

### CORNER CONSTRUCTION:

**JAMB TO HEAD:** JAMB MEMBERS RUN THROUGH. HEAD IS COPED, BUTTED AND JOINED TO THE JAMB MEMBERS WITH A 3.25"x3.25"x1/8" THICK BRONZE OR STEEL BENT ANGLE. THE ANGLE LEGS ARE PLACED INSIDE OF EACH FRAME MEMBER AND ARE SECURED VIA 10-24 X 1/2" LONG MACHINE SCREWS PLACED THROUGH THE JAMB AND HEAD MEMBERS INTO THE ANGLE. CORNERS ARE THEN SEALED WITH SEALANT. NOTE: FOR ANGLE LENGTHS AND SCREW QUANTITIES SEE "JAMB TO HEAD CORNER ANGLE & SCREW REQUIREMENTS" BELOW.

#### JAMB TO HEAD CORNER ANGLE & SCREW REQUIREMENTS:

- 1 PANEL DEEP POCKET SYSTEM: ANGLE LENGTH = 1 13/16". QUANTITY OF SCREWS PER ANGLE LEG = 4.
- 2 PANEL DEEP POCKET SYSTEMS: ANGLE LENGTH = 3 15/16". QUANTITY OF SCREWS PER ANGLE LEG = 6.
- 3 PANEL DEEP POCKET SYSTEMS: ANGLE LENGTH = 6 1/16". QUANTITY OF SCREWS PER ANGLE LEG = 6.
- 2 PANEL DEEP STANDARD SYSTEMS: ANGLE LENGTH = 2 13/16". QUANTITY OF SCREWS PER ANGLE LEG = 4.
- 3 PANEL DEEP STANDARD SYSTEMS: ANGLE LENGTH = 4 15/16". QUANTITY OF SCREWS PER ANGLE LEG = 6.
- 4 PANEL DEEP STANDARD SYSTEMS: ANGLE LENGTH = 7 1/16". QUANTITY OF SCREWS PER ANGLE LEG = 8.

**JAMB TO SILL:** JAMB MEMBERS RUN THROUGH. SILL IS COPED, BUTTED AND JOINED TO THE JAMB MEMBERS WITH A 3.25"x3.25"x1/8" THICK BRONZE OR STEEL BENT ANGLE. THE ANGLE LEGS ARE PLACED INSIDE OF EACH THE FRAME & SILL MEMBERS AND ARE SECURED VIA 10-24 X 1/2" LONG MACHINE SCREWS PLACED THROUGH THE JAMB AND SILL MEMBERS INTO THE ANGLE. CORNERS ARE THEN SEALED WITH SEALANT. NOTE: FOR ANGLE LENGTHS AND SCREW QUANTITIES SEE "JAMB TO SILL CORNER ANGLE & SCREW REQUIREMENTS" BELOW.

#### JAMB TO SILL CORNER ANGLE & SCREW REQUIREMENTS:

- 1 PANEL DEEP POCKET SYSTEM: ANGLE LENGTH = 1 13/16". QUANTITY OF SCREWS PER ANGLE LEG = 4 AT SILL & 2 AT JAMB.
- 2 PANEL DEEP POCKET SYSTEMS: ANGLE LENGTH = 3 15/16". QUANTITY OF SCREWS PER ANGLE LEG = 6 AT SILL & 3 AT JAMB.
- 3 PANEL DEEP POCKET SYSTEMS: ANGLE LENGTH = 6 1/16". QUANTITY OF SCREWS PER ANGLE LEG = 6 AT SILL & 3 AT JAMB.
- 2 PANEL DEEP STANDARD SYSTEMS: ANGLE LENGTH = 2 13/16". QUANTITY OF SCREWS PER ANGLE LEG = 4 AT SILL & 2 AT JAMB.
- 3 PANEL DEEP STANDARD SYSTEMS: ANGLE LENGTH = 4 15/16". QUANTITY OF SCREWS PER ANGLE LEG = 6 AT SILL & 3 AT JAMB.
- 4 PANEL DEEP STANDARD SYSTEMS: ANGLE LENGTH = 7 1/16". QUANTITY OF SCREWS PER ANGLE LEG = 8 AT SILL & 4 AT JAMB.

**PANELS:** STILE MEMBERS RUNS THROUGH. TOP & BOTTOM RAILS ARE COPED, BUTTED AND FULLY WELDED TO STILES.

### LOCKING BOLT QUANTITY REQUIREMENTS

| (1) PANEL HEIGHT | QUANTITY PER PANEL |
|------------------|--------------------|
| OVER 84 5/16"    | 4                  |
| 80" TO 84 5/16"  | 3                  |

(1) PANEL HEIGHT IS FRAME HEIGHT MINUS 4".

DETAILED ELEVATIONS SHOWN ON SHEETS 2 THROUGH 9 ARE ONLY THOSE NECESSARY TO SHOW ALL APPLICABLE DOOR SECTIONS & ANCHOR CONDITIONS. FOR ALL ELEVATION CONFIGURATIONS APPLICABLE TO THIS APPROVAL, SEE SHEET 10.

### ALLOWABLE DESIGN PRESSURE

| (1) MAX. PANEL HEIGHT (IN.) | (2) MAX. (3) PANEL WIDTH (IN.) | ALLOWABLE PRESSURE (PSF) |      |
|-----------------------------|--------------------------------|--------------------------|------|
|                             |                                | (4) POS.                 | NEG. |
| 120                         | 50                             | 50.0                     | 50.0 |
|                             | 44                             | 50.0                     | 56.8 |
|                             | 38                             | 50.0                     | 65.8 |
| 108                         | 32                             | 50.0                     | 78.1 |
|                             | 50                             | 50.0                     | 55.5 |
|                             | 44                             | 50.0                     | 63.1 |
| 96                          | 38                             | 50.0                     | 73.1 |
|                             | 32                             | 50.0                     | 85.0 |
|                             | 50                             | 50.0                     | 62.5 |
| 92                          | 44                             | 50.0                     | 71.0 |
|                             | 38                             | 50.0                     | 82.2 |
|                             | 36                             | 50.0                     | 85.0 |
| 92                          | 50                             | 50.0                     | 65.2 |
|                             | 44                             | 50.0                     | 74.1 |
|                             | 38                             | 50.0                     | 85.0 |

(1) PANEL HEIGHT IS FRAME HEIGHT MINUS 4" & APPLIES TO THE ACTIVE SLIDING PANELS. FIXED PANELS ARE 1" TALLER THAN THE ACTIVE SLIDING PANELS.

(2) PANEL WIDTH IS CONSIDERED AS THE DISTANCE BETWEEN EACH STILE PERIMETER & DOES NOT INCLUDE ANY ATTACHED POCKET FILLER OR BUMPER PARTS.

(3) STANDARD PANEL WIDTH DIMENSIONS ARE SHOWN. FOR END PANELS AT POCKETS, ADD 4" TO ALLOW FOR THE WIDER STILE THAT PROJECTS BEHIND THE POCKET EDGE. NOTE: REGARDLESS OF PANEL TYPE THE MAX. D.L.O. DIMENSIONS SHOWN HERE-IN APPLY.

(4) WHEN JOB REQUIRED POSITIVE DESIGN PRESSURE EXCEEDS 50 PSF, THE DOOR SHALL NOT BE RATED FOR WATER INFILTRATION RESISTANCE AND THEREFORE MUST BE INSTALLED IN A NON-HABITABLE AREA WHERE THE UNIT & THE AREA ARE DESIGNED TO ACCEPT WATER INFILTRATION OR BE INSTALLED ONLY AT LOCATIONS PROTECTED BY A CANOPY OR OVERHANG WHERE-BY THE OVERHANG(OH) RATIO IS EQUAL TO OR MORE THAN 1.0 PER FBC.

### GENERAL NOTES:

- THIS PRODUCT HAS BEEN TESTED, ANALYZED & APPROVED FOR DESIGN PRESSURES NOT TO EXCEED THOSE SHOWN IN THE "ALLOWABLE DESIGN PRESSURE TABLE(S)".
- OPENINGS, BUCKING & BUCKING FASTENERS MUST BE PROPERLY DESIGNED & INSTALLED TO TRANSFER WIND LOADS TO THE STRUCTURE.
- ALL HARDWARE & FASTENERS SHALL BE IN ACCORDANCE WITH THESE DRAWINGS & SHALL NOT VARY UNLESS SPECIFICALLY MENTIONED ON THE DRAWINGS. SPECIFIED ANCHOR EMBED TO BASE MATERIAL SHALL BE BEYOND WALL FINISH OR STUCCO.
- THIS PRODUCT HAS BEEN DESIGNED IN ACCORDANCE WITH AND MEETS THE REQUIREMENTS OF THE FLORIDA BUILDING CODE (FBC) INCLUDING HIGH VELOCITY HURRICANE ZONES (HVHZ) & IS LARGE MISSILE IMPACT RATED.
- IMPACT SHUTTERS ARE NOT REQUIRED WITH THIS PRODUCT.
- ALL ANCHORS SECURING PRODUCT FRAMES TO PRESSURE TREATED BUCKS OR WOOD FRAMING SHALL BE CAPABLE OF RESISTING CORROSION CAUSED BY THE PRESSURE TREATING CHEMICALS IN THE WOOD.
- DETERMINE THE POSITIVE & NEGATIVE DESIGN LOADS TO USE WHEN REFERENCING THESE DOCUMENTS IN ACCORDANCE WITH THE GOVERNING CODE AND GOVERNING WIND VELOCITY. FOR WIND LOAD CALCULATIONS IN ACCORDANCE WITH THE FLORIDA BUILDING CODE, A DIRECTIONALITY FACTOR OF  $K_d = 0.85$  MAY BE APPLIED PER THE ASCE-7 STANDARD.
- MATERIALS, INCLUDING BUT NOT LIMITED TO STEEL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF FLORIDA BUILDING CODE.
- TO THE BEST OF OUR KNOWLEDGE, THE PRODUCT SHOWN HEREIN IS QUALITY ASSURED BY A FLORIDA STATE APPROVED CERTIFICATION/QA ENTITY & SHALL BE LABELED IN ACCORDANCE WITH THE FBC AND THE FLORIDA DEPARTMENT OF BUSINESS & PROFESSIONAL REGULATION SPECIFICATIONS. THESE DRAWINGS SHOW ALL APPLICABLE ELEVATION, COMBINATION, INSTALLATION & COMPARATIVE ANALYSIS CONDITIONS AS DETERMINED THROUGH TESTING & ENGINEERING RATIONAL ANALYSIS. PRODUCT ASSEMBLY SHALL BE IN ACCORDANCE WITH THESE DRAWINGS, THE MANUFACTURER'S QUALITY ASSURANCE SPECIFICATIONS & TESTING REPORTS.
- CERTIFICATION OF THIS PRODUCT SHALL BE CONSIDERED VOID IF IT IS INSTALLED WITHOUT A BUILDING PERMIT FROM THE APPLICABLE LOCAL BUILDING DEPARTMENT OR IF IT IS INSTALLED BY ANYONE OTHER THAN A LICENSED CONTRACTOR EXPERIENCED WITH INSTALLATIONS OF THIS TYPE OF PRODUCT.
- DOOR POCKETS SHALL BE CONSTRUCTED BY HOPE'S AS DETAILED IN THESE DRAWINGS. BECAUSE THE POCKETS ARE NOT IMPACT NOR WIND PRESSURE RATED, THEY SHALL BE COVERED BY AN IMPACT RESISTANT WALL STRUCTURE DESIGNED BY OTHERS.

EVALUATION OF THIS PRODUCT IS BASED ON APPLICABLE STANDARDS AND/OR INFORMATION & RESULTS FROM APPLICABLE TEST REPORTS. THE FLORIDA BUILDING CODE VERSION CONSIDERED WITH THIS EVALUATION WAS THAT IN FORCE AT THE TIME OF THE EVALUATION. IN THE EVENT OF CODE VERSION CHANGES/UPDATES OR IN THE EVENT THAT NEW OR ADDITIONAL TESTING IS COMPLETED ON THIS PRODUCT, PRIOR TO STATING CODE COMPLIANCE WITH THE STATE, THE MANUFACTURER SHALL CONFIRM WITH THE EVALUATION ENGINEER OF RECORD THAT EVERYTHING SPECIFIED HERE-IN IS CURRENT WITH ALL CURRENT TESTING, CODES AND APPLICABLE STANDARDS.

### INSTALLATION NOTES:

- WITH DEEP FRAMES, INSTALLER MAY OPTION TO ADD AN EXTRA ROW OF FRAME SCREWS IF DEEMED NECESSARY TO STABILIZE THE FRAME MEMBER & RESIST POTENTIAL CUPPING OF THAT MEMBER.

### FRAME & POCKET PANEL ANCHOR REQUIREMENTS TABLE

| OPENING TYPE (SUBSTRATE)                              | FRAME TO OPENING FASTENER TYPE     | MINIMUM EMBED | MINIMUM EDGE DIST. |
|-------------------------------------------------------|------------------------------------|---------------|--------------------|
| FRAME & POCKET LINER SCREWS                           |                                    |               |                    |
| (1) MIN. 2X_ WOOD FRAME OR BUCK (MIN. GR. 3 & G=0.55) | NO. 14 SMS OR WOOD SCREW           | 1 1/4"        | 1"                 |
| MIN. 16 GA. 50 KSI METAL STUD                         | 1/4" GR. 5 SELF TAP/DRILLING SCREW | FULL          | 1/2"               |
| MIN. 1/8" THK A36 STEEL                               | 1/4" GR. 5 SELF TAP/DRILLING SCREW | FULL          | 1/2"               |
| MIN. 1/8" THK 6063-T5 ALUM.                           | 1/4" GR. 5 SELF TAP/DRILLING SCREW | FULL          | 1/2"               |
| C-90 CMU                                              | (2) 1/4" CONCRETE SCREW            | 1 1/4"        | 2"                 |
| 2500 PSI CONCRETE                                     | (2) 1/4" CONCRETE SCREW            | 1 1/2"        | 2"                 |

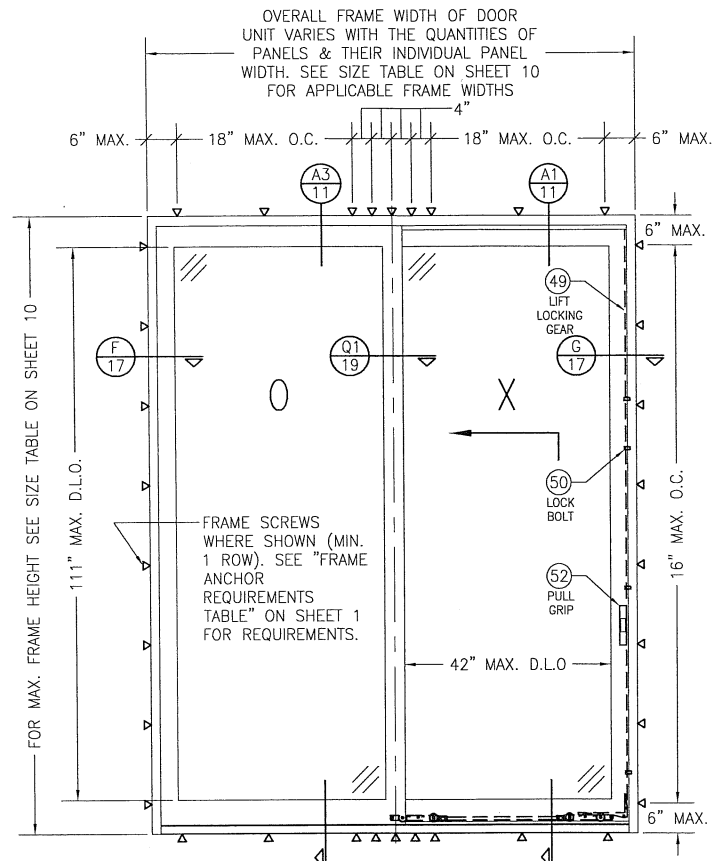
(1) MINIMUM DEPTH OF 2X\_ BUCKS SHALL BE AS SPECIFIED IN THE DRAWING SECTIONS.

(2) CONCRETE SCREWS SHALL BE ELCO ULTRACONS (C.S.), ELCO CRETE-FLEX (S.S.), ITW RAMSET/RED HEAD TAPCONS (C.S. OR S.S.) OR HILTI KWIK-CON II (C.S OR S.S.).

THESE DRAWINGS ARE APPLICABLE ONLY TO THE PRODUCT SPECIFIED. THEY MAY NOT BE USED FOR THE ASSEMBLY AND/OR INSTALLATION OF ANY OTHER PRODUCT NOR MAY THEY BE USED FOR RATIONAL AND/OR LOCAL APPROVAL OF ANY PRODUCT NOT PRODUCED BY THE MANUFACTURER STATED ON THESE DRAWINGS.

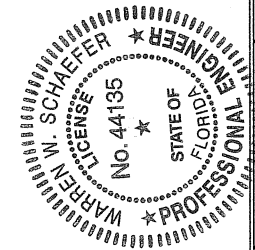
|                                                                         |                        |
|-------------------------------------------------------------------------|------------------------|
| DRAWN BY: W.S.J.                                                        | CHECKED BY: W.S.J.     |
| PLDT: 1-24                                                              | DATE: 08/20/13         |
| DATE: 12/10/14                                                          | W.S.J. 02/09/18        |
| BY: W.S.J.                                                              | W.S.J.                 |
| REVISION DESCRIPTION                                                    | NO. 1                  |
| AT UPDATE TO CURRENT STANDARDS                                          | BT CHANGE POCKET LINER |
| NO. 1                                                                   | BT                     |
| JOB INFORMATION                                                         |                        |
| 5000 SERIES IMPACT LIFT & SLIDE DOOR                                    |                        |
| CONSULTANTS                                                             |                        |
| W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809)                 |                        |
| 7480 130TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE: 561-744-3424 |                        |
| CERTIFICATION                                                           |                        |
| WARREN W. SCHAEFER, P.E. No. 44135                                      |                        |
| FEB 19 2018                                                             |                        |
| DRAWING NO. 1849                                                        |                        |
| SHEET NO. 1 OF 22                                                       |                        |



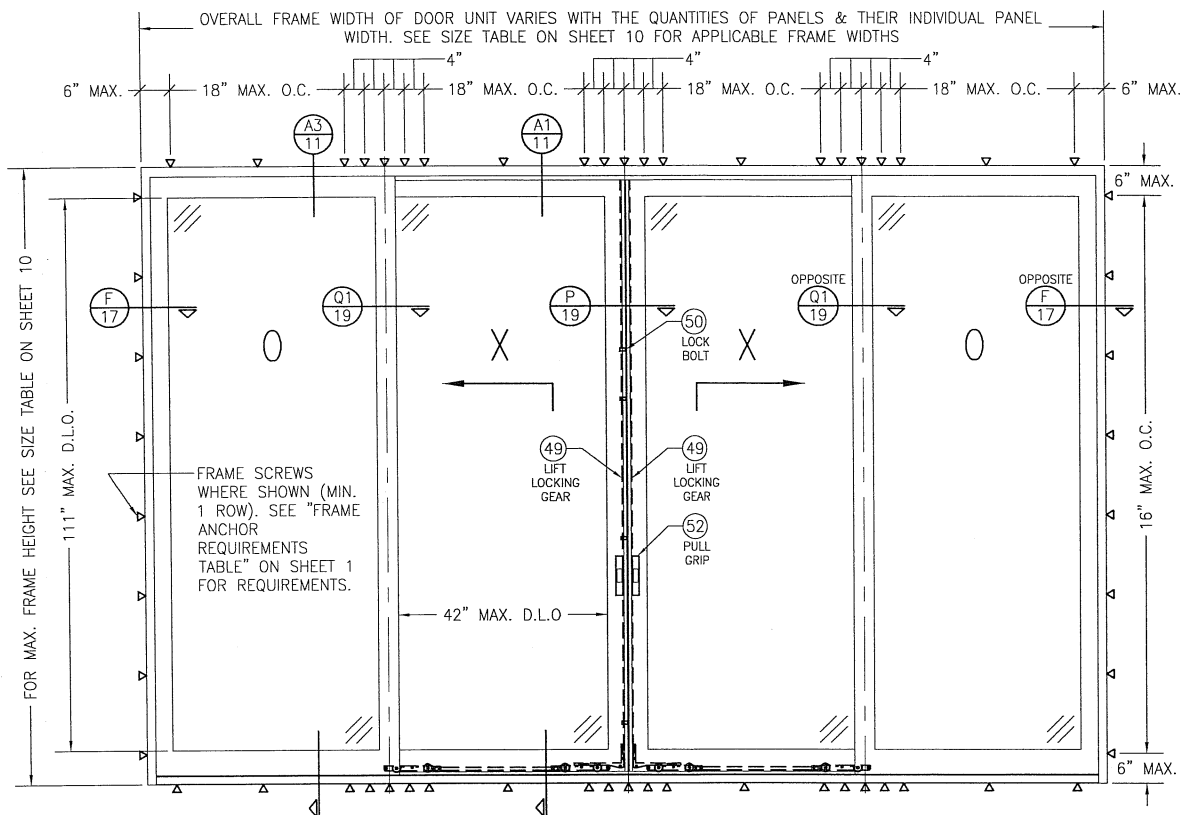


EXTERIOR ELEVATION:  
2 PANEL DEEP OX CONDITION

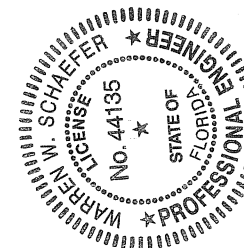
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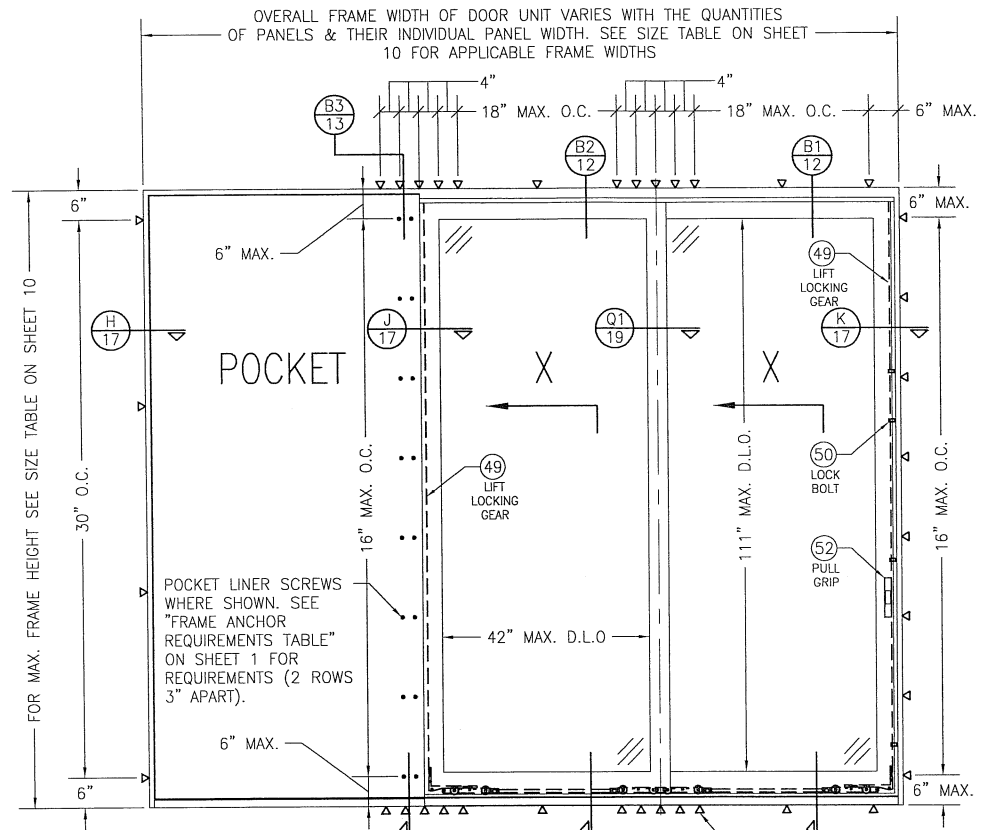
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| DRAWN BY:<br>W.W.S.                                                                                                                                        |          | CHECKED BY:<br>W.W.S.                                                                                  |      |
| PLOT:<br>1-24                                                                                                                                              |          | DATE:<br>08/20/13                                                                                      |      |
| NO.                                                                                                                                                        | REVISION | DESCRIPTION                                                                                            | DATE |
|                                                                                                                                                            |          |                                                                                                        |      |
| DRAWING TITLE<br>5000 SERIES IMPACT LIFT & SLIDE DOOR                                                                                                      |          |                                                                                                        |      |
| CONSULTANTS<br>W. W. SCHAEFER ENGINEERING<br>& CONSULTING, P.A. (CA 6809)<br>7480 130TH COURT NORTH<br>PALM BEACH GARDENS, FL 33418<br>PHONE: 561-744-3424 |          | JOB INFORMATION:<br>HOPE'S WINDOWS, INC.<br>84 HOPKINS AVENUE<br>JAMESTOWN, NY 14702<br>(716) 665-5124 |      |
| DRAWING NO.<br>1849                                                                                                                                        |          | REV.<br>B                                                                                              |      |
| SHEET NO.<br>3                                                                                                                                             |          | OF<br>22                                                                                               |      |



EXTERIOR ELEVATION;  
2 PANEL DEEP OXO CONDITION  
SCALE: 1/2" = 1'-0"

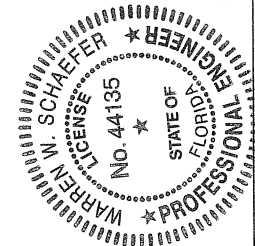


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|---------------------------------------------------------------------------------------------------------------------------------------------------------|----------|--------------------------------------------|------|
| DRAWN BY: W.R.M.                                                                                                                                        |          | CHECKED BY: W.W.S.                         |      |
| PLOT: 1-24                                                                                                                                              |          | DATE: 08/20/13                             |      |
| NO.                                                                                                                                                     | REVISION | DESCRIPTION                                | DATE |
|                                                                                                                                                         |          |                                            |      |
|                                                                                                                                                         |          |                                            |      |
|                                                                                                                                                         |          |                                            |      |
|                                                                                                                                                         |          |                                            |      |
| DRAWING TITLE: 5000 SERIES IMPACT LIFT & SLIDE DOOR                                                                                                     |          |                                            |      |
| JOB INFORMATION:                                                                                                                                        |          |                                            |      |
| CONSULTANTS: HOPE'S WINDOWS, INC.<br>84 HOPKINS AVENUE<br>JAMESTOWN, NY 14702<br>(716) 665-5124                                                         |          |                                            |      |
| CONSULTANTS: W. W. SCHAEFER ENGINEERING<br>& CONSULTING, P.A. (CA 6809)<br>7480 150TH COURT NORTH<br>PALM BEACH GARDENS, FL 33418<br>PHONE 561-744-3424 |          |                                            |      |
| CERTIFICATION                                                                                                                                           |          | FEB 12 2018                                |      |
| WARREN W. SCHAEFER<br>LICENSE No. 44135<br>STATE OF FLORIDA<br>PROFESSIONAL ENGINEER                                                                    |          | WARREN W. SCHAEFER, P.E.<br>P.E. NO. 44135 |      |
| DRAWING NO. 1849                                                                                                                                        |          | REV. B                                     |      |
| SHEET NO. 4                                                                                                                                             |          | OF 22                                      |      |

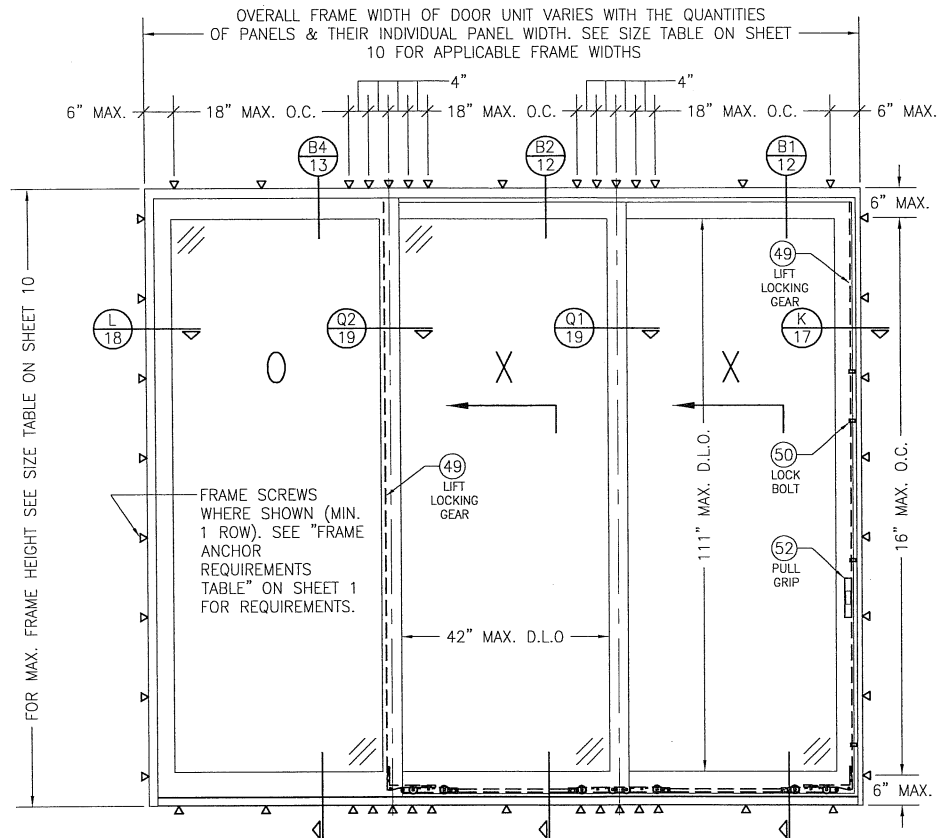


EXTERIOR ELEVATION;  
2 PANEL DEEP PXX CONDITION  
SCALE: 1/2" = 1'-0"

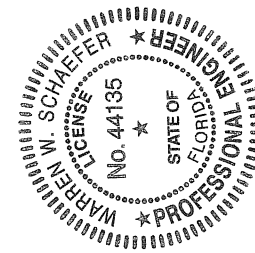
FRAME SCREWS WHERE SHOWN (MIN. 1 ROW). SEE "FRAME ANCHOR REQUIREMENTS TABLE" ON SHEET 1 FOR REQUIREMENTS.



|                                                                                                                                                             |                                                                                                        |
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| DRAWN BY:<br>W.R.M.                                                                                                                                         | CHECKED BY:<br>W.W.S.                                                                                  |
| PLOT:<br>1-24                                                                                                                                               | DATE:<br>08/20/13                                                                                      |
| DATE                                                                                                                                                        | BY                                                                                                     |
| REVISION DESCRIPTION                                                                                                                                        |                                                                                                        |
| NO.                                                                                                                                                         |                                                                                                        |
| DRAWING TITLE<br>5000 SERIES IMPACT LIFT & SLIDE DOOR                                                                                                       | JOB INFORMATION:<br>HOPE'S WINDOWS, INC.<br>84 HOPKINS AVENUE<br>JAMESTOWN, NY 14702<br>(716) 665-5124 |
| CONSULTANTS<br>W. W. SCHAEFER ENGINEERING<br>& CONSULTING, P.A. (CA 6809)<br>7480 150TH COURT NORTH, 33418<br>PALM BEACH GARDENS, FL<br>PHONE: 561-744-3424 |                                                                                                        |
| CERTIFICATION<br>FEB 12 2018<br>WARREN W. SCHAEFER, P.E.<br>P.E. NO. 44135                                                                                  |                                                                                                        |
| DRAWING NO.<br>1849                                                                                                                                         | REV.<br>B                                                                                              |
| SHEET NO.<br>5                                                                                                                                              | OF 22                                                                                                  |

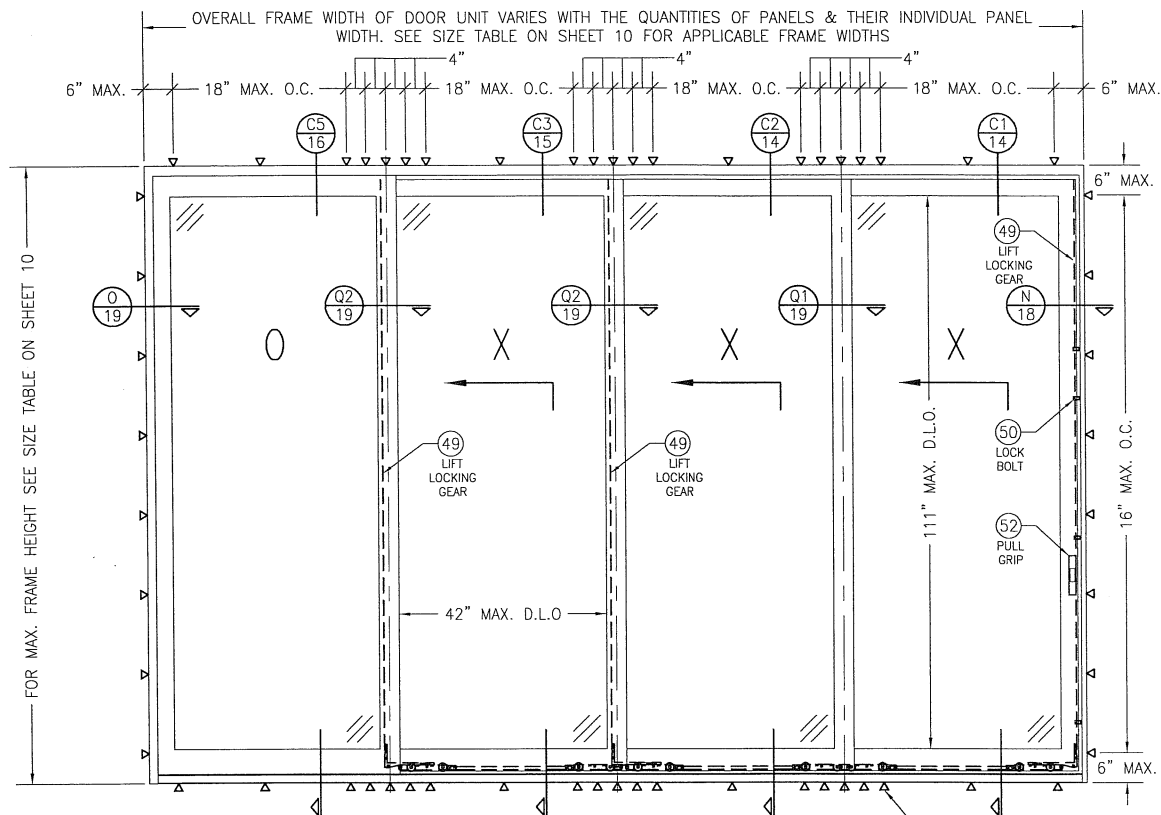


EXTERIOR ELEVATION;  
3 PANEL DEEP OXX CONDITION  
SCALE: 1/2" = 1'-0"



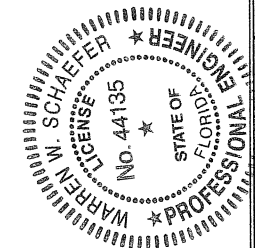
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| DRAWN BY:<br>W.S.M.                                                                                                                                        |          | CHECKED BY:<br>W.K.S. |      |
| PLOT:<br>1=24                                                                                                                                              |          | DATE:<br>08/20/13     |      |
| NO.                                                                                                                                                        | REVISION | DESCRIPTION           | DATE |
|                                                                                                                                                            |          |                       |      |
| DRAWING TITLE<br>5000 SERIES IMPACT LIFT & SLIDE DOOR                                                                                                      |          |                       |      |
| JOB INFORMATION<br>HOPE'S WINDOWS, INC.<br>84 HOPKINS AVENUE<br>JAMESTOWN, NY 14702<br>(716) 665-5124                                                      |          |                       |      |
| CONSULTANTS<br>W. W. SCHAEFER ENGINEERING<br>& CONSULTING, P.A. (CA 6809)<br>7480 150TH COURT NORTH<br>PALM BEACH GARDENS, FL 33418<br>PHONE: 561-744-3924 |          |                       |      |
| CERTIFICATION<br>FEB 12 2018<br>WARREN W. SCHAEFER, P.E.<br>P.E. NO. 44135                                                                                 |          | DRAWING NO.<br>1849   |      |
| SHEET NO.<br>6 OF 22                                                                                                                                       |          | REV.<br>B             |      |





EXTERIOR ELEVATION:  
4 PANEL DEEP OXXX CONDITION  
SCALE: 1/2" = 1'-0"

FRAME SCREWS WHERE SHOWN  
(MIN. 2 ROWS). SEE "FRAME  
ANCHOR REQUIREMENTS  
TABLE" ON SHEET 1 FOR  
REQUIREMENTS.



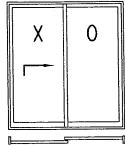
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| DRAWN BY:<br>W.R.M.                                                                                                                                        |                      | CHECKED BY:<br>W.W.S. |    |
| PLOT:<br>1-24                                                                                                                                              |                      | DATE:<br>08/20/13     |    |
| NO.                                                                                                                                                        | REVISION DESCRIPTION | DATE                  | BY |
|                                                                                                                                                            |                      |                       |    |
| DRAWING TITLE<br>5000 SERIES IMPACT LIFT & SLIDE DOOR                                                                                                      |                      |                       |    |
| JOB INFORMATION:<br>HOPE'S WINDOWS, INC.<br>84 HOPKINS AVENUE<br>JAMESTOWN, NY 14702<br>(716) 665-5124                                                     |                      |                       |    |
| CONSULTANTS<br>W. W. SCHAEFER ENGINEERING<br>& CONSULTING, P.A. (CA 6809)<br>7480 150TH COURT NORTH<br>PALM BEACH GARDENS, FL 33418<br>PHONE: 561-744-3424 |                      |                       |    |
| DRAWING NO.<br>1849                                                                                                                                        |                      | REV.<br>B             |    |
| SHEET NO.<br>8                                                                                                                                             |                      | OF 22                 |    |



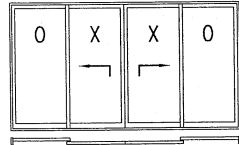
# APPROVED CONFIGURATIONS

## CONFIGURATIONS WITHOUT POCKETS

### 2-PANEL DEEP CONDITIONS

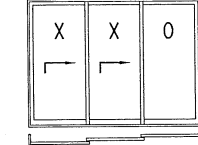


① XO OR OX CONDITION

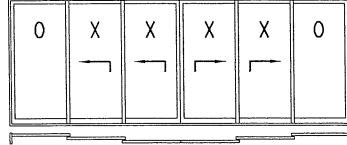


② OXXO CONDITION

### 3-PANEL DEEP CONDITIONS

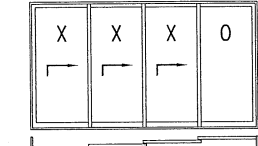


③ XXO OR OXX CONDITION

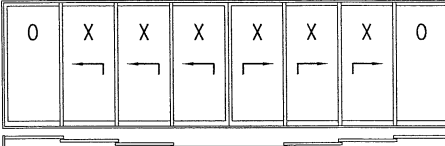


④ OXXXXO CONDITION

### 4-PANEL DEEP CONDITIONS



⑤ XXXO OR OXXX CONDITION



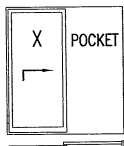
⑥ OXXXXXXO CONDITION

CONDITIONS SHOWN ARE THE MAJORITY OF THOSE USED. OTHER CONDITIONS OF "O" & "X" PANELS APPLY PROVIDING THEY ARE WITHIN THE SCOPE OF THE DETAILS WITHIN THIS DRAWING. STANDARD CONFIGURATIONS WITH UP TO 4 PANELS DEEP ARE SHOWN. IF AN OVER 4 PANEL DEEP CONFIGURATION IS REQUIRED ON ANY JOB, IT SHALL BE EVALUATED SEPARATELY BY A FLORIDA P.E. FOR USE ON THAT SPECIFIC JOB.

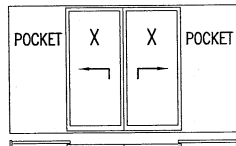
| ELEVATION NUMBER | MAX. FRAME HEIGHT (IN.) | MAX. FRAME WIDTH (IN.) |
|------------------|-------------------------|------------------------|
| 1                | 124                     | 98 1/2                 |
| 2                | 124                     | 194 5/8                |
| 3                | 124                     | 144 1/2                |
| 4                | 124                     | 286 5/8                |
| 5                | 124                     | 190 1/2                |
| 6                | 124                     | 378 5/8                |
| 7                | 124                     | 107 3/16               |
| 8                | 124                     | 212                    |
| 9                | 124                     | 153 3/16               |
| 10               | 124                     | 304                    |
| 11               | 124                     | 199 3/16               |
| 12               | 124                     | 396                    |

## CONFIGURATIONS WITH POCKETS

### 1-PANEL DEEP CONDITIONS

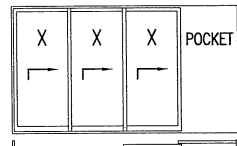


⑦ XP OR PX CONDITION

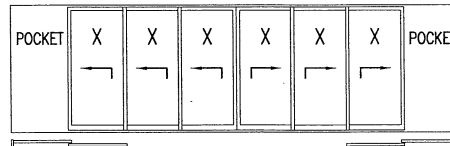


⑧ PXXP CONDITION

### 3-PANEL DEEP CONDITIONS

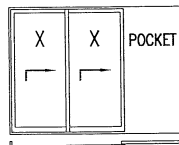


⑪ XXXP OR PXXX CONDITION

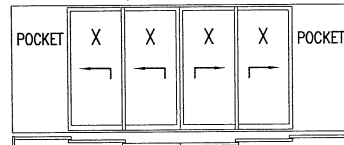


⑫ PXXXXXP CONDITION

### 2-PANEL DEEP CONDITIONS



⑨ XXP OR PXX CONDITION



⑩ PXXXXP CONDITION

CONDITIONS SHOWN ARE THE MAJORITY OF THOSE USED. OTHER CONDITIONS OF "O" & "X" PANELS APPLY PROVIDING THEY ARE WITHIN THE SCOPE OF THE DETAILS WITHIN THIS DRAWING. STANDARD CONFIGURATIONS WITH UP TO 3 PANELS DEEP ARE SHOWN. IF AN OVER 4 PANEL DEEP CONFIGURATION IS REQUIRED ON ANY JOB, IT SHALL BE EVALUATED SEPARATELY BY A FLORIDA P.E. FOR USE ON THAT SPECIFIC JOB.

|                      |        |             |          |
|----------------------|--------|-------------|----------|
| DRAWN BY:            | W.W.S. | CHECKED BY: | W.W.S.   |
| PLOT:                | 1=24   | DATE:       | 08/20/13 |
| DATE:                |        |             |          |
| BY:                  |        |             |          |
| REVISION DESCRIPTION |        |             |          |
| NO.                  |        |             |          |

DRAWING TITLE: 5000 SERIES IMPACT LIFT & SLIDE DOOR

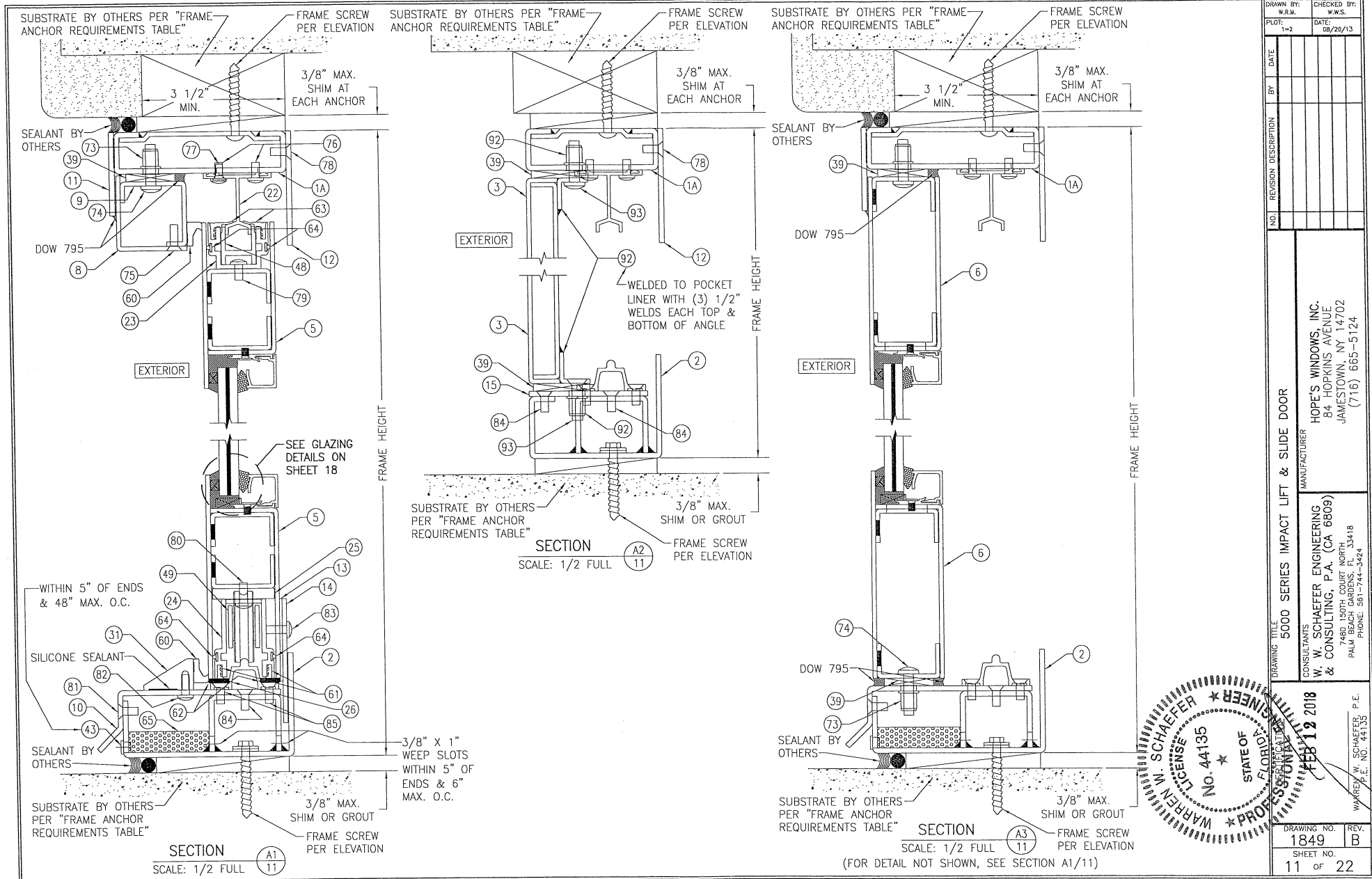
CONSULTANTS: W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809)  
7480 150TH COURT NORTH  
PALM BEACH GARDENS, FL 33418  
PHONE: 561-744-3624

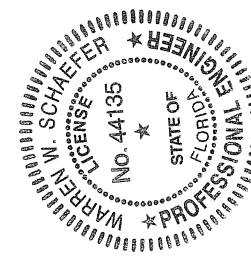
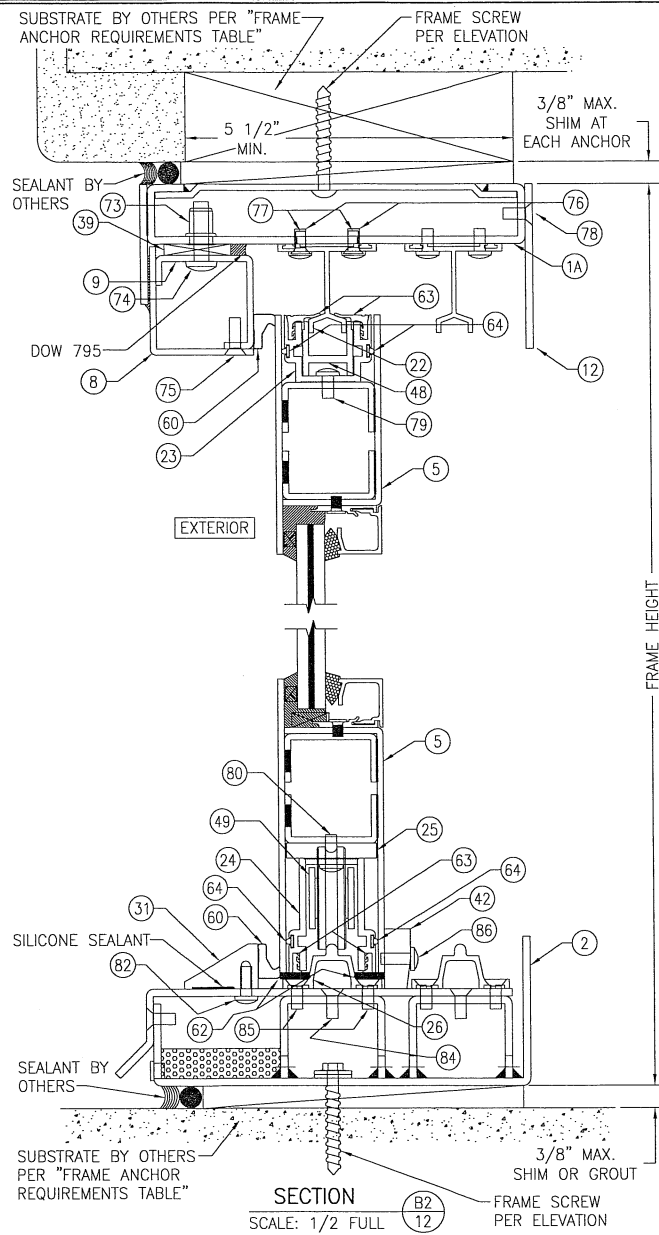
JOB INFORMATION: HOPE'S WINDOWS, INC.  
84 HOPKINS AVENUE  
JAMESTOWN, NY 14702  
(716) 665-5124

CERTIFICATION: WARREN W. SCHAEFER, P.E.  
LICENSE NO. 44135  
STATE OF FLORIDA  
PROFESSIONAL ENGINEER

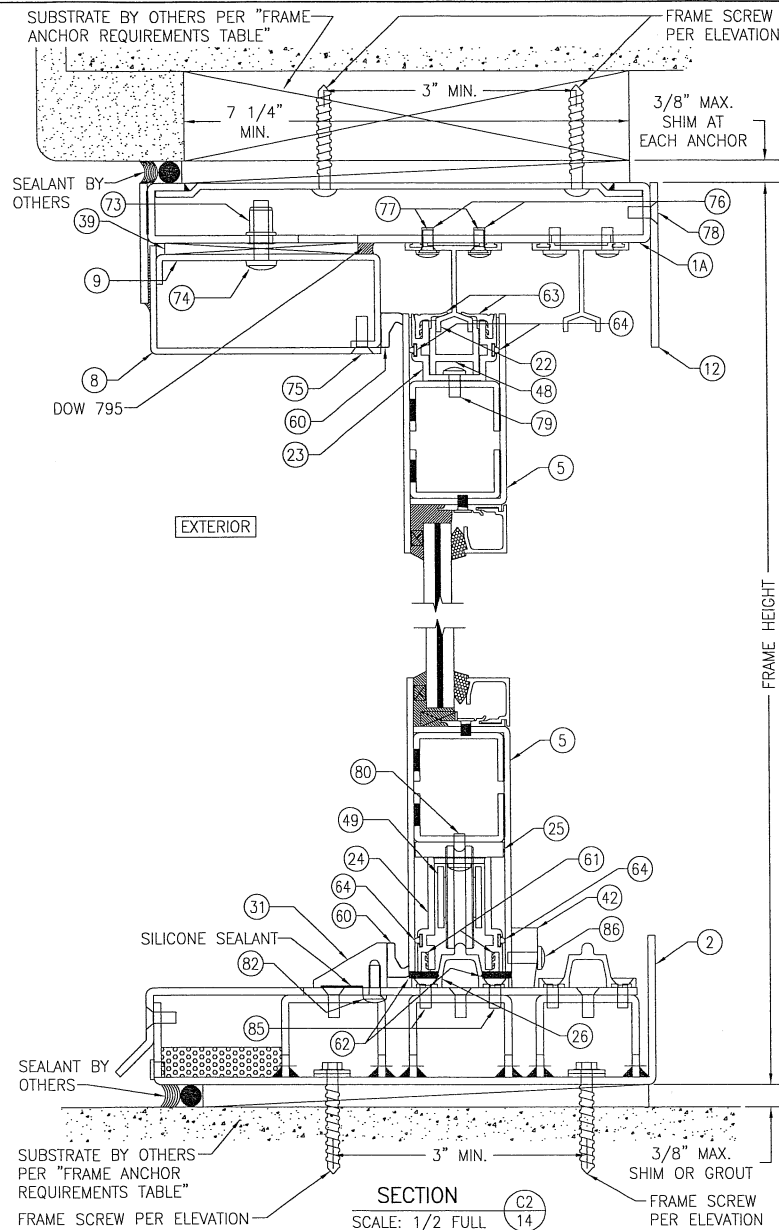
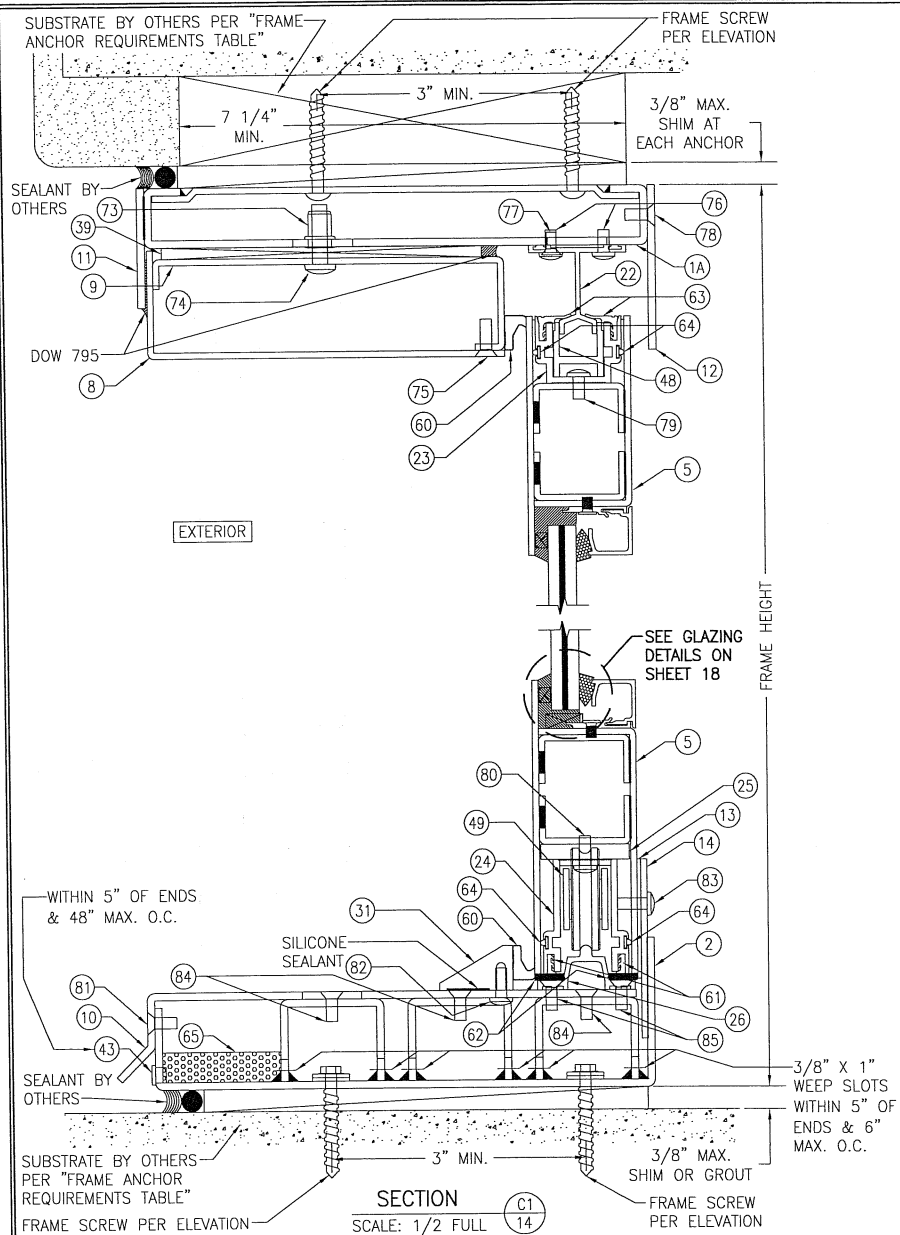
DRAWING NO. 1849  
SHEET NO. 10 OF 22

REV. B

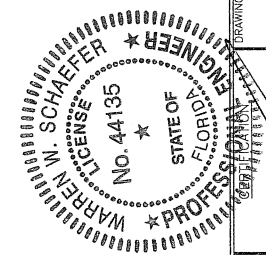
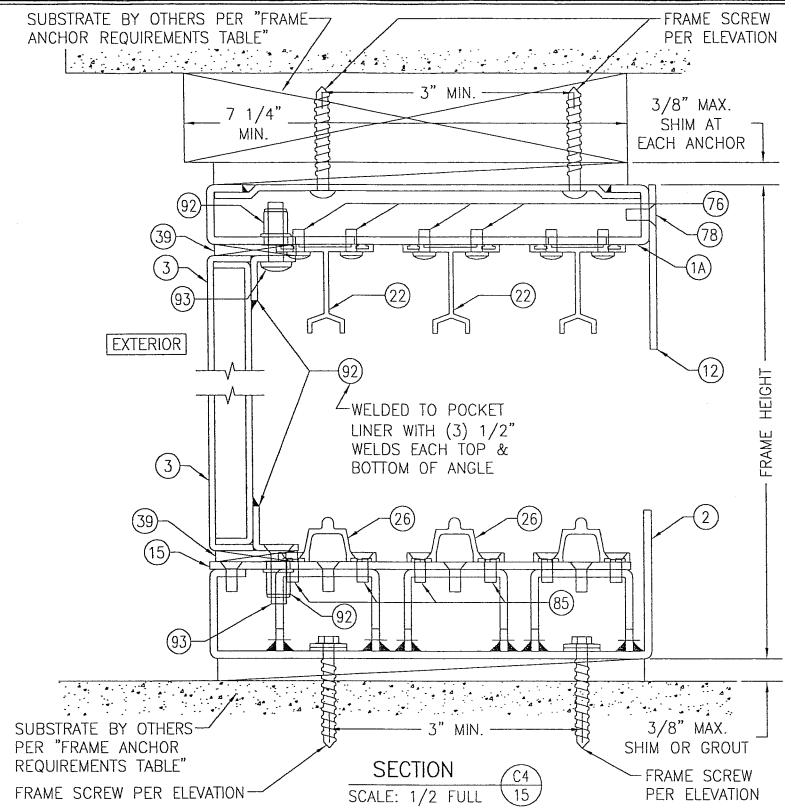
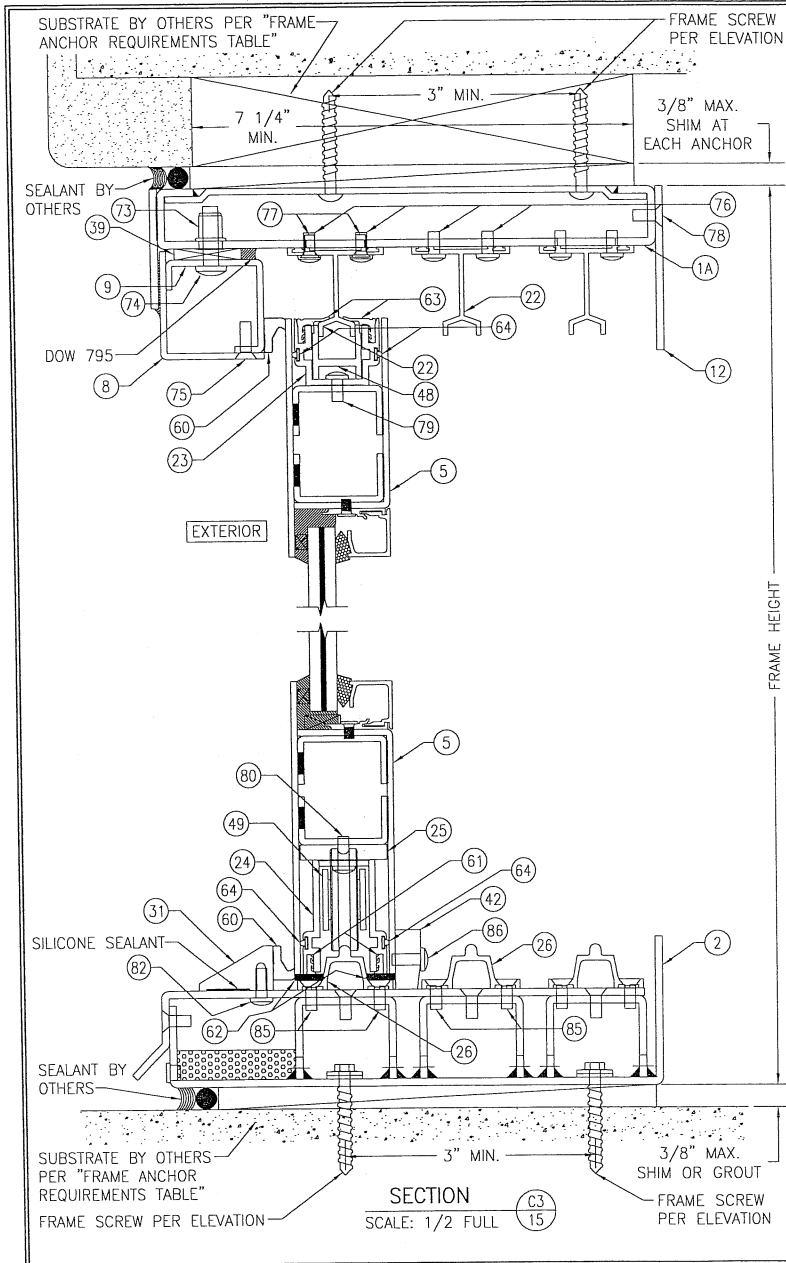


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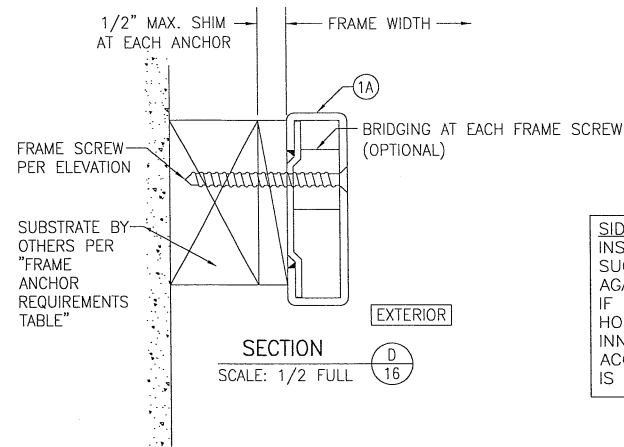
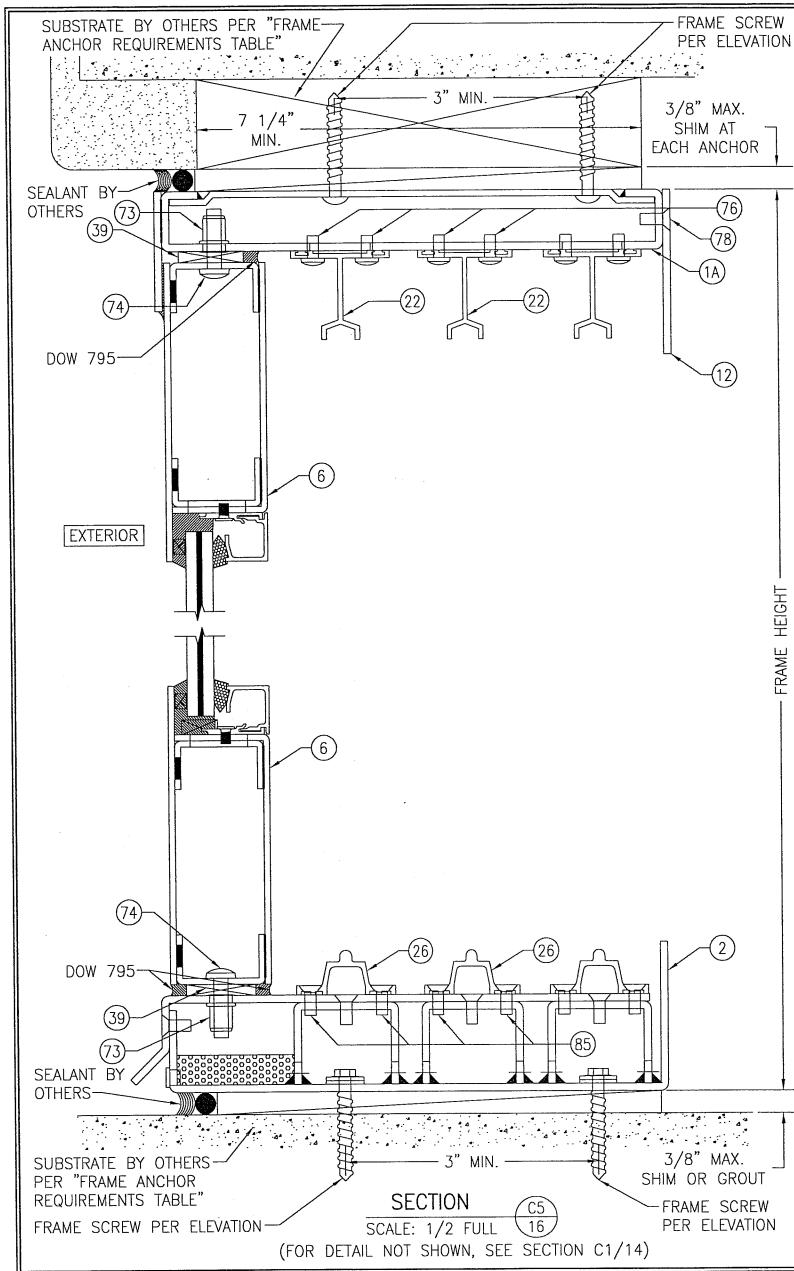




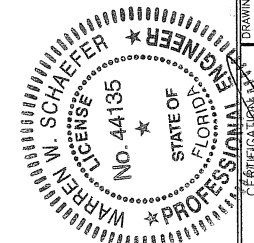
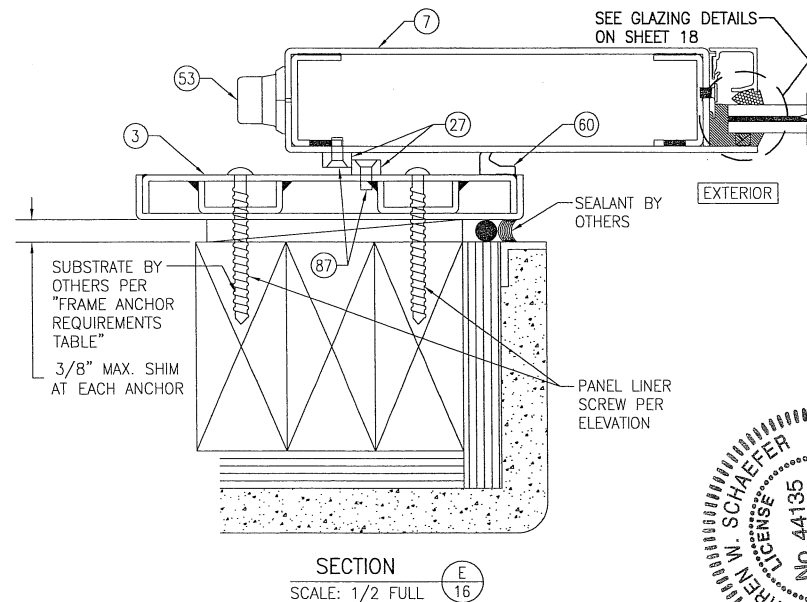
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| DRAWN BY:                                                                                                                                                  | W.R.M. | CHECKED BY:  | W.W.S.   |
| PLOT:                                                                                                                                                      | 1-2    | DATE:        | 08/20/13 |
| DATE:                                                                                                                                                      |        | BY:          |          |
| REVISION:                                                                                                                                                  |        | DESCRIPTION: |          |
| NO.                                                                                                                                                        |        |              |          |
| DRAWING TITLE: 5000 SERIES IMPACT LIFT & SLIDE DOOR                                                                                                        |        |              |          |
| MANUFACTURER: HOPE'S WINDOWS, INC.<br>84 HOPKINS AVENUE<br>JAMESTOWN, NY 14702<br>(716) 665-5124                                                           |        |              |          |
| CONSULTANTS: W. W. SCHAEFER ENGINEERING<br>W. W. SCHAEFER, P.A. (CA 6809)<br>7480 130TH COURT NORTH<br>PALM BEACH GARDENS, FL 33418<br>PHONE: 381-744-3624 |        |              |          |
| CERTIFICATION: WARREN W. SCHAEFER, P.E.<br>P.E. NO. 44135                                                                                                  |        |              |          |
| DRAWING NO.                                                                                                                                                | 1849   | REV.         | B        |
| SHEET NO.                                                                                                                                                  | 14     | OF           | 22       |



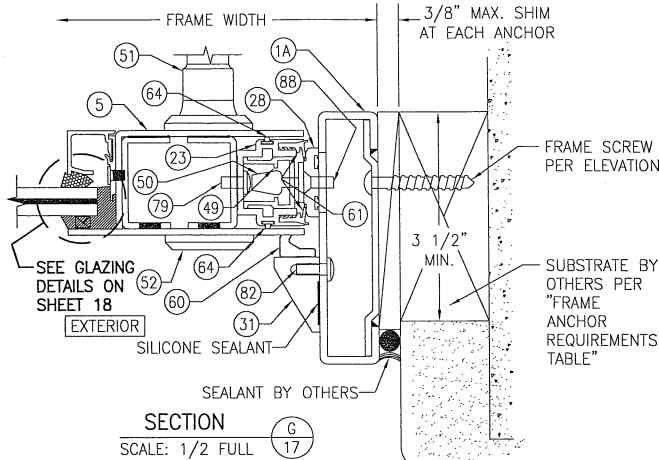
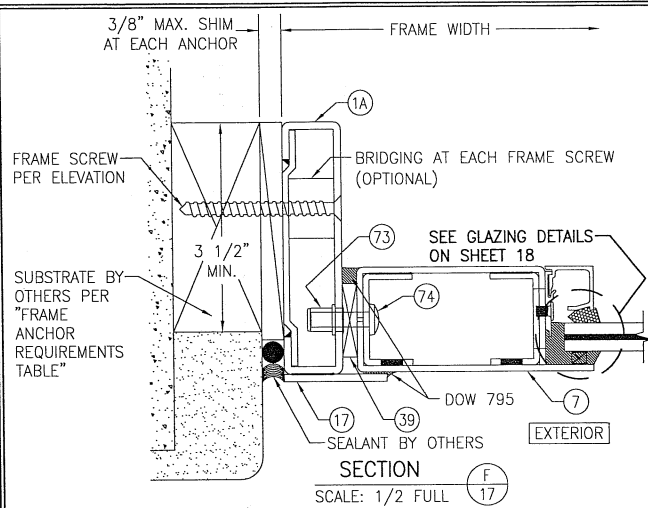
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| DRAWING TITLE                                           |  | DRAWN BY:            |  | CHECKED BY: |  |
| 5000 SERIES IMPACT LIFT & SLIDE DOOR                    |  | W.R.M.               |  | W.W.S.      |  |
| DATE                                                    |  | PLOT:                |  | DATE:       |  |
|                                                         |  | 1-2                  |  | 08/20/13    |  |
| BY                                                      |  | REVISION             |  | DESCRIPTION |  |
|                                                         |  | NO.                  |  |             |  |
| CONSULTANTS                                             |  | MANUFACTURER         |  |             |  |
| W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809) |  | HOPE'S WINDOWS, INC. |  |             |  |
| 7480 150TH COURT NORTH                                  |  | 84 HOPKINS AVENUE    |  |             |  |
| PALM BEACH GARDENS, FL 33418                            |  | JAMESTOWN, NY 14702  |  |             |  |
| PHONE: 561-744-3424                                     |  | (716) 665-5124       |  |             |  |
| DATE                                                    |  | REV.                 |  |             |  |
| FEB 12 2018                                             |  | B                    |  |             |  |
| DRAWING NO.                                             |  | SHEET NO.            |  | REV.        |  |
| 1849                                                    |  | 15 OF 22             |  | B           |  |
| WARREN W. SCHAEFER, P.E.                                |  |                      |  |             |  |
| P.E. NO. 44135                                          |  |                      |  |             |  |



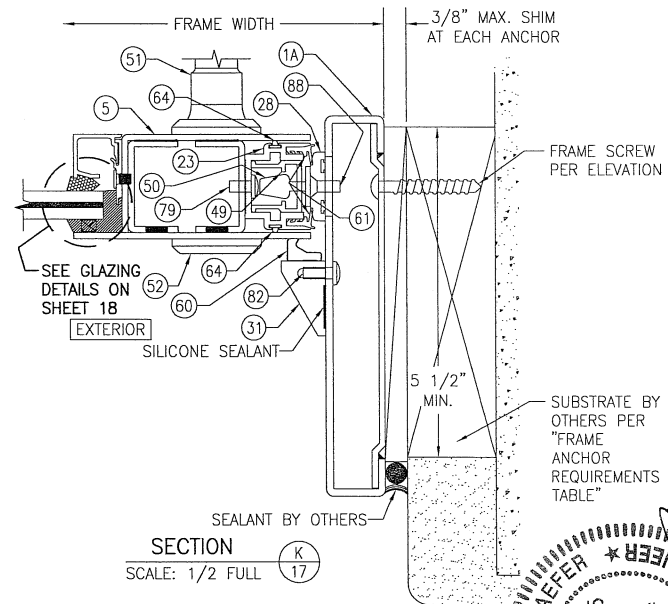
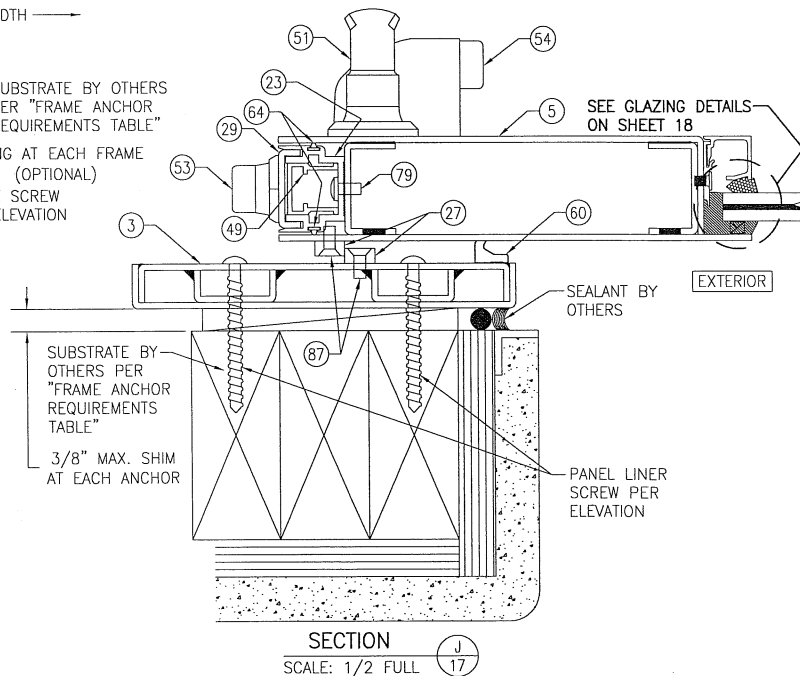
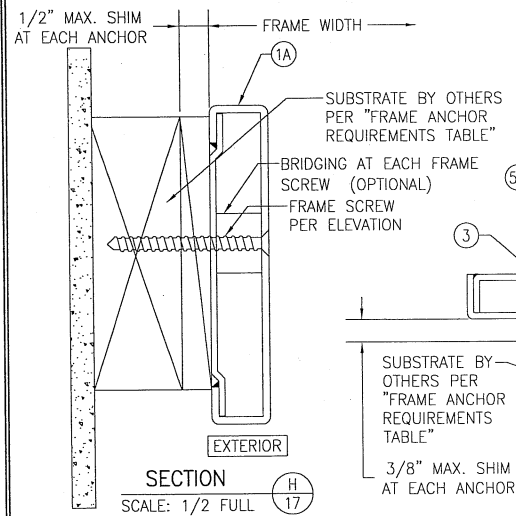
**SIDE JAMB INSTALLATION NOTE:**  
INSTALLATION SCREWS MAY BE PLACED SUCH THAT THE SCREW HEAD SITS AGAINST EITHER WALL OF THE FRAME. IF AGAINST THE OUTER WALL, A PILOT HOLE SHALL BE DRILLED THROUGH THE INNER WALL FOR SCREW PLACEMENT ACCESS & CAPPED AFTER INSTALLATION IS COMPLETE.



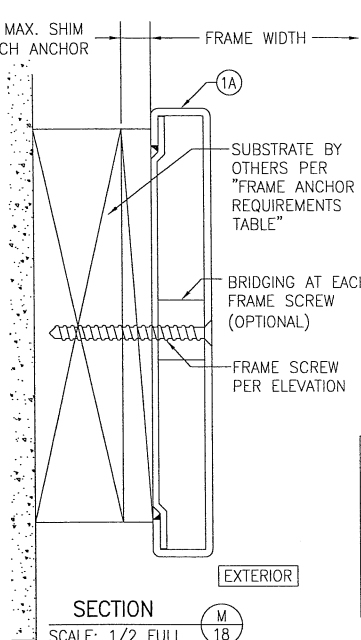
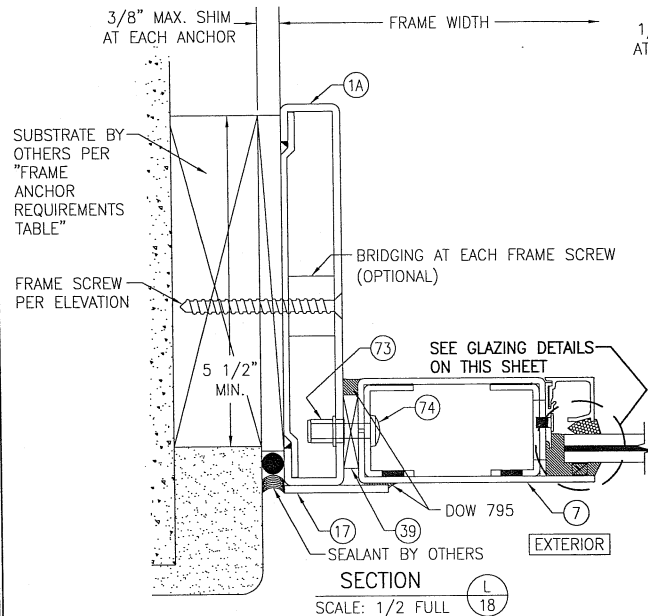
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| DRAWN BY:<br>W.R.M.                                                                                                                                        | CHECKED BY:<br>W.W.S. |
| PLOT:<br>1=2                                                                                                                                               | DATE:<br>08/20/13     |
| DATE                                                                                                                                                       | BY                    |
| REVISION DESCRIPTION                                                                                                                                       | NO.                   |
| DRAWING TITLE<br>5000 SERIES IMPACT LIFT & SLIDE DOOR                                                                                                      |                       |
| MANUFACTURER<br>HOPE'S WINDOWS, INC.<br>84 HOPKINS AVENUE<br>JAMESTOWN, NY 14702<br>(716) 665-5124                                                         |                       |
| CONSULTANTS<br>W. W. SCHAEFER ENGINEERING<br>& CONSULTING, P.A. (CA 6809)<br>7480 150TH COURT NORTH<br>PALM BEACH GARDENS, FL 33418<br>PHONE: 561-744-3424 |                       |
| FEB 12 2018                                                                                                                                                |                       |
| WARREN W. SCHAEFER, P.E.<br>P.E. NO. 44135                                                                                                                 |                       |
| DRAWING NO.<br>1849                                                                                                                                        | REV.<br>B             |
| SHEET NO.<br>16 OF 22                                                                                                                                      |                       |



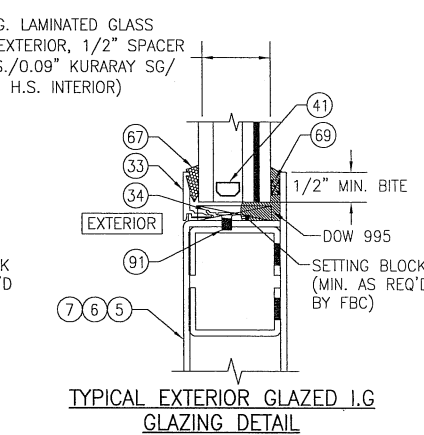
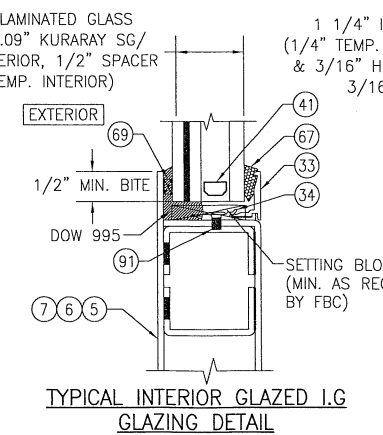
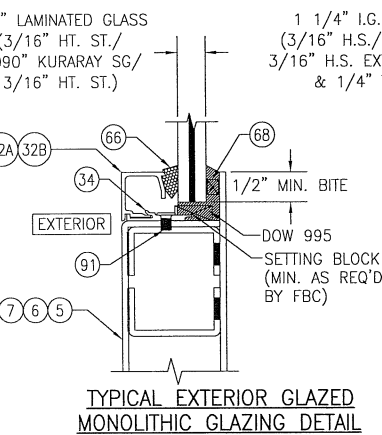
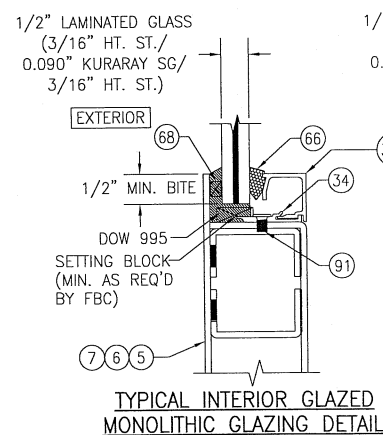
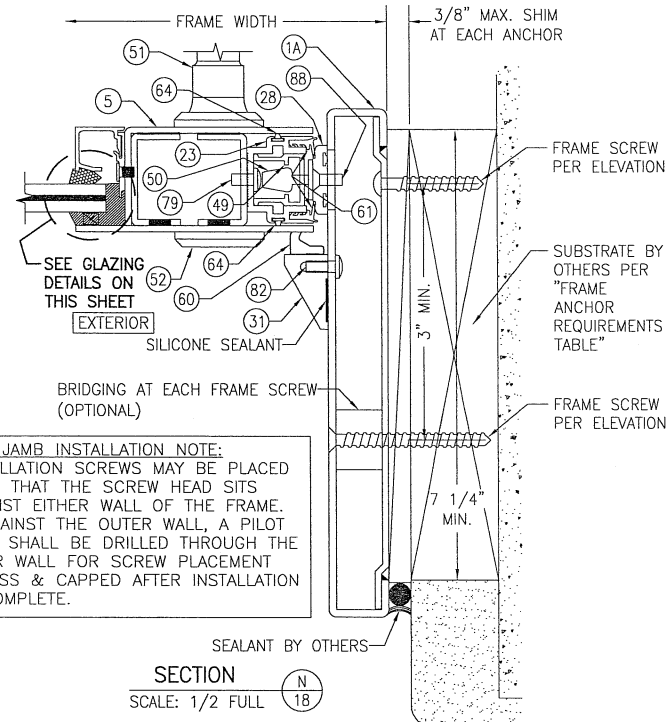
**SIDE JAMB INSTALLATION NOTE:**  
INSTALLATION SCREWS MAY BE PLACED SUCH THAT THE SCREW HEAD SITS AGAINST EITHER WALL OF THE FRAME. IF AGAINST THE OUTER WALL, A PILOT HOLE SHALL BE DRILLED THROUGH THE INNER WALL FOR SCREW PLACEMENT ACCESS & CAPPED AFTER INSTALLATION IS COMPLETE.



|                                                                                                                                                            |                       |
|------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| DRAWN BY:<br>W.R.M.                                                                                                                                        | CHECKED BY:<br>W.W.S. |
| PLOT:<br>1=2                                                                                                                                               | DATE:<br>08/20/13     |
| DATE                                                                                                                                                       |                       |
| BY                                                                                                                                                         |                       |
| REVISION DESCRIPTION                                                                                                                                       |                       |
| NO.                                                                                                                                                        |                       |
| DRAWING TITLE<br>5000 SERIES IMPACT LIFT & SLIDE DOOR                                                                                                      |                       |
| MANUFACTURER<br>HOPE'S WINDOWS, INC.<br>84 HOPKINS AVENUE<br>JAMESTOWN, NY 14702<br>(716) 665-5124                                                         |                       |
| CONSULTANTS<br>W. W. SCHAEFER ENGINEERING<br>& CONSULTING, P.A. (CA 6609)<br>7480 150TH COURT NORTH<br>PALM BEACH GARDENS, FL 33418<br>PHONE: 561-744-3424 |                       |
| PROFESSIONAL SEAL<br>WARREN W. SCHAEFER<br>P.E. NO. 44135<br>STATE OF FLORIDA<br>EXPIRATION DATE 12/31/2018                                                |                       |
| DRAWING NO.<br>849                                                                                                                                         | REV.<br>B             |
| SHEET NO.<br>17 OF 22                                                                                                                                      |                       |



**SIDE JAMB INSTALLATION NOTE:**  
 INSTALLATION SCREWS MAY BE PLACED SUCH THAT THE SCREW HEAD SITS AGAINST EITHER WALL OF THE FRAME. IF AGAINST THE OUTER WALL, A PILOT HOLE SHALL BE DRILLED THROUGH THE INNER WALL FOR SCREW PLACEMENT ACCESS & CAPPED AFTER INSTALLATION IS COMPLETE.



**WARREN N. SCHAEFER**  
 LICENSE No. 44135  
 STATE OF FLORIDA  
 PROFESSIONAL ENGINEER  
 FEB 12 2018

**CONSULTANTS**  
**W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6609)**  
 7480 150TH COURT NORTH  
 PALM BEACH GARDENS, FL 33418  
 PHONE: 561-744-3424

**MANUFACTURER**  
**HOPE'S WINDOWS, INC.**  
 84 HOPKINS AVENUE  
 JAMESTOWN, NY 14702  
 (716) 665-5124

DRAWING NO. 1849  
 REV. B  
 SHEET NO. 18 of 22

3/8" MAX. SHIM  
AT EACH ANCHOR

FRAME WIDTH

**SIDE JAMB INSTALLATION NOTE:**  
INSTALLATION SCREWS MAY BE PLACED SUCH THAT THE SCREW HEAD SITS AGAINST EITHER WALL OF THE FRAME. IF AGAINST THE OUTER WALL, A PILOT HOLE SHALL BE DRILLED THROUGH THE INNER WALL FOR SCREW PLACEMENT ACCESS & CAPPED AFTER INSTALLATION IS COMPLETE.

FRAME SCREW  
PER ELEVATION

SUBSTRATE BY  
OTHERS PER  
"FRAME ANCHOR  
REQUIREMENTS  
TABLE"

BRIDGING AT EACH FRAME SCREW  
(OPTIONAL)

FRAME SCREW  
PER ELEVATION

SEE GLAZING DETAILS  
ON SHEET 18

7 1/4" MIN.

DOW 795

SEALANT BY OTHERS

SECTION 019  
SCALE: 1/2 FULL

CONTINUOUS WOOD MEMBER LESS IN THICKNESS THAN A 2X BUCK. FOR MIN. DEPTH REQUIREMENTS SEE APPLICABLE SECTIONS (NOT REQUIRED WHEN SHIM SPACE IS WITHIN ALLOWABLE DIMENSIONS SHOWN IN SECTIONS).

SEALANT BY OTHERS

SUBSTRATE BY OTHERS PER  
"FRAME ANCHOR  
REQUIREMENTS  
TABLE"

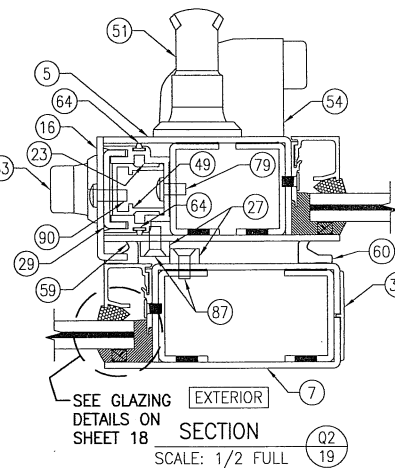
1A 2 3 4

EXTERIOR

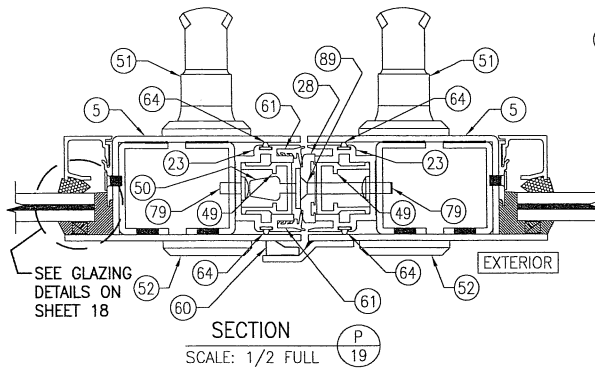
**OPTIONAL DIRECT MOUNT DETAIL  
TO SUBSTRATE WITH SPACER**

(HEAD SECTION SHOWN, SILL & SIDES ARE INSTALLED THE SAME)  
(FOR DETAIL NOT SHOWN, SEE OTHER SECTIONS)

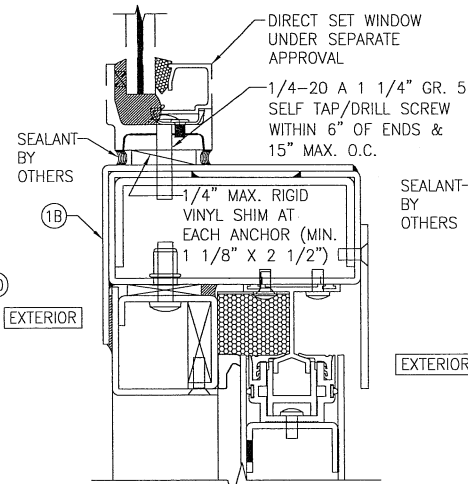
(1 PANEL DEEP DOOR SHOWN. ALL OTHER DEPTH DOORS ALSO APPLY)



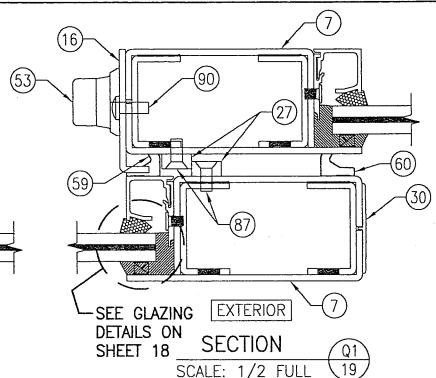
SECTION 0219  
SCALE: 1/2 FULL



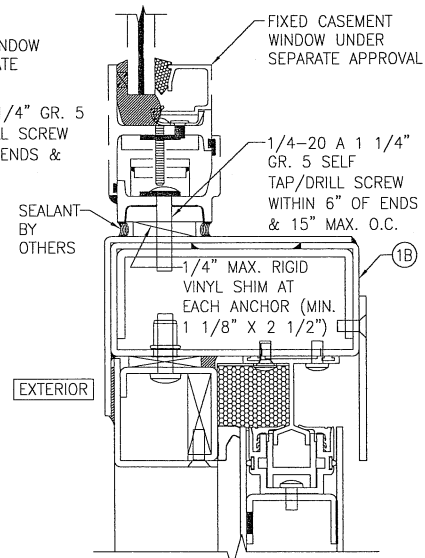
SECTION P19  
SCALE: 1/2 FULL



SECTION R119  
SCALE: 1/2 FULL  
(FOR DETAIL NOT SHOWN, SEE OTHER SECTIONS)



SECTION Q119  
SCALE: 1/2 FULL



SECTION R219  
SCALE: 1/2 FULL  
(FOR DETAIL NOT SHOWN, SEE OTHER SECTIONS)

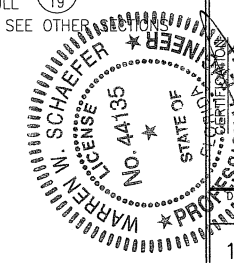
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| DRAWN BY: W.W.S. |          | CHECKED BY: W.W.S. |      |
| PLOT: 1-2        |          | DATE: 08/20/13     |      |
| NO.              | REVISION | DESCRIPTION        | DATE |
| 1                |          |                    |      |
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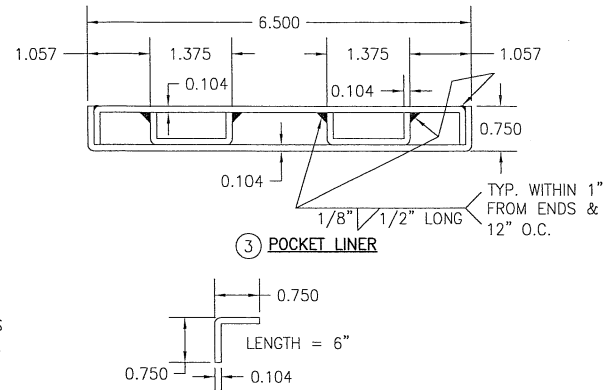
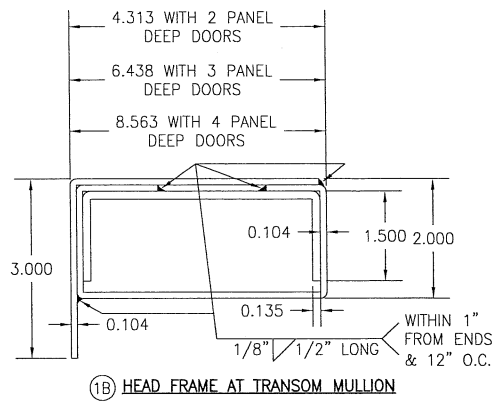
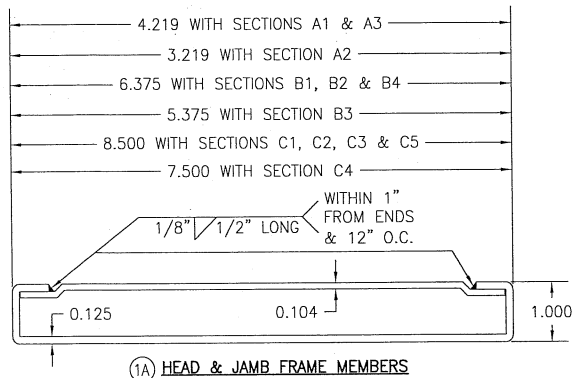
DRAWING TYPE: 5000 SERIES IMPACT LIFT & SLIDE DOOR

MANUFACTURER  
HOPE'S WINDOWS, INC.  
84 HOPKINS AVENUE  
JAMESTOWN, NY 14702  
(716) 665-5124

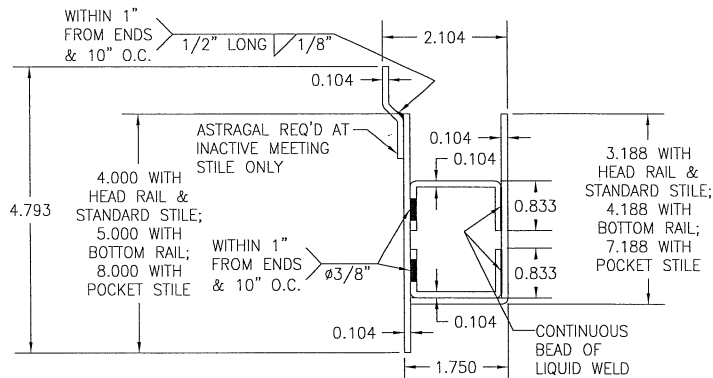
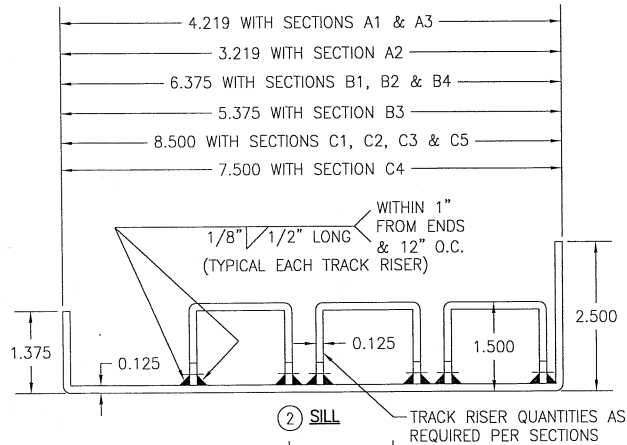
CONSULTANTS  
W. W. SCHAEFER ENGINEERING  
& CONSULTING, P.A. (CA 6809)  
7480 150TH COURT NORTH  
PAULSMOORE, MD 20688-1318  
PHONE: 561-744-3424

DATE: FEB 13 2018  
DRAWING NO. 849  
SHEET NO. 19 OF 22

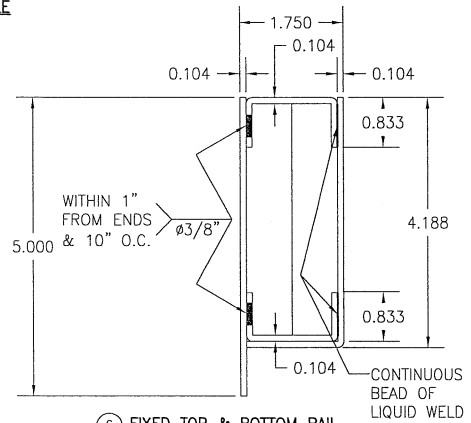




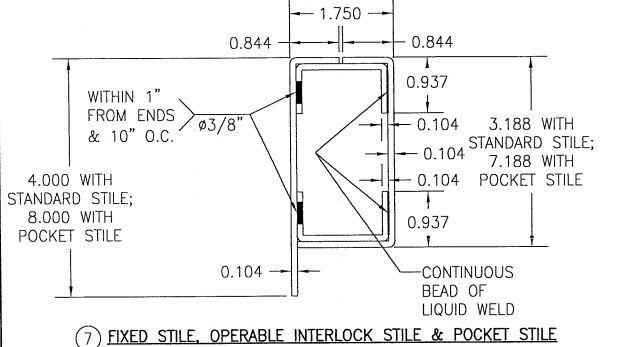
④ POCKET LINER  
END ANGLE



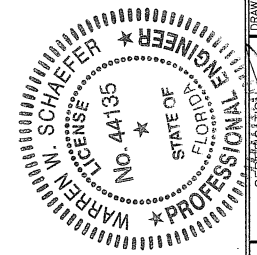
⑤ OPERABLE TOP & BOTTOM RAIL, OPERABLE  
LIFT LOCKING STILE AT JAMB, OPERABLE  
LIFT LOCKING INTERLOCK STILE, MEETING  
STILE AND LIFT LOCKING STILE AT POCKET



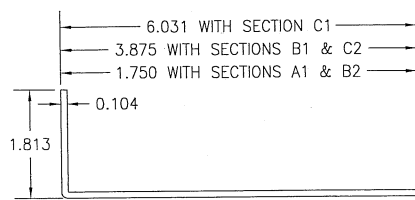
⑥ FIXED TOP & BOTTOM RAIL



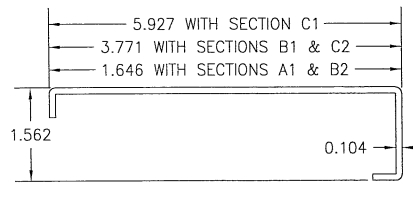
⑦ FIXED STILE, OPERABLE INTERLOCK STILE & POCKET STILE



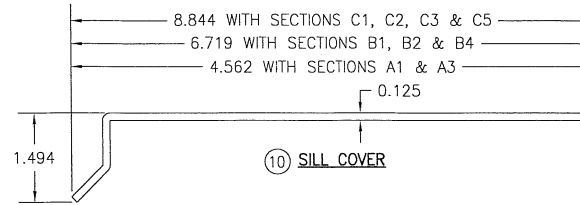
|                                                                                                                                                   |        |             |          |
|---------------------------------------------------------------------------------------------------------------------------------------------------|--------|-------------|----------|
| DRAWN BY:                                                                                                                                         | W.R.M. | CHECKED BY: | W.W.S.   |
| PLOT:                                                                                                                                             | 1=2    | DATE:       | 08/20/13 |
| DATE                                                                                                                                              |        |             |          |
| BY                                                                                                                                                |        |             |          |
| REVISION DESCRIPTION                                                                                                                              |        |             |          |
| NO.                                                                                                                                               |        |             |          |
| DRAWING TITLE: 5000 SERIES IMPACT LIFT & SLIDE DOOR                                                                                               |        |             |          |
| MANUFACTURER: HOPE'S WINDOWS, INC.<br>84 HOPKINS AVENUE<br>JAMESTOWN, NY 14702<br>(716) 665-5124                                                  |        |             |          |
| CONSULTANTS: W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809)<br>7480 50TH COURT NORTH<br>PALM BEACH, FL 33418<br>PALM PHONE: 561-744-3424 |        |             |          |
| CERTIFICATION: WARREN W. SCHAEFER, P.E. NO. 44135                                                                                                 |        |             |          |
| DRAWING NO.                                                                                                                                       | 1849   | REV.        | B        |
| SHEET NO.                                                                                                                                         | 20     | OF          | 22       |



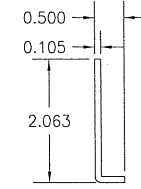
⑧ PANEL FILLER (EXTERIOR PART)



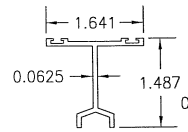
⑨ PANEL FILLER (INTERIOR PART)



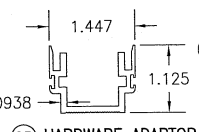
⑩ SILL COVER



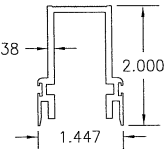
⑪ STILE COVER



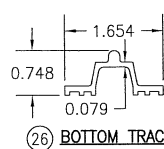
⑫ TOP TRACK



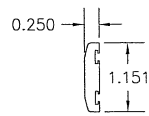
⑬ HARDWARE ADAPTOR



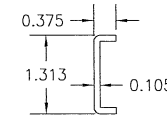
⑭ ROLLER ADAPTOR



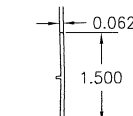
⑮ BOTTOM TRACK



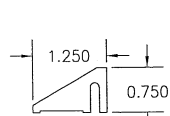
⑯ LOCK BOLT FIXTURE



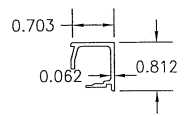
⑰ STILE COVER



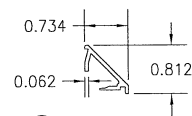
⑱ STILE COVER



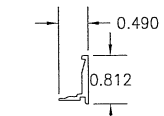
⑳ PANEL ADAPTOR



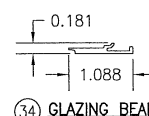
㉑ STANDARD GLAZING BEAD (USED WITH MONOLITHIC GLASS)



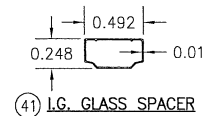
㉒ SLOPPED GLAZING BEAD (USED WITH MONOLITHIC GLASS)



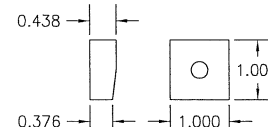
㉓ GLAZING BEAD (USED WITH I.G. GLASS)



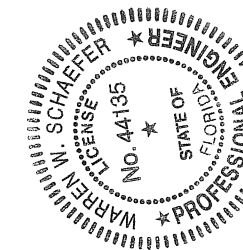
㉔ GLAZING BEAD RETAINER



㉕ I.G. GLASS SPACER



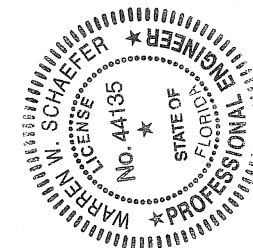
㉖ PANEL GUIDE



|                                                                                                                                                      |                       |
|------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| DRAWN BY:<br>W.R.M.                                                                                                                                  | CHECKED BY:<br>W.W.S. |
| PLOT:<br>1-2                                                                                                                                         | DATE:<br>08/20/13     |
| DATE                                                                                                                                                 |                       |
| BY                                                                                                                                                   |                       |
| REVISION DESCRIPTION                                                                                                                                 |                       |
| NO                                                                                                                                                   |                       |
| DRAWING TITLE 5000 SERIES IMPACT LIFT & SLIDE DOOR                                                                                                   |                       |
| MANUFACTURER HOPE'S WINDOWS, INC.<br>84 HOPKINS AVENUE<br>JAMESTOWN, NY 14702<br>(716) 665-5124                                                      |                       |
| CONSULTANTS W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809)<br>7480 150TH COURT NORTH<br>PALM BEACH GARDENS, FL 33418<br>PHONE: 561-748-3424 |                       |
| CERTIFICATION WARREN M. SCHAEFER<br>LICENSE NO. 44135<br>STATE OF FLORIDA<br>PROFESSIONAL ENGINEER                                                   |                       |
| DATE FEB 12 2018                                                                                                                                     |                       |
| DRAWING NO. 1849                                                                                                                                     |                       |
| REV. B                                                                                                                                               |                       |
| SHEET NO. 21 OF 22                                                                                                                                   |                       |

| ITEM #   | ITEM DESCRIPTION                                                                                                                                       | MANUFACTURER/NOTES                                                           |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| PARTS    |                                                                                                                                                        |                                                                              |
| 1A       | HEAD & JAMB FRAME MEMBERS                                                                                                                              | A-36 STEEL OR BRONZE (BRONZE IS NOT APPLICABLE WITH TRANSOM DOOR CONDITIONS) |
| 1B       | HEAD FRAME AT TRANSOM MULLION                                                                                                                          | A-36 STEEL                                                                   |
| 2        | SILL                                                                                                                                                   | A-36 STEEL OR BRONZE (BRONZE IS NOT APPLICABLE WITH TRANSOM DOOR CONDITIONS) |
| 3        | POCKET LINER                                                                                                                                           | A-36 STEEL OR BRONZE                                                         |
| 4        | POCKET LINER END ANGLE                                                                                                                                 | A-36 STEEL OR BRONZE                                                         |
| 5        | OPERABLE TOP & BOTTOM RAIL, OPERABLE LIFT LOCKING STILE AT JAMB, OPERABLE LIFT LOCKING INTERLOCK STILE, MEETING STILE AND LIFT LOCKING STILE AT POCKET | A-36 STEEL OR BRONZE                                                         |
| 6        | FIXED TOP & BOTTOM RAIL                                                                                                                                | A-36 STEEL OR BRONZE                                                         |
| 7        | FIXED STILE, OPERABLE INTERLOCK STILE & POCKET STILE                                                                                                   | A-36 STEEL OR BRONZE                                                         |
| 8        | PANEL FILLER (EXTERIOR PART)                                                                                                                           | A-36 STEEL OR BRONZE                                                         |
| 9        | PANEL FILLER (INTERIOR PART)                                                                                                                           | A-36 STEEL OR BRONZE                                                         |
| 10       | SILL COVER                                                                                                                                             | ALUMINUM OR BRONZE                                                           |
| 11       | HEAD EXTERIOR FRAME COVER 0.125" X 2.000"                                                                                                              | A-36 STEEL OR BRONZE                                                         |
| 12       | HEAD INTERIOR FRAME COVER 0.125" X 2.750"                                                                                                              | A-36 STEEL OR BRONZE                                                         |
| 13       | PANEL FILLER 0.063" X 2.000"                                                                                                                           | A-36 STEEL OR BRONZE                                                         |
| 14       | PANEL FILLER 0.105" X 3.000"                                                                                                                           | A-36 STEEL OR BRONZE                                                         |
| 15       | SILL COVER AT POCKET<br>0.125" X 2.876" WITH SECTION A2<br>0.125" X 5.000" WITH SECTION B3<br>0.125" X 7.125" WITH SECTION C4                          | A-36 STEEL OR BRONZE                                                         |
| 16       | STILE COVER                                                                                                                                            | A-36 STEEL OR BRONZE                                                         |
| 17       | JAMB EXTERIOR FRAME COVER 0.125" X 1.750"                                                                                                              | A-36 STEEL OR BRONZE                                                         |
| 22       | TOP TRACK                                                                                                                                              | 6063-T5 ALUMINUM                                                             |
| 23       | HARDWARE ADAPTOR                                                                                                                                       | 6063-T5 ALUMINUM                                                             |
| 24       | ROLLER ADAPTOR                                                                                                                                         | 6063-T5 ALUMINUM                                                             |
| 25       | ROLLER ADAPTOR SHIM 0.250" X 1.500" X 4" LONG                                                                                                          | 6063-T5 ALUMINUM                                                             |
| 26       | BOTTOM TRACK                                                                                                                                           | 6063-T5 ALUMINUM                                                             |
| 27       | STILE CATCH 0.25" X 0.500"                                                                                                                             | 6063-T5 ALUMINUM                                                             |
| 28       | LOCK BOLT FIXTURE                                                                                                                                      | 6063-T5 ALUMINUM                                                             |
| 29       | STILE COVER                                                                                                                                            | 6063-T5 ALUMINUM                                                             |
| 30       | STILE COVER                                                                                                                                            | 6063-T5 ALUMINUM                                                             |
| 31       | PANEL ADAPTOR                                                                                                                                          | 6063-T5 ALUMINUM                                                             |
| 32A      | STANDARD GLAZING BEAD<br>(USED WITH MONOLITHIC GLASS)                                                                                                  | 6063-T5 ALUMINUM                                                             |
| 32B      | SLOPPED GLAZING BEAD<br>(USED WITH MONOLITHIC GLASS)                                                                                                   | 6063-T5 ALUMINUM                                                             |
| 33       | GLAZING BEAD (USED WITH I.G. GLASS)                                                                                                                    | 6063-T5 ALUMINUM                                                             |
| 34       | GLAZING BEAD RETAINER                                                                                                                                  | 6063-T5 ALUMINUM                                                             |
| 39       | SHIM                                                                                                                                                   | PLASTIC                                                                      |
| 41       | I.G. GLASS SPACER                                                                                                                                      | STAINLESS STEEL XL EDGE SPACER                                               |
| 42       | PANEL GUIDE                                                                                                                                            | NYLON                                                                        |
| 43       | WEEP HOOD                                                                                                                                              | PREFERRED ENGINEERING PRODUCTS LTD.                                          |
| HARDWARE |                                                                                                                                                        |                                                                              |
| 48       | TOP TRACK GUIDE                                                                                                                                        | HOPPE 3198382 OR FFI G00734                                                  |
| 49       | LIFT LOCKING GEAR                                                                                                                                      | HOPPE HS300 3183834 OR FFI LA0255SH10                                        |
| 50       | LOCK BOLT                                                                                                                                              | HOPPE 3534761 OR FFI LLB.999.10                                              |
| 51       | HANDLE                                                                                                                                                 | AS REQ'D TO ACTUATE LIFT LOCKING GEAR                                        |
| 52       | PULL GRIP                                                                                                                                              | AS REQ'D                                                                     |
| 53       | BUMPER                                                                                                                                                 | AS REQ'D                                                                     |

| ITEM #           | ITEM DESCRIPTION                                                  | MANUFACTURER/NOTES                             |
|------------------|-------------------------------------------------------------------|------------------------------------------------|
| SEALS & SEALANTS |                                                                   |                                                |
| 54               | BUMPER                                                            | AS REQ'D                                       |
| 59               | WEATHERSTRIP (SELF ADHERING)<br>6" LONG AT BOTTOM OF PANEL        | SCHLEGEL QDST 675 POLYETHYLENE                 |
| 60               | WEATHERSTRIP (SELF ADHERING) SPLICE LENGTHS AS REQ'D WITH DOW 795 | SCHLEGEL QDST 675 POLYETHYLENE                 |
| 61               | BULB WEATHERSTRIP                                                 | HOPPE 3184335 OR FFI LSGK.BTP                  |
| 62               | BOTTOM SEALING BRIDGE (SELF ADHERING)                             | 1/8" x 1/2" VG300 VENTURE TAPE                 |
| 63               | BULB WEATHERSTRIP                                                 | HOPPE 3184327 OR FFI LSGK.TUP                  |
| 64               | BULB WEATHERSTRIP                                                 | Q-LON Q150B190                                 |
| 65               | WEEP BAFFLE 2 1/8" X 3" X 1/2"                                    | H-O PRODUCTS, CORP.                            |
| 66               | GLAZING WEDGE (USED WITH MONOLITHIC GLASS)                        | TREMCO 496E SCR                                |
| 67               | GLAZING WEDGE (USED WITH I.G. GLASS)                              | TREMCO PS1125E SCR                             |
| 68               | GLAZING SHIM (USED WITH MONOLITHIC GLASS)                         | TREMCO TR2178W SCR                             |
| 69               | GLAZING SHIM (USED WITH I.G. GLASS)                               | TREMCO TR1488W SCR                             |
| FASTENERS        |                                                                   |                                                |
| 73               | 1/4-20 AVK OPEN NUT                                               | WITHIN 6" FROM ENDS & 13" MAX. O.C.            |
| 74               | 1/4-20 X 1" PTH S.S. MACHINE SCREW                                | WITHIN 6" FROM ENDS & 13" MAX. O.C.            |
| 75               | 10-24 X 1/2" PFH S.S. MACHINE SCREW                               | WITHIN 1" FROM ENDS & 15" MAX. O.C.            |
| 76               | 10-24 X 3/8" PBH S.S. MACHINE SCREW                               | WITHIN 2" FROM ENDS & 16" MAX. O.C.            |
| 77               | 10-24 X 3/8" PFH S.S. MACHINE SCREW                               | 2 PER TOP SEALING BRIDGE                       |
| 78               | 10-24 X 3/8" PFH S.S. MACHINE SCREW                               | WITHIN 2" FROM ENDS & 16" MAX. O.C.            |
| 79               | 10-24 X 3/8" PBH S.S. MACHINE SCREW                               | WITHIN 2" FROM ENDS & 16" MAX. O.C.            |
| 80               | 10-24 X 1/2" PBH S.S. MACHINE SCREW                               | WITHIN 2" FROM ENDS & 16" MAX. O.C.            |
| 81               | 10-24 X 1/2" FH S.S. MACHINE SCREW                                | WITHIN 2" FROM ENDS & 16" MAX. O.C.            |
| 82               | 10-24 X 5/8" PPH S.S. MACHINE SCREW                               | WITHIN 2" FROM ENDS & 16" MAX. O.C.            |
| 83               | 10-24 X 1/2" PPH S.S. MACHINE SCREW                               | WITHIN 2" FROM ENDS & 24" MAX. O.C.            |
| 84               | 10-24 X 1/2" PFH S.S. MACHINE SCREW                               | WITHIN 2" FROM ENDS & 16" MAX. O.C.            |
| 85               | 8-32 X 1/2" PFH S.S. MACHINE SCREW                                | WITHIN 2" FROM ENDS & 12" MAX. O.C.            |
| 86               | 10-24 X 1/2" PPH S.S. MACHINE SCREW                               | 1 PER PANEL GUIDE                              |
| 87               | 10-24 X 1/2" FH S.S. MACHINE SCREW                                | WITHIN 2" FROM ENDS & 24" MAX. O.C.            |
| 88               | 10-24 X 1/2" FH S.S. MACHINE SCREW                                | WITHIN 2" FROM ENDS & 12" MAX. O.C.            |
| 89               | 10-24 X 1 1/2" FH S.S. MACHINE SCREW                              | WITHIN 2" FROM ENDS & 12" MAX. O.C.            |
| 90               | 10-24 X 1/2" PPH S.S. MACHINE SCREW                               | WITHIN 2" FROM ENDS & 24" MAX. O.C.            |
| 91               | 10-24 X 1/4" S.S. SELF SEALING MACHINE SCREW                      | WITHIN 2 1/2" FROM D.L.O. EDGE & 14" MAX. O.C. |
| 92               | 1/4-20 AVK OPEN NUT                                               | 2 PER POCKET LINER END                         |
| 93               | 1/4-20 X 1" PTH S.S. MACHINE SCREW                                | 2 PER POCKET LINER END                         |



|                                                                                                                                                         |    |                    |             |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|----|--------------------|-------------|
| DRAWN BY: W.W.S.                                                                                                                                        |    | CHECKED BY: R.W.S. |             |
| PLT: 1=2                                                                                                                                                |    | DATE: 06/26/13     |             |
| DATE                                                                                                                                                    | BY | REVISION           | DESCRIPTION |
|                                                                                                                                                         |    |                    |             |
| DRAWING TITLE: 5000 SERIES IMPACT LIFT & SLIDE DOOR                                                                                                     |    |                    |             |
| MANUFACTURER: HOPE'S WINDOWS, INC.<br>84 HOPKINS AVENUE<br>JAMESTOWN, NY 14702<br>(716) 665-5124                                                        |    |                    |             |
| CONSULTANTS: W. W. SCHAEFFER ENGINEERING & CONSULTING, P.A. (CA 6809)<br>7480 1350TH COURT NORTH<br>PALM BEACH GARDENS, FL 33418<br>PHONE: 561-744-3424 |    |                    |             |
| CERTIFICATION                                                                                                                                           |    | FEB 19 2018        |             |
| WARREN W. SCHAEFFER<br>P.E. NO. 44135                                                                                                                   |    | DRAWING NO. 1849   |             |
|                                                                                                                                                         |    | REV. B             |             |
|                                                                                                                                                         |    | SHEET NO. 22 OF 22 |             |