



BRIAN TAYLOR
STATE FIRE MARSHAL

September 23, 2026

Mr. Chris Triepke
12 3rd Avenue
Southern Shores, NC 27949

RE: Pool Barrier Arrangement — 2018 North Carolina Residential Code (NCRC), Appendix V, Sections AV102 and AV105.2

Dear Mr. Triepke,

This letter responds to your request for a formal interpretation from the Office of State Fire Marshal (OSFM) dated June 18, 2026, and received by OSFM the same day. Your request is addressed below.

Stated in relevant part of the documentation received in the request:

"We request a "formal interpretation" in support of the "informal interpretation" (done by Mr. Robert Key and included as an attachment here) of our pool barrier for our property at 12 3rd Avenue, Southern Shores NC 27949 in compliance of Code Section AV105 Barrier Requirements. Please note we did make some changes to the barrier, which are noted on attached revised barrier plan and explained in my attached "notes". This change is a 6' tall fenced garbage can/hvac enclosure with automatic closing swing out locking gate added/gate moved to access backyard on left side of house (this gate now abuts the trash can enclosure), and a gate added on right side of house). I included the original site plan with the barrier drawn in, which was used by Mr. Key, and a revised site plan of our requested barrier with the changes I noted shown. Our revised site plan with the requested barrier drawn in, building plans of garage/porch abutting pool and notes to help with a better understanding are also attached. Thank you."

The submitted materials describe a proposed pool-barrier arrangement that includes fence segments, access gates, and building-wall portions. The request is understood to ask whether a required pool barrier may consist of a combination of those elements and which requirements of Section AV105.2 apply when an element is relied upon as part of the required barrier.

Remarks:

Code sections cited in this letter refer to the 2018 edition of the North Carolina Residential Code (NCRC).

Attachment A is comprised of the request for formal interpretation dated June 18, 2026, as well as all supporting information and exhibits submitted with the request.

OFFICE OF STATE FIRE MARSHAL

1202 MAIL SERVICE CENTER | RALEIGH NC 27699 -1202 | TEL 919.647.0000 | FAX 866.851.6508 | NCOSFM.GOV



This formal interpretation addresses the meaning and application of the cited code provisions. It does not approve the submitted plans, proposed barrier arrangement, products, materials, methods of construction, or completed installation. Determination of compliance with the code, including review of the submitted documents and inspection of the completed work, is the responsibility of the local code-enforcement official.

Code Analysis:

2018 NCRC Appendix V, Section AV102 – Definitions defines “Barrier” as follows:

BARRIER. A fence, wall, building wall or combination thereof that completely surrounds the swimming pool and obstructs access to the swimming pool.

Comment: Section AV102 defines “Barrier,” a term used in Section AV105.2. The definition permits a required pool barrier to consist of a fence, wall, building wall, or combination thereof. The barrier components must function together to completely surround the swimming pool and obstruct access to it. The type of construction or ancillary use of a component does not remove it from the pool-barrier requirements when that component is relied upon to complete the required barrier.

2018 NCRC Appendix V, Section AV105.2 – Outdoor swimming pool states:

AV105.2 Outdoor swimming pool. An outdoor swimming pool, including an in-ground, above-ground or on-ground pool, hot tub or spa shall be surrounded by a barrier which shall comply with the following:

1. The top of the barrier shall be at least 48 inches (1219 mm) above *grade* measured on the side of the barrier which faces away from the swimming pool. The maximum vertical clearance between grade and the bottom of the barrier shall be 2 inches (51 mm) or 4 inches (102 mm) where concrete or fixed solid material is used measured on the side of the barrier which faces away from the swimming pool. Where the top of the pool structure is above grade, such as an aboveground pool, the barrier may be at ground level, such as the pool structure, or mounted on top of the pool structure. Where the barrier is mounted on top of the pool structure, the maximum vertical clearance between the top of the pool structure and the bottom of the barrier shall be 4 inches (102 mm).
2. Openings in the barrier shall not allow passage of a 4-inch-diameter (102 mm) sphere.
3. Solid barriers that do not have openings, such as a masonry or stone wall, shall not contain indentations or protrusions except for normal construction tolerances and tooled masonry joints.
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 (1143 mm), the horizontal members shall be located on the swimming pool side of the fence. Spacing between vertical members



- shall not exceed $1\frac{3}{4}$ inches (44 mm) in width. Where there are decorative cutouts within vertical members, spacing within the cutouts shall not exceed $1\frac{3}{4}$ inches (44 mm) in width.
5. Where the barrier is composed of horizontal and vertical members and the distance between the tops of the horizontal members is 45 inches (1143 mm) or more, spacing between vertical members shall not exceed 4 inches (102 mm). Where there are decorative cutouts within vertical members, spacing within the cutouts shall not exceed $1\frac{3}{4}$ inches (44 mm) in width.
 6. Maximum mesh size for chain link fences shall be a $2\frac{1}{4}$ -inch (57 mm) square unless the fence has slats fastened at the top or the bottom that reduce the openings to not more than $1\frac{3}{4}$ inches (44 mm).
 7. Where the barrier is composed of diagonal members, such as a lattice fence, the maximum opening formed by the diagonal members shall not be more than $1\frac{3}{4}$ inches (44 mm).
 8. Access gates shall comply with the requirements of Section AV105.2, Items 1 through 7, and shall be equipped to accommodate a locking device. Pedestrian access gates shall open outward away from the pool and shall be self-closing and have a self-latching device. Gates other than pedestrian access gates shall have a self-latching device. Where the release mechanism of the self-latching device is located less than 54 inches (1372 mm) from the bottom of the gate, the release mechanism and openings shall comply with the following:
 - 8.1. The release mechanism shall be located on the pool side of the gate at least 3 inches (76 mm) below the top of the gate; and
 - 8.2. The gate and barrier shall have no opening larger than $\frac{1}{2}$ inch (12.7 mm) within 18 inches (457 mm) of the release mechanism.
 9. Where a wall of a *dwelling* serves as part of the barrier, one of the following conditions shall be met:
 - 9.1. The pool shall be equipped with a powered safety cover in compliance with ASTM F1346; or
 - 9.2. Doors with direct access to the pool through that wall shall be equipped with an alarm that produces an audible warning when the door and/or its screen, if present, are opened. The alarm shall be listed and labeled in accordance with UL 2017. The deactivation switch(es) shall be located at least 54 inches (1372 mm) above the threshold of the door; or
 - 9.3. Other means of protection, such as self-closing doors with self-latching devices, which are approved by the governing body, shall be acceptable as long as the degree of protection afforded is not less than the protection afforded by Item 9.1 or 9.2 described above.
 10. Where an above-ground pool structure is used as a barrier or where the barrier is mounted on top of the pool structure, and the means of access is a ladder or steps:



10.1. The ladder or steps shall be capable of being secured, locked or removed to prevent access; or

10.2. The ladder or steps shall be surrounded by a barrier that meets the requirements of Section AV105.2, Items 1 through 9. When the ladder or steps are secured, locked or removed, any opening created shall not allow the passage of a 4-inch-diameter (102 mm) sphere.

Comment: Section AV105.2 establishes the prescriptive requirements for the required barrier and the components that form it.

A fence, wall, or building-wall segment relied upon to complete the barrier must comply with the provisions applicable to that segment. Items 1 and 2 establish the general requirements for barrier height, clearance, and openings. Item 3 applies to a solid barrier without openings. Items 4 and 5 apply where a barrier is composed of horizontal and vertical members. Item 6 applies to a chain-link fence, and Item 7 applies to a barrier composed of diagonal members, such as lattice. The applicable item is determined by the construction of the segment relied upon as part of the required barrier.

Item 8 applies to an access gate that is relied upon as part of the required barrier. The access gate must comply with Items 1 through 7, as applicable to its construction, and must meet the applicable locking, swing, self-closing, and self-latching requirements of Item 8. The material of an access gate, or an ancillary purpose served by the gate or adjoining enclosure, does not alter the Item 8 requirements when the gate is relied upon as part of the required barrier.

Item 9 applies where a wall of a dwelling serves as part of the required barrier. In that circumstance, one of the protective conditions in Items 9.1 through 9.3 must be provided. Item 9.2 applies to a door with direct access to the pool through the wall of the dwelling serving as part of the barrier. Whether a particular door or garage-door opening provides direct access to the pool through a wall of a dwelling serving as part of the barrier is determined from the barrier configuration. Where a garage-door opening provides such direct access, it must be protected by one of the conditions in Item 9. Features of a garage-door operator, including automatic closing, locking, battery backup, or elevated controls, are not identified in Items 9.1 or 9.2 as prescribed means of protection. A proposal to use such features as a means of protection other than those prescribed in Items 9.1 and 9.2 is subject to Item 9.3 and must be approved by the governing body.

Item 10 applies only where an above-ground pool structure is used as a barrier or where the barrier is mounted on the pool structure and the means of access is a ladder or steps.

Conclusions:

Section AV102 defines the term “Barrier” used in Section AV105.2 and permits a required pool barrier to consist of a fence, wall, building wall, or combination thereof, provided the combined components completely surround the swimming pool and obstruct access to the swimming pool. Section AV105.2 requires each component relied upon to form the barrier to comply with the provisions applicable to that component. Accordingly, barrier segments are subject to Items 1 through 7, as applicable; access gates



forming part of the required barrier are subject to Item 8; and, where a wall of a dwelling serves as part of the barrier, Item 9 applies to doors with direct access to the pool through that wall. Where Item 9 applies, one of the protective conditions in Items 9.1 through 9.3 must be provided. A proposed other means of protection may be considered under Item 9.3 only when approved by the governing body and when it provides a degree of protection not less than that afforded by Item 9.1 or Item 9.2.

This formal interpretation addresses the meaning and application of the cited code provisions and does not approve the submitted plans or proposed design. The local code-enforcement official is responsible for determining compliance of the submitted plans and completed work, including whether the components form a continuous barrier; which requirements apply to individual barrier segments; whether a gate is an access gate forming part of the barrier; whether a wall of a dwelling serves as part of the barrier; whether an opening provides direct access to the pool through that wall; applicable gate and alarm requirements; and any proposed alternative under Item 9.3.

Sincerely,

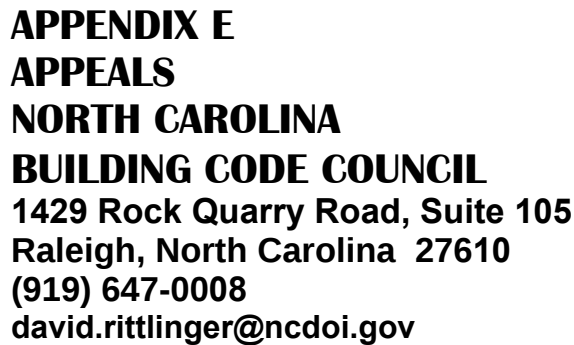
Pak Keung Yip, PE
Chief Code Consultant
North Carolina Office of State Fire Marshal

cc: File
Nathan Childs, NCDOJ, counsel for NC Building Code Council, nchilds@ncdoj.gov
Nicki Shaffer, NCDOJ, counsel for NC Residential Code Council, wshaffer@ncdoj.gov
David Rittlinger, NCOSFM, Division Chief - Code and Interpretations, david.rittlinger@ncdoi.gov



Attachment A





APPELLANT Chris Triepke PHONE (252) 676- 4679 x
 REPRESENTING Self
 ADDRESS 12 3rd Avenue
 CITY Southern Shores STATE NC ZIP 27949
 E-MAIL ctriepke@gmail.com FAX () -

REQUEST ONE: ☒ Formal Interpretation by NCDOT ☐ Appeal of Local Decision to NCBCC
 ☐ Appeal of Local Decision to NCDOT ☐ Appeal of NCDOT Decision to NCBCC

We request a "formal interpretation" in support of the "informal interpretation" (done by Mr. Robert Keys and included as an attachment here) of our pool barrier for our property at 12 3rd Avenue, Southern Shores NC 27949 in compliance of Code Section AV105 Barrier Requirements. Please note we did make some changes to the barrier, which are noted on attached revised barrier plan and explained in my attached "notes". This change is a 6' tall fenced garbage can/hvac enclosure with automatic closing swing out locking gate added/gate moved to access backyard on left side of house (this gate now abuts the trash can enclosure), and a gate added on right side of house). I included the original site plan with the barrier drawn in, which was used by Mr. Keys, and a revised site plan of our requested barrier with the changes I noted shown. Our revised site plan with the requested barrier drawn in, building plans of garage/porch abutting pool and notes to help with a better understanding are also attached. Thank you.

REASON: To obtain approval of our pool barrier from our local code official, and to confirm we are compliant with code section AV105 Barrier Requirements.

APPEAL TO NCDOJ/NCBCC

Signature Chris Triepke DATE: June 18, 2026 **FORM 3/14/17**

202.9 Appeals

202.9.1 Engineering Division. A written technical interpretation shall be provided as specified in Section 203.2.1.2. Any person may appeal in writing an order, decision, or determination pertaining to the code or any state building law by filing written notice with the Commissioner of Insurance or his designee within ten (10) days after the order, decision, or determination. A copy of the appeal shall be furnished to each party.
(General Statutes 143-140, 153A-374 and 160A-434)

203.2.1 Interpretations

203.2.1.1 Informal Interpretations. The Engineering Division shall provide informal interpretations on code related matters either by e-mail, letter or telephone. These informal interpretations may be accepted by the local code enforcement official or party requesting the interpretation. Either party may request a formal interpretation of the code.

203.2.1.2 Formal Interpretations. Any person may request in writing a formal interpretation of the code. The request shall be addressed to the Chief Code Consultant for the Department of Insurance. The request shall be specific and shall reference the code sections in question. All formal interpretations shall be in writing. A formal interpretation shall be binding on all parties unless appealed to the Building Code Council as specified in Section 201.9.2. Formal interpretations determined to be of a general nature may be posted on the Department website. (General Statute 143-140)

203.2.2 Appeals. Any person may appeal in writing an order, decision, or determination of a code enforcement official pertaining to the code or any state building law. The appeal shall be addressed to the Chief Engineer for the Department of Insurance by filing written notice within ten (10) days after the order, decision, or determination. The appeal shall contain the type and size of the building in question, the location of the building, and shall reference the code sections in question. The decision shall be in writing and shall set forth the facts found. The decision rendered shall be based on the technical provisions of the code, public health and safety and shall be construed liberally to those ends. A decision shall be binding on all parties unless appealed to the Building Code Council as specified in Section 201.9.2. A copy of the appeal and written decision shall be furnished to each party. (General Statutes 153A-374 and 160A-434)

202.9.2 Building Code Council. The Building Code Council shall hear appeals from the decisions of State enforcement agencies relating to any matter related to the code. Any person wishing to appeal a decision of a State enforcement agency to the Building Code Council shall give written notice of appeal as follows:

202.9.2.1 Twenty one (21) copies including an original of the Notice of Appeal shall be filed with the Building Code Council c/o NC Department of Insurance, Engineering Division, 325 North Salisbury Street, Room 5_44, Raleigh, NC 27603 and one (1) copy shall be filed with the State enforcement agency from which the appeal is taken.

202.9.2.2 The Notice of Appeal shall be received no later than thirty (30) days from the date of the decision of the State enforcement agency.

202.9.2.3 The Notice of Appeal shall be legibly printed, typewritten or copied and shall contain the following:

- (1) Name, address of the party or parties requesting the appeal.
- (2) The name of the State enforcement agency, the date of the decision from which the appeal is taken, and a copy of the written decision received from the enforcement agency.
- (3) The decision from which the appeal is taken shall be set forth in full in the Notice of Appeal or a copy of the decision shall be attached to all copies of the Notice of Appeal.
- (4) The contentions and allegations of fact must be set forth in full in a clear and concise manner with reference to the sections of the code in controversy.
- (5) The original Notice of Appeal shall be signed by the party or parties filing appeal.
- (6) The Notice of Appeal shall be received by the first day of the month prior to the Building Code Council's quarterly scheduled meeting in order to be placed on the agenda for that meeting. The Chairman may schedule a special meeting to hear an appeal.

202.9.2.4 Upon the proper filing of the Notice of Appeal, the Building Code Council Secretary shall forward one (1) copy of the Notice of Appeal to each member of the Building Code Council. The Chairman may appoint a Hearing Committee to hear appeals. The Secretary shall send notice in writing to the party or parties requesting an appeal and to the Building Code Council Hearing Committee members at least fifteen (15) days prior to the Hearing Committee meeting. A written decision of the Hearing Committee meeting shall be provided to all Building Code Council Members. The actions of the Hearing Committee shall be final, unless appealed to the full Building Code Council in writing within 30 days of the Hearing Committee's action. If a Hearing Committee consists of at least seven Council members, it will constitute a quorum of the full Council. Further appeals shall be as specified in Section 202.9.3.

202.9.2.5 The Building Code Council shall, upon a motion of the State enforcement agency or on its own motion, dismiss appeals for the following reasons:

- (1) Not pursued by the appellant or withdrawn;
- (2) Appeal not filed in accordance with these rules; or
- (3) Lack of jurisdiction.

202.9.2.6 When the Building Code Council finds that a State enforcement agency was in error in its interpretation of the code, the Building Code Council shall remand the case to the agency with instructions to take such actions as the Building Code Council directs. When the Building Code Council finds on appeal that materials or methods of construction proposed are equivalent to those required by the code, the Building Code Council shall remand the case to the State enforcement agency with instructions to permit the use of such materials or methods of construction. The Building Code Council shall immediately initiate procedures for amending the code to permit the use of such materials or methods of construction.

202.9.2.7 The Building Code Council shall provide a written decision setting forth the findings of fact and the Building Code Council's conclusions to each party or parties filing the appeal and to the State enforcement agency from which the appeal was taken.

202.9.3 Superior Court. Whenever any person desires to appeal a decision of the Building Code Council or a decision of a State or local enforcement agency, he may appeal either to the Wake County Superior Court or the Superior Court of the county in which the proposed building is to be situated in accordance with the provisions of Chapter 150B of the General Statutes.
(General Statute 143-141(d))

Chris Triepke, 12 3rd Avenue, Southern Shores, NC 27949 **Pool Barrier Formal Interpretation NOTES:**

Good Day Mr. Rittlinger,

As you are aware, Mr. Key gave an informal interpretation of our pool barrier. I will forward that email thread to you immediately following this. It included a site plan with the barrier drawn in. I've attached that here as "initial" pool barrier he used so you can better understand the changes on the "revised". We are requesting a formal review in support of his informal review, with a few changes we made to the fence and gates. Please see below. I've also attached the "revised" site plan pool barrier which shows the below changes for consideration.

Gate/Fence changes:

- We put a 6' high privacy fence enclosure around our hvac/garbage can area. It has two 6'H x 8'W privacy fence sections extending out from the house and is completed in the front of the enclosure consisting of a 6'H x 4'W gate (gate #3)(swing out/auto closing/lock set above 54") flanked by additional privacy fence sections for full uninterrupted enclosure of this area. Our local code official took a look at what we are proposing on this enclosure when he came out a few days ago and it was his opinion this would be compliant with code.
- We moved the entry gate on the left side of house from the long fenced side to abut the garbage can enclosed area. This gate (gate #2) will be 4'W x 54"H aluminum pool compliant fence gate and will be auto closing, swing away from pool and have a code approved pool lock.
- We added an entry gate (gate #1) on the right side of house. It is part of the pool barrier fence in the privacy fence section, it is 4'W and will be a minimum of 54"H, swing out, auto close with code approved pool lock.

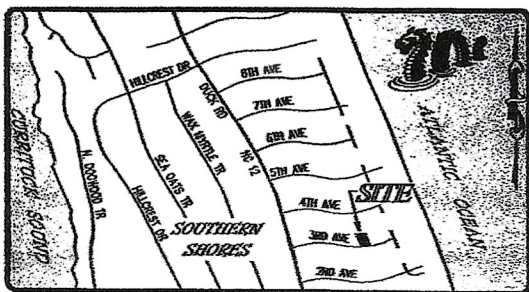
Doors Note:

Mr. Key noted we were to have code approved alarms on both the front and side garage doors and the man door from garage to porch. Also, a pool alarm on the door that is between the garage and hall to upstairs living area. Lastly, a code approved alarm on the door from the house to the pool/backyard area. I would also like to note, our garage doors both have Liftmaster 8500 garage door openers on them (electric w/battery backup) with automatic deadbolt locks (installed above 54") which lock automatically upon closing. They also have a function that automatically closes and deadbolts the doors at 1 minute after opening. The controls are located above 54" to prevent children from accessing them. I do not know if this is important but if this can be taken into consideration that would be appreciated.

The revised site plan with the changes noted above is attached, as well as a "blown up" drawing showing the gates for better clarity. Thank you for your time and consideration. If you have any questions please don't hesitate to reach out to me at 252-676-4679 or ctriepke@gmail.com

Kind regards,
Chris Triepke

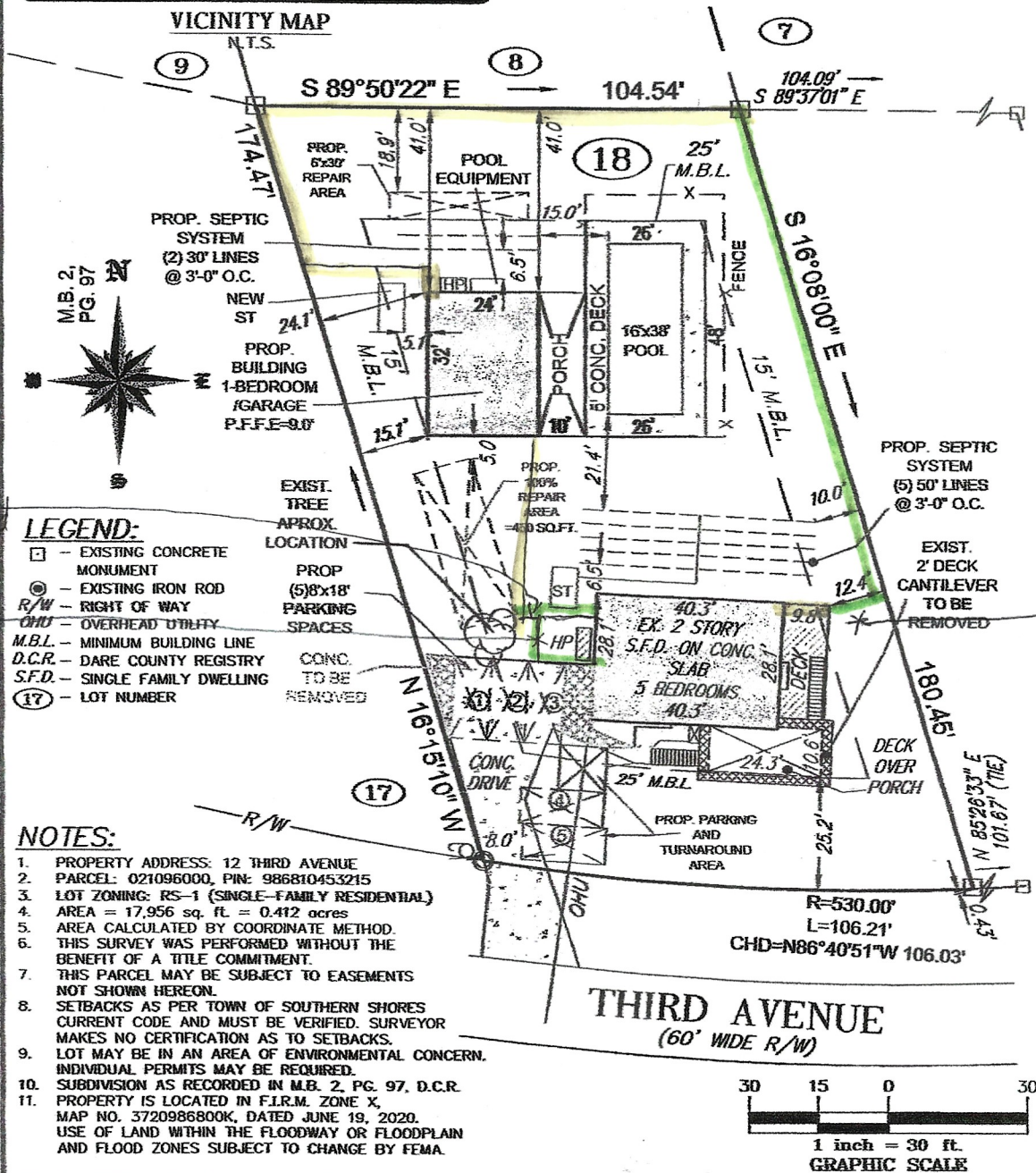
Revised
pool
barrier



VICINITY MAP

PROP. LOT COVERAGE:

EXIST. BUILDING AND PORCH	=1,718 sq. ft.
EXIST. CONC DRIVE	=1,074 sq. ft.
TOTAL	=2,792 sq. ft. (15.54%)
EXISTING CONC TO BE REMOVED	=177 sq. ft.
PROP. NEW BUILDING	=1,088 sq. ft.
PROP. POOL AND CONC DECK	=1,248 sq. ft.
PROP. POOL EQUIPMENT	= 21 sq. ft.
PROP. PARKING AND TURN AREA	= 403 sq. ft.
TOTAL =	5,375 sq. ft. (29.93%)
MAX. 30%	



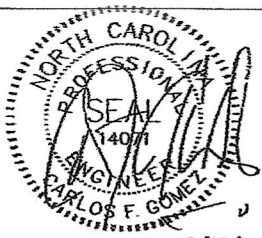
gate #2
entry to back yard
swing out auto
closing w/pool
lock

gate #3
entry to
garbage can
enclosure
swing out
auto close
w/lock.

As its hard
to see here
I attached
a blown up
visual of
this area,
to show
gates.

* gate #1
4' w 6' high
man gate
w/auto close
swing out, and
approved
pool lock.

UPDATE: SITE PLAN 07/1/24 BW



8/09/24

FILE NO.
P1133.24
SURVEY DATE
P1133.24
CAD FILE
P1134 SP
SCALE
1"=30'
DRAWN
JCB/BW
FIELD BOOK
136/18

SITE PLAN FOR:
**CHRIS TRIEPKE and
RICK TRIEPKE**
LOT 18, BLOCK 48
SEA CREST VILLAGE
SOUTHERN SHORES

ATLANTIC TWSP.

DARE COUNTY

NORTH CAROLINA



C-0836

Civil, Structural, Surveying &
Site Development
4425 N. CROATAN HWY.
P.O. Box 1129
Kitty Hawk, N.C. 27949
(252)-261-4151

Green line = 6' Privacy fence
Yellow line = 54" Aluminum fence

Gate. Blown Up for better clarity Locations =

TRIEPKE
12, 3rd
Ave
Southern
Shores,
NC

Gate #1
is a ~~6'~~ man gate
which goes thru
the privacy fence
swing away from pool
auto close
w/ pool lock.

Gate #2
abuts the
privacy fenced
garage can
enclosure
This is the
man gate into
backyard.
Auto close/swing away
from pool, pool lock

Gate #3
is part of the
6' high privacy
fenced trash
can enclosure.
It will be
auto close/swing
out w/ lock
above 54".

Green Line = 6' Privacy Fence
Yellow Line = 54" Black Aluminum Pool Fence.
All fencing + gate code compliant

