

Kitty Hawk Planning Board Meeting
Thursday, April 19, 2018 – 6:00-pm
Kitty Hawk Municipal Building

AGENDA

1. Call to Order/Attendance
2. Approval of Agenda
3. Approval of Minutes:
 - a. March 15, 2018
4. Administrative Report:
 - a. Town Council Action from April 9, 2018 Meeting
5. Public Comment
6. Text Amendment:
 - a. **42-70(a) – Board of Adjustment Established.** Staff is proposing a Text Amendment that would restrict Board of Adjustment membership to residents of Kitty Hawk.
 - b. **Multiple Subsections.** The Applicant has requested approval of a Text Amendment that would allow for additional lot coverage when permeable pavement is used.
7. Comments:
 - a. Chairman Richeson
 - b. Planning Board Members
 - c. Town Attorney
 - d. Planning Director

8. Adjourn

1. **Call to Order/Attendance:**

Chairman Richeson called the Kitty Hawk Planning Board Meeting to order at approximately 6:00pm on Thursday, April 19, 2018.

Board Members Present:

John Richeson, Chairman; Bryan Parker, Vice-Chairman; Chuck Heath, Member; James Geraghty, Member; Dusty Rhoads, Member; Gary Muir, Alternate; Jan Collins, Alternate.

Staff Present:

Robert Testerman, Director, Planning & Inspections; Casey Varnell, Town Attorney, Patricia Merski, Recording Secretary

2. **Approval of Agenda:**

Hearing no objections/changes/corrections to the April 19, 2018 Agenda, the Agenda was approved unanimously.

3. **Approval of Minutes: March 15, 2018**

Hearing no objections/changes/corrections to the March 15, 2018 Minutes, the Minutes were approved with Mr. Geraghty making the motion to approve and Vice-Chairman Parker seconded and the Minutes were approved unanimously.

4. **Administrative Report:**

- a. Town Council Action from the April 9, 2018 Meeting

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- Mr. Testerman stated that at the April 9, 2018 Town Council Meeting the Council has scheduled a Public Hearing for the Medical Office and the craft production and retail sales for the glass blowing operation.
 - Mr. Varnell stated that the Council had not considered that the Text Amendment could allow someone to build a pool/pump house which would then become a permanent structure which, if it fits within the 5' as long as it doesn't encroach and the Council did not want to go further with that concept and will come back to the Planning Board for further consideration and Mr. Testerman will find out from Council if they want Mr. Testerman to review prior to going to the Planning Board for further consideration.
5. **Public Comment:**
Mr. Richeson asked if anyone in the audience wanted to make any public comments to come forward and having no one come forward, Mr. Richeson closed the Public Comment portion of the Meeting.
6. **Text Amendment:**
- a. **42-70(a) – Board of Adjustment Established**
- Mr. Testerman stated that this was more of a 'housekeeping' task and in the Zoning Ordinance it states that "the Board of Adjustment must be established and consist of five (5) Members and a Chairperson to be appointed by the Town Council" and although not necessarily spelled out in the Ordinance, the Members of the Board of Adjustment should be residents of Kitty Hawk, this proposal would make residency a requirement.
 - **Section 42-70(c)** states that 'in addition to the five (5) regular Members of the Board of Adjustment, the Town Council may appoint two (2) Alternate Members for terms of three (3) years. Alternate Members shall be appointed for the same term, at the same time, and in the same manner as regular Members...' It is Staff's opinion that 'in the same manner as regular members', would dictate that Alternate appointees would also be required to be residents of Kitty Hawk.
 - Mr. Richeson asked for questions and hearing none from the Board asked for a motion to be made and Mr. Geraghty made the following: **"I recommend approval of the proposed Text Amendment to amend Section 42-70(a) restricting Board of Adjustment membership to residents of Kitty Hawk. The Board has found this proposal to be consistent with the Town's Adopted Land Use Plan."** And Mr. Parker seconded and the motion was passed unanimously.
- b. **Multiple Subsections:** The Applicant has requested approval of a Text Amendment that would allow for additional lot coverage when permeable pavement is used.
- Mr. Testerman stated that this Text Amendment would allow permeable pavement as it is defined in the NC DEQ Stormwater Design Manual to allow someone to receive a lot coverage bonus.
 - The Proposal would cover various Zoning Districts. In the BR-1, BR-2, BR-3, VR-1, VR-2 and VR-3 districts, the residential lot coverage the physical area is proposed as a maximum of 36%, with the use of permeable pavement. If permeable pavement material is used, they could get up to an extra 6%. For example,

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someone could do 20% lot coverage of typical concrete and structures, and 16% of the permeable pavement which would help the stormwater runoff situation rather than the 30% lot coverage.

- In the Commercial Districts, BC-1, BC-2, BH-1, VC-1, VC-2 and VC-3, the maximum lot coverage with structures and impervious concrete would still be 60% but with the use of permeable pavement, they could get up to 72% of buildable area.
- In a Commercial Zone, a property owner, submitting a Commercial Site Plan could potentially show 60% standard lot coverage and up to 12% permeable pavement coverage. Or, the Site Plan could indicate 50% standard lot coverage and up to 22% permeable pavement coverage or any other combination that totals 72% or less lot coverage physical area and does not exceed 60% standard lot coverage.
- Mr. Testerman stated that BC-3 and BH-2 Districts were left out of the proposal because they are handled differently; i.e., BC-3 – there is a commercial shopping mall and commercial shopping areas and BH-2 is where the Hilton is and this District has a different standard for structures 35' or larger vs. lower than 35' and in the BH-2 District there is no designated percent of lot coverage, but rather floor area ratio.
- Mr. Testerman also stated that the MS-1 District has been left out inadvertently, and if the Board approves the Text Amendment, it could be added. Mr. Testerman stated that if the Board approves the Text Amendment, the 72% lot coverage physical area could be added.

Background:

The Applicant has proposed that language be added which would allow for additional physical lot coverage area for property owners who wish to use permeable paving materials which meet the requirements listed in the proposed language. These permeable paving methods allow stormwater to infiltrate through the paving system. Currently, Kitty Hawk offers no bonus for using these materials; gravel, pavers, porous pavement and even unimproved driveways, by definition, are all counted as 100% lot coverage.

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Clogging: Clogging of pervious pavement occurs when foreign materials restrict the ability of the water to flow through the pervious pavement. This could come in the form of soil or sand that is blown by wind onto the surface or brought to the surface by stormwater runoff. If this clogging is to occur and it blocks the water from flowing through the material, it is, effectively, no longer pervious. As written, should any permeable pavement become clogged, it would be considered a permeable pavement failure and by Ordinance, the Town could require the issue to be remedied.

Proposed Use: The proposed use of permeable pavement, as defined in the proposed language, is consistent with the regulations and guidelines for permeable pavement installations per the NC DEQ Stormwater Design Manual. NC DEQ recognizes the use of permeable pavement as a best stormwater management practice consistent with Low Intensity Development (LID) which encourages on-site retention, infiltration and treatment of stormwater. Allowing Property Owners additional physical coverage area may prove to be an incentive to use this material on their properties, thus, indirectly encouraging the implementation of this BMP. Having the permeable pavement rated at 100% pervious, in the most intensely developed scenario (30% standard coverage and 6% permeable pavement for residential; 60% standard coverage and 12% permeable pavement for commercial), there would be no additional runoff to account for. It would be logical to assume that in most cases, if a Property Owner is developing a Site Plan utilizing permeable pavement, it would be used for as much of the pavement as feasible which would likely mean reduced standard lot coverage and a decrease in runoff vs maximum standard lot coverage utilization.

Proposed Language:

- 42-1. Definitions
- ***Gravel means clean, washed natural or crushed stone, with less than 50% passing a ¼-inch screen, with 100% passing a ¾-inch screen, and with less than 2% fines passing an ASTM #200 sieve. The term “gravel” includes open-graded crushed rock, pea gravel or river rock meeting the size criteria. The term “gravel” excludes crushed aggregate generally described or designated as “crusher run” or “ABC”.***
- ***Lot Coverage means a measure of the developed intensity of land use. The term “lot coverage” includes, but is not limited to, all areas covered by buildings, parking areas, accessory structures, driveways, roads, sidewalks, and any area of concrete or asphalt. Permeable pavement (see *Permeable Pavement* definition) lot coverage shall be reduced, upon site plan approval by the town, by the Built-Upon Area (BUA) Credit established in Section C-5, Permeable Pavement, of the NC DEQ Stormwater Design Manual, latest edition, or if a proposed permeable pavement BUA Credit has not been assigned by the NCDEQ Stormwater Design Manual, the BUA Credit will be as confirmed by NC DEQ Stormwater Section upon evaluation.***

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- ***Lot Coverage Physical Area*** means the total area of all areas physically covered by buildings, parking areas, accessory structures, driveways, roads, sidewalks, any area of concrete or asphalt including impervious areas and permeable lot coverage without reduction for Built-Up Area Credits. Lot coverage physical area shall not exceed the limits set out in the Dimensional Requirements of each zoning district.
- ***Permeable Pavement*** means pedestrian or vehicular pavement materials installed to permit passage of water through the pavement, including porous concrete, porous asphalt, permeable interlocking concrete pavers, concrete grid pavers (e.g. Turfstone), reinforced turf, pavement edge restraints, and other similar proven technologies. Permeable pavement shall be not less than 100% pervious or Built-Up Area Credit (lot coverage credit) as established in Section C-5, Permeable Pavement, of the NC DEQ Stormwater Design Manual, latest edition, or for permeable pavement not evaluated by the NC DEQ Stormwater Design Manual, as confirmed by NC DEQ Stormwater Section upon evaluation.
- ***Permeable pavement confinement*** means concrete, timber, corrosion resistant metal, or other pavement perimeter confinement means approved by the Town to retain permeable pavement (other than permeable concrete or permeable asphalt) within approved site plan limits.
- ***Permeable pavement failure*** means a permeable pavement condition at any time after installation that cannot be, or is not, promptly corrected and restored to the condition and performance represented for the permeable pavement at the time of Town of Kitty Hawk approval and initial installation.
- ***Permeable pavement operation and maintenance*** means operation and maintenance of a permeable pavement installation in accordance with recommendations and requirements of the permeable pavement manufacturer, supplier, or trade association; the NC DEQ Stormwater Design Manual; and/or the Town of Kitty Hawk approval; as appropriate.
- **42-247(d)4: Dimensional Requirements: BR-1:** The maximum allowable lot coverage by principal use and all accessory structures is 30%. Use of permeable pavement shall allow a maximum lot coverage physical area of 36%. Permeable pavement failure shall require that the failed permeable pavement is removed and replaced by a pavement meeting the definition of permeable pavement, herein, with design pavement performance equal to or better than the represented performance of the approved pavement.
- **42-248(d)4: Dimensional Requirements: BR-2:** The maximum allowable lot coverage by principal use and all accessory structures is 30%. Use of permeable pavement shall allow a maximum lot coverage physical area of 36%. Permeable pavement failure shall require that the failed permeable pavement is removed and replaced by a pavement meeting the

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- definition of permeable pavement, herein, with design pavement performance equal to or better than the represented performance of the approved pavement.
- **42-249(d)4: Dimensional Requirements: BR-3:** The maximum allowable lot coverage by principal use and all accessory structures is 30%. Use of permeable pavement shall allow a maximum lot coverage physical area of 36%. Permeable pavement failure shall require that the failed permeable pavement is removed and replaced by a pavement meeting the definition of permeable pavement, herein, with design pavement performance equal to or better than the represented performance of the approved pavement.
- **42-250(d): Dimensional Requirements: BC-1(5):** The maximum allowable lot coverage by principal use and all accessory structures is 60%. Use of permeable pavement shall allow a maximum lot coverage physical area of 72%. Permeable pavement failure shall require that the failed permeable pavement is removed and replaced by a pavement meeting the definition of permeable pavement, herein, with design pavement performance equal to or better than the represented performance of the approved pavement.
- **42-251(d): Dimensional Requirements: BC-2(5):** The maximum allowable lot coverage by principal use and all accessory structures is 60%. Use of permeable pavement shall allow a maximum lot coverage physical area of 72%. Permeable pavement failure shall require that the failed permeable pavement is removed and replaced by a pavement meeting the definition of permeable pavement, herein, with design pavement performance equal to or better than the represented performance of the approved pavement.
- **42-253(d)5: Dimensional Requirements: BH-1:** The maximum allowable lot coverage by principal use and all accessory structures is 60%. Use of permeable pavement shall allow a maximum lot coverage physical area of 72%. Permeable pavement failure shall require that the failed permeable pavement is removed and replaced by a pavement meeting the definition of permeable pavement, herein, with design pavement performance equal to or better than the represented performance of the approved pavement.
- **42-275(d)4: Dimensional Requirements: VR-3:** The maximum allowable lot coverage by principal use and all accessory structures is 30%. Use of permeable pavement shall allow a maximum lot coverage physical area of 36%. Permeable pavement failure shall require that the failed permeable pavement is removed and replaced by a pavement meeting the definition of permeable pavement, herein, with design pavement performance equal to or better than the represented performance of the approved pavement.
- Mr. Testerman turned it over to the Board and stated that the Applicant was in attendance and Mr. Richeson asked the Applicant to come forward.
- Mr. Ralph Calfee of Calfee Engineering, 3048 Martin's Point Road, Kitty Hawk stepped forward as the Applicant.
- Mr. Calfee's original intent was to review lot coverage for the BC-1 District, but, after his meeting with Mr. Testerman, a more comprehensive proposal was created that would cover all the Districts except BC-3, BH-2 and MS-1. These Districts are different in how lot coverage is described.
- Mr. Calfee presented a comparison chart of the Towns on the Outer Banks currently allow: standard commercial is 60% lot coverage and residential is 30% lot coverage. He stated that Kill Devil Hills, Southern Shores, Duck and Nags Head have standard

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commercial/residential allowance and they also have what is permissible under stormwater management and permeable pavements.

- Examples: Zoning in the Commercial District: 1) Kill Devil Hills allows 75% lot coverage if using permeable pavement to the maximum extent allowable and there is a cap where Kill Devil Hills has a ratio where someone can put in 2.5 sq. ft of permeable pavement and it can then be called 1 sq. ft of coverage; but, there is also a cap on the maximum coverage of any kind which Kitty Hawk has chosen to define; their max is 75%. 2) Southern Shores, Duck and Nags Head all allow additional lot coverage and they have substitution ratios: Nags Head – 3 sq. ft permeable pavement which equals 1 sq. ft; but has no maximum so a developer has to consider how to tweak the design to get the maximum available lot coverage by using the ratios.
- Mr. Calfee reviewed the ratios in Kill Devil Hills, Southern Shores, Duck and Nags Head and came up with a reasonable projection: Southern Shores can get about 78% lot coverage which is total lot coverage which includes permeable pavement; Duck and Nags Head are approximately 75% and Mr. Calfee has proposed 72% lot coverage for Kitty Hawk which is less than the other Towns and that Kitty Hawk is very restrictive in this matter.
- Mr. Calfee stated that in the residential areas, the maximum allowed in Kitty Hawk is 30% and the other Towns, except Southern Shores, allows more if using permeable pavement. Southern Shores does not allow more than 30% lot coverage and the proposal for Kitty Hawk is 36%.
- Mr. Calfee stated, that historically, permeable pavement was turfstone over a clay base which then made a lot very permeable, but, should there be a ¼” of rain, the turfstone would fill up and the water would run off; turfstone was about 30% permeable or even 40% permeable.
- Nags Head was the first area that started to use permeable pavement and giving an allowance and that is where the 3:1 and 2:1 ratios for permeable pavement originated. At that time, the State did not recognize permeable pavement as a viable alternative and could not provide any guidelines. Then, upon investigating permeable pavement options, the State and has produced standard designs and that there will be areas where 30% permeable using the State’s designs.
 - The State has done their work in determining what is a reasonable usage of permeable pavement and readily promotes its’ usage. If the design is approved by the State then the permeability requirements are met; therefore, it is pointless in having replacement ratios because, if the State guidelines are followed, the pavement will be permeable pavement.
 - There are a number of varieties of permeable pavement; turfstone; permeable asphalt and permeable concrete; (Lowe’s parking lot is permeable concrete, but if fouled, it is harder to clean); turfstone, if fouled, the sand is dug out and replaced with clean sand.
 - With permeable pavement, should it not do what it is supposed to, the Town can then require the owner to fix it back to its’ original installation.
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- Mr. Calfee stated that he feels the lot coverage proposal is a reasonable, supportive number and that incentivizing the use of permeable pavement would move Kitty Hawk into the marketplace in terms of property development and would be on a par with the other Towns.
- The Board then proceeded to ask questions of both Mr. Testerman and Mr. Calfee.
- Mr. Geraghty asked if there is a ratio of permeable concrete; is it 30% on a residential lot and if putting in a driveway does the 6% have to permeable pavement and Mr. Calfee stated that the rationale is 30% residential conventional lot coverage and if someone goes about the 30%, it must be permeable and then the total lot coverage which includes permeable and impermeable concrete to exceed the 6% and can add the 6% which then has to be all permeable and the pavement must satisfy the State criteria.
- Mr. Rhoads asked if there are specific ways to clean or prevent the permeable pavement from becoming clogged and Mr. Calfee stated that once permeable pavement is fouled it is harder to clean and to alleviate that an annual vacuuming would be needed to maintain it.
- Mr. Calfee stated that permeable pavement is not recommended or conducive to areas on the sound side or the ocean front and Ms. Collins asked if those areas would be restricted and how would this be supervised and/or enforced and Mr. Richeson asked who determines that the permeable pavement has failed?
- Mr. Calfee stated that the design criteria are very stringent and is so designed that the surface has to meet the criteria. Also, permeable pavement will absorb far more than it need to so there would be no real issues unless permeable pavement is put on the ocean front or sound side and then it would not work.
- Mr. Calfee gave an example: rain fall – 50”/hr with a flood up to 4” and the pavement will infiltrate at the rate back to 50”/hr and Mr. Richeson asked if this was 50”/hr or 50”sf/hr and Mr. Calfee stated that the pavement has to take the 50” column in one hour.
- Mr. Geraghty asked if the other Towns require maintenance records on the permeable pavement and Mr. Calfee stated that, currently, there are no detailed maintenance records required; but, if a large project goes to the State than that would be covered but smaller projects have no requirements and would not be required for residential BUT, there could be criteria developed for smaller projects.
- Mr. Richeson asked if this would increase the density specifically in the residential areas where a bigger house could be built and Mr. Testerman stated that the setback requirements would have to be met along with septic permits, etc. Mr. Testerman also stated that how density is defined in the Ordinance is ‘dwellings/acre’ whether it’s a one bedroom or four bedroom house it is still classified as one dwelling on the lot which is a maximum 36% built upon area in this proposal. This would have no effect on density, but could allow more built upon area.
- Mr. Testerman stated that the use is now capped at a 30 or 60%; residential or commercial; and there are no restrictions on the use of the material, but currently there is no lot coverage bonus, or incentive for using permeable pavement materials.

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7. Hearing no further questions for Mr. Calfee or Mr. Testerman, Mr. Richeson asked for a motion to be made and Mr. Parker made the following: **“I recommend denial of the proposed Text Amendment regarding permeable pavement and lot coverage. The Board has found this proposal to be inconsistent with the Town’s Adopted Land Use Plan.”** Mr. Richeson seconded and the motion was passed 3-2.
8. **Comments:**
 - a. Chairman Richeson – none
 - b. Planning Board Members – none
 - c. Town Attorney – none
 - d. Planning Director – none
9. **Adjourn:**

Hearing no further comments, Mr. Richeson adjourned the April 19, 2018 Kitty Hawk Planning Board Meeting at approximately 6:53pm

Respectfully submitted by Patricia Merski, Recording Secretary.