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# FUTUREGLASS GLASS WAREHOUSE

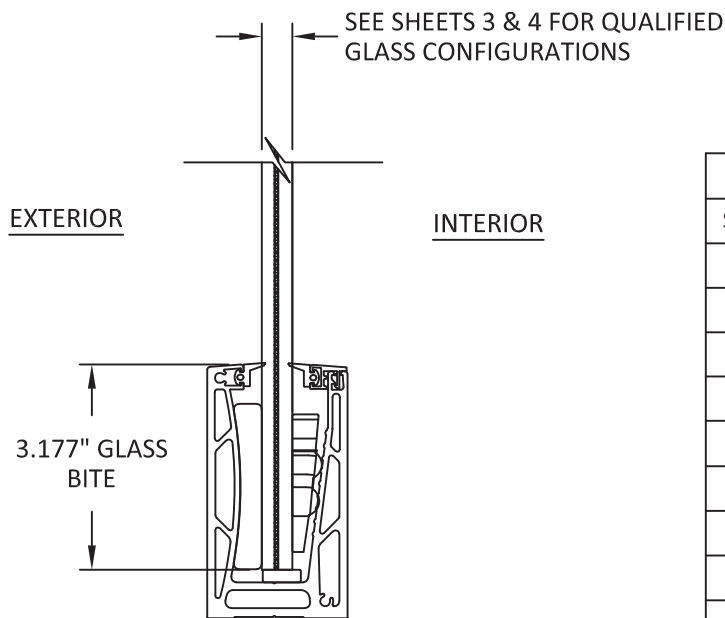
## RANA - MODEL RAN-CHRES GLASS BASE SHOE RAILING

**GENERAL NOTES:**

1. THE PRODUCT SHOWN HEREIN IS DESIGNED AND MANUFACTURED TO COMPLY WITH THE CURRENT EDITION OF THE INTERNATIONAL BUILDING CODE (IBC).
2. FOR FALL PROTECTION REQUIREMENTS, THIS PRODUCT HAS BEEN ANALYZED IN ACCORDANCE WITH SECTION 1607.9.1 AND MEETS THE REQUIREMENTS OF THE 50 PLF LINEAR LOAD AND 200 LB CONCENTRATED LOAD SPECIFIED IN ASCE 7 SECTION 4.5.1.
3. ADEQUACY OF THE EXISTING STRUCTURAL CONCRETE/MASONRY AND 2X FRAMING AS A MAIN WIND FORCE RESISTING SYSTEM CAPABLE OF WITHSTANDING AND TRANSFERRING APPLIED PRODUCT LOADS TO THE FOUNDATION IS THE RESPONSIBILITY OF THE ENGINEER OR ARCHITECT OF RECORD FOR THE PROJECT OF INSTALLATION.
4. THE INSTALLATION DETAILS DESCRIBED HEREIN ARE GENERIC AND MAY NOT REFLECT ACTUAL CONDITIONS FOR A SPECIFIC SITE. IF SITE CONDITIONS CAUSE INSTALLATION TO DEVIATE FROM THE REQUIREMENTS DETAILED HEREIN, A LICENSED ENGINEER OR ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE WITH THIS DOCUMENT.
5. APPROVED IMPACT PROTECTIVE SYSTEM **IS REQUIRED** ON THIS PRODUCT IN AREAS REQUIRING IMPACT RESISTANCE.
6. BASE SHOE MATERIAL: 6063-T5 ALUMINUM
7. GLASS MEETS THE REQUIREMENTS OF ASTM E1300 GLASS CHARTS. SEE SHEET 1 FOR GLAZING DETAIL AND SHEETS 3 & 4 FOR QUALIFIED GLASS OPTIONS.

**INSTRUCTIONS FOR USE:**

1. DETERMINE DESIGN WIND LOAD REQUIREMENTS BASED ON WIND VELOCITY, BUILDING HEIGHT, AND WIND ZONE USING THE APPLICABLE ASCE 7 STANDARD. (SEE SHEET 8 FOR TYPICAL WIND LOADS).
2. SEE DESIGN PRESSURE TABLES ON SHEETS 3 & 4 FOR DESIGN LOAD CAPACITY OF DESIRED GLASS TYPE, SIZE, AND THE MAXIMUM RAILING HEIGHT BASED ON THE CONCENTRATED AND DISTRIBUTED LIVE LOADS.
3. SEE ANCHOR SCHEDULE AND CAPACITY TABLES ON SHEET 6.
4. FOR HANDRAIL OPTIONS AND ALLOWABLE SPANS REFER TO SHEET 7.



**GLAZING DETAIL**

**GLAZING NOTES:**

1. GLASS TYPE COMPLIES WITH ASTM E1300 REQUIREMENTS. PER THE FBC TEMPER AND SAFETY GLAZING REQUIREMENTS SHALL BE REVIEWED ON A SITE SPECIFIC BASIS.
2. SETTING BLOCK DUROMETER HARDNESS OF 70-90 (SHORE A) AS REFERENCED IN FBC CHAPTER 24.
3. SETTING BLOCKS TO BE LOCATED AT 1/4 SPAN LENGTH FOR GLASS WIDER THAN 36" AS PER FBC CHAPTER 24.
4. D.L.O. AND DESIGN PRESSURES MAY NOT EXCEED MAX VALUES SHOWN HEREIN.

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**FUTUREGLASS**

**GLASS WAREHOUSE**

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GLASS WAREHOUSE  
1319 ROCKY POINT DRIVE, SUITE 200  
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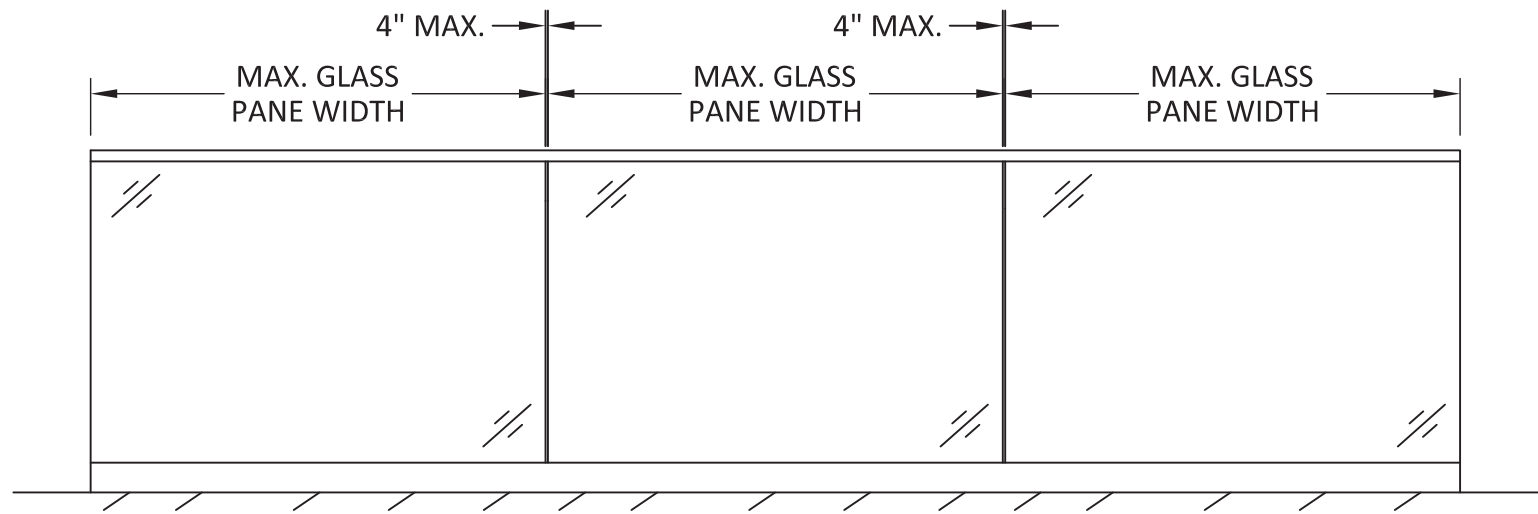
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TITLE: RANA - MODEL RAN-CHRES GLASS BASESHOE RAILING

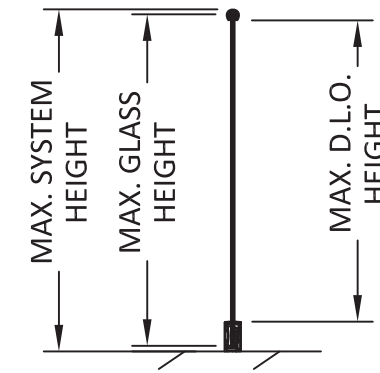
GENERAL NOTES AND GLAZING DETAIL

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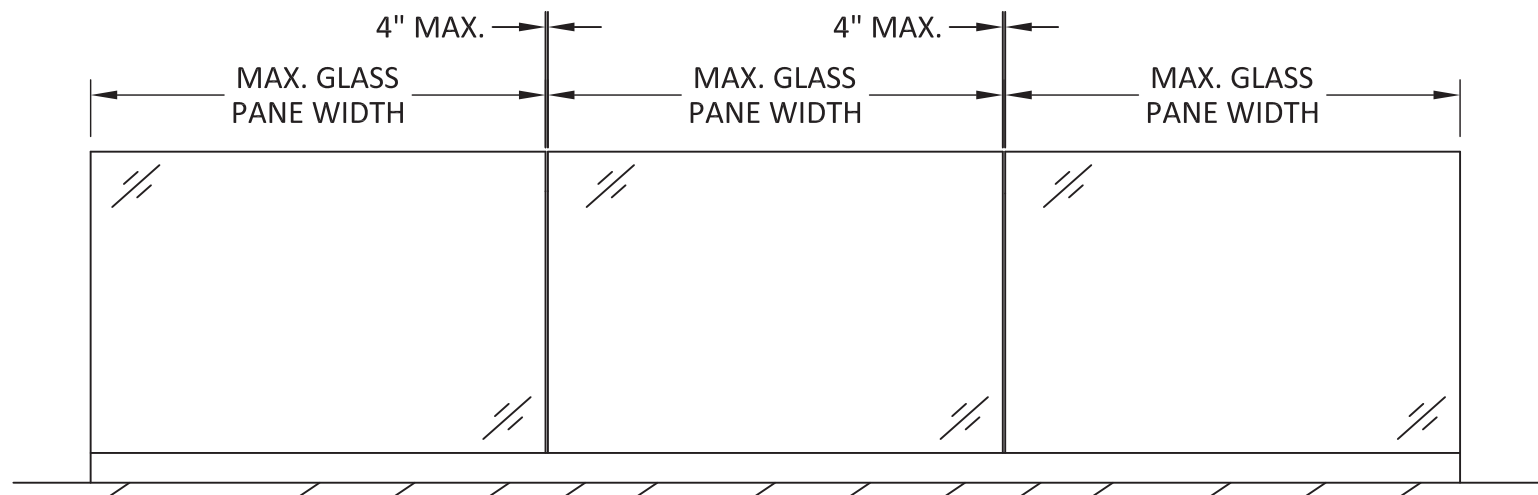
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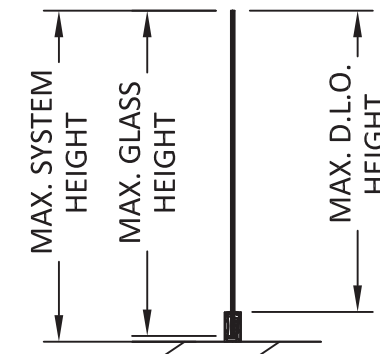
TYPICAL BASE SHOE ELEVATION W/ HANDRAIL



TYPICAL VERTICAL SECTION



TYPICAL BASE SHOE ELEVATION W/O HANDRAIL



TYPICAL VERTICAL SECTION

NOTE: SEE SHEETS 3 & 4 FOR DESIGN PRESSURE TABLES AND SHEETS 5 & 6 FOR ANCHOR DETAILS.



TYPICAL TOP VIEW

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ELEVATIONS

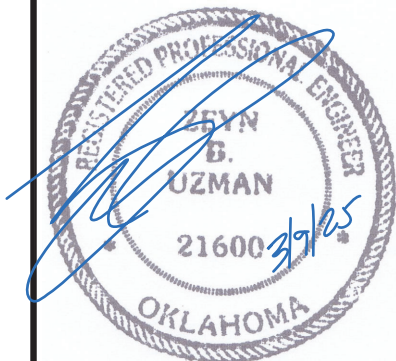
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# ALLOWABLE WIND LOAD TABLES BASED ON GLASS TYPE

TABLE 1: 1/2" MONOLITHIC TEMPERED GLASS

| GLASS WIDTH (in.) | ALLOWABLE WIND LOAD (PSF) |       |       |       |       |       |
|-------------------|---------------------------|-------|-------|-------|-------|-------|
|                   | GLASS HEIGHT (in.)        |       |       |       |       |       |
|                   | 36                        | 39.75 | 42    | 48    | 60    | 72    |
| 12                | 59.67                     | 48.52 | 42.92 | 31.76 | 19.77 | 11.15 |
| 24                | 48.25                     | 39.14 | 34.71 | 25.78 | 16.09 | 9.05  |
| 36                | 39.64                     | 32.38 | 28.70 | 21.36 | 13.36 | 7.61  |
| 42                | 39.64                     | 32.38 | 25.24 | 18.85 | 11.80 | 6.72  |
| 48                | 39.64                     | 32.38 | 25.24 | 16.56 | 10.41 | 5.88  |
| 60                | 39.64                     | 32.38 | 25.24 | 16.56 | 8.51  | 4.86  |
| 72                | 39.64                     | 32.38 | 25.24 | 16.56 | 8.51  | 4.09  |

TABLE 2: 7/16" O.A. LAMINATED GLASS: 3/16" TEMPERED GLASS - 0.060" PVB - 3/16" TEMPERED GLASS

| GLASS WIDTH (in.) | ALLOWABLE WIND LOAD (PSF) |       |       |       |       |       |
|-------------------|---------------------------|-------|-------|-------|-------|-------|
|                   | GLASS HEIGHT (in.)        |       |       |       |       |       |
|                   | 36                        | 39.75 | 42    | 48    | 60    | 72    |
| 12                | 24.78                     | 20.33 | 18.21 | 13.94 | 8.92  | 6.20  |
| 24                | 29.02                     | 23.80 | 21.32 | 16.32 | 10.45 | 7.25  |
| 36                | 34.31                     | 28.14 | 25.20 | 19.30 | 12.35 | 8.58  |
| 42                | 34.31                     | 28.14 | 27.14 | 20.78 | 13.30 | 9.23  |
| 48                | 34.31                     | 28.14 | 27.14 | 22.18 | 14.19 | 9.86  |
| 60                | 34.31                     | 28.14 | 27.14 | 22.18 | 15.77 | 10.95 |
| 72                | 34.31                     | 28.14 | 27.14 | 22.18 | 15.77 | 11.84 |

TABLE 3: 7/16" O.A. LAMINATED GLASS: 3/16" TEMPERED GLASS - 0.060" PVB ES - 3/16" TEMPERED GLASS

| GLASS WIDTH (in.) | ALLOWABLE WIND LOAD (PSF) |       |       |       |       |       |
|-------------------|---------------------------|-------|-------|-------|-------|-------|
|                   | GLASS HEIGHT (in.)        |       |       |       |       |       |
|                   | 36                        | 39.75 | 42    | 48    | 60    | 72    |
| 12                | 28.41                     | 23.30 | 20.87 | 15.98 | 10.23 | 7.10  |
| 24                | 38.22                     | 31.35 | 28.08 | 21.50 | 13.76 | 9.55  |
| 36                | 46.14                     | 37.84 | 33.90 | 25.95 | 16.61 | 11.53 |
| 42                | 46.14                     | 37.84 | 36.01 | 27.57 | 17.65 | 12.25 |
| 48                | 46.14                     | 37.84 | 36.01 | 28.86 | 18.47 | 12.83 |
| 60                | 46.14                     | 37.84 | 36.01 | 28.86 | 19.65 | 13.65 |
| 72                | 46.14                     | 37.84 | 36.01 | 28.86 | 19.65 | 14.18 |

TABLE 4: 7/16" O.A. LAMINATED GLASS: 3/16" TEMPERED GLASS - 0.060" SENTRYGLAS - 3/16" TEMPERED GLASS

| GLASS WIDTH (in.) | ALLOWABLE WIND LOAD (PSF) |       |       |       |       |       |
|-------------------|---------------------------|-------|-------|-------|-------|-------|
|                   | GLASS HEIGHT (in.)        |       |       |       |       |       |
|                   | 36                        | 39.75 | 42    | 48    | 60    | 72    |
| 12                | 43.16                     | 35.40 | 31.71 | 24.28 | 15.54 | 10.79 |
| 24                | 54.98                     | 45.09 | 40.39 | 30.93 | 19.79 | 13.74 |
| 36                | 58.88                     | 48.30 | 43.26 | 33.12 | 21.20 | 14.72 |
| 42                | 58.88                     | 48.30 | 43.96 | 33.66 | 21.54 | 14.96 |
| 48                | 58.88                     | 48.30 | 43.96 | 34.02 | 21.78 | 15.12 |
| 60                | 58.88                     | 48.30 | 43.96 | 34.02 | 22.06 | 15.32 |
| 72                | 58.88                     | 48.30 | 43.96 | 34.02 | 22.06 | 15.43 |

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TITLE: RAMA - MODEL RAN-CHRES  
GLASS BASESHOE RAILING

GLASS ALLOWABLE DESIGN  
PRESSURE TABLES

PREPARED BY: BUILDING DROPS, INC.

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# ALLOWABLE WIND LOAD TABLES BASED ON GLASS TYPE

TABLE 5: 9/16" O.A. LAMINATED GLASS: 1/4" TEMPERED GLASS - 0.090" PVB - 1/4" TEMPERED GLASS

| GLASS WIDTH (in.) | ALLOWABLE WIND LOAD (PSF) |       |       |       |       |       |
|-------------------|---------------------------|-------|-------|-------|-------|-------|
|                   | GLASS HEIGHT (in.)        |       |       |       |       |       |
|                   | 36                        | 39.75 | 42    | 48    | 60    | 72    |
| 12                | 36.06                     | 29.58 | 26.49 | 20.29 | 12.98 | 9.02  |
| 24                | 40.87                     | 33.52 | 30.03 | 22.99 | 14.71 | 10.22 |
| 36                | 47.18                     | 38.70 | 34.67 | 26.54 | 16.99 | 11.80 |
| 42                | 47.18                     | 38.70 | 37.07 | 28.38 | 18.17 | 12.61 |
| 48                | 47.18                     | 38.70 | 37.07 | 30.17 | 19.31 | 13.41 |
| 60                | 47.18                     | 38.70 | 37.07 | 30.17 | 21.41 | 14.87 |
| 72                | 47.18                     | 38.70 | 37.07 | 30.17 | 21.41 | 16.10 |

TABLE 6: 9/16" O.A. LAMINATED GLASS: 1/4" TEMPERED GLASS - 0.090" PVB ES - 1/4" TEMPERED GLASS

| GLASS WIDTH (in.) | ALLOWABLE WIND LOAD (PSF) |       |       |       |       |       |
|-------------------|---------------------------|-------|-------|-------|-------|-------|
|                   | GLASS HEIGHT (in.)        |       |       |       |       |       |
|                   | 36                        | 39.75 | 42    | 48    | 60    | 72    |
| 12                | 40.17                     | 32.95 | 29.51 | 22.59 | 14.46 | 10.04 |
| 24                | 52.09                     | 42.73 | 38.27 | 29.30 | 18.75 | 13.02 |
| 36                | 62.68                     | 51.41 | 46.05 | 35.26 | 22.56 | 15.67 |
| 42                | 62.68                     | 51.41 | 49.06 | 37.56 | 24.04 | 16.69 |
| 48                | 62.68                     | 51.41 | 49.06 | 39.45 | 25.25 | 17.53 |
| 60                | 62.68                     | 51.41 | 49.06 | 39.45 | 27.03 | 18.77 |
| 72                | 62.68                     | 51.41 | 49.06 | 39.45 | 27.03 | 19.60 |

TABLE 7: 9/16" O.A. LAMINATED GLASS: 1/4" TEMPERED GLASS - 0.090" SENTRYGLAS - 1/4" TEMPERED GLASS

| GLASS WIDTH (in.) | ALLOWABLE WIND LOAD (PSF) |       |       |       |       |       |
|-------------------|---------------------------|-------|-------|-------|-------|-------|
|                   | GLASS HEIGHT (in.)        |       |       |       |       |       |
|                   | 36                        | 39.75 | 42    | 48    | 60    | 72    |
| 12                | 58.59                     | 48.06 | 43.05 | 32.96 | 21.09 | 14.65 |
| 24                | 75.69                     | 62.08 | 55.61 | 42.58 | 27.25 | 18.92 |
| 36                | 81.89                     | 67.17 | 60.16 | 46.06 | 29.48 | 20.47 |
| 42                | 81.89                     | 67.17 | 61.31 | 46.94 | 30.04 | 20.86 |
| 48                | 81.89                     | 67.17 | 61.31 | 47.54 | 30.43 | 21.13 |
| 60                | 81.89                     | 67.17 | 61.31 | 47.54 | 30.90 | 21.46 |
| 72                | 81.89                     | 67.17 | 61.31 | 47.54 | 30.90 | 21.65 |

TABLE 8: 11/16" O.A. LAMINATED GLASS: 5/16" TEMPERED GLASS - 0.090" PVB - 5/16" TEMPERED GLASS

| GLASS WIDTH (in.) | ALLOWABLE WIND LOAD (PSF) |       |       |       |       |       |
|-------------------|---------------------------|-------|-------|-------|-------|-------|
|                   | GLASS HEIGHT (in.)        |       |       |       |       |       |
|                   | 36                        | 39.75 | 42    | 48    | 60    | 72    |
| 12                | 63.02                     | 51.69 | 46.30 | 35.45 | 22.69 | 15.75 |
| 24                | 68.89                     | 56.51 | 50.62 | 38.75 | 24.80 | 17.22 |
| 36                | 77.07                     | 63.21 | 56.62 | 43.35 | 27.74 | 19.27 |
| 42                | 77.07                     | 63.21 | 59.90 | 45.86 | 29.35 | 20.38 |
| 48                | 77.07                     | 63.21 | 59.90 | 48.39 | 30.97 | 21.51 |
| 60                | 77.07                     | 63.21 | 59.90 | 48.39 | 34.09 | 23.67 |
| 72                | 77.07                     | 63.21 | 59.90 | 48.39 | 34.09 | 25.61 |

TABLE 9: 11/16" O.A. LAMINATED GLASS: 5/16" TEMPERED GLASS - 0.090" PVB ES - 5/16" TEMPERED GLASS

| GLASS WIDTH (in.) | ALLOWABLE WIND LOAD (PSF) |       |       |       |       |       |
|-------------------|---------------------------|-------|-------|-------|-------|-------|
|                   | GLASS HEIGHT (in.)        |       |       |       |       |       |
|                   | 36                        | 39.75 | 42    | 48    | 60    | 72    |
| 12                | 68.01                     | 55.79 | 49.97 | 38.26 | 24.49 | 17.00 |
| 24                | 83.81                     | 68.75 | 61.58 | 47.14 | 30.17 | 20.95 |
| 36                | 99.70                     | 81.78 | 73.25 | 56.08 | 35.89 | 24.93 |
| 42                | 99.70                     | 81.78 | 78.16 | 59.84 | 38.30 | 26.60 |
| 48                | 99.70                     | 81.78 | 78.16 | 63.07 | 40.36 | 28.03 |
| 60                | 99.70                     | 81.78 | 78.16 | 63.07 | 43.57 | 30.26 |
| 72                | 99.70                     | 81.78 | 78.16 | 63.07 | 43.57 | 31.82 |

TABLE 10: 11/16" O.A. LAMINATED GLASS: 5/16" TEMPERED GLASS - 0.090" SENTRYGLAS - 5/16" TEMPERED GLASS

| GLASS WIDTH (in.) | ALLOWABLE WIND LOAD (PSF) |        |        |       |       |       |
|-------------------|---------------------------|--------|--------|-------|-------|-------|
|                   | GLASS HEIGHT (in.)        |        |        |       |       |       |
|                   | 36                        | 39.75  | 42     | 48    | 60    | 72    |
| 12                | 93.34                     | 76.56  | 68.57  | 52.50 | 33.60 | 23.33 |
| 24                | 122.15                    | 100.19 | 89.75  | 68.71 | 43.98 | 30.54 |
| 36                | 134.21                    | 110.08 | 98.60  | 75.49 | 48.31 | 33.55 |
| 42                | 134.21                    | 110.08 | 100.95 | 77.29 | 49.46 | 34.35 |
| 48                | 134.21                    | 110.08 | 100.95 | 78.54 | 50.27 | 34.91 |
| 60                | 134.21                    | 110.08 | 100.95 | 78.54 | 51.27 | 35.60 |
| 72                | 134.21                    | 110.08 | 100.95 | 78.54 | 51.27 | 36.00 |

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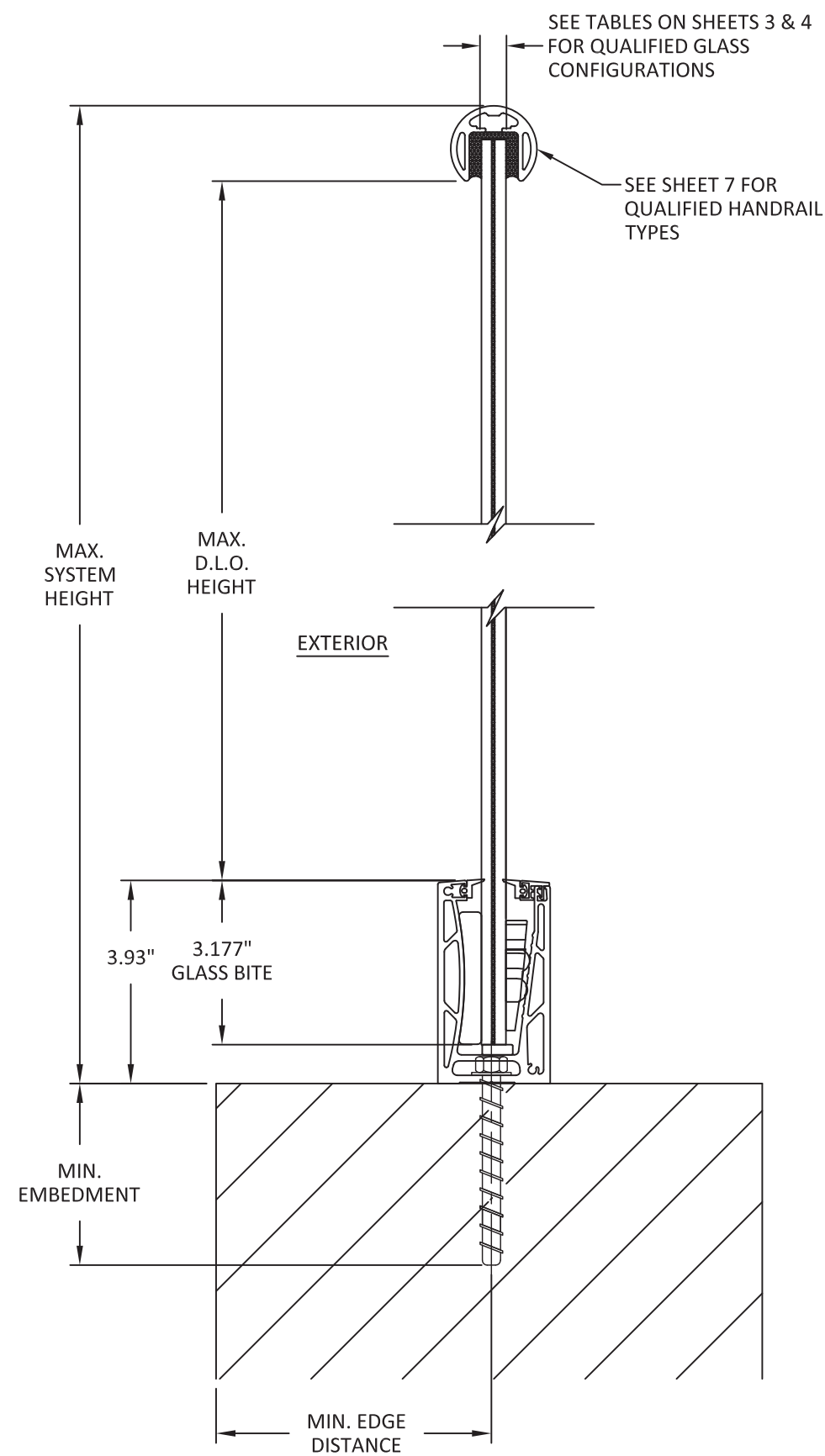
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# ANCHOR TABLES

| ANCHOR SCHEDULE                 |                                    |   |                          |
|---------------------------------|------------------------------------|---|--------------------------|
| SUBSTRATE                       | ANCHOR TYPE                        | MIN. EMBEDMENT (in.)                          | MIN. EDGE DISTANCE (in.) |
| WOOD<br>SG = 0.55 MIN.          | 1/2" ASTM F593 BOLT                | 3.00  | 0.75                     |
|                                 | 3/8" LAG SCREW                     | 3.00  | 0.75                     |
|                                 | 1/2" LAG SCREW                     | 3.00  | 0.75                     |
| CONCRETE<br>f'c = 3000 PSI MIN. | 3/8" DEWALT SCREW-BOLT+            | 4.50  | 2.50                     |
|                                 | 1/2" DEWALT SCREW-BOLT+            | 4.50  | 2.50                     |
|                                 | 3/8" ITW REDHEAD DYNABOLT          | 1.50  | 2.50                     |
|                                 | 1/2" ITW REDHEAD DYNABOLT          | 1.875   | 2.50                     |
|                                 | 3/8" HILTI HIT-Z ROD W/ HIT-HY 200 | 4.50  | 2.375                    |
|                                 | 1/2" HILTI HIT-Z ROD W/ HIT-HY 200 | 4.50  | 2.625                    |
| STEEL<br>1/4" THK. MIN.         | 3/8" HWH SELF-TAPPING SCREW        | THREE THREADS MIN. PENETRATION PAST STRUCTURE | 0.50                     |
|                                 | 1/2" HWH SELF-TAPPING SCREW        | THREE THREADS MIN. PENETRATION PAST STRUCTURE | 0.50                     |

| ANCHOR ALLOWABLE WIND LOAD CAPCITY (PSF) |                                    |                         |                      |       |       |       |       |       |
|--|------------------------------------|-------------------------|----------------------|-------|-------|-------|-------|-------|
| SUBSTRATE                                | ANCHOR TYPE                        | ON CENTER SPACING (in.) | RAILING HEIGHT (In.) |       |       |       |       |       |
|  |                                    |                         | 36                   | 39.75 | 42    | 48    | 60    | 72    |
| WOOD<br>SG = 0.55 MIN.                   | 1/2" ASTM F593 BOLT                | 9.84                    | 97.81                | 80.23 | 71.86 | 55.02 | 35.21 | 24.45 |
|  | 3/8" LAG SCREW                     | 9.84                    | 21.81                | 17.89 | 16.02 | 12.27 | 7.85  | 5.45  |
|  | 1/2" LAG SCREW                     | 9.84                    | 27.09                | 22.22 | 19.90 | 15.24 | 9.75  | 6.77  |
| CONCRETE<br>f'c = 3000 PSI MIN.          | 3/8" DEWALT SCREW-BOLT+            | 9.84                    | 44.75                | 36.71 | 32.88 | 25.17 | 16.11 | 11.19 |
|  | 1/2" DEWALT SCREW-BOLT+            | 9.84                    | 55.69                | 45.67 | 40.91 | 31.32 | 20.05 | 13.92 |
|  | 3/8" ITW REDHEAD DYNABOLT          | 9.84                    | 14.17                | 11.62 | 10.41 | 7.97  | 5.10  | 3.54  |
|  | 1/2" ITW REDHEAD DYNABOLT          | 9.84                    | 20.11                | 16.50 | 14.78 | 11.31 | 7.24  | 5.03  |
|  | 3/8" HILTI HIT-Z ROD W/ HIT-HY 200 | 9.84                    | 23.63                | 19.38 | 17.36 | 13.29 | 8.51  | 5.91  |
|  | 1/2" HILTI HIT-Z ROD W/ HIT-HY 200 | 9.84                    | 30.48                | 25.00 | 22.39 | 17.14 | 10.97 | 7.62  |
| STEEL<br>1/4" THK. MIN.                  | 3/8" HWH SELF-TAPPING SCREW        | 9.84                    | 28.16                | 23.10 | 20.69 | 15.84 | 10.14 | 7.04  |
|  | 1/2" HWH SELF-TAPPING SCREW        | 9.84                    | 37.53                | 30.79 | 27.58 | 21.11 | 13.51 | 9.38  |

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GLASS WAREHOUSE  
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PH: (760) 536-3640

TITLE: RAMA - MODEL RAN-CHRES  
GLASS BASESHOE RAILING

ANCHOR SCHEDULE &  
ANCHOR CAPACITY TABLES

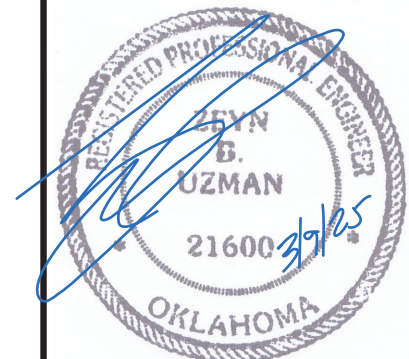
PREPARED BY:  
BUILDING DROPS, INC.

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PH: (954)399-8478  
FAX: (954)744.4738  
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SCALE: NTS

DWG. #: GLW002

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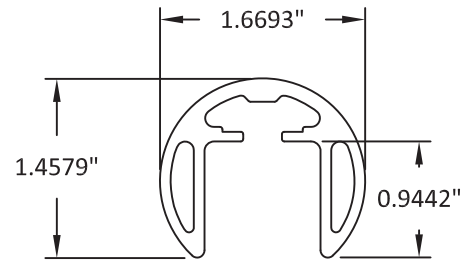
c:\users\y\anivara\building\_drops\inc\building\_drops\_projects\glass\_warehouse\_1c\ev-24-0946.1 - engineering evaluation - base shoe system and posted glass railing\dwgs\base shoe\other states\glw002 - fbc.dwg 1/30/2025 11:20 AM

# HANDRAIL TYPES AND MAX. ALLOWABLE SPANS



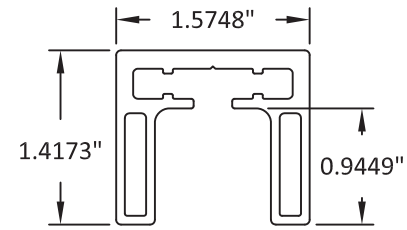
**AGE-SHR42 HANDRAIL:**

- SIMPLY SUPPORTED: 10.92 FT
- CANTILEVER: 3.0 FT



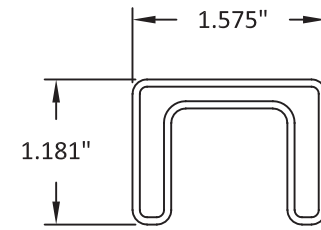
**DRA-AHR42 HANDRAIL:**

- SIMPLY SUPPORTED: 10.75 FT
- CANTILEVER: 2.75 FT



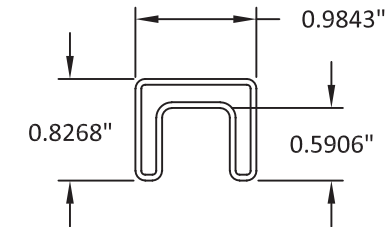
**COR-AHS HANDRAIL:**

- SIMPLY SUPPORTED: 11.42 FT
- CANTILEVER: 3.08 FT



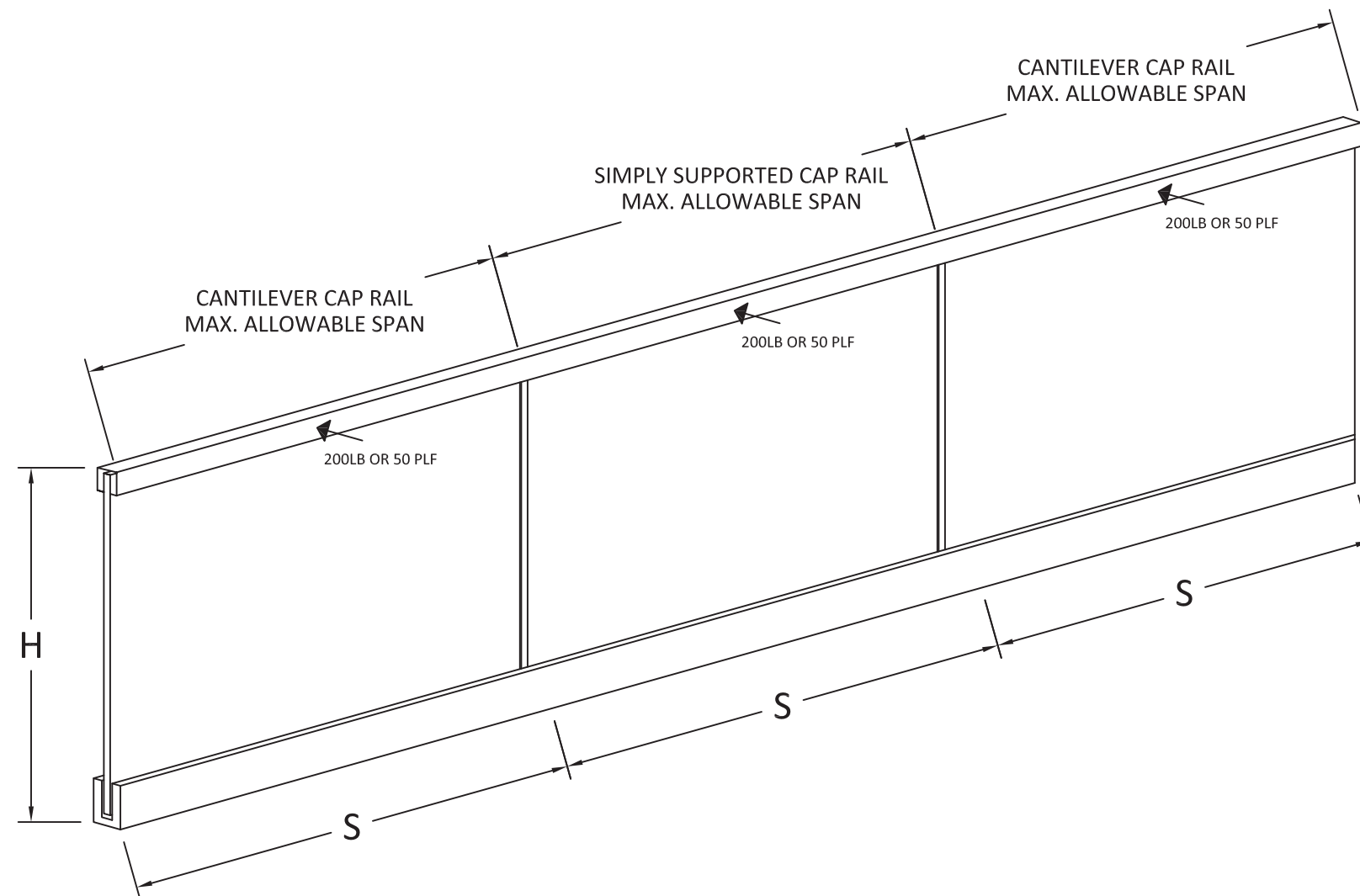
**MAT-SHS HANDRAIL:**

- SIMPLY SUPPORTED: 10.58 FT
- CANTILEVER: 2.75 FT



**HG25S XS HANDRAIL:**

- SIMPLY SUPPORTED: 3.08 FT
- CANTILEVER: 0.58 FT



**NOTE:**  
CANTILEVER SPAN ONLY APPLIES WHEN TOP RAIL IS NOT FIXED TO A STRUCTURE.  
IF CAP RAIL IS FIXED TO A STRUCTURE, USE SIMPLY SUPPORTED MAX ALLOWABLE SPAN.

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TITLE: RANA - MODEL RAN-CHRES  
GLASS BASESHOE RAILING

HANDRAIL TYPES &  
ALLOWABLE SPANS

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DWG. #: **GLW002**

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# TYP. ALLOWABLE WIND LOADS

| ALLOWABLE WIND LOADS (PSF) |                                |                                 |                                 |                                |                                 |                                 |
|----------------------------|--------------------------------|---------------------------------|---------------------------------|--------------------------------|---------------------------------|---------------------------------|
| WIND SPEED<br>(MPH)        | W <sub>ASD</sub> FOR Cf = 1.3  |                                 |                                 | W <sub>ASD</sub> FOR Cf = 2.6  |                                 |                                 |
|                            | EXP. B<br>K <sub>Z</sub> = 0.7 | EXP. C<br>K <sub>Z</sub> = 0.85 | EXP. D<br>K <sub>Z</sub> = 1.03 | EXP. B<br>K <sub>Z</sub> = 0.7 | EXP. C<br>K <sub>Z</sub> = 0.85 | EXP. D<br>K <sub>Z</sub> = 1.03 |
| 100                        | 9.50                           | 11.53                           | 13.98                           | 19.00                          | 23.07                           | 27.95                           |
| 110                        | 11.49                          | 13.95                           | 16.91                           | 22.98                          | 27.91                           | 33.82                           |
| 120                        | 13.68                          | 16.61                           | 20.12                           | 27.35                          | 33.21                           | 40.25                           |
| 130                        | 16.05                          | 19.49                           | 23.62                           | 32.10                          | 39.98                           | 47.24                           |
| 140                        | 18.62                          | 22.60                           | 27.39                           | 37.23                          | 45.21                           | 54.78                           |
| 150                        | 21.37                          | 25.95                           | 31.44                           | 42.74                          | 51.90                           | 62.89                           |
| 160                        | 24.31                          | 29.52                           | 35.78                           | 48.63                          | 59.05                           | 71.55                           |
| 170                        | 27.45                          | 33.33                           | 40.39                           | 54.90                          | 66.66                           | 80.78                           |
| 180                        | 30.77                          | 37.37                           | 45.28                           | 61.54                          | 74.73                           | 90.56                           |

**PREMISES FOR WIND LOADS:**

1. WIND LOADS ARE BASED ON ASCE 7.
2. THE FOLLOWING ASSUMPTIONS HAVE BEEN MADE:
  - a. K<sub>d</sub> = 0.85
  - b. K<sub>zt</sub> = 1.0
  - c. MAX. HEIGHT, Z = 15 FT
3. Cf VALUES SHOWN ON TABLE ARE TWO OF THE TYPICAL EXTREME VALUES. FOR OTHER Cf VALUES MULTIPLY THE WIND LOAD BY Cf/1.3 OR REFER TO ASCE 7 FOR MORE DETAILS.
4. FOR HEIGHTS ABOVE 15 FT REFER TO ASCE 7 FOR ADDITIONAL FACTORS.
5. WIND LOADS DISPLAYED ARE GENERIC AND MAY NOT REFLECT THE JOBSITE CONDITIONS. IF SITE SPECIFIC WIND LOADS ARE REQUIRED A LICENSED ENGINEER SHALL PREPARE SITE SPECIFIC WIND LOADS FOR USE WITH THIS PRODUCT.
6. REFER TO SHEET 9 FOR A RISK CATEGORY II WIND SPEED MAP PER ASCE 7.

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TITLE: RAMA - MODEL RAN-CHRES  
GLASS BASESHOE RAILING

ALLOWABLE WIND LOADS  
PER ASCE 7

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# WIND SPEED MAP

mph (m/sec.)



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GLASS BASESHOE RAILING

WIND SPEED MAP

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