

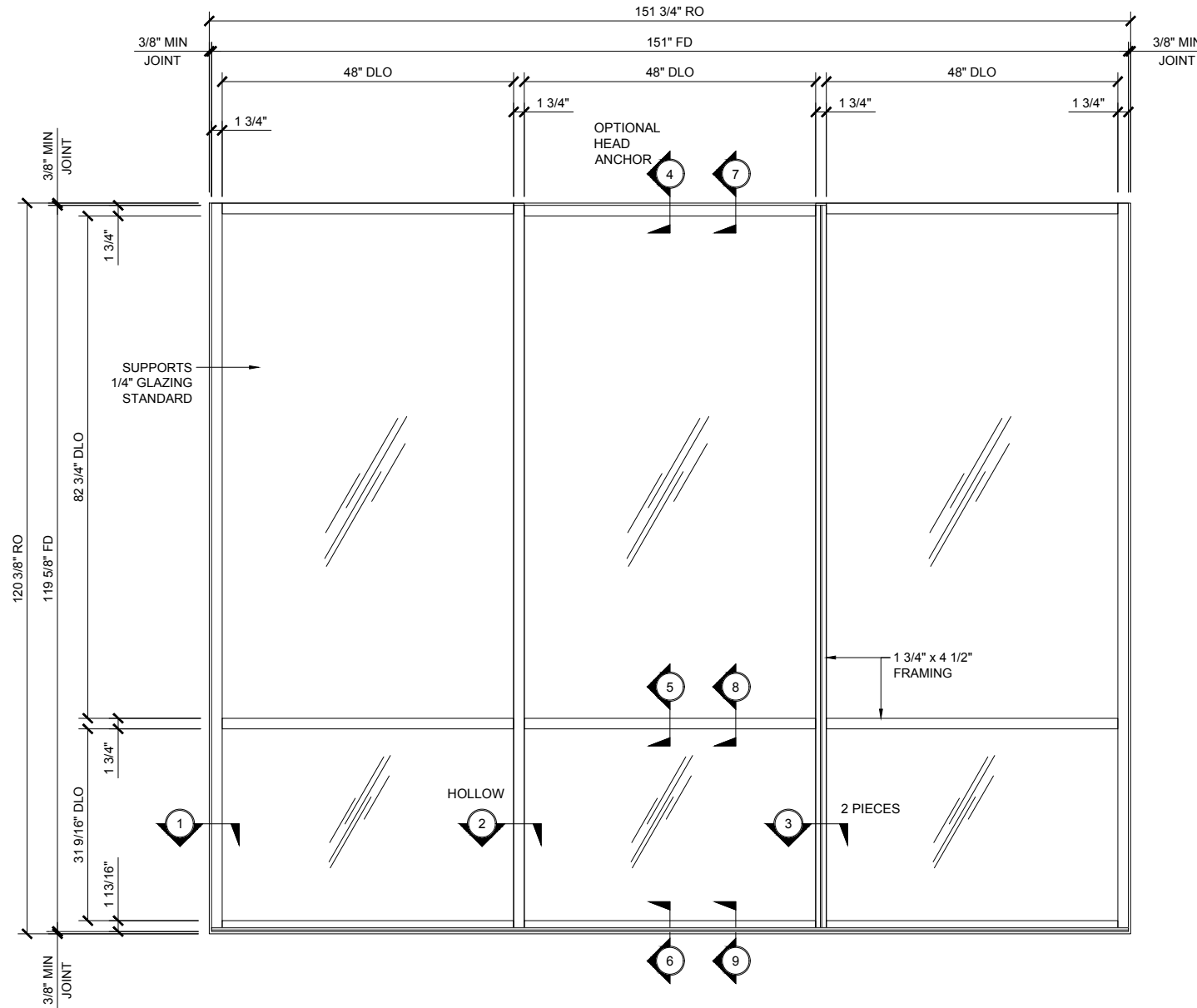


STOREFRONTS

SERIES FF 450 OFFSET / FLUSH OUT / INTERIOR AND EXTERIOR GLAZING

1"=1'-0"

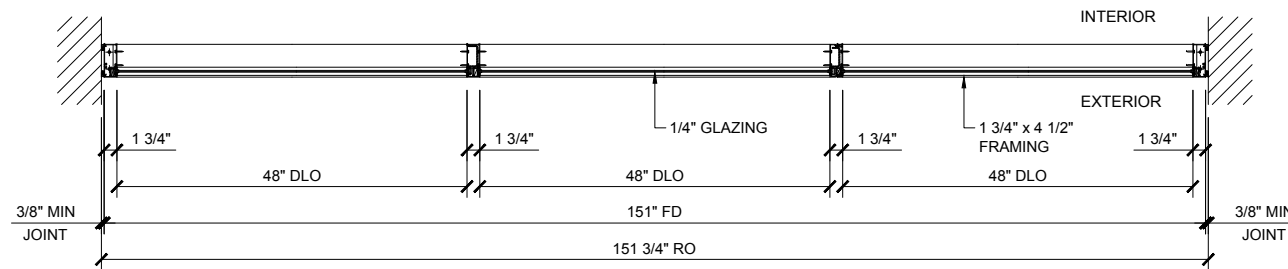
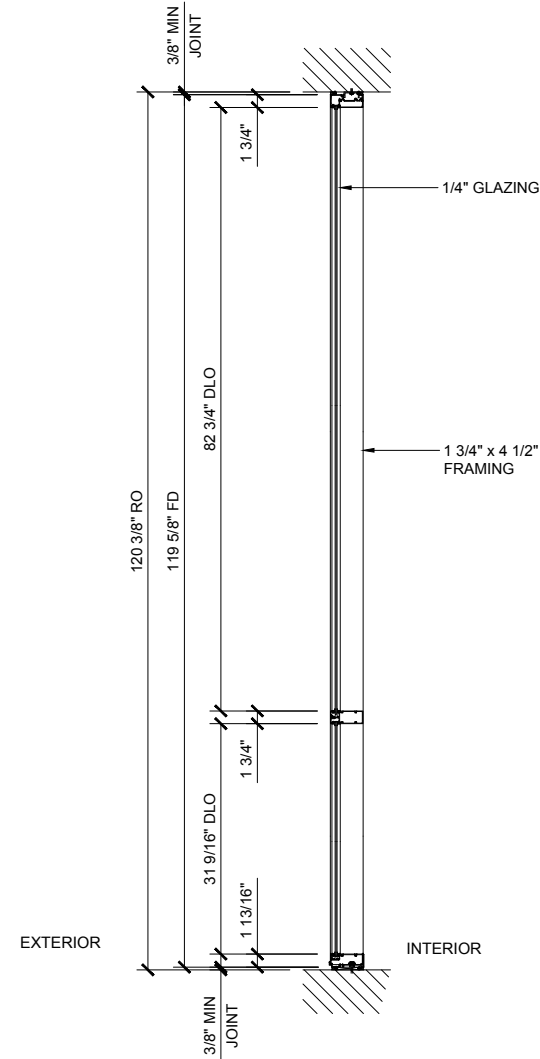
GLASS SIZING NOTE:
REFERENCE U.S. ALUMINUM
CATALOGS AND WEBSITE'S
LOAD CHARTS FOR SIZING
GUIDELINES.



FF 450 SERIES SPECIFICATIONS

Flush Front System allow the plane of the glass to be reversed from exterior to interior or any combination to give these standard system a custom look.
Flush Front is ideal for use in storefront and punched opening or ribbon window applications.

1 3/4" x 4 1/2" frame
3/16", 1/4", 5/16" & 3/8" Glazing infill
Full range of accessory components
Available in an array of architectural coatings and anodized finishes
Interior or Exterior Glazed



STANDARD ABBREVIATIONS

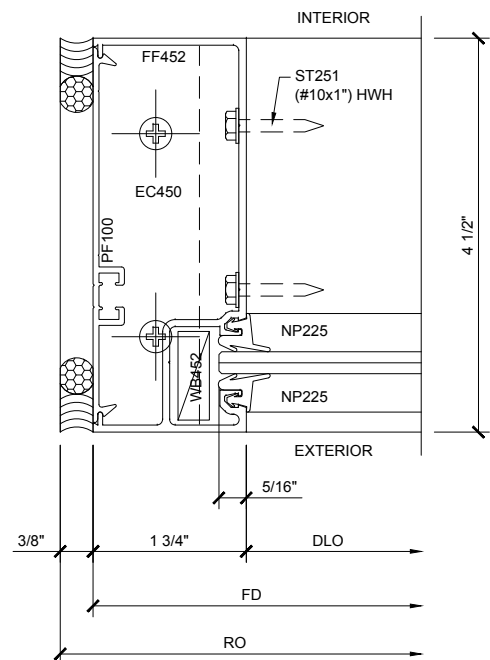
RO	ROUGH OPENING
FD	FRAME DIMENSION
DLO	DAYLIGHT OPENING
DO	DOOR OPENING
DD	DOOR DIMENSION
SMC	SURFACE MOUNTED CLOSER
OHCC	OVERHEAD CONCEALED CLOSER

Revisions By:

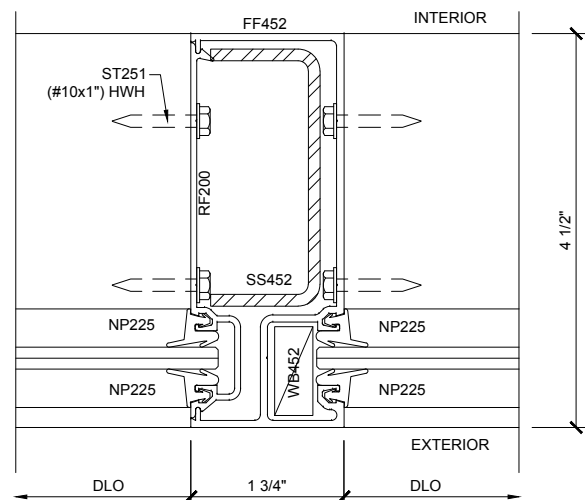


Description:
U.S. ALUMINUM
SERIES FF450
STOREFRONT SYSTEM

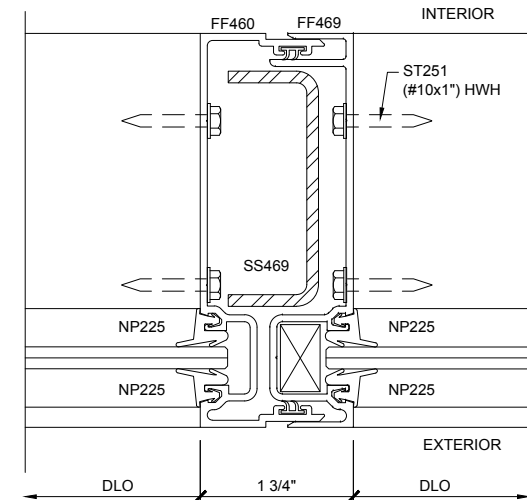
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Date: 08/19/14
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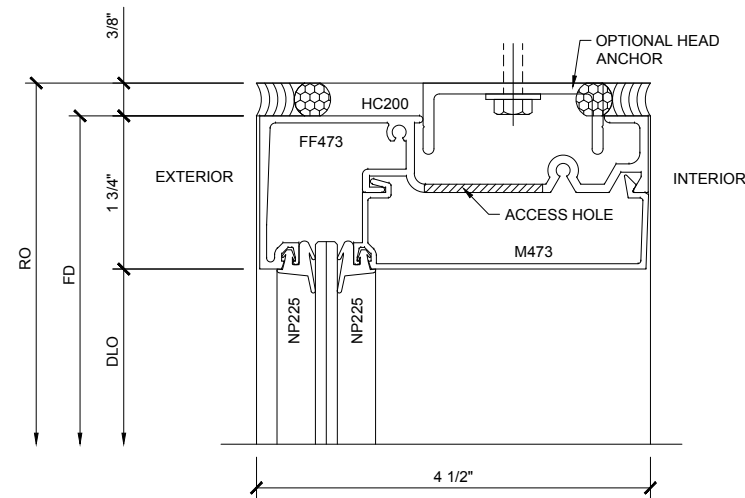
SECTION DETAIL AT JAMB ①



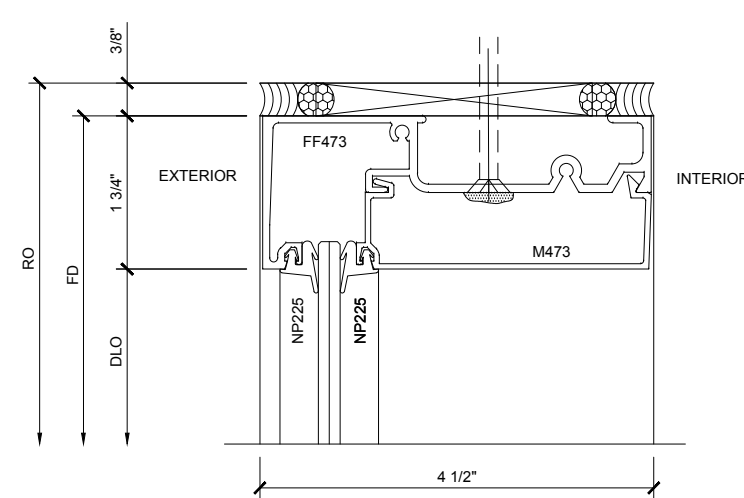
SECTION DETAIL AT INTERMEDIATE VERTICAL ②



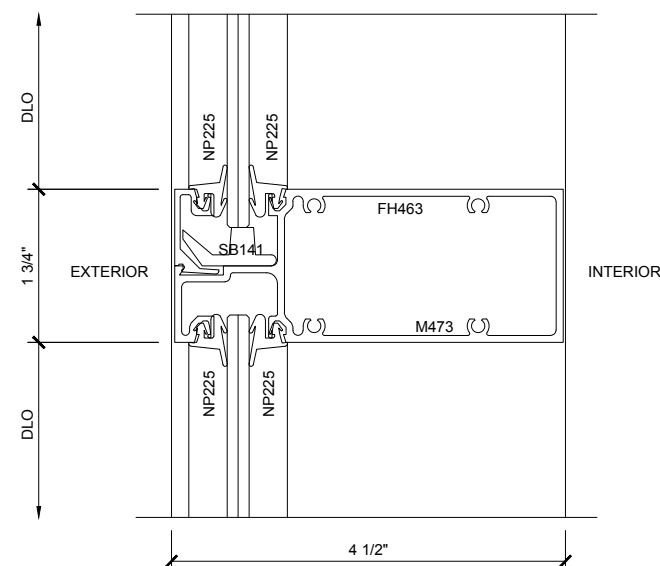
SECTION DETAIL AT EXPANSION INTERMEDIATE VERTICAL ③



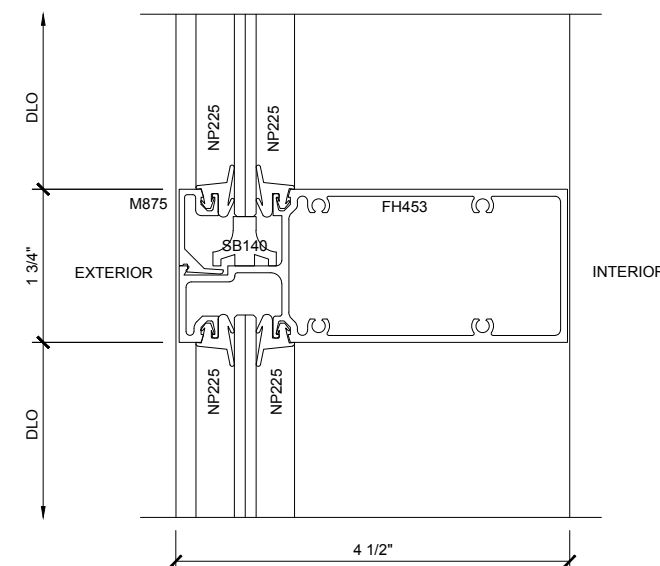
SECTION DETAIL AT HEAD INTERIOR GLAZING ④



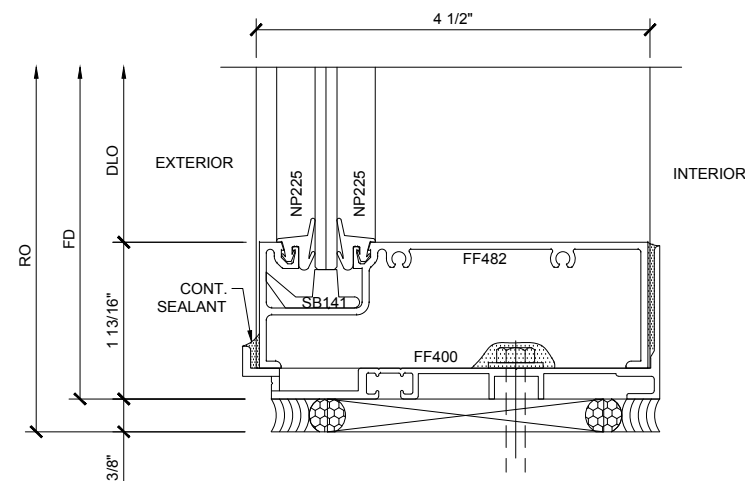
SECTION DETAIL AT HEAD EXTERIOR GLAZING ⑦



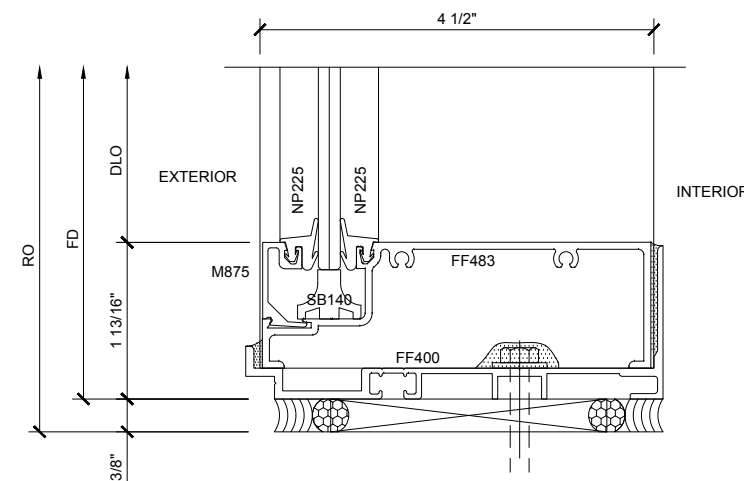
SECTION DETAIL AT INTERMEDIATE HORIZONTAL INTERIOR GLAZING ⑤



SECTION DETAIL AT INTERMEDIATE HORIZONTAL EXTERIOR GLAZING ⑧



SECTION DETAIL AT SILL INTERIOR GLAZING ⑥

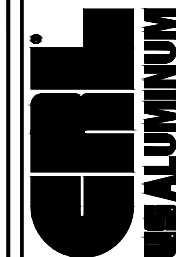


SECTION DETAIL AT SILL EXTERIOR GLAZING ⑨

SERIES FF 450 OFFSET / FLUSH OUT / EXTERIOR GLAZING

1'-0"=1'-0"

Revisions By:



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U.S. ALUMINUM
SERIES FF450
STOREFRONT SYSTEM

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Date: 08/19/14
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SERIES FF 450 OFFSET / FLUSH IN / EXTERIOR GLAZING

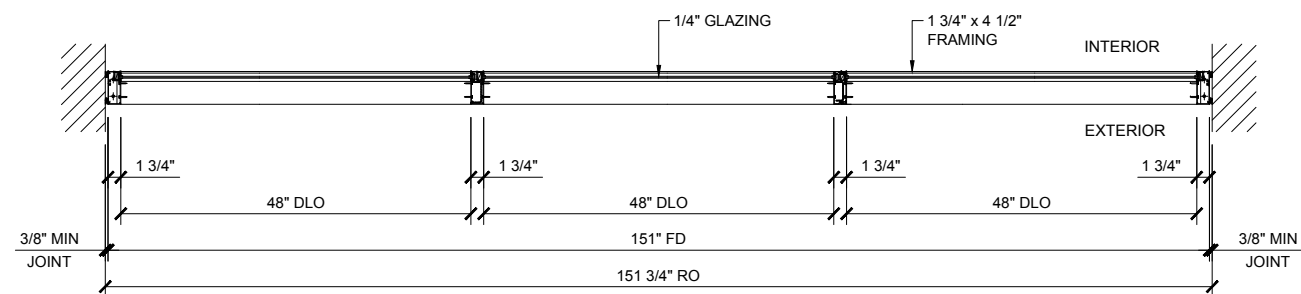
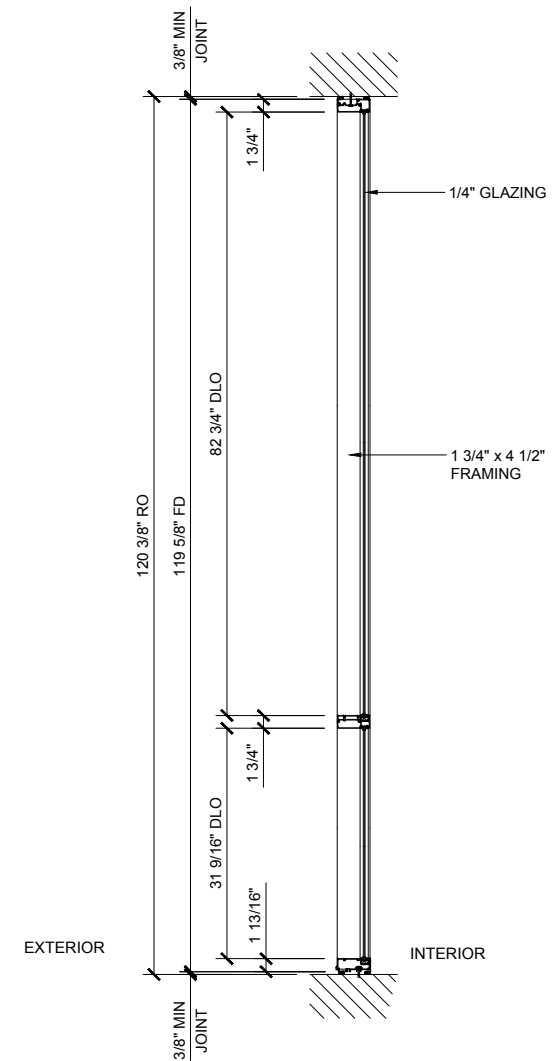
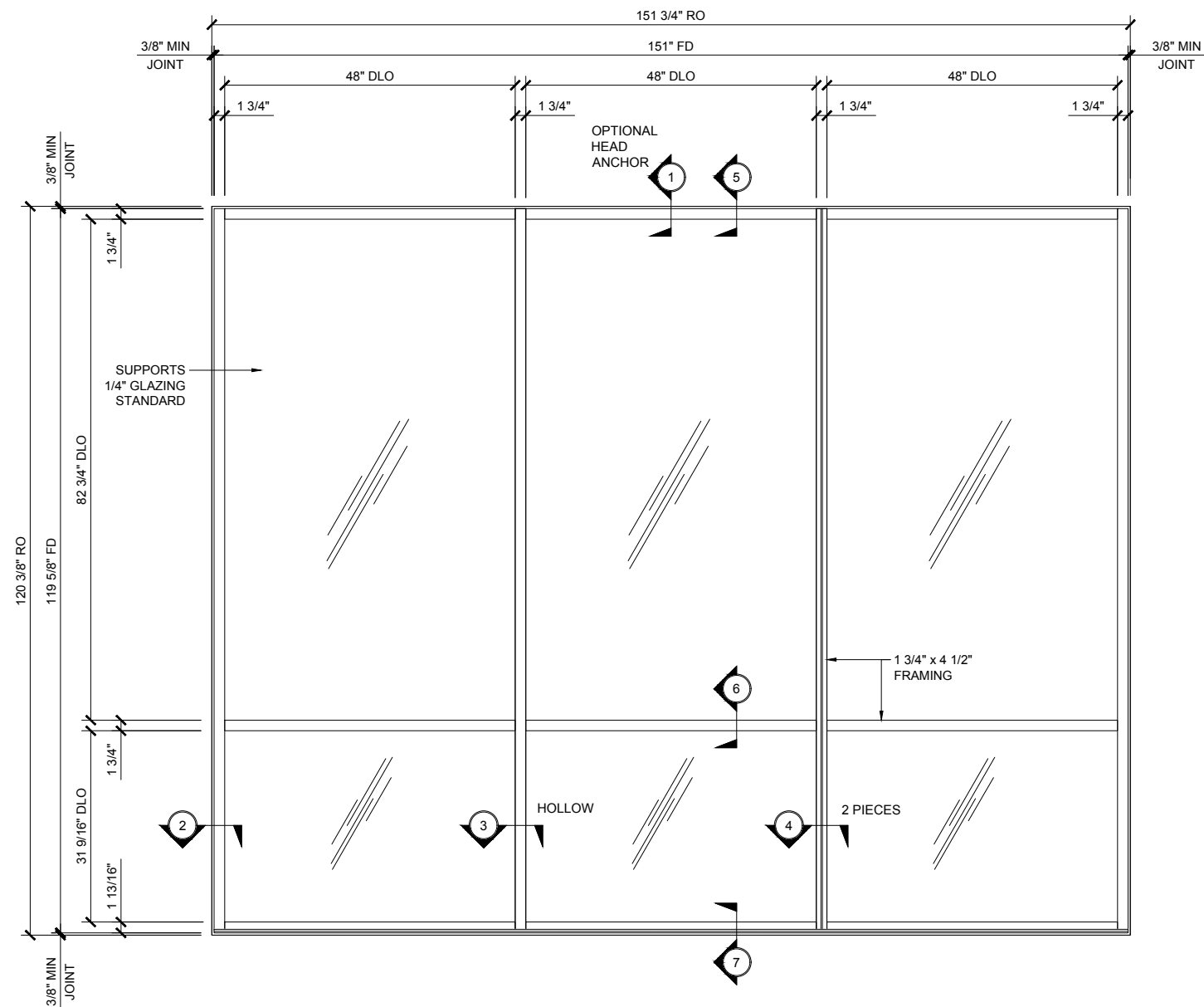
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FF 450 SERIES SPECIFICATIONS

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- Full range of accessory components
- Available in an array of architectural coatings and anodized finishes
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GLASS SIZING NOTE:
REFERENCE U.S. ALUMINUM CATALOGS AND WEBSITE'S LOAD CHARTS FOR SIZING GUIDELINES.



STANDARD ABBREVIATIONS

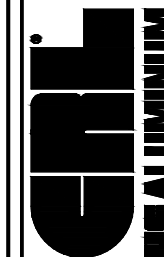
- RO ROUGH OPENING
- FD FRAME DIMENSION
- DLO DAYLIGHT OPENING
- DO DOOR OPENING
- DD DOOR DIMENSION
- SMC SURFACE MOUNTED CLOSER
- OHCC OVERHEAD CONCEALED CLOSER

Revisions By:

Description:
**U.S. ALUMINUM
SERIES FF450
STOREFRONT SYSTEM**

Drawn By: RP
Date: 08/19/14
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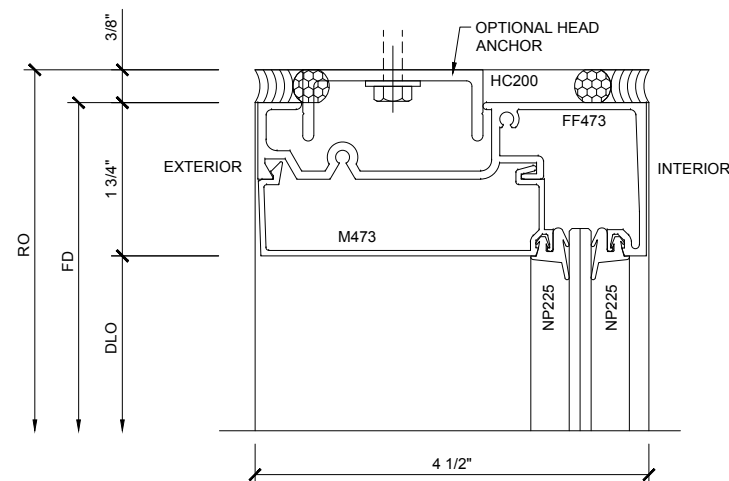
Revisions By:



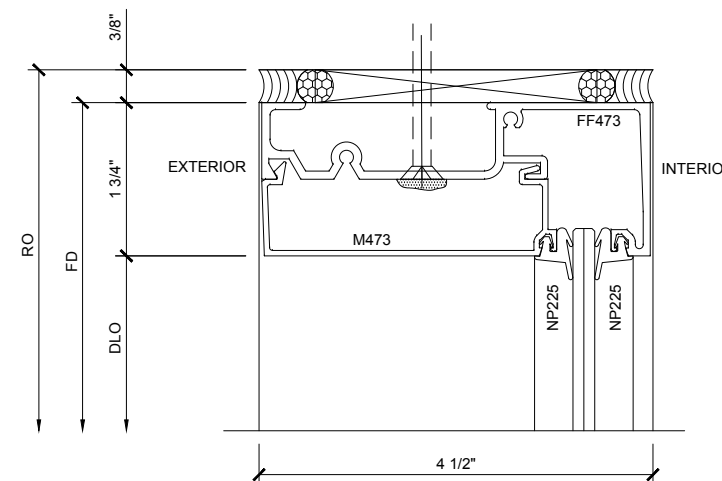
C.R. LAURENCE CO., ARCHITECTURAL PRODUCTS
2503 E. Yermoland Avenue, Los Angeles, CA 90058-1897
PH: (800)-421-0144 FAX: (800)-587-1501 www.crlaurence.com

Description:
U.S. ALUMINUM
SERIES FF450
STOREFRONT SYSTEM

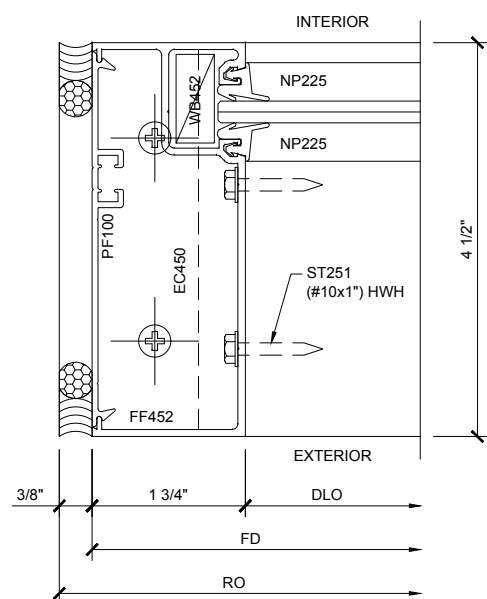
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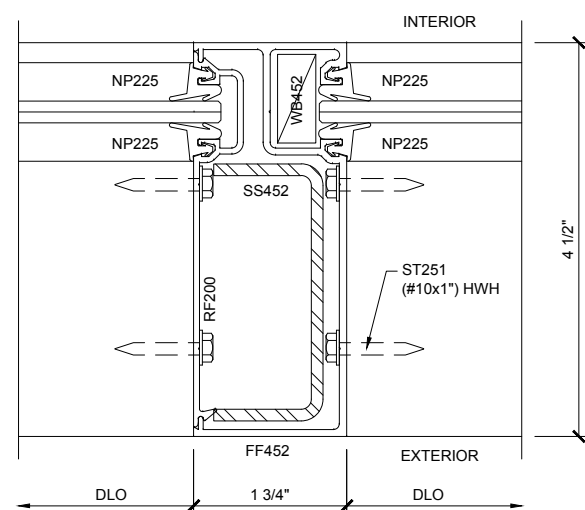
SECTION DETAIL AT HEAD W/ ANCHOR 1



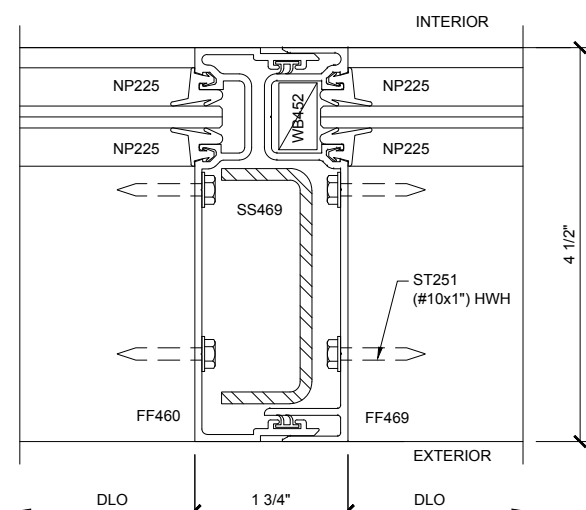
SECTION DETAIL AT HEAD 5



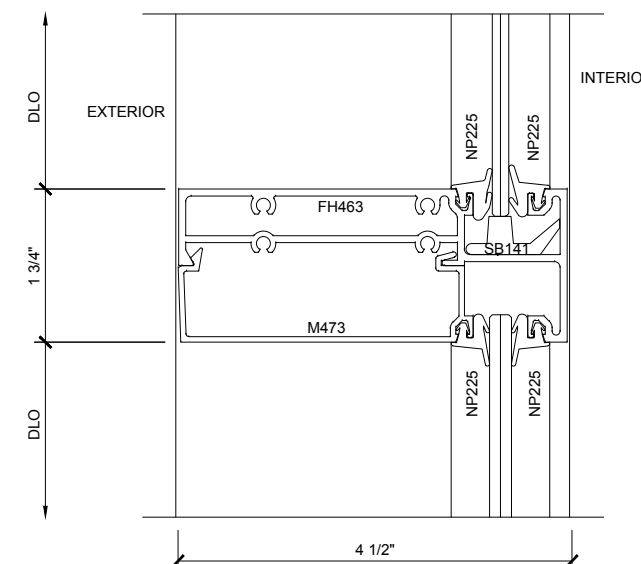
SECTION DETAIL AT JAMB 2



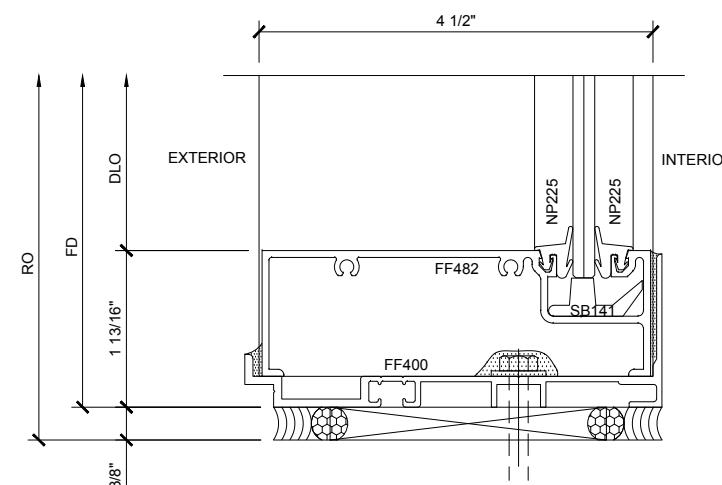
SECTION DETAIL AT INTERMEDIATE VERTICAL 3



SECTION DETAIL AT EXPANSION INTERMEDIATE VERTICAL 4



SECTION DETAIL AT INTERMEDIATE HORIZONTAL 6



SECTION DETAIL AT SILL 7

SERIES FF 450 OFFSET / FLUSH IN - FLUSH OUT

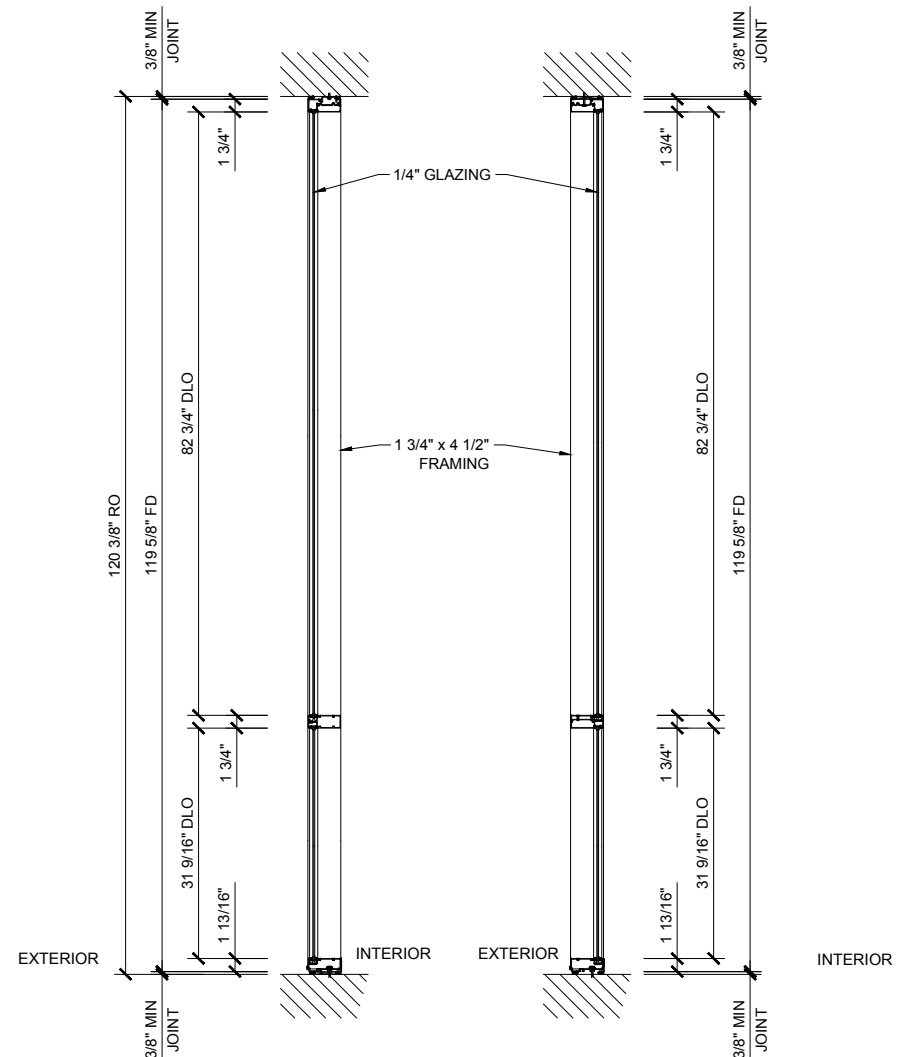
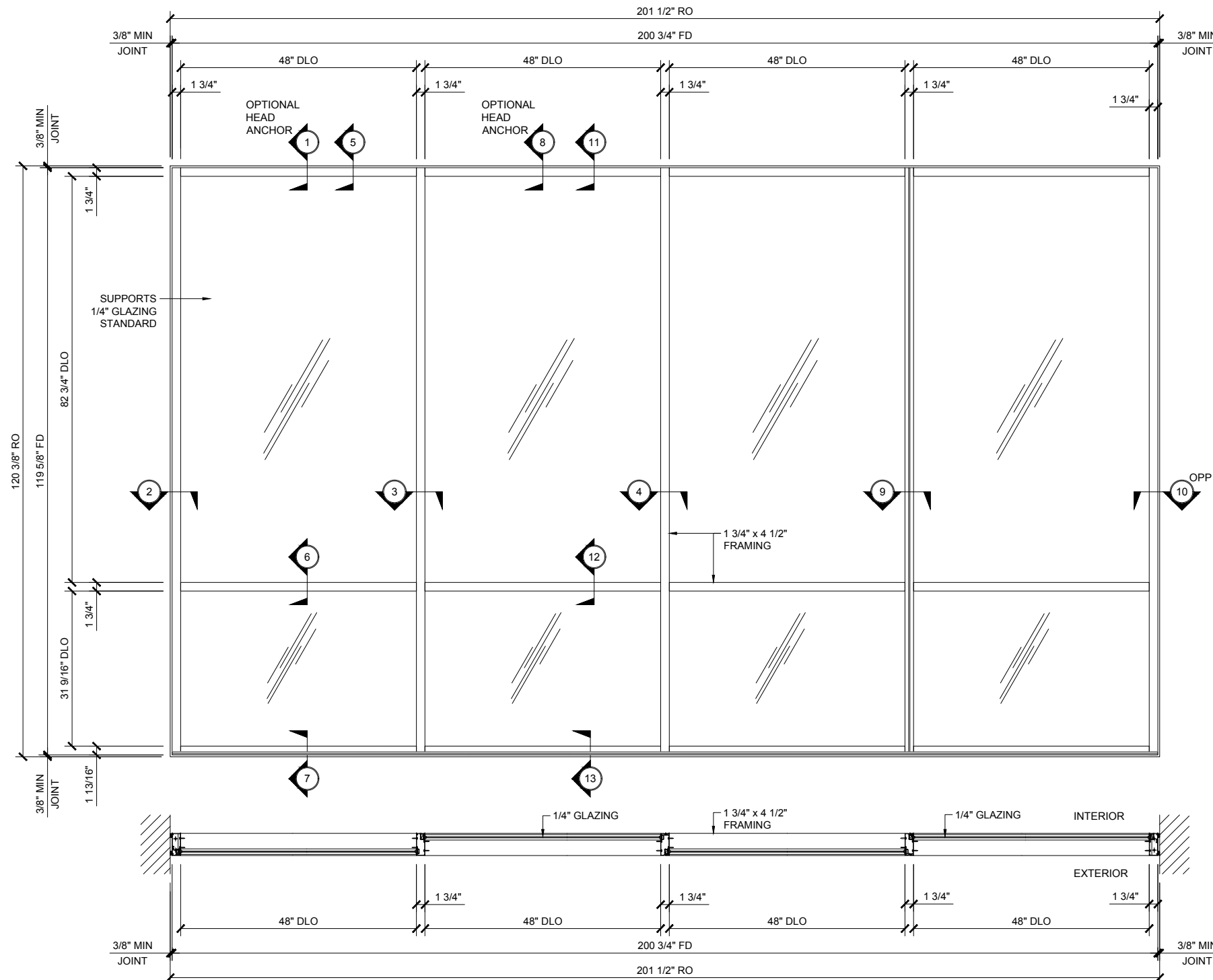
1"=1'-0"

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GLASS SIZING NOTE:
 REFERENCE U.S. ALUMINUM
 CATALOGS AND WEBSITE'S
 LOAD CHARTS FOR SIZING
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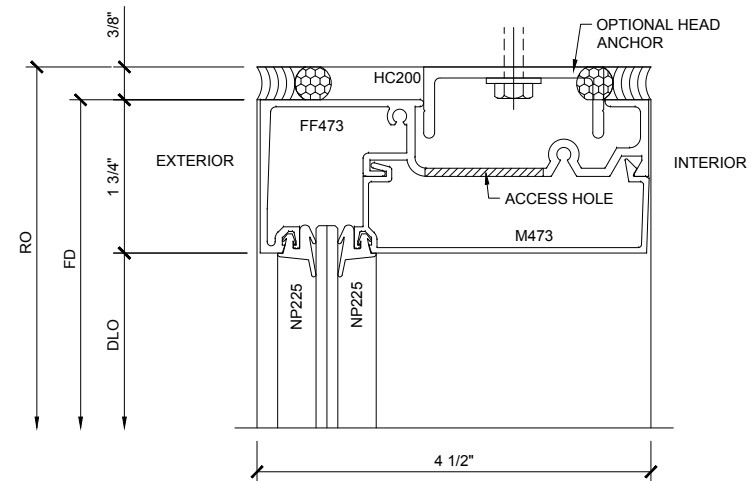
STANDARD ABBREVIATIONS	
RO	ROUGH OPENING
FD	FRAME DIMENSION
DLO	DAYLIGHT OPENING
DO	DOOR OPENING
DD	DOOR DIMENSION
SMC	SURFACE MOUNTED CLOSER
OHCC	OVERHEAD CONCEALED CLOSER

Revisions By:

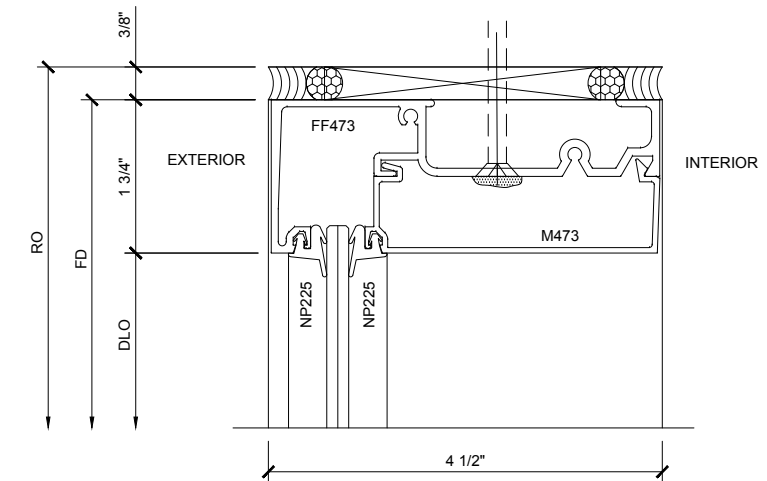
U.S. ALUMINUM
 C.R. LAURENCE CO., ARCHITECTURAL PRODUCTS
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 PH: (800)-421-6144 FAX: (800)-587-1501 www.crlaurence.com

Description:
 U.S. ALUMINUM
 SERIES FF450
 STOREFRONT SYSTEM

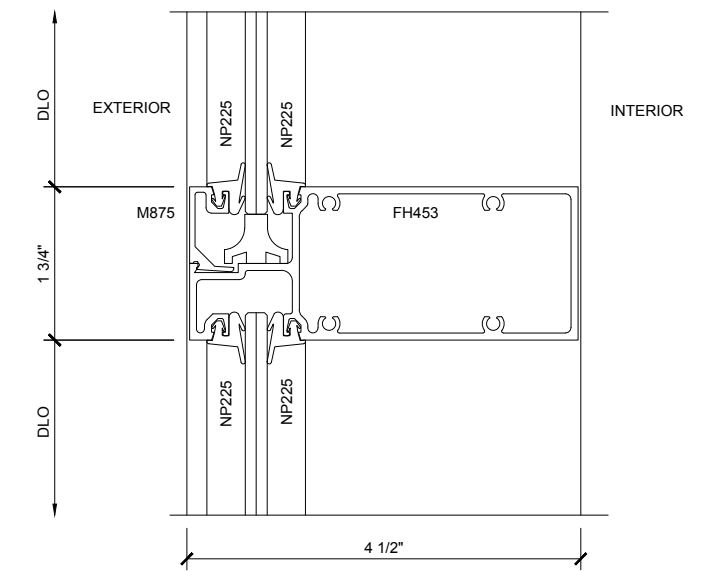
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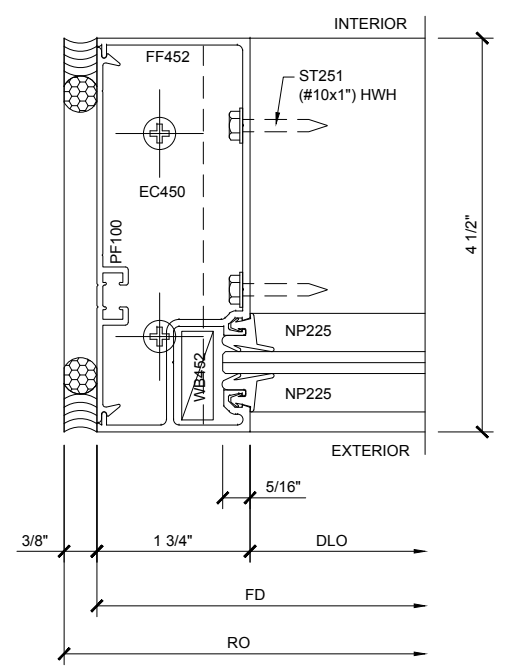
SECTION DETAIL AT HEAD W/ ANCHOR (1)



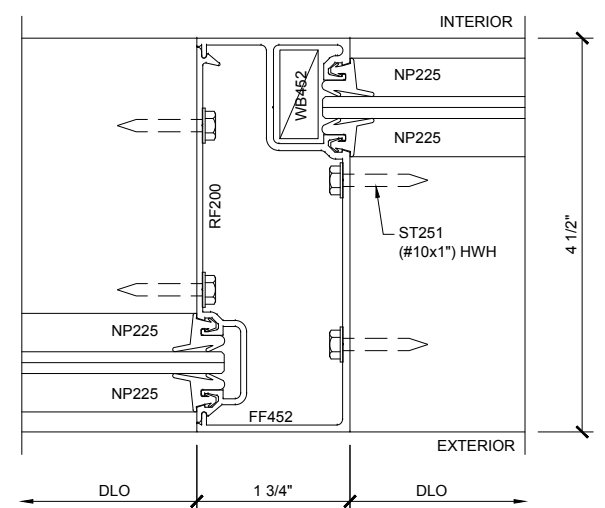
SECTION DETAIL AT HEAD (5)



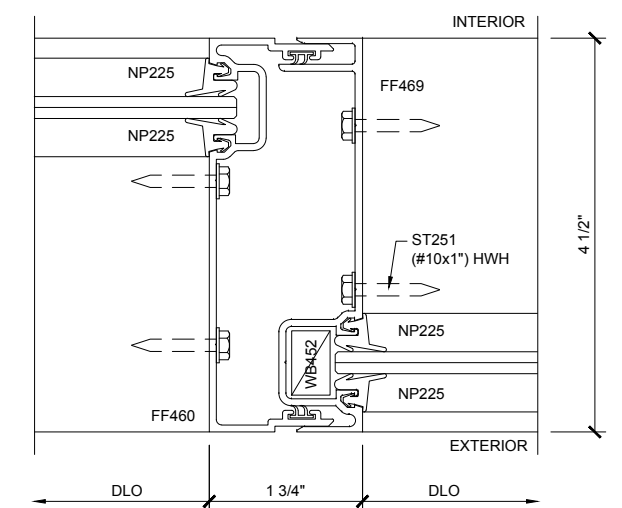
SECTION DETAIL AT INTERMEDIATE HORIZONTAL (6)



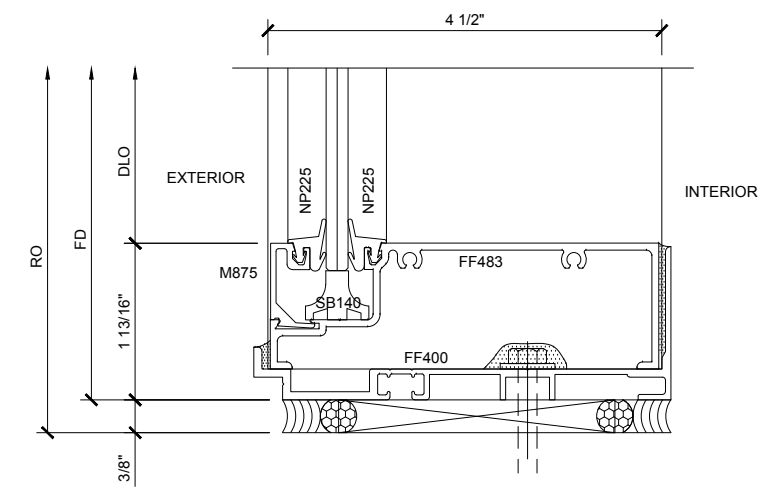
SECTION DETAIL AT JAMB (2)



SECTION DETAIL AT INTERMEDIATE VERTICAL (3)



SECTION DETAIL AT EXPANSION INTERMEDIATE VERTICAL (4)



SECTION DETAIL AT SILL (7)

SERIES FF 450 OFFSET / FLUSH IN - FLUSH OUT

1'-0"=1'-0"

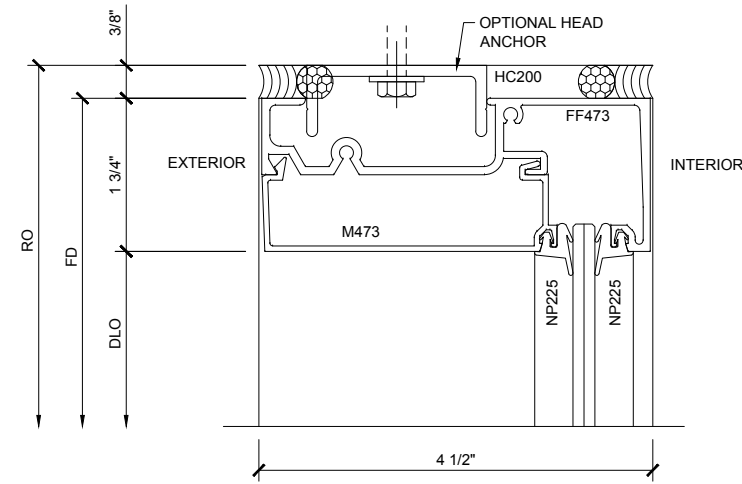
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U.S. ALUMINUM

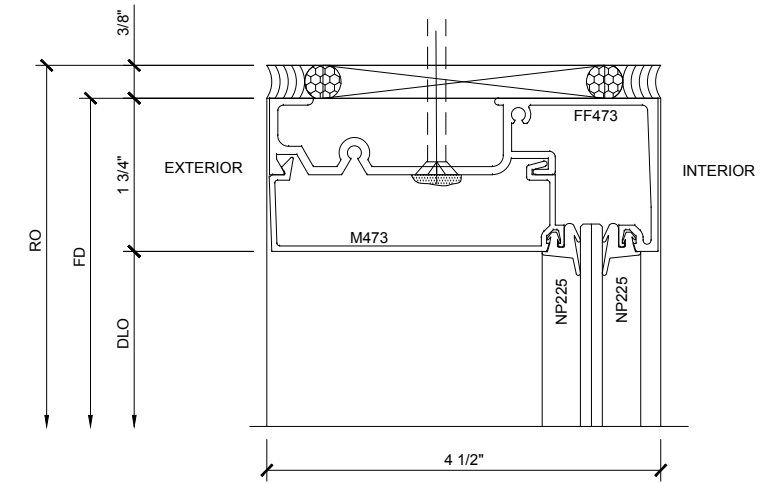
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Description:
 U.S. ALUMINUM
 SERIES FF450
 STOREFRONT SYSTEM

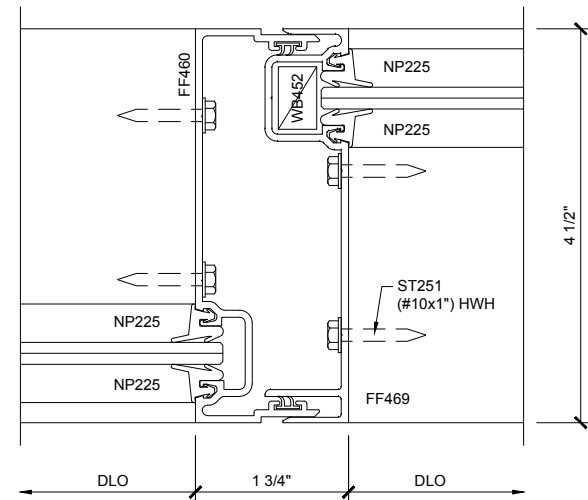
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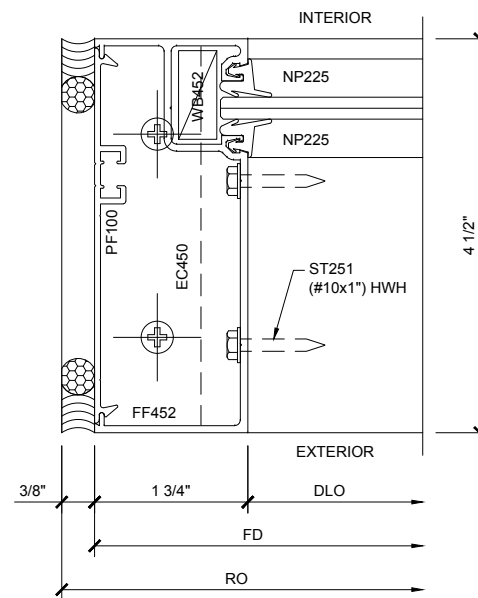
SECTION DETAIL AT HEAD W/ ANCHOR (8)



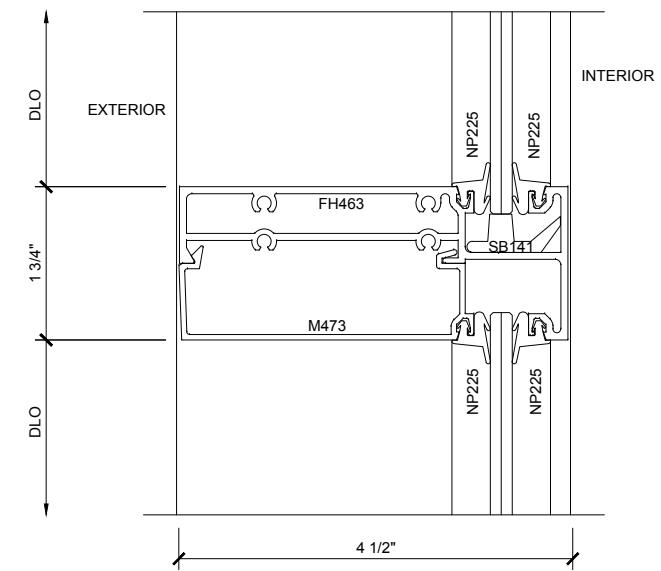
SECTION DETAIL AT HEAD (11)



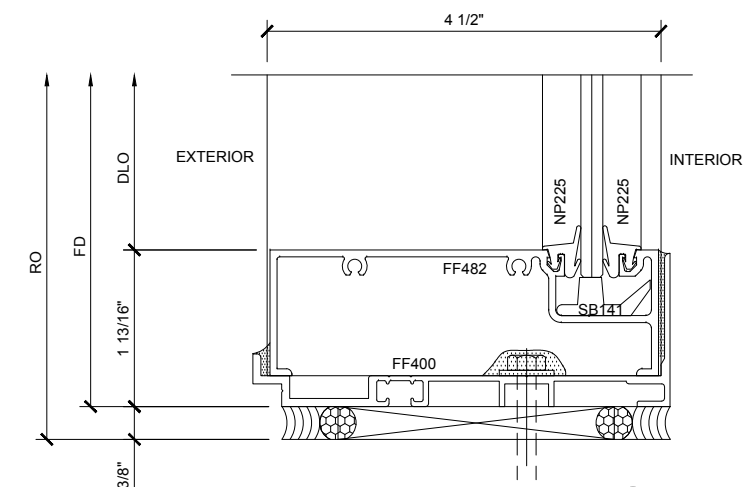
SECTION DETAIL AT EXPANSION INTERMEDIATE VERTICAL (9)



SECTION DETAIL AT JAMB (10)



SECTION DETAIL AT INTERMEDIATE HORIZONTAL (12)



SECTION DETAIL AT SILL (13)

SERIES FF 450 OFFSET / FLUSH IN - FLUSH OUT

1'-0"=1'-0"

Revisions By:

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Description:
 U.S. ALUMINUM
 SERIES FF450
 STOREFRONT SYSTEM

Drawn By: RP
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 File Name: FF450.dwg
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SERIES FF 450 OFFSET / DOOR FRAMING / CENTER PIVOT APPLICATION

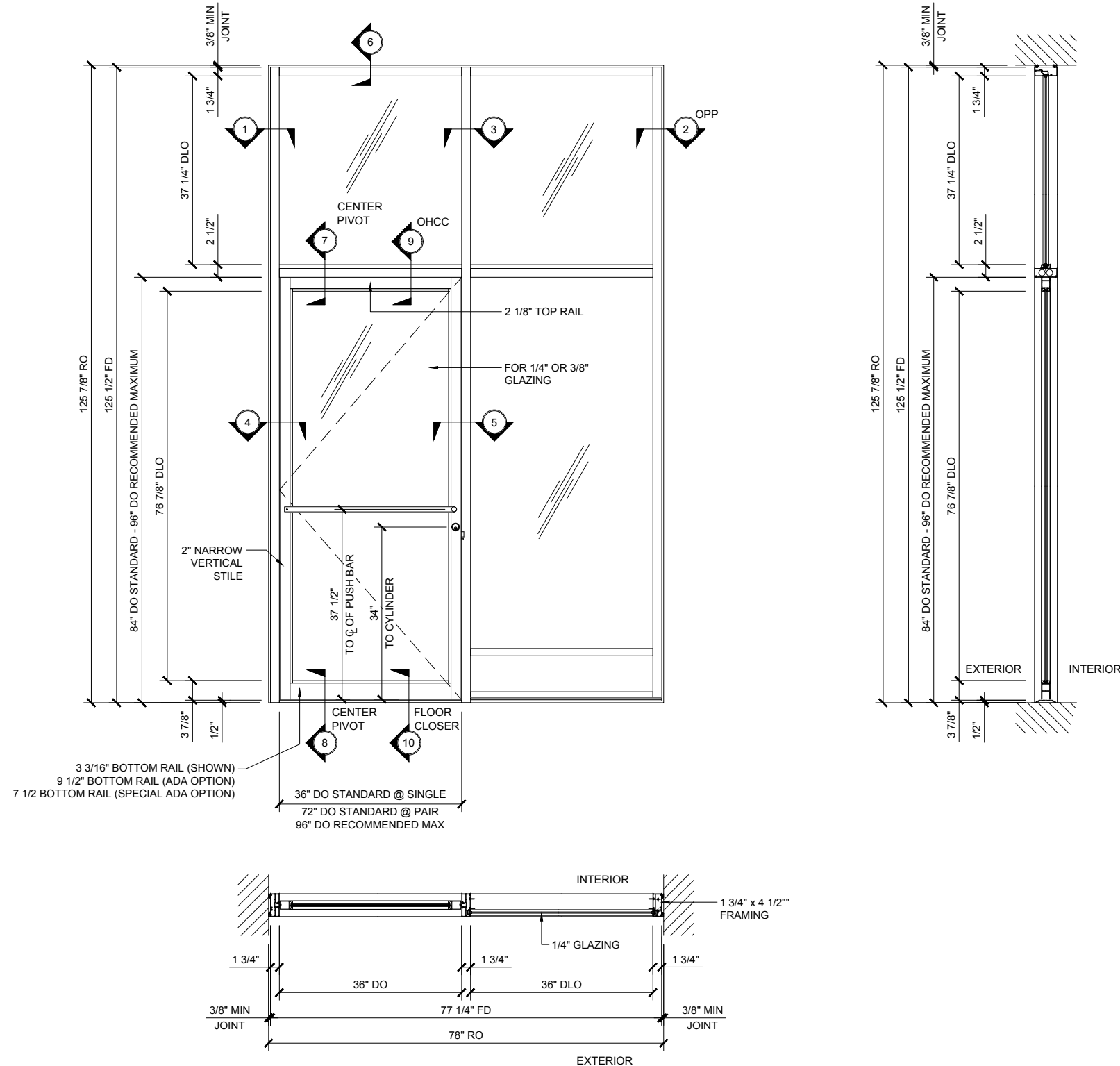
1"=1'-0"

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GLASS SIZING NOTE:
 REFERENCE U.S. ALUMINUM
 CATALOGS AND WEBSITE'S
 LOAD CHARTS FOR SIZING
 GUIDELINES.



STANDARD ABBREVIATIONS

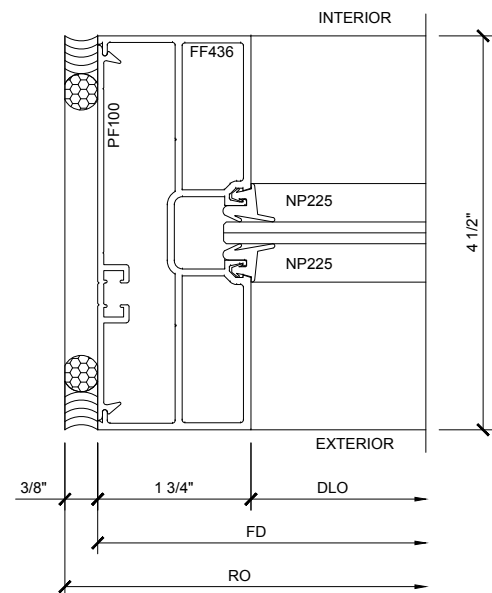
- RO ROUGH OPENING
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- DLO DAYLIGHT OPENING
- DO DOOR OPENING
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- SMC SURFACE MOUNTED CLOSER
- OHCC OVERHEAD CONCEALED CLOSER

Revisions By:

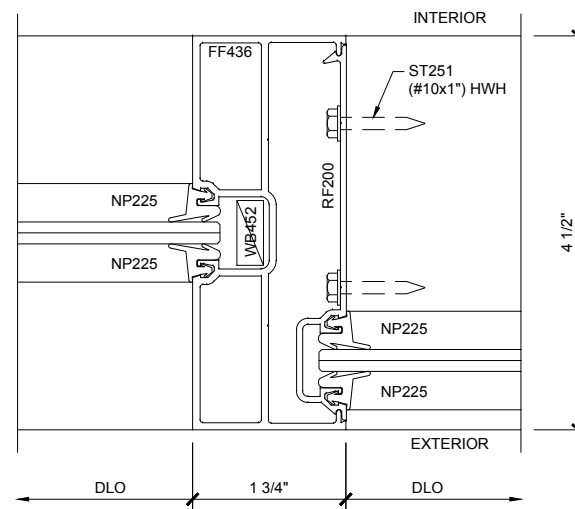
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Description:
 U.S. ALUMINUM
 SERIES FF450
 STOREFRONT SYSTEM

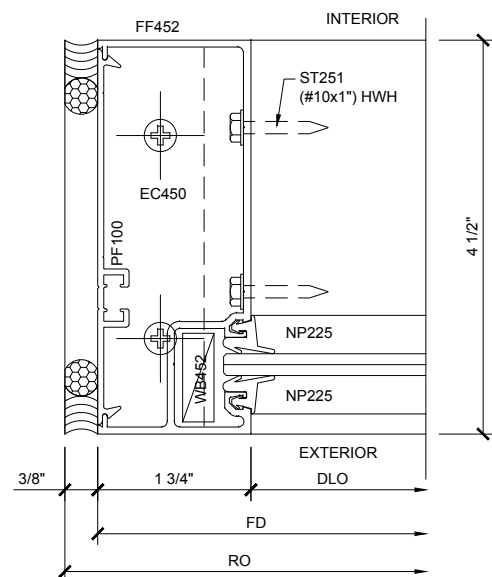
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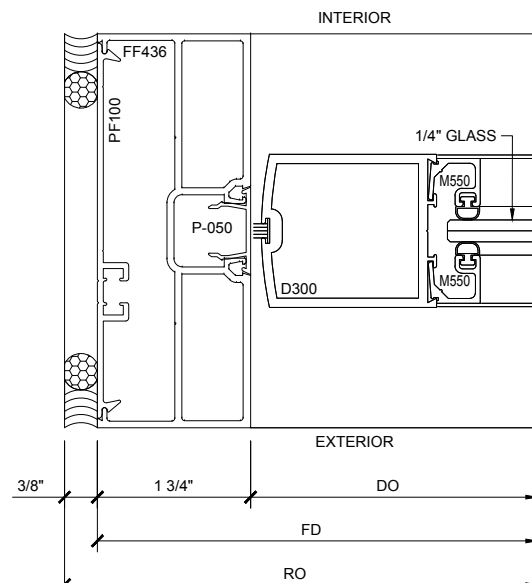
SECTION DETAIL AT TRANS JAMB ①



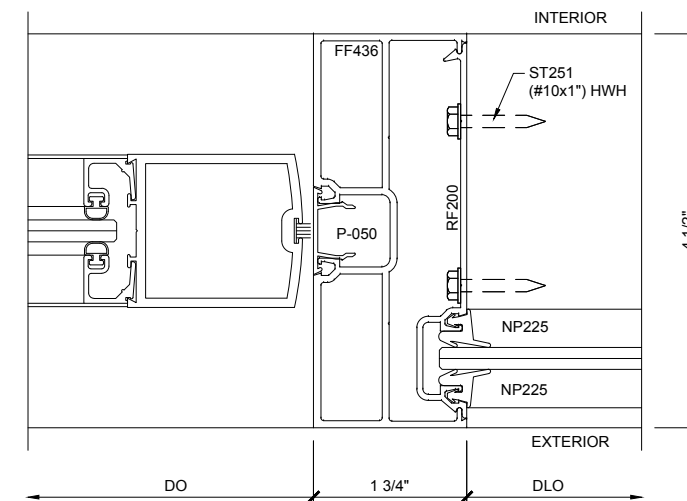
SECTION DETAIL AT INTERMEDIATE VERTICAL ③



SECTION DETAIL AT TRANS JAMB ②



SECTION DETAIL AT DOOR JAMB ④



SECTION DETAIL AT DOOR JAMB ⑤

Revisions By:



U.S. ALUMINUM
SERIES FF450
STOREFRONT SYSTEM

Drawn By: RP
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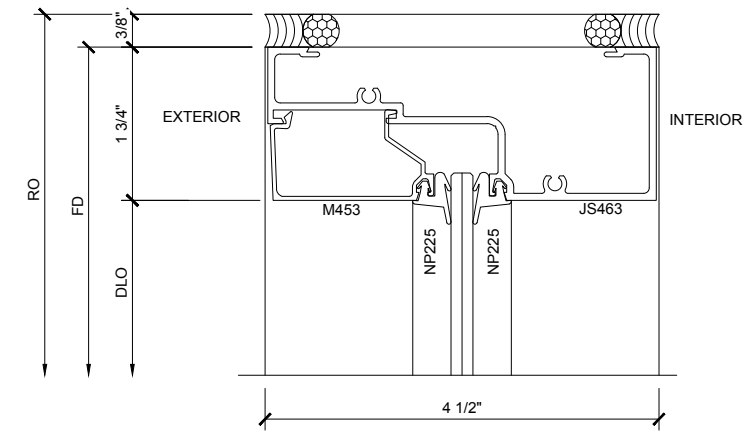
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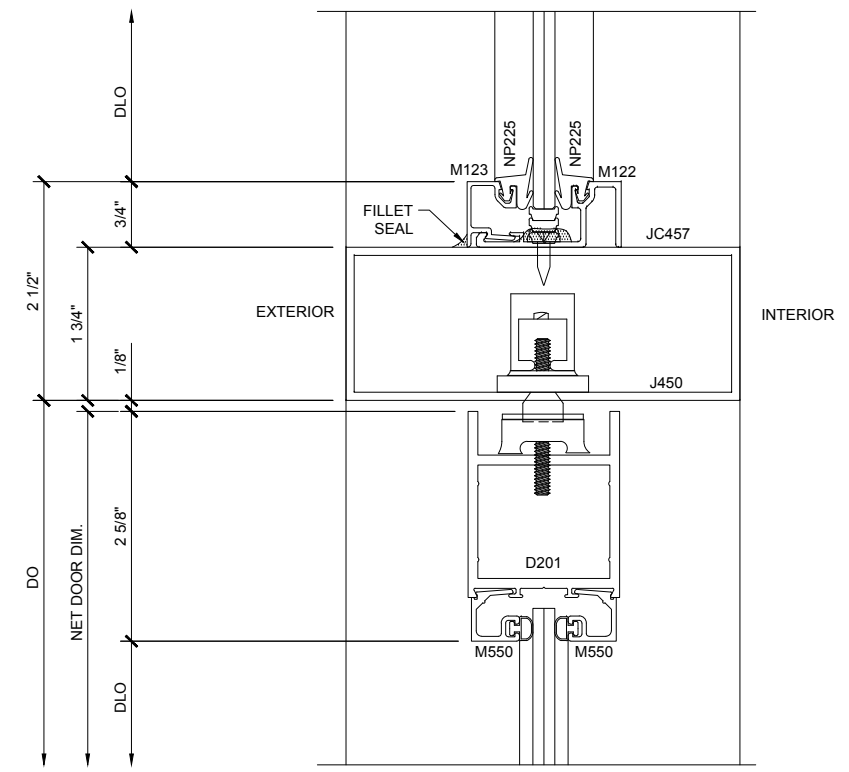
Description:
 U.S. ALUMINUM
 SERIES FF450
 STOREFRONT SYSTEM

Drawn By: RP
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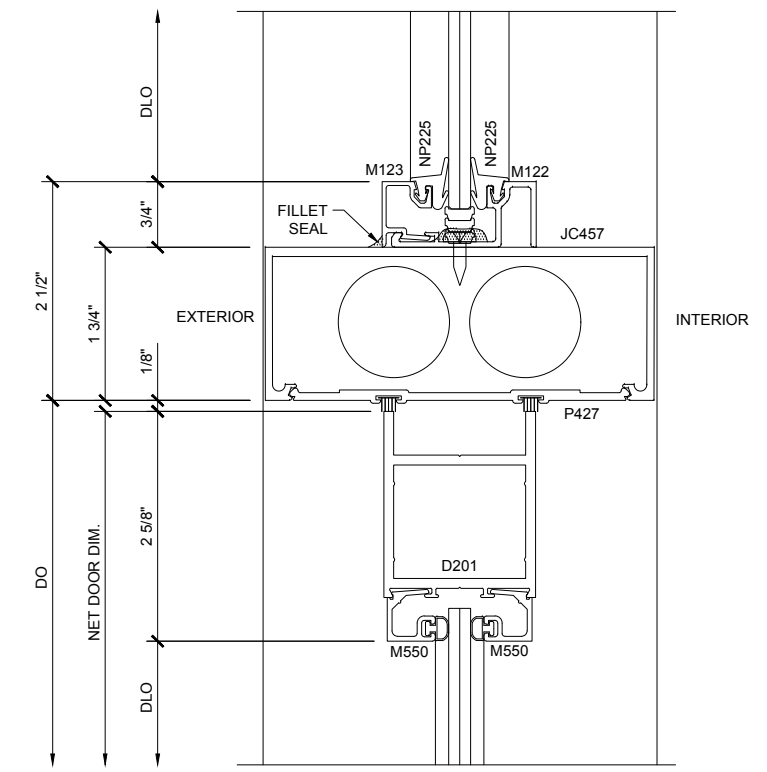
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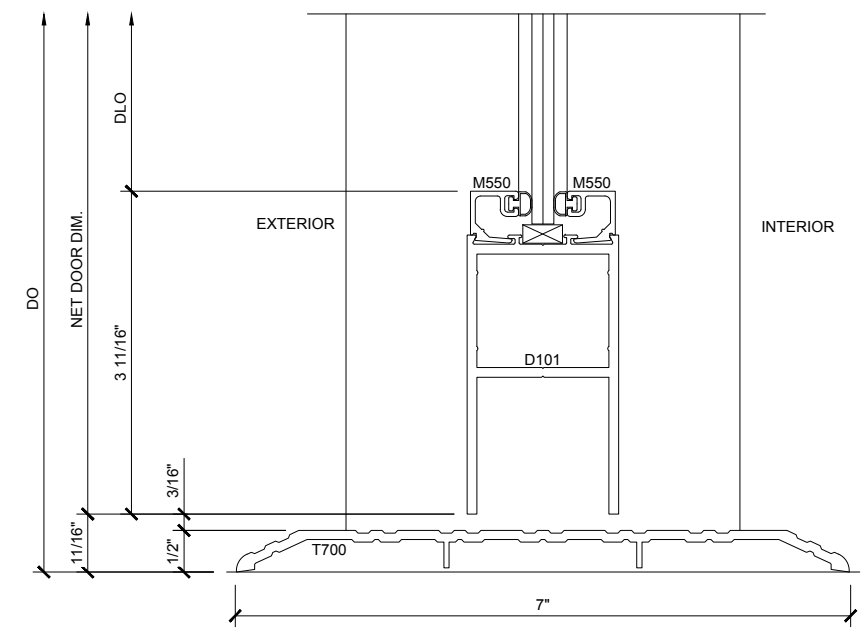
SECTION DETAIL AT HEAD ⑥



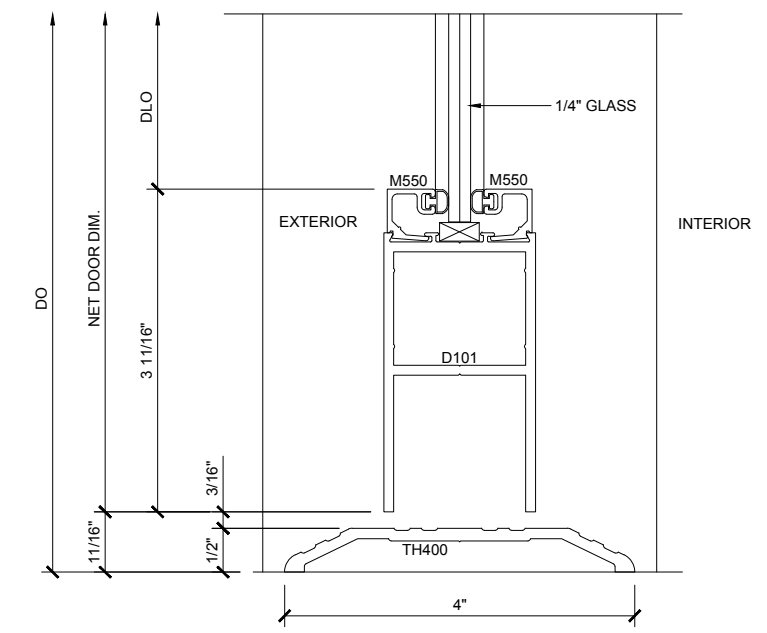
SECTION DETAIL AT DOOR HEADER ⑦



SECTION DETAIL AT DOOR HEADER ⑨



SECTION DETAIL AT BOTTOM RAIL ⑧



SECTION DETAIL AT BOTTOM RAIL ⑩

SERIES FF 450 OFFSET / DOOR FRAMING / CENTER PIVOT APPLICATION

1'-0"=1'-0"



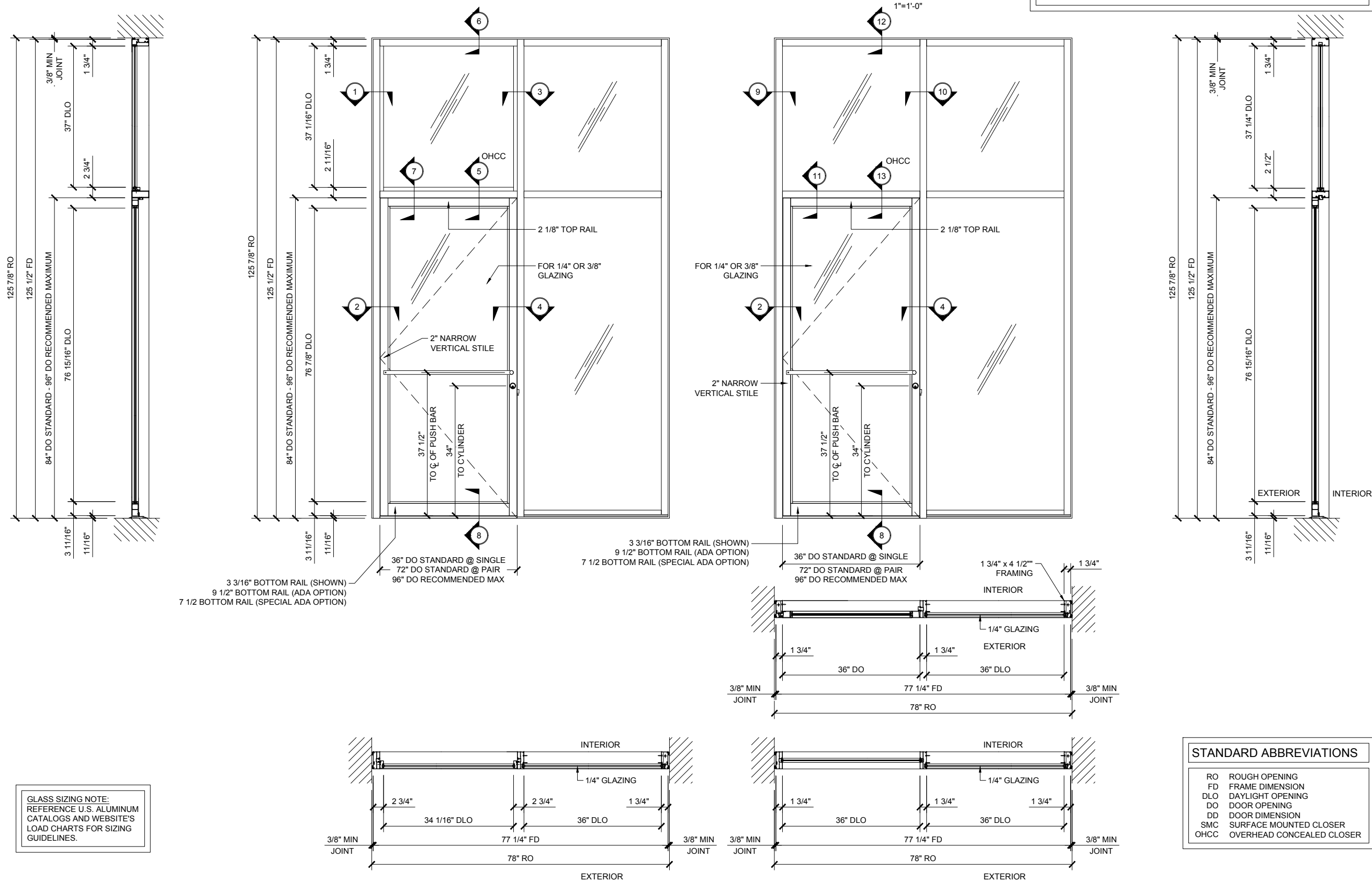
STOREFRONTS

SERIES FF 450 OFFSET / DOOR FRAMING / OFFSET PIVOT APPLICATION

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 REFERENCE U.S. ALUMINUM CATALOGS AND WEBSITE'S LOAD CHARTS FOR SIZING GUIDELINES.

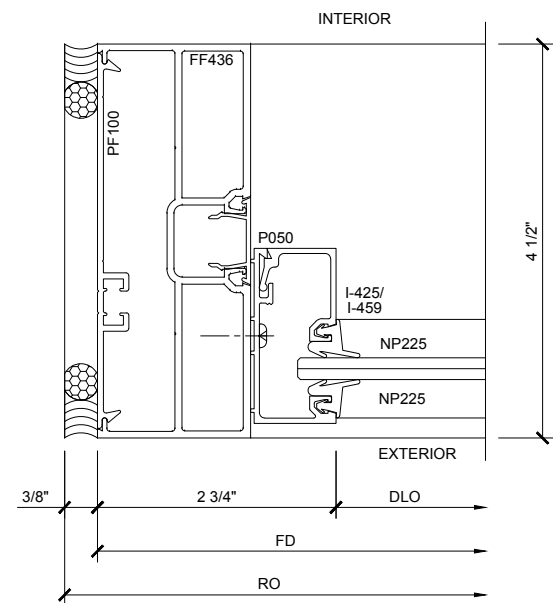
STANDARD ABBREVIATIONS	
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DLO	DAYLIGHT OPENING
DO	DOOR OPENING
DD	DOOR DIMENSION
SMC	SURFACE MOUNTED CLOSER
OHCC	OVERHEAD CONCEALED CLOSER

Revisions By:

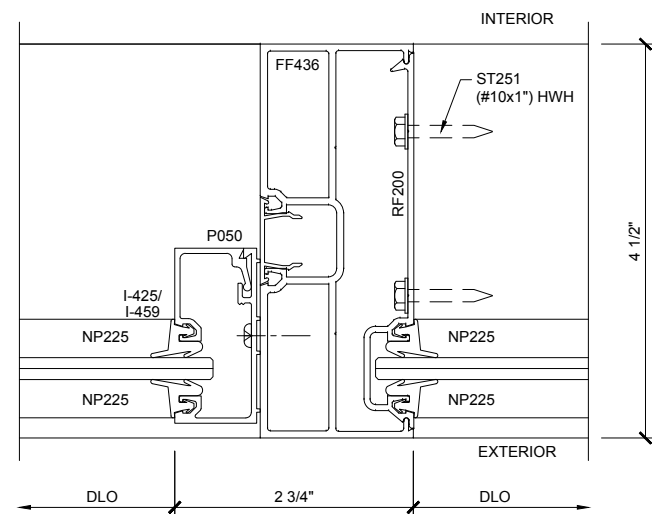
GAL ALUMINUM
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Description:
 U.S. ALUMINUM
 SERIES FF450
 STOREFRONT SYSTEM

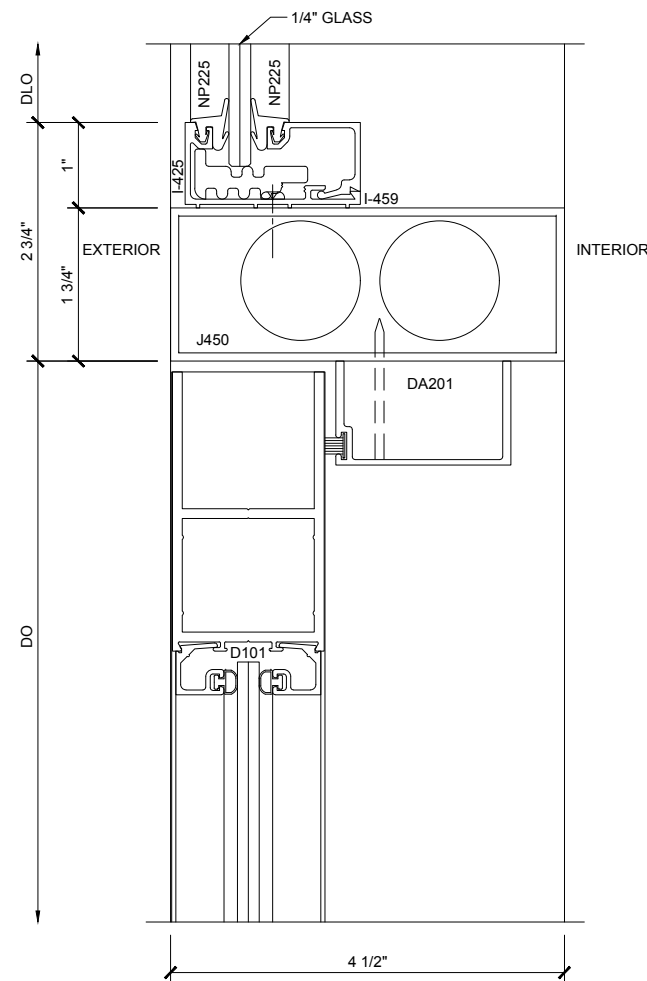
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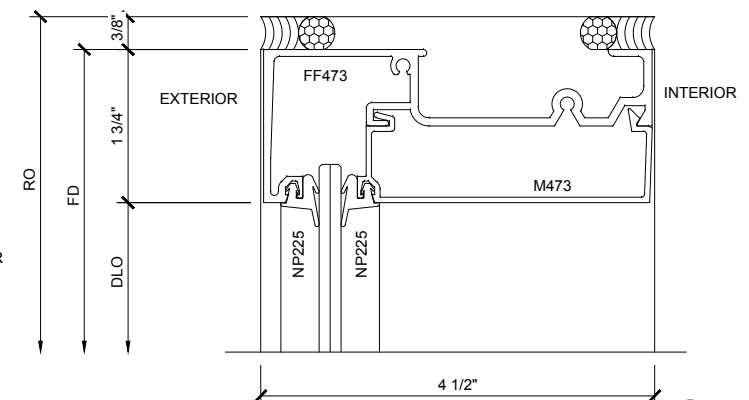
SECTION DETAIL @ JAMB ①



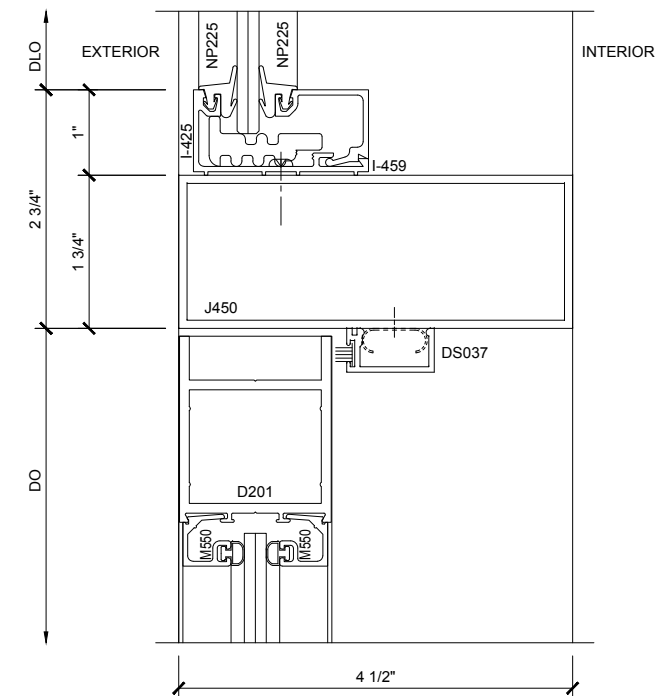
SECTION DETAIL @ JAMB ③



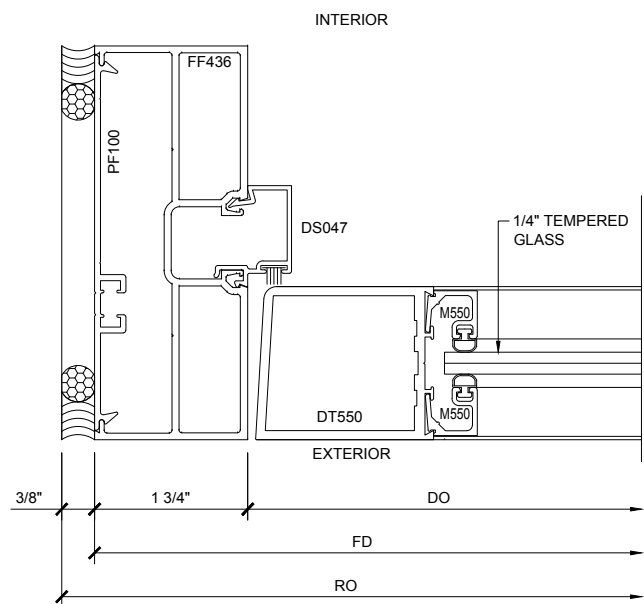
SECTION DETAIL @ DOOR HEADER ⑤



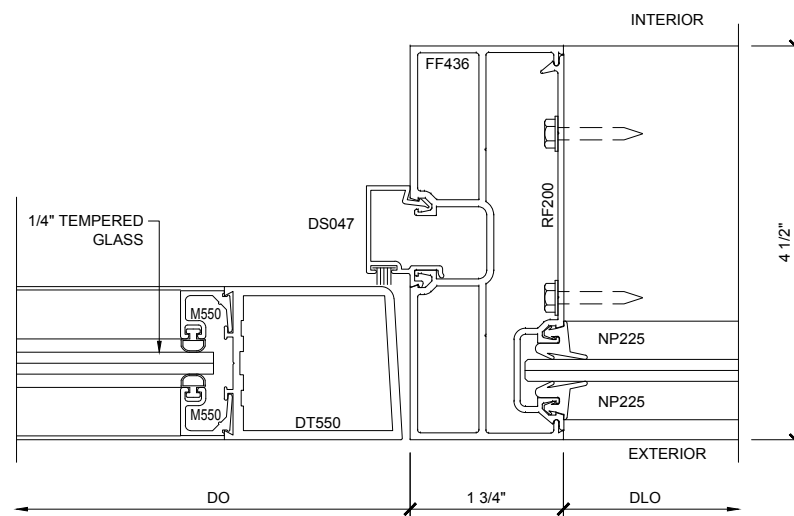
SECTION DETAIL @ HEAD ⑥



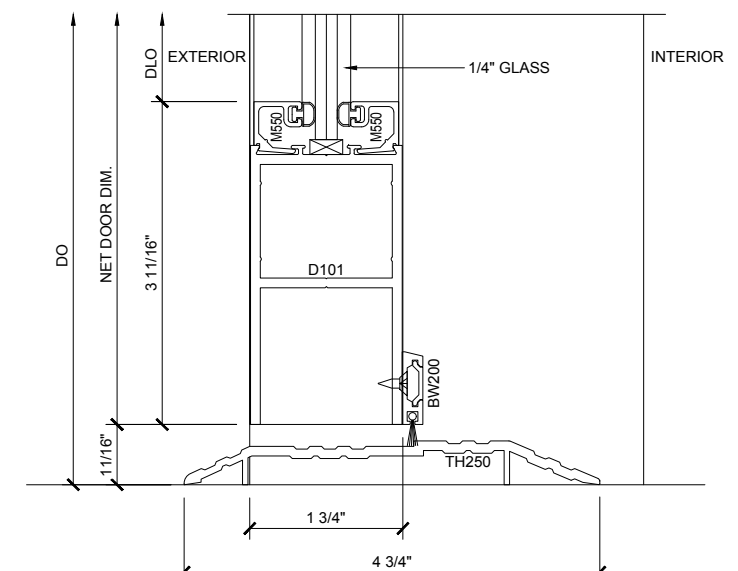
SECTION DETAIL @ DOOR HEADER ⑦



SECTION DETAIL @ DOOR JAMB ②



SECTION DETAIL @ DOOR JAMB ④



SECTION DETAIL @ DOOR SILL ⑧

SERIES FF 450 OFFSET / DOOR FRAMING / OFFSET PIVOT APPLICATION

1'-0"=1'-0"

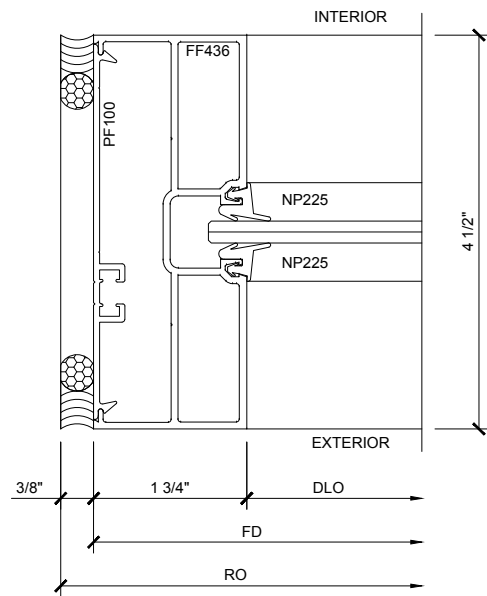
Revisions By:



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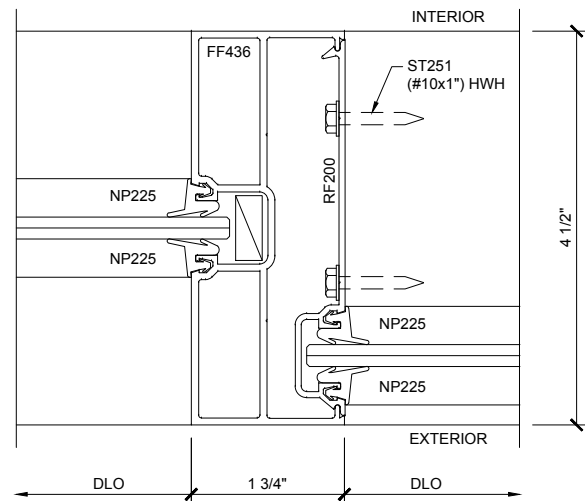
U.S. ALUMINUM
SERIES FF450
STOREFRONT SYSTEM

Drawn By: RP
Date: 08/19/14
Scale: AS NOTED
File Name: FF450.dwg
Sheet



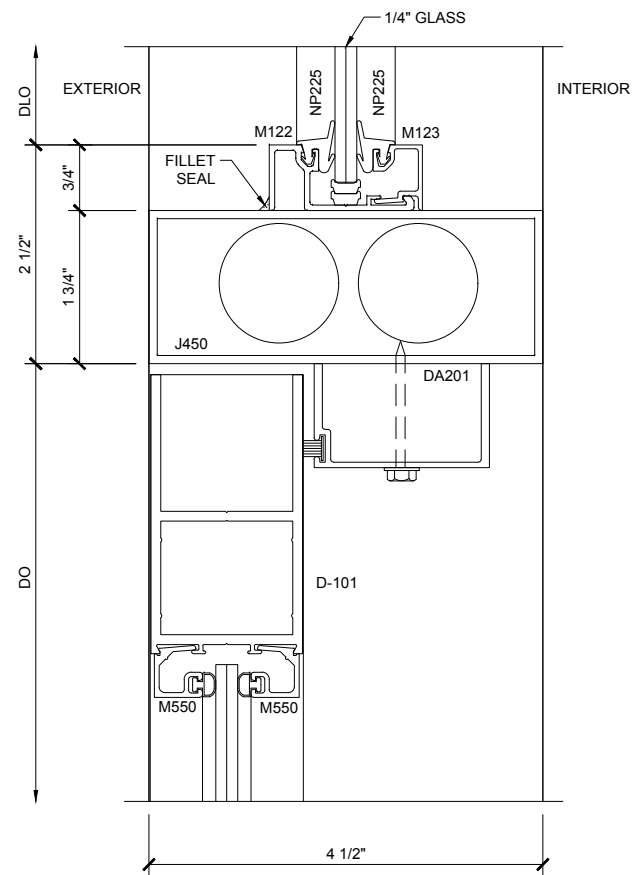
SECTION DETAIL @ JAMB

9



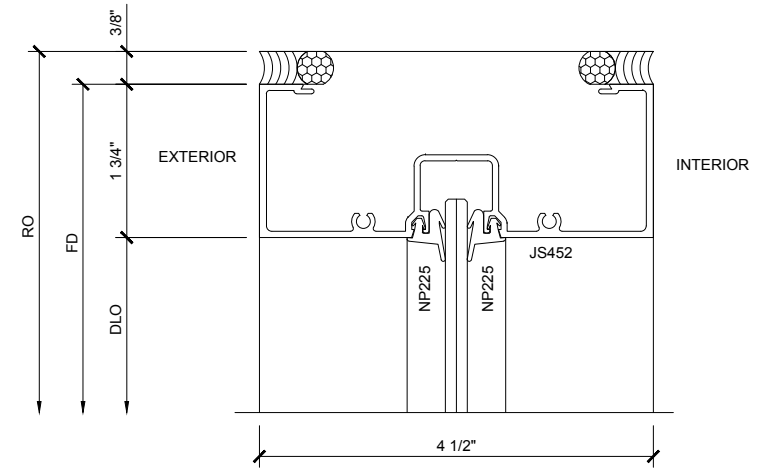
SECTION DETAIL @ JAMB

10



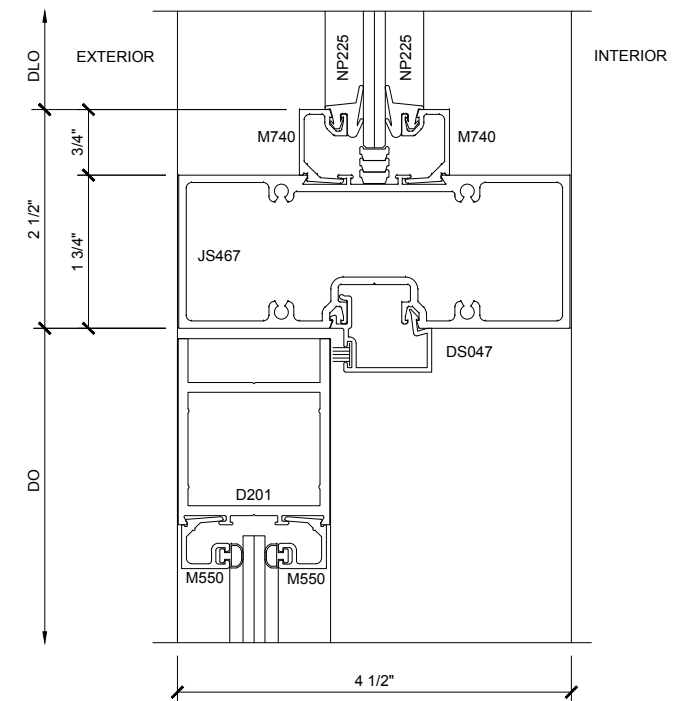
SECTION DETAIL @ DOOR HEADER

11



SECTION DETAIL AT HEAD

12



SECTION DETAIL @ DOOR HEADER

13

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Description:
 U.S. ALUMINUM
 SERIES FF450
 STOREFRONT SYSTEM

Drawn By: RP
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 Scale: AS NOTED
 File Name: FF450.dwg
 Sheet

SERIES FF 450 OFFSET / DOOR FRAMING / SPECIAL CONDITION (2" WIDE DOOR JAMB)

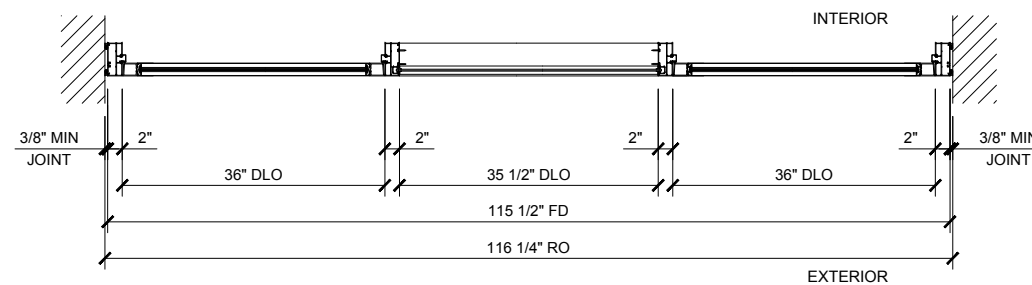
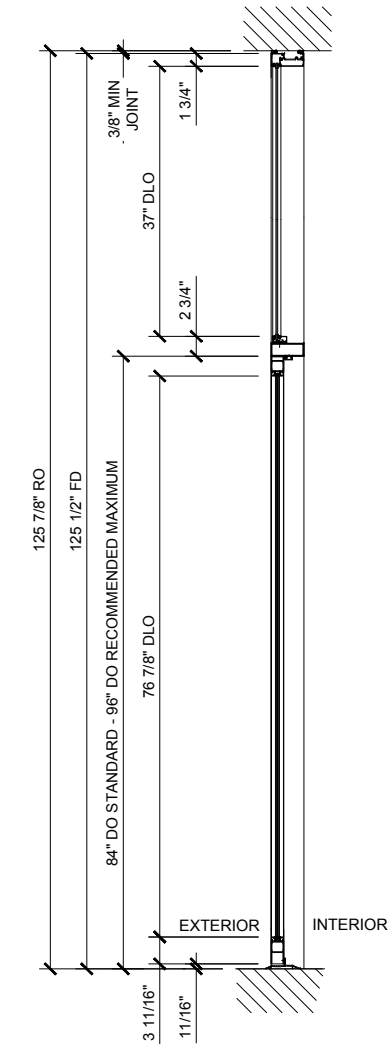
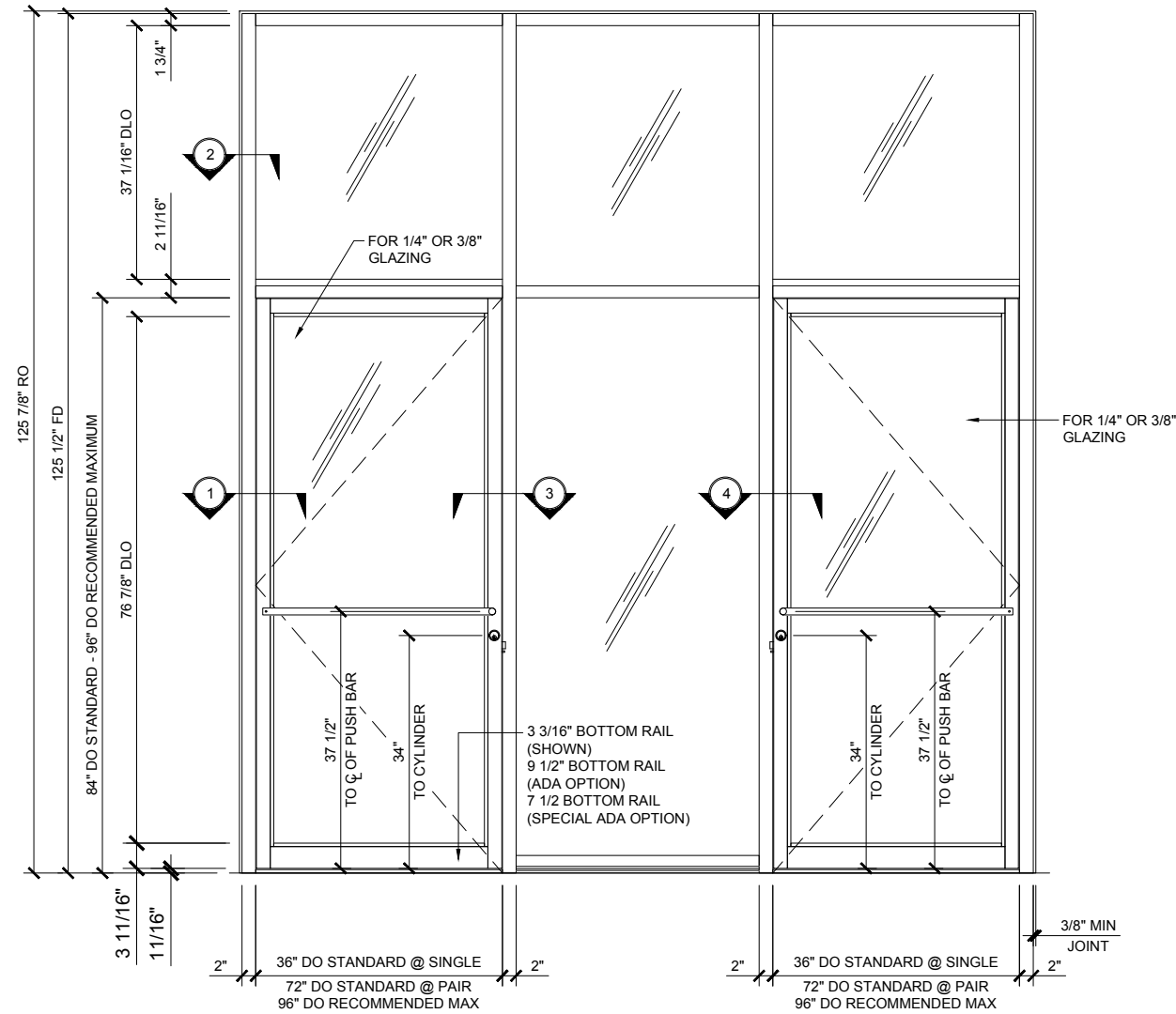
1"=1'-0"

FF 450 SERIES SPECIFICATIONS

Flush Front System allow the plane of the glass to be reversed from exterior to interior or any combination to give these standard system a custom look. Flush Front is ideal for use in storefront and punched opening or ribbon window applications.

1 3/4" x 4 1/2" frame
 3/16", 1/4", 5/16" & 3/8" Glazing infill
 Full range of accessory components
 Available in an array of architectural coatings and anodized finishes
 Interior or Exterior Glazed

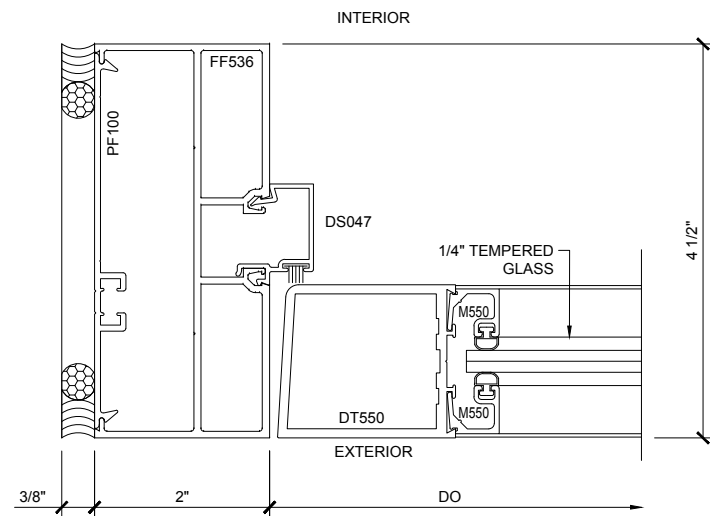
GLASS SIZING NOTE:
 REFERENCE U.S. ALUMINUM
 CATALOGS AND WEBSITE'S
 LOAD CHARTS FOR SIZING
 GUIDELINES.



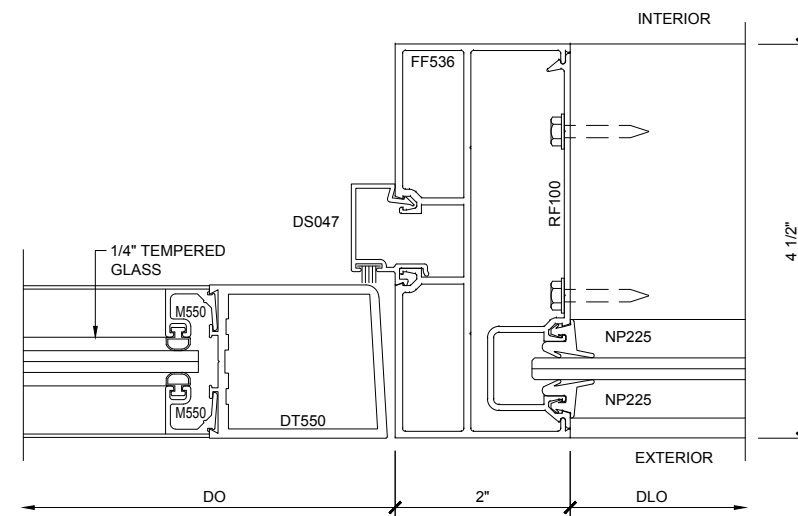
STANDARD ABBREVIATIONS

RO	ROUGH OPENING
FD	FRAME DIMENSION
DLO	DAYLIGHT OPENING
DO	DOOR OPENING
DD	DOOR DIMENSION
SMC	SURFACE MOUNTED CLOSER
OHCC	OVERHEAD CONCEALED CLOSER

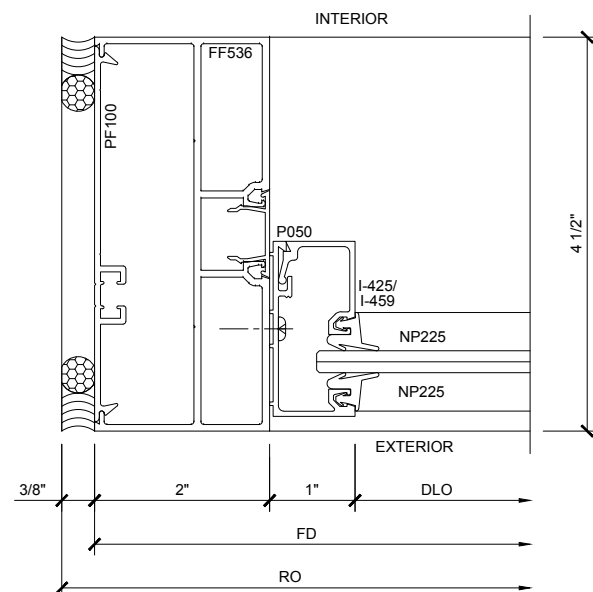
Revisions By:



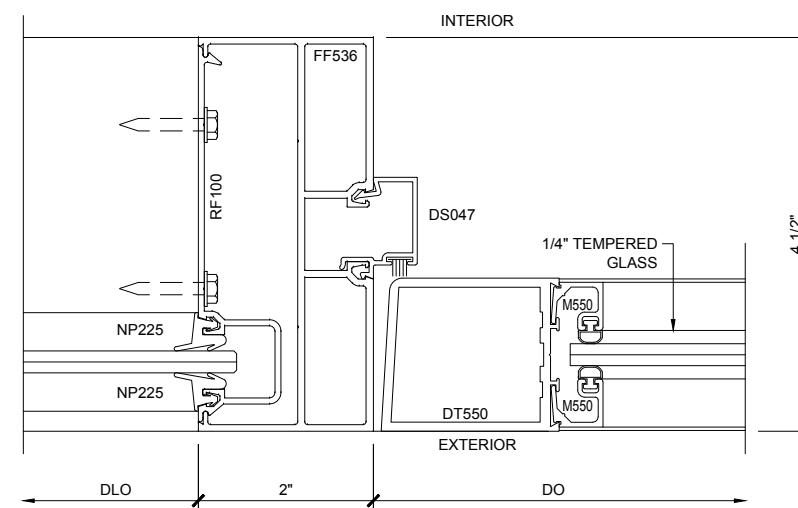
SECTION DETAIL @ DOOR JAMB ①



SECTION DETAIL @ DOOR JAMB ③



SECTION DETAIL @ DOOR JAMB ②



SECTION DETAIL @ DOOR JAMB ④

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Description:
 U.S. ALUMINUM
 SERIES FF450
 STOREFRONT SYSTEM

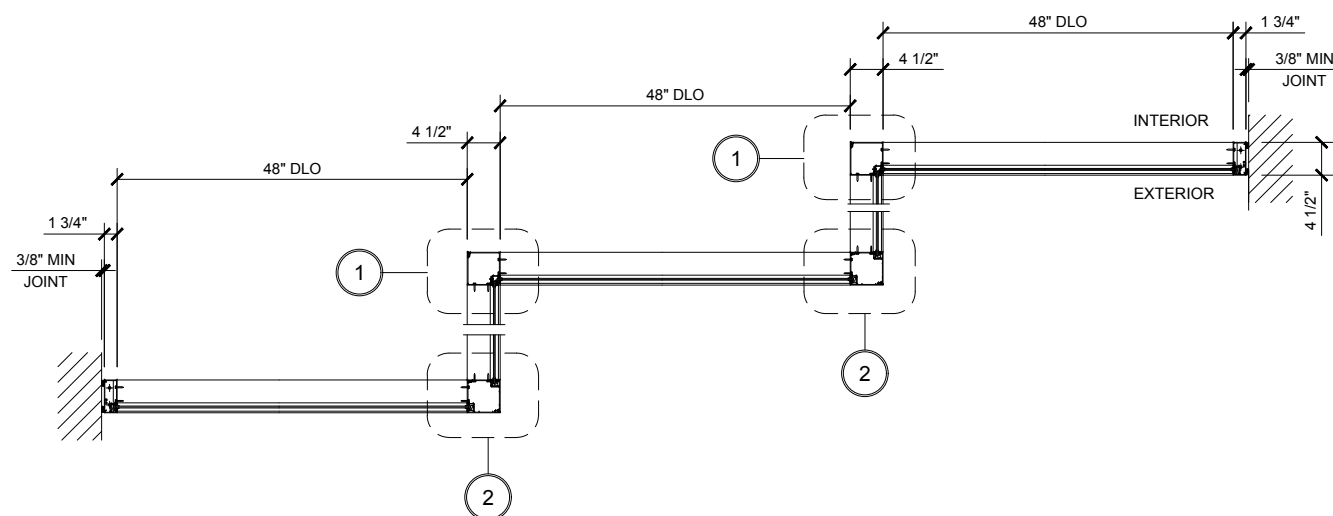
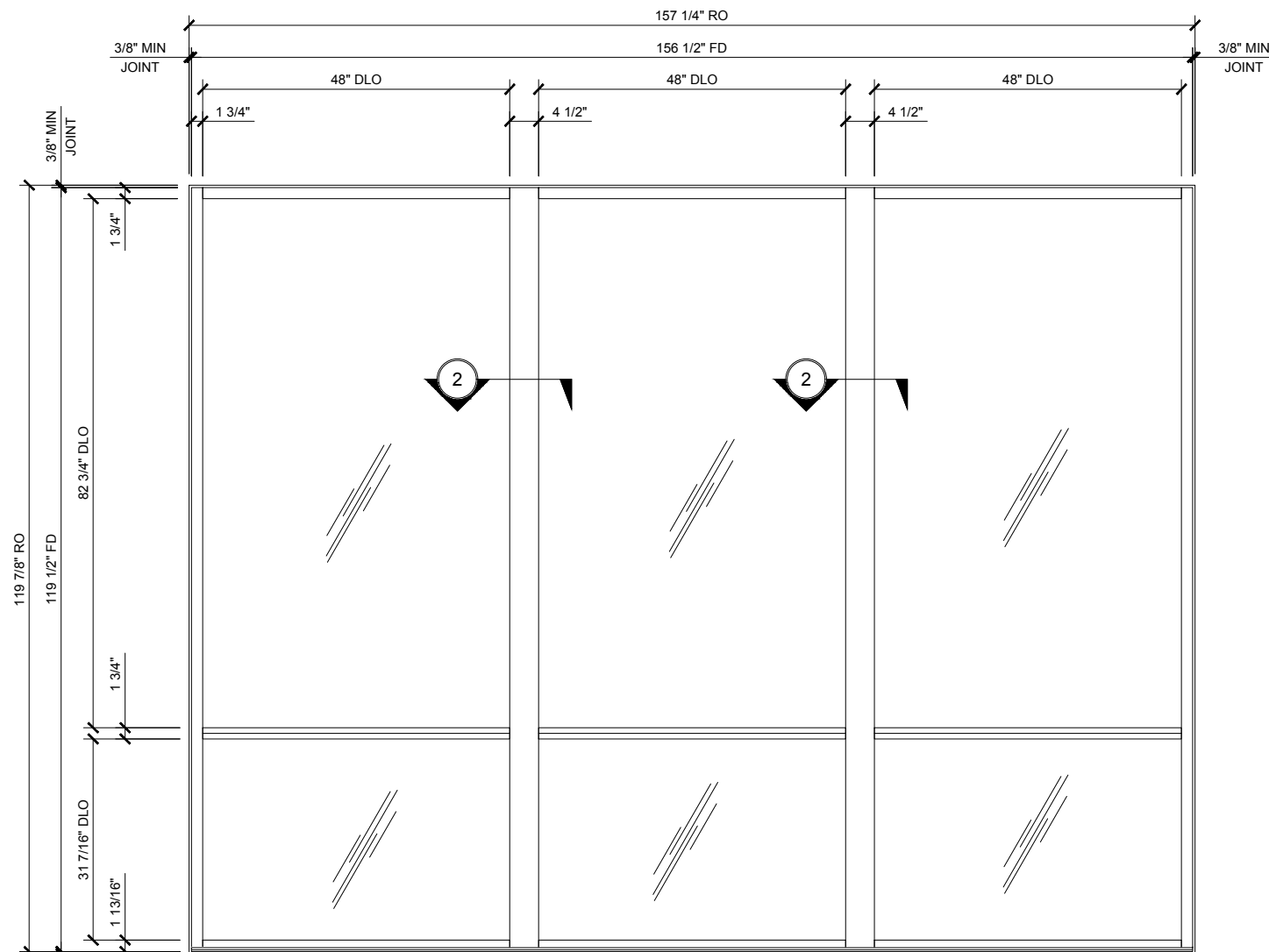
Drawn By: RP
 Date: 08/19/14
 Scale: AS NOTED
 File Name: FF450.dwg
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STOREFRONTS

SERIES FF 450 OFFSET / CORNER CONDITION / 90°

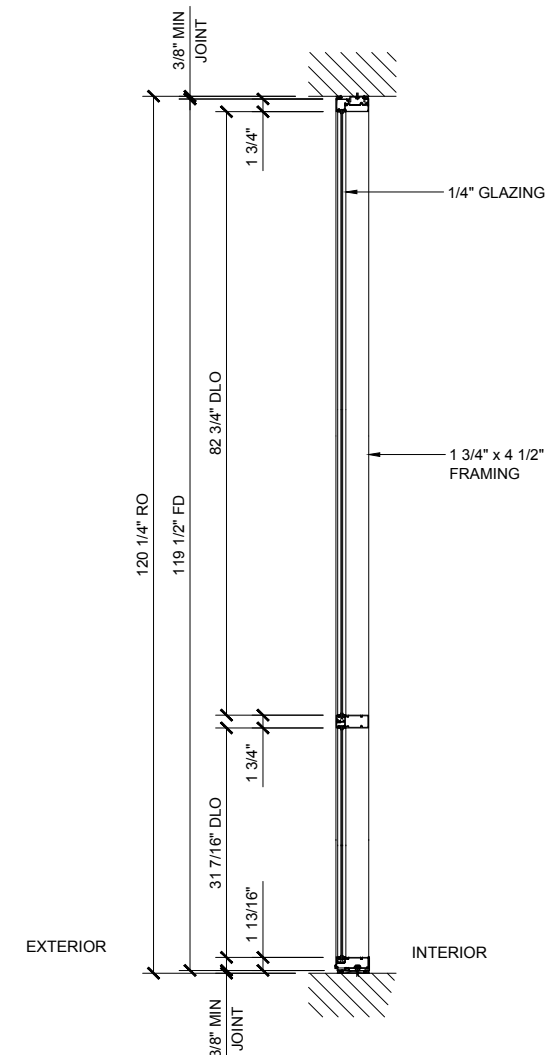
1"=1'-0"



FF 450 SERIES SPECIFICATIONS

Flush Front System allow the plane of the glass to be reversed from exterior to interior or any combination to give these standard system a custom look. Flush Front is ideal for use in storefront and punched opening or ribbon window applications.

1 3/4" x 4 1/2" frame
 3/16", 1/4", 5/16" & 3/8" Glazing infill
 Full range of accessory components
 Available in an array of architectural coatings and anodized finishes
 Interior or Exterior Glazed



STANDARD ABBREVIATIONS

RO	ROUGH OPENING
FD	FRAME DIMENSION
DLO	DAYLIGHT OPENING
DO	DOOR OPENING
DD	DOOR DIMENSION
SMC	SURFACE MOUNTED CLOSER
OHCC	OVERHEAD CONCEALED CLOSER

Revisions By:



Description:
 U.S. ALUMINUM
 SERIES FF450
 STOREFRONT SYSTEM

Drawn By: RP
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 Scale: AS NOTED
 File Name: FF450.dwg
 Sheet



STOREFRONTS

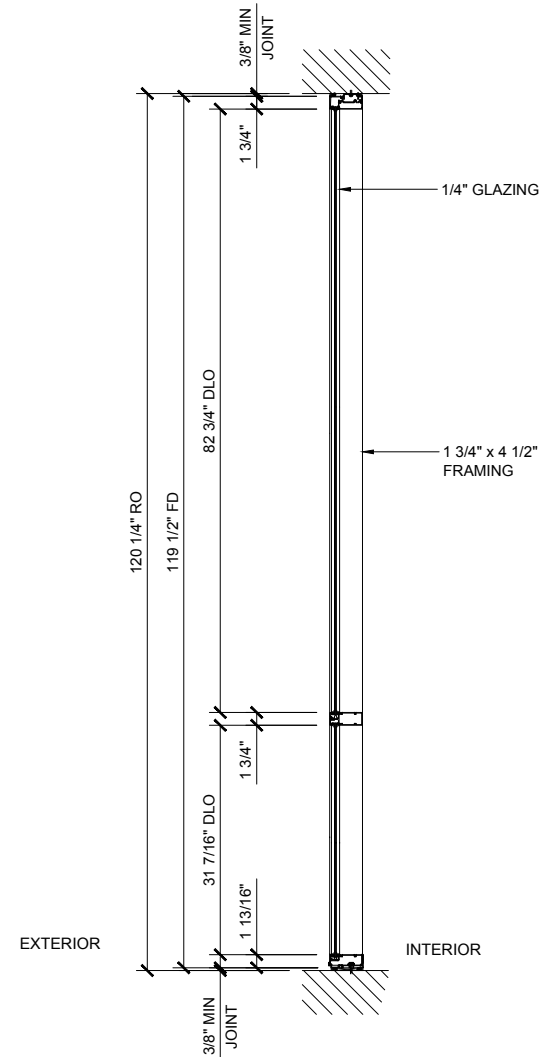
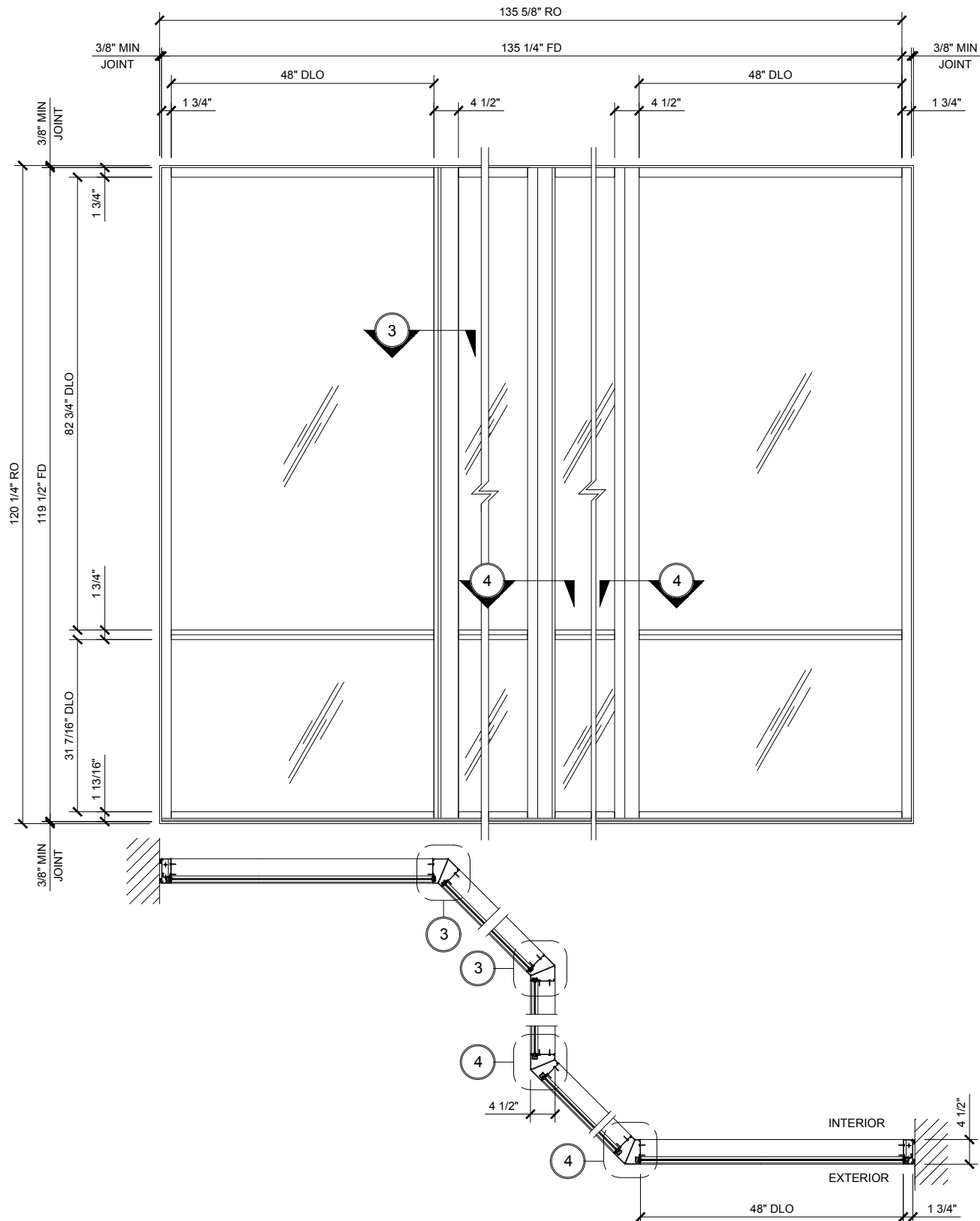
SERIES FF 450 OFFSET / CORNER CONDITION / 135°

FF 450 SERIES SPECIFICATIONS

Flush Front System allow the plane of the glass to be reversed from exterior to interior or any combination to give these standard system a custom look.
 Flush Front is ideal for use in storefront and punched opening or ribbon window applications.

1 3/4" x 4 1/2" frame
 3/16", 1/4", 5/16" & 3/8" Glazing infill
 Full range of accessory components
 Available in an array of architectural coatings and anodized finishes
 Interior or Exterior Glazed

1"=1'-0"



STANDARD ABBREVIATIONS	
RO	ROUGH OPENING
FD	FRAME DIMENSION
DLO	DAYLIGHT OPENING
DO	DOOR OPENING
DD	DOOR DIMENSION
SMC	SURFACE MOUNTED CLOSER
OHCC	OVERHEAD CONCEALED CLOSER

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 STOREFRONT SYSTEM

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 Scale: AS NOTED
 File Name: FF450.dwg
 Sheet

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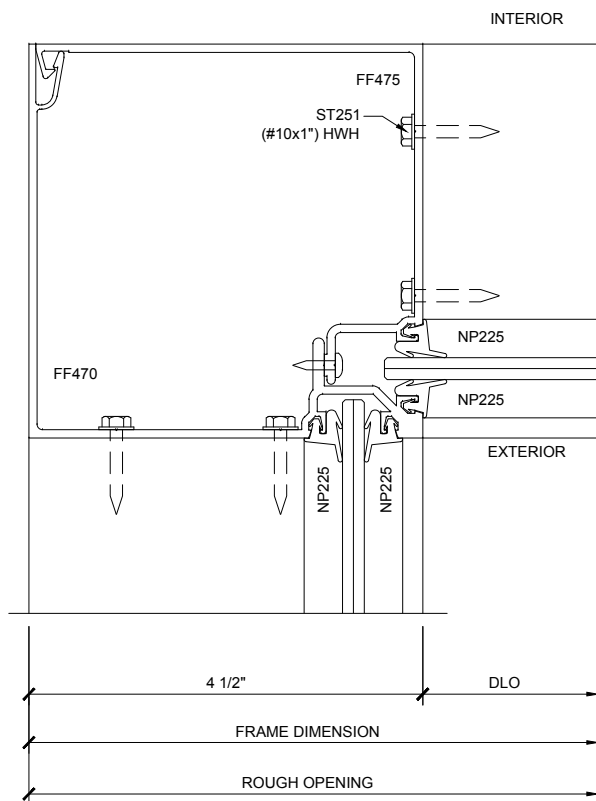


Description:
U.S. ALUMINUM
SERIES FF450
STOREFRONT SYSTEM

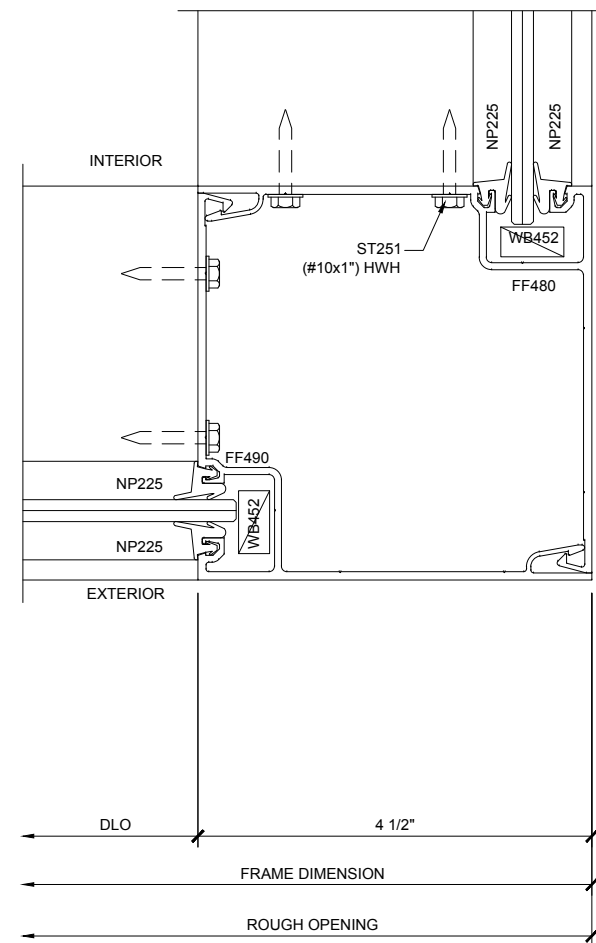
Drawn By: RP
Date: 08/19/14
Scale: AS NOTED
File Name: FF450.dwg
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7.3

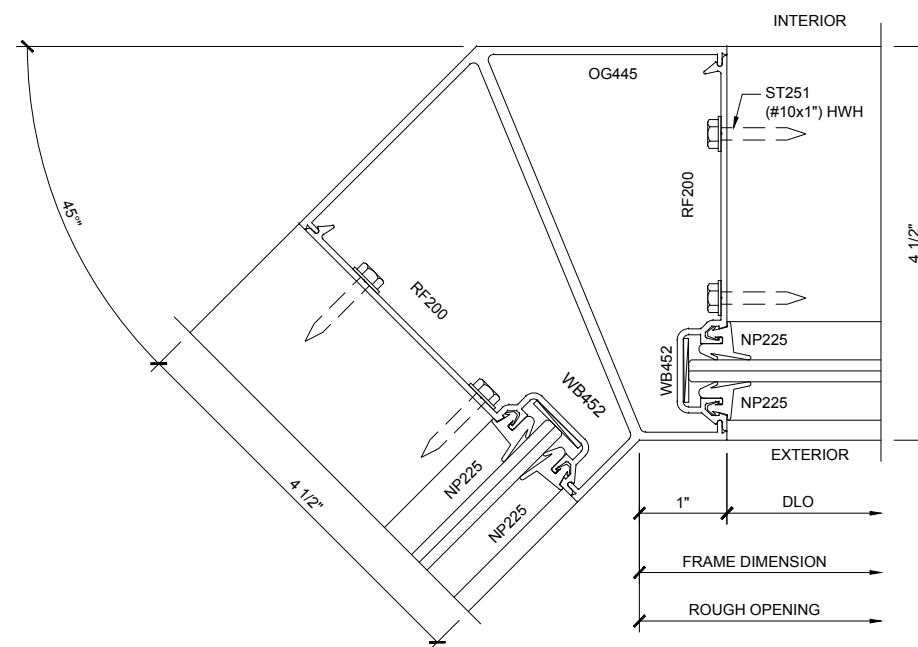
1'-0"=1'-0"



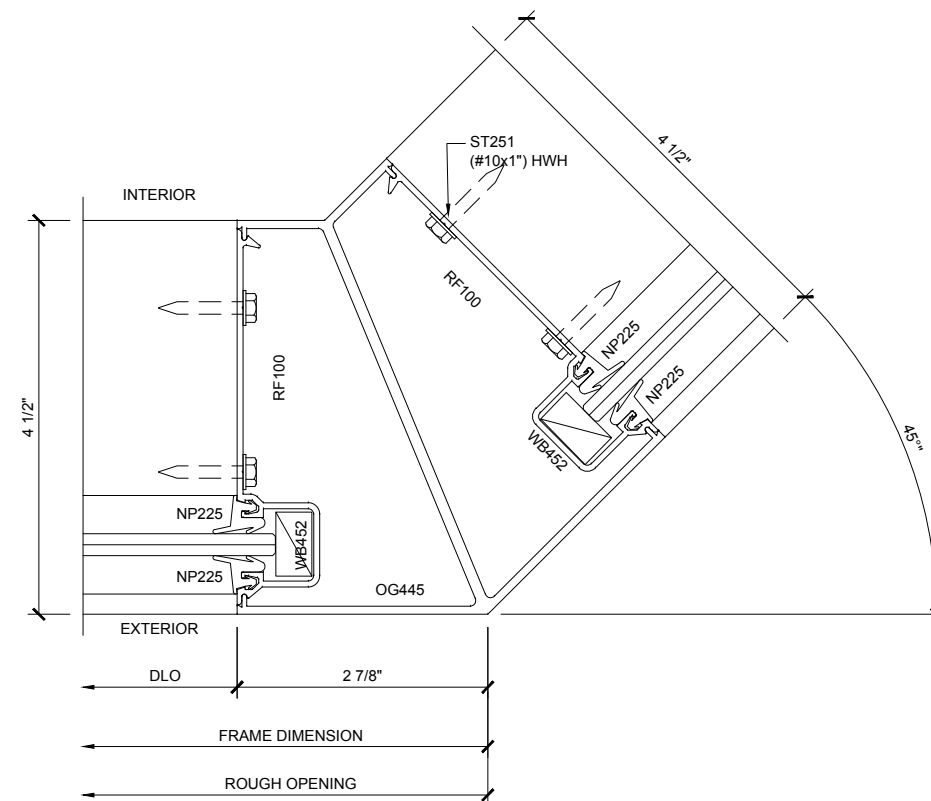
SECTION DETAIL @ DOOR JAMB - 90° ①



SECTION DETAIL @ JAMB - 90° ②

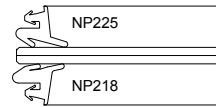


SECTION DETAIL @ JAMB - 135° ③

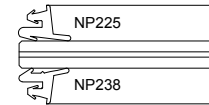


SECTION DETAIL @ JAMB - 135° ④

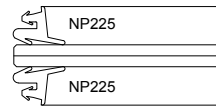
SERIES FF 450 OFFSET / CORNER CONDITION



SECTION DETAIL AT FF450 - 3/16" GLASS ①



SECTION DETAIL AT FF450 - 5/16" GLASS ③



SECTION DETAIL AT FF450 - 1/4" GLASS ②



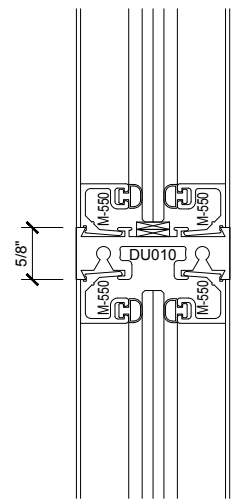
SECTION DETAIL AT FF450 - 3/8" GLASS ④

Revisions By:

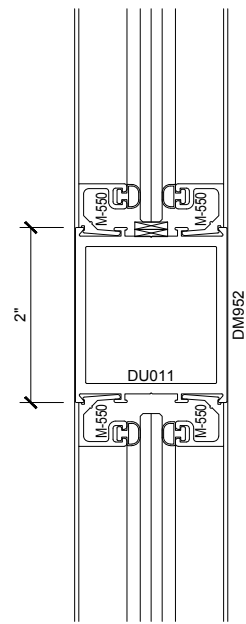


Description:
U.S. ALUMINUM
SERIES FF450
STOREFRONT SYSTEM

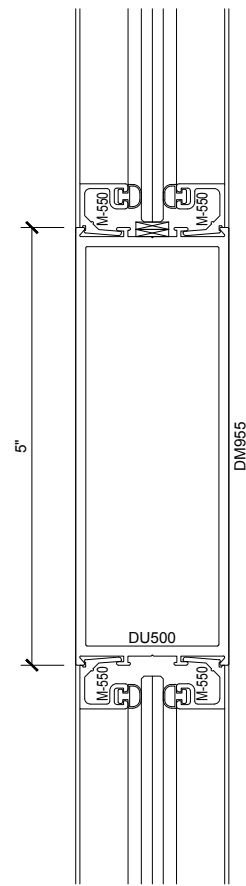
Drawn By: RP
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Scale: AS NOTED
File Name: FF450.dwg
Sheet



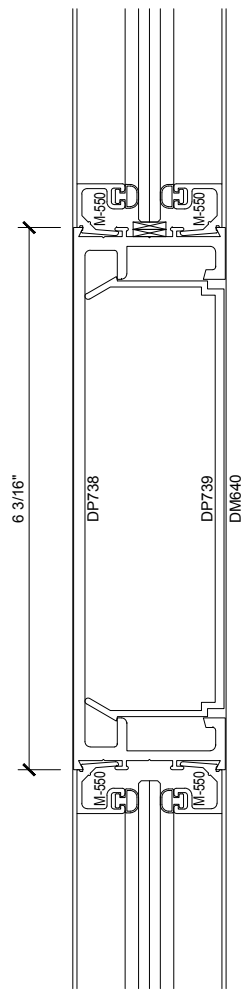
DM950



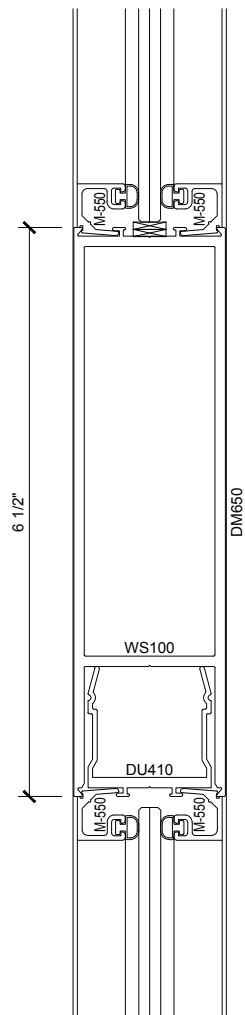
DM952



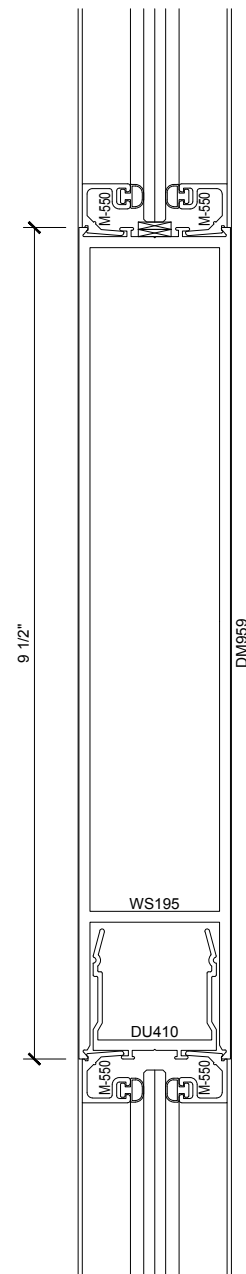
DM955



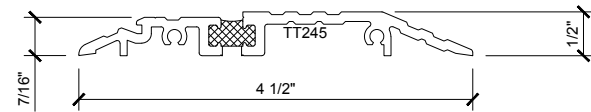
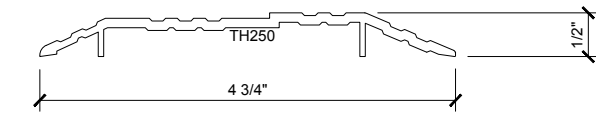
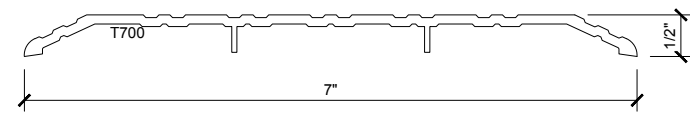
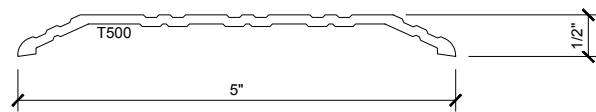
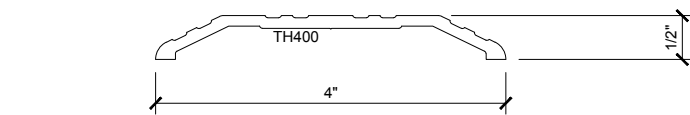
DM640



DM950

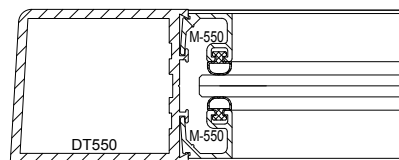


DM959

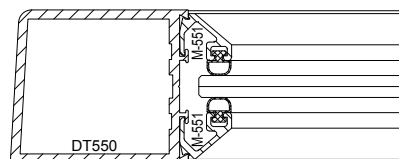


THRESHOLDS

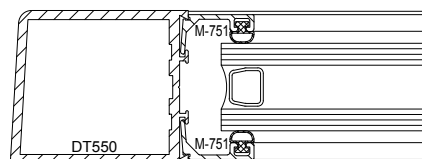
DOOR MUNTINS



1/4" GLASS - SQUARE

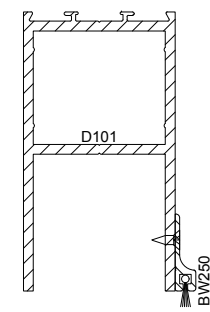
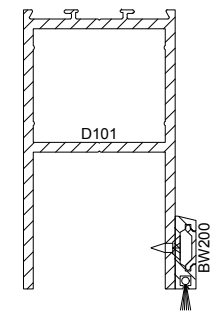
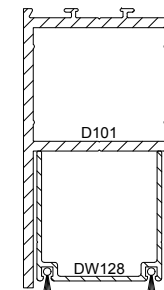
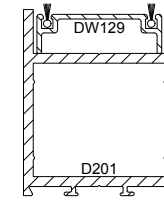


1/4" GLASS - TAPERED



1" GLASS

GLAZING OPTIONS



TOP AND BOTTOM WEATHERSTRIPPING

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Description:
 U.S. ALUMINUM
 SERIES FF450
 STOREFRONT SYSTEM

Drawn By: RP
 Date: 08/19/14
 Scale: AS NOTED
 File Name: FF450.dwg
 Sheet