HARDWARE AND GLASS GROUP, LLC.

BR86 GLASS BASE SHOE RAILING (HVHZ)(IMPACT)

GENERAL NOTES:

1. THE PRODUCT SHOWN HEREIN IS DESIGNED AND MANUFACTURED TO COMPLY WITH THE CURRENT EDITION OF THE FLORIDA BUILDING CODE (FBC) AND CURRENT EDITION OF THE INTERNATIONAL BUILDING CODE (IBC), **INCLUDING** HVHZ AND HAS BEEN EVALUATED ACCORDING TO THE FOLLOWING:
   - ANSI Z97.1
   - TAS 201-94
   - TAS 202-94

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 NOT REQUIRED** ON THIS PRODUCT IN AREAS REQUIRING IMPACT RESISTANCE.

6. BASE SHOE MATERIAL: 6063-T6 ALUMINUM

7. GLASS MEETS THE REQUIREMENTS OF ASTM E1300 GLASS CHARTS. SEE SHEET 1 FOR GLAZING DETAIL.

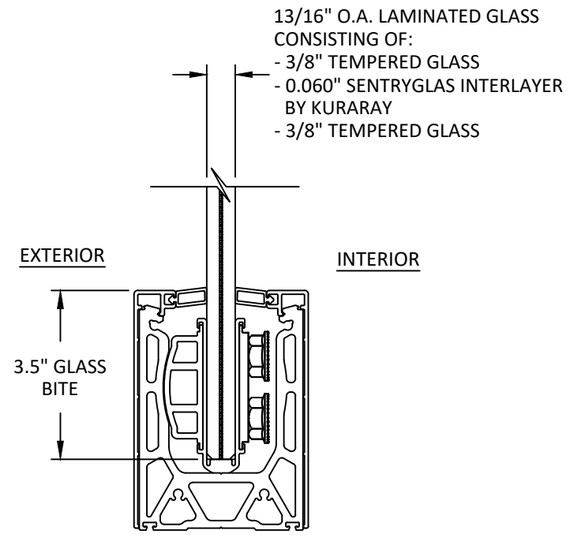
INSTRUCTIONS FOR USE:

1. DETERMINE DESIGN WIND LOAD REQUIREMENTS BASED ON WIND VELOCITY, BUILDING HEIGHT, AND WIND ZONE USING THE APPLICABLE ASCE 7 STANDARD. (SEE SHEET 5 FOR TYPICAL WIND LOADS).

2. SEE DESIGN PRESSURE TABLE ON SHEETS 3 FOR DESIGN LOAD CAPACITY OF DESIRED GLASS TYPE, SIZE, AND THE MAXIMUM RAILING HEIGHT.

3. SEE ANCHOR SCHEDULE ON SHEET 3.

4. FOR CAP RAIL OPTIONS AND ALLOWABLE SPANS REFER TO SHEET 4.



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.

TABLE OF CONTENTS

H&G Systems
HARDWARE AND GLASS GROUP, LLC.
8 THE GREEN SUITE #7407
DOVER, DE 19901
PH: (323) 647-5800

TITLE: *BR86 GLASS BASE SHOE RAILING (HVHZ)(IMPACT)* GENERAL NOTES AND GLAZING DETAIL

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REMARKS	BY	DATE

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Digitally signed by Hermes F. Norero, P.E.
Reason: I am approving this document
Date: 2026.01.13 11:46:24 -05'00'

HERMES F. NORERO LICENSE No. 73778 STATE OF FLORIDA PROFESSIONAL ENGINEER

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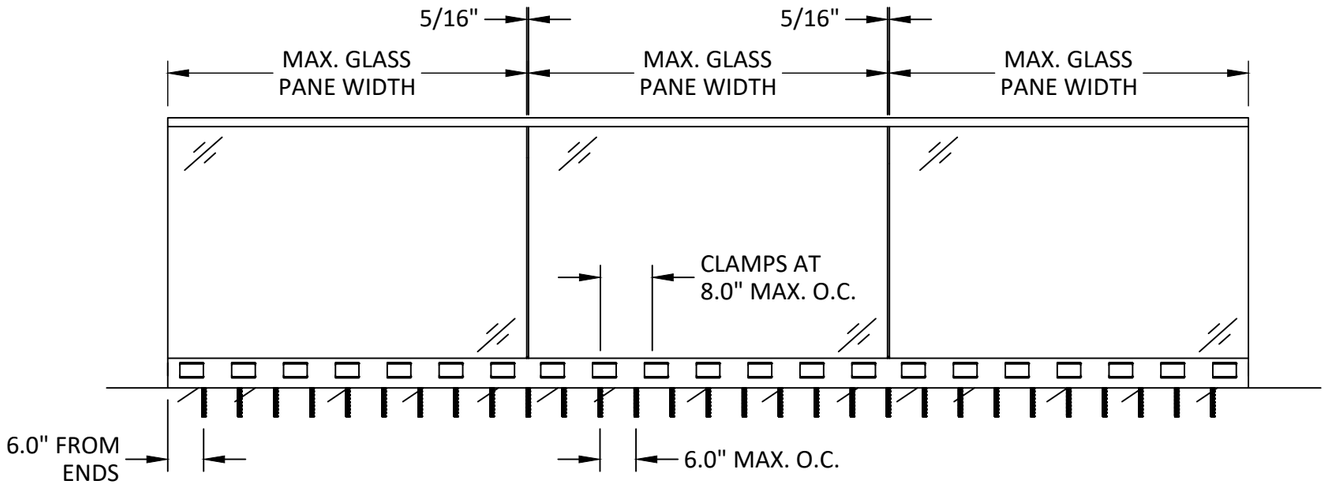
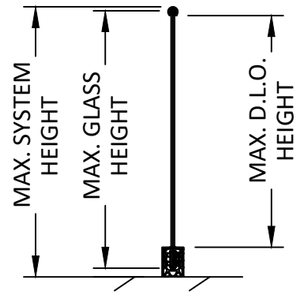
FLORIDA P.E. No 73778
BUILDING DROPS, INC
1900 NE MIAMI COURT, STE. 2-15
MIAMI, FL 33132
FBPE CERT. OF AUTHORIZATION No. 29578

DATE: 12.16.25
DWG. BY: SH
CHK. BY: HFN
SCALE: NTS
DWG. #: HWG041
SHEET: 1 OF 6

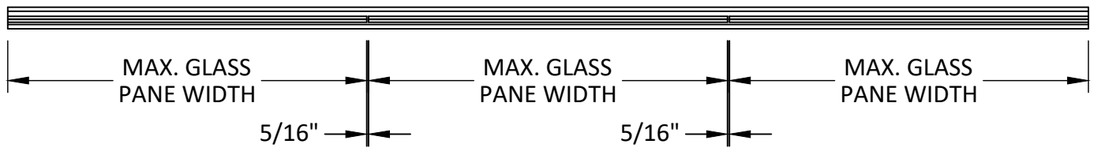


TYPICAL ELEVATION



TYPICAL VERTICAL SECTION

NOTE:
1. SEE SHEET 3 FOR DESIGN PRESSURE TABLE AND ANCHOR DETAILS.
2. NUMBER OF GLASS PANELS SHOWN IS FOR DIAGRAMMATIC PURPOSES. GLASS PANEL QUANTITY MAY VARY.



TYPICAL TOP VIEW

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TITLE: *BR86 GLASS BASE SHOE RAILING (HVHZ)(IMPACT)* ELEVATION

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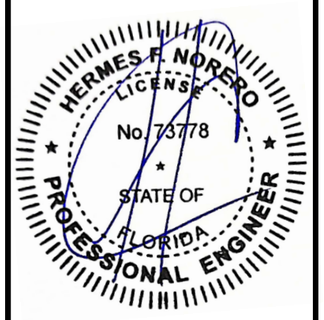

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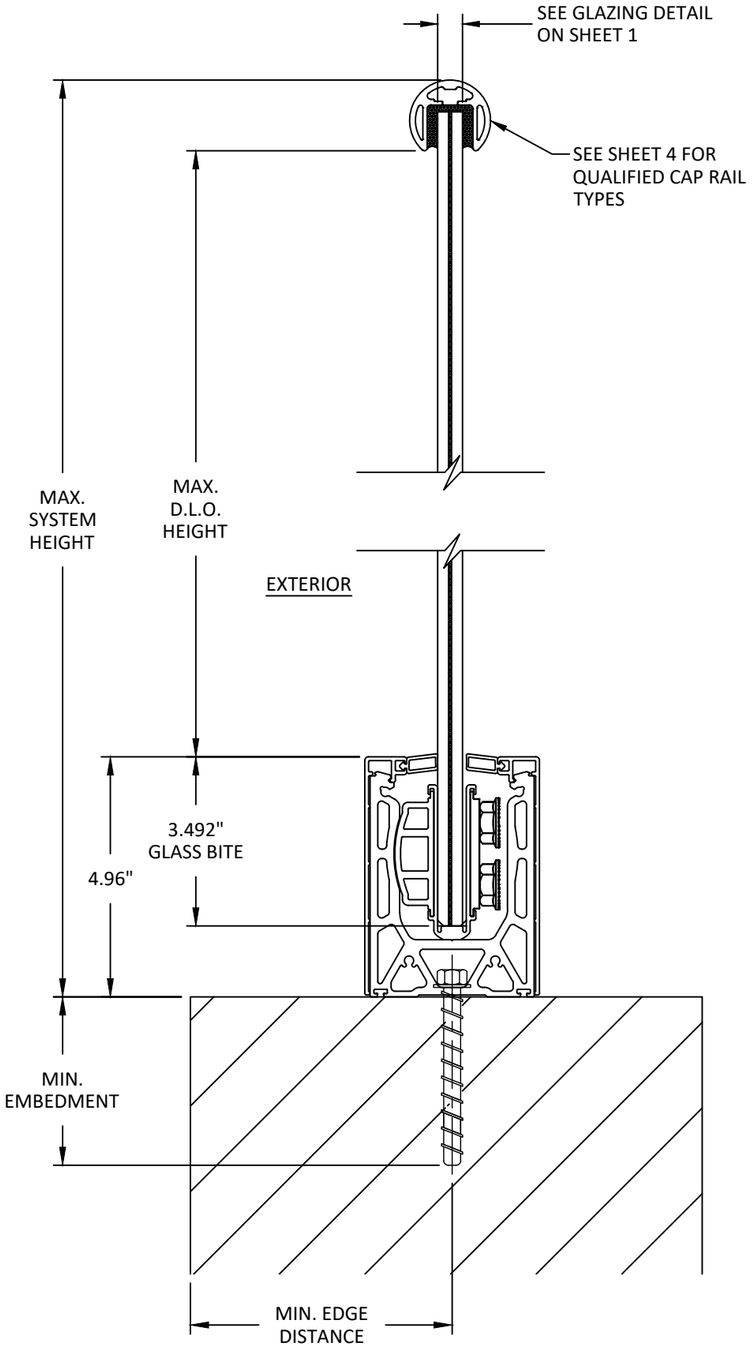
FBPE CERT. OF AUTHORIZATION No. 29578

DATE: 12.16.25
DWG. BY: SH
CHK. BY: HFN
SCALE: NTS
DWG. #: HWG041
SHEET: 2 OF 6



ALLOWABLE WIND LOAD (PSF)					
GLASS WIDTH (in.)	RAILING HEIGHT (in.)				
	36	42	43.4375	48	60
42	140.0	140.0	140.0	114.7	73.4
48	140.0	140.0	140.0	114.7	-
60	140.0	140.0	140.0	-	-
72	140.0	-	-	-	-

ANCHOR SCHEDULE				
SUBSTRATE	ANCHOR TYPE	MIN. EMBEDMENT (in.)	MIN. EDGE DISTANCE (in.)	O.C. SPACING (in.)
CONCRETE f'c = 4000 PSI MIN.	1/2" DEWALT SCREW-BOLT+	4.25	3.75	6.00
STEEL 1/2" THK. MIN.	1/2" HWH SELF-TAPPING SCREW	THREE THREADS MIN. PENETRATION PAST STRUCTURE	1.00	6.00

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DESIGN PRESSURE TABLE & ANCHOR SCHEDULE

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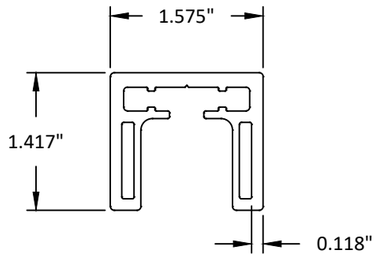
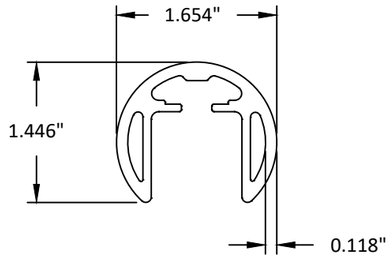
SHEET: 3 OF 6

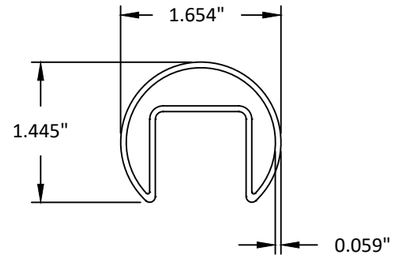
CAP RAIL TYPES AND MAX. ALLOWABLE SPANS



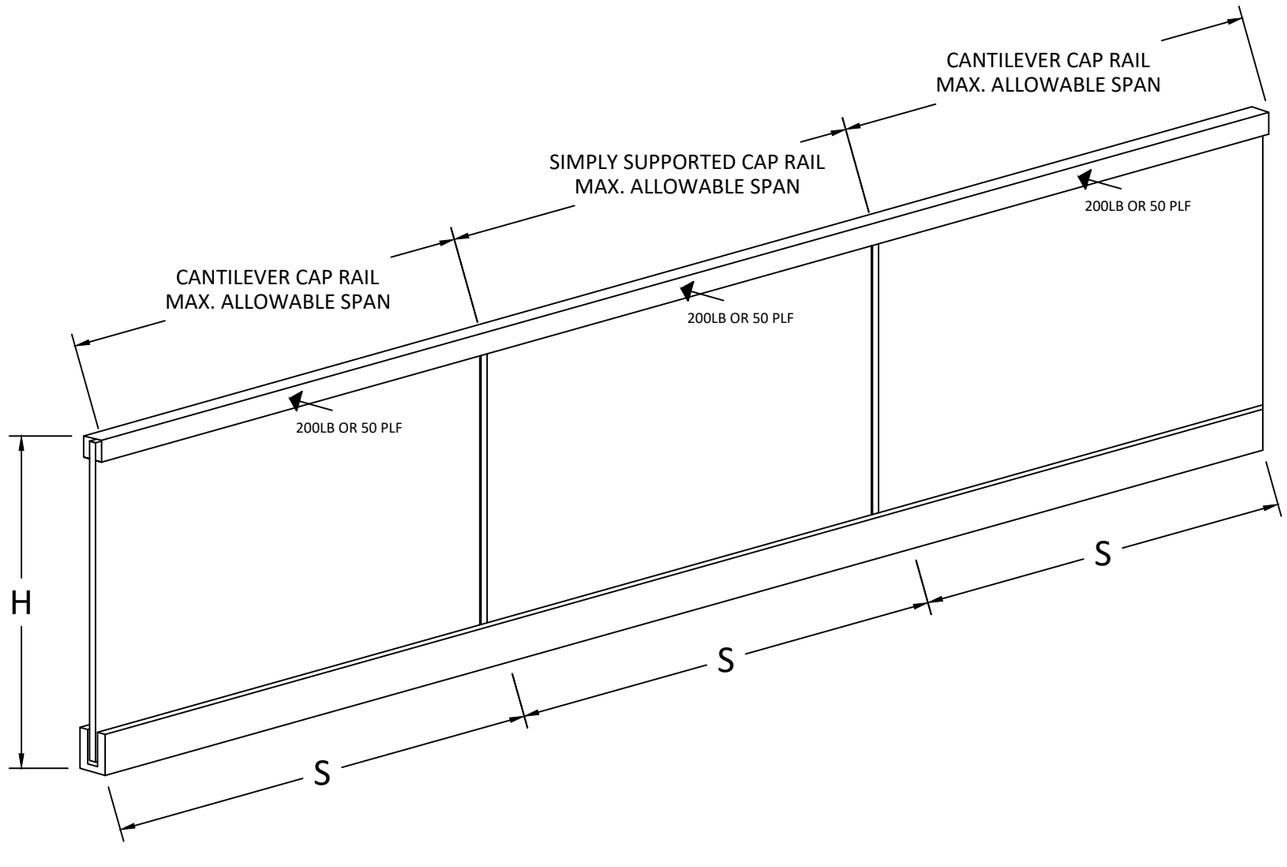
AH4036 CAP RAIL:
- SIMPLY SUPPORTED: 14.75 FT
- CANTILEVER: 5.42 FT



AHR42 CAP RAIL:
- SIMPLY SUPPORTED: 10.42 FT
- CANTILEVER: 2.67 FT



HR42 CAP RAIL:
- SIMPLY SUPPORTED: 10.92 FT
- CANTILEVER: 3.0 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: *BR86 GLASS BASE SHOE RAILING (HVHZ)(IMPACT)*
CAP RAIL TYPES & ALLOWABLE SPANS

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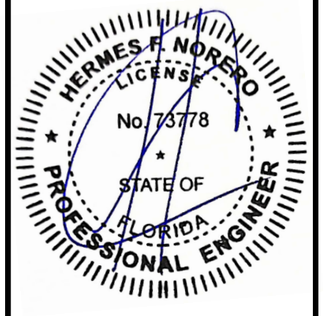

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SCALE:	NTS
DWG. #:	HWG041
SHEET:	4 OF 6

TYP. ALLOWABLE WIND LOADS

ALLOWABLE WIND LOADS (PSF)						
WIND SPEED (MPH)	W_{ASD} FOR Cf = 1.3			W_{ASD} FOR Cf = 2.6		
	EXP. B K_z= 0.7	EXP. C K_z= 0.85	EXP. D K_z= 1.03	EXP. B K_z= 0.7	EXP. C K_z= 0.85	EXP. D K_z= 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. Kd = 0.85
   b. Kzt = 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 6 FOR A RISK CATEGORY II WIND SPEED MAP PER ASCE 7.

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TITLE: *BR86 GLASS BASE SHOE RAILING (HVHZ)(IMPACT)* ALLOWABLE WIND LOADS PER ASCE 7

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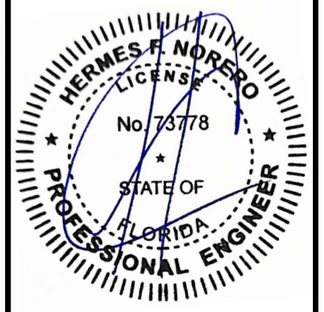

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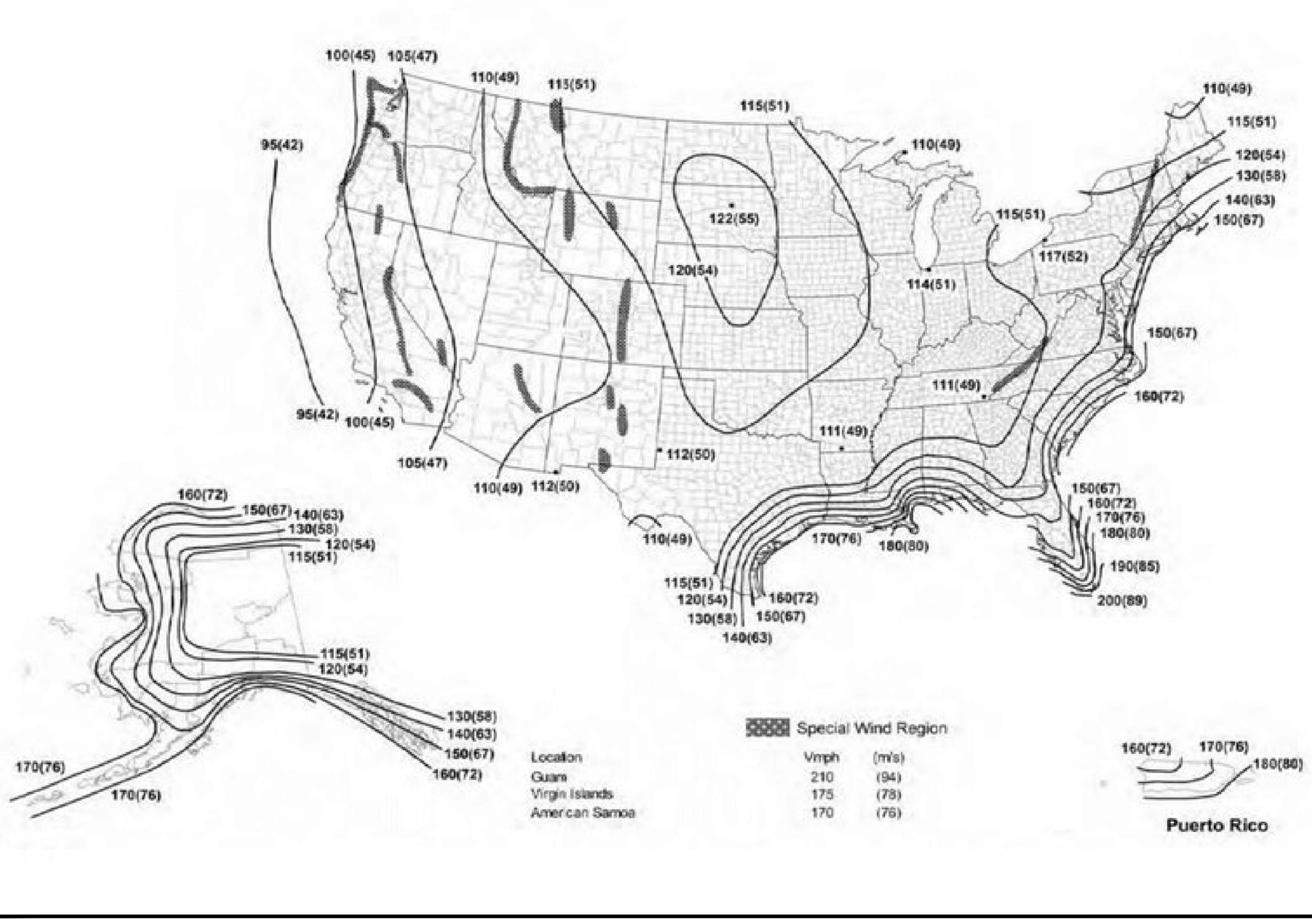
SHEET: 5 OF 6

WIND SPEED MAP

mph (m/sec.)



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WIND SPEED MAP

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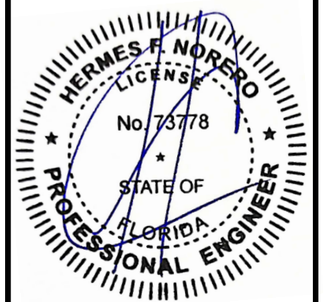

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SHEET: 6 OF 6