WATER RISER DIAGRAM**



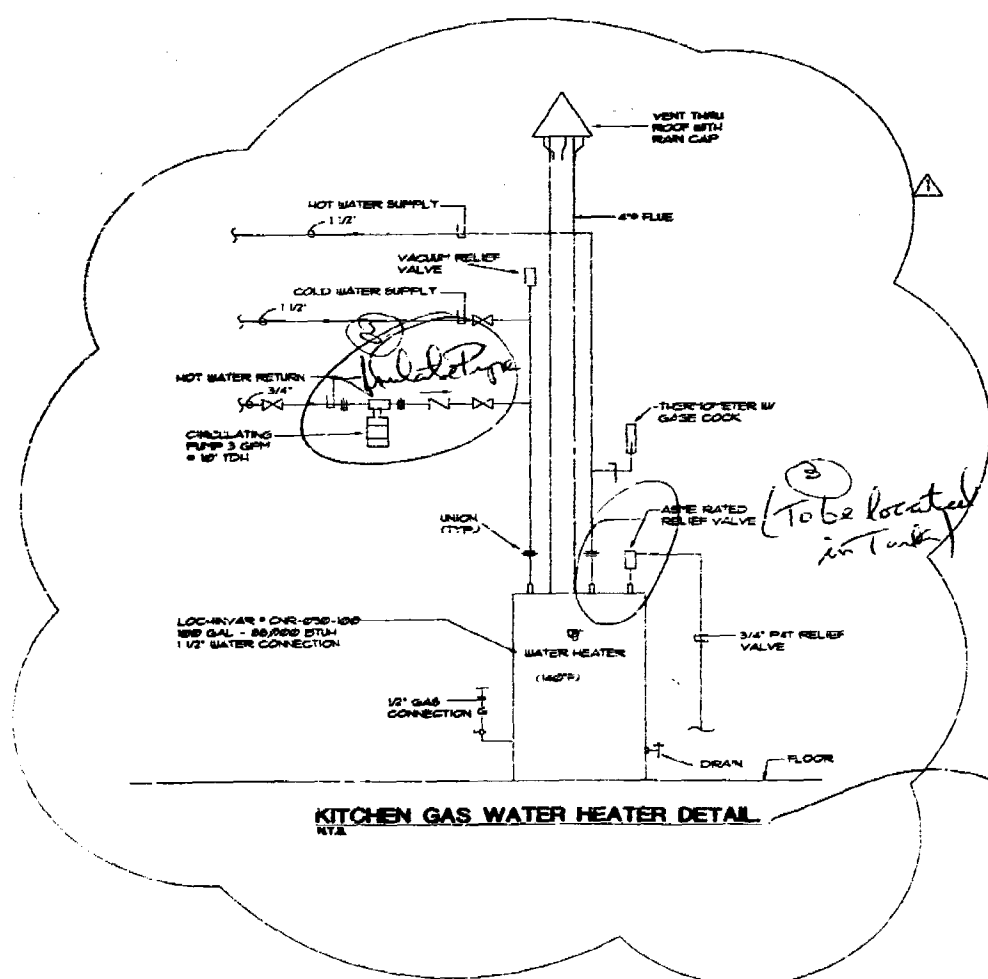
### GAS FIBER DIAGRAM

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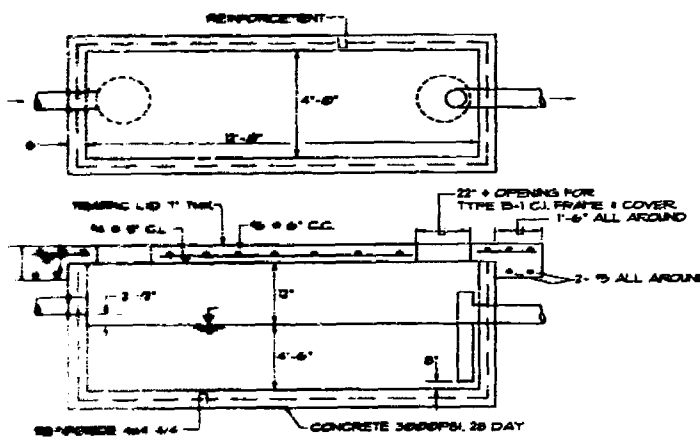
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THE FOLLOWING:

BUILDING: \_\_\_\_\_  
ZONING: \_\_\_\_\_  
PLUMBING: \_\_\_\_\_  
ELECTRICAL: \_\_\_\_\_  
MECHANICAL: \_\_\_\_\_  
FEE SCHEDULE: \_\_\_\_\_


PLUMBING FIXTURE CONNECTION SCHEDULE					
MARKS	DESCRIPTION	WASTE	C.U.	H.U.	STRUCTURAL
					ACCESSIBILITY
P-1	WATER CLOSET	4"	1"	---	ELEVATOR MOUNTED FLUSH VALVE - HANDICAP
P-2	URINAL	2"	3/4"	---	WALL MOUNTED FLUSH VALVE - HANDICAP
P-3	LAVATORY	1 1/2"	1/2"	1/2"	WALL MOUNTED HANDICAP
P-4	SHOWER	2"	1/2"	1/2"	WALL MOUNTED HANDICAP
P-5	SINK	1 1/2"	1/2"	1/2"	COUNTERTOP
P-6	HAND SINK	1 1/2"	1/2"	1/2"	



KITCHEN GAS WATER HEATER DETAIL  
NTA



### 1000 GAL. GREASE TRAP DETAIL



**Puga and Associates, Inc.**  
**Engineers/Consultants**  
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RENOVATIONS TO:  
**BIG PINK**  
157 Collins Avenue  
Miami Beach, Florida

**RISERS  
SCHEDULES  
NOTES**

① 3-8-96

print date 07 08 06

project code/line name

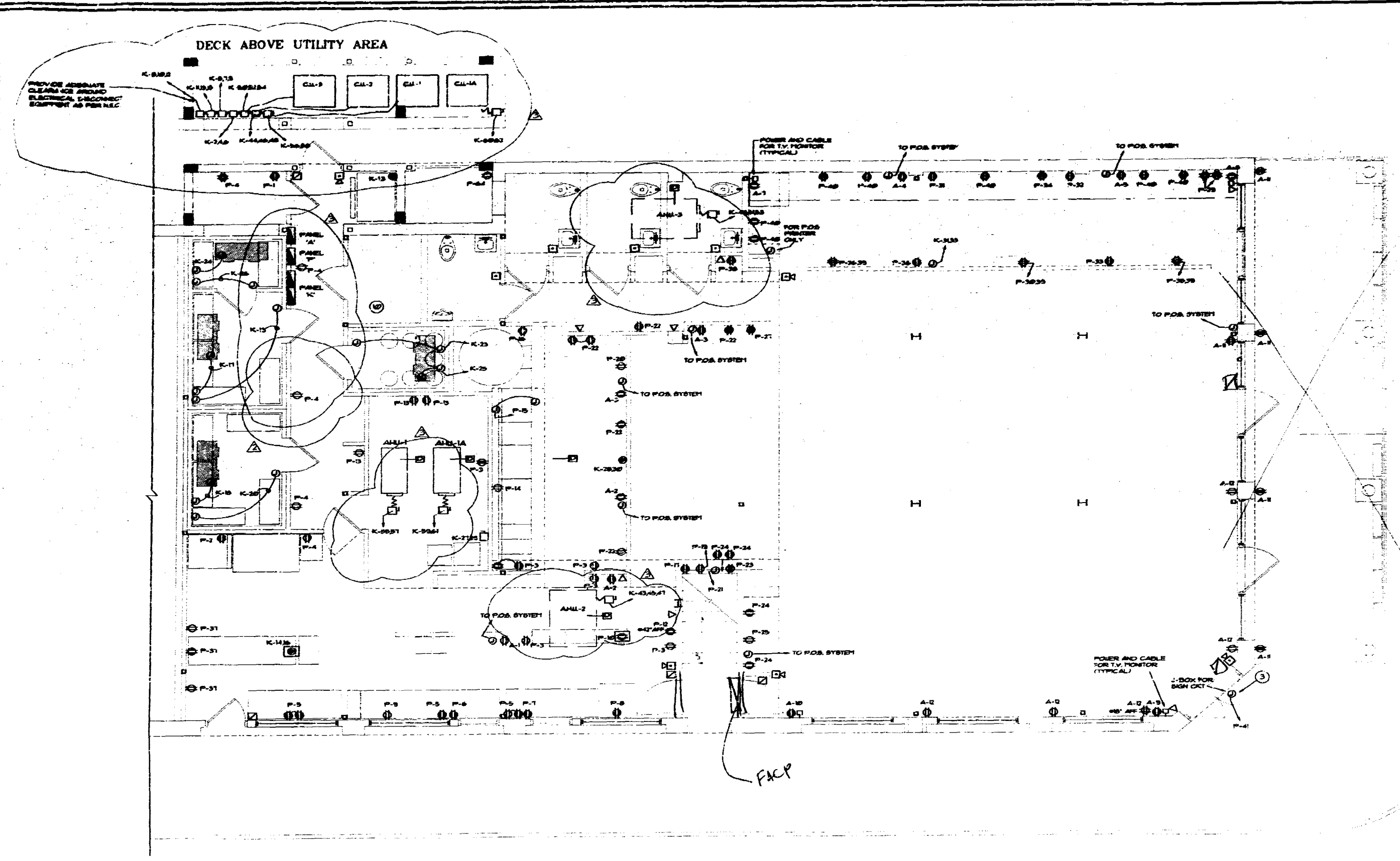
SCORE N.T.S.


Approved \_\_\_\_\_


2/1/94

P-4








**ELECTRICAL POWER PLAN**  
 SCALE: 1/4" = 1'-0"  
 GROUND FLOOR

SECOND STREET

COLLINS AVENUE

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 CITY OF MIAMI BEACH  
 APPROVED FOR RECORD BY  
 THE ENGINEER  
 BUILDING: \_\_\_\_\_  
 ZONING: \_\_\_\_\_  
 PLANNING: \_\_\_\_\_  
 PUBLIC WORKS: \_\_\_\_\_  
 FIRE: \_\_\_\_\_  
 HEALTH: \_\_\_\_\_  
 ENVIRONMENT: \_\_\_\_\_  
 STRUCTURAL: \_\_\_\_\_  
 ACCESSIBILITY: \_\_\_\_\_  
 ELEVATOR: \_\_\_\_\_

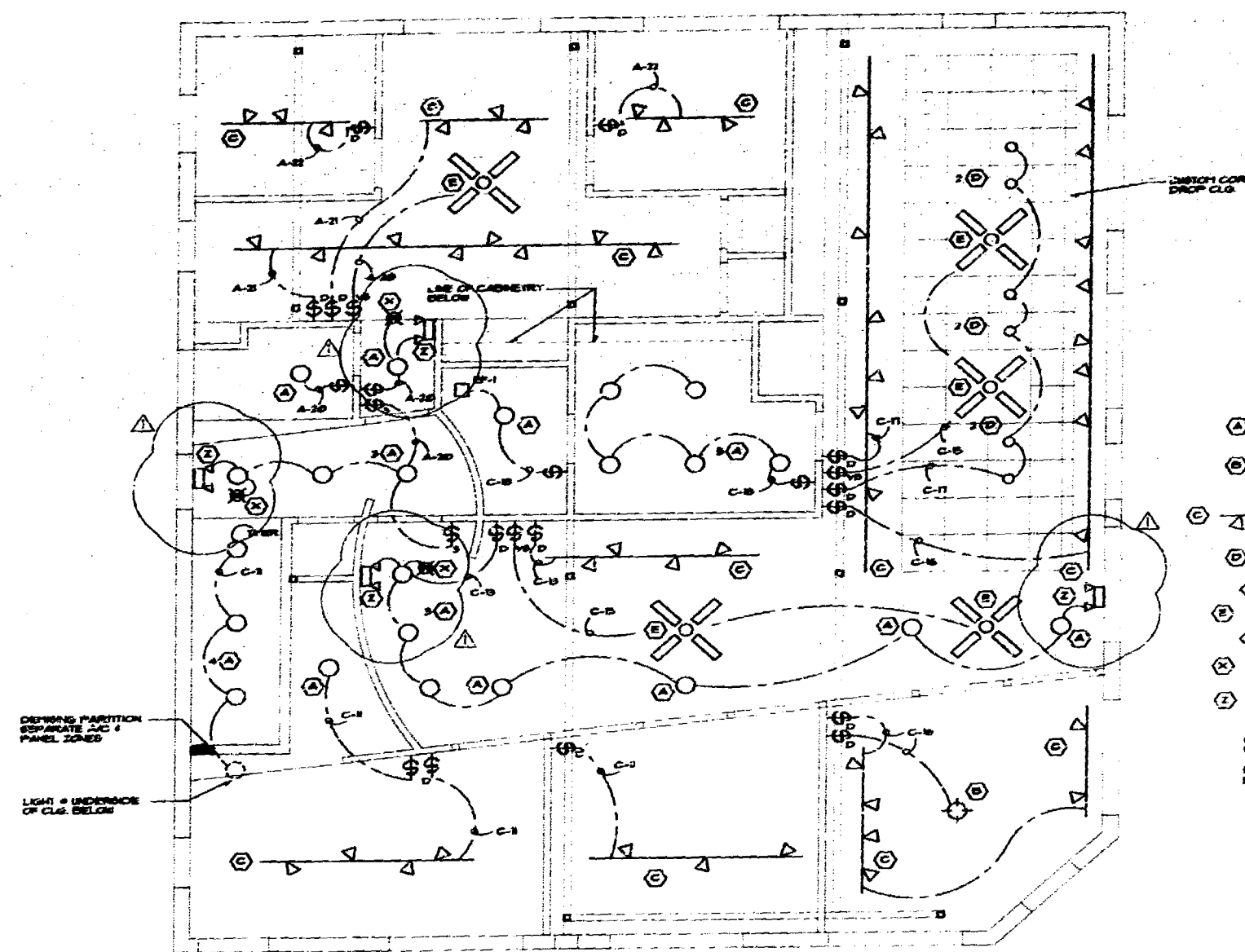

 Page and Associates, Inc.  
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 4970 S.W. 72 Avenue, #107  
 Miami, Florida 33155  
 (305) 551-7700

RENOVATIONS TO: <b>BIG PINK</b> 157 Collins Avenue Miami Beach, Florida 33139	
GROUND FLOOR ELECTRICAL PLAN	
REVISIONS: 1-10-95 2-5-95 3-16-95 CIRCULAR REVISION	SHEET NO: 07-08-95 PROJECT CODE/NAME: SP SCALE: 1/4" = 1'-0" DRAWN BY: J.D.P. CHECKED BY: 
E-1	










- LIGHTING SYMBOLS**
- (A) ○ SURFACE MOUNTED MULTI-PURPOSE (20-250W)
  - (B) ○ SURFACE MOUNTED PENDANT FUTURE (250W)
  - (C) △ TRACK LIGHTING
  - (D) ○ RECESSED C-ON FUTURE
  - (E) X CUL-EX TYPE I RECESSED 1/2" BULB BALLAST
  - (F) X 8" X 16" BATTERY BACK-UP
  - (G) □ EMERGENCY LIGHT 1/2" BATTERY BACK-UP
- NOTE: SEE LIGHTING FIXTURE SCHEDULE FOR LIGHTING SPECIFICATIONS  
REFER TO SCHEDULE AND SPECIFICATION BOOK FOR INDIVIDUAL FIXTURE REQUIREMENTS

- GENERAL LIGHTING NOTES**
- ALL FLUORESCENT FIXTURES SHALL HAVE EACH BALLAST RATED.
  - ALL FIXTURES SHALL BE PROPERLY SECURED TO CEILING GRID SYSTEM.
  - VERIFY ALL DIMENSIONS AND LOCATIONS WITH TENANT PRIOR TO INSTALLATION.
  - ALL WORK SHALL BE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND OTHER APPLICABLE CODES AND STANDARDS.
  - THE CONTRACTOR IS RESPONSIBLE FOR EVALUATING FIELD CONDITIONS BY VISITING THE SITE PRIOR TO COMMENCEMENT OF WORK.
  - THE CONTRACTOR SHALL SATISFACTORILY REPAIR/REPLACE EQUIPMENT OR PART OF STRUCTURE DAMAGED AS A RESULT OF HIS WORK. SURFACES AND FINISHED AREAS SHALL BE RESTORED TO MATCH ADJACENT AREAS.
  - APPROVAL SHALL BE OBTAINED FROM THE ENGINEER PRIOR TO CUTTING OR DRILLING ANY STRUCTURAL SUPPORT MEMBER.
  - ALL CONNECTIONS SHALL BE COPPER.
  - ALL MATERIALS SHALL BE UL APPROVED.
  - ALL LUMINAIRES SHALL BE PROPERLY SUPPORTED IN ACCORDANCE WITH THE CEILING SYSTEM MANUFACTURER RECOMMENDATIONS AND LOCAL CODE REQUIREMENTS.

 **ELECTRICAL LIGHTING PLAN**  
SCALE: 1/4" = 1'-0"  
SECOND FLOOR

**OFFICE COPY**  
CITY OF MIAMI BEACH

APPROVED FOR THE CITY OF MIAMI BEACH:

DATE: 07-08-96

PROJECT CODE/NO: 00000013

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

DESIGNED BY: J.P.

ENGINEER: J.P.

STRUCTURAL: J.P.

ACCESSIBILITY: J.P.

**Page and Associates, Inc.**  
Engineers/Consultants  
120 0000013  
4670 S.W. 72 Avenue, #107  
Miami, Florida 33155  
(305) 681-7700

RENOVATIONS TO:  
**BIG PINK**  
157 Collins Avenue  
Miami Beach, Florida 33139

SECOND FLOOR  
LIGHTING PLAN

DATE: 07-08-96

PROJECT CODE/NO: 00000013

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

DESIGNED BY: J.P.

ENGINEER: J.P.

STRUCTURAL: J.P.

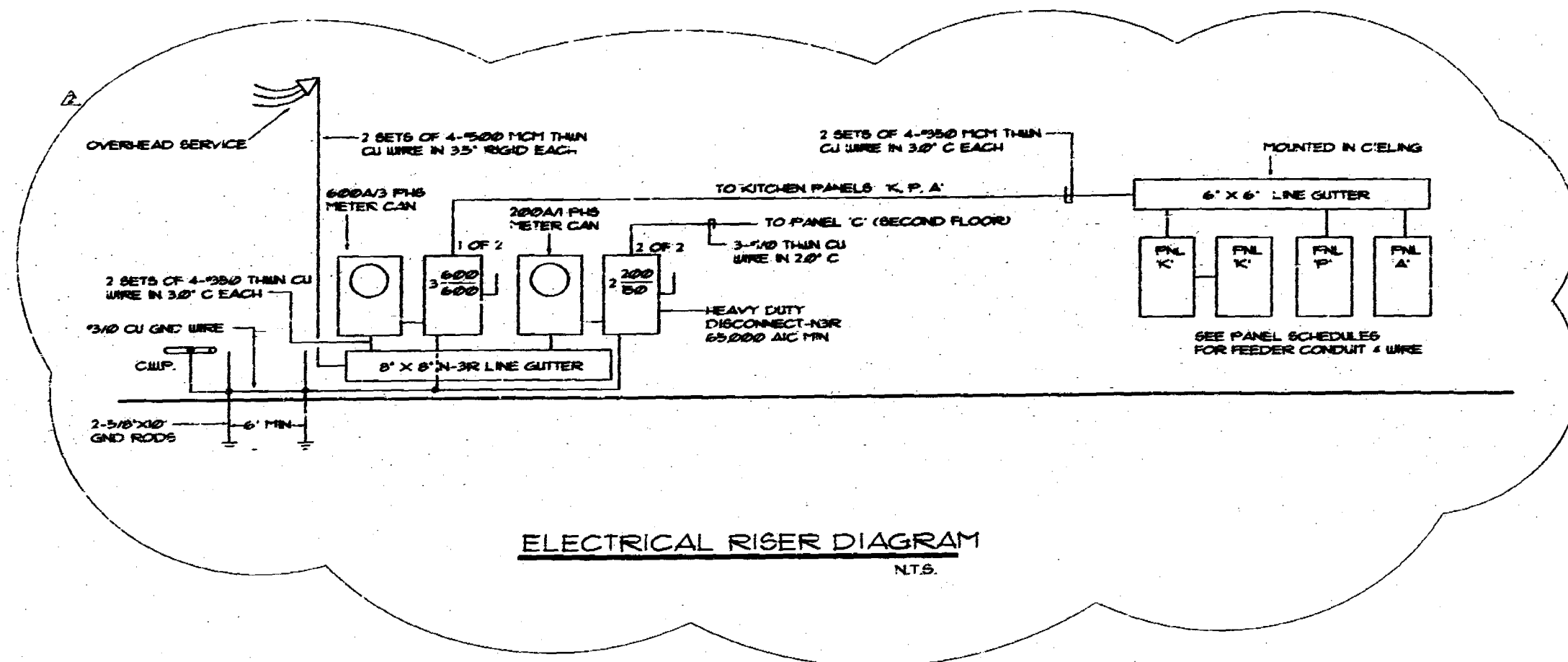
ACCESSIBILITY: J.P.

E-4

PANEL K  
SINGLE PHASE LOAD CALCULATION  
KITCHEN EQUIPMENT - 120 VOLT @ 100% = 9,000  
Total Demand Load 9,000  
9,000 VA / 240 = 37.5 Amps

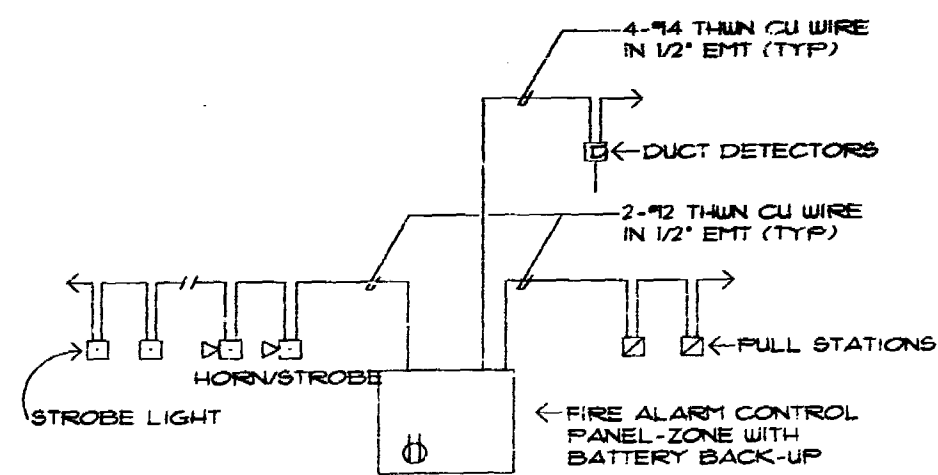
THREE PHASE LOAD CALCULATION  
KITCHEN EQUIPMENT @ 100% = 28,800 VA  
HVAC @ 100% NON-CONCURRENT = 41,300 VA  
HVAC, 25% OF LARGEST MOTOR = 3,302 VA  
Total Demand Load 71,202 VA  
71,202 VA / 415 = 171.6 Amps  
TOTAL DEMAND LOAD = 31.5 + 171.6 = 203 AMPS

PANEL A									
		TYPE	300-00			MANF	700A PCB		
		FMT	FLUSH			END	720		
		LOC	KITCHEN			WVLT	08/20/00 W-6 3/4		
		FEEDER	3-2/0, 2"Ø			AIC	W-6000		
CKT	POLE	KVA	DESCRIPTION	WIRE, C	CKT	POLE	KVA	DESCRIPTION	WIRE, C
1	1/2Ø	3	KITCHEN PRINTER (10)	3-2/0, 1/2"	2	1/2Ø	10	CASH REGISTER (10)	3-2/0, 1/2"
3	1/2Ø	3	CASH REGISTER (10)	3-2/0, 1/2"	4	1/2Ø	600	CASH REGISTER (10)	3-2/0, 1/2"
5	1/2Ø	3	CASH REGISTER (10)	3-2/0, 1/2"	6	1/2Ø	10	COMPUTER (10)	3-2/0, 1/2"
7	1/2Ø	1Ø	TELEVISION	2-2/0, 1/2"	8	1/2Ø	1Ø	TELEVISION	2-2/0, 1/2"
9	1/2Ø	1Ø	TELEVISION	2-2/0, 1/2"	10	1/2Ø	1Ø	TELEVISION	2-2/0, 1/2"
11	1/2Ø	136	REFRIGERABLE 1Ø	2-2/0, 1/2"	12	1/2Ø	136	REFRIGERABLE 1Ø	2-2/0, 1/2"
13	1/2Ø	1Ø	RECEPTACLE 1Ø	3-2/0, 1/2"	14	1/2Ø	1Ø	RECEPTACLE 1Ø	3-2/0, 1/2"
15	1/2Ø	3	RECEPTACLE	2-2/0, 1/2"	16	1/2Ø	3	RECEPTACLE	2-2/0, 1/2"
17	1/2Ø	3	RECEPTACLE	2-2/0, 1/2"	18	1/2Ø	15	SMALL APPLANCE	2-2/0, 1/2"
19	1/2Ø	1Ø	REFRIGERATOR	2-2/0, 1/2"	20	1/2Ø	3	LIGHTING	2-2/0, 1/2"
21	1/2Ø	3	LIGHTING	2-2/0, 1/2"	22	1/2Ø	6	LIGHTING	2-2/0, 1/2"
23	1/2Ø	136	LIGHTING	2-2/0, 1/2"	24	1/2Ø	27	LIGHTING	2-2/0, 1/2"
25	1/2Ø	1Ø	LIGHTING	2-2/0, 1/2"	26	1/2Ø	15	LIGHTING	2-2/0, 1/2"
27	1/2Ø	1Ø	LIGHTING	2-2/0, 1/2"	28	1/2Ø	12	LIGHTING	2-2/0, 1/2"
29	1/2Ø	12	LIGHTING	2-2/0, 1/2"	30	1/2Ø	15	LIGHTING	2-2/0, 1/2"
31	1/2Ø	15	LIGHTING	2-2/0, 1/2"	32	1/2Ø	60	LIGHTING	2-2/0, 1/2"
33	1/2Ø	12	LIGHTING	2-2/0, 1/2"	34	1/2Ø	12	LIGHTING	2-2/0, 1/2"
35	1/2Ø	3	LIGHTING	2-2/0, 1/2"	36	1/2Ø	12	LIGHTING	2-2/0, 1/2"
37	1/2Ø	12	LIGHTING	2-2/0, 1/2"	38	1/2Ø	12	LIGHTING	2-2/0, 1/2"
39	1/2Ø	12	LIGHTING	2-2/0, 1/2"	40	1/2Ø	606	T.T.B.	2-2/0, 1/2"
41					42				
TOTAL		202.2	KVA		TOTAL		2156	KVA	



## NUMBERED ELECTRICAL NOTES

- (7) PRIOR TO BID, THE CONTRACTOR SHALL VISIT THE JOB SITE AND RECOGNIZE ALL EXISTING CONDITIONS. NOTIFY THE ARCHITECT OF ANY DISCREPANCIES. THE CONTRACTOR SHALL GUARANTEE THE ACCURACY OF ALL DATA.**
- (8) EMBEDD SHOT DRUMMERS FOR ACCEPTANCE BY THE ARCHITECT AND/OR BUSINESS BEFORE PROCEEDING WITH THE PURCHASE OR INSTALLATION OF THE FIRST ANCHOR BOLT.**
- (9) CONNECT EIGHT AND INTERMEDIATE LIGHTS AHEAD OF RITCH LINES ON EACH LIGHTING CIRCUIT AS PER PLANS.**
- (10) PROVIDE A JIBON FOR BIRM CURRENT AT STORE FRONT ABOVE CEILING. PROVIDE TWO LOCKED POINTS TO INSTALLATION. CONNECT THEM TO COLD INTERMEDIATE WIRING.**
- (11) NEW RECEPTACLES ARE TO BE INSTALLED IN COUNTER SPACE. VERIFY EXACT LOCATION FOR POWER OUTLETS. PROVIDE TO ROOMS TO ROOMS DETAIL. COORDINATE ALL WORKING WITH ELECTRICAL DRAWINGS AND NOTES.**
- (12) HVAC DUCT SMOKE DETECTION SHALL BE INSTALLED AS PART OF THE FREE ALARM SYSTEM. DETECTORS SHALL BE INSTALLED BY FIREPROOFING CONTRACTOR. DETECTORS SHALL BE INSTALLED BY ELECTRICAL CONTRACTOR. COORDINATE ALL ALARM WORKING WITH THE BUILDING FIRE ALARM CONTROL UNIT.**
- (13) MAKE WORK SHALL COMPLY WITH THE BOTH FLUORIDA BUILDING CODE, DADE COUNTY SECTION AND ALL OTHER APPLICABLE STATE AND LOCAL REGULATIONS AND ORDINANCES.**
- (14) CONTRACTOR SHALL GUARANTEE WORK FOR TWO YEAR OF DEFECT IN MATERIALS AND LABOR AND MATERIALS FOR A WORK OF ONE YEAR AFTER ACCEPTANCE OF THE PROJECT.**
- (15) VERIFY EXACT LOCATION OF ALL EQUIPMENT WITH TENANT PRIOR TO**



## FIRE ALARM SYSTEM

IT IS THE INTENT OF THIS DOCUMENT TO PRODUCE A WIRING PLAN FOR THE INSTALLATION OF A NEW FIRE ALARM SYSTEM.

### SYSTEM OPERATION

ACTIVATION OF A MANUAL CALL STATION OR SMOKE DETECTOR SHALL:

- A) CAUSE ALL HORN TO SOUND AND ALL STROBE LIGHTS TO FLASH THROUGHOUT THE BUILDING.
- B) INDICATE THE ZONE OF ALARM AT THE FIRE ALARM CONTROL PANEL (FACP).
- C) CLOSE CONTACTS WITHIN THE FIRE ALARM CONTROL PANEL (FACP) FOR CENTRAL STATION MONITORING.

## NOTES

1. ALL SYSTEM DEVICES SHALL BE UL LISTED FOR THEIR INTENDED USE AND AS COMPATIBLE SYSTEMS.
2. COMPLETE SYSTEM TO BE FULLY ELECTRICALLY SUPERVISED. ANY DISARRANGEMENT OF THE SYSTEM SHALL CAUSE THE SYSTEM TO SHUT DOWN OR NORMAL AC POWER SHALL CAUSE THE SYSTEM TO SHUT DOWN TO PREVENT A SHORT CIRCUIT OR NORMAL AC POWER SHALL, IN ADDITION TO SHUTTING DOWN THE SYSTEM, CAUSE THE SYSTEM TO SHUT TO THE STAND-BY POSITION. THE SYSTEM TO BE INSTALLED IN ACCORDANCE WITH NFPA 70A, 720 AND NFPA 70B. THE SYSTEM SHALL BE FULLY COMPLY WITH NEC ARTICLES 40, 50, 60 AND 70. THE SYSTEM SHALL BE POWER LIMITED.

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THE FOLLOWING:

BUILDING: \_\_\_\_\_  
 ZONING: \_\_\_\_\_  
 LOT: \_\_\_\_\_  
 SUBDIVISION: \_\_\_\_\_  
 PROJECT: \_\_\_\_\_  
 ENGINEERING: \_\_\_\_\_  
 PUBLIC WORKS: \_\_\_\_\_  
 STRUCTURAL: \_\_\_\_\_  
 ACCESSIBILITY: \_\_\_\_\_

**Pe** Puga and Associates, Inc.  
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## RENOVATIONS TO: BIG PINK

157 Collins Avenue  
Miami Beach, Florida 33139

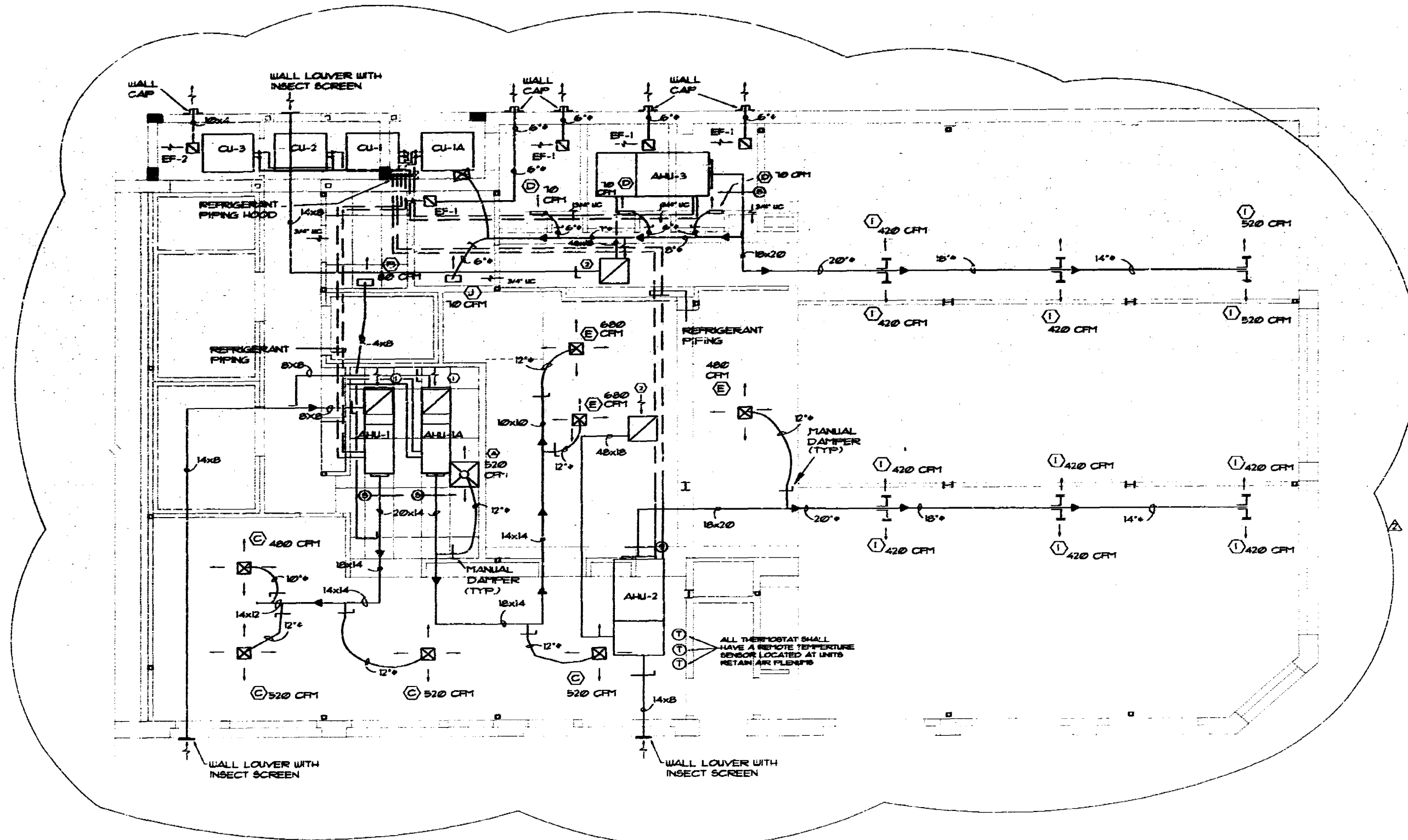
**ELECTRICAL  
RISERS & DETAILS**

revisions  
7-2-96

print date	07-08-96
project code/file name	30
scale	N.T.S.
Drawn by	J.D.D
check/rev'd	


5/1/20

E-6




**H.V.A.C. PLAN**  
 SCALE: 1/4" = 1'-0"      GROUND FLOOR

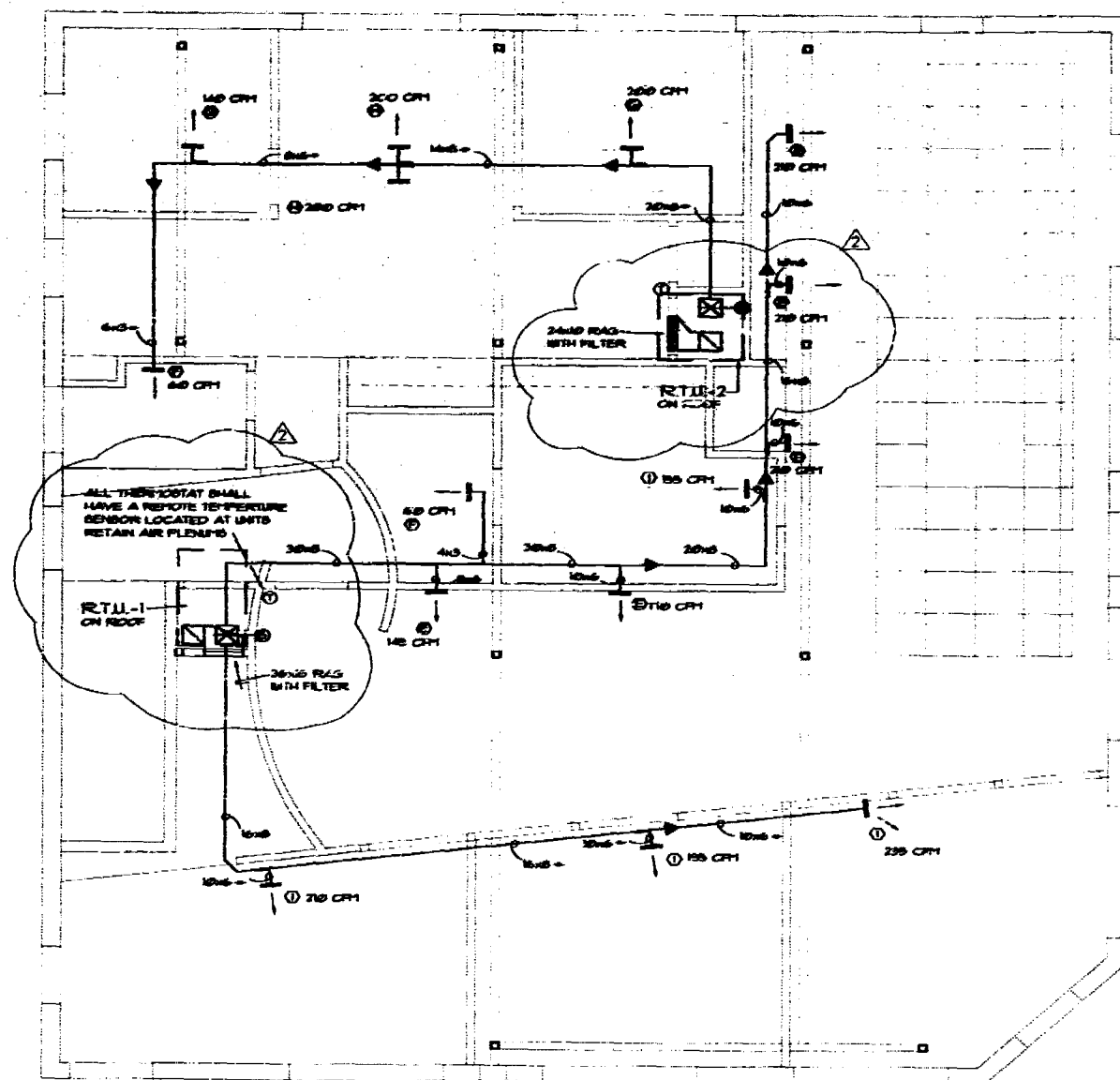
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 PLUMBING: \_\_\_\_\_  
 ELECTRICAL: \_\_\_\_\_  
 MECHANICAL: *PR 9/17/96*  
 FIRE PROTECTION: \_\_\_\_\_  
 ENGINEERING: \_\_\_\_\_  
 PUBLIC WORKS: \_\_\_\_\_  
 STRUCTURAL: \_\_\_\_\_  
 ACCESSIBILITY: \_\_\_\_\_  
 ELEVATOR: \_\_\_\_\_


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 # ES 0005813  
 4970 S.W. 72 Avenue, #107  
 Miami, Florida 33155  
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RENOVATIONS TO: <b>BIG PINK</b> 157 Collins Avenue Miami Beach, Florida 33139	
GROUND FLOOR MECHANICAL PLAN	
REVISIONS: A 8-8-96 B 8-16-96 CRAL REVISION	DATE: 07-08-96 PROJECT CODE/NO: 96 SCALE: 1/4" = 1'-0" DRAWN BY: E.B. APPROVED: <i>[Signature]</i>
M-1	

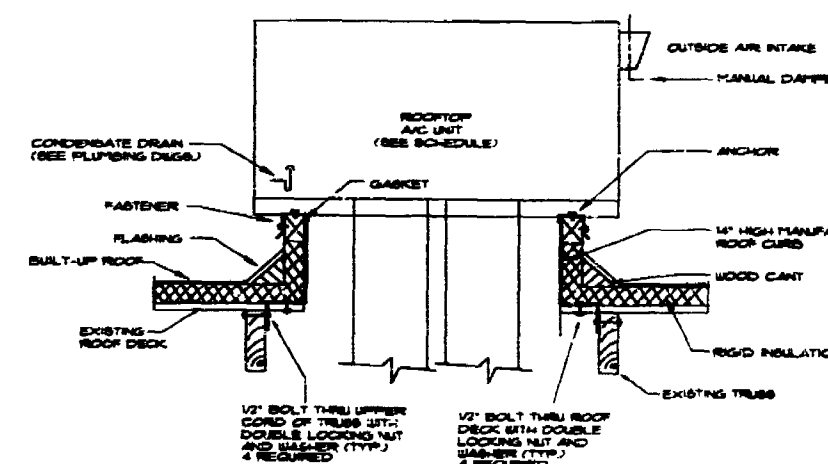




H.V.A.C. PLAN  
SCALE: 1/4" = 1'-0" SECOND FLOOR

PACKAGED ROOFTOP A.C. UNIT SCHEDULE		
UNIT DESIGNATION	RTU-1	RTU-2
AREA SERVED	250	250
OPERATING WEIGHT, lbs. - CURB	150	150
LOCATION	ROOF	ROOF
(6) EER	10.0	10.0
NOMINAL TONS	5	5
TOTAL AIR SUPPLY CFM	3500	3500
OUTSIDE AIR SUPPLY CFM	250	250
EXT. STATIC PRESS. IN. OF H <sub>2</sub> O	4.0	4.0
FAN MOTOR	HP/FLA	3/3 1/2
SENSIBLE COOLING CAP. BTU/Hr	42,000	42,000
TOTAL COOLING CAP. BTU/Hr	46,000	46,000
ENTERING AIR TEMP. °F DB/AB	80/67	80/67
LEAVING AIR TEMP. °F DB/AB	55/51	55/51
FILTER TYPE AND THICKNESS	4" THROBREAT	4" THROBREAT
FILTER SIZES	CUT TO FIT	CUT TO FIT
TOTAL HEATING CAPACITY BTU/Hr	26,200	26,200
TOTAL KW HEATING	16.0	16.0
NOMINAL TOTAL COP. FLA	21.0	21.0
NOMINAL TOTAL FAN HP/FLA	1/2 3/4	1/2 3/4
AIRBENT AIR TEMP. °F DB	80	80
CONDENSING TEMP. °F MAX	95	95
DESIGN MANUFACTURER	TRANE	TRANE
MODEL NO.	TC080P060	TC080P060
ELECTRICAL REQUIREMENTS V/PHS	240V/60	240V/60

\* PROVIDES A SMOKE DETECTOR IN THE SUPPLY DUCT INTERLOCKED WITH THE UNIT SO THAT THE UNIT WILL SHUT-DOWN UPON DETECTION.



A/C UNIT (ROOFTOP) INSTALLATION DETAIL

OFFICE COPY  
CITY OF MIAMI BEACH

APPROVED FOR THE CITY OF MIAMI BEACH

DATE: 07-08-96

PROJECT CODE/NO. NAME

DATE: 07-08-96

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

DESIGNED BY

STRUCTURAL

ACCESSIBILITY

ELEVATION

Paga and Associates, Inc.  
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RENOVATIONS TO:  
BIG PINK  
157 Collins Avenue  
Miami Beach, Florida 33139

SECOND FLOOR  
MECHANICAL PLAN

8-2-96  
8-10-96

07-08-96

BP

1/8" = 1'-0"

DESIGNED BY

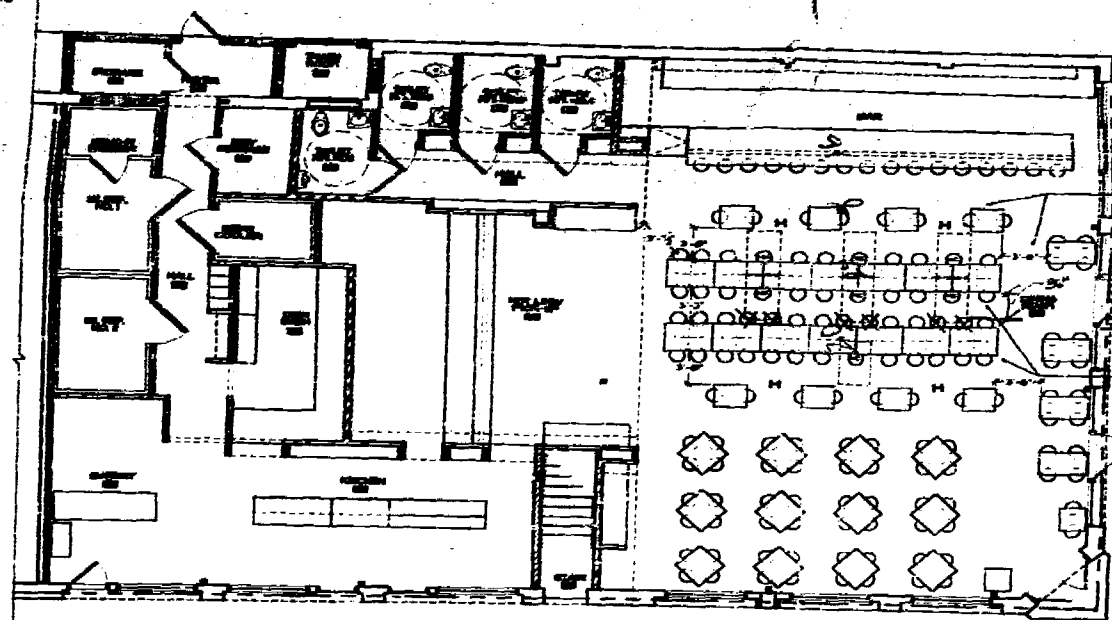
STRUCTURAL

ACCESSIBILITY

ELEVATION

M-2





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CITY OF MIAMI BEACH

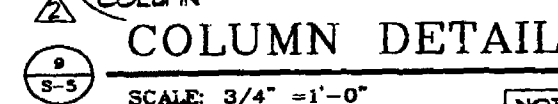
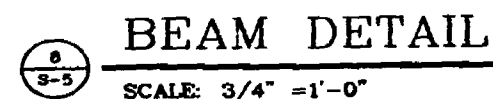
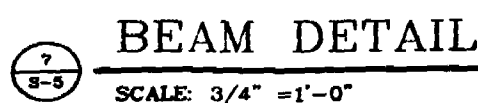
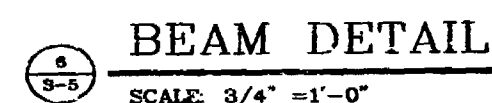
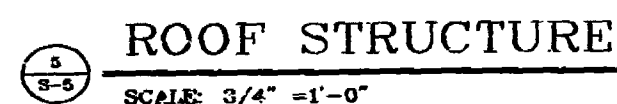
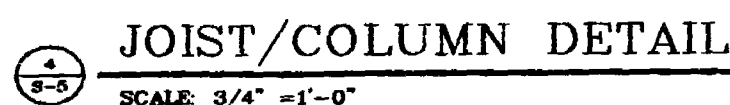
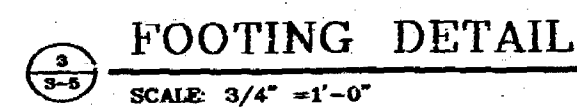
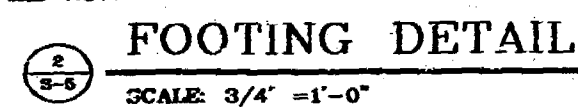
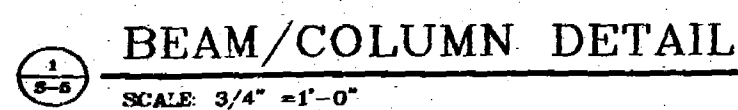
APPROVED FOR PERMIT BY  
THE FOLLOWING:

BUILDING: \_\_\_\_\_  
 ZONE: \_\_\_\_\_  
 PLANNING: \_\_\_\_\_  
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 STRUCTURAL: \_\_\_\_\_  
 ACCESSIBILITY: \_\_\_\_\_  
 ELEVATOR: \_\_\_\_\_

PERMIT #  
B 9400397

ADDRESS  
157 Collins Avenue





NOTE: STEEL MANUFACTURERS TO SUBMIT SHOP DRAWINGS TO ARCHITECT/ENGINEER FOR APPROVAL PRIOR TO FABRICATION

RENOVATIONS TO:  
**BIG PINK**  
157 Collins Avenue  
Miami Beach, Florida 33139

## STRUCTURAL DETAILS

revisions

△ 06-19-96

△ 07-08-96

print date	05-04-96
project code/f:ls name	BP
scale	3/4"=1'-0"
drawn by	V.B.
approved	

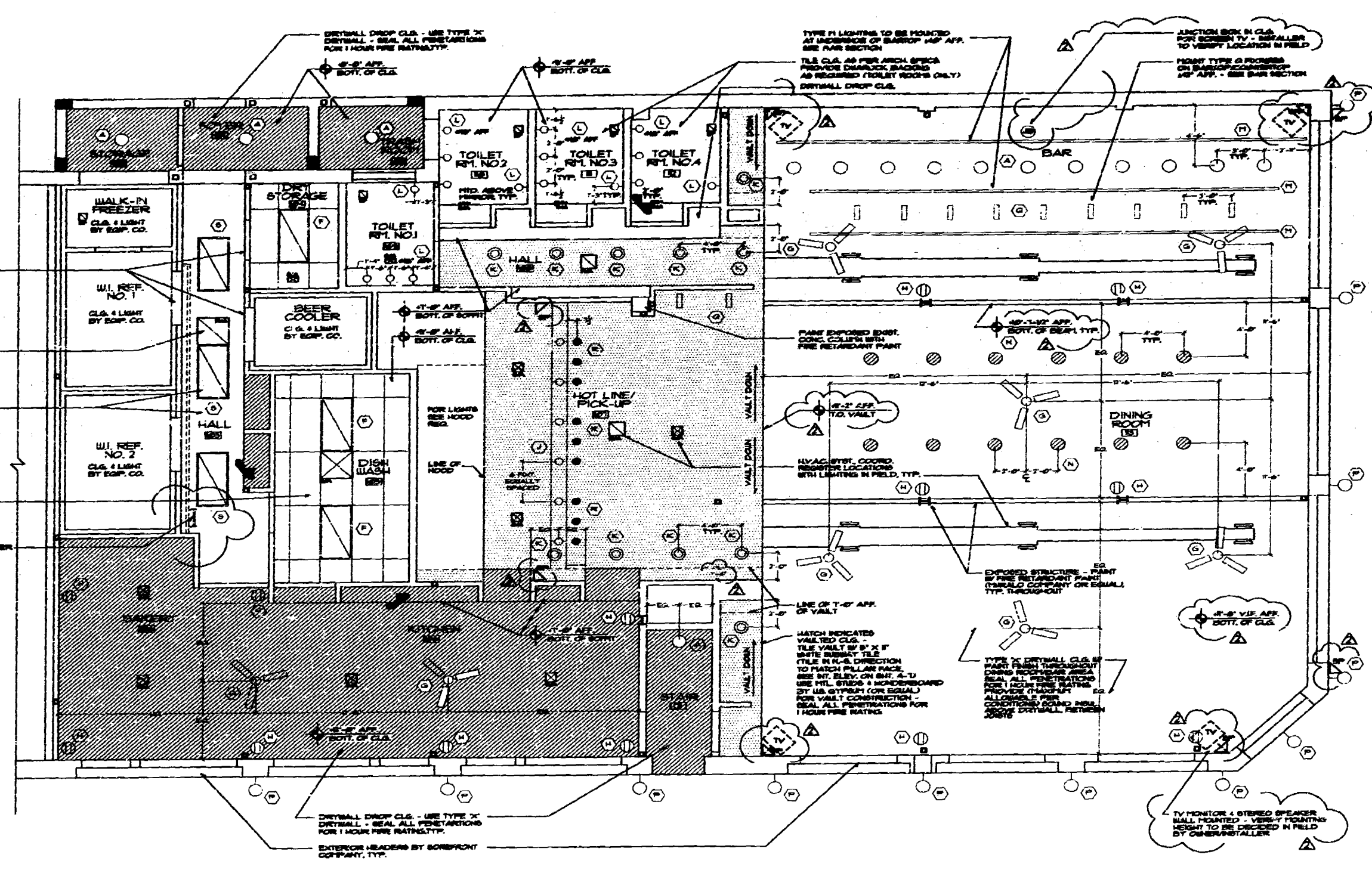
S-15

**Miami Beach, Florida**

EQUIPMENT BY ARROW INDUSTRIES  
RAUL PINEIRO  
(305) 635-6500







- LIGHTING SYMBOLS**
- SURFACE MOUNTED UTILITY PICTURE (750W)
  - SURFACE MOUNTED RECESSED PICTURE (750W)
  - TRACK LIGHTING
  - RECESSED CAN PICTURE
  - GLASS TYPE 1 RECESSED CAN PICTURE (750W)
  - RECESSED ALUMINUM (750W)
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  - GLASS TYPE 100 RECESSED CAN PICTURE (750W)

**REFLECTED CEILING PLAN**  
SCALE: 1/4" = 1'-0"

**OFFICE COPY**  
CITY OF MIAMI BEACH

APPROVED FOR PERMIT BY  
THE FOLLOWING:

BUILDING	
ZONING	
PLANNING	
ELECTRIC	
MUNICIPAL	
ENGINEERING	
PUBLIC WORKS	
STRUCTURAL	
ACCESSIBILITY	
ELEVATOR	

RENOVATIONS TO:  
**BIG PINK**  
187 Collins Avenue  
Miami Beach, Florida 33139

**GROUND FLOOR  
REFL. CLG. PLAN**

DATE: 02-07-96

PROJECT NO: 96-00-06

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

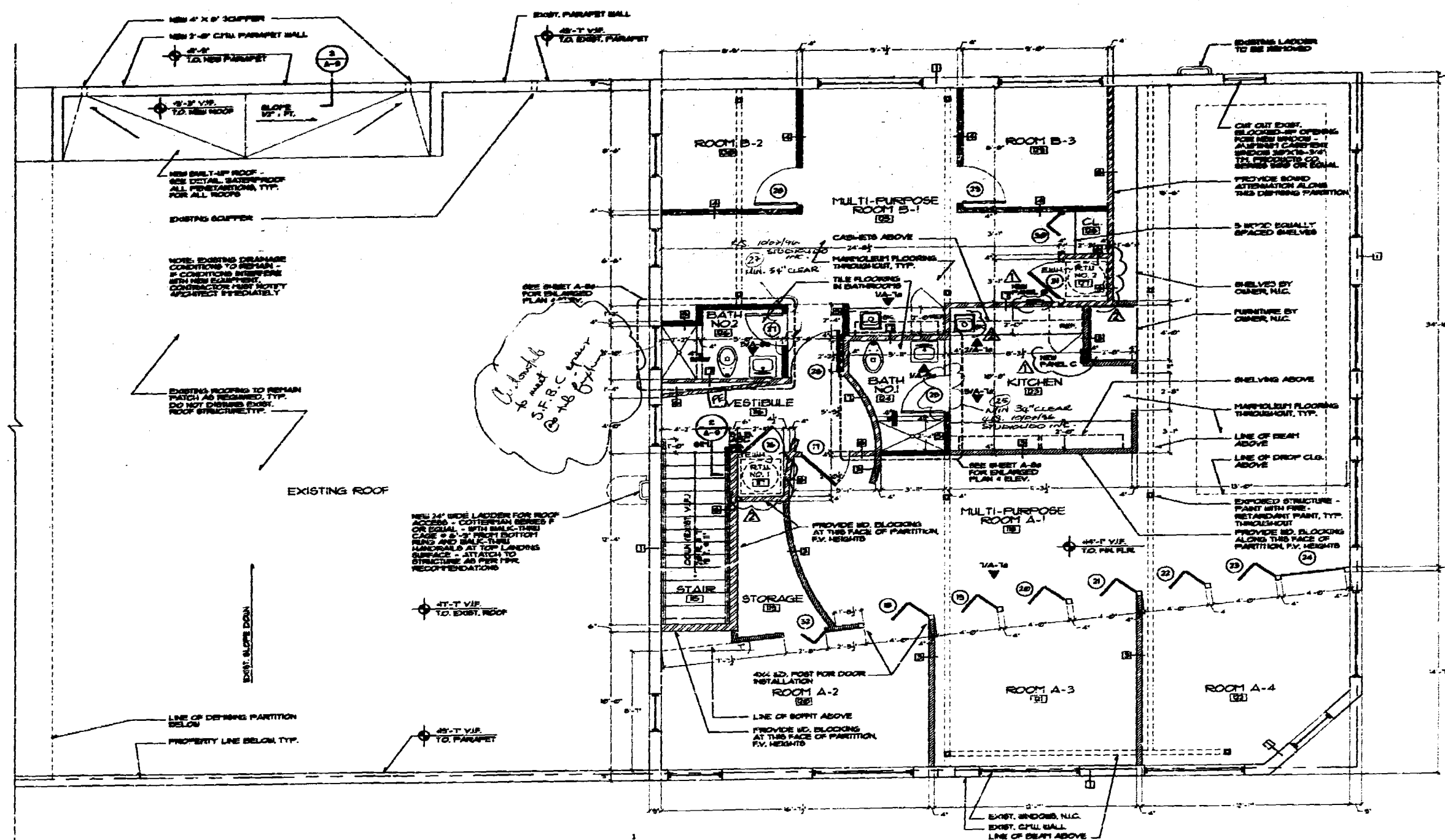
APPROVED BY: V.B.

APPROVED: *[Signature]*

**A-2**

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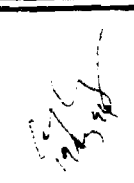



**SECOND FLOOR PLAN**  
 SCALE: 1/4" = 1'-0"

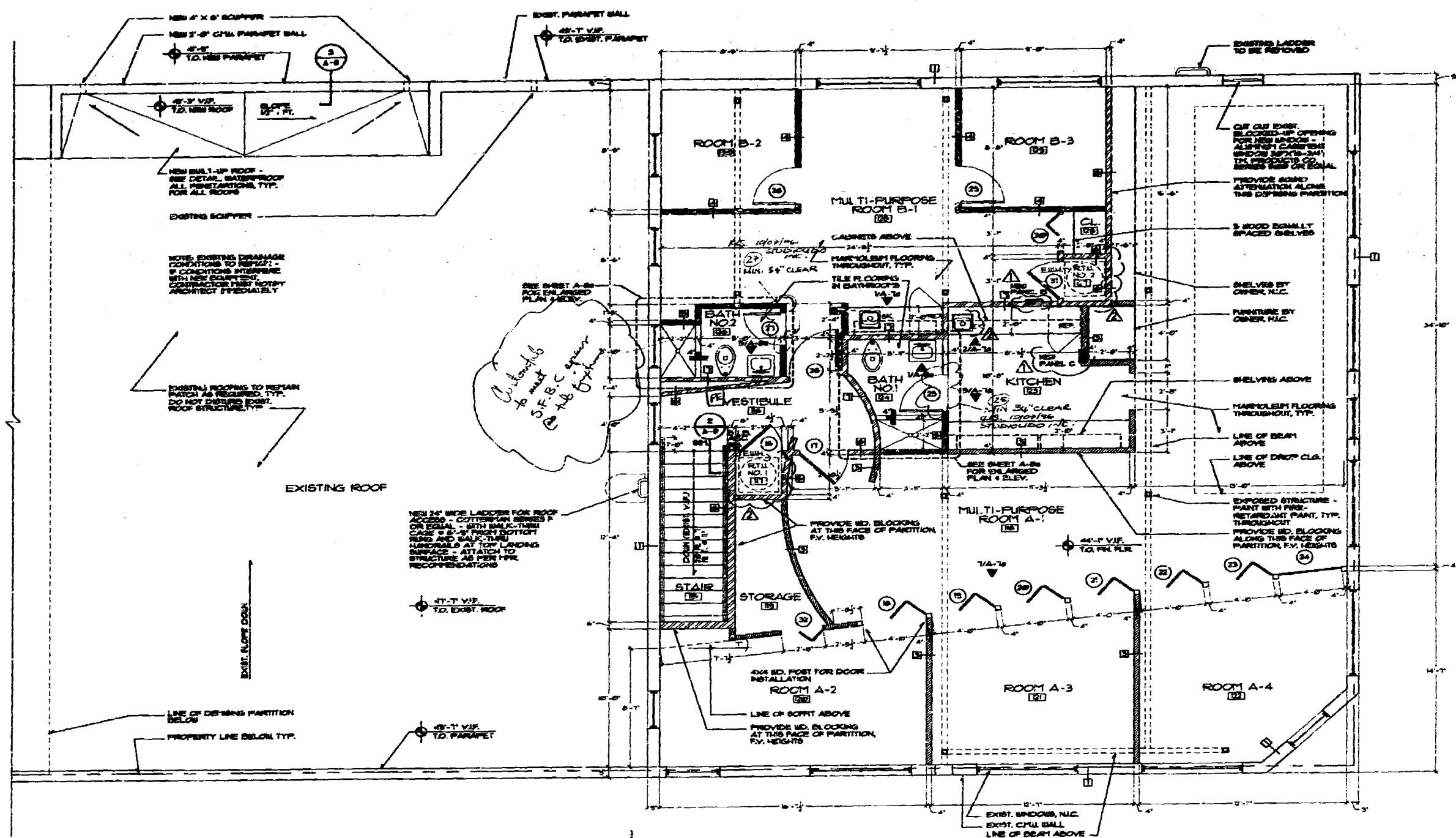


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 CITY OF MIAMI BEACH  
 APPROVED FOR PERMIT BY  
 THE FOLLOWING:

BUILDING: \_\_\_\_\_  
 ZONING: \_\_\_\_\_  
 PLUMBING: \_\_\_\_\_  
 ELECTRICAL: \_\_\_\_\_  
 MECHANICAL: \_\_\_\_\_  
 FIRE ALARMS: \_\_\_\_\_  
 ELEVATORS: \_\_\_\_\_  
 PUBLIC WORKS: \_\_\_\_\_  
 STRUCTURAL: \_\_\_\_\_  
 ACCESSIBILITY: \_\_\_\_\_  
 ELEVATOR: \_\_\_\_\_

RENOVATIONS TO: <b>BIG PINK</b> 157 Collins Avenue Miami Beach, Florida 33139	
<b>SECOND FLOOR PLAN</b>	
PERMIT NO. 07-19-96 08-07-96	PROJECT NO. 87-88-96 DP
SCALE 1/4" = 1'-0"	DRAWN BY V.B.
	
<b>A-3</b>	

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 WITHOUT THE WRITTEN PERMISSION OF THE CITY OF MIAMI BEACH.



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



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CITY OF MIAMI BEACH

APPROVED FOR PERMIT BY  
THE FOLLOWING:

BUILDING: \_\_\_\_\_  
ZONING: \_\_\_\_\_  
PLUMBING: \_\_\_\_\_  
ELECTRICAL: \_\_\_\_\_  
MECHANICAL: \_\_\_\_\_  
FIRE PROTECTION: \_\_\_\_\_  
ENGINEERING: \_\_\_\_\_  
PUBLIC WORKS: \_\_\_\_\_  
STRUCTURAL: \_\_\_\_\_  
ACCESSIBILITY: \_\_\_\_\_  
ELEVATOR: \_\_\_\_\_

RENOVATIONS TO:

**BIG PINK**

157 Collins Avenue  
Miami Beach, Florida 33139

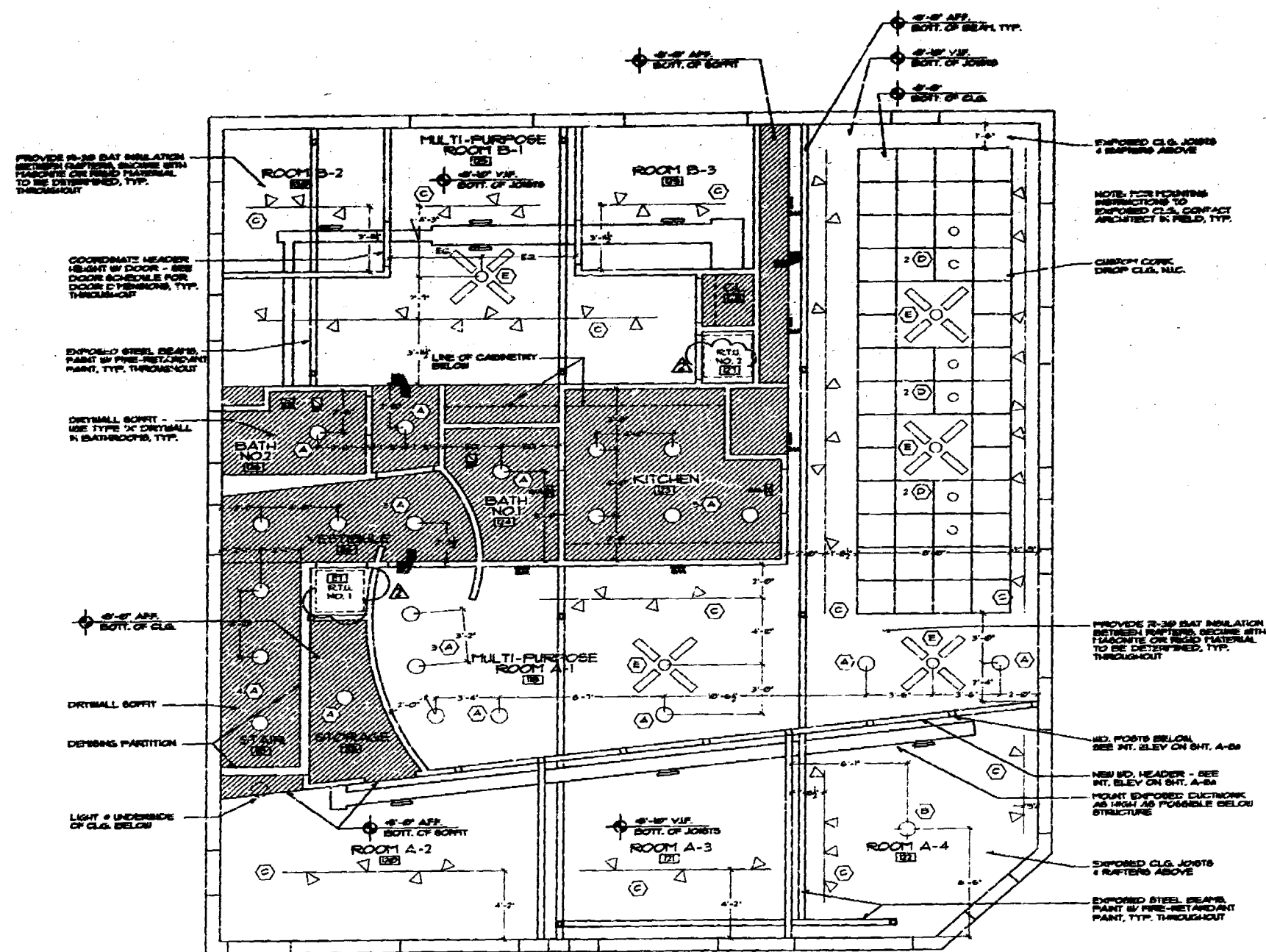
SECOND FLOOR  
PLAN

REVISIONS:  
Δ 07-19-96  
Δ 08-07-96

SHEET 001  
07-09-96  
PROJECT: CONCEPT NAME  
BP  
SCALE: 1/4" = 1'-0"  
DRAWN BY: V.B.  
APPROVED: \_\_\_\_\_

A-3

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PROJECT ARE THE PROPERTY OF THIS  
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INCLUDING PHOTOCOPYING, RECORDING,  
OR BY ANY INFORMATION STORAGE AND  
RETRIEVAL SYSTEM, WITHOUT THE  
WRITTEN PERMISSION OF STAGG, INC.



REFLECTED CEILING PLAN  
SCALE: 1/4" = 1'-0"

- LIGHTING SYMBOLS**
- (A) ○ SURFACE MOUNTED UTILITY FIXTURE (18" DIA.)
  - (B) ○ SURFACE MOUNTED RECESSED FIXTURE (18" DIA.)
  - (C) △ TRACK LIGHTING
  - (D) ○ 4" RECESSED CAN FIXTURE
  - (E) X 6" x 6" x 1" RECESSED CAN FIXTURE
- NOTE: SEE LIGHTING FIXTURE SCHEDULES ON SHEET A-10 FOR LIGHTING SPECIFICATIONS

- HVAC SYMBOLS**
- EXHAUST FAN
  - RETURN AIR REGISTER
  - SUPPLY AIR REGISTER
  - SPECIAL SUPPLY AIR REGISTER
  - EXHAUST DUCTWORK
  - SUPPLY DUCTWORK
  - EXHAUST DUCTWORK
  - SUPPLY DUCTWORK
- NOTE: SEE MECHANICAL SCHEDULES ON SHEET A-10 FOR MECHANICAL SPECIFICATIONS

**OFFICE COPY**  
CITY OF MIAMI BEACH

APPROVED FOR PERMIT BY THE FOLLOWING:

BUILDING: \_\_\_\_\_  
ELECTRICAL: \_\_\_\_\_  
MECHANICAL: \_\_\_\_\_  
FIRE PROTECTION: \_\_\_\_\_  
ENGINEERING: \_\_\_\_\_  
PUBLIC WORKS: \_\_\_\_\_  
STRUCTURAL: \_\_\_\_\_  
ACCESSIBILITY: \_\_\_\_\_  
ELEVATOR: \_\_\_\_\_

RENOVATIONS TO:  
**BIG PINK**  
157 Collins Avenue  
Miami Beach, Florida 33139

SECOND FLOOR  
REFL. CLG. PLAN

DATE: 08-07-96

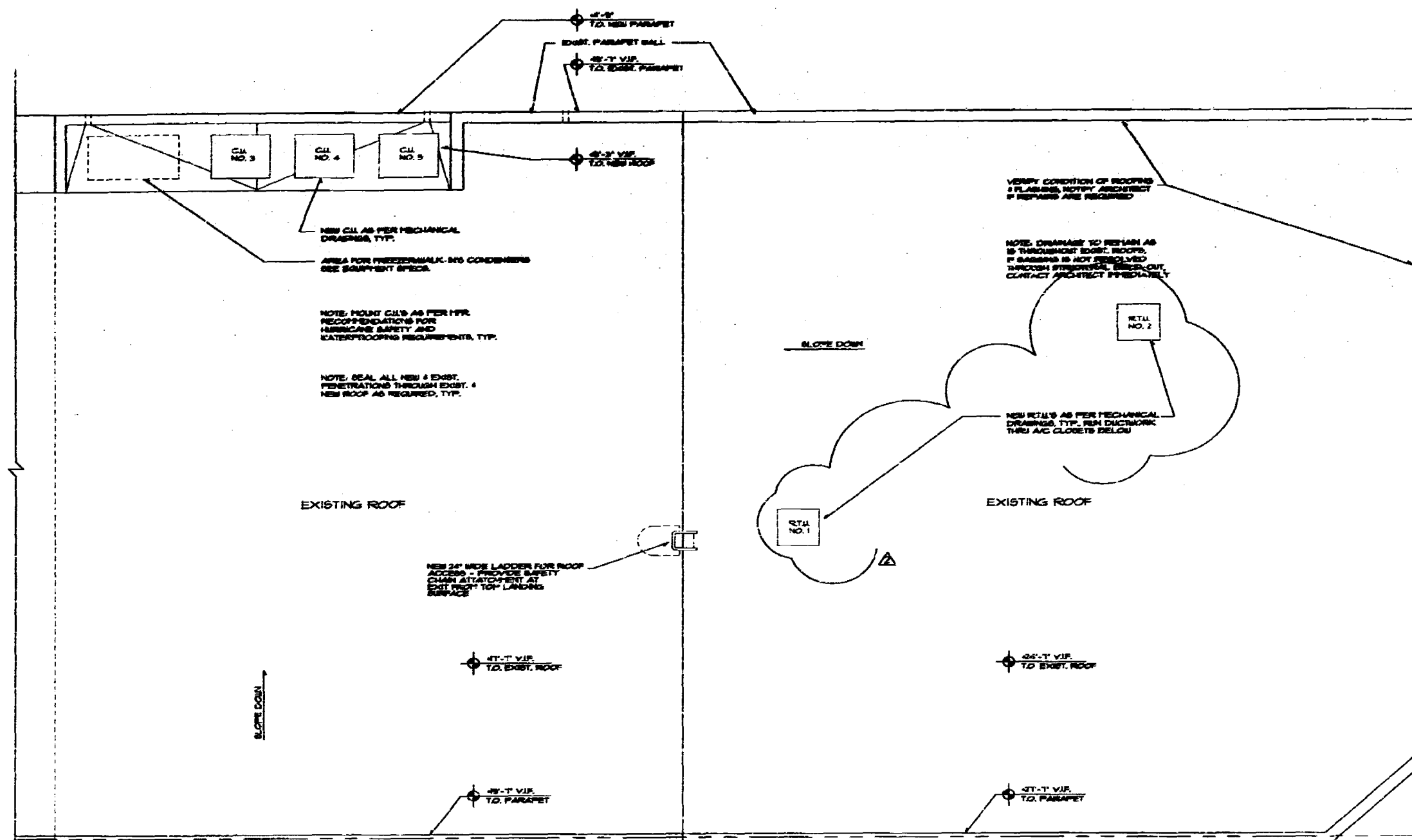
PROJECT NO: 96-00-00

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

APPROVED: \_\_\_\_\_

\_\_\_\_\_  
10/10/96

A-4



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

**OFFICE COPY**  
CITY OF MIAMI BEACH  
APPROVED FOR PERMIT BY  
THE FOLLOWING:

BUILDING	
ZONING	
PLANNING	
ENGINEERING	
MECHANICAL	
ELECTRICAL	
ENVIRONMENTAL	
ENGINEERING	
PUBLIC WORKS	
STRUCTURAL	
ACCESSIBILITY	
EXHIBIT	

RENOVATIONS TO:  
**BIG PINK**  
157 Collins Avenue  
Miami Beach, Florida 33139

ROOF PLAN

DATE: 08-01-96

PROJECT: 08-01-96

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

DRAWN BY: V.B.

APPROVED BY: [Signature]

A-5

# architectural general notes

## DIVISION 1 - GENERAL REQUIREMENTS

- 1.1 **General Notes:**  
The work under this specification and its sub-sections shall be performed in accordance with the provisions of the contract documents, including the specifications, drawings, and all applicable laws, rules, and regulations of the City of Miami Beach.
- 1.2 **Compliance:**  
The contractor shall comply with all applicable laws, rules, and regulations of the City of Miami Beach, including the specifications, drawings, and all applicable laws, rules, and regulations of the City of Miami Beach.
- 1.3 **Insurance:**  
The contractor shall maintain and keep in force throughout the term of the contract, liability insurance and workers' compensation insurance, and shall provide proof of such insurance to the City of Miami Beach.
- 1.4 **Permits:**  
The contractor shall obtain and pay for all permits required for the work under this specification, including the specifications, drawings, and all applicable laws, rules, and regulations of the City of Miami Beach.
- 1.5 **Access and Egress:**  
The contractor shall maintain and keep in force throughout the term of the contract, access and egress for all vehicles, pedestrians, and other persons, and shall provide proof of such insurance to the City of Miami Beach.
- 1.6 **Protection of Existing Work:**  
The contractor shall protect and maintain all existing work, including the specifications, drawings, and all applicable laws, rules, and regulations of the City of Miami Beach.
- 1.7 **Construction Methods:**  
The contractor shall use the best construction methods and materials, including the specifications, drawings, and all applicable laws, rules, and regulations of the City of Miami Beach.
- 1.8 **Quality Control:**  
The contractor shall maintain and keep in force throughout the term of the contract, quality control procedures, and shall provide proof of such insurance to the City of Miami Beach.
- 1.9 **Record Keeping:**  
The contractor shall maintain and keep in force throughout the term of the contract, record keeping procedures, and shall provide proof of such insurance to the City of Miami Beach.

## DIVISION 2 - ROOF WORK

- 2.1 **Roofing:**  
2.1.1 **Materials:** The contractor shall use the best materials and methods, including the specifications, drawings, and all applicable laws, rules, and regulations of the City of Miami Beach.  
2.1.2 **Installation:** The contractor shall install the roof system in accordance with the specifications, drawings, and all applicable laws, rules, and regulations of the City of Miami Beach.  
2.1.3 **Flashing:** The contractor shall install the flashing in accordance with the specifications, drawings, and all applicable laws, rules, and regulations of the City of Miami Beach.  
2.1.4 **Drainage:** The contractor shall install the drainage system in accordance with the specifications, drawings, and all applicable laws, rules, and regulations of the City of Miami Beach.  
2.1.5 **Insulation:** The contractor shall install the insulation in accordance with the specifications, drawings, and all applicable laws, rules, and regulations of the City of Miami Beach.  
2.1.6 **Protection:** The contractor shall protect and maintain all existing work, including the specifications, drawings, and all applicable laws, rules, and regulations of the City of Miami Beach.  
2.1.7 **Access:** The contractor shall maintain and keep in force throughout the term of the contract, access and egress for all vehicles, pedestrians, and other persons, and shall provide proof of such insurance to the City of Miami Beach.  
2.1.8 **Quality Control:** The contractor shall maintain and keep in force throughout the term of the contract, quality control procedures, and shall provide proof of such insurance to the City of Miami Beach.  
2.1.9 **Record Keeping:** The contractor shall maintain and keep in force throughout the term of the contract, record keeping procedures, and shall provide proof of such insurance to the City of Miami Beach.
- 2.2 **Roofing Details:**  
The contractor shall maintain and keep in force throughout the term of the contract, roof roofing details, and shall provide proof of such insurance to the City of Miami Beach.
- 2.3 **Roofing Materials:**  
The contractor shall maintain and keep in force throughout the term of the contract, roof roofing materials, and shall provide proof of such insurance to the City of Miami Beach.

## DIVISION 3 - WOOD AND PLASTER

- 3.1 **Wood and Plaster:**  
3.1.1 **Materials:** The contractor shall use the best materials and methods, including the specifications, drawings, and all applicable laws, rules, and regulations of the City of Miami Beach.  
3.1.2 **Installation:** The contractor shall install the wood and plaster in accordance with the specifications, drawings, and all applicable laws, rules, and regulations of the City of Miami Beach.  
3.1.3 **Flashing:** The contractor shall install the flashing in accordance with the specifications, drawings, and all applicable laws, rules, and regulations of the City of Miami Beach.  
3.1.4 **Drainage:** The contractor shall install the drainage system in accordance with the specifications, drawings, and all applicable laws, rules, and regulations of the City of Miami Beach.  
3.1.5 **Insulation:** The contractor shall install the insulation in accordance with the specifications, drawings, and all applicable laws, rules, and regulations of the City of Miami Beach.

## DIVISION 4 - EXTERIOR AND INTERIOR FINISHES

- 4.1 **Exterior and Interior Finishes:**  
4.1.1 **Materials:** The contractor shall use the best materials and methods, including the specifications, drawings, and all applicable laws, rules, and regulations of the City of Miami Beach.  
4.1.2 **Installation:** The contractor shall install the exterior and interior finishes in accordance with the specifications, drawings, and all applicable laws, rules, and regulations of the City of Miami Beach.  
4.1.3 **Flashing:** The contractor shall install the flashing in accordance with the specifications, drawings, and all applicable laws, rules, and regulations of the City of Miami Beach.  
4.1.4 **Drainage:** The contractor shall install the drainage system in accordance with the specifications, drawings, and all applicable laws, rules, and regulations of the City of Miami Beach.  
4.1.5 **Insulation:** The contractor shall install the insulation in accordance with the specifications, drawings, and all applicable laws, rules, and regulations of the City of Miami Beach.

## DIVISION 5 - DOORS AND WINDOWS

- 5.1 **Doors and Windows:**  
5.1.1 **Materials:** The contractor shall use the best materials and methods, including the specifications, drawings, and all applicable laws, rules, and regulations of the City of Miami Beach.  
5.1.2 **Installation:** The contractor shall install the doors and windows in accordance with the specifications, drawings, and all applicable laws, rules, and regulations of the City of Miami Beach.  
5.1.3 **Flashing:** The contractor shall install the flashing in accordance with the specifications, drawings, and all applicable laws, rules, and regulations of the City of Miami Beach.  
5.1.4 **Drainage:** The contractor shall install the drainage system in accordance with the specifications, drawings, and all applicable laws, rules, and regulations of the City of Miami Beach.  
5.1.5 **Insulation:** The contractor shall install the insulation in accordance with the specifications, drawings, and all applicable laws, rules, and regulations of the City of Miami Beach.
- 5.2 **Doors and Windows Details:**  
The contractor shall maintain and keep in force throughout the term of the contract, doors and windows details, and shall provide proof of such insurance to the City of Miami Beach.
- 5.3 **Doors and Windows Materials:**  
The contractor shall maintain and keep in force throughout the term of the contract, doors and windows materials, and shall provide proof of such insurance to the City of Miami Beach.
- 5.4 **Doors and Windows Installation:**  
The contractor shall maintain and keep in force throughout the term of the contract, doors and windows installation, and shall provide proof of such insurance to the City of Miami Beach.
- 5.5 **Doors and Windows Access:**  
The contractor shall maintain and keep in force throughout the term of the contract, doors and windows access, and shall provide proof of such insurance to the City of Miami Beach.
- 5.6 **Doors and Windows Quality Control:**  
The contractor shall maintain and keep in force throughout the term of the contract, doors and windows quality control, and shall provide proof of such insurance to the City of Miami Beach.
- 5.7 **Doors and Windows Record Keeping:**  
The contractor shall maintain and keep in force throughout the term of the contract, doors and windows record keeping, and shall provide proof of such insurance to the City of Miami Beach.

## DIVISION 6 - PAINTS

- 6.1 **Paints:**  
6.1.1 **Materials:** The contractor shall use the best materials and methods, including the specifications, drawings, and all applicable laws, rules, and regulations of the City of Miami Beach.  
6.1.2 **Installation:** The contractor shall install the paints in accordance with the specifications, drawings, and all applicable laws, rules, and regulations of the City of Miami Beach.  
6.1.3 **Flashing:** The contractor shall install the flashing in accordance with the specifications, drawings, and all applicable laws, rules, and regulations of the City of Miami Beach.  
6.1.4 **Drainage:** The contractor shall install the drainage system in accordance with the specifications, drawings, and all applicable laws, rules, and regulations of the City of Miami Beach.  
6.1.5 **Insulation:** The contractor shall install the insulation in accordance with the specifications, drawings, and all applicable laws, rules, and regulations of the City of Miami Beach.

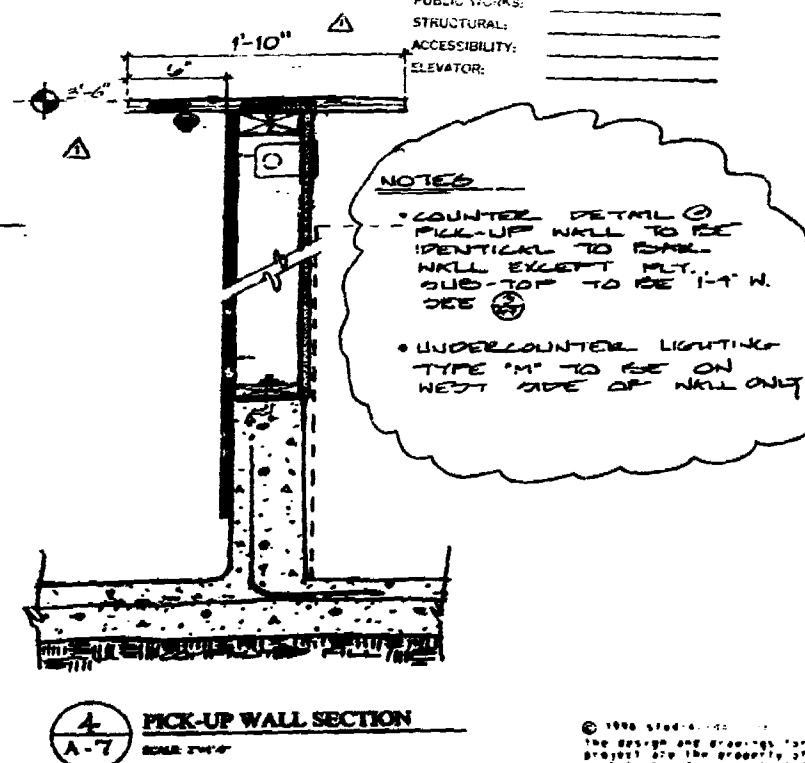
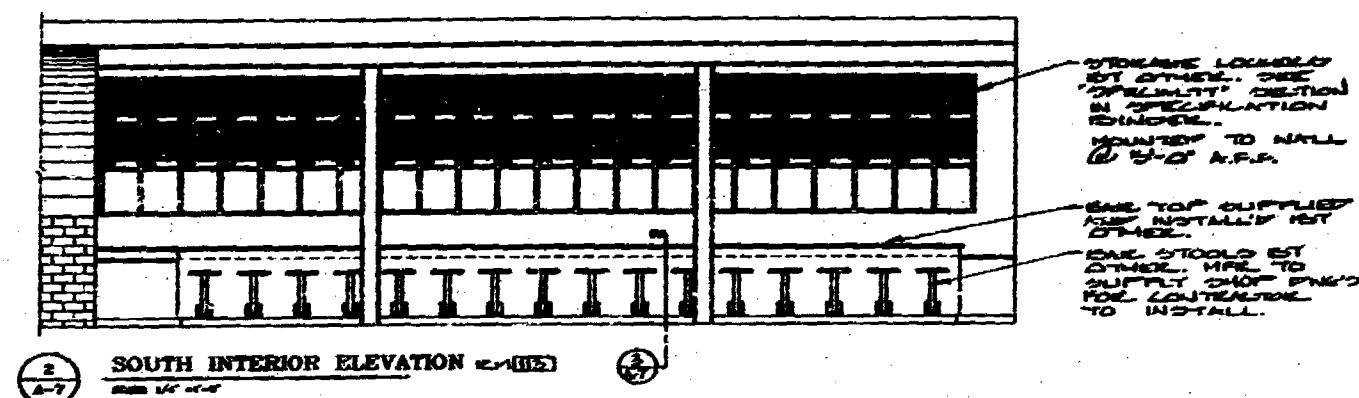
## OFFICE COPY

CITY OF MIAMI BEACH

APPROVED FOR CONSTRUCTION BY

BUILDING  
ZONING  
PLANNING  
ENGINEERING  
PUBLIC WORKS  
STRUCTURAL  
ACCESSIBILITY  
ELEVATOR

<p>REVISIONS TO: <b>BIG PINK</b> 157 Collins Avenue Miami Beach, Florida 33139</p>	
<p>GENERAL NOTES</p>	<p>REVISIONS</p>
<p>DATE: 07-02-96</p>	<p>PROJECT NUMBER: 00</p>
<p>SCALE: 1/8" = 1'-0"</p>	<p>DATE: 07-02-96</p>
<p>BY: [Signature]</p>	<p>FOR: [Signature]</p>
<p>A-6</p>	<p></p>



APPROVED FOR PERMIT BY  
THE DISTRICT ENGINEER

BUILDING: \_\_\_\_\_  
 ZONE: \_\_\_\_\_  
 PLANNING: \_\_\_\_\_  
 ELECTRICAL: \_\_\_\_\_  
 MECHANICAL: \_\_\_\_\_  
 FIRE & PROTECTION: \_\_\_\_\_  
 ENGINEERING: \_\_\_\_\_  
 PUBLIC WORKS: \_\_\_\_\_  
 STRUCTURAL: \_\_\_\_\_  
 ACCESSIBILITY: \_\_\_\_\_  
 ELEVATOR: \_\_\_\_\_

NOTES

- COUNTER DETAIL ②  
FILL-UP WALL TO BE  
IDENTICAL TO EARL-  
WALL EXCEPT FLT.  
SUB-TOP TO BE 1'-4" W.  
DEE
- UNDERCOUNTER LIGHTING  
TYPE "M" TO BE ON  
WEST SIDE OF WALL ONLY

**RENOVATIONS TO:  
BIG PINK  
167 Collins Avenue  
Miami Beach, Florida 33139**

## INT. ELEVATIONS AND DETAILS

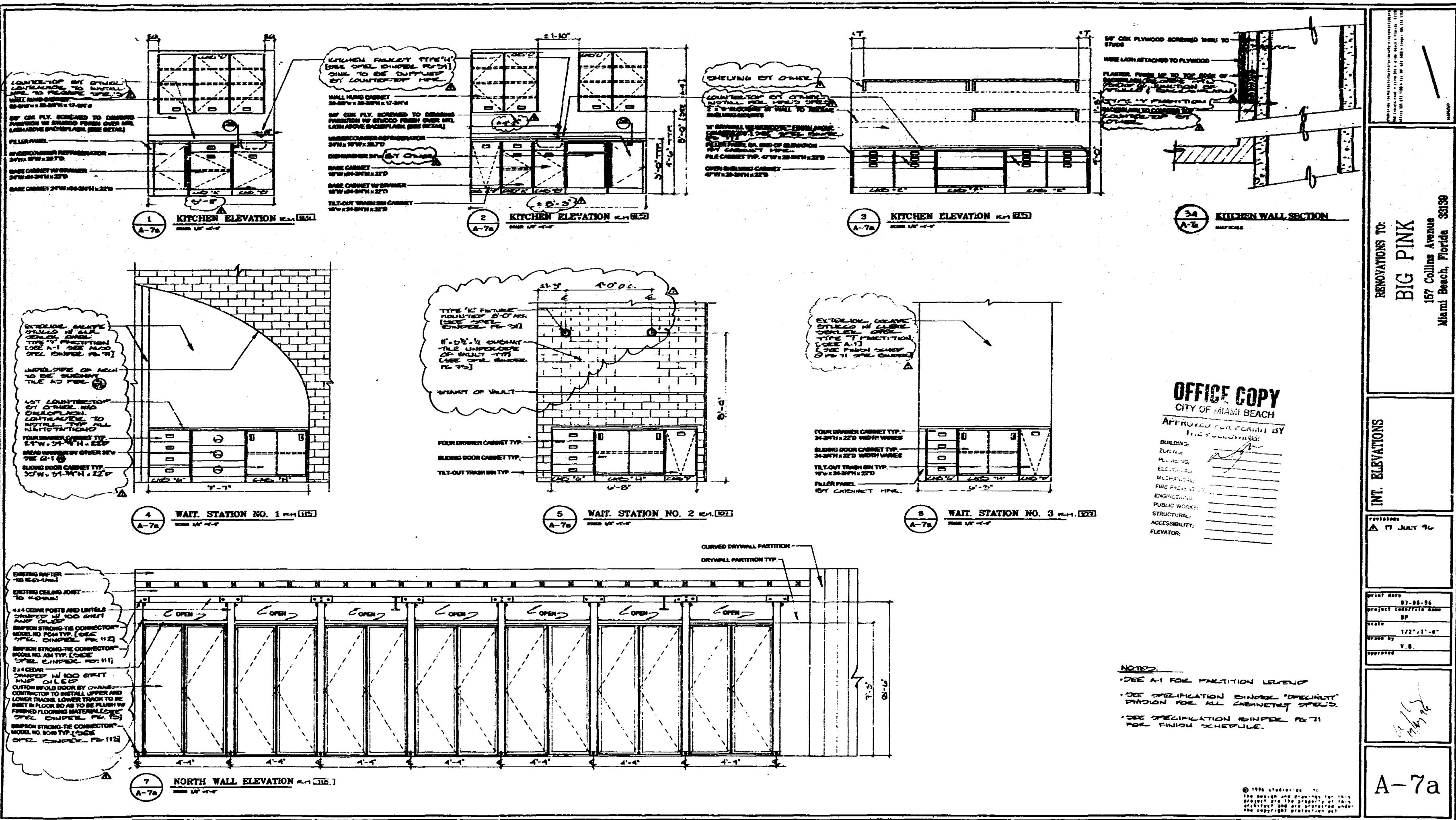
revisions  
A 17 July 76

print date 07-08-96  
project code/file name SP  
scale 1/4"=1'-0"  
drawn by V.B.  
approved

A-7

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project are the property of this  
architect and are protected under  
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RENOVATIONS TO:  
**BIG PINK**  
 157 Collins Avenue  
 Miami Beach, Florida 33139

INT. ELEVATIONS

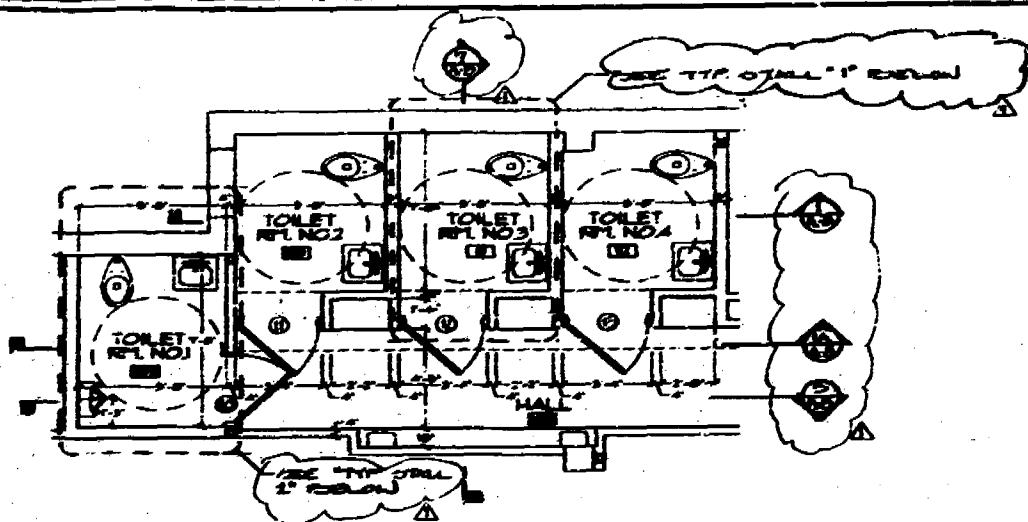
DATE: 17 JULY 96

PROJECT NO.: 96-00-00  
 BY: [Signature]  
 SCALE: 1/2" = 1'-0"  
 DRAWN BY: V.B.  
 APPROVED:

A-7a

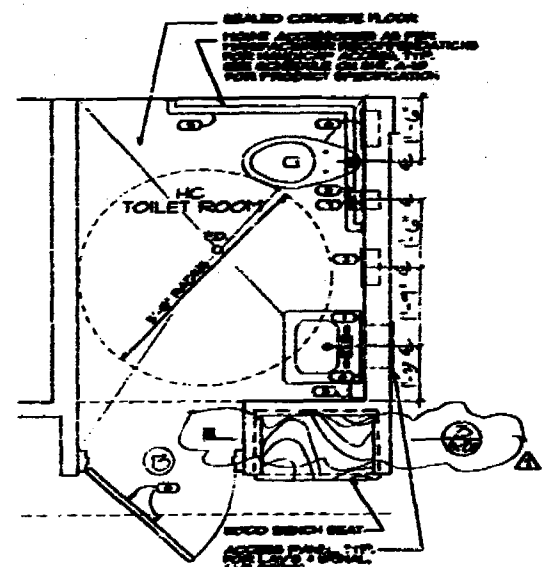
© 1996 Structural Steel  
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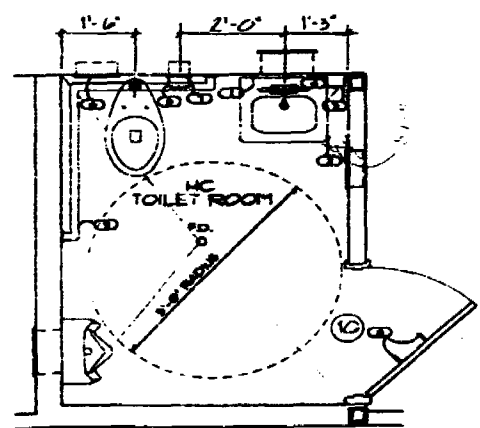
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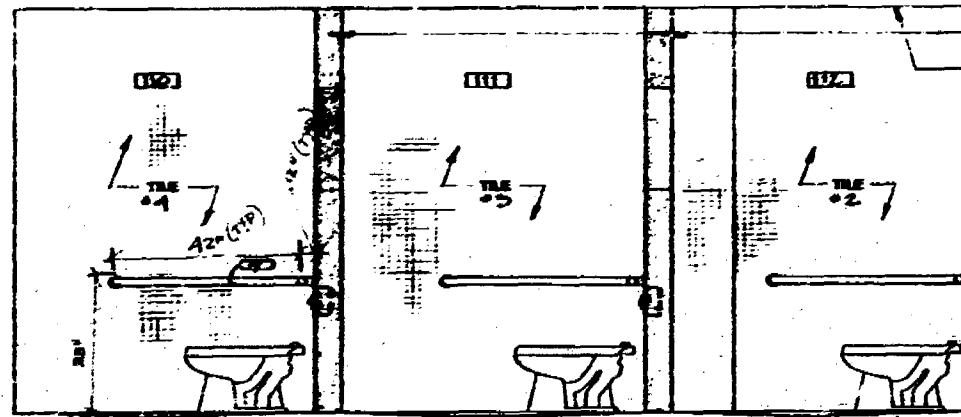
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SCALE 1/2" = 1'-0"



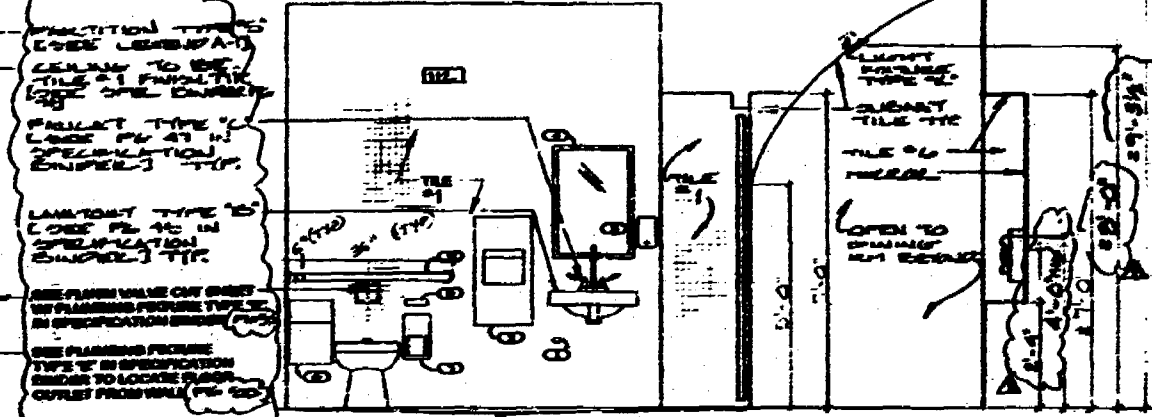
## TYPICAL STALL 2

SCALE 1/2" = 1'-0"



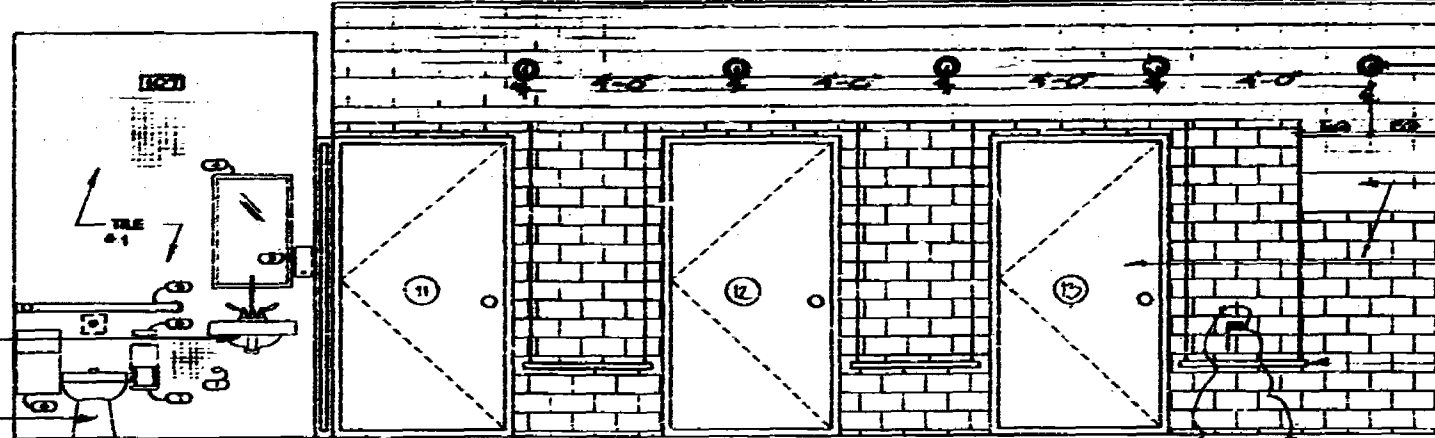
### 1 SECTION SOUTH

SCALE 1/2" = 1'-0"



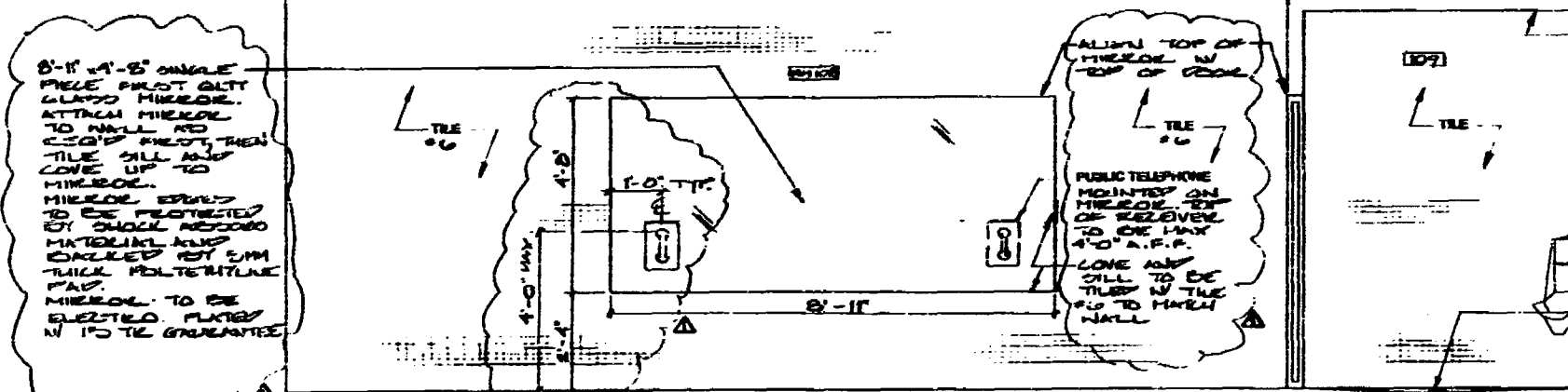
### 2 SECTION WEST

SCALE 1/2" = 1'-0"



### 3 SECTION THRU HALL SOUTH

SCALE 1/2" = 1'-0"

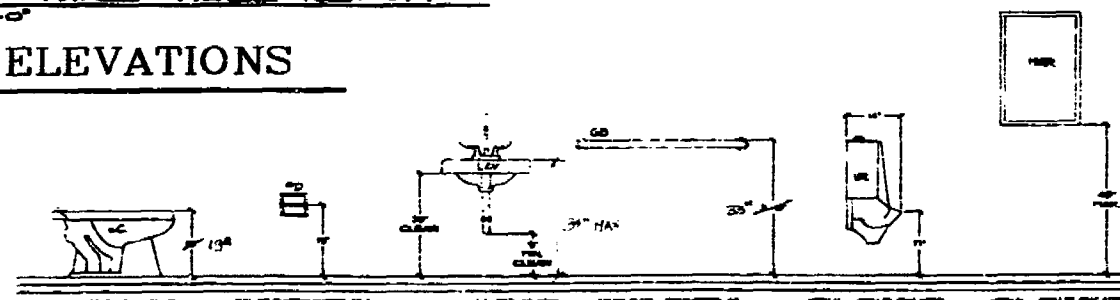


### 4 SECTION THRU HALL NORTH

SCALE 1/2" = 1'-0"

## INTERIOR ELEVATIONS

SCALE 1/2" = 1'-0"



### HANDICAP ACCESSIBLE PLUMBING FIXTURES

NOTE: TYPE 'A' WALL MOUNTED TOILET SEAT SHALL BE 18" HIGH. TYPE 'B' WALL MOUNTED TOILET SEAT SHALL BE 16" HIGH. TYPE 'C' WALL MOUNTED TOILET SEAT SHALL BE 14" HIGH. TYPE 'D' WALL MOUNTED TOILET SEAT SHALL BE 12" HIGH. TYPE 'E' WALL MOUNTED TOILET SEAT SHALL BE 10" HIGH. TYPE 'F' WALL MOUNTED TOILET SEAT SHALL BE 8" HIGH. TYPE 'G' WALL MOUNTED TOILET SEAT SHALL BE 6" HIGH. TYPE 'H' WALL MOUNTED TOILET SEAT SHALL BE 4" HIGH. TYPE 'I' WALL MOUNTED TOILET SEAT SHALL BE 2" HIGH. TYPE 'J' WALL MOUNTED TOILET SEAT SHALL BE 0" HIGH.

NOTE: TYPE 'A' WALL MOUNTED TOILET SEAT SHALL BE 18" HIGH. TYPE 'B' WALL MOUNTED TOILET SEAT SHALL BE 16" HIGH. TYPE 'C' WALL MOUNTED TOILET SEAT SHALL BE 14" HIGH. TYPE 'D' WALL MOUNTED TOILET SEAT SHALL BE 12" HIGH. TYPE 'E' WALL MOUNTED TOILET SEAT SHALL BE 10" HIGH. TYPE 'F' WALL MOUNTED TOILET SEAT SHALL BE 8" HIGH. TYPE 'G' WALL MOUNTED TOILET SEAT SHALL BE 6" HIGH. TYPE 'H' WALL MOUNTED TOILET SEAT SHALL BE 4" HIGH. TYPE 'I' WALL MOUNTED TOILET SEAT SHALL BE 2" HIGH. TYPE 'J' WALL MOUNTED TOILET SEAT SHALL BE 0" HIGH.

NOTE: TYPE 'A' WALL MOUNTED TOILET SEAT SHALL BE 18" HIGH. TYPE 'B' WALL MOUNTED TOILET SEAT SHALL BE 16" HIGH. TYPE 'C' WALL MOUNTED TOILET SEAT SHALL BE 14" HIGH. TYPE 'D' WALL MOUNTED TOILET SEAT SHALL BE 12" HIGH. TYPE 'E' WALL MOUNTED TOILET SEAT SHALL BE 10" HIGH. TYPE 'F' WALL MOUNTED TOILET SEAT SHALL BE 8" HIGH. TYPE 'G' WALL MOUNTED TOILET SEAT SHALL BE 6" HIGH. TYPE 'H' WALL MOUNTED TOILET SEAT SHALL BE 4" HIGH. TYPE 'I' WALL MOUNTED TOILET SEAT SHALL BE 2" HIGH. TYPE 'J' WALL MOUNTED TOILET SEAT SHALL BE 0" HIGH.

## OFFICE COPY

CITY OF MIAMI BEACH

APPROVED FOR PERMIT BY

THE FOLLOWING:

BUILDING

ZONING

PLUMBING

ELECTRICAL

FIRE AND ALARM

ENGINEERING

PUBLIC WORKS

STRUCTURAL

ACCESSIBILITY

ELEVATION

DATE

BY

FOR

PROJECT

NO.

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DATE

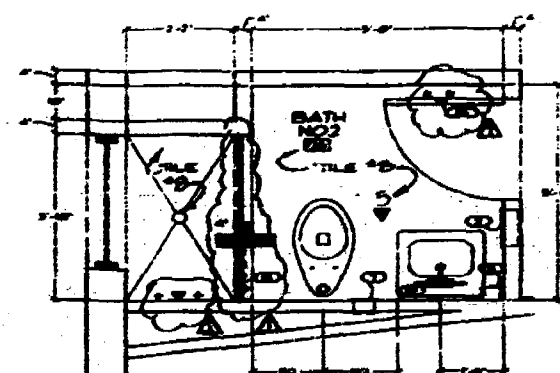
BY

FOR

PROJECT

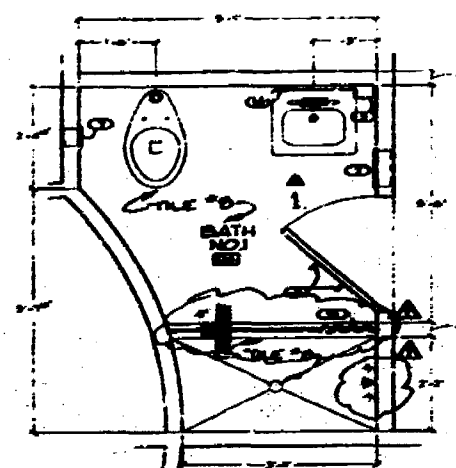
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DATE



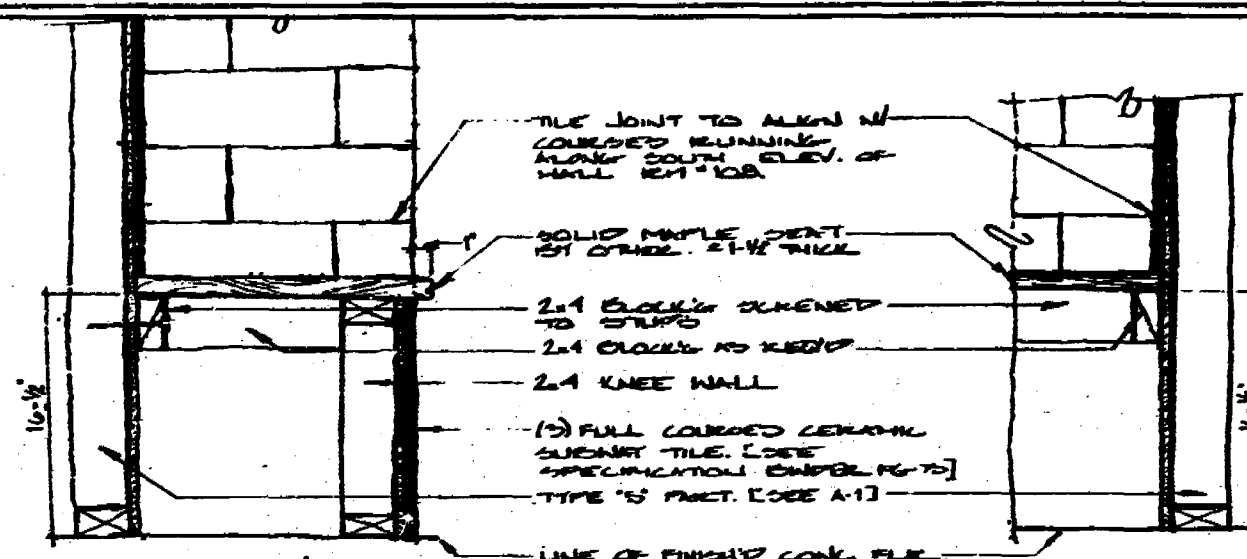
BATHROOM NO.1

SCALE: 1/2" = 1'-0"



BATHROOM NO.2

SCALE: 1/2" = 1'-0"

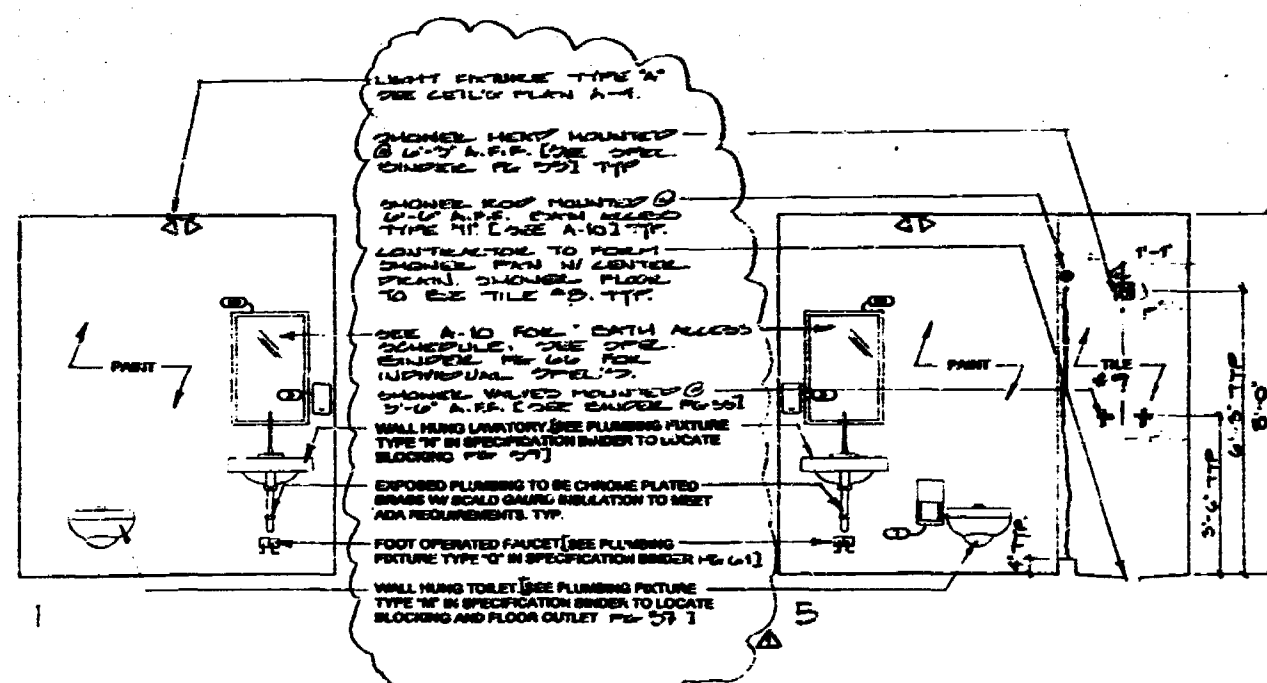


BENCH SECTION

SCALE: 2" = 1'-0"

BENCH SECTION

SCALE: 2" = 1'-0"



INTERIOR ELEVATIONS

SCALE: 1/2" = 1'-0"

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CITY OF MIAMI BEACH

APPROVED FOR PERMIT BY  
THE FOLLOWING:

BUILDING: \_\_\_\_\_  
PLUMBING: \_\_\_\_\_  
ELECTRICAL: \_\_\_\_\_  
MECHANICAL: \_\_\_\_\_  
ENGINEERING: \_\_\_\_\_  
PUBLIC WORKS: \_\_\_\_\_  
STRUCTURAL: \_\_\_\_\_  
ACCESSIBILITY: \_\_\_\_\_  
ELEVATOR: \_\_\_\_\_

NOTES

- SEE A-1 FOR PARTITION LEGEND
- SEE A-10 FOR PLUMBING FIXTURE SCHEDULE
- SEE A-10 FOR BATHROOM ACCESSORY SCHEDULE
- SEE SPECIFICATION BOOK FOR BLOCKING REQUIREMENTS FOR EACH ITEM
- SEE FINISH SCHEDULE FOR FINISHES, COORDINATION, FINISH AND COLOR, TYPE, ETC. - SEE PG. 7-2
- SEE A-2 FOR PICTURE HANGING HEIGHTS

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RENOVATIONS TO:  
**BIG PINK**  
157 Collins Avenue  
Miami Beach, Florida 33139

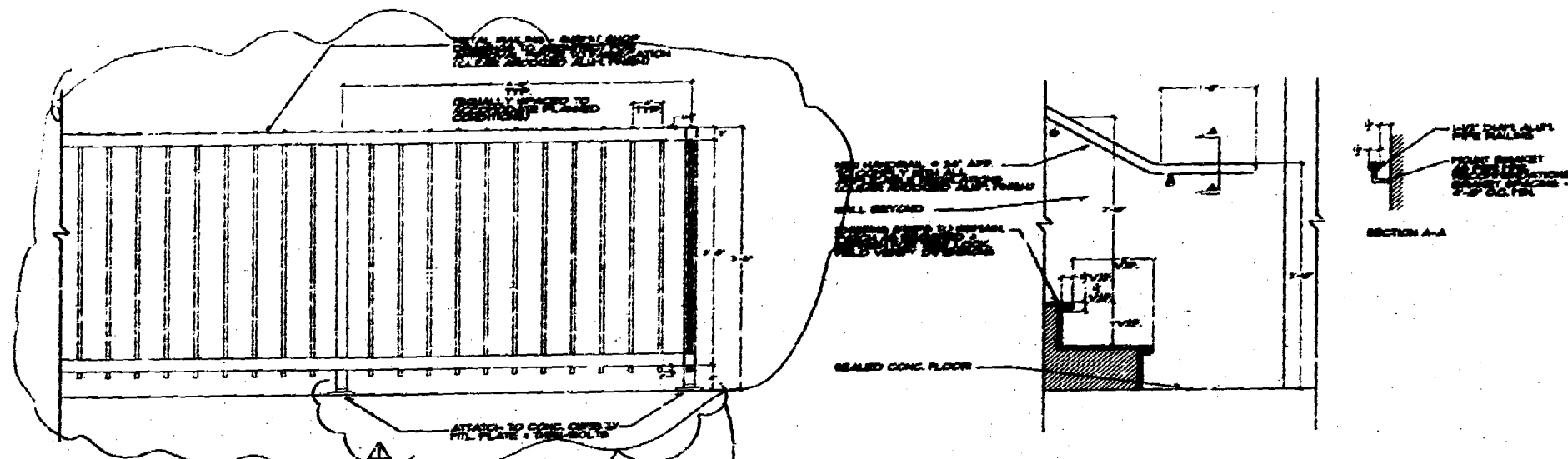
INT. ELEVATIONS  
& DETAILS

Permitted  
17 JULY 1996

PRINT DATE: 07-08-96  
PROJECT: 10077777777777777777  
SHEET: 01  
AS NOTED  
DRAWN BY: V.B.  
CHECKED BY: \_\_\_\_\_

12/1/96

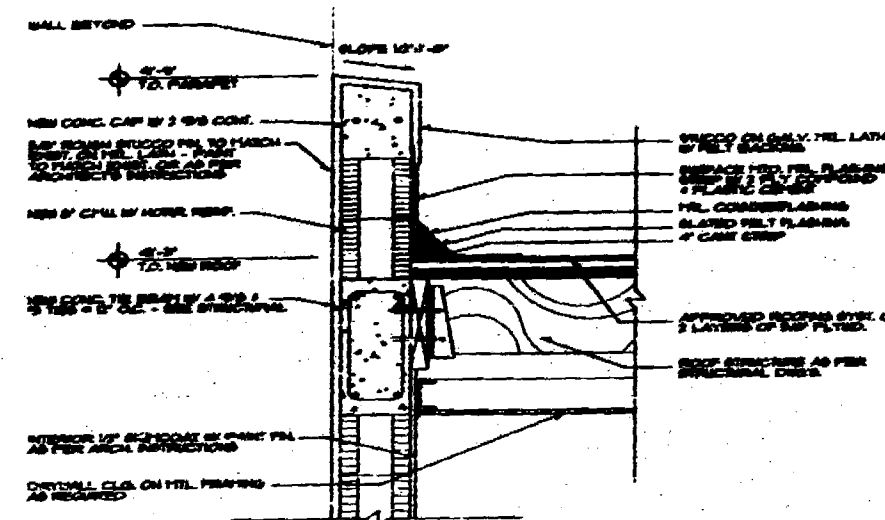
A-8a



1  
A-9  
**RAILING DETAIL**  
SCALE 1" = 1'-0"

2  
A-9  
**RISER/RAILING DETAIL**  
SCALE 1" = 1'-0"

*Not part of this project*



3  
A-9  
**PARAPET DETAIL**  
SCALE 1" = 1'-0"

**OFFICE COPY**  
CITY OF MIAMI BEACH

APPROVED FOR PERMIT BY  
THE FOLLOWING:

BUILDING	
ZONING	
PLANNING	
ELECTRICAL	
Mechanical	
Fire Protection	
Engineering	
Public Works	
Structural	
Accessibility	
Elementary	

RENOVATIONS TO  
**BIG PINK**  
157 Collins Avenue  
Miami Beach, Florida 33139

DETAILS

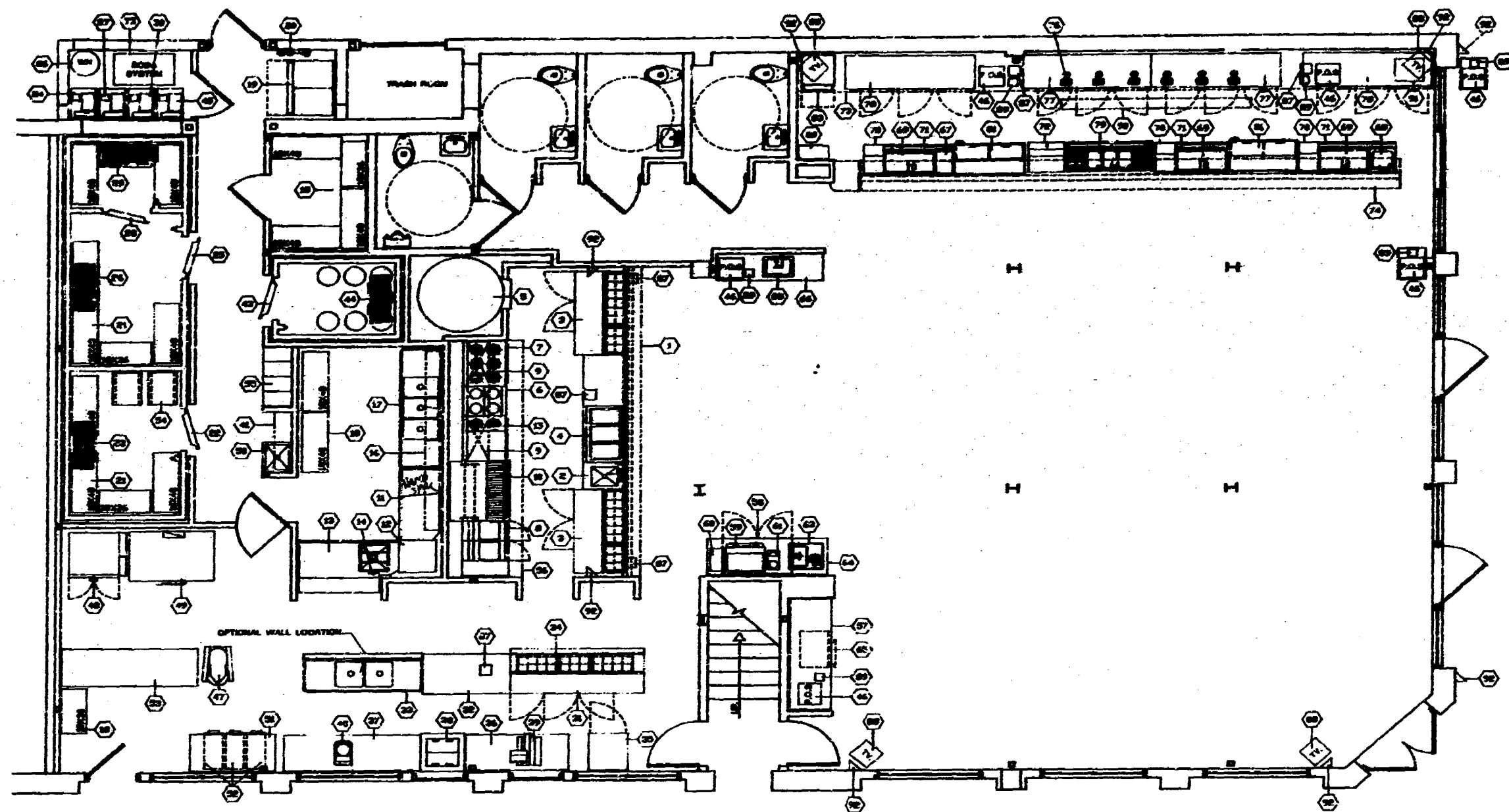
POSITION  
07-19-96

PROJECT NO. 07-08-96  
PROJECT DESCRIPTION  
BP  
SCALE AS NOTED  
DRAWN BY V.B.  
CHECKED BY

A-9

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OFFICE COPY  
CITY OF MIAMI BEACH

Approved for use of  
the following:

BUILDING: \_\_\_\_\_  
ZONING: \_\_\_\_\_  
PERMIT: \_\_\_\_\_  
APPROVED BY: \_\_\_\_\_  
DATE: \_\_\_\_\_  
PUBLIC WORKS: \_\_\_\_\_  
STREETS: \_\_\_\_\_  
ACCESSIBILITY: \_\_\_\_\_  
ELEVATOR: \_\_\_\_\_

# EQUIPMENT SCHEDULE

ITEM	QTY	DESCRIPTION
1	1	COUNTER SERVICE W/OVER SHELF
2	1	CABINET W/HAND SINK
3	2	PIZZA TABLE REFRIGERATED
4	1	DISH-IN HOT FOOD TABLE
5	1	PIZZA OVEN
6	1	14 BURNER WOK
7	1	18 BURNER RANGE
8	1	BATTERY GRINDER W/DUMP STATION
9	2	SALAMANDER
10	1	CHAM-BROILER W/INTERSE
11	1	CLEAN DISHTABLE
12	1	DISHWASHER
13	1	SOIL DISHTABLE
14	1	PRE-RINSE FAUCET
15	1	20 BURNER RANGE W/GRIDDLE
16	1	WALL SHELF
17	1	20 COMPARTMENT SINK
18	LOT	STORAGE SHELVES
19	1	ICE MACHINE W/SINK
20	1	WATER FILTER
21	LOT	COOLER/FREEZER SHELVES
22	1	WALK-IN BAKERY COOLER
23	1	EVAPORATOR COIL
24	1	COMPRESSOR
25	1	WALK-IN COOLER
26	1	EVAPORATOR COIL
27	1	COMPRESSOR
28	1	WALK-IN FREEZER
29	1	EVAPORATOR COIL
30	1	COMPRESSOR
31	1	PIZZA TABLE REFRIGERATED
32	1	WORK TABLE
33	1	WORK TABLE W/22 SINK
34	1	DOUBLE OVERSHELF
35	1	GLASS DOOR REFRIGERATOR
36	1	WORK TABLE
37	1	ICE CREAM FREEZER
38	1	SLICER
39	1	FOOD PROCESSOR
40	1	WALL SHELF
41	1	OVEN WARMER
42	1	WALK-IN BEER COOLER
43	1	EVAPORATOR COIL
44	1	COMPRESSOR
45	1	P.A.S.
46	1	MIXER
47	1	CONVECTION OVEN
48	1	DECK OVEN
49	1	MOP SINK
50	1	BAKER TABLE
51	1	INGREDIENT SINK
52	3	WORK TABLE
53	1	WORK TABLE
54	2	PAN RACK
55	1	LOCKERS
56	1	EXHAUST HOOD SYSTEM
57	1	BEVERAGE COUNTER
58	1	UNDERCOUNTER REFRIGERATOR
59	1	EXPRESSO
60	1	GRINDER COFFEE
61	1	COFFEE MAKER
62	1	OPEN NUMBER
63	1	WATER STATION
64	1	CUTTING TABLE
65	1	BREAD WARMER
66	1	COUNTER CABINET
67	1	DRINKBOARD
68	1	HAND SINK
69	1	ICE CHEST
70	3	BLENDER STATION
71	3	BOTTLE RAIL
72	1	GLASS WASHER
73	1	BACK BAR COUNTER
74	1	BAR COUNTER
75	1	SODA SYSTEM
76	1	DISPENSING HEAD & DRAINER
77	2	DIRECT DRAW DRAFT BEER DISPENSER
78	2	131 DOOR BACK BAR REFRIGERATOR
79	1	131 COMPARTMENT BAR SINK
80	1	TASH CAN
81	2	BOTTLE COOLER
82	-	OPEN NUMBER
83	1	ICE MACHINE
84	-	OPEN NUMBER
85	1	ICE CHEST W/GUN
86	1	WATER HEATER
87	6	PRINTER
88	4	TV MONITOR
89	6	CREDIT CARD
90	1	DROP SCREEN TV
91	1	STEREO SYSTEM
92	8	SPEAKER

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**ARROW**  
INDUSTRIES CORP.  
RESTAURANT  
EQUIPMENT  
FURNISHING & SUPPLIES

2000 NW 10TH STREET  
MIAMI, FLORIDA 33136 S.W.A.  
PHONE 305 443 0000  
FAX 305 443 0000

DATE DESCRIPTION NO.

REVISIONS

BIG PINK

DATE: 3-3-88  
SCALE: 1/4"=1'-0"  
DRAWN BY: RPH

JOB # 29621

SHEET TITLE  
FOOD SERVICE  
EQUIPMENT

SHEET

Q-1

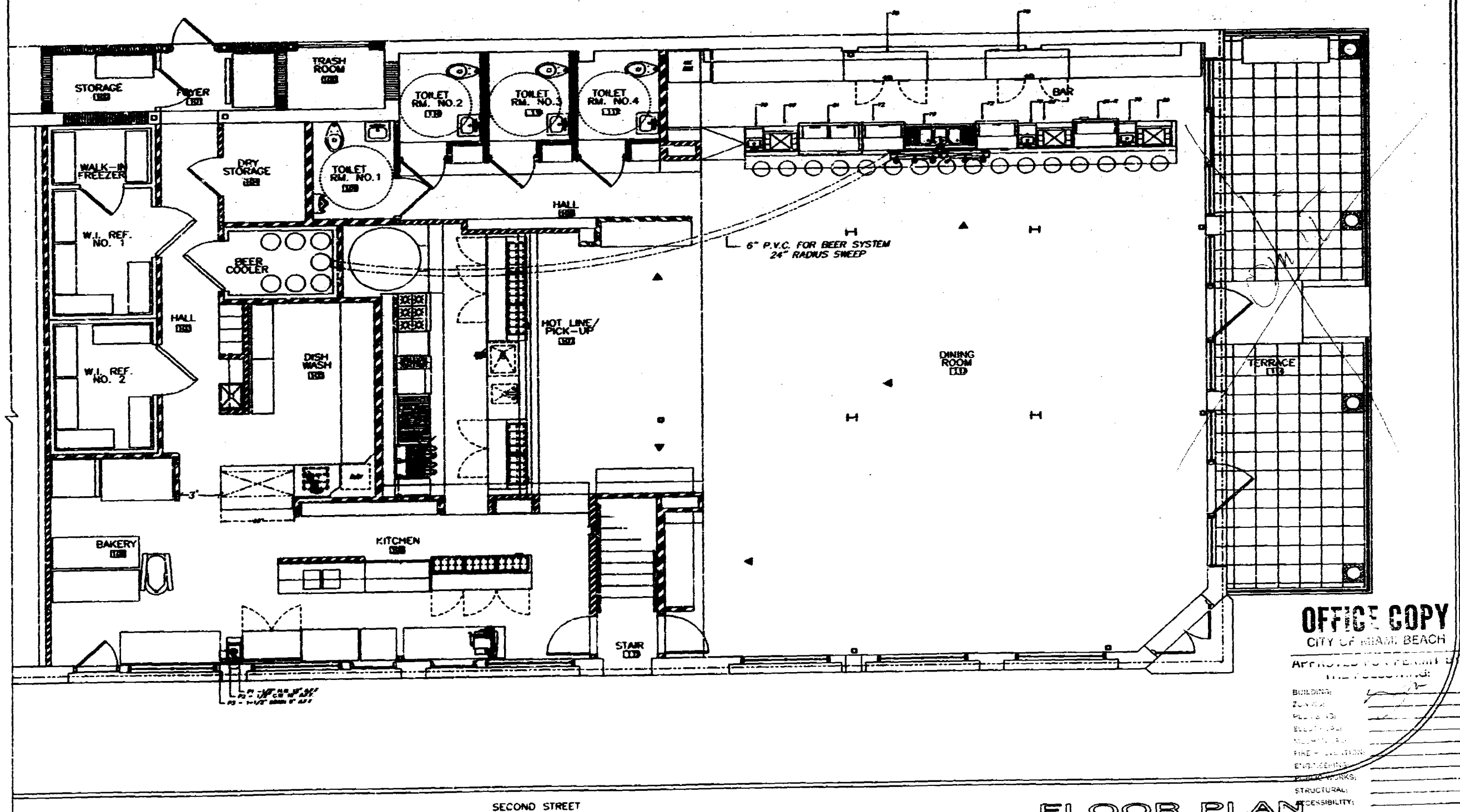
OF 3 SHEETS











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

**OFFICE COPY**  
CITY OF MIAMI BEACH  
APPROVED FOR PERMIT  
DATE: 07/29/96

BUILDING  
ZONING  
PLUMBING  
ELECTRICAL  
MECHANICAL  
FIRE PROTECTION  
ENVIRONMENTAL  
PAINTS/POLISHES  
STRUCTURAL  
ACCESSIBILITY

COLLINS AVENUE

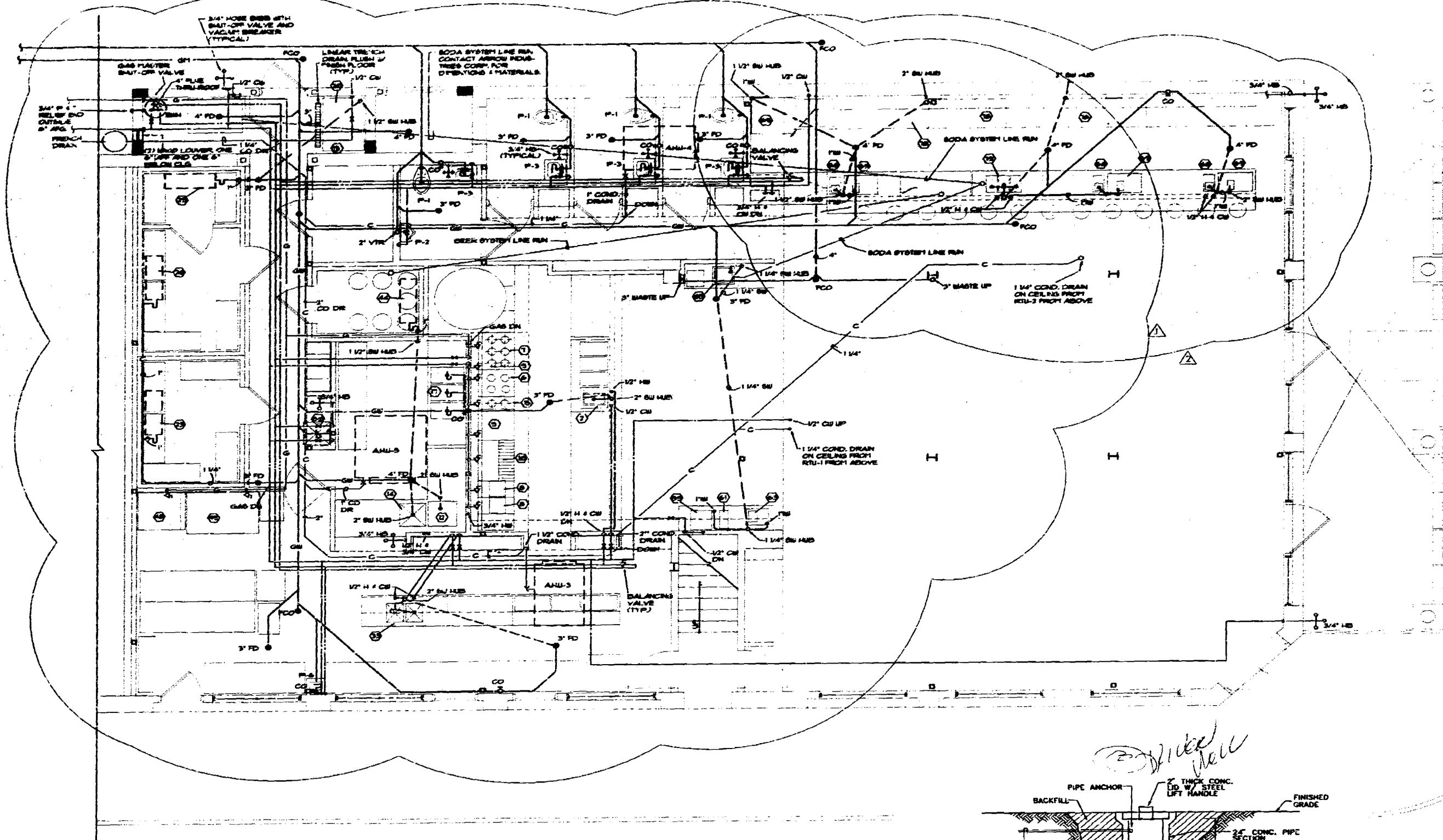
REV.	DATE	BY	APP.
1	07/29/96	J. RAUCH	


**JOB NAME:**  
**BIG PINK**  
COLLINS AVE. & SECOND STREET

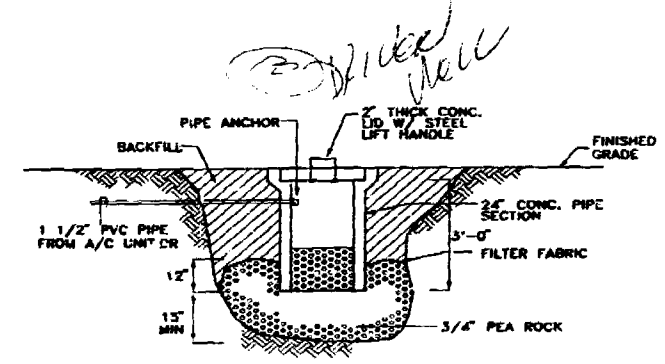
**LEE EQUIPMENT CO.**  
1000 PEMBROKE ROAD  
HALLANDALE, FLORIDA 33008 USA  
Tel #: (954) 486-7800  
Fax #: (954) 486-7888

**DATE:**  
07/29/96  
**DRAWING #:**  
729-96R  
**FOOD SERVICE DESIGNER:**  
J. BRANDT  
**EQUIPMENT LAYOUT**  
**K-2**  
SHEET 2 OF 2

○ ○ ○ CAD. BY J. RAUCH LEE EQUIPMENT COMPANY ○ ○ ○





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

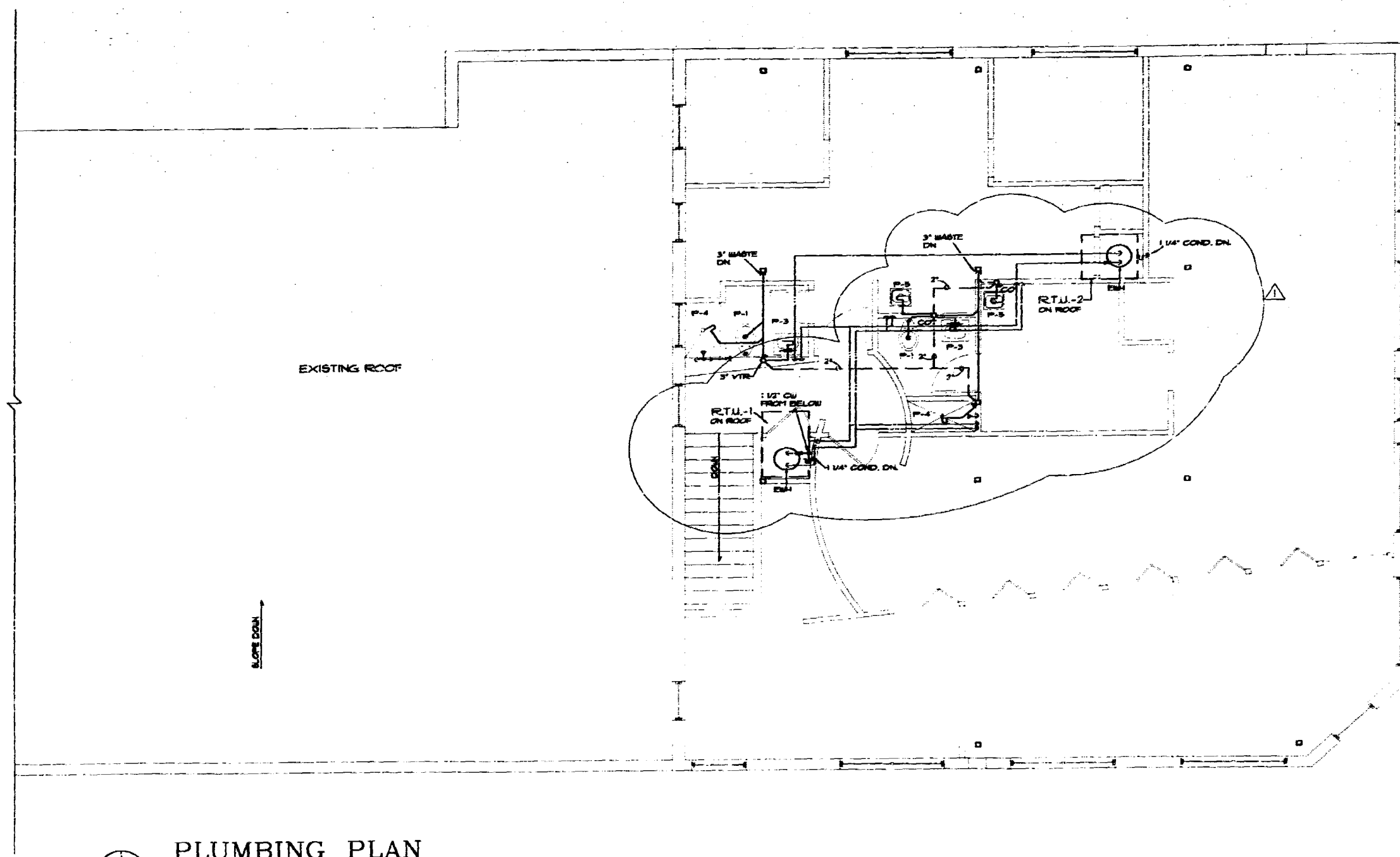



**COND. FRENCH DRAIN DETAIL**  
 R.T.A.

**OFFICE COPY**  
 CITY OF MIAMI BEACH  
 APPROVED FOR RECORD BY  
 (Signature)  
 BUILDING DEPT.  
 ZONING DEPT.  
 FIRE DEPT.  
 PUBLIC WORKS  
 ACCESSIBILITY  
 Elected Rep.


**Page and Associates, Inc.**  
 Engineers/Consultants  
 # 33 000593  
 4870 S.W. 72 Avenue, #107  
 Miami, Florida 33155  
 (305) 681-7700

RENOVATIONS TO: <b>BIG PINK</b> 157 Collins Avenue Miami Beach, Florida 33139	
GROUND FLOOR PLUMBING PLAN	
REVISIONS: 8-8-96 8-16-96	DATE: 07-08-96 PROJECT CODE: 96-1004 DRAWN BY: BP CHECKED BY: 1/6/97 ENGINEER: P.T. COORDINATOR:
P-1	





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

**OFFICE COPY**  
CITY OF MIAMI BEACH

Approved for record by  
the following:

SUBMITTER: \_\_\_\_\_  
 DESIGNER: \_\_\_\_\_  
 REVIEWER: \_\_\_\_\_  
 APPROVED: \_\_\_\_\_  
 EXISTING: \_\_\_\_\_  
 PUBLIC WORKS: \_\_\_\_\_  
 STRUCTURAL: \_\_\_\_\_  
 ACCESSIBILITY: \_\_\_\_\_  
 ELEVATOR: \_\_\_\_\_


**Page and Associates, Inc.**  
 Engineers/Consultants  
 4570 S.W. 72 Avenue, #107  
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RENOVATIONS TO:  
**BIG PINK**  
 157 Collins Avenue  
 Miami Beach, Florida 33139

SECOND FLOOR  
 PLUMBING PLAN

REVISIONS  
 8-8-96

DATE: 07-06-96  
 PROJECT: 157 Collins Avenue  
 SHEET: 20  
 SCALE: 1/4" = 1'-0"  
 DRAWN BY: E.T.  
 CHECKED BY:



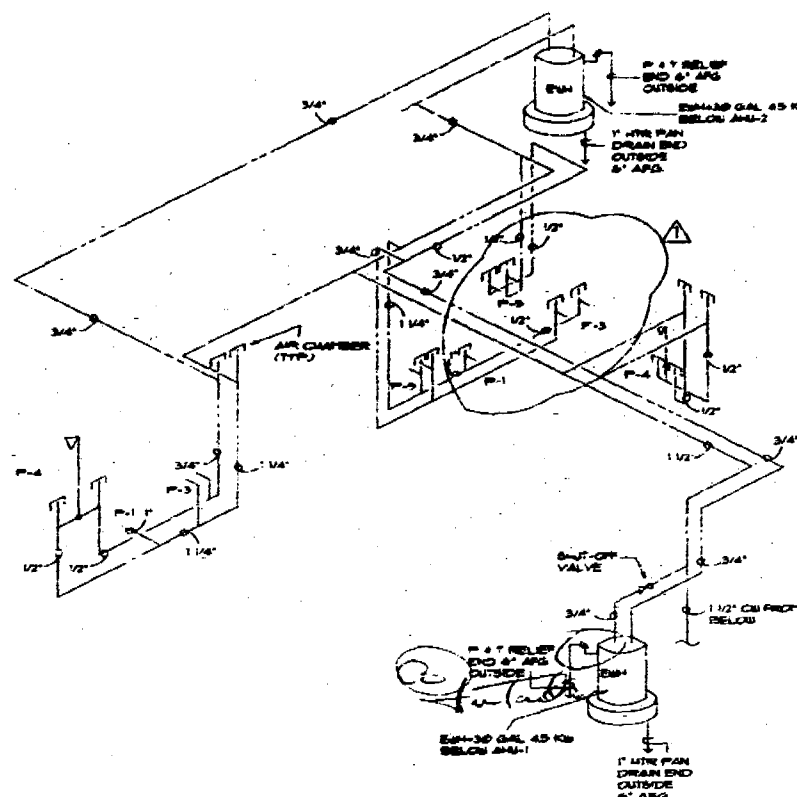
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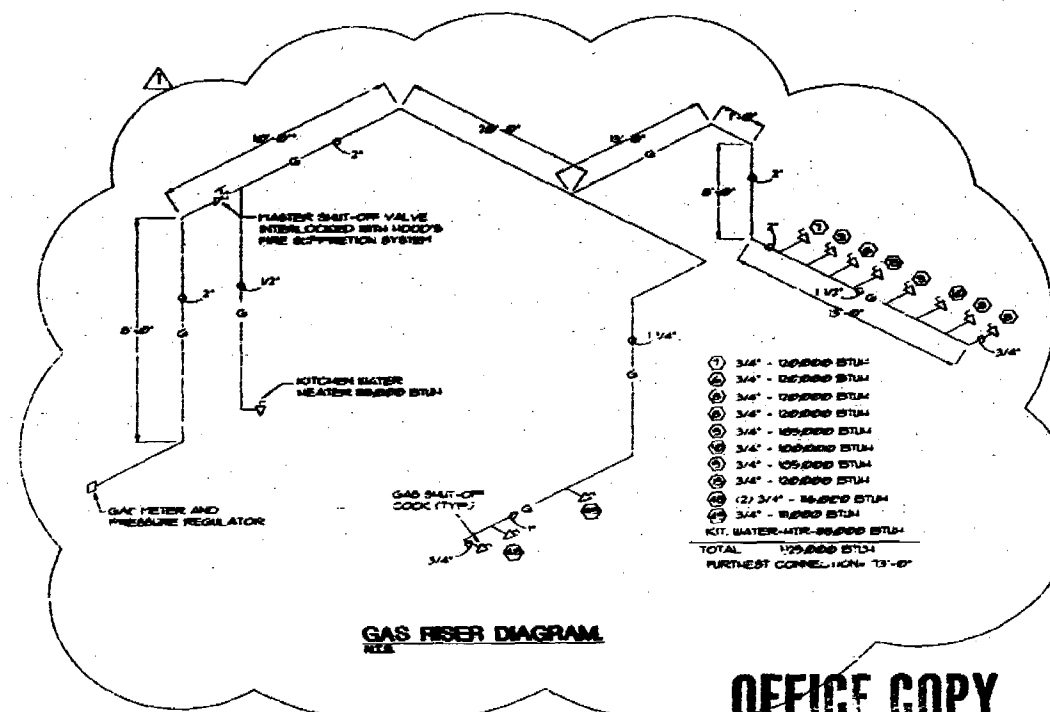
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### WATER HEATER DIAGRAM



**WATER RISER DIAGRAM**

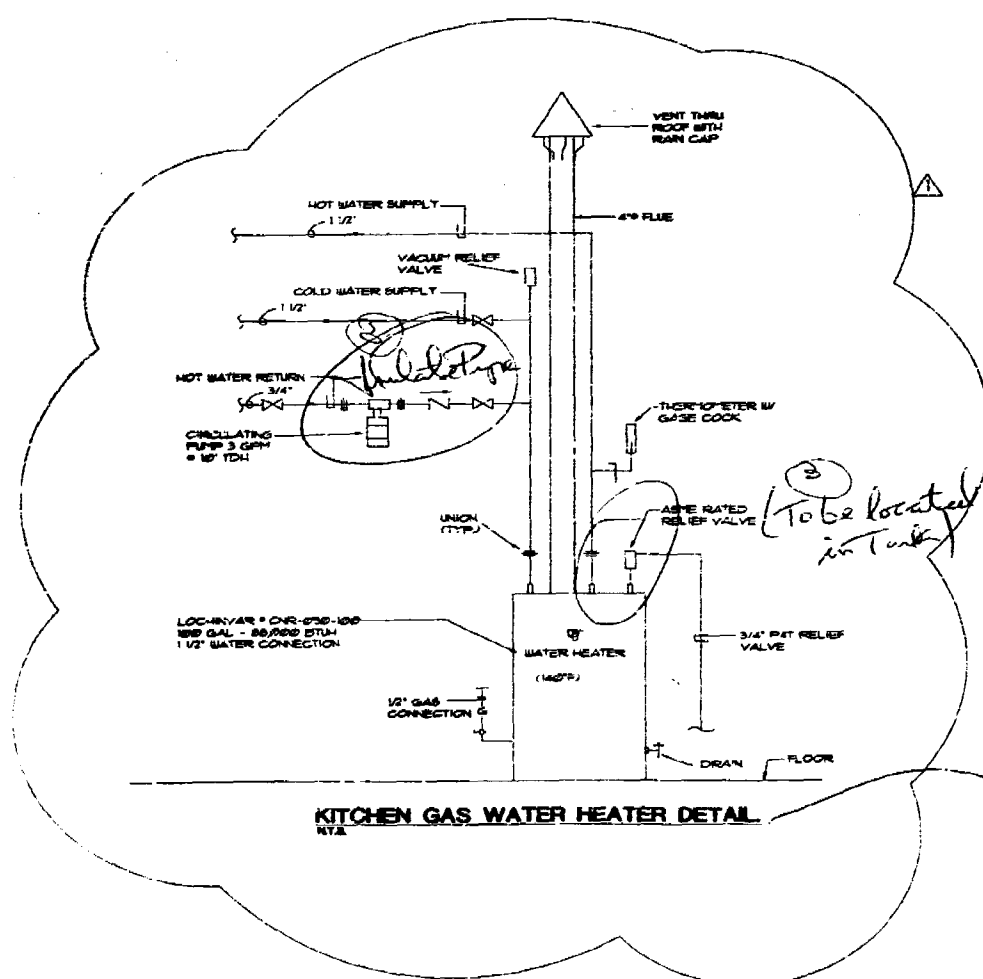


### GAS FIBER DIAGRAM

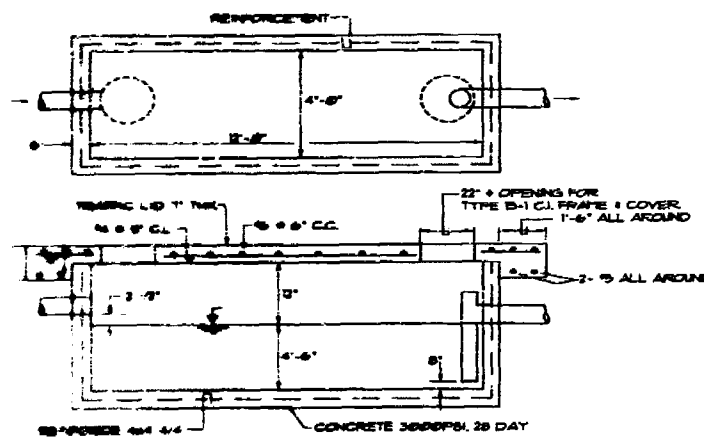
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CITY OF MIAMI BEACH

APPROVED FOR PERMIT BY  
THE FOLLOWING:


BUILDING: \_\_\_\_\_  
ZONING: \_\_\_\_\_  
PLUMBING: \_\_\_\_\_  
ELECTRICAL: \_\_\_\_\_  
MECHANICAL: \_\_\_\_\_  
FEE SCHEDULE: \_\_\_\_\_

[illegible]

### KITCHEN GAS WATER HEATER DETAIL



**1000 GAL. GREASE TRAP DETAIL**



**Puga and Associates, Inc.**  
**Engineers/Consultants**  
 # EB 0005813  
 4970 S.W. 72 Avenue, #107  
 Miami, Florida 33155  
 (305) 661-7700

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RENOVATIONS TO:  
**BIG PINK**  
157 Collins Avenue  
Miami Beach, Florida 33139

RISERS  
 SCHEDULES  
 NOTES

3-8-96

print date 07 08 06

project code/line name

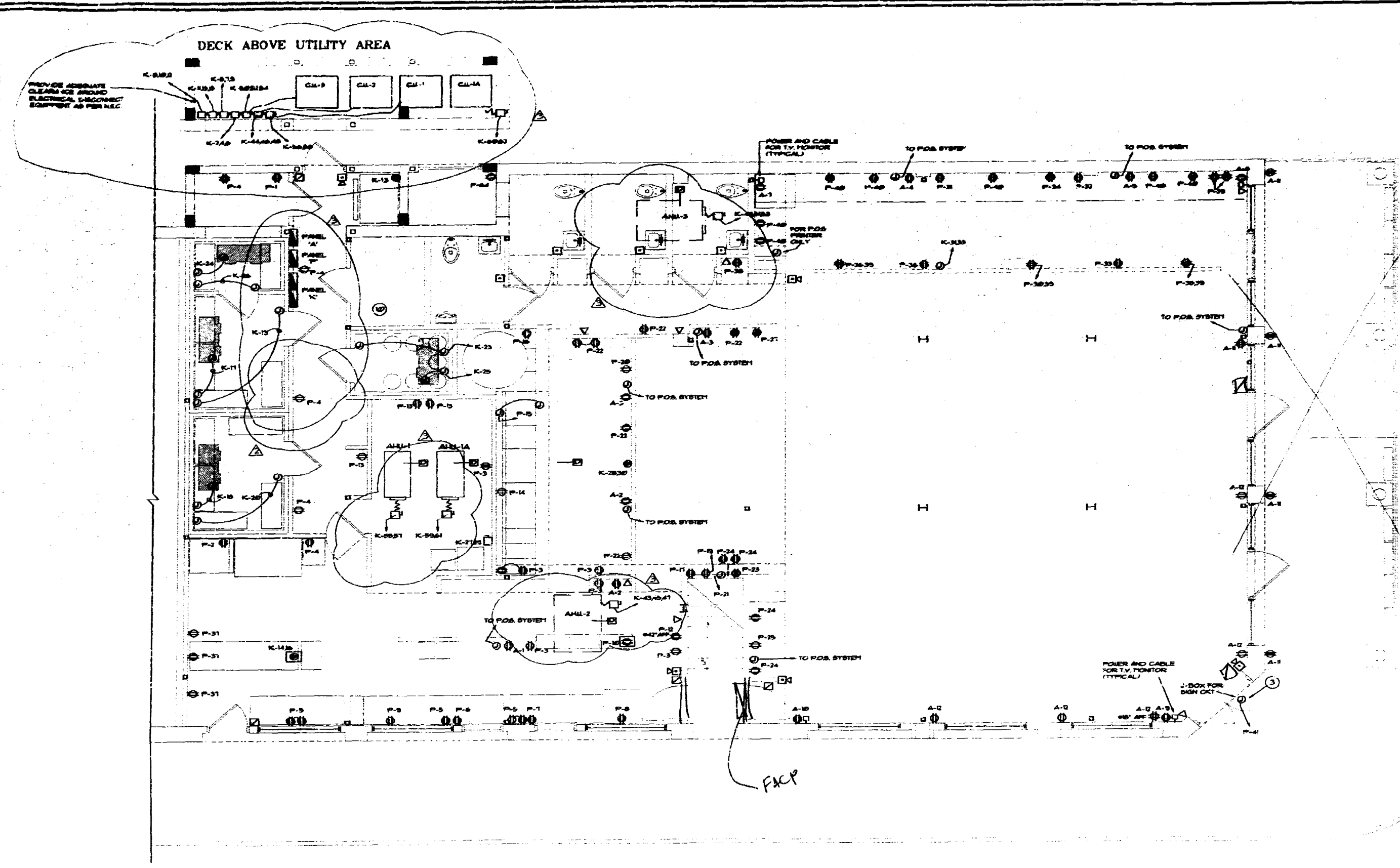
N.T.S.


Drawn by F.T.

Approved \_\_\_\_\_

*[Signature]*

P-4





**ELECTRICAL POWER PLAN**  
 SCALE: 1/4" = 1'-0"  
 GROUND FLOOR


SECOND STREET

COLLINS AVENUE

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 APPROVED FOR THE CITY OF MIAMI BEACH  
 BUILDING: \_\_\_\_\_  
 ZONING: \_\_\_\_\_  
 PLANNING: \_\_\_\_\_  
 PUBLIC WORKS: \_\_\_\_\_  
 FIRE: \_\_\_\_\_  
 ENVIRONMENT: \_\_\_\_\_  
 PUBLIC WORKS: \_\_\_\_\_  
 STRUCTURAL: \_\_\_\_\_  
 ACCESSIBILITY: \_\_\_\_\_  
 ELEVATOR: \_\_\_\_\_


 Page and Associates, Inc.  
 Engineers/Consultants  
 4970 S.W. 72 Avenue, #107  
 Miami, Florida 33155  
 (305) 551-7700

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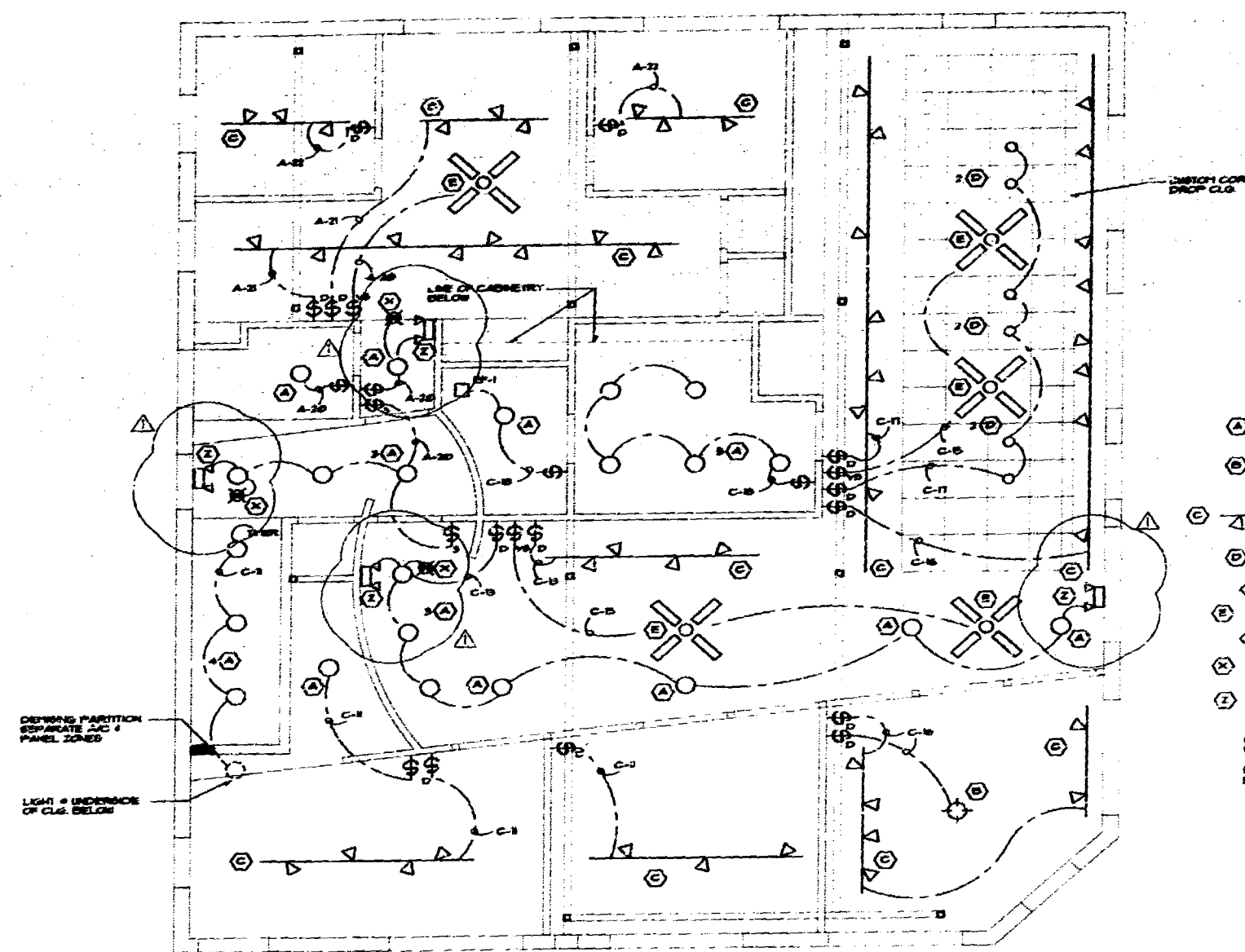
RENOVATIONS TO: <b>BIG PINK</b> 157 Collins Avenue Miami Beach, Florida 33139	
GROUND FLOOR ELECTRICAL PLAN	
REVISIONS: 1-10-95 2-5-95 3-16-95 CIRCULAR REVISION	SHEET NO.: 07-08-95 PROJECT CODE/NAME: SP SCALE: 1/4" = 1'-0" DRAWN BY: J.D.P. CHECKED BY:
	
E-1	











- LIGHTING SYMBOLS**
- (A) ○ SURFACE MOUNTED RECESSED DOWN LIGHT (10-200W)
  - (B) ○ SURFACE MOUNTED PENDANT LIGHT (100W)
  - (C) △ TRACK LIGHTING
  - (D) ○ RECESSED C-ON FUTURE
  - (E) X C-ON FUTURE TYPE 1 RECESSED C-ON FUTURE (100W)
  - (F) X B-ON FUTURE TYPE 1 RECESSED C-ON FUTURE (100W)
  - (G) X B-ON FUTURE TYPE 1 RECESSED C-ON FUTURE (100W)
  - (H) X B-ON FUTURE TYPE 1 RECESSED C-ON FUTURE (100W)
  - (I) X B-ON FUTURE TYPE 1 RECESSED C-ON FUTURE (100W)
- NOTE: SEE LIGHTING FIXTURE SCHEDULE FOR LIGHTING SPECIFICATIONS  
REFER TO SCHEDULE AND SPECIFICATION BOOK FOR INDIVIDUAL FIXTURE REQUIREMENTS

- GENERAL LIGHTING NOTES**
- ALL FLUORESCENT FIXTURES SHALL HAVE EACH BALLAST RATED.
  - ALL FIXTURES SHALL BE PROPERLY SECURED TO CEILING GRID SYSTEM.
  - VERIFY ALL DIMENSIONS AND LOCATIONS WITH TENANT PRIOR TO INSTALLATION.
  - ALL WORK SHALL BE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND OTHER APPLICABLE CODES AND STANDARDS.
  - THE CONTRACTOR IS RESPONSIBLE FOR EVALUATING FIELD CONDITIONS BY VISITING THE SITE PRIOR TO COMMENCING WORK.
  - THE CONTRACTOR SHALL SATISFACTORILY REPAIR/REPLACE EQUIPMENT OR PART OF STRUCTURE DAMAGED AS A RESULT OF HIS WORK. SURFACES AND FINISHED AREAS SHALL BE RESTORED TO MATCH ADJACENT AREAS.
  - APPROVAL SHALL BE OBTAINED FROM THE ENGINEER PRIOR TO CUTTING OR DRILLING ANY STRUCTURAL SUPPORT MEMBER.
  - ALL CONNECTIONS SHALL BE OF COPPER.
  - ALL MATERIALS SHALL BE UL APPROVED.
  - ALL LUMINAIRES SHALL BE PROPERLY SUPPORTED IN ACCORDANCE WITH THE CEILING SYSTEM MANUFACTURER RECOMMENDATIONS AND LOCAL CODE REQUIREMENTS.

**ELECTRICAL LIGHTING PLAN**  
SCALE: 1/4" = 1'-0"  
SECOND FLOOR

**OFFICE COPY**  
CITY OF MIAMI BEACH  
APPROVED FOR THE CITY OF MIAMI BEACH  
DATE: 07-08-96  
PROJECT CODE/NO. NAME: 07-08-96  
SCALE: 1/4" = 1'-0"  
DRAWN BY: J.P.P.  
CHECKED BY: J.P.P.  
ENGINEER: J.P.P.  
PUBLIC WORKS: J.P.P.  
STRUCTURAL: J.P.P.  
ACCESSIBILITY: J.P.P.

**Pagan and Associates, Inc.**  
Engineers/Consultants  
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Miami, Florida 33155  
(305) 681-7700

RENOVATIONS TO:  
**BIG PINK**  
157 Collins Avenue  
Miami Beach, Florida 33139

SECOND FLOOR  
LIGHTING PLAN

DATE: 07-08-96  
PROJECT CODE/NO. NAME: 07-08-96  
SCALE: 1/4" = 1'-0"  
DRAWN BY: J.P.P.  
CHECKED BY: J.P.P.  
ENGINEER: J.P.P.  
PUBLIC WORKS: J.P.P.  
STRUCTURAL: J.P.P.  
ACCESSIBILITY: J.P.P.

E-4

PANEL K  
SINGLE PHASE LOAD CALCULATION  
KITCHEN EQUIPMENT - 120 VOLT @ 100% = 9,000  
Total Demand Load 9,000  
9,000 VA / 240 = 37.5 Amps

THREE PHASE LOAD CALCULATION  
KITCHEN EQUIPMENT @ 100% = 28,800 VA  
HVAC @ 100% NON-CONCURRENT = 41,300 VA  
HVAC, 25% OF LARGEST MOTOR = 3,302 VA  
Total Demand Load 71,202 VA  
71,202 VA / 415 = 171.6 Amps  
TOTAL DEMAND LOAD = 31.5 + 171.6 = 203 AMPS

PANEL A									
TYPE		PNT		FLUSH		LOC		FEEDER	
SOD-00		FLUSH		LOC		KITCHEN		3-1/2, 2.5"	
MANS		BUS		VOLTS		A.I.C.			
200A MCB		225A		120/240, 3P4S, 3W		10,000			
CKT	POLE	KVA	DESCRIPTION	WIRE, C	CKT	POLE	KVA	DESCRIPTION	WIRE, C
1	1/20	3	KITCHEN PRINTER (1G)	3-1/2, 1/2	2	1/20	10	CASH REGISTER (1G)	3-1/2, 1/2
3	1/20	3	CASH REGISTER (1G)	3-1/2, 1/2	4	1/20	10	CASH REGISTER (1G)	3-1/2, 1/2
5	1/20	3	CASH REGISTER (1G)	3-1/2, 1/2	6	1/20	10	COMPUTER (1G)	3-1/2, 1/2
7	1/20	10	TELEVISION	2-1/2, 1/2	8	1/20	10	TELEVISION	2-1/2, 1/2
9	1/20	10	TELEVISION	2-1/2, 1/2	10	1/20	10	TELEVISION	2-1/2, 1/2
11	1/20	10	RECEPTACLE	2-1/2, 1/2	12	1/20	10	RECEPTACLE	2-1/2, 1/2
13	1/20	10	RECEPTACLE	2-1/2, 1/2	14	1/20	10	RECEPTACLE	2-1/2, 1/2
15	1/20	3	RECEPTACLE	2-1/2, 1/2	16	1/20	3	RECEPTACLE	2-1/2, 1/2
17	1/20	3	RECEPTACLE	2-1/2, 1/2	18	1/20	15	SMALL APPLIANCE	2-1/2, 1/2
19	1/20	10	REFRIGERATOR	2-1/2, 1/2	20	1/20	3	LIGHTING	2-1/2, 1/2
21	1/20	3	LIGHTING	2-1/2, 1/2	22	1/20	3	LIGHTING	2-1/2, 1/2
23	1/20	10	LIGHTING	2-1/2, 1/2	24	1/20	15	LIGHTING	2-1/2, 1/2
25	1/20	15	LIGHTING	2-1/2, 1/2	26	1/20	15	LIGHTING	2-1/2, 1/2
27	1/20	10	LIGHTING	2-1/2, 1/2	28	1/20	12	LIGHTING	2-1/2, 1/2
29	1/20	12	LIGHTING	2-1/2, 1/2	30	1/20	15	LIGHTING	2-1/2, 1/2
31	1/20	15	LIGHTING	2-1/2, 1/2	32	1/20	10	LIGHTING	2-1/2, 1/2
33	1/20	12	LIGHTING	2-1/2, 1/2	34	1/20	12	LIGHTING	2-1/2, 1/2
35	1/20	3	LIGHTING	2-1/2, 1/2	36	1/20	12	LIGHTING	2-1/2, 1/2
37	1/20	12	LIGHTING	2-1/2, 1/2	38	1/20	12	LIGHTING	2-1/2, 1/2
39	1/20	12	LIGHTING	2-1/2, 1/2	40	1/20	10	T.T.S.	2-1/2, 1/2
41	1/20	12	LIGHTING	2-1/2, 1/2	42	1/20	10		2-1/2, 1/2
TOTAL				2012 KVA		TOTAL			
						2156 KVA			

4160 KVA / 240 = 173.3 AMPS  
4160 KVA - TOTAL CONNECTED LOAD

PANEL C									
TYPE		PNT		FLUSH		LOC		FEEDER	
SOD-00		FLUSH		LOC		SECOND FLOOR		3-1/2, 2.5"	
MANS		BUS		VOLTS		A.I.C.			
M.L.O.		225A		120/240, 3P4S, 3W		10,000			
CKT	POLE	KVA	DESCRIPTION	WIRE, C	CKT	POLE	KVA	DESCRIPTION	WIRE, C
1	1/20	10	RECEPTACLE	2-1/2, 1/2	2	1/20	10	RECEPTACLE	2-1/2, 1/2
3	1/20	10	RECEPTACLE	2-1/2, 1/2	4	1/20	10	RECEPTACLE	2-1/2, 1/2
5	1/20	10	RECEPTACLE	2-1/2, 1/2	6	1/20	10	RECEPTACLE	2-1/2, 1/2
7	1/20	10	RECEPTACLE	2-1/2, 1/2	8	1/20	10	RECEPTACLE	2-1/2, 1/2
9	1/20	10	RECEPTACLE	2-1/2, 1/2	10	1/20	10	RECEPTACLE	2-1/2, 1/2
11	1/20	10	RECEPTACLE	2-1/2, 1/2	12	1/20	10	RECEPTACLE	2-1/2, 1/2
13	1/20	10	RECEPTACLE	2-1/2, 1/2	14	1/20	10	RECEPTACLE	2-1/2, 1/2
15	1/20	10	RECEPTACLE	2-1/2, 1/2	16	1/20	10	RECEPTACLE	2-1/2, 1/2
17	1/20	10	RECEPTACLE	2-1/2, 1/2	18	1/20	10	RECEPTACLE	2-1/2, 1/2
19	1/20	10	RECEPTACLE	2-1/2, 1/2	20	1/20	10	RECEPTACLE	2-1/2, 1/2
21	1/20	10	RECEPTACLE	2-1/2, 1/2	22	1/20	10	RECEPTACLE	2-1/2, 1/2
23	1/20	10	RECEPTACLE	2-1/2, 1/2	24	1/20	10	RECEPTACLE	2-1/2, 1/2
25	1/20	10	RECEPTACLE	2-1/2, 1/2	26	1/20	10	RECEPTACLE	2-1/2, 1/2
27	1/20	10	RECEPTACLE	2-1/2, 1/2	28	1/20	10	RECEPTACLE	2-1/2, 1/2
29	1/20	10	RECEPTACLE	2-1/2, 1/2	30	1/20	10	RECEPTACLE	2-1/2, 1/2
31	1/20	10	RECEPTACLE	2-1/2, 1/2	32	1/20	10	RECEPTACLE	2-1/2, 1/2
33	1/20	10	RECEPTACLE	2-1/2, 1/2	34	1/20	10	RECEPTACLE	2-1/2, 1/2
35	1/20	10	RECEPTACLE	2-1/2, 1/2	36	1/20	10	RECEPTACLE	2-1/2, 1/2
37	1/20	10	RECEPTACLE	2-1/2, 1/2	38	1/20	10	RECEPTACLE	2-1/2, 1/2
39	1/20	10	RECEPTACLE	2-1/2, 1/2	40	1/20	10	RECEPTACLE	2-1/2, 1/2
41	1/20	10	RECEPTACLE	2-1/2, 1/2	42	1/20	10	RECEPTACLE	2-1/2, 1/2
TOTAL				2012 KVA		TOTAL			
						1561 KVA			

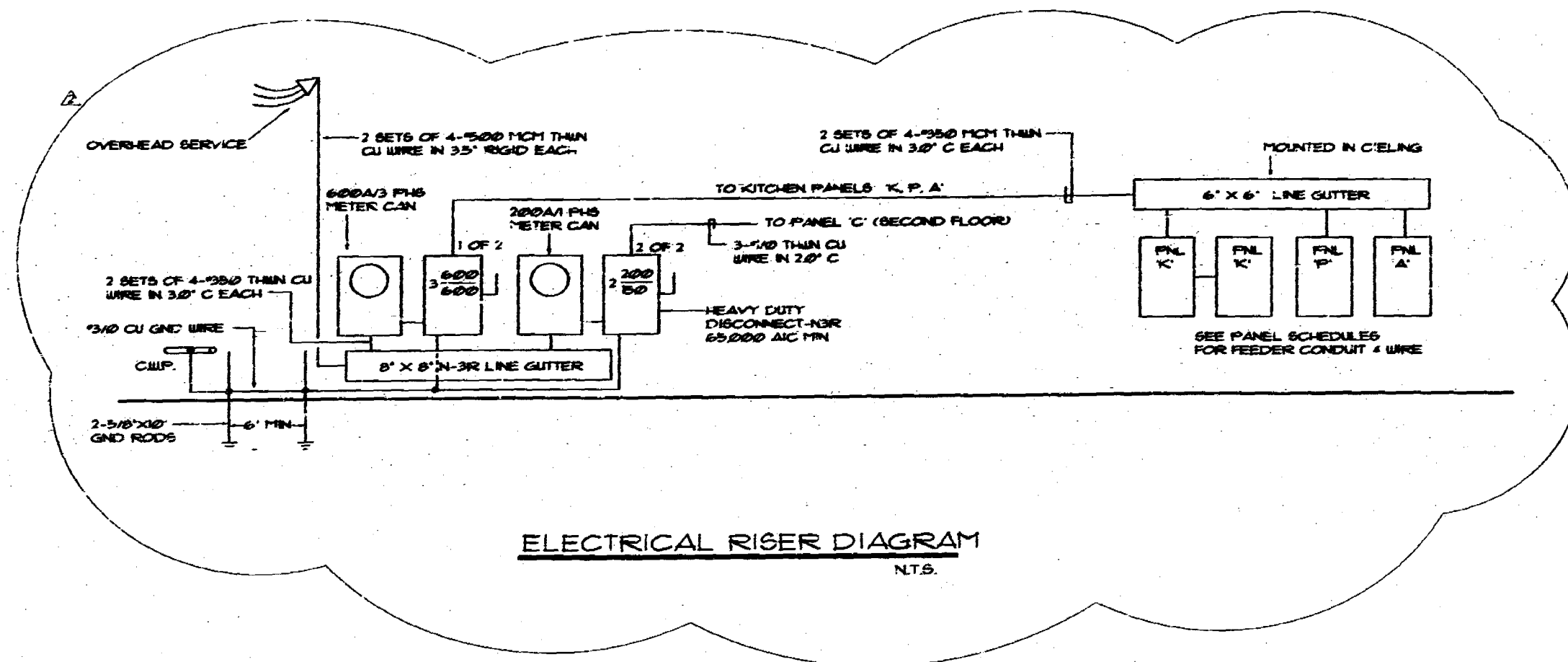
3365 KVA - TOTAL CONNECTED LOAD  
3365 KVA / 240 = 140.2 AMPS

PANEL P									
TYPE		PNT		FLUSH		LOC		FEEDER	
SOD-00		FLUSH		LOC		KITCHEN		3-1/2, 2.5"	
MANS		BUS		VOLTS		A.I.C.			
200A MCB		225A		120/240, 3P4S, 3W		10,000			
CKT	POLE	KVA	DESCRIPTION	WIRE, C	CKT	POLE	KVA	DESCRIPTION	WIRE, C
1	1/20	10	SODA SYSTEM	2-1/2, 1/2	2	1/20	10	OVEN MOTOR	2-1/2, 1/2
3	1/20	10	SMALL APPLIANCE	2-1/2, 1/2	4	1/20	10	RECEPTACLE	2-1/2, 1/2
5	1/20	10	UTILITY	2-1/2, 1/2	6	1/20	10	ICE CREAM FREEZER	2-1/2, 1/2
7	1/20	10	SLICER	2-1/2, 1/2	8	1/20	10	REFRIGERATOR	2-1/2, 1/2
9	1/20	10	FOOD PROCESSOR	2-1/2, 1/2	10	1/20	10	PIZZA TABLE REF.	2-1/2, 1/2
11	1/20	10	FRITTER	2-1/2, 1/2	12	1/20	10	TIME CLOCK	2-1/2, 1/2
13	1/20	10	RECEPTACLE	2-1/2, 1/2	14	1/20	10	WATER HEATER	2-1/2, 1/2
15	1/20	10	RECEPTACLE	2-1/2, 1/2	16	1/20	10	PIZZA OVEN	2-1/2, 1/2
17	1/20	10	COFFEE GRINDER	2-1/2, 1/2	18	1/20	10	PIZZA TABLE REF.	2-1/2, 1/2
19	1/20	10	W/C REFRIGERATOR	2-1/2, 1/2	20	1/20	10	PIZZA TABLE REF.	2-1/2, 1/2
21	1/20	10	EXPRESSO	2-1/2, 1/2	22	1/20	10	RECEPTACLE	2-1/2, 1/2
23	1/20	10	COFFEE MAKER	2-1/2, 1/2	24	1/20	10	RECEPTACLE	2-1/2, 1/2
25	1/20	10	BREAD WARMER	2-1/2, 1/2	26	1/20	10	RECEPTACLE	2-1/2, 1/2
27	1/20	10	UTILITY	2-1/2, 1/2	28	1/20	10	RECEPTACLE	2-1/2, 1/2
29	1/20	10	RECEPTACLE	2-1/2, 1/2	30	1/20	10	RECEPTACLE	2-1/2, 1/2
31	1/20	10	RECEPTACLE	2-1/2, 1/2	32	1/20	10	RECEPTACLE	2-1/2, 1/2
33	1/20	10	RECEPTACLE	2-1/2, 1/2	34	1/20	10	RECEPTACLE	2-1/2, 1/2
35	1/20	10	RECEPTACLE	2-1/2, 1/2	36	1/20	10	RECEPTACLE	2-1/2, 1/2
37	1/20	10	RECEPTACLE	2-1/2, 1/2	38	1/20	10	RECEPTACLE	2-1/2, 1/2
39	1/20	10	RECEPTACLE	2-1/2, 1/2	40	1/20	10	RECEPTACLE	2-1/2, 1/2
41	1/20	10	RECEPTACLE	2-1/2, 1/2	42	1/20	10	RECEPTACLE	2-1/2, 1/2
TOTAL				2342 KVA		TOTAL			
						196 KVA			

4382 KVA - TOTAL CONNECTED LOAD  
4382 KVA / 240 = 182.6 AMPS

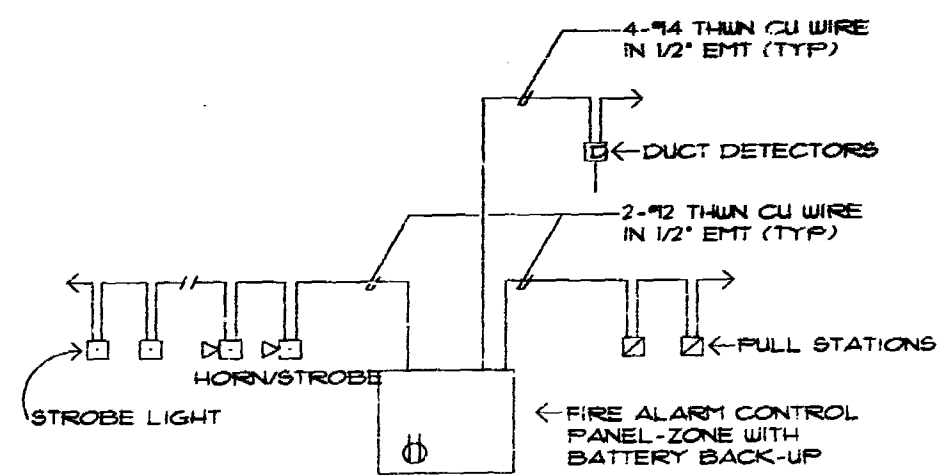
TOTAL DEMAND LOAD (KITCHEN EQUIPMENT @ 65%)  
435 KVA / 240 = 181.3 AMPS

PANEL K					SECTION I				
TYPE		PNT		FLUSH		MANS		200A MCB	
LOC		KITCHEN		VOLTS		BUS		120/240, 3P4S, 3W	
FEEDER		4-7500, 25"		A.I.C.		10,000			
CKT	POLE	KVA	DESCRIPTION	WIRE, C	CKT	POLE	KVA	DESCRIPTION	WIRE, C
1	2/20	10	ICE MACHINE	2-1/2, 1/2	2				
3	--	--	--	--	4	3/20	15	RECYCLE COMP.	3-1/2, 1/2
5					6				
7	3/20	15	RECYCLE COMP.	3-1/2, 1/2	8				
9	--	--	--	--	10	3/20	15	RECYCLE COMP.	3-1/2, 1/2
11					12				
13	3/20	15	RECYCLE COMP.	3-1/2, 1/2	14	2/20	2.5	FEEDER	2-1/2, 1/2
15	--	--	--	--	16	--	--	--	--
17	1/20	05	COOLER COIL	2-1/2, 1/2	18	1/20	05	COOLER COIL	2-1/2, 1/2
19	1/20	05	COOLER LIGHTS	2-1/2, 1/2	20	1/20	05	COOLER LIGHTS	2-1/2, 1/2
21	--	--	--	--	22	--	--	--	--
23	1/20	05	FEEDER COOLER LIGHTS	2-1/2, 1/2	24	1/20	05	FEEDER COIL	2-1/2, 1/2
25	1/20	05	FEEDER COOLER COIL	2-1/2, 1/2	26	1/20	05	FEEDER COIL	2-1/2, 1/2
27	1/20	05	DSH BLOWER	2-1/2, 1/2	28	2/20	1.4	HOT FOOD TABLE	2-1/2, 1/2
29					30				
31	3/20	2.0	GLASS WARMER	2-1/2, 1/2	32	1/30	5.4	RTU-2	2-1/2, 3/4
33	--	--	--	--	34	--	--	--	--
35	1/20	05	EP5	2-1/2, 1/2	36	1/20	.75	HEAT LAMP	2-1/2, 1/2
37	--	--	--	--	38	1/20	.75	HEAT LAMP	2-1/2, 1/2
39	--	--	--	--	40	--	--	--	--
41	1/20	.75	HEAT LAMP	2-1/2, 1/2	42	1/20	0.8	PROJECTOR SCREEN	2-1/2, 1/2
SUB		185.6	KVA		SUB		16.74	KVA	



## NUMBERED ELECTRICAL NOTES

- 7 PRIOR TO BID, THE CONTRACTOR SHALL VISIT THE JOB SITE AND RECOGNIZE THE EXISTING CONDITIONS. NOTIFY THE ARCHITECT OF ANY DISCREPANCIES. THE CONTRACTOR SHALL GUARANTEE THE ACCURACY OF THE INFORMATION SUBMITTED.
- 8 SUBMIT SHOP DRAWINGS FOR ACCEPTANCE BY THE ARCHITECT AND/OR BUSINESS BEFORE PROCEEDING WITH THE PURCHASE OR INSTALLATION OF THE FIRST AND LAST SETS OF LIGHTS.
- 9 CONNECT EIGHT AND TEMPORARY LIGHTS AHEAD OF RITCH LINES ON EACH LIGHTING CIRCUIT AS PER PLANS.
- 10 PROVIDE A J-BON FOR BURN CURRENT AT STORE FRONT ABOVE CEILING. PROVIDE A LOCKED PULL BOX TO INITIALIZATION. CONNECT THREE (3) CIRC. INTERMEDIATE 4-1/2".
- 11 NEW RECEPTACLES TO BE INSTALLED IN COUNTER SPACE. VERIFY EXACT LOCATION FOR NEW RECEPTACLES. PROVIDE TO ROOMS THE NEAREST DETECTION. ALL WORKING WITH FIREWORKS DRILLING AND DRILLING. PROVIDE TO ROOMS THE NEAREST DETECTION. ALL WORKING WITH FIREWORKS DRILLING AND DRILLING.
- 12 HVAC DUCT SMOKE DETECTORS SHALL BE INSTALLED AS PART OF THE FIRE ALARM SYSTEM. DETECTORS SHALL BE INSTALLED BY FIREPROOFING CONTRACTOR. DETECTORS SHALL BE INSTALLED BY ELECTRICAL CONTRACTOR. COORDINATE ALL ALARM WORK WITH THE BUILDING FIRE ALARM SYSTEM CONTRACTOR.
- 13 MAKE WORK SHALL COMPLY WITH THE BOTH FLORIDA BUILDING CODE, DADE COUNTY EDITION AND ALL OTHER APPLICABLE STATE AND LOCAL REGULATIONS AND ORDINANCES.
- 14 CONTRACTOR SHALL GUARANTEE THE WORK TO BE FREE OF DEFECTS IN MATERIALS AND METHODS FOR A PERIOD OF ONE YEAR AFTER ACCEPTANCE OF THE PROJECT.
- 15 VERIFY EXACT LOCATION OF ALL EQUIPMENT WITH TENANT PRIOR TO INSTALLATION.



# FIRE ALARM SYSTEM

IT IS THE INTENT OF THIS DOCUMENT TO PRODUCE A BRING PLAN FOR THE  
INSTALLATION OF A NEW FIRE ALARM SYSTEM.

### SYSTEM OPERATION

ACTIVATION OF A MANUAL CALL STATION OR SMOKE DETECTOR SHALL:

- A) CAUSE ALL HORN(S) TO SOUND AND ALL STROBE LIGHT(S) TO FLASH THROUGHOUT THE BUILDING.
- B) INDICATE THE ZONE OF ALARM AT THE FIRE ALARM CONTROL PANEL (FACP).
- C) CLOSE CONTACTS WITHIN THE FIRE ALARM CONTROL PANEL (FACP) FOR CENTRAL STATION MONITORING.

- NOTES
1. ALL SYSTEM DEVICES SHALL BE LISTED FOR THEIR INTENDED USE AND AS A COMPATIBLE SYSTEM.
  2. COMPLETE SYSTEM TO BE FULLY, ELECTRICALLY SUPERVISED. ANY DISCONTINUANCE OF THE SYSTEM WIRING, REMOVAL OF DEVICES OR LOSS OF NORMAL AC POWER SHALL CAUSE THE SYSTEM TO RETURN TO NORMAL SOUND.
  3. LOSS OF NORMAL AC POWER SHALL, IN ADDITION TO SOUND, PRODUCE A SIGNAL, CAUSE THE SYSTEM TO SHUT TO THE STANDSTBY POSITION, AND THE SYSTEM TO BE INSTALLED IN ACCORDANCE WITH NFPA 72A, 72B AND NFPA 96. SYSTEM WIRING SHALL COMPLY WITH ALL APLICABLE CODES, STANDARDS AND REGULATIONS.
  4. ALL SYSTEMS SHALL BE LISTED.

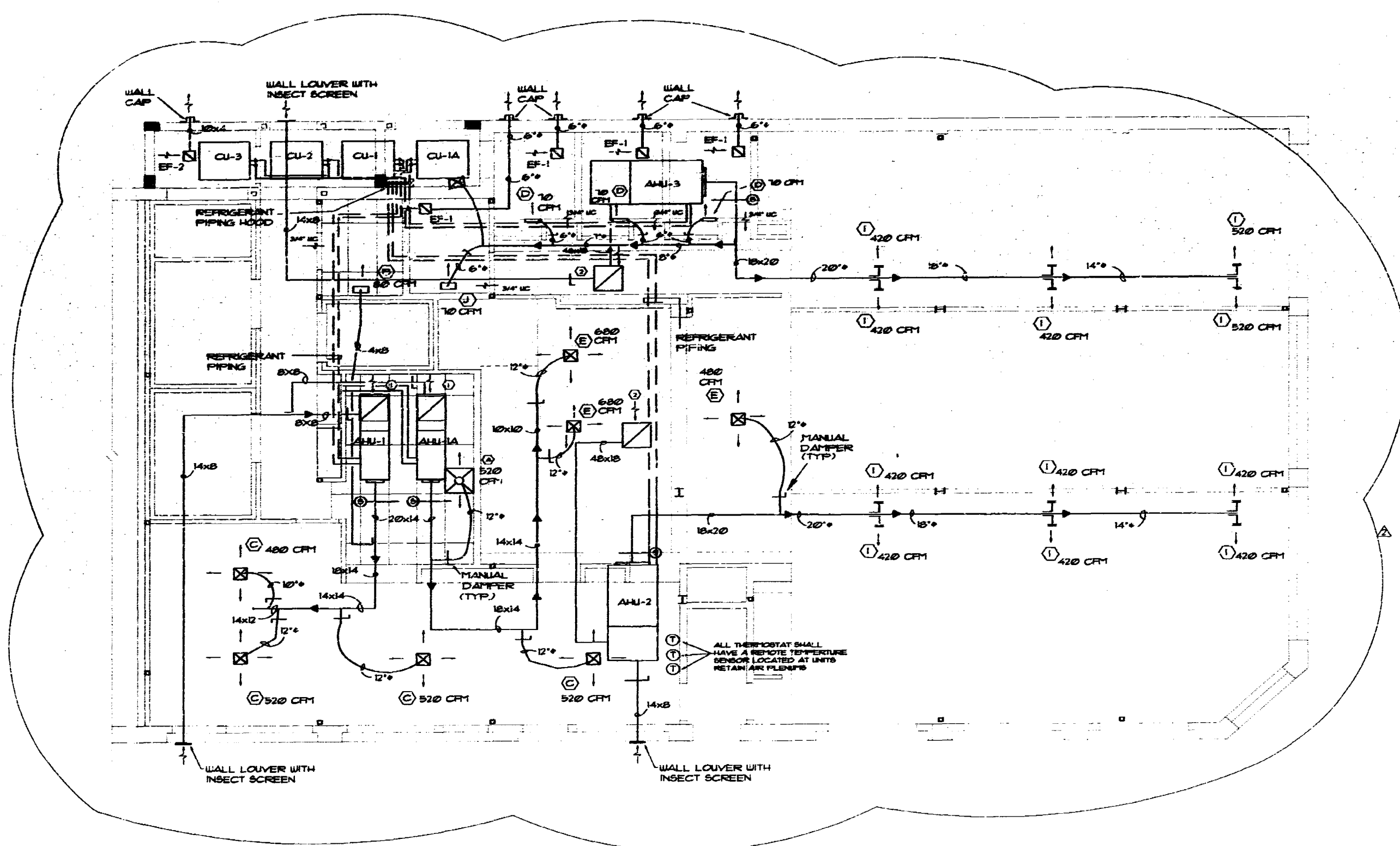
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APPROVED FOR RELEASE BY  
THE FOLLOWING:

BUILDING: \_\_\_\_\_  
 ZONING: \_\_\_\_\_  
 ADDRESS: \_\_\_\_\_  
 LOT: \_\_\_\_\_  
 NEIGHBOR: \_\_\_\_\_  
 PREVIOUS OWNER: \_\_\_\_\_  
 ENGINEERING: \_\_\_\_\_  
 PUBLIC WORKS: \_\_\_\_\_  
 STRUCTURAL: \_\_\_\_\_  
 ACCESSIBILITY: \_\_\_\_\_


**Puga and Associates, Inc.**  
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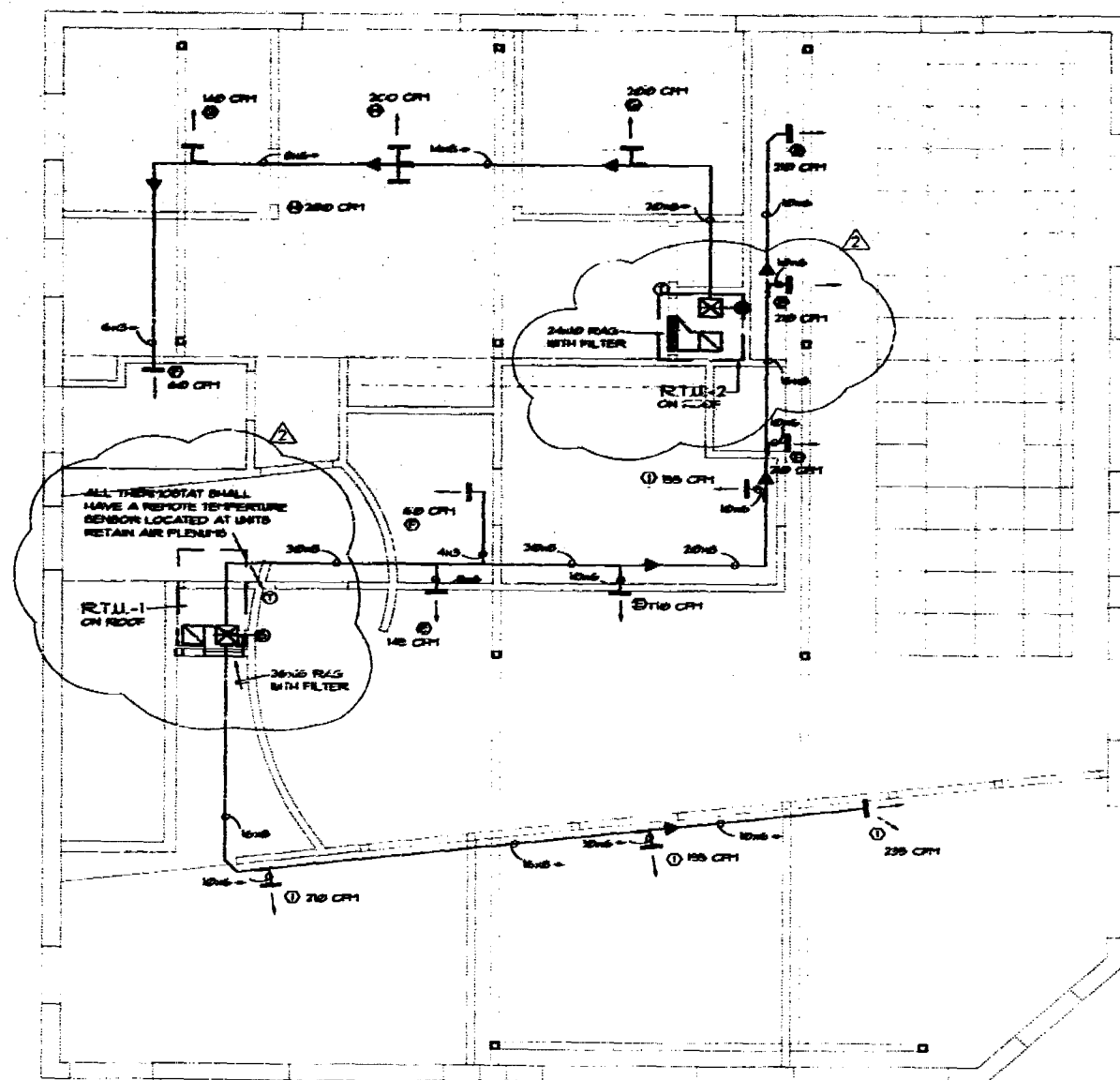

**H.V.A.C. PLAN**  
 SCALE: 1/4" = 1'-0" GROUND FLOOR

**OFFICE COPY**  
 CITY OF MIAMI BEACH  
 APPROVED FOR SUBMITTAL OF  
 THE FOLLOWING:  
 BUILDING: \_\_\_\_\_  
 ZONING: \_\_\_\_\_  
 PLUMBING: \_\_\_\_\_  
 ELECTRICAL: \_\_\_\_\_  
 MECHANICAL: *Re 9/13/96*  
 FIRE PROTECTION: \_\_\_\_\_  
 ENGINEERING: \_\_\_\_\_  
 PUBLIC WORKS: \_\_\_\_\_  
 STRUCTURAL: \_\_\_\_\_  
 ACCESSIBILITY: \_\_\_\_\_  
 ELEVATOR: \_\_\_\_\_


**Page and Associates, Inc.**  
 Engineers/Consultants  
 ESR 0005813  
 4970 S.W. 72 Avenue, #107  
 Miami, Florida 33155  
 (305) 861-7700

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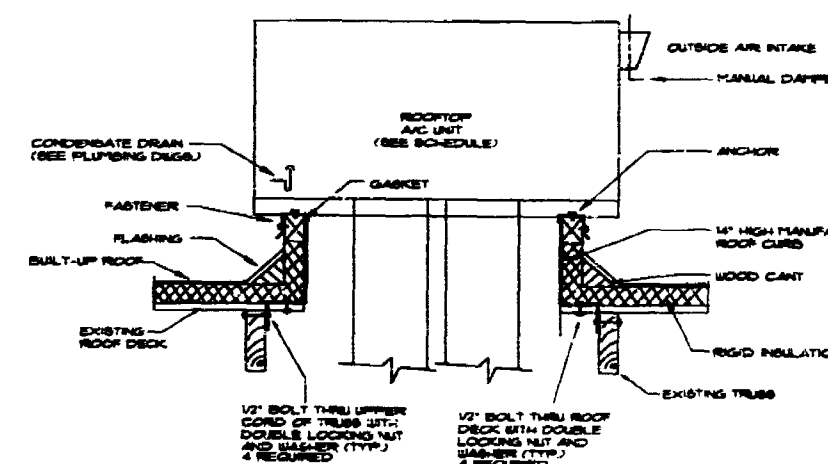

RENOVATIONS TO: <b>BIG PINK</b> 157 Collins Avenue Miami Beach, Florida 33139
GROUND FLOOR MECHANICAL PLAN
REVISIONS: A 8-8-96 B 8-16-96 CRAL REVISION
DATE: 07-08-96 PROJECT CODE/REFERENCE: 80 SCALE: 1/4" = 1'-0" DRAWN BY: E.B. APPROVED: _____

<b>M-1</b>



H.V.A.C. PLAN  
SCALE: 1/4" = 1'-0" SECOND FLOOR

PACKAGED ROOFTOP A.C. UNIT SCHEDULE		
UNIT DESIGNATION	RTU-1	RTU-2
AREA SERVED	250	250
OPERATING WEIGHT, lbs. - CURB	1500	1500
LOCATION	ROOF	ROOF
(6) EER	10.0	10.0
NOMINAL TONS	5	5
TOTAL AIR SUPPLY CFM	3500	3500
OUTSIDE AIR SUPPLY CFM	250	250
EXT. STATIC PRESS. IN. OF H <sub>2</sub> O	4.0	4.0
FAN MOTOR	HP/FLA	3/3 1/2
SENSIBLE COOLING CAP. BTU/HR	42,000	42,000
TOTAL COOLING CAP. BTU/HR	46,000	46,000
ENTERING AIR TEMP. °F DB/AB	80/67	80/67
LEAVING AIR TEMP. °F DB/AB	55/51	55/51
FILTER TYPE AND THICKNESS	4" THROBREAT	4" THROBREAT
FILTER SIZES	CUT TO FIT	CUT TO FIT
TOTAL HEATING CAPACITY BTU/H	26,200	26,200
TOTAL KW HEATING	16.0	16.0
NOMINAL TOTAL COP. FLA	21.0	21.0
NOMINAL TOTAL FAN HP/FLA	1/2	1/2
AIRBENT AIR TEMP. °F DB	80	80
CONDENSING TEMP. °F MAX	95	95
DESIGN MANUFACTURER	TRANE	TRANE
MODEL NO.	TCC036P060	TCC036P060
ELECTRICAL REQUIREMENTS V/PHS	240V/60	240V/60

\* PROVIDES A SMOKE DETECTOR IN THE SUPPLY DUCT INTERLOCKED WITH THE UNIT SO THAT THE UNIT WILL SHUT-DOWN UPON DETECTION.



A/C UNIT (ROOFTOP) INSTALLATION DETAIL

OFFICE COPY  
CITY OF MIAMI BEACH

APPROVED FOR THE CITY OF MIAMI BEACH

DATE: 07-08-96

PROJECT CODE/NO. NAME

DATE: 07-08-96

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

DESIGNED BY

STRUCTURAL

ACCESSIBILITY

ELEVATION

Puga and Associates, Inc.  
Engineers/Consultants  
4970 S.W. 75 Avenue, #107  
Miami, Florida 33155  
(305) 861-7700

RENOVATIONS TO:  
BIG PINK  
157 Collins Avenue  
Miami Beach, Florida 33139

SECOND FLOOR  
MECHANICAL PLAN

8-2-96  
8-10-96

07-08-96  
BP  
1/8" = 1'-0"

DESIGNED BY

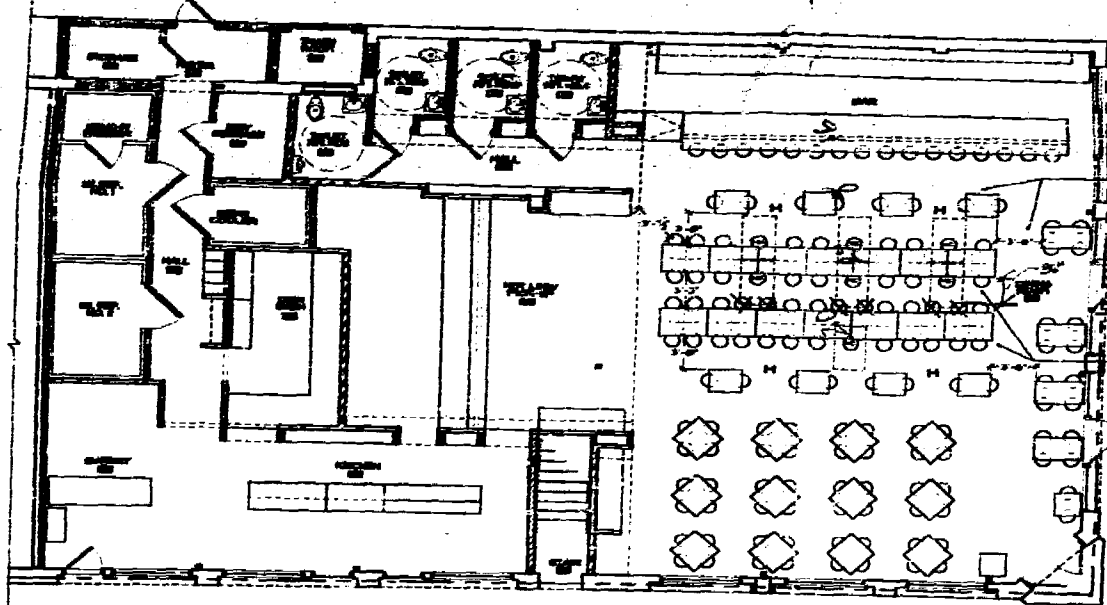
M-2



**OFFICE COPY**  
CITY OF MIAMI BEACH

APPROVED FOR PERMIT BY  
THE FOLLOWING:

BUILDING:	
ZONING:	
PLUMBING:	
ELECTRICAL:	
Mechanical:	
PAVING:	
SEWERAGE:	
WATERWORKS:	
STRUCTURAL:	
ACCESSIBILITY:	



*Handwritten signature*



# NEXT

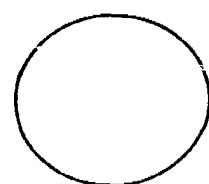


**MICRO-IMAGE**  
The Information Imaging Company

6954 N.W. 12 STREET, MIAMI, FLORIDA 33126  
305-477-9149 • 800-287-4799 • FAX 305-477-7526

# CASE

THIS IS TO CERTIFY THAT AMERICAN MICRO-IMAGE, INC.  
PRESENTS THE FOLLOWING IMAGES AS AN ACCURATE AND  
COMPLETE MICROFILM COPY OF THE ORIGINAL BUSINESS  
FILES AS EDITED BY THE INSTITUTION INSTRUCTIONS.



1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1 2.2 2.3 2.4 2.5 2.6 2.7 2.8 2.9 3.0 3.1 3.2 3.3 3.4 3.5 3.6 3.7 3.8 3.9 4.0 4.1 4.2 4.3 4.4 4.5 4.6 4.7 4.8 4.9 5.0 5.1 5.2 5.3 5.4 5.5 5.6 5.7 5.8 5.9 6.0 6.1 6.2 6.3 6.4 6.5 6.6 6.7 6.8 6.9 7.0 7.1 7.2 7.3 7.4 7.5 7.6 7.7 7.8 7.9 8.0 8.1 8.2 8.3 8.4 8.5 8.6 8.7 8.8 8.9 9.0 9.1 9.2 9.3 9.4 9.5 9.6 9.7 9.8 9.9 10.0 10.1 10.2 10.3 10.4 10.5 10.6 10.7 10.8 10.9 11.0 11.1 11.2 11.3 11.4 11.5 11.6 11.7 11.8 11.9 12.0 12.1 12.2 12.3 12.4 12.5 12.6 12.7 12.8 12.9 13.0 13.1 13.2 13.3 13.4 13.5 13.6 13.7 13.8 13.9 14.0 14.1 14.2 14.3 14.4 14.5 14.6 14.7 14.8 14.9 15.0 15.1 15.2 15.3 15.4 15.5 15.6 15.7 15.8 15.9 16.0 16.1 16.2 16.3 16.4 16.5 16.6 16.7 16.8 16.9 17.0 17.1 17.2 17.3 17.4 17.5 17.6 17.7 17.8 17.9 18.0 18.1 18.2 18.3 18.4 18.5 18.6 18.7 18.8 18.9 19.0 19.1 19.2 19.3 19.4 19.5 19.6 19.7 19.8 19.9 20.0 20.1 20.2 20.3 20.4 20.5 20.6 20.7 20.8 20.9 21.0 21.1 21.2 21.3 21.4 21.5 21.6 21.7 21.8 21.9 22.0 22.1 22.2 22.3 22.4 22.5 22.6 22.7 22.8 22.9 23.0 23.1 23.2 23.3 23.4 23.5 23.6 23.7 23.8 23.9 24.0 24.1 24.2 24.3 24.4 24.5 24.6 24.7 24.8 24.9 25.0 25.1 25.2 25.3 25.4 25.5 25.6 25.7 25.8 25.9 26.0 26.1 26.2 26.3 26.4 26.5 26.6 26.7 26.8 26.9 27.0 27.1 27.2 27.3 27.4 27.5 27.6 27.7 27.8 27.9 28.0 28.1 28.2 28.3 28.4 28.5 28.6 28.7 28.8 28.9 29.0 29.1 29.2 29.3 29.4 29.5 29.6 29.7 29.8 29.9 30.0 30.1 30.2 30.3 30.4 30.5 30.6 30.7 30.8 30.9 31.0 31.1 31.2 31.3 31.4 31.5 31.6 31.7 31.8 31.9 32.0 32.1 32.2 32.3 32.4 32.5 32.6 32.7 32.8 32.9 33.0 33.1 33.2 33.3 33.4 33.5 33.6 33.7 33.8 33.9 34.0 34.1 34.2 34.3 34.4 34.5 34.6 34.7 34.8 34.9 35.0 35.1 35.2 35.3 35.4 35.5 35.6 35.7 35.8 35.9 36.0 36.1 36.2 36.3 36.4 36.5 36.6 36.7 36.8 36.9 37.0 37.1 37.2 37.3 37.4 37.5 37.6 37.7 37.8 37.9 38.0 38.1 38.2 38.3 38.4 38.5 38.6 38.7 38.8 38.9 39.0 39.1 39.2 39.3 39.4 39.5 39.6 39.7 39.8 39.9 40.0 40.1 40.2 40.3 40.4 40.5 40.6 40.7 40.8 40.9 41.0 41.1 41.2 41.3 41.4 41.5 41.6 41.7 41.8 41.9 42.0 42.1 42.2 42.3 42.4 42.5 42.6 42.7 42.8 42.9 43.0 43.1 43.2 43.3 43.4 43.5 43.6 43.7 43.8 43.9 44.0 44.1 44.2 44.3 44.4 44.5 44.6 44.7 44.8 44.9 45.0 45.1 45.2 45.3 45.4 45.5 45.6 45.7 45.8 45.9 46.0 46.1 46.2 46.3 46.4 46.5 46.6 46.7 46.8 46.9 47.0 47.1 47.2 47.3 47.4 47.5 47.6 47.7 47.8 47.9 48.0 48.1 48.2 48.3 48.4 48.5 48.6 48.7 48.8 48.9 49.0 49.1 49.2 49.3 49.4 49.5 49.6 49.7 49.8 49.9 50.0 50.1 50.2 50.3 50.4 50.5 50.6 50.7 50.8 50.9 51.0 51.1 51.2 51.3 51.4 51.5 51.6 51.7 51.8 51.9 52.0 52.1 52.2 52.3 52.4 52.5 52.6 52.7 52.8 52.9 53.0 53.1 53.2 53.3 53.4 53.5 53.6 53.7 53.8 53.9 54.0 54.1 54.2 54.3 54.4 54.5 54.6 54.7 54.8 54.9 55.0 55.1 55.2 55.3 55.4 55.5 55.6 55.7 55.8 55.9 56.0 56.1 56.2 56.3 56.4 56.5 56.6 56.7 56.8 56.9 57.0 57.1 57.2 57.3 57.4 57.5 57.6 57.7 57.8 57.9 58.0 58.1 58.2 58.3 58.4 58.5 58.6 58.7 58.8 58.9 59.0 59.1 59.2 59.3 59.4 59.5 59.6 59.7 59.8 59.9 60.0 60.1 60.2 60.3 60.4 60.5 60.6 60.7 60.8 60.9 61.0 61.1 61.2 61.3 61.4 61.5 61.6 61.7 61.8 61.9 62.0 62.1 62.2 62.3 62.4 62.5 62.6 62.7 62.8 62.9 63.0 63.1 63.2 63.3 63.4 63.5 63.6 63.7 63.8 63.9 64.0 64.1 64.2 64.3 64.4 64.5 64.6 64.7 64.8 64.9 65.0 65.1 65.2 65.3 65.4 65.5 65.6 65.7 65.8 65.9 66.0 66.1 66.2 66.3 66.4 66.5 66.6 66.7 66.8 66.9 67.0 67.1 67.2 67.3 67.4 67.5 67.6 67.7 67.8 67.9 68.0 68.1 68.2 68.3 68.4 68.5 68.6 68.7 68.8 68.9 69.0 69.1 69.2 69.3 69.4 69.5 69.6 69.7 69.8 69.9 70.0 70.1 70.2 70.3 70.4 70.5 70.6 70.7 70.8 70.9 71.0 71.1 71.2 71.3 71.4 71.5 71.6 71.7 71.8 71.9 72.0 72.1 72.2 72.3 72.4 72.5 72.6 72.7 72.8 72.9 73.0 73.1 73.2 73.3 73.4 73.5 73.6 73.7 73.8 73.9 74.0 74.1 74.2 74.3 74.4 74.5 74.6 74.7 74.8 74.9 75.0 75.1 75.2 75.3 75.4 75.5 75.6 75.7 75.8 75.9 76.0 76.1 76.2 76.3 76.4 76.5 76.6 76.7 76.8 76.9 77.0 77.1 77.2 77.3 77.4 77.5 77.6 77.7 77.8 77.9 78.0 78.1 78.2 78.3 78.4 78.5 78.6 78.7 78.8 78.9 79.0 79.1 79.2 79.3 79.4 79.5 79.6 79.7 79.8 79.9 80.0 80.1 80.2 80.3 80.4 80.5 80.6 80.7 80.8 80.9 81.0 81.1 81.2 81.3 81.4 81.5 81.6 81.7 81.8 81.9 82.0 82.1 82.2 82.3 82.4 82.5 82.6 82.7 82.8 82.9 83.0 83.1 83.2 83.3 83.4 83.5 83.6 83.7 83.8 83.9 84.0 84.1 84.2 84.3 84.4 84.5 84.6 84.7 84.8 84.9 85.0 85.1 85.2 85.3 85.4 85.5 85.6 85.7 85.8 85.9 86.0 86.1 86.2 86.3 86.4 86.5 86.6 86.7 86.8 86.9 87.0 87.1 87.2 87.3 87.4 87.5 87.6 87.7 87.8 87.9 88.0 88.1 88.2 88.3 88.4 88.5 88.6 88.7 88.8 88.9 89.0 89.1 89.2 89.3 89.4 89.5 89.6 89.7 89.8 89.9 90.0 90.1 90.2 90.3 90.4 90.5 90.6 90.7 90.8 90.9 91.0 91.1 91.2 91.3 91.4 91.5 91.6 91.7 91.8 91.9 92.0 92.1 92.2 92.3 92.4 92.5 92.6 92.7 92.8 92.9 93.0 93.1 93.2 93.3 93.4 93.5 93.6 93.7 93.8 93.9 94.0 94.1 94.2 94.3 94.4 94.5 94.6 94.7 94.8 94.9 95.0 95.1 95.2 95.3 95.4 95.5 95.6 95.7 95.8 95.9 96.0 96.1 96.2 96.3 96.4 96.5 96.6 96.7 96.8 96.9 97.0 97.1 97.2 97.3 97.4 97.5 97.6 97.7 97.8 97.9 98.0 98.1 98.2 98.3 98.4 98.5 98.6 98.7 98.8 98.9 99.0 99.1 99.2 99.3 99.4 99.5 99.6 99.7 99.8 99.9 100.0

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MIAMI, FLORIDA 33126

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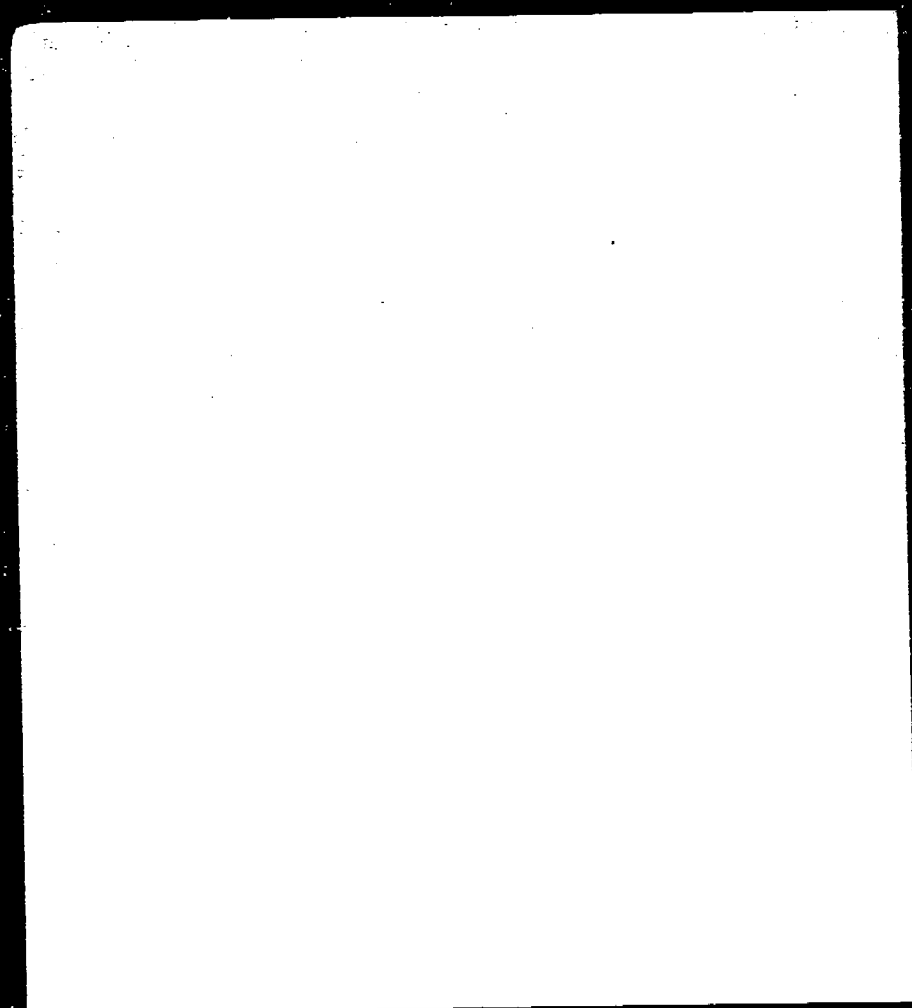
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157 Collins Av

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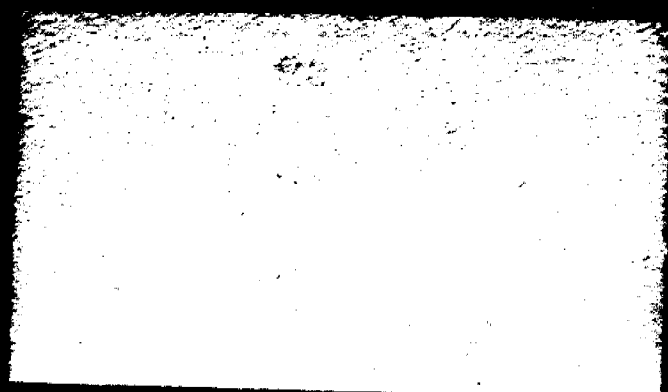
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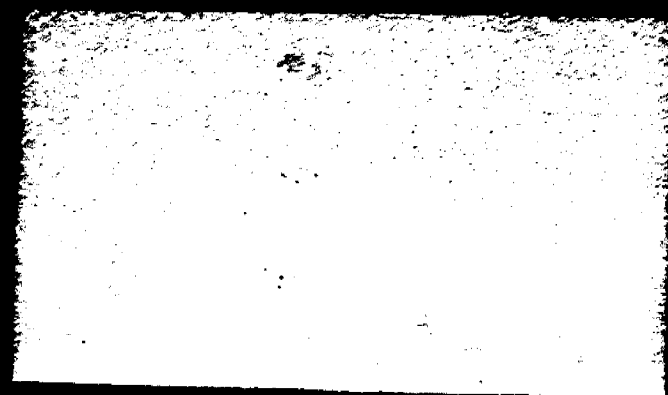
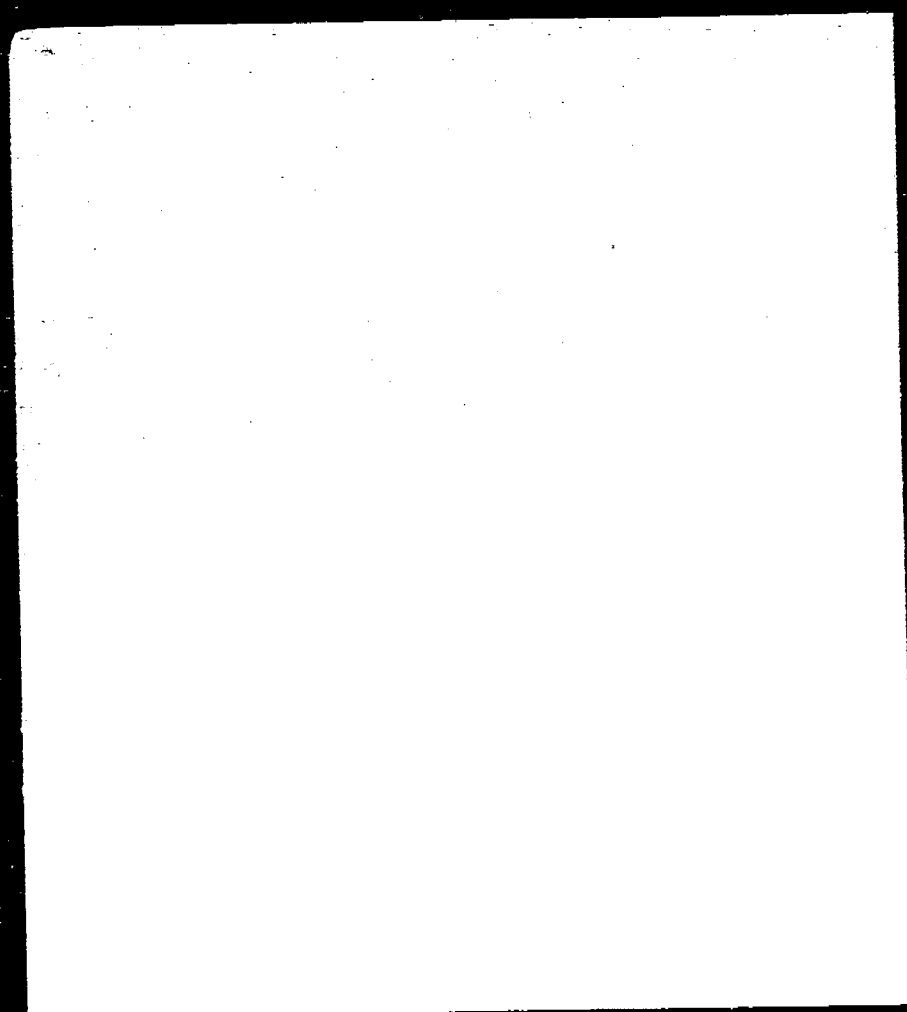
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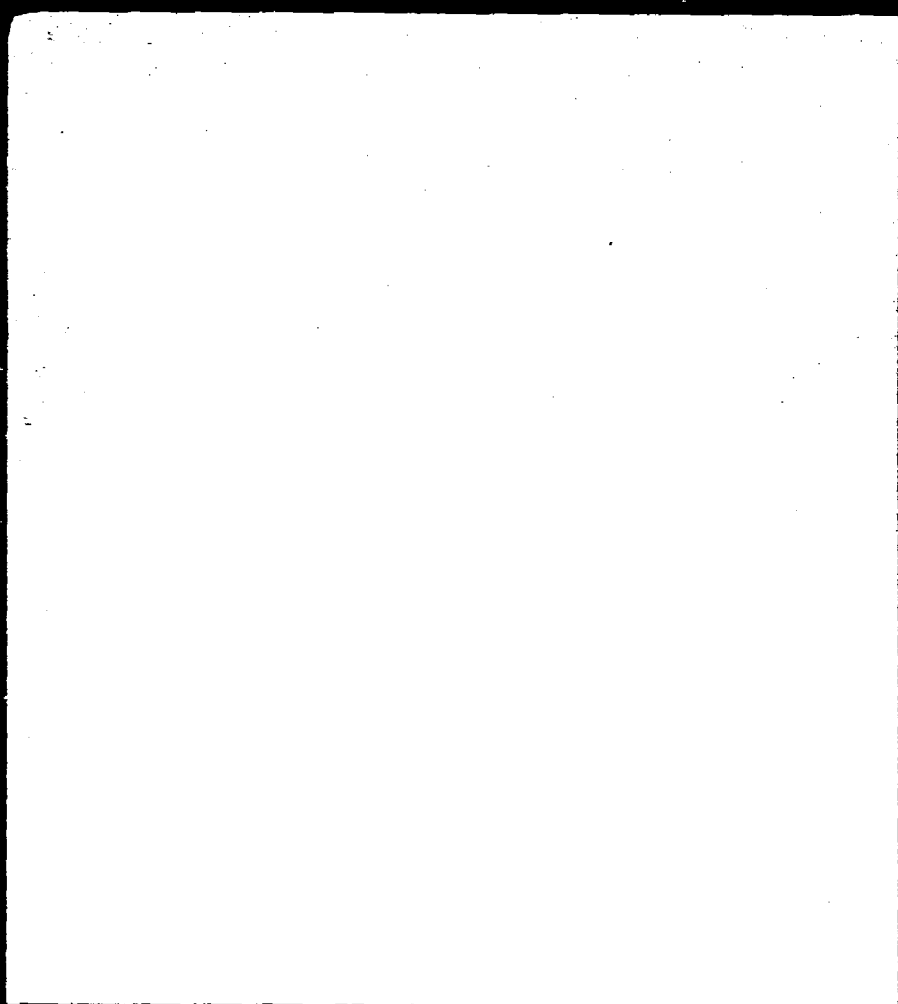
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Date Microfilmed Camera Operator  
#1 Shy  
Roll No. Authorized Signatory



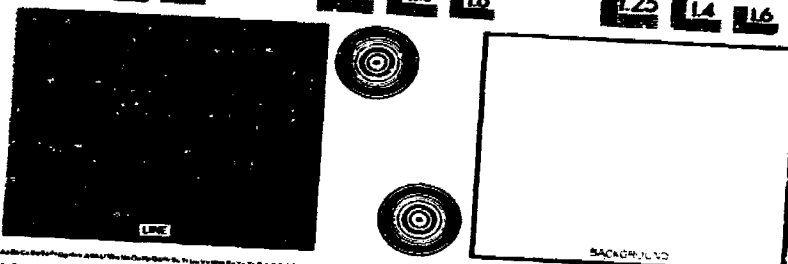
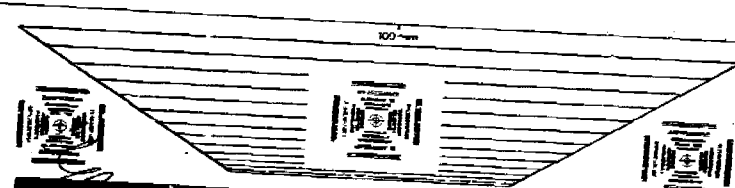
11







**Kodak Quality Monitoring Program**



**SACROFOLIO**

Aa Bb Cc Dd Ee Ff Gg Hh Ii Jj Kk Ll Mm Nn Oo Pp Qq Rr Ss Tt Uu Vv Ww Xx Yy Zz 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 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

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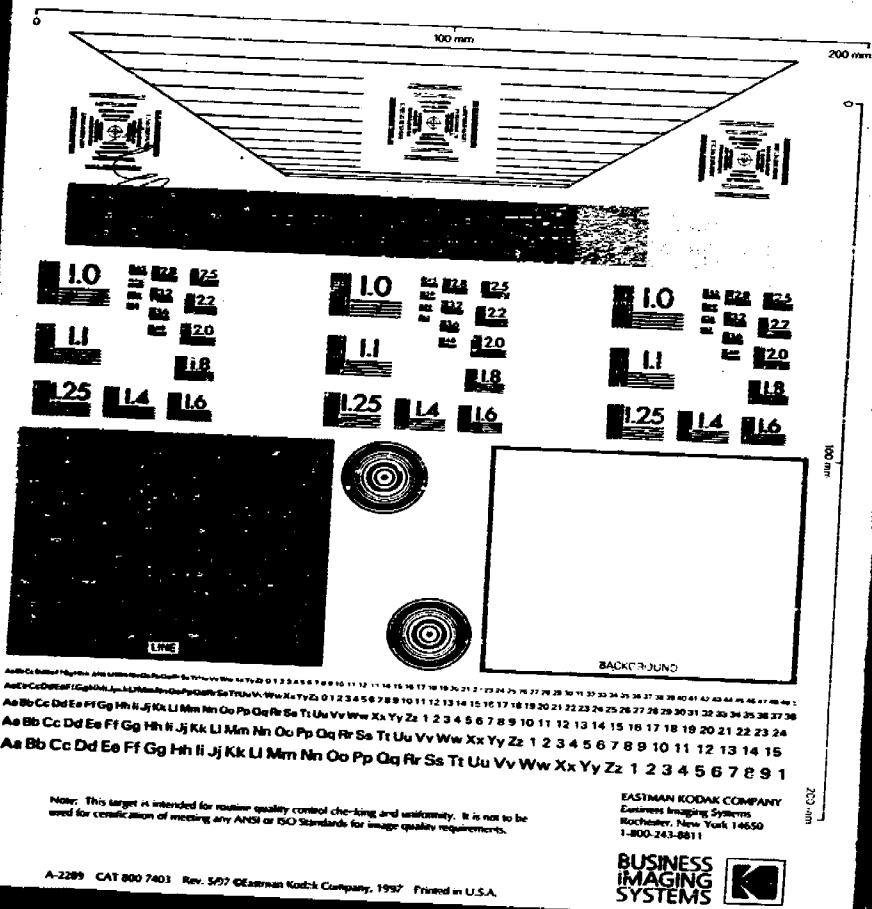
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EASTMAN KODAK COMPANY  
Business Imaging Systems  
Rochester, New York 14650  
315-487-8911

**BUSINESS  
IMAGING  
SYSTEMS**



# CONTROL TEST TARGET Kodak Quality Monitoring Program






[illegible]

Aa Bb Cc Dd Ee Ff Gg Hh Ii Jj Kk Ll Mm Nn Oo Pp Qq Rr Ss Tt Uu Vv Ww Xx Yy Zz 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 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50  
 Aa Bb Cc Dd Ee Ff Gg Hh Ii Jj Kk Ll Mm Nn Oo Pp Qq Rr Ss Tt Uu Vv Ww Xx Yy Zz 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 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50  
 Aa Bb Cc Dd Ee Ff Gg Hh Ii Jj Kk Ll Mm Nn Oo Pp Qq Rr Ss Tt Uu Vv Ww Xx Yy Zz 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 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50

Note: This target is intended for routine quality control checking and uniformity. It is not to be used for certification of meeting any ANSI or ISO Standards for image quality requirements.

**EASTMAN KODAK COMPANY**  
Business Imaging Systems  
Rochester, New York 14650  
1-800-243-0011

**BUSINESS  
IMAGING  
SYSTEMS**



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A-2289 CAT 800 7403 Rev. 5/97 ©Lamson Kodak Company, 1997 Printed in U.S.A.

ROLL NO. 1

CUSTOMER Miami Beach

DOCUMENT DESCRIPTION year '94

START CASE NO.

B 9400501  
1680 Michigan Av.

END CASE NO.

B 9400397  
157 Collins Av.

RECORDS MICROFILMED BY

**LASON**

The Information Management Company

DATE 09-11-01

OPERATOR Ileana

TOTAL EXPOSURES

477  
123  
600

CDP114

**END**

**PLEASE REWIND**



LASON Systems, Inc. S.E.

6954 N.W. 12 STREET, MIAMI, FLORIDA 33126  
305-477-9149 • 800-287-4799 • FAX 305-477-7526

PC 011

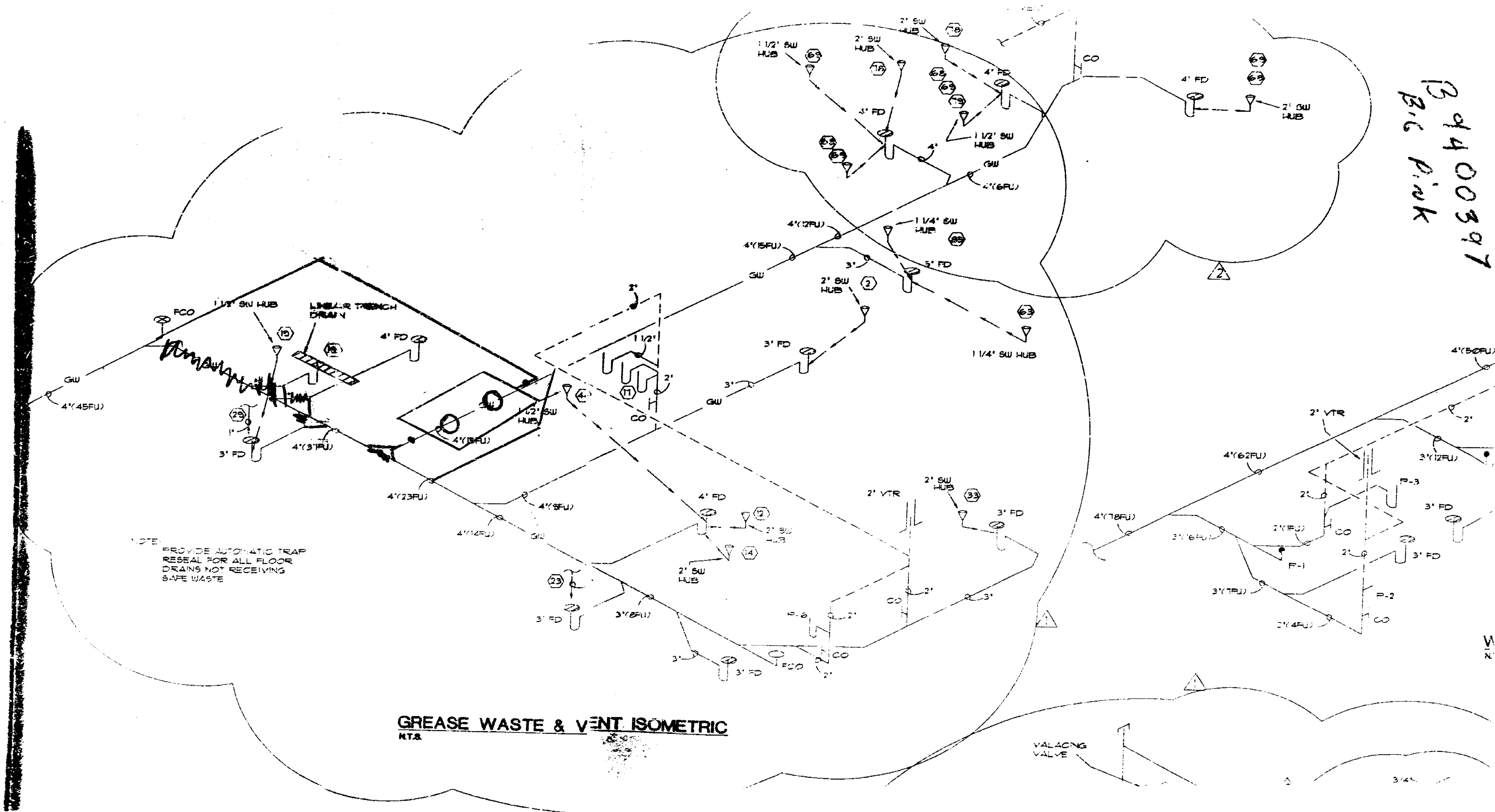
**PERMIT NUMBER**

B9400397

**ADDRESS**

\_\_\_\_\_

5



B 4400397  
B.C. Pink

# BREV 142596

**MIAMI-DADE  
COUNTY**

DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)  
BOARD AND CODE ADMINISTRATION DIVISION

## NOTICE OF ACCEPTANCE (NOA)

MIAMI-DADE COUNTY  
PRODUCT CONTROL SECTION  
11805 SW 26 Street, Room 208  
T (786) 315-2590 F (786) 315-2599

[www.miamidade.gov/economy](http://www.miamidade.gov/economy)

Mr. Glass Doors & Windows, Inc.  
7440 NW 66<sup>th</sup> Street  
Miami, FL 33166

### SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER - Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code, including the High Velocity Hurricane Zone.

### DESCRIPTION: Series "MG5000" Aluminum Window Wall System - L.M.I.

**APPROVAL DOCUMENT:** Drawing No. W11-39, titled "Series MG5000 Alum. Window Wall System (L.M.I.)", sheets 1 through 12 of 12, dated 07/15/11, with revision A dated 03/05/12, prepared by Al-Farooq Corporation, signed and sealed by Javad Ahmad, 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 Resistant

**LABELING:** Each unit shall bear a permanent label with the manufacturer's name or logo, city, state, model/series, and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

**RENEWAL** of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

**TERMINATION** of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

**ADVERTISEMENT:** The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

**INSPECTION:** A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA renews NOA# 12-0328.06 and consists of this page 1 and evidence pages E-1 and E-2, as well as approval document mentioned above.

The submitted documentation was reviewed by Manuel Perez, P.E.

**MIAMI-DADE COUNTY  
APPROVED**

NOA No. 13-0107.03  
Expiration Date: April 03, 2018  
Approval Date: March 14, 2013  
Page 1

Mr. Glass Doors & Windows, Inc.

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

**A. DRAWINGS**

1. Manufacturer's die drawings and sections.
2. Drawing No. **W11-39**, titled "Series MG5000 Alum Window Wall System (L.M.I.)" Sheets 1 through 12 of 12, dated 07/15/11, with revision A dated 03/05/12, prepared by Al-Farooq Corporation, signed and sealed by Javad Ahmad, P.E.  
(Submitted under previous NOA#12-0328.06)

**B. TESTS**

1. Test reports on: 1) Air Infiltration Test, per FBC, TAS 202-94  
2) Uniform Static Air Pressure Test, Loading per FBC TAS 202-94  
3) Water Resistance Test, per FBC, TAS 202-94  
4) Large Missile Impact Test per FBC, TAS 201-94  
5) Cyclic Wind Pressure Loading per FBC, TAS 203-94  
along with marked-up drawings and installation diagram of an aluminum window wall system, prepared by Fenestration Testing Laboratory, Inc., Test Report No. **FTL-5447**, dated 12/19/07, signed and sealed by Michael R. Wenzel, P.E.  
(Submitted under previous NOA # 08-1114.16)

**C. CALCULATIONS:**

1. Anchor verification calculations and structural analysis, complying with FBC-2004 and FBC 2007, prepared by Al-Farooq Corporation, dated 09/02/08, signed and sealed by Humayoun Farooq, P.E.  
(Submitted under previous NOA#11-0720.09)
2. Glazing complies with ASTM E1300-04

**D. QUALITY ASSURANCE**

1. Miami-Dade Department of Regulatory and Economic Resources (RER)

**E. MATERIAL CERTIFICATIONS**

1. Notice of Acceptance No. **11-0624.02** issued to **E.I. DuPont DeNemours & Co., Inc.** for their "**DuPont SentryGlas® Interlayer**" dated 08/25/11, expiring on 01/14/17.
2. Notice of Acceptance No. **11-0624.01** issued to **E.I. DuPont DeNemours & Co., Inc.** for their "**DuPont Butacite® PVB Interlayer**" dated 09/08/11, expiring on 12/11/16.

Manuel Perez, P.E.  
Product Control Examiner  
NOA No. 13-0107.03  
Expiration Date: April 03, 2018  
Approval Date: March 14, 2013.



Mr. Glass Doors & Windows, Inc.

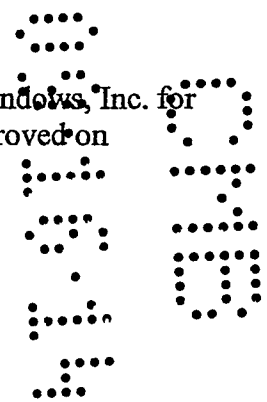
NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

**F. STATEMENTS**

1. Statement letter of conformance, complying with FBC-2010, dated December 19, 2012, signed and sealed by Javad Ahmad, P.E.
2. Statement letter of conformance, complying with FBC-2010, and of no financial interest, dated March 05, 2012, signed and sealed by Javad Ahmad, P.E.  
(Submitted under previous NOA#12-0328.06)

**G. OTHER**

1. Notice of Acceptance No. 12-0328.06, issued to Mr. Glass Doors & Windows, Inc. for their Series "MG5000" Aluminum Window Wall System – L.M.I., approved on 06/07/12 and expiring on 04/03/13.



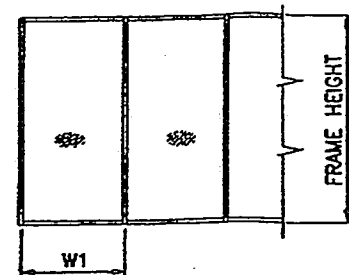
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Manuel Perez, P.E.  
Product Control Examiner  
NOA No. 13-0107.03  
Expiration Date: April 03, 2018  
Approval Date: March 14, 2013

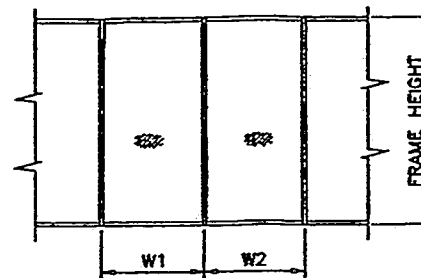


MULLION LOAD CAPACITY - PSF							UNANCHORED JAMB OPTIONS MULL OPTIONS
MULLIONS WITHOUT INTERMEDIATE HORIZONTALS							
NOMINAL DIMS.		JAMB 'J1' MULL 'M1'	JAMB 'J1' MULL 'M2'	JAMB 'J2' JAMB 'J3' MULL 'M3'	JAMB 'J3' MULL 'M4'		
WIDTH (W)	FRAME HEIGHT	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)		
30"	86-1/2"	130.0	130.0	130.0	130.0		
36"		130.0	130.0	130.0	130.0		
42"		130.0	130.0	130.0	130.0		
48"		130.0	130.0	130.0	130.0		
54"		130.0	130.0	130.0	130.0		
60"	90"	130.0	130.0	130.0	130.0		
30"		130.0	130.0	130.0	130.0		
36"		130.0	130.0	130.0	130.0		
42"		130.0	130.0	130.0	130.0		
48"		130.0	130.0	130.0	130.0		
54"	96"	121.7	130.0	130.0	130.0		
60"		113.7	130.0	130.0	130.0		
30"		130.0	130.0	130.0	130.0		
36"		130.0	130.0	130.0	130.0		
42"		119.9	130.0	130.0	130.0		
48"	98-1/2"	107.5	130.0	130.0	130.0		
54"		98.4	130.0	127.9	130.0		
60"		91.5	130.0	118.4	130.0		
30"		130.0	130.0	130.0	130.0		
36"		126.4	130.0	130.0	130.0		
42"	102"	110.5	130.0	130.0	130.0		
48"		99.0	130.0	130.0	130.0		
54"		90.5	130.0	120.8	130.0		
58"		85.9	130.0	114.4	130.0		
30"		130.0	130.0	130.0	130.0		
36"	108"	113.4	130.0	130.0	130.0		
42"		99.0	130.0	130.0	130.0		
48"		88.6	130.0	123.2	130.0		
54"		80.7	129.9	111.8	130.0		
56"		78.6	126.4	108.7	129.9		
30"	110-1/2"	112.4	130.0	130.0	130.0		
36"		95.0	130.0	130.0	130.0		
42"		82.8	130.0	122.5	130.0		
48"		73.8	118.8	108.9	130.0		
53"		68.1	109.6	100.2	119.7		
30"	114"	104.8	130.0	130.0	130.0		
36"		88.5	130.0	130.0	130.0		
42"		77.1	123.9	116.8	130.0		
48"		68.7	110.5	103.7	124.0		
52"		64.3	103.4	96.9	115.8		
30"	120"	95.3	130.0	130.0	130.0		
36"		80.4	129.3	126.1	130.0		
42"		69.9	112.5	109.4	130.0		
48"		62.3	100.1	97.1	116.0		
50"		60.1	96.7	93.7	112.0		
30"	120"	81.5	130.0	130.0	130.0		
36"		68.6	110.4	113.5	130.0		
42"		59.6	95.9	98.3	117.5		
48"		53.0	85.2	87.1	104.1		

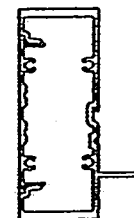
NOTE:  
INTERPOLATION BETWEEN WIDTHS ALLOWED.



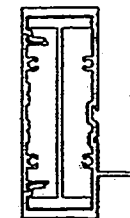
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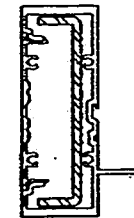
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AT FRAME MULLION



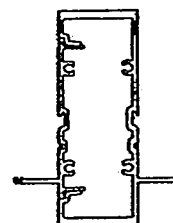
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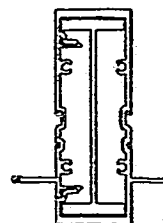
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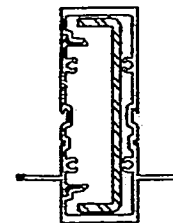
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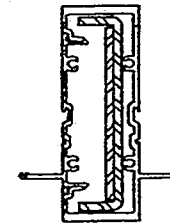
MULLION 'M1'



MULLION 'M2'



MULLION 'M3'



MULLION 'M4'

# MULLIONS

Engr. JAVAD AHMAD  
CIVIL  
FLA. PE # 70592  
CAN. 3538

PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No. 12-0322.06  
Expiration Date 12-03-2013  
By *Muhammad Saeed*  
Miami Dade Product Control

**af c**  
**AL-FAROOQ CORPORATION**  
ENGINEERS & PRODUCT DEVELOPMENT  
1228 S.W. 87 AVE.  
MIAMI, FLORIDA 33174  
TEL: (305) 284-8400 FAX: (305) 282-8878  
STORE W11-39MG

SERIES MG5000 ALUM WINDOW WALL SYSTEM (L.M.I.)  
**MR. GLASS DOORS & WINDOWS INC.**  
7440 N.W. 86 STREET  
MIAMI, FL. 33166  
TEL: (305) 470-8284 FAX: (305) 470-8285

revisions:	no.	date	by	description
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date:	07-15-11
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dr. by:	HAHID
chk. by:	

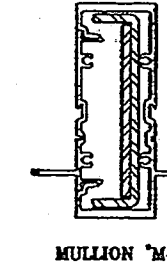
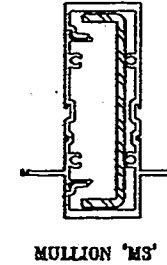
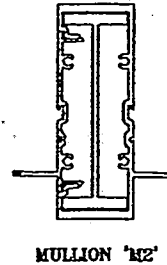
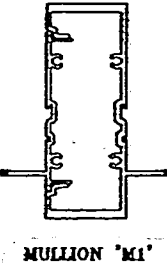
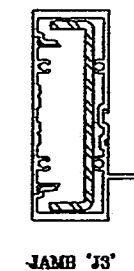
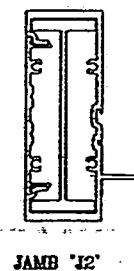
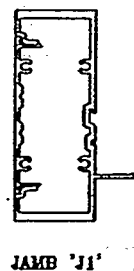
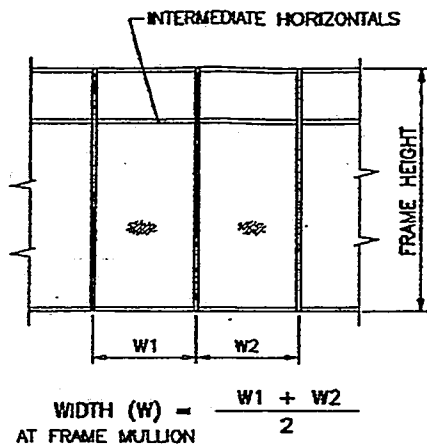
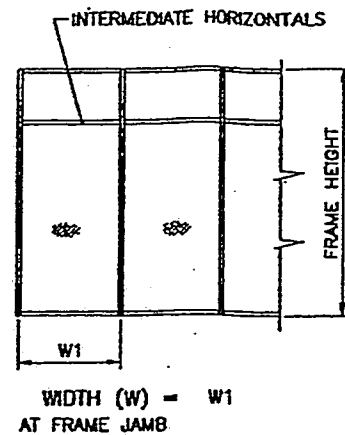
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sheet 3 of 12

MAR 07 2012

MULLION LOAD CAPACITY - PSF						
MULLIONS WITH INTERMEDIATE HORIZONTALS						
NOMINAL DIMS.		JAMB 'J1'	JAMB 'J1'	JAMB 'J2'	JAMB 'J3'	UNANCHORED
WIDTH (W)	FRAME HEIGHT	MULL 'M1'	MULL 'M2'	MULL 'M3'	MULL 'M4'	JAMB OPTIONS
		EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	MULL OPTIONS
30"	78"	130.0	130.0	130.0	130.0	
36"		130.0	130.0	130.0	130.0	
42"		130.0	130.0	130.0	130.0	
48"		130.0	130.0	130.0	130.0	
54"		130.0	130.0	130.0	130.0	
60"	88-1/2"	130.0	130.0	130.0	130.0	
36"		130.0	130.0	130.0	130.0	
42"		130.0	130.0	130.0	130.0	
48"		130.0	130.0	130.0	130.0	
54"		118.1	130.0	130.0	130.0	
60"	90"	106.3	130.0	127.2	130.0	
36"		130.0	130.0	130.0	130.0	
36"		130.0	130.0	130.0	130.0	
42"		130.0	130.0	130.0	130.0	
48"		118.0	130.0	130.0	130.0	
54"	96"	104.9	130.0	130.0	130.0	
60"		94.4	130.0	117.5	130.0	
36"		130.0	130.0	130.0	130.0	
36"		129.6	130.0	130.0	130.0	
42"		111.1	130.0	130.0	130.0	
48"	98-1/2"	97.2	130.0	129.0	130.0	
54"		86.4	130.0	114.7	130.0	
60"		77.8	125.1	103.2	123.4	
36"		130.0	130.0	130.0	130.0	
36"		120.0	130.0	130.0	130.0	
42"	102"	102.8	130.0	130.0	130.0	
48"		90.0	130.0	122.6	130.0	
54"		80.0	128.7	109.0	130.0	
58"		74.5	119.8	101.4	121.2	
36"		129.7	130.0	130.0	130.0	
36"	108"	108.1	130.0	130.0	130.0	
42"		92.6	130.0	130.0	130.0	
48"		81.0	130.0	114.3	130.0	
54"		72.0	115.9	101.6	121.4	
56"		69.5	111.7	98.0	117.1	
36"	110-1/2"	109.2	130.0	130.0	130.0	
36"		91.0	130.0	130.0	130.0	
42"		78.0	125.5	116.5	130.0	
48"		68.3	109.8	102.0	121.9	
53"		61.8	99.5	92.3	110.4	
36"	114"	102.0	130.0	130.0	130.0	
36"		85.0	130.0	129.9	130.0	
42"		72.8	117.2	111.3	130.0	
48"		63.7	102.5	97.4	118.4	
52"		58.8	94.6	89.9	107.4	
36"	120"	92.9	130.0	130.0	130.0	
36"		77.4	124.5	122.0	130.0	
42"		66.3	106.7	104.6	125.0	
48"		58.0	93.4	91.5	109.4	
50"		55.7	89.6	87.8	105.0	
30"	120"	79.6	128.1	130.0	130.0	
36"		66.4	106.7	110.1	130.0	
42"		56.9	91.5	94.4	112.8	
48"		49.8	80.1	82.6	98.7	

NOTE:  
INTERPOLATION BETWEEN WIDTHS ALLOWED.



# MULLIONS

Engr: JAVAB AHMAD  
CIVIL  
FLA. P.E. # 70592  
C.A.N. 3538

PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No. 12-0328-06  
Expiration Date 12/31/2013  
By: *Mamud Hossain*  
Miami Dade Product Control

**AL-FAROOQ CORPORATION**  
ENGINEERS & PRODUCT DEVELOPMENT  
1238 S.W. 87 AVE.  
MIAMI, FLORIDA 33174  
TEL: (305) 264-8100 FAX: (305) 264-8178  
STORE W11-39MG

SERIES M5000 ALUM WINDOW WALL SYSTEM (L.M.I.)  
**MR. GLASS DOORS & WINDOWS INC.**  
7440 N.W. 66 STREET  
MIAMI, FL. 33168  
TEL: (305) 470-8284 FAX: (305) 470-8285

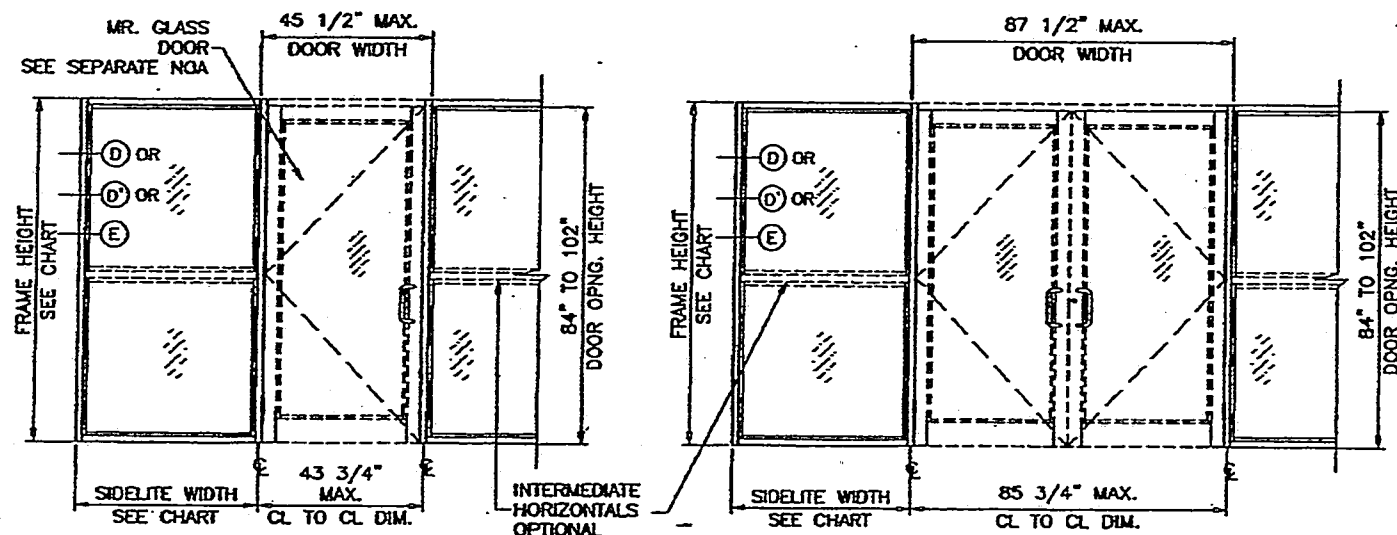
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chk. by:

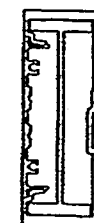
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sheet 4 of 12

MAR 07 2012

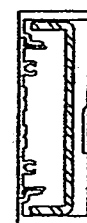
DOOR MULLION LOAD CAPACITY-PSF					
SIDELITE WIDTH INCHES	FRAME HEIGHT INCHES	JAMB 'JD1' MULL 'MD1'	JAMB 'JD1' MULL 'MD2'	JAMB 'JD2' JAMB 'JD3' MULL 'MD3'	JAMB 'JD3' MULL 'MD4'
		EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)
32	86-1/2	120.0	120.0	120.0	120.0
36		120.0	120.0	120.0	120.0
42		120.0	120.0	120.0	120.0
48		120.0	120.0	120.0	120.0
54		120.0	120.0	120.0	120.0
60	98-1/2	118.4	120.0	120.0	120.0
32		109.5	120.0	120.0	120.0
36		104.2	120.0	120.0	120.0
42		97.2	120.0	120.0	120.0
48		91.1	120.0	120.0	120.0
54	110-1/2	85.7	120.0	118.6	120.0
32		77.6	120.0	118.4	120.0
36		73.8	114.4	112.7	120.0
42		68.8	106.7	105.1	120.0
48		64.5	100.0	98.5	117.7



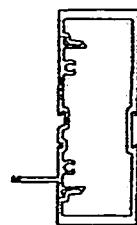
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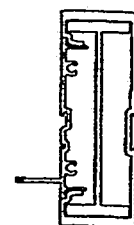
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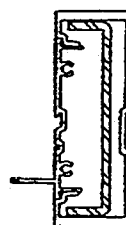
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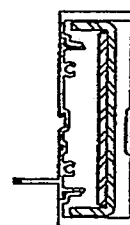
MULLION 'MD1'



MULLION 'MD2'

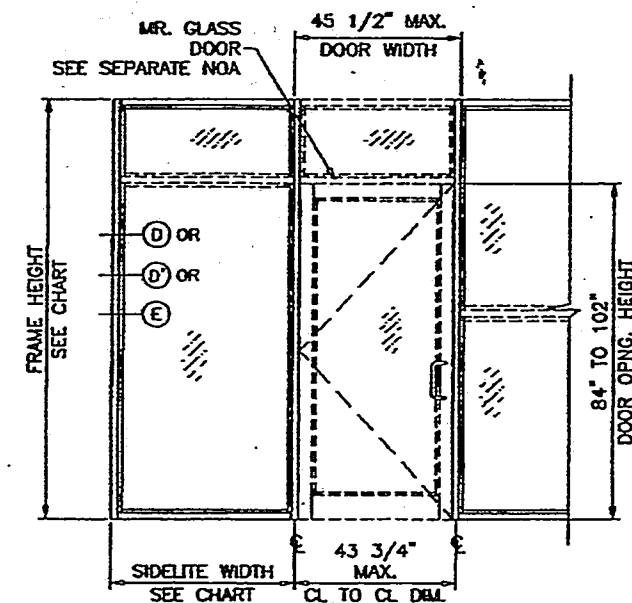


MULLION 'MD3'



MULLION 'MD4'

DOOR MULLION LOAD CAPACITY-PSF					
SIDELITE WIDTH INCHES	FRAME HEIGHT INCHES	JAMB 'JD1' MULL 'MD1'	JAMB 'JD1' MULL 'MD2'	JAMB 'JD2' JAMB 'JD3' MULL 'MD3'	JAMB 'JD3' MULL 'MD4'
		EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)
32	98-1/2	90.0	90.0	90.0	90.0
36		90.0	90.0	90.0	90.0
42		90.0	90.0	90.0	90.0
48		90.0	90.0	90.0	90.0
54		85.7	90.0	90.0	90.0
32	110-1/2	77.6	90.0	90.0	90.0
36		73.8	90.0	90.0	90.0
42		68.8	90.0	90.0	90.0
48		64.5	90.0	90.0	90.0
54		60.6	90.0	90.0	90.0
32	114	70.6	90.0	90.0	90.0
36		67.2	90.0	90.0	90.0
42		62.7	90.0	90.0	90.0
48		58.7	90.0	90.0	90.0
32	120	60.6	90.0	90.0	90.0
36		57.5	89.4	90.0	90.0
42		53.8	83.3	89.1	90.0
48		50.4	78.1	83.5	90.0



# DOOR-WINDOWALL TRANSITION MULLION

Engr: JAVAD AHMAD  
CIVIL  
FLA. PE # 70582  
C.A.N. 3538

PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No. 12-0328.06  
Expiration Date 03/03/2013  
By *Manuel P. ...*  
Miami Dade Product Control

**AL-FAROOQ CORPORATION**  
ENGINEERS & PRODUCT DEVELOPMENT  
1238 S.W. 87 AVE.  
MIAMI, FLORIDA 33174  
TEL: (305) 283-8300 FAX: (305) 283-8378

SERIES 105000 ALUM WINDOW WALL SYSTEM (L.M.I.)  
**MR. GLASS DOORS & WINDOWS INC.**  
7440 N.W. 66 STREET  
MIAMI, FL. 33168  
TEL: (305) 470-8284 FAX: (305) 470-8285

revisions:	no.	date	by	description
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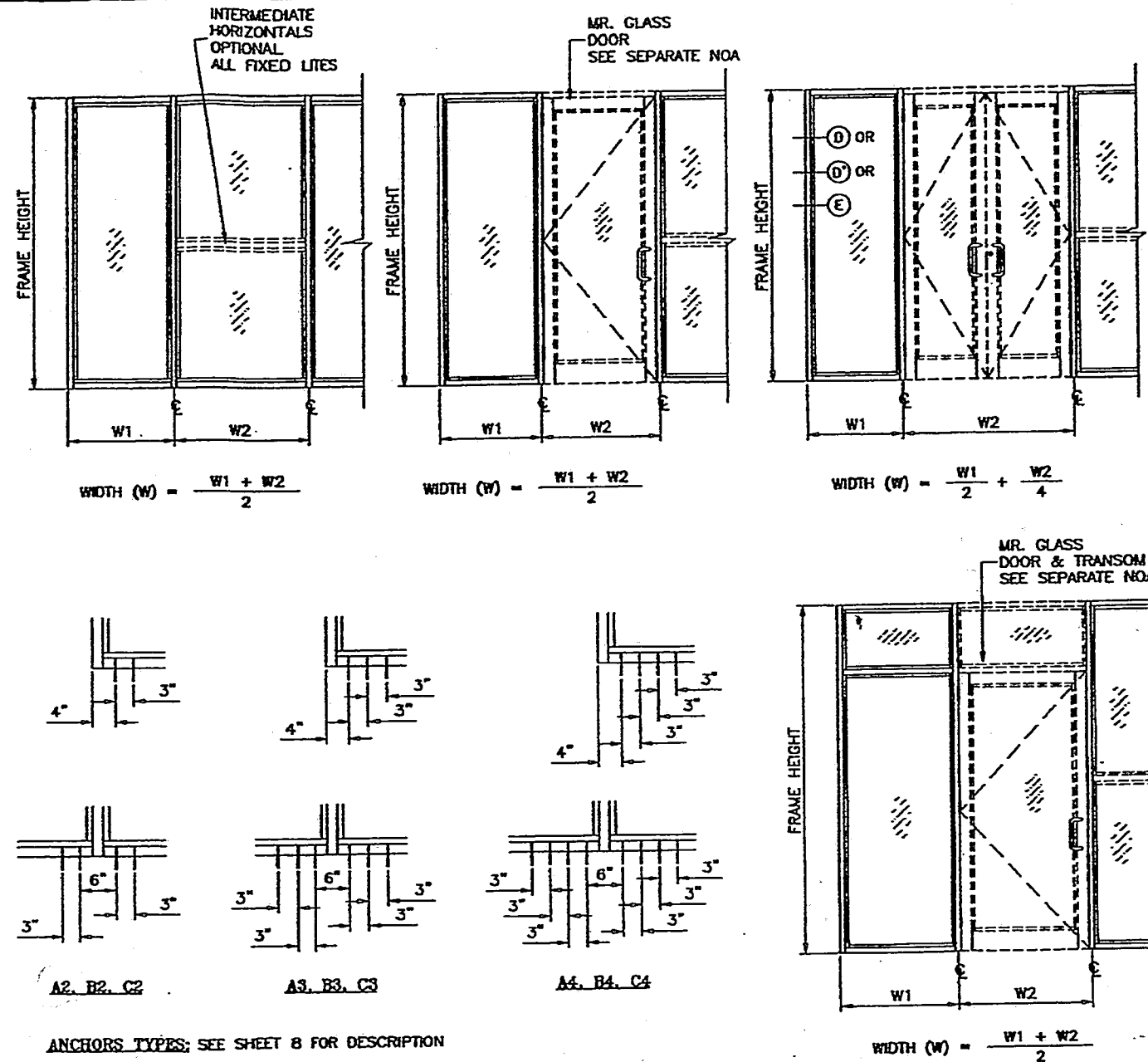
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scale:	-
dr. by:	HAMID
chk. by:	

drawing no.  
**W11-39**

sheet 5 of 12

MAR 07 2012

ANCHOR LOAD CAPACITY - PSF EXT.(+) & INT.(-)										
NOMINAL DIMS.		ANCHORS TYPE 'A'			ANCHORS TYPE 'B' & 'D'			ANCHORS TYPE 'C'		
WIDTH (W)	FRAME HEIGHT	A2	A3	A4	B2/D2	B3/D3	B4/D4	C2	C3	C4
30"	72"	130.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0
36"		108.4	130.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0
42"		93.0	130.0	130.0	122.3	130.0	130.0	130.0	130.0	130.0
48"		81.3	122.0	130.0	107.0	130.0	130.0	123.3	130.0	130.0
54"		72.3	108.4	130.0	95.1	130.0	130.0	109.6	130.0	130.0
60"		65.1	97.6	130.0	85.6	128.4	130.0	98.7	130.0	130.0
30"	78"	120.1	130.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0
36"		100.1	130.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0
42"		85.8	128.7	130.0	112.9	130.0	130.0	130.0	130.0	130.0
48"		75.1	112.6	130.0	98.8	130.0	130.0	113.8	130.0	130.0
54"		66.7	100.1	130.0	87.8	130.0	130.0	101.2	130.0	130.0
60"		60.1	90.1	120.1	79.0	118.5	130.0	91.1	130.0	130.0
30"	86-1/2"	108.3	130.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0
36"		90.3	130.0	130.0	118.8	130.0	130.0	130.0	130.0	130.0
42"		77.4	116.1	130.0	101.8	130.0	130.0	117.3	130.0	130.0
48"		67.7	101.5	130.0	89.1	130.0	130.0	102.7	130.0	130.0
54"		60.2	90.3	120.4	79.2	118.8	130.0	91.3	130.0	130.0
60"		54.2	81.2	108.3	71.3	106.9	130.0	82.1	123.2	130.0
30"	90"	104.1	130.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0
36"		86.8	130.0	130.0	114.1	130.0	130.0	130.0	130.0	130.0
42"		74.4	111.5	130.0	97.8	130.0	130.0	112.8	130.0	130.0
48"		65.1	97.6	130.0	85.6	128.4	130.0	98.7	130.0	130.0
54"		57.8	86.8	115.7	78.1	114.1	130.0	87.7	130.0	130.0
60"		52.1	78.1	104.1	68.5	102.7	130.0	78.9	118.4	130.0
30"	96"	97.6	130.0	130.0	128.4	130.0	130.0	130.0	130.0	130.0
36"		81.3	122.0	130.0	107.0	130.0	130.0	123.3	130.0	130.0
42"		69.7	104.6	130.0	91.7	130.0	130.0	105.7	130.0	130.0
48"		61.0	91.5	122.0	80.3	120.4	130.0	92.5	130.0	130.0
54"		54.2	81.3	108.4	71.3	107.0	130.0	82.2	123.3	130.0
60"		48.8	73.2	97.6	64.2	96.3	128.4	74.0	111.0	130.0
30"	98-1/2"	95.1	130.0	130.0	125.1	130.0	130.0	130.0	130.0	130.0
36"		79.3	118.9	130.0	104.3	130.0	130.0	120.2	130.0	130.0
42"		67.9	101.9	130.0	89.4	130.0	130.0	103.0	130.0	130.0
48"		59.5	89.2	118.9	78.2	117.3	130.0	90.2	130.0	130.0
54"		52.8	79.3	105.7	69.5	104.3	130.0	80.1	120.2	130.0
30"	102"	91.9	130.0	130.0	120.8	130.0	130.0	130.0	130.0	130.0
36"		76.5	114.8	130.0	100.7	130.0	130.0	116.1	130.0	130.0
42"		65.6	98.4	130.0	86.3	129.5	130.0	99.5	130.0	130.0
48"		57.4	86.1	114.8	75.5	113.3	130.0	87.1	130.0	130.0
54"		51.0	76.5	102.1	67.1	100.7	130.0	77.4	116.1	130.0
30"	108"	86.8	130.0	130.0	114.1	130.0	130.0	130.0	130.0	130.0
36"		72.3	108.4	130.0	95.1	130.0	130.0	109.6	130.0	130.0
42"		62.0	93.0	123.9	81.5	122.3	130.0	94.0	130.0	130.0
48"		54.2	81.3	108.4	71.3	107.0	130.0	82.2	123.3	130.0
30"	110-1/2"	84.8	127.2	130.0	111.6	130.0	130.0	128.6	130.0	130.0
36"		70.7	106.0	130.0	93.0	130.0	130.0	107.1	130.0	130.0
42"		60.6	90.8	121.1	79.7	119.5	130.0	91.8	130.0	130.0
48"		53.0	79.5	106.0	69.7	104.6	130.0	80.4	120.5	130.0
30"	114"	82.2	123.3	130.0	108.1	130.0	130.0	124.6	130.0	130.0
36"		68.5	102.7	130.0	90.1	130.0	130.0	103.9	130.0	130.0
42"		58.7	88.1	117.4	77.2	115.8	130.0	89.0	130.0	130.0
48"		51.4	77.1	102.7	67.6	101.4	130.0	77.9	116.8	130.0
30"	120"	78.1	117.1	130.0	102.7	130.0	130.0	118.4	130.0	130.0
36"		65.1	97.6	130.0	85.6	128.4	130.0	98.7	130.0	130.0
42"		55.8	83.7	111.5	73.4	110.1	130.0	84.6	126.9	130.0
48"		48.8	73.2	97.6	64.2	96.3	128.4	74.0	111.0	130.0



ANCHORS TYPES: SEE SHEET 8 FOR DESCRIPTION

- A2 = (2) ANCHORS TYPE 'A' AT EACH SIDE OF JAMB AND MULLION  
 B2 = (2) ANCHORS TYPE 'B' AT EACH SIDE OF JAMB AND MULLION  
 C2 = (2) ANCHORS TYPE 'C' AT EACH SIDE OF JAMB AND MULLION  
 D2 = (2) ANCHORS TYPE 'D' AT EACH SIDE OF JAMB AND MULLION
- A3 = (3) ANCHORS TYPE 'A' AT EACH SIDE OF JAMB AND MULLION  
 B3 = (3) ANCHORS TYPE 'B' AT EACH SIDE OF JAMB AND MULLION  
 C3 = (3) ANCHORS TYPE 'C' AT EACH SIDE OF JAMB AND MULLION  
 D3 = (3) ANCHORS TYPE 'D' AT EACH SIDE OF JAMB AND MULLION
- A4 = (4) ANCHORS TYPE 'A' AT EACH SIDE OF JAMB AND MULLION  
 B4 = (4) ANCHORS TYPE 'B' AT EACH SIDE OF JAMB AND MULLION  
 C4 = (4) ANCHORS TYPE 'C' AT EACH SIDE OF JAMB AND MULLION  
 D4 = (4) ANCHORS TYPE 'D' AT EACH SIDE OF JAMB AND MULLION

ALL OTHER ANCHORS TO BE SPACED AS PER ELEVATION.

NOTE:  
INTERPOLATION BETWEEN WIDTHS OR HEIGHTS ALLOWED.

# ANCHORS

Engr. JAVAD AHMAD  
 CIVIL  
 FLA. PE # 70592  
 C.A.N. 3538

PRODUCT REVISED  
 as complying with the Florida  
 Building Code  
 Acceptance No 12-0328-06  
 Expiration Date 03/01/2013  
 By *[Signature]*  
 Miami/Dade Product Control

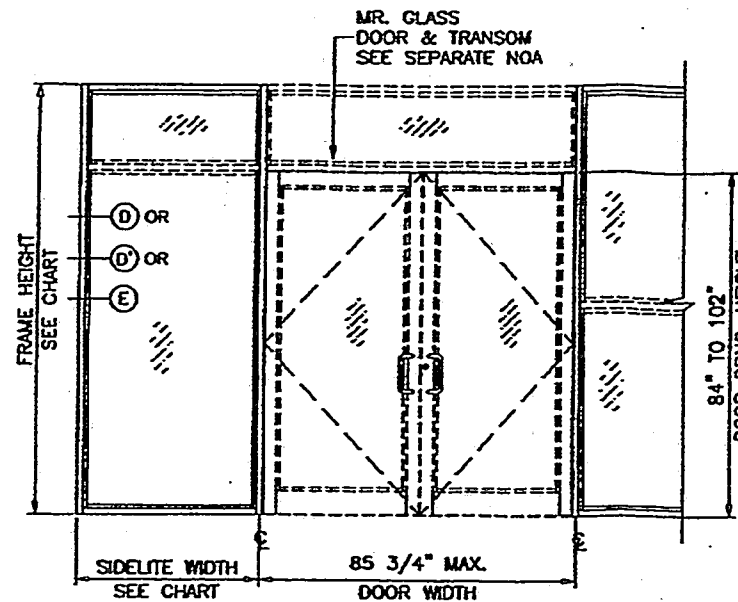
**AL-FAROOQ CORPORATION**  
 ENGINEERS & PRODUCT DEVELOPMENT  
 12335 S.W. 87 AVE  
 MIAMI, FLORIDA 33174  
 TEL: (305) 244-9100 FAX: (305) 244-9978  
 STORE W11-39MG

SERIES MG5000 ALUM WINDOW WALL SYSTEM (L.M.I.)  
**MR. GLASS DOORS & WINDOWS INC.**  
 7440 N.W. 86 STREET  
 MIAMI, FL. 33166  
 TEL: (305) 470-8284 FAX: (305) 470-8285

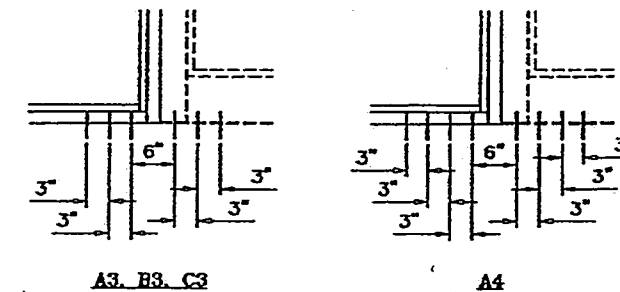
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date:	07-15-11			
scale:	-			
dr. by:	HANID			
chk. by:				
drawing no.	W11-39			
sheet	6 of 12			

MAR 07 2012

DOOR MULLION LOAD CAPACITY-PSF					
SIDELITE WIDTH INCHES	FRAME HEIGHT INCHES	JAMB 'JD1' MULL 'MD1'	JAMB 'JD1' MULL 'MD2'	JAMB 'JD2' MULL 'MD3'	JAMB 'JD3' MULL 'MD4'
		EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)
30	96	90.0	90.0	90.0	90.0
36		90.0	90.0	90.0	90.0
42		90.0	90.0	90.0	90.0
48		90.0	90.0	90.0	90.0
54		85.4	90.0	90.0	90.0
60		81.0	90.0	90.0	90.0
30	102	86.3	90.0	90.0	90.0
36		80.9	90.0	90.0	90.0
42		76.2	90.0	90.0	90.0
48		71.9	90.0	90.0	90.0
54		68.2	90.0	90.0	90.0
30	108	69.6	90.0	90.0	90.0
36		65.4	90.0	90.0	90.0
42		61.7	90.0	90.0	90.0
48		58.5	90.0	88.3	90.0
54		57.2	88.7	90.0	90.0
30	114	53.9	83.6	85.3	90.0
36		51.0	79.0	80.7	90.0
42		48.3	74.9	76.6	90.0
48		47.8	74.1	78.7	90.0
54		45.1	69.9	74.4	88.9
30	120	42.7	66.2	70.5	84.2
36		40.5	62.8	67.0	80.1
42					
48					
54					



ANCHOR LOAD CAPACITY - PSF					
EXT.(+) & INT.(-)					
NOMINAL DIMS.		ANCHORS TYPE 'A'		ANCHORS TYPE 'B' & 'D'	ANCHORS TYPE 'C'
WIDTH (W)	FRAME HEIGHT	A3	A4	B3/D3	C3
30	96	79.8	90.0	90.0	90.0
36		75.5	90.0	90.0	90.0
42		71.8	90.0	90.0	90.0
48		68.4	90.0	90.0	90.0
54		65.4	86.0	86.0	90.0
60		62.6	82.3	82.3	90.0
30	102	78.4	90.0	90.0	90.0
36		72.4	90.0	90.0	90.0
42		68.8	90.0	90.0	90.0
48		65.5	86.2	86.2	90.0
54		62.5	82.3	82.3	90.0
30	108	73.5	90.0	90.0	90.0
36		69.6	90.0	90.0	90.0
42		66.0	86.9	86.9	90.0
48		62.9	82.7	82.7	90.0
54		60.4	79.5	79.5	90.0
30	114	68.3	89.9	89.9	90.0
36		64.5	84.9	84.9	90.0
42		61.2	80.5	80.5	90.0
48		58.1	76.5	76.5	88.1
54					



ANCHORS TYPES: SEE SHEET 8 FOR DESCRIPTION

A3 = (3) ANCHORS TYPE 'A' AT EACH SIDE OF DOOR MULLION  
 B3 = (3) ANCHORS TYPE 'B' AT EACH SIDE OF DOOR MULLION  
 C3 = (3) ANCHORS TYPE 'C' AT EACH SIDE OF DOOR MULLION  
 D3 = (3) ANCHORS TYPE 'D' AT EACH SIDE OF DOOR MULLION

A4 = (4) ANCHORS TYPE 'A' AT EACH SIDE OF DOOR MULLION

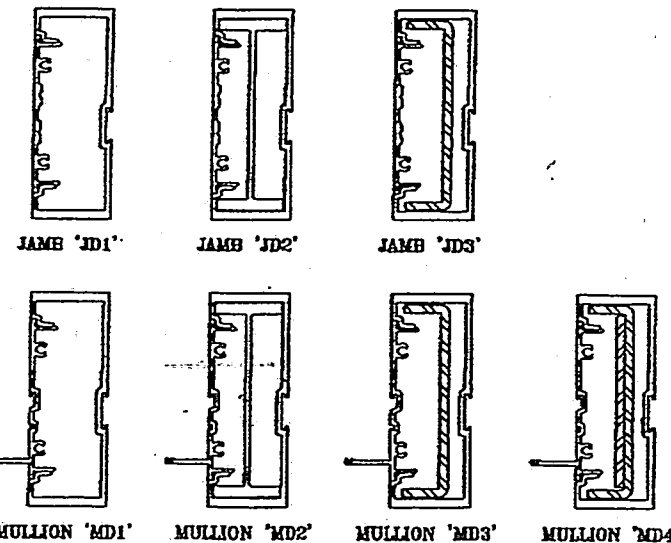
ALL OTHER ANCHORS TO BE SPACED AS PER ELEVATION.

### TRANSITION MULLION ANCHORS

Engr. JAVAD AHMAD  
 CIVIL  
 FLA. PE # 70592  
 C.A.N. 3538

PRODUCT REVISED  
 as complying with the Florida  
 Building Code  
 Acceptance No. 12-0328.06  
 Expiration Date 12/31/2013  
 By: *[Signature]*  
 Miami Trade Product Control

MAR 07 2012



### DOOR-WINDOW WALL TRANSITION MULLION

**a f c**  
**AL-FAROOQ CORPORATION**  
 ENGINEERS & PRODUCT DEVELOPMENT  
 1235 S.W. 87 AVE.  
 MIAMI, FLORIDA 33174  
 TEL: (305) 264-9100 FAX: (305) 264-8878

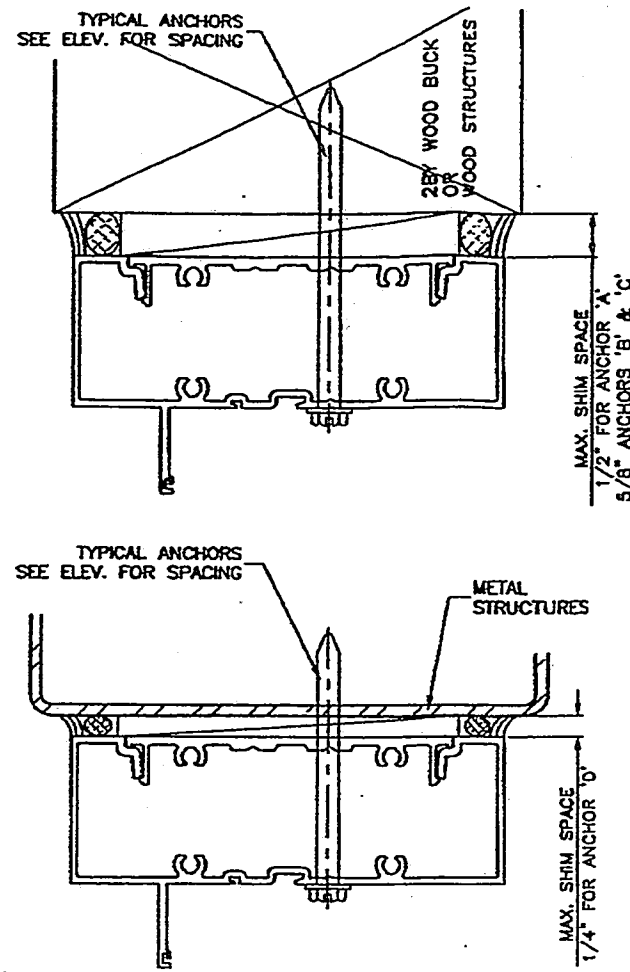
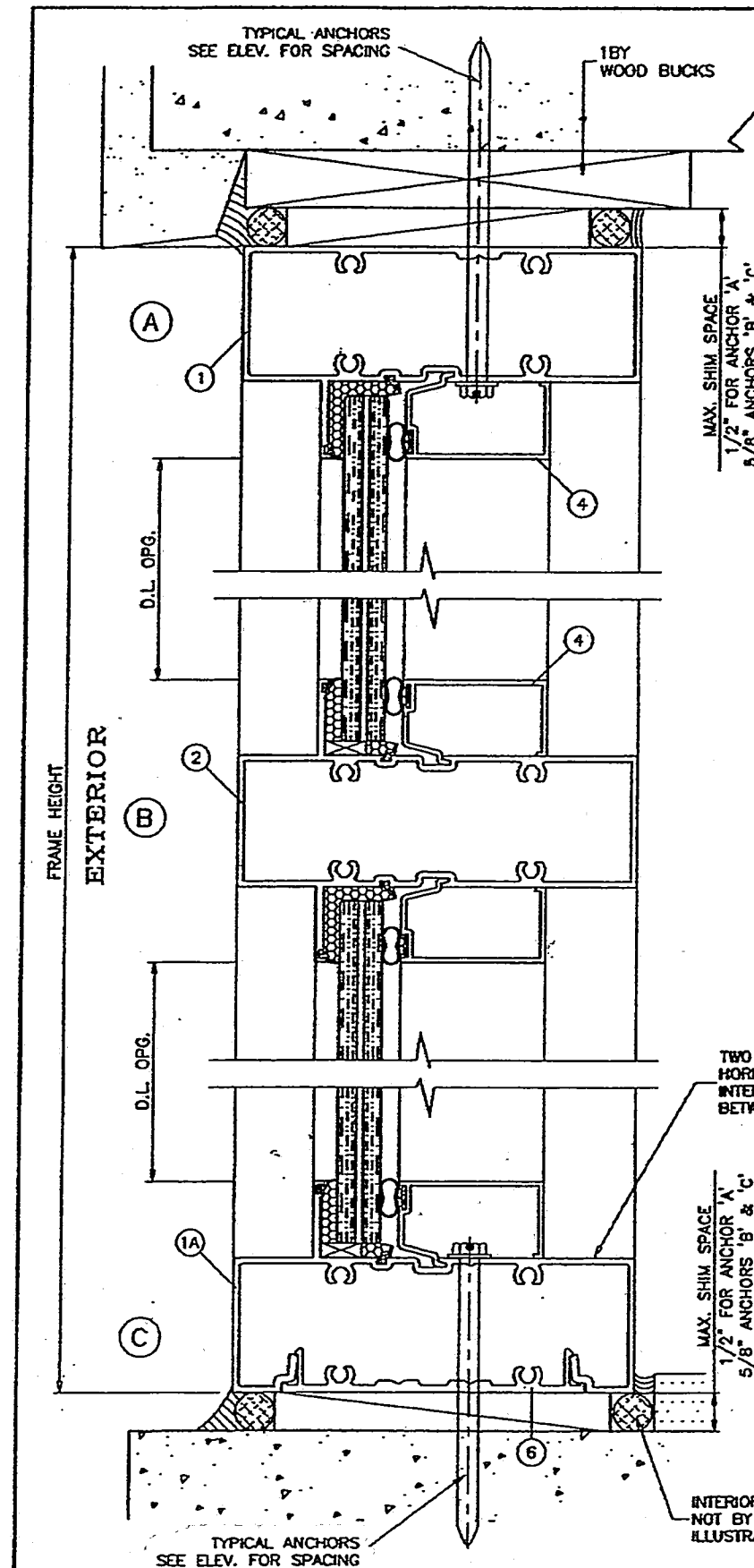
SERIES MCS000 ALUM WINDOW WALL SYSTEM (L.M.I.)  
**MR. GLASS DOORS & WINDOWS INC.**  
 7440 N.W. 66 STREET  
 MIAMI, FL. 33166  
 TEL. (305) 470-8284 FAX. (305) 470-8285

NO.	DATE	BY	DESCRIPTION
1	03.05.12	A	NO CHANGE THIS SHEET

date: 07-18-11  
 scale: -  
 dr. by: HAMID  
 chg. by:

drawing no.  
**W11-39**  
 sheet 7 of 12





**TYPICAL ANCHORS:** SEE ELEV. FOR SPACING

**TYPE 'A'**  
 1/4" DIA ULTRACON BY 'ELCO'  
 INTO 2BY WOOD BUCKS OR WOOD STRUCTURES WITH 1-3/8" MIN. PENETRATION INTO WOOD  
 THRU 1BY WOOD BUCKS INTO CONCRETE WITH 1-1/4" MIN. EMBED INTO CONCRETE  
 DIRECTLY INTO CONCRETE WITH 1-1/4" MIN. EMBED INTO CONC.  
**ANCHOR EDGE DISTANCES**  
 INTO CONCRETE AND MASONRY = 2-1/2" MIN.  
 INTO WOOD STRUCTURE = 1" MIN.

**TYPE 'B'**  
 1/4" DIA HILTI KWIK CON II BY 'HILTI'  
 INTO 2BY WOOD BUCKS OR WOOD STRUCTURES WITH 1-1/2" MIN. PENETRATION INTO WOOD  
 THRU 1BY WOOD BUCKS INTO CONCRETE WITH 1-1/4" MIN. EMBED INTO CONCRETE  
 DIRECTLY INTO CONCRETE WITH 1-1/4" MIN. EMBED INTO CONC.  
**ANCHOR EDGE DISTANCES**  
 INTO CONCRETE AND MASONRY = 3" MIN.  
 INTO WOOD STRUCTURE = 1" MIN.

**TYPE 'C'**  
 5/16" DIA ULTRACON BY 'ELCO'  
 INTO 2BY WOOD BUCKS OR WOOD STRUCTURES WITH 1-1/2" MIN. PENETRATION INTO WOOD  
 THRU 1BY WOOD BUCKS INTO CONCRETE WITH 1-1/4" MIN. EMBED INTO CONCRETE  
 DIRECTLY INTO CONCRETE WITH 1-1/4" MIN. EMBED INTO CONC.  
**ANCHOR EDGE DISTANCES**  
 INTO CONCRETE AND MASONRY = 3" MIN.  
 INTO WOOD STRUCTURE = 1" MIN.

**TYPE 'D'**  
 #14 SMS OR SELF DRILLING SCREWS ST/ST  
 INTO METAL STRUCTURES  
 STEEL : 12 GA. MIN. (Fy = 36 KSI MIN.)  
 ALUMINUM : 1/8" THK. MIN. (6063-T5 MIN.)  
 (STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)  
**ANCHOR EDGE DISTANCES**  
 INTO METAL STRUCTURE = 1/2" MIN.

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

WOOD BUCKS AND METAL STRUCTURES NOT BY MR. GLASS MUST SUPPORT LOADS IMPOSED BY GLAZING SYSTEM AND TRANSFER THEM TO THE BUILDING STRUCTURE.

Engr. JAVAD AHMAD  
 CIVIL  
 FLA. PE. # 70592  
 C.A.N. 3538

*[Signature]*

**PRODUCT REVISED**  
 as complying with the Florida Building Code  
 Acceptance No. 12-0328-06  
 Expiration Date April 3, 2013

By *[Signature]*  
 Miami Dade Product Control

**AL-FAROOQ CORPORATION**  
 ENGINEERS & PRODUCT DEVELOPMENT  
 1235 S.W. 87 AVE.  
 MIAMI, FLORIDA 33174  
 TEL: (305) 264-8800 FAX: (305) 263-6978

STORE W11-39MG

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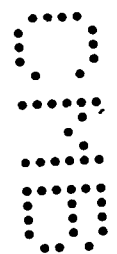
**SERIES MG5000 ALUM WINDOW WALL SYSTEM (L.M.I.)**  
**MR. GLASS DOORS & WINDOWS INC.**  
 7440 N.W. 66 STREET  
 MIAMI, FL. 33166  
 TEL. (305) 470-8284 FAX. (305) 470-8285

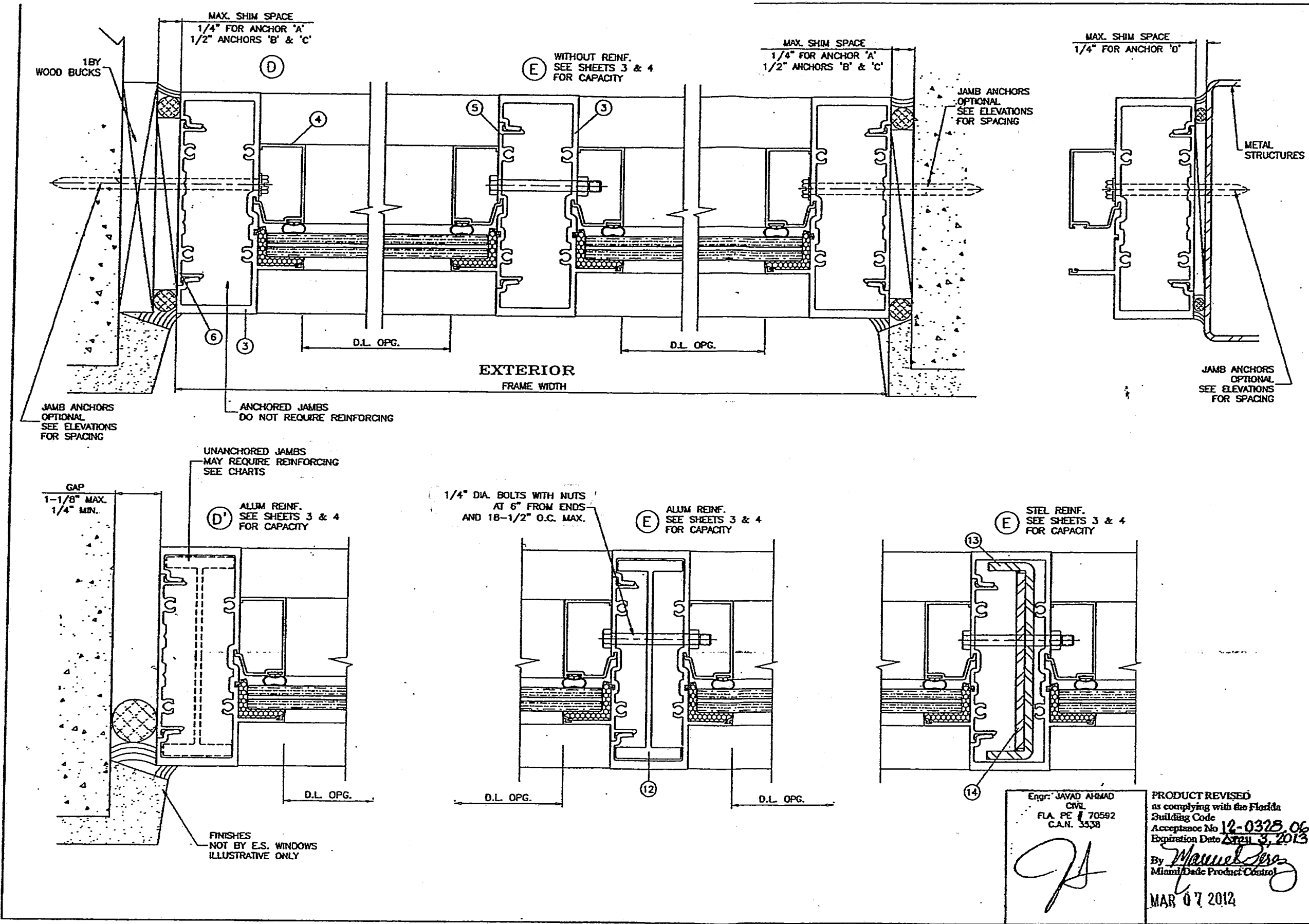
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date: 07-15-11  
 scale: 1/2" = 1"  
 dr. by: HAMID  
 chk. by:

drawing no.  
**W11-39**  
 sheet 8 of 12





**afC**

**AL-FAROOQ CORPORATION**  
ENGINEERS & PRODUCT DEVELOPMENT  
12325 S.W. 47 AVE  
MIAMI, FLORIDA 33174  
TEL: (305) 284-8400 FAX: (305) 284-8978

STORE W11-39MG

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SERIES MG5000 ALUM WINDOW WALL SYSTEM (L.M.I.)

**MR. GLASS DOORS & WINDOWS INC.**  
7440 N.W. 66 STREET  
MIAMI, FL. 33166  
TEL (305) 470-8284 FAX. (305) 470-8285

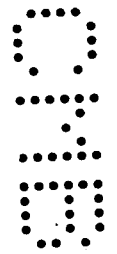
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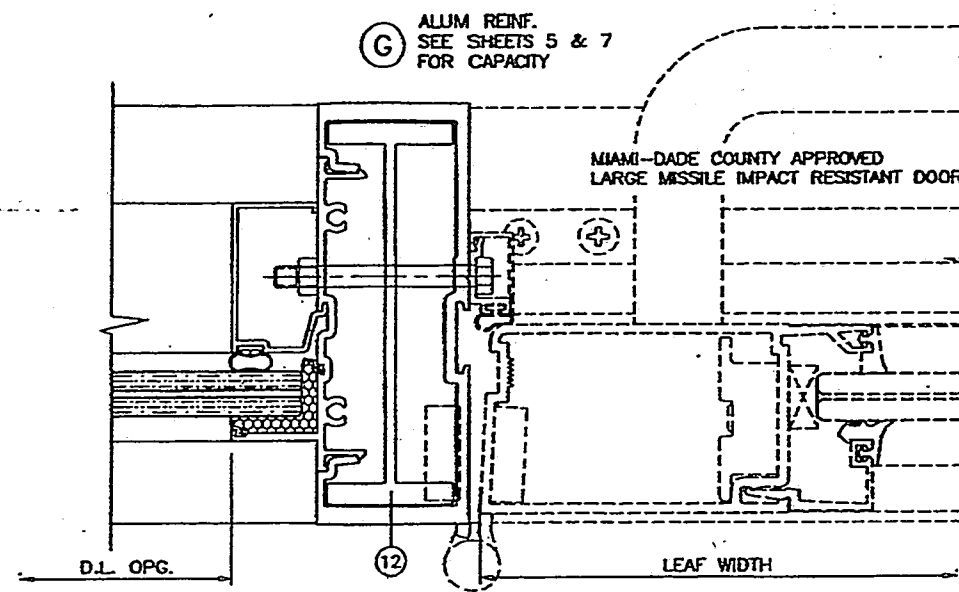
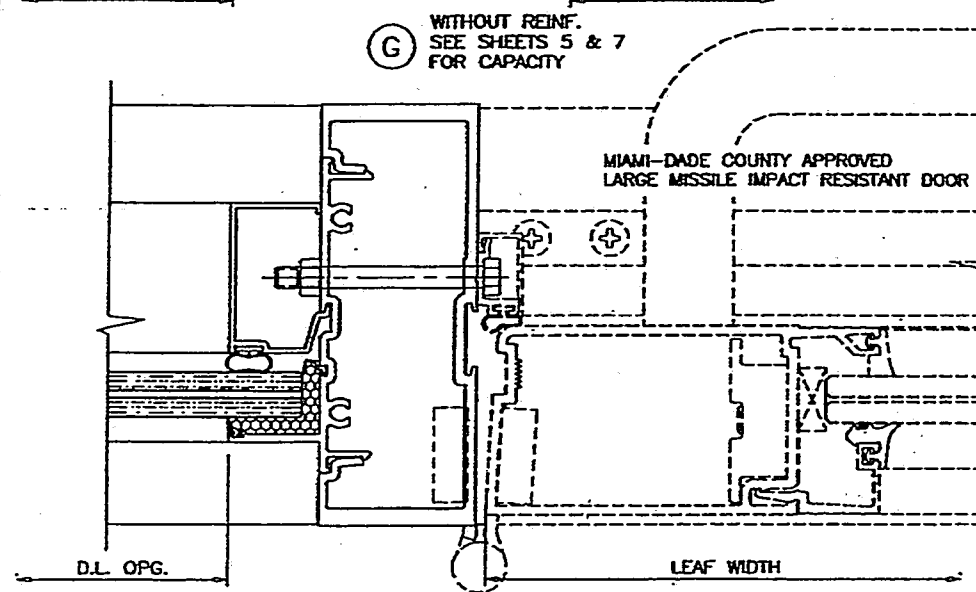
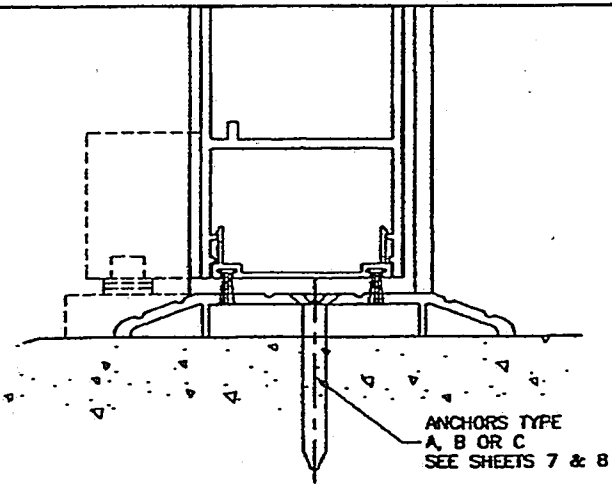
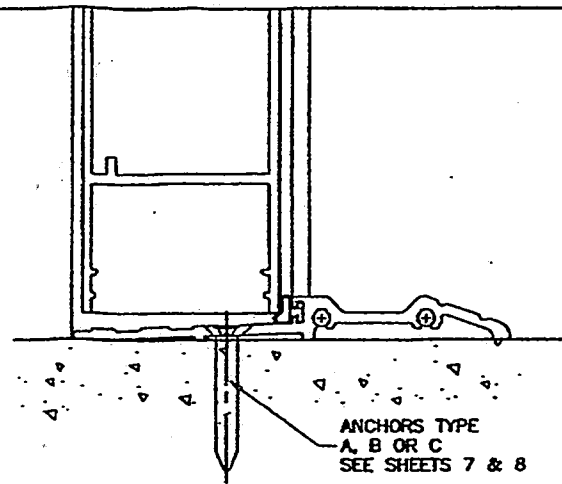
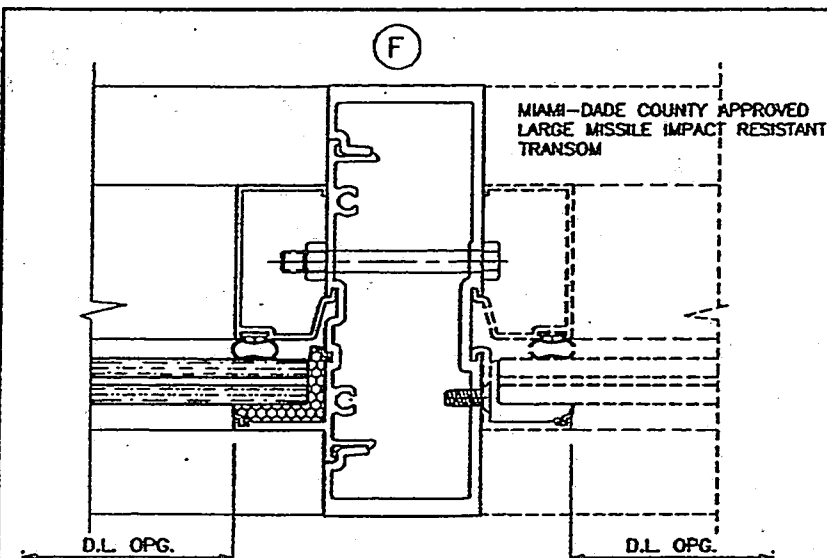
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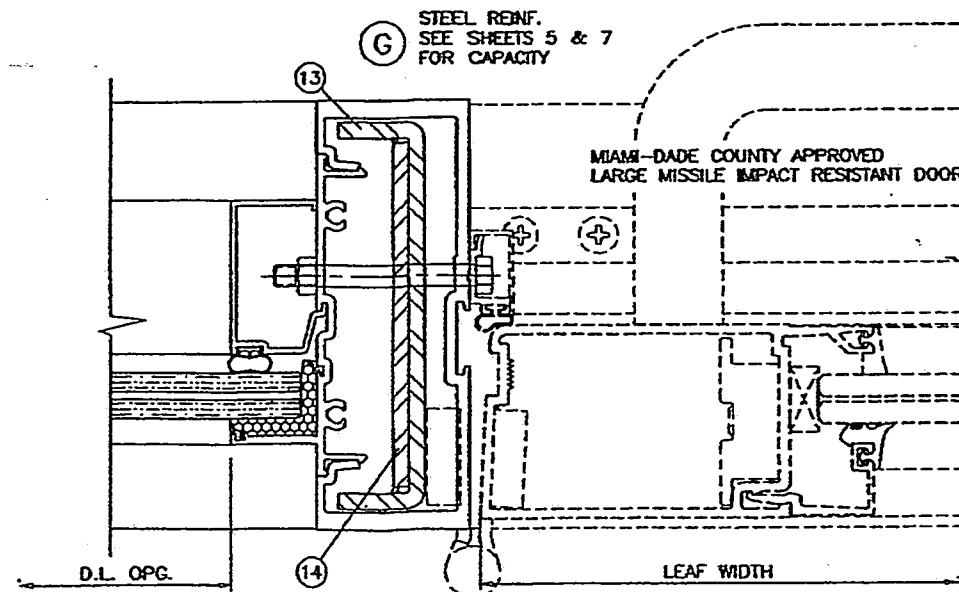
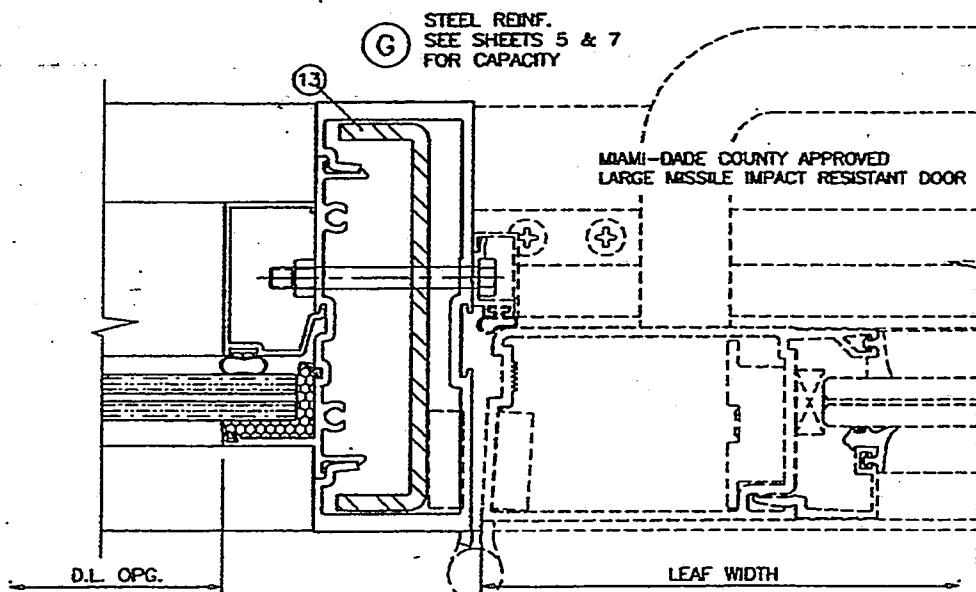
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scale: 1/2" = 1"  
dr. by: HAMID  
chk. by:

drawing no.  
**W11-39**  
sheet 9 of 12





SEE SEPARATE NOA FOR DESIGN LOAD  
CAPACITY OF DOORS AND DOOR ANCHORS.  
LOWER VALUES FROM DOORS NOA  
OR STOREFRONT SYSTEM CAPACITY CHARTS  
WILL APPLY TO ENTIRE SYSTEM.



PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No 12-0328,06  
Expiration Date April 3, 2013  
By *Mansoor Jaffer*  
Miami-Dade Product Control

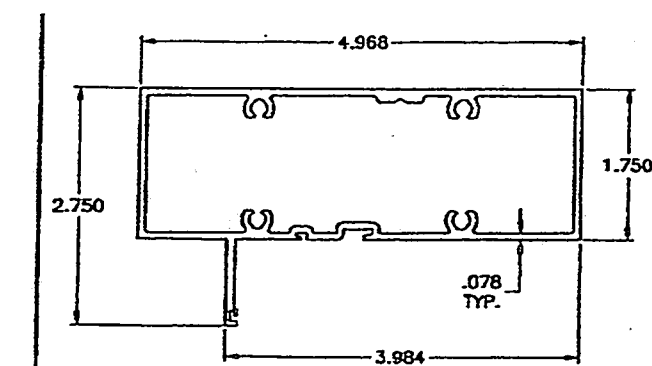
Engr: JAVAD AHMAD  
CIVIL  
FLA. PE # 70592  
C.A.N. 3538  
MAR 07 2012

**AL-FAROOQ CORPORATION**  
ENGINEERS & PRODUCT DEVELOPMENT  
1285 S.W. 87 AVE.  
MIAMI, FLORIDA 33174  
TEL: (305) 444-8100 FAX: (305) 262-5978  
STORE W11-39MC

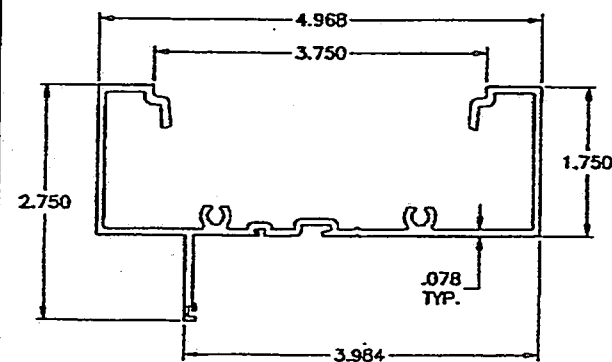
SERIES M05000 ALUM WINDOW WALL SYSTEM (L.M.I.)  
**MR. GLASS DOORS & WINDOWS INC.**  
7440 N.W. 66 STREET  
MIAMI, FL. 33166  
TEL. (305) 470-8284 FAX. (305) 470-8285

NO.	DATE	BY	DESCRIPTION
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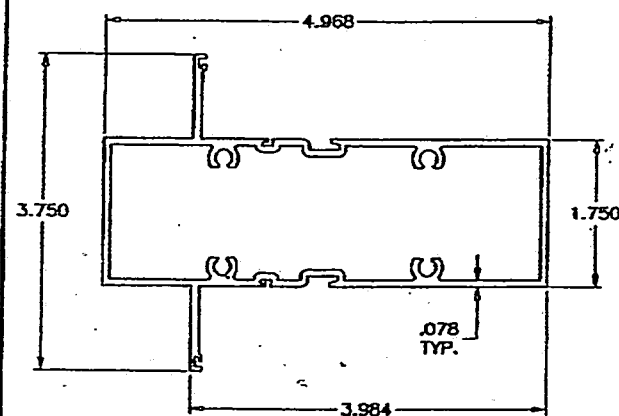
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chk. by:  
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**W11-39**  
sheet 10 of 12



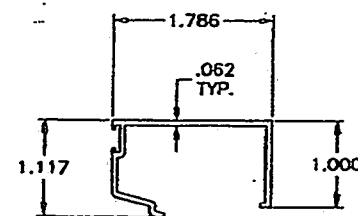
① HOLLOW FRAME HEAD/SILL



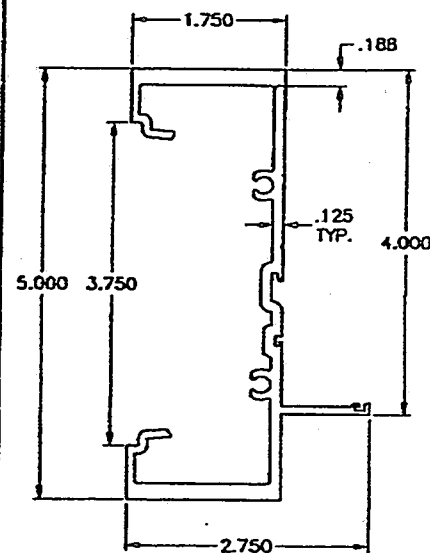
①A OPEN BACK FRAME HEAD/SILL



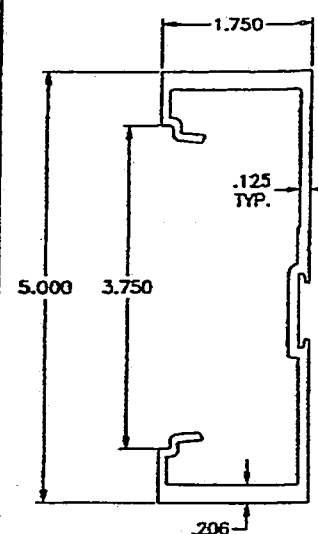
② INTERMEDIATE HORIZONTAL



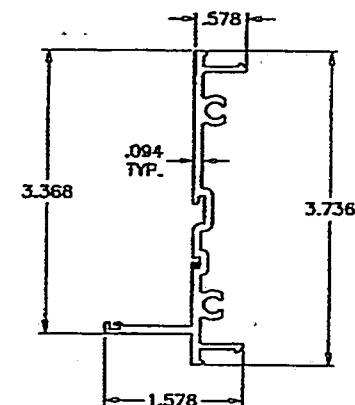
④ GLASS STOP



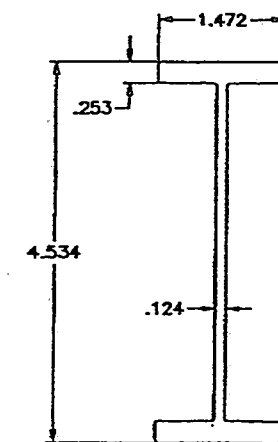
③ FRAME JAMB/MULLION



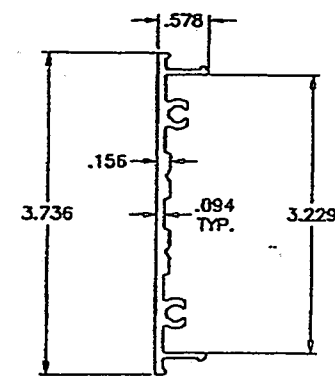
③A DOOR MULLION



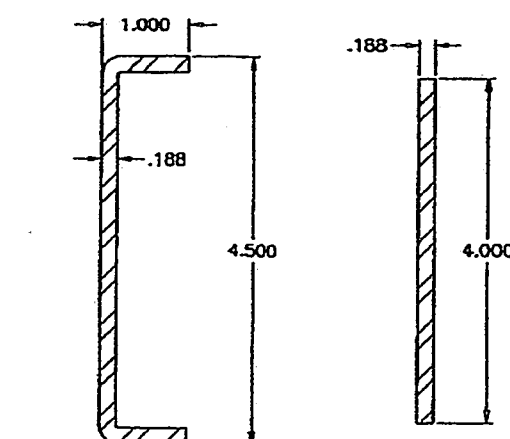
⑤ MULLION SNAP-IN MATE



⑫ STIFFENER



⑥ SHEAR CLIP



⑬ STEEL REINFORCING  
36 KSI MIN.

ITEM NO.	PART NUMBER	QUANTITY	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
1	ES8005	AS REQD.	HOLLOW FRAME HEAD/SILL	6005-T5	-
1A	ES8007	AS REQD.	OPEN BACK FRAME HEAD/SILL	6063-T6	-
2	ES8004	AS REQD.	INTERMEDIATE HORIZONTAL	6063-T6	-
3	ES8001	AS REQD.	FRAME JAMB/MULLION	6005-T5	-
3A	-	AS REQD.	DOOR MULLION	6005-T5	-
4	ES8006	AS REQD.	GLASS STOP	6063-T5	-
5	ES8002	AS REQD.	MULLION SNAP-IN MATE	6005-T5	-
6	ES8003	AS REQD.	SHEAR CLIP	6005-T5	-
7	-	AS REQD.	INTERIOR BULB GASKET	VINYL	-
8	ES8009	AS REQD.	SPACER/SILICONE STOP	VINYL	-
8A	-	AS REQD.	BUTTON BUMPER	SILICONE	-
9	-	-	-	-	-
10	-	AS REQD.	SETTING BLOCK AT 1/4" POINTS	NEOPRENE	3/16" X 1/2" X 2" LONG
11	#12 X 1-1/2"	4/ CORNER	ASSEMBLY SCREWS PHSMS	STEEL	-
12	-	AS REQD.	MULLION STIFFENER	6005-T5	-
13	-	AS REQD.	MULLION REINFORCING CHANNEL	STEEL	-
14	-	AS REQD.	MULLION REINFORCING BAR	STEEL	-

Engr: JAVAD AHMAD  
CIVIL  
FLA. PE # 70592  
CAN. 3538

PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No. 12-0328.06  
Expiration Date April 5, 2013  
By *Manuel Perez*  
Miami Data Product Control

MAR 07 2012

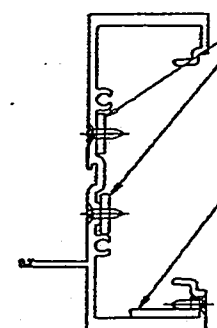
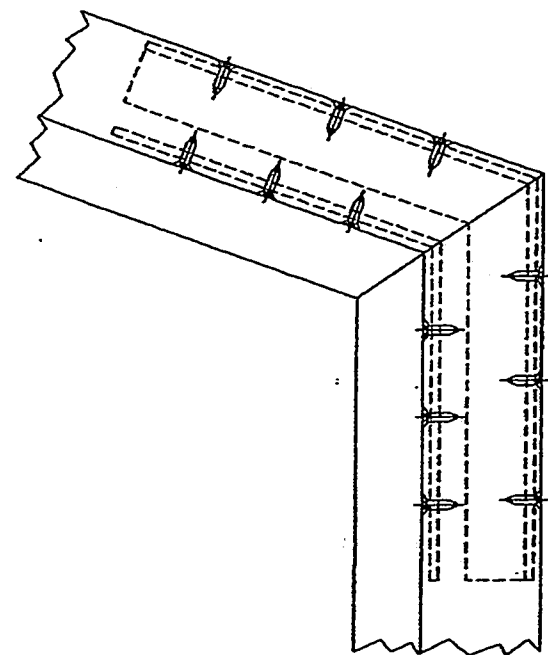
**AL-FAROOQ CORPORATION**  
ENGINEERS & PRODUCT DEVELOPMENT  
1236 S.W. 87 AVE  
MIAMI, FLORIDA 33174  
TEL: (305) 264-9100 FAX: (305) 264-9878  
STORE W11-39MG

SERIES MC5000 ALUM WINDOW WALL SYSTEM (L.M.I.)  
**MR. GLASS DOORS & WINDOWS INC.**  
7440 N.W. 66 STREET  
MIAMI, FL. 33166  
TEL. (305) 470-8284 FAX. (305) 470-8285

NO.	DATE	BY	DESCRIPTION
1	03.05.12	A	UPDATED TO 2010 FEC

date: 07-15-11	scale: 1/2" = 1"	dr. by: HAMID	chk. by:
----------------	------------------	---------------	----------

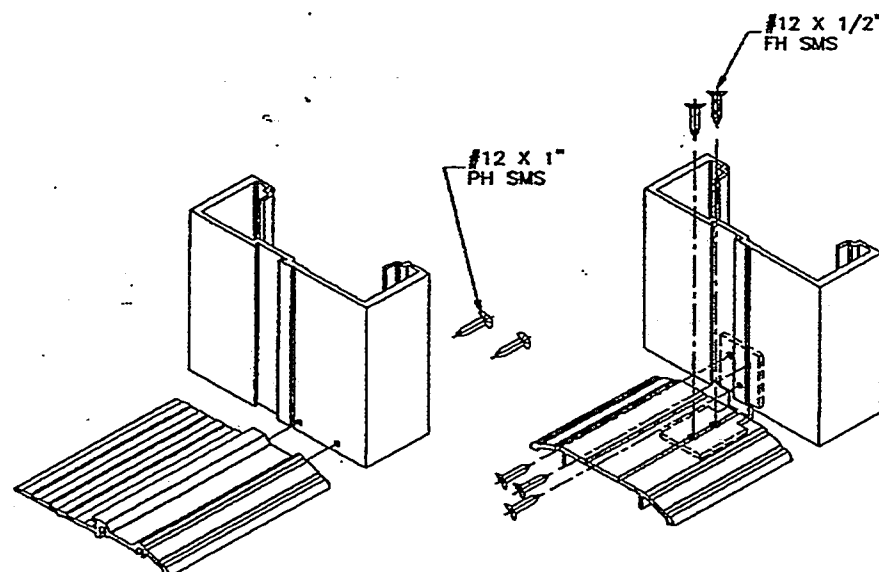
drawing no.  
**W11-39**  
sheet 11 of 12



5/8" X 1/8"  
ALUM PLATE  
BENT TO MATCH JOINT  
SECURED WITH #8 SMS  
(3) PER SIDE OF JOINT

5/16 X 1 X 1/8"  
ALUM ANGLE  
BENT TO MATCH JOINT  
SECURED WITH #8 SMS  
(3) PER SIDE OF JOINT

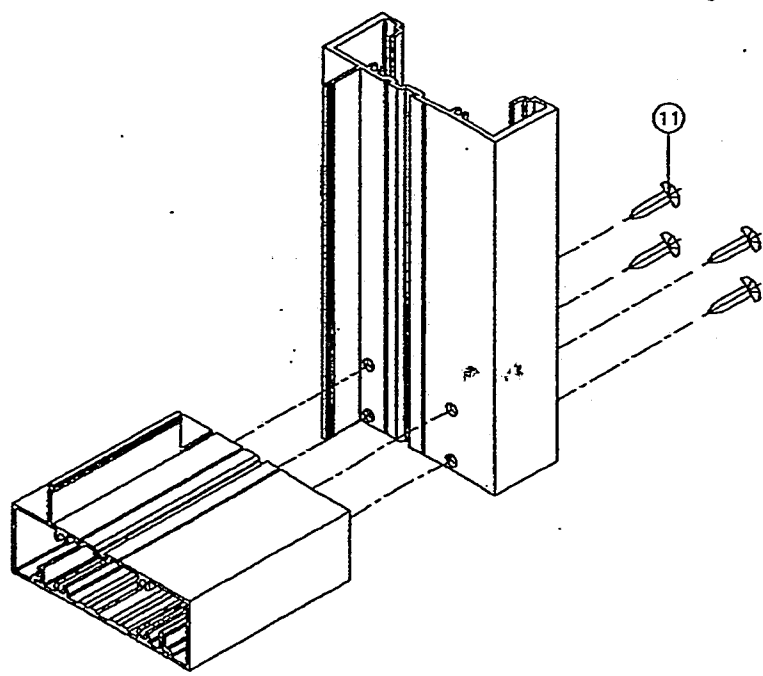
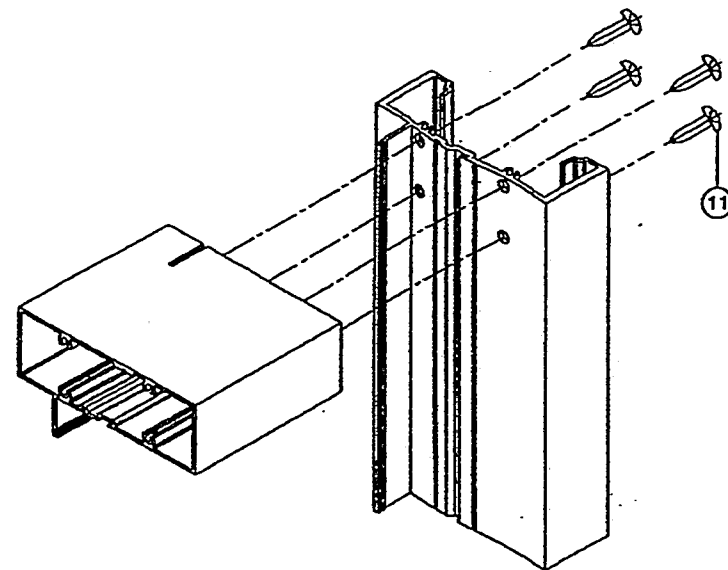
CIRCULAR OR ANGLED CORNERS



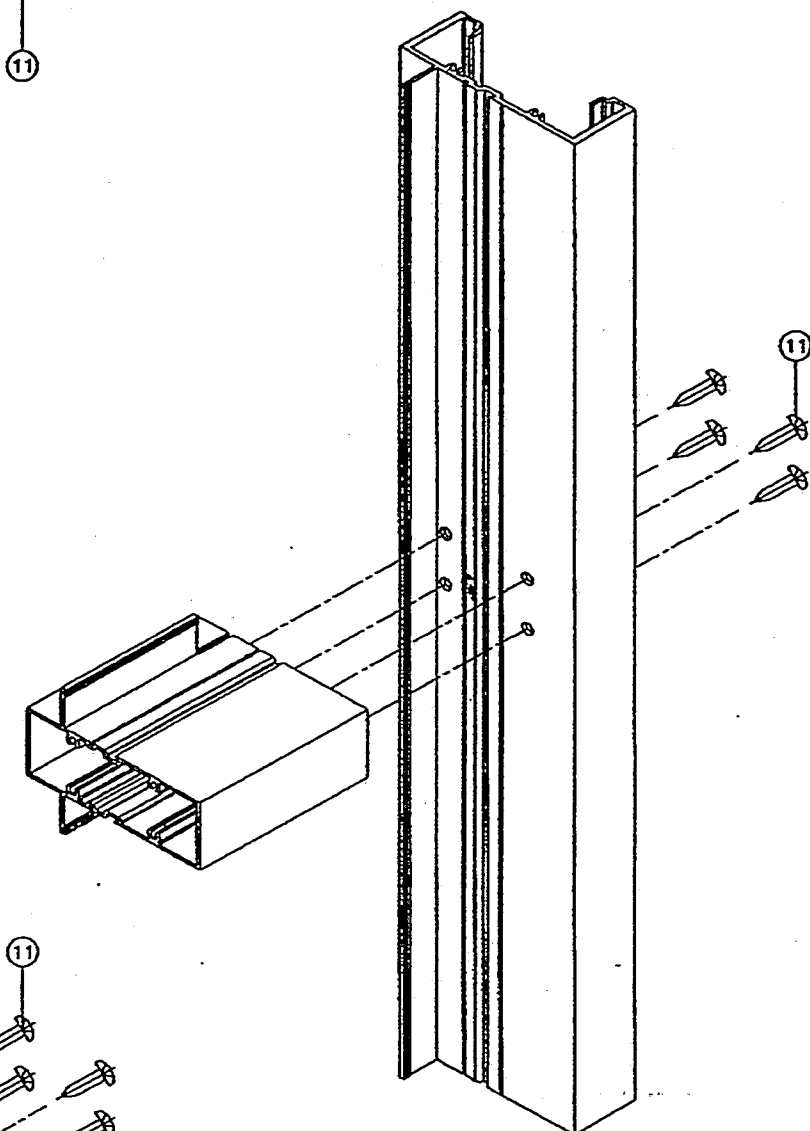
#12 X 1"  
PH SMS

#12 X 1/2"  
FH SMS

DOOR MULLION CORNER



RECT. OR SQUARE CORNERS



HORIZONTAL CORNER

Engr: JAVAD AHMAD  
CIVIL  
FLA. PE # 70592  
C.A.N. 5338

PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No 12-0328-06  
Expiration Date April 3, 2013  
By *Manuel*  
Miami Door Product Control

MAR 07 2012

**a f c**  
**AL-FAROOQ CORPORATION**  
ENGINEERS & PRODUCT DEVELOPMENT  
1238 S.W. 87 AVE.  
MIAMI, FLORIDA 33174  
TEL: (305) 264-9600 FAX: (305) 263-6978  
STORE W11-39MG

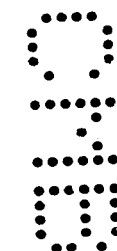
SERIES MG5000 ALUM WINDOW WALL SYSTEM (L.M.I.)  
**MR. GLASS DOORS & WINDOWS INC.**  
7440 N.W. 66 STREET  
MIAMI, FL. 33166  
TEL. (305) 470-8284 FAX. (305) 470-8285

NO.	DATE	BY	DESCRIPTION
1	03.05.12	A	NO CHANGE THIS SHEET

date: 07-15-11  
scale: -  
dr. by: HAMID  
chk. by:

drawing no.  
**W11-39**

sheet 12 of 12





DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)  
BOARD AND CODE ADMINISTRATION DIVISION

MIAMI-DADE COUNTY, FLORIDA  
PRODUCT CONTROL SECTION  
11805 SW 26 Street, Room 208  
T (786) 315-2590 F (786) 315-2599

## NOTICE OF ACCEPTANCE (NOA)

[www.miamidade.gov/economy](http://www.miamidade.gov/economy)

Mr. Glass Doors & Windows, Inc.  
7440 N. W. 66 Street  
Miami, FL. 33166

### SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER-Product Control Section to be used in Miami-Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (in Miami-Dade County) and/or the AHJ (in areas other than Miami-Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code. This product is approved as described herein, and has been designed to comply with the Florida Building Code, including the High Velocity Hurricane Zone.

**DESCRIPTION:** Series "MG-500" Aluminum Outswing French Door

**APPROVAL DOCUMENT:** Drawing No. W11-40, titled "Series MG-500 Aluminum Outswing French Door (L.M.I.)", sheets 1 through 10.1 of 11, dated 07/20/11, prepared by AL-Farooq Corporation with revision "A" dated 03/29/12, prepared by AL-Farooq Corporation, signed and sealed by Javed Ahmad, P. E., bearing the Miami-Dade County Product Control Section Renewal stamp with the Notice of Acceptance number and Expiration date by the Miami-Dade County Product Control Section.

**MISSILE IMPACT RATING:** Large and Small Missile Impact Resistant

### LIMITATION:

1. The Single Door with Transom is limited to Maximum Design Pressure,  $DP = \pm 90$  PSF;
2. Only Single Door w/ High Threshold option items E-2B (part no. ES-9026) including E-2C (part no. ES-9027) is rated for external Positive +120 PSF Water Resistant Rating.

**LABELING:** Each unit shall bear a permanent label with the manufacturer's name or logo, city, state, series, and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

**REVISION** of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

**TERMINATION** of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

**ADVERTISEMENT:** The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

**INSPECTION:** A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA renews NOA No. 12-0517.23 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 Jalme D. Gascon, P. E.



J. Gascon  
9/19/13

NOA No. 13-0820.12  
Expiration Date: October 13, 2018  
Approval Date: September 19, 2013  
Page 1

Mr. Glass Doors & Windows, Inc.

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

**A. DRAWINGS**

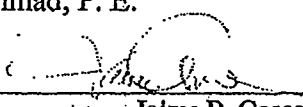
1. Manufacturer's die drawings and sections.  
*(Submitted under previous NOA No. 11-0720.10)*
2. Drawing No. W11-40, titled "Series MG-500 Alum Outswing French Door (L.M.I.)", sheets 1 through 10.1 of 11, dated 07/20/11, prepared by Al-Farooq Corporation, with revision "A" dated 03/29/12, signed and sealed by Javad Ahmad, P. E.  
*(Submitted under previous NOA No. 12-0517.23)*

**B. TESTS**

1. Test reports on: 1) Uniform Static Air Pressure Test, Loading per PA 202-94  
2) Large Missile Impact Test per FBC, TAS 201-94  
3) Cyclic Wind Pressure Loading per SFBC, PA 203-94  
along with marked-up drawings and installation diagram of a single (X) aluminum outswing door, issued by Fenestration Testing lab, Inc., Test Report No. FTL-5992, dated 09/09/09, re-issued on 02/02/11, signed and sealed by Marlin D. Brinson, P. E.  
*(Submitted under previous NOA No. 11-0720.10)*
2. Test reports on: 1) Air Infiltration Test, per FBC, TAS 202-94  
2) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94  
3) Water Resistance Test, per FBC, TAS 202-94  
4) Large Missile Impact Test per FBC, TAS 201-94  
5) Cyclic Wind Pressure Loading per FBC, TAS 203-94  
6) Forced Entry Test, per FBC 2411 3.2.1, TAS 202-94  
along with marked-up drawings and installation diagram of an Alum. Outswing Entrance Door, prepared by Fenestration Testing Laboratory, Inc., Test Report No. FTL-5554, dated 05/10/08, signed and sealed by Carlos S. Rionda, P. E.  
*(Submitted under previous NOA No. 10-0301.03)*
3. Test reports on: 1) Uniform Static Air Pressure Test, Loading per PA 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 an Alum. Outswing Entrance Door, prepared by FTL, Inc., Test Report No. FTL-5556, dated 04/27/08, signed and sealed by Carlos S. Rionda, P. E.  
*(Submitted under previous NOA No. 10-0301.03)*

**C. CALCULATIONS**

1. Anchor verification calculations and structural analysis, complying with FBC, prepared by Al-Farooq Corporation, dated 01/08/10, 06/15/10, 11/02/10, 12/17/10 and last revised on 01/13/11, signed and sealed by Javad Ahmad, P. E.  
*(Submitted under previous NOA No. 12-0517.23)*
2. Glazing complies with ASTM E1300-04

  
Jalme D. Gascon, P. E.  
Product Control Section Supervisor  
NOA No. 13-0820.12  
Expiration Date: October 13, 2018  
Approval Date: September 19, 2013



Mr. Glass Doors & Windows, Inc.

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

**D. QUALITY ASSURANCE**

1. Miami-Dade Department of Regulatory and Economic Resources (RER).

**E. MATERIAL CERTIFICATIONS**

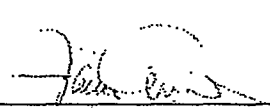
1. Notice of Acceptance No. 11-0624.02 issued to E.I. DuPont DeNemours & Co., Inc. for their "DuPont SentryGlas® Interlayer" dated 08/25/11, expiring on 01/14/17.
2. Notice of Acceptance No. 13-0129.27 issued to E.I. DuPont DeNemours & Co., Inc. for their "DuPont Butacite® PVB Interlayer" dated 04/11/13, expiring on 12/11/16.

**F. STATEMENTS**

1. Statement letter of no financial interest, conformance and complying with FBC-2010, dated 08/07/13, signed, sealed and issued by Javad Ahmad, P. E.
2. Laboratory compliance letter for Test Report No. FTL-5992, dated 09/09/09, re-issued on 02/02/11, issued by Fenestration Testing Laboratory, Inc., signed and sealed by Marlin D. Brinson, P. E.  
*(Submitted under previous NOA No. 11-0720.10)*
3. Proposal No. 09-0165 issued by Product Control, dated 07/02/09, signed by Ishaq Chanda, P. E.  
*(Submitted under previous NOA No. 11-0720.10)*
4. Laboratory compliance letters for Test Reports No.'s FTL-5554, dated 05/10/08 and FTL-5556, dated 04/27/08, both issued by Fenestration Testing Laboratory, Inc., both signed and sealed by Carlos S. Rionda, P. E.  
*(Submitted under previous NOA No. 10-0301.03)*
5. Proposal No. 07-4070 issued by Product Control, dated 02/22/08, signed by Ishaq Chanda, P. E.  
*(Submitted under previous NOA No. 10-0301.03)*

**G. OTHERS**

1. Notice of Acceptance No. 12-0517.23, issued to Mr. Glass Doors & Windows, Inc. for their Series "MG-500 Aluminum Outswing French Door - L.M.I.", approved on 08/23/12 and expiring on 10/13/13.

  
Jaime D. Gascon, P.E.  
Product Control Section Supervisor  
NOA No. 13-0820.12  
Expiration Date: October 13, 2018  
Approval Date: September 19, 2013

THESE DOORS ARE RATED FOR LARGE & SMALL MISSILE IMPACT.  
SHUTTERS ARE NOT REQUIRED.

**SERIES MG500**  
**ALUMINUM OUTSWING ENTRANCE DOOR**

SEE CHARTS ON THIS SHEET FOR DESIGN LOAD CAPACITY OF  
SINGLE DOORS WITH OR WITHOUT TRANSOMS.

SEE CHARTS ON SHEET 2 FOR DESIGN LOAD CAPACITY OF  
DOUBLE DOORS WITH OR WITHOUT TRANSOMS.

DOORS CAN ALSO BE USED WITH SERIES MG5000 OR SERIES 9500  
STOREFRONT SYSTEM UNDER SEPARATE APPROVAL.  
FOR DOORS WITH STOREFRONT SYSTEM SEE SEPARATE NOA FOR  
DOOR MULLION CAPACITY AND ANCHORING REQUIREMENTS.

THE LOWEST VALUE RESULTING FROM DOOR CAPACITY CHARTS  
OR STOREFRONT NOA WILL APPLY TO ENTIRE SYSTEM.

DOORS ARE NOT APPROVED FOR INSTALLATION WHERE WATER  
RESISTANCE IS REQUIRED EXCEPT SINGLE DOORS USING  
ES-9026 (HIGH THRESHOLD OPTION) IS APPROVED FOR WATER  
INFILTRATION RESISTANCE.

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

1BY OR 2BY WOOD BUCKS BY OTHERS, MUST BE ANCHORED PROPERLY  
TO TRANSFER LOADS TO THE STRUCTURE.

ANCHORS SHALL BE AS LISTED, SPACED AS SHOWN ON DETAILS, ANCHORS  
EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO.

ANCHORING OR LOADING CONDITIONS NOT SHOWN IN THESE DETAILS ARE  
NOT PART OF THIS APPROVAL.

A LOAD DURATION INCREASE IS USED IN DESIGN OF ANCHORS INTO WOOD ONLY.

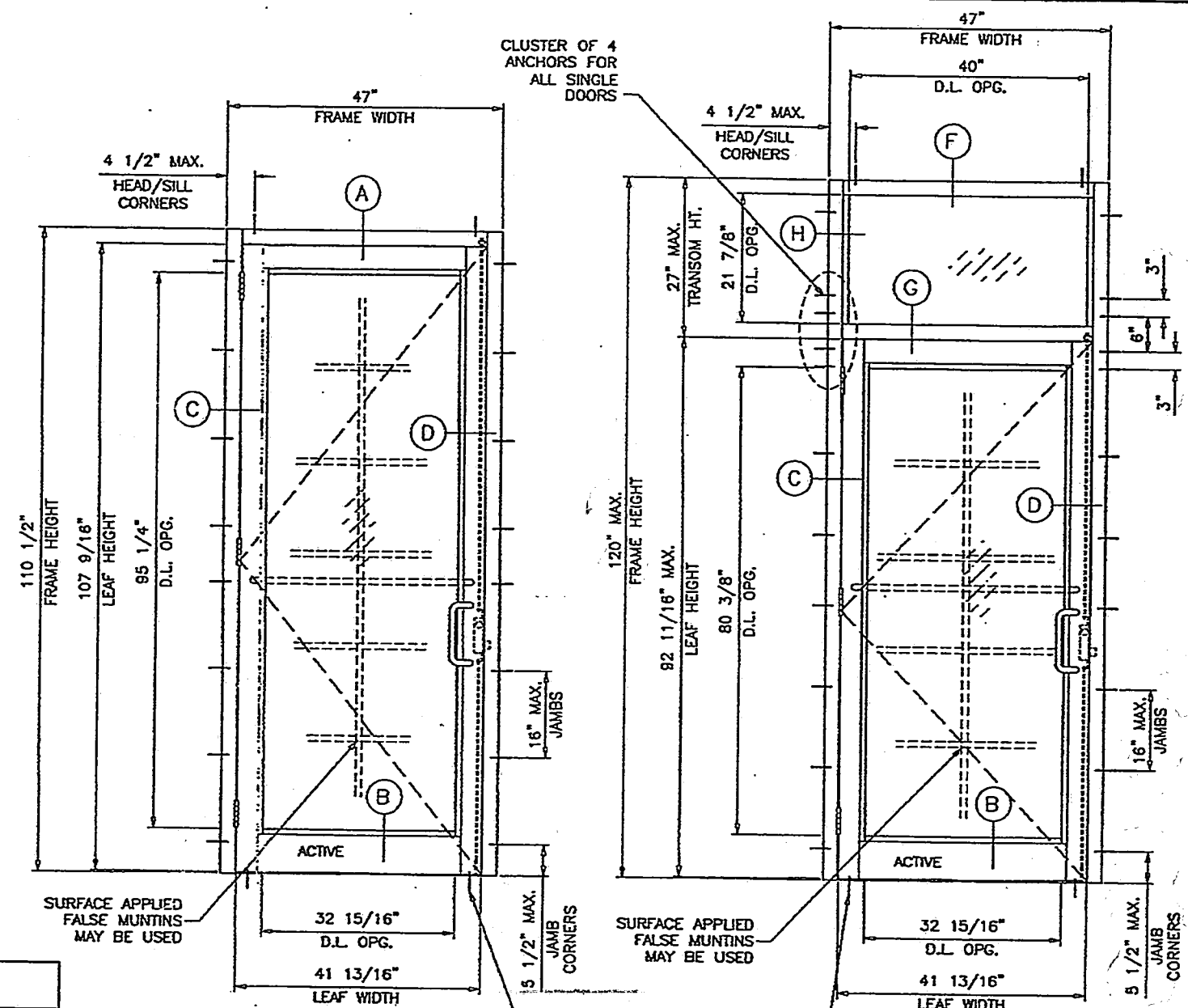
MATERIALS INCLUDING BUT NOT LIMITED TO STEEL/METAL SCREWS, THAT  
COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE  
REQUIREMENTS OF THE FLORIDA BLDG. CODE SECTION 2003.8.4.

TABLE #1		DOORS LOAD CAPACITY - PSF								
		SINGLE DOORS WITHOUT TRANSOM (X) OR WITH TRANSOM (O/X)								
		GLASS			LOCKS			HINGES		
DOOR DIMS.		TYPE 'A'	TYPE 'B'/C'	OPTION #1	OPTION #2	OPTION #3	OPTION #1	OPTION #2		
FRAME WIDTH	FRAME HEIGHT	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)		
47"	98-1/2"	80.0	120.0	80.0	90.0	120.0	80.0	120.0		
47"	110-1/2"	80.0	120.0	80.0	90.0	120.0	80.0	120.0		

SEE SHEET 8 FOR GLASS TYPES DESCRIPTION  
SEE SHEET 9 FOR LOCKS AND HINGES DESCRIPTION

TABLE #2		ANCHORS LOAD CAPACITY - PSF						
		SINGLE DOORS WITHOUT TRANSOM (X) OR WITH TRANSOM (O/X)						
		1/2" SHIM SPACE		1/4" SHIM SPACE				
DOOR DIMS.		ANCHOR TYPE 'B'	ANCHOR TYPE 'C'	ANCHOR TYPE 'A'	ANCHOR TYPE 'B'	ANCHOR TYPE 'D'		
FRAME WIDTH	FRAME HEIGHT	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)		
40"	110-1/2"	102.0	120.0	109.0	120.0	120.0		
47"	110-1/2"	87.0	115.0	93.0	117.0	120.0		

SEE SHEET 3 FOR ANCHOR DESCRIPTION



TYPICAL ELEVATION  
(X)

TYPICAL ELEVATION  
(O/X)

PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No. 12-0517.23  
Expiration Date 10/13/2013  
By: [Signature]  
Miami Dade Product Control

SINGLE DOORS WITH OR WITHOUT TRANSOMS  
USE CHARTS AS FOLLOWS  
FOR THE CORRESPONDING DOOR SIZE  
1- FOR GLASS TYPE, LOCK AND HINGE OPTIONS  
OBTAIN LOAD CAPACITIES FROM TABLE 1.  
2- FOR ANCHORS TYPE/SHIMSPACE OBTAIN  
LOAD CAPACITIES FROM TABLE 2.  
3- TRANSOMS FOR SINGLE DOORS ARE LIMITED  
TO ±90.0 PSF\*  
THE LOWEST VALUES FROM STEPS 1, 2 AND 3  
WILL GOVERN.

NOTE:  
GLASS CAPACITIES ON THIS SHEET ARE  
BASED ON ASTM F1300-04 (3 SEC. GUSTS)  
AND FLORIDA BUILDING COMMISSION  
DECLARATORY STATEMENT DCA05-DEC-219

Engr: JAVAD AHMAD  
CIVIL  
FLA. PE # 70592  
C.A.N. 3538

APR 25 2012

PRODUCT RENEWED  
as complying with the Florida  
Building Code  
Acceptance No. 13-0820.12  
Expiration Date 10/13/2018  
By: [Signature]  
Miami Dade Product Control

**AL-FAROOQ CORPORATION**  
ENGINEERS & PRODUCT DEVELOPMENT  
1235 S.W. 87 AVE  
MIAMI, FLORIDA 33174  
TEL: (305) 284-8100 FAX: (305) 282-8978  
COMP-ANLV11-40MG

SERIES-MG500 ALUM OUTSWING FRENCH DOOR (L.M.I.)  
**MR. GLASS DOORS & WINDOWS INC.**  
7440 N.W. 66 STREET  
MIAMI, FL. 33166  
TEL: (305) 470-8284 FAX: (305) 470-8285

revisions:	no.	date	by	description
	1	03.26.12	A	UPDATED TO 2010 FBC
date:	07-15-11	scale:	1/2"=1'-0"	
dr. by:	HAJIO	chk. by:		
drawing no.	W11-40			
sheet	1 of 10.1			

DOUBLE DOORS WITH OR WITHOUT TRANSOMS  
USE CHARTS AS FOLLOWS  
FOR THE CORRESPONDING DOOR SIZE  
1- FOR GLASS TYPE, LOCK AND HINGE OPTIONS  
OBTAIN LOAD CAPACITIES FROM TABLE 3.  
2- FOR JAMB ANCHORS, TYPE/SHIMSPACE OBTAIN  
LOAD CAPACITIES FROM TABLE 4.  
3- FOR HEAD ANCHORS, TYPE/SHIMSPACE OBTAIN  
LOAD CAPACITIES FROM TABLE 5.  
4- USE TYPE AA, BB OR CC ANCHORS AT SILL AS  
APPLICABLE. SEE SADDLE SILL ANCHOR CAPACITY -  
SEE TABLE 5A BELOW.  
THE LOWEST VALUES FROM STEPS 1, 2, 3 AND  
4 WILL GOVERN.

TABLE #3 DOORS LOAD CAPACITY - PSF DOUBLE DOOR WITHOUT TRANSOM (XX) OR WITH TRANSOM (O/XX)								
DOOR DIMS.		GLASS		LOCKS			HINGES	
		TYPE 'A'	TYPE 'B'/'C'	OPTION #1	OPTION #2	OPTION #3	OPTION #1	OPTION #2
FRAME WIDTH	FRAME HEIGHT	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)
89"	98-1/2"	80.0	90.0	80.0	90.0	90.0	80.0	90.0
89"	110-1/2"	80.0	80.0	80.0	80.0	80.0	80.0	90.0

SEE SHEET 8 FOR GLASS TYPES DESCRIPTION  
SEE SHEET 9 FOR LOCKS AND HINGES DESCRIPTION

TABLE #4 JAMB ANCHORS LOAD CAPACITY - PSF DOUBLE DOOR WITHOUT TRANSOM (XX) OR WITH TRANSOM (O/XX)						
DOOR DIMS.		1/2" SHIM SPACE		1/4" SHIM SPACE		
		ANCHOR TYPE 'B'	ANCHOR TYPE 'C'	ANCHOR TYPE 'A'	ANCHOR TYPE 'B'	ANCHOR TYPE 'D'
FRAME WIDTH	FRAME HEIGHT	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)
75"	110-1/2"	90.0	90.0	90.0	90.0	90.0
89"	110-1/2"	87.0	90.0	90.0	90.0	90.0

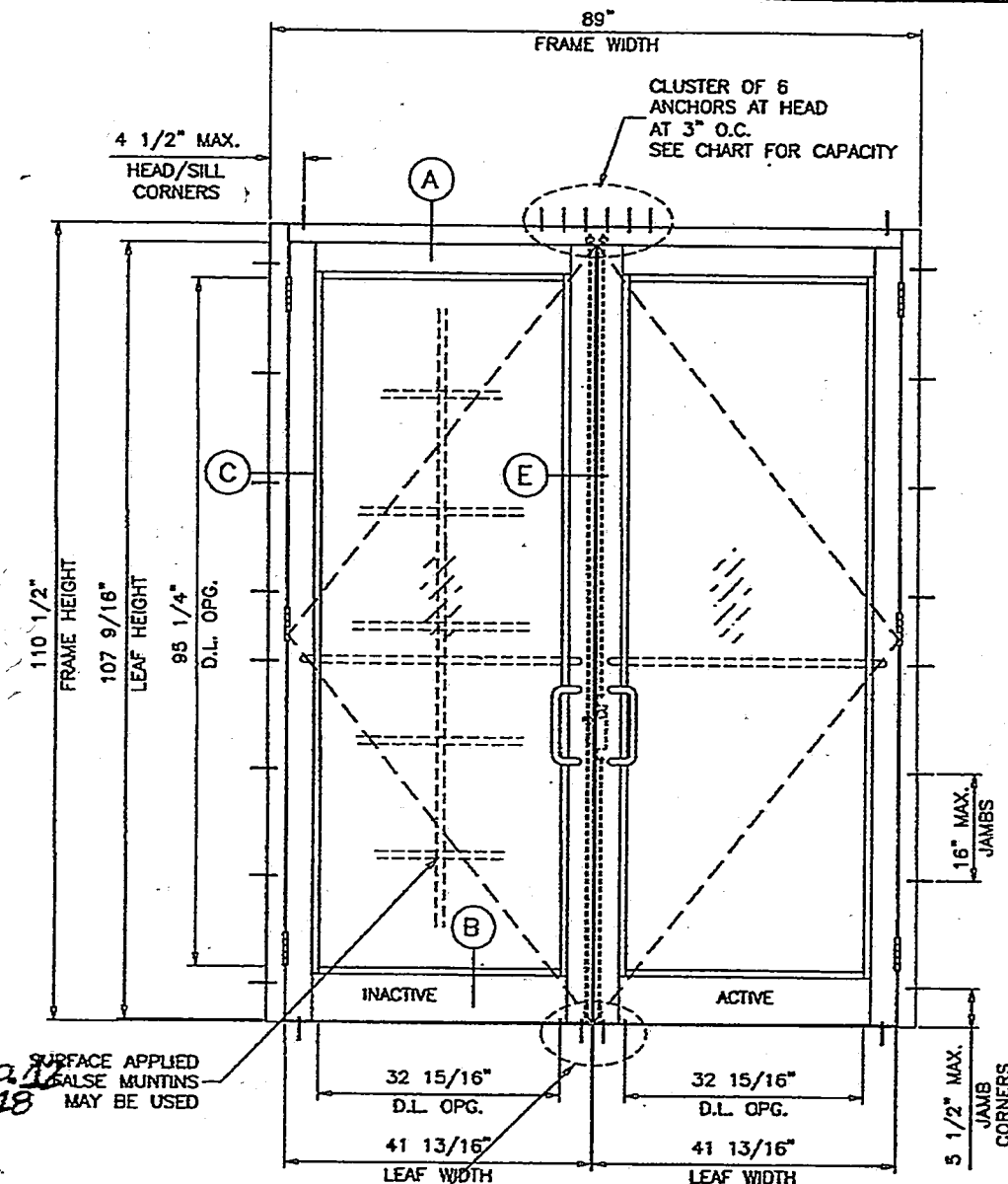
SEE SHEET 3 FOR ANCHOR DESCRIPTION

TABLE #5 HEAD ANCHORS LOAD CAPACITY - PSF DOUBLE DOOR WITHOUT TRANSOM (XX) OR WITH TRANSOM (O/XX)									
DOOR DIMS.		1/2" SHIM SPACE		3/8" SHIM SPACE			1/4" SHIM SPACE		
		ANCHOR TYPE 'B'	ANCHOR TYPE 'C'	ANCHOR TYPE 'A'	ANCHOR TYPE 'B'	ANCHOR TYPE 'C'	ANCHOR TYPE 'A'	ANCHOR TYPE 'B'	ANCHOR TYPE 'C'
FRAME WIDTH	FRAME HEIGHT	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)
75"	98-1/2"	80.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0
89"	98-1/2"	89.0	90.0	76.0	90.0	90.0	90.0	90.0	90.0
75"	110-1/2"	90.0	90.0	80.0	90.0	90.0	90.0	90.0	90.0
89"	110-1/2"	79.0	90.0	68.0	90.0	90.0	83.0	90.0	90.0

SEE SHEET 3 FOR ANCHOR DESCRIPTION

TABLE #5A SADDLE SILL ANCHORS LOAD CAPACITY - PSF SINGLE OR DOUBLE DOORS WITH OR WITHOUT TRANSOMS			
DOOR DIMS.		ANCHOR TYPE 'B'	ANCHOR TYPE 'C'
FRAME WIDTH	FRAME HEIGHT	EXT. (+) INT. (-)	EXT. (+) INT. (-)
75"	98-1/2"	85.0	90.0
89"	98-1/2"	72.0	90.0
75"	110-1/2"	76.0	90.0
89"	110-1/2"	64.0	86.0

SEE SHEET 3 FOR ANCHOR DESCRIPTION



TYPICAL ELEVATION  
(XX)

SEE SHEET 3 FOR ELEVATION (O/XX)

NOTE:  
GLASS CAPACITIES ON THIS SHEET ARE  
BASED ON ASTM E1300-04 (3 SEC. GUSTS)  
AND FLORIDA BUILDING COMMISSION  
DECLARATORY STATEMENT DCA05-DEC-219

Engr. JAVAD AHMAD  
CIVIL  
FLA. PE # 70592  
CAN. 3538

APR 25 2012

**AL-FAROOQ CORPORATION**  
ENGINEERS & PRODUCT DEVELOPMENT  
1235 S.W. 87 AVE  
MIAMI, FLORIDA 33174  
TEL: (305) 264-8100 FAX: (305) 264-8978  
COMP-AN/W11-40MG

SERIES-M5000 ALUM. OUTSWING FRENCH DOOR (L.M.I.)  
**MR. GLASS DOORS & WINDOWS, INC.**  
7440 N.W. 66 STREET  
MIAMI, FL. 33166  
TEL. (305) 470-8284 FAX. (305) 470-8285

Revisions:  
Rev. Date Description  
1 03.28.12 NO CHANGE THIS SHEET

date: 07-15-11  
scale: 1/2"=1'-0"  
dr. by: HAWID  
chk. by:

drawing no.  
**W11-40**  
sheet 2 of 10.1

**TYPICAL ANCHORS:** SEE ELEV. FOR SPACING

**TYPE 'A' 1/4" DIA ULTRACON BY 'ELCO'** (Fu=177 KSI, Fy=155 KSI)  
 INTO 2BY WOOD BUCKS OR WOOD STRUCTURES  
 WITH 1-3/8" MIN. PENETRATION INTO WOOD  
 THRU 1BY WOOD BUCKS INTO CONCRETE  
 WITH 1-1/4" MIN. EMBED INTO CONCRETE

DIRECTLY INTO CONCRETE WITH 1-3/8" EMBED)

DIRECTLY INTO C90 FILLED BLOCK (JAMBS ONLY)  
 WITH 1-1/4" MIN. EMBED INTO MASONRY

**ANCHOR EDGE DISTANCES**

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

**TYPE 'B' 1/4" DIA KWIK CON II BY 'HILTI'** (Fu=163 KSI, Fy=157 KSI)  
 INTO 2BY WOOD BUCKS OR WOOD STRUCTURES  
 WITH 1-3/8" MIN. PENETRATION INTO WOOD  
 THRU 1BY WOOD BUCKS INTO CONCRETE  
 WITH 1-1/4" MIN. EMBED INTO CONCRETE

DIRECTLY INTO CONCRETE WITH 1-3/8" EMBED)

DIRECTLY INTO C90 FILLED BLOCK (JAMBS ONLY)  
 WITH 1-1/2" MIN. EMBED INTO MASONRY

**ANCHOR EDGE DISTANCES**

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

**TYPE 'C' 5/16" DIA ULTRACON BY 'ELCO'** (Fu=177 KSI, Fy=155 KSI)  
 INTO 2BY WOOD BUCKS OR WOOD STRUCTURES  
 WITH 1-3/8" MIN. PENETRATION INTO WOOD  
 THRU 1BY WOOD BUCKS INTO CONCRETE  
 WITH 1-1/4" MIN. EMBED INTO CONCRETE

DIRECTLY INTO CONCRETE WITH 1-3/8" EMBED

DIRECTLY INTO C90 FILLED BLOCK (JAMBS ONLY)  
 WITH 1-1/2" MIN. EMBED INTO MASONRY

**ANCHOR EDGE DISTANCES**

INTO CONCRETE AND MASONRY = 2-1/2" MIN. (AT HEAD/SILL)  
 INTO CONCRETE AND MASONRY = 2-3/4" MIN. (AT JAMBS)  
 INTO WOOD STRUCTURE = 1" MIN.

**TYPE 'D'** (HEAD OR JAMB)

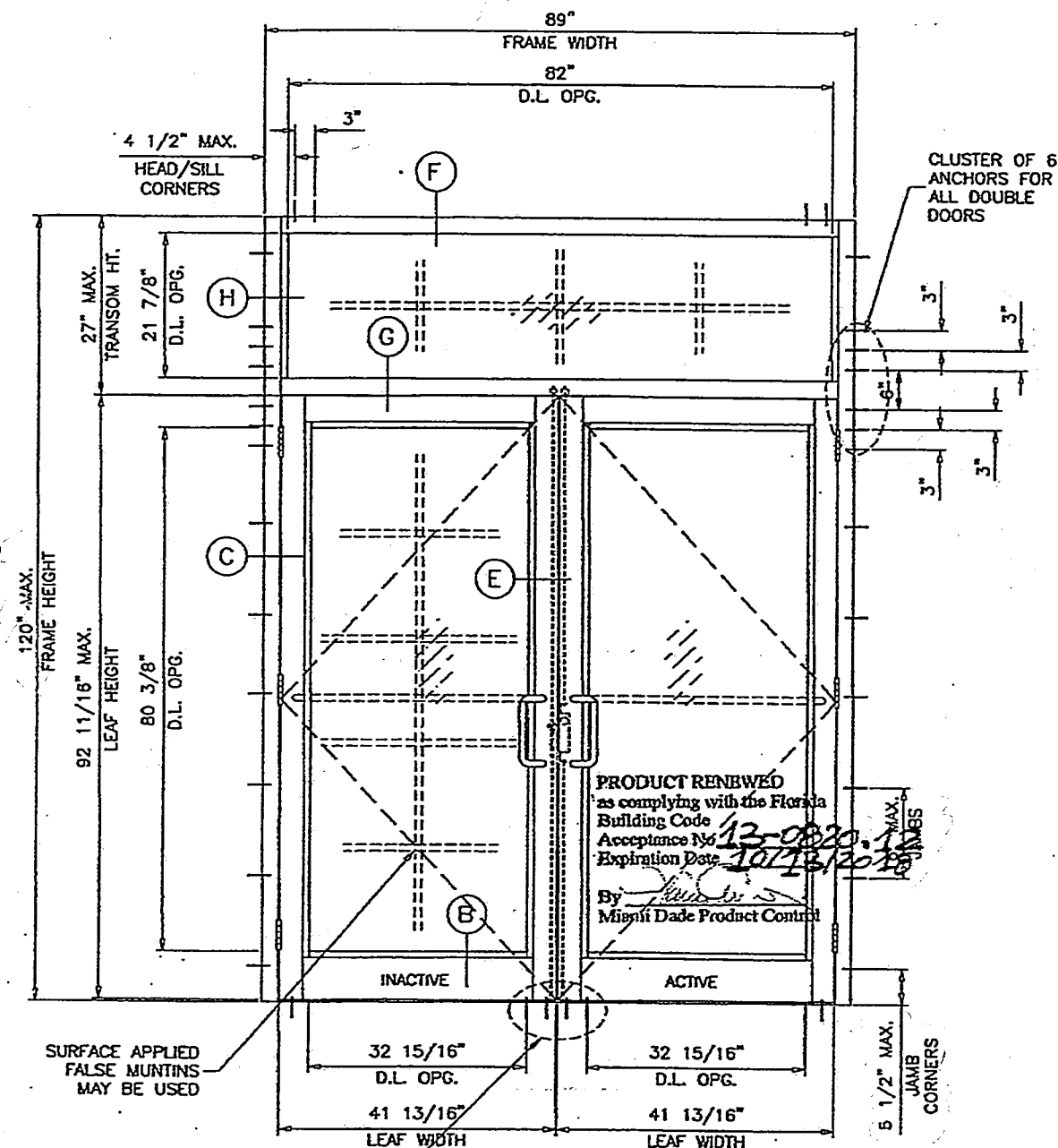
**#14 SMS OR SELF DRILLING SCREWS** (Fu=92 KSI, Fy=120 KSI)  
 D: INTO METAL STRUCTURES

STEEL : 1/8" THK. MIN. (Fy = 36 KSI MIN.)  
 ALUMINUM : 1/8" THK. MIN. (6063-T5 MIN.)  
 (STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)

**ANCHOR EDGE DISTANCES**

INTO METAL STRUCTURE = 1/2" MIN.

CONCRETE AT HEAD, SILL OR JAMBS f'c = 3000 PSI MIN.  
 C-90 HOLLOW/FILLED BLOCK AT JAMBS f'm = 2000 PSI MIN.



**TYPICAL ELEVATION**  
 (O/XX)  
 ANCHORS AT SILL  
 CLUSTER OF 4 AT 3" O.C.  
 TYPE 'A', 'B' OR 'C' AT STD. & HIGH THRESHOLD  
 TYPE 'B' OR 'C' AT SADDLE THRESHOLD  
 HEAD OR SILL ANCHORS MAY CONTROL  
 SEE CHARTS ON SHEET 2 FOR DOOR AND TRANSOM LOAD CAPACITY

**PRODUCT REVISED**  
 as complying with the Florida  
 Building Code  
 Acceptance No. 12-0517.23  
 Expiration Date 10/13/2013  
 By: [Signature]  
 Miami Dade Product Control

Engr: JAVAD AHMAD  
 CIVIL  
 FLA. PE # 70592  
 C.A.N. 3538

[Signature]

APR 25 2012

1x OR 2x WOOD BUCKS AND METAL STRUCTURES NOT BY MR. GLASS  
 MUST SUPPORT LOADS IMPOSED BY GLAZING SYSTEM AND  
 TRANSFER THEM TO THE BUILDING STRUCTURE.

**AL-FAROOQ CORPORATION**  
 ENGINEERS & PRODUCT DEVELOPMENT  
 1238 S.W. 87 AVE  
 MIAMI, FLORIDA 33174  
 TEL: (305) 284-8100 FAX: (305) 282-6978  
 COMP-ANLW11-40MG

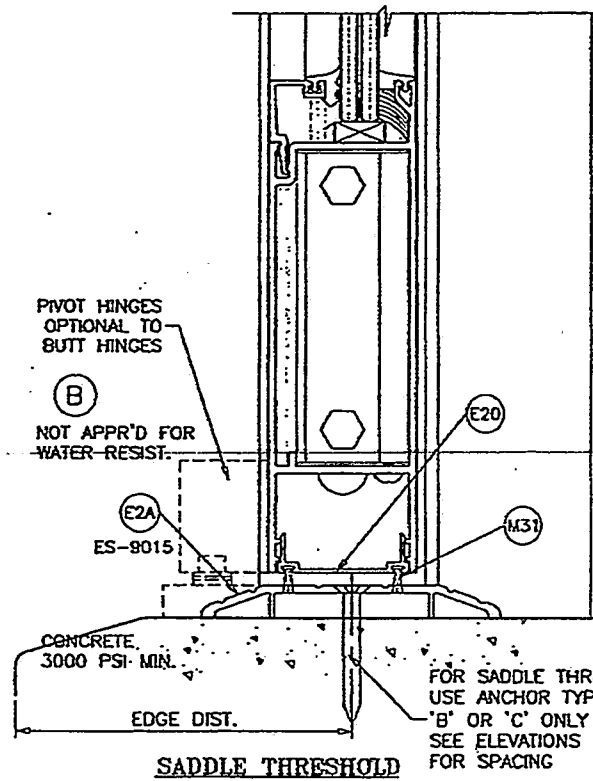
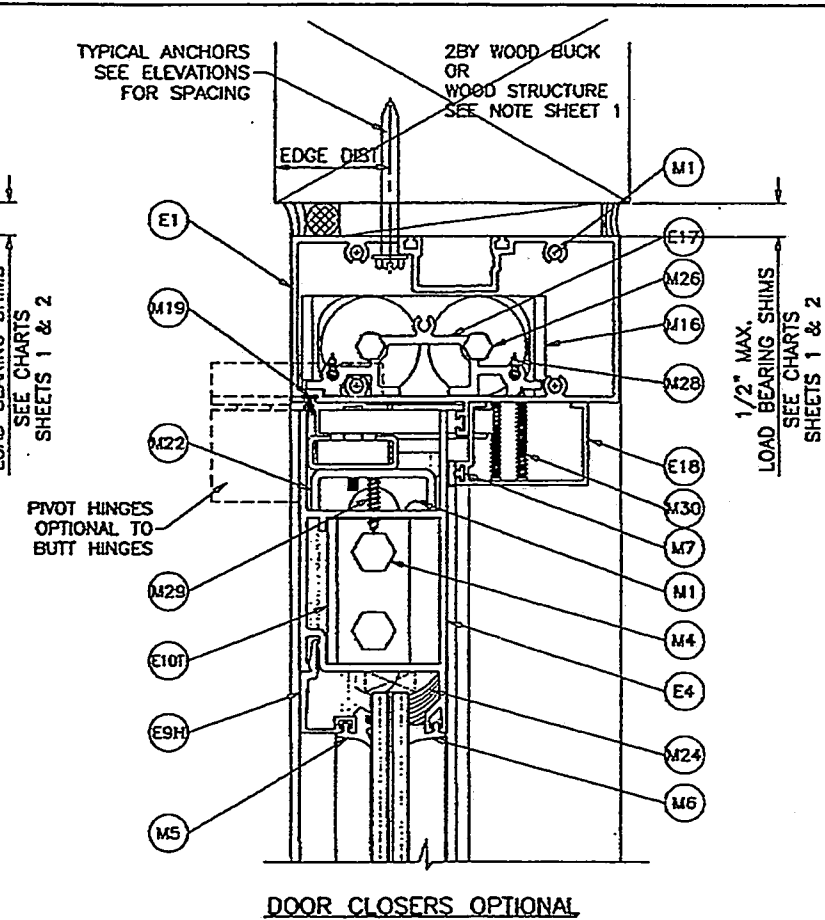
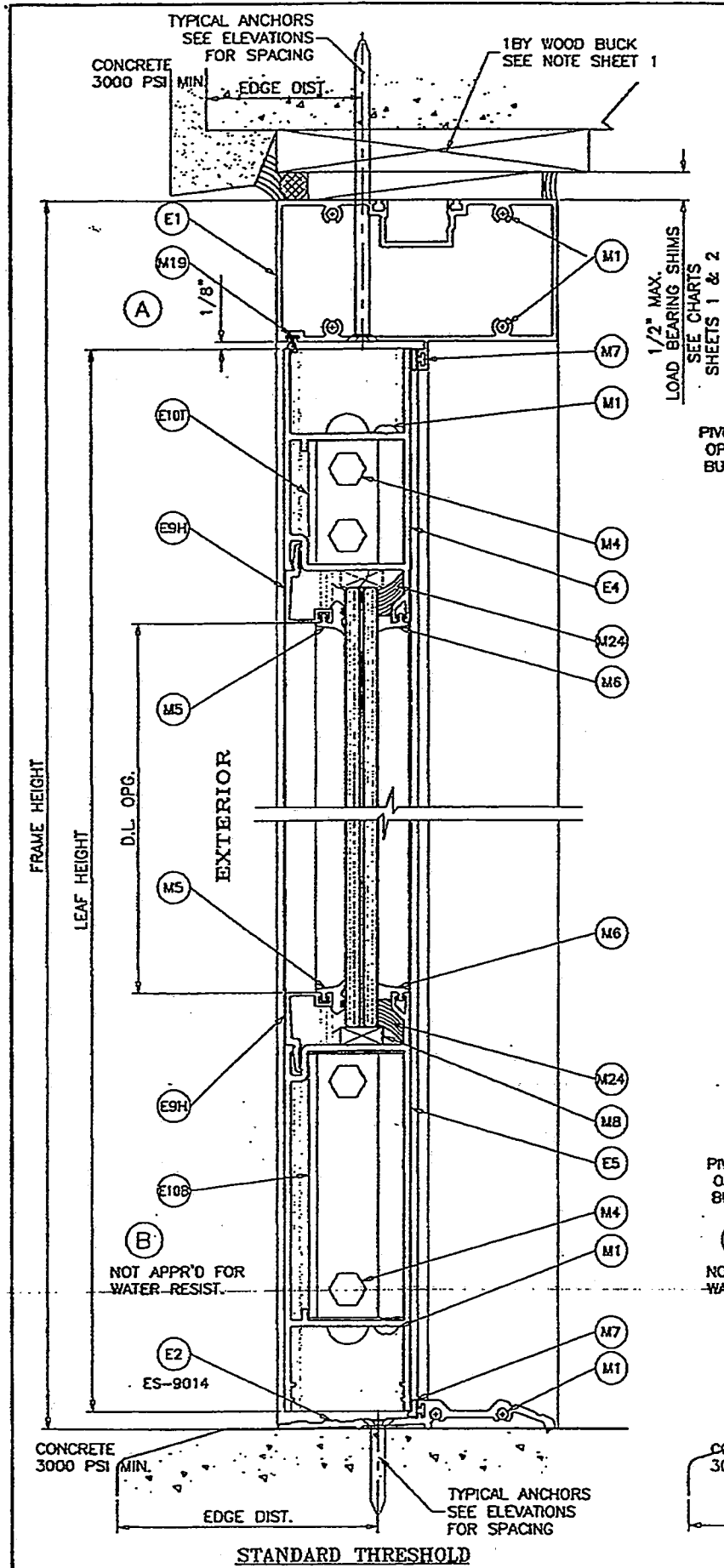
**MR. GLASS DOORS & WINDOWS, INC.**  
 7440 N.W. 66 STREET  
 MIAMI, FL. 33166  
 TEL: (305) 470-8284 FAX: (305) 470-8285

NO.	DATE	BY	DESCRIPTION
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 scale: 1/2"=1'-0"  
 dr. by: HAMID  
 chk. by:

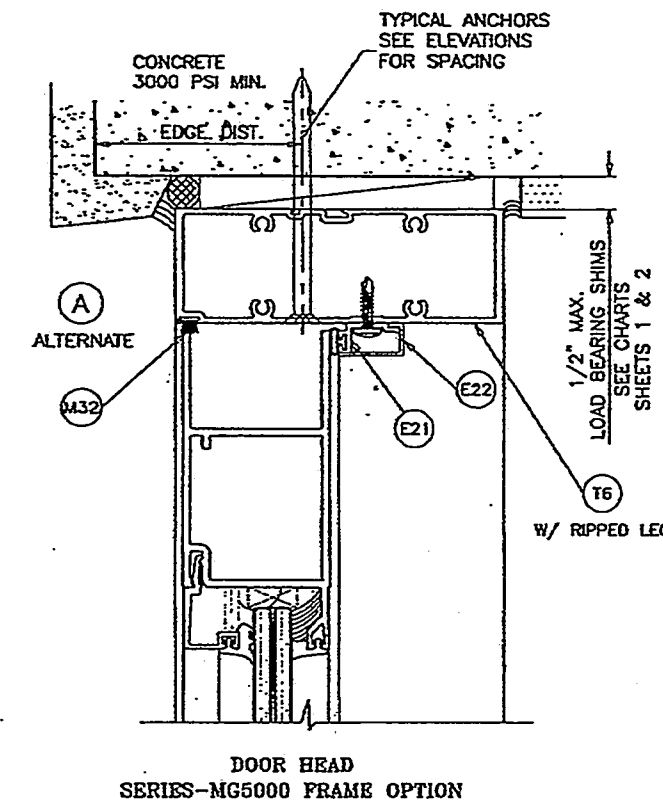
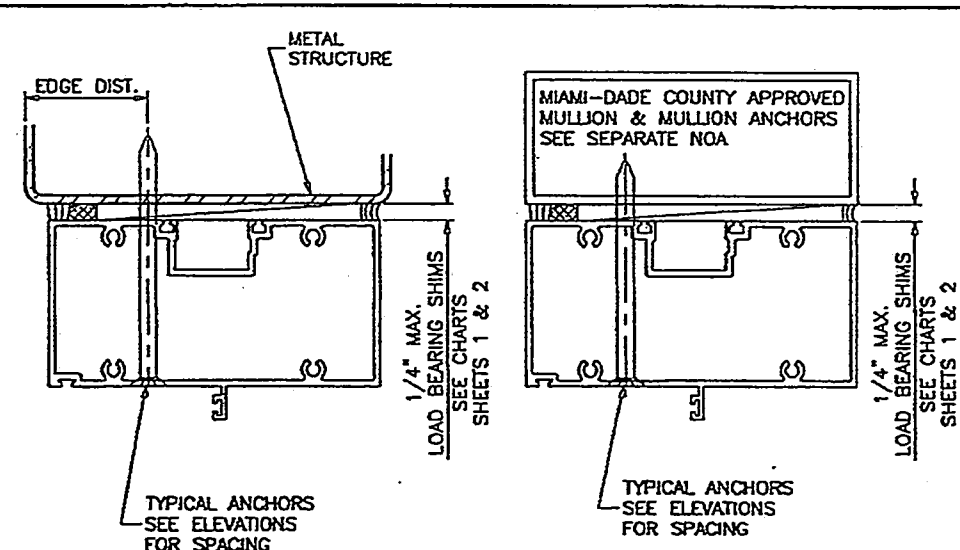
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**W11-40**

Sheet 3 of 10.1



PRODUCT RENEWED  
is complying with the Florida  
Building Code  
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Expiration Date 10/13/2018  
By *[Signature]*  
Miami Dade Product Control

PRODUCT REVISED  
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Acceptance No. 12-0517.23  
Expiration Date 10/13/2013  
By *[Signature]*  
Miami Dade Product Control



DOORS SHOWN WITH SERIES-9500 FRAMES  
CAN ALSO BE USED WITH SERIES-MG5000 FRAMES,  
HAVING CURRENT NOA. LOWER DESIGN PRESSURE  
WILL CONTROL

Engr: JAVAD AHMAD  
CIVIL  
FLA. PE # 70592  
C.A.N. 3538  
APR 25 2012

**AL-FAROOQ CORPORATION**  
ENGINEERS & PRODUCT DEVELOPMENT  
1295 S.W. 87 AVE  
MIAMI, FLORIDA 33174  
TEL: (305) 284-8100 FAX: (305) 282-8978  
COMP-ANL W11-40MG

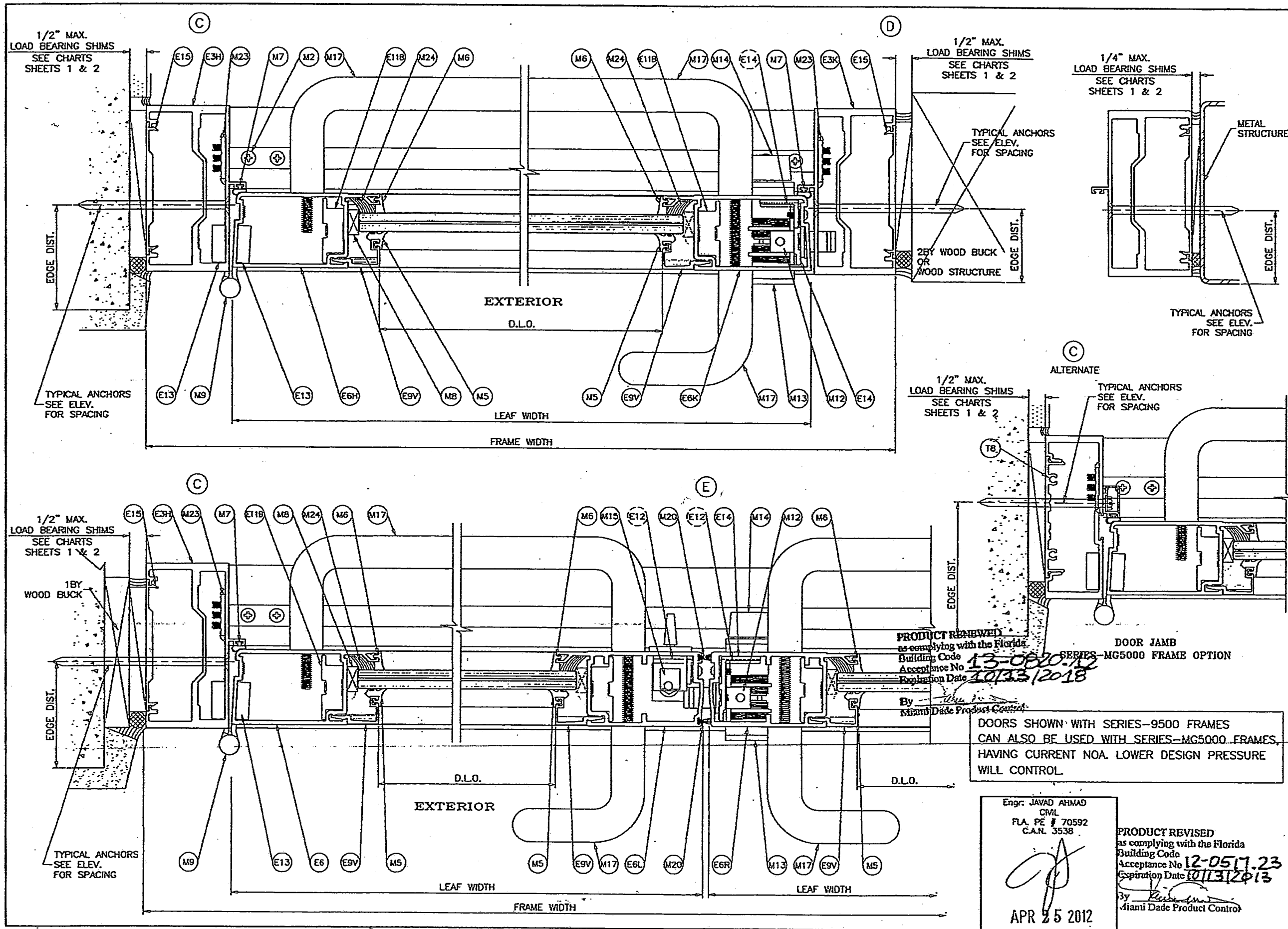
**MR. GLASS DOORS & WINDOWS, INC.**  
7440 N.W. 68th STREET  
MIAMI, FL. 33166  
TEL: (305) 470-8284 FAX: (305) 470-8285

Revisions:	NO	DATE	BY	DESCRIPTION
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date: 07-15-11  
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dr. by: HAWID  
chk. by:

drawing no.  
**W11-40**

sheet 4 of 10.1



**afC**

**AL-FAROOQ CORPORATION**  
ENGINEERS & PRODUCT DEVELOPMENT  
1235 S.W. 87 AVE  
MIAMI, FLORIDA 33174  
TEL. (305) 284-8100 FAX. (305) 282-6978  
COMP-ANL W11-40NG

SERIES-MG5000 ALUM OUTSWING FRENCH DOOR (L.M.I.)

**MR. GLASS DOORS & WINDOWS INC.**  
7440 N.W. 66 STREET  
MIAMI, FL. 33166  
TEL. (305) 470-8284 FAX. (305) 470-8285

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chk. by:

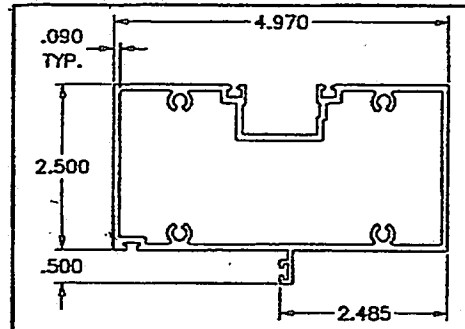
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**W11-40**

sheet 5 of 10

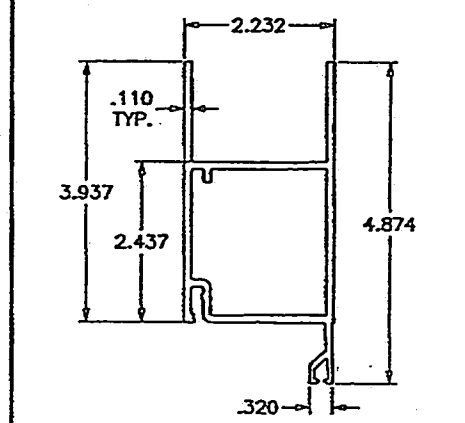




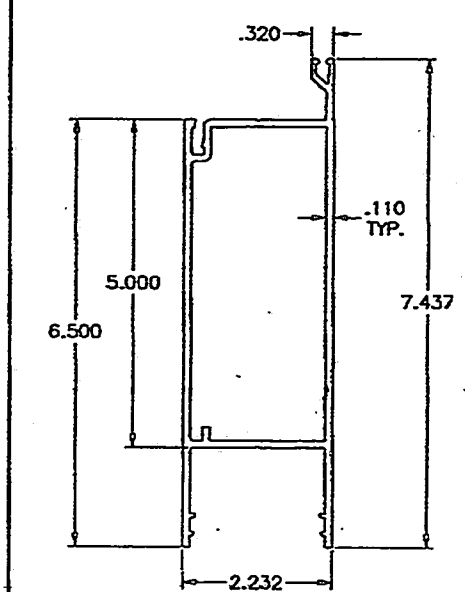




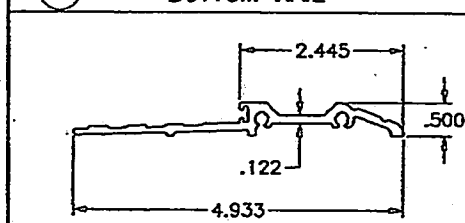
E1 DOOR HEADER Series MG500



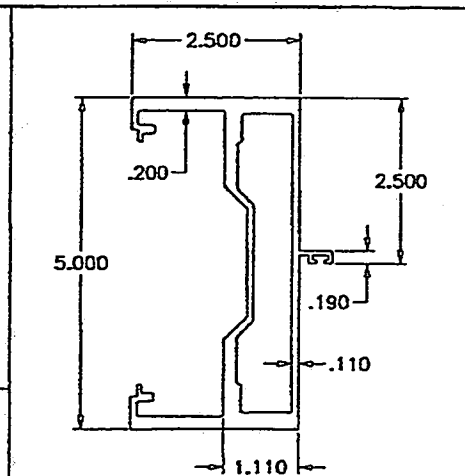
E4 TOP RAIL



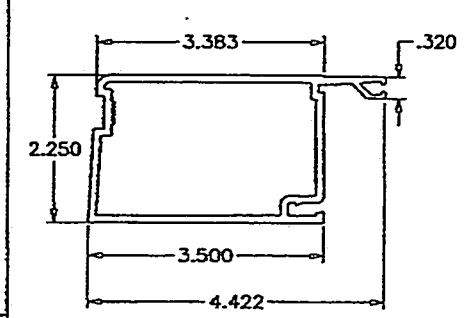
E5 BOTTOM RAIL



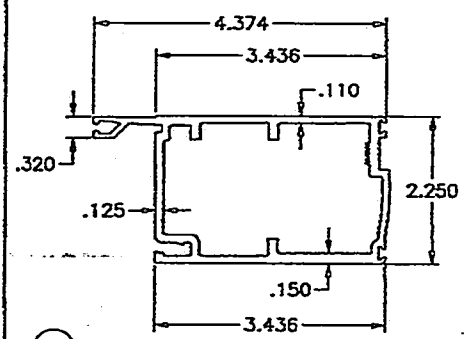
E2 THRESHOLD ES9014



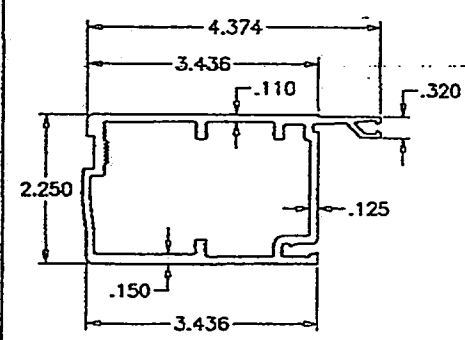
E3 DOOR JAMB Series MG500



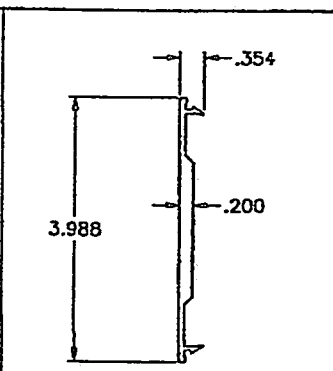
E6 HINGE/LOCK STILE



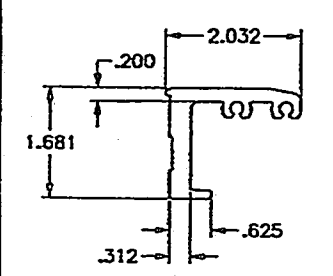
E7 MEETING STILE - INACTIVE LEAF



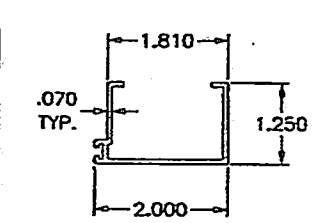
E8 MEETING STILE - ACTIVE LEAF



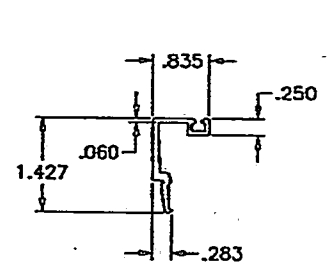
E15 JAMB FILLER



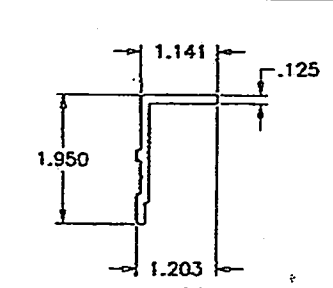
E10 CORNER BLOCK



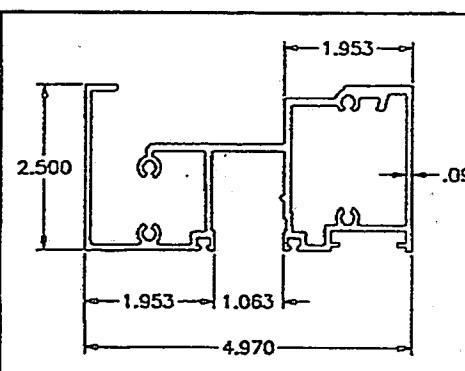
E18 CLOSURE DOOR STOP



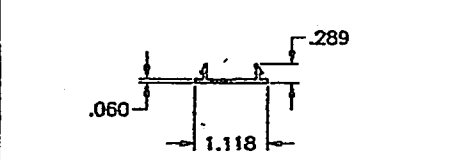
E9 GLASS STOP



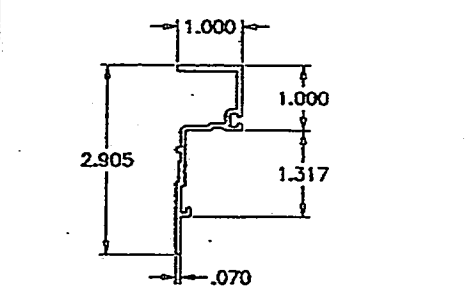
E14 LOCK BACK UP PLATE



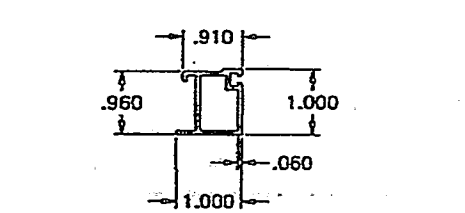
T1 TRANSOM HEADER Series 9500



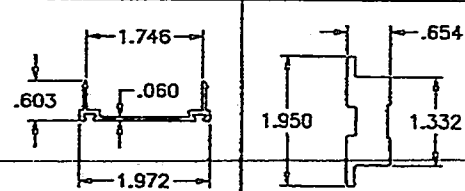
T4 HEAD COVER



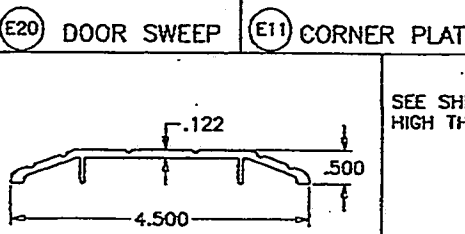
T2 TRANSOM ADAPTER



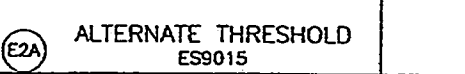
T3 TRANSOM GLASS STOP



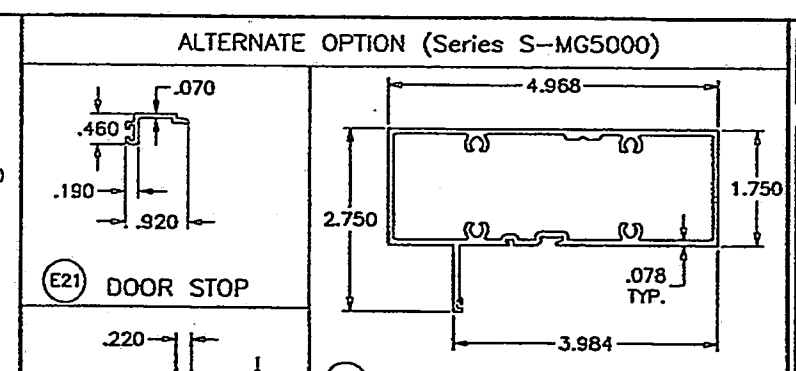
E20 DOOR SWEEP



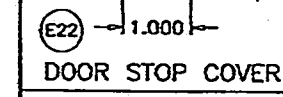
E11 CORNER PLATE



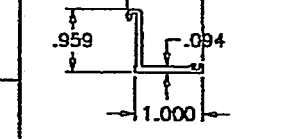
E2A ALTERNATE THRESHOLD ES9015



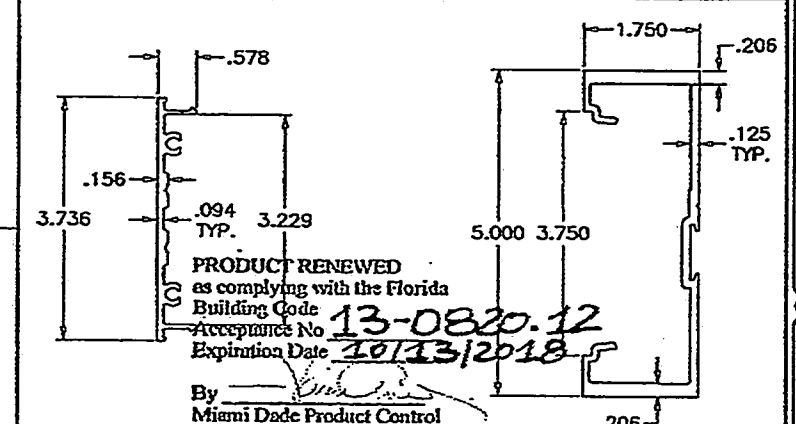
E21 DOOR STOP



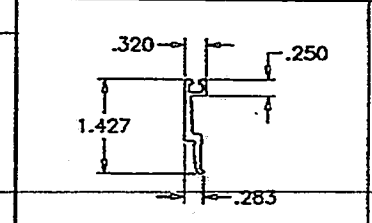
E22 DOOR STOP COVER



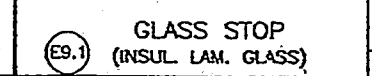
T10 TRANSOM GLAZING ADAPTER



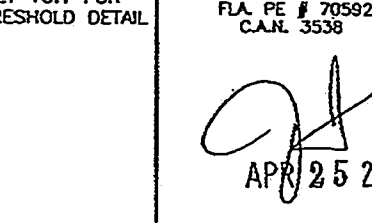
T8 JAMB FILLER S-MG5000



T7 TRANSOM JAMB S-MG5000

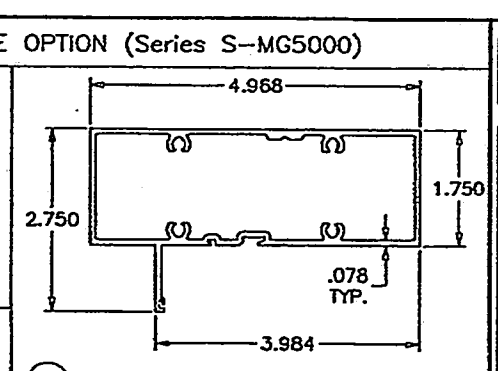


E9.1 GLASS STOP (INSUL. LAM. GLASS)

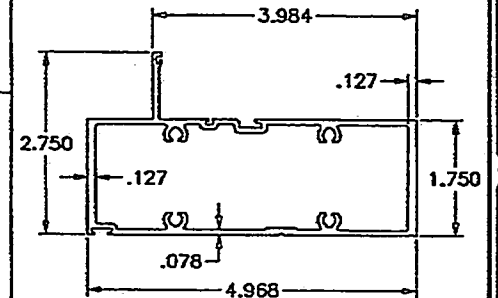


T9 TRANSOM GLASS STOP S-MG5000

ALTERNATE OPTION (Series S-MG5000)



T5 TRANSOM HEAD S-MG5000



T8 HORIZONTAL AT DOOR S-MG5000

PRODUCT RENEWED  
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COMP-ANL W11-40MG

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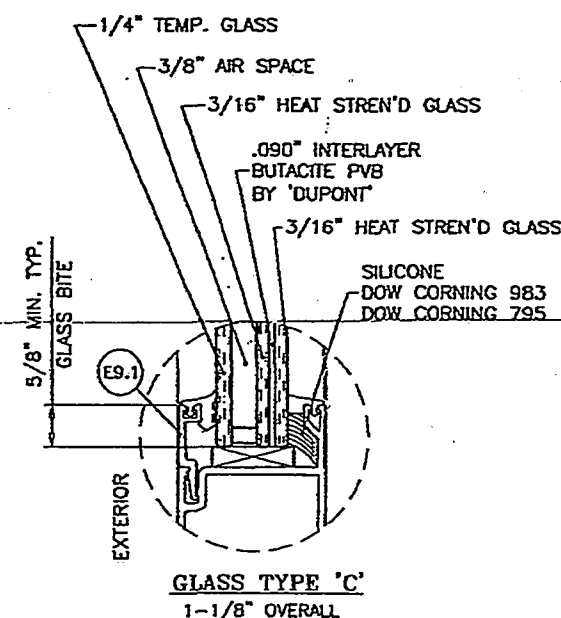
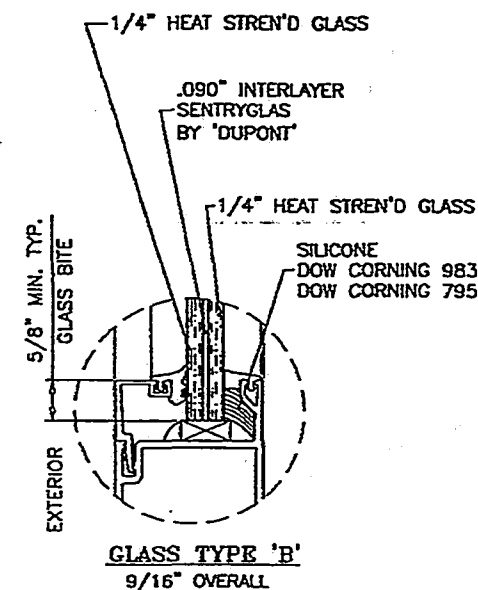
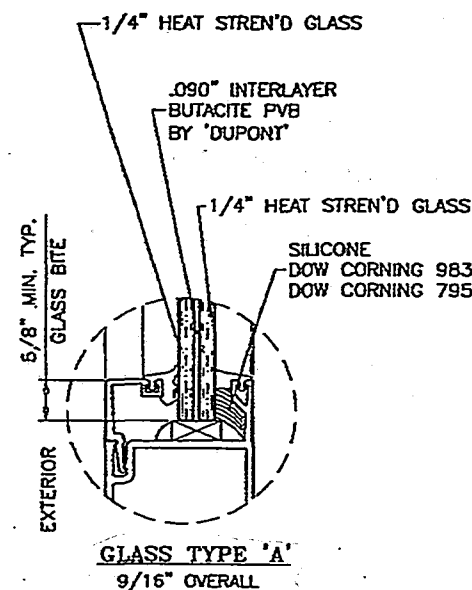
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date: 07-15-11  
scale: 3/8" = 1"  
dr. by: HAMID  
chk. by:

drawing no. **W11-40**  
sheet 7 of 10.1

ITEM #	PART #	QUANTITY	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
E1	ES9012	1	DOOR HEADER	6063-T6	-
E2	ES9014	1	STANDARD THRESHOLD	6063-T6	-
E2A	ES9015	1	SADDLE THRESHOLD	6063-T6	-
E2B	ES-9026	1	HIGH THRESHOLD	6063-T6	-
E2C	ES-9027	1	THRESHOLD COVER	6063-T5	-
E3H	ES9013	2	DOOR JAMB - HINGE	6063-T6	-
E4	ES9001	2	TOP RAIL	6063-T5	-
E5	ES9002	2	BOTTOM RAIL	6063-T6	-
E6H	ES9003	2	HINGE/LOCK STILE	6063-T5	-
E7	ES9006	1	MEETING STILE - INACTIVE LEAF	6063-T5	-
E8	ES9007	1	MEETING STILE - ACTIVE LEAF	6063-T5	-
E9H	ES9004	4	HORIZONTAL GLASS STOP	6063-T5	-
E9V	ES9004	4	VERTICAL GLASS STOP	6063-T5	-
E9.1	ES-9029	4	GLASS STOP (INSUL. LAM. GLASS)	6063-T5	-
E10T	ES9008	4	CORNER BLOCK - TOP	6063-T5	-
E10B	ES9008	4	CORNER BLOCK - BOTTOM	6063-T5	-
E11T	ES9009	4	CORNER PLATE - TOP	6063-T5	-
E11B	ES9009	4	CORNER PLATE - BOTTOM	6063-T5	-
E12	ES9010	4	SUPPORT ANGLE	6063-T5	3/4" X 1" X 1/8" X 9" LONG
E13	ES9011	AS REQD.	HINGE BACKUP PLATE REINFORCEMENT	6063-T5	-
E14	ES9020	1	LOCK BACKUP PLATE REINFORCEMENT	6063-T5	-
E15	ES9016	AS REQD.	JAMB FILLER	6063-T6	-
E16	ES9017	AS REQD.	REINFORCEMENT	6063-T6	-
E17	ES9021	1/ CLOSER	CLOSER SUPPORT CLIPS (PAIR)	6063-T5	-
E18	ES9022	1	CLOSER DOOR STOP	6063-T5	-
E19	ES9023	1/ CLOSER	CLOSER COVER PLATE	6063-T5	-
E20	ES9005		DOOR SWEEP	-	-
E21	ES9051		DOOR STOP	-	-
E22	ES9052		DOOR STOP COVER	-	-
M1		28	#12 x 1" P.H. ST/ST SMS	-	-
M2		AS REQD.	#12 - 24 x 1/2" F.H. ST/ST MS	-	-
M3		18	#8 - 32 x 1/2" P.H. ST/ST MS	-	-
M4		16	3/8" - 16 x 1" HEX. BOLT	-	-
M5	ESMG500-G0	AS REQD.	WEDGE GASKET	EPDM	DUROMETER 70
M6	ESMG500-G02	AS REQD.	SPACER GASKET	EPDM	DUROMETER 70
M7	ESMG500-G03	AS REQD.	BULB VINYL, BASE-POLYPROPYLENE, BULB-TPE	-	ULTRAFAB, DUROMETER 73
M8	ESMG500-B1	8	SETTING BLOCK	EPDM	DUROMETER 80
M9		AS REQD.	HINGE 4 1/2" x 4"	-	-
M9A		AS REQD.	OFFSET PIVOT HINGE	ALUMINUM	-
M12		1	3 POINT LOCK	-	-
M13		1	KEY CYLINDER	-	-
M14		1	THUMBTURN	-	-
M15		1	2 POINT LOCK	-	-
M16		1/ LEAF	DOOR CLOSURE	-	-
M17		2	PUSH - PULL	-	-
M19	W13273NK	AS REQD.	PILE - HEADER	-	-
M20	W23451NK	AS REQD.	PILE - MTG STILES	-	-
M22	-	1/ CLOSER	CHANNEL SPACER 5/8" X 1-3/4"	-	-
M23		2	THRESHOLD CLIP	-	-
M24		AS REQD.	STRUCTURAL SILICONE	-	-
M25		AS REQD.	SILICONE	-	-
M26		2/ CLOSER	1/4 - 20 x 2" HEX. BOLT	-	-
M27		3/ CLOSER	#10 x 1" P.H. ST/ST SMS	-	-
M28		6/ CLOSER	#10 x 3/4" F.H. ST/ST SMS	-	-
M29		3/ CLOSER	#10 x 1" F.H. ST/ST SMS	-	-
M30		AS REQD.	#8 x 1 1/2" F.H. ST/ST SMS	-	-
M31	W13351NK	AS REQD.	PILE - DOOR SWEEP	-	-
M32	W13275NK	AS REQD.	PILE - HEADER	-	-

ITEM #	PART #	QUANTITY	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
T1	ES9506		TRANSOM HEADER Series 9500	6063-T6	-
T2	ES9019		TRANSOM ADAPTER	6063-T5	-
T3	ES9018		TRANSOM GLASS STOP	6063-T5	-
T4	ES9502		HEAD COVER	6063-T5	-
MT1			#10 x 1/2" F.H. ST/ST SMS	-	-
MT2			TRIM GASKET	SILICONE	-
MT3			INTERIOR SPACER 1/4" x 1/4"	FOAM	-
MT4			SETTING BLOCKS 1/16" x 3/4"	EPDM	DUROMETER 65
T5	ES8005	AS REQD.	TRANSOM HEAD S-MG5000	6005-T6	-
T6	ES8013	AS REQD.	HORIZONTAL AT DOOR S-MG5000	6005-T6	-
T7	ES8012	AS REQD.	TRANSOM JAMB S-MG5000	6005-T6	-
T8	ES8003	AS REQD.	JAMB FILLER S-MG5000	6005-T5	-
T9	ES8006	AS REQD.	TRANSOM GLASS STOP S-MG5000	6063-T5	-
T10	ES8014	AS REQD.	TRANSOM GLAZING ADAPTER	6063-T6	-



GLAZING OPTIONS

PRODUCT RENEWED  
as complying with the Florida  
Building Code  
Acceptance No. **13-0820.12**  
Expiration Date **10/13/2018**

By *[Signature]*  
Miami Dade Product Control

PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No. **12-0517.23**  
Expiration Date **10/13/2013**

By *[Signature]*  
Miami Dade Product Control

Engr. JAVAD AHMAD  
CIVIL  
FLA. PE # 70592  
C.A.N. 3538

APR 25 2012

<b>AL-FAROOQ CORPORATION</b> ENGINEERS & PRODUCT DEVELOPMENT 1239 S.W. 87 AVE. MIAMI, FLORIDA 33174 TEL. (305) 264-9100 FAX. (305) 262-9978 COMP-ANL\W11-40MG		SERIES-MG500 ALUM. OUTSWING FRENCH DOOR (L.M.I.)	
		MR. GLASS DOORS & WINDOWS, INC. 7440 N.W. 66 STREET MIAMI, FL. 33166 TEL. (305) 470-8284 FAX. (305) 470-8285	
NO. 07-15-11 DATE: 07-15-11	BY: JAVAD AHMAD SCALE: 3/8" = 1" DR. BY: HAMID CHK. BY:	REVISIONS: NO. DATE BY DESCRIPTION 1 03.28.12 A SILICONE REV.	drawing no. <b>W11-40</b> sheet 8 of 10.1

**LOCKS:** (See Table #1 or #3 for Load Capacities)

**OPTION #1:**

CONCEALED VERTICAL ROD PANIC EXIT DEVICE BY 'JACKSON PANIC SYSTEM' #1285 LOCATED AT 41" FROM SILL AT EACH LEAF.

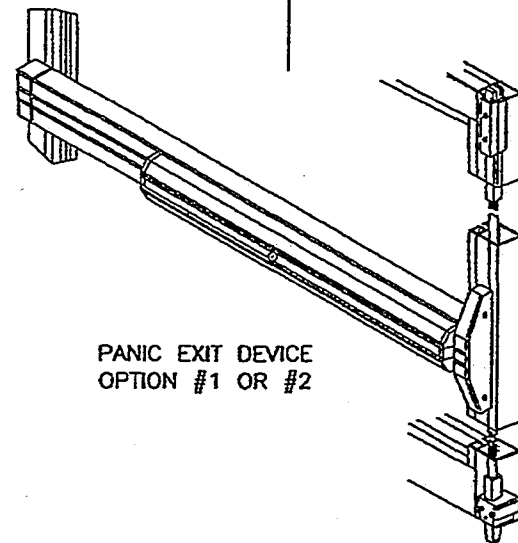
FASTENED WITH

- (1) #14 X 1" HH SELF DRILLING SCREW AT ONE END AND  
(2) #12-24 X 1/2" OH MACHINE SCREWS AT OTHER END  
OR

CONCEALED VERTICAL ROD PANIC EXIT DEVICE 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  
OPTION #1 OR #2

**OPTION #2:**

CONCEALED VERTICAL ROD PANIC EXIT DEVICE BY 'JACKSON PANIC SYSTEM' #2086 LOCATED AT 41" FROM SILL AT EACH LEAF.

FASTENED WITH

- (1) #14 X 1" HH SELF DRILLING SCREW AT ONE END AND  
(2) #12-24 X 1/2" OH MACHINE SCREWS AT OTHER END  
OR

CONCEALED VERTICAL ROD PANIC EXIT DEVICE BY 'DOR-O-MATIC' LOCATED AT 40" FROM SILL AT EACH LEAF.

FASTENED WITH

- (2) #12-24 X 1/2" FH MACHINE SCREWS AT ONE END

**OPTION #3:**

**ACTIVE LEAF:**

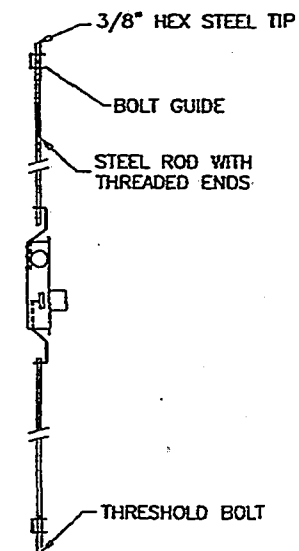
KEY OPERATED THREE POINT LOCK SYSTEM BY 'ADAMS RITE' WITH CONCEALED FLUSH BOLTS AT TOP & BOTTOM OF LOCK STILE AND A THUMB TURN ON THE INTERIOR, LOCATED AT 40" FROM BOTTOM OF PANEL FASTENED WITH

- (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 AND A THUMB TURN ON THE INTERIOR, LOCATED AT 40" FROM BOTTOM OF PANEL FASTENED WITH

- (2) #8-32 X 1/4" PH MACHINE SCREWS



**HINGES:** (See Table #1 or #3 for Load Capacities)

**OPTION #1:**

OFFSET PIVOT HINGES

ALUMINUM AT TOP AND BOTTOM

FASTENED TO FRAME AND THRESHOLD WITH

#10-24 X 1/2" FH THREAD CUTTING SCREWS

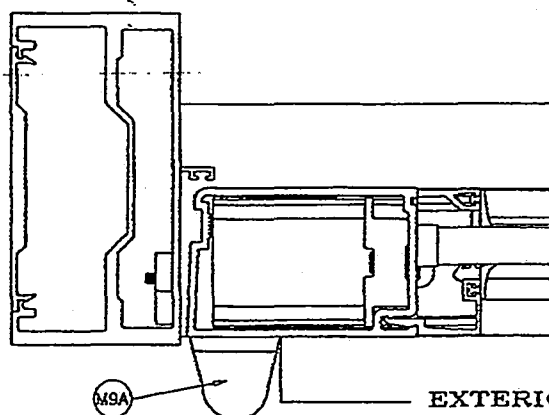
(2) AT THRESHOLD, (2) AT JAMB BOTTOM

(3) AT FRAME HEAD

HEAVY DUTY BRASS OR BRONZE AT MIDSPAN

FASTENED TO FRAME AND LEAF WITH

(4) 1/4-20 X 5/8" MS



**OPTION #2:**

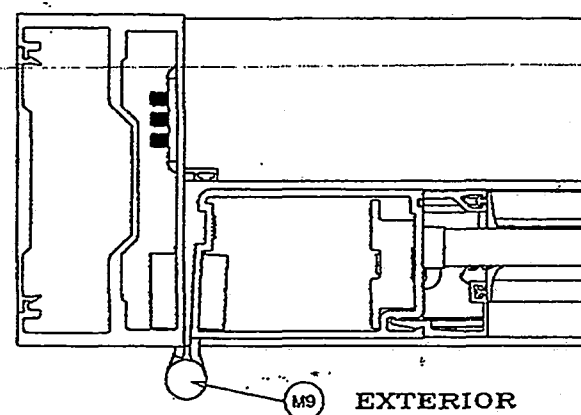
4 X 4-1/2" ST. STEEL BALL BEARING BUTT HINGES

LOCATED AT

11" FROM TOP & BOTTOM AND AT MIDSPAN

FASTENED TO DOOR FRAME AND LEAF STILE WITH

(4) #12-24 X 1/2" FH MACHINE SCREWS PER HASP



PRODUCT RENEWED  
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Expiration Date 10/13/2018

By: [Signature]  
Miami Dade Product Control

Engr: JAVAD AHMAD  
CIVIL  
FLA. PE # 70592  
C.A.N. 3538

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Building Code

Acceptance No. 12-0517-23

Expiration Date 10/13/2013

By: [Signature]  
Miami Dade Product Control

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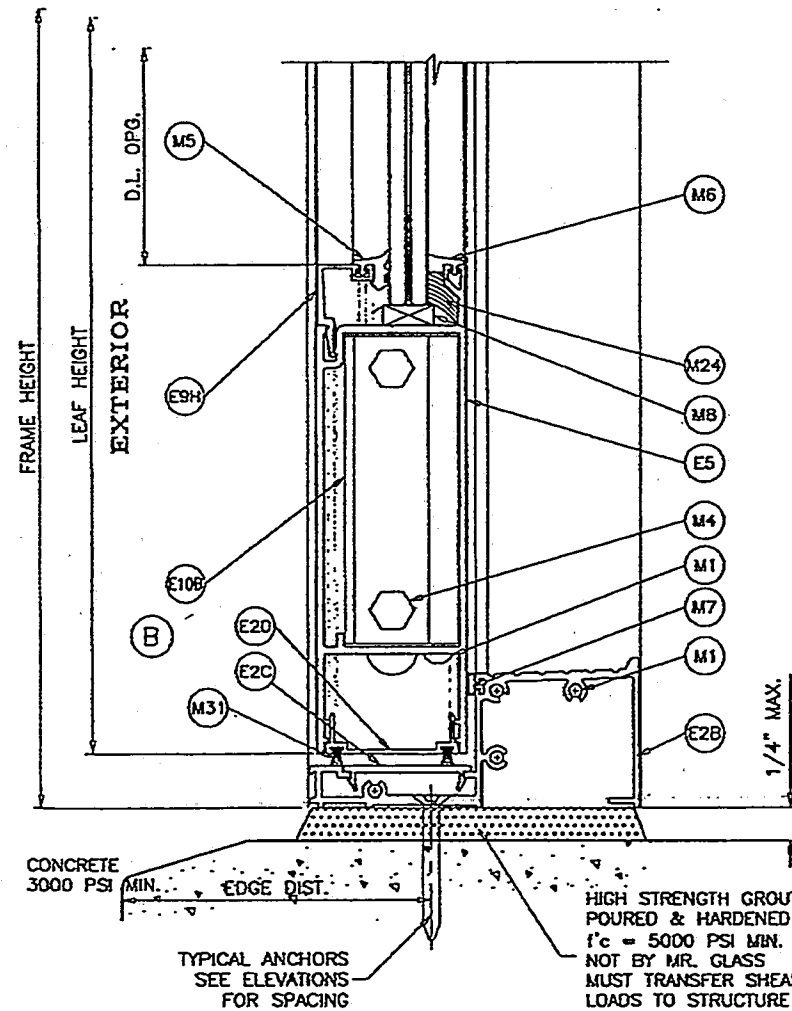
**AL-FAROOQ CORPORATION**  
ENGINEERS & PRODUCT DEVELOPMENT  
1236 S.W. 87 AVE  
MIAMI, FLORIDA 33174  
TEL: (305) 262-8978  
FAX: (305) 262-8978  
COMP-ANL W11-40MG

**MR. GLASS DOORS & WINDOWS, INC.**  
7440 N.W. 66 STREET  
MIAMI, FL. 33166  
TEL: (305) 470-8284  
FAX: (305) 470-8285

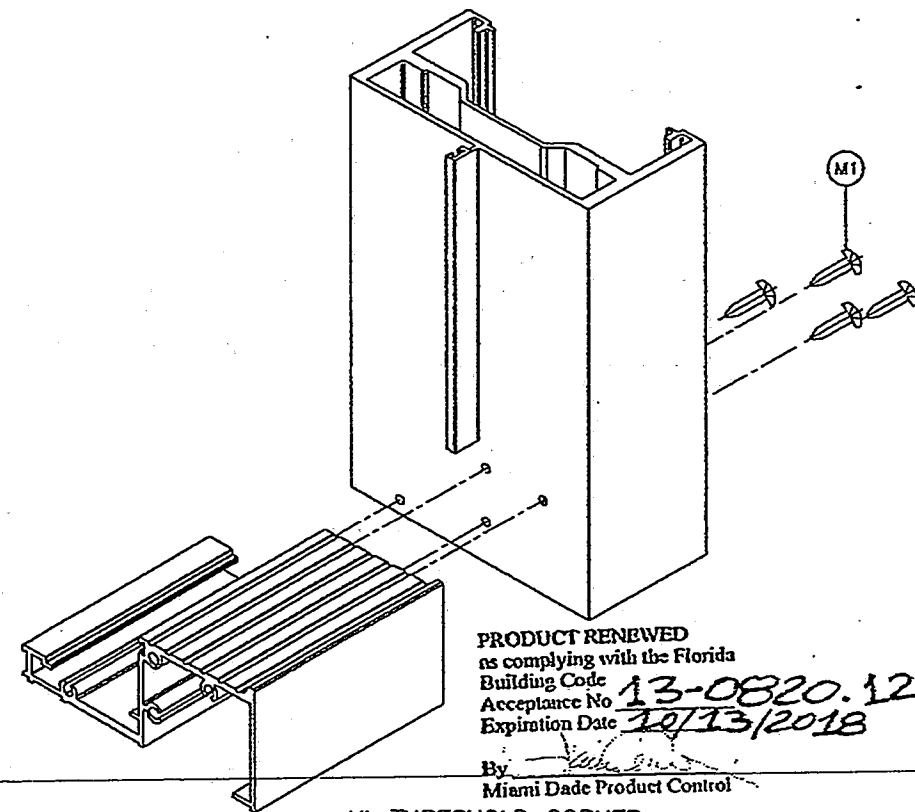
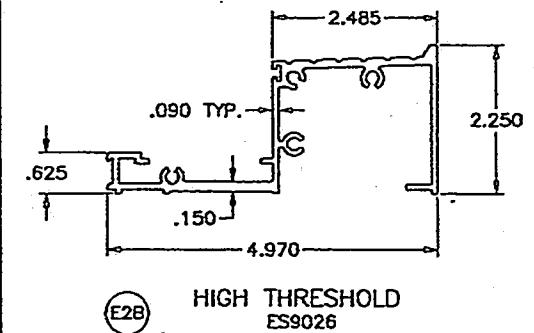
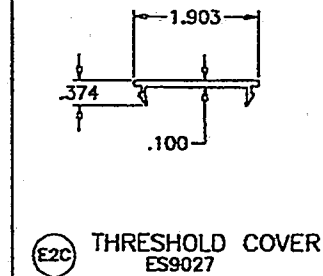
SERIES-MG500 ALUM OUTSWING FRENCH DOOR (L.M.I.)

date: 07-15-11	scale: 3/8" = 1"	dr. by: HAMID	chk. by:
drawing no. W11-40			
sheet 9 of 10.1			





**HIGH THRESHOLD OPTION**  
 APPROVED FOR WATER RESISTANCE WHEN USED WITH SINGLE DOORS  
 NOT APPROVED FOR WATER RESISTANCE WHEN USED WITH DOUBLE DOORS



**PRODUCT RENEWED**  
 as complying with the Florida  
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 Acceptance No. **13-0820.12**  
 Expiration Date **10/13/2018**  
 By *[Signature]*  
 Miami Dade Product Control

**HI-THRESHOLD CORNER**

**PRODUCT REVISED**  
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 Building Code  
 Acceptance No. **12-0517.23**  
 Expiration Date **10/13/2013**  
 By *[Signature]*  
 Miami Dade Product Control

Engr: JAVAD AHMAD  
 CIVIL  
 FLA. PE # 70592  
 C.A.N. 3538

*[Signature]*  
 APR 25 2012

<b>AL-FAROOQ CORPORATION</b> ENGINEERS & PRODUCT DEVELOPMENT 1235 S.W. 87 AVE MIAMI, FLORIDA 33174 TEL. (305) 264-8100 FAX. (305) 262-8878 COMP-ANL W11-40MC	
<b>MR. GLASS DOORS &amp; WINDOWS INC.</b> 7440 N.W. 86 STREET MIAMI, FL. 33166 TEL. (305) 470-8284 FAX. (305) 470-8285	
date: 07-15-11 scale: 3/8" = 1" dr. by: HAMID chk. by:	drawing no. <b>W11-40</b> sheet 10.1 of 10.1



# BREV/42596

## MecaWind Std v2.2.5.0 per ASCE 7-10

Developed by MECA Enterprises, Inc. Copyright [www.mecaenterprises.com](http://www.mecaenterprises.com)

Date : 8/28/2014  
 Company Name : COCONUT GROVE GLASS & MIRROR  
 Address : 3660 N.W. 41 STREET  
 City : MIAMI  
 State : FL.  
 File Location: C:\Users\EdwardV\AppData\Roaming\MecaWind\Default.wnd

Project No. :  
 Designed By : EDWARD LANDERS  
 Description : IMPACT STOREFRONTS & DOORS  
 Customer Name : BIG PINK  
 Proj Location : 157 COLLINS AVE. MIAMI BEAC

### Input Parameters: Envelope Procedure per ASCE 7-10 Chapter 28 Part 1

Basic Wind Speed(V)	=	175.00 mph	Exposure Category	=	D
Structural Category	=	II	Flexible Structure	=	No
Natural Frequency	=	N/A	Kd Directional Factor	=	0.85
Importance Factor	=	1.00	Zg	=	700.00 ft
Alpha	=	11.50	Bt	=	1.07
At	=	0.09	Bm	=	0.80
Am	=	0.11	l	=	650.00 ft
Cc	=	0.15	Zmin	=	7.00 ft
Epsilon	=	0.13	Slope of Roof(Theta)	=	.00 Deg
Slope of Roof	=	0 : 12	Type of Roof	=	MONOSLOPE
Ht: Mean Roof Ht	=	28.00 ft	Eht: Eave Height	=	28.00 ft
RHt: Ridge Ht	=	28.00 ft	Overhead Type	=	No Overhang
OH: Roof Overhang at Eave	=	.00 ft	Bldg Width Across Ridge	=	50.00 ft
Bldg Length Along Ridge	=	140.00 ft			

### Gust Factor Calculations

Gust Factor Category I Rigid Structures - Simplified Method  
 Gust1: For Rigid Structures (Nat. Freq.>1 Hz) use 0.85 = 0.85

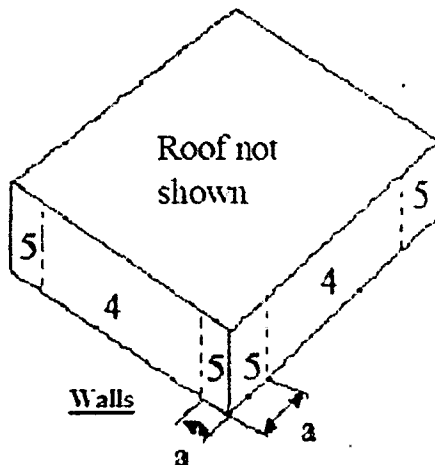
Gust Factor Category II Rigid Structures - Complete Analysis  
 Zm:  $0.6 \cdot H_t$  = 16.80 ft  
 lzm:  $C_c \cdot (33/Z_m)^{0.167}$  = 0.17  
 Lzm:  $1 \cdot (Z_m/33)^{Epsilon}$  = 597.40 ft  
 Q:  $(1/(1+0.63 \cdot ((B+H_t)/L_zm)^{0.63}))^{0.5}$  = 0.92  
 Gust2:  $0.925 \cdot ((1+1.7 \cdot lzm \cdot 3.4 \cdot Q)/(1+1.7 \cdot 3.4 \cdot lzm))$  = 0.89

Gust Factor Summary  
 Not a Flexible Structure use the Lessor of Gust1 or Gust2 = 0.85

### Table 26.11-1 Internal Pressure Coefficients for Buildings, GCpi

GCpi : Internal Pressure Coefficient = +/-0.18

### Wind Pressure on Components and Cladding (Ch.30, Part 1)



a	3	2	2	3
	2	1	1	2
a	3	2	2	3

Gable Roof  $\theta \leq 7$

All pressures shown are based upon ASD Design, with a Load Factor of .6

Width of Pressure Coefficient Zone "a" = 5.00 ft

Description	Width ft	Span ft	Area Zone ft <sup>2</sup>	Max GCp	Min GCp	Max P psf	Min P psf
MKS. 'SF-2'	2.42	7.00	16.9	4	0.86 -0.95	47.92	-52.05
MKS. 'SF-2'	2.42	7.00	16.9	5	0.86 -1.19	47.92	-62.78

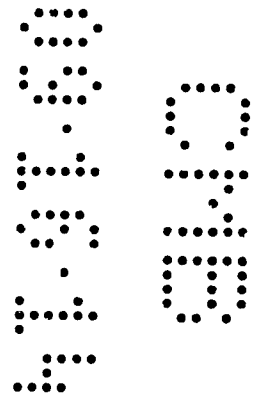
REVISION 08-28-14

*Edward Landers*  
 8-5-14

MKS. 'SF1,SH3'	2.50	8.00	21.3	4	0.85	-0.94	47.19	-51.32
MKS. 'SF1,SF3'	2.50	8.00	21.3	5	0.85	-1.16	47.19	-61.32
MKS. 'SF4,SF5,SF6'	3.00	8.00	24.0	4	0.84	-0.93	46.81	-50.95
MKS. 'SF4,SF5,SF6'	3.00	8.00	24.0	5	0.84	-1.14	46.81	-60.57

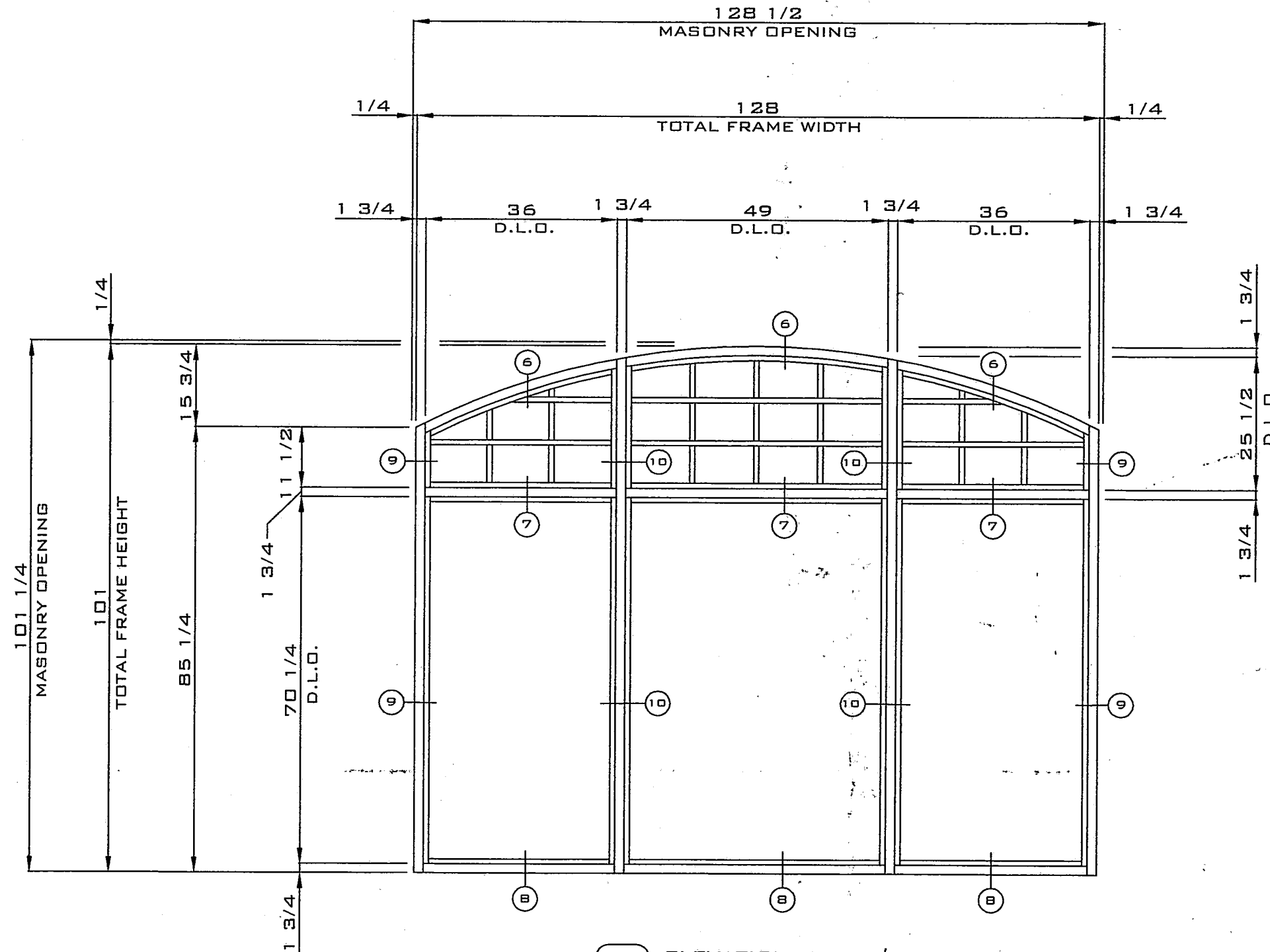
Khcc:Comp. & Clad. Table 6-3 Case 1  
 Qhcc:.00256\*V^2\*Khcc\*Kht\*Kd

= 1.15  
 = 45.92 psf



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 9.5.04



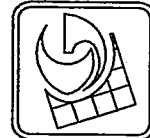


(SF-1) ELEVATION 3- REQ'D.

MR. GLASS DOORS & WINDOWS, INC. SERIES "MG5000"  
 ALUM. IMPACT STOREFRONT IN CLEAR ANODIZED ALUMINUM  
 FRAME FINISH WITH 9/16" CLEAR LAMINATED IMPACT GLASS  
 N.O.A. 13-0107.03

*[Handwritten signature]*  
 E.R.

Δ REVISION 08-28-14



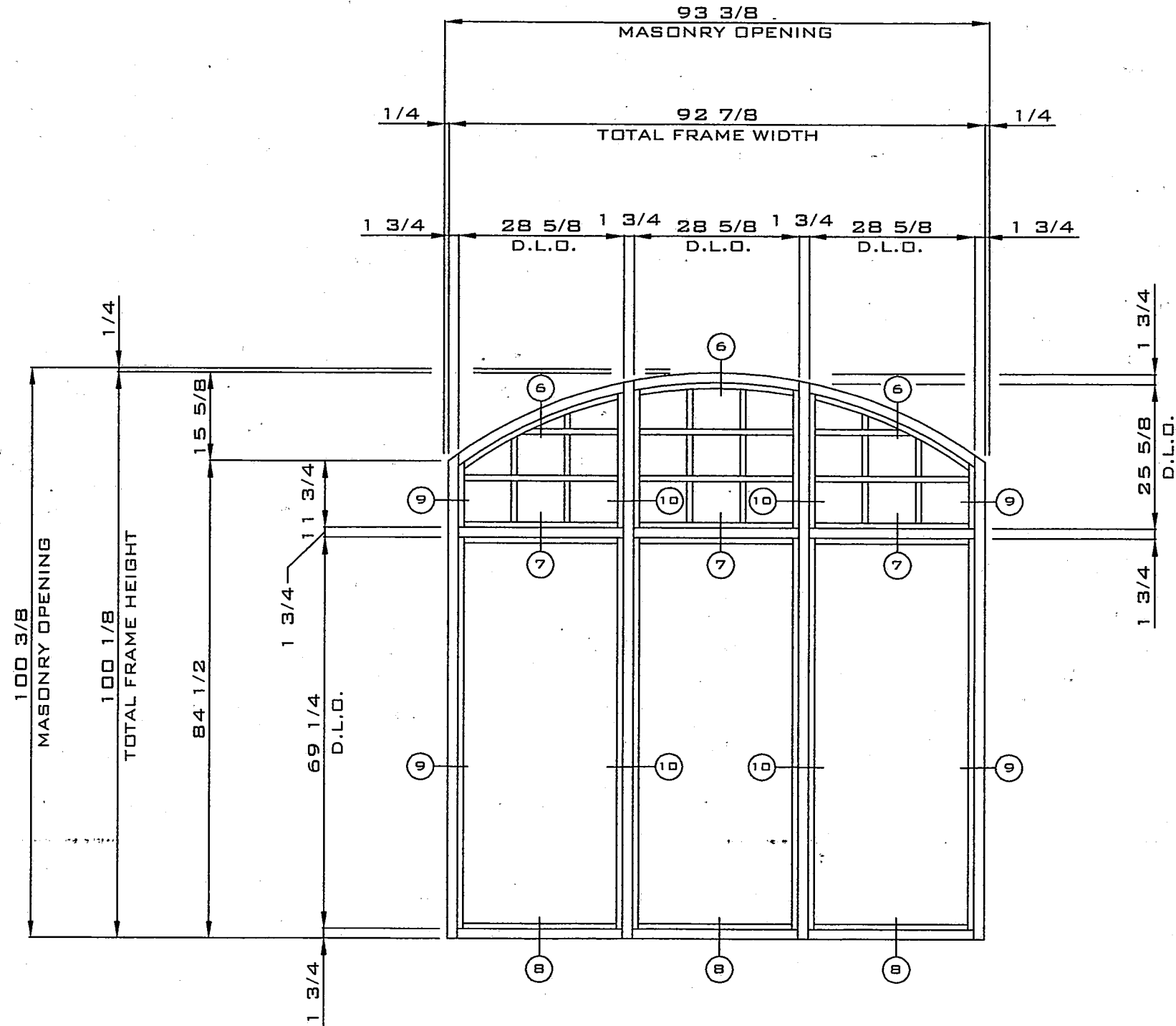
COCONUT GROVE GLASS & MIRROR  
 3660 N.W. 41 TH STREET  
 MIAMI, FLORIDA 33142  
 TEL: 305-634-3420 FAX: 305-634-3421

BIG PINK (157 COLLINS AVE. LLC.)  
 157 COLLINS AVE. 2ND FLOOR  
 MIAMI BEACH, FL. 33139  
 TEL: 305-538-9996

DRAWN BY:  
 E.R.

DATE:  
 08-28-14

SHEET NUMBER  
 CG-6  
 OF 17



(SF-2) ELEVATION 3- REQ'D.

MR. GLASS DOORS & WINDOWS, INC. SERIES "MG5000"  
ALUM. IMPACT STOREFRONT IN CLEAR ANODIZED ALUMINUM  
FRAME FINISH WITH 9/16" CLEAR LAMINATED IMPACT GLASS  
N.O.A. 13-0107.03

*[Handwritten signature]*  
9-5-2014

Δ REVISION 08-28-14

BIG PINK (157 COLLINS AVE. LLC.)  
157 COLLINS AVE. 2ND FLOOR  
MIAMI BEACH, FL. 33139  
TEL: 305-538-9996

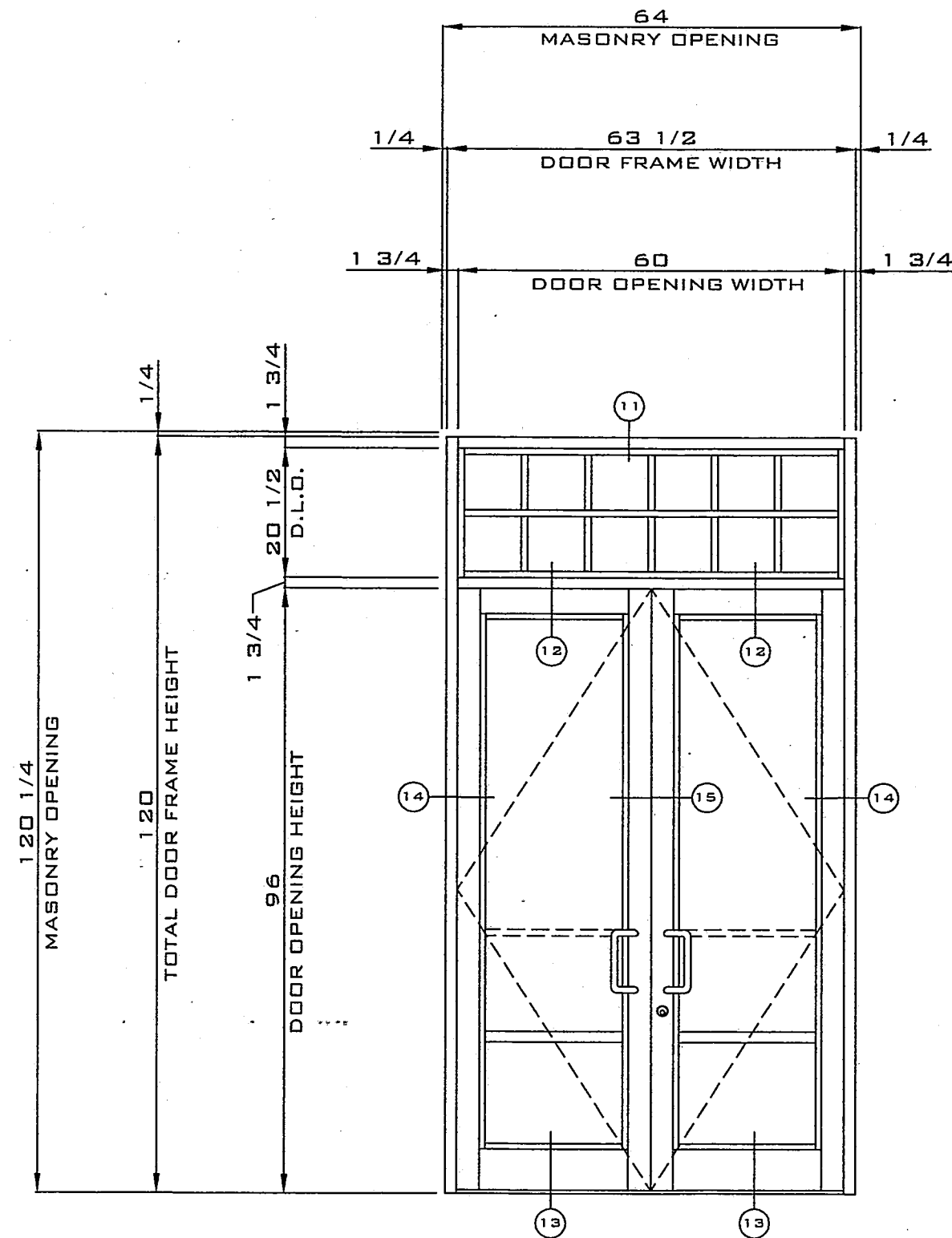
DRAWN BY:  
E.R.

DATE:  
08-28-14

SHEET NUMBER  
CG-7  
OF 17

COCONUT GROVE GLASS & MIRROR  
3660 N.W. 41 TH STREET  
MIAMI, FLORIDA 33142  
TEL: 305-634-3420 FAX: 305-634-3421





(SF-3) ELEVATION 1- REQ'D.

MR. GLASS DOORS & WINDOWS, INC. SERIES "MG-500"  
ALUM. IMPACT OUTSWING DOOR IN CLEAR ANODIZED FINISH  
FRAME WITH STANDARD PUSH PULLS & SURFACE MOUNTED  
CLOSER WITH 9/16" CLEAR LAMINATED IMPACT GLASS  
N.O.A. 13-0820.12

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9-5-14

REVISION 08-28-14



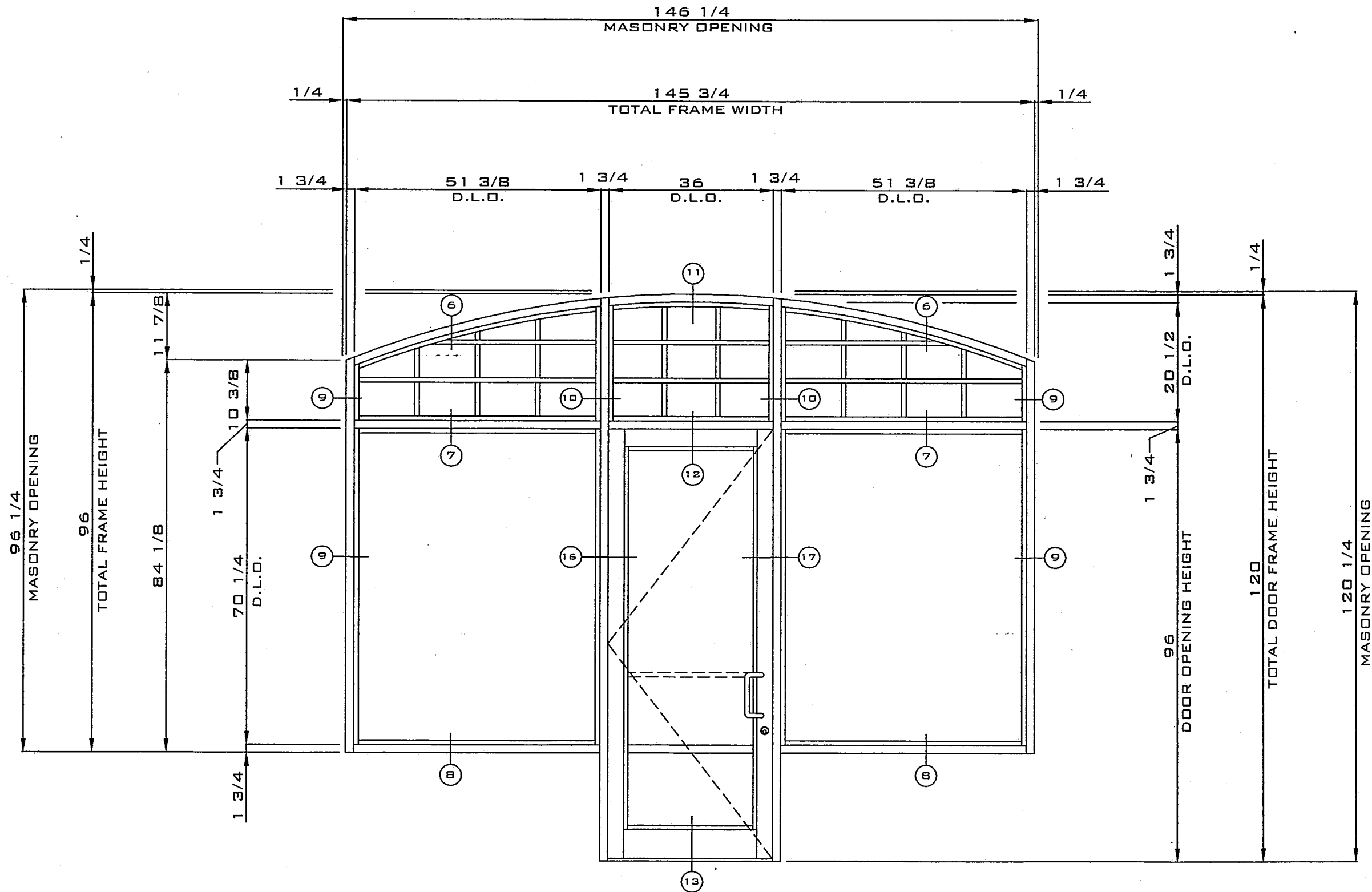
COCONUT GROVE GLASS & MIRROR  
3660 N.W. 41 TH STREET  
MIAMI, FLORIDA 33142  
TEL: 305-634-3420 FAX: 305-634-3421

BIG PINK (157 COLLINS AVE. LLC.)  
157 COLLINS AVE. 2ND FLOOR  
MIAMI BEACH, FL. 33139  
TEL: 305-538-9996

DRAWN BY:  
E.R.

DATE:  
08-28-14

SHEET NUMBER  
CG-8  
OF 17



SF-4 ELEVATION 1- REQ'D.

MR. GLASS DOORS & WINDOWS, INC. SERIES "MG5000"  
ALUM. IMPACT STOREFRONT IN CLEAR ANODIZED ALUMINUM  
FRAME FINISH WITH 9/16" CLEAR LAMINATED IMPACT GLASS  
N.O.A. 13-0107.03

MR. GLASS DOORS & WINDOWS, INC. SERIES "MG-500"  
ALUM. IMPACT OUTSWING DOOR IN CLEAR ANODIZED FINISH  
FRAME WITH STANDARD PUSH PULLS & SURFACE MOUNTED  
CLOSER WITH 9/16" CLEAR LAMINATED IMPACT GLASS  
N.O.A. 13-0820.12

*[Signature]*  
9-15-09

REVISION 08-28-14



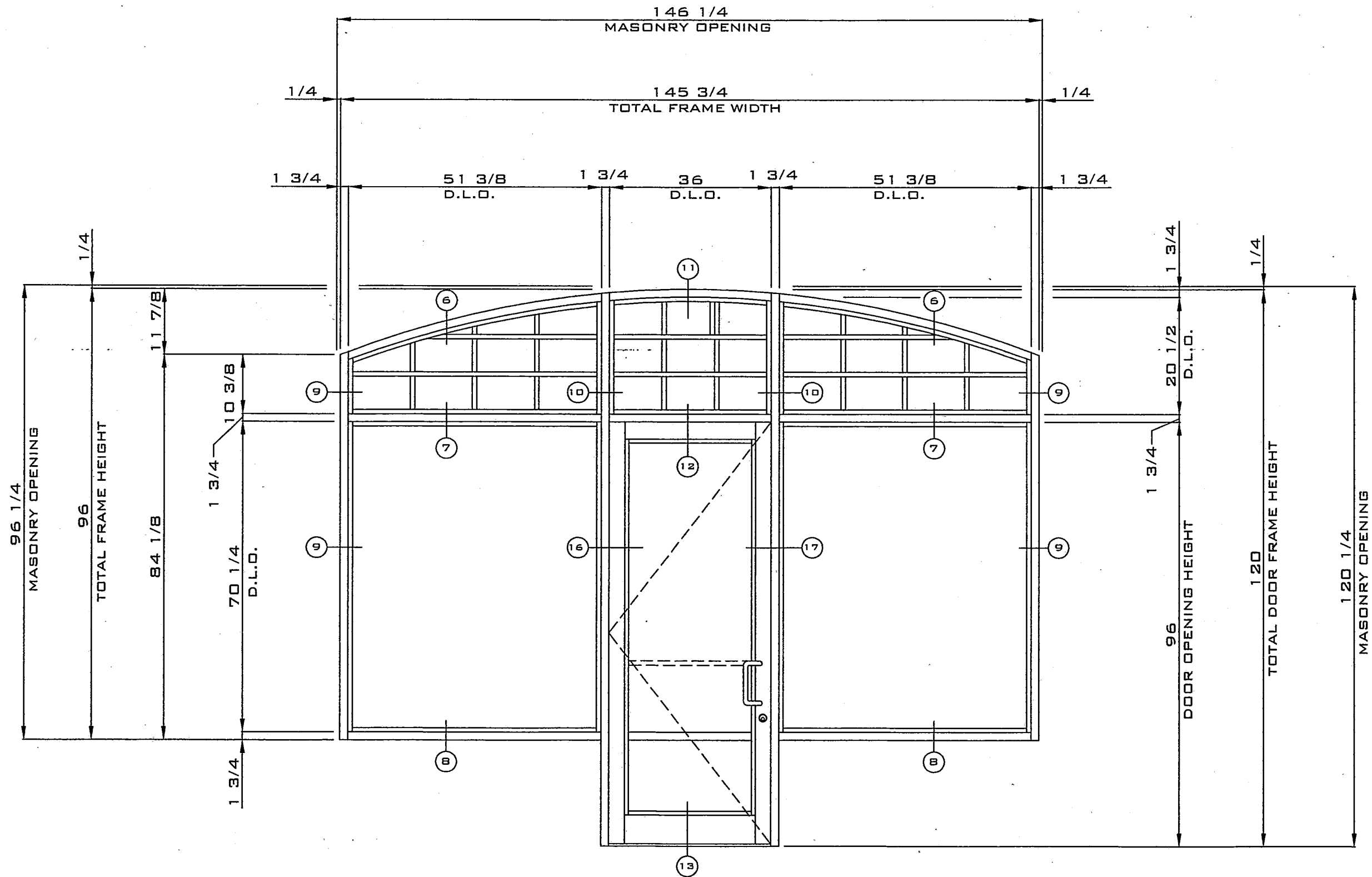
COCONUT GROVE GLASS & MIRROR  
3660 N.W. 41 TH STREET  
MIAMI, FLORIDA 33142  
TEL: 305-634-3420 FAX: 305-634-3421

BIG PINK (157 COLLINS AVE. LLC.)  
157 COLLINS AVE. 2ND FLOOR  
MIAMI BEACH, FL. 33139  
TEL: 305-538-9996

DRAWN BY:  
E.R.

DATE:  
08-28-14

SHEET NUMBER  
CG-9  
OF 17



SF-5 ELEVATION 1- REQ'D.

MR. GLASS DOORS & WINDOWS, INC. SERIES "MG5000"  
ALUM. IMPACT STOREFRONT IN CLEAR ANODIZED ALUMINUM  
FRAME FINISH WITH 9/16" CLEAR LAMINATED IMPACT GLASS  
N.O.A. 13-0107.03

MR. GLASS DOORS & WINDOWS, INC. SERIES "MG-500"  
ALUM. IMPACT OUTSWING DOOR IN CLEAR ANODIZED FINISH  
FRAME WITH STANDARD PUSH PULLS & SURFACE MOUNTED  
CLOSER WITH 9/16" CLEAR LAMINATED IMPACT GLASS  
N.O.A. 13-0820.12

*Handwritten signature and notes:*  
REVISION 08-28-14  
g.s.



COCONUT GROVE GLASS & MIRROR  
3660 N.W. 41 TH STREET  
MIAMI, FLORIDA 33142  
TEL: 305-634-3420 FAX: 305-634-3421

BIG PINK (157 COLLINS AVE. LLC.)  
157 COLLINS AVE. 2ND FLOOR  
MIAMI BEACH, FL. 33139  
TEL: 305-538-9996

DRAWN BY:  
E.R.

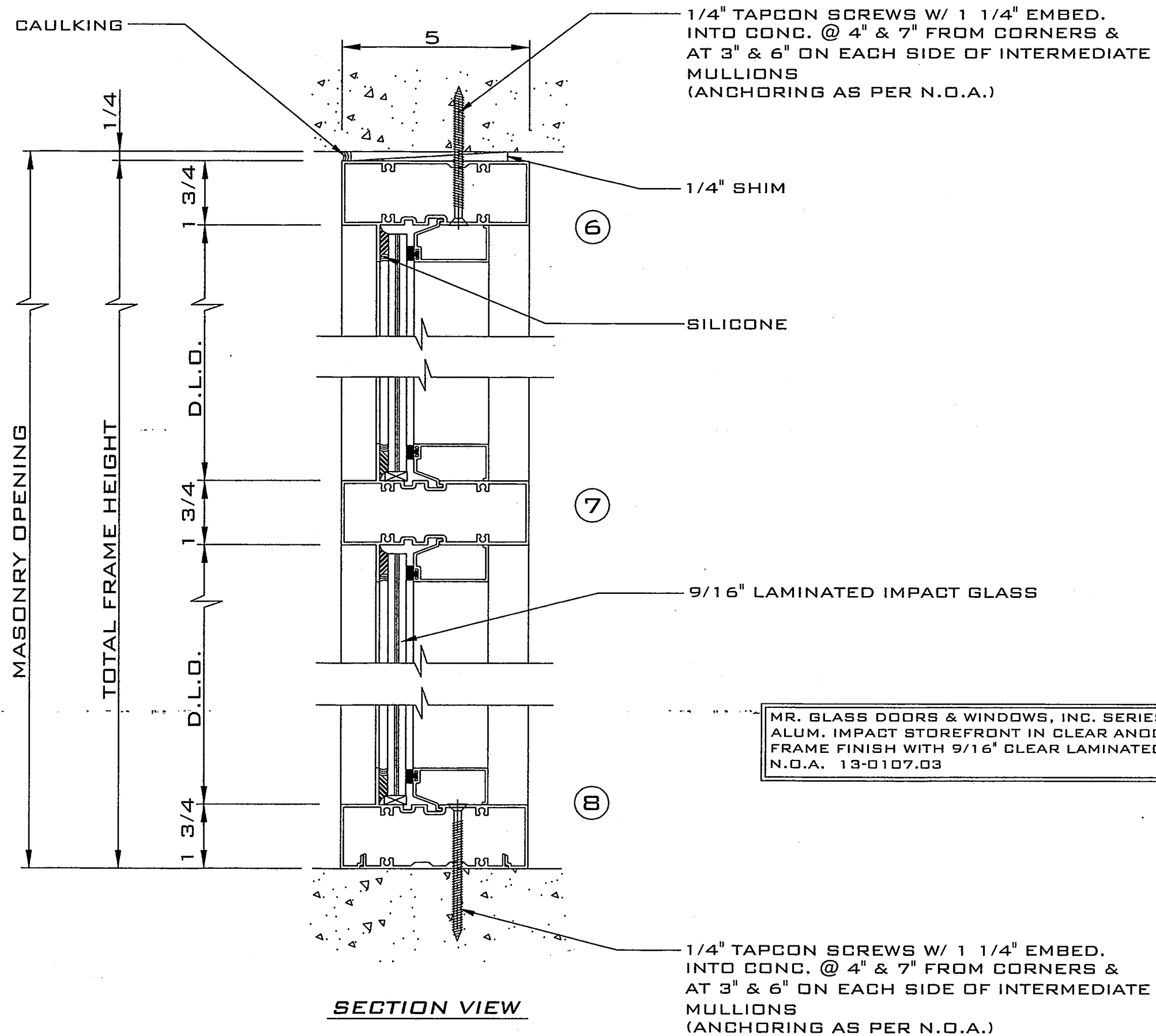
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08-28-14

SHEET NUMBER  
CG-10  
OF 17



MR. GLASS DOORS & WINDOWS, INC. SERIES "MG-500"  
ALUM. IMPACT OUTSWING DOOR IN CLEAR ANODIZED FINISH  
FRAME WITH STANDARD PUSH PULLS & SURFACE MOUNTED  
CLOSER WITH 9/16" CLEAR LAMINATED IMPACT GLASS  
N.O.A. 13-0820.12


SHEET NUMBER  
CG-1.1  
OF 17



MR. GLASS DOORS & WINDOWS, INC. SERIES "MG5000"  
ALUM. IMPACT STOREFRONT IN CLEAR ANODIZED ALUMINUM  
FRAME FINISH WITH 9/16" CLEAR LAMINATED IMPACT GLASS  
N.O.A. 13-0107.03

*Handwritten signature and date*  
9/5/14

REVISION 08-28-14



**COCONUT GROVE GLASS & MIRROR**  
3660 N.W. 41 TH STREET  
MIAMI, FLORIDA 33142  
TEL: 305-634-3420 FAX: 305-634-3421

**BIG PINK (157 COLLINS AVE. LLC.)**  
157 COLLINS AVE. 2ND FLOOR  
MIAMI BEACH, FL. 33139  
TEL: 305-538-9996

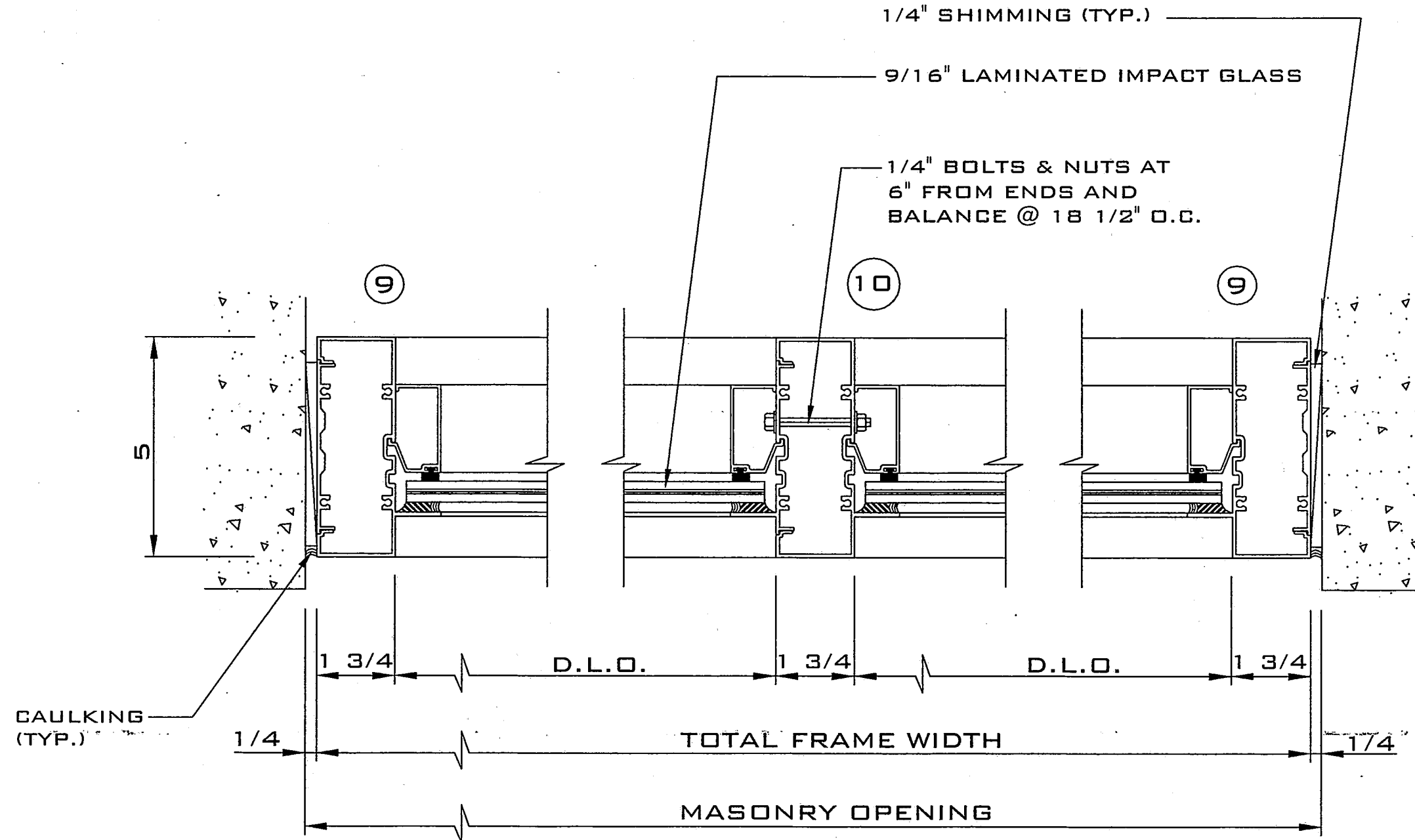
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E.R.

**DATE:**  
08-28-14

**SHEET NUMBER**  
CG-12  
OF 17

REVISION 08-28-14




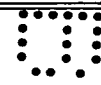


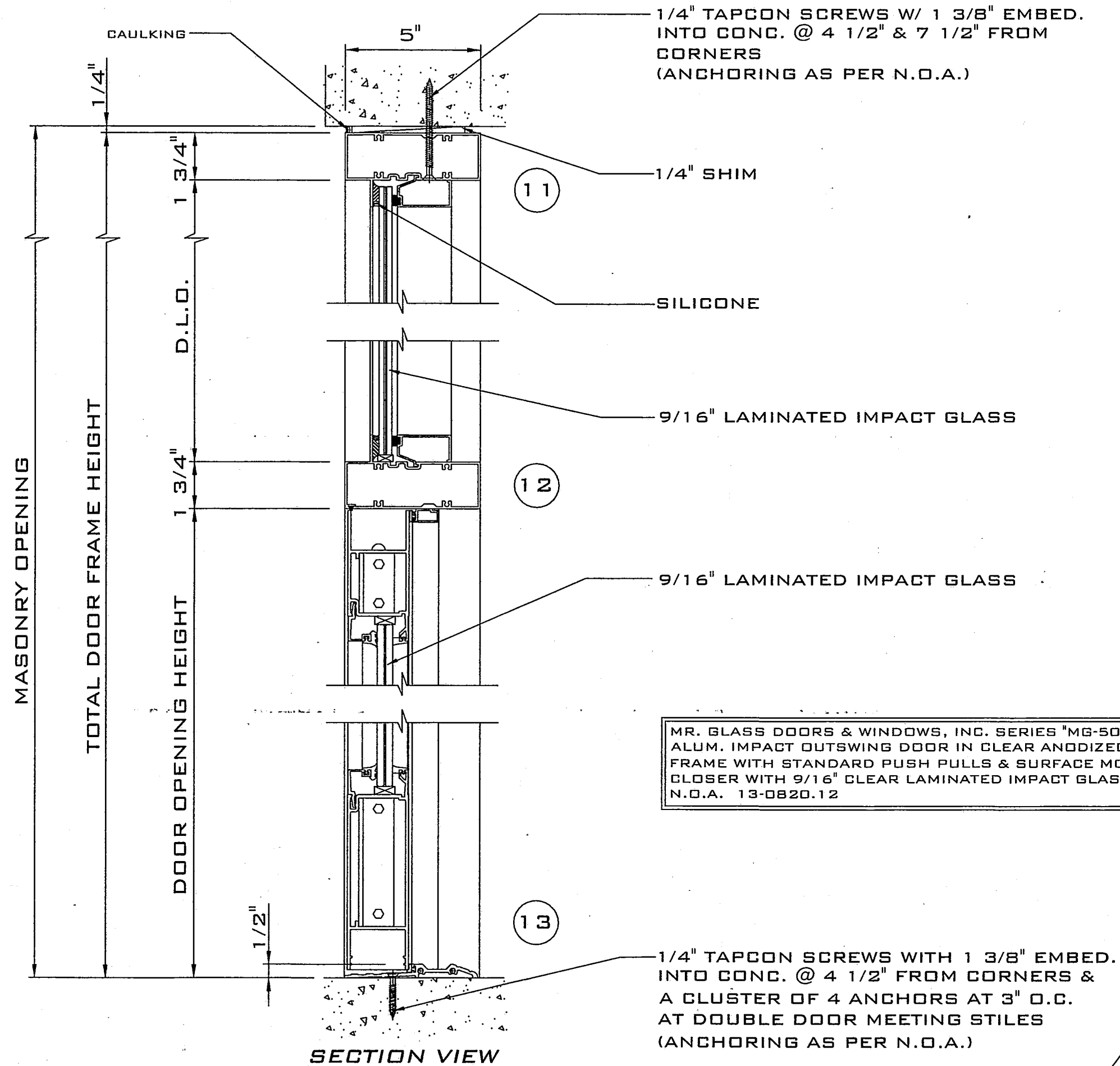
SECTION VIEW

MR. GLASS DOORS & WINDOWS, INC. SERIES "MG5000"  
ALUM. IMPACT STOREFRONT IN CLEAR ANODIZED ALUMINUM  
FRAME FINISH WITH 9/16" CLEAR LAMINATED IMPACT GLASS  
N.O.A. 13-0107.03

*[Handwritten signature]*  
9-5-09

Δ REVISION 08-28-14

	
COCONUT GROVE GLASS & MIRROR 3660 N.W. 41 TH STREET MIAMI, FLORIDA 33142 TEL: 305-634-3420 FAX: 305-634-3421	
	
BIG PINK (157 COLLINS AVE. LLC.) 157 COLLINS AVE. 2ND FLOOR MIAMI BEACH, FL. 33139 TEL: 305-538-9996	
DRAWN BY: E.R.	
DATE: 08-28-14	
SHEET NUMBER CG-13 OF 17	



MR. GLASS DOORS & WINDOWS, INC. SERIES "MG-500"  
ALUM. IMPACT OUTSWING DOOR IN CLEAR ANODIZED FINISH  
FRAME WITH STANDARD PUSH PULLS & SURFACE MOUNTED  
CLOSER WITH 9/16" CLEAR LAMINATED IMPACT GLASS  
N.O.A. 13-0820.12

**COCONUT GROVE GLASS & MIRROR**  
3660 N.W. 41 TH STREET  
MIAMI, FLORIDA 33142  
TEL: 305-634-3420 FAX: 305-634-3421

**BIG PINK (157 COLLINS AVE. LLC.)**  
157 COLLINS AVE. 2ND FLOOR  
MIAMI BEACH, FL. 33139  
TEL: 305-538-9996

SHEET NUMBER  
CG-14  
OF 17



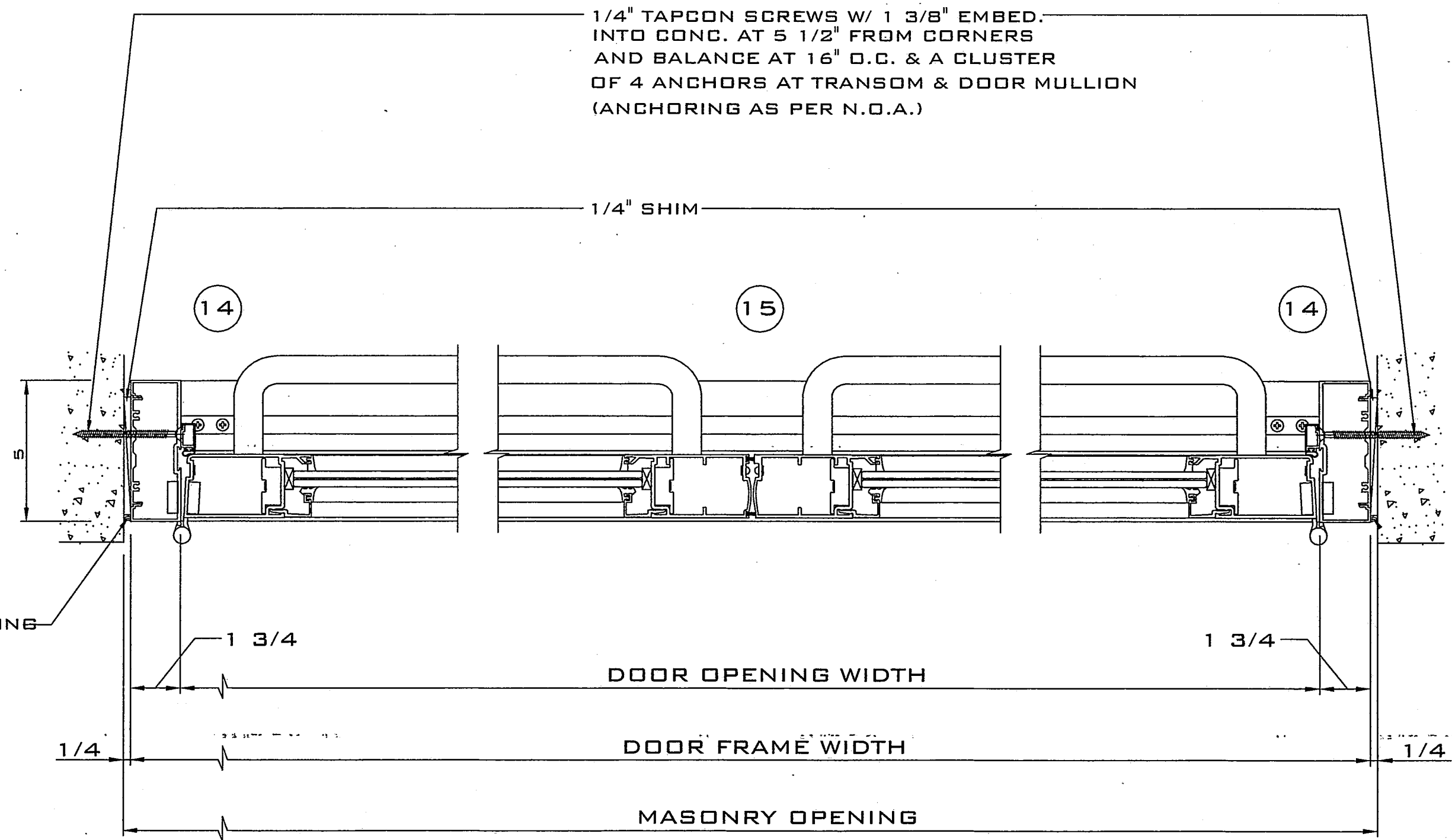
COCONUT GROVE GLASS & MIRROR  
3950 N.W. 41 TH STREET  
MIAMI, FLORIDA 33142  
TEL: 305-634-3420 FAX: 305-634-3421

BIG PINK (157 COLLINS AVE. LLC.)  
157 COLLINS AVE. 2ND FLOOR  
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TEL: 305-538-9996

DRAWN BY:  
E.R.

DATE:  
08-28-14

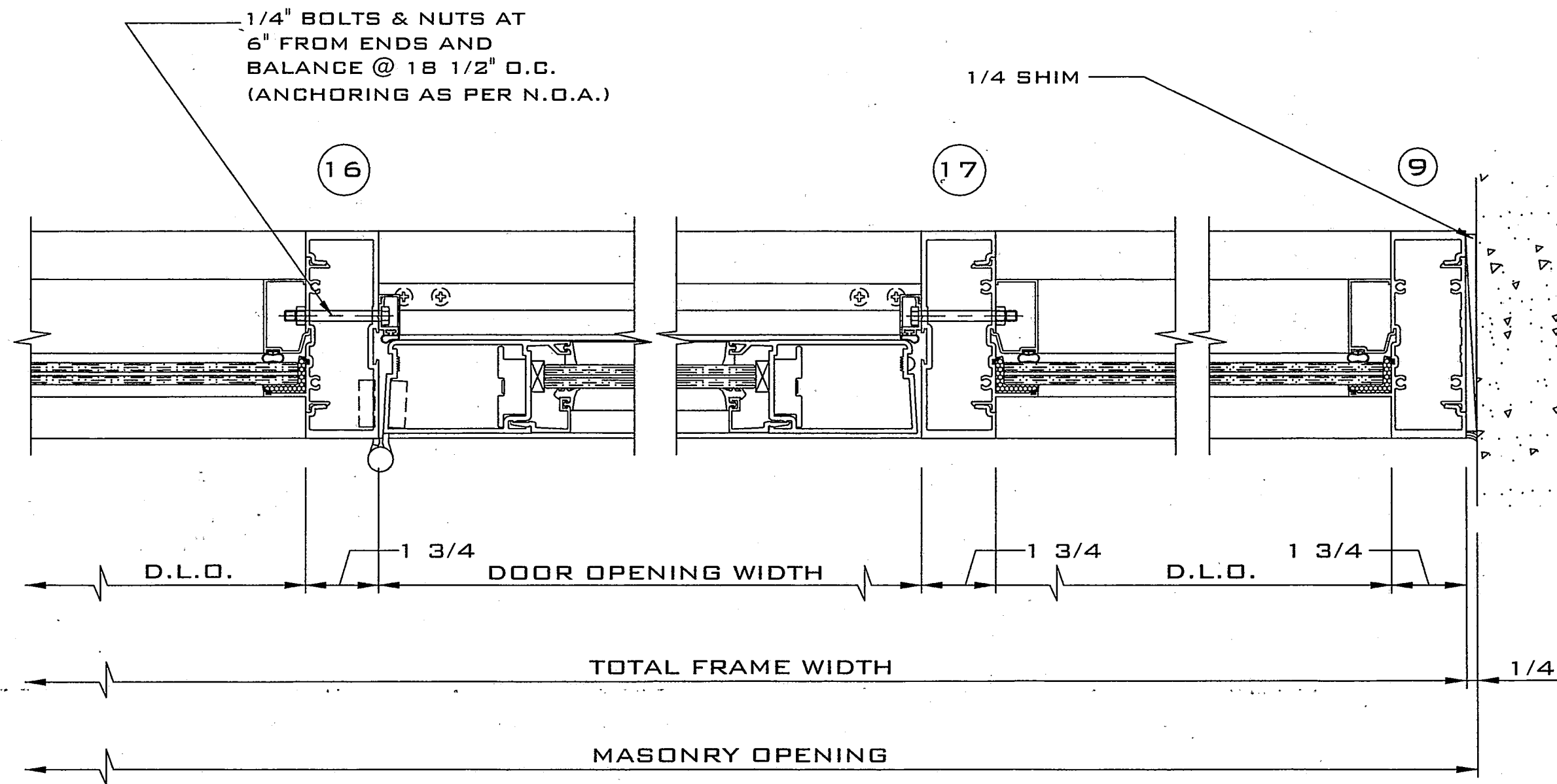
SHEET NUMBER  
CG-15  
OF 17



SECTION VIEW

MR. GLASS DOORS & WINDOWS, INC. SERIES "MG-500"  
ALUM. IMPACT OUTSWING DOOR IN CLEAR ANODIZED FINISH  
FRAME WITH STANDARD PUSH PULLS & SURFACE MOUNTED  
CLOSER WITH 9/16" CLEAR LAMINATED IMPACT GLASS  
N.O.A. 13-0820.12

9-5-14  
REVISION 08-28-14



SECTION VIEW

MR. GLASS DOORS & WINDOWS, INC. SERIES "MG5000"  
ALUM. IMPACT STOREFRONT IN CLEAR ANODIZED ALUMINUM  
FRAME FINISH WITH 9/16" CLEAR LAMINATED IMPACT GLASS  
N.O.A. 13-0107.03

MR. GLASS DOORS & WINDOWS, INC. SERIES "MG-500"  
ALUM. IMPACT OUTSWING DOOR IN CLEAR ANODIZED FINISH  
FRAME WITH STANDARD PUSH PULLS & SURFACE MOUNTED  
CLOSER WITH 9/16" CLEAR LAMINATED IMPACT GLASS  
N.O.A. 13-0820.12

*9-514*

REVISION 08-28-14



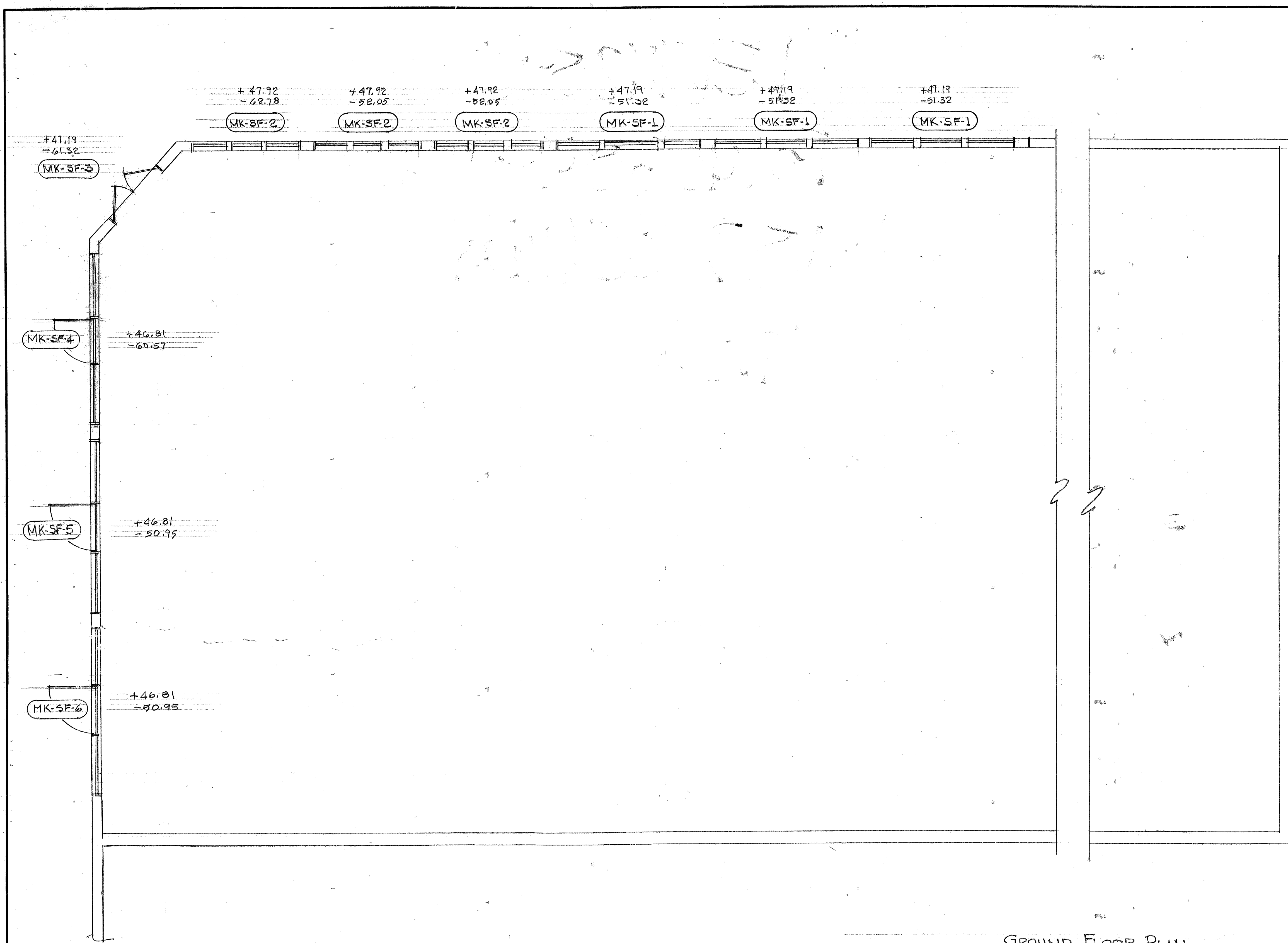
COCONUT GROVE GLASS & MIRROR  
3660 N.W. 41 TH STREET  
MIAMI, FLORIDA 33142  
TEL: 305-634-3420 FAX: 305-634-3421

BIG PINK (157 COLLINS AVE. LLC.)  
157 COLLINS AVE. 2ND FLOOR  
MIAMI BEACH, FL. 33139  
TEL: 305-538-9996

DRAWN BY:  
E.R.

DATE:  
08-28-14

SHEET NUMBER  
CG-16  
OF 17



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

- (SF-1) 128" X 101" IMPACT STOREFRONT WITH ARCHED TOP (6 LITES)
- (SF-2) 92 7/8" X 100 1/8" IMPACT STOREFRONT WITH ARCHED TOP (6 LITES)
- (SF-3) 63 1/2" X 120" IMPACT DOUBLE DOOR WITH TRANSOM
- (SF-4) 145 3/4" X 120" IMPACT SINGLE DOOR WITH TRANSOM & 2 SIDELITES
- (SF-5) 145 3/4" X 120" IMPACT SINGLE DOOR WITH TRANSOM & 2 SIDELITES
- (SF-6) 145 3/4" X 120" IMPACT SINGLE DOOR WITH TRANSOM & 2 SIDELITES

M.L. GLASS DOORS & WINDOWS, INC. SERIES "MG5000"  
ALUM. IMPACT STOREFRONT IN CLEAR ANODIZED ALUMINUM  
FRAME FINISH WITH 9/16" CLEAR LAMINATED IMPACT GLASS  
N.D.A. 13-0107.03

(SF-1) (SF-2) (SF-3)  
(SF-4) (SF-5) (SF-6)

NOTICE: In addition to the requirement of this permit, there may be additional restrictions applicable to this property that may be found in the Public Records of this County and there may be other government entities such as water, sewer, and other utilities which are approved subject to compliance with Federal, State, and Local Laws, Rules, and Regulations.

M.L. GLASS DOORS & WINDOWS, INC. SERIES "MG5000"  
ALUM. IMPACT OUTSWING DOOR IN CLEAR ANODIZED ALUMINUM  
FRAME WITH STANDARD PUSH PULLS & SURFACE MOUNTED  
CLOSER WITH 9/16" CLEAR LAMINATED IMPACT GLASS  
N.D.A. 13-0820.12

(SF-1) (SF-2) (SF-3)  
(SF-4) (SF-5) (SF-6)

OFFICE COPY  
CITY OF MIAMI BEACH  
APPROVED FOR PERMIT BY  
THE FOLLOWING:

BUILDING: \_\_\_\_\_  
ZONING: \_\_\_\_\_  
PLUMBING: \_\_\_\_\_  
ELECTRICAL: \_\_\_\_\_  
MECHANICAL: \_\_\_\_\_  
FIRE PREVENTION: \_\_\_\_\_  
FLOOD: \_\_\_\_\_  
PUBLIC WORKS: \_\_\_\_\_  
STRUCTURAL: \_\_\_\_\_  
ELEVATOR: \_\_\_\_\_

City of Miami Beach  
Fire Prevention Division  
PLANS APPROVED

REVISION 08-28-14

BIG PARK	
157 COLLING AVE 41ST MIAMI BEACH	
SCALE: AS NOTED	APPROVED BY: _____
DATE: 08-28-14	DRAWN BY: _____
COCONUT GROVE GLASS & MIRROR	
3660 N.W. 41ST MIAMI FLA	
IMPACT STOREFRONT & DOORS	
DRAWING NUMBER: 1A OF 1	

BREV 142596

B1403549

157 Collins

Ave



# CONCRETE REPAIR

# PERMIT SET

DWG INFO:

1413474

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WHATSOEVER WITHOUT THE EXPRESSED  
WRITTEN CONSENT. CONTRACTORS SHALL  
VERIFY ALL DIMENSIONS AND SHALL NOT  
RELY ON SCALED DIMENSIONS. NOTIFY THE  
ENGINEER OF ANY DISCREPANCIES PRIOR TO  
COMMENCING WORK.

APPROVED BY	DATE

City of Miami Beach  
Fire Prevention Division  
PLANS APPROVED

OFFICE COPY  
CITY OF MIAMI BEACH  
APPROVED FOR PERMIT BY  
THE FOLLOWING:

BUILDING: M. 8CHAD 9-23-14  
 ZONING: 9-23/14  
 PLUMBING: \_\_\_\_\_  
 ELECTRICAL: \_\_\_\_\_  
 MECHANICAL: \_\_\_\_\_  
 FIRE PREVENTION: TH. M. SPOL 9/23/14  
 FLOOD: Spencer 9/23/14  
 PUBLIC WORKS: \_\_\_\_\_  
 STRUCTURAL: A 9/23/14  
 ELEVATOR: \_\_\_\_\_

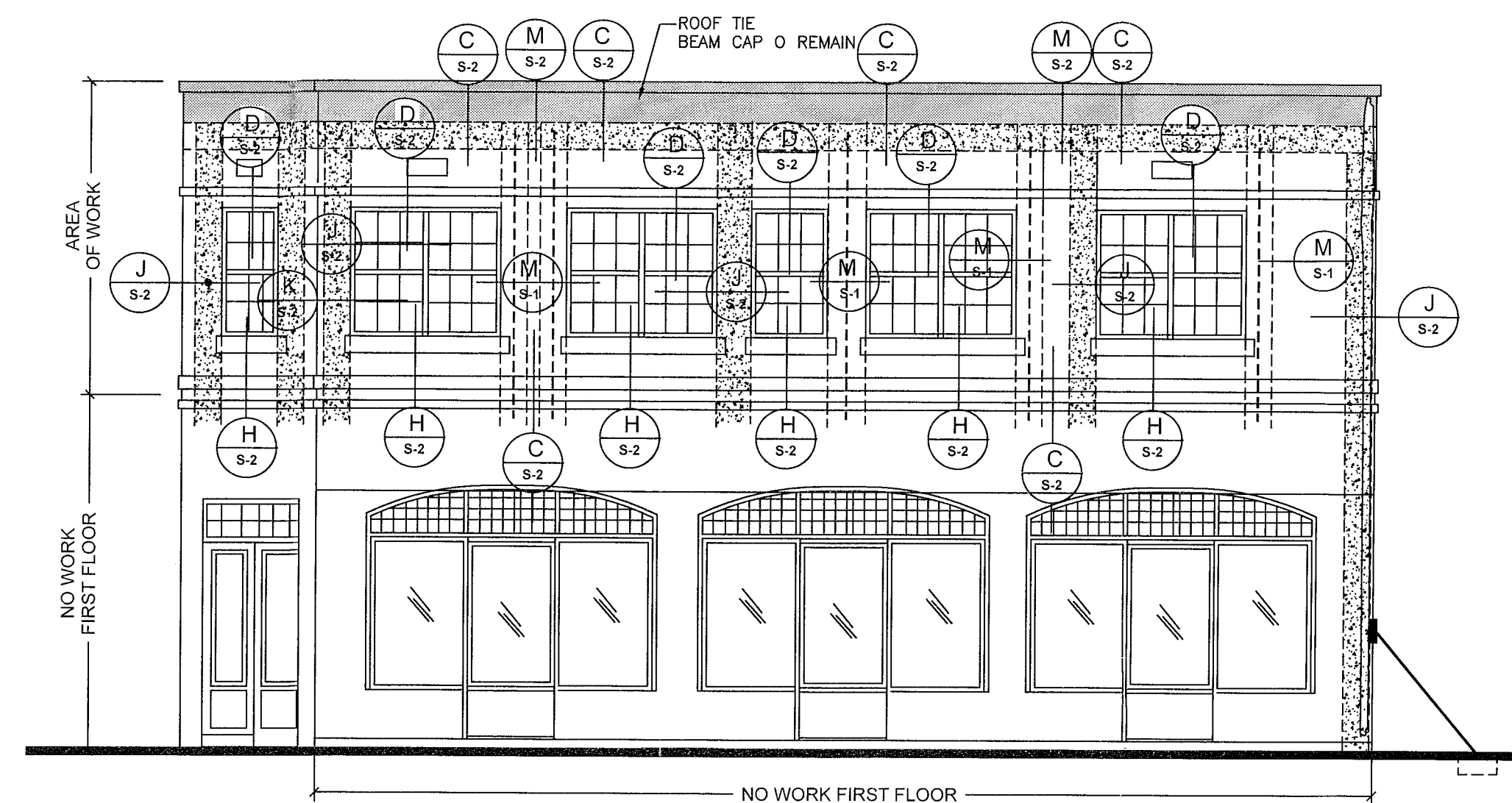
TO:

# BIG PINK BUILDING

157 COLLINS AVE  
MIAMI BEACH, FLORIDA 33139

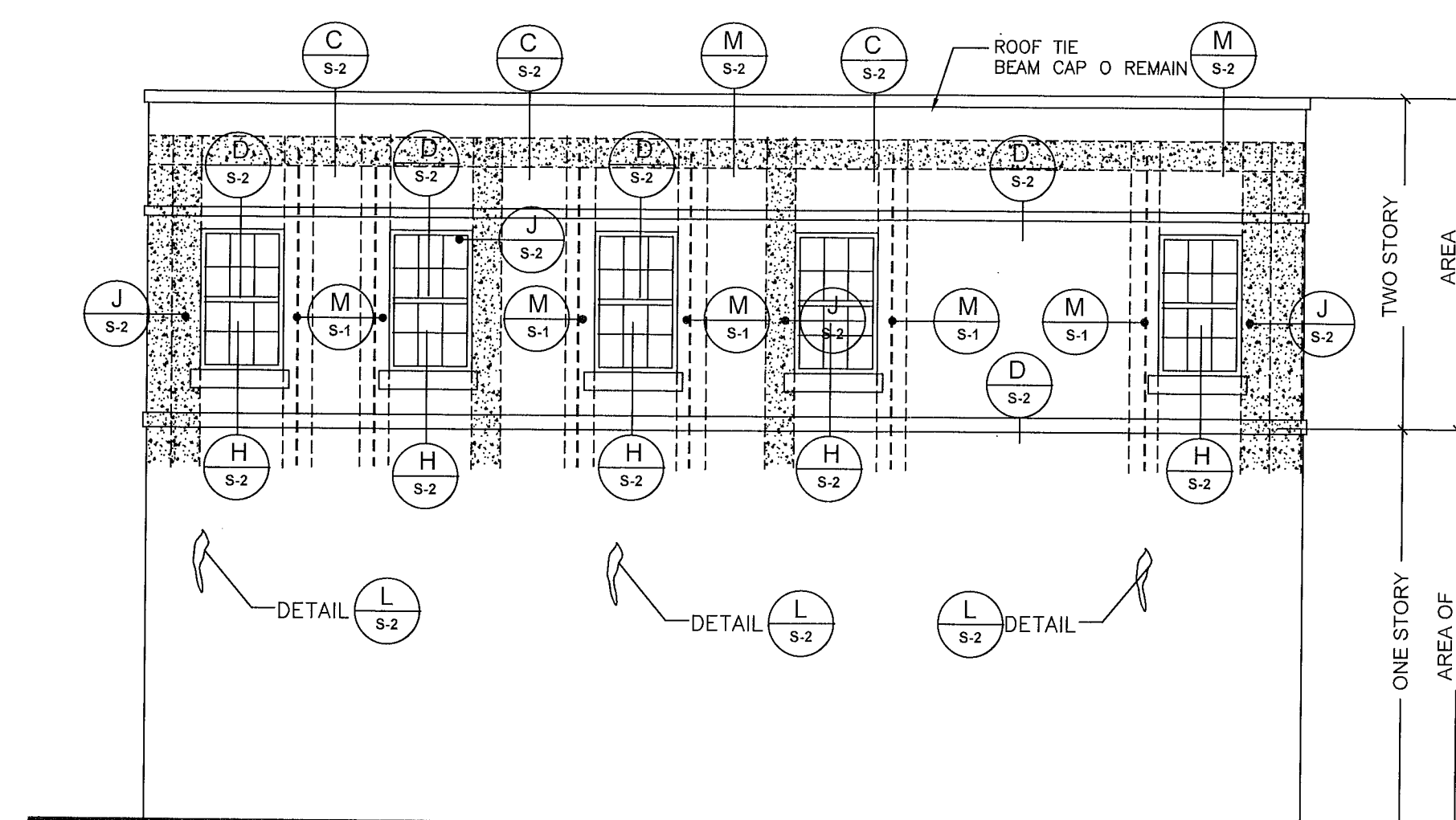
S-1

SHEET NUMBER



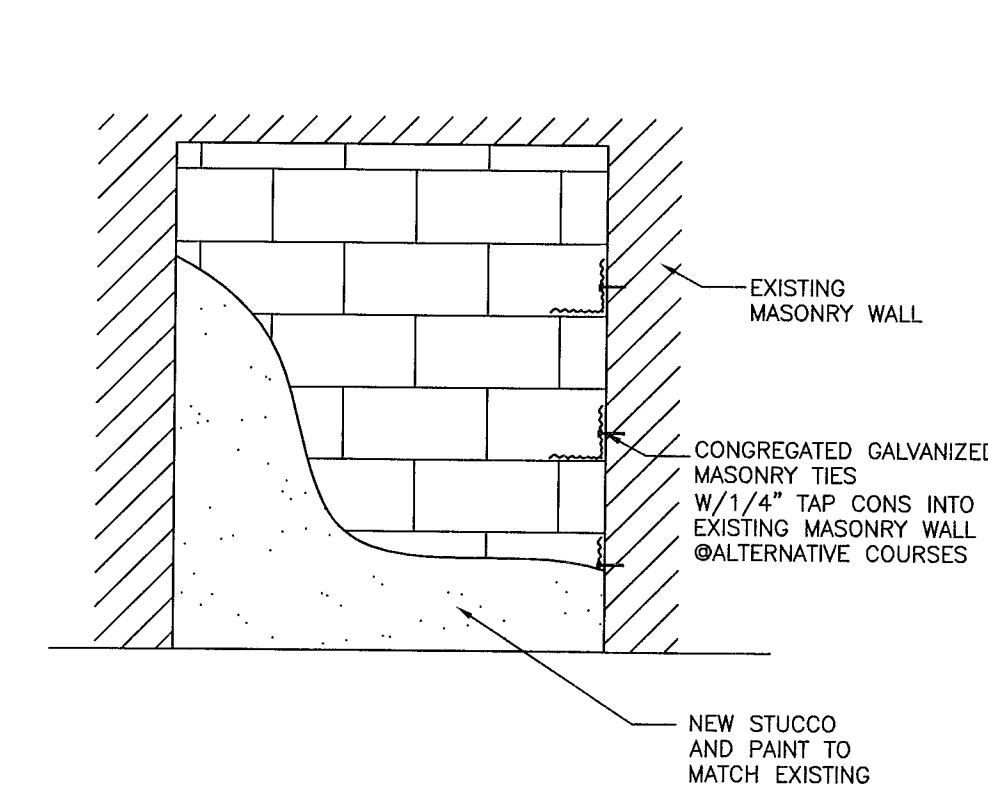
### WEST ELEVATION REPAIRS LOCATION

SCALE: 3/16" = 1' - 0"



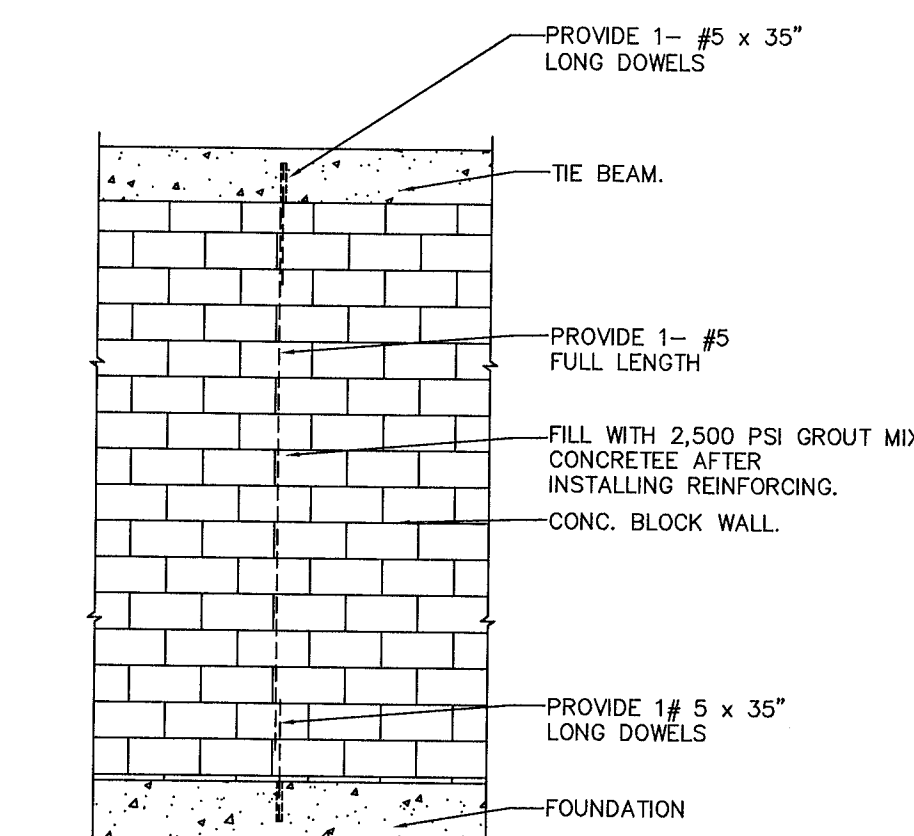
### EAST ELEVATION REPAIRS LOCATION

SCALE: 3/6" = 1' - 0"



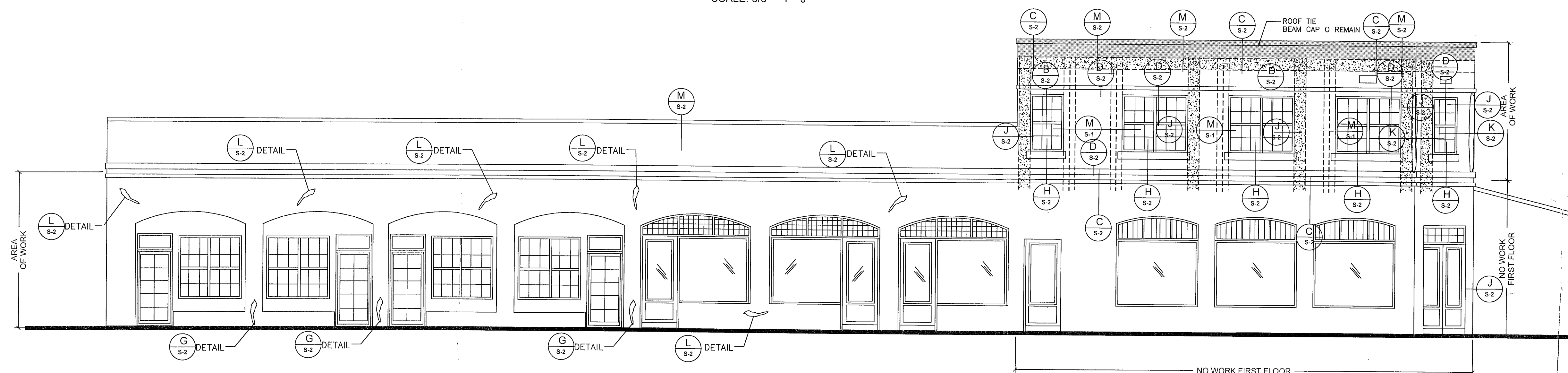
W BLOCK UP DETAIL  
S-1 SCALE: 1/2" = 1' - 0"

SCALE: 1/2" = 1' - 0"



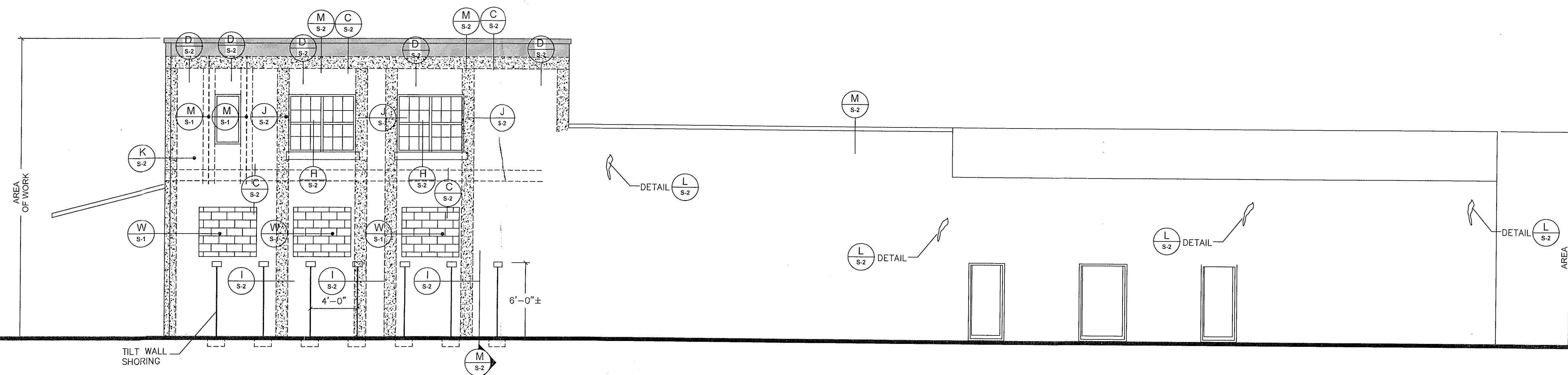
M  
S-1

NT



### NORTH ELEVATION REPAIRS LOCATION

SCALE: 3/16" = 1' - 0"



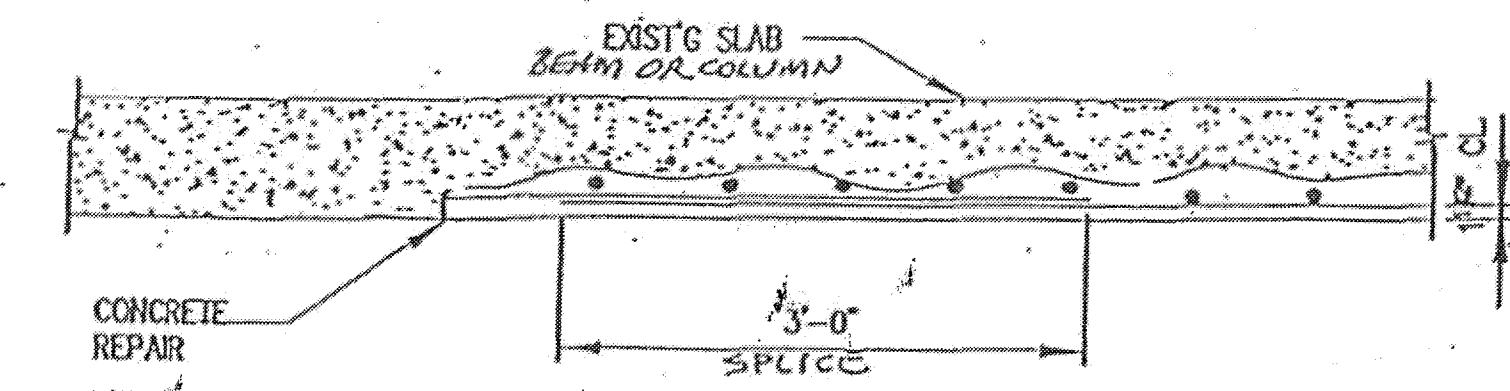
### SOUTH ELEVATION REPAIRS LOCATION

SCALE: 3/16" = 1' - 0"

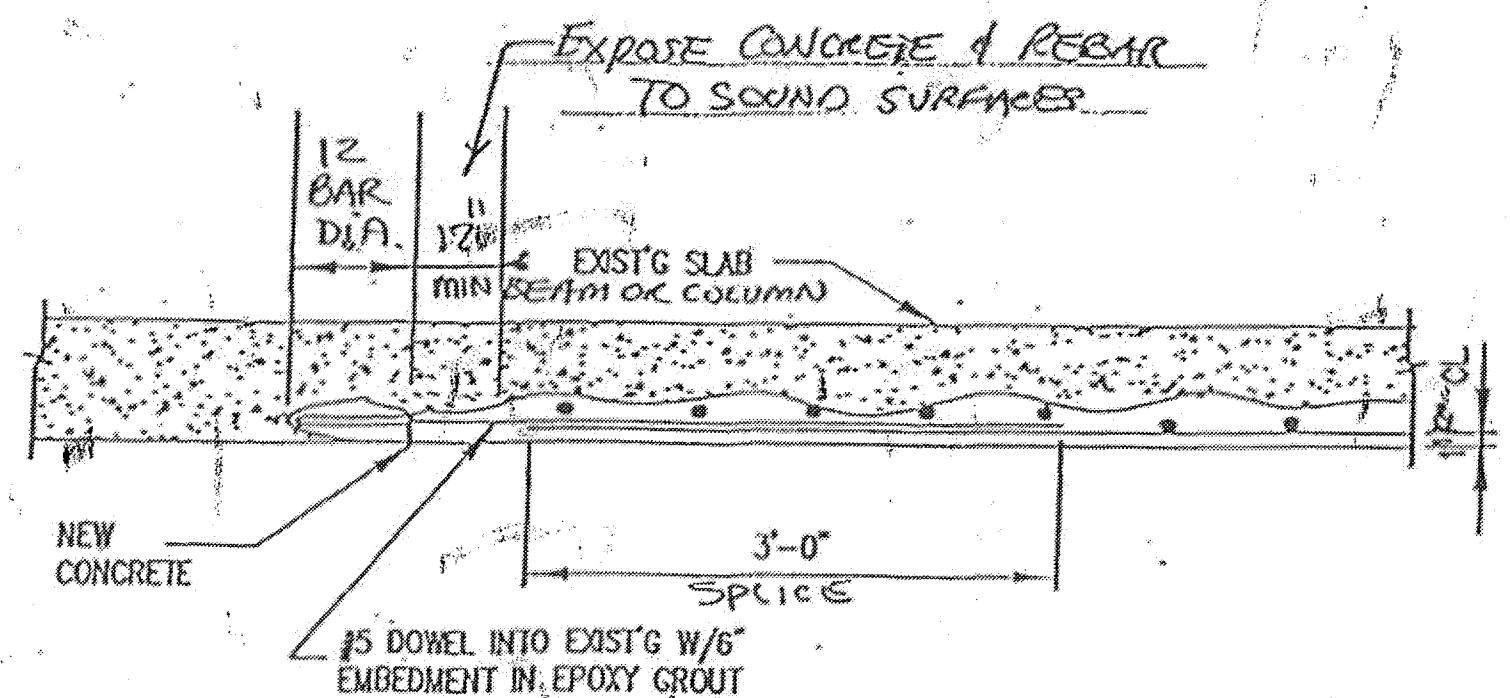
NY 1005: In addition to the requirement of this permit there may be additional restrictions on the use of this property that may be found in the New York State or the County and there may be additional permits required from other government entities, such as the Department of Public Health, the County and the State of New York, the City of Miami Beach assumes no responsibility for compliance with the results from these searches which are approved subject to compliance with all Federal, State, and Local Laws, Rules, and Regulations.

# STRENGTH





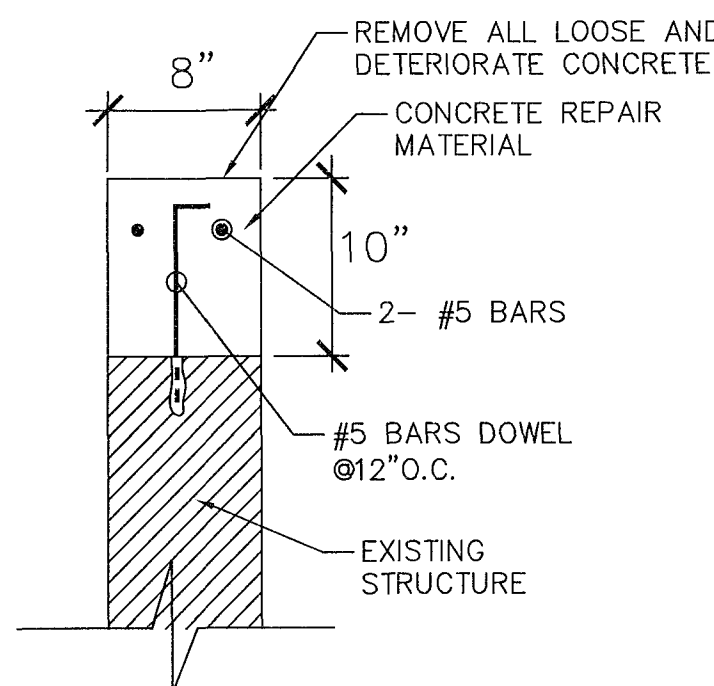
TYPICAL REBAR SPLICE DETAIL



REBAR SPLICE & DOWEL DETAILS

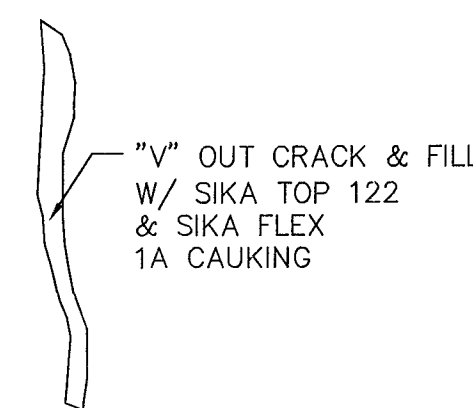
### STANDARD SPLICE & LAP DETAILS

SCALE: NTS



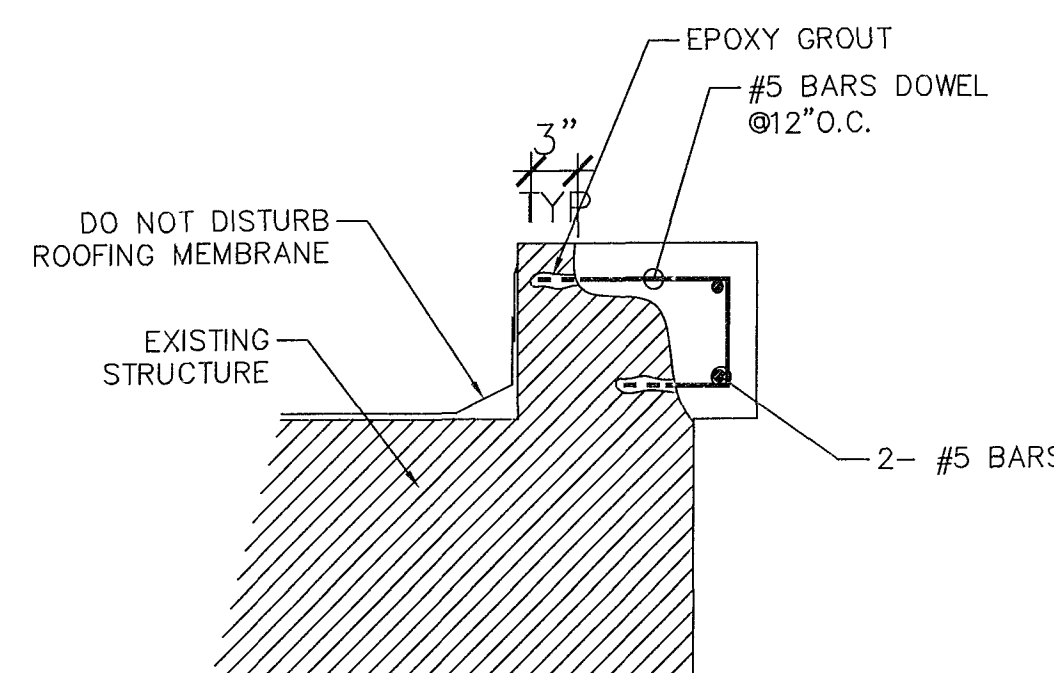
H TYP SILL REPAIR DETAIL

S-2



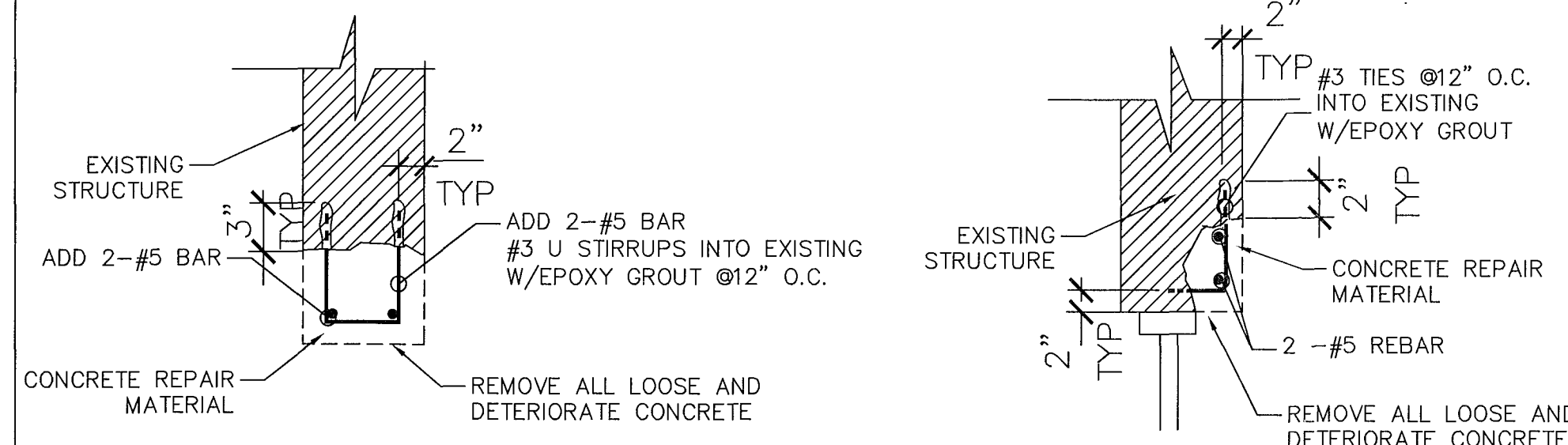
L CRACK REPAIR

S-2 SCALE: 1-1/2" = 1' - 0"



M CAP REPAIR DETAIL

S-2 SCALE: 1-1/2" = 1' - 0"



A FULL DEPTH REPAIR

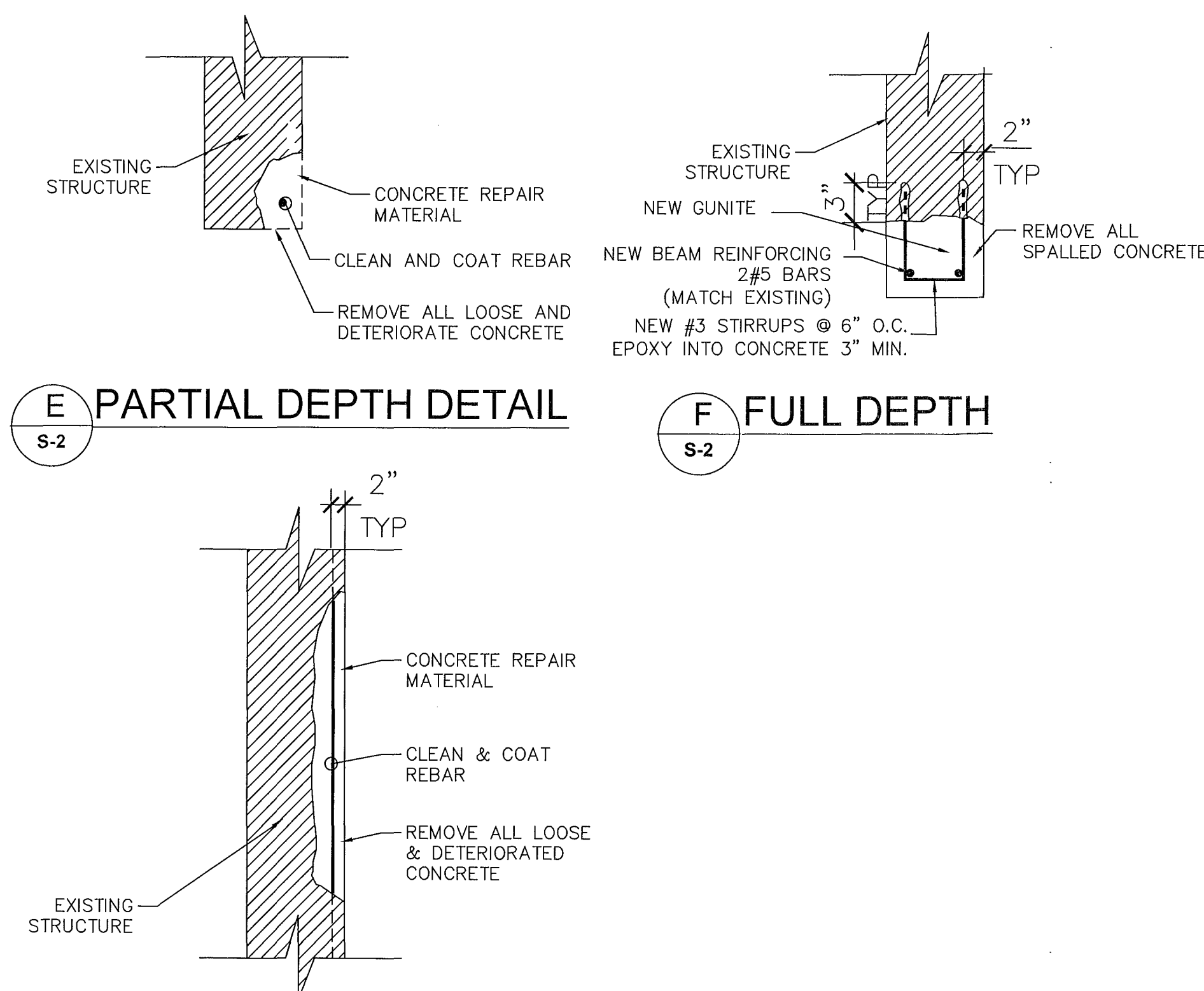
S-2

B PARTIAL HEADER REPAIR

S-2

### WINDOW LINTEL REPAIR DETAILS

SCALE: 1-1/2" = 1' - 0"



E PARTIAL DEPTH DETAIL

S-2

F FULL DEPTH

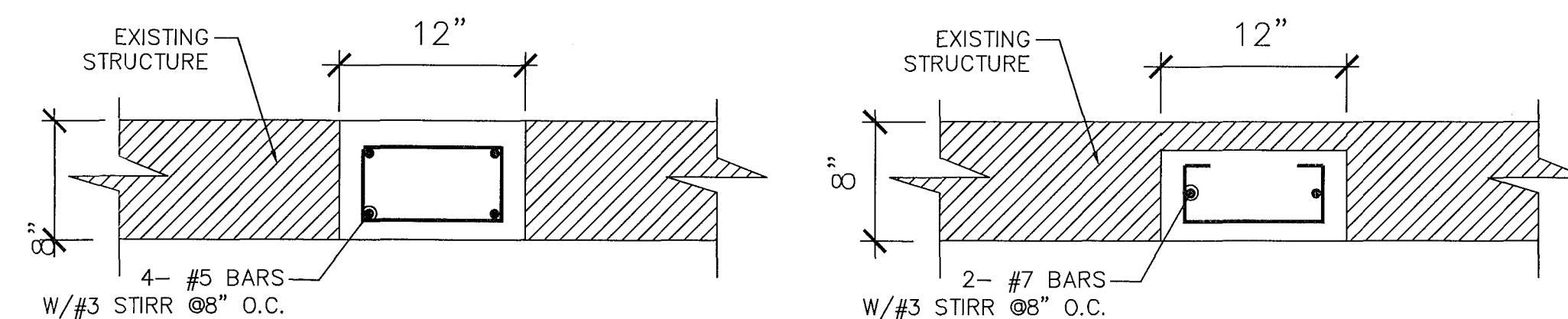
S-2

G TYP JAMB REPAIR DETAIL

S-2

### JAMB REPAIR DETAIL

SCALE: 1-1/2" = 1' - 0"



J FULL DEPTH REPAIR

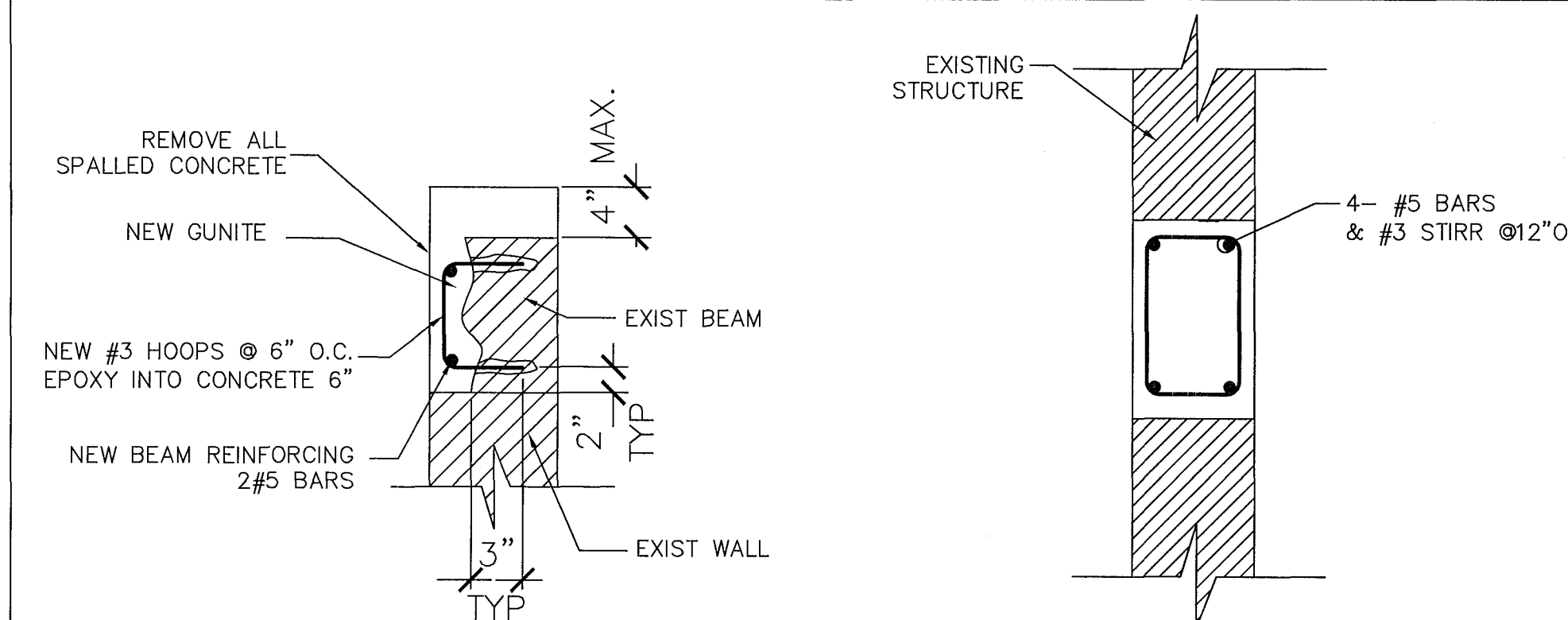
S-2

I PARTIAL DEPTH REPAIR

S-2

### TIE COLUMN REPAIR DETAILS

SCALE: 1-1/2" = 1' - 0"



C PARTIAL DEPTH REPAIR (TB)

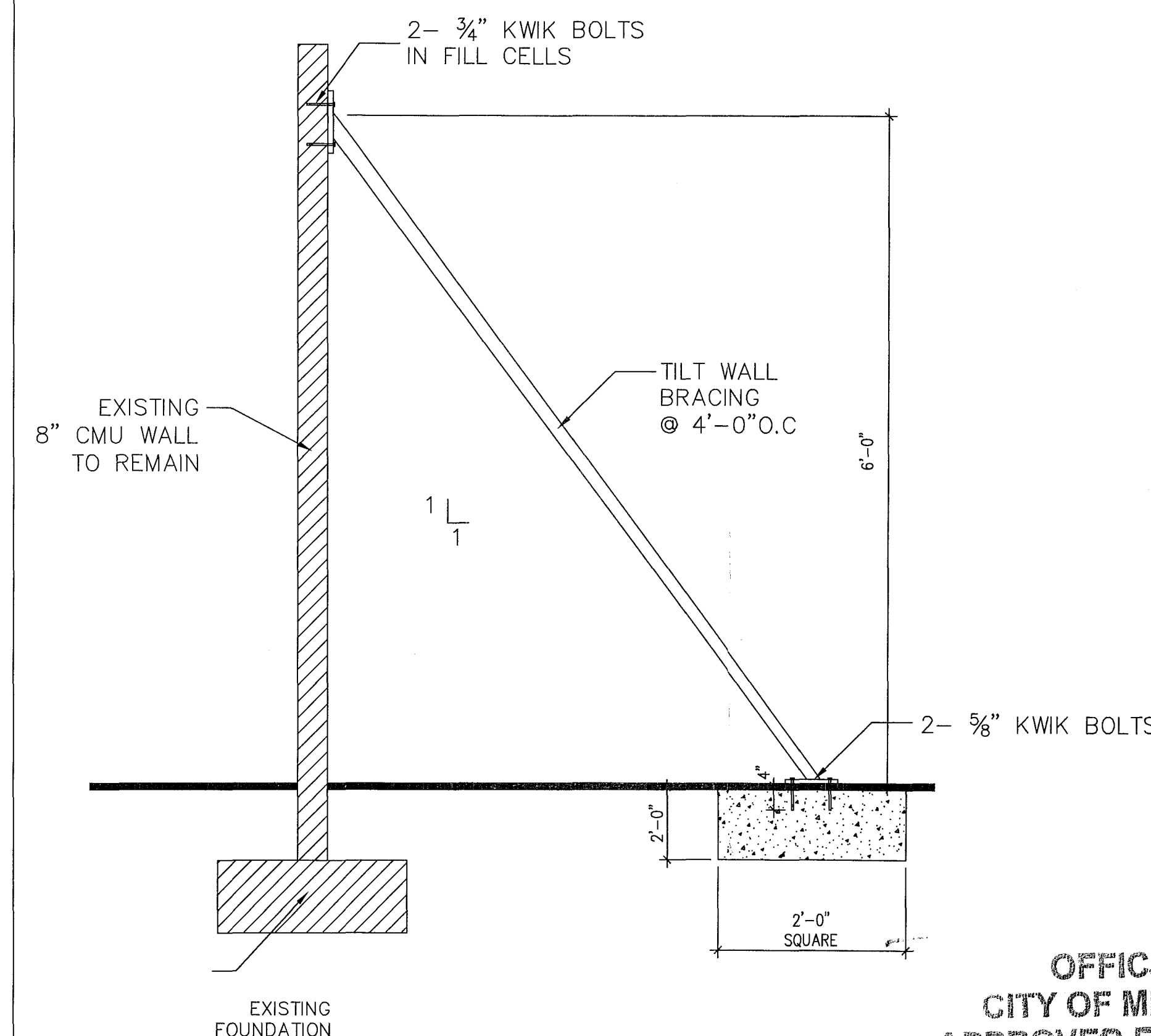
S-2

D FULL DEPTH REPAIR

S-2

### TIE BEAM REPAIR DETAILS

SCALE: 1-1/2" = 1' - 0"



M TILT WALL BRACING DETAIL

S-2

SCALE: 1/2" = 1' - 0"

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CITY OF MIAMI BEACH  
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THE FOLLOWING:

BUILDING:	MS
ZONING:	
PLUMBING:	
ELECTRICAL:	
MECHANICAL:	
FIRE PREVENTION:	
FLOOD:	
PUBLIC WORKS:	
STRUCTURAL:	
ELEVATOR:	

### CONCRETE REPAIR NOTES

1. Gunite (Autensite).....5000psi
2. Prepackaged Concrete Repair.....3000psi
3. Rebar.....Grade 60
4. Do not remove any re-bar with less than 10% Corrosion, sandblast and coat per attached Specifications.
5. Make all cuts square.
6. Trowel finish all repaired surfaces.
7. Add epoxy bonding agent to surfaces prior to concrete application.

Edward A. LANDERS, P.E.  
CONSULTING ENGINEERS  
7800 NW 140TH STREET, SUITE 200, MIAMI LAKES, FL 33016  
Tel. (305) 823-3938  
Fax (305) 823-9355

# CONCRETE REPAIR

## PERMIT SET

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1413474  
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APPROVED BY	DATE

# BIG PINK BUILDING

157 COLLINS AVE  
MIAMI BEACH, FLORIDA 33139

S-2

SHEET NUMBER

BREV/142648

B1405045

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