

GENERAL NOTES:

1. This Product Evaluation Document (PED) represents a Walk-In Cooler/Freezer System designed and tested in accordance with the 9th Edition (2026) Florida Building Code, Building.
2. This PED is not applicable in the High Velocity Hurricane Zone (HVHZ).
3. This PED addresses the structural and material requirements for compliance with the structural portions of the noted codes. Architectural, mechanical, electrical and waterproofing requirements are not part of the evaluation. Specific use of the evaluation requires the Architect or Engineer of Record to address the architectural, mechanical, electrical, and waterproofing requirements for the installation.
4. Design Loads:

A. Roof:

A.1. Dead Load: 3.5 psf

A.2. Live Load: 20 psf

A.3. Mechanical Equipment: 330 lbs maximum, provide minimum 4'-0" spacing.

B. Walls:

B.1. Dead Load: 2.0 psf

C. Floors:

C.1. Dead Load: 4.0 psf

C.2. Live Load: 250 psf

D. Wind loads shall be determined in accordance with the Authority Having Jurisdiction and the governing code provisions at the time of permit based on the site specific conditions. See Tables 2, 3, & 4 on Sheet 3 for allowable stress design (ASD) wind loads and forces used in the design outlined within these documents. These ASD loads and forces are based on wind load resistance testing. Wind loads determined in accordance with FBC Section 1609 and ASCE 7-22 shall be multiplied by the ASD load factor of 0.6 for comparison with allowable loads and forces on these documents.
5. This PED is generic and does not include information for site specific application of the Walk-In Cooler/Freezer system.
6. This PED shall bear the original or digitally authenticated signature, date and seal of John W. Knezevich, PE and is only valid engineering in the Sate of Florida.
7. Any modification or additions to this PED will void the documents.
8. This PED shall not be applied by the Contractor on a specific site without the involvement of an Architect or Engineer of Record (A/E of Record). The A/E of Record shall be responsible for compliance with the code requirements of a specific installation including but not limited to the following:

A. Verify the site specific wind load requirements are within the criteria used to develop this PED and the unit is configured in compliance with the structural limitations identified in Tables 2 and 3.

B. Verify the foundation design is adequate to resist the superimposed loads identified in Table 1.

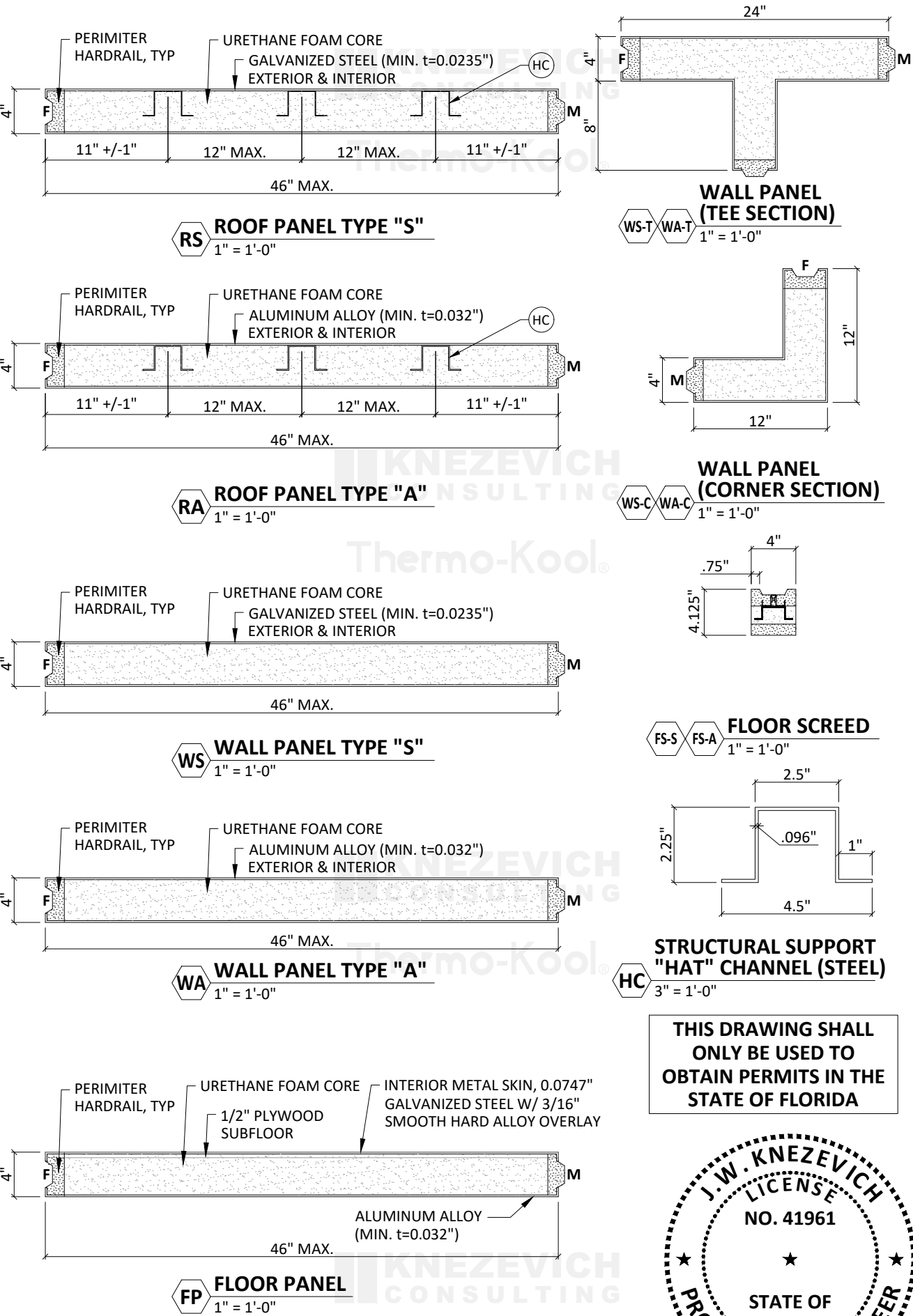
C. Verify the existing building is adequate to resist the superimposed loads identified in Table 1.

D. Weather protection, architectural, mechanical, and electrical requirements are outside the scope of these PEDs. Determine and/or provide for compliance with the requirements of the Authority Having Jurisdiction.

9. When the site conditions deviate from this PED, Site Specific documents shall be prepared, dated and sealed by a Licensed Engineer or Registered Architect, which detail and justify the deviation. Said documents shall be submitted to our office for review and acceptance..
10. All aluminum materials shall comply with the alloys as noted on the drawings.
11. All bolts shall be 304 stainless steel complying with ASTM F593A Condition A with a min tensile strength of 75 ksi u.o.n.
12. All screws shall be electro-galvanized steel or 300 series stainless steel with a min. tensile strength of 75 ksi u.o.n. Stainless steel screws shall be used when exposed to the weather.
13. All concrete anchors shall be as specified on the drawings. Embedment lengths noted on the drawings shall not include finish material. Anchors are approved for use in uncracked concrete only with a min. f'c = 3,000 psi.
14. Dissimilar metals in contact with aluminum shall be protected in accordance with the Aluminum Design Manual, Chapter M.7.
15. An allowable stress increase is not used in the design of the cooler/freezer unit nor its attachments.

POLYURETHANE FOAM SANDWICH PANEL SPECIFICATIONS

1. Wall & roof composite sandwich panels are comprised of aluminum or steel facings with poured polyurethane cores. Thickness and material of facings shall be as specified herein.
2. Composite panels are approved for use in walk-in coolers where the aggregate floor area does not exceed 400 square feet. For specific requirements of foam plastics in walk-in coolers, see FBC Section 2603.4.1.3.
3. Aluminum facings shall be 3003-H14 alloy for interior and exterior use.
4. Steel facings used on wall panels shall comply with ASTM A653 CS with a min. Fy = 47.0 ksi, min. thickness of 0.0235" and a G90 coating. Miscellaneous light gage steel shall comply with ASTM A653 CS with a min. Fy = 41.0 ksi, a G60 coating and a thickness as noted herein.
5. Polyurethane foam core shall be BASF Elastopor FE 245 NC Resin / P1001U isocyanate with an average in-place density of 2.0 pcf ± 10%. Perimeter hardrails shall be BASF Elastopor FE 6242.21/P1001U with an average in-place density of 10.0 pcf ± 20%.
6. Panel core shall be as approved by UL (UL R14781) with a flame spread rating of not more than 25 and a smoke developed ration of not more than 450.
7. Metal skin shall be adhered to foam with Helmitin Adhesive 4012 RD air sprayed onto metal skins at a rate of 0.117 ounces per square foot.
8. Tapping plates within door frame shall be 1/2" HDPE plastic with a min. size of 2" x 2" and a maximum size of 2" larger than the screw pattern. Provide tapping plates at all door hardware and steel floor angle locations.



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Thermo-Kool

Revisions	description	by	date	no
0	JWK Update KC23-0712 to FBC 2026	JWK	07/28/2026	0

Scale: AS NOTED

Drawn by: JWK

Date: 07/28/2026

J.W. Knezevich

Professional Engineer

FL License No.: PE 41961

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Digitally signed by John W. Knezevich

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Drawing No.

KC26-0712

sheet 1 of 6



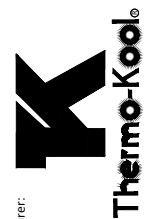
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CONSULTING

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Drawing No.
KC26-0712
 sheet 2 of 6

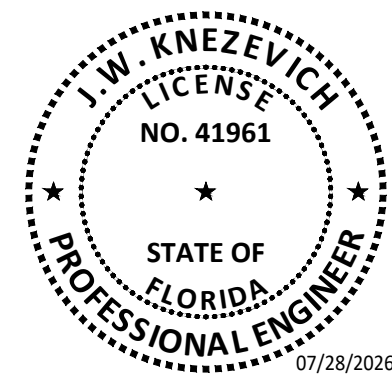


Table with 2 columns: LOAD, NET WIND FORCES (ASD). Rows include Pv, PH, and Mw with their respective values.

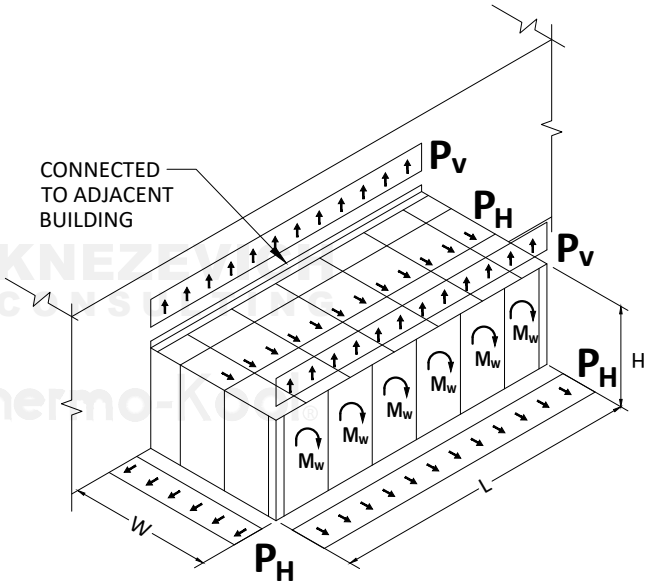
- TABLE 1 NOTES:
- 1. Net wind forces (ASD) represent the reactions from allowable stress wind wind load combinations assuming maximum roof panel spans and maximum wall panel heights.
 - 2. Pv represents the vertical wind reaction.
 - 3. PH represents the horizontal wind reaction.
 - 4. Mw represents the shearwall base moment for each required panel.

Table with 4 columns: PANEL TYPE, PANEL LENGTH, MAX. ALLOWABLE (ASD) WIND LOAD, POS (PSF), NEG (PSF). Rows include RS & RA 4" Roof Panels and WS & WA 4" Wall Panels with various lengths and load values.

- TABLE 4 NOTES:
- 1. Allowable wind loads shown represent the maximum ASD component uniform wind loads for each panel span complying with the moment and shear limitations.
 - 2. For site specific non-uniform wind loads, evaluate maximum spans using maximum allowable moments and shears from Table 3.
 - 3. Spans less than the maximum panel length are not governed by deflection.
 - 4. Maximum panel length from Table 3 shall not be exceeded.

Table with 3 columns: PANEL TYPE, MOMENT (FT-LBS/PANEL), SHEAR (LBS/PANEL). Rows include RP1, RP2, WP1, and WP2 with their respective moment and shear values.

- TABLE 2 NOTES:
- 1. A sufficient number of 46" roof panels shall be provided to maintain the roof diaphragm moment and shear in each panel below the maximum ASD values shown here.
 - 2. A sufficient number of 46" wall panels shall be provided on the front wall to maintain the shearwall moment and shear in each panel below the maximum ASD values shown here.

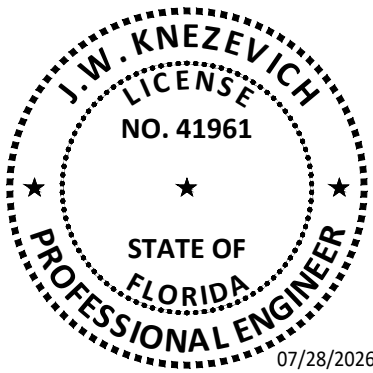


SEE TABLE 2 FOR SHEARWALL & DIAPHRAGM LIMITATIONS

ISOMETRIC WITH SUPERIMPOSED WIND LOADS
D N.T.S.

Table with 5 columns: PANEL TYPE, MAX. PANEL LENGTH, MAX. ALLOWABLE (ASD) MIDSPAN MOMENT, MAX. ALLOWABLE (ASD) END SHEAR. Rows include RS & RA 4" Roof Panels and WS & WA 4" Wall Panels with their respective dimensions and moment/shear values.

- TABLE 3 NOTES:
- 1. Moments and shears from site specific wind loads shall be less than the maximum values shown here.
 - 2. Allowable moments and shears for wall and roof panels are in compliance with FBC Section 1709.3 providing for a factor of safety of 2.0 with a minimum recovery of 75% and a factor of safety of 2.5 on ultimate test loads.
 - 3. Positive moments and shears represent midspan moments and end shears resulting from positive wind load.
 - 4. Negative moments and shears represent midspan moments and end shears resulting from negative wind load.
 - 5. Cooler height is panel length + 8".



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Revisions

no	date	by	description
0	07/28/2026	JWK	Update KC23-0717 to FBC 2026

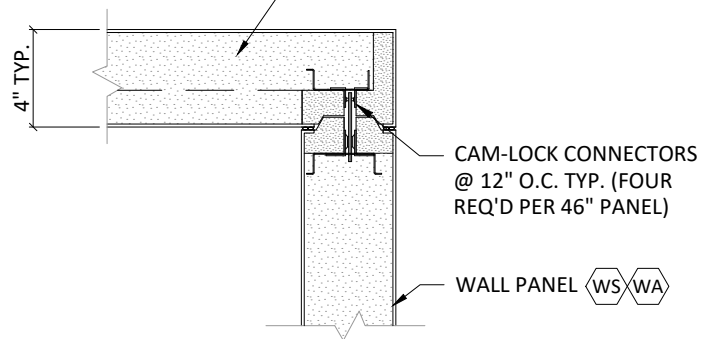
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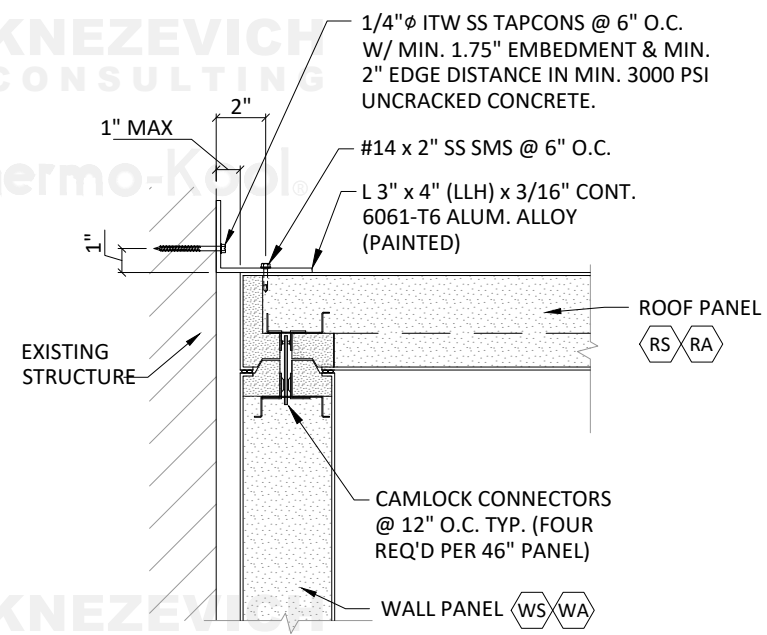
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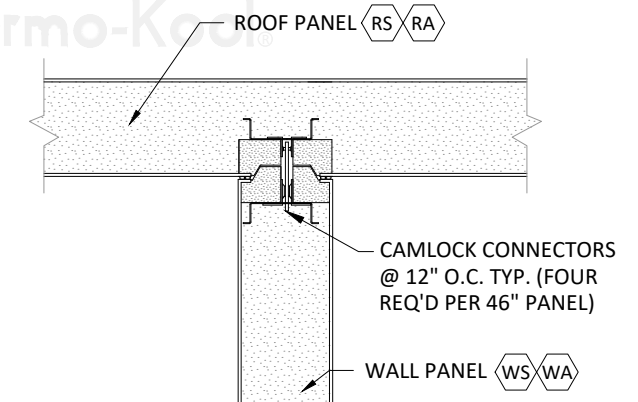
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sheet 3 of 6



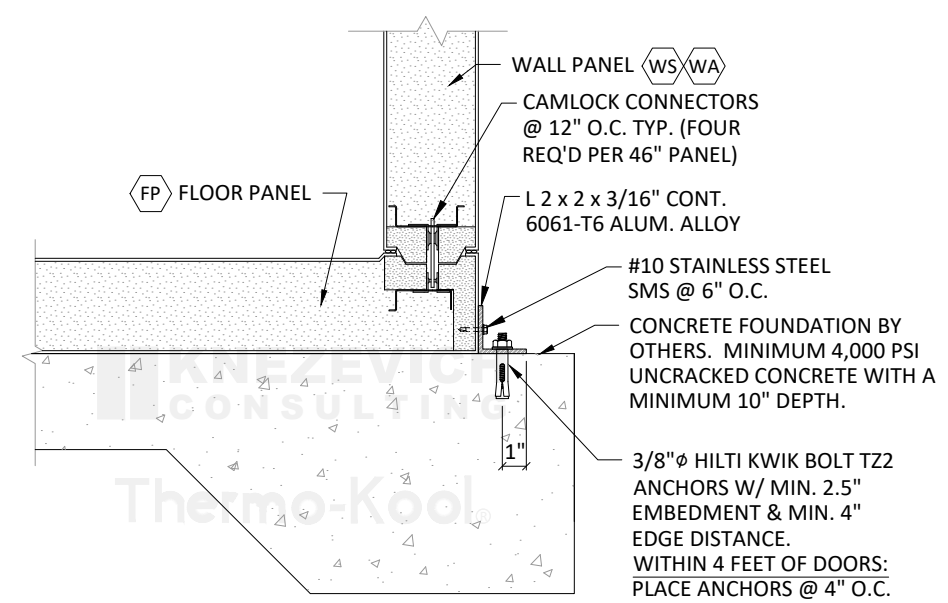
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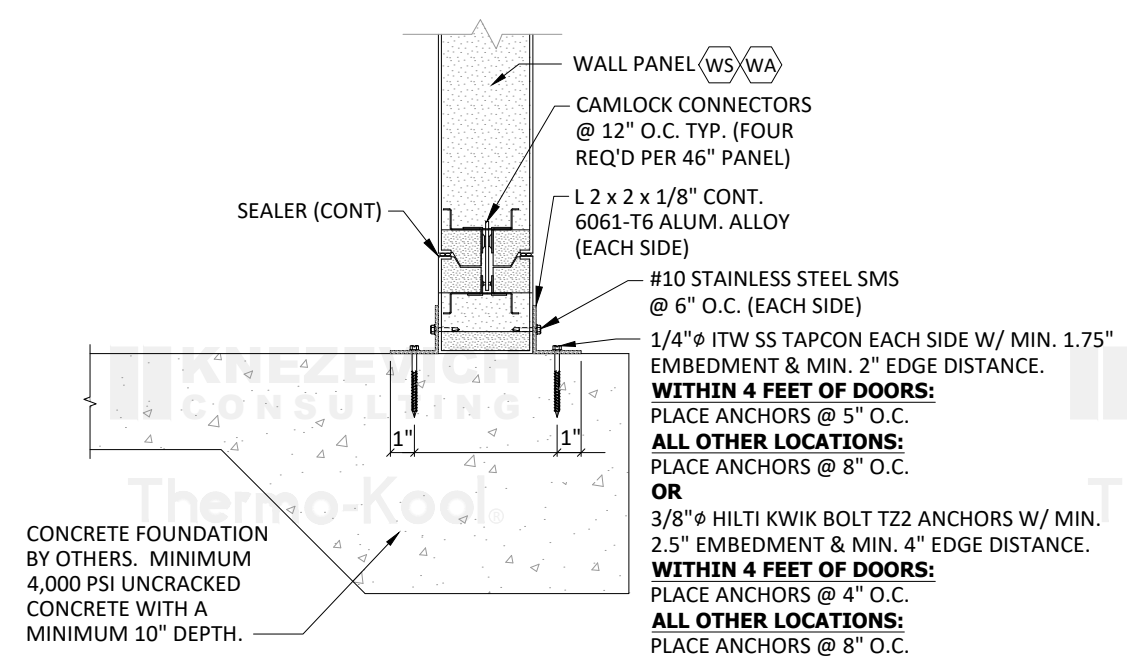
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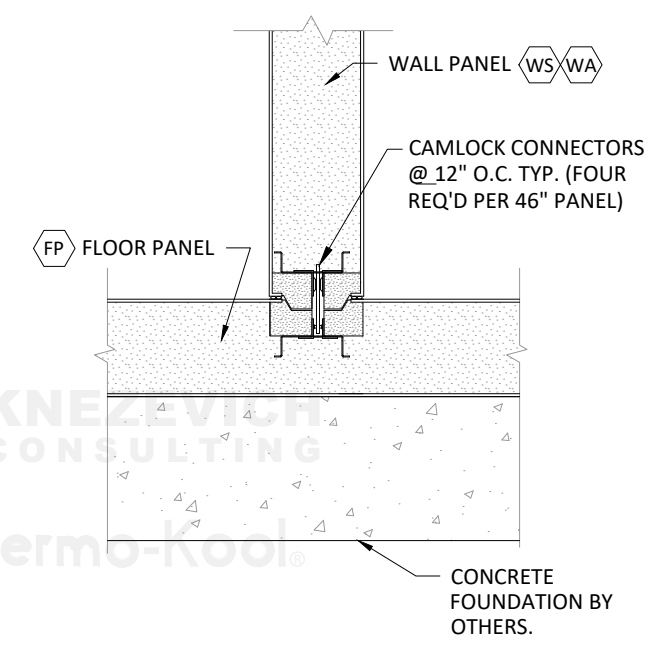
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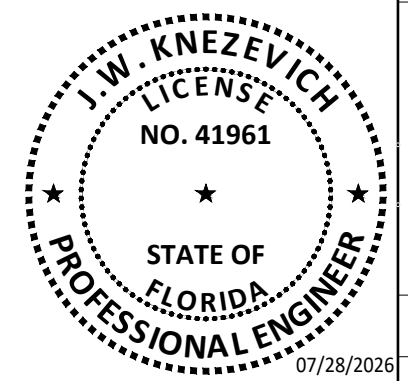
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4 DETAIL 4
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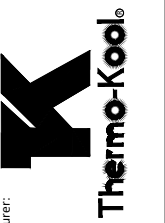


6 DETAIL 6
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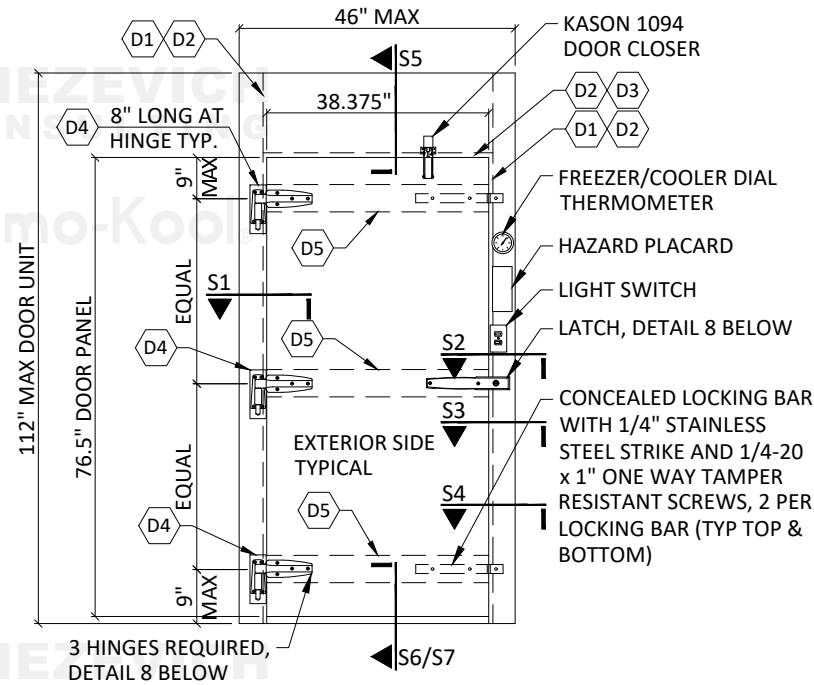
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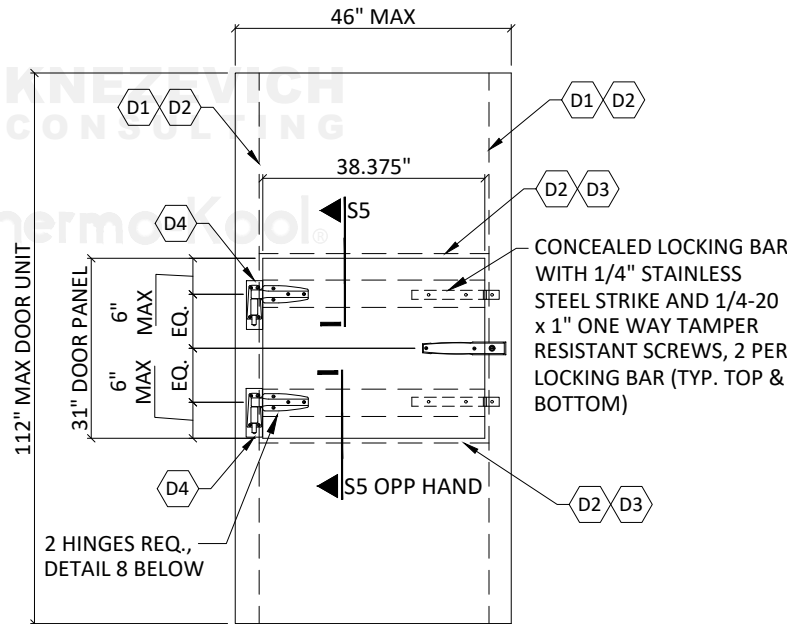
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sheet 4 of 6



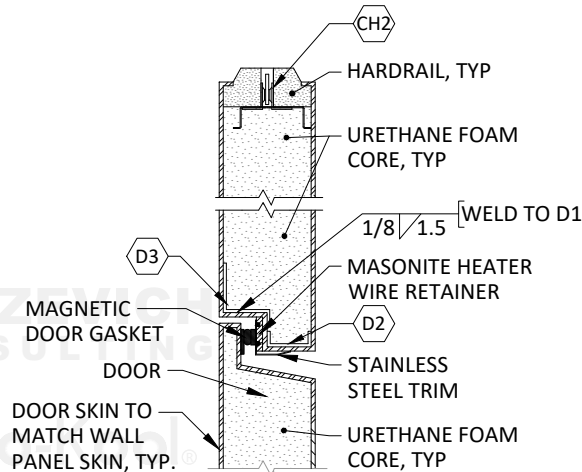
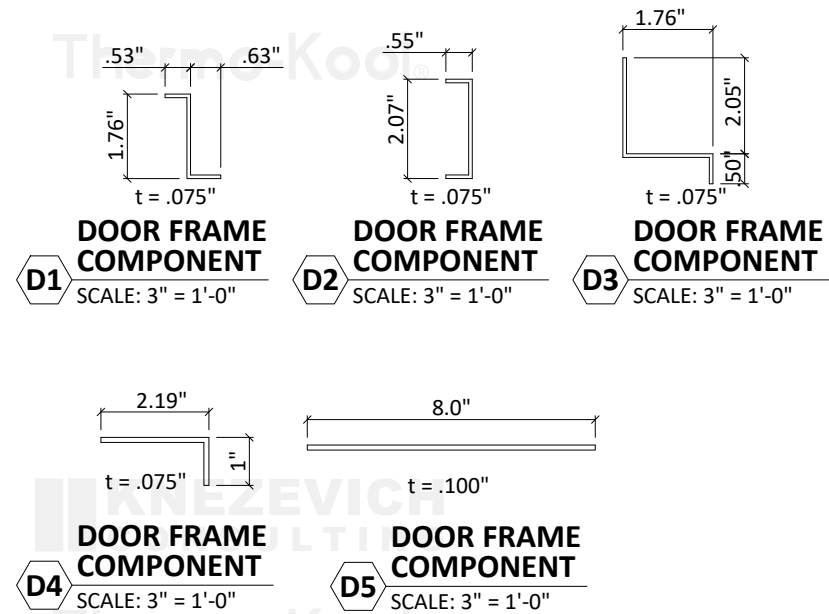
MAX DOOR PANEL SIZE: OUTSIDE 38-3/8" WIDE x 76-1/2" HIGH

7A ENTRY DOOR ELEVATION
SCALE: 3/8" = 1'-0"

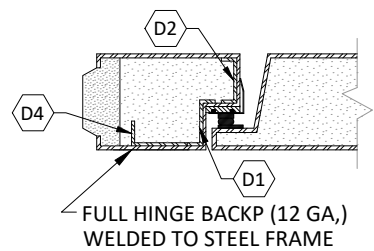


MAX DOOR PANEL SIZE: OUTSIDE 38-3/8" WIDE x 31" HIGH

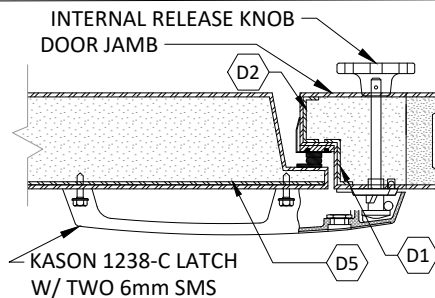
7B REACH-IN DOOR ELEVATION
SCALE: 3/8" = 1'-0"



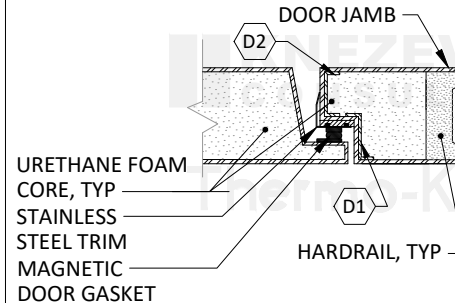
S5 DOOR HEAD
SCALE: 1.5" = 1'-0"



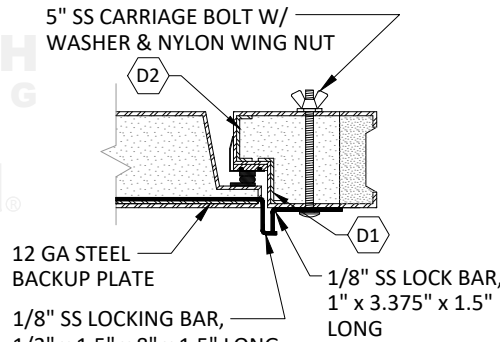
S1 DOOR JAM @ HINGE
SCALE: 1.5" = 1'-0"



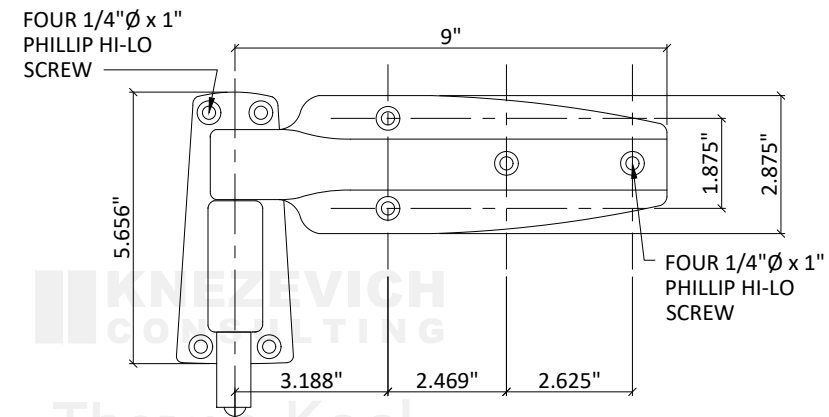
S2 DOOR JAM @ LATCH
SCALE: 1.5" = 1'-0"



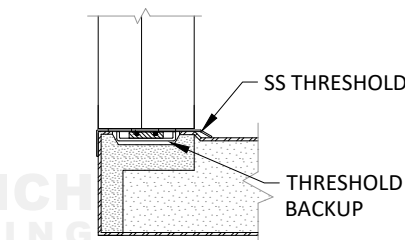
S3 DOOR JAM
SCALE: 1.5" = 1'-0"



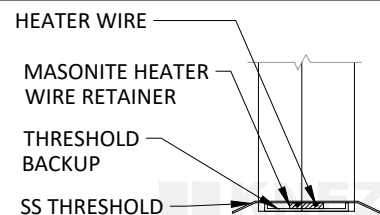
S4 DOOR JAM @ LOCKING BAR
SCALE: 1.5" = 1'-0"



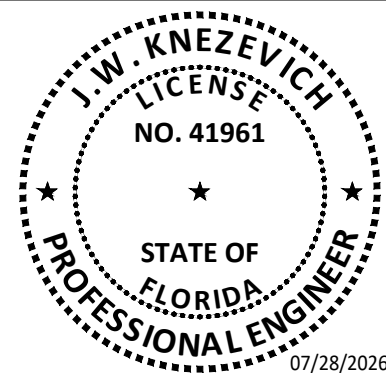
8 KASON 1248 HINGES
SCALE: 3" = 1'-0"



S6 DOOR SILL W/ FLOOR
SCALE: 1.5" = 1'-0"



S7 DOOR SILL FLOORLESS
SCALE: 1.5" = 1'-0"

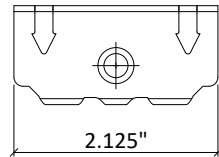


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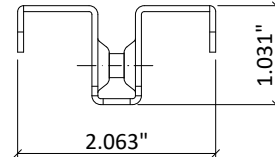
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FL License No.: PE 41961

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ELEVATION



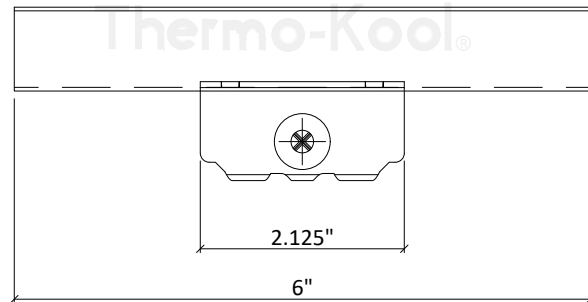
SECTION



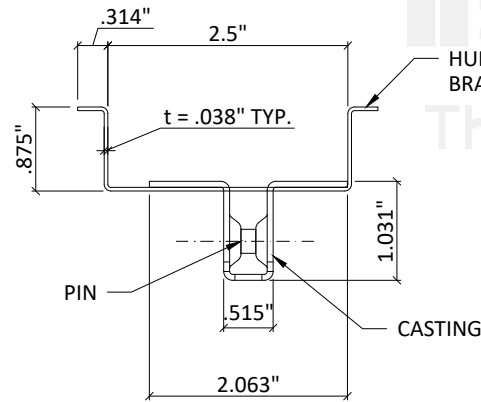
ELEVATION & SECTION

SCALE: HALF SIZE

CAMLOCK TABLE				
PANEL TYPE & PANEL LOCATION	CAMLOCK & BRACKET DESIGNATION	CAMLOCK TYPE PIN/HOOK	CAMLOCK PART NO.	HURRICANE BRACKET TYPE
CEILING INTERIOR SIDE RAIL	CH1	HOOK	71153A00002	NONE
FLOOR INTERIOR SIDE RAIL	CH1	HOOK	71153A00002	NONE
WALL SIDE RAIL	CH1	HOOK	71153A00002	NONE
WALL BOTTOM RAIL	CH2	HOOK	71156SR5002	A
WALL TOP RAIL	CH2	HOOK	71156SR5002	A
CEILING INTERIOR SIDE RAIL	CP1	PIN	71154000562	NONE
WALL SIDE RAIL	CP1	PIN	71154000562	NONE
FLOOR INTERIOR SIDE RAIL	CP1F	PIN	71154000688	NONE
CEILING RAIL AT INTERIOR WALL	CP2	PIN	71154000688	A
FLOOR RAIL AT INTERIOR WALL	CP2	PIN	71155000688	A
SCREED TOP RAIL	CP2	PIN	71155000688	A
CEILING EXTERIOR END RAIL	CP3	PIN	71155000688	B
CEILING EXTERIOR SIDE RAIL	CP3	PIN	71155000688	B
FLOOR EXTERIOR END RAIL	CP3	PIN	71155000688	B
FLOOR EXTERIOR SIDE RAIL	CP3	PIN	71155000688	B



ELEVATION

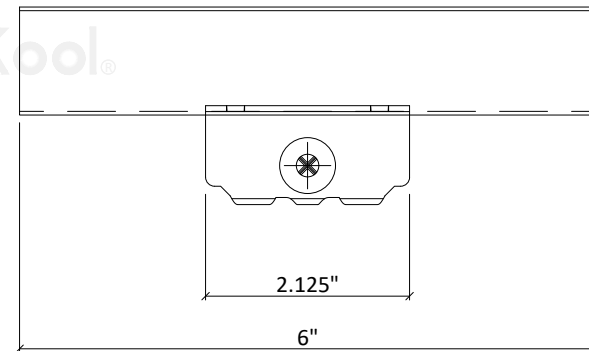


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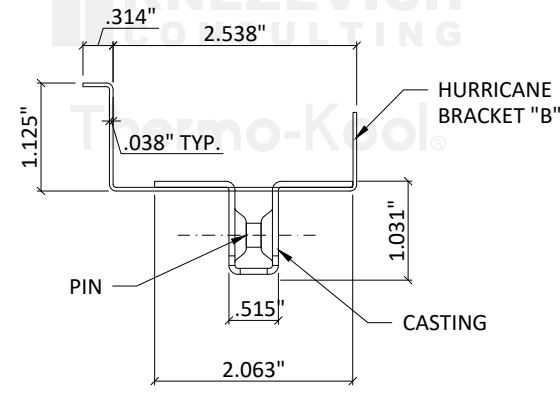


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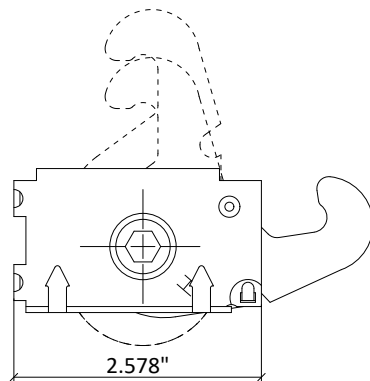


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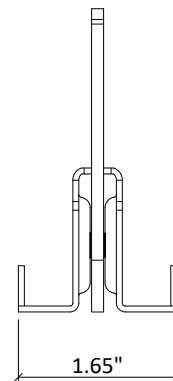


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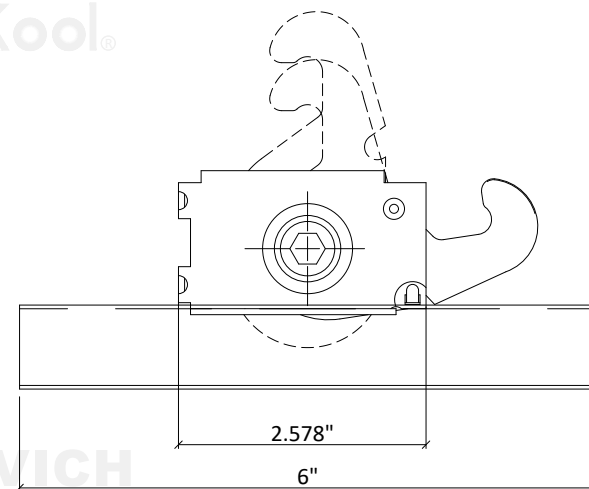


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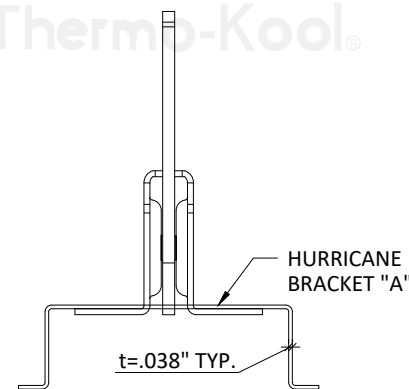


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ELEVATION

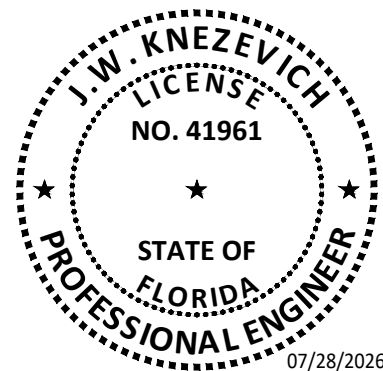


SECTION



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