

# Report Of:

- **2023 Florida Building Code - Building**
- **2023 Florida Building Code - Residential**

**WARNING** No representation or warranty is given that your particular application of these products complies with relevant building codes or that the fasteners provided or used are appropriate for your application. Consult with professionals and local building officials before beginning work: (i) to ensure compliance with relevant building codes for your application and for your proposed use of fasteners; (ii) to ensure the integrity of the structural components in connection with which these products are to be used; (iii) to identify appropriate safety gear that is to be used during installation; (iv) to ensure that the work area is free from utilities, services and hazards; and (v) to clarify any instructions or warnings that may not be clear. Work in a safe manner wearing protective gear such as gloves, eyewear, headwear, footwear and clothing. When using tools comply with operation manuals and instructions. Metal and glass may have sharp edges and could fragment or splinter during or as a result of handling or cutting. Do not use these products in connection with any substance that is or may be harmful or corrosive to the products. Inspect and maintain these products and the structural components that they are used in connection with on a regular basis, using professionals when appropriate.



May 7, 2024

MTE File No.: C45332-101

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MTE Project No. C45332-101  
Peak Products | Aquatine and  
AquatinePLUS FL Building  
Code Review

**RE: PEAK® Aluminum Fencing Aquatine™ Review For Code Compliance  
2023 FBC and 2023 FRC**

**1. INTRODUCTION**

**1.1 Overview**

The Peak® Aluminum Fencing Aquatine™ is intended to serve as a fence or barrier around the perimeter of the pool area. The purpose of the barrier is to prevent access to the pool area, but not to serve as fall protection to a lower elevation. Peak® Aluminum Fencing Aquatine™ drawings and dimensions are provided to us by Peak Products as part of the review scope.

The purpose of this report is to provide a review of the requirements set forth in the following documents:

- 2023 Florida Building Code (FBC)
  - Section 454 – Swimming Pools and Bathing Places (Public and Private)
- 2023 Florida Building Code – Residential (FRC)
  - Chapter 42 – Swimming Pools (Electrical Provisions)
  - Chapter 45 – Private Swimming Pools

**2. POOL BARRIER REQUIREMENTS CHECKLIST**

The Peak® Aluminum Fencing Aquatine™ is reviewed for compliance against the requirements of the above-referenced codes. The requirement review checklist items are summarized in Table 1.1 below.

<b>Table 1.1 2023 FBC and 2023 FRC Pool Requirements</b>			
<b>Result</b>	<b>Clause</b>	<b>Description</b>	<b>Comment</b>
Conform	FBC 454.1.3.1.9	All pools surrounded by a minimum 48 inch high fence or other approved substantial barrier.	Aquatine top of barrier is 48 inches above grade.
Conform	FBC 454.1.3.1.9	Fence gate shall be 48-inches high from the ground or floor.	Aquatine top of gate is 48 inches above grade.

**Table 1.1 2023 FBC and 2023 FRC Pool Requirements**

<b>Result</b>	<b>Clause</b>	<b>Description</b>	<b>Comment</b>
Conform	FBC 454.1.3.1.9	Fence gates shall be self-latching, with a latch located a minimum of 54 inches from the bottom of the gate or at least 3-inches below the top of the gate on the pool side.	Aquateine gate is equipped with self-latching device 54 inches above grade or floor.
Conform	FBC 454.2.17.1.1 FRC R4501.17.1.1	Top of barrier not less than 48 inches above grade on the side barrier that faces away from the swimming pool.	Aquateine top of barrier is 48 inches above grade.
Conform	FBC 454.2.17.1.1 FRC R4501.17.1.1	The maximum vertical clearance between grade and the bottom of the barrier shall be 2 inches measured on the side of the barrier which faces away from the swimming pool.	Aquateine bottom of barrier clearance is 2 inches maximum.
Conform	FBC 454.2.17.1.1 FRC R4501.17.1.1	Maximum vertical clearance between top of the pool structure and the bottom of the barrier shall be 4 inches.	Aquateine bottom of barrier clearance is 2 inches maximum.
Conform	FBC 454.2.17.1.2 FRC R4501.17.1.2	Openings in any barrier shall not allow passage of a 4-inch-diameter sphere.	Aquateine maximum sized openings are 4 inches.
N/A	FBC 454.2.17.1.3 FRC R4501.17.1.3	Solid barriers which do not have openings shall not contain indentations or protrusions except for normal construction tolerances and tooled masonry joints.	Aquateine fence barrier has no solid barriers. The barriers consist of picket fences.
N/A	FBC 454.2.17.1.4 FRC R4501.17.1.4	Where the barrier is composed of horizontal and vertical members and the distance between the tops of the horizontal members is less than 45 inches, the horizontal members shall be located on the swimming pool side of the fence. Spacing between vertical members shall not exceed 1-3/4 inches in width. Where there are decorative cutouts within vertical members, spacing within the cutouts shall not exceed 1-3/4 inches in width.	Aquateine horizontal members are spaced 45- 1/2 - inches apart.
Conform	FBC 454.2.17.1.5 FRC R4501.17.1.5	Where the barrier is composed of horizontal and vertical members and the distance between the tops of the horizontal members is 45 inches or more, spacing between vertical members shall not exceed 4 inches. Where there are decorative cut-outs within vertical members, spacing within the cut-outs shall not exceed 1-3/4 inches in width.	Aquateine horizontal members are spaced 45- 1/2 - inches apart. Aquateine vertical members are spaced 4-inches maximum between.

**Table 1.1 2023 FBC and 2023 FRC Pool Requirements**

<b>Result</b>	<b>Clause</b>	<b>Description</b>	<b>Comment</b>
N/A	FBC 454.2.17.1.6 FRC R4501.17.1.6	Maximum mesh size for chain link fences shall be a 2-1/4 inch square unless the fence is provided with slats fastened at the top or bottom which reduce the openings to no more than 1-3/4 inches.	Aquateine does not have chain-link barriers.
N/A	FBC 454.2.17.1.7 FRC R4501.17.1.7	Where the barrier is composed of diagonal members, the maximum opening formed by the diagonal members shall be no more than 1- 3/4 inches.	Aquateine does not have diagonal members.
Conform	FBC 454.2.17.1.8 FRC R4501.17.1.8	Access gates shall be equipped to accommodate a locking device on the pool side of the gate, opening outward from the pool, and shall be self-closing and have a self-latching device	Aquateine gate is equipped with self-latching device, hinge self-closes, opens away from the pool.
Conform	FBC 454.2.17.1.8 FRC R4501.17.1.8	Where the device release is located no less than 54 inches from the bottom of the gate, the device release mechanism may be located on either side of the gate and so placed that it cannot be reached by a young child over the top or through any opening or gap from the outside.	Aquateine latch device is located 54 inches from the bottom of gate.
Conform	FBC 454.2.17.1.8 FRC R4501.17.1.8	The gates and barrier shall have no opening greater than 1/2 inch within 18 inches of the release mechanism.	Aquateine latch device is located 54 inches from the bottom of gate. See Appendix B for additional information.
N/A	FBC 454.2.17.1.9 FRC R4501.17.1.9	When a wall of a dwelling serves as part of the barrier.	Aquateine fencing barrier is not part of a dwelling.
N/A	FBC 454.2.17.1.10 FRC R4501.17.1.10	Where above-ground pool structure is used as a barrier or where the barrier is mounted on top of the pool structure, and means of access is a ladder or steps, the ladder or steps either shall be capable of being secured, locked or removed to prevent access, or ladder or steps shall be surrounded by a barrier.	This section not applicable.
N/A	FBC 454.2.17.1.11 FRC R4501.17.1.11	Standard screen enclosures may be utilized as part of or all of the barrier.	This section not applicable.

**Table 1.1 2023 FBC and 2023 FRC Pool Requirements**

<b>Result</b>	<b>Clause</b>	<b>Description</b>	<b>Comment</b>
Conform	FBC 454.2.17.1.12 FRC R4501.17.1.12	The barrier must be placed around the perimeter of the pool and must be separate from any fence, wall, or other enclosure surrounding the yard unless the fence, wall, or other enclosure or portion thereof is situated on the perimeter of the pool, is being used as part of the barrier, and meets the barrier requirements of this section.	Aquatine fence and gate requires a 48 inch clear zone from each side of the barrier.
Conform	FBC 454.2.17.1.13 FRC R4501.17.1.13	Removable child barriers must be placed sufficiently away from the water's edge to prevent a young child or medically frail elderly person who may manage to penetrate the barrier from immediately falling into the water. Sufficiently away from the water's edge shall mean no less than 20 inches from the barrier to the water's edge. Dwelling or nondwelling walls including screen enclosures, when used as part or all of the barrier and meeting the other barrier requirements, may be as close to the water's edge as permitted by this code.	Aquatine fence and gate barrier shall not be less than 20 inches from water's edge.
N/A	FBC 454.2.17.1.14 FRC R4501.17.1.14	A wall of a dwelling may serve as part of the barrier if it does not contain any door or window that opens to provide direct access from the home to the swimming pool.	This section not applicable.
N/A	FBC 454.2.17.1.15 FRC R4501.17.1.15	Mesh safety barrier.	This section is not applicable. No mesh safety barriers are used.

This review is based on information and drawings provided by Peak Products for the elements listed above.

### 3. CONCLUSION

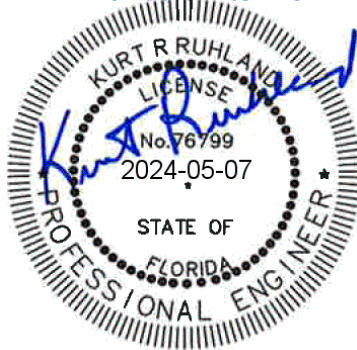
The Peak® Aluminum Fencing Aquatine™ system meets the requirements within the following applicable code sections:

- 2023 Florida Building Code (FBC)
  - Section 454 – Swimming Pools and Bathing Places (Public and Private)
- 2023 Florida Building Code – Residential (FRC)
  - Chapter 42 – Swimming Pools (Electrical Provisions)
  - Chapter 45 – Private Swimming Pools

The limitations of compliance are defined in the Peak® Aluminum Fencing Aquatine™ assembly drawings presented in Appendix A.

Yours truly,

**MTE Consultants Inc.**



**Kurt Ruhland, P.Eng.**

Vice President

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KUR: smk

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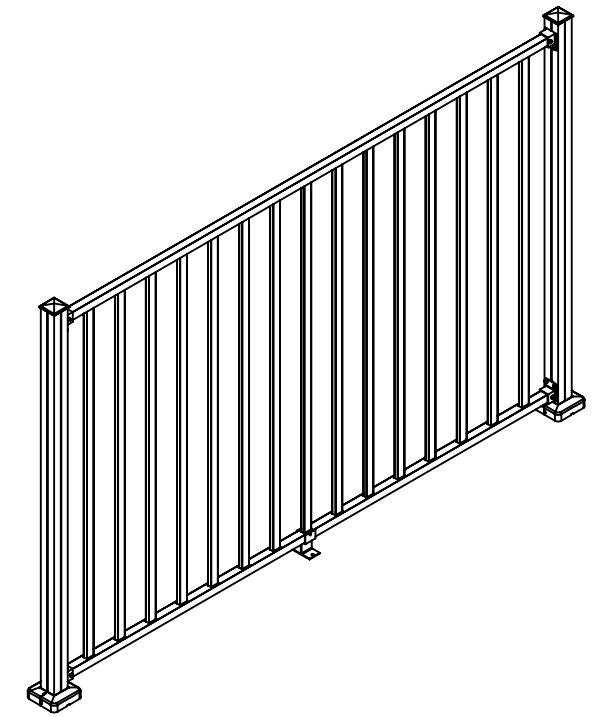
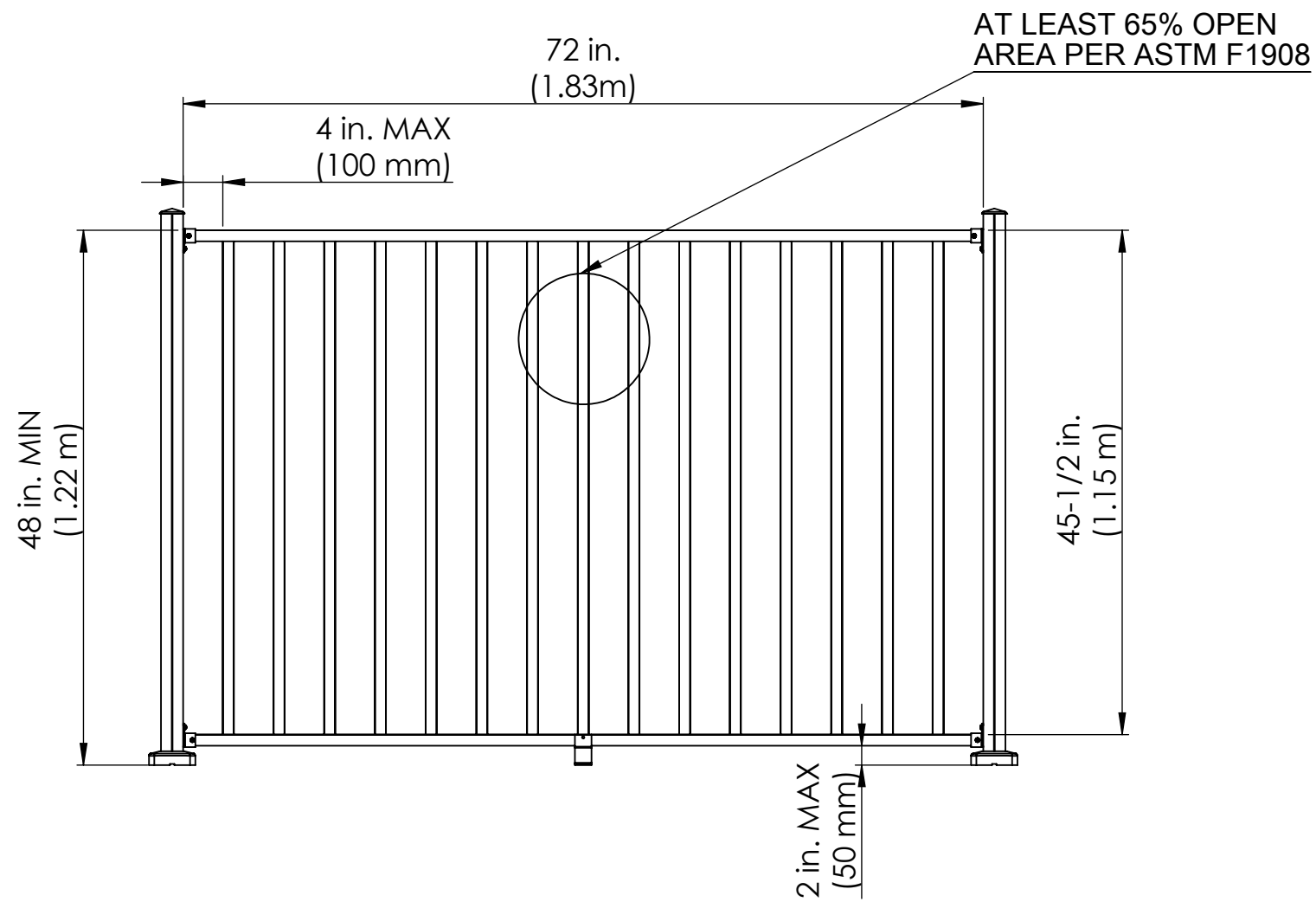
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# Appendix A

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## Assembly Drawings





TITLE  
**AQUATINE™ 6' Picket Section (Hard Surface)**

PART FILE  
 Picket section-4ft

DWG REV A

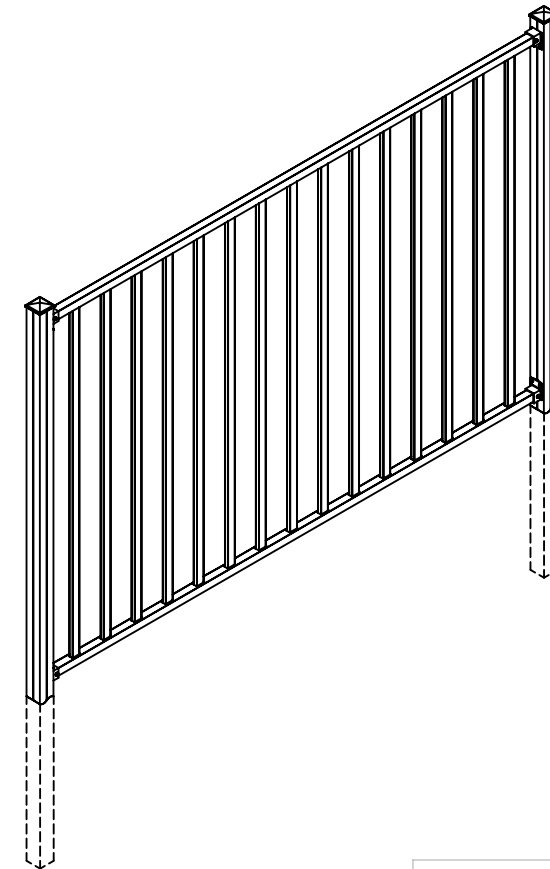
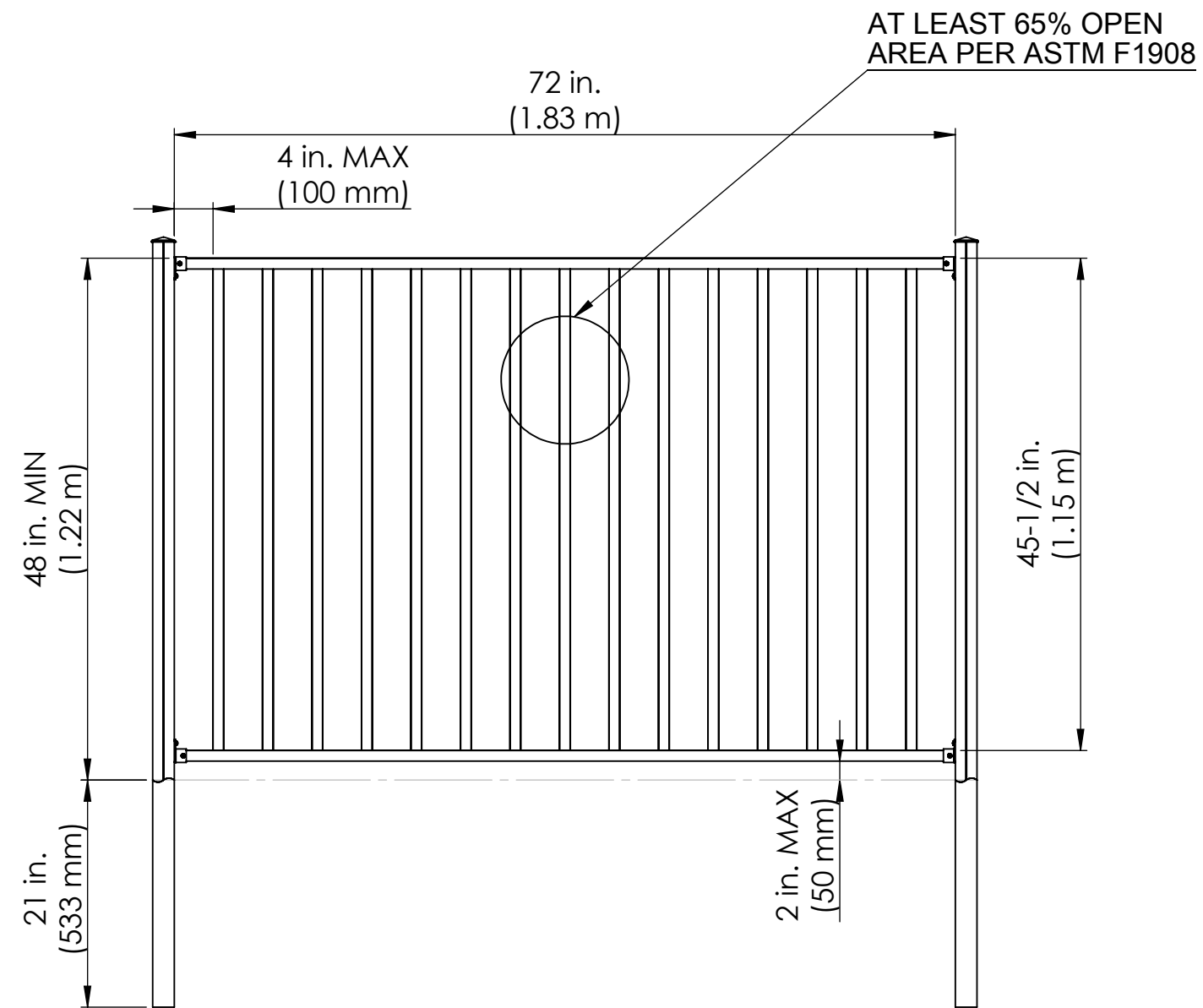
DIMENSIONS ARE IN MM UNLESS NOTED  
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SIZE DWG. NO.  
**B** Picket section-4ft

SCALE: 1:50 SHT REV 2015-03-03-A SHEET 1 OF 3

DESCRIPTION	SKU
4' Post - Hard Surface	56003, 56004
4'H x 6'W Picket Rail Kit	56113, 56114
Picket Bracket Kit	56901, 56902
Picket Angle Bracket Kit	56911, 56912



TITLE  
**AQUATINE™ 6' Picket Section (Soft Surface)**

PART FILE  
 Picket Section- in ground - 4ft

DWG REV A

DIMENSIONS ARE IN MM UNLESS NOTED  
 DO NOT SCALE DRAWING

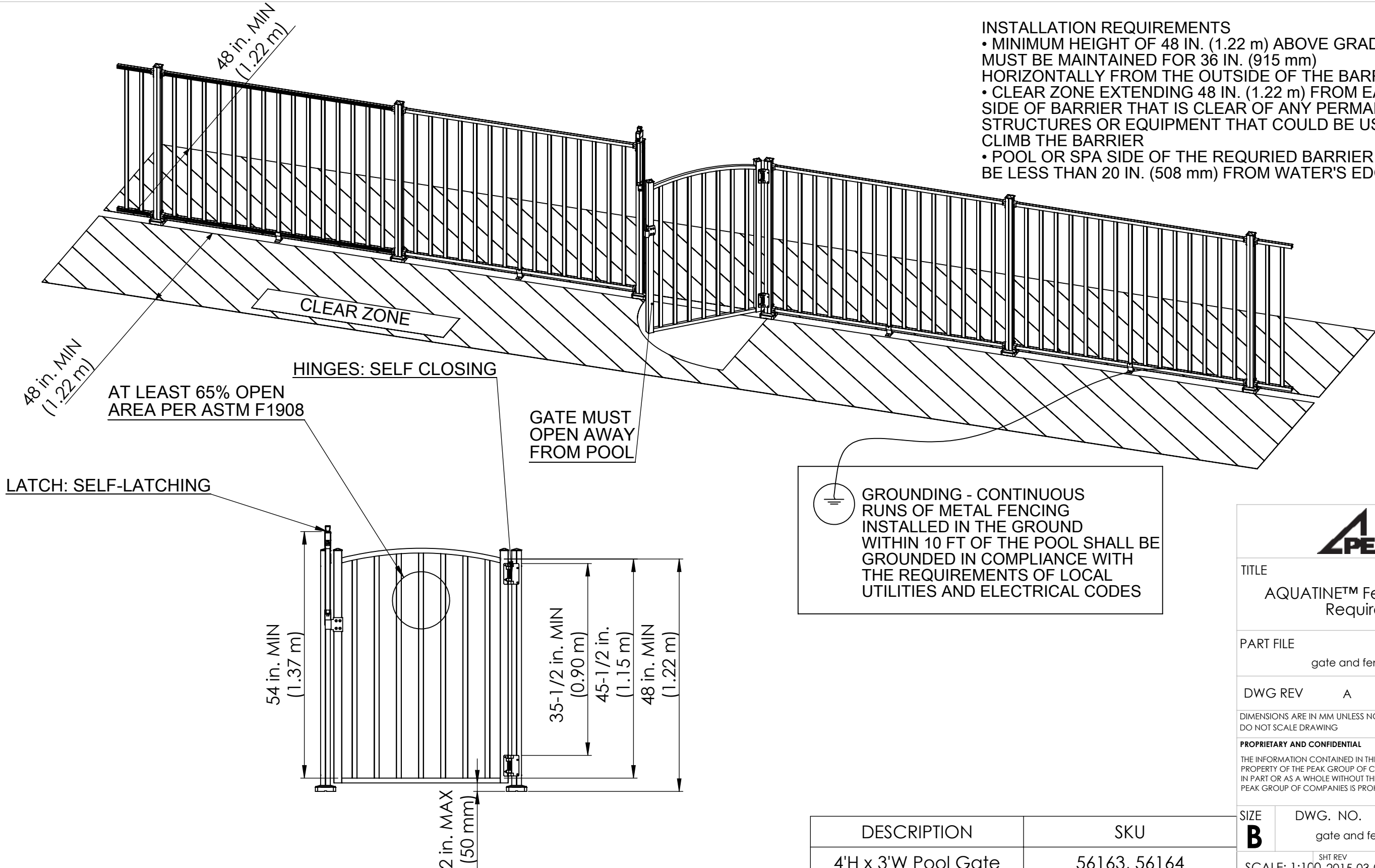
**PROPRIETARY AND CONFIDENTIAL**  
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SIZE **B** DWG. NO.  
 Picket Section- in ground - 4ft

SCALE: 1:50 SHIT REV 2015-03-03-A SHEET 2 OF 3

DESCRIPTION	SKU
4' Post - Soft Surface	56013, 56014
4'H x 6'W Picket Rail Kit	56113, 56114
Picket Bracket Kit	56901, 56902
Picket Angle Bracket Kit	56911, 56912

- INSTALLATION REQUIREMENTS**
- MINIMUM HEIGHT OF 48 IN. (1.22 m) ABOVE GRADE MUST BE MAINTAINED FOR 36 IN. (915 mm) HORIZONTALLY FROM THE OUTSIDE OF THE BARRIER
  - CLEAR ZONE EXTENDING 48 IN. (1.22 m) FROM EACH SIDE OF BARRIER THAT IS CLEAR OF ANY PERMANENT STRUCTURES OR EQUIPMENT THAT COULD BE USED TO CLIMB THE BARRIER
  - POOL OR SPA SIDE OF THE REQUIRED BARRIER SHALL NOT BE LESS THAN 20 IN. (508 mm) FROM WATER'S EDGE



TITLE  
**AQUATINE™ Fence and Gate Requirements**

PART FILE  
 gate and fence layout-4ft

DWG REV A

DIMENSIONS ARE IN MM UNLESS NOTED  
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SIZE **B** DWG. NO.  
 gate and fence layout-4ft

SCALE: 1:100 SHT REV 2015-03-03-A SHEET 3 OF 3

DESCRIPTION	SKU
4'H x 3'W Pool Gate	56163, 56164

# Appendix B

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## Interpretation of FBC and FRC Clauses



## **APPENDIX B – INTERPRETATION OF FBC AND FRC CLAUSES**

The following paragraphs describe the latch requirements for pool fences as described in the 2023 FBC and 2023 FRC. Included are excerpts from the 2023 FBC, the 2023 FRC, and the 2024 ISPSC for reference.

### **Florida Building Code Clause 454.2.17.1.8:**

Access gates, when provided, shall be self-closing and shall comply with the requirements of Sections 454.2.17.1.1 through 454.2.17.1.7 and shall be equipped with a self-latching locking device located on the pool side of the gate. Where the device release is located no less than 54 inches (1372 mm) from the bottom of the gate, the device release mechanism may be located on either side of the gate and so placed that it cannot be reached by a young child over the top or through any opening or gap from the outside. Gates that provide access to the swimming pool must open outward away from the pool. The gates and barrier shall have no opening greater than 1/2 inch (12.7 mm) within 18 inches (457 mm) of the release mechanism.

### **Florida Building Code – Residential Clause R4501.18.1.8:**

Access gates, when provided, shall be self-closing and shall comply with the requirements of Sections R4501.17.1.1 through R4501.17.1.7 and shall be equipped with a self-latching locking device located on the pool side of the gate. Where the device release is located no less than 54 inches (1372 mm) from the bottom of the gate, the device release mechanism may be located on either side of the gate and so placed that it cannot be reached by a young child over the top or through any opening or gap from the outside. Gates that provide access to the swimming pool must open outward away from the pool. The gates and barrier shall have no opening greater than 1/2 inch (12.7 mm) within 18 inches (457 mm) of the release mechanism.

### **MTE Interpretation of the above clauses:**

FBC Clause 454.2.17.1.8 and FRC Clause R4501.17.1.8 have been interpreted in this report to mean that when the latch is located not less than 54 inch from the bottom of the gate, there is no requirement for the latch to be 18 inches away from any openings greater than ½ inch. Where the latch is not less than 54 inches from the bottom of the gate, the latch may be placed on either side of the gate, removing the requirement to prevent a young child from reaching the latch through the barrier. When the latch is located less than 54 inches from the bottom of the gate, it should be located 18 inches away from openings greater than ½ inch.

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