

Enter statement of the interpretation that the petitioner contends should be given to the provisions of the Florida Building Code and a statement supporting the petitioner's interpretation*

Pursuant to section 454.1.6.5.3.1.1 of the Florida Building Code (“FBC”), open-type gutters “shall slope 2 inches (51 mm), +/- 1/4 inch (+/- 6mm), from the lip to the drains.” This provision should be interpreted to apply to the Starkey Ranch project’s open-type perimeter overflow gutter where it abuts the top of the pool stairs.

Pasco County Building Department (“Pasco”), however, advises that such section of the gutter is deemed a “step” and therefore subject to specifications pertaining to stairs—section 454.1.2.5.3 of the FBC. This would mean that the gutter section abutting the stairs should be sloped per stairs specifications (uniformly level to within 1/2 inch) and drains should not be installed in that section of the gutter.

The Florida Department of Health (“DOH”) advises that applying the stairs specifications to the section of gutter abutting the top of pool stairs will affect surface skimming and thereby affect public health which prevents DOH from issuing an operating permit. **Exhibit A.** In response to Pasco’s assertion that stairs specifications should apply to the gutter section, Robert Vincent, environmental administrator with the DOH’s Division of Disease Control and Health Protection, disagreed, stating in pertinent part:

The sound public health engineering rationale for a faster clearing water flow in a gutter is the reason for the 2” deep back side of gutter, and has been this way in state DOH code for 30+ years. This assures that the contaminated surface water does not slosh back into the pool and keeps the recirculated & treated percentage of the water at its highest optimal amount. Thus, we would prefer that this long gutter (currently deemed a step) be built with the preferred engineering depth of 2”.

July 8, 2016 email from Robert Vincent.

The DOH contacted Pasco about this issue and attempted to convince Pasco that the gutter section should be treated as a gutter, particularly with regard to the slope. The DOH requested that Pasco reconsider its decision. The DOH explained that if the gutter is constructed in conformance with the stair specifications, the DOH will refuse to issue an operating permit. Despite the DOH’s attempts, Pasco continues to apply the stairs specifications to the gutter.

The stairs specification regarding slope is limited to the steps between the top and bottom steps. Therefore, even if the gutter is determined to constitute a step, the slope requirement would not apply where the gutter is the top step. The specification provides “Treads and risers between the top and bottom treads shall be uniform to within ½ inch (12.7 mm) in width and height.” Section 454.1.2.5.3, F.B.C. (emphasis added). Similarly, the DOH stated, in pertinent part:

In reading [Pasco’s] response to you below, I think there is not a conflict in the FBcode, and I respectfully request that the Building dept. decision should be reconsidered. The following bolded sentence does NOT mean the top tread needs to have a ½” uniformity, it means the treads BETWEEN the top and the bottom treads must, thus leaving the gutter tread/step and the bottom tread/step

free from this size or uniformity requirement. This is what DOH has allowed in the DOH permitted pools from the 1970's forward to present. We had not required the top and the bottom step to be uniform with the others since there are conditions in pool construction that often prevent this.

Paragraph 454.1.2.5.3 Stairs reads in part, "Treads and risers between the top and bottom treads shall be uniform to within ½ inch (12.7mm) in width and height."

July 8, 2016 email from Robert Vincent.

Treating the gutter as a step and applying the stairs specifications to the gutters would cause FBC violations. One example is a violation of the requirement under section 454.1.6.5.3.1 that gutters may be eliminated along pool edges but no more than 15 feet may be eliminated and such elimination shall not exceed 10 percent of the perimeter. Here, the length of the stairs abutting the gutter on the pool at issue is 52 feet and 4 inches; therefore, if the entire length of gutter abutting the stairs were built according to the stairs specifications, 52 feet and 4 inches of gutter would be eliminated, egregiously violating the FBC's maximum allowed elimination of 15 feet. Furthermore, the perimeter of the pool at issue is 220 feet. Eliminating 52 feet and 4 inches of gutter would clearly exceed the limit of 10 percent of the perimeter, which is 22 feet. A second example of a violation that would result from treating the gutters as steps would be the requirement under section 454.1.6.5.3.1 which requires that the spacing between drains not exceed 10 feet. (Note: The spacing limit is 10 feet for 2 inch drains and 15 feet for 2.5 inch drains.) Additionally, the FBC requires that where gutters are eliminated, handholds be provided within 9 inches of the water surface.

Section 454.1.2.5.3 provides a specific directive regarding tile where a gutter is used as a step. Notably, the section does not provide any other specific directives. Pursuant to the *expressio unius est exclusio alterius* doctrine of statutory construction, which means the express mention of one thing excludes all others, the FBC drafters' inclusion of a special provision for tile where a gutter is used as a step means that if the drafters intended for there to be a special slope provision, same would be included. Furthermore, and perhaps more significantly, the mention of a unique specification for the occasion where a gutter is deemed a step necessarily shows that the drafters did not intend for the stairs specifications to simply apply.

The DOH recognizes a relaxed slope requirement for gutters abutting stairs. According to the DOH, the slope may be reduced from 2 inches to 1 inch where gutters abut stairs. This reduction is referenced in the DOH's Plans Review Checklist which tracks the FBC. **Exhibit B.** (Note: The Plans Review Checklist is a 2012 version which was drafted while the 2010 FBC was in effect. The checklist is applicable nonetheless because the relevant provision (454.1.6.5.3.1.1) is the same in the 2010 FBC and 2014 FBC.) Petitioner also requests clarification as to the application of this reduction.

Exhibit A

From: Pabst, Mark [mailto:Mark.Pabst@flhealth.gov]
Sent: Monday, January 25, 2016 3:51 PM
To: Vincent, Bob G <Bob.Vincent@flhealth.gov>; Ursin, August <August.Ursin@flhealth.gov>; Yates, Eric N <Eric.Yates@flhealth.gov>; Graziani, Darrel J <Darrel.Graziani@flhealth.gov>
Subject: FW: Pool Gutter Detail - Starkey Ranch

Bob:

I am forwarding this email to you from Mr. Tommell, from GB Collins Engineering. In a nut shell, the Pasco County Building Department Plans examiner, Julius Gilliam is requiring the gutter to be flat with no gutter grates over the entire pool step on any open gutter pool in his jurisdiction. He justification is that the gutter over a step is not a gutter, but rather a step and must conform to stair construction standards in the building code. We know you are allowed to reduce the gutter pitch to one inch over the steps, and the engineer is ok with this design too, but Mr. Gilliam will not accept this and states the gutter must be flat – regardless of the length of the steps.

This came up about two months ago with a different builder and engineer. In that case, the pool engineer was forced to revised his plans to show a flat gutter over the step area and remove a gutter grate before Mr. Gilliam would issue a building permit. Eric discovered this several months later while making his final DOH inspection. We discussed it and allowed the permit to be issued because it was a small set of steps.

I followed up by talking to Mr. Gilliam about this step/gutter problem, and he didn't really care about the public health side of the issue e.g. if you have a large set of steps in a pool, making the gutter flat will affect surfacing skimming thereby affecting public health.

With Starkey Ranch, he is holding the builders permit hostage until the plans are revised to show a flat gutter over the steps. This would be a good item to get a Declaratory Statement from the Building Commission on.

Can you please call Mr. Gilliam at [727.847.8126](tel:727.847.8126) or email him at jgilliam@pascocountyfl.net to see if you can persuade him to allow this design to move forward with a 1" pitch on the gutter over the step area? If a solution is not worked out with Mr. Gilliam, what do you think the next step should be – since this issue will continue to come up with pools in his jurisdiction?

Mark

Mark A. Pabst, Engineering Specialist III, Water Programs, Bureau of Environmental Health, Division of Disease Control and Health Protection, Florida Dept. of Health, Office phone [407.317.7172](tel:407.317.7172), Fax [407.317.7328](tel:407.317.7328), Cell Phone [407.505.9079](tel:407.505.9079), 400 West Robinson Street, Suite S-827, Orlando, FL 32801-1752 Email: Mark.Pabst@flhealth.gov Webpage: <http://www.floridahealth.gov/healthy-environments/index.html>

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How are we doing? Please take our survey...http://www.doh.state.fl.us/environment/water/water_survey.htm

From: Rick Tommell [<mailto:rick@gardnercollins.com>]
Sent: Monday, January 25, 2016 12:33 PM
To: Pabst, Mark <Mark.Pabst@flhealth.gov>
Cc: Samuel Liberatore <sam@gardnercollins.com>
Subject: Pool Gutter Detail - Starkey Ranch

Mark,

As we briefly discussed on the phone the other day we are having some issues with a pool building department review in Pasco County. The issue is with the gutter detail we have provided and how it pertains to the pool step area. I have attached a copy of our plumbing plan showing the pool shape, step locations as well as our detail sheet showing the gutter detail.

The reviewer is requiring the pool step area to follow typical house stair criteria. He specifically states that the "Open gutter that is used for a step needs to conform to 1/2" tolerance for run and rise of pool steps." This requirement contradicts FBC 2014 Section 454.1.6.5.3.1.1 which states "The gutter shall slope 2 inches, +-1/4 inch from the lip to the drains." This particular section does allow for special designs to be approved if they are within the limits of sound engineering practices. I do not believe what the County is requiring in this case to be of sound engineering.

The reviewer at Pasco County – Mr. Julius Gilliam has also stated to me that he has had numerous conversations with the Health Dept in Orlando and Tallahassee regarding this matter. He has also stated that he will not budge regarding his stance. Unfortunately this puts myself and my client in a difficult position. Our permit is being held up on something, to me, is wrong. I informed my client that if we designed the gutter like this reviewer wants then the pool recirculation system would not function properly and the pool would be a public health and safety issue.

Can you please pass this along internally to the Health Dept and advise me as how to proceed next?

Thanks

Rick Tommell, P.E.
Project Manager
GB Collins Engineering PA
1268 Rogers Street
Clearwater, Florida 33756
[\(727\) 442-8443](tel:(727)442-8443)

From: Vincent, Bob G <Bob.Vincent@flhealth.gov>
Sent: Monday, July 18, 2016 9:57 AM
To: Sam Liberatore
Cc: Trevor Sas; jgilliam@pascocountyfl.net; Yates, Eric N; fnummerstone@pascocountyfl.net; Alex; dvillandry@ceswaterquality.com; Denise Lancia; mruble@rocchetta-adb.com; Rick Tommell; pinellaspoools@verizon.net; Trent Cotney
Subject: Re: Starkey Ranch - Response to Pinellas Pools Letter

Yes it is different than our original discussion because I had not read the email from the building official. The referenced code section on the tread uniformity is being misinterpreted and thus the construction of gutter as a step with the 2" fall in the gutter should not be interpreted as a code violation.

Bob Vincent, FLDOH Disease Cntrl & Health Prot. EH Water 850.245.4578

On Jul 11, 2016, at 10:39 AM, "Sam Liberatore" <sam@gardnercollins.com> wrote:
Mr. Vincent:

Thank you for your response. This response is different than the conversation you and I had the other day. We feel flattening the gutter along a 50 section of pool is unsafe, and goes against the current code requirements, and industry standards of pool construction. Gutter pools have always been constructed with a 2" pitch around the perimeter and have the steps built off the sidewall of the pool.

Being the engineer of record, and have over 5,000 commercial swimming pools constructed in the State of Florida, I am advising my client to move forward with the 2" pitch in the gutter. Any further discussion of this should be directed to my attorney Trent Cotney Esq. We are also bringing this issue up to FSPA, UPSA and BOAF for clarification.

Samuel A. Liberatore, P.E.
President
Gardner Collins Engineering, PA
300 Alternate 19, North
Suite A
Palm Harbor, Florida 34683
(727) 442-8443
(727) 442-6988 fax

From: Vincent, Bob G [<mailto:Bob.Vincent@flhealth.gov>]
Sent: Friday, July 8, 2016 11:29 AM
To: Sam Liberatore <sam@gardnercollins.com>; Trevor Sas <tsas@crsbuildingcorp.com>; jgilliam@pascocountyfl.net; Yates, Eric N <Eric.Yates@flhealth.gov>; fnummerstone@pascocountyfl.net
Cc: Denise Lancia <dlancia@crsbuildingcorp.com>; mruble@rocchetta-adb.com; Rick Tommell

<rick@gardnercollins.com>; 'pinellaspoools@verizon.net' <pinellaspoools@verizon.net>;
'tcotney@trentcotney.com' <tcotney@trentcotney.com>

Subject: RE: Starkey Ranch - Response to Pinellas Pools Letter

Mr. Liberatore,

I thought this had been resolved. As you know, I spoke to the Pasco County Building Department Plan Reviewer Julius about the building code for perimeter overflow gutter depth. The sound public health engineering rationale for a faster clearing water flow in a gutter is the reason for the 2" deep back side of gutter, and has been this way in state DOH code for 30+ years. This assures that the contaminated surface water does not slosh back into the pool and keeps the recirculated & treated percentage of the water at its highest optimal amount. Thus, we would prefer that this long gutter (currently deemed a step) be built with the preferred engineering depth of 2".

In reading Mr. Humberstone's response to you below, I think there is not a conflict in the FBcode, and I respectfully request that the Building dept. decision should be reconsidered. The following bolded sentence does NOT mean the top tread needs to have a ½" uniformity, it means the treads BETWEEN the top and the bottom treads must, thus leaving the gutter tread/step and the bottom tread/step free from this size or uniformity requirement. This is what DOH has allowed in the DOH permitted pools from the 1970's forward to present. We had not required the top and the bottom step to be uniform with the others since there are conditions in pool construction that often prevent this.

Paragraph 454.1.2.5.3 Stairs reads in part, "Treads and risers between the top and bottom treads shall be uniform to within ½ inch (12.7mm) in width and height

Bob Vincent, R.S., M.P.A., Environmental Administrator, Water Programs, Bureau of Environmental Health, Division of Disease Control and Health Protection, Florida Dept. of Health, Office phone 850.245.4578, Fax 850.487.0864, 4052 Bald Cypress Way, Bin A-08, Tallahassee, FL 32399-1710 Email: Bob.Vincent@flhealth.gov Webpage: <http://www.floridahealth.gov/healthy-environments/index.html>

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<http://adminapps.doh35.doh.state.fl.us/ContactUs/DOHFeedback.aspx?Email=EnvironmentalHealth@doh.state.fl.us&Office=BureauOfEnvironmentalHealth>

From: Sam Liberatore [<mailto:sam@gardnercollins.com>]

Sent: Tuesday, July 05, 2016 2:03 PM

To: Trevor Sas <tsas@crsbuildingcorp.com>; jgilliam@pascocountyfl.net; Vincent, Bob G <Bob.Vincent@flhealth.gov>; Yates, Eric N <Eric.Yates@flhealth.gov>; fhumberstone@pascocountyfl.net

Cc: Denise Lancia <dlancia@crsbuildingcorp.com>; mruble@rocchetta-adb.com; Rick Tommell <rick@gardnercollins.com>; 'pinellaspoools@verizon.net' <pinellaspoools@verizon.net>; 'tcotney@trentcotney.com' <tcotney@trentcotney.com>

Subject: RE: Starkey Ranch - Response to Pinellas Pools Letter

Mr. Sas:

Below is our response to Pinellas Pools RFI letter.

1. Attached is a sketch of the revised steps. The top and middle steps need to be extended slightly (6" to 24"), so the bench width does not exceed 18". I've spoken with Pinellas Pools (Wade Hooper) in regard to the matter and have provide sketches to extend the steps.
2. As far as the gutter issue, we have had several conversations with Julius Gillam with the Pasco County Building Department in regard to this matter. I've had my attorney contact Pasco County in regard to this matter. We've explained to Mr. Gillam that the FBC code requires a 2" pitch in the gutter. Mr. Gilliam interpretation of the code, requires the gutter to be level (with in 1/2"), and considers the gutter to be a step. We've gone to extensive lengths to clarify this issue, and to make Mr. Gilliam know that he is incorrect in his interpretation. We have had the Department of Health (DOH), Mr. Bob Vincent, contact him directly to inform him that he is not interpreting the code properly, and approval would not be granted.

His supervisor Frederick G. Humberstone stated, Pasco County would accept a 1/2" pitch from the bull nose to the waterline tile. We explained to the Building Official that it still does not meet code. The Mr. Humberstone and Mr. Gillam would not agree to our request of pitching the gutter at 2%. We conceded to the Building Department in order to obtain the Building Permit. We believe the gutter should have a consistent 2" pitch around the entire pool (like we've always designed and constructed), and the steps are constructed off the sidewall of the pool separately. **The DOH will most-likely not grant an operating permit if the steps are constructed the way Mr. Humberstone and Mr. Gilliam are proposing.**

By constructing the gutter "flat" along the step area (especially for this pool which has a 48' length of steps), we fear that the pool will not properly skim the pool and cause health risk. Additionally, the steps have a riser height of 8.5", and the gutter is only 8" deep at the base of the waterline tile. In order for the steps to have a consistent riser height, the entire gutter around the perimeter would have to be lowered 1/2", and there would be a 2" wedge that would be created at the ends of the steps.

I have attached Mr. Humberstone email response below for reference. Please contact Mr. Humberstone or Mr. Gilliam if you have any additional step construction questions or concerns. If you are unable to obtain an operating permit from the DOH, I would suggest legal action against Pasco County.

Contact me directly, if you have any additional questions.

Samuel A. Liberatore, P.E.
President
Gardner Collins Engineering, PA
300 Alternate 19, North
Suite A
Palm Harbor, Florida 34683
(727) 442-8443

(727) 442-6988 fax

From: Frederick G. Humberstone [<mailto:fhumberstone@pascocountyfl.net>]
Sent: Friday, January 29, 2016 10:53 AM
To: 'matt.call@mylandteam.com'; 'MRUBLE@ROCCHETTA-ADB.COM'; 'rick@gardnercollins.com'; 'tsas@crsbuildingcorp.com'; 'jpiercy@crsbuildingcorp.com'
Cc: Donna Ritter; Don Rosenthal; Julius Gilliam
Subject: Seq. #68403 - Application for commercial pool permit

To everyone concerned,

I have personally reviewed the plans with the plans reviewer and resolved the problem. The problem arises where the perimeter pool gutter crosses the stairs into the pool.

The plans reviewer, Mr. Julius Gilliam, discovered a conflict in compliance between two requirements in Section 454 of the Florida Building Code for which he had hoped to obtain clarification from the engineer of record.

Paragraph 454.1.6.5.3.1.1 reads in part, "The gutter shall slope 2 inches (51mm), +/- ¼ inch (+/- 6mm), from the lip to the drains."

The conflict arises where the gutter crosses the top step of the stairs.

Paragraph 454.1.2.5.3 Stairs reads in part, "Treads and risers between the top and bottom treads shall be uniform to within ½ inch (12.7mm) in width and height. The riser heights shall be measured at the marked step edges and the differences in elevation shall be considered the riser heights."

I have personally red lined the 'Pool Step and Rail Detail' on sheet 4 of the submitted plans indicating the maximum ½ inch slope of the top step. The transition between the 2 inch gutter and the ½ inch tread slope can be achieved with the application of the pool finish. The building permit and reviewed set of plans are now ready to pick up.

I do apologize for any inconvenience and hope this issue could be better detailed in future plans submitted for review. My thanks to everyone for their cooperation.

Frederick G. Humberstone, CBO
Acting Building Official
Building Construction Services
Pasco County Government Center
7508 Little Road

New Port Richey, FL 34654
Phone: 727-847-8127
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Exhibit B

PLANS REVIEW CHECK LIST – PUBLIC POOL –DOH / BOAF version May 3, 2012

Date _____

County _____ Date Received _____ Log# _____

Project _____

Engineer _____ Original _____ Revision _____ Modification _____

Reviewed By _____ SP- _____ File # _____

Date Re-Submittal Received: _____ Date of 2nd Review: _____

Items needing correction or clarification are marked by an "X" beside the appropriate section number of the Florida Administrative Code citation (2009 64E-9, FAC, or 2010 FBC 424.1). We have left the 64E-9 requirements in this checklist because they are critical for public health and therefore the pool will be checked for these items by the County Health Department at the first operating permit inspection after the Building Official's approval of the construction.

Reviewer: Note that section 424.1.8.1 requires that "Spa pools shall meet the requirement of Sections 424.1.1 through 424.1.6.5, unless specifically indicated otherwise." Use the additional "Spa pool" checklist for spa pools. This checklist can be used for Wading pools and there is an additional Wading pool detail checklist.

From: www.myfloridaeh.com/water/swim/index.html

Florida Building Code or Florida Administrative Code Section _____ #sets plans _____ disk _____

<u>Section</u>	<u>SwP</u>	<u>Spa/WaP</u>	
64E-9.005(1)(a)3.	___	___/___	Plans review fees received as required by Section 64E-9.015.
64E-9.005(1)(a)	___	___/___	Six one-piece applications for approval of swimming pool plans received.
64E-9.005(1)(a)	___	___/___	Six sets of signed and sealed engineering plans received (proper size).
64E-9.005(1)(a)2.	___	___/___	A 4" x 6" blank space exists on lower right hand corner of plans sheets; site plan is included.
64E-9.005(1)(a)2.	___	___/___	An equipment list and specifications with manufacturer and/or distributor names, model numbers, and catalog numbers included on plans.
424.1.2.1(a)	___	___/___	Pool constructed of impervious structurally rigid material, light in color, with a smooth, non-toxic, slip-resistant finish.
424.1.2.3.2	___	___/___	Pool shell free of designs which interfere with detection of human(s) in distress, algae, sediment, or other objects in pool.
424.1.6.5.3.2.5	___	___/___	A min. 4" tile line (6" for skimmer pools) is at the water line, max. 12" if dark tile. Gutter pools may use 2" tile line along pool wall edge of gutter lip. (tiles are min. 1" on all sides)
424.1.2.1 (b)	___	___/___	If 1" tiles are used in pool, adhesive is certified for shear strength (250 psi) & underwater use.
424.1.2.3.3 & 4	___	___/___	Lap lanes and targets on non-competition pools to meet code. (2-6" wide markings)
424.1.1	___	___/___	The filtration system is sized for at least 1 gpm per living unit for transient or 3/4 gpm per living unit for non-transient. (For multiple pools: cumulative total GPM, excluding spas, wading pools and interactive water features)
424.1.1	___	___/___	Conventional pool filtration system turnover period is not less than 3 hours unless otherwise required. (For sizing purposes only.)
424.1.2.2.2	___	___/___	All pool walls (except steps and spa coves) have minimum 15' clearance perpendicular to a tangent to the wall. (Interior step protrusion does not exceed 6')
424.1.2.2.2	___	___/___	Corners shall be a minimum 90 degree angle.
424.1.2.2.2	___	___/___	Protruding corners to have at least 2" radius continued through top of gutter edge. Coping does not overhang into the pool more than 1-1/2".
424.1.2.3.1 1.	___	___/___	Pool water depth is at least 3' in shallow area.
424.1.2.3.1 1.	___	___/___	Pool water depth is at least 4' in deep area.
424.1.2.2.2	___	___/___	The upper part of pool walls (areas of 5' or less depth) are within 5° of vertical for a minimum depth of 2½' and the radius joining this upper section to the floor does not exceed 2½'.
424.1.2.2.2	___	___/___	The upper part of pool walls in areas over 5' deep are within 5° of vertical for a minimum depth equal to the pool depth minus 2½' and the radius joining this upper section to the floor does not exceed 2½'.
424.1.2.3.1 2.	___	___/___	Minimum 4" permanent contrasting depth markings , followed by the full or abbreviated words "FEET" or "INCHES", properly located on both sides of the pool at shallow end, slope break, deep end wall, and deep point. Horizontal surfaces are slip resistant.

- 424.1.2.3.1 2. ___ ___/___ Depth markers shall indicate actual depth within 3 inches.
- 424.1.2.3.1 2. ___ ___/___ Symmetrical pool designs with deep point at center have dual markings indicating depth at wall and at the deep point, followed by FEET or INCHES.
- 424.1.2.3.1 3. ___ ___/___ Maximum perimeter distance between depth markings is 25'.
- 424.1.2.3.1 3. ___ ___/___ Depth markings are visible from inside the pool and from the deck.
- 424.1.2.3.1 4. ___ ___/___ When curb is provided, depth markings are located on inside and outside riser. (Top of curb may be substituted for outside riser location.)
- 424.1.2.3.1 4. ___ ___/___ When no curb is provided, depth markings are located at or above water level on inside vertical wall and on the deck (within 2' of water edge).
- 424.1.2.3.1 4. ___ ___/___ When open type gutters are used, depth markers are located on the back of the gutter wall.
- 424.1.2.3.1 5. ___ ___/___ When deck level perimeter overflow systems are used, additional depth markers are on adjacent fencing or walls, large enough to be recognizable from inside the pool. Depth markers on deck are within 3' of water. Or, depth markers may be at top of pool wall just under water level.
- 424.1.2.3.1 6. ___ ___/___ In areas not part of an approved diving bowl, tile "NO DIVING" markings are on the curb top or deck within 2' of water edge on each side of pool with a maximum distance between markings of 25'.
- 424.1.2.3.1 6. ___ ___/___ The "NO DIVING" markings are at least 4" high and contrasting; or a 6" tile with min. 4" red international "No Diving" symbol.
- 424.1.2.3.1 7. ___ ___/___ All markings installed on horizontal surfaces have a slip-resistant finish.
- 424.1.2.3.1 7. ___ ___/___ All markings are tile (unless pool is fiberglass, thermoplastic or stainless steel).
- 424.1.2.2.3.2 ___ ___/___ Slope break (where applicable) has 5' depth or greater.
- 424.1.2.2.3.2 ___ ___/___ Slope break (if applicable) has 2-6" wide dark contrasting tile marking across bottom and up sides at the transition point.
- 424.1.2.2.3.2 ___ ___/___ Slope break (if applicable) has safety line mounted with recessed cup anchors 2' before contrasting marking, toward shallow end.
- 424.1.2.2.3.2 ___ ___/___ Safety line (if applicable) has visible floats at maximum 7' intervals.
- 424.1.2.2.3 ___ ___/___ Pool does not have double level floor.
- 424.1.2.2.3.1 ___ ___/___ The pool floor slope in areas of 5' depth or less does not exceed 1' in 10'.
- 424.1.2.2.3.1 ___ ___/___ The pool floor slope in areas of greater than 5' depth does not exceed 1' in 3'.
- 424.1.2.2.3.2 ___ ___/___ The transition from a pool floor slope of 1' in 10' to a greater floor slope has a slope break and safety line.
- 424.1.2.2.3.1 ___ ___/___ The pool floor slope is at least 1' in 40'.
- 424.1.2.2.1 ___ ___/___ **Diving** areas meet minimum requirements of the FINA Handbook 2005-2009.
- 424.1.2.5 ___ ___/___ Adequate number of **steps, swimouts**, recessed treads and/or ladders provided (Every 75' of pool perimeter, minimum of 2) including both ends (plus deep point, if not at one end). If deep end >30' wide, both sides have means of access.
- 424.1.2.5.3 ___ ___/___ Pool steps have not less than 24" tread length(s), 10" tread width(s) nor more than 10" tread riser(s). Max. tread width is 48".
- 424.1.2.5.3 ___ ___/___ Intermediate step treads and risers are uniform in width and height (within 1/2").
- 424.1.2.5.3 ___ ___/___ Dark, contrasting, slip resistant tiles are provided for intersection of tread and riser for entire length of each step. (3/4" -2" on tread, 2" on riser, or slip resistant bullnose)
- 424.1.2.5.3 ___ ___/___ Step and bench seat edge markings on vinyl liner and fiberglass pools are permanent, permanently secured, dark, non-fading and slip resistant.
- 424.1.2.5.4 ___ ___/___ **Swimouts** extend 18" to 24" back from the pool wall and are 4' to 5' wide.
- 424.1.2.5.4 ___ ___/___ Unless stairs are provided, the swimout is a maximum of 12" below the deck.
- 424.1.2.5.4 ___ ___/___ Swimout is located in an area of the pool with a depth exceeding 5'.
- 424.1.2.5.4 ___ ___/___ If pool is on skimmers, a wall inlet is provided within the swimout.
- 424.1.2.5.4 ___ ___/___ A dark, contrasting colored, slip resistant tile band is located along the intersection of the pool wall and the swimout, extending 2" on horizontal and vertical surfaces. Bullnose tile may be used with 3/4" on horizontal surface.
- 424.1.2.5.5 ___ ___/___ Handrail(s) for the stairs are correct length to mount in deck and bottom step (figure four mounted in

deck and extended over bottom step).

- 424.1.2.5.5 ___ ___/___ **Handrails** shall extend between 28" and 40" above the step or deck.
- 424.1.2.5.6 ___ ___/___ If provided, lifts to accommodate handicapped persons have a four foot wide deck behind the lift mount.
- 424.1.2.5.1 ___ ___/___ **Ladder(s)** are cross-braced, corrosion resistant, are the correct length to mount in pool deck, extend 28" to 40" above deck, and extend over into pool.
- 424.1.2.5.1 ___ ___/___ Ladder treads are slip-resistant and the clearance between the ladder and pool wall is 3 to 6". Ladder bottom braces have end caps. Top rung is at or below water level on open gutter pools and max. 12" below deck/curb top on all others.
- 424.1.2.5.2 ___ ___/___ Step treads installed into pool wall shall be flush with pool wall and have minimum 5" tread width, minimum 10" length, & a maximum vertical distance of 12" between steps.
- 424.1.2.5.2 ___ ___/___ Step treads installed into pool wall have a grabrail at each side of the steps and each grabrail is mounted in the deck and extends 28" to 40" above the deck.
- 424.1.2.6 ___ ___/___ **Underwater bench seats** are 14" to 18" wide and have a 2" wide dark contrasting slip resistant tile marking along the horizontal and vertical surface. Slip resistant bullnose tile may be used with $\frac{3}{4}$ " on horizontal surface.
- 424.1.2.6 ___ ___/___ Underwater bench seats are in areas less than five feet deep.
- 424.1.2.6 ___ ___/___ Benches do not protrude into the 15' clearance requirement.
- 424.1.3.1.3 &.2 ___ ___/___ **Pool deck** has unobstructed area with minimum 4' width around perimeter of pool, handrail & ladder anchors, diving boards/towers, and slides. Pits and crevices more than 3/16" deep not allowed.
- 424.1.3.1.1 ___ ___/___ Pool deck constructed of impervious material with slip-resistant finish.
- 424.1.3.1.2 ___ ___/___ Pool deck is not below maximum 10" from the curb top when curb is provided.
- 424.1.3.1.2 ___ ___/___ Indoor and outdoor pool deck has a minimum 2% and maximum 4% uniform slope away from pool or to deck drains.
- 424.1.3.1.4 ___ ___/___ Traffic barriers provided to prevent obstruction of deck by vehicles (where applicable).
- 424.1.3.1.5 ___ ___/___ Hose bibb with vacuum breaker is provided to wash deck with potable water.
- 424.1.3.1.5 ___ ___/___ Walkways between the pool and sanitary facilities are constructed of concrete or other non-absorbent materials for the first 15' of walkway and have a slip-resistant finish.
- 424.1.2.6 ___ ___/___ Pool water area has no obstruction.
- 424.1.2.6 ___ ___/___ Structures located inside pool perimeter are additional part of the recirculation system and are not located less than 15' from any pool wall and are not located within the diving bowl area.
- 424.1.3.1.8 ___ ___/___ The vertical clearance above the pool deck is at least 7'.
- 424.1.3.1.6 ___ ___/___ Obstructions of the perimeter of the pool do not exceed 10% of total pool perimeter, and are protected by a barrier or designed to discourage patron access.
- 424.1.3.1.6 ___ ___/___ Obstructions of the perimeter of the pool have a wet deck area behind or through the obstruction and within 15' of the water edge. Approved slides have the near edge of walk within 35' of water.
- 424.1.3.2 ___ ___/___ **Bridge** or obstruction over pool is at least 8' above pool bottom and at least 4' above water surface.
- 424.1.3.2 ___ ___/___ Minimum 42" high handrails are provided along each side of the bridge.
- 424.1.3.2 ___ ___/___ Bridge or walkway footing surface is constructed of concrete or other non-absorbent material having a smooth slip-resistant finish.
- 424.1.6.5.3.1 ___ ___/___ Pool has perimeter overflow gutter or recessed automatic surface skimmers (where allowed).
- 424.1.6.5.3.1 ___ ___/___ Overflow gutter lip is level(max. $\frac{1}{4}$ " between high & low) and bottom of gutter is level or slopes to gutter drains.
- 424.1.6.5.3.1 ___ ___/___ The gutter drain spacing does not exceed 10' for 2" drains or 15' for 2½" drains.
- 424.1.6.5.3.1 ___ ___/___ Gutters may be eliminated for no more than 15' of pool perimeter (or max.10% of perimeter). In such areas, handholds shall be installed within 9 inches of water surface.
- 424.1.6.5.3.1.3 ___ ___/___ Gutter lip has min. 2" of tile on pool wall (except if stainless steel). (tiles are min. 1" on all sides)
- 424.1.6.5.3.1.1 ___ ___/___ Recessed gutter is at least 4" deep and 4" wide with no part of the gutter trough visible from a point directly above.

- 424.1.6.5.3.1.1 ___ ___/___ Open type gutter is at least 6" deep and 12" wide with a 2" ($\pm \frac{1}{4}$ ") slope from the lip to the gutter drain level (may be 1" at steps if gutter used as tread) and back wall is smooth glazed tile.
- 424.1.6.5.3.1.1 ___ ___/___ Back of gutter drain is within $\frac{3}{4}$ " of back vertical wall of gutter wall where gutter is deepest, and flush or recessed no more than $\frac{3}{8}$ ".
- 424.1.6.5.3 ___ ___/___ Gutter drain system is capable of handling 100% of the recirculation flow and shall discharge into the collector tank.
- 424.1.6.5.3.2 ___ ___/___ **Skimmer** pool water surface area does not exceed 1000 ft.² (excluding offset stairs & swimout) and does not exceed maximum width of 20' (when measured perpendicular to a tangent to the wall).
- 424.1.6.5.1 ___ ___/___ Skimmers have NSF approval.
- 424.1.6.5.3.2.1 ___ ___/___ Skimmer system designed to carry 60% of pool total design flow rate with each skimmer carrying at least 30 gpm.
- 424.1.6.5.3.2.1 ___ ___/___ Number of skimmers is based upon 1 for every 400 ft.² or fraction thereof of pool water surface area.
- 424.1.6.5.3.2.2 ___ ___/___ Skimmers are located to take advantage of prevailing wind direction and to minimize interference from adjacent inlets or skimmers.
- 424.1.6.5.3.2.2 ___ ___/___ Skimmers do not protrude into pool area.
- 424.1.6.5.3.2.2 ___ ___/___ Pools with skimmers have handhold in deck or curb construction which is not more than 9" above midpoint of skimmer.
- 424.1.6.5.3.2.3 ___ ___/___ Skimmer installation may be installed with spring loaded vertical check equalizer valve and 2" min. diameter equalizer line, installed at least 12 " below normal water level protected by an ASME/ANSI A112.19.8-2007 compliant grate, when skimmer system is connected to pump suction. No float valves allowed.
- 424.1.6.5.3.2.4 ___ ___/___ A wall inlet fitting is directly across from each skimmer.
- 424.1.6.5.11 ___ ___/___ **Pool makeup water** supply is from an approved potable water system or meets those requirements with bacteriological/chemical reports to county health department.
- 424.1.6.5.11 ___ ___/___ Pool makeup water supply has air break or approved backflow prevention device.
- 424.1.6.1.4&
424.1.3.1.5 ___ ___/___ Hose bibbs have vacuum breakers.
- 424.1.6.5.2 ___ ___/___ The **recirculation/filtration** equipment is designed to provide at least 4 turnovers of the pool volume per day. Health or fitness centers shall provide 8 turnovers per day unless pool is 1000 ft² or larger.
- 424.1.6.5.3 ___ ___/___ The design pattern of recirculation flow of pool with overflow gutters is 100% through main drain piping and 100% through gutter system piping.
- 424.1.6.5.3 ___ ___/___ The design pattern of recirculation flow for pool with skimmers is 100% through main drain and 60% through skimmer system piping.
- 424.1.6.10.5 ___ ___/___ A collector tank with an effective capacity of at least 1 minute of the design flow is provided.
- 424.1.6.5.11 ___ ___/___ An automatic water makeup control and a manual pool fillspout are provided to discharge into the collector tank with an air gap.
- 424.1.6.5.4 ___ ___/___ The recirculation pump is sized at the proper T.D.H. according to the type of filter system.
- 424.1.6.5.4 ___ ___/___ The recirculation pump (when mounted above the water level of the pool) is specified as self-priming.
- 64E-9.007(17) ___ ___/___ **Waterfalls or features:** Return piping is capable of handling additional feature flow when feature turned off. Feature requiring more than 20% of flow rate has additional pump that drafts from a suitable collector tank. Feature water is not counted toward designed turnover rate. Water from the features returns to the pool.
- 64E-9.007(17) ___ ___/___ Spray features mounted in deck are flush with pool deck.
- 424.1.6.5.9.6 ___ ___/___ The number of inlets handle the recirculation flow with a maximum flow of 20 gpm per inlet.
- 424.1.6.5.9 ___ ___/___ Wall return inlets are directionally adjustable and do not protrude into the pool. Wall inlets are a min. of 12" below normal water level unless otherwise justified.
- 424.1.6.5.9.1 ___ ___/___ Pools 30' or less wide, with wall inlets only, have maximum spacing of 20' between inlets based on pool perimeter.
- 424.1.6.5.9.2 ___ ___/___ Pools 30' or less wide, with floor inlets only, have inlets located such that they are not over 20' apart nor over 10' from adjacent walls.

- 424.1.6.5.9.3 ___ ___/___ Pools 30' or less wide with combination floor and wall inlets meet requirements of either 424.1.6.5.9.1 or .2.
- 424.1.6.5.9.4 ___ ___/___ Pools greater than 30' wide have floor inlets only or a combination of floor and wall inlets.
- 424.1.6.5.9.4 ___ ___/___ Pools greater than 30' wide, with floor inlets only, have inlets located such that they are not over 20' apart or 10' from adjacent walls.
- 424.1.6.5.9.5 ___ ___/___ Pools greater than 30' wide with combination floor and wall inlets have wall inlets not over 20' apart (based on pool perimeter) and floor inlets are provided for the water area beyond 15' perpendicular distance from all walls. (Floor inlets are located not over 20' apart and 25' from adjacent walls.)
- 424.1.6.5.9 ___ ___/___ Floor return inlets have a means of flow adjustment.
- 424.1.6.5.9 ___ ___/___ Floor inlets do not protrude above pool floor and do not have sharp edges or protrusions. For vinyl liner & fiberglass pools, floor inlets are not more than 3/8" above floor.
- 424.1.6.5.10 ___ ___/___ The **main drain grate(s)** are located at the deepest point in the pool and are flat, flush, and not readily breakable or removable by bathers.
- 424.1.6.5.10.1 ___ ___/___ The depth at the deepest point/main drain grate does not deviate more than 3" from side wall depth indicated by depth markers at the location. (unless dual marking used)
- 424.1.6.5.10.2 ___ ___/___ The open area of the main drain grate(s) is such that the flow velocity at the grate(s) does not exceed 1½' per second at the design flow rate of the recirculation pump.
- 424.1.6.5.10.3 ___ ___/___ Pool over 30' wide in deep end has multiple main drain grates, equally spaced from the pool side walls and each other.
- 424.1.6.5.10.4 ___ ___/___ Hydrostatic relief devices have been provided if high ground water exists at site.
- 424.1.6.5.4 ___ ___/___ If the recirculation pump takes suction prior to filtration, the pump is specified with hair and lint strainer.
- 424.1.6.5.12 ___ ___/___ A portable or plumbed vacuuming system is provided which allows vacuuming the pool with a hose not more than 50' in length. Recirculation pump over 3 hp is not used for vacuuming.
- 424.1.6.5.12 ___ ___/___ Vacuum cleaning system pump is provided with hair and lint strainer.
- 424.1.6.5.12 ___ ___/___ A vacuum fitting with spring-loaded safety cover, is flush mounted no more than 15" below water level. (12" acceptable in FBC, 15" max. per 64E-9.007(12).
- 424.1.6.5.12 ___ ___/___ Bag type cleaners that operate as ejectors on potable water supply pressure are protected by a vacuum breaker.
- 424.1.6.5.13 ___ ___/___ A flowmeter capable of reading at least 1½ times the design flow rate is properly located with proper clearances upstream and downstream. (Located in the pump discharge line for sand filter systems and in the pool return line for other filter systems.)
- 424.1.6.5.14 ___ ___/___ If heater is provided, a fixed thermometer is mounted in the pool recirculation line downstream of the heater outlet line connection.
- 424.1.6.5.14 ___ ___/___ Sufficient valves and piping are provided to allow isolation or removal of the pool heater.
- 424.1.6.5.14 ___ ___/___ Heater bypass valve is designed for proportioning flow (gate valve is unacceptable).
- 424.1.6.5.14 ___ ___/___ Material used in solar and other heaters are non-toxic and acceptable for potable water use.
- 424.1.6.5.6 ___ ___/___ **Plastic pipe** has NSF-pw seal of approval and is completely specified.
- 424.1.6.5.6 ___ ___/___ Plastic pipe exposed to sunlight is coated for UV protection.
- 424.1.6.5.7 ___ ___/___ Return line, main drain line, and surface overflow system lines each have proportioning valves.
- 424.1.6.5.8 ___ ___/___ All pressure piping is sized such that the flow velocity does not exceed 10' per second at the design flow rate. (Exception for precoat lines when higher velocity is needed for agitation purposes.)
- 424.1.6.5.8 ___ ___/___ All suction piping is sized such that the flow velocity does not exceed 6' per second at the design flow rate. (Exception is vacuum filter header assembly where velocity may be up to 10' per second.)
- 424.1.6.5.8 ___ ___/___ Main drain systems and surface overflow systems which discharge to collector tanks are sized such that the flow velocity does not exceed 3' per second at the design pattern of recirculation flow.
- 424.1.6.5.15 ___ ___/___ Each waste line has a unique air gap and is not connected to other lines. Method of water & DE powder disposal is acceptable.

424.1.6.5.5.1	___	___/___	Sand filters: The filter is sized such that the filtration rate does not exceed 3 gpm/ft ² for rapid sand filter or 15 gpm/ft ² for high rate sand filters (or 20 if so rated by NSF).
424.1.6.5.1	___	___/___	Sand filters meet the requirements of NSF/ANSI Standard 50 - 2007.
<u>64E-9.007(8)</u>	___	___/___	Sand filters: The recirculation pump(s) and piping is designed to be capable of backwashing.
424.1.6.5.4	___	___/___	Sand filters: The recirculation pump provides a min. T.D.H. of 60' for filtration unless hydraulically justified by the design engineer.
424.1.6.5.5.2.1	___	___/___	Sand filters: Pressure filters have influent and effluent pressure gauges with minimum 2" face diameter(s) and scale(s) of 0-60 psi and a sight glass in the backwash line.
424.1.6.5.5.2.1	___	___/___	Sand filters: The pressure filter tanks have air relief valves.
424.1.6.5.5.2.2	___	___/___	Sand filters: Vacuum filter has 2", or larger, diameter vacuum gauge in suction line with 0-30" (mercury) scale.
<u>64E-9.007(8)</u>	___	___/___	Sand filters: Piping system permits filtering to pool, vacuuming to filter, vacuuming to waste, backwashing individual filters, complete drainage of the system, and space to allow maintenance.
424.1.6.5.5.1	___	___/___	D.E. Type filters: The filter is sized such that the filtration rate does not exceed 2 gpm/ft ² .
424.1.6.5.5.2.3	___	___/___	If diatomaceous earth type filters are used, separation devices are provided and properly sized for the waste water system.
424.1.6.5.1	___	___/___	D.E. type filters: Components and materials have been tested and approved using NSF/ANSI Standard 50-2007.
424.1.6.5.5.2.3	___	___/___	D.E. type filters: Pressure filter(s) have precoat pot or collector tank for precoating purposes.
<u>64E-9.007(8)</u>	___	___/___	D.E. type filters: Pressure filter(s) have piping to backwash to waste by reverse flow procedure and filter can be completely drained.
<u>64E-9.007(5)(c)</u>	___	___/___	Custom design filter meets the requirements of 64E-9.007(5)(c).
424.1.6.5.5.3	___	___/___	D.E. type filters: The filter area is determined on the basis of effective filtering surfaces with no allowance given for areas of impaired filtration.
424.1.6.5.5.3	___	___/___	D.E. type filters: Filter septa have a minimum 1" clear spacing between elements (up to 4 ft ² effective area per septum) and the minimum spacing between elements is 1/8" larger for each additional square foot or fraction thereof of septum area over 4 ft ² .
424.1.6.5.4	___	___/___	D.E. type filters: The recirculation pump provides 60' T.D.H. for pressure systems and 50' T.D.H. for vacuum systems.
424.1.6.5.5.2.1	___	___/___	D.E. type filters: Pressure filter(s) are equipped with air relief valves, influent/effluent pressure gauges (2" minimum face diameter), and a sight glass in the waste line.
424.1.6.5.5.2.2	___	___/___	D.E. type filters: Vacuum filter has vacuum gauge with minimum face diameter of 2", reading 0-30" of mercury located on suction line.
424.1.6.5.5.3	___	___/___	D.E. type filters: Vacuum filter tank has coved intersections between the wall and the floor and the tank floor slopes to the filter tank drain.
<u>64E-9.007(8)</u>	___	___/___	D.E. type filters: The system allows filtering to pool, precoat recirculation to filter, vacuuming to waste, vacuuming to filter, backwashing (pressure filter) to waste, and complete drainage of filter tank.
424.1.6.5.5.1	___	___/___	Cartridge filters: The filter complies with the maximum filtration rate of 0.375 gpm/ft ² for pleated type cartridges.
424.1.6.5.1	___	___/___	Cartridge filters: The filter model has met the requirements of NSF/ANSI Standard 50-2007.
424.1.6.5.4	___	___/___	Cartridge filters: The recirculation pump is selected to give 60' T.D.H.
424.1.6.5.5.2.1	___	___/___	Cartridge filters: Pressure type filter(s) are self-purging or have air relief valves and have influent/effluent pressure gauges with minimum 2" face diameters and reading 0-60 psi.
424.1.6.5.5.2.2	___	___/___	Cartridge filters: Vacuum filter has vacuum gauge with 2" minimum face

diameter (0-30" mercury reading) located on the suction line.

- 64E-9.007(8) ___ ___/___ Cartridge filters: Filter system is capable of filtering to pool, vacuuming to waste, vacuuming to filter, and complete drainage of the filter tank with space for maintenance.
- 64E-9.007(5)(c) ___ ___/___ Cartridge filters: The filter cartridges are permanently marked with the manufacturer's name, pore size, and filter area on one end cap.
- 424.1.6.5.16.2 ___ ___/___ **Hypohalogenation:** The feeder has adjustable feed rate from zero to full range and meets the requirements of NSF/ANSI Standard 50-2007.
- 424.1.6.5.16.2 ___ ___/___ Hypohalogenation: The feeder is capable of feeding a dosage of 6 ppm to the minimum required turnover flow rate (if solution type feeders, a 5% calcium hypochlorite or 10% sodium hypochlorite solution).
- 424.1.6.5.16.2 ___ ___/___ Hypohalogenation: An electrical feeder, when used, has electrical interlock with the recirculation pump. A flow sensor controller may be used.
- 424.1.6.5.16.2 ___ ___/___ Hypohalogenation: Solution crock has a volume equal to at least 50% of the maximum daily feed capacity of the chlorine solution feeder.
- 424.1.6.5.16.2 ___ ___/___ Hypohalogenation: Solution crock is marked to indicate contents.
- 424.1.6.5.16.2 ___ ___/___ **Erosion type feeder** shall have a flowmeter and flow adjustment valve.
- 424.1.6.5.16.3 ___ ___/___ **pH adjustment feeder:** A positive displacement type feeder adjustable from zero to full range & meets NSF/ANSI Standard 50-2007 is provided.
- 424.1.6.5.16.3 ___ ___/___ pH adjustment feeder: An electrical feeder has electrical interlock with the recirculation pump.
- 424.1.6.5.16.3 ___ ___/___ pH adjustment feeder: The solution crock volume is at least 50% of the maximum daily capacity of the feeder and is marked to indicate the contents.
- 64E-9.004(11) ___ ___/___ A **test kit** is provided and is capable of testing for free active halogens, total or combined available chlorine, total alkalinity, calcium hardness & pH.
- 64E-9.004(11)(a) ___ ___/___ If a cyanurate type feeder is used, a cyanuric acid test kit is provided.
- 64E-9.004(11)(a) ___ ___/___ If a salt solution in the pool water is necessary for a chlorine generator, a sodium chloride test kit is provided.
- 424.1.5.1 ___ ___/___ An **equipment room** or enclosure is provided which is protected from unauthorized entrance and from the weather on 3 sides and overhead. Equipment designated by manufacturer for outdoor use may be located in a 4' min. fenced equipment area with self-closing, self-latching gate with locking device.
- 424.1.3.1.9 ___ ___/___ A gate through the pool fence from the pool area to the equipment area is provided within 10 feet of the equipment area is provided
- 424.1.5.3 ___ ___/___ The equipment room floor is constructed of concrete or other nonabsorbent material having a smooth slip-resistant finish and uniformly sloped to prevent standing water.
- 424.1.5.4 ___ ___/___ The equipment room has forced draft, or adequate cross ventilation, and positive floor drainage with sump pump if needed.
- 424.1.5.4 ___ ___/___ Below grade equipment rooms have a stairway with forced draft ventilation or fully louvered door and powered intake within 6" of floor. Ship's ladder may be specified by design engineer.
- 424.1.5.5 ___ ___/___ The equipment room access is at least 3' x 6'.
- 424.1.5.9 ___ ___/___ The equipment room is provided with a hose bibb with vacuum breaker.
- 424.1.5.6 ___ ___/___ The equipment room size and layout provides clearances for all equipment as prescribed by the manufacturer to allow normal maintenance and removal.
- 424.1.5.6 ___ ___/___ The equipment room with a fixed ceiling has a minimum height of 7'.
- 424.1.5.7 ___ ___/___ The equipment room is lighted to provide a minimum 30 fc of illumination at floor level.
- 64E-9.006(2)(e) ___ ___/___ Collector tank or filter tank (vacuum system) is not accessible to unauthorized individuals.
- 424.1.4.2 ___ ___/___ Lighting: Artificial lighting is provided when natural lighting is not adequate or when night swimming will be allowed.
- 424.1.4.2.1 ___ ___/___ Outdoor pool lighting: If night swimming is to be allowed, lighting will provide at least 3 fc

of illumination at the water and wet deck level.

- 424.1.4.2.1 ___ ___/___ Outdoor pool lighting: If night swimming is to be allowed, underwater lighting will provide at least 1/2 watt per square foot of pool water surface area. (Except where above water lighting is at least 15 fc of illumination.)
- 424.1.4.2.2 ___ ___/___ Indoor pool lighting: If natural illumination is inadequate, or night swimming is to be allowed, lighting shall provide at least 10 fc of illumination at the water and wet deck level.
- 424.1.4.2.2 ___ ___/___ Indoor pool lighting: If natural illumination is inadequate or night swimming is to be allowed, underwater lighting will provide 0.8 watt per square foot of water surface area. (Except where above water level lighting is at least 15 fc of illumination.)
- 424.1.4.2.3 ___ ___/___ **Lighting:** The underwater lighting utilizes transformers and low voltage circuits (15 volts maximum) with each underwater light grounded. (When dependent upon submersion for safe operation, lights have protection from overheating when not submerged.)
- 424.1.4.2.3 ___ ___/___ Lighting: The underwater incandescent lamp size does not exceed 300 watts and is located at least 18" below normal water level. (center line of skimmer, or top lip of gutter)
- 424.1.4.2.4 ___ ___/___ Lighting: The plans do not show overhead service wiring within 10' horizontally of the pool walls or deck appurtenances; or clearances meet NEC standards.
- 424.1.4.1 ___ ___/___ The electrical equipment wiring and installation will conform to the Chapter 27, of the Florida Building Code, Building.
- 424.1.1 ___ ___/___ **Bathing load:** If the pool is not a spa pool, the bathing load is computed on the basis of 1 person per each 5 gpm of water recirculated.
- 424.1.1 ___ ___/___ If the pool is a spa, the bathing load is computed on the basis of 1 person per each 10 ft² of water surface area.

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___ ___/___ The bathing load will be posted at the pool as required in the bathing rules.

424.1.6.1 ___ ___/___ If bathing load is less than 40, Separate sanitary **facilities for each sex** are provided, entrances Are labeled for men or women, and entry doors are within 200' walking distance of the nearest water's edge for each pool.

424.1.6.1.1 ___ ___/___ Fixtures are provided as indicated on the following chart: (suitable for deck area up to 3x pool surface)

Size	Men's Restroom			Women's Restroom		
	Urinals	WC	Lavatory	Size	WC	Lavatory
0-2500 ft ²	1	1	1	0-2500 ft ²	1	1
2501-5000 ft ²	2	1	1	2501-5000 ft ²	5	1
5001-7500 ft ²	2	2	2	5001-7500 ft ²	6	2
7501-10,000 ft ²	3	2	3	7501-10,000 ft ²	8	3

- 424.1.6.1.1 ___ ___/___ Supplemental family-style restrooms may be used to meet requirements.
- 424.1.6.1 ___ ___/___ Unisex restrooms: may be used if bathing load is 20 or less (1), or 40 or less (2). Each has a water closet, a urinal, a lavatory and a diaper changing table.
- 424.1.6.1 ___ ___/___ Pools greater than 10,000 ft² have one additional fixture set for each 7,500 ft² or major fraction
- 424.1.6.2 ___ ___/___ Sanitary facilities for outdoor pool have outside access door. If in adjacent building, doors are within 50' of the exterior door.
- 424.1.6.1 ___ ___/___ Sanitary facilities are not required if all units served by the pool are within a 200' horizontal radius from the nearest pool water edge, are not over 3 stories high, unless served by elevator, and have private sanitary facilities.
- 424.1.6.1.3 ___ ___/___ Sanitary facilities' floors are to be constructed of concrete or other impervious material and have a smooth, slip-resistant finish.
- 424.1.6.1.3 ___ ___/___ Sanitary facilities' floors are sloped for positive drainage to drains.
- 424.1.6.1.3 ___ ___/___ Intersections between floors and walls are covered if either floor or wall isn't waterproof material.
- 424.1.6.1.3 ___ ___/___ Sanitary facilities: There are no foot baths, carpet or duck boards on the floor.
- 424.1.6.1.4 ___ ___/___ A hose bibb with vacuum breaker is in or within 25' each restroom for ease of cleaning.
- 424.1.6.1.2 ___ ___/___ Sanitary facilities: Where separate non-private sanitary facilities are provided and are not visible from any portion of the pool deck, signs are posted showing directions to the facilities. Signs are legible from the pool deck, with letters at least 1" high.

424.1.6.1.1	___	___/___	One diaper changing table is provided at each restroom unless all pools restricted to adult use.
424.1.6.2	___	___/___	If the pool is outdoors, a rinse shower is provided on the pool deck and is located within 20' of the pool water edge.
<u>64E-9.008(2)</u>	___	___/___	If the pool length is 50' or less, at least 1 shepherd's hook with one-piece pole (minimum 16' long) and 1 lifesaving ring (minimum 18" in diameter) with sufficient rope attached to reach all parts of the pool from the deck are provided, mounted in a conspicuous place.
<u>64E-9.008(2)</u>	___	___/___	If the pool length is greater than 50' there are multiple shepherd's hooks with one-piece poles (min. 16' long) and multiple lifesaving rings (min. 18" diameter) with sufficient ropes attached to reach all parts of the pool from the deck, mounted along each of the longer sides of the pool.
<u>64E-9.006(1)(e)</u>	___	___/___	There are no protrusions, extensions, means of entanglement, or other obstructions on the pool floor or pool walls.
<u>64E-9.008(4)</u>	___	___/___	If solar blanket or pool cover is specified, it is either secured around entire pool perimeter and can support a live load of an adult person, or the pool area can be made inaccessible to unauthorized persons when cover is in use.
424.1.3.1.9	___	___/___	Pool is surrounded by min. 48" high fence with self-closing, self-latching, lockable gates opening away from pool. Latch is 54" above bottom of gate or min. 3" below the top of the gate on the pool side. Fence does not allow passage of 4" diameter sphere. Locks, if self-locking, may be 34 - 48" above floor or ground.
424.1.3.1.9	___	___/___	Access through the fence from dwelling units is via minimum 48" self-closing, self-latching, lockable gate. Doored access from public rooms need not be through gates.
424.1.3.1.9	___	___/___	Other substantial barriers may be considered by the department.
424.1.3.1.9	___	___/___	Screened pool enclosures are hardened on the bottom 3 feet.
424.1.5.8	___	___/___	Provision is made for storage of chemicals in well-ventilated area: <u>64E-9.008(5)</u> adds: under roof and protected from access by unauthorized persons.
<u>64E-9.008(6)</u>	___	___/___	Swimming pool slide is installed in accordance with the manufacturer's specification.
424.1.6.5.11	___	___/___	Over the rim fill spout prohibited.
<u>64E-9.008(7)</u>	___	___/___	The following rules will be posted at or near poolside and will be legible from pool deck: 1. No food or beverages in pool or on wet deck. 2. No glass or animals within fenced pool area (or 50' from unfenced pool). 3. Bathing Load: ___ persons. 4. Pool Hours: ___ A.M. to ___ P.M. 5. Shower before entering pool. 6. Do not swallow the pool water.
<u>64E-9.008(7)</u>	___	___/___	The lettering for the pool rules sign is at least 1" high.
<u>64E-9.008(7)</u>	___	___/___	Pool over 200 ft ² without an approved diving bowl configuration has "NO DIVING" included on the pool rules in lettering at least 4" high.
424.1.3.1.7	___	___/___	There is no provision for drink or food serving facilities within 12' of the water's edge.